KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

FACULTY OF AGRICULTURE

DEPARTMENT OF AGRICULTURAL ECONOMICS, AGRIBUSINESS AND EXTENSION

COMMUNITY PARTICIPATION AND CHALLENGES TO IMPLEMENTATION OF HEALTH PROGRAMMES: THE CASE OF COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION IN TOLON DISTRICT, GHANA

A THESIS SUBMITTED TO SCHOOL OF GRADUATE STUDIES, KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, IN

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MASTER OF PHILOSOPHY IN SUSTAINABLE INTEGRATED RURAL DEVELOPMENT IN AFRICA

BY

MARY KISSIWAH YEBOAH

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KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

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Bsc AGRIBUSINESS

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DECLARATION

I hereby declare that this submission is my own work towards Master of Philosophy in Sustainable Integrated Rural Development in Africa, and that to my best of knowledge, it contains no material previously published by another person or has been accepted for the award of any other degree of the University, except due acknowledgement has been made in the text.

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DEDICATION

This work is dedicated to my Strength, and to my family.

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ABSTRACT

This study investigated the challenges and motivation in accessing CMAM, the challenges CMAM workers face in implementing CMAM in the rural communities, the level of community involvement in CMAM, as well as CMAM beneficiaries‟ perspective on how access to CMAM can be improved. 3 CMAM centres formed part of the study. Mothers and Community Health Volunteers (CHVs) at the various centres were selected by convenience. Consequently, spouses (fathers) of these mothers formed part of the study. The assemblymen for the communities in which the centres are situated, and the CMAM implementers at the selected centres also formed part of the study. The study employed in-depth interviews and used semi-structured interviews to obtain qualitative data from the study participants. Questionnaires were used to obtain quantitative data on beneficiaries‟ demographics. Descriptive statistics such as frequencies and percentages were used to analyze demographic characteristics of beneficiaries and the results presented in tables, while the spider gram framework and thematic analysis was used to analyze the level of community participation. Through a process of reading and familiarization with the data, data collected was grouped into codes, basic themes and global themes. Challenges and motivation in accessing CMAM, challenges in CMAM implementation, as well as beneficiaries‟ perspective of how to improve access to CMAM were analyzed based on these themes. Results from the study showed that majority 83.6% of the beneficiaries had no basic education, agriculture was the dominant occupation, and 21.8% of the beneficiaries did not have a source of income. The study also revealed that the level of involvement of beneficiaries in designing and implementing CMAM was very low (had a score of 1 in all the spider gram indicators). For mothers, challenges in accessing CMAM included geographic accessibility, delay at the CMAM centre, social events, cultural/social barriers and as well as no money for transportation and food when there is a delay at the centre. Challenges to implementation of CMAM in the district included poor logistics in the form of shortages of plumpy nut, problem transporting plumpy nut to the various CMAM centres, few teaching and learning materials for educating mothers, illiteracy/ poor enlightenment of the community, no incentives for Community Health Volunteers (CHVs), and ridiculing of CHVs by the communities. Lastly, gaining a source of income, receiving money from the government, provision of accessible drinking water, increasing rationing quantity, constant reminders from husbands and household members to attend CMAM and help with means of transport were the

various ways beneficiaries thought access to CMAM can be improved. The study recommends improving community involvement in CMAM through involving traditional, religious, and opinion leaders as well as other interest groups in the decision making activities of CMAM. Decentralization is recommended to provide CMAM in more communities, good drinking water should be provided by the government for the communities in the district, Ghana health Service should create a well-structured delivery system for the CMAM programme and CHVs should be motivated with incentives such as means of transport/transport allowances.

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LIST OF ABBREVIATIONS

ARI	Acute Respiratory Infections
CHPS	Community-based Health Planning Services
CHW	Community Health Worker
CMAM	Community-based Management of Acute Malnutrition
CSB	Corn Soya Blend
CTC	Community-based Therapeutic Care
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
HFA	Height-for-age
MAM	Moderate Acute Malnutrition
MDG	Millennium Development Goal
MDM	Mineral Deficiency Malnutrition
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
MUAC	Mid Upper Arm Circumference
NGO	Non-Governmental Organisation
NRC	Nutrition Rehabilitation Centre
PEM	Protein Energy Malnutrition
RCT	Randomised Control Trial
RUTF	Ready-to-Use Therapeutic Food
SAM	Severe Acute Malnutrition
SDG	Sustainable Development Goal

SFP	Supplementary Food Programme
SSA	Sub Saharan Africa
TBA	Traditional Birth Attendant
TFU/TFC	Therapeutic Feeding Units/ Therapeutic Feeding Centres
UN	United Nations
UNICEF	United Nations Children‟s Emergency Fund
UNSCN	United Nations Standing Committee on Nutrition
WFA	Weight-for-age
WFH	Weight-for-height
WFP	World Food Programme
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background

The term malnutrition generally refers both to under-nutrition and over-nutrition, where under-nutrition means a deficiency of one or more essential nutrients and overnutrition means excessive intake of food nutrients, especially in unbalanced proportions. Malnutrition is as a result of many factors, most of which relate to poor diet or severe and repeated infections, particularly in children and underprivileged populations (Blossner *et al.*, 2005). Worldwide, ten and a half million children of age under-five die of malnutrition every year, with 98% of these deaths reported to occur in developing countries (UNICEF, 2007). Malnutrition is a major public health and development concern especially in sub-Saharan Africa, and has foregoing health and socioeconomic impacts on development. The prevalence of malnutrition among the group of under-five is rated at 40% in sub Saharan Africa (UNICEF, 2012). United Nations (2000) identified sub-Saharan Africa as the only region in the world where the number of child deaths is increasing as a result of malnutrition.

Programmes such as the Millennium Development Goals (MDGs) adopted underfives' nutritional status as indicators for evaluating progress. This shows the measure of importance attached to child nutrition (UN Millennium Project, 2006). Increased morbidity and mortality, very slow mental development, poor school performance and reduced intellectual achievement are some of the repercussions that children who are malnourished tend to experience (Pelletier and Frongillo, 1995). Significant functional impairment in adult life, reduced work capacity, and consequently poor economic

productivity are some of the negative factors associated with malnutrition especially in the early stages of childhood (Delpeuch *et al.*, 2000).

The three main forms of malnutrition identified in Ghana by Ghana Health Service (2007) are Protein Energy Malnutrition (PEM), Mineral Deficiency Malnutrition (MDM) or a combination of both. It has the characteristics of stunting (chronic under nutrition), underweight (acute under-nutrition) and wasting (weight loss). Insufficient food intake and infirmities are the basic causes of malnutrition. Political, economic, socio-cultural, physical environment, household food insecurity, public health problems and social care of the environment are other underlying factors that contribute to malnutrition of children under-five (Muhammed and Naleena, 2012).

Over the past ten years, there has been a universal initiative to move from facilitybased treatment approaches to malnutrition, to a decentralized community based approach. This move is founded on proof that substantial limitations on coverage and access to treatment of Severe Acute Malnutrition (SAM) cases were compounded by limitations to health facilities. For large numbers of children with SAM to be well treated and catered for in their communities instead of being admitted to therapeutic feeding centres, the Community-based Management of Acute Malnutrition (CMAM) initiative was approved (Tekeste *et al.*, 2013). By providing treatment at many decentralized sites instead of a few centrally located inpatient facilities, CMAM aims to reach the maximum number of children with acute malnutrition thereby ensuring more coverage and access to nutrition healthcare (Ghana Health Service, 2010).

In 2007, WHO and UNICEF introduced the community based management of acute malnutrition (CMAM) programme in a bid to manage cases of severe malnutrition recorded at the community level (WHO/WFP/UNICEF/UNSCN, 2007). Evolving from

the Community-based therapeutic care (CTC), CMAM consists of four main parts which are: outpatient care for the management of SAM without medical complications, inpatient care for the management of SAM with medical complications, management of moderate acute malnutrition (MAM) and community outreach (Ghana Health Service, 2010).

The success of health programmes depends very much on the extent to which the community participates, particularly with regard to needs assessment, leadership, resource mobilisation, management and organisation (Rifkin et al., 1988). A primary health care intervention like CMAM would tremendously be effective if there are high levels of participation from the community in decision making and implementing the health programme. Therefore, knowing the extent of community participation in CMAM, and constraints to the community‟s access to the programme is very useful to health planners or health managers.

1.2 Problem Statement

The importance of good nutrition cannot be over-emphasized; especially so in young children (under-five years). Good nutrition ensures the proper growth of children and reduces their susceptibility to infections and illnesses. Proper organ formation and function, a strong immune system, and neurological and cognitive development of children are all very dependent on good nutrition (Black et *al*., 2008). Over the years, management of SAM has been undertaken in inpatient facilities in hospitals and Nutrition Rehabilitation Centres (NRCs) attached to health facilities (Ghana Health Service, 2010). It is against this background that the Ghana Health Service (GHS) adopted the CMAM approaches to facilitate the management of SAM beyond inpatient care. The approach is rooted in the public health principles of expanded coverage and access, timeliness and appropriate care (Ghana Health Service, 2010).

CMAM was introduced to the northern parts of Ghana in 2010 and still works towards the improvement of nutrition in children under 5 years. Despite the efforts of CMAM in battling malnutrition for six years now by improving access and coverage to treatment, malnutrition still rises steadily. There is a trend of continued high prevalence of severe stunting, wasting, and under-weight forms of malnutrition in the Northern Region (Ghana Statistical Service, 2004; WFP and VAM Food Security Analysis, 2012; GSS et al., 2015).

The poor performance of CMAM in the Northern Region may be due to constraints within the programme in terms of poor planning, insufficient funds and poor implementation, amongst others. It may also be due to barriers the community or beneficiaries face in accessing the programme, such as the affordability of the programme, and the level of community involvement in the programme amongst others. Therefore, the study seeks to assess the reasons behind the poor performance of CMAM in curbing the prevalence of malnutrition in the district.

As a result of malnutrition, these children have weaker immune systems and are thus more susceptible to infections and illnesses, especially malaria (UNICEF, 2013b). The educational attainment of these children is also appreciably jeopardized. Child stunting impacts brain development and impair motor skills. These effects in terms of delayed motor and cognitive development are largely irreversible. Stunted children also become less educated adults, thus making malnutrition a long-term and intergenerational problem (Galler and Barret, 2001; UNICEF, 2006).

Neglecting the issue of malnutrition is tantamount to disregarding the vicious cycle of poor health, lower learning capacity, decreased physical activity and lower work performance or productivity that is locked in malnutrition. This cycle not only threatens

health and survival, but also has the capacity to erode the foundation of economic growth, people‟s strength and energy, and adversely tamper with initiative, creative and analytical capacity (Horton et al., 2009). The study therefore seeks to assess the challenges to accessing and implementing CMAM in the Tolon District.

1.3 Research Questions

The aforementioned raise the following questions:

1. What is the level of community participation in CMAM in the Tolon District?
2. What are the challenges to accessing CMAM in the Tolon District?
3. What are the challenges to implementing CMAM in the Tolon district?
4. How do beneficiaries think their access to CMAM can be improved?

1.4 Main Research Objective

- To investigate the level of participation, and assess the challenges to access and implementation of CMAM in the Tolon District.

1.4.1 Specific Research Objectives

1. To investigate the level of community participation in CMAM in the Tolon District
2. To assess the challenges to accessing CMAM in the Tolon District
3. To assess the challenges to implementation of CMAM in the Tolon District
4. To investigate beneficiaries‟ perspective on how access to CMAM can be improved

1.5 Justification

According to Black *et al*., (2008), malnutrition is a serious problem because it causes the deaths of 3.5 million children under 5 years old per year in the world. Malnutrition

is responsible for majority of child deaths in the world, especially so in sub-Saharan Africa (SSA). In early childhood, sufficient and nutritious food intake is vital to ensure a strong immune system, healthy growth, neurological and cognitive development, and proper organ formation and function. To think critically, learn new skills and contribute to their communities, a well-nourished population is needed. A well-nourished population also ensures economic growth and human development.

Child malnutrition contributes to poverty through impeding individuals‟ ability to lead productive lives and also impairs cognitive development and function (Black et al., 2008).

CMAM is a new intervention which aids in controlling and curing malnutrition and which is being scaled up by organizations such as UNICEF, WHO, and the Ghana Health Service. It is necessary to carry out this study to understand the reasons behind the poor performance of CMAM in eradicating malnutrition in the District. It will also inform government, policy makers and necessary organizations on the challenges to accessibility and implementation of CMAM in the District, as well as what can be done to improve involvement in the upscale of CMAM. This will aid in management and policy making decisions in effective battling of malnutrition in the Tolon District.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework of the Study

Malnutrition is a significant health and development concern worldwide. Malnutrition is caused by poor nutrition in an individual. (UNICEF, 2009)

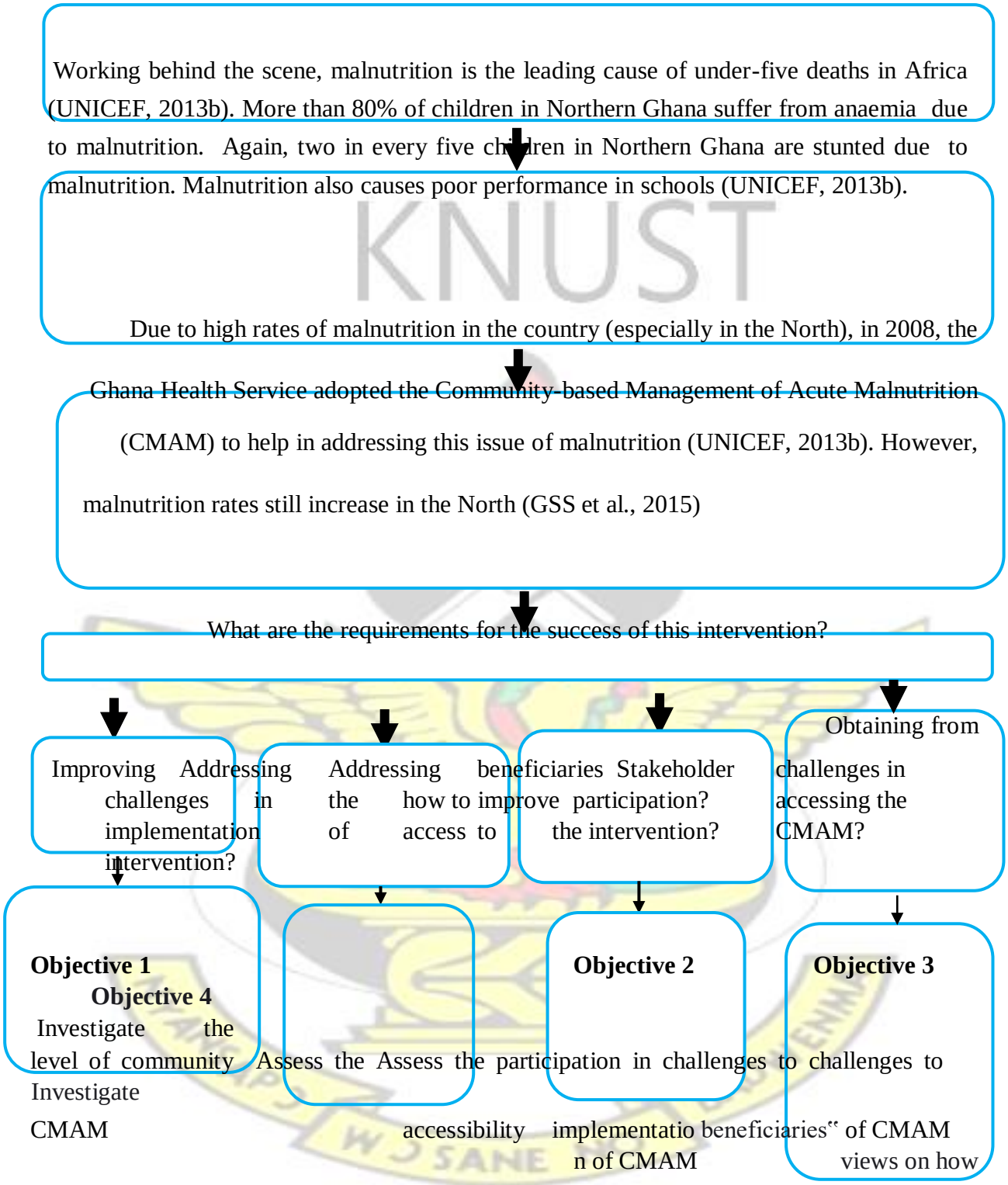

Figure 2.1: Conceptual Framework of the study

Source: Author"s construct, 2016

According to Figure 2.1, malnutrition is caused by poor nutrition in an individual and is a significant health and development concern worldwide and more so as it is the leading cause of under-five deaths in Africa (UNICEF,

2009 and UNICEF, 2013b). Due to the irreversible effects of malnutrition on children, and also the adverse effects it has on production, critical thinking and development as a whole, efforts have been made by governments, NGOs and other organizations by introducing programmes to curb the canker of malnutrition (UNICEF, 2006; Horton et al., 2009). One of such programmes is the Community-based Management of Acute Malnutrition (CMAM) which works on the principles of more coverage and access. CMAM was introduced in the Northern Region in 2010. However, since its inception in the North, malnutrition still rises (WFP and VAM Food Security Analysis, 2012; GSS et al.,

2015). The study seeks to address the possible causes of the poor performance of the CMAM programme. According to the study, improving stakeholder (especially beneficiaries") participation, addressing challenges to CMAM access, and addressing challenges to CMAM implementation are some of the ways to ensure the success of this programme. Community participation is a multifaceted term. However, the contextual definition of community participation for this study is the process through which stakeholders influence and take part in decision making in the planning, implementation, monitoring and evaluation of programmes and projects (Koasa-ard *et al.*, 1998). Consequently, the research questions for the study were: what is the level of community participation in CMAM?, what are the challenges to accessing CMAM?, what are the challenges in implementing CMAM?, and how do

beneficiaries think access to CMAM can be improved in the Tolon District?

2.2 Malnutrition Effects: Globally and Locally

There are approximately 925 million hungry people in the world. About 180 million pre_school children are stunted, that is victims of chronic under-nutrition and this deprivation is not because of insufficient food production, implying that malnutrition is not synonymous to hunger (Hoddinott et al., 2013). Hungry people are not necessarily malnourished while malnourished people are not necessarily hungry.

Severe acute malnutrition (SAM) is a major public health problem facing most developing countries in Africa, Asia, Latin America and the Caribbean. In a bid to improve the quality of life of children, governments worldwide and especially in developing countries have undertaken programmes to address SAM and other pressing child health issues. Despite these efforts, SAM is still a cause of about one million child deaths every year (WHO, 2006). Sever Acute Malnutrition is defined as the presence of bilateral edema, or a weight to height ratio at least three standard deviations below the median according to WHO growth standards, or a mid-upper arm circumference (MUAC) less than 115 mm (WHO, WFP, UN/SCN, UNICEF, 2007). Severe acute malnutrition is generated by poor and reduced food intake. To worsen matters, this problem of malnutrition is accelerated by infections which make

SAM even worse, leading to a high mortality if not treated appropriately and urgently. Worldwide, about 20 million children were estimated to have suffered from severe acute malnutrition thereby leaving them more prone to serious infirmities and death (UNICEF, 2007). Universally, 171 million children below five years of age were estimated to be stunted in 2010, and 104 million of them, underweight. The year 2011 recorded about 6.9 million children under the age of five dying and about one third of these child deaths are linked to poor nutrition (WHO, 2013). According to United

Nations Children‟s Fund‟s 2009 chronicle on tracking child and maternal nutrition, 24 developing countries account for over 80% of the world‟s 195 million children faced with stunting (UNICEF, 2009).

Though in recent years wealth and development has improved in Ghana, the high incidences of poverty, food insecurity and malnutrition of three Northern Regions has not significantly improved (WFP and VAM Food Security Analysis, 2012). Despite food production and availability, under-nutrition is still a problem. Causation factors of

under-nutrition include poverty, high food prices, undiversified livelihoods, and low income for the farming community which is as a result of heavy reliance on subsistent and rain fed agriculture. Gender inequalities and constraints also favours malnutrition (Hutchinson and Tremolieres, 1975). Again, the high involvement in cash crop farming, especially by men, creates an imbalance between the production of food and cash crops thereby contributing to less dietary diversification. This implication is that there will be poor access to micro-nutrient rich foods and this will result in micro-nutrient deficiencies.

Malnutrition works behind the scenes. This is to denote that malnutrition is a single indirect cause of child mortality. Children fall ill; varied sources and kinds of illness.
However, a major contribution to the deaths of children is their body‟s lack of nutrition to defend them from the illnesses. According to (UNICEF, 2013b), nutrition is particularly poor in northern Ghana, where two in every five children are stunted and more than 80% of children suffer from anaemia.

The effects of malnutrition can be found not only in health, but also in education, economics, productivity, entertainment, the home and the community just to mention a few. These effects eat into the other. A malnourished child cannot concentrate in school because cognitive development has been impaired. They are also denied the joy of playing. A malnourished child who makes it into adulthood may find difficulty in critical thinking, productivity and community participation. The result is high mortality rates, poverty and still or lack of development. The picture created here is a vicious cycle with malnutrition at the centre of it.

In ensuring healthy growth, proper organ formation and function, a strong immune system, as well as neurological and cognitive development, Black et al., (2008)

contends that adequate nutrition is vital especially in the early stages of childhood. Also, human development and economic growth require well-nourished populations who are capable of learning new skills, thinking critically and contributing to their communities. Horton et al., (2009) buttressed this point by affirming that neglecting the issue of malnutrition is equal to disregarding the vicious cycle of poor health, lower learning capacity, decreased physical activity and lower work performance or productivity that is locked in malnutrition.

Nutrition‟s immense significance is reflected in the Sustainable Development Goals (SDGs) especially SDG 2, which is to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture. Bearing in mind these effects of good early child nutrition, it can be said that improving health and nutrition, one way or the other, positively affects the rest of the SDGs just as much as they also affect health and nutrition. For example, better health enables children to learn and adults to earn a living. In the same way gender equality is indispensable to the achievement of better health. Ending poverty, hunger, and environmental degradation positively influences health, but also depends on better health. This is being argued from the view point of holistic health.

2.3 Health Inequalities

There are disparities in every sphere of life. Disparities can be found in gender, race, wealth, education and lifestyles. These disparities affect the health status of the individual, society and the nation. Several factors contribute to health inequalities. Inequalities in health are grounded in complex interactions between personal, social, economic and environmental factors thereby implying that a broad-based policy is what is needed to tackle health inequalities. It has been revealed that one of the best ways to

reduce such health inequalities is to address directly inequalities in education, occupation and income (Crombie *et al.*, 2005).

Among the vulnerable groups of women, infants, and children in 86 low and middleincome nations, health inequalities still persist. These inequalities persist more in most developing countries, especially in sub-Saharan Africa (SSA) (Ssewanyana and Kasirye, 2012). WHO, (2006) affirms huge within-country variations in health indicators such as: maternal nutrition, childhood immunization, malnutrition and infant mortality. According to the report, it is perhaps in the area of child nutrition where inequalities are widest in sub-Saharan Africa.

In Africa, political factors and access to health facilities are deemed as the major contributors to health inequalities (Ssewanyana and Kasirye, 2012). Due to the menace associated with health inequalities, in order to minimize the effect of this menace, policies and interventions should be put in place through health promotion programmes. These health promotion programmes however may fall short in delivering good healthcare services due to geographic accessibility, availability and affordability (O"Donnell, 2007)

2.4 Community-based Management of Acute Malnutrition

Due to proof that the majority of children with severe acute malnutrition (SAM) never attended health facilities because of health inequalities such as geographic barriers to health centres for treatment, the Community-based Management of Acute Malnutrition (CMAM) programme commenced. This denoted that only a strategy with a strong community approach can provide them with an appropriate care (WHO, WFP, UN/SCN, UNICEF, 2007). CMAM was initiated as an emergency response for five case study countries (Ethiopia, Nepal, Pakistan, Chad, and Kenya). These countries

faced an increased prevalence in acute malnutrition, and increases in Severe Acute Malnutrition (SAM) during drought and food shortages. CMAM has since been expanded in both size and concept (UNICEF, 2013a). UNICEF is one of the principal organisations supporting the implementation and scale up of the CMAM approach with respect to managing severe acute malnutrition (SAM). In order to enhance both the quality and access of SAM treatment, UNICEF offers technical guidance, while supporting capacity building efforts of Ministries of Health (MoHs) and NonGovernmental Organisations (NGOs) (UNICEF, 2013a).

2.4.1 Components of CMAM

Following the WHO treatment protocol for SAM (WHO, 1999), a lot of countries have treated SAM in inpatient care provided either in paediatric wards or specialized Therapeutic Feeding Units or Centres (TFUs, TFCs) which are mostly very far away from the rural communities. A new community-based approach (CMAM) was established following innovations, such as the invention and use of Ready-to-UseTherapeutic Foods (RUTF). In this new community approach, children who had SAM without medical complications could start treatment in outpatient care and continue drug and dietary treatment at home while children who had SAM with medical complications were admitted to inpatient care but referred to outpatient care as soon as medical complication started to resolve, and continued with the outpatient care (WHO, WFP, UN/SCN, UNICEF, 2007). The components of CMAM are:

1. Community outreach
    a. Community assessment and mobilization
    b. Active case finding to ensure early detection, early presentation and referral
    c. Education and sensitization of community

d. Case follow-up

2. Outpatient care
3. Inpatient care
4. Management of SAM

2.4.1.1 Community Outreach

Community outreach generally consists of four major activities: community mobilization and sensitization, screening and active case finding, referral to CMAM services, and follow-up through home visits (UNICEF, 2013a). Good community outreach guarantees prompt detection and referral of children for treatment thereby ensuring the treatment of SAM before the onset of life-threatening complications. The aim of community outreach is to strengthen the community"s awareness of the causes, signs, and treatment of SAM, while also promoting health and nutrition behaviour change. Through community outreach, Community Health Workers (CHWs) should be in a better position to comprehend the needs of the local community and the factors likely to constrain access to care, while promoting and supporting infant child nutrition and care practices in the community to prevent malnutrition (UNICEF, 2013a).

2.4.1.2 Outpatient Care for Children 6-59 Months

Outpatient care provides for majority of children with SAM: without medical complications and who have appetite. It is also provided to children after referral from inpatient care to continue treatment. Before a child is admitted at an outpatient facility, a nutrition and medical assessment is carried out to determine if the child with SAM has good appetite and no medical complications. On admission to outpatient care, the child receives routine medication, as well as a take-home ration of

Ready-to-Use Therapeutic Foods (RUTF) to last until the next weekly health visit. Qualified health care providers at the facility, Community-Based Health Planning and Services (CHPS) compound, mobile clinic or decentralized health outreach point manage the treatment. Care continues at home and the child returns from time to time (usually weekly or bi-weekly) to check up on his/her nutrition progress and to replenish RUTF supplies (GHS, 2010).

2.4.1.3 Inpatient Care for Children 0-59 Months

Anorexia, severity of infirmity and presence of a medical complication are the main determinants for providing inpatient care to children with SAM. Only small proportions of children with SAM have poor appetite or will develop medical complications that require intensive medical and nutrition care. Children requiring inpatient care for stabilization can be treated in paediatric wards. Inpatient care follows the WHO, (1999) treatment protocol for SAM (GHS, 2010).

2.4.1.4 Supplementary Feeding of Children 6-59 Months

Supplementary Feeding Programmes (SFPs) manage and treat Moderate Acute Malnutrition (MAM) in children 6-59 months. A commonly known supplementary feeding approach in food-insecure environments or emergencies is targeted supplementary feeding, where a supplementary food ration is given to individuals with MAM in specific vulnerable groups, such as lactating women with infants under six months. In Ghana, supplementary feeding is common in the Northern, Upper West and Upper East Regions where food insecurity is common (GHS, 2010).

CMAM is a continuum of prevention, with the aim of community outreach being the prevention of acute malnutrition, the aim of MAM management being the prevention of SAM, the aim of outpatient treatment being the reduction of need for inpatient

treatment, and the aim of inpatient treatment being the prevention of death (UNICEF, 2013a). The Community Health Workers (CHWs) fall under many categorizations related to their qualifications and duties, and statuses as volunteers or paid employees. The CHWs also carry out a number of extension activities determined by nation-wide health strategies. Aside screening for malnutrition, many CHWs also offer treatment services for illnesses such as malaria, diarrhoea, and Acute Respiratory Infections (ARI)". Supervision of CHW is done by district health staff from local clinics and health posts (UNICEF, 2013a).

2.5 Access to Healthcare Programmes

Sound health is a basic requirement for living a socially and economically productive life. The repercussions of poor health on households include debilitation, loss of labour, substantial monetary expenditures, and sometimes death. Also, children‟s development and the welfare of the household are affected by the health status of adults and their ability to work (Asenso-Okyere *et al*., 2011).

Peters *et al*., (2008) define access to healthcare as „the timely use of service according to need". Good health contributes immensely to achieving national goals and objectives. Health and development are inextricably linked thereby making it necessary for governments, various development partners as well as individuals to invest resources in the health/ health sector. Lu et *al.,* (2010) identified inadequate health facilities, long distances to health facilities, lack of effective and efficient transportation systems, inadequate health personnel and inability to afford the cost of health services as major obstructions constraining rural people from accessing health services.

Development in all its forms is only possible when there is access to healthcare service and in turn its effective utilization by individuals. As a multifaceted process, access to

healthcare services encompasses the availability of the right type of care for those who need it, the quality of care received, geographical accessibility to the healthcare facility, acceptability of healthcare service provided, as well as financial accessibility of the healthcare (Peters *et al*., 2008). The quality and cost of services, availability, as well as social-economic structure and personal characteristics of the users are factors that influence the utilization of healthcare services (Chakraborty *et al*., 2003; Onah et al., 2009).

2.6 Challenges in Accessing Rural Healthcare Programmes

A person‟s decision about when and where to seek healthcare depends on many socioeconomic and cultural factors that influence their perceived needs and demand. If health services are to be utilized, they must be available, accessible and affordable. Individuals seek healthcare based on the availability of an array of services, the various levels of economic affordability and the level of healthcare quality (real or perceived). In turn, the availability of services is influenced, by the political, demographic and economic reality of the district or country in which the services are planned, designed, funded and delivered (Lu *et al*., 2010). According to Wagstaff *et al*., (2004), similar factors were identified as impeding child health among the poor, especially rural dwellers, and these consequently had effects on the gap in mortality rates between rural and urban areas.

However, Ensor and Cooper, (2004) also classify some barriers to access as demandside barriers. Demand-side barriers are defined as determinants of use of healthcare that are not dependent on service delivery or price or direct price of those services.

They include distance, education, opportunity cost, and cultural and social barriers. Ensor and Cooper, (2004) suggest that these barriers are as important in determining access to health services as the quality, volume, and price of services delivered by

health care providers. However, demand creation is not a substitute for targeted interventions in supply (Ensor and Cooper, 2004). No amount of demand stimulation will ginger people to access healthcare if it is not of adequate quality. Consequently, effective healthcare interventions in developing countries are underutilized because of barriers such as access. Access has four dimensions: geographic accessibility, availability, affordability and acceptability (O"Donnell, 2007).

2.6.1 Geographical Accessibility to Healthcare Programmes

A vital part to accessing health care is geographic accessibility. An inverse relationship between proximity to health facilities and use of health services has been shown to be an important barrier to access (Hjortsberg and Mwikisa, 2002). The presence of health care facilities alone does not solve the problem of geographic accessibility. The problem of rural areas in geographic accessibility of health care stems out of bad roads and unreliable means of transportation that are a characteristic of most rural areas. Health services may be free (no health care bills) but still will not be patronized because the patients cannot get means of transport to the facility and their only option left will be to walk the whole distance. This usually results in reluctance to access the health facility (Lu *et al.*, 2010). Difficulties with transportation such as long distances and ineffective and inefficient means of transport impact certain population (example; old people and unemployed people) more than others. Factors outside the control of the health sector, such as the quality of roads and lack of regular public transportation, impact geographical access to healthcare.

2.6.2 Availability of Healthcare Programmes

Availability of health care does not just talk of the presence of the health care facility, but also having the right type of care available to those who need it, such as hours of operation and waiting times that meet demands of those who would use care, as well as

having the appropriate type of service providers and materials (O"Donnell, 2007). All these are components of healthcare availability. A patient determines where to access healthcare depending on whether the facility has the right type of care available. For example, patients who require surgical operations cannot receive that kind of care at the district level but rather at the regional level where all that is required for surgical operations are in place. Falling short in any of these will serve as a barrier to health care access especially for households in the rural communities (O"Donnell, 2007).

2.6.3 Affordability of Healthcare Programmes

Affordability of healthcare is considered one of the major barriers to healthcare access and this is worse especially in the rural areas which are characterized by more people being poor as compared to those in the urban areas (Wagstaff *et al*., 2004; Lu *et al.*, 2010). The imposition of user charges in many low and middle-income countries serves as an important barrier to utilizing services. Consequently, the poor suffer from the appalling cost of ill health from two perspectives: from the cost of accessing services and from productive days lost (Ministry of Health, 2007). However, user charges are often justified on the grounds that there is little purpose in providing free healthcare service if the quality is poor and availability low (Ensor and Cooper, 2004). While this may be true, the opposite also is true; there is little purpose in providing quality and available healthcare service if the people for whom it was provided, cannot afford it. These people cannot utilize the facility and hence will continue being sick. Limited user charges, combined with targeted exemptions for the poor, have been seen as a way of improving access to healthcare services (Ensor and Cooper, 2004).

2.6.4 Acceptability of Healthcare Programmes

Acceptability of healthcare is the relationship between the prices of services (partly affected by their costs) and the willingness and ability of users to pay for those services,

as well as be protected from the economic consequences of health costs. Acceptability is also affected by the environmental setting in which the healthcare is provided. Rural settings that are into traditional means of healing are likely not to accept treatment of these illnesses by healthcare providers (O"Donnell, 2007).

2.7 Community Participation in Health Programmes

Community participation in health projects, especially in developing countries where populations are the poorest and most powerless, was strongly advocated at the Alma Ata Conference in 1978, in which the declaration was adopted by 138 countries and stated that people have the right and the duty to participate individually and collectively in the planning and implementation of their health care (WHO)/ UNICEF, 1978). Definitions of community participation range from people passively receiving benefits from developmental programmes, to people actively making decisions about the programme policies and activities. The Alma Ata Declaration in 1978 framed community participation as central to primary healthcare (George *et al*., 2015).

Community participation is the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest or similar situations to address issues affecting the well-being of those people. It is a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members. Often, it involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs and practices (Strasser and Berry, 2016).

Another school of thought is of the perspective that community participation means the involvement of people from the earliest stages of the development process, as opposed

to simply asking their opinion of project proposals that have already been developed, or for their contribution to the implementation of projects imposed from outside ((WHO)/ UNICEF, 1978). These definitions give the understanding that the definition for community participation is multifaceted and vague. There is no clear cut definition for what community participation is. This difficulty in its meaning transcends into the assessment of it. Therefore, various schools of thought will analyze community participation differently because of their varying angles in perspective. However, for the purpose the study, community participation is defined as the process through which stakeholders influence and take part in decision making in the planning, implementation, monitoring and evaluation of programmes and projects (Koasa-ard *et al*., 1998).

Community-focused programmes through assessing their own knowledge; investigating their own environmental situation; visualizing a different future; analyzing constraints to change; planning for change; and implementing change, aims to involve all members of a society in a participatory process. Effective community participation in health does not simply connote community members working side-byside with health care professionals and obeying every instruction they are given; it involves professionals and the community sharing both power and responsibility (WHO/ UNICEF, 1978).

Both research and practical experience have shown that people are most committed to implementing programmes that they have helped plan (Rifkin, 2014). When a community helps in planning a programme, its (the community‟s) depth of knowledge and understanding of the issue is realized. Planning a programme also helps the community recognize the problem at hand and possible ways to solve it on their own, with or without help from professionals. Therefore, people should be encouraged to

take part in identifying the problems that they face, in assessing their own vulnerability, and in planning ways to solve or curb their problems. The community thus becomes more aware of the health risks that they face, and it also enables planners gain very detailed information about hazards and vulnerability at the community level.

Some arguments for including participation in health programmes are:

- People know what works for them and professionals need to learn from people.
- People make contributions of resources (money, materials, labour) for these programmes.
- People become committed to activities that they have helped develop.
- People can develop skills, knowledge and experience that will aid them in their future work (Rifkin, 2014).

WHO stressed on the significance of addressing issues around power and control over decisions about community health and behaviour change (WHO, 2008). These developments brought issues of empowerment, capacity building of local people, financing and programme sustainability into the dialogue (WHO, 2008). As already noted, there is no definite way to define participation. However, the growing understanding among professionals and planners shows that participation is best seen as a process, rather than an outcome of an intervention. This mutual understanding between professionals resulted in questions being posed about how to assess the process in order to assess programme achievements.

The term participation is multifaceted. It used in different disciplines and applied to many fields with numerous variations in meaning and interpretations (Heyd and Neef, 2004). In the setting of development plans and programmes, participation may be defined as the process through which stakeholders influence and take part in decision

making in the planning, implementation, monitoring and evaluation of programmes and projects. This process empowers communities through the acquisition of skills, knowledge, experience, and leads to the community being self-reliant ((Koasa-ard *et al*., 1998; Karl, 2000).

2.7.1 Challenges in Defining Community Participation

Community participation has been defined in numerous ways, but a standard definition remains both hard to find and contentious. Community participation encompasses both subject and disciplinary boundaries ranging from the delivery of public services through to environmental risk assessment, health and agricultural development. Profusion of definitions of the term "community participation" exists within this giant body of work (Katharine et al., 2010). Community participation is seen as an intervention to most research studies and hence Randomized Control Trials (RCTs) are used as the framework to examine the connection between community participation and development. Such a link is impossible to identify because there is no standard definition of "community" and "participation". When links are found, they are situation-specific, unpredictable and are not generalizable. Studies therefore deduce that should community participation be viewed as a process streamlining an intervention rather than an intervention research, examining the link between developmental or health status outcomes and participation would have much more validity mirroring how intended beneficiaries see reality rather than the views of policy makers and planners (Rifkin, 2014).

Intervention studies are dominant in the field of health research. They are designed by health experts to try a hypothesis by introducing interventions and evaluating outcomes. Based on assessments of clinical trials, the RCTs set the standard. Population health has also been studied using this approach. Community participation is the intervention,

and the hypothesis is that this intervention will improve health outcomes. However, there is proof that insinuates that it is impossible to satisfactorily test or try this hypothesis. According to Sanson-Fisher *et al.*, (2007), complications that come with using RCTs for evaluating public health outcomes assert that population-based interventions cannot be evaluated in this framework for a number of reasons. These reasons include issues around population validity, external validity, contamination of the study population, cost and time for follow-up among others. The causal catena of poverty and transformation is missed in RCT.

In brief, the reviews identify several common developments that question the investigation of a direct link between participation and improved health status. These issues/developments include the lack of common definitions for the terms „community" and „participation", the lack of conceptual and practical frameworks to enunciate key roles of community participation, and the inability to separate into different components the contribution of community participation to health from other community development improvements. Results are not generalizable as a result of the frameworks that have been used. There is proof that outcomes are determined by context and context varies. The difficulty of making the findings more robust is not addressed by including a qualitative element to the research design. The significance of context and situation is what qualitative data solely and more vividly defines (Rifkin, 2014).

2.7.2 Process Indicators of the Spider-Gram Framework

A continuum for participation which had narrow participation at one end and wide participation at the other end was developed by Rifkin et al., (1988). In terms of the five indicators of community participation, the continuum was disaggregated and the results attained were used to analyse whether participation was wide or narrow in respect to each. These indicators were: 1) needs assessment; 2) leadership; 3)

organisation of the programme; 4) management of the programme; and 5) resource mobilisation. Each indicator was then envisaged as a continuum and connected to the other four by positioning the narrow end at the point of connection and the wider end away from the connecting point. Where all the points on each continuum link, a small circle was drawn to remind assessors that in all communities there is always some type of participation, however minimal. Rifkin et al., 1998 approach to measuring community participation has been prosperous and to a great extent, is used to assess health programmes incorporating the element of community participation. The approach gives a simple, but useful means of characterizing the nature of participation within a health programme (Katharine et al., 2010).

The Spider-gram methodology developed by Rifkin et al., (1988), helps to measure, illustrate and discover levels of community participation in health programmes on a continuum. Rifkin et al., (1988) identified five indicators: Needs assessment, Leadership, Resource mobilisation, Management and Organisation. Needs assessment entails the roles played by programme beneficiaries in identifying their health needs and in designing the community intervention. Leadership accentuates the inclusiveness and representativeness of all community interest groups. Resource mobilisation highlights the community‟s ability to mobilise and contribute resources towards a community–based intervention. Management emphasizes the community‟s capacity to take decisions about the programme‟s direction and development. Organisation points to the extent to which new community interventions integrate or collaborate with pre-existing community structures or net- works.

CHAPTER THREE

STUDY AREA AND METHODOLOGY

3.1 Study Design

The study was a descriptive cross-sectional case study using mixed methods. The study analysed data collected from a contemporary phenomenon within its real-life context at a specific point in time.

3.2 Description of the Study Area

The study was carried out in the Tolon District which is one of the twenty-six (26) districts in the Northern Region of Ghana with Tolon as its administrative capital. The District shares borders with North Gonja to the West, Kumbungu District to the North, Central Gonja to the south and to the east with Sagnarigu District. Tolon District is one of the districts in the Northern Region with CMAM operations which has been in existence for more than five years. According to the 2014 Ghana Demographic Health Survey, Northern Region is faced with the highest rate of malnutrition (GSS et al., 2015). As of 2010, the population of Tolon District was 72,990 with approximately 13,055 of the population being under 5 years of age. According to the census, 97.7% of the populations are employed. The major occupation is agriculture (Ghana Statistical Service, 2014). The main staple foods in the District include maize, sorghum, millet and yam. Food security is not stable in the Northern Region (Hjelm and Dasori, 2012). This can be attributed to the uni-modal pattern of rainfall in the Northern Region, the absence of irrigation facilities to farm during the dry season, poverty, and poor storage facilities among other factors (Hjelm and Dasori, 2012).

3.3 Study Population/ Target Groups

The target groups used for the study were mothers who attend the CMAM facility, husbands of the mothers who attend the CMAM clinic, assemblymen of the community

in which the CMAM centres were situated, heads/implementers of the CMAM centres, and CMAM community health volunteers (CHVs).

3.4 Sampling Technique

Tolon district was purposively chosen as the study area because it is a district that records high prevalence of food insecurity and malnutrition (WFP and VAM Food Security Analysis, 2012; GSS et al., 2015). The study studied three CMAM centres: Tolon health centre, Nyankpala health centre and Gbrumani CHPS compound. Key informants (the CMAM implementer of each selected centre and the assemblyman of the community in which the centre was situated) were chosen purposively because of the wealth of information they can give. CMAM CHVs (from each centre) and the mothers were sampled by method of convenience. CMAM centres have specific days on which they operate. The CMAM centres were visited on such days and mothers were interviewed based on as and when they came to the CMAM centre, the time mothers had to spare for the interview, and their willingness to participate. Follow up was done through the addresses mothers gave, and fathers (husbands) were also interviewed in their homes. The study also obtained the contact numbers of CHVs, and called them. Those who answered their call and were willing to participate in the study, scheduled a time for their interviews.

The study interviewed 30 mothers, 25 fathers, 3 assemblymen, 3 CMAM centre heads/implementers and 5 CHVs.

3.5 Data Collection

The study employed in-depth interviews using semi-structured interview guides to obtain qualitative data from the study participants and questionnaires to obtain demographic data from CMAM beneficiaries (Demographic data was taken for only

beneficiaries: mothers and fathers). Interviews were conducted separately (one on one) in order to enable the women express themselves freely. However, some fathers were not within reach. This is attributed to the fact that fathers go out of the community to work during the lean season and secondly, some women practice what is known in the Dangbanli dialect as *dokuna*; where a woman leaves for her parents‟ house when she delivers until about a year. Interviews were held with community assemblymen and the health workers/implementers in charge of the CMAM health centres. The in-depth interviews followed a guide with open-ended questions, which focused on the central research themes related to the level of beneficiaries‟ involvement in CMAM: needs assessment, management, organisation, resource mobilisation, and leadership. The interview guide also focused on challenges to accessing CMAM (for beneficiaries) and also challenges in the implementation of CMAM (for CMAM implementers and CHVs). The interview guide also sought to determine beneficiaries‟ perspectives of how access to CMAM can be improved. Interviews were carried out at the CMAM centres and the homes of the respondents upon their permission. Interviews lasted at least 45 minutes for each respondent. Indepth interviews were used for the study because they are useful in situations where in-depth information is needed and help in assessing the interviewee‟s definitions of situations and construction of reality. Also the flexibility of in-depth interviews aids the interviewer in eliciting extremely rich information through probing and clarifying statements where needed (Kumar, 1999).

3.6 Data Analysis

The study analysed the data (from the three centres) collectively as a whole. The study employed thematic analysis; transcripts of the interviews using NVivo: a qualitative software package, for coding. Through a process of familiarizing with the data through reading and re-reading, data were categorized, thereby giving rise to codes on the

wealth of themes that emerged from the interviews. These themes and codes were developed from the data (Miles and Huberman, 1994; Braun and Clarke, 2006). Data credibility was enhanced through cross-checks for rivaling explanations, especially with regards to objective one (assessing the level of community participation in CMAM), which was answered by CMAM beneficiaries and the Assemblymen. Inclusion of thick description also enhanced data credibility (Miles and Huberman, 1994; Braun and Clarke, 2006). Demographics of the respondents (mothers and fathers) were analyzed using Statistical Package for Social Scientists (SPSS) version 20 and Microsoft Excel. The findings were presented in the form of tables.

Objective one of the study was analyzed using the spider gram framework of participation to assess the level of involvement of the community in CMAM. Out of the responses, thematic analysis was used to generate themes for further understanding. The results were presented in tables. Objectives two, three and four were analyzed using thematic analysis to generate themes and the results presented in tables.

Spider-Gram

The Spider-gram methodology developed by Rifkin et al., (1988), aids to measure, illustrate and ascertain levels of community participation in health programmes on a continuum (Figure 3.1). Rifkin et al., (1988) identified five indicators; needs assessment, leadership, resource mobilisation, management and organisation to determine the level of participation in a programme or project.

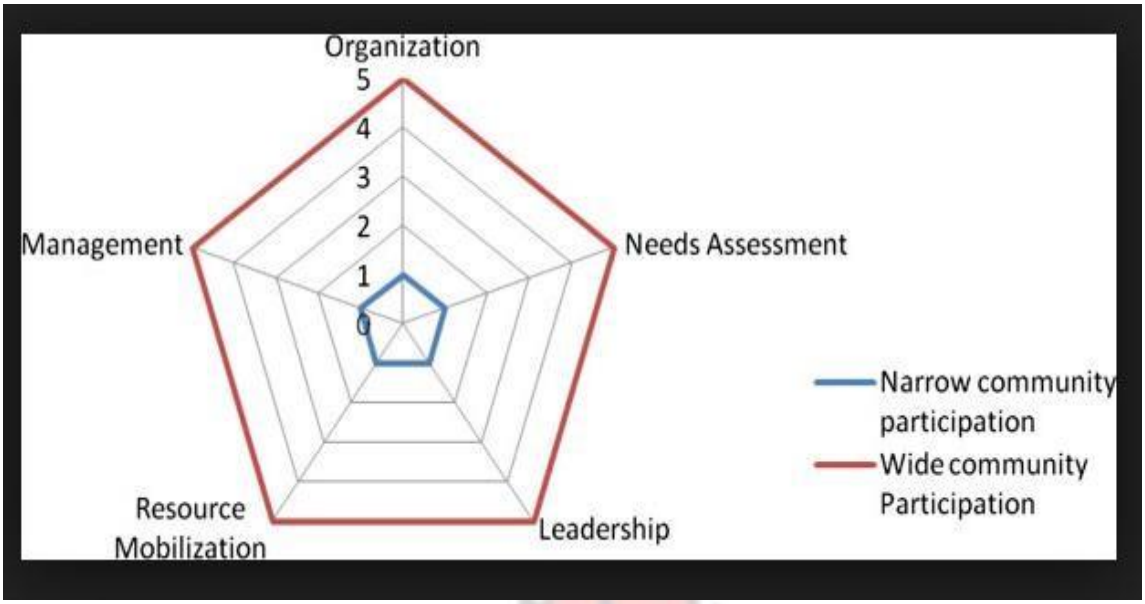

Figure 3.1: A spider gram indicating narrow and wide community participation Source: Rifkin et al., (1988)

Needs assessment entails the roles beneficiaries of the programme execute in identifying their health needs and in designing the community intervention. Leadership accentuates the inclusiveness and representativeness of all community interest groups. Resource mobilization highlights the community‟s ability to mobilise and contribute resources towards a community–based intervention. Management emphasizes the community‟s capacity to take decisions about the programme‟s direction and development. Organisation points to the extent to which new community interventions cooperate with pre-existing community units or networks.

To operationalize these indicators in relation to a continuum of participation so as to achieve objective 1 of the study: which is to assess the level of participation in CMAM, Table 3.1 shows how the spider-gram was applied to assess the level of respondents‟ participation in the CMAM programme. A five-point scale of 1-5 was used to assess the level of respondents‟ participation in CMAM, where;

1=narrow/nothing, 2=restricted/small, 3=mean/fair, 4-open/very good, and 5=wide/e

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Characteristics of Beneficiaries (Mothers and Fathers) of CMAM

4.1.1 Age Distribution of Respondents

Table 4.1 displays the age distribution of respondents (mothers and fathers)

Table 4.1: Age Distribution of Respondents

Age	Mothers		Fathers	
	Frequency	Percentage	Frequency	Percentage
20-29	12	40	3	12
30-39	4	13.3	5	20
40-49	-	-	7	28
Age not known	14	46.7	10	40
Total	**30**	**100**	**25**	**100**

Source: Field survey, 2016

As seen from Table 4.1, majority (46.7%) of the mothers as well as majority (40%) of the father did not know their age, while only fathers (28%) were within the age bracket of 40-49

4.1.2 Educational Level of Respondents

Table 4.2 shows the educational level of respondents presented in frequencies and percentages.

Table 4.2: Educational Level of Respondents

Educational Level of Respondents	Mothers		Fathers	
	Frequency	Percentage	Frequency	Percentage

No Education	27	90	19	76
Primary	2	6.7	4	16
Junior High School	1	3.3	2	8
Total	**30**	**100**	**25**	**100**

Source: Field survey, 2016

Table 4.2 shows the level of education of the respondents. Majority (90%) of mothers had no basic education and the highest educational status attained was basic education, representing only 6.7% of the mothers and 16% of the fathers. Education is known to significantly influence the quest for health and healthcare. According to Grossman (2000), an individual who is educated exercises a lot more effective measures in transforming healthcare and other health improving goods into health.

Agha, (2000) buttressed this point by adding that parents‟ level of education (especially the mother) is of much significance in deciding the health status of a child. This is in agreement with Ghana Statistical Service, (2011), which revealed that the educational level of mothers influences the nutrition status (example underweight and stunted) of children. Through observations at the CMAM centres, it came to light that mothers‟ lack of knowledge about their child‟s age for example, caused setbacks in the smooth delivery of their children‟s healthcare. This is because some interpretations of how a child is faring depends on the child‟s age and weight.

However, these mothers did not know the ages of their children. With 90% of the mothers being non educated, it means more children are at greater risk in terms of healthcare.

4.1.3 Source of Respondents' Income

Table 4.3 shows the source of respondents‟ income presented in frequencies and percentages.

Table 4.3: Source of Respondents' Income

	Mothers	**Fathers**

Source of Respondents' Income	Frequency	Percentage	Frequency	Percentage
Trade/Vendor	4	13.3	-	-
Agricultural worker	11	36.7	21	84
Service worker	3	10	4	16
Unemployed	12	40	-	-
Total	**30**	**100**	**25**	**100**

Source: Field survey, 2016

Table 4.3 indicates the source of respondents" income. According to Table 4.3, agriculture is the dominant occupation and source of livelihood for 84% of the fathers, and 36.7% of the mothers. Agriculture in the Northern Region is usually rain-fed. This leaves most of the respondents with no source of income after the rains have stopped. The unemployed category was made up of mothers only (40%). The trade/vendor category comprised of 13.3% of the mothers. Under the trade category, respondents made it known that trade was unstable. Trade was hindered by so many domestic activities in the house. Scenario above suggests difficulty (especially for mothers) in earning enough income to cater for the family. Low income also means less command over food. Consequently, this compounds the problem of malnutrition in households.

4.1.4 Number of Respondents' Children Under Five Years

Table 4.4 shows the number of children (under five years) that respondents have. The results are presented in frequencies and percentages.

Table 4.4: Number of Children (Under Five Years) Respondents Have.

Number of Children (Under five years) Respondents Have	Mothers		Fathers	
	Frequency	Percentage	Frequency	Percentage
1 Child	13	43.3	3	12
2 Children	9	30	3	12

3 Children	8	26.7	5	20
4 Children	-	-	7	28
5 Children	-	-	4	16
6 Children	-	-	3	12
Total	**30**	**100**	**25**	**100**

Source: Field survey, 2016

Table 4.4 illustrates the number of respondents‟ children under-five years. Majority of the mothers (43.3%) had one child under-five years while 26.7% of the mothers had three children under five years. Majority (28%) of the fathers had 4 children under five years, while 12% of the fathers had as many as 6 children under five years. This variation in the number of mothers‟ children and that of fathers, is as a result of polygamy.

As depicted by the 2014 Ghana Demographic and Health Survey, the above figures in Table 4.4 suggests high birth rates and low patronage of family planning services in the district (GSS et al., 2015). High birth rates may lead to high rates of malnutrition because more children are being born, but are not well catered for in terms of nutrition. While CMAM takes care of malnourished children, more children are being born into households that are not capable of catering for their nutrition needs. These children are likely to require the health services of CMAM, but may be unable to access CMAM due to constraints such as geographic barriers. Consequently, this affects the outlook on CMAM‟s performance as the programme may be seen as performing poorly.

4.2 Level of Respondents' Participation in CMAM

Using the spider-gram, the respondents (beneficiaries of the programme) were asked to grade on a scale of 1-5 (with 1= nothing/narrow, 2=small, 3=mean, 4=very good, 5=excellent) their involvement in decision making and implementation in CMAM.

The study revealed that all the beneficiaries agreed on a 1 scale (poor) on all the indicators of participation; needs assessment, leadership, resource mobilisation, management and organisation**.** There were no variations in the responses (grading). This was attributed to the fact that beneficiaries did not know about the existence of the programme until they went to the clinic, either for weighing, or because their children were sick. They were then informed of the CMAM programme. This is to say that the CMAM programme was implemented and managed by the health professionals without involving the communities. Therefore, the beneficiaries selected "1" (poor) in all indicators of the spider gram since they did not know anything about the programme.

Table 4.5 shows the thematic analysis based on codes generated from responses on the five indicators of community participation. The indicators include: Needs Assessment, Leadership, Resource Mobilisation, Management and Organisation.

Table 4.5: Thematic Analysis of Level of community involvement in CMAM

Categories	Codes	Basic Themes	Global themes
The level of community participation/involvement in CMAM			
Needs Assessment	I didn‟t know of the programme until I sent my child for weighing Needs were not assessed before implementing CMAM Views were not solicited in programme design I welcome the programme/ I like the programme I would have preferred drinking water over CMAM	Community members not consulted before CMAM	**CMAM designed by health experts and without community involvement**
Leadership	No negotiation with health workers Only communities have health committees Inclusion of women and other interest groups in community committees We have no say in the programme I don‟t know	Availability of Community Development Committees in the communities No community health committees on the part of the clinic/ health centres	**Leadership in the communities do not integrate with Leadership in the clinic/health centre** **Patriarchal leadership on the part of CMAM**
Resource Mobilisation	No contribution from the community towards CMAM implementation I didn‟t contribute because I didn‟t even know of the programme They (CMAM) didn‟t take anything from us It‟s free	No Contribution to CMAM	**No Involvement of Community people in mobilising resources toward the programme.**
Management	No empowerment of the communities to take decisions about programme‟s direction and development We do not make any decisions for the program They brought the programme so they know what to do They (beneficiaries) cannot manage the programme Low/no motivation for community volunteers	Non-inclusiveness of community management structures No community influence in management	**CMAM implementers are sole managers of the program**

Organisation	Community health volunteers (CHVs) No existing structure that caters for malnutrition Community Health workers (CHWs) Herbalist I prepare the medicine myself The CHVs tell about malnutrition	Enrollment of malnourished children into CMAM Dissemination of health information to the community	**No established centres for malnutrition aside CMAM**

Source: Field survey, 2016

i. Needs Assessment

Needs assessment entails the roles executed by beneficiaries of the programme in pinpointing their health needs and in designing the community intervention. Every form of development geared towards improving the living conditions of the local people should basically involve them from its inception stage, as well as the implementation stage in order to ensure the sustainability of such development project or program (Strasser and Berry, 2016). Needs assessment enable the professionals to know detailed information on what the community needs. Needs assessment also help the professional ascertain future challenges or needs that may hinder the success of the programme. However, the beneficiaries were of the view that their health needs were not assessed, neither were their views solicited in designing CMAM. According to the beneficiaries, designing of the programme was done by health professionals, minus their opinions and without involving them. Some participants shared the following views:

-[….] "I wasn't aware of anything until my wife told me she went to the hospital and they asked her to come for the rationing for the child" (Father, Nyankpala).

-[….] "I got to know when I sent my child for weighing. And they said my child is not having weight so I should come to the centre on Monday to join the programme" (Mother, Tolon)

-[….] "We're living in a decentralized world where key stakeholders of the community have a voice. Anything you have to implement let them be part. But hardly do we meet" (Assemblyman)

However, according to the programme managers, they assessed the needs of the district for the CMAM programme by training health workers, who in turn trained the

Community Health Volunteer (CHVs) to do case searches in the communities, using the Mid Upper Arm Circumference (MUAC). CMAM was set up based on the outcomes of this exercise. Though needs assessment cannot be carried out especially in the case where the problem demands urgent action (and therefore the community may not have been involved in identifying their needs), the community members saw the CMAM programme as beneficial because they found it good for their children. However, some beneficiaries were of the opinion that though CMAM is beneficial, they did not need it and would have preferred good drinking water. This shows the different opinions with respect to stakeholder issues. When beneficiaries of a programme do not prioritize the need for that programme, the programme"s usage becomes very poor. Needs assessment enables professionals anticipate the likely challenges that may hinder the success of their programmes.

As seen from the study, some beneficiaries did not see the need for CMAM because they lacked good and accessible drinking water. These beneficiaries are most likely not to access CMAM especially if they face many challenges while accessing it. This challenge could have been ascertained had the community been involved in needs assessment. Also, this makes it necessary for the health ministry to collaborate with other ministries such as the ministry for water and sanitation. This would enable the uptake of projects such as water provision that are outside the domain of the ministry of health.

ii. Leadership

Leadership accentuates the inclusiveness and representativeness of all community interest groups (Rifkin et al., 1988). Inclusiveness of community interest groups in leadership helps in the smooth running of a programme. People who encounter problems strive to find solutions to their predicament. It is therefore necessary that

leadership in participation is inclusive of people who really understand and have experienced the problem at hand. These people are better able to assess the problem and identify possible loopholes in upcoming programmes. Also, when leadership is representative of people who are facing the problem, they put in immense effort at curbing the problem.

Interestingly, there seems to be no specific committee working in line with the community health centers or the CHPS compounds. Interviews with the community assemblymen revealed that there are indeed development committees in the study communities that manage general developmental issues. However, there are no health committees for the clinics/CHPS Compound. This makes it impossible for the communities to have common grounds to deliberate health issues with health programme implementers. An assemblyman voiced out:

-[….] "we have a committee generally for health with Board members who are supervising everything. The board chairman of this committee is the NYANKPANLANA with the opinion leaders, religious leaders and the TBAs as Board members. But that's on our level. We don't discuss with the clinic people".

These development committees formed were representative of groups in the community (such as women, Traditional Birth Attendants (TBAs) and religious leaders) as well as the community leaders. However, these committees are the community"s committees and they do not have deliberations on health with the programme implementers. They take decisions concerning their community, but this does not affect the programme in any way.

Community leaders are representatives of the people in the community and are trusted by the inhabitants. Leaders in the community such as opinion leaders are to spearhead

development in their communities. Targeting direct beneficiaries of the programme without going through them may adversely affect the uptake of CMAM and accordingly, slow down its performance as communities look up to their leaders for approval, direction and support. In conclusion, leadership in the community does not integrate with CMAM and so leadership in CMAM is not representative of all interest groups.

iii. Resource Mobilisation

Resource mobilization highlights the community‟s ability to mobilise and contribute resources towards a community–based intervention (Rifkin et al., 1988). The data brought to light that there was nothing like community involvement in terms of resource mobilization. The respondents substantiated that there was nothing like resource mobilization toward the programme:

-[….] "Actually, no. we have not yet contributed anything to them but we will if they ask us. We don't know what they need from us". (Assemblyman, Gbrumani)

-[….] "no, they didn't tell me to pay anything. It's free". (Mother, Tolon)

This lack of involvement in mobilizing resources was not due to reluctance on the part of the communities to contribute, but rather the lack of awareness of the programme and also because beneficiaries are not required to contribute anything to the programme. Contributions give a sense of belonging and ownership of a programme. People contribute to what they have helped create, to what they accept, and to what they believe in. Participation through mobilizing resources for a programme affirms that the community accepts the programme and that stakeholders will make good use of the programme. Contributions come in the form of cash or kind such as labour and expertise (Rifkin, 2014). When beneficiaries do not contribute to a programme, it may affect

attendance and participation in the programme as beneficiaries realize they don"t have much to lose if they don"t access the facility. This contributes to the poor performance of the CMAM programme.

iv. Management

Management emphasizes the community"s capacity to take decisions about the programme"s direction and development (Rifkin et al., 1988). The management of the program is entirely done by the health workers or the CMAM implementers. They decide how the programme should run without any engagement with the community. The level of community involvement in terms of management is insignificant. The Community Health Volunteers (CHVs) work closely with the local people. They also report directly to the CMAM health workers who are the managers of the CMAM program. CHVs act as intermediaries between the health workers and the community people. Their main role is to facilitate the implementation of health programs geared towards improving the health conditions of the rural communities. They educate the women on the benefits of enrolling their children on CMAM program as well as the need to send their children to the clinics regularly. The CMAM health workers also educate the mothers when they come for the ration. They educate them on how to prepare nutritious meals using their locally available foods, and good hygiene. Based on discussion with the study participants, a participant mentioned that:

-[….] "they don't negotiate with us. They brought the programme so they know what to do…how can you manage something you don't know?" (Father, Nyankpala)

-[….] "no, they teach us how to cater for the children and then give us the food ration. We don't take any decisions with them. (Mother, Tolon)

The health workers also reiterated that the communities do not have the necessary skill and expertise to contribute to the management of the programme. This was deduced from their responses:

-[….] "you know, the programme, it's a full package. So we just brought it to them"

-[….] "they can't manage the programme. The thing, there are a lot of technical things involved".

Participation in management promotes equity in that both professionals and beneficiaries of a programme decide the affairs of the programme. People have a right to decide on issues that affect them. Imposing top-down programmes on community does not make the programme sustainable. This is because the community is not empowered with the necessary skill and capacity to manage programmes in case professionals back out of the programme.

It was found from the study that the beneficiaries have no say in the management of the CMAM programme. They are supposed to do what the CMAM health workers tell them. Participation in this sense is having people do what the professional advises (Gonzalez, 1965; Nikkah and Redzuan, 2009). This kind of participation does not give enough room for the community to take decisions about the programme‟s direction and development. Consequently, this may affect the progress of the programme as communities do not understand how to contribute to the development or success of the programme. In conclusion, CMAM‟s sole management of the programme without any interference from the community contributes to the programme not performing to expectation.

v. Organization

Organization points to the extent to which new community interventions integrate or collaborate with pre-existing community structures or networks (Rifkin et al., 1988). From the research, it was brought to light that there was no known/standard place where children were taken to when they were malnourished. To all the mothers, the clinic and CHPS Compound was all they knew. However, to the fathers, they consulted friends who prepared concoctions for the child. They (fathers) sometimes prepare these concoctions themselves. This being said, CMAM did not face physical challenges with any already existing community units or structures in relation to curing malnutrition (as they do not exist). The challenge here is the mindset of the beneficiaries, especially fathers. These are some responses from the fathers when asked of the structures in place to cater for malnutrition before CMAM came;

-[….] "there are no structures that treat this sickness but we know it to be GBANKLOGU or KPANTE and we use traditional herbs to treat it. Did you treat your child with these herbs? ***No, I didn't see anything wrong with the child.*** If you had, would you have? ***Why not? It's treatment (Father, Tolon)***

-[….] "there are no structures like that but we use "mɔle" (corn dough) on the child's body" (Father, Tolon)

-[….] "if you take your children to hospital and you don't have money, it's a problem on problem again. So I go to the hospital, but I also rely on the traditional herbalist. Those things are not established. They are just people that you go to complain of your child's sickness and they give you something to boil for the child" (Father, Gbrumani)

-[….] "Tradition survives human; before the existence of this technology. We have various categories of illnesses related to infants which can easily be cured by the herbalists. And when you pay attention to the principles the herbalist use to cure these children, you'll realize that they are also using scientific knowledge because where you're asked to add meat to whatever drug he's giving, you'll realize that at the end of the day, some essential nutrients are given to the child". (Assemblyman)

With the kind of involvement being displayed (doing what the professionals tell you to) it will be very difficult for beneficiaries to discard these mindsets. This is because they are not given enough reason to exchange a practice they have known for years for a practice that they do not know much about. Also from the responses of respondents, it is realized that there is poor publicity or communication gap on the part of the CMAM implementers. Fathers show reluctance in sending their malnourished children for treatment because they assume they will have to pay a lot of money. All these diverse opinions, sentiments and beliefs of beneficiaries affect the use of the CMAM facility adversely. It will therefore be helpful to improve the dissemination of CMAM information to the various communities.

4.3 Beneficiaries' Challenges to Accessibility and Motivation to Access CMAM Centre

Beneficiaries‟ challenges to accessibility and motivation to access CMAM centres was divided into two categories. The first is "mothers‟ challenges and motivation to access CMAM", and the second, "fathers‟ challenges and motivation in aiding spouses access the CMAM centre". Each category has 2 tables. The first table in each category depicts the frequencies and percentages of the challenges and motivation in accessing CMAM, while the second table in each category depicts the thematic analysis of the challenges

and motivation in accessing CMAM. The tables discussed under this heading are Table 4.6, Table 4.7, Table 4.8 and Table 4.9

Table 4.6 shows mothers‟ challenges and motivation to access CMAM. The results are presented in frequencies and percentages.

Table 4.6: Mothers' Challenges and Motivation to Access CMAM

Challenges to Accessing the CMAM Centre Total Number of Mothers =30	**Frequency**	**Percentage (%)**
Delay at CMAM centre	17	56.7
Social events	6	20
Long distance and poor means of transport	22	73.3
Children‟s food been fed on	8	26.7
No money to buy food when at the centre	12	40
Household chores and water scarcity	20	66.7
Attitude of health workers when mothers are late to the centre	11	36.7
Motivation to Access the CMAM Centre Total Number of Mothers =30	**Frequency**	**Percentage (%)**
Improvement in child‟s health	24	80
Free healthcare	23	76.7
Reminders from husbands/household to attend the clinic	7	23.3
Assistance with transport to health centre	8	26.7
Food rationing received	22	73.3
Cordial relations with CMAM implementers	4	13.3

Source: Field survey, 2016

Table 4.6 presents mothers‟ challenges, as well as their motivation to access the CMAM centre. It presents the results in frequencies and percentages. From Table 4.6, the most pressing challenge to accessing the CMAM centre is long distance and poor means of transport from the communities to the centre and this was voiced by 73.33% of the mothers. This was followed by the obligation to do household chores such as walking long distances to fetch water for their families (66.66%) while 56.66% of the mothers voiced delay when they come to the CMAM centre as a challenge to accessing the centre. The least pressing challenge was that of social events. Only 20% of the mothers

were hindered by social events such as weddings and market days from accessing CMAM.

Also from the Table 4.6, it is seen that 80% of the mothers were motivated to access the CMAM centre because they saw improvement in the general wellbeing of their children since they started attending CMAM. Again, 76.66% were motivated because CMAM is free, while 73.33% of the mothers were motivated by the food rationing given them. The least factor of motivation for the mothers to access CMAM was cordial relations with the health workers. This made up 13.33% of the mothers.

Table 4.7 displays in codes, basic themes and global themes, the challenges faced by mothers in accessing CMAM. It also presents the factors that motivate mothers to access. These codes and themes are discussed below.

Table 4.7: Thematic Analysis of Mothers Challenges and Motivation to Access CMAM

Categories	Codes	Basic Themes	Global Themes
Objective Two (2)			
Challenges to accessibility for mothers	No money for transport No means of transport to the health centre.	Long distance and no means to CMAM centre	**Long distance and no means of transport to CMAM centre**
	Delay at the center No money to buy food when they stay too long at the clinic	No money	**Economic barriers**
	Social events hinder participation Children"s food aid been fed on Household chores and water situation/problem	Social events and household chores	**Social / Cultural barriers**
	Attitude of CMAM implementers when we are late is not good	Poor communication	**Communication barriers**
Motivation to access the CMAM centre	Improvement in child"s health	Children with improved weight and general health	**Joy in seeing results**
	Free CMAM healthcare Food aid/ ration	Free healthcare and food	**Economic**
	Reminders as to when it"s time to go to the clinic Assistance with motor or bicycle to the health centre	Moral support from husbands and households	**Household motivation**
	Good relations with CMAM workers	Attitude of CMAM workers	**Communication**

Source: Field survey, 2016

4.3.1 Mothers' Challenges in Accessing CMAM

i. Long Distance and no Means of Transport

Majority (73.3%) of the mothers saw the long distance to the facility as a major challenge.

-[….] "sometimes you want to go but when you look at the distance, you know you won't even get there early let alone come back home early". (Mother, Gbrumani)

-[….] our husbands should help us when we're coming here because the place is far. Money for transport or a bicycle will help but they won't mind you" (Mother, Tolon)

-[….] "The place is far but if we had money or a means of transport (like a bicycle), because sometimes even the motor kia, you won't get some to bring you here" (Mother, Tolon).

According to Onokerhoraye, (1999), health care facilities are sparsely provided in many rural areas and results from the study showed similar finding. Proximity between the rural dwellers and the healthcare center are very far apart, thereby leading to transportation problems and ultimately reluctance to access healthcare. Beneficiaries reported no transportation means even when they managed to get some money and wanted to come to the CMAM centre. Inefficient and ineffective transportation is different from long distance in the sense that long distance may not be so much of a problem if there are reliable means of transport available. These findings from the study also agrees with (Lu *et al.*, 2010), who identifies lack of effective and efficient transportation systems as barriers that restricts rural people from accessing healthcare.

ii. Economic Challenges

Economic barriers were seen in the form of requests for financial aid to help in feeding their children and in boarding transport. Not surprising as most of the mothers did not have a source of income as depicted in Table 4.6. A mother said:

-[….] "We really spend a lot of time when we come here and when the children get hungry, there's no money to buy food for them" (Mother, Tolon).

The economic challenge here is linked with food, boarding transportation and opportunity cost of mothers‟ time, thereby putting emphasis on the problem of very long distances to the CMAM centre. Money is not needed for clinic bills (since CMAM services are free) but rather to afford means of transport, and also to buy food when they delay at the CMAM centre. Without money, access to the CMAM centre is restricted and therefore malnourished children will not get the needed healthcare. Also is the fact that since they have no source of income (and so very little or no money) mothers do not have command over the food their children eat. They will have to make do with whatever is available and affordable. This can impede the recovery of children on the CMAM programme as their source of nutrition at home is very limited and poor.

iii. Social and Cultural Challenges

Social and cultural challenges identified from the study include social events such as out-doorings (Sunna), weddings (Amariya), funerals, Katina market days, household chores and delay at the CMAM centre.

-[….] "Events like weddings and funerals stop me from going. Especially if you are at the centre stage of preparing food for the occasion and f there's work to do at home, you can't just leave and go to the clinic. It's like you are trying to dodge the work. You'll be seen as lazy by your household". (Mother, Nyankpla)

-[….] "sometimes you want to come but there are plenty children to take care of in the house so I sometimes miss out on the programme" (Mother, Gbrumani)

Mothers have to attend to household chores such as fetching water, cooking and taking care of children just to name a few. More emphasis was placed on the household chore of fetching water because according to mothers, the nearby dams were dry and so they had to go to *Gbulhagu* in other to get water for their families. Also, these household chores are done every day and therefore mothers hardly have time for other things. There are also social events like weddings which demand the presence of mothers to engage in cooking and other activities which are necessary for such events. Findings from the study revealed that Katina market days are the only lucrative market days and that all events (whether weddings, out-doorings or funerals) are postponed on such days. On such days, mothers are very likely not to access CMAM.

Findings from the study agree with findings by Ensor and Cooper (2004) that cultural, religious, or social factors may impede the demand for health care and more especially so in communities where women are not expected to mix freely, particularly with men (Ensor and Cooper, 2004). Due to social activities and household chores, mothers do not have enough time on their hands to get involved in or attend CMAM. Accordingly, this affects the performance of CMAM because beneficiaries of the programme do not have the time to access the facility.

Schemes/developmental projects to empower women will be helpful in breaking down historical barriers (such as the above) to seeking healthcare.

iv. Communication Challenges

Communication barriers to healthcare may be that of language barrier where the health workers and beneficiaries of health do not understand each another because both parties

speak and understand different languages. However, the communication challenge to healthcare access identified by the study was different. Some women lamented:

-[….] "we have to go a long distance (Gbulhagu about 7 miles from the interception point of the three centres under study) before we can get even dirty water for our families to drink. By the time we get back, it is late. And when we get to the centres late, the way the nurses talk, you won't like it".

The result is reluctance on the part of the mothers to go to the CMAM centre when they realize they cannot make it there on time. Accordingly, this affects access to the CMAM programme, and results in more malnourished children remaining at home instead of being brought to the centre for treatment.

v. Household feeding on food meant for malnourished children.

A rather interesting barrier to participation was from some mothers who said:

-[….] "when you take the child's food home, and you prepare it, the whole household expects to eat it. Even the one in small sachets (plumpy nut). Everybody in the house, even the adults. If you don't give them you are considered a very wicked woman" (Mother, Tolon).

This results in the food rationing getting finished before the next CMAM visit and it makes mothers more reluctant to walk long distances for food ration/ supplements that will not be eaten by their malnourished child. Food ration being consumed by the household suggests that there is hunger at the household level. The abuse of the food meant for the malnourished child at the household level has dire consequences on CMAM"s performance or success because malnourished children will remain malnourished thereby contributing to high malnutrition rates.

4.3.2 Mothers' Motivation to Access CMAM

Motivation to access healthcare ranges from availability of healthcare, to its affordability among others (Hjortsberg and Mwikisa, 2002). For the mothers, sources of motivation to access CMAM included improvement in their child‟s health, encouragement from the household especially their husbands (in the form of reminders to attend the clinic, assistance with means of transport or money to buy food at the centre), free healthcare and food rationing Corn Soya Blend (CSB) received at the centres. These were some of the responses:

-[….] "Oi! These children's stomach alone is motivation. They can really eat now and the food rationing helps to lessen my burden" (Mother, Tolon)

-[….] "I see that my child has improved and it makes me happy. When the child is fine, he doesn't worry you unnecessarily" (Mother, Nyankpala)

-[….] "if you're working and they don't remind you to go and you remember and start to leave, it's like you're shirking your responsibilities. When they remind you, there's no guilt" (Mother, Gbrumani).

According to Wagstaff *et al*., (2004) and Lu *et al*., (2010), affordability of healthcare is considered one of the major barriers to healthcare access, especially in rural areas. The study presents similar findings as the mothers listed free CMAM services as one of their motivation to access CMAM. From the above, it is observed that all the sources of motivation to access are being provided by CMAM with the exception of encouragement received from husbands and households.

Table 4.8 presents the frequencies and percentages of fathers‟ challenges to aiding their spouse access the CMAM centre, as well as what motivates them to allow their spouses access the centre.

Table 4.8: Fathers' Challenges and Motivation in Aiding Spouses to Access the CMAM Centre

Fathers' Challenges in Aiding Spouses Access the CMAM Centre **Total Number of Fathers =25**	**Frequency**	**Percentage (%)**
Delay when they leave for the centre	21	84
Social events	8	32
Household chores	22	88
Giving women long list of foods to show husbands without adding money	20	80
Motivation to Allow Spouses Access the CMAM Centre **Total Number of Fathers =25**	**Frequency**	**Percentage (%)**
Improvement in child‟s health	20	80
Free healthcare	23	92
Food rationing	19	76

Source: Field survey, 2016

From Table 4.8, the most pressing challenge for fathers when it comes to spouses accessing the CMAM centre is household chores, comprising of 88%. This was followed by the complaint of spouses delaying when they leave home for the CMAM centre. This made up 84% of fathers. Again, 80% of fathers were off the view that giving spouses long list of foods to provide for the children, without adding money to it was just not right and brought additional pressure on them. Last but not the least was social event which was voiced by 32% of the fathers.

From Table 4.8, it is seen that what motivates fathers the most to aid spouses access the CMAM centre is that CMAM is free. This made up 92% of the fathers. This was followed by 80% who agreed on the improvement of their child‟s wellbeing, while 76% were motivated by the food rationing given.

Table 4.9 displays the codes, basic themes and global themes of fathers‟ challenges and motivation in aiding spouses to access the CMAM centre.

Table 4.9: Thematic Analysis of Fathers' Challenges and Motivation in Aiding Spouses to Access the CMAM Centre

Categories	Codes	Basic Themes	Global Themes
Objective two			
Challenges in aiding spouses access the CMAM centre	Delay at the center	Delay at the centre	**Socioeconomic challenges**
	Events like weddings and out-dooring	Social events	
	Water scarcity Household chores (especially fetching water)	Household chores	
	Long list of foods women bring back from the centre (to be given to the child)		
Motivation in aiding spouses access the CMAM centre	Improvement in child‟s health Free healthcare Food rationing	Children with improved weight Free food and healthcare	**Joy in seeing results** **Economic**

Source: Field survey, 2016

4.3.3 Fathers' Challenges in Aiding Spouses Access the CMAM Centre

Fathers were of the view that they had no challenges to accessing the CMAM centre since they don‟t go to the CMAM centres. However, further probing revealed reasons

why a husband may be unwilling to help his spouse to go to the CMAM clinic. The reasons were grouped into one global theme of social economic challenges.

i. Socioeconomic challenges

The study came up with findings that social events such as weddings, delay at the CMAM centre, household chores and long list of foods (such as beans, groundnut, meat and milk for the malnourished children) spouses talk about when they come from the centre were factors that are likely to prevent fathers from aiding their spouses access the CMAM centre. The following responses emphasized this;

-[….] "they stay too long at the centre and then who will take care of the kids left in the house? Sometimes, they're hungry but their mother is not around. They have to wait for long before she gets back". (Father, Gbrumani).

-[….] "if there are household chores to do, like fetching water. The place is far. By the time she has gone twice and she's back, it's almost afternoon. And you can't say she shouldn't fetch water because we need water. And then sometimes events like weddings demand their presence. The cooking and things like that, they have to do it." (Father, Nyankpala).

-[….] "they come back with long list of foods from the nurses for the children alone to eat. After they have given them the list, they don't add money to it knowing very well that these things, you have to buy them." (Husband, Tolon)

From the study it was deduced that mothers look up to fathers for support and motivation in terms of money/bicycle for transport and frequent reminders to attend the CMAM centre. Mothers feel guilty when they leave house chores undone due to having to take a child to the CMAM centre. Also, since most mothers do not have a source of

income (Table 4.3), fathers need to do extra work to support their household especially the nutritional needs of their children. It was also observed from the study that fathers can make it either easier or more difficult for mothers to access the CMAM. Therefore, the poor performance of CMAM can be positively influenced by finding a way to involve fathers in CMAM.

4.3.4 Fathers' Motivation to Aid Spouses Access the CMAM Centre

For the men, their motivation to aid spouses (mothers) in accessing CMAM were improvement in their child"s health, the food ration given, and the reason that the programme is free. This was captured in sentiments such as;

i. Socioeconomic Reasons

-[….] "If someone sees a problem in your household and is giving you a solution, it is good. It's free too. I don't have to give them money before they can go" (Father, Gbrumani)

-[….] "My child's health is important so I don't mind if she's going to the facility" (Father, Nyankpala)

-[….]"What motivates me most is that they never tell me to pay anything" (Father, Tolon)

Again the issue of affordability of healthcare services is brought to light. Findings of the study agree with Lu *et al*., (2010) that affordability of healthcare services improves its access. This motivation of free CMAM health services was found also with mothers. Fathers" motivation first of all was because CMAM was free and also because of the health of their children.

4.4 Challenges to Implementation

Table 4.10 present codes, basic themes and global themes pertaining to the third objective which is to assess the challenges to implementation experienced by CMAM workers.

Table 4.10: Thematic Analysis Table of Challenges to Implementation

Categories	Codes	Basic Themes	Global Themes
Objective 3			
Challenges to Implementation	Shortages of plumpy nut	Shortage of plumpy nut	**Poor logistics**
	Problem transporting plumpy nut to the various sub-districts	Poor transportation/delivery of plumpy nut	
	Few teaching and learning materials	Few teaching and learning materials	
	Illiteracy/ poor enlightenment of the community	Illiteracy/poor enlightenment no incentives for CHVs	**Few active CHVs**
	No incentives for CHVs	inadequate health workers	
	need for more health workers		
	Ridiculing of CHVs by the communities	lack of community support for CHVs	**Social/ cultural challenges**
	Wrong addresses given by mothers	Difficulty in contacting mothers	**Communication challenges**

Source: Field survey, 2016

CMAM health workers recounted challenges such as shortage of plumpy nut, few teaching and learning materials, problem with transporting plumpy nut, and few active CHVs, inadequate health workers as well difficulty contacting mothers. These were grouped into global themes of Poor logistics, Social/ cultural challenges, few active CHVs, Inadequate health workers and Communication challenges.

i. Poor Logistics

Shortages of plumpy nut for the treatment of malnourished children impede progress being made by the CMAM implementers. Shortages in plumpy nut deter mothers from coming to the centre thereby missing out on treatment when the plumpy nut is back in stock. When after a long break they come back for the plumpy nut, treatment has to be started all over again as the child may have relapsed. In addition to the shortage of plumpy nut is the poor transportation of the plumpy nut to the various centres. These were some of the responses:

-[….] "the shortages of the corn soya blend (CSB) and especially the plumpy nut; when they get here and there's nothing to give them, they don't come back" (CMAM implementer).

-[….] "The plumpy nut has to be taken for 16 weeks. When they default like that they have to start all over when they come back" (CMAM implementer)

The purpose of a logistics system is to obtain and move commodities in a timely fashion to the places where they are needed at a reasonable cost (USAID, 2009). Poor logistics slows down the performance of CMAM implementation as mothers will be reluctant to bring their children across long distances to the centre, only to go back empty handed. Also is the fact that, inconsistency in the flow of logistics will call for more costs as children may have to start treatment all over again after a long break in taking the nutrition supplements.

ii. Communication challenges

Findings from the study showed that CMAM implementers experienced

communication challenges with mothers. This was due to mothers not knowing their house addresses, and those who gave addresses gave wrong addresses thereby resulting in difficulty tracking these mothers in other to check up on them. The study experienced this challenge too as there was a lot of difficulty finding households of mothers who were interviewed at the CMAM centres. (This was in order to interview the spouses (fathers) of these mothers). This communication challenge was not surprising as a majority of the mothers had low level of education and also could not even tell their age (Table 4.1 and Table 4.2). Communication challenges were captured in the responses below:

-[….] "the address they'll give you, somebody will give you address that this is where I stay and then the fellow will come once. When you try to follow up, they'll tell you the fellow has moved to a different community for farming. My problem here is they not coming and how to trace them. They don't have contact numbers too. If you ask them, they'll tell you even my husband doesn't have phone" (CMAM implementer)

-[….] "Yah, the problem is many. Sometimes you can go and tell somebody to bring the child to the hospital, and they'll say you're small boy. You're the one to telling me to take my child to the hospital. And the weighing too. That they're weighing my child. I don't want my child to fall down" (CHV).

-[….] "Hmm, some of them, it's difficult speaking to them especially if you want them to understand. Not everyone is enlightened so talking to them and trying to explain is very difficult. They want what they already know" (CHV).

The issue of communication is a huge detriment to CMAM implementers in providing sound healthcare to the communities. Effective communication is recognized as a priority across the healthcare continuum because it directly affects the quality of patient care, safety, medical outcomes and patient satisfaction (Stewart, 1995). Wrong addresses given by mothers, and lack of contact numbers of mothers makes routine check-ups on mothers an impossibility. Also refusal/reluctance to listen to CHVs, make dissemination of information difficult. These factors compound the difficulty in successfully implementing CMAM in the district and consequently, bring the progress of the programme to a standstill.

iii. Social/Cultural Challenges

Social/cultural challenges do not only impede access to healthcare but also is seen to impede delivery of healthcare services as seen in the response below:

-[….] "in the community, I'm walking round doing the work. The old people say you you're lazy boy. Instead of you to go to farm, your colleagues have been going to farm. You don't want to go to the farm. You just want to be roaming about. That's how they've been telling us". When asked how this affects the implementation of the programme, he replied "For that one, it will not make me to move like that. The way they talk like that, it not making you happy to work" (CHV)

As explained in 4.3.1 (iii) above, cultural/social challenges impede access to healthcare (Ensor and Cooper, 2004). However, in this context, it also impedes the provision of healthcare to the rural people. By ridiculing CHVs and calling them lazy, CHVs are not motivated to work. Also, it will be very difficult to recruit more youth as CHVs in the community because the youth will not want to be ridiculed. This adversely affects the state of malnourished children in the community, because CHVs are workers with the

mandate of disseminating nutrition education to the communities, and reporting new cases of malnutrition to the health centres. When CHVs do not work, its repercussions fall back on the success of CMAM.

iv. Few Active CHVs and No Incentives for CHVs

The study findings revealed that CHVs that are active are few and that this may be as a result of no incentives given them (CHVs) as well as ridicule being received from the community. Responses that reflected this are:

-[….] "They don't give me pen, they don't give me anything. Nothing, apart from book. So every time I'm using my money to be buying pen to write. Even if they give me the book, they day they're giving me the book; collect hundred thousand even! no. they'll only give me the book. No pen". When asked how this affects work, the CHV replied: ***"TƆ! Because they say it's a voluntary work, that one I'm doing it because I don't want people to suffer. It doesn't affect it because I've been doing it. Because of they're not giving me anything; I won't say I won't do it. Because I say I'm a volunteer" (CHV).***

-[….] "Actually is long time that we're doing this. So they should give us wellington boots so that once the problem is night, they'll call and you can go. Actually the place is very dark. Example grass, something like that. So actually there are some bad animals or something like that in the town at night. My community people know me so every problem is for me. Even some child crying, they'll say the volunteer. They don't know volunteer. They think I'm collecting money" (CHV).

People directly involved in implementing a programme should be motivated well enough to help in the smooth implementation of the programme. CHVs are responsible

for dissemination of information to the communities. They are also to report cases of malnutrition to the CMAM centre. CHVs agreed that though they are into voluntary work, incentives in cash or kind would further motivate them to do their work. Lack of motivation or incentives for CHVs can affect their attitude towards work especially as they have to deal with communities that undermine the job they (CHVs) do.

4.5 Beneficiaries' Suggestions for Improving Access to CMAM

Both descriptive statistics and thematic analysis were used to assess beneficiaries" suggestions on how access to CMAM could be improved. The results are presented in Table 4.11 and Table 4.12.

Table 4.11 presents in frequencies and percentages, beneficiaries" suggestions on how to improve access to CMAM.

Table 4.11: Beneficiaries' Suggestions on How to Improve Access to CMAM

Mothers' Suggestion on How Improve Access to the CMAM Centre **Total Number of Mothers =30**	**Frequency**	**Percentage (%)**
Source of income	16	53.3
Money from the government for household upkeep	28	93.3
Provision of accessible source of drinking water	23	76.7
Increase rationing quantity	25	83.3
Introduce variety of foods	12	40
Constant reminders from spouses/household to attend CMAM	27	90
Help with means of transport	24	80
CMAM workers should exercise patience with them when they are late	14	46.6
Fathers' Suggestion on How Improve Access to the CMAM Centre **Total Number of Fathers =25**	**Frequency**	**Percentage (%)**
Money from the government for household upkeep	25	100
Solve water problem	20	80
Increase food rationing quantity	19	76
Improve cordial relations between mothers and CMAM workers	14	56
Rationing for adults	18	72

Source: Field survey, 2016

From Table 4.11, majority (93.3%) of mothers and all fathers (100%) said to improve access to CMAM, the government should give them money through CMAM. This will enable them buy nutritious food for their children, as well as aid in transportation to the CMAM centre. However, 53.3% of mothers were of the view that a stable source of income will help them earn money and consequently aid in accessing

CMAM. For mothers, the least supported view in improving access to CMAM was the introduction of variety of food (the food rationing) which made 40% of the mothers. The least supported view according to fathers was that of rationing for adults which made 72% of fathers.

Table 4.12 presents codes and themes of beneficiaries‟ suggestions on how to improve access to CMAM.

Table 4.12: Thematic Analysis of Beneficiaries' Suggestions on How Access to CMAM Can be improved

Categories	Codes	Basic Themes	Global Themes
Objective 4			
How can access to CMAM be improved (Mothers)	Source of income Money from the government through CMAM Provision of accessible drinking water Increase rationing quantity Introduce variety of foods Constant reminders from husbands and household members Help with means of transport CMAM implementers should exercise patience with them	Financial assistance More food Social motivation. Good communication	**More food quantity and variety** **Source of income** **Motivation** **Good communication**
How can access to CMAM be improved (Fathers)	Money from the government through CMAM Water problem should be solved Increase food rationing quantity Improve cordial relations between mothers and health implementers Rationing for adults	Financial assistance More food More food variety Solve water scarcity Good rapport between CMAM workers and mothers.	**More food quantity** **Financial assistance** **Provision of good drinking water Improve communication**

Source: Field survey, 2016

Mothers were of the view that access to CMAM can be improved through gaining a source of income. This will help them get money for transportation to the centre, and

also to provide the foods CMAM workers advice they give their children. Another way mothers thought access can be improved, was for husbands and households to encourage them through constant reminders to go to the centre, excuse them from household chores for a while, and offer assistance with money or a means of transport. Both mothers and fathers were also of the view that solving the water crisis in the communities will improve access to the CMAM facility in the sense that mothers can get to the centre early for their check-ups because they won‟t have to walk very long distances to fetch water.

Still, both mothers and fathers were also of the view that increasing the quantity of ration as well as introducing more varieties will improve their participation in the programme. However, the plumpy nut rationing is given depending on factors such as appetite test of the child, weight of the child, and weight improvement of the child. Requesting for more food rationing and varieties in the rationing suggest that the mothers do not have enough nutritious food to feed their children, or they have the perception that CMAM is to provide a 100%, all the nutritional needs of their children. A CMAM implementer voiced out;

-[….] "We've been talking to them about using their own locally available foods but they don't listen. You'll go to their home to visit them and you'll see that same child eating rice; dry. Nothing on top. Some of them depend solely on the CSB and the plumpy nut we give them" (CMAM implementer).

And indeed it was confirmed by some mothers;

-[….] "the things they tell us to prepare for the children, we need money. If we tell our husbands, they'll say we're the ones who want to eat those foods but not the children so they won't mind us. So we depend on what they give us" (Mother,

Tolon)

Fathers‟ perspective of how access can be improved included receiving money from the government through CMAM (to aid in buying nutritious food for the children and also to aid in transportation to the centre), good rapport between mothers and CMAM workers, and also solving the problem of water scarcity. Some fathers were also of the view that access to CMAM will improve if rationing was extended to adults too. Some responses that captured their views on how access to CMAM can be improved included:

-[….] “we need money. If you have money, you can do everything. You’ll be able to take care of your family well so if they add money to it, it’ll help a lot” (Father, Tolon)

-[….] “when they are giving the long list to our wives to bring home, they should add money too. That is also very important. These things are not free. We have to buy them” (Father, Nyankpala)

-[….] “the women go very far to fetch water because all the dams nearby have dried up. If we have water in the community, they can come back early and attend to their other duties like going to the CMAM centre with the children” (Father, Gbrumani)

Fathers were of the perspective that if these issues are addressed accordingly, access to CMAM will be improved. Surprisingly, none of the beneficiaries mentioned decentralization of CMAM in their various communities as a way in which their access to CMAM can be improved.

The above suggestions are the views of beneficiaries on how access to CMAM can be improved

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study gives in-depth results on the extent of community participation and challenges to access and implementation of health programmes, particularly Community-based Management of Acute Malnutrition (CMAM) in the Tolon District in the Northern Region of Ghana. The study assessed and provided results on the level of participation of beneficiaries in CMAM and the perspectives of beneficiaries in improving access to CMAM in the District.

5.2 Summary and Conclusions

The study was carried out in the Tolon District of the Northern Region because it has high records of malnutrition. Three CMAM centres formed a part of the study and beneficiaries of CMAM were selected by convenience. The study employed in-depth interviews and used semi-structured interview to obtain data from the study participants. Level of involvement of beneficiaries in CMAM was analysed using the spider gram. Challenges to CMAM access and motivation to access CMAM, challenges of implementation of CMAM, and perspectives of how CMAM access can be improved was analysed using descriptive statistics and thematic analyses. The results were presented in tables, frequencies and percentages.

The findings revealed that the level of participation of beneficiaries in CMAM was very low in all the indicators of the spider-gram: Needs Assessment, Leadership, Resource mobilisation, Management and Organisation. Beneficiaries were not aware of the CMAM programme until they visited the clinic, implying that they did not play any role in identifying their health needs and in designing this intervention. Consequently, they did not partake in the other indicators of the spider-gram.

From the study, it was also revealed that challenges in accessing CMAM included delay at the center, social events, no money for transport, children‟s food aid been fed on, no money to buy food when they stay too long at the clinic and no means of transport to the health centre. Motivation to access CMAM included improvement in child‟s health, free CMAM healthcare, reminders from husbands as to when it‟s time to go to the clinic, assistance with motor or bicycle to the health centre and food aid/ ration received at the centre. Of the challenges to CMAM access, the most pressing challenge was that of geographic accessibility and affordability in terms of money to purchase food and transport services. Affordability had nothing to do with CMAM health care because it was free. Consequently, free CMAM healthcare, the improvement of children‟s weight and assistance (from fathers/ household) with means of transport were what motivated beneficiaries the most to access CMAM.

Again, the study revealed the challenges CMAM implementers face in implementing CMAM in the District. These challenges included poor logistics in the form of shortages of plumpy nut and problem transporting plumpy nut to the various subdistricts. Other equally important challenges identified were few teaching and learning materials, illiteracy/ poor enlightenment of the community, no incentives for
CHVs, the need for more health workers and ridiculing of CHVs by the communities. These challenges faced by the implementers also served as barriers to beneficiaries in accessing CMAM.

Lastly, the study revealed that gaining a source of income, receiving money from the government for household upkeep, provision of accessible drinking water, increasing rationing quantity, introducing variety of foods rationing, constant reminders from husbands and household members to attend CMAM and help with means of transport were how beneficiaries thought access to CMAM could be improved.

On the basis of the key findings, the study concludes that:

- The community‟s involvement in CMAM is very poor and this is in part due to poor communication between CMAM and the communities, with CMAM having the larger responsibility of initiating, improving and sustaining these communications.
- Geographic accessibility, cultural/social, economic and communication barriers are the challenges in accessing CMAM that beneficiaries (especially mothers) face. Mothers‟ demographics of no basic education and no/unstable sources of income seek to compound these challenges.
- Poor logistics: untimely flow of plumpy nut, CSB, and other materials that are essential in the smooth running of CMAM, wrong/inaccurate residential addresses mothers give to CMAM workers, few health workers, and lack of incentives for CHVs are challenges that impede the implementation of the CMAM programme.
- Beneficiaries understand their challenges in accessing CMAM, and how they can be helped in solving these challenges. Gaining a source of income, encouragement from fathers to attend CMAM and provision of accessible drinking water were how beneficiaries thought their access to CMAM could be improved.

CMAM workers‟ challenges in implementing CMAM consequently go to fuel mothers‟ challenges in accessing CMAM. In the same way, some challenges workers face in implementing CMAM is caused by mothers.

5.3 Recommendations

Based on the findings of the study, the following recommendations are made to help enhance access to CMAM and its implementation in the Tolon District.

1. To improve access to CMAM for beneficiaries, community involvement in CMAM should be improved. This can be done by involving religious leaders, traditional leaders, assemblymen, opinion leaders and other interest groups in decision making activities of the programme. Seeing their leaders in the forefront will encourage community members to participate in CMAM. Communication should flow consistently between CMAM and the communities. This can be done by holding open forums for the programme implementers and the communities.
2. To address challenges in accessing CMAM, more CMAM centres should be created at vantage points so as to lessen the burden of travelling very long distances to acquire healthcare. Decentralisation is key in breaking the barrier of geographical accessibility of CMAM. Mothers‟ absenteeism and late coming to the CMAM centre, can be resolved by the government providing accessibility to good drinking water in the communities. Also, CMAM health workers should extend the working hours of the CMAM centre in order to encourage mothers who may be late in accessing it. Capacity building for families (especially women) in the form of creating more sources of livelihood within the community could increase mothers‟ ability to gain a stable source of income. Stable source of income means mothers can afford transportation fares and buy food for their children when there is a delay at the CMAM centre. Again, a stable source of income will help mothers cater for the nutritional needs of their

children and cooperate with CMAM in taking care of their malnourished children.

3. To address challenges in implementing CMAM, Ghana Health Service should create a well-structured delivery system for the CMAM programme in order to ensure the on-time delivery of items such as plumpy nut, CSB, and teaching and learning materials which are key to the implementation of the programme. CHVs should be motivated with incentives such as means of transport or transport allowances and encouragement from community leaders. This will also motivate other community members to become CHVs.
4. CMAM should find a way of involving fathers directly in the programme. For example, malnourished children who come with both parents to the centre will be given food such as wheat in addition to the plumpy nut. Fathers should be directly involved in CMAM because they have control over cultural/social barriers that mothers face in accessing CMAM. Experiencing the challenges mothers face in accessing CMAM might enable fathers to willingly lend a helping hand to mothers. This will significantly ease mothers‟ burden in accessing CMAM. Fathers can help mothers in accessing CMAM through constant reminders to attend CMAM, and also with means of transport such as bicycles.

REFERENCES

Agha, S. (2000). The determinants of infant mortality in Pakistan. *Social Science and Medicine,* vol. 51, pp. 199-208.

Asenso-Okyere, K., Chiang. C., Thangata, P. and Andam, K. S. (2011). Interactions between health and farm-labour productivity. International Food Policy Research Institute, Washington, DC.

Black, R., Allen, I., Bhutta, Z., Caulfield, EL., De Onis, M. (2008). Maternal and Child Under-nutrition: Global and Regional Exposures and Health Consequences, vol. 371, pp 243-260.

Blössner, M., De Onis, M., Prüss-Üstün, A., Campbell-Lendrum, D., Corvalán, C., and Woodward, A. (2005). Quantifying the Health Impact at National and Local Levels.

Braun, V. and Clarke, V. (2006). Using Thematic Analysis in Psychology, Qualitative Research in Psychology. *Canadian Medical Association Journal*. vol. 3, pp. 77–101.

Chakraborty, N., Islam, M. A., Chowdhury, R. I., Bari, W. W and Akhter, H. H. (2003). Determinants of the use of Maternal Health Services in Rural Bangladesh. *Health Promotion International*, 18(4): 327-337.

Crombie, I. K., Irvine, L., Elliott, L. and Wallace, H. (2005). Closing the Health Inequalities Gap: An Internal Perspective. World Health Organisation, USA.

Delpeuch, F., Traissac, P., Martin-Pre, Y., Massamba, J. P. and Maire, B. (2000). Economic Crisis and Malnutrition: Socioeconomic Determinants of Anthropometric Status of Preschool Children and their Mothers in an African Urban Area. *Public Health Nutrition*, vol. 3, pp. 39-47.

Ensor, T. and Cooper, S. (2004). Overcoming Barriers to Health Access and Influencing the Demand Side through Purchasing. *Health Policy Plan*, vol. 19, pp. 69-79.

Galler, J. R. and Barrett, L. R. (2001). Children and Famine: Long_ Term Impact on Development. *Ambulatory Child Health*, vol. *7*(2), pp. 85-95.

George, A. S., Mehra, V., Scott, K., and Sriram, V. (2015). Community Participation in Health Systems Research : A Systematic Review Assessing the State of Research , the Nature of Interventions Involved and the Features of Engagement with Communities, 1–25. http://doi.org/10.1371/journal.pone.0141091

Ghana Health Service, (2007). Annual Report, Accra: Ghana Health Service, Accra.

Ghana Health Service, (2010). Interim National Guidelines for Community Based Management of Severe Acute Malnutrition in Ghana.

Ghana Statistical Service (GSS), Ghana Health Service (GHS) and ICF international, (2015). *Ghana Demographic and Health Survey 2014*. Rockville, Maryland, USA: GSS, GHS, and ICF International.

Ghana Statistical Service, (2004). Noguchi Memorial Institute for Medical Research (NMIMR), and ORC Macro.

Ghana Statistical Service, (2011). Ghana Multiple Indicator Cluster Survey with an Enhanced Malaria Module and Biomarker, 2011, Final Report. Accra, Ghana.

Ghana Statistical Service, (2014). 2010 Population and Housing Census. District Analytical Report. Northern Region.

Gonzalez, C. L. (1965). Mass Campaigns and General Health Services. Public Health Papers No. 29. Geneva: World Health Organization.

Grossman, M. (2000). The Human Capital Model. Handbook of Health Economics. A. J. Culyer and J. P. Newhouse. Amsterdam, North-Holland.

Heyd, H. and Neef, A. (2004). Participation of Local People in Water Management: Evidence from the MAE SA Watershed, Northern Thailand. EPTD Discussion Paper No. 128. Environment and Production Technology Division International Food Policy Research Institute 2033 K Street, N.W. Washington, DC, 2006, USA.

Hjelm, L. and Dasori, W. (2012). Ghana Comprehensive Food Security and Vulnerability Analysis, 2012: Focus on Northern Ghana. Roma: UN World Food Programme.

Hjortsberg, C. A. and Mwikisa, C. N. (2002). Cost of Access to Health Services in Zambia. *Health Policy Plan*, vol. 1, pp. 71–77.

Hoddinott, J., Rosegrant, M., and Torero, M. (2013). Investments to Reduce Hunger and Undernutrition. *Copenhagen Consensus 2012*, 1–69.

Horton, S., Alderman, H. and Rivera, J. A. (2009). Hunger and malnutrition. *Global Crises, Global Solutions: Costs and Benefits*.

Hutchinson, J., and Tremolieres, J. (1975). Agriculture and Nutrition. *Nature*, *254* (5496), 92–93. Retrieved from <Go to ISI>://WOS:A1975V829100001

Karl, M. (2000). Monitoring and Evaluating Stakeholder Participation in Agriculture and Rural Development Projects: A Literature Review. Rome: FAO, SD Dimensions.

Katharine, A., Hewitt, G., and Rifkin, S. (2010). Social Science and Medicine Chasing the Dragon : Developing Indicators for the Assessment of Community Participation in Health Programmes. *Social Science and Medicine*. http://doi.org/10.1016/j.socscimed.2010.05.016

Koasa-ard, M., Rayanakorn, K., Cheong, G., White, S., Johnson, C.A. and Kangsin,

P. (1998). Toward Public Participation in Mekong River Basin Development. Final Report. Thailand Development Research Institute, Bangkok.

Kumar, R. (1999). *Research Methodology: A Step-by-Step Guide for Beginners*. 2nd edition. New Delhi: SAGE publications; 1999.

Lu, N., Samuels, M. E., Kletke, P. R. and Whitler, E. T. (2010). Rural-Urban Differences in Health Insurance Coverage and Patterns among Working-Age Adults in Kentucky. *Journal of Rural Health*, vol. 26, pp. 129 – 138.

Miles M. B, and Huberman, A. M. (1994). Qualitative Data Analysis: An Expanded Sourcebook, 2nd edn. Thousand Oaks: Sage Publications.

Ministry of Health, (2007). National Health Policy. Ghana.

Muhammad, F. A. and Naleena, M. D. (2012). Nutritional Status and Eating Practices Among Children Aged 4-6 Years Old in Selected Urban and Rural Kindergarten in Senghor, Malaysia, *Asian Journal of Clinical Nutrition*, vol. 4(4), pp. 116-131. http://dx.doi.org/10.3923/ajcn.2012.116.131

Nikkhah, H. A. and Redzuan, M. (2009). Participation as a Medium of Empowerment in Community Development. *Europe Journal of Social Science*, vol. 11 (1), pp. 170–176.

O‟Donnell, O. (2007). Access to Health Care in Developing Countries: Breaking Down Demand-side Barriers. *Cadernos de Saude Publica*, vol. 23, pp. 2820– 2834.

Onah, H., Ikeako, L. and Iloabachie, G. (2009). Factors Associated with the Use of Elasticity of Healthcare services in Enugu, Southeastern Nigeria. *Social Science Medicine*, vol. 63(7), pp. 1870-1878.

Onokerhoraye, A. G. (1999). Access and Utilization of Modern Health Care Facilities in the Petroleum Producing Region of Nigeria: The Case of Bayelsa State. Research Paper No. 162. Takemi Program in International Health Harvard School of Public Health.

Pelletier, D. L. and Frongillo, E.A. (1995). The effects of malnutrition on child mortality in developing countries. *Bulletin of the World Health Organization*, vol. 73(4), pp. 443–448.

Peters, D. H., Garg, A., Bloom, G., Walker, D. G., Brieger, W. R. and Rahman, M. H. (2008). Poverty and Access to Healthcare in Developing Countries. *Acadamic Science*, vol. 1136, pp. 161-171.

Rifkin, S. B. (2014). Examining the Links Between Community Participation and Health Outcomes : A Review of the Literature, 98–106. http://doi.org/10.1093/heapol/czu076

Rifkin, S. B., Muller, F. and Bichmann, W. (1988). Primary Health Care On Measuring Participation. *Social Science and Medicine*, vol. 26(9), pp. 931- 940.

Sanson-Fisher, R.W., Bonevski, B., Green, L. W. and D"Este, C. (2007). Limitations of the Randomized Controlled Trial in Population-Based Health Interventions. *American Journal of Preventive Medicine*, vol. 33(2), pp. 155-161.

Ssewanyana, S., and Kasirye, I. (2012). Causes of health inequalities in Uganda : Evidence from the demographic and health surveys: 1995-2006.

Stewart, M. (1995). Effective physician-patient communication and health outcomes: A review. CMAJ 1995

Strasser, R., and Berry, S. (2016). Special Issue on Rendez-Vous 2012 Conference,

Community Participation in Health Professional Education. *Research and Service*, *27*(2), pp. 111–115. http://doi.org/10.4103/1357-6283.143726

Tekeste, A., Wondafrash, M., Azene, G. and Deribe, K. (2012). Cost Effectiveness of Community-Based and In-Patient Therapeutic Feeding Programs to Treat Severe Acute Malnutrition in Ethiopia. Cost Effectiveness and Resource Allocation. http://dx.doi.org/10.1186/1478-7547-10-4

UNICEF Global Nutrition Database, (2012). Based on Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys (DHS) and Other National Surveys.

UNICEF, (2006). Progress for Children: A Report Card on Nutrition (No. 4). UNICEF.

UNICEF, (2007). The State of the World"s Children 2007: Women and Children. UNICEF, New York.

UNICEF, (2009). Tracking Progress on Child and Maternal Nutrition. A Survival and Development Priority, New York, NY 10017, USA.

UNICEF, (2013a). Evaluation of Community Management of Acute Malnutrition /CMAM/:Global Synthesis Report, (May), 27.

UNICEF, (2013b). Ghana: Advocating for Development that Leaves no Child Behind, 4–37.

United Nations Millennium Project, (2006). About the Goals: What they are. Available at: http://www.unmillenniumproject.org/goals/

United Nations, (2000). Sub-Saharan Africa – the human costs of the 2015 „businessas-usual" scenario. Available at: http://hdr.undp.org/docs/events/ Berlin/ Background_ paper.pdf

USAID | DELIVER PROJECT, Task Order 1. (2009). *Planning and Implementing a Logistics System Design Activity*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Wagstaff, A., Bustreo, F., Bryce, J. and Claeson, M. (2004). Child Health: Reaching the Poor. *America Journal of Public Health*, vol. 94(5), pp. 726–736. An International Perspective. WHO

WFP and VAM Food Security Analysis, (2012). Comprehensive Food Security and Vulnerability Analysis, 2012: Focus on Northern Ghana.

WHO, (1999). Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers. WHO, England.

WHO, (2006). "WHO Child Growth Standards and the Identification of Severe Acute Malnutrition in Infants and Children" A Joint Statement by the World Health Organization and the United Nations Children"s Fund.

WHO, (2008). The World Health Report 2008. Primary Health Care- Now More Than Ever. WHO, USA.

WHO, (2013). Country Cooperation Strategy at a Glance. Available at http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_gha_en.pdf

WHO/UNICEF, (1978). Primary health care report of the international conference on primary health care, Alma- Ata, USSR, 6–12 September 1978. WHO, Geneva.

WHO/WFP/UNICEF/UNSCN, (2007). A Joint Statement on Community-Based Management of Severe Acute Malnutrition. Geneva and New York.

APPENDICES

Interview for Beneficiaries (Mothers and Fathers)

Demographics

1. Age of mother/father/ caregiver……years
2. Religion of respondent?

   A. Christianity B. Islam C. ATR D. Others (specify)……
3. Marital status of respondent

   A. Single B. Married C. Divorced D. Widow E. Separated

   F. Others (specify)…….
4. Ethnicity of respondent……
5. What do you do to earn income?

   A. Trader /Vender B. Agricultural worker (e.g. Farmer) C. Office worker (Civil Servant) D. Service Worker (e.g. Hair-dresser, seamstress) E. Education/ Research (Teacher) F. Healthcare (e.g. Nurse) G. Unemployed H. Others (specify)…….
6. Respondent‟s highest educational level completed

A. None B. Primary C. Middle/Junior High School D. Senior High School E. Vocational F. Training/Tertiary G. Others (specify) ……..

7. How many of your children under five years of age (6-59 months) live in your household? .....

Level of Community Participation Needs Assessment

1. How did you get to hear of CMAM/
2. Were your views solicited in assessing the community‟s needs? If yes, how?
3. Were your views solicited in designing CMAM? If yes, how?
4. Do you find the CMAM programme beneficial? Why?

5. In your opinion, is there a more urgent health need to you? (more urgent than a malnutrition programme)? If yes, how is it more urgent?
6. Please rate(tick) your overall involvement in the needs assessment of this health programme with

1(nothing) 2(small) 3(fair) 4(very good) or 5. (excellent)

With **1** being the lowest involvement in needs assessment and **5** being the highest

Leadership

7. Is there a community health committee?
8. If yes, do you know the composition of the health committee? (gender, social class etc)
9. Do you see this composition as affecting the programme? How?
10. Is the community involved in decision making together with the clinic"s/ centre"s health committee? Do you approve of the decisions result thereafter? Why?
11. Did you choose these leaders by yourselves? How did you choose them?
12. How do you assess the role of leadership in the implementation of CMAM?

    1(nothing) 2(small) 3(fair) 4(very good) or 5. (excellent)

    With **1** being the lowest involvement in needs assessment and **5** being the highest

Resource Mobilisation

13. Did you contribute any resource to the implementation of CMAM? If no, why? If yes, (move to question 14)
14. How did you contribute towards this programme?
15. What were the contributions made?
16. Was contribution segregated? Example: by social class, or gender?
17. Who decided what should be contributed?
18. Do you feel empowered/motivated by the contributions you made? Explain your answer
19. Please rate your overall involvement in resource mobilization for this health programme

1(nothing) 2(small) 3(fair) 4(very good) or 5. (excellent)
With **1** being the lowest involvement in leadership and **5** being the highest

Management

20. Do you perceive outside influence (from health implementers) on the decision making of the community health committee? Explain your answer?
21. Is decision making within the community health committee influenced by individual differences? (social status, gender, etc)
22. How do you judge the use of resources for the implementation of CMAM programme?
23. Are there any forms of capacity building for the community members or the committee to improve management and decision making?
24. How do you assess the competence of management in the implementation of CMAM?

    1(nothing) 2(small) 3(fair) 4(very good) or 5. (excellent)

    With 1 being the lowest score in management and 5 being the highest.

Organisation

25. Has CMAM successfully integrated itself into preexisting community structures that are into nutrition health? Explain.
26. What are some of these community structures that are in existence?
27. What are the structures and roles defined by management.
28. Please rate (tick) your overall assessment in the organization of this health programme with

    1(nothing) 2(small) 3(fair) 4(very good) or 5. (excellent)

    With **1** being the lowest involvement in needs assessment and **5** being the highest

Challenges and Motivation to Access CMAM

29. What challenges do you face in accessing CMAM? (Economic, social, communication, traditional, Cultural etc) How does it restrict you?
30. What motivates you to access CMAM? (Economic, social, communication, cultural etc) How does it motivate you?

Improving Access to CMAM

31. How do you think access to CMAM can be improved?

    (Economic, social, technical, communication, leadership, management wise, etc)

Interview for Community Leaders/ Key Informants

Level of Community Participation

Needs Assessment

1. How were you informed about CMAM?
2. Do you find CMAM beneficial? Why?
3. What were your contributions to the design of CMAM?
4. What were your means of communicating your decisions to your community?

Resource Mobilisation

5. How did you (community) contribute to establishing CMAM in your community?

Leadership

6. Does the community have a committee that discusses health issues with the clinic/centre? And does it update the community on the latest developments?
7. If yes, what is the composition of this committee? (which people who make up the committee)

Management

8. How does the community health committee make decisions that affect the implementation of CMAM?
9. Is there outside influence (from health implementers) on their decision making? Explain **Organisation**
10. How well has CMAM integrated into the already existing nutrition health structures in the community?

Improving Community Involvement

11. What can be done to improve your community"s involvement in CMAM? (Social, economic, cultural, political, etc)

Interview for CMAM Implementers

Level of Community Participation

1. What is the level of malnutrition in the community? **Needs Assessment**
2. How was CMAM first communicated to the community?

3. How were the community‟s views solicited in assessing its needs? **Resource Mobilisation**
4. What contribution did the community make toward this programme?
5. How was the process like?
6. In what ways does the community still contribute to this programme? **Leadership**
7. Is there a community health committee for this programme?
8. How did this leadership come about? **Management**
9. What is your influence on the decision making of this leadership body?
10. How do you discuss issues with the community? And how often? Is it a twoway sharing of information? **Organisation**
11. How has CMAM integrated itself into preexisting community structures that are into nutrition health?
12. What are some of these community structures that are in existence? **Challenges to Implementation of CMAM as a CMAM Implementer** 13. What are the challenges you face in implementing CMAM in the community?
14. How do these challenges affect the programme?

Interview for CMAM Community Health Volunteers

Level of Community Participation

1. What is the level of malnutrition in the community? Effects on the community? **Needs Assessment**
2. How was CMAM first communicated to the community?
3. How were the community‟s views solicited in assessing its needs? **Resource Mobilisation**
4. What contribution did the community make toward this programme?
5. How was the process like?
6. In what ways does the community still contribute to this programme? **Leadership**
7. Is there a community health committee for this programme?

8. How did this leadership come about? **Management**
9. What is your influence on the decision making of this leadership body?
10. How do you discuss issues with the community? And how often? Is it a twoway sharing of information? **Organisation**
11. How has CMAM integrated itself into preexisting community structures that are into health?
12. What are some of these community structures that are in existence?

Challenges to Implementation of CMAM as a Community Health Volunteer (CHV)

13. What are the challenges you face as a Community Health Volunteer in implementing CMAM?
14. How do these challenges affect the programme?