

MODULE SEVEN

Planning CMAM Services at the District Level

LEARNING OBJECTIVES HANDOUTS AND EXERCISES

1. Describe Key Elements of CMAM and Prepare for the Planning Process	Handout 7.1 Key Elements of CMAM Framework
2. Identify Key Components of a Situation Analysis and Conduct a Basic Situation Analysis	Handout 7.2 Case Study: Situation Analysis, Ghana Handout 7.3 Assessing the Nutrition Situation Handout 7.4 Mapping Matrices Handout 7.5 Capacity Grid for CMAM at the District Level Handout 7.6 SWOT Analysis for CMAM Handout 7.7 Example Capacity Grids for Outpatient Care at the Health Facility Level and for CMAM at the National Level
3. Develop a Logical Framework for CMAM	Handout 7.1 Key Elements of CMAM Framework Handout 7.8 Using a Logical Framework for CMAM Handout 7.9 Example Logical Framework for CMAM
4. Develop an Action Plan for CMAM	Handout 7.1 Key Elements of CMAM Framework Handout 7.10 Calculating Estimated SAM Cases Handout 7.11 Staff Needs, Roles and Responsibilities Handout 7.12 Calculating Estimated RUTF Needs Handout 7.13 Overview of Resources for CMAM Handout 7.14 Matrix for Action Planning
5. Plan for Special Cases: Transitioning and Contingencies	Handout 7.15 Matrix for Transition Planning of CMAM Handout 7.16 Guidance for Contingency Planning for CMAM
Wrap-Up and Module Evaluation	

HANDOUT 7.1

KEY ELEMENTS OF CMAM FRAMEWORK

KEY ELEMENTS FOR CMAM

1. ENABLING ENVIRONMENT FOR CMAM
Ministry of Health (MOH) leadership
MOH coordination
CMAM integration into national health and nutrition policies and strategic plans
National CMAM guidelines
National database and repository
CMAM support unit
Sustainability of funding
Free treatment for children with severe acute malnutrition (SAM)
Contingency planning
2. ACCESS TO CMAM SERVICES
Initial implementation of learning sites and gradual scale-up of CMAM services
Inpatient care in health facilities with 24-hour care capacity
Expanded outpatient care in decentralized health facilities
Referral system between inpatient and outpatient care
Qualified health care providers
Community outreach for community assessment and mobilization, active case-finding and referral
CMAM integration into routine health services
CMAM linkages with informal health systems
CMAM linkages with other community services and safety nets
3. ACCESS TO CMAM SUPPLIES
Procurement of CMAM supplies
Management of CMAM equipment and supplies
National production capacity for ready-to-use therapeutic food (RUTF)
4. QUALITY OF CMAM SERVICES
Adherence to standardized treatment protocols
Support and supervision
Monitoring of individual care
Monitoring of service performance
Evaluation of services, including coverage
5. COMPETENCIES FOR CMAM
Pre-service training
In-service training
Learning sites and visits
Accountability for health care providers (e.g., job description, roles, responsibilities)
Information exchange
Research

HANDOUT 7.2

CASE STUDY: SITUATION ANALYSIS, GHANA

7.2

This situation analysis was conducted in August 2007 in preparation of a pilot project to introduce CMAM into the Ghana Health Service (GHS). It provided an overview of the nutrition situation and how undernutrition is addressed in Ghana. At a later stage, after the pilot districts were identified, the situation analysis was repeated at the district level, providing more detailed information for CMAM planning at the district level.

I. NUTRITION SITUATION IN GHANA

The 2006 Multiple Indicator Cluster Survey (MICS)¹ shows an 18 percent prevalence of underweight (weight-for-age [WFA]) and a 22 percent prevalence of stunting (height-for-age [HFA]) among children under 5. Wasting (weight-for-height [WFH]) affects 5 percent of children under 5. No information is available on the prevalence of bilateral pitting edema, but a relatively high incidence of kwashiorkor is expected as numerous cases are reportedly admitted to referral hospitals, especially during the lean period (March through September). Acute malnutrition is highest in the three northern regions (Upper East, Upper West and Northern), in the east (Volta region) and in Greater Accra, where levels can be more than double the national average. Globally, Ghana has the 15th highest burden of children suffering from severe wasting.²

The table below presents the results of nutrition surveys conducted in different regions of Ghana. None of the surveys measured bilateral pitting edema or mid-upper arm circumference (MUAC).

Table 1. Undernutrition Rates of Priority Regions in Ghana (indicators based on the NCHS references)

Source (age group)	Date	Geographic Area	Severe Wasting (% < -3 z-score)	Wasting (% < -2 z-score)	Stunting (% < -2 z-score)	Underweight (% < -2 z-score)
DHS (0-59 months)	Aug/Oct 2003	National	1.3	7.1	29.9	22.1
		Upper East Region	2.4	12.9	31.7	32.4
		Upper West Region	2.6	11.0	34.1	25.9
		Northern Region	1.0	6.6	48.8	35.5
		Volta Region	3.1	13.9	23.3	25.7
		Greater Accra Region	2.7	7.2	13.9	11.5
		Central Region	0.0	3.0	31.6	22.0
MICS (0-59 months)	Aug/Oct 2006	National	0.9	5.4	22.4	17.8
		Upper East Region	2.8	11.6	28.4	29.1
		Upper West Region	0.3	7.7	22.5	19.1
		Northern Region	1.1	7.1	30.5	26.8
		Volta Region	2.1	4.8	20.9	20.3
		Greater Accra Region	1.1	3.1	7.7	9.8
		Central Region	0.0	3.7	26.4	16.3
GHS (0-59 months)	2005	Dangbe East District, Greater Accra Region	NA	9.4	NA	NA
		Ga District, Greater Accra Region	NA	9.9	NA	NA

¹ Ghana Multiple Indicator Cluster Survey 2006, Ghana Statistical Service, February 2007.

² Wasting time for wasted children: severe child undernutrition must be resolved in non-emergency settings, Viewpoint, R. Gross and P. Webb, The Lancet, 2006; 367:1209-1211.

2. CAPACITY FOR CMAM

2.1 Enabling Environment for CMAM

Ghana Health System Organization

The Ghanaian health system is administered through three primary bodies: The Ministry of Health (MOH), the GHS and private and mission health facilities. The MOH is responsible for national health policy formulation, resource mobilization and health service delivery regulation. It also is responsible for physician pre-service curriculum and training. The three physician teaching hospitals are part of the MOH but have some degree of autonomy. The GHS, an autonomous body, is responsible for health care provision, in accordance with MOH policies, through public non-teaching hospitals and health centers. The GHS provides in-service training and develops guidelines and plans for implementing national policies. Private and faith-based health facilities, such as mission hospitals, administer about 40 percent of health care services in the country. While independent, these facilities are bound by national MOH policies and GHS guidelines, and they submit statistics to the GHS.

The GHS is organized into eight divisions, encompassing administrative, financial and care services. Health services are covered under two divisions: Institutional Care, which covers clinical services, and Public Health, which covers maternal and child health and nutrition (MCHN). The Public Health division is divided into three departments: Family Health, Health Promotion, and Disease Surveillance and Control. The Family Health department comprises the Nutrition Unit and the Reproductive and Child Health Unit. The Nutrition Unit has assigned officers for supplementary feeding, infant and young child feeding (IYCF) and micronutrient supplementation and fortification. At the regional and district levels, there are assigned nutrition officers, while at the sub-district levels, a health director is in charge of nutrition and other health activities.

Health and Nutrition Policies

The MOH five-year Programme of Work outlines national priority health and nutrition programs. In the 2007 Annual Programme of Work, there is a strong focus on preventive nutrition through essential nutrition actions (ENAs), IYCF and micronutrient fortification and supplementation. The Programme of Work specifies facility- and community-based management of malnutrition, without further defining it.

Nutrition priorities of the GHS are outlined in a strategy document entitled "Imagine Ghana Free of Malnutrition." Like the MOH Programme of Work, it has a strong emphasis on prevention, but with an overall objective "to contribute to the reduction of malnutrition." Specific objectives are "to provide curative services to individuals who are ... malnourished" and "to improve the management of children with protein energy malnutrition." As with the MOH Programme of Work, the term "malnutrition" is not defined.

Nutrition is a priority for the MOH. Overall, severe acute malnutrition (SAM) is a recognized medical priority that must be addressed. The Nutrition Unit of the GHS has strong interest in CMAM but lacks the capacity to lead the process of strengthening CMAM services. Most key nutrition stakeholder agencies were represented at the United States Agency for International Development (USAID)- and Food and Nutrition Technical Assistance Project (FANTA)-organized meeting on August 23, 2007, in Accra, and all expressed keen interest and support for strengthening CMAM services.

Other GHS health priorities and strategies include the Expanded Programme of Immunization (EPI), integrated management of childhood illness (IMCI), Guinea worm eradication, and provision of antiretroviral therapy (ART) for HIV.

National CMAM Guidelines

There are national CMAM guidelines in Ghana. A policy for nutrition rehabilitation, written in 1995, was a significant step that should be updated. Hospitals and nutrition rehabilitation centers (NRCs) might have their own treatment protocol, but they are not standardized and vary by facility. Consequently, undernutrition is frequently described in non-specific terms, ranging from underweight to weight loss to wasting, leading to acute malnutrition not being identified, referred or treated in a uniform manner.

Information, Research and Documentation

Nutrition surveillance is weak, with most information obtained from growth monitoring (WFA). Information on wasting (WFH or MUAC) and bilateral pitting edema is lacking.

Some information and experience sharing related to nutrition does occur through an inter-agency nutrition technical working group, which is regularly organized by USAID/Ghana for donor agencies, the United Nations (UN) and some nongovernmental organizations (NGOs).

The University of Ghana's Department of Nutrition and Food Science, in partnership with the University of California at Davis, is conducting research on lipid-based nutrient supplements (LNS) for complementary feeding. Other research institutions in Ghana conducting health, nutrition and medical research include the Food Research Centre, the Noguchi Memorial Institute for Medical Research (part of the University of Ghana, College of Health Sciences), the GHS Health Research Unit and the Kintampo and Navrongo Health Research Centres.

Funding Availability

USAID's implementing partners support the Community-Based Health Planning and Services Initiative (CHPS) and the GHS in general. The Japanese International Cooperation Agency is also supporting the expansion of CHPS coverage. The United Nations Children's Fund (UNICEF) supports the Catholic Relief Services (CRS) Integrated Nutrition Action Against Malnutrition (INAAM) programme in the Upper West region. Moreover, the United Nations Children's Fund (UNICEF) committed funds to procure locally produced ready-to-use therapeutic food (RUTF) in 2008. There is currently no funding in Ghana for training or for procuring therapeutic supplies, including therapeutic foods (e.g., therapeutic milks, RUTF). The World Bank is about to provide US\$15 million for nutrition programming, which will be managed by the GHS.

2.2. Access to Health Services for CMAM**Inpatient Care**

Hospitals in Ghana provide services for treatment of acute malnutrition but have no standardized treatment protocol in place. Nutrition rehabilitation is based on an improved milk diet. About 10 of the 42 NRCs provide residential (i.e., inpatient) care based on administering an improved diet of enriched porridge and local foods. No NGO programmes provide inpatient treatment of SAM.

Outpatient Care

Undernutrition is managed through outpatient services at the 42 (number is uncertain) NRCs providing an improved diet of enriched porridge and local foods. CRS provides outpatient care for SAM with UNICEF support in Upper West region (see section 3 below).

Health Care System

The country comprises 10 regions, divided into 139 districts. Each region has a regional hospital, which is the highest referral level within the health system. District hospitals operate at the district level, though they vary in levels of staffing and equipment. Some new districts lack hospitals. Districts are further

divided into sub-districts, which have health centers. Health centers are headed by nurses and have other ancillary staff. Some larger urban health centers, called polyclinics, are staffed with physicians.

The GHS operates at each administrative level through regional health directorates, district health directorates and sub-district health directorates. Services for children under 5 were recently mandated to be free of charge, though this has not been uniformly applied, and central-level reimbursement to facilities has not yet occurred. Consequently, some facilities must charge for services to children under 5. A new national health insurance scheme covers costs of care for the indigent, who must be enrolled in the programme. Several of the health facilities FANTA visited actively encourage or even assist patients in enrolling in the insurance plan. However, the cost of obtaining a photo needed for the insurance card was frequently cited as an obstacle to registration.

Beyond the sub-district level, community-level health services are provided through different mechanisms. Two of the more-developed mechanisms include child welfare outreach points and CHPS zones. First, health centers might operate monthly child welfare outreach services at a community structure or under a tree, where nurses and community volunteers conduct monthly growth monitoring and promotion (GMP) of children under 5, ante- and post-natal care, EPI, treatment of minor illnesses, health and nutrition education, first aid and referral. FANTA observed 50 to more than 100 mothers and children at each of the outreach points visited. There is strong and effective community mobilization to promote participation in the monthly services.

Next, CHPS zones include communities of 3,000 to 4,500 people (generally one to three communities), to which a community health officer¹ is assigned to provide primary health care (PHC) services out of a CHPS compound (the nurse's home and office, built by the community) and through frequent follow-up home visits. The community health officer is supported by a number of community health volunteers selected by a community health committee that consists of community leaders, women's and youth groups, traditional birth attendants and others. Not all health centers provide child welfare outreach services, and while CHPS zones have been planned nationally, coverage of active zones—i.e., those assigned a trained and equipped community health officer with active volunteers—is still very limited, with a concentration of active zones in the Upper East region. Currently, in most districts within the country, less than 10 percent of CHPS zones are active. The GHS is working toward obtaining 100 percent coverage in all districts in Ghana by 2015.

Undernutrition is treated through inpatient care in hospitals and through inpatient or outpatient care at NRCs, which generally have high default rates. The lack of national CMAM guidelines translates into nonstandardised treatment and non-uniform admission criteria, ranging from low WFA to low WFH to weight loss to visible wasting. Consequently, undernutrition screening at these facilities does not always target or identify the acutely malnourished, thereby impeding access. Hospitals tend to admit severely acutely malnourished children to the paediatric wards or assign a specific malnutrition ward. For instance, the Princess Mary Louise Children's Hospital in Accra has assigned one of their four wards for cases of severe undernutrition. At the time of the visit, over one-quarter of all the inpatients who were admitted were children with severe undernutrition.

The NRCs, some of which provide residential (inpatient) nutrition care, tend to be clustered in more urban areas. Referral from hospital-based inpatient services to NRCs for continued outpatient nutrition rehabilitation of stabilised cases is done only when a nearby NRC exists. NRCs with day programmes do refer cases with serious illness back to inpatient care at the hospital level. In the NRCs, mothers/

¹ A community health officer is a community health nurse or midwife with additional training.

caregivers of the malnourished children prepare the improved food with guidance and education from the staff.

Thus, there is a well-developed health care delivery system in Ghana from community-based child welfare outreach points and CHPS zones providing primary health care, to sub-district and district health centers and hospitals providing primary and secondary health care. There is good potential to address SAM in inpatient and outpatient care in this structure.

Staffing

Hospitals and health centers generally have adequate staffing, with some exceptions in the new districts. Health centers conduct community outreach through outreach satellite points or through CHPS zones. Health centers have state-registered nurses, community health nurses and/or midwives. As noted, CHPS zones are staffed by one community health officer. In a recent initiative, the Ministry of Manpower, Youth and Employment has hired and trained senior secondary school students to become extension workers. These students conduct tasks for different government agencies, with health as one of the sectors, thus becoming health extension workers (HEWs).

NRCs are supposed to be staffed by one nutrition officer (requiring a bachelor's degree) and one nutrition technical officer (requiring a two-year diploma). In reality, they often have just one officer, usually the less-qualified nutrition technical officer. A nurse may run the NRC. The NRC health worker may be assisted by community volunteers or HEWs.

The community outreach activities often benefit from the supplemental contribution of community health volunteers and community health committees.

Community Screening and Referral Systems

Community screening for acute malnutrition has been limited to child welfare outreach points organised from the health centers, using weight loss or visible wasting as evidenced on a WFA growth chart.

While referral of cases between hospitals and NRCs does occur, NRC links with the communities are nonexistent. Community screening and referral of SAM cases to NRCs would be a challenge in the absence of an institutionalized community outreach system. Moreover, active community screening of SAM would imply an increased caseload, a situation with which the NRC would have difficulty coping. Without community outreach for early detection, referral and follow-up of cases through HEWs or community health nurses and officers linked with community volunteers, it would be difficult for the NRCs to take up outpatient care for SAM.

2.3. Access to CMAM Supplies

Therapeutic foods such as F75, F100, combined mineral and vitamin mix (CMV) and ReSoMal are not available in Ghana. Hospitals and NRCs prepare and administer improved milk recipes, cereal-based porridges and local foods as an improved diet, though this diet lacks the micronutrient content and energy density to be considered therapeutic foods. Even when these institutions produce improved foods, insufficient quantities require that they be administered as a supplement to porridges. NRCs tend to provide two to three wet meals daily, requiring mothers/caregivers to bring their children to the centre between 8 am and 2 pm Monday through Friday. This burden results in high default rates, infrequent attendance and high relapse rates as children will not fully recover despite the weight gain.

Some health professionals have been very innovative. Several initiatives prepare fortified milks and foods based on the F75, F100 and RUTF formulae from the World Health Organization (WHO) guidelines. However, due to the lack of CMV, the actual F75, F100 or RUTF formulae are not achieved.

One nutritionist had a local pharmacy producing a mineral mix to mimic CMV, which turned out to be incomplete and very expensive. The Princess Marie Louise Children's Hospital in Accra produces a peanut butter paste in its kitchen based on the RUTF recipe, with an incomplete mineral and vitamin mix. The hospital produces 5 kg of peanut paste every two days that is neatly packed in plastic containers with lids.

An estimate of the expected RUTF needs for the treatment of **all** severe acutely malnourished children under 5⁴ in Ghana in one year would be **958 metric tons**. Calculations are based on the estimated point prevalence rate of SAM augmented by the expected yearly incidence rate, the daily provision of 200 kilocalories of RUTF per kilogram of body weight, an average weight of the affected child population of 8 kg and an average length of treatment of eight weeks. However, it is never expected that CMAM services would cover the entire country or achieve national coverage during the initial years of implementation. On the contrary, CMAM services are expected to start at learning sites and target specific and limited populations in specific locations before gradual scale-up.

WFP provides a fortified supplementary food (e.g., corn-soy blend [CSB])—not a therapeutic food—for use in wet feeding at some of the NRCs. There is a history of producing a fortified blended food (FBF) called Weanimix⁵ in Ghana. Some of the hospitals and health centers have been provided mills for producing these local blends as well as for additional income generation from the milling.

The system of provision of essential drugs is generally well established. Procurement of drugs is organised through central medical stores. No stock-outs in the drug supply were reported in the places that were visited.

Hospitals and NRCs lack infant weighing scales and sometimes infanto-meters (height boards). Patient registers, patient records and statistical forms are not standardized and depend on individual facility efforts.

In contrast, the CRS INAAM program has sufficient therapeutic food and measuring equipment. However, its medical treatment protocol does not include drugs for treating underlying infections. The programme uses MUAC for community screening; however, the MUAC tapes it uses are colour-coded with red measuring up to 125 mm—identifying moderate acute malnutrition (MAM) and SAM—while the cutoff point for severe wasting in use is 115 mm (above the more commonly accepted 110 mm). In addition, this programme has access to 16 metric tons of imported RUTF (Plumpy'nut), of which a certain quantity is ready-to-use supplementary food (RUSF; e.g., Supplementary Plumpy), whose use in the program is unclear.

2.4. Quality of CMAM Services

Due to the lack of national guidelines for CMAM, there are significant variations across facilities in terms of admission and discharge criteria, treatment protocol, patient registration, individual record-keeping and programme monitoring. There is neither a national system of data collation nor surveillance. The ad hoc approach has significant implications for the quality of the individual treatment and for the quality and consistency of the services. For instance, admission and treatment might be based on WFH, WFA, visible wasting or bilateral pitting edema, weight loss or severe clinical anaemia. Target weights or target WFH (z-score or percentage of the median) generally are not documented in patient registers or records. As a result, progress is often subjectively interpreted as any consistent weight gain, which means discharge criteria are not standardized. While staff might perform competently—i.e., follow the limited guidelines they have—they are significantly hampered by the lack of guidelines.

³ A community health officer is a community health nurse or midwife with additional training.

⁴ RUTF is not administered to children under 6 months; however the RUTF estimates are based on children 0 to 59 months and are therefore slightly overestimated. Neither the Demographic and Health Survey (DHS) nor the MICS provide wasting prevalence rates for the 6- to 59-month-old age group.

2.5. Competencies for CMAM

The June 2007 training workshop was the first introduction to the WHO protocol for the management of SAM.

The lack of national CMAM guidelines equates to inadequate pre- and in-service training (and curricula) for physicians, nurses and nutrition officers. While some facilities benefit from staff that had access to the WHO protocol from the Internet or elsewhere or conducted on-the-job training after the June 2007 workshop, there are no formal curricula or training programs.

The GHS has not profited from the presence of NGO programs for CMAM as seen in countries with recurrent emergencies and high inputs of international expertise (e.g., Ethiopia, Malawi, Niger, Sudan).

3. MAPPING OF HEALTH, NUTRITION AND COMMUNITY ACTIVITIES AND PROGRAMMES

3.1. Outpatient Care for SAM

The CRS (and UNICEF) INAAM program in Upper West region covers 108 target communities in four districts and provides 1,000 kilocalories daily of RUTF free of charge to children 6 to 36 months with a MUAC below 115 mm. A food ration (CSB and vegetable oil) is also given as an incentive to all children attending monthly growth monitoring and promotion services.

3.2. Blanket Supplementary Feeding Programme

The World Food Programme (WFP) supports a blanket supplementary feeding programme (SFP) in the three northern regions in 138 centers covering 170 communities in 17 districts. Pregnant and lactating women (about 10,000) and children 6 to 23 months (about 14,000) receive a monthly dry take-home ration (e.g., CSB, wheat flour) during the lean season from March through September. Children 2 to 5 years (about 36,000) receive wet rations (breakfast and lunch) prepared at the feeding centers by volunteer mothers Monday through Friday year-round. Health services offered at the feeding centers include health and nutrition education, vaccination, deworming and micronutrient supplementation.

In addition, a preschool is organized for 4- and 5-year-olds if community volunteers are available. Inputs from the communities are requested in the form of labour and food supplies, such as additional ingredients. WFP procures two-thirds of the food for the SFP locally, with an agreement that 100 percent will be purchased within Ghana by 2010. It is expected that the Ghana government will take over the program in 2010.

3.3. Other Health and Nutrition Programmes

Child survival activities fall under High Impact and Rapid Delivery (HIRD) interventions, supported in part by UNICEF. HIRD activities include promotion of breastfeeding and complementary feeding, distribution of insecticide-treated nets (ITNs), use of oral rehydration solution and other services that address the primary causes of mortality for children under 5. There is a strong emphasis on addressing Millennium Development Goals (MDGs) in Ghana's health system, particularly in reducing child mortality (MDG 4).

USAID-supported programmes include:

- The Community-Based Health Planning and Services Initiative – Technical Assistance (CHPS-TA), a Population Council program, provides support to the national-level CHPS programme in the 30 USAID priority districts in the seven southern regions. It has updated job descriptions for community health officers and volunteers, developed curricula for community health officer schools and updated the community health officer in-service training manual.
- The Ghana Sustainable Change Project (GSCP), an Academy for Educational Development (AED) project, supports communication and social marketing activities in more than 100 sub-districts of the

30 USAID priority districts. GSCP has developed communication materials (e.g., posters, pamphlets, counselling cards) and training materials, as well as behaviour change communication (BCC) messages, primarily focused on reproductive health, child health (particularly IYCF) and HIV/AIDS care and support. GSCP engages communities through community mobilization campaigns organised through national level stakeholders, regional coordination committees, district level advocacy and sub-district action.

- The Quality Health Partners (QHP) programme of EngenderHealth helps the GHS improve the quality of reproductive and child health services. Recent activities include developing a rapid integrated management of childhood illness (IMCI) course with a shortened curriculum, incorporating IMCI into the national pre-service training curricula for nurses and medical assistants (ancillary position below a nurse), developing quality assurance questionnaires and tools, and supporting regional planning workshops for HIRD interventions.
- Opportunities Industrialization Centers International (OICI) conducts a food security and MCHN programme in northern Ghana. Activities include health and nutrition education, GMP, distribution of incentive food rations for BCC session participants, deworming, and training of community health agents.

Programmes run by World Vision, the Adventist Development and Relief Agency, CRS and others have nutrition components, such as nutrition education, promotion of exclusive breastfeeding (EBF) and complementary feeding practices, and Positive Deviance (PD)/Hearth.

4. SWOT ANALYSIS FOR CMAM

A group of stakeholders involved in nutrition activities in Ghana – comprising the GHS, donors (USAID, the Dutch Embassy), UNICEF, WHO, WFP and NGOs – conducted a brainstorming exercise in August 2007 to review the capacity of the Ghanaian health system in order to introduce CMAM. An analysis of strengths, weaknesses, opportunities and threats (SWOT) was conducted (see the next page) reflecting the following areas:

1. Capacity of the Ghanaian health system for CMAM
2. Capacity for quality CMAM services
3. Human resources development for CMAM
 - a. Capacity of health planners and managers
 - b. Capacity of physicians, nurses (SRN, CHN/CHO, PHN), nutrition officers and nutrition technical officers
4. Capacity of the enabling environment for CMAM

SWOT ANALYSIS FOR CMAM (GHANA, AUGUST 2007)

<p>STRENGTHS</p> <ul style="list-style-type: none"> ▪ Community outreach points <ul style="list-style-type: none"> - CHPS zones - Health volunteers - Other community programmes ▪ Free treatment for children under 5 (policy) ▪ NGO presence 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> ▪ No national guidelines or treatment protocols for SAM ▪ Therapeutic feeding supplies unavailable (e.g., F75, F100, RUTF) ▪ No teaching curriculum for SAM (pre-service or inservice) ▪ Lack of equipment (e.g., infanto-meters, scales, MUAC tapes) ▪ Not enough staff ▪ Staff skills and knowledge insufficient ▪ Community awareness of SAM insufficient
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> ▪ Government awareness <ul style="list-style-type: none"> - MOH plan of work to address undernutrition - GHS strategy document ▪ Development partners are interested and committed <ul style="list-style-type: none"> ▪ Community structures: <ul style="list-style-type: none"> - District assemblies/government structures can be engaged - Mother-to-mother support groups ▪ Training could be mainstreamed: in-service and preservice ▪ Other strong nutrition programmes (e.g., promotion of exclusive breastfeeding) 	<p>THREATS</p> <ul style="list-style-type: none"> ▪ Funding <ul style="list-style-type: none"> - Availability - Cost of therapeutic foods: F75, F100, RUTF - Sustainability ▪ Barriers <ul style="list-style-type: none"> - Existing resistance to accessing health services and to long inpatient stays - Acceptability of RUTF <ul style="list-style-type: none"> ▪ Underlying conditions - Food insecurity and poverty - Limited access to clean water and sanitation ▪ Vertical program approach

5. CONCLUSION: DETERMINED NEEDS

The situation analysis confirmed the need to introduce CMAM into Ghana’s health system in a phased manner.

HANDOUT 7.3

ASSESSING THE NUTRITION SITUATION

A. FOR EMERGENCY SETTINGS

7.3

Prevalence of acute malnutrition (nutrition surveys) may be used to indicate whether a CMAM programme is needed. However, to better understand the nutritional status of a population and see the big picture, other data and information should be used in addition to prevalence data.

The decision to start a programme to treat acute malnutrition is often based on large numbers of severely malnourished children who need life-saving treatment. Prevalence of acute malnutrition (global acute malnutrition [GAM] and severe acute malnutrition [SAM] rates) can provide a good idea of what is going on at that time. In the past WHO used a decision chart based on prevalence rates of wasting to determine when selective feeding programmes were needed. WHO cutoffs for wasting¹ and mortality rates are still used to indicate a possible emergency, which should be investigated and addressed if necessary.

As a rule of thumb, a GAM rate of more than 15 percent and SAM of more than 2 percent and/or a crude death rate (CDR) > 1/10,000/day might indicate an emergency and suggests further investigation is needed to determine if an emergency nutrition intervention is justified. High GAM and SAM rates might occur in situations that are not considered emergencies. For example, prevalence of acute malnutrition is always high in India and Bangladesh. SAM levels often increase sharply during certain seasons and might be high enough on an annual basis to justify provision of treatment of SAM as part of the routine health services for children under 5. GAM of 5 percent and SAM of less than 1 percent are considered normal for a developing country. The levels of GAM relative to SAM should also be considered. This might provide some indication of what is going on. For example, in some countries, HIV has contributed to increasing SAM among children in recent years where previously SAM was not a significant problem (e.g., Mozambique, Zambia, Kenya).

- **If GAM is high and SAM is relatively low:** It is likely the causal factors are primarily (but not only) due to insufficient access to food (N.E. Kenya).
If GAM is very high and SAM low, this could be due to high mortality related to SAM.
- **If GAM and SAM are both high:** This is likely to be due to a combination of food shortages and insufficient health and care practices (Niger, Bangladesh).
- **If SAM is high and GAM is relatively low:** This is likely to be due to disease, particularly HIV (Mozambique, Zambia).

The nutrition situation is also considered serious if GAM is between 10 percent and 14 percent and there are aggravating factors such as a general ration that is below the mean energy requirement, an epidemic of measles or whooping cough, a high incidence of respiratory infections or diarrheal disease and/or a CDR > 1/10,000/day. (WHO. 2000. *Management of Malnutrition in Major Emergencies*. Geneva: WHO.)

B. FOR DEVELOPMENT SETTINGS

In development settings, it is important to determine the nutrition situation in the community, district, region or country where you will be working. Service or Programme planners should gather important nutrition information using existing resources such as the Demographic and Health Surveys (DHS), the UNICEF Multiple Indicator Cluster Surveys (MICs) and any surveys done locally or nationally by the government, district or NGOs. Key data include prevalence of moderate and severe wasting, underweight, stunting and, if available, bilateral pitting edema. It might also be useful to gather information on illness and micronutrient deficiencies.

Example Nutrition Information from Secondary Sources*

Source	Age Group	Date	Geographic Area	% Wasting (weight-for-height < -2 z-score)	% Severe Wasting (weight-for-height < -3 zscore)	% Stunting (height-for-age < -2 zscore)	% Underweight (weight-for-age < -2 zscore)
DHS	0-59 months						
District Health Office	0-36 months						
NGO	6-59 months						

* Specify if prevalence estimates are based on National Centre for Health Statistics (NCHS) Reference Population or WHO Growth Standards are used and provide prevalence estimates with 95% confidence intervals.

The above information allows planners to determine how critical the nutrition situation is in the districts or regions for which they are planning. The table below is a WHO reference to determine the significance of the nutrition problem, based on anthropometry. This is just one method of classifying the urgency of a problem; other factors must also be considered.

Prevalence Range WHO Uses to Categorize the Public Health Significance of the Prevalence of Different Measures of Undernutrition*

	% Stunted (height-for-age) **	% Wasted (weight-for-height) **	% Underweight (weight-for-age) **
Low (Acceptable)	< 20	< 5	< 10
Medium (Poor)	20-29	5-9	10-19
High (Serious)	30-39	10-14	20-29
Very High	≥ 40	≥ 15	≥ 30

* The above categorization is not based on correlations with functional outcomes; it simply reflects a convenient statistical grouping of prevalence levels from different countries. (WHO. 1995. Physical Status: The use and interpretation of anthropometry, WHO Technical Report Series.)

** These indicators are expressed as <-2 z-score.

C. TRIANGULATE DATA

When looking at prevalence rates, it is also important to **look at several other sources of information and data**. This is often called **triangulation**.

A joint agency initiative known as Standardized Monitoring and Assessment for Relief and Transition (SMART) has developed a standard methodology and protocol for conducting survey and assessments that incorporate nutrition prevalence data, mortality rates and food security. SMART has been developed for use in crises, but the recommendations for analysis in context apply to non-emergency situations (www.smartindicators.org).

1. Trends over time to see what is “normal”: In many countries, there is a seasonal peak for acute malnutrition at the same time every year. For example, in Malawi, seasonal prevalence of SAM begins to rise in December and fall in April in the pre-harvest season. This happens every year. Looking at trends is important because it can:

- Show what is considered “normal” for the context
- Help determine when to plan for expected increases in admissions (increased caseload during peak seasons)

When prevalence and/or admissions increase outside of normal peak periods, this can indicate a possible crisis or changes in access to food and should be investigated. In Malawi, for example, when SAM rates began to creep up in October 2005—well before the seasonal peak—it was clear that this was not the norm. The increase was due to total harvest failure in some areas.

2. Admissions to therapeutic and/or supplementary feeding: Unexpected increases in the number of admissions (e.g., above previous years and/or outside of normal seasonal peaks) can be a useful early indicator of an impending crisis. For example, in Niger in 2005, admissions to therapeutic feeding began to increase sharply much earlier than would be expected. This information can help planners prepare for increased caseloads.

3. Surveillance data (routine screening, growth monitoring and health surveillance data): Severely malnourished children might be detected and referred through ongoing screenings or routine growth monitoring. Health surveillance data can provide information on disease outbreaks and epidemics.

4. Death (mortality) rates: It is vital to know whether death rates are above acceptable levels. In extreme cases, prevalence rates might appear low due to high mortality rates.

5. Morbidity rates and trends: There might be seasonal trends for illnesses such as diarrhea and malaria or there might have been a recent epidemic (e.g., measles, whooping cough). This could temporarily lead to a sharp increase in the number of acutely malnourished children.

6. Contextual analysis: It is important to look at what is going on in the community. Some key questions to ask are:

- Are there population movements that could lead to a sudden influx?
- Are there hot spots where acute malnutrition is always higher than other areas?
- Are other services or programmes being implemented?

D. CAUSES OF UNDERNUTRITION IN THE COMMUNITY

In addition to triangulating data and information to confirm their accuracy, it is useful to understand the causes of undernutrition (UNICEF, see **Module 2, Handout 2.1 Causal Framework of Undernutrition**) and the significance of factors that contribute to undernutrition. This will help planners to better tailor CMAM services to the needs of the community. Below are examples of information to access and triangulate, by source.

Population surveys: 6-59 months population size and structure, geographic differences, prevalence of illness (diarrhea, measles, malaria, acute respiratory infections), disease outbreaks, care and feeding practices, health service provision, access to health services

Surveillance and early warning systems: Seasonal norms and patterns, food security information, household food availability and consumption patterns, household food access, household food diversity, trends (according to seasonal norm)

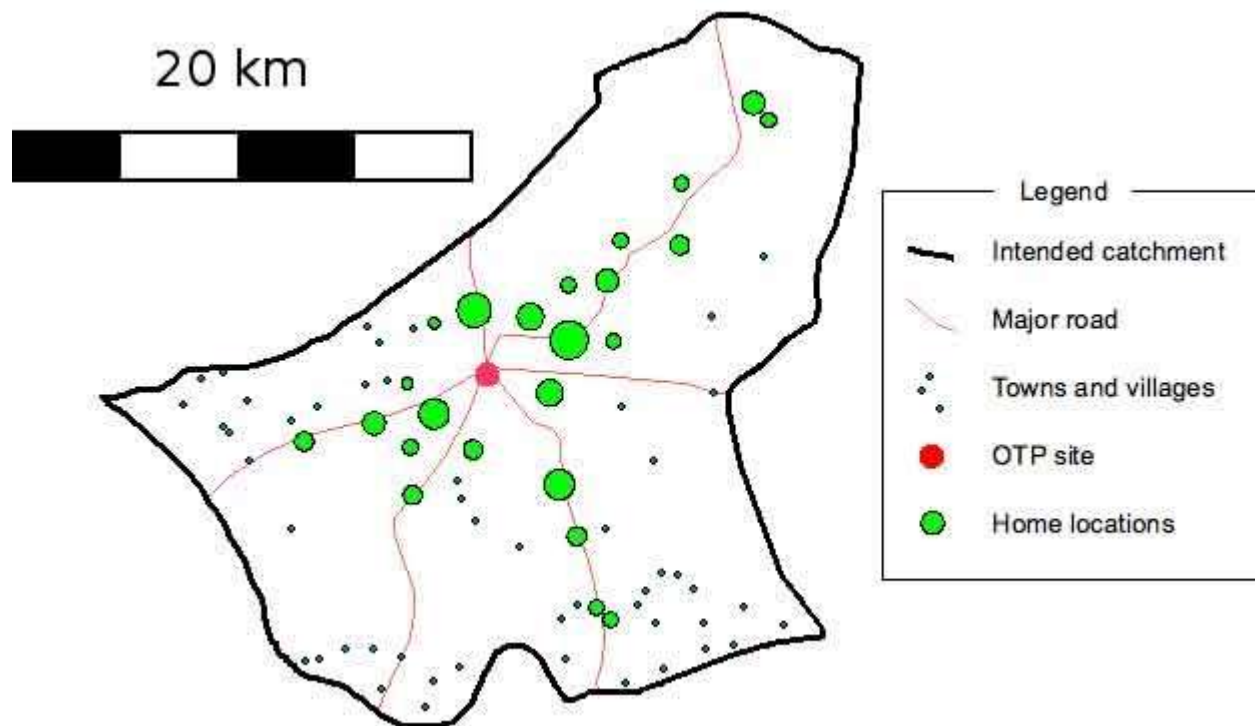
Other sources: Care and feeding practices, community norms, barriers to access, causes of defaulting learned from survey reports, focus group discussions, key informant and individual discussions, reports, publications or other sources

HANDOUT 7.4 MAPPING MATRICES

It is important to know and map how the district health system is structured, what other services and initiatives exist and who is doing what, where and how. CMAM services should complement and link with existing programmes. Use the matrices below and separate sheets to describe or list this information.

Develop a spatial map of the district showing district and sub-district boundaries, major roads, major settlements, rivers, health facilities and other relevant information.

EXAMPLE OF SPATIAL MAPPING (SOURCE: M. MYATT, SQUEAC)



MATRIX I: CMAM, HEALTH AND NUTRITION MAPPING

District:
Organization:
Date:

CMAM

Sub-district	Communities (list all by name)	Total Population (add source and date)	Population Under 5 % of total pop	Expected Number of Children With SAM (prevalence at start/certain date)	Expected Number of Children With SAM in One Year (prevalence plus incidence*)	Health Facilities (list type per location)	Inpatient Care Sites	Outpatient Care Sites	Supplementary Feeding Sites	SAM/MAM Service Start Date (per site and partner agency)	Market Place and Day
Sub-district 1	1										
	2										
	3										
	4										
	5										
Sub-district 2	1										
	2										
	3										
	4										
	5										
Sub-district 3	1										
	2										
	3										
	4										
	5										

* To determine the expected number of children with severe acute malnutrition (SAM) in one year, see **Handout 7.10**

Calculating Estimated SAM Cases.

Edited by Dr. Abdul Rehman Pirzado pirzado@gmail.com

MATRIX 2: OUTPATIENT CARE MAPPING

(If services did not yet start, use this matrix for strategic planning.)

District:

Organization:

Date:

Outpatient Care

Health Facility With Outpatient Care (list names)	Health Facility Catchment Area (list communities)	Health Care Providers in Charge of Outpatient Care (list number, function and/or names)	Community Health Workers in Charge of Outpatient Care (list number, function and/or names)	Volunteers in Charge of Outpatient Care (list number, function and/or names)	Day of Weekly Outpatient Care	CMAM Start Date per site	Comments

MATRIX 3: HEALTH, NUTRITION AND OTHER COMMUNITY SERVICES, SYSTEMS AND INITIATIVES

List (in the matrix or on a separate sheet) all actors involved in strengthening health, nutrition, food security, livelihoods, economic opportunities, orphans and vulnerable children (OVC), community outreach, community-based activities and organizations and other relevant formal and informal activity and information structures. For each, specify focus area, target population, geographical coverage and any other relevant information.

Health, Nutrition and Other Community Services, Systems and Initiatives

Community Services focus area ()	Target Population	Impact Area	Partner Agency	Community Outreach strategy, actors, #)	Other Relevant Information	Comments

HANDOUT 7.5

CAPACITY GRID FOR CMAM AT THE DISTRICT LEVEL

(NOTE: ADD SUPPLEMENTARY FEEDING IF APPROPRIATE)

7.5

Key Elements of CMAM to Address	Who Currently	How Currently	MOH Capacity to Do This	Gaps	Solutions	Priority
ENABLING ENVIRONMENT FOR CMAM						
CMAM technical leadership (at district level and links with a national/ regional technical task force):						
CMAM coordination system (at district level and links with a national/ regional coordination system):						
CMAM guidelines: -Do CMAM national guidelines exist? -Are they disseminated and in use?						
Funding: -Can costs for outpatient care supplies, supervision and training (including ready-to-use therapeutic food [RUTF]) be incorporated into the district budget?						
Free treatment for children under 5 with severe acute malnutrition (SAM) in place:						
Contingency planning: -How will the district manage seasonal and unexpected increases in caseload?						

Key Elements of CMAM to Address	Who Currently	How Currently	MOH Capacity to Do This	Gaps	Solutions	Priority
ACCESS TO CMAM SERVICES						
<p>Learning site: -Is there a learning site for inpatient and outpatient care?</p> <p>Community outreach: -Are community assessment and mobilization provided? -Are effective active case-finding and referral and follow-up home visits of problem cases in place?</p> <p>Inpatient care: -Is there inpatient care for children with SAM with medical complications and infants under 6 months with SAM?</p> <p>Outpatient care: -Is there outpatient care for children with SAM without medical complications?</p> <p>Referral mechanisms: -What mechanisms exist to ensure children can be referred from outpatient care to inpatient care and vice versa? -How are they transported?</p> <p>Staff: -Are there enough qualified health care providers to provide inpatient and outpatient care? If not, can more be trained? -Is a district health manager appointed as a CMAM focal point? -Is a district community outreach coordinator appointed as a CMAM focal point? -Are there enough outreach workers (e.g., community health workers [CHWs] and/or volunteers) for screening and referral in the community? If not, can more be trained?</p> <p>Integration into routine health services (e.g., prevention of mother to-child transmission of HIV [PMTCT], growth monitoring and promotion [GMP], integrated management of</p>						

Key Elements of CMAM to Address	Who Currently	How Currently	MOH Capacity to Do This	Gaps	Solutions	Priority
ACCESS TO CMAM SUPPLIES						
<p>Procurement system: -Who procures therapeutic food and medicines and other equipment and supplies?</p> <p>Management system for supplies: -Is there a reliable supply of RUTF? -Is there a reliable pipeline for essential drugs? -Where will outpatient care treatment cards, RUTF ration cards and referral slips come from?</p> <p>Storage: -Do health centers have storage capacity?</p> <p>Transportation: -Is there transportation (and a budget) to bring RUTF and medicines to health facilities?</p>						
QUALITY OF CMAM SERVICES						
<p>Adherence to national and international guidelines and treatment protocols:</p> <p>Support and supervision system: -For health care providers at the health facility? -For outreach workers (e.g., CHWs, volunteers) in the community?</p> <p>Individual monitoring of cases: Registration, treatment cards, ration cards</p> <p>Monitoring and reporting system of services with standardized tools: -Tally sheets, monthly site report</p> <p>Links with national health management information system (HMIS):</p> <p>Evaluation of the effectiveness of services (e.g., performance, coverage; barriers to access; causes of defaulting, non-response and death):</p>						

Key Elements of CMAM to Address	Who Currently	How Currently	MOH Capacity to Do This	Gaps	Solutions	Priority
COMPETENCIES FOR CMAM						
<p>Pre-service training: -Is management of SAM and MAM part of the training curriculum of health professions?</p> <p>In-service training: -For inpatient and outpatient care, and at learning sites?</p> <p>Continuous training (e.g., mentoring, refresher training, learning visits, internships):</p> <p>Accountability: -Is CMAM included in job descriptions?</p> <p>-Information exchange system: (Informative research ongoing)</p>						

HANDOUT 7.6

SWOT ANALYSIS FOR CMAM

7.6

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT)

In planning for CMAM services, it is important to identify the current community/district strengths on which you can build a programme and weaknesses that must be addressed. Opportunities to support the programme and threats (constraints) that could impede the success of CMAM services must be explored.

CAPACITY OF HEALTH CARE SYSTEM FOR CMAM		
<i>Current situation</i>	Strengths	Weaknesses
<i>Considerations for future planning</i>	Opportunities	Threats

HANDOUT 7.7

EXAMPLE CAPACITY GRIDS FOR OUTPATIENT CARE AT THE HEALTH FACILITY LEVEL AND FOR CMAM AT THE NATIONAL LEVEL

CAPACITY GRIDS FOR OUTPATIENT CARE AT THE HEALTH FACILITY LEVEL

A. Capacities for Community Outreach*

Elements to Address	Who Currently	How Currently	MOH/ Community Organisation Capacity to Do This	Gaps	Solutions**	Priority
Community assessment						
Community mobilisation						
Active case-finding						
Follow-up home visits for problem cases (non-responders, defaulters)						
Health and nutrition education in the community						
Supervision of outreach workers (e.g., community health workers [CHWs], volunteers)						
Meetings for feedback and problem-solving with outreach workers						
Feedback from the community on the service/programme						
Ongoing training for outreach workers						
Links with other sectors for community outreach (e.g., community case management, growth monitoring, health and nutrition education, food security, livelihoods, agricultural extension programmes)						

* Trainer: Determine whether filling out the capacity grid is the responsibility of the district health management team or the health facility and adapt accordingly.

** Suggest solutions to modify organisation, management and support; suggest ideas on how to resolve the gaps or what discussions are needed and with whom.

B. Capacities for Implementing Outpatient Care

Elements to Address	Who Currently	How Currently	MOH Capacity to Do This	Gaps	Solutions*	Priority
Screening and registration of children with severe acute malnutrition (SAM)						
Evaluation of the medical condition of child with SAM						
Appetite test						
Referral to inpatient care/hospital						
Giving medicines and ready-to-use therapeutic food (RUTF; according to protocol) to child with SAM						
Individual counselling						
Group health and nutrition education						
Beneficiary monitoring (identify cured, non-response, defaulters)						
Identify problem cases and link to outreach worker for follow-up home visit						
Discharge of beneficiaries						
Fill in tally sheets and site reports						
Supply of medicines						
Supply of RUTF						
Supply of outpatient care treatment cards, RUTF ration cards, monitoring and reporting forms						
Storage of medicines and RUTF						
Stock control for medicines and RUTF						
Ongoing training of health care providers in SAM protocols, monitoring and reporting						
Integration/links with other health and nutrition services and programmes						
Coordination/links with other community services and programmes						

7.7

* Suggest solutions to modify organization, management, protocols and support; suggest ideas on how to address gaps or what discussions are needed and with whom.

C. Capacities for Supervision and Monitoring of Outpatient Care at the Health Facility

Elements to Address	Who Currently	How Currently	MOH Capacity	Gaps	Solutions*	Priority
Support and supervision of health care providers						
Support and supervision of outreach workers						
Completion and collection of tally sheets						
Completion and analysis of monthly site reports						
Checking and collection of RUTF and medicines stock control sheets						
Compilation of stock reports						
Checks on quality of stocks and storage conditions						
Problem-solving and coordination meetings						
Review of progress toward integration objectives						

* Suggest solutions to modify systems, tools and support; suggest ideas on how to address gaps or what discussions are needed and with whom.

CAPACITY GRID FOR CMAM AT THE NATIONAL LEVEL (NOTE: ADD SUPPLEMENTARY FEEDING IF APPROPRIATE.)

Key Elements of CMAM to Address	Who Currently	How Currently	MOH Capacity to Do This	Gaps	Solutions	Priority
1. ENABLING ENVIRONMENT FOR CMAM INTEGRATION						
MOH technical leadership role for CMAM (including technical task force chaired by MOH)						
MOH coordination system for CMAM						
National health and nutrition policies and strategic plans reflecting CMAM						
National CMAM guidelines						
CMAM support unit for capacity development and strengthening policy and planning						
National database and repository for CMAM						
Funding for CMAM services and supplies (long term)						
Free treatment for children under 5 (including SAM)						
Contingency plan for CMAM in case of emergency (resources for supplies, expertise, staff, capacity development, logistic support)						
2. ACCESS TO CMAM SERVICES						
CMAM support unit for strengthening implementation of services						
Learning sites (before gradual scale-up and including plan for scaling up)						

Key Elements of CMAM to Address	Who Currently	How Currently	MOH Capacity to Do This	Gaps	Solutions	Priority
CMAM community outreach services in priority districts						
Inpatient and outpatient care sites in priority districts						
Referral system between inpatient and outpatient care						
Adequate/sufficient number of health care providers for CMAM						
CMAM integrated with routine health and nutrition services						
CMAM links with other community services						
3. ACCESS TO CMAM SUPPLIES						
CMAM support unit for strengthening access to CMAM supplies						
Procurement system for CMAM supplies						
Management system for CMAM equipment and supplies						
National production of RUTF ongoing, with capacity to cover country needs (United Nations Children's Fund [UNICEF]-certified)						
4. QUALITY OF CMAM SERVICES						
CMAM support unit for strengthening quality of services						
Adherence to national and international CMAM guidelines and standardised treatment protocols						
Support and supervision system for implementation of services (e.g., for case management, organisation of services)						
Standardised system and tools for monitoring and reporting of services						
National health management information system (HMIS) includes SAM						
Evaluation system to analyse effectiveness						
5. COMPETENCIES FOR CMAM						
CMAM support unit for strengthening capacity development						
Pre-service training of health professionals includes CMAM						
In-service training system of health professionals includes CMAM						
CMAM learning site (learning visits, internships)						
Accountability for CMAM (national job description adopted)						
Information exchange system for CMAM (sharing evidence and lessons learned)						
Informative research system						

HANDOUT 7.8

USING A LOGICAL FRAMEWORK FOR CMAM

A. STEPS FOR DEVELOPING A LOGICAL FRAMEWORK

7.8

A simplified planning chart can help planners think through the CMAM service/programme goal, objectives, indicators and assumptions, and how to measure whether the service/programme is achieving its aims. The goal, service objectives, outcomes and activities are determined based on the situation analysis.

Steps:

1. Defining a goal (population level)
2. Defining objectives
3. Determining outcomes
4. Determining activities/outputs
5. Identifying performance and output indicators
6. Determining inputs

Defining a goal for CMAM: This should be a statement about the service/program's broad aims. The service objectives (below) defined will directly contribute to this goal.

Example of a goal: To reduce mortality and morbidity associated with severe acute malnutrition (SAM) in District X

Defining CMAM objectives: This should be a more specific statement about what the service/programme hopes to achieve. The objectives of the CMAM service/programme must be clearly defined and measurable and must directly contribute to achieving the stated goal. This will depend on the context. The objectives will determine what strategy and activities to plan for and what indicators to select to monitor the service/programme.

Example of an objective: To increase the proportion of children with SAM in District X who are receiving effective treatment through CMAM

Determining outcomes: The expected outcomes will relate to the service/program's performance. The outcomes will likely encompass the components of CMAM: community outreach, inpatient care, outpatient care and possibly services/programmes to manage moderate acute malnutrition (MAM). The outcomes will focus on what each component actually achieves.

Examples of outcomes:

To conduct effective community outreach in five villages in District X

To provide effective outpatient care for severely malnourished children (6 to 59 months) without medical complications in District X

To provide effective inpatient care for severely malnourished children (0 to 59 months) with medical complications as part of routine health services for children under 5

Determining activities/outputs: The activities or outputs are what the service/programme must do to achieve the expected outcomes and objectives. Much of the service/programme planning will be determined by specific activities.

Examples of activities:

- Establishing X number of sites
- Training X number of health care providers in CMAM,
- Recruiting and training X number of volunteers in community outreach Sensitizing
- X number of communities

Identifying performance and output indicators: Indicators will measure the service/program's performance (are the objectives achieved?) and outcomes (have the planned activities successfully been completed?).

Determining inputs: Inputs are the resources that a service/programme needs to implement its planned activities/outputs. Inputs could include human resources, financial resources, equipment, monitoring/reporting tools and guidelines.

B. CMAM ACTIVITIES/OUTPUTS

See **Handout 7.9 Example Logical Framework for CMAM.**

Activities/outputs are identified based on the findings of the situation analysis (assessment of existing capacities and needs). Activities/outputs should help:

1. Strengthen the enabling environment
2. Develop and strengthen access to CMAM services
3. Ensure access to CMAM supplies
4. Strengthen quality of CMAM services
5. Develop and strengthen competencies for CMAM

C. CMAM INDICATORS

The indicators selected will depend on the objectives and activities/outputs. There are two basic types of indicators: **performance indicators** and **output indicators**.

Performance indicators measure whether a CMAM service/programme has achieved its objectives and planned outcomes. They are measured in percentages.

- If the objectives or outcomes include increasing access to or coverage of CMAM services, it will be necessary to measure whether the programme is achieving them. The best way to do this is through a coverage survey. International minimum standards for therapeutic feeding programmes, established by the Sphere project for emergency settings, suggest that in emergencies the service/programme coverage in rural, urban and camp contexts should be 50, 70 and 90 percent, respectively, of the total population of children under 5 with SAM. Comparable coverage standards do not currently exist for routine, non-emergency CMAM programmes.

Note: Methods to determine coverage for CMAM have been developed (e.g., population survey with Centric Systematic Area Sampling [CSAS]) and more simple methods are being investigated. Cruder methods, such as comparing actual admissions to expected caseload (based on estimated prevalence and incidence), can be used to estimate coverage for monitoring purposes in between population surveys. Exhaustive screening in communities selected for this purpose can also provide useful information on coverage.

- If the objectives or outcomes include providing effective inpatient and/or outpatient care for children with SAM, it will be important to measure the proportion of children receiving CMAM inpatient and outpatient care services who recovered, died, did not respond to treatment or defaulted. Results can be compared with Sphere Minimum Standards. Note that Sphere Minimum Standards might not be applicable to non-emergency contexts. This has not yet been tested. Examples of indicators:

Percentage discharged who recovered	Sphere > 75%
Percentage discharged who died	Sphere < 10%
Percentage discharged who defaulted	Sphere < 15%
Percentage discharged as non-recovered	No Sphere indication
- Additional indicators will depend on the specific objectives and expected outcomes and what is useful to measure to track progress in achieving those aims. Other indicators that might be useful involve quality of services, such as the percentage of children referred by community volunteers who are admitted to outpatient care or the percentage of children requiring follow-up who receive an appropriate follow-up home visit.
- When evaluating the overall performance of CMAM services for SAM specifically, indicators for all objectives should be considered.

Output indicators measure whether a programme has successfully completed the planned activities/ outputs that are necessary to achieve the established goals and objectives. Output indicators are measured in numbers or percentages and should be specific to the activities/outputs established.

Examples of output indicators include:

Number of health facilities with established outpatient care

Number of children with SAM admitted to outpatient care

Number of children with SAM referred to inpatient care

Number or percentage of health care providers trained and active in SAM case management

Number or percentage of community health workers (CHWs) trained and active in community outreach

Number or percentage of volunteers trained and active in community outreach

Barriers to access should be assessed through population surveys and regular meetings with outreach workers (e.g., CHWs, volunteers) and community stakeholders. Possible indicators include:

- Number and percentage of children under 5 screened
 - Number and percentage of children under 5 with SAM identified and referred for treatment
 - Number and percentage of children under 5 with SAM referred for treatment and admitted
- Number of meetings (include timeframe) between outreach workers and the community

HANDOUT 7.9

EXAMPLE LOGICAL FRAMEWORK FOR CMAM

EXAMPLE OF STEPS FOR DESIGNING CMAM AT THE DISTRICT LEVEL USING A LOGICAL FRAMEWORK

Note: This simplified framework focuses on outpatient care and on one outcome as an example. CMAM programmes will have multiple activities for each planned outcome.

	INDICATORS	INFORMATION SOURCE	ASSUMPTIONS
<p>PROGRAMME GOAL: What are the broad aims of the programme?</p> <p>To reduce district-level mortality and morbidity associated with severe acute malnutrition (SAM)</p>			
<p>OBJECTIVE 1: What are the specific aims of the CMAM service or programme?</p> <p>To increase the proportion of children with SAM in the district being effectively treated through CMAM</p>	<p>PERFORMANCE INDICATOR:</p> <p>% of children with SAM in the district receiving CMAM services</p> <p>In CMAM services:</p> <ul style="list-style-type: none"> • % discharged recovered • % discharged non-recovered • % discharged died • % discharged defaulted 	<ul style="list-style-type: none"> • Coverage surveys • CMAM tally sheets and monthly site reports 	<ul style="list-style-type: none"> • Caseload remains at manageable levels (< 30 children/ week) • Community outreach, screening and referral systems are adequate
<p>OUTCOME 1: What can specific CMAM components do to help achieve the service objective?</p> <p>Provide effective outpatient care services to children 6-59 months in District X</p>	<p>PERFORMANCE INDICATORS:</p> <p>In outpatient care:</p> <ul style="list-style-type: none"> • % discharged recovered • % discharged died • % discharged defaulted • % discharged non-recovered • average length of stay (LOS) • average weight gain (AWG) <p>(Note: It is also useful to report changes in these indicators.)</p>	<ul style="list-style-type: none"> • Tally sheets • Monthly site reports • Outpatient care treatment cards 	<ul style="list-style-type: none"> • Reliable supply of ready-to-use therapeutic food (RUTF) and essential medicines • All necessary equipment is available • Sufficient staffing

<p>OUTPUTS/ACTIVITIES: What will you do to achieve your outcomes and objectives?</p> <p>1) Enabling environment: Provide national guidelines to all established sites</p> <p>2) Access to services: Establish and operate X number of outpatient care sites; Establish community outreach</p> <p>3) Access to supplies: Establish procurement system for RUTF</p> <p>4) Quality of services: Establish supervision system</p> <p>5) Competencies for CMAM developed/strengthened: Train X number of staff on outpatient care at all health centers</p>	<p>OUTPUT INDICATORS:</p> <ul style="list-style-type: none"> ▪ # sites with copies of national guidelines ▪ # functioning outpatient care sites ▪ # sites with access to RUTF and medicines through established procurement system ▪ # supervisors with supervision tools ▪ # and/or % of health care providers trained ▪ # and/or % of outreach workers trained ▪ # of community meetings held 	<ul style="list-style-type: none"> • Service/programme records • Monthly site reports • Health management information system (HMIS) 	<ul style="list-style-type: none"> • Ministry of Health (MOH) remains supportive of outpatient care integration • Health facility staff is available for training
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HANDOUT 7.10

CALCULATING ESTIMATED SAM CASES

7.10

EXAMPLE OF ESTIMATING THE NUMBER OF CHILDREN WITH SEVERE ACUTE MALNUTRITION (SAM) WHO WILL NEED OUTPATIENT CARE IN THE FOLLOWING 12 MONTHS

Total population in target area	300,000
Population age 6-59 months (e.g., 20%, usually is less)	60,000
Prevalence of SAM	2%
Estimated cases of SAM	1,200 (= 60,000 X 0.02)
Estimated new cases to add in 1 year (incidence over 1 year could be 2x the prevalence)	2,400
Estimated number in need of treatment over 12 months	3,600 (= 1,200 + 2,400)
Expected coverage of services	70%
Expected number to be treated in quality CMAM services/programmes	2,520 (= 3,600 x 0.70)
Expected SAM without complications	80%
Expected number to be treated in outpatient care only	≈ 2,000 (= 2,520 x 0.80)
Expected number to be treated in inpatient care + outpatient care	≈ 500 (= 2,520 x 0.20)

- Prevalence data from nutrition surveys indicate the numbers of children with SAM at a given time. For planning purposes, it is important to know incidence, which is the number of new cases occurring every year. As a rough assumption, incidence is about two to three times the prevalence (i.e., new cases are added every four to six months if incidence rate is stable¹).
- Seasonal fluctuations that cause peaks in numbers should be considered in planning overall expected numbers.
- Coverage of CMAM services ideally is at least 70 percent.
- If you do not have access to local nutrition surveys, Demographic and Health Surveys (DHS) or United Nations Children's Fund (UNICEF) Multiple Indicator Cluster Survey (MICS) data will give you an idea of the national and district averages for severe wasting. However, these data do not include edematous malnutrition (kwashiorkor) or wasting identified by low mid-upper arm circumference (MUAC). Therefore, an adjustment on total expected numbers in need of treatment can be considered.
- About 80 percent of the expected caseload can be treated in outpatient care without any inpatient care; less than 20 percent will need inpatient care for stabilization.

¹ Incidence is prevalence/average duration of disease (years). Data from two studies suggest that average duration of severe wasting is four to seven months (0.33 to 0.6 years). Beyond this, most children either recover or die. If incidence is stable, the actual number of children to treat in a given country every year would be two to three times higher than what is suggested by a prevalence survey. (A. Briend, communication with author, October 2007.)

HANDOUT 7.11

STAFF NEEDS, ROLES AND RESPONSIBILITIES

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

7.11

STAFF NEEDS FOR CMAM

Community Outreach

- A community outreach coordinator
- A team of community outreach workers: community health workers (CHWs) and/or volunteers

Supplementary Feeding

- A team leader (ideally with experience in food distribution) ▪ Two measurers
- One or two health care providers (nurse)
- One or two general assistants
- One food distributor

Outpatient Care

Appoint in each health facility (and plan rotations if appropriate):

- A qualified health care provider (nurse or medical assistant)
- Two measurers (if weight-for-height [WFH] is used)
- One assistant (if needed due to caseload)

Inpatient Care¹

- Qualified health care providers, at least one per shift for 24-hour care (e.g., nurse, medical assistant, physician, pediatrician)
- Nutrition assistant or assistant health staff
- Support staff
- Liaison staff

An overall CMAM coordinator and a community outreach coordinator must be identified in the district to manage the various components of the services.

Training should be provided to all health care providers and outreach workers. A one-day orientation is given at the start of the service/programme followed by continuous training (e.g., refresher training, mentoring, feedback meetings).

The budget for human resources will depend on where and how the service/programme is being implemented and by whom. Local salaries and per diems should be in line with the norm in the area. If per diems are given for training and allowances provided to Ministry of Health (MOH) staff, these should be based on the MOH's scale.

The above list suggests the need for external human resources, such as in case of emergencies. Otherwise the roles and responsibilities should be allocated to the health care providers who are regular staff members of the health facility.

If outpatient care is functioning well, the inpatient caseload should be low (normally five to 10 patients, depending on the catchment area and prevalence of severe acute malnutrition [SAM]). Therefore, staff roles can be combined.

2. STAFF ROLES AND RESPONSIBILITIES FOR OUTPATIENT CARE

District Health Manager or CMAM Coordinator

- Resource mobilization and allocation (e.g., human resources, infrastructure, supplies, transportation, training)
- Planning of services
- Support and supervision
- Monitoring and evaluation (M&E)
- Training health care providers

District Community Outreach Coordinator

- Community assessment and mobilization
- Support and supervision
- Training outreach workers

Health Care Provider (doctor, nurse, LHV, Health technician)

- Evaluation of the medical condition (i.e., anthropometry, medical history, physical examination, appetite test)
- Admission of children to outpatient care
- Referral to inpatient care
- Management of SAM (i.e., treatment, prescription of drugs and ready-to-use therapeutic food [RUTF])
- Organization and supervision of outpatient care initial and follow-on sessions
- Discharge of children
- Monitoring and reporting (i.e., tally sheets, monthly site reporting sheets)
- Monitoring of equipment and supplies
- Training LHW/CHWs

LHW/CHW

- Anthropometric measurements
- Group nutrition and health education at the health facility
- Community-based nutrition and health education and individual counselling
- Community screening and referral
- Follow-up home visits for problem cases
- Training volunteers

Volunteers

- Community-based nutrition and health education and individual counselling
- Community screening and referral
- Follow-up home visits for problem cases

HANDOUT 7.12

CALCULATING ESTIMATED RUTF NEEDS

7.12

ESTIMATED READY-TO-USE THERAPEUTIC FOOD (RUTF) NEEDS FOR OUTPATIENT CARE PER DISTRICT PER MONTH ARE BASED ON A RUTF DIET (PLUMPY'NUT®) OF 200 KILOCALORIES (KCAL) PER KG PER DAY ON AVERAGE

Each child in outpatient care consumes about 20 packets of RUTF a week. Total consumption in outpatient care per time period is calculated as follows:

RUTF		
A	Number of outpatient care beneficiaries	A
B	Monthly consumption per child (@20 packets/child/week)	80
C	Monthly packet consumption for outpatient care	A x B
D	Monthly carton consumption for outpatient care	C/150
E	Monthly net weight (MT) (@13.8 kg/carton)	D x 13.8/1000
F	Monthly gross weight (MT) (@14.9 kg/carton)	D x 14.9/1000

EXAMPLE

RUTF	
Number of outpatient care beneficiaries	1,000 children
Monthly consumption per child (@20 packets/child/week)	80 packets
Monthly packet consumption for outpatient care	1,000 x 80= 80,000 packets
Monthly carton consumption for outpatient care	80,000/150=533.33 cartons
Monthly net weight (MT) (@13.8 kg/carton)	533.33 x 13.8/1000 = 7.35 MT
Monthly gross weight (MT) (@14.9 kg/carton)	533.33 x 14.9/1000 = 7.95 MT
+ add for contingencies	

HANDOUT 7.13

OVERVIEW OF RESOURCES FOR CMAM

Adapted from *Community-based Therapeutic Care (CTC): A Field Manual*, pages 158-160 I. STAFF

7.13

See **Handout 7.11 Staff Needs, Roles and Responsibilities**.

EQUIPMENT AND SUPPLIES

The materials required by the various components of a CMAM service/programme are described below, and detailed lists are given in the respective modules. The following provides an overview of resources needed, in addition to the normal requirements.

- **Community outreach:** mid-upper arm circumference (MUAC) tapes with correct colour-coding, referral slips
- **Supplementary feeding:** MUAC tapes with correct colour-coding and/or mm indication, height boards, scales, registration cards/book, fortified blended foods (FBF; plus, sugar and oil for premix), mixing equipment, medicines (as per protocols), tally sheets, site reporting sheets, soap, stationery
- **Outpatient care:** MUAC tapes with mm indication, height boards, scales, medicines (as per protocols), ready-to-use therapeutic food (RUTF), FBF (optional), outpatient care treatment cards, RUTF ration cards, site tally sheets, site reporting sheets, soap (distributed to all beneficiaries at every visit), stationery, thermometer, other (extra soap to compensate mothers/caregivers whose child is referred but not admitted to CMAM is optional)
- **Inpatient care:** MUAC tapes with mm indication, height board, scales, medicines (as per protocols), F75, RUTF, inpatient care treatment cards, site tally sheets, site report sheets, stationery, equipment for preparing F75, cooking equipment (if cooking for mothers/caregivers)

TRANSPORTATION

- **Community outreach:** The community outreach coordinator needs transportation to sites and/or communities. Outreach workers (e.g., community health workers (CHWs), volunteers) are from the local or nearby community, so they can normally travel on foot. A transportation allowance is needed for training sessions held in a central location.
- **Supplementary feeding:** Supplies and medicines must be transported to each site, either biweekly or monthly depending on how secure stocks left on site can be. If mobile teams are used, they need daily transportation. Supplies and equipment also must be transported to the site.
- **Outpatient care:** RUTF and medicines must be transported to each site, either weekly or monthly depending on how secure stocks left on site can be. If mobile teams are used, they need daily transportation. Supplies and equipment also must be transported to the site.
- **Inpatient care:** Transportation might be needed for referrals between services.
- **Support, supervision and training:** Extra transportation might be needed for support and supervision if the coordinators cannot link the activity with their ongoing support and supervision duties. Transportation for trainees must be organised if training takes place off-site.

4. PHYSICAL STRUCTURES

- **Community outreach:** No new physical structures are needed because community structures are used.
- **Supplementary feeding:** Many communities have adequate accommodation in existing health facilities, community structures or shaded areas under trees. If not, temporary shelter must be provided. Local materials should be used if possible. Poles and plastic sheeting might be needed.
- **Outpatient care:** Ideally, outpatient care is provided within the health facility as a routine health service. If the caseload is high, outpatient care can be provided in a specific room at the health facility on the outpatient care day. If the caseload is very high, a simple temporary structure can be built or services can be set up under a tree, so children can be assessed out of public view while being protected from rain and sun.
- **Inpatient care:** Ideally, inpatient care is integrated into the paediatric ward or in a separate room of a health facility with 24-hour care. However, an existing facility might need to be rehabilitated or extended to accommodate inpatient care. If the caseload is high in an emergency, a temporary structure must be built to provide adequate shelter.

5. EQUIPMENT FOR OUTPATIENT CARE (PER SITE)

	Item	Amount
1	Files for outpatient care treatment cards	1 per clinic
2	Marker pens (permanent ink)	2
3	Clipboards	2
4	Stapler and box of staples	1
5	Pens	3
6	Scissors	1 pair
7	Notebook	1
8	Calculator	1
9	Small clock with second hand	1
10	Bucket with lid	2
11	Soap for hand-washing	1 bar
12	Small bowl	1
13	Small jug	1
14	Hand towels/paper towels	2
15	Water jug (with lid)	2
16	Plastic cups	10
17	Metal spoons	2
18	Teaspoons or medicine cups	6
19	Thermometer	3
20	Salter scale (25 kg) plus weighing pants	1
21	Height board	1
22	MUAC tape	5
23	Weight-for-height (WFH) table	1
24	Nail clippers	1
Minimum Stock to Keep Topped Up		

1	Outpatient care treatment cards for new admissions	100
2	Outpatient care ration cards for new admissions	100
3	ID bracelets (optional)	100
4	Clear plastic envelopes (for filing treatment cards)	100
5	Bags for carrying RUTF (if required)	100
6	Drinking water	1 jerry can
7	Sugar to make 10% sugar water solution	500g
8	Soap (optional) for children admitted plus extra for children referred from the community who do not meet admission criteria	500 bars
9	RUTF	(refer to Handout 7.12)
10	Medicines and dressings	(see separate lists below)

MEDICINES (per 500 children)

(Note: This list should be adapted to national treatment protocols.)

Routine Medicines

1	Amoxicillin syrup 125 mg/5 ml	500 bottles
2	Mebendazole 100 mg	4 tins
3	PARACHECK (malaria rapid test)	200
4	Fansidar*	1 tin
5	Artesunate tablets*	600 tablets
6	Vitamin A capsules	1 tin
7	Measles vaccine (where not possible to refer to an existing expanded programme of immunization [EPI])	100 doses

*If artemisinin-based combination therapy blister packs available, 200 kits

Additional Medicines

8	Chloramphenicol syrup or tablets	100 bottles or 1 tin
9	Tetracycline eye ointment	50 tubes
10	Nystatin suspension	20 bottles
11	Paracetamol syrup or 100 mg tablets	2 bottles or 1 tin
12	Benzyl benzoate 200 ml	100 bottles
13	Whitfield's Ointment	50 tubes
14	Gentian violet (powder)	1 tin
15	Betadine solution	2 bottles
16	Quinine (or suitable 2nd line antimalarial)	1 tin
17	Ferrous folate (or iron sulphate and folic acid) for treatment of anaemia	1 tin
18	Cotton wool	5 rolls
19	Examination gloves (non-sterile)	1 box
20	Medicine bags	100 bags
21	Rehydration solution for malnutrition (ReSoMal)	2 packets

Notes:

- All medicines must be clearly labelled.
- Daily stocks carried should be reviewed after the first month, as requirements will vary depending on the number of admissions.
- Stocks should be kept as low as possible to facilitate storage.

OTHER SUPPLIES

Dressing Materials (where needed)		
1	Gauze 10 x 10	20 packets
2	Small bandages	10 pieces
3	Tape	2 rolls
4	Zinc ointment	10 tubes
5	Normal saline for wounds (100 ml or 200 ml)	10 pieces
6	Dressing scissors	2 pairs

HANDOUT 7.14

MATRIX FOR ACTION PLANNING

7.14

NATIONAL LEVEL EXAMPLE (ADAPTABLE TO DISTRICT LEVEL)

ACTIVITIES	MONTHS	1	2	3	4	5	6	7	8	9	10	11	12	RESPONSIBLE PERSON
STRENGTHEN THE ENABLING ENVIRONMENT FOR CMAM INTEGRATION														
Set up CMAM support team		x	x											
Set up task force (TF), draft scope of work, work plan, timeline, mailing list		x	x	x										
Convene TF planning meeting				x										
Draft CMAM strategic plan and review process				x	x									
Develop draft national CMAM guidelines and review process			x	x	x									
Convene national workshop for orientation, strategy and draft national guidelines development					x									
Review interim national CMAM guidelines and disseminate					x	x								
Convene TF coordination meetings			x				x		x		x		x	
Convene 2nd national workshop for evaluation of performance, sharing of lessons learned and endorsing national guidelines														
Review final national CMAM guidelines, print and disseminate														
Establish national CMAM database and repository						x	x	x	x	x	x	x	x	
Advocate for funding to support CMAM		x	x	x	x	x	x	x	x	x	x	x	x	
Advocate for free treatment of children under 5 with severe acute malnutrition (SAM)		x	x	x	x	x	x	x	x	x	x	x	x	
Develop a plan for scaling up CMAM activities to priority districts											x	x	x	
Facilitate integration of CMAM into health policies and plans											x	x	x	
Facilitate incorporation of CMAM in Ministry of Health (MOH) work plan and budget											x	x	x	
IMPROVE ACCESS TO CMAM SERVICES														
Assess capacity and needs at learning sites			x	x										
Establish services at learning sites						x	x							
Assess capacity and needs at priority districts														
Establish services at priority districts														

ACTIVITIES	MONTHS												RESPONSIBLE PERSON
	1	2	3	4	5	6	7	8	9	10	11	12	
FACILITATE ACCESS TO CMAM SUPPLIES													
21. Identify procurement system for CMAM equipment and supplies	x	x	x										
22. Identify supply management system for CMAM equipment and supplies	x	x	x										
23. Facilitate and access CMAM supplies at learning sites			x	x									
24. Facilitate and access CMAM supplies at priority districts													
25. Facilitate local production of RUTF)													
STRENGTHEN QUALITY OF CMAM SERVICES													
26. Develop support and supervision system and tools			x	x	x								
27. Develop and print tools for individual case monitoring			x	x	x								
28. Develop system and tools for monitoring and reporting CMAM services			x	x	x								
29. Assess national nutrition surveillance system and integrate CMAM into national health information system							x	x					
30. Conduct community survey and coverage survey									x	x			
31. Review effectiveness of services/programmes													
STRENGTHEN COMPETENCIES FOR CMAM													
32. Advocate for and establish pre-service training and integration in the teaching curricula of health professions					x	x	x	x	x	x	x	x	x
33. Conduct a planning workshop					x								
34. Provide in-service training for startup						x	x		x		x		
35. Provide continued training (e.g., mentoring, refresher training, internship, learning visits)								x	x	x	x	x	
36. Establish information sharing and learning fora	x	x	x	x	x	x	x	x	x	x	x	x	
37. Advocate for integration of CMAM into job descriptions							x	x	x	x	x	x	
38. Establish/facilitate information and documentation sharing systems					x	x	x	x	x	x	x	x	
39. Establish documentation and information sharing systems					x	x	x	x	x	x	x	x	
40. Advocate and facilitate for CMAM research					x	x	x	x	x	x	x	x	
41. Scaling up: Conduct pre-service training and planning workshops, in-service training at priority districts													

HANDOUT 7.15

MATRIX FOR TRANSITION PLANNING OF CMAM

TRANSITION

In many locations, CMAM has been initiated by nongovernmental organizations (NGOs) or outside donors in collaboration with the Ministry of Health (MOH) or local/district health office. From the outset, a plan should be in place for the MOH to eventually assume control of the CMAM services.

Transition refers to the process leading up to hand-over, including planning and preparation for the gradual transfer of roles and responsibilities for CMAM services from the NGO to the MOH until hand-over is complete.

EXAMPLE (adapt to the specific context)

KEY ELEMENTS OF CMAM	Status - Who Does Currently	MOH Capacity to Do This	Gaps	Solutions	Timeframe
1. Enabling Environment for CMAM					
CMAM support unit for strengthening policy and planning					
Technical leadership role for CMAM (task force chaired by MOH)					
Coordination system for CMAM (with stakeholder involvement)					
National health and nutrition policies and strategic plans reflecting CMAM					
National CMAM guidelines					
National database and repository					
Funding for CMAM services and supplies (long term) – work plans and budgets					
Free treatment for children under 5 (including severe acute malnutrition [SAM])					
Contingency plan for CMAM in case of emergency					
2. Access to CMAM Services					
CMAM support unit for strengthening implementation of services					
Learning sites before gradual scale-up and plan for scaling up					
Inpatient and outpatient care in priority districts					
Referral system between inpatient and outpatient care					

KEY ELEMENTS OF CMAM	Status - Who Does Currently	MOH Capacity to Do This	Gaps	Solutions	Timeframe
Adequate number of qualified health care providers for CMAM					
CMAM community outreach in priority districts					
CMAM integrated with routine health and nutrition services					
CMAM links with informal health systems					
CMAM links with other community services					
3. Access to CMAM Supplies					
CMAM support unit for strengthening access to CMAM supplies					
Procurement system for CMAM supplies					
Management system for CMAM equipment and supplies					
National production of RUTF ongoing, with capacity to cover country needs					
4. Quality of CMAM Services					
CMAM support unit for strengthening quality of services					
Adherence to national guidelines and treatment protocols					
Support and supervision system for implementation of services					
Standardized system of monitoring and reporting of services					
National surveillance system for SAM in place					
Evaluation system to analyses effectiveness (services' performance and coverage)					
5. Competencies for CMAM					
CMAM support unit for strengthening capacities					
Pre-service training; integration in teaching curriculum of health professions					
In-service training system for health care providers and outreach workers					
CMAM learning site					
Accountability system for promoting positive attitudes for CMAM					
Information exchange and documentation system					
Informative research system in place, promoted and supported					

HANDOUT 7.16

GUIDANCE FOR CONTINGENCY PLANNING FOR CMAM

7.16

Below is a brief overview of a model contingency planning process for humanitarian crises. This information can be helpful to understand the process for contingency planning and response for CMAM. Each step in the process is presented along with some of the major issues associated with the step.

CONTINGENCIES

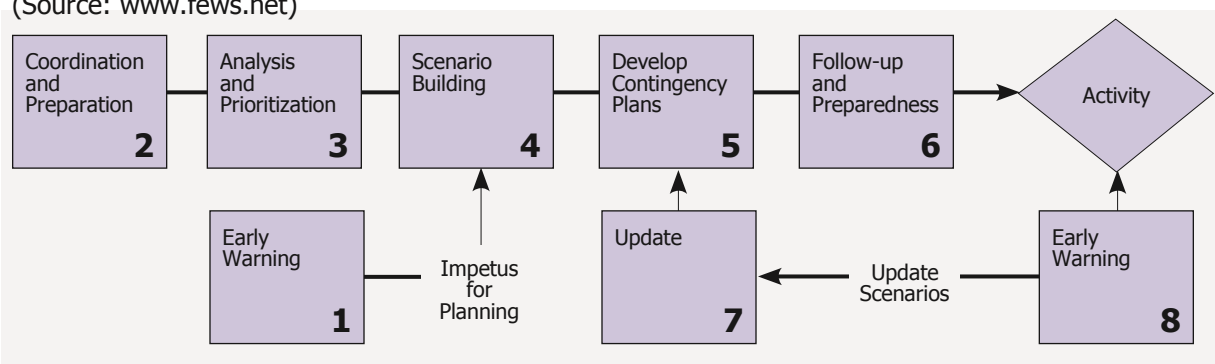
The nutrition situation in any given country is often uncertain. Unexpected events or circumstances, such as civil unrest or natural disasters, can rapidly increase the number of cases of severe acute malnutrition (SAM) among already vulnerable populations. It is important to plan for these contingencies so the system is prepared to handle an increased caseload.

Identify vulnerable districts. For each vulnerable district, it is important to plan for what to do in the event of a major increase in SAM levels, based on several scenarios. The contingency plan for CMAM is part of a broader contingency plan that could include:

- Identifying an emergency coordinator who is responsible for assessing emergency situations and deciding how to respond
- Planning coordination meetings and engaging participants
- Mapping CMAM capacities of the Ministry of Health (MOH) and its partners in the affected district and neighbouring districts
- Mapping health, nutrition and livelihood programmes and partners
- Having written arrangements agreed to by the national and district MOH and health facilities
- Making funding available for emergency equipment and supplies at the health facilities
- Accessing extra CMAM equipment and supplies
- Accessing extra staff with CMAM expertise
- Accessing in-service trainers and mentors

FRAMEWORK FOR FOOD CRISIS CONTINGENCY PLANNING AND RESPONSE

(Source: www.fews.net)



- 1. Early warning.** Early warning triggers the contingency planning process. When the first signs of an emerging crisis are detected, contingency planning should begin or focus on updating relevant contingency plans. For example, when the first signs of drought are detected in an area where people are food insecure, planning for a food crisis should begin.
- 2. Coordinating and preparing the contingency planning process.** An effective contingency planning process involves multiple actors, be they different offices or staff in one organization or staff from different organizations. To ensure that these actors are efficiently integrated into a productive planning process, it is necessary to organize. In essence, this involves making a plan to develop a contingency plan to determine who will do what, when and how.
 - 3.a. Analyzing context, hazards and risks.** Planning for potential situations that have not yet occurred requires a good understanding of the hazards facing a population and the risks they present. The first substantive step in a contingency planning process is gaining a clear understanding of these hazards and their risks. This is done by collecting and analyzing reports, maps, baseline data and other sources of information on the hazards faced in a country or region. This also involves discussing the issues with relevant experts and organizations.
 - 3.b. Prioritizing contingencies.** Contingency planning can be an intensive process, and it is often done in a busy environment where people have limited time and resources to dedicate to the process. Therefore, planners must select a small number of contingencies and scenarios to address. Criteria for making this decision often include the potential severity of the crisis, its likelihood and the possibility that prevention measures will also guard against other potential contingencies. For example, a plan for dealing with a hurricane could help address flooding in the same area.
- 4. Building scenarios.** A scenario is a set of assumptions on what will happen as the result of the contingency (e.g., hazard, threat, situation) for which you are planning. How many people will be affected? How will they be affected? Where are they situated? How long will they be affected? Plans are developed based on these assumptions. Scenario building is perhaps the most difficult step in the process, because it involves defining what will happen in the future, and, of course, there are infinite possibilities. Experience shows that developing flexible scenarios that support the development of easily adapted plans is the best approach.
- 5. Developing contingency plan(s).** Based on the scenarios that are developed, planners make decisions about what to do to address the situation they have described. For example, if the scenario estimates that 100,000 people will be food insecure and unable to meet their food needs for six months, a food aid program for that period could be conceived. Contingency plans should go beyond the definition of response options and define what would be required to implement the operation programmatically, operationally, logistically and administratively—and ultimately how much it will cost.
- 6. Implementing follow-up and preparedness actions.** During the contingency planning process, actions that would increase preparedness or require follow-up inevitably emerge in discussions. A good contingency planning process will ensure that these steps are recorded, prioritized and implemented. The implementation of preparedness actions can be the most important part of contingency planning in terms of really improving the quality and speed of response. Without this follow-up contingency preparation, planning will be merely a paper exercise.
- 7. Updating contingency plans.** Contingency plans become outdated as events overtake the assumptions originally made. Contingency plans must be regularly updated to ensure they are relevant. This also can facilitate the continuation of the contingency planning process and the relationships developed during the process.

8. Early warning. Early warning also triggers the implementation of contingency plans and preparedness actions identified during the planning process. When signs of an emerging crisis are detected, response measures—outlined in a contingency plan—should be implemented. Following the example above, when monitoring shows crop and pasture failure as the result of the drought, responses such as food aid, livestock health interventions, seeds and input support should start to be implemented according to the plan and the needs.

9. Activating contingency plans. When a crisis materializes, contingency plans must be implemented. Normally, an emergency assessment should be done and used to validate or repudiate the assumptions made in the contingency plan. Based on the results of the assessment, the contingency plan should be adapted, converted into a response plan and implemented.