

**EVALUATION OF COMMUNITY
MANAGEMENT OF ACUTE
MALNUTRITION (CMAM)**

Global Synthesis Report

EXECUTIVE SUMMARY

Severe acute malnutrition (SAM) threatens the survival of children both in emergency and non-emergency settings. Recent estimates suggest that SAM affects between 19 and 26 million children under 5 years of age globally and contributes to nearly 1 million child deaths each year; most SAM cases are not in emergency countries. Treatment of SAM has evolved as a major intervention over several decades but it has had limited reach. The advent of ready to use therapeutic food (RUTF) and a community-based approach, community management of acute malnutrition (CMAM), has made it possible to treat the majority of children in their homes.

The efficacy of the CMAM approach has been demonstrated since 2007 following an endorsement by UN agencies which paved the way for the further expansion of the intervention. CMAM is generally a preventive continuum with four components: 1) community outreach as the basis; 2) management of moderate acute malnutrition (MAM); 3) outpatient treatment for children with SAM with a good appetite and without medical complications; and, 4) inpatient treatment for children with SAM and medical complications and/or no appetite.

A key objective, both globally and nationally, of CMAM is progressive integration into the national health system and ultimately complete government ownership. By the end of 2012, governments in 63 countries had established partnerships with UNICEF, WFP, WHO, donors, and NGO implementing partners (IPs) for CMAM. The Ministries of Health (MoH) assume leadership and coordination roles and provide the health facilities. Implementation arrangements vary in particular contexts or areas. Most countries implement inter-related interventions such as Infant and Young Child Feeding (IYCF), Integrated Management of Childhood Illnesses (IMCI), Mother Child Health (MCH), as well as micronutrient supplementation.

The internal and external inputs for CMAM include policies, commitment of funds, coordination, and technical support available to the MoH and other IPs. Access to services suggests linkages with formal and informal healthcare and community-based organizations or systems. Access to CMAM supplies includes both essential drugs and ready to use therapeutic or supplementary foods. Service quality requires establishment of guidelines, support and supervision for staff, training, and monitoring and evaluation components. Intended outputs are enhanced community knowledge and practices regarding child nutrition and health, improvements in nutritional status of children under five years of age admitted to CMAM, and reduced morbidity and mortality.

Through CMAM services, UNICEF provides technical guidance to improve the quality and access of SAM treatment, and works toward standardized monitoring and evaluation methods to demonstrate impact of the intervention on SAM. UNICEF produces an annual summary, the "Global SAM Treatment Update" to report on the status of SAM treatment in countries where UNICEF-supported CMAM is implemented. UNICEF has made significant investments to scale up treatment of SAM through the CMAM approach including procurement of therapeutic foods, medicines, and equipment. UNICEF currently procures approximately 32,000 MT of RUTF annually which represents an investment of over 100 million dollars. UNICEF also contributes in most countries along with governments and non-governmental IPs to capacity-building and training; establishment of outpatient treatment centres; advocacy, awareness and behaviour change communication; and development of monitoring and information systems.

In recent years, several reviews of CMAM have been conducted; however, there is no evaluation which examines all key aspects of CMAM at both national and global levels. This evaluation is the first to generate evidence on how well the global as well as country level strategies have worked including their acceptance and ownership in various contexts and appropriateness of investments in capacity development and supply components. The process included a comprehensive assessment of CMAM in five countries and drawing synthesized findings and recommendations for governments, UN agencies, NGOs and other stakeholders to use in modifying CMAM policy and technical guidance for both emergency and non-emergency contexts.

Evaluation Scope and Methods

The evaluation scope consists of two interrelated components. First, the evaluation undertook detailed analyses of CMAM in Chad, Ethiopia, Kenya, Nepal and Pakistan. The criteria of relevance, effectiveness, efficiency, sustainability and scaling up were applied to CMAM components and to cross-cutting issues.¹ Data were obtained from secondary sources, health system databases, and observations during visits to CMAM intervention areas. The community perspective was analysed through collection of opinions from caretakers, extended family, community leaders, and community-based health workers in addition to stakeholders from government and assistance agencies. Quantitative data were analysed to determine whether performance targets were met and qualitative data supported the analysis. Secondly, building upon case study evidence, broader research resulted in compiled lessons, good practices and recommendations for UNICEF and partners globally. A global internet survey targeting all 63 countries implementing CMAM, helped to triangulate and validate conclusions from the five country case studies.

Conclusions

The evaluation conclusions are based on the findings detailed in the body of the report, regarding: (1) Relevance of CMAM; (2) CMAM Effectiveness and Quality of Services; (3) Promoting Equity in Access; (4) Progress in National Ownership; (5) Efficiency – Costs, and Supply and Delivery of RUTF; and (6) Sustainability and Scaling Up (Expansion) of CMAM.

1. Relevance of CMAM Guidance and Technical Assistance

The CMAM approach is appropriate to address acute malnutrition, particularly to the degree that CMAM is being sustainably integrated into the national health system. CMAM interventions are becoming regularized within the national health systems, contributing to greater geographic coverage. Inputs have resulted in meeting the Sphere standards for recovery from SAM and successful expansion in times of crisis. Where integration (e.g. governance, finances, planning, service delivery, monitoring and information, demand) is well planned and based on capacity assessments, efficiency has increased and scale up has been facilitated.

Demand for CMAM services has increased; efficient use of community resources for prevention and identification and referral of children with MAM and SAM contributes to demand. Efforts to mobilize communities, develop capacity in the health system, and increase ownership in districts and communities have paid off in higher admissions. Demand is effectively increased through facilitating more participation in planning at the district level, providing more support to community health workers (CHWs), and drawing in private health care providers and other community members.

National contributions to CMAM are growing but scale up (expansion) is challenged by funding constraints for regular programming and reliance on emergency funds and external sources of assistance. Reliance on stop-start, short term, mainly external emergency funding makes CMAM less likely to achieve preventive and sustainable outcomes. Greater accountability for addressing acute malnutrition is signified by more assumption of the cost burden by governments and reassessment of funding practices and sources by assistance partners.

Global and National Guidelines

Global guidance for SAM treatment has contributed to development of national guidelines which offer high value in promoting district ownership. However, lack of agreement on the best approach to address MAM has contributed to inconsistency among countries for MAM management and concomitantly, prevention of SAM. At national levels, where MAM guidelines have

¹ To date, there is no global agreement on MAM management and MAM was assessed in view of nationally accepted protocols.

been developed separately from the other three components or are underdeveloped, the preventive linkages among community outreach, MAM and SAM are weakened.

Global and national guidance is generally adequate for treatment protocols but lacking or fragmented regarding: planning and monitoring, integration of CMAM, equity and gender, community assessment and mobilization, and MAM management. At national level, bodies of guidance are strengthened through integration with IYCF and other interventions. Some of the Sphere minimum humanitarian standards may no longer be relevant for regularized CMAMs so use of Sphere needs further discussion. Standards and indicators are needed for screening, relapse, re-admissions, referrals and home visits (which Sphere does not cover) to promote more effective steering of the intervention.

Technical Assistance

Technical support has resulted in significant gains in process, coverage and outcomes; creation of parallel systems is not sustainable and slows national ownership. Start up and scale up of CMAM is heavily reliant on external support, however, separately managed and funded information systems, supply and delivery, finance and/or management oversight are difficult to effectively assimilate. Where exit plans, MoUs, and other agreements are used to describe roles and responsibilities of IPs and advisors to progressively and efficiently build capacity, assessment of results and transfer of parallel systems into national hands are facilitated. However, this is done on a limited basis; IPs often lack integration or exit plans and strong connection with district level development planning.

Within UNICEF overall, there has been effective support for fund mobilization, emergency nutrition response, and supporting nutrition protocols; expansion of regional roles is important to meet national technical assistance needs. Global and regional technical support was found to be of key importance for guideline development and for designing monitoring plans and tools, studies and participative evaluations and disseminating lessons learned. Greater inputs and roles for regional technical assistance for CMAM are requested by the majority of COs.

Capacity development has significantly promoted quality of services; there is however some redundancy in training among related interventions. On the job training (OJT) surpasses training of trainers (TOT) as the most effective approach. Devoting more resources to pre-service training (PST) has improved nutrition knowledge among medical staff. Training needs assessments did not always examine staff functions, training for community members was found to be very limited and coverage of catchment areas often uneven, with some areas receiving less attention.

2. CMAM Effectiveness and Quality of Services

Overall, CMAM has been effective in helping admitted children to recover from SAM and promoting prevention through community outreach and MAM management. CMAM has been less successful in preventing (rather than treating) SAM. The Sphere standards were met for recovery for MAM management where data was available; and for recovery, death and default in outpatient and inpatient treatment for SAM in the five case study countries. Community members and health workers have affirmed higher levels of knowledge regarding the impact of nutrition on childhood development. Nutrition coordination and advocacy around CMAM has helped nutrition rise on the policy agenda.

Sensitizing the community on acute malnutrition along with active case finding has critically improved admissions to services; the potential of community outreach is constrained by insufficient assessment, planning and funding for mobilization of community resources, weak monitoring, and inadequate support for CHWs. Home visit follow-ups are weak because CHWs require more support in the form of transport and other means to facilitate their access to households. Community sensitization and mobilization have been found to improve where frequent community assessments were carried out and where resources were allocated to support outreach strategies as well as providing incentives for CHWs.

Outpatient treatment services, whether implemented through fixed health facilities, mobile clinics or in refugee camps, are effective in CMAM intervention areas in the case study countries in treating SAM without complications. Training, supervision and well equipped facilities contributed to success. Greater consistency in usage and standards was found to make anthropometric measurements more effective. Sufficient infrastructure to accommodate children and their caretakers and adequate WASH inputs particularly in provision of water taps and acceptable latrines improved quality of services.

The CMAM inputs for inpatient treatment services were found to be only moderately effective due to weak coordination around referrals between inpatient and outpatient care, and weakness in staffing, psychosocial support, and data collection. Gaps in round the clock staff support as well as in strengthening of health staff capacity for providing nutrition services and for data collection and analysis have constrained assessment of effectiveness. Similarly, many facilities lacked sufficient beds for high occupancy times and play areas and toys to provide psychosocial stimulation.

Evidence is insufficient on outputs and outcomes for MAM management. The absence of surveys to measure behaviour changes and lack of reliable data on all MAM performance indicators make it difficult to ascertain effectiveness of the MAM intervention, whether implemented through counselling, provision of supplementary foods, or both. There is not enough data on relapse to provide evidence on linkages between interventions to address SAM and MAM.

Information systems for CMAM developed in parallel to national systems were found to be unsustainable; there was a lack of consensus on practical reporting requirements. Parallel information systems have improved reporting but generally require external support and lack strong connection to national M&E processes. Where undertaken, simplification of data collection and analysis was found to enhance effectiveness. There are important data gaps with regard to relapse, means of detection by type/place of screening; repeat screenings; reasons for default; and effectiveness of counselling.

3. Promoting Equity in Access

Identification of children who might be missed and developing strategies to reach them are top challenges in improving access. Stronger case identification, community assessments and mapping of vulnerability are key tools to improve access. There are important gaps in coverage regarding children and areas both within and outside geographically targeted areas.

Planning among government, assistance partners and communities for CMAM is often disjointed which hampers the promotion of equity as well as coverage. Integrated planning frameworks and use of community assessments were found to help avoid implementation and equity issues, improve coverage and effectiveness and offer health staff greater direction. Where planning exercises included district level government and community stakeholders and made good use of information provided through vulnerability mapping programmes to map and prioritize CMAM target areas, more equitable access was achieved.

Awareness of challenges in estimating geographic and treatment coverage in order to promote more effective strategies to increase access was often weak. Coverage of children with SAM or MAM is far below the global and well below most national levels of need; geographic coverage has improved particularly where CMAM is more fully integrated into the national health system. Insufficient data on population, lack of agreement on calculations, and weak estimate of incidence affect geographic coverage estimates. The importance of treatment coverage surveys is now more widely recognised, however, they often lack funding and reliable data.

4. Progress and Challenges related to National Ownership

A strong nutrition authority and nationally owned overarching strategy for nutrition was found to be important to support CMAM's potential for long-term impact. Although nutrition services are gaining strength, the national nutrition authorities often lack appropriate status and expertise in order to

manage nutrition interventions and advocate for greater resources for CMAM. Nutritionists positioned centrally and in districts have been found to have effectively promoted prevention and recovery but are generally in short supply. Inter-linkages with international activities such as Scaling Up Nutrition (SUN) and the REACH initiative - a country-led approach to scale-up proven and effective interventions addressing child undernutrition through the partnership and coordinated action of UN agencies, civil society, donors, and the private sector, under the leadership of national governments - are sometimes blurred and funding for nutrition strategies is often insufficient.

Agreement on global standards for integration of CMAM management and services into the national health systems is lacking but critical to guide government, UN agencies, IPs and health system staff. Guidance by global standards has effectively steered the development of national strategies; thus a global effort is needed to agree on guidelines for integration which will steer efforts to address capacity issues in the national health system. UNICEF has piloted a Global CMAM Mapping framework which can provide guidance and this can be finalized or revised.

Where CMAM was not integrated with other interventions, health workers often felt overburdened and reported efficiency losses due to duplication and repetition. Insufficient numbers of well-trained health workers were found to be a major constraint for scaling up. Technical assistance was found to contribute to strategies that help to train, motivate and retain trained staff. Although numerous countries have integrated other interventions (e.g. IYCF or IMCI) with CMAM or are planning to do so, effective means to address the challenges presented in terms of different modes of scale up and lack of a unified scale up strategy among interventions have not been widely shared.

5. Efficiency - Costs, Supply and Delivery of RUTF

Cost savings through addressing user/dispenser challenges of ready to use foods have not been fully pursued. The cost of RUTF comprises approximately 50% of recurrent costs where cost of Ready to Use Supplementary Food (RUSF) is not included in calculations, thus cost saving is essential. Sharing of RUTF among siblings, caretaker sales of RUTF, and weak storage management, was successfully addressed in some cases through strengthening sensitization, referrals to food security interventions, counselling, and training.

For scaling up and promoting local production of RUTF, quality assurance remains a major problem. The main limiting factors to local production are quality control in order to meet stringent standards, the need for capital investment, and the sourcing and cost of ingredients. Further research is needed to explore alternative RUTF formulas for local production and use.

Under certain circumstance, investments in improving the efficiency of the national supply and delivery chains were found to help open up more areas to expansion. UNICEF, WFP and IPs currently manage all or part of supply and delivery of CMAM supplies in parallel systems which were found to be unsustainable. The three factors most likely to promote supply chain efficiency were: a) stronger planning and forecasting; b) assessment of national supply chain weakness; and c) usage of the national system by IPs with concurrent capacity development.

Common challenges in funding are lengthy periods for approval of project documents and signing of Memorandums of Understanding which delay implementation; short term agreements of three to six months between UNICEF and IPs adversely affect the motivation and performance of IP staff.

6. Sustainability and Scaling Up (Expansion of CMAM)

The scale-up and integration of CMAM are facilitated by partnerships among government, UNICEF, WFP, WHO, UNHCR and implementing and development partners; a cohesive vision for addressing acute malnutrition does not always exist. In support of CMAM, effective coordination among UNICEF, WHO and WFP has been evident in emergency response; however, isolation of agency-

specific roles has weakened the efficacy of longer term and regularized CMAM in ensuring linkages between inpatient and outpatient care and addressing MAM and SAM.

Globally and nationally, CMAM has not been found to be sustainable as a stand-alone intervention; integrated health and nutrition packages that include CMAM were more successful in strengthening efficiency, effectiveness, sustainability and prevention. A good practice was for CMAM to align itself to other preventive initiatives such as disaster risk reduction (DRR) and include indicators to that effect. The linkages to IYCF and MCH among others, highlight prevention as well as cure. Other means to augment CMAM outcomes include the IMAMI intervention, the HINI approach and greater promotion of traditional weaning foods.

The evolution of CMAM has produced rich knowledge; yet, evaluations and studies, dissemination of lessons and retention of the knowledge and experience accumulated in communities are still scarce. There is a need for more systematic planning and investment in evaluations and studies on the CMAM approach and in disseminating lessons and good practice examples.

Recommendations

Key recommendations are directed toward UNICEF Headquarters (HQ), Regional Offices (ROs) in CMAM priority regions, and to Country Offices (COs) where CMAM is being implemented. Recommendations are expected to be carried out through partnerships with government, UN agencies, IPs and other stakeholders. The recommendations are made in light of forthcoming global guidance (to be contextualized at the national level) on addressing severe acute malnutrition in emergency and non-emergency situations.

Overall, the evaluation recommends that UNICEF continue to promote and support CMAM as a viable approach to preventing and addressing SAM, with an emphasis on prevention through strengthening community outreach and MAM management and integrating CMAM into national health systems and with other interventions.

Ownership and Integration, Strategy and Policy, Guidelines

1. Continue to work with governments, WFP, WHO, IPs, and other stakeholders to secure a common understanding on the most effective means of addressing MAM in order to unify approaches, to strengthen community-based preventive measures, and to prevent SAM and relapses into SAM. UNICEF HQ needs to strengthen dialog with WHO, WFP and other stakeholders to clarify UNICEF's role in MAM management in view of global MoUs, and to make the best use of lessons learned and good practices to address MAM as a chronic problem. UNICEF HQ can call upon ROs and COs to collect input from their regions and countries. This may require global, regional or national workshops, and surveys and studies in various contexts.

2. Establish a guideline or framework for integration of CMAM into the health system and with other interventions that is useful at national level when based on capacity assessments and integrated with national health, nutrition and community development strategies. Through the global integration task force and other forums, UNICEF HQ should seek agreement on an integration framework. Using this guidance, UNICEF can offer technical assistance to help governments and partners develop a sustainable integration plan that will determine appropriate levels and types of external technical support.

3. Facilitate coordination and technical support at regional/national level to expand or develop national CMAM guidelines as CMAM is integrated with other interventions such as IYCF. With the MoH as the lead, UNICEF with oversight support from HQ, can provide technical assistance to assess current guidance and ensure that sufficient detail is included while integrating guidelines with other interventions. Guidance should be strengthened with regard to community outreach activities, MAM

management, cultural adaptation, gender and equity, performance monitoring and administration of RUTF, among others, and include lessons learned.

Performance and Quality of Services

4. Strengthen community outreach by ensuring adequate investment in CMAM outreach activities and their integration with outreach for other public health interventions. UNICEF COs should advocate through dialog with government and through health and nutrition coordination forums for more collaborative use of resources from various interventions, including the work of the CHWs. This may include making greater investments in support for CHWs, and in awareness campaigns and joint strategic planning exercises, ensuring participation of community leaders and private health care providers. More connection needs to be made to national nutrition and health strategies; UNICEF COs should link this process to C4D initiatives and with regular reviews of the community outreach strategy.

5. Decentralize nutrition information systems to strengthen data collection and analysis at district level supporting and reinforcing the MoHs' lead role and joint accountability among the MoH and partners for improving quality. UNICEF should take the lead in supporting the development of nutrition information systems capable of collecting qualitative as well as quantitative data and performing analysis of high quality that will promote aggregation of data at national and global levels. UNICEF can provide more technical support with partners such as WFP, WHO, and IPs to streamline data collection and reporting tools to reduce reporting burdens on staff and consider use of SMS technology for data monitoring. Stakeholders should agree on indicators that are critical and practical to collect and reassess the use of Sphere indicators as CMAM evolves to regular programming. Indicators should be developed to assess performance of community outreach activities and relapse; data should be disaggregated by sex.

6. Define a standardized monitoring system to assess the quality of the CMAM services to inform the MoH, UN partners, IPs and other stakeholders where more capacity is needed. UNICEF COs with technical support from ROs and working with government and partners should agree on a tool that will facilitate joint accountability for capacity development and qualitative monitoring which is integrated with other interventions to the degree possible. This can serve to indicate where greater interface with WASH is needed for acceptable water taps and latrines, and for noting other needs such as waiting areas, beds, play spaces and toys. A 3-tiered tool developed in Ethiopia is suggested as a model to be refined and adapted for this purpose.

Equity in Access, Assessment, Coverage, Planning

7. Strengthen planning for CMAM through conducting community assessments, and greater use of joint integrated results-based planning exercises and mapping information to help prioritize areas for scaling up. UNICEF COs should ensure joint planning with district stakeholders and inclusion of CMAM in district development plans. Planning has to accentuate participation of key community actors, demand challenges for CMAM services, possible equity issues and, identification of children who are most likely to be missed and potential strategies to reach them.

8. Improve awareness and capacity for conducting treatment coverage surveys and using the information to analyze trends. UNICEF COs should support capacity development on treatment coverage and ensure funding for technical assistance to conduct treatment coverage surveys, as well as assessing geographic coverage, with subsequent planning to strengthen and extend coverage.

Maintaining and Improving Efficiency

9. Strengthen means to reduce costs and promote national assumption of costs for ready to use therapeutic and supplementary foods. UNICEF COs need to support the MoH and other implementing partners to address RUTF user/dispenser challenges such as sharing among siblings, caretaker sales, and weak storage management, through guidelines, sensitization, counselling, and training. COs can advocate to strengthen national supply and delivery services through a joint plan to build capacity, as well

as incorporation of CMAM supplies (e.g. RUTF, equipment, medicines) as part of essential care packages to facilitate production and importation.

10. Conduct further operational research to find alternative RUTF formulas to promote feasibility of local production that meets international standards. UNICEF should take the lead to plan and support studies in various contexts working with key actors and providing technical assistance to assess capacity for production using alternatives to peanut-based RUTF. The RO's role needs to be augmented in promoting local/regional RUTF production and sharing technological insights.

Sustainability and Scaling Up (Expansion of CMAM)

11. Strengthen policies and partnerships that sustainably support scale up. UNICEF COs, with advice from ROs, need to ensure that agreements among government, IPs and technical advisors contain exit strategies and benchmarks for capacity building, e.g. for management, supply and delivery and information systems, and avoid unsustainable practices such as salary top offs. MoUs and PCAs should be developed in a timely manner and have sufficient time spans to support longer term goals of the intervention. UNICEF COs need to advocate for sufficient nutrition expertise in the MoH and ensure that its offices and IPs have adequate nutrition staff to coordinate planning and monitoring for scaling up CMAM.

12. Plan and implement exercises which strengthen a joint vision among UNICEF, WFP, WHO, IPs and the MoH on acute malnutrition. UNICEF should, at global, regional and national levels support joint workshops, and joint monitoring and evaluation, for the purpose of developing joint strategies and working toward an updated joint statement on addressing acute malnutrition.

13. Based on training needs assessments, job descriptions and appropriate supervision, scale up on the job training (OJT), training of trainers (TOTs), pre-service training (PST) and refresher training ensuring coverage of districts. CMAM training supported by UNICEF COs and with technical input from ROs should be combined with training for IYCF and other interventions to avoid redundancies and unify messages, through high level consultations with government and national nutrition networks and nutrition coordination mechanisms. The incorporation of nutrition science and CMAM into medical education and training (institutional training for doctors and nurses) needs to be promoted to ensure adequate pre-service training on acute malnutrition.

14. Strengthen prevention of SAM through ensuring that management of acute malnutrition is part of a minimum package of nutrition interventions in all priority countries. With the MoH, UNICEF and other partners through nutrition and health coordination forums need to design and implement a package of nutrition interventions which includes CMAM to manage MAM and SAM delivered as one of the basic health services, and also integrated within a broader intersectoral approach to address the causes of undernutrition. UNICEF HQ, ROs and COs should seek means to align CMAM with preventive interventions such as DRR and include indicators to that effect as well as encouraging countries to use global resources available through SUN and REACH.

15. Strengthen knowledge and lesson dissemination and sharing of successful approaches to integration and scaling up. UNICEF needs to devote more resources to plan and fund evaluations and studies on the CMAM approach in order to disseminate lessons, share good practice examples, and help to retain the knowledge and experience accumulated in communities. UNICEF RO's technical input needs to be strengthened to share regional experiences along with designing integrated monitoring plans and tools. Possible studies include optimizing the roles of CHWs, pursuing integration in various contexts, identifying the reasons for defaults and relapses, documenting options for effective MAM management, improving knowledge, attitudes, and practice for child nutrition, and researching the most sustainable options for addressing acute malnutrition.