SCALING UP COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION
Implementing the CAS Program in Malawi

In Dowa District, a mother feeds her child ready-to-use-therapeutic food as a part of the treatment plan for children with severe acute malnutrition. Photo: Concern Worldwide.
The Birth of Community-Based Management of Acute Malnutrition (CMAM)

Malnutrition remains a major challenge in Malawi, contributing to high morbidity and mortality rates among children under five and other vulnerable groups such as pregnant and lactating women.

It is estimated that 12 percent of children in Malawi die before the age of five, and that 38 percent of those deaths are related to malnutrition.

Chronic undernutrition can cause stunting, a condition in which a child is short for his or her age, and is particularly problematic in Malawi. In fact, prevalence of stunting is the second highest in sub-Saharan Africa; 46 percent of children under five years of age are stunted.5,6 Beyond the immediate physical impact of malnutrition, the consequences of poor nutrition in pregnancy and early childhood, particularly the first 1,000 days from conception through the first two years, are often irreversible and have a ripple effect that can lead to long-term, adverse health outcomes, reduction in education attainment and cognitive development, and poor economic performance. These consequences can extend the cycle of poverty. A growing body of global evidence suggests that children who are malnourished are more prone to cognitive delays and suffer weakened immune systems, which exacerbate their susceptibility to illnesses and increase their likelihood for developing chronic diseases and disabilities. These health conditions inhibit people’s ability to pursue educational opportunities and to make full contributions to the workforce later in life.

Building on what began in Malawi in 2002 as a response to a nutrition emergency, Concern Worldwide partnered with Valid International from 2002 to 2006 to pilot an approach known as Community Therapeutic Care (CTC) in Dowa and Nkhotakota Districts of Malawi. Valid International provided the technical expertise for the project while Concern Worldwide led the district-wide intervention. By 2004, the pilot demonstrated excellent treatment outcomes, achieved high coverage, received high acceptance from the community, and proved to be a cost-effective solution to treat children with severe acute malnutrition at home as opposed to costly inpatient treatment. Based on these overwhelmingly positive results, the Malawian Ministry of Health (MoH) encouraged other districts to adopt the CTC approach. By 2006, the MoH announced its intention to standardize CTC implementation and scale up CTC to all 297 health districts in the country.

Malawi Health Snapshot
- Population: 13.1 million*
- Life expectancy: 57/58 (m/f)**
- 17.2 percent of population <5 years
- Maternal mortality: 675/100,000 LB
- Infant mortality: 66/1,000 LB
- Child mortality: 50/1,000 LB
- 47 percent of children <5 years stunted
- 13 percent <5 years underweight
- 4 percent <5 years wasted
- 71 percent of children are exclusively breastfed for 6 months
- 77 percent of children are still breastfed at 2 years
- 38 percent of pregnant women are anemic
- 12 percent of infants had low birth weight
- 19 percent of children age 6–23 months are fed in accordance with minimum standards for meal frequency

Source: Malawi DHS 2010
*2008 census figure; ** WHO 2009
The CTC approach was designed for an emergency context to increase the coverage and accessibility of treatment for acute malnutrition by decentralizing care to health centers and treating the majority of cases as outpatients through the provision of Ready-to-Use Therapeutic Food (RUTF) to be used in households and complemented with basic medical care. Aside from emergency settings, CTC has also proven equally effective in non-emergency contexts. CTC is built on the principle of community involvement and aims to increase the ability of people to prevent, recognize, and manage malnutrition within their communities. CTC complements existing health services and can potentially create new opportunities and points of contact for follow-on health and nutrition activities, such as HIV testing, family planning, and nutrition counseling. Over time, CTC has become more widely known as Community Management of Acute Malnutrition (CMAM); both terms refer to the following core components and will be referred to as CMAM for the remainder of this document:

- **Community mobilization**: outreach to raise awareness, screening and identification of cases in the community using a middle-upper arm circumference band (MUAC), and follow-up with caregivers and malnourished children
- **Supplementary Feeding Programs (SFP)**: providing take-home rations and routine medical care for children with moderate acute malnutrition
- **Outpatient Therapeutic Program (OTP)**: providing RUTF and regular check-ups for children who are severely malnourished without medical complications
- **Nutrition Rehabilitation Units (NRU)**: providing inpatient care for acutely malnourished children with medical complications

On a global level, CMAM has been endorsed and is being implemented to some degree by Ministries of Health in more than 55 countries. Although the wide adoption of the approach is promising, CMAM will only achieve scale if integrated into government health services.

“"The CAS program trained community-based health providers on how to conduct nutritional assessments at the household level and facilitated access to nutrition services, reaching most of the communities throughout Malawi."”

—Letcher Munyenyembe, District Nutrition Coordinator, Rumphi District Health Office
A health surveillance assistant weighs a baby at Chikoko village clinic in Nkhotakota. PHOTO: KIERAN MCCONVILLE/CONCERN WORLDWIDE.
In 2006, shortly after the MoH declared their intention to standardize CMAM during a national level workshop, a joint venture known as the CMAM Advisory Service (CAS) project between Concern Worldwide and the MoH’s Nutrition Unit was launched with the support of USAID. Under a simple Memorandum of Understanding with the MoH, the CAS project was assigned a mandate to coordinate, monitor, and evaluate CMAM activities; provide technical support and capacity building for CMAM at the national and district levels; standardize tools and materials used for CMAM in the country; and continuously advocate for the scale-up and integration of CMAM into the health system. The purpose of this project was to coordinate and support the scale-up and integration of CMAM at the national level. In short, CAS was conceived as a five-year project with a team of experienced nutritionists and monitoring and evaluation officers who served as the technical arm of the MoH’s Nutrition Unit. CAS was primarily a capacity-building and technical support unit to facilitate the scale-up of CMAM while also building the capacity of the government to take on CMAM management. The overall aim was to enable the MoH and District Health Offices to manage CMAM as a part of the Essential Health Package, funded and operated by the Malawi government. Therefore, the MoH was tasked with leadership and direction of CAS activities while Concern Worldwide was responsible for the day-to-day management and administration of activities.

“**The primary aim of the CAS project was to strengthen health service delivery and reinforce sustainability pathways by incorporating it as a routine health activity within the primary health care services.**
With this in mind, working at the district and national levels, the objective of the CAS project was to strengthen health service delivery and reinforce sustainability pathways by incorporating prevention, identification, and treatment of malnutrition as routine health activities within the primary healthcare services. In this way, children with acute malnutrition who were at increased risk of morbidity and mortality would receive the care they needed through the same corridors that they accessed treatment for other illnesses or infections.

The scale-up ensured that CMAM services would cover all 29 districts and at least 80 percent of all health facilities. Several key activities were important in the scale-up:

- Developing national CMAM guidelines and a CMAM training manual, including standard report forms, supervision checklists, and job aids
- Providing support in the review of CMAM guidelines and training manual
- Distributing revised CMAM guidelines and training manual to all districts
- Spearheading the roll-out of the revised CMAM guidelines and training manual to districts by supporting cascade training or a training-of-trainers approach
- Conducting quarterly joint supervision and monitoring of CMAM activities with MoH and district health staff

![SCALING UP CMAM](image)
The goal of CAS was to reduce morbidity and mortality due to severe acute malnutrition among children under five years of age in Malawi by achieving the following objectives:

- Improved access to care
- Improved coverage and quality of services
- Improved health and nutrition education through community outreach

**KEY PROJECT OUTPUTS**

1. A cadre of national- and district-level health staff with the training and capacity to manage quality CMAM within primary health care services
2. CMAM was scaled up to cover all 29 districts in Malawi and reached over 80 percent of the health facilities in these districts. The services were fully integrated within the primary health care system and were managed and implemented at the district level
3. Evidence on CMAM was documented and disseminated during learning forums that enhanced national-level advocacy, influenced national policies, and strengthened support for funding
4. The national health information system was strengthened by incorporating CMAM data that captured information from all districts and was used in routine monitoring and evaluation of CAS
5. Training on the management of acute malnutrition was integrated into existing the health training curriculum; all health providers received this training as a part of their orientation

**CHALLENGES**

Even though the MoH endorsed the scale-up of CMAM, there were a number of challenges with operationalizing this approach at the national level. Such challenges included various approaches of addressing malnutrition that were being implemented by other organizations; poor communication and coordination among stakeholders; and government staff at the district level who were slow to engage. Also, significant concerns were raised about the sustainability of the program considering the high cost of RUTF. Mindful of these challenges, Concern worked with the MoH to address these issues and agreed to key operating principals to help guide the project.

**KEY ELEMENTS OF CAS**

The project took deliberate efforts to ensure CAS was not a vertical, stand-alone project but rather one of the many services that are routinely provided at health facilities. As such, health policies and guidelines integrated all CMAM components into their preventive and curative protocols and routine data monitoring tools. Key characteristics of this institutionalized project include:

- **Ownership** by District Health Office and MoH; staff fully managed, implemented, and supervised CMAM services
- CMAM activities were **incorporated** in District Implementation Plans and **accounted** for in the district health budget
- The identification and referral of malnourished children **became a part of routine health service delivery** at both health facility and community levels
- Procurement for RUTF and other CMAM supplies were **centralized**; requisition, storage, and distribution of supplies were managed through the national level essential supplies distribution system
- Data collection and reporting was **harmonized** using the same reporting structure and schedule as other health center data. Key CMAM indicators were reported through the national health management information system
- Pre-service training curricula was **standardized** for health professionals and included management of acute malnutrition
- **Linkages** were established with other health programs and health service delivery platforms whereby CMAM was not a stand-alone intervention but services were harmonize with routine primary care activities such as immunizations, growth monitoring, and HIV and AIDS activities

“As a result of CAS, feedback systems and partner collaboration have increased, leading to improvements in community outreach strategies and integration of nutrition service within primary care. One of the most significant learning points from the CAS program is the emphasis on regular data analysis and utilizing this information in routine decision making.”

—Timiton Moyo, Nutrition Coordinator, Chitipa District Health Office
Building Capacity

A cornerstone of the project was capacity building at all levels to ensure that national-, zonal-, and district-level health staff have the skill set to manage CMAM within primary health care services. The following activities coupled with advocacy efforts were important drivers in building such capacity:

- Supported the recruitment and training of a cadre of national CMAM trainers
- Provided mentoring and technical backstopping support to district and national trainers to conduct CMAM trainings
- Oriented district CMAM focal persons and zonal supervisors on the management of acute malnutrition and integrated CMAM in the health training program
- Facilitated the inclusion of CMAM into the Essential Health Package and other national-level policies
- Provided on-the-job support to all districts and other NGO partners for the implementation of districts plans and institutionalization of CMAM within these plans
- Conducted CMAM capacity and quality assessments at the district and health facility level
- Conducted regular stakeholder review and planning meetings and shared CMAM advocacy materials such as the Learning Form newsletter
- Established a national-level, technical working group and steering committee to promote ownership and sustainability and maintain accountability for CMAM integration and full implementation
- Advocated for the local production, certification, and inclusion of RUTF into the essential supplies list
- Held Learning Forums regularly attended by the District Health Office staff to disseminate learning, review data, and strengthen policies
- Created a user-friendly database for CMAM data collection, analysis, and decision making by service providers. The CMAM database was instrumental in providing data trend analysis for other health program decision making at the national level and during humanitarian responses to nutrition emergencies
- Developed a four-year (2009–2012) operational plan guiding the full integration of CMAM into the Malawi health system

Staffing Inputs

CAS was a capacity building and coordination unit that acted as a technical arm of the MoH’s Nutrition Unit and was made up of eight program staff and five support staff (an administrative officer, three drivers, and one office assistant), who were centrally located within the MoH.

KEY PERSONNEL AND THEIR FUNCTIONS

Program Manager: Responsible for the day-to-day management of all CAS activities as well as advocacy and coordination among stakeholders.

Nutrition Advisor: Provided technical support and advice to the CAS team, assisted with coordination of CMAM activities, and led in developing guidelines and other supporting tools and documentation.

Project Officer: Provided technical guidance and support on programming quality to CAS staff, CMAM-implementing districts, and other stakeholders.

Quality Assurance Team: A team comprised of three Quality Assurance Officers was responsible for conducting supervision and support at the district level, mentoring national trainers, and developing resource materials.

Monitoring and Evaluation Team: Made up of one M&E Officer and one Data Manager, they were responsible for training and supporting District Health Officers on data collection and use; supporting the MoH to collect, compile, and analyze program data; and overseeing internal monitoring and evaluation for the CAS project.

NGO Support: Technical support from Concern Worldwide Malawi included the support from the Health and Nutrition Coordinator, Country Director, Assistant Country Director-Programs, Assistant Country Director-Systems, Communications Officer, Human Resources Manager, and the Country Financial Controller. Concern Worldwide played a catalytic role in the provision of technical support and capacity building to ensure high-quality scale-up of CMAM in Malawi and to facilitate the institutionalization of the CMAM program with guidance from the national Operational Plan for integrating CMAM into health services in Malawi.

CTC Steering Committee: Representation from the MoH, Department of Nutrition, HIV and AIDS in the Office of the President and Cabinet, UNICEF, World Health Organization, World Food Program, Valid International, Concern Worldwide, BASICS, Clinton Foundation, and USAID. This committee was the guiding force for CMAM roll-out in Malawi and met twice a year to review progress and identify action points.
At the conclusion of project in July 2013, CAS was fully and effectively managed within primary health care services by District Health Offices and MoH staff.

The project directly reached 400,629 children under five with severe acute malnutrition and 88,425 pregnant and lactating women benefited from the project.

Additionally, CAS reached over 500 health service providers in all 29 districts of Malawi. At the national level, the project provided the MoH with technical support and coordination efforts for the MoH to lead the roll-out and scale-up of CMAM to all districts in Malawi.

- At the conclusion of CAS, national coverage for CMAM was 100 percent for NRU, 84 percent for OTP, and 58 percent for SFP. Out of the 29 districts, all now provide CMAM services, with 24 districts achieving CMAM coverage in 80 percent or more of their health facilities.
- CAS was instrumental in facilitating the development of national CMAM guidelines along with standardized reporting forms and job aids, which were printed and disseminated to all districts by UNICEF.
- CAS led on developing a national monitoring and evaluation system and trained District Health Management Information System Officers to compile monthly health center data using a national database that incorporates reports from OTP, NRU, and SFP.
- A cadre of national CMAM trainers was formed to provide ongoing training sessions and refresher training for health center staff and to provide technical support to health staff. This was an important contribution to ensure the work of CAS continues beyond the life of the project.
- Improvements in communication and coordination were achieved through the establishment of Learning Forums, which bring together key stakeholders several times a year to discuss issues and serve as a platform to share and replicate best practices and lessons learned.

"If I could provide advice for other stakeholders interested in replicating a similar approach, my recommendations would be to involve community-based structures, specifically community leaders and volunteers, and the Ministry of Health from the inception; screening of children under five for acute malnutrition should become a part of routine service delivery; and teamwork and cooperation must be stressed between health workers, the community, and partners in all stages of the program."

—Letcher Munyenyembe, District Nutrition Coordinator, Rumphi District Health Office
Under the CAS project, Concern played a catalytic role in the national scale-up of CMAM. While the mandate of CAS was to provide technical assistance and build the capacity of the MoH for the national scale-up of CMAM, the project embraced a significant coordination and mentoring role to support the operationalization of tools and policies as well as a national monitoring and evaluation system that included CMAM indicators. Equally important, the project emphasized an advocacy directive for nutrition to be a core development priority in Malawi by advancing efforts in the 1,000 Special Days Campaign and SUN movement along with various other national-level policy engagements.

- **CMAM Integrated into Health Management Systems**: Integrating CMAM within national policies, guidelines, and the existing health infrastructure for training, supply chain management, and supervision reduced the costs associated with CMAM programs and enhanced their sustainability. CMAM has provided an entry point for other health services such as HIV testing and support and preventative nutrition programs.

- **CMAM Guidelines, Training Manual, and Monitoring Tools Developed**: Developing and reviewing national CMAM guidelines, a CMAM training manual, and monitoring tools promoted the harmonization of CMAM services into primary health care and kept the national program abreast with international protocols.

- **Capacity Building**: Establishing national- and district-level training teams and building the capacity of service providers fostered the decentralization process and the districts’ capacity to plan, implement, and monitor CMAM programs without ongoing external support. Supervision for CMAM was incorporated into District Health Offices throughout all districts and supervision of NRU supplies and services was incorporated into a national checklist used by District Health Offices for monthly supervision.

- **CMAM Focal Persons Identified at All Levels**: Appointment of a National CMAM focal person within MoH’s Nutrition Unit enhanced the coordination for the scale-up and integration of CMAM in Malawi. The appointment of CMAM focal persons at the zone, district, and health facility levels facilitated effective and efficient management of CMAM.

- **Funding of CMAM Activities Strengthened**: District Health Officers were trained on how to budget for CMAM and provided instruction on how to factor costs into the District Implementation Plans. As of January 2012, external support from other NGOs was phased out and most District Health Offices were relying on their district budget to fund CMAM. The CMAM costs include CMAM training, supplies such as RUTF, supervision, and district-based coordination meetings.

- **Local Production of RUTF Strengthened**: Expansion and certification for the local production of RUTF facilitated a more cost-effective and sustainable approach to the procurement and distribution of RUTF for CMAM programs in Malawi.

- **Evidence for Scaling Up CMAM Documented**: CMAM best practices were shared, documented, and replicated at both national and international levels. Eighteen Learning Forums were held over the life of the program; these forums were an opportunity for the districts to share experiences, review data trends, and develop joint recommendations with CAS. These forums also proved to be an accountability mechanism whereby targets and progress toward implementing and achieving recommendations were reviewed.

- **CMAM Technical Working Group Established**: The CMAM Technical Working Group that was created under CAS fostered strong partnerships and served as a coordinating mechanism as well as a platform for building CMAM capacity. This technical group became the National Nutrition Coordination Committee.
Lessons Learned and Key Recommendations for Replication

Over the seven-year period of implementation from 2006 to 2013, CAS has gathered learning and key recommendations to offer other stakeholders implementing health programs and, more broadly, those involved in international development who are considering scaling up programs to a national level and integrating them within a government system. The following are key lessons learned and recommendations:

1 **Harmonize and agree to policies** particularly related to project operations and remuneration. When there is variance on policies, partners need to be mindful of the impact this can have on staff moral and implementation. Since its inception, CAS ensured that it operated within an agreed-upon framework to guide all its operations. The development of clear, specific terms of reference helped CAS work within its timeline to achieve set goals.

2 **A clear exit strategy** must be established and communicated from the inception. It is important to avoid a “hand-over approach” whereby towards the conclusion of the program it is assumed a partner will take on full responsibility. To avoid this, there should be full engagement and accountability from the beginning to promote a sustainable approach beyond the donor funding lifecycle.

3 **Engagement and continual presence** within the relevant government ministry provides a platform for strong and effective working relationships between the government and partner(s). Since CAS operated as a technical arm of the MoH, the project was physically located within and operated from the MoH premise. The physical presence of the program incorporated within the MoH solidified CAS’s commitment to integration and positioned the MoH as the lead decision maker for how CAS related to and interacted with the national health system. Hosting the project within the MoH enhanced CAS’s acceptability among other NGOs, which initially viewed the program as a Concern Worldwide-driven initiative and were somewhat reluctant to engage with the program.

4 **Focal point persons are critical** to the success of a project. CAS advocated for the positions of a CMAM Desk Officer at the national level and CMAM focal point persons at the district level. These positions are credited for the successful, effective, and well-coordinated CMAM scale-up and implementation.

5 **Ownership by national and district structures** from the beginning was critically important for the planning, coordination, implementation, and monitoring of the project by the District Health Offices and under the leadership of the MoH. Joint planning and periodic reviews facilitated this process.

6 **Engaging a wide range of stakeholders** facilitated quick adoption and national acceptance of the program. Working with various United Nations agencies, humanitarian NGOs, and relevant line ministries created linkages and synergies to leverage additional support, including financial assistance and advocacy efforts to integrate CMAM into routine primary health care activities.

7 **Coordination with other stakeholders** is important to understand the operating landscape. CAS trained and advocated for the districts to procure CMAM supplies, particularly RUTF, through their internal budgets. Other NGOs and United Nations agencies solicited external funds to support procurement, which was counterproductive to CAS’s approach of encouraging the districts to plan, budget, and procure RUTF through their own funds. In some cases, procurement of RUTF through the district’s budget remains problematic.

8 **Inclusion of CMAM in the pre-service training curriculum:** For service delivery to be effective on the ground, it is strongly recommended that health facility staff members are equipped with the knowledge and skills during their professional coursework, orientation, and on-the-job trainings by including the CMAM approach as a part of the national nutrition curriculum. This helped to accelerate CAS performance and develop a cadre of more adequately prepared staff.

9 **Monitoring, evaluation, and learning:** From the beginning of the program, a clear monitoring and evaluation framework should be established with key indicators and targets that are agreed upon by all implementing partners. This plan should include how, what, and when the data will be collected and it should also specify data dissemination channels. Furthermore, it is important to ensure there is an interface and a symbiotic relationship between the program database and that of the national health system. An action plan with measurable targets should be incorporated to encourage and track how the data is utilized to inform decision making and influence programming at the district level.

10 **Adaptability and flexibility** throughout the program life cycle is critical. Although CAS largely emphasized a curative approach to address malnutrition and achieved great success in treating cases, as time evolved there was a growing recognition that prevention of undernutrition must be prioritized in this approach. It is recommended that the next steps towards scaling up this approach integrate a robust prevention strategy.
Concern Worldwide is an international, non-governmental, humanitarian organization dedicated to reducing extreme poverty, with more than 3,000 personnel working in 25 of the poorest countries in Africa, Asia, and the Caribbean. Concern Worldwide targets the root causes of extreme poverty through programs in health, education, livelihoods, HIV and AIDS, and emergency response, directly reaching more than 6.9 million people.

REFERENCES
2. Malawi Nutrition Profiles, 2009
3. Multiple Indicator Cluster Survey (MICS), 2006
4. Malawi Nutrition Profiles, 2009
5. Multiple Indicator Cluster Survey (MICS), 2006
7. There are 28 administrative districts in Malawi and 29 health districts; one administrative district, Mzimba, was divided in two, thereby creating 29 health districts. For the purposes of this document, district refers to a health district.

ABOUT CONCERN WORLDWIDE
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