TAKING STOCK:

Concern Worldwide's 15 Year Contribution to Community Based Management of Acute Malnutrition

Introduction

As we reach 15 years since Concern Worldwide's (Concern) initial pilot evaluations of Community-based Therapeutic Care (CTC) in 2000 in Ethiopia, we reflect on our achievements over this period and where Concern's Community-based Management of Acute Malnutrition (CMAM) programmes are today. This paper will be of interest to those who would like to know more about Concern's role in the evolution of managing severe acute malnutrition (SAM) and more about our current CMAM programming[1].

A child is acutely malnourished when he is too thin for his height (wasted) or has nutritional oedema (swelling of the limbs). Acutely malnourished children are further classified as having SAM or moderate acute malnutrition (MAM) depending on the severity of their wasting. Children under five years of age with SAM are almost 12 times more likely to die than children who have a normal weight for their height.[i] Globally it is estimated that at least 52 million children under five years of age are acutely malnourished. Of these, approximately 19 million have SAM.[ii] Despite the fact that CTC was an improved system from the original centre based therapeutic feeding, particularly in terms of achieving increased coverage, the most recent coverage estimates found that of 60 countries who reported SAM data 28 (47 percent) reported treatment coverage of less than 25 percent showing that coverage remains extremely low. It also found that these countries contain almost 85 percent of the estimated global SAM burden.[iii] Therefore, there is still a long way to go to scale up treatment and prevention efforts. Concern is committed to continue to be involved in this effort.

Centralized Inpatient Management of SAM

During the 1980s and 90s, the prevailing approach to treating SAM involved inpatient Therapeutic Feeding Centres (TFCs) where children could be monitored and administered therapeutic milk feeds and medical treatment round-the-clock. At that time, therapeutic milks were the only suitable treatment option available. They required on-site, hygienic preparation with clean water which made this centralised inpatient treatment the only approach conceivable. Given their need for round-the-clock medical staffing, these TFCs were generally few and far between. As a result, they were often hard to reach for the majority of the population. In addition, they were often only opened during major emergencies and closed soon after. Admitted malnourished children needed to be accompanied by a care-giver, usually their mother. Inpatient treatment could last many weeks, so during this period the mother was far away from her other children and livelihood or household activities, having a detrimental effect on the whole household. Furthermore, recovery rates were often low due to three main factors. First, cases that did finally arrive at the centres were often at an advanced stage of SAM due to access issues or the fact that TFCs were only set up once the nutrition crisis was already quite advanced. Second, cross-infection among children in large, often overcrowded, inpatient wards was a significant risk. Third, many children did not complete the full course of treatment because their mothers withdrew them to return to their commitments at home. Like other agencies, Concern TFCs experienced all these challenges.

[1] This is the first of a two paper series. The second paper is called 'Concern Worldwide's Learning from 15 years of Community Management of Acute Malnutrition Programming'.

Mainiouna age 3 at the Concern supported inpatient treatment ward in Tahoua District Hospital, Niger. Photo by Noel Gavin/Allpix 2012

Advances that allowed a change in approach

A number of humanitarian aid workers, having witnessed these challenges first hand in a number of contexts, rightly believed that a more effective approach incurring lower opportunity costs to the affected families was needed. Two innovations made this possible. First, Ready to Use Therapeutic Food (RUTF) was invented. RUTF is an energy-dense, mineral and vitamin enriched, normally legume-based food (frequently peanuts). Microbiologically safe, it keeps for months in simple packaging. It can be eaten uncooked by children over six months of age. Because it does not require the addition of water, it can easily be eaten at home without risk of contamination. Second, Mid-Upper Arm Circumference (MUAC) gained recognition as an accurate measurement tool for acute malnutrition. The measurement involves wrapping a flexible measuring tape around the mid-upper arm. It is simple and can be used by community workers with limited training. These technical advancements allowed the development of a new approach called Community-based Therapeutic Care (CTC) and it was centred on four key principles: 1) maximum coverage and access for all people with acute malnutrition; 2) timeliness; 3) appropriate care; and 4) care for as long as it is needed.

Community Based Care

The central strategy of CTC was to decentralise treatment, bringing it as close to the communities in need as possible. In practice, this meant making it possible for the majority of SAM cases to be seen on an outpatient basis at a nearby health facility or treatment site while recovering in between visits at home. CTC recognised that not all SAM cases needed the same level of treatment and sub-divided them into those with complications (treated in an inpatient facility) and those without complications (the majority, treated as outpatients). To make it feasible for lower level clinical staff in outpatient treatment facilities to deliver quality services to children with uncomplicated SAM, treatment protocols needed to be simplified as much as possible. Mobilisation and training of community members (usually volunteers) was an essential step to ensure effective screening, referral and follow-up of SAM cases in the community. Finally, CTC aimed to improve the sustainability of services for acute malnutrition by building the capacity of local health systems and community members to ensure care is available for as long as an individual or community needs it i.e. not just during high-profile emergencies. This last principle has perhaps been one of the most challenging to put into practice, requiring gradual shifts in policies, funding mechanisms, and practice, particularly where CTC services began as part of an emergency response programme.

Piloting CTC: the Concern-Valid International Research Partnership

Valid International was founded by Dr Steve Collins and Dr Alastair Hallam in 1999 as a non-governmental agency providing technical assistance for nutrition programming in emergencies. It assembled a core team of nutritionists and other technical experts who were well placed to design pilot programmes, train health workers in the CTC approach, and closely monitor and document the experience and results to generate a rigorous evidence base in support of CTC. But they needed an operational agency with experience in nutrition programming, such as Concern, to bring the idea to life. Concern, an international humanitarian non-governmental organization founded in 1968, was quick to recognise CTC's enormous potential and engaged in a small pilot with Valid International in Ethiopia in 2000. The two organizations then embarked on a more formal research partnership in 2002. Concern and Valid International leveraged the learning from this partnership and other pilots and continued testing the viability and effectiveness of the CTC approach in varied contexts.

Research published as early as 2004, based on findings from the Concern and Valid International pilots, found that the CTC approach was effective in treating SAM by optimising coverage and obtaining treatment outcomes that met or exceeded international Sphere standards.[iv] Further research was published in 2006 based on the performance of 21 pilot programmes, including several Concern programmes. These programmes covered five countries and treated 23,511 severely malnourished children. The results confirmed the effectiveness of CTC, providing evidence that treatment outcomes were consistent with international standards and that CTC had the potential to reach more children, with more appropriate care, than the traditional inpatient only TFC.[v] So the emerging evidence showed that CTC was achieving high coverage and good recovery rates when implemented by INGOs in emergency contexts.

Gaining momentum

Central to the CTC strategy of a decentralised approach and access to all was ensuring CTC's suitability for implementation by local governments on a longer term basis. A key step for country Ministries of Health (MoH) to accept CTC was for it to be adopted as international best practice for the management of acute malnutrition. Concern and Valid International began advocating for an amendment to the standard World Health Organisation (WHO) treatment guidelines based on the ever growing body of evidence. At the end of 2005, WHO took the first steps to adopt CTC into its guidelines. In 2007, WHO, World Food Programme, United Nations Standing Committee on Nutrition and United Nations Children's Fund issued a joint statement endorsing CMAM.[vi] In essence, the Joint Statement focussed on community-based management of SAM. Importantly, the renaming also brought together different actors in the nutrition and medical communities to support one agreed-upon approach.

CMAM's trajectory from a small pilot programme in Ethiopia in 2000 to evidence-based practice in countries tackling SAM has been remarkable, even by public health standards. The success of the CMAM approach, in terms of its results and its extensive uptake, is due to a winning combination of technical innovation (particularly RUTF), pragmatism (particularly in terms of treatment coverage), community-focused design and a commitment to timely documentation, synthesis and dissemination of programme data, and operational research to demonstrate impact and refinement of the model. Today, CMAM is implemented in diverse settings, including rapid onset emergencies, urban environments and longer term development settings.

Concern remains engaged in various fora to improve the quality and coverage of CMAM services. These include the CMAM forum (www.cmamforum.org) which supports the collation and compilation of new and existing technical guidance, evidence and learning from the wider nutrition and health community; the Coverage Monitoring Network (www.coverage-monitoring.org) which aims to increase CMAM coverage through building capacity around coverage surveys and addressing barriers to coverage; and the Global Nutrition Cluster which aims to increase quality of emergency nutrition responses.

The treatment of Moderate Acute Malnutrition

The management of MAM via supplementary feeding was a central component of the CTC model from its inception. As the model has evolved, the inclusion of supplementary feeding for MAM as a core component has been variously interpreted. In fact, the UN defines CMAM as the community based management of *severe* acute malnutrition (although no 'S' appears in the acronym). The nature of standard treatment for MAM does not lend itself well to scale-up within government health systems. Therefore, MAM services do not receive the attention they deserve. There is an urgent need to evaluate effective strategies to addressing MAM.

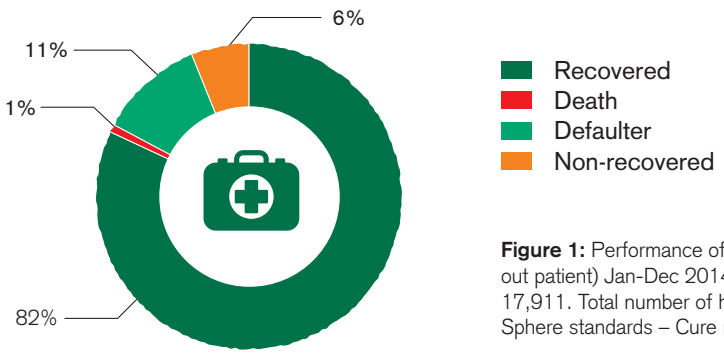

Figure 1: Performance of Concern Supported treatment of SAM (in and out patient) Jan-Dec 2014. Note: Total discharged children 6-59 months 17,911. Total number of health facilities/ feeding sites covered 416.CMAM Sphere standards – Cure rate >75%, Default rate <15%, Deaths <5%.

Concern's CMAM programme portfolio

Concern has supported and continues to support CMAM in a variety of ways depending on the needs and opportunities presented in each context. In pursuit of its mission statement – *"to help people living in extreme poverty achieve major improvements in their lives which last and spread without ongoing support from Concern"*- Concern works in 26 of the world's poorest and most fragile countries. Since the initial pilots, Concern has supported CMAM programmes in 16 countries. As of 2014, Concern continues to support CMAM in nine countries (table 1). In many of these contexts, the burden of acute malnutrition is high, health systems are hugely overstretched, and public health and nutrition emergencies are a regular occurrence. Although there is some variation by country and by centre, we have consistently met or exceeded Sphere performance standards for CMAM. Figure 1 shows results for 2014. Our programme coverage is on average 50 percent which is the Sphere rural standard. In 2013, almost 3 million children were treated for SAM worldwide, but the global burden is 17 million. Scale-up is urgently needed.

Table 1: Concern's involvement in CMAM over time and by country with total SAM admission

COUNTRY	PILOT Building evidence of CMAM effectiveness in emergencies				ADAPTATION AND EXPANSION Building evidence of CMAM effectiveness in new emergencies and transition and development contexts									Total number of SAM cases admitted**
Year/Total	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**494,373**
Chad														2,270
Pakistan														5,116
Uganda														12,334
Nepal														2,108
East Timor														80
Rwanda														6,254
Haiti														9,910
DRC														6,899
Kenya														34,565
Somalia														9,267
Bangladesh														
Niger														36,649
Sudan*														22,104
South Sudan*														7,504
Ethiopia														123,806
Malawi														215,507

* Sudan and South Sudan were the same country up to 2011.

** Total SAM admissions imply admissions into a Concern run or Concern supported (i.e. MoH) programme. Figures for Ethiopia and Malawi are higher as they represent a scaled up national programme. Data for some countries for some years are missing so the total may be an underestimation.

Most of Concern's CMAM programmes started as direct service provision in response to an emergency to address an acute nutrition need. The exceptions are Malawi and Ethiopia (where we initially got involved as part of research) and Nepal (where we supported the MoH from the outset to implement CMAM). Our ongoing engagement over the last decade has been influenced by several key factors: 1) the readiness and capacity of the government to adopt and support management of SAM and MAM, 2) SAM/ MAM caseloads, 3) presence and coverage by other NGOs, 4) availability of funding. In some of the most fragile contexts in which we work such as parts of the Republic of Sudan, South Sudan and Haiti following the earthquake, we have taken a direct implementation approach. However, our aim is to continue to integrate CMAM into the health system, treating acute malnutrition as a routine childhood illness, and in the process strengthening that health system. Concern has also adapted CMAM programming to function in urban slums in Nairobi and Port au Prince, and supports CMAM via remote support to a local team in the insecure environment of Somalia. Working in such contexts requires flexibility and responsiveness. Concern has developed particular expertise in supporting local health teams to scale up and scale down their responses, commensurate with the scale of an emergency, such as in the cases of, Kenya, Ethiopia, and Uganda.

Seid Muhie, Amhara region, Ethiopia, growing potatoes introduced by Concern. Photo by Jiro Ose, 2013.

The Future of CMAM programming in Concern

A separate paper on Concern's key learning from CMAM has been prepared,[vii] but fundamentally Concern has learnt that CMAM is a cost-effective health intervention that, when successfully integrated into health and community systems, can achieve significant scale and impact. As with the implementation of all essential child health services, there are many challenges to overcome and simplicity is often key, but if we are to facilitate access to treatment for all those children with SAM then the work will be worth the effort. This scale-up needs to take place on a large scale preferably at national level. Concern has experience of this in Malawi and Ethiopia and needs to build on this experience to continue to strengthen health systems to deliver quality CMAM services.

Hand in hand with our CMAM programming are our efforts to prevent acute malnutrition in the first place. This is done through direct nutrition interventions, including infant and young child feeding counselling and behaviour change messaging, as well as indirect interventions, including provision of clean water and sanitation, basic maternal and child preventative and curative health services, introduction of early warning systems, early response to signs of shocks such as cash transfers, promoting diet diversity, expanding livelihoods options and working on gender equality. The best approach is when all these activities are integrated into one programme which builds the resilience of the community to acute malnutrition. Concern is implementing this approach across a number of fragile states and researching it in Chad in a Community Resilience to Acute Malnutrition programme.

Concern strongly advocates on the international stage for more funding for nutrition and for coherent and realistic but ambitious targets to reduce all forms of malnutrition. We constantly emphasise the multiple underlying causes of malnutrition and how political will is required in order to see an end to malnutrition.

References and Content Notes

i Olofin I, McDonald CM, Ezzati M, *et al.* (2013). Associations of suboptimal growth with all-cause and cause-specific mortality in children under five years: a pooled analysis of ten prospective studies. *PLoS One*, 8(5).

ii Black RE, Victora CG, Walker SP, and the Maternal and Child Nutrition Study Group. Maternal and child undernutrition and overweight in low-income and middle-income countries.2013. *The Lancet*, 382:427-51.

iii UNICEF/Coverage Monitoring Network/ACF (2012). The State of Global SAM Management Coverage 2012 New York & London.

iv Collins S. (2004) 'Community-based Therapeutic Care: A New Paradigm for Selective Feeding in Nutritional Crises'. *Humanitarian Practice Network Paper 48,* London: Overseas Development Institute.

v Collins S, Dent N, Binns P, Bahwere P, Sadler K, Hallam A. (2006) 'Management of Severe Acute Malnutrition in Children. *The Lancet,* 368:1992-2000.

vi WHO, WFP, SCN,UNICEF. A joint statement on Community Based Management of Acute Malnutrition. 2007. UNICEF.

vii Concern Worldwide's Learning from 15 years of Community Management of Acute Malnutrition Programming. Concern Worldwide 2015.

Cover Image

Fatima Muhammad with grand-daugher Halime on their way to receive treatment for sever acute malnutrition in Goz Beida, Chad. Photo by Jennifer Nolan, 2014.

Republic of Ireland
52-55 Lower Camden Street, Dublin 2
00 353 1 417 77 00
info@concern.net

Northern Ireland
47 Frederick Street
Belfast, BT1 2LW
00 44 28 9033 1100
belfastinfo@concern.net

England and Wales
13/14 Calico House
Clove Hitch Quay
London, SW11 3TN
00 44 207 801 1850
londoninfo@concern.net

USA
355 Lexington Avenue
19th Floor
New York, NY 10017
00 1 212 5578 000
info.usa@concern.net

Published by Concern Worldwide

Concern Worldwide
Working with the world's poorest people to transform their lives

www.concern.net

CONCERN worldwide