FOOD AND NUTRITION TECHNICAL ASSISTANCE

ETHIOPIA

REVIEW OF INTEGRATION OF COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION SERVICES

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ACRONYMS

AED	Academy for Educational Development
CMAM	Community-based Management of Acute Malnutrition
CTC	Community-based Therapeutic Care
DHS	Demographic and Health Survey
DPPA	Disaster Prevention and Preparedness Agency
ENCU	Emergency Nutrition Coordination Unit
EOS	Enhanced Outreach Strategy
EPI	Expanded Program on Immunization
FANTA	Food and Nutrition Technical Assistance Project
GOE	Government of Ethiopia
HEW	Health Extension Worker
MAM	Moderate Acute Malnutrition
MOH	Ministry of Health
NGO	Non-Governmental Organization
OFDA	Office of U.S. Foreign Disaster Assistance
RUTF	Ready-to-Use Therapeutic Food
SAM	Severe Acute Malnutrition
SNNP	Southern Nations, Nationalities, and Peoples (region)
TSF	Targeted Supplementary Feeding
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WFP	World Food Programme

TRANSLATIONS

Kebele	Smallest administrative unit, i.e., urban dwelling association or rural peasant association
Woreda	District

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I. INTRODUCTION

Severe acute malnutrition (SAM) remains a major killer of children under five years of age in developing countries, including in countries not recently affected by an emergency. Levels of global acute malnutrition in some countries not categorized as being in an emergency are as high as 15 percent during lean seasons (e.g., Burkina Faso, Niger, and Malawi).

Community-based management of acute malnutrition (CMAM) could prevent the deaths of many children in emergency and development settings. The community-based approach for the management of acute malnutrition involves timely detection and referral of cases with SAM in the community, outpatient treatment of those without medical complications, and inpatient treatment of those without appetite or with medical complications. It is intended to provide services that are closer to and less disruptive for communities and families by making services available at decentralized treatment points and through community outreach and mobilization. Moreover, it can promote participation and behavior change for long-term solutions to inappropriate care and feeding habits, food insecurity, and other threats to public health.

While the evidence base for the nutritional impact of CMAM - also referred to as Community-based Therapeutic Care (CTC) - has been well established in programs run by relief agencies during emergencies, there is a need for greater documentation of the experience in integrating these services into national health systems in the post-emergency period. Moreover, developing countries coping with high levels of acute malnutrition are in need of information on good practices for introducing CMAM services into the basic package of health services. For this purpose, the FANTA project organized visits to three countries to:

- Assess integration of severe acute malnutrition services into health services,
- Document lessons learned, and
- Provide recommendations for improved integration.

This report presents the main observations from the Ethiopia country visit, and is accompanied by similar reports from visits to Malawi and Niger. A CMAM Review Synthesis Report will present a broader review of integrating CMAM services into existing health services and community structures, assessing programmatic and policy approaches associated with successful harmonization and integration of CMAM at the national and local levels, and discussing issues to be taken into account to successfully integrate CMAM services in other countries.

The visit to Ethiopia was conducted from April 14 to May 5, 2007. This report first provides an overview of the environment in which CMAM services are delivered in Ethiopia. Next, the current situation of CMAM services is described and the capacity of the Ethiopian health system is discussed. This discussion is organized around five elements: the enabling environment; access to services; access to supplies; quality of services; and competencies. The next section covers challenges for integration and summarizes the specific lessons learned from reviewing CMAM programs in Ethiopia. The report ends by highlighting the

conclusions and provides some Ethiopia-specific recommendations for improved integration of CMAM.

This report, like the trip to Ethiopia, does not intend to be exhaustive but rather to highlight issues that are relevant for CMAM integration in Ethiopia. It intends to inform the analysis and discussion on CMAM integration in the Synthesis Report and to provide feedback to the numerous partners that shared their experiences and programs, providing the FANTA team with a better understanding of CMAM services on the ground and addressing acute malnutrition in Ethiopia. To all of them, we express our sincere appreciation and thanks.

II. METHOD

Information was collected through document review; field visits with direct observation of CMAM services; semi-structured interviews with key informants at national, regional, district and community levels; and discussions with health workers, community health workers, community volunteers, beneficiaries and non-beneficiaries.

The FANTA team met with representatives of all relevant stakeholders, including the Government of Ethiopia (GOE), nongovernmental organizations (NGOs), the UN, community-based organizations, community members, and CMAM beneficiaries and non-beneficiaries.

A framework that was used in the review process is in Annex 1. The itinerary of the country visit and a contacts list are provided in Annexes 2 and 3, respectively. Annex 4 provides a list of documents consulted. Annex 5 contains a map of the country, indicating the CMAM sites visited by the FANTA review team. Annex 6 provides information on the local production of RUTF. Whenever possible, information from interviews, observations and documents was triangulated.

III. THE ETHIOPIA CONTEXT

1. Health and nutrition profile

Ethiopia, a country of 75.6 million people, of which 11.9 million are children under five years of age, is a land-locked country in eastern Africa. Eighty-four percent of its inhabitants live in rural areas, and 44 percent are classified as living below the poverty line. In the 2006 Human Development Index, Ethiopia ranks 170 out of 177 countries.

Levels of child mortality and malnutrition are high, even in normal (i.e., non-emergency) years. The 2005 Demographic and Health Survey (DHS) survey shows rates of wasting to be highest in the Somali, Benishangul-Gumuz, Dire Dawa, and Amhara regions. Table 1 presents a summary of key health and nutrition indicators.

Table 1: Ethiopia: key demographic and health indicators

Total population	75.6 million
Under five population	11.9 million (15.8%)
Life expectancy at birth	48 years
Infant mortality	77/1000
Under-five mortality	123/1000
Maternal mortality	673/100,000 births
Total fertility	5.4 children born per woman
HIV positive (15 – 49 yrs)	1.4%
Access to safe drinking water	60%
Access to sanitation	7.4% (4.9 % in rural areas)
Children exclusively breastfed (< 6 mo)	49%
Children vaccinated (DPT3) (12-24 mo)	32%
Vitamin A supplementation coverage	46%
Malnutrition rates:	
Stunting (<-2 height for age z score)	46.5%
Underweight (<-2 weight for age z score)	38.4%
Moderate and severe wasting (<-2 weight for height z score)	10.5%
Severe wasting (<-3 weight for height z score)	2.2%

Source: DHS 2005

2. Recent history of emergencies

Ethiopia has suffered recurrent droughts and famines for decades, including recent major famines in 1974, 1984, 2000 and 2003. During the 2003 drought, up to 13.2 million people were affected, with anthropometric surveys measuring global acute malnutrition prevalence rates as high as 33 percent, and SAM prevalence rates as high as 8 percent.[1] The 2003 crisis was due in part to drought, underlying chronic food insecurity, and inadequate recovery from the 2000 crisis.

3. Nutrition and food security institutions

With this long history of famines and emergencies, Ethiopia's nutrition and food security institutions are influenced by a body of knowledge and experience in the management of crises, as well as a strong presence of international organizations. There are several institutional mechanisms, supported by the international community, that assess, study, and respond to crises. The Disaster Prevention and Preparedness Agency (DPPA) of the GOE and its units of Early Warning and Emergency Food Security plan policies, support programs, and monitor the food security situation at the national level. The Emergency Nutrition Coordination Unit (ENCU) within the Early Warning Unit coordinates emergency nutrition activities and surveys, issues nutrition survey guidelines, and maintains a survey

[1] Report on the Nutrition Situation of Refugees and Displaced Populations 42, U.N. Standing Committee on Nutrition, August 2003.

database. The USAID-funded Famine Early Warning System Network monitors the food security situation, including livelihoods, rainfall, markets and trade access, and food needs, issuing timely alerts and frequent reports.

4. Health services system

Ethiopia is a federal state and its administrative authority is divided into 9 regions, 68 zones, 550 districts (referred to as *woredas)*, and many villages (groups of which are referred to as *kebeles*). The health system is decentralized with annual health action plans steered at the federal level, but developed at the regional, zonal, and district levels. At the regional and zonal level there is a health bureau for administration, while at the district level, there is a health office. Functionally, there are hospitals at regional and sub-regional levels. Each district has a health center and *kebeles* are covered by health posts.

The primary health care system includes of health centers and health posts. Health centers are staffed by two nurses and provide a basic package of health activities that includes outpatient treatment of common diseases, maternal-child health services, primary healthcare, vaccination, and referral. A health center has minimal capacity for inpatient care, with usually two wards and up to 10 beds available for treatment of life-threatening conditions and primary intensive medical care before referral to a hospital is made. Health posts are managed by one or two Health Extension Workers (HEWs) and focus on preventive public health actions, such as health and nutrition education, micronutrient supplementation, deworming, vaccination, and growth monitoring. HEWs are not allowed to prescribe treatment for specific diseases, including administering antibiotics, but do refer patients to health centers. A significant number of health posts are currently being upgraded to health centers.

Annual health action plans developed by regional and zonal health bureaus and district health offices outline services to be provided and goals to be met. Only health and nutrition programs that are incorporated into the annual health action plans are prioritized for implementation.

The major health programs and focus areas that are being actively incorporated into the Ethiopian health system include the expanded program of immunization (EPI), tuberculosis, malaria and HIV, which includes prevention, home-based care, voluntary counseling and testing, antiretroviral therapy, and prevention of mother-to-child transmission.

Health care is free for children under five years of age as well as for pregnant and lactating women.

5. Nutrition policies and initiatives

A National Nutrition Strategy is in the process of being drafted with UNICEF and World Bank support. It has not yet been determined which ministry (Health or Agriculture) will have overall responsibility and leadership for nutrition, although the Ministry of Health

(MOH) has historically overseen such activities. Specific nutrition policies and interventions are part of several national health policies, including those shown in Table 2.

Table 2: Ethiopia: Nutrition in national health policies

Health Sector Strategic Plan (Health Sector Development Plan III – 2005)

- Establishes roles and responsibilities of each type of health facility
- Focuses on preventive nutrition measures including essential nutrition actions
- Recommends referral to hospitals for management of SAM

National Strategy for Child Survival

- Focus on pneumonia, neonatal illness, malaria, diarrhea, nutrition, and measles
- Main pillar is the Health Extension Program
- Training of Health Extension Workers in essential nutrition actions and Integrated Management of Childhood Illness
- Referral of acute malnutrition to hospitals

Health Services Extension Program (in Phase II)

- Major health reform package, part of National Strategy for Child Survival
- Objective is to improve access to health services and public health through preventive strategies and community mobilization

Enhanced Outreach Strategy for Child Survival

- Biannual community-based services for children under five years of age for vaccination, deworming, vitamin A supplementation, insecticide-treated net distribution, and anthropometric screening
- Referral of moderately acutely malnourished children to Targeted Supplementary Feeding program with WFP support

Pilot research on CMAM (then referred to as CTC), which started in 2000 in Wolayta and Hadiya zones in the Southern Nations, Nationalities, and Peoples (SNNP) region and in 2002 in South Wollo zone in the Amharic region, was documenting the effectiveness of the outpatient approach. During the 2003 emergency, UNICEF and NGOs supported therapeutic feeding for cases with SAM, independently and at MOH facilities. The 2003 emergency was a catalyst for scaling up CMAM programs, with increased numbers of NGOs providing inpatient care for SAM with complications and outpatient care of SAM without complications. In addition, with World Food Programme (WFP) and donor support, many NGOs conducted supplementary feeding of children with moderate acute malnutrition (MAM).

As an immediate follow-on to the 2003 crisis, UNICEF started the Enhanced Outreach Strategy for Child Survival (EOS) program in 2004, which includes the preventive and curative services described in Table 2 above, and is in the process of being rolled out in Ethiopia. Many NGOs that provided supplementary feeding during the 2003 crisis are now referring patients to the targeted supplementary feeding (TSF) program instead of providing supplementary feeding directly.

A *Guideline for the Management of Severe Malnutrition* was initiated in 2003 to address inpatient care of SAM. These guidelines were updated in March 2007 as the *Protocol for the Management of Severe Acute Malnutrition*, which covers inpatient and outpatient care of

SAM and community outreach, and are referred to in this report as national CMAM guidelines. Since 2003, UNICEF has supported capacity development for management of acute malnutrition and has put into place a successful cascading training strategy. Training workshops on the management of SAM for policy makers and planners, physicians and nurses, and implementers of SAM services, have been conducted. Two medical and several nursing schools have offered training workshops and are in the process of integrating management of acute malnutrition into their curricula.

From the beginning of the 2003 crisis, the MOH and some regional health bureaus collaborated closely. The collaboration proved to be very successful. New nursing graduates were assigned to respond to the emergency, which helped create a broad base of health workers trained in the management of SAM. And, UNICEF ensured the timely provision of CMAM supplies.

Most outpatient CMAM services are found in regions, zones, and districts where NGOs have been or are currently present. However, CMAM service provision is uneven across the country (e.g., there are regions, such as Benishangul-Gumuz, or parts of regions with high levels of acute malnutrition, where there are no NGO or MOH-supported outpatient care services). When NGOs increasingly took on support for expanding outpatient care services, UNICEF took on training support for inpatient care. A number of NGO CMAM programs have recently come to the end of funding, with some NGOs handing over (i.e., transfer of all responsibility and activities), and other NGOs transitioning (i.e., a planned process for transferring responsibility and possibly maintaining some support activities over time) CMAM services to the MOH, which has had varying degrees of capacity, interest, and success in continuing CMAM services.

IV. ELEMENTS OF CMAM: CURRENT STATUS IN ETHIOPIA

1. Enabling environment for CMAM

1.1 Leadership, roles and responsibilities for CMAM

In general, at the national level, MOH leadership in CMAM and technical capacity is weak in Ethiopia. The Nutrition Unit falls within the Family Health Department of the MOH, and is centrally staffed with four people, one of whom is charged with emergency nutrition planning and programming. Regional health bureaus and district health offices tend to have more involvement in CMAM activities than does the central level, but this is dependent on the level of NGO support (e.g., regions and districts with strong NGO support have more MOH involvement in CMAM activities). The MOH health bureau in the SNNP region has been supportive of CMAM from the start and has facilitated expansion and integration of CMAM services in the region.

A CMAM Support Unit was created in 2006 with OFDA funding by two of the leading NGOs in CMAM to provide capacity development and technical guidance to the MOH at the national, regional and district levels for introducing and rolling out CMAM services.

UNICEF and the CMAM Support Unit play a coordination role in CMAM, with UNICEF supporting active expansion of inpatient facilities and trainings and NGOs and the CMAM Support Unit providing technical guidance for outpatient services. Emergency nutrition intervention efforts have historically been considered by the MOH to be the domain of international NGOs. This is still largely the case today. The EOS program of the MOH, which was put into place with support and advocacy from UNICEF, is intended in part to enhance ownership of the health bureaus for preventing malnutrition and screening for acute malnutrition.

At the district and health facility (health centers and health posts) levels, few health officials have played an active role in CMAM service delivery, training or supervision. This is beginning to change as MOH staff have taken partial responsibility for some CMAM activities from the NGO.

1.2 National health and nutrition policies reflecting CMAM

A national nutrition strategy has not yet been completed in Ethiopia, and it is not yet known how CMAM will fit into it. CMAM currently is not mentioned specifically, but rather general references to treatment of severe malnutrition occur in MOH health policies, such as the Health Sector Development Plan and the National Strategy for Child Survival. The EOS strategy calls for biannual screening of children using mid-upper arm circumference in order to identify and refer children with MAM to the TSF program.

The MOH, with the CMAM Support Unit, is currently working on a national plan for rolling out outpatient CMAM services. UNICEF also has plans to expand inpatient treatment through trainings at hospitals throughout the country. It is not clear if these two initiatives are being coordinated with one another.

1.3 National CMAM guidelines

UNICEF supported the development of national guidelines for the management of SAM in 2003. These were updated into "Protocol for the Management of Severe Acute Malnutrition, Ethiopia – Federal Ministry of Health, March 2007." The national CMAM guidelines include outpatient care and community outreach components and primarily reflect an emergency focus. The updated CMAM guidelines had been issued one month prior to the FANTA visit, and so training had not yet been rolled out. Moreover, the CMAM guidelines have not yet been incorporated into the pre-service curricula for physicians, nurses, or community health workers.

The visit to various CMAM programs highlighted that many NGOs still use their own guidelines. The UNICEF training focuses on inpatient management of SAM at health facilities in districts with or without outpatient care services. UNICEF is not involved in outpatient care services other than supplying ready-to-use therapeutic food (RUTF).

1.4 Stakeholder participation in CMAM

Orientation of national, regional, zonal, and district MOH staff on CMAM has largely depended upon the efforts of NGOs. The national MOH is in the process of developing a strategy for scaling up CMAM services and introducing CMAM into annual health action plans with assistance from the CMAM Support Unit.

While MOH involvement in CMAM is generally weak, the SNNP regional health bureau has successfully engaged partners at the regional level through its leadership and coordination of the Child Survival Working Group. This group includes MOH and NGO staff who implement CMAM, nutrition, and child survival activities in the SNNP region and meets regularly to coordinate activities, share experiences, ensure uniform application of guidelines, and provide feedback on NGO proposals.

At the community level, the involvement of *kebele* leaders and the *kebele* health committees depends on the engagement of health staff in community outreach, usually supported by an NGO. An extensive network of community volunteers exists throughout the country, and volunteers are engaged in community health activities, such as national vaccination campaigns and reproductive health services, among others, but their involvement in CMAM is limited to geographic areas with NGO support.

Two teaching institutions have been engaged in training physicians in management of SAM through UNICEF support: the Jimma and Gondar University medical schools. Nursing institutions throughout the country have organized short training sessions on management of SAM, supported by UNICEF.

With regard to private sector involvement, there were two local manufacturers of RUTF at the time of the FANTA visit. WFP procures its supplementary foods from local manufacturers.

1.5 Coordination of CMAM activities

Coordination among international and national institutions at the central and regional levels had been principally NGO-led with MOH involvement. Regional meetings, such as the Child Survival Working Group initiated by the SNNP regional health bureau, particularly depend on the presence of an NGO and the engagement of the MOH staff. The CMAM Support Unit has led regular coordination meetings among CMAM stakeholders over the last two years, and has organized national and regional workshops as a means for sharing information and discussing improvement of CMAM program implementations.

Overall, there is a lack of coordination between plans developed at the NGO level and those developed by UNICEF, including those related to scale up of CMAM services (inpatient versus outpatient) and supplementary feeding programs. This can create confusion at the MOH level and lead to inefficient use of resources. While UNICEF's strong commitment to inpatient treatment of SAM should be applauded, it creates a system that is not linked with outpatient treatment of SAM, and has yet to be modified to reflect the updated national CMAM guidelines.

1.6 Information, documentation, and research for CMAM

Numerous international operations research activities on CMAM in Ethiopia have been conducted and published. National CMAM workshops were organized in 2004 and 2006 to share program experiences, good practices, and lessons learned, as well as to sensitize stakeholders on CMAM.

1.7 Funding availability for CMAM services and supplies

Funding of CMAM services depends on NGO and UNICEF support. The CMAM programs visited by the FANTA team and included in this review have been funded by numerous donors on a variety of funding cycles. The donor environment, however, is changing, and as the emergency has subsided, USAID/OFDA funding has begun phasing out. As most CMAM programs to date have been funded by OFDA, many NGOs have handed over programs to the MOH.

Regardless of the funding source, most CMAM programs have had short-term funding of less than a year, with no provision for renewal. However, most programs have continued over a period of a few years through repeated renewal of funding. At present, there is no donor identified to support nationwide scaling up of CMAM services or to support the effective transition from NGOs to the MOH. UNICEF and several other donors are currently providing for RUTF and CMAM supply needs. However, this support has no long-term commitment.

2. Access to CMAM services

2.1 Inpatient and outpatient care

CMAM services are currently provided in eight of nine regions and in 141 of the 550 districts in Ethiopia, with outpatient services in five regions and 70 districts (as of April 2007). Coverage of outpatient care is based on the presence of NGOs, while the availability of inpatient care is determined by NGO presence or UNICEF support.

Inpatient care is provided within hospitals at either NGO supported stabilization centers linked with outpatient care facilities, or through UNICEF-supported Therapeutic Feeding Units without outpatient care. Therapeutic Feeding Units provide full treatment on an inpatient basis, while stabilization centers discharge stabilized patients to outpatient care. Inpatient care may be provided in a separate ward or combined with the general pediatric ward, with or without assigned medical and nursing staff. UNICEF has plans for expansion of inpatient care through training and supply provision to hospitals and health centers with sufficient bed capacity[2] in all regions of Ethiopia but does not plan to introduce outpatient care.

Outpatient care for SAM without complications is provided at NGO-supported CMAM programs within health centers or health posts. Many NGOs at the time of the FANTA visit already had handed over management of CMAM services to the MOH, and so an increasing number of outpatient and inpatient care facilities are being run by MOH health center or hospital staff. Expansion of outpatient CMAM services is currently being planned by the CMAM Support Unit.

Health posts are staffed by HEWs, whose 16 core job responsibilities do not include CMAM. Furthermore, HEWs focus on preventive, not curative, measures and are not permitted to

[2] A health center, usually one per district, usually has two wards with a bed capacity up to 12, providing life-saving services before referral to a hospital.

administer antibiotics. While some NGOs have trained HEWs to provide CMAM services, other strategies will need to be employed in MOH facilities to ensure that full CMAM services are provided.

Supplementary feeding programs for MAM have been implemented by NGOs in the past, but are currently transitioning to being covered by the TSF program, and thus will be organized and managed by district administrative leaders. However, the lack of follow-up and infrequent screening means the TSF does not function as a true supplementary feeding program.

A significant proportion of the population cannot access CMAM services due to the long distance to CMAM sites. Currently, most CMAM beneficiaries live in relatively close proximity to a health facility, with few coming from more than a two-to-three-hour walk away. In addition, outpatient CMAM services are limited to districts with present or past NGO support, further limiting population access. The FANTA team observed that at MOH-run CMAM programs, access to services was limited by two events in particular: 1) stock outs of RUTF, which discourages caretakers from bringing children and leads to suspension of services; and 2) temporary (often one month) suspension of CMAM services by health center staff to carry out other health services such as vaccination campaigns.

2.2 Community outreach

There are many community volunteers involved in the Ethiopian health services system and in CMAM. While most volunteers (e.g., community health promoters and community nutrition promoters) have been previously trained by the GOE, community outreach is strongest and most active where volunteers are supported by NGOs. Given adequate support, volunteers screen and refer significant numbers of acutely malnourished children to CMAM services. CMAM programs run by the MOH often suffer from weak community outreach, as support and supervision of the CMAM volunteers decrease following hand over from NGO to MOH management. Supervision of volunteers greatly depends on the motivation and interest of the health center nurses or health post HEWs, as the system is not institutionalized within the health services and CMAM volunteer support is not part of health workers' job descriptions. Moreover, numerous health and agriculture community outreach programs rely on community volunteers. Therefore a community volunteer is often volunteering for several programs simultaneously.

Most outreach focuses on acute malnutrition screening and referral, with very limited follow up of defaulting patients. Default tracking requires intensive linkages between villages and health facilities, which is difficult and unlikely to be prioritized by either the health facility staff or by the district health office, neither of which have time or means of transportation available. Well-organized outreach systems may also use peer-control approaches, linking caretakers attending outpatient services to carry messages to absent caretakers and volunteers in their village.

Other formal and informal community systems that are sometimes involved in CMAM outreach include village health committees, where *kebele* leaders, village elders, community members and volunteers meet and discuss health issues. Some NGO programs have successfully used this approach and reinvigorated it when appropriate, while others have not.

2.3 Health and nutrition staff for CMAM

Shortage of staffing in health facilities and high turnover are significant problems in Ethiopia. Many health centers and health posts lack adequate numbers of qualified staff. In fact, many health posts have just one HEW, with some lacking even that. It is common in Ethiopia to see health post buildings that are closed.

Physicians and nurses tend to provide inpatient CMAM care at hospitals and therapeutic feeding units, among their other tasks. Outpatient care at health centers or health posts is conducted by nurses, HEWs, or most often by NGO staff. Many of the health centers with outpatient care services that were visited have very few health workers, and are not able to provide health services as needed.

Moreover, given the broad range of services provided at health facilities, those activities that are included in health action plans and in the evaluations of health workers and health facilities are given the highest priority. In contrast, activities, such as CMAM, that are not clearly specified in the health action plans or health worker job descriptions are given lower priority. The FANTA team observed instances where health center staff suspended CMAM services for over a month to improve vaccination coverage prior to an upcoming evaluation. On the other hand, it was observed that, during CMAM and EOS service days, all other health services were suspended.

2.4 Referral system and transportation of referred cases

Community-level screening and referral of severely acutely malnourished children is achieved through community volunteers, primarily in NGO-supported CMAM programs. Without NGO support, or following its departure, screening and referrals from the village level diminish sharply. Screening at routine health services was observed by the FANTA team at NGO-supported facilities and at facilities where CMAM programs had recently been handed over to the MOH.

Ethiopia is a large country and transportation is limited, making it difficult for caretakers of children with SAM to get from their homes to the health facility for CMAM services. For the same reason, cases referred from outpatient to inpatient care also have difficulty in making the trip. In NGO-supported facilities, transportation from outpatient to inpatient care may be facilitated by the NGO, while in facilities without NGO support, the MOH is unable to provide transportation. This frequently results in numerous cases being referred for care that never arrive. Community volunteers that lack a means of transportation are not always able to follow up on whether cases they referred for care arrived at the CMAM facility. Furthermore, the lack of cross-checking of statistics between the inpatient and outpatient services prevents verification of referred patients' arrival and hence cannot evaluate the performance of the referral system. In general the referral system was observed to be weak.

2.5 Links with informal health systems

Traditional healers play an important role in the health care provision in Ethiopia and are often the first point of contact for people seeking health care services. To improve access and referral of acute malnutrition cases, some NGOs have involved informal health care providers in their CMAM programs as volunteers and screeners. Most NGOs and all MOH

facilities visited, however, do not involve the informal health system in CMAM services and often village-level engagement was absent.

However, most stakeholders acknowledged the importance of the informal health sector, which is often the entry point into the health care system for most families. One health post mentioned the possibility of working with the *kebele* administration to promote screening and referral to CMAM facilities, and to provide means of transportation (e.g. bicycles, donkey carts) or supplies.

2.6 Links with health and nutrition programs

Well-run CMAM services link up with EPI services and vice versa; in some zones EPI mobile outreach services screen for acute malnutrition. Most CMAM programs have ended supplementary feeding programs; after discharge children are now referred to the TSF program. In practice, this means that the child will be re-screened during the EOS service day, which can take as long as six months, and receive a food supplement if the admission criterion is met. Moreover, while the EOS system creates demand for CMAM services through screening of cases, SAM cases can only be referred to the CMAM service if one exists.

Some NGOs involved in CMAM have also put into place programs to strengthen health and nutrition services or food security and livelihoods. In these cases, CMAM services have become a more integrated part of the overall health and nutrition services system. Additionally, some NGOs that have recently handed over CMAM services to the MOH, such as in South Wollo zone, continue to remain in the district and are able to provide minimal continued support to the MOH for CMAM.

2.7 Links with food security and livelihoods programs

Food security and livelihoods programs and the way they relate to CMAM services differ from district to district, depending on the NGO that is present. Some NGOs have development programs addressing livelihoods, food security, health, water and sanitation, and education in defined geographic areas. Linkages between these interventions and CMAM are not always established and functional (e.g., a family with a SAM child is not necessarily targeted for improved household food security or income generation).

Formal links between MOH health and nutrition services and Ministry of Agriculture livelihoods activities are absent; however, some instances of collaboration were reported at the village level.

3. Access to CMAM supplies

3.1 Supply system

A Master Plan of Logistics governs the ordering and procurement of essential drugs and materials in Ethiopia. This system is complicated and time-consuming as supply orders flow from the health facility to the district to the zone to the region to the national level. Transportation and warehousing then proceed in the opposite direction back to the health facility. CMAM supplies – such as RUTF, therapeutic milks, and combined mineral and

vitamin mix - are not on the essential drugs and supplies lists. Currently, UNICEF is working with the MOH to update the Master Plan of Logistics to include RUTF.

The regional health bureaus compile CMAM supply requests from the zonal health bureaus and district health offices before submitting monthly CMAM supply requests to UNICEF. The quantity of needed supplies is calculated based on the number of CMAM cases currently being treated. No allowance is made for increases or decreases in the projected number of beneficiaries. As a consequence, a small increase in the number of beneficiaries translates into stock outs and interruption of services. UNICEF then supplies the region with CMAM supplies through a parallel system separate from essential drugs provision.

WFP provides corn-soy blend for the TSF program through an entirely separate supply route and system.

3.2 Supply transportation and management

To date, requisition and transportation of CMAM supplies depend on NGO support. The MOH supply system, however, follows the decentralized structure of the health system in Ethiopia. This means that each level (health facility, district, zone, and region) consolidates its orders before submitting its request to the next higher level. Supplies then must be transported from Addis Ababa to the region, all the way down the line to the health facility; supplies must be warehoused at each level prior to transport to the next destination. Each level is responsible for transportation to its warehouse. This system is slow and results in frequent stock outs, even when supplies are available, due to the lack of transportation available to most zonal health bureaus and district health offices.

The delivery of CMAM supplies from UNICEF is linked to the reporting system. If monthly statistical reports or supply requests are not submitted, supplies are not sent. Such strict control endangers the system further and risks supply ruptures. While UNICEF sends six-month supplies of goods, regional health bureaus tend to send monthly quantities to the facilities. WFP, in contrast, set up a separate system of corn-soy blend distribution for EOS to improve delivery and transportation through the creation of a hub-based system (i.e., a system that runs in parallel to essential drug distribution and the CMAM supplies).

Management of CMAM supplies, including warehouse management, environmental protection, and principles of “first in-first out” were frequently observed to be lacking, particularly in MOH-run services. Stock outs sometimes resulted in total suspension of services (e.g., due to a lack of RUTF) or the suspension of certain tasks. For example, a lack of patient registration forms resulted in patient weights no longer being taken since there were no forms to record them on.

3.3 Local production of RUTF

Two companies were producing RUTF in Ethiopia at the time of the FANTA visit: Hilina Enriched Foods, a Nutriset franchise, and Valid Nutrition (see Annex 6). At the time of the FANTA visit both companies were in the process of obtaining UNICEF accreditation. Subsequent to the FANTA visit, Valid Nutrition suspended production.

4. Quality of CMAM services

4.1 Adherence to CMAM treatment protocol

A number of different SAM treatment protocols are currently being used in Ethiopia. Many NGOs follow their own guidelines, while MOH facilities may follow any number of guidelines, including: the 2003 or 2007 national guidelines, the NGO guidelines, or the UNICEF guidelines (for inpatient care only). The national CMAM guidelines had just been introduced one month prior to the FANTA visit, and so dissemination and training on the CMAM guidelines was just being introduced. Given the number of international organizations working in Ethiopia, and the varying degrees of integration of CMAM services into the MOH, confusion may be created by the different treatment protocols, which can affect quality of care.

The FANTA team observed some misapplication of the national CMAM guidelines, even in areas that have not changed from the 2003 guidelines, such as staffing and night feeding in inpatient centers. In-service mentoring and a stronger supervisory system are needed to enhance adherence to the CMAM guidelines.

4.2 Implementation of services: organization, supervision, coordination, and support

The internal organization of services varies widely from one facility to another. No national guidance is provided, leaving it to the partner NGO or MOH facility to organize. Variations may include the organization of the flow of patients, definition of service days, and community mobilization set-up. Additionally, the physical location of CMAM services within the facility can vary, from being located in an area separate from the rest of the facility, to being conducted in the same area as routine facility activities (i.e. physical integration in health facility).

The quality of the management system affects the capacity of the staff and the quality of services provided, including the total number of children that can be treated without overwhelming the system. It also affects the level of effort devoted by health center staff to CMAM versus other duties, which may impact the quality of other, non-CMAM health services.

Most health centers conduct outpatient services once per week or bi-weekly. Certain health facilities, particularly those in the process of transitioning CMAM services from the NGO, provide CMAM services on a daily basis, asking cases to return weekly or bi-weekly as a means of integrating CMAM into routine health facility activities. The caseload of patients at the time of the FANTA visit averaged 30 to 40 outpatients per treatment site per week, and 10 to 15 inpatients per inpatient care site. These numbers did not appear to disrupt the normal functioning of other health services, nor overwhelm staff capacity. However, staff expressed concern that an increase in the number of cases, which was likely as the lean period was about to begin, would be difficult to manage, and extra support would be needed.

MOH supervision of CMAM services largely depends on NGO involvement and NGO support of transportation, or on regional, zonal, or district staff motivation and support. In general, supervision of health services is weak as it requires a means of transportation and long travel distances. Hence, almost all supervision of CMAM services is NGO-driven.

Some NGOs invite regional health bureau and district health office counterparts to participate in the NGO's supervision visits, while most NGOs conduct supervision without MOH participation. As part of efforts to integrate CMAM programs into the MOH, NGOs tend to continue to supervise CMAM services three to six months after hand over of the CMAM program to the MOH; at that point, NGO supervision also ceases. Some NGOs have also developed specific supervision tools for use in some facilities. However, a specific standardized MOH tool does not yet exist.

4.3 Monitoring of cases

Standardized forms for patient registration and monitoring do not exist in Ethiopia, with each NGO using its own forms and formats. Registration remains cumbersome and of varying quality. Monitoring cards are, by and large, of poor quality. Usually, NGO-run CMAM services have well-developed systems for patient registration and record-keeping, but an amazingly large variation of systems is found. In general, patient monitoring and record-keeping is weak among MOH-run services. No system is in place to record and track children transferred across services (e.g., from inpatient to outpatient care) using a single record/registration number.

4.4 Monitoring of services

The national reporting system is coordinated by UNICEF, which collects and collates reports, conditional to delivery of CMAM supply requests. This is applied to both NGO and MOH services. At the central level, the MOH does not play a major role in the aggregation or analysis of these data.

Monthly statistics for inpatient and outpatient services are collected separately, making it impossible to get a coherent picture of the performance of SAM case management and CMAM programs at any level (i.e., individual, health facility, district, zone, region, or national level). In principle, the data for inpatient and outpatient services should be compiled at the facility and district levels, and referral of patients from inpatient to outpatient services should be cross-checked. This currently does not take place.

Moreover, CMAM activities, as is the case with all GOE reporting, report in Ethiopian months instead of the most widely used Gregorian calendar -or epidemiological weeks, as used for disease reporting - thereby making statistical analysis and comparison with data from the rest of the world difficult.

4.5 Surveillance

The ENCU coordinates and validates surveys, most of which are implemented by NGOs. Survey results must be formally approved by the ENCU before dissemination, regardless of which organization conducted the survey. The ENCU also prioritizes where the surveys should be carried out. There is a plan to develop skills at the regional level for DPPA officers to be able to lead surveys.

A Rapid Assessment Team, coordinated by the ENCU, is operated by one NGO. This team conducts qualitative nutrition and food security assessments and informs decision-makers on whether to conduct an anthropometric survey and/or to lobby for an intervention. National guidelines for rapid nutrition assessments were developed in 2004.

A long-standing nutrition surveillance system in the Amhara region lost funding and ended in 2002. There are no longer any specific nutrition surveillance systems in place. Weight-for-age is reported in the Health Management Information System; reporting comes from a weak growth monitoring program.

4.6 Evaluation of coverage of services

Some NGOs conduct coverage surveys and evaluations of CMAM programs in their geographic area. The MOH and ENCU lack the capacity to conduct coverage surveys themselves and need the support of international agencies and expertise.

5. Competencies for CMAM

5.1 Pre-service training

The incorporation of the 2007 national CMAM guidelines into the pre-service curriculum of physicians, nurses, or HEWs has not yet occurred, nor have the 2003 CMAM guidelines ever been incorporated. However, two medical schools out of six in Ethiopia have incorporated inpatient SAM treatment protocols into their pre-service training curricula through an initiative supported by UNICEF in collaboration with the regional health bureaus. The process to integrate CMAM guidelines into health worker pre-service curricula at the national level involves negotiations with the Ministry of Education, the MOH, and teaching institutions. In-country expertise, such as is available at Jimma University where management of SAM has been incorporated into pre-service curricula, is a great asset. In order for the CMAM services to be routinely integrated into the practice of healthcare providers, the workers must be trained prior to entering the health service system.

5.2 In-service training

There are close to 400 CMAM service sites and almost 20 organizations are implementing CMAM services in Ethiopia (as of January 2007). In-service training has been conducted numerous times by experts from NGOs and UNICEF. NGOs have trained their own staff, and some have included MOH staff, in inpatient and outpatient care, and community outreach. Additional refresher trainings have been provided by NGOs in preparation for hand over following the end of funding for their CMAM programs. This has usually consisted of joint visits to health facilities and discussion on CMAM data collection and program management. UNICEF supported 49 training workshops on inpatient management of SAM of more than 1,400 physicians, nurses, and other health workers in 2005 and 2006 alone.

One encouraging initiative was a training exchange in which two NGOs trained each other's staff in CMAM and integrated management of childhood illness.

No capacity-building system is in place for strengthened planning and supervision for CMAM for health managers and planners.

5.3 Peer information exchange

A CTC Working Group of CMAM stakeholders meets regularly in Addis Ababa without MOH participation. Regional meetings for CMAM coordination take place in the SNNP region, but are not common elsewhere. These meetings, particularly the CTC Working Group, provide an opportunity to discuss and debate technical issues and to share experiences. These types of exchanges are lacking at the regional, zonal, and district levels, where they are greatly needed, as is MOH participation in them.

5.4 Research

Ethiopia traditionally is a learning ground for nutrition in emergencies. Ethiopia was the site of some of the first studies done on community-based treatment of malnutrition. Major initial evidence on CMAM performance and good practices was based on the South Wollo zone CMAM program.

Research activities in CMAM and other issues related to malnutrition are common, particularly among certain NGOs. The national nutrition research institution in Addis is not involved in rolling out CMAM or in malnutrition issues.

5.5 Attitudes

The quality of CMAM services depends enormously on the motivation and interest of the people involved, as there are limited MOH institutional mechanisms to ensure quality. A change in key staff can therefore mean a complete change in the availability and quality of services. Motivation, in turn, depends a lot on the presence of an NGO and the relationship between the NGO and the MOH. The FANTA team observed health facilities and regional health bureaus and district health offices that enjoy close relationships with an NGO, benefiting technically from the NGO presence and becoming increasingly involved in CMAM services. Unfortunately, the opposite was also true. In these cases, when the NGOs depart, CMAM services cease.

While many health staff expressed enthusiasm for providing CMAM services, as they could quickly and visibly see progress in the recovering children, other staff had negative attitudes about treating malnutrition in general. MOH staff ownership of addressing malnutrition as a job responsibility is also important, as opposed to considering it the domain of the NGO. Therefore, explicitly including CMAM in MOH health worker job descriptions will make health workers more accountable.

V. CHALLENGES FOR CMAM INTEGRATION IN ETHIOPIA

1. Enabling environment for CMAM

Ethiopia's long history of droughts, famines, and nutritional crises has led to an important presence of national bodies and international organizations monitoring, planning, and implementing programs addressing food insecurity and acute malnutrition. Numerous external resources supported the development of national CMAM strategies, guidelines and services. CMAM has been applied for a number of years now and UNICEF and NGOs with the CMAM Support Unit have built capacities at the MOH for leadership and coordination at national and regional levels. The CMAM Support Unit, created in 2006 to enhance capacities

at the MOH and to enhance scaling up CMAM programs, has not yet had time to show results. There are good opportunities for sharing program and research information and experiences through coordination mechanisms, and this has further enhanced strategies for the integration of CMAM programs into the MOH.

While there are strong external resources within Ethiopia, there is a significant gap at the national MOH level in addressing CMAM. Nutrition is not well addressed in national policies and plans, with no explicit reference to acute malnutrition. This lack of priority is exacerbated by the fact that the national nutrition strategy has not been finalized, nor has a ministry been selected to oversee implementation of the strategy. The Nutrition Unit of the MOH is small and lacks capacity to provide national-level leadership of CMAM services. In a country as decentralized as Ethiopia, MOH support greatly depends upon the personalities, motivation, and interest of staff at regional, zonal, and district levels. This decentralization can therefore lead to prioritization (e.g., in the SNNP region) or de-prioritization of policies and programs, and hampers national-level integration of new programs. This is evidenced by the fact that CMAM is not currently included in MOH health action plans, budgets, or health worker job descriptions. This presents a significant challenge to CMAM service provision.

A major weakness to the CMAM enabling efforts is that NGOs funded by OFDA are generally funded in nine-month to one-year increments, with no provision for renewal. While many of these CMAM programs have been renewed year after year, and work plans did provide planning for transitioning services to the MOH, the transition was not always implemented successfully or achieved. This has negatively affected the way the process of integration has been planned and, in many cases, has even jeopardized it. NGOs have departed before integration of CMAM services was at a sufficient stage of development - or rapidly and inadequately handed over CMAM responsibility to the MOH - because program funds ended. A variety of informal integration strategies and procedures are in place and the integration process is not steered by the MOH at the district level.

2. Access to CMAM services

One of the opportunities for CMAM integration in Ethiopia is the existence of a well-defined health service system, with clearly delineated health structures, staff and management committees at the national, regional, zonal and district levels. Physicians, nurses, and HEWs have job descriptions with core tasks and responsibilities that are incorporated into health action plans. Hence, there is a foundation on which to integrate CMAM. Furthermore, there are many CMAM programs and services that are currently being provided, both within the health system (by the MOH and some NGOs) and outside of it (by other NGOs). The need for CMAM is recognized and expansion of services is planned for; UNICEF is actively expanding inpatient service provision at hospitals and the CMAM Support Unit is planning for outpatient service expansion with the MOH. Thus, a wider coverage of services is planned.

Moreover, the informal health system and local *kebele* administration are untapped opportunities to improve coverage of CMAM services through religious leaders, traditional healers, and *kebele* leaders. As the MOH takes responsibility for NGO CMAM programs at

health facilities, there is the opportunity for the other health and nutrition services offered at the facility to be provided to CMAM beneficiaries, thereby improving coverage and access to these routine services.

The existence of CMAM programs, largely supported by NGOs and UNICEF, however, also points to the significant challenge to CMAM in a system that is entirely dependent on external support. Without NGO support, there would be few outpatient care services and quality would suffer. Without UNICEF support, inpatient services would suffer. Thus the situation is highly vulnerable and at risk of collapse. The FANTA team observed instances of CMAM services that no longer function following the departure of the NGO. In other instances, services that were continued under the MOH tended not to engage in community outreach and so screening and referral were absent in the communities. It was also observed in a few cases that, after hand over of services, NGO-supported volunteer systems cannot be maintained unless they are integrated into existing and compatible community programs.

3. Access to CMAM supplies

There is local production of RUTF and at the time of the FANTA visit the two plants had the capacity to cover the country's needs, and even to produce more for export, given demand for the product.

Weaknesses of the CMAM supply system, however, are plentiful. Access to supplies and transportation is a major issue, leading to delays and ruptures within the national supply system for essential drugs, as well as within the CMAM supply system. Given the short shelf life of locally produced RUTF, this problem is all-the-more worrisome. At the district level, there are some potential opportunities for *kebele*-level solutions, including the use of donkey carts or bicycles through coordination with *kebele* leaders. However, supplies still must travel from the capital to the region to the zone to the district to the facility, with each administrative level responsible for organizing transportation to its warehouse. Furthermore, CMAM supply needs are calculated based on the number of beneficiaries during the previous month, without an allowance for loss or increased caseloads. Accordingly, an increased number of cases results in supply shortages and children not being treated, a cyclical problem that is replicated the next month as shortages are not indicated on requisition forms.

A real threat to the CMAM supply system is that most CMAM supplies are purchased by UNICEF. If UNICEF's commitment to providing therapeutic products and drugs for the MOH and NGOs were to cease, most CMAM services would collapse. There is no clear donor commitment to continue funding CMAM activities and supplies. CMAM supplies are not incorporated into the MOH health action plans or budgets, nor is the MOH capable of funding CMAM through the System Wide Approach Program. Hence, long-term planning for CMAM services is difficult.

4. Quality of CMAM services

At the national level, the MOH with UNICEF and NGO support has been successful in putting into place national CMAM guidelines with a standardized SAM treatment protocol. The presence of high-level NGO expertise has facilitated quality CMAM services and a wealth of good, state-of-the-art practices in Ethiopia.

However, a multitude of weaknesses characterize the quality of CMAM programs. First, the multiple CMAM guidelines currently in use threaten the quality of the CMAM programs. This leads to confusion and inefficient use of resources. It also hinders effective capacity building of MOH staff, with one protocol applied in one center and a different one at another location, a topic that was discussed during the visit of the FANTA team. Second, the MOH lacks capacity and staff to supervise CMAM activities, and CMAM supervision has not yet been integrated into the existing supervision schedule beyond several instances of joint NGO-MOH supervision visits. At the district level, capacity for planning, support and supervision, and integrating or linking CMAM services within the existing health action plan is weak. The lack of uniform use of existing national patient and service monitoring forms further compounds the problem. Monitoring the performance of CMAM only occurs when NGOs are active and ceases upon NGO departure. There is no compiled data for inpatients or outpatients except when a highly qualified NGO runs both services and collates its findings.

The threat to all CMAM services is the exit of NGO support. MOH health services and MOH staff do not have the capacity to maintain the CMAM program quality set by the NGO, which is based on the Sphere Project's Humanitarian Charter and Minimum Standards for Disaster Response.

5. Competencies for CMAM

There is a great degree of technical knowledge, expertise, and experience that has been developed over the years among MOH, NGO and UNICEF staff in Ethiopia with respect to SAM in general and to CMAM in particular. This group of skilled staff is an enormous asset. Moreover, the wide range of CMAM experiences constitutes a great opportunity for learning when properly analyzed and disseminated, which in some cases has happened. The training of MOH and teaching institution staff has created an available pool of expertise. Some training is currently taking place in preparation for the hand over of NGO CMAM programs. Some of the implementers were highly motivated by being involved in CMAM because they observed the resultant, visible changes in a malnourished child.

The weakness of the capacity-building efforts is the shortage and high turnover of health staff. Thus, there is a continuous need to provide training and support of staff charged with CMAM service provision. Given the ongoing health system reform, with the reclassification of health clinics and upgrading of health posts to health centers, there will be an increasingly greater need for higher-level clinical staff (e.g., nurses). With the creation of new *woredas* and *kebeles*, there will be the need to construct new health centers and health posts as well. This all places great strain on the health system to staff facilities. Continued CMAM support in the form of in-service and refresher trainings will be critical to ensure quality and availability of CMAM services. Some health staff had a negative attitude towards treating children with SAM, deeming it a responsibility of the NGO and too onerous an activity to

integrate. Insufficient MOH involvement in CMAM service implementation, supervision, and capacity building is exacerbated by the fact that CMAM is not an explicit part of MOH health worker job descriptions, thereby rendering staff not accountable or empowered.

A major threat to improving competencies for CMAM is access to funding for continuous capacity development as well as retention of national expertise and keeping experienced staff engaged in CMAM.

VI. CONCLUSIONS

Ethiopia has benefited from strong international external support in CMAM service provision and capacity building. Through the efforts of NGOs and UNICEF, many health personnel have been trained in CMAM. While the capacity development continues, there is a need for stronger engagement of the MOH. The MOH and its staff at the different levels should be better supported and empowered to take on CMAM responsibility. Integration of CMAM in health plans, job descriptions, and pre-service training are crucial elements for obtaining this. Promoting involvement and leadership in the MOH is a slow, difficult, and long-term process, but each step forward leads to a greater likelihood of sustainability of CMAM services.

The motivation, interest, and capacity created within the MOH by the presence of NGOs and UNICEF is at risk of stagnation or decline given the recent hand over of CMAM services responsibilities by a number of NGOs as emergency funding ended. The departure of NGOs endangers CMAM services and risks the collapse of CMAM in Ethiopia, as often happens when nutritional conditions improve and emergency programs end. On the other hand, there is momentum to learn and document success stories -or elements of success- related to CMAM integration of programs run by MOH with minimal external support while maintaining staff capacity and service quality. As more and more CMAM services are handed over to the MOH, and as the MOH scales up services itself, positive integration experiences will need to be documented and shared. These lessons could promote good practices for integration and highlight context-specific criteria supporting integration that should be addressed when introducing a CMAM program

In the event of another nutrition emergency, it is obvious that UN and NGO support will be required, as there is not enough capacity or resources within the MOH to handle a dramatic rise in SAM caseloads. Careful contingency planning would be an important exercise and could create momentum within the MOH to prepare for increased support of CMAM services and to design the NGO support that would be required. The design of this support should emphasize building on and strengthening the integration processes that have already been started.

VII. RECOMMENDATIONS

Key recommendations follow below.

1. Include CMAM in the national nutrition strategy and in national, regional and district health action plans and budgets.
2. Evaluate and document the role of the CMAM Support Unit in integrating and scaling up services. Document good practices of CMAM programming that help maintain quality services after NGO hand over and identify criteria for success. Document elements of success in the scaling up of CMAM services by the MOH with minimal external support.
3. Review CMAM monitoring, evaluation, and supervision systems and tools. Design monitoring and evaluation tools that are compatible with and capable of being integrated into the existing national Health Management Information System. Create standardized supervision tools that are integrated and are part of the district supervision plan.
4. Advocate for integrating national CMAM guidelines into pre-service and in-service training curricula and job descriptions for all health workers. Review and document the impact of the UNICEF training and the Jimma University training strategy on the management of SAM in particular.
5. Reach consensus on the use of the *national* CMAM guidelines to address the issue of numerous SAM treatment protocols in use and establish links between inpatient care and outpatient care services.
6. Streamline/strengthen the CMAM supply request ordering and delivery processes and find solutions to avoid RUTF stock outs.
7. Advocate for and identify sustainable sources of funding for CMAM programming and supply purchase.
8. Document good practices of community outreach between MOH health staff and community volunteers and leaders.

Annex 1: Framework for CMAM Services

Elements of CMAM Services

1. Enabling environment for CMAM

- 1.1 Leadership, roles, and responsibilities for CMAM
- 1.2 National health and nutrition policies reflecting CMAM
- 1.3 National CMAM guidelines
- 1.4 Stakeholder participation in CMAM
- 1.5 Coordination of CMAM activities
- 1.6 Information, documentation and research for CMAM
- 1.7 Funding availability for CMAM services and supplies

2. Access to CMAM services

- 2.1 Inpatient and outpatient care
- 2.2 Community outreach
- 2.3 Health and nutrition staff for CMAM
- 2.4 Referral system and transportation of referred cases
- 2.5 Links with informal health systems
- 2.6 Links with health and nutrition programs
- 2.7 Links with food security and livelihoods programs

3. Access to CMAM supplies

- 3.1 Supply system
- 3.2 Supply transportation and management
- 3.3 Local production of RUTF

4. Quality of CMAM services

- 4.1 Adherence to CMAM treatment protocol
- 4.2 Implementation of services: organization, supervision, coordination and support
- 4.3 Monitoring of cases
- 4.4 Monitoring of services
- 4.5 Surveillance
- 4.6 Evaluation of coverage of services

5. Competencies for CMAM

- 5.1 Pre-service training
- 5.2 In-service training
- 5.3 Peer information exchange
- 5.4 Research
- 5.5 Attitudes

Annex 2: Itinerary (April 14 to May 5, 2007)

April 14	Arrive
April 16	Meeting with USAID
April 17	Meeting with Concern Worldwide and Valid International Meeting with Emergency Nutrition Coordinating Unit Meeting with John Snow Inc. Essential Services for Health in Ethiopia Meeting with International Medical Corps
April 18	Meeting with Adventist Development and Relief Agency Meeting with Save the Children UK Meeting with GOAL Meeting with Save the Children US
April 19	Visit Abela Health Center, Awassa Meeting with Save the Children US Meeting with the SNNP regional health bureau, Awassa
April 20	Meeting with Concern Worldwide, Sodo Visit Wamura Health Center Meeting with Ofa *woreda* health office
April 23	Meeting with International Medical Corps Visit Gara Godo Health Center, Bolosso Sorie Visit Achura Health Post, Bolosso Sorie Visit Dubbo General Hospital, Bolosso Sorie Stop at Sodo *woreda* health office (officials out of office)
April 24	Meeting with GOAL, Silti Visit Gerbiber Health Center, Silti Visit Kibit Health Center, Silti Meeting with Silti *woreda* health office Travel to Addis Ababa
April 25 - 26	Preparation for next week
April 27	Meeting with UNICEF Meeting with Concern Worldwide and Valid International
April 29	Travel to Harar (Carlos)
April 30	**Carlos:** ▪ Visit GOAL Fedis **Hedwig & Fred:** ▪ Visit Katam Health Center, Addis ▪ Visit Free Methodist Health Center, Addis ▪ Visit Health Center, Addis ▪ Visit Yekatit Hospital, Addis ▪ Meeting with WFP
May 1	**Carlos:** ▪ Visit International Medical Corps, Alamaya **Hedwig & Fred:** ▪ Travel to Kombolcha
May 2	**Carlos:** ▪ Visit International Medical Corps, Asebe Teferi ▪ Return to Addis **Hedwig & Fred:** ▪ Meeting with Concern Worldwide, Kombolcha ▪ Visit Health Center, South Wollo ▪ Visit Wollo health office
May 3	Hedwig and Fred return to Addis
May 4	Meeting with USAID: debriefing Meeting with Federal Ministry of Health, Nutrition Unit
May 5	Depart Ethiopia

Annex 3: List of People Contacted

Name	Title	Organization	Contact Information
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Mandefra Tefera	Family Health Head and OTP Focal Person	Silti *woreda* Health Bureau	
Effran Teferi	Nutrition Team Leader	SNNP regional health bureau	
Philip Upson		Save the Children/UK	Philip.u@savethechildren.org.uk
Frank White	Deputy Director	John Snow Incorporated /ESHE	fwhite@healtheth.org.et 251-11-416-9416
Tayech Yimer		Save the Children/UK	
Mulugeta Wolde Yohannes	Public Health Specialist	USAID/OFDA/Addis	mwyohannes@usaid.gov 251-11-552-5176

Annex 4: List of Documents Consulted

MOH

1. Emergency Nutrition Quarterly Bulletins, 2006-2007, ENCU/DPPA.
2. Protocol for the Management of Severe Acute Malnutrition, Federal MOH, March 2007.
3. Health Sector Strategic Plan 2005-2009, Federal MOH.
4. National Strategy for Child Survival in Ethiopia, Federal MOH, July 2005.
5. Guideline on Emergency Nutrition Assessment, Early Warning Department, DPPA, December 2002.
6. Guidelines for the Enhanced Outreach Strategy for Child Survival Interventions, Federal MOH, March 2006.

NGO

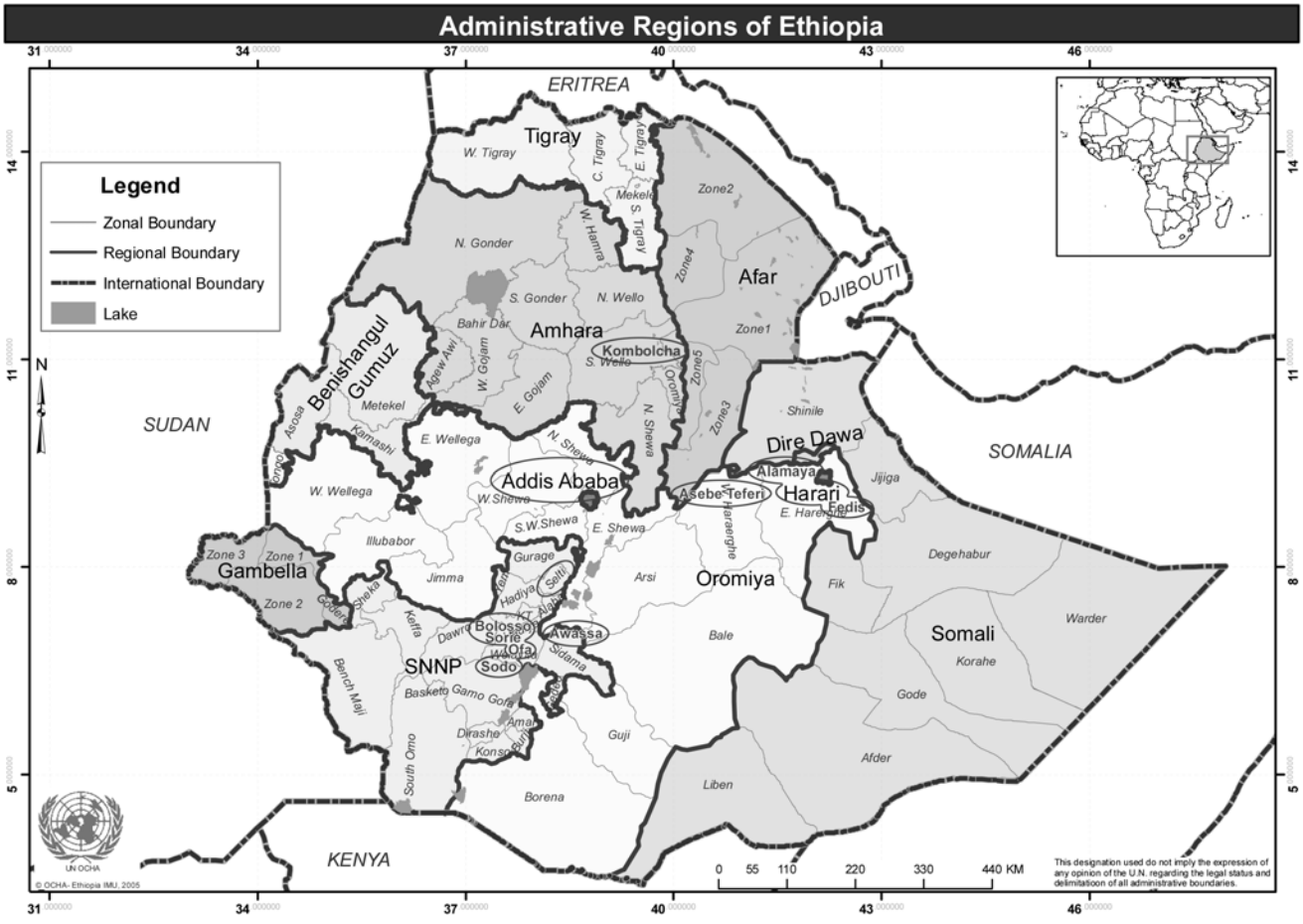
1. A Review of Save the Children UK's Nutrition Surveillance Programme in Ethiopia, F. Watson, C. Dolan, J. Shoham, & M. Buchanan-Smith, Nutrition Works, July 2006.

OTHER

1. Various NGO and UN program proposals and activity reports, Famine Early Warning System Network reports, nutritional surveys and other background information from the country.
2. Various publications on CTC/CMAM and acute malnutrition published in the international scientific literature.
3. "Child Survival during the 2002-2003 drought in Ethiopia," A. DeWaal, A. Taffesse, L. Carruth, Global Public Health, 1 (2): 125-132, June 2006.
4. Enhanced Outreach Strategy/Targeted Supplementary Food for Child Survival Interventions Mission Report, A. Hall & T. Khara, UNICEF, December 2006.
5. Framework Document for a National Nutrition Strategy for Ethiopia, T. Benson, IFPRI, November 2005.
6. Therapeutic Feeding in Ethiopia Mission Report, M. Golden & Y. Grellety, UNICEF, May 2006.
7. An Assessment of the Causes of Malnutrition in Ethiopia, T. Benson, IFPRI, November 2005.
8. Risk and Vulnerability in Ethiopia, S. Lautze, Y. Aklilu, A. Raven-Roberts, H. Young, G. Kebede, & J. Leaning, USAID, June 2003.

Annex 5: Map of Ethiopia

Areas visited by the FANTA team are circled.



Annex 6: Local Production of RUTF Information

Hilina Enriched Food Processing Center PLC, Nutriset franchise

1	Location	Addis Ababa
2	Start date of production	2007
3	Total production capacity	100 metric tons per month (24 hour/day production)
4	Current monthly production capacity	35 metric tons per month
5	Purchasers of RUTF	UNICEF, Clinton Foundation, NGOs
6	Recipe base	Peanut
7	Ingredients purchased locally	Sugar, peanuts, and oil
8	Ingredients imported	Vitamins and minerals complex and milk powder
9	Tax exemptions on imported ingredients?	No
10	Packaging type	Sachet
11	Shelf life	12 months
12	UNICEF accreditation	In progress