

# Concern Worldwide's Learning from 15 years of Community Management of Acute Malnutrition Programming



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LEARNING PAPER

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## Introduction

Concern Worldwide (Concern) has been engaged in Community Management of Acute Malnutrition (CMAM) at community, facility, district, national, and international level since CMAM's inception and initial piloting in 2000. This article outlines five key lessons Concern has learned over the last 15 years of CMAM programming and concludes with priorities Concern has identified for supporting future equitable scale-up of quality services for acute malnutrition. A companion article summarizes Concern CMAM activities during the same time period. Those involved in CMAM programming or with an interest in CMAM should find this article of interest<sup>1</sup>.

The overarching goal of scaling up treatment programmes for acute malnutrition is to improve child survival and development. Severe acute malnutrition (SAM) is responsible for an estimated 7.8 percent of global under-five deaths each year. Moderate acute malnutrition (MAM) is responsible for a further 4 percent.<sup>i</sup> To put this information in context, other causes of death in children under-five years of age are pneumonia (18 percent), diarrhoea (11 percent), malaria (7 percent), meningitis (2 percent), AIDS (2 percent) and measles (1 percent).<sup>ii</sup> Since these estimates were derived from two different analyses, they may not be strictly comparable, but they do show that addressing SAM is essential to reducing global under-five mortality.

## Lesson 1: The term 'CMAM' is interpreted differently

CMAM does not mean the same thing to all people. Some understand it to include all four of the original Community Therapeutic Care<sup>iii</sup> components (inpatient therapeutic services, outpatient therapeutic services, supplementary feeding and community mobilisation). Others adopt the definition in the UN Joint statement, which coined the term CMAM and defined it as the community-based management of *severe* acute malnutrition thus excluding management of MAM.<sup>iv</sup> Concern understands 'CMAM' to encompass all four components of community-based management of SAM and MAM. We recognise, however, that in many contexts the continuation or scale-up of services for MAM may be less feasible than services for SAM, particularly post-emergency. For a number of reasons, we do not advocate the scale-up of supplementary feeding for MAM through the health system. When working with peers and Ministries of Health (MoH), we find it useful to state clearly the meaning of the different terminology and acronyms we use. For example, some countries use the term Integrated Management of Acute Malnutrition (IMAM) rather than CMAM although in essence they mean the same.

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<sup>1</sup> This is the second of a two paper series. The first paper is called 'Taking Stock: Concern Worldwide's 15 Year Contribution to Community Based Management of Acute Malnutrition'.




## **Lesson 2: The treatment of severe acute malnutrition is cost-effective**

The 2013 Lancet Series on Maternal and Child Undernutrition identified 10 high impact, highly cost-effective nutrition interventions that, if brought to scale (to 90 percent coverage in 34 high burden countries), could prevent 15 percent of under-five deaths (approximately 1 million annually).<sup>v</sup> Management of acute malnutrition was estimated to have the greatest impact on under-five deaths (435,000 lives saved per year globally) at the lowest cost per life saved (\$125). This analysis is in line with the findings from at least three previous studies, <sup>vi vii</sup> including one conducted by Concern in Malawi<sup>viii</sup> in 2007, which found that CMAM for SAM is a highly cost-effective health intervention costing roughly \$42 (2007 US\$) per DALY averted. This compares favourably with the cost per DALY of other priority child health care interventions in Africa, including community or facility-based case management of lower acute respiratory infections (398 US\$), integrated management of childhood illness (38 US\$), universal salt iodisation (34-36 US\$), and insecticide-treated bed nets for malaria prevention (11 US\$ for sub-Saharan Africa).<sup>ix</sup> This largely justifies the scale-up of CMAM for SAM as an integrated part of health services.

## **Lesson 3: Transition from direct implementation by NGOs to national level Ministry of Health integration is possible and necessary**

CMAM was developed initially as a new approach to tackle the problem of acute malnutrition during emergencies. While it proved very successful, the downside was that most programmes were run by Non-Governmental Organisation (NGOs). They set up systems Independently of the MoH and, at the end of their funding periods, found themselves trying to 'handover' a resource-intensive emergency programme to ill-equipped government health systems. Some MoH staff initially equated CMAM to an NGO-led emergency response package rather than something that was part of their routine health services. There was also relatively slow recognition among all stakeholders of the contribution of acute malnutrition to under-five mortality, even outside of emergencies. This also contributed to a delay in scale-up.

Concern has learned that existing health and community systems must be leveraged to achieve significant scale and impact of CMAM. Concern believes that, as far as possible, SAM should be treated in health centres as part of the essential package of health services in the same way as other common childhood illness such as malaria or pneumonia. There may always be a need for stand-alone CMAM services, but these should be confined to acute emergencies or where no MoH structures exist and should be limited in duration. Initially, the nutrition sector, including Concern, was relatively slow in applying a health system analysis to identify key integration points for CMAM into the MoH system, including identifying opportunities and potential bottlenecks. The WHO health system building blocks offer a broad framework for analysing the adequacy of the health system.<sup>x</sup> Box 1 presents some key opportunities and integration points for CMAM that Concern has identified from its experience.



The ideal scenario is when CMAM is introduced through government systems from the beginning, such as Concern's experience supporting the integration of SAM into the health system of Bardiya District in Nepal (Box 2). This was a good example of a successful programme that had a strongly government-led effort.<sup>vi</sup> However, more typically Concern has transitioned from stand-alone emergency CMAM programmes to health system integration, with particular success in Malawi and Ethiopia (Box 3 and 4). Concern learned quickly that the skills of our staff needed to change as we moved from direct implementation in an emergency setting to supporting MOH to integrate CMAM. In addition to nutritional technical skills, NGO staff require supervision and mentoring skills; good communication and diplomacy skills; an ability to build relationships, conduct joint planning and review; and have a good understanding of health system strengthening.

### BOX 1

#### Key steps for integration of CMAM into the health service:

- Ensure that all relevant country policies and operational strategies include CMAM as an essential (ideally free) child health service.
- Include RUTF on the essential drugs list. Forecasting for essential drugs must include the drugs used routinely in CMAM programmes.
- Conduct specific training to build MoH capacity in basic supply and logistics management, including transport and storage of ready-to-use therapeutic food (RUTF).
- Support countries to develop national costed nutrition plans.
- Conduct frequent in-service training on CMAM for all relevant health workers and include a CMAM module in health worker basic training curricula.
- Include CMAM responsibilities in the job descriptions of all relevant staff.
- Simplify and align individual SAM patient monitoring forms with existing case management forms and registers and the national Health Information Management System (HIMS).
- Include a limited number of observable CMAM assessment points in health service supervision checklists for health facility and community-level supervision.
- Integrate CMAM into Community Case Management where it exists.



**BOX 2**

### Integration of CMAM into Routine Health Services in Nepal

In 2008 in Bardiya district, Nepal, Concern conducted a pilot programme to integrate CMAM into routine health services directly, without the more typical transition from an NGO led programme. The primary objective of the CMAM pilot programme was to evaluate the feasibility of the CMAM approach in different districts and different agro-ecological zones in Nepal and to provide recommendations to the MoH in regard to treatment of malnutrition and the potential scale-up of the CMAM approach. Concern's technical support was mainly focused at district level working towards integration of CMAM services into the existing MOH health structure. The approach taken which provided a support system for MoH staff allowed health care and community workers to feel confident and take full responsibility for CMAM services from the beginning. At no time during the project did Concern staff screen, refer or treat CMAM children. No additional MoH staff were recruited nor were financial incentives provided for screening and treatment activities.

The external evaluation concludes that the screening, referral, admission and treatment of SAM children was done in line with pilot protocols and procedures. Performance indicators were evaluated to be in line with comparable CMAM programmes. However, the high defaulter rate and low coverage suggest that community mobilisation activities were not adequately prioritised and needed further attention.

**BOX 3**

### Scaling up CMAM Nationally in Malawi

In 2002, Dowa district in central Malawi was the site of the first large-scale CMAM pilot, initiated by Concern and Valid International in partnership with the Dowa District Health Office. The leadership role assumed by the MoH in Dowa district was swiftly echoed across the country. This facilitated the implementation of the approach by MoH staff, with NGOs playing a supportive rather than an implementation role. In 2004, the MoH organised a workshop to facilitate the exchange of CMAM experience and learning among health officers and NGOs.

In 2006, the CMAM approach was adopted by the MoH as the key strategy in the management of SAM among children under five<sup>xi</sup>. Subsequently, Concern supported the establishment of a CTC Advisory Service (CAS) to provide support to the MoH with technical assistance for the scale-up process and to ensure the standardisation of operations. Leadership and technical guidance was provided by the Nutrition Unit at the MoH. Furthermore, CAS was housed within the MoH's offices, guaranteeing its function as a technical arm of the Ministry. By 2011, Malawi had achieved the highest level of scale-up of CMAM of any country, with CMAM running in all 28 districts and in 79% of health facilities, a testament to the effectiveness of the MoH leading the integration process.<sup>xiii</sup>

However, challenges still remain in functionally integrating CMAM within the national health system. Many parallel systems persist, including supply chain management of RUTF, CMAM knowledge among health workers, and sustaining community mobilisation and outreach.

## BOX 4

### Scaling up CMAM Nationally in Ethiopia

Ethiopia was among the first countries to implement CMAM. By 2005, several international NGOs had implemented CMAM programmes across the country. These programmes were typically characterised by high levels of technical support and resource mobilisation. However, when their funding expired and NGOs attempted to hand over their management to the MoH, there were considerable challenges. In response to these challenges, Concern supported the establishment of the National CMAM (N-CMAM) Programme in 2005, a technical support initiative that aimed to improve the capacity of key government partners to manage and scale up CMAM.

Concern ensured that ownership of the N-CMAM programme belonged to the Ethiopian government to ensure capacity and resources constraints were effectively addressed. The programme adopted a health system strengthening approach which aimed to overcome key additional challenges associated with the integration of CMAM, for example, logistics and reporting. Concern has focused its capacity building on selected district (*woreda*) health offices in the four largest (of nine) Regional Health Bureaus. Concern continues to respond to nutrition emergencies in Ethiopia by providing CMAM surge capacity in 'hot spot' *woredas* in coordination with the government.

The strong leadership shown by the Federal MoH, combined with their increased capacity achieved through Concern's training and support, has contributed to the national scale-up of CMAM, with 90 percent of health posts in the country providing CMAM services by 2011.<sup>xiv</sup> The key factors determining success included: government ownership/leadership, the Health Extension Plan (which has enabled greater reach to communities), the establishment of local production of RUTF and a robust Health Management Information System. However, challenges remain, including the lack of logistical capacity to store and transport large quantities of RUTF, difficulties forecasting the need for RUTF and inadequate supervision structures in the health system.



Agnes Thawale with her son Manuel, Dowa District, Malawi. Photo by Pieterella Pieterse, 2010.




## Lesson 4: Resilience Programming is effective in predicting and preventing acute malnutrition

Concern understands resilience as the ability of a country, community or household to anticipate, respond to, cope with, and recover from the effects of shocks, and to adapt to stresses in a timely and efficient manner without compromising its long-term prospects of moving out of poverty. One of the consequences of the shocks and stressors experienced by Concern's target population, the extreme poor in fragile states, is acute malnutrition, particularly among children under five years of age. No matter how well developed CMAM services become and how extensive the coverage is, it is the longer term preventative measures that will have the most effect on the morbidity and mortality of children. Concern has engaged in programming which includes longer term integrated preventative interventions that build resilience around livelihoods and behaviour change to reduce the prevalence of acute malnutrition. These include increasing access to safe water and sanitation facilities, increasing access to and use of high quality health and nutrition services, improved agricultural production and diversification of livelihoods for the extreme poor, development of early warning systems, strengthened community organizations and the increased participation of women.

While being poor does not necessarily mean an individual is or will become malnourished, young children and pregnant women from poor households generally make up a large portion of the most nutritionally vulnerable in a population. Therefore, it makes sense to target this group for a nutritious food supplement, voucher or cash transfer during predictable lean seasons to prevent acute malnutrition during periods of high risk. In 2012, a study carried out by Concern amongst households in Niger showed children 6-23 months of age from households receiving monthly cash transfers during the annual 'lean' season were significantly less likely to suffer from acute malnutrition than their counterparts from the same villages who did not receive cash transfers.<sup>xv</sup> The study also found that diet diversity and, specifically, consumption of fresh foods and legumes, increased more among children from cash transfer versus children from non-cash transfer households. Concern and partners are conducting further research to see if beginning a cash transfer earlier will result in even better nutritional outcomes. The social protection platform can be used to identify poor families with pregnant women or children under-five and can prove a viable route to scale up prevention of acute malnutrition. For example, using a comprehensive, multi-sectorial approach to social and behaviour change in Ethiopia with households who are enrolled in the government's Productive Safety Net Programme has resulted in impressive improvements in a number of infant and young child feeding practices over a short time.<sup>xvi</sup> Concern's many approaches, which include mainstreaming of HIV, promotion of equality particularly of women, and disaster risk reduction are all essential components that contribute to achieving community resilience.

Concern developed a CMAM Surge Capacity model which was piloted in northern Kenya in 2013 and 2014. The model was designed to strengthen the capacity of government health systems to effectively manage increased caseloads of malnutrition during predictable emergencies without undermining the health system, the provision of other services, and on-going systems strengthening efforts. This model was based on our experience using a similar approach in Uganda and was underpinned by a theoretical model developed by Hailey.<sup>xvii</sup> We built the capacity of health centres to gather, analyse and interpret their local data (HMIS, harvest, rainfall, local events and conflict) in order to predict a surge in caseloads of SAM. This allowed health centres to plan for a surge and put in place thresholds. When thresholds are exceeded, the District Health Office is triggered to provide various pre-agreed levels of support. This allows the surge in SAM cases to be efficiently and effectively managed without impacting on the other routine health centre activities.



A recent evaluation found that the Surge Model has strengthened the health system to manage increased caseloads of acute malnutrition as a result of external shocks without undermining ongoing health systems strengthening efforts.<sup>xviii</sup> The model was found to have a strong positive link with the health and nutrition system strengthening process, particularly improving data analysis and interpretation, communication in the health system and leadership and governance at the health facility and sub country health management team level. The Model was also found to have a strong potential to provide a framework for developing health system resilience using a real time, context specific, evidence and capacity based approach to manage a highly changeable environment. Interestingly, the evaluation found that the spikes in cases of acute malnutrition seen in health centres did not correlate with seasonal effects, but was more likely to be due to conflict or other specific activities such as an increase in screening and referral. The evaluation recommended that the Surge Model be scaled up within the pilot sub-counties and more widely in the arid and semi-arid lands of the region and in other fragile states.

## **Lesson 5: It is possible and necessary to increase coverage of CMAM services**

The quality and sustainability of CMAM services are extremely important, but without the multiplier effect of coverage, CMAM's impact remains unrealised. CMAM coverage and barriers to access can and should be regularly assessed as part of routine health service monitoring systems. Since 2012, Concern has been a member of the Coverage Monitoring Network<sup>xix</sup> which was initiated to build the capacity of government and NGO staff to carry out coverage surveys.

While Concern has made significant progress in harmonising reporting and analysing performance, we still struggle to complete coverage surveys due to in-country capacity and time needed (particularly for MoH colleagues) as the average survey takes almost three weeks and is relatively expensive to conduct. Our coverage surveys have found that the three key reasons for low coverage are: distance to a CMAM service, the carer not being aware that the child is malnourished, and the carer not being aware that treatment services exist. These are the same key barriers found by the Coverage Monitoring Network analysis.<sup>xx</sup> We have engaged in testing new coverage survey methods which may reduce the cost and time to conduct coverage surveys and which can estimate coverage over a wider area. Significantly increased coverage can only be achieved through national scale-up, but health systems need sustained support to really embed this approach and obtain long term high coverage. In Concern's experience, this national level scale-up takes several years.





Jacqueline Mwendé with son Fanwual who attends Concern's CMAM supported programme, Nairobi, Kenya.  
Photo by Gideon Mendel, 2012.

## Future priorities

### Concern priorities

Concern plans to continue to move away from stand-alone CMAM programmes (except when there is an acute need) and to continue to improve our health system strengthening efforts in order to contribute to the long term sustainability of the management of acute malnutrition. Ultimately, our work and advocacy around prevention of malnutrition, mainly through our resilience programming should reduce the need for CMAM. Some specific priorities are listed below.

#### 1) Continue to integrate CMAM into health systems

Although we have successfully integrated CMAM into health systems in some countries (for example Nepal, Malawi, Ethiopia, Kenya), there are other countries in which we support CMAM services but where under-resourced health systems mean that the CMAM services are largely run in parallel to the MoH system or only minimally integrated. We need to continue to work at effectively and efficiently integrating these services. This will involve ensuring that there is a health system strengthening component included in all of our CMAM programmes.

## **2) Roll-out and scale-up the CMAM Surge Model**

All CMAM programmes in countries with a high burden of acute malnutrition should be prepared to detect and respond to seasonal or extraordinary surges in SAM and, where appropriate, MAM caseloads. Concern plans to roll out its CMAM Surge Model to other countries, particularly fragile states. We are developing guidelines and tools for the Surge Model to facilitate scale-up by Ministries of Health and other NGOs in high burden countries.

## **3) Test the possibility of integrating CMAM into CCM beyond just screening and referral**

Concern has successfully supported the community case management (CCM) approach in a number of countries where community health workers are trained to provide diagnostic and treatment services for common childhood illnesses to children close to or in their homes. Integration of CMAM into this service has been discussed many times by the international health and nutrition community, but to date it has largely been limited to screening and referral of children who are acutely malnourished. Given that the three main reasons for non-attendance at CMAM services are distance, lack of knowledge that the child is malnourished and lack of knowledge of the service, it makes sense that CMAM be integrated to CCM. The main difficulties lie in the transportation of the RUTF (which is heavy). Concern would like to explore these issues and determine if there are ways that we can make this system work.

## **4) Continue to develop programming to prevent acute malnutrition**

In several countries, Concern has developed resilience programming. The multi-sectorial approach we take is not without its challenges, and we will continue to work to improve integration between sectors for nutritional outcomes. We plan to widely disseminate our work and work with governments to make our approach sustainable. We are also implementing several integrated agriculture and nutrition programmes, primarily aimed at reducing the prevalence of stunting, but which, if successful, should also reduce the impact of acute malnutrition. We embed operational research to make our work evidence-based and improve quality.

## **Global priorities**

### **1) Prevention of acute malnutrition**

The old adage 'Prevention is better than cure' is true of acute malnutrition. Globally, the nutrition sector is receiving more attention in the political arena with initiatives such as Scaling Up Nutrition (SUN), the Global Nutrition Report, and Nutrition for Growth. There is a parallel growth in prevention programmes that aim to reduce the prevalence of all types of malnutrition from resilience programmes to integrated agriculture and nutrition programmes. Even poverty reduction programmes now frequently have a nutrition angle with increases in dietary diversity observed as a result of increased income. This interest and these actions need to be sustained.

## 2) Increase global coverage of CMAM

There are a number of issues that need to be dealt with at the global level in order to achieve the levels of scale and coverage required to significantly reduce mortality from SAM and MAM. With global coverage of SAM treatment at approximately 18 percent<sup>xxi</sup> it will take many years to achieve 100 percent coverage of the current caseload of SAM cases. Political will, technological advances and economies of scale may accelerate this increase. While NGO's have an important role to play in the expansion and quality assurance of CMAM services, the extent of their combined coverage is unlikely to ever match that of a government health system over time. Some of the issues that need to be tackled to accelerate scale-up include:

### a. Reducing the cost of RUTF

Despite its cost effectiveness, treatment of SAM is considered to be expensive largely due to the cost of RUTF which has not to date been effected by economies of scale, or local production, as the unit price per child has only minimally reduced.<sup>xxii</sup> It seems that new recipes requiring less milk powder and utilising more local ingredients are still needed if RUTF costs are to be reduced. Concern is involved in testing one such product in Bangladesh with a number of other agencies developing and testing alternative RUTF recipes. Another potential route to reducing the unit cost of RUTF is to gradually reduce the ration size per child. Some pilot testing on the safety and efficacy of such a transitional ration has had promising results.<sup>xxiii</sup>

### b. Developing costed national nutrition plans

In reality, the only way treatment of acute malnutrition will be effectively tackled by countries is if they have national costed plans to ensure access to services. This should be a priority for countries with a significant burden of SAM. There are some positive examples and the SUN movement's support for the development of costed nutrition plans that include management of SAM are a welcome development. This is particularly because treatment of SAM is often relegated to emergency budgets rather than being seen as part of the routine health care service.

### c. Improve management of MAM

Concern is eager to explore, alongside other nutrition actors, alternative approaches to managing MAM at scale. Alternative delivery platforms that are linked to, but not hugely dependent on, the health system are key to this. The sheer number of MAM cases, as well as the bulk of the food commodities, would overwhelm government health systems and budgets if the Ministry of Health were used as the primary delivery platform. Many Concern programmes support targeted and blanket supplementary feeding during emergencies where it is relatively straightforward to set up a stand-alone delivery system. However, the bulk of children with MAM are not part of an emergency so MAM needs to be dealt with on a more routine basis. This is an area that has received little attention by the global community but makes a significant contribution to under-five mortality. There is a need for alternative strategies to be developed and tested to address this problem.

## Conclusion

International NGOs have led the development and implementation of CMAM which is gradually being taken up by governments. However, progress is too slow and coverage of only 18 percent for CMAM is unacceptably low. Concerted efforts are needed to, on the one hand to increase this coverage, and on the other hand to prevent acute malnutrition in the first place to reduce mortality and morbidity particularly in children. Increases in coverage must be implemented through a health systems strengthening approach.

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## Cover Image

Luul Ismail with son Deeqo age 2 displaced to Mogadishu, Somalia and attending a Concern CMAM programme.  
Photo by Jennifer Nolan, 2011.

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