



# Government experiences of scale-up of Community-based Management of Acute Malnutrition (CMAM)

## A synthesis of lessons

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This report is a synthesis from lessons of government experiences of scale up of community-based management of acute malnutrition (CMAM). It is based on nine country case studies (Ethiopia, Pakistan, Niger, Somalia, Kenya, Ghana, Sierra Leone, Malawi, Mozambique), considerations around scale-up from India, and the proceedings of an international conference in Addis Ababa, 14-17 November, 2011 at which the case studies and India experiences were presented and discussed. The contributions of an additional 12 countries at the conference are also reflected in this report.

The CMAM Conference was a collaborative initiative between the Government of Ethiopia and the UK registered charity, Emergency Nutrition Network (ENN). It was attended by 144 senior government representatives from 22 African and Asian countries, in addition to representatives from United Nations agencies, non-governmental organisations, academia, bilateral donors, private sector and individual experts.

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This synthesis report is one of a number of outputs from the CMAM Conference, Addis Ababa, 2011. The nine case studies cited throughout this synthesis will feature in a special issue of Field Exchange, the ENNs regular publication, due out mid 2012. A report of the CMAM Conference is also available.

Information, links to the reports and film footage of the CMAM conference are at: [www.cmamconference2011.org](http://www.cmamconference2011.org) and at [www.ennonline.net](http://www.ennonline.net)

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## Common acronyms

CHAI	Clinton Health Access Initiative
CSAS	Centric systematic area sampling
CMAM	Community-based management of acute malnutrition
DALY	Disability-adjusted life year
DHS	Demographic and Health Survey
DRR	Disaster risk reduction
ENN	Emergency Nutrition Network
FANTA	Food and Nutrition Technical Assistance
FAO	Food and Agriculture Organisation
FBP	Food by prescription
GAM	Global acute malnutrition
GMP	Growth monitoring and promotion
HIV	Human Immunodeficiency Virus
HMIS	Health management information system
IMCI	Integrated Management of Childhood Illness
IYCF	Infant and young child feeding
MAM	Moderate acute malnutrition
MICS	Multiple indicator cluster survey
MoH	Ministry of Health
MOU	Memorandum of understanding
MSF	Medicins Sans Frontieres
MUAC	Mid-upper arm Circumference
NGO	Non-governmental organisation
NRC	Nutrition rehabilitation centre
OTP	Outpatient therapeutic programme
PEPFARUS	President's Emergency Plan for Aids Relief
PMTCT	Prevention of mother to child transmission
RUTF	Ready-to-use therapeutic food
SAM	Severe acute malnutrition
SC	Stabilisation centre
SCN	Standing Committee for Nutrition (UN)
SFP	Supplementary feeding programme
SLEAC	Simplified LQAS evaluation of access and coverage
SQUEAC	Semi-quantitative evaluation of access and coverage
SUN	Scaling Up Nutrition
SWAP	Sector wide approaches to programming
TOT	Training of trainers
TSF	Targeted supplementary feeding
UNICEF	United Nations Children's Fund
VCT	Voluntary counselling and testing
WFP	World Food Programme
WHO	World Health Organisation

# Summary

In November 2011, 144 delegates comprising senior government representatives from Africa and Asia alongside representatives from UN agencies, NGOs, academia, bilateral donors, private sector and individual experts gathered for four days in Addis Ababa, Ethiopia, to share government experiences on community based management of acute malnutrition (CMAM) scale up and to discuss CMAM in the context of scaling up nutrition more broadly. The CMAM Conference afforded, for the first time, the opportunity for governments to share their experiences of CMAM scale up with other governments and discuss the opportunities for further scale up, as well as the obstacles being faced in country led efforts to address severe acute malnutrition (SAM).

This paper is a synthesis of the lessons and conclusions from nine detailed government case studies of national CMAM scale up experiences prepared in advance of the conference, an additional twelve brief country overviews of CMAM scale-up shared at the conference, a presentation on the story of CMAM in India made at the conference, discussions at the conference and a review of the global CMAM literature.

Internationally, CMAM is unequivocally advocated as an effective programme approach to address SAM. Given the weight of evidence gathered from research over the past ten years, it is unsurprising that CMAM scale up has been so rapid. Globally, an estimated 55 countries are implementing CMAM and in many (but not all) of these countries, CMAM has been initiated on the back of an emergency event. The onset of an emergency affords a focus on acute malnutrition in children (sometimes in adults) because acute malnutrition is a key emergency

indicator and because donors provide emergency CMAM funding. In many countries, an emergency event can be the impetus for getting acute malnutrition onto the government agenda where traditionally, high levels of stunting, underweight and micronutrient deficiencies have been the main area of focus. This is often despite there being significant numbers of children suffering from acute malnutrition in the non-emergency context and representing a significant cause of child mortality at all times.

A dichotomy exists whereby acute malnutrition is largely seen as a short-term emergency concern whilst other more 'chronic' manifestations of undernutrition are seen as a long-term development concern. This is a significant obstacle to countries having reliable and predictable resources to address acute malnutrition as part of their on-going nutrition and child survival programming. The Scaling Up Nutrition (SUN) Movement, which focuses on country-level actions and alignment of donor funding, could provide an opportunity for CMAM to become part and parcel of country-led efforts to scale up actions for all forms of undernutrition. Advocacy is needed, however, to ensure that CMAM does receive sufficient funding and political attention alongside other government efforts to tackle chronic undernutrition.

It is clear that governments are increasingly taking ownership of CMAM and that its scale-up has benefited from high level political leadership at country level. Involvement and support from the president or prime-minister's office, as well as inter-ministerial bodies, has been evident in some (but not all) countries. Country evidence suggests that decisive and direct government involvement can be

critical to boost CMAM scale up in the short run. However, it remains to be seen which other factors are necessary to sustain scale up efforts over the long term.

Country ownership is greatly enhanced where pilot CMAM projects have been initiated (in all case study countries) and governments have learnt what works best in their own particular country context. There is no 'one size fits all' CMAM approach. Country to country learning exchange visits have proven useful and highlight the benefit of continued cross-country learning and networking for scaling up CMAM.

Governments are more actively encouraging their partners (donors, UN agencies and international NGOs) to align behind their nutrition related priorities, as well as to support their capacity to escalate and decentralise CMAM to the lowest health service and community level. However, obstacles exist. Firstly, government partners do not always align to support those priorities. Second, the inadequate capacity of health systems in many countries, limited resources and ability of partners to help build health system to sufficiently incorporate CMAM limits CMAM coverage. And thirdly, the numbers of health staff, their competencies, motivation and the risks of an over-reliance on community based volunteers are cause for concern. Donors have a key role to play in supporting governments to achieve greater alignment of partners behind clearly stated government policies and strategies and where these do not exist, in supporting government and partner efforts to define priorities and then align to support implementation. Donors need to explore different funding mechanisms to bring about stronger alignment of international actors in support of government priorities and consider how and why their funding mechanisms perpetuate the emergency-development divide and work towards overcoming this. In relation to capacity of health staff, locating CMAM in a variety of pre-service training situations is seen as one key activity for building sustainable CMAM capacity, i.e. by providing CMAM training for Maternal and Child Health (MCH) nurses, medical assistants, doctors, community agents, etc. and to maximise the benefits of refresher in-service training. Active dissemination of good practices, tools, materials, training programmes and other relevant resources directly to governments would help strengthen national capacity in this area. Further, a highly inclusive process for adapting international guidelines and tools to meet a

country's context and needs strengthens government capacity and supports alignment of partner efforts behind national policies and plans.

The community element (sensitisation, mobilisation and follow up), whilst being central to the CMAM approach, has markedly lagged behind implementation of the other components. This is possibly because CMAM has, in some cases, been (wrongly) viewed and/or promoted as a vertical programme or because the importance of this element of CMAM programming has not been fully appreciated. The community element of CMAM could benefit by actively linking with other national community based programmes, as well as with other sectors with extensive community reach. Comprehensive national community mobilisation strategies cutting across sectors and supporting scale-up of nutrition alongside other basic services is seen as an opportunity to strengthen the 'C' in CMAM.

The nine country case studies provide some insights, for example, into the links between CMAM and HIV programmes. However, what is meant by 'integration of CMAM' is largely undefined. As governments scale up nutrition actions more broadly, further clarity and learning is needed about the exact nature and value of 'integration' for achieving CMAM coverage, treatment outcomes, and preventing acute malnutrition. Similar exploration is needed of how governments can integrate CMAM into broader essential health and nutrition programmes and link with other sectors. Whether the integration of CMAM into other health and nutrition packages helps leverage more sustainable resources for CMAM (internally and externally) also warrants further exploration.

The inclusion of management of MAM as a distinct intervention in CMAM programmes, outside of acute emergencies presents a number of difficulties. In particular, the treatment of MAM through supplementary feeding is not a sustainable national strategy for governments, as echoed by delegates at the CMAM Conference. It is achievable in emergency situations but cannot be implemented on a long-term ongoing basis. There is limited evidence of sustainable alternatives to supplementary feeding to address MAM, such as livelihood programming, cash transfers or seasonal blanket supplementary feeding. The plethora of food supplementation products on the market do not have a strong evidence base proving their efficacy or their effectiveness used operationally at scale. There is

also little value in developing a range of food products which can effectively treat MAM unless resources can be made available to develop appropriate and effective delivery mechanisms and to sustain the use of such products over many years.

Detailed information on the financing and costing of CMAM scale up is limited. In relation to financing, CMAM funding has largely been short term in nature and governments are in the main dependent on donor funds coming into their country via partners (UN and international NGOs) who in turn are funded through bilateral aid. There are examples of government funding for elements of CMAM in the country case studies. However the financing of ongoing CMAM costs, particularly those associated with RUTF, which make up 50% of the average CMAM budget, is an obstacle for many governments with already limited nutrition and health budgets. What is clear is that governments need to present clear costing of CMAM, i.e. what it takes to treat the ongoing burden of SAM children within their health system, demonstrate progressive financial commitment, and identify what elements of CMAM support need further external financing and resources. Recently developed tools can help support this process, Resource mobilisation for CMAM needs to be located in the context of a comprehensive, integrated nutrition approach, recognising that the emergency-development divide will need to be bridged for acute malnutrition to be addressed at all times. In the event of an emergency, governments need pre-prepared costed plans for surge scale-up to meet increased demand, clearly identifying the external resources that will be required. Such a plan can limit the loss of government ownership frequently seen in emergencies and clarify for donors and partner agencies the likely requirements from them. The collection of reliable and good quality data on a regular basis to ensure that CMAM scale up can be properly monitored and budgeted is also important for governments to consider. This can be carried out as part of the ongoing health information system or, over the short-term, through a parallel data collection process.

Governments also need clear policies on national production of RUTF where feasible, which can lead to new partnerships with manufacturers, tax-dispensions for RUTF production, import exemptions and other cost-reducing measures to make RUTF more affordable and locally or regionally available. It is noteworthy that the global

demand for RUTF has plateaued in the past year yet the burden of untreated SAM children remains very high -roughly 17-18 million without treatment. There is an urgent need to better understand the reasons for this. Of concern is whether countries implementing CMAM have reached a limit in their capacity to programme until vital health service strengthening is in place and communities are engaged. Further, there are countries such as India where millions of children with SAM are largely untreated, though concerted efforts are showing promise as key advocates build momentum for introduction and scale-up of CMAM in-country. From the country case studies and rich discussions at the CMAM Conference, it is clear that many countries are achieving impressive CMAM scale-up and that international standards and targets are largely being met in these countries, despite the obstacles governments and their partners are working to overcome. However, many countries have yet to conduct comprehensive assessment of coverage and given the limited focus on community sensitisation and mobilisation in many countries that are scaling up CMAM, there will continue to be an element of uncertainty about how well programmes are reaching all those in need, until these take place.

Finally, there is a very strong will amongst governments of countries newly embarking on CMAM to learn from the more experienced countries and the international community to pro-actively bring acute malnutrition treatment onto their agenda. The last day of the CMAM Conference witnessed 22 governments representatives set out their intentions with respect to CMAM. These action points will be followed up six months from now to learn more about their progress in addressing SAM. At the same time, attending donors, UN agencies and NGOs also responded to government requests to support these intentions and these too will be included in the important process of follow up.



# 1 Introduction

Globally, it is estimated that over 19 million children are severely acutely malnourished at any one time. These children have a greater than nine fold increased risk of dying compared to a well-nourished child<sup>1</sup>. The 2008 Maternal and Child Nutrition Lancet series recognises severe acute malnutrition (SAM) as one of the top three nutrition-related causes of death in children under-five (Black et al, 2008). It emphasises the importance therefore of addressing acute malnutrition for meeting the Millennium Development Goal 4 (MDG4) of reducing child mortality (Bhutta et al, 2008). This message has been taken up in international fora, particularly by the 2010 multi stakeholder global effort to 'Scale Up Nutrition' (SUN)<sup>2</sup>.

Community-based Management of Acute Malnutrition (CMAM) is an innovative approach that successfully treats the majority of children with SAM, including those who are HIV positive, at home. The approach engages communities in order to identify severely malnourished children early before their condition deteriorates to a stage where they require inpatient care for medical complications. It allows effective treatment, in terms of essential medicines, simple orientation for caregivers, and specially formulated ready-to-use therapeutic foods (RUTF), to be given on a weekly basis at low level existing decentralised health structures or distribution sites within a day's walk of people's homes. The approach includes inpatient care for complicated cases of SAM (usually <10% of the caseload) and in some situations, depending on context and resources, with supplementary feeding or other programmes aiming to address moderate acute malnutrition (MAM).

The CMAM approach was first implemented in 2001 and based on early successes was taken up by a number of international non-governmental organisations (NGOs) working in emergency contexts in countries of Africa, with various degrees of government involvement. In 2007 the UN endorsed the community-based approach for management of SAM with a joint statement (WHO, UNICEF, UNSCN, WFP, 2007). Endorsement of the approach came as a result of operational research conducted over the previous seven years that provided evidence of its impact<sup>3</sup> (Collins et al, 2006a), and work from similar community-based programmes (Home-based Care, Ambulatory Care) (Collins et al, 2006b). This global endorsement paved the way for the further expansion of the approach by creating consensus within the global nutrition community and amongst international agencies and donors on the optimal programme approach for treating SAM. It also enabled governments to start establishing and scaling-up CMAM programming at national level. As a result, a shift of focus to seeing community-based management of SAM as a requirement of routine health activities has emerged.

From three countries implementing small scale CMAM programmes between 2000 and 2003, 55 countries were implementing CMAM to some degree by mid-2010 (UNICEF/Valid, 2011). The absence of any consolidated information on the

<sup>1</sup> The odds of dying is estimated to be 9.4 times higher in severely acutely malnourished children.

<sup>2</sup> <http://www.scalingupnutrition.org/key-documents/>

<sup>3</sup> Initial research programmes used the term Community-based management of Therapeutic Care (CTC). When the approach was endorsed, the name was changed to the more generic term Community-based Management of Acute Malnutrition (CMAM).

stage of scale-up in different countries, and lack of comprehensive national scale-up plans, makes it difficult to track scale-up progress globally. However a recent UNICEF initiative has started to attempt this, commencing with the mapping and review of some key indicators of progress in adopting and scaling up the approach (UNICEF/Valid, 2011).

What we can conclude from the UNICEF review is that 55 countries have made inroads into adopting the approach. In 52 of these countries, CMAM guidelines are in place, indicating institutional endorsement, and in 34 countries, CMAM is included in national nutrition policy. The review also describes the variable progress that countries are making to integrate CMAM into regular primary health care activities such as in the areas of Integrated Management of Childhood Illness (IMCI), Infant and Young Child Feeding (IYCF), HIV/AIDS and the challenges being faced at country level.

Though it is still very difficult to obtain reliable data on numbers actually reached, it is estimated that over 1 million children were admitted for treatment of SAM using the CMAM approach in 2009, the majority of these children in Africa. The scale-up of CMAM programming in developing countries is

continuing at a rapid pace across the world, particularly in Africa and Asia, and has government and multi-donor support. According to the UNICEF review, a further seven countries (Cambodia, Laos, India, Iraq, Mongolia, South Africa) were planning to introduce the approach in 2011.

In summary, we now have a globally recognised CMAM approach, which many countries are implementing and at various stages of scaling up. The impetus for scaling up CMAM for the management of SAM<sup>4</sup> lies largely within the health sector and with community structures and systems. The aim of national scale up is therefore to achieve national coverage of a sustained, quality service provided as an integral part of the health system and with a strong community base. The management of SAM in this way will contribute to achieving national impact on mortality and ultimately MDG 4.

<sup>4</sup> Where CMAM also includes interventions to address MAM a greater role may be played by other sectors, such as education, agriculture and food security. However with the current lack of research and agreement on interventions to address MAM in the non-emergency context, CMAM is commonly implemented without a distinct MAM component in these contexts.



Kenya case study presentation, CMAM Conference 2011

# 2 Aim and structure of the paper

**T**hough a number of international conferences and reviews have been held during recent years to discuss and document CMAM implementation modalities and to share experiences and lessons learnt, a forum to discuss the particular successes and challenges faced by countries attempting national scale-up has been lacking. The ENN and the Government of Ethiopia CMAM Conference, held between November 14<sup>th</sup> and 17<sup>th</sup> 2011, focused specifically on governments own experiences rather than those of individual agencies or organisations. It aimed to identify and document the range of issues experienced by national governments undergoing scale-up, and by sharing some of the successful experiences of countries in addressing these, arrive at guidance for other countries that may be facing similar challenges.

In order to facilitate this, the preparation for the CMAM Conference included eliciting case studies from nine countries<sup>5</sup> at various stages of CMAM scale-up, as well as an overview of the situation in India. The case studies were written by government staff, identified through country visits by the ENN lead researcher, who were in turn supported in-country by NGOs, UN, technical groups as requested by government and the ENN lead researcher. The aim of this paper is to synthesise the experiences contained in these case studies, with additional information from the international CMAM literature and from the CMAM conference presentations and discussions, to draw out some common challenges encountered and outline some of the successful measures that countries have taken to aid the scale-up process.

This paper is organised into seven sections. Sections 1 and 2 provide an introduction to CMAM, the CMAM conference and an overview of the paper's content. Section 3 provides an overview of existing political economy frameworks (nutrition governance) for understanding the process of scale-up in relation to CMAM. The challenges and enabling factors for CMAM, based on the nine country case studies and the India story, are split into those that have come with the introduction and evolution of CMAM implementation (Section 4) and those that are particularly of a political nature (Section 6). In Section 4, the national policy environment, implementation capacities, structures, systems and roles, as well as different scale-up modalities that have been used, are discussed. This is followed in the same section by discussion of the challenges and enabling factors in creating links between CMAM and other programmes and sectors, monitoring and supervision systems, production and supply of RUTF and knowledge and research aspects of CMAM programming. Section 5 provides a brief overview from the additional 11 countries (non-case study) that attended the CMAM Conference in November 2011 and shared information on their CMAM experiences. Section 6 provides an overview of the political economy of CMAM scale up whilst in Section 7, some broad lessons coming from the synthesis that may help to guide scale-up are summarised. It is hoped that this section in particular can provide readers with some generic guidance and lessons for CMAM scale-up in the future.

<sup>5</sup> Ethiopia, Ghana, Kenya, Malawi, Mozambique, Niger, Pakistan, Sierra Leone and Somalia.

Finally, the term 'CMAM scale-up' is often conjoined with the term 'integration' on the basis that scale up is not possible without some level of integration. However, the term 'integration' is not always clearly understood. During the CMAM Conference it was felt that there is a need to better define what is meant by 'integration' of CMAM to bring clarity to the conference discussions. A working definition<sup>6</sup> was put forward with four key elements that are dealt with in different sections of this paper, as follows:

- [Management of] SAM and MAM are integral parts of CMAM

- CMAM is one of the basic health services to which a child has access, delivered by the same means by which other services are delivered.
- This is embedded as part of a broader set of nutrition activities (IYCF, stunting, micronutrients, etc)
- In turn, this is integrated within a multi-sectoral approach to tackle the determinants of undernutrition.

<sup>6</sup> This is not an official definition but may provide a useful basis to define exactly what is meant by 'integration' in the context of CMAM.



Malawi case study presentation, CMAM Conference 2011



# 3 Nutrition governance: a brief overview

**N**utrition governance is another term for political economy. Most of the frameworks and discussion around governance of the nutrition sector have focused on 'chronic undernutrition'. However, CMAM, by definition, deals with acute malnutrition. Many of the concerns raised at the CMAM Conference in Ethiopia, as well as during participant discussions, strongly suggest that the debate around CMAM scale up is moving away from specific technical issues and medical treatments and towards the issues of integrated intra- and multi-sectoral approaches. Furthermore, some of the existing governance elements present in the study of chronic undernutrition may also have explanatory potential and direct policy relevance in understanding the challenges of CMAM scale up.

In recent years, policy studies have made explicit attempts to understand the political economy of nutrition policies, broadly understood as the interaction between political incentives, financial resources and institutional constraints that can help explain government commitments to reducing hunger and malnutrition (UNSCN, 2009; Natalicchio et al, 2009; Sanchez-Montero & Salse Ubach, 2010; Bezanson & Iseman, 2010; Pelletier et al, 2011). Evidence has been drawn from a wide range of case studies carried out in recent years. Action Against Hunger recently completed an assessment of nutrition policies in five countries (Bangladesh, Brazil, Malawi, Mozambique and Peru) all of which have significantly reduced undernutrition over the last 15 years. Pelletier and colleagues have sought to take into account the "socio-political contexts" that can effectively improve policy and programme planning around nutrition (Pelletier et al, 2011) by examining evidence from seven countries

(Bangladesh, Bolivia, Guatemala, Peru, Pakistan, Vietnam, Uganda and Ethiopia).

In general, existing assessments of the political economy converge around a common set of principles that are believed to boost the governments' effectiveness in addressing undernutrition. A key recurring factor is the importance of developing an *inter-sectoral approach to nutrition* (Sanchez-Montero & Salse Ubach, 2010) that goes beyond food security or medical interventions and seeks to actively incorporate other sectors such as education, agriculture, improved infrastructure, women's' development, etc. through the formation of inter-ministerial committees (UNSCN, 2009: 12)<sup>5</sup>. An additional feature of inter-sectoral cooperation may involve the development of formal or informal bodies that facilitate donor coordination, as well as the inclusion of civil society organisations to legitimise ongoing initiatives and devolve ownership to citizens. Another element is the inclusion of *nutrition as part of the national poverty reduction and development agenda*, to ensure that nutrition remains a priority on the political agenda beyond the mandate of specific governments or political parties. It is argued that the generation of political commitment and system commitment requires *sustained efforts from policy entrepreneurs and champions* (Pelletier et al, 2011). For example, stronger political leadership can

<sup>5</sup> It should be noted that whilst CMAM programming has been integrated into health service delivery systems to varying degrees in all case study countries, there is as yet little evidence of integration or coordination with other government sectors in CMAM scale-up. It seems probable, however, that if the underlying causes of SAM as well as chronic undernutrition are to be addressed through sustainable long-term nutrition programming, then inter-sectoral coordination within government is essential.

translate into the institutionalising of a centrally coordinated council that has direct political support from the Executive branch (the President or Prime Minister).

Some additional factors required to ensure good nutrition governance include *continued financial support and investment* (Sanchez-Montero & Salse Ubach, 2010), which should ideally go beyond short term planning and promote long term policy interventions. In several cases, it is reported that improving human and organisational capacities, from national to frontline levels, could enhance the governments' ability to use political windows of opportunity and deliver successful nutrition policies (Pelletier et al, 2011).

Finally, another element identified as an essential condition to enhance the governance of the nutrition sector has been the development of a monitoring and evaluation framework of nutrition governance that government counterparts can manage. The importance of monitoring and evaluation has been highlighted by REACH, a UN interagency initiative with a mandate to end child hunger and malnutrition. The relevance of incorporating a monitoring and evaluation framework is to evaluate different elements of nutrition governance in terms of policy, coordination and capacity.

A positive contribution of the studies discussed above is that they help disaggregate what is meant by 'political will' of governments to tackle undernutrition. A nutrition governance indicator<sup>7</sup> has been proposed to evaluate the extent to which countries are likely to effectively promote improved nutrition efforts. Some components of this indicator include the existence of a national nutrition plan, the incorporation of nutrition into a national development strategy, the existence of inter-sectoral coordinating committees, the maintenance of regular surveys and data collections, and the allocation of dedicated budget lines for nutrition strategies and plans (UNSCN, 2009: 12). However, most of these governance analyses have focused on the 'front end' aspect of nutrition strategies: how policies can be made effective and put into place to produce improved nutrition outcomes. What is less clear is what incentives stakeholders have to implement policy commitments (work across sectors, develop leadership roles, mainstream nutrition policies, etc.), when do governments develop effective mechanisms to ensure sustainable

stakeholder cooperation in the long term and how these affirmative actions translate into measurable deliverables over time.

The following sections offer a closer analysis of comparative evidence across nine countries, illustrating how governments in these countries have adopted and scaled up CMAM. To the extent that is possible, Section 6 will offer a comparative analysis of the main drivers of nutrition governance, with a particular focus on CMAM programming in these countries. This helps us to understand why and when governments have the necessary political incentives to overcome or reform institutional constraints and invest time, political capital, organisational efforts and financial resources to address acute malnutrition through scale up efforts. As a new approach, the first and most fundamental challenge encountered at country level has been how to introduce CMAM. In most cases, this has required first getting the issue of the burden of SAM and its impact on mortality onto the national agenda where it was previously absent or very sketchily dealt with (Gross & Webb, 2006). In countries where inpatient care for SAM is established as the norm, the vast majority of SAM cases never reach inpatient facilities and are therefore hidden from view and ignored by national health and nutrition programming. For countries experiencing

# 4 Nature and evolution of CMAM: challenges and enablers

## 4.1 Policy environment

### 4.1.1 Agenda setting

emergencies, the issue of treating large numbers of children with SAM has historically arisen periodically and been responded to with resource intensive, mainly NGO-led, programmes. These programmes have phased in and out, leaving little lasting impact on the health system or national agendas. In addition, disease surveillance systems, health management information systems, and national level surveys (MICS, DHS<sup>8</sup>) usually omit the condition all together or deal with it incomprehensively (for example, omitting oedema). Therefore, though the numbers of untreated children suffering from SAM at all times in most countries impact on many national health indicators (infant and child mortality, stunting, morbidity, HIV), they have seldom appeared in health and nutrition statistics, the sources of data that inform national and international agendas for health. Although low level health workers encounter these children, they have had nothing effective to offer them and little power to place the issue on the agenda higher up the health system.

Since the international endorsement of CMAM in 2007, international nutrition agendas have increasingly recognised the burden of SAM, its impact on mortality and the need to scale-up treatment (Lancet Series on Maternal and Child Undernutrition (2008), REACH, SUN<sup>9</sup>). However though this endorsement and the resulting joint statement (WHO/UNSCN/UNICEF/WFP, 2007) are reported by agencies and international advocates to

have aided the advocacy process for CMAM at national level, translation to national agendas is not automatic. In fact there is still debate at global level as to the priority that CMAM interventions should take within initiatives to scale up nutrition by the World Bank, based on cost and capacity challenges (Horton et al, 2010) despite agreement on the imperative of treating SAM for reaching MDG4. For the nine case study countries, the experiences of introducing CMAM, placing it on the policy agenda and gaining political attention and commitment at a high level have been quite diverse. The studies do, however, universally illustrate a similar path that scaling up CMAM has taken at country level, whereby governments are simultaneously attempting to action scale-up whilst addressing those challenges of cost and capacity.

Emergencies have successfully helped drive the agenda for CMAM forwards in over half of the case study countries (Ethiopia, Malawi, Pakistan, Somalia, Niger and Kenya). The onset of an emergency has highlighted the issue of SAM (often simply through emergency programmes identifying large numbers of children) and provided the context (availability of partners and resources) in which CMAM can be introduced and demonstrated to work at limited scale (district and regional levels). Emergency contexts have also brought a willingness to operate outside the norm due to the scale and urgency of the situation and inadequacy of existing approaches to deal with the numbers. This willingness to depart from internationally agreed norms and protocols was essential during the early years of the development of the approach and prior to the UN endorsement.

<sup>8</sup> Multiple Indicator Cluster Survey, Demographic Health Survey

<sup>9</sup> Scaling Up Nutrition Movement.  
<http://www.scalingupnutrition.org/>

For example, in Niger in response to the 2005 crisis, a few NGOs began implementation of CMAM at small scale and in parallel to the health system, whilst the government supported by UNICEF and other NGOs was still responding with an inpatient only model. It wasn't until 2007 that the approach, now demonstrated to work in NGO programmes, was taken up by the Ministry of Health (MoH). It was then expanded under their lead to place outpatient care within health facilities down to health post level with plans to reach 2000 health posts in 2011. In Pakistan, Kenya and Somalia the approach has been introduced in disaster affected areas and expansion has been accelerated during periods of acute crisis.

In some cases, this type of emergency introduction of the CMAM approach can lead to lack of government ownership. For example in Khyber Pakhunkhwa, Pakistan where during the 2010 floods:

*“Donors were awarding contracts for service delivery to the local NGOs without even informing the health authorities. We had no idea who was doing what and where.”* (Pakistan)

Interestingly, another example from the same country and the same flood response, illustrates that this doesn't have to be the case and that government can take the lead in such a situation if allowed to do so.

*“The most critical element in the effectiveness of the response was the strong commitment of the then able leadership in the department of health.... The strong foundation would definitely have a long term impact on nutrition in emergencies in Punjab.”* (Pakistan)

In Balochistan in Pakistan, a similarly positive experience of district authority ownership is attributed to proactive measures taken by UN and NGOs operating through the provincial nutrition cell, to engage with the district authorities, including the Department of Health, at district level from the start and at frequent intervals thereafter.

In Malawi, though CMAM was initiated also in response to a crisis (in 2001), the lead from the beginning came strongly from the MoH, which had been approached by NGOs and international experts advocating for the new approach. The MoH was convinced by the case placed before them and

put their support behind the pilot. This facilitated the implementation of the approach by MoH staff, with NGOs playing a support rather than implementation role right from the beginning. In 2004 it was consequently the MoH that organised a workshop to disseminate the CMAM experience with health officers and NGOs. It was subsequently district health officers themselves who took up the idea and demanded the programme in their districts. Scale-up has progressed from there with the agenda for expansion being driven firmly by the MoH and fuelled by additional food crises which have brought in more funds. Today, Malawi has 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<sup>10</sup>, a testament to the effectiveness of that MoH lead.

Ethiopia's experience was also initially led by the onset of an emergency and by advocacy efforts by international experts and NGOs. CMAM was first implemented out of the necessity to try something new during the 2001 emergency in the south of the country. High mortality rates experienced in large therapeutic feeding centres run in previous emergencies meant that local officials were not prepared to allow agencies to run these types of programmes again. After agreements with government officials at district and regional level were obtained by an NGO (Concern) and despite no global endorsement for the approach, outpatient care was piloted that year. This introduction of what was then a radical new approach was facilitated by the decentralised structure of the health system in Ethiopia, whereby a certain degree of autonomy for decision making is held at regional level. The positive initial experience was followed by pilot and operational research CMAM programmes beginning in 2003. Though these pilots were NGO supported, they were carried out with close collaboration of regional and district health authorities and implemented by MoH staff at facilities with NGO support. Once the pilot experiences were shared both within the country at a national workshop and internationally, it was regional health bureaus that took the lead in pushing the CMAM agenda forward, continually bringing it onto the national agenda with the support of the NGOs. UN agencies also took up support at national level in 2004 for the integration of the approach into the health system. In 2008, the MoH drove forward the further scale-up and decentralisation of CMAM. This came in response

<sup>10</sup> As of June 2010.



to dramatic and rapid increases in the number of SAM cases in two emergency affected regions. This led government to call on UNICEF to support the roll out of the approach as part of the health extension package, initially to 1,239 and now to over 6,400 health posts nationally.

Emergencies have also served to highlight the problem of SAM in a country simply by providing mechanisms by which the degree of the problem is identified. This is achieved by the instigation of nutrition surveys measuring SAM (including the presence of oedema), and the introduction of Mid Upper Arm Circumference (MUAC) measurements and oedema checking in facilities to allow the rapid identification of SAM cases. Even where national surveys have measured SAM, it has often been incompletely done (i.e. without oedema included<sup>11</sup>) and seldom have the results been used to illustrate the numbers of children in the country suffering from SAM. In chronically emergency affected countries, it is usually possible for advocates to find sufficient data to estimate national burden of the disease as some degree of nutrition information system that includes the relevant indicators is more often in place (e.g. FSNAS<sup>12</sup> in Somalia, Bulletins of the ENCU<sup>13</sup> in Ethiopia). However in other countries and contexts, unless relevant indicators for SAM can be added to national surveys and surveillance, the demonstration of SAM burden and therefore advocacy remains more challenging.

Three case study countries have introduced CMAM outside an emergency context (Ghana, Sierra Leone, and Mozambique). These countries have also utilised high level international experts brought in by UN agencies to convince key people in government of the merits of the approach and particularly to help demonstrate the national burden of the disease and implications for mortality and morbidity using international evidence. Direct discussions between international CMAM experts, and national nutrition experts and government officials have actually been used in all case study countries in order to arrive at agreement for the adoption of the CMAM approach.

These countries have also relied on pilots to prove the effectiveness and practicality of programmes in the local context to officials and health professionals. Prior to UN endorsement for CMAM, pilots were essential. However, experience has shown that even after UN endorsement, the real value of the pilot lies in building local evidence and

national consensus for the approach and in learning how CMAM, not being a one size fit's all programme, needs to be adjusted in different country contexts. Pilots are generally thought to work well at convincing both officials and health professionals because the effects of CMAM are so visible and the results, in terms of number treated, so striking. To this end, all case study countries have used the pilot approach either by establishing full CMAM in one or two districts (e.g. Malawi) or by establishing outpatient care in a few health facilities within a district and gradually expanding to more facilities from there to achieve coverage (e.g. Sierra Leone, Ghana). In fact the case study reported experiences indicate that UN endorsement carries less weight than local experience when it comes to adopting an approach nationally. The slow progress being made on CMAM in India to date illustrates this point very well. It indicates the importance and urgency of moving forward with pilot experiences:

*“A valid impediment to the urgent operationalisation of community management of SAM is the paucity of local evidence, which precludes clarity about the possible therapeutic protocols and their practical implementation. Evidence related to other settings and cultures (for example, Africa) cannot be directly translated and operationalised in a diverse country like India”* (Kapil & Sachdev, 2010).

A further enabling factor, common to all case study countries starting scale up in the absence of an emergency, is having an agency working directly with the health authorities to help push the CMAM agenda forward. These agencies have also been responsible for mobilising funds and other resources, particularly RUTF, for implementation. In

<sup>11</sup> MICS and DHS.

<sup>12</sup> Food Security and Nutrition Analysis System (FSNAS) run by the Food Security and Nutrition Analysis Unit (FSNAU) is a multi-donor funded initiative for Somalia. The information contributing to the FSNAS is collected by field team of enumerators and analysts and is entered and processed through an integrated database and information management system.

<sup>13</sup> The Emergency Nutrition Coordination Unit (ENCU) is a unit of the Ethiopia Federal government Disaster Risk Management and Food Security Sector (DRMFSS). It produces quarterly bulletins collating, analysing and sharing data from ad hoc nutrition surveys and monthly TFP admissions collected from government regional health bureaus and NGO supported therapeutic feeding sites, as well as definition and monitoring of hot spot districts.

Ghana and Sierra Leone the UN agencies, technical bodies and donors have played this role. In Ghana, CMAM was first introduced in 2007 at a workshop organised by the Ghana health service in collaboration with UNICEF, WHO and USAID. The Ghana health service then established a technical committee to coordinate and oversee implementation and integration of CMAM. The result of this action was that CMAM was taken up swiftly at regional and district levels and rapidly integrated into routine activities. In Mozambique it was the HIV agenda that first raised the profile of SAM. Outpatient care was first introduced for phase 2 of treatment for severely malnourished HIV positive children in Maputo in 2004. The success of this strategy, which demonstrated the safety of SAM treatment outside the facility, led to the first pilot of fully implemented CMAM in 2007 with NGO support. These results served to convince sceptical paediatricians and medical practitioners, particularly of the effectiveness of treating children with mild and moderate oedema at home. The revision and endorsement of guidelines and the gradual slow expansion of CMAM to other districts followed.

National scale-up requires government commitment. Pilots and advocacy by agencies and international experts can help build this commitment. The initial experience of Ethiopia and also the Somalia case illustrate that sub-national commitment can also play a key enabling role in bringing CMAM to the national agenda and to driving expansion. In Somaliland, the local authorities' commitment to nutrition led to the appointment of additional focal staff at regional and district level to facilitate rapid scale-up. Some of the other mechanisms that have been successfully used

to bring CMAM onto the national agenda are the use of national nutrition champions/advocates and exposure visits.

In Ethiopia, nutrition champions have been used very effectively for CMAM advocacy. Some have come from sub-national level, e.g. the head of the regional health bureau for SNNPR who attended an international workshop on CMAM in 2005 (FANTA2, ENN, 2008) and returned to push forward the agenda. Others were from national level e.g. the (then) head of UNICEF in Ethiopia, himself a nutritionist. Flexibility in identifying champions at different levels and using both formal and informal networks to influence agendas has been identified as one of the keys to success in Ethiopia. In Sierra Leone, the first lady was brought on board to launch the first CMAM protocol during breastfeeding week in order to raise the profile of the approach.

Exposure visits, particularly those that enable ministries to learn from the actions of other national ministries, have also been identified as helpful for moving the CMAM agenda forward. For example, the MoH CMAM coordinator in Ghana gained the confidence to advocate for CMAM and overcome resistance at many levels in Ghana by spending time in Malawi. Malawi was also the destination of Ethiopia government officials seeking advice on national programming as it had already placed CMAM within routine health services. The visit allowed the Ethiopian officials to learn directly from the successes and challenges encountered in Malawi.

Finally, the challenge of raising CMAM onto national agendas can be helped or hindered by the positioning of the nutrition agenda in general in the country. In case study countries where nutrition sits

### BOX 1. Positioning of Nutrition in Malawi

In Malawi, policy direction and resource mobilisation for nutrition falls under the Office of the President and Cabinet (OPC). A nutrition committee chaired by the OPC hosts technical working groups for different nutrition areas. The implementation of nutrition policies sits under the MoH, i.e. the operational plans for implementing CMAM within the essential health package including placing a line item in budgets of district implementation plans for CMAM. This allows the MoH to focus on implementation while the policy environment is strengthened by being at a higher level. Similarly, the recognition of nutrition as cross cutting, including plans in Malawi to have a nutritionist in every ministry, can help to bring nutrition issues firmly onto the agenda in multiple ministries and facilitate cross-sectoral collaboration.

*Malawi case study*

under the President's office such as in Malawi, or in Niger where emergency nutrition is under the leadership of the Prime Minister's Office, raising CMAM high on the agenda and the consequent integration into policy and resourcing of that policy has perhaps been facilitated.

A limitation, illustrated in a non-case study country (Mauritania), to this scenario proposed in Malawi is that having responsibilities for nutrition and therefore CMAM cutting across ministries has led to unclear accountabilities and consequent fragmentation of the approach in the field. In Mauritania (FANTA, 2010c)<sup>14</sup>, nutrition is housed in several key ministries, including the Ministry of Social, Child, and Family Affairs (MASEF), the Food Security Commission (CSA) and the Ministry of Education. CSA is responsible for the community component of CMAM, for supplementary feeding and for any outreach run out of health posts, whereas the MoH is responsible for SAM treatment and outreach at higher health facilities. MASEF is responsible for some large scale development programmes with preventative nutrition components. Despite the significant progress in coordination efforts at the central level conducted using the REACH platform, the CMAM scale-up is reported to have been ineffective due to the lack of coordination among actors at the field implementation level. This has not, however, been documented in other countries.

Where nutrition sits firmly within the health sector, it must compete with all other health sector priorities. In Kenya, the split of the MoH into the Ministry of Medical Sciences and the Ministry of Public Health and Sanitation allowed nutrition, as part of public health, to rise up the agenda. Now that the split is being dissolved and nutrition placed back alongside all clinical services, a key challenge identified will be for nutrition to maintain its profile. Being rooted firmly within the health sector does have many advantages also. Most importantly, it facilitates the uptake of the CMAM approach by all health staff once it has been endorsed by the MoH. It can also facilitate coordination by tapping into existing MoH mechanisms (e.g. Mozambique, Sierra Leone, Niger, Pakistan). However it may also bring challenges for essential cross-sectoral work, particularly for community mobilisation. In Pakistan, the community level workers for nutrition don't fall under the responsibility of the MoH, therefore objections to their central role for the implementation of CMAM were raised at national level. This issue was only

solved through intervention of the provincial authorities. One example illustrates that a balance is possible whereby nutrition can be firmly placed within the health sector yet CMAM also included on higher cross sectoral agendas. In Niger, though falling clearly with health and the nutrition directorate, CMAM is also included in the president's special programme, which has a wider cross sectoral reach and higher profile through which to advocate for resources.

## 4.1.2 Formulating policies and programmes

Once CMAM has been placed on national agendas and received some level of political commitment, in terms of ministerial level agreement that it is the approach to be used, more challenges present themselves. The placing of CMAM on national agendas must be translated into the incorporation of the approach into national policies. Realistic operational plans with sufficient buy in to guide implementation must be developed and resourced, i.e. the challenge becomes to translate political commitment to system-wide commitment, including consensus on a technical level by experts and technical bodies within the country. The level of incorporation of CMAM into national policies, plans and programmes in the case study countries is variable.

It seems that countries where CMAM is being implemented at the widest national scale, i.e. Malawi, Ethiopia, Niger (see Box 4 in Section 4.5) are those that have achieved the greatest degree of incorporation into existing policies and plans. Which policies and plans it is most vital for CMAM to be reflected in to facilitate adequate support for implementation is likely to be country specific and dependent on how much strength and backing those policies have to reach operationalisation. This backing is likely to be based on higher political commitment and therefore it is necessary to be strategic in terms of where to focus efforts to locate CMAM from a policy perspective. There are, however, some clear examples of the implications of CMAM not yet being included in national plans. In

<sup>14</sup> This experience is a reflection of findings in a FANTA2 review; Mauritania did not attend the CMAM Conference.

Mozambique, CMAM is not within the national multi-sectoral action plan and therefore is not included in the national SUN initiative. This could lead to funding implications if such initiatives do bring in resources for nutrition. In Somalia, though there is no national nutrition policy, a Somali nutrition strategy for 2011-13 endorsed by the MoH in all three zones identifies CMAM as a key approach and as an important delivery platform for other complementary activities. There are also examples that illustrate that even without a clear nutrition policy document, the inclusion of CMAM into health sector plans is essential to ensure action for CMAM (e.g. Ghana). In fact, as health staff are to be largely responsible for the implementation of CMAM, it must be correctly reflected in health policy and plans (Gatchell et al, 2006) in order to be reflected adequately in their training, responsibilities and performance review.

Clearly, incorporation into health policy and plans is essential. It is not necessarily sufficient however. There is a danger that by relying solely on incorporation into health policy, some of the critical cross sectoral aspects of the approach, particularly to do with community mobilisation, can be missed. Aspects include the action of existing community agents and groups for sensitisation and mobilisation of communities (which may fall within the social affairs and education sectors), the link with supplementary feeding and preventative nutrition programmes (which may fall within the food security and development sectors), and linking local supply of quality RUTF closely with demand through collaboration with the agricultural sector.

In terms of specific strategies and operational plans for CMAM scale-up, there are few good costed examples. Malawi's operational plan for integration of the approach into MoH services stands out. In fact, the issue of the difficulty of translating policy into operational action appears in many of the case studies, in Sierra Leone in particular. An alternate approach to developing distinct national CMAM scale-up plans is the inclusion of CMAM in a wider nutrition sector action plan, such as in Niger, where CMAM scale-up actions are included in the national nutrition plan, or in Uganda where they are included in the MoH 5 year action plan for maternal infant and young child nutrition.

In most countries, it seems that there is no blueprint for scale-up (i.e. clear geographic expansion plan with a timeframe and targets, resources allocated, a

training strategy and an agreed supervision monitoring and evaluation plan). Though in some respects that has been one of the features of the approach, that its uptake is demand driven rather than prescribed from above, the lack of long term funding also plays a key role in limiting planning.

*“While emergency funds are generally easier to access than longer-term development funds, the resulting programming can often be more disjointed and less strategic”.* (Kenya)

Ethiopia is a good example of where there has been no set blueprint for expansion yet extensive scale-up. There is a basic strategy paper for the integration of management of SAM into the national health system only. One of the reasons given for the lack of a central plan for scale-up is the reliance in Ethiopia (similar to many other countries) on short term funding for CMAM (an issue that will be discussed in more detail in Section 5). Despite the constraint of short term funding, in 2008 UNICEF developed an emergency nutrition response plan 2009-10 to call for donor contributions. The plan included the scale up of CMAM in four regions. This plan, albeit short term, allowed the funding to be secured and the development of action plans in those four regions in collaboration with regional health bureaus. Sub-national planning then took place with NGOs so that they could commit to support programming in certain localities. In this way, despite the short term nature of funding, a degree of planned scale-up of CMAM could be achieved that also addressed longer term needs for SAM treatment. In Somalia, impressive scale-up has been achieved with no plan or scale-up strategy in place. However, there are dangers in this approach as without plans, demand can exceed supply, i.e. the expansion of programmes to new areas before the pipeline for RUTF and other supplies can be ensured. Quality can also be compromised if trainings go ahead before resources are in place for sufficient on the job follow-up or where there are insufficient resources for implementation (Mozambique).

Even without national scale-up plans in place, CMAM can be incorporated into operational plans and SWAPs<sup>15</sup> at lower levels. Examples are Malawi

<sup>15</sup> Sector Wide Approach to Programming (SWAP) is a government plan for the sector based on the national policy framework and including strategy for delivery, expenditure plan and performance monitoring framework, through which the international community fund that sector.



and in Kenya. In Kenya, CMAM was included in district annual operational plans from 2008 onwards in Nairobi, Kisumu East and the 22 ASAL districts (Arid and Semi Arid Lands, covered by 700 health facilities), leading to it becoming part of routine health service delivery in these areas. Increasing decentralisation of health systems and a shift to resource decisions being made at sub-national levels could facilitate scale-up of the CMAM approach, which tends to focus on creating demand at that level.

One constraint for development of CMAM scale-up plans and for its inclusion in wider national plans has been the paucity of good costing data and of good cost effectiveness data, in particular. This has made it challenging for governments to make informed planning decisions. CMAM has consequently also been absent in planning tools

such as PROFILES<sup>16</sup> and MBB,<sup>17</sup> used at national level to aid decision making. This presents a further challenge to its uptake. This challenge is starting to be rectified with recent studies from Zambia (Bachmann, 2009), Ethiopia (Tekeste et al, 2011) and Malawi (Wilford, 2011) detailing costs and providing information on disability-adjusted life years (DALYs) to allow the comparison of CMAM with other interventions. It is worth noting here that although the costs of implementing CMAM are often raised as being prohibitive, because the approach is highly targeted to a group at high risk of death it can actually prove as cost effective as 'cheaper' less targeted interventions. Despite having some methodological differences, the costing studies have found very similar results for DALYs (see Box 2). This suggests the reliability of the findings and indicates that CMAM has a similar cost

## BOX 2. Cost effectiveness of CMAM

A recent study (Wilford et al, 2011) assessed the cost effectiveness of CMAM to prevent deaths due to SAM in children under five using data from a rural district in Malawi in 2007. The method compared the cost of providing CMAM compared to the alternative existing inpatient only approach. The incremental costs and effects (numbers of deaths) between the two options were combined to estimate an incremental cost-effectiveness ratio (ICER). The results showed that the implementation of CMAM as an addition to the existing health services in the district produced a cost effectiveness ratio of \$42 per DALY averted. This figure is very close to the findings of similar analyses carried out for an urban CMAM programme in Lusaka, Zambia (\$41 per DALY) (Bachmann, 2009) and a rural CMAM programme in Bangladesh (\$26 per DALY) (Sadler et al, 2011). WHO categorises interventions as cost-effective if they cost less per DALY than a country's gross domestic income per capita. Using this comparison CMAM compares very favourably, for example, the gross domestic income per capita for Zambia is \$1230 (Bachmann, 2010). These cost effectiveness figures are also within the general range of cost-effectiveness ratios estimated for other priority child health care interventions in low-income countries. These include measles vaccination (\$29-\$58), case management of pneumonia (\$73) (Edejer et al, 2005), integrated management of childhood illness (\$38), universal salt iodisation (\$34-36), iron fortification (\$66-70) and insecticide treated bed nets for malaria prevention (\$11 for sub-Saharan Africa) (Wilford et al, 2011).

Extrapolation of these results must consider potential differences in context (i.e. SAM prevalence rates, population density and coverage) but authors suggest that the findings are relevant to a large number of settings where SAM is found. The figure of around \$41/DALY averted has consequently been used by the World Bank for the inclusion of CMAM in their analysis of what scaling up nutrition will cost (Horton et al, 2010).

<sup>16</sup> PROFILES is a process for nutrition advocacy that uses current scientific knowledge and interactive computer-based models to project the functional consequences of poor nutrition on important development outcomes such as mortality, morbidity, fertility, school performance, and labor productivity and estimate the costs and benefits of nutrition programs in a given country.

<sup>17</sup> Marginal budgeting for bottlenecks (MBB) is an analytical tool for evidence-based health policy, planning, costing, and budgeting at country level, developed by UNICEF and the World Bank.

<sup>18</sup> [http://www.fantaproject.org/publications/CMAM\\_costing\\_tool.shtml](http://www.fantaproject.org/publications/CMAM_costing_tool.shtml)

effectiveness to other priority child health interventions. A costing tool has also been developed by FANTA to aid the process of deriving country specific estimates<sup>18</sup>. There is therefore now growing information available to support at least preliminary inclusion of CMAM in MBB and PROFILES decision making tools. This will allow CMAM to be more easily integrated into existing national plans. Greater standardisation of methods and more examples in this area will also help to build up a stronger body of knowledge and consensus.

One enabling element illustrated in all case studies for getting CMAM reflected in national policies and plans is the existence of a central technical working group, or existing government unit advocating for CMAM. This group may be a technical committee chaired by the Ministry nutrition department, as in Ghana and Niger, or a steering committee set up across sectors as in Malawi. These groups have advocated for the inclusion of CMAM in relevant policy documents within the health sector and beyond and taken responsibility for developing CMAM plans with relevant stakeholders.

These groups have the ability to bring in all key actors and may be supported by international agencies. In this way they have the advantage of being able to speak with one voice and advocate successfully for scale-up. For example, in Ghana the SAM technical committee is chaired by the Ghana Health Service (GHS) Nutrition Department and includes representatives from other health departments and agencies, e.g. institutional care division, child health, teaching hospitals (representing academia), UNICEF, WFP and USAID. The technical committee set up a SAM support unit housed in the GHS Nutrition Department and supported by FANTA, UNICEF, WHO. It is this unit which successfully coordinates implementation and advocacy of CMAM, as well as providing technical support for capacity building, supervision and reporting.

## 4.2 Implementation: capacities and support for systems and structures

On a very practical level, the translation of political to system wide commitment for CMAM implementation is highly dependent on the level of support that governments require, request, and actually receive, either from a technical or resource point of view from national and international partners. In **Ghana**, intensive coordinated support in terms of resources and expertise has been provided by UNICEF, GHS, WHO and FANTA. In **Kenya**, a tripartite agreement between MOH, UNICEF and WFP operates in partnership with local and faith based organisations and has provided the major support for the approach (representing a big change in strategy for the ministry to work more strongly with partners). In **Sierra Leone, Pakistan, Ethiopia, Malawi, Somalia, Mozambique** and **Niger**, UN agencies and NGOs also provide key systematic support for CMAM through a combination of technical support to government, provision of resource inputs, backing up systems such as logistics, supervision, monitoring and reporting. Between the UN agencies, UNICEF support tends to focus on positioning of staff, logistics, monitoring, supplies and co-leading coordination. WHO focus on provision of drugs and information systems and WFP on resourcing and providing logistics support for management of MAM. The challenges of supporting and structuring CMAM scale-up and in particular its incorporation into health and community systems are outlined below.

### 4.2.1 Tools (Guidelines, training materials and job aids)

In most countries, and in fact in all case study countries where national programmes exist<sup>19</sup>, a prerequisite for the incorporation of CMAM into national policies and plans, or at least a parallel

<sup>19</sup> All nine country case studies (not including India experience): Ethiopia, Ghana, Kenya, Malawi, Mozambique, Niger, Pakistan, Sierra Leone and Somalia.

action, has been the development of CMAM guidelines (or adaptation of existing guidelines for the management of SAM to include CMAM). As testified to by informants in **Pakistan**, conflicting guidelines can cause “extreme confusion”. Different protocols being used by different agencies (particularly when it comes to admission criteria) can confuse not just government staff but also communities and therefore undermine uptake of the programme. An example from a non-case study country is Mali where different targeting practices led to people being turned away from sites and resulting poor coverage (FANTA 2010b)<sup>20</sup>.

Alternately, the existence of one agreed guideline can contribute to standardisation of implementation and can also demonstrate political commitment for the approach. An example is the launch of the national CMAM guidelines by the First Lady in **Sierra Leone**. Typically, CMAM guidelines detail what the approach actually entails from a technical point of view (i.e. the key technical protocols of how to admit, treat and discharge cases), they outline reporting, supervision and monitoring systems and formats and give information and calculations for resource requirements. They may also clarify modes of implementation (e.g. **Ethiopia**) and roles and responsibilities (e.g. **Ghana**). The process of developing national guidelines in the nine case study countries has been a consultative process and served as a means to bring together key stakeholders and build consensus nationally for CMAM for the management of SAM. This process allows consensus to be reached among national technical experts and practitioners on different detailed aspects of the protocols. Wide buy in and involvement with the development and tailoring of the guidelines to the country context by stakeholders, both at national and field level, sets the stage for coherent programming. As mentioned above, the field level experience during pilots is vital to bring to this process to ensure that guidelines are appropriate and doable. Thus *in some respects, the process of developing the context specific guidelines, creating national buy in at the same time, is as important as the final agreed product.*

In **Kenya**, guidelines for the management of acute malnutrition were developed in 2008 and used immediately for roll out of training. In **Mozambique**, existing guidelines were adapted using the experience from pilots and, though they were only completed and endorsed in 2010, drafts were used for training purposes prior to that. **Niger’s** initial

guidelines developed in 2005 were split into facility based care and CMAM, reflecting the split in implementation of the programmes (NGOs implementing outpatient care in parallel to the health system and government implementing inpatient care). When the guidelines were revised in 2007, as result of the UN joint statement, they reflected the government’s desire to integrate CMAM within the health system and their completion was followed by a government request for immediate support for CMAM roll out.

*Agreed guidelines, even with buy in at different levels and a comprehensive dissemination strategy, do not guarantee standardised implementation. However, in all case study countries they have served as an important prerequisite.* Though some countries have used their guideline as the resource for trainings (**Sierra Leone, Mozambique**), others have developed standardised training packages (**Ethiopia**) to ensure standardisation of trainings. In **Niger**, for example, the quality of trainings has been questioned due to the lack of standardised training materials, however this has not been raised elsewhere.

*The importance of developing job aids and training materials that complement guidelines, particularly for the management of the programme (supervision, monitoring, reporting) ,has been noted in many case study countries (**Niger, Ethiopia, Mozambique, Malawi, Sierra Leone, Somalia and Ghana**) and through other country evaluations (Deconinck et al, 2010a; Deconinck et al, 2010b; Deconinck et al, 2010c; Deconinck et al, 2011; Grellety et al, 2010).* These items may include specific CMAM training materials, which incorporate learning exercises with key information on the CMAM protocols as well as registers, monitoring and reporting formats, admission and exits databases, supervision checklists, referral slips, stock control formats and simple decision trees on cards to aid referral at facility level. Where development of these tools has been delayed, scale-up has been limited (**Mozambique**). In some countries, the development of tools has included the design of an electronic database for district level health teams to use to collate monitoring data on programme performance, observe trends and trigger actions. Little information was available on the feasibility and effectiveness of this for government health teams.

<sup>20</sup> An experience captured in a FANATA2 review, Mali representatives did not attend the CMAM Conference.

## 4.2.2 Skills

CMAM protocols are simple and effective, a feature that aids scale-up of the approach. However, they do require the development of additional skills at every level of the health system, from national to sub-national and district, as well in the facilities themselves and in communities.

*The existing skills level at health facilities, in communities, and within district health teams provides the critical backdrop to scale-up of CMAM.* In countries where the skill level of health staff is considered poor, the challenges for CMAM scale-up will by definition be greater (e.g. **Somalia**). Though attempts are being made to address this in the **Somalia** case by working more closely with local partners, *the long term commitment that CMAM capacity building requires is very challenging with short term funding (see Section 5.3).* This is the case in most other countries where the capacity of health teams is identified as a limiting factor to CMAM scale-up. Conversely, high levels of education and skill among health staff are identified as an enabling factor to the CMAM scale-up achieved in **Ethiopia**. Most countries mention the need to focus particularly on the skills required at district level and for capacity building of district health teams to manage the programme, to supervise and to monitor. It is this kind of capacity building that takes time and long term commitment. At community level where a cadre of educated and resourced community level workers exists, e.g. **Malawi** and **Ethiopia**, this has facilitated the scale-up of CMAM by allowing treatment to be delivered at a lower level. In other models, where this cadre are not in place, the necessary skills have been built amongst community agents to carry out identification and referral of cases. Where this is the case, the education level of these community agents is less of an issue, as the protocols, particularly with the use of MUAC, are very straight forward and easy to learn. The issue most pertinent at this level is motivation (see Sections 4.2.3 and 4.2.4).

In general, the approach to training for CMAM that has been advocated from international level experts has been to have experienced trainers moving to district level to conduct trainings, followed by close on the job support and mentoring within the active CMAM programme. In various countries, however, the more traditional training of trainers (TOT)

approach has been used at least initially, often driven by the desire to train large numbers of staff as quickly as possible. The experiences illustrated in the case studies and other evaluations are illuminating. In Mauritania, Burkina Faso, **Niger**, **Somalia**, **Mozambique** and **Pakistan**, the difficulties of ensuring quality and experienced trainers as the TOT cascades down has led to demonstrated dilution in the quality of training and resulted in a shift in approach. In **Niger**, large numbers of trainers were trained using the TOT approach leading to good ownership of CMAM by the government. However, the lack of practical and training skills of the trainers, and lack of oversight by the more experienced national technical team, led to questions of quality. Systematic on the job follow-up and supportive supervision was identified as a means to rectify the situation, however, it was recognised that the existing pool of trainers did not have sufficient skills and experience to do this. This is gradually being addressed through additional inputs by the expert technical team working with existing trainers and carrying out follow-up. In **Mozambique**, the close follow-up of service delivery required after trainings has been identified as a potential role for NGOs.

In **Somalia**, it was quickly recognised that TOT led to the wrong people being trained and skills not being passed down. Providing on the job mentoring was, however, a challenge in the **Somalia** context given the access issues (highly insecure). To address this, a system of mentoring was instituted, where international partners mentor local partners to conduct the follow-up on the ground. This system aims to help local implementing partners not only to better support CMAM on the ground but also to improve their technical capacity in nutrition as well as their skills in project cycle management, proposal writing and reporting. The system is reported to be working successfully, e.g. ACF and Concern Worldwide acting as a training centre for local organisations, Oxfam NOVIB and Save the Children partnering with a local NGOs for capacity building.

Other countries (**Malawi**, **Kenya**, **Ghana**, **Ethiopia**, **Sierra Leone**) recognised the inadequacy of TOT for CMAM from the outset and used a combination of classroom training by experienced trainers followed by close on the job mentoring. In **Malawi**, a national training team (39 strong) comprises experienced members from District Health Offices where CMAM has been implemented successfully and NGO partners. In **Ethiopia**, additional UNICEF staff were



recruited to support sub-national trainings and particularly to support follow-up to the training. In **Kenya**, for the urban and 22 ASAL districts programme, TOT was combined with practical training at health facilities whereby district health teams were supported by experienced trainers to provide training for their own staff. On the job support followed, which was scaled down based on each facility's ability to implement the protocols. Lessons were that the on the job support was essential for the retention of skills and continuity of scale-up. They also found that, as the majority of training was on the job, staff were not taken out of facilities. This experience also illustrated that with proper planning, this method actually allowed more staff to be trained than the traditional TOT approach.

Learning visits have also been used as an alternate form of mentoring, whereby health workers from high performing sites visit low performing sites. The added value of this approach is that advice between the same cadre of health worker is likely to be most appropriate, as they have a better understanding of the day to day challenges being faced. *In general, therefore, experience has shown that TOT for CMAM can target the wrong people and dilute the quality of training and therefore implementation. A combination of classroom training by experienced trainers, followed by close on the job mentoring and learning visits where health workers support each other, allows trainees to retain skills, minimises time out of the facility and, with proper planning, can allow more staff to be trained.*

Even where quality training and mentoring can be provided, a key barrier for the acquisition of skills for CMAM can be the high staff turnover reportedly experienced in many of the countries where CMAM is implemented. Staff turnover within health services occurs at all levels and can be due to poor pay and motivation and, particularly though not exclusively in emergency contexts, to the loss of staff to more highly paid jobs in NGOs and international organisations. In all case studies, staff turnover is mentioned as a key challenge to maintaining the quality of CMAM implementation and has necessitated repeated trainings (**Kenya**). *It is generally true that given these staff turnover issues, all staff in facilities and within health teams should be trained (Mozambique, Ethiopia, Ghana) to allow for loss of skills within the team. Not having all staff in facilities trained in CMAM can also raise other challenges. For example, in cases where only selected hospital staff have been trained, issues have*

been encountered of clinicians being uncomfortable with CMAM protocols (particularly of the referral to outpatient care) and therefore giving alternative instruction and/or treatment. In addition, cases of SAM coming through outpatient departments are likely to be missed unless all staff rotating through these departments are trained in their identification. This has been experienced in both **Ghana** and **Ethiopia**. In **Niger**, vast numbers of staff were trained initially and although the quality was questionable, the practice did mean that even when staff rotated or left there were still staff managing cases of SAM who had received training. In **Ghana**, all staff at health facilities were trained and this allowed treatment to carry on even with staff absences. This practice was also found to enhance the team working spirit and motivation for the programme as all staff were involved. Later, the existing teams were able to facilitate the mentoring of any new staff coming into the facility and therefore reduce the need for repeated trainings.

This kind of internal mentoring system does not remove the need for refresher trainings where monitoring indicates there is poor performance. For example, in **Ethiopia**, a pressing need has been identified for refresher training of health extension workers in order to strengthen their skills in adhering to protocols. We can hypothesise that a clear and well-functioning system for supportive supervision may offer an alternative to these refresher trainings but experiences of using such a system are still rare and the results achieved insufficiently documented (see Section 4.4).

The need for training on different skills sets for CMAM is raised particularly in the FANTA evaluations<sup>21</sup> and in the case studies for **Ethiopia, Kenya, Mozambique** and **Niger**. *It is the training on management of CMAM, on planning, logistics and supply chain management, monitoring, supervising and reporting, that come up most often as additional training needs that have not always been included from the outset. The focus for these trainings are the district health teams and in the above mentioned countries, additional trainings have indeed been organised for these groups on these particular areas.*

Conversely, the incorporation of CMAM into existing trainings has also been achieved to varying degrees, for example in **Sierra Leone** where CMAM and IYCF training is given together or in **Mozambique** where

<sup>21</sup> See citations and reference list at end

CMAM is included as part of HIV trainings. At community level, the integration of trainings is particularly pertinent as community level workers wear multiple and usually multi-sectoral 'hats'. In **Pakistan**, training for the Lady Health Workers on all relevant aspects of nutrition (including CMAM, IYCF, iodine deficiency disorders (IDD), Vitamin A supplementation) has been incorporated into one five day training. This avoids taking them away from their work for multiple periods and condenses training resource requirements and materials.

Some other innovative approaches to training are being considered, particularly in **Somalia** where the context necessitates more flexible approaches. They may have great potential in other contexts also. Some of these approaches are trainees spending time seconded to a higher capacity organisation, distance learning, mobile mentoring teams, troubleshooting hubs/call centre responding to questions. In **Ghana**, the motivation of health staff for new approaches is being tackled by including CMAM trainings among the criteria for awarding career promotion as part of the health workers national performance appraisal system.

*The use of learning sites or centres of excellence as training grounds has also been a key feature of training strategies in various countries.* One concern raised in **Niger** is that these sites may demonstrate unsustainable models of service delivery, however, this will depend on how they are set up and managed. In **Mozambique**, each district has its own learning site, which is set up first as the approach is introduced and then used as a training site during expansion. A similar approach was used in **Ghana** during phased scale up. These sites have successfully driven scale-up in their districts.

Finally, *pre-service training for CMAM within existing health and nutrition staff trainings is identified by all countries as a requirement for further institutionalisation of the approach and scale-up.* So far it is only being implemented in **Malawi** of the case study countries, though it is in the plans of others (e.g. **Ghana** and **Niger**). Requirements for putting in place pre-service training will be country specific. However, given the experiences of training strategies outlined above, it would seem that a period of on the job experience as well as classroom tuition should be included as part of the curriculum.

### 4.2.3 Human resources and infrastructure for service delivery

Success in scaling up CMAM requires that there is sufficient human resource (within and outside the health system), that these people have the resources they require and that they can be motivated and retained.

As with any programme aiming for delivery primarily within the health system, the available human resource within that system can prove a challenge. What if the health or nutrition staff simply are not there, either at facility, district or regional level? *In Niger, Kenya, Somalia, Ethiopia, Sierra Leone and Pakistan one of the main CMAM scale up barriers identified is human resources.* The unmanageable workload for staff taking on an additional service on top of their existing work is a common concern. The effect on workload will largely depend on the number of staff conducting CMAM and the number of days over which the service is offered. Both of these can potentially be adjusted to accommodate different caseloads in a manageable way. As CMAM is taken on as an integral part of the whole health package, it is important to assess the capacity required to deliver that full package and adjust staff accordingly.

In **Niger**, although there are reported to be fairly motivated staff at facility level, there is usually only one of them in each health centre, making the SAM caseload difficult to manage. In **Kenya, Ethiopia** and **Pakistan** the issue is particularly acute in the hard to reach health facilities and/or where the population is thinly dispersed. In **Niger**, the Presidents fund has been used to increase staff at the lowest levels of the health system. In **Pakistan**, additional assistants were put in place to help the Lady Health Workers and existing facility guards were mobilised to help organise an orderly flow of clients through the services provided and therefore ease the work of those conducting treatment. *In Pakistan, Kenya and Somalia the use of mobile teams is being piloted as a way of reaching the population more efficiently with limited staff.*

*In Sierra Leone, Somaliland in Somalia and Ethiopia, additional nutrition staff have been placed at district and/or regional level.* Whilst the addition

of the CMAM programme has triggered this expansion, these nutrition staff are likely to be a resource for other nutrition programmes also. Where this is the case, the instigation of CMAM could lead to the strengthening of nutrition programming in general. In some cases, these additions within the government system have been funded by partners, e.g. UNICEF in **Ethiopia** and UNICEF and WFP in **Somalia**. Such additions are reported to lead to an improvement in service delivery, though this has not been specifically documented. Some remaining capacity gaps are still identified in these cases, particularly in the areas of supervision and monitoring. However, the solutions to these gaps may lie in innovations in how supervision and monitoring is carried out, rather than the addition of staff (see Section 4.6).

Of course the presence of staff isn't the full picture. Staff need to be retained and motivated. *The issue of salary top ups as motivation for government staff is a long standing one and one that is common to many programmes, particularly those implemented during emergencies. The strategy is not a sustainable one and highlighted as a critical concern in Pakistan, for example.* In this instance, the solutions called for lie in the demonstration of commitment of senior health staff and managers for the programmes being implemented and health systems support, rather than in any incentive packages.

#### 4.2.4 Human resources and infrastructure for community mobilisation

For CMAM to function effectively at community level, communities need to know about the programme. There also need to be mechanisms in place for the timely identification and referral of cases and for a degree of follow-up on children absent from follow-up visits or not responding well to treatment. These mechanisms are diverse and country specific but they all hinge on the availability of resources in those communities and as such, *the existence of human resources at community level also greatly influences the progression of CMAM. Active and resourced health extension workers give mobilisation, screening and where remit allows,*

*treatment for uncomplicated SAM an instant delivery mechanism.* In some countries (**Malawi, Ethiopia, Pakistan**) where paid community health workers are in place, the progression of CMAM has led to them taking on the actual treatment of SAM (with RUTF, antibiotics, etc.), a step which has relied on building their capacity to do so effectively. In the majority of other countries (including **Mozambique** and **Somalia**), paid community health workers are responsible for the identification, referral and follow-up of children with SAM, with treatment being carried out by facility health staff. In other cases, though officially this cadre of health staff exist, they are not yet active. For example, in **Ghana**, the community health posts (CHPs) covers about 10% of the country and each CHPs is staffed by a Community Health Officer who is trained and carries out CMAM activities as and when new CHPS compound are opened in their zones within districts. CHP is a new process that is being scaled up gradually in all districts. Teams of volunteers work within the zones. Another approach is reflected in the roll out of the health extension package in **Ethiopia**, which has seen the transition of previous volunteer workers to paid status as health extension workers and that has become linked with the roll out of CMAM. Similarly in **Kenya**, the activation of community health agents is being pushed forward together with the CMAM agenda, though funding for the roll out of payment for these agents is an issue that has not yet been resolved.

There is a risk of over-burdening these existing workers, affecting motivation and attrition. Where this has been experienced (**Malawi, Ethiopia, Ghana**), networks of volunteers have been added to work with the paid community health workers. Alternatively, NGOs have been brought in to collaborate on community level mobilisation. In some cases, fears of demotivation have led to the addition of incentives, as in **Somalia**. As noted above, incentives for existing salaried health staff, even those operating at community level, are contentious. Though the argument in favour of incentives is that work gets done more effectively, in **Somalia** the experience is that performance related incentives for community health workers have encouraged them to take on larger catchment areas for case finding, for which they are paid more but are not in fact able to cover effectively. The effect on CMAM coverage is therefore a negative one. In addition, sustainability is repeatedly raised as the major argument against these kind of incentives. As above, commitment from within to remunerate staff



appropriately and ensure sufficient staff are in place to avoid overload and demotivation is required and needs to be supported. These are issues that are not particular to CMAM, rather they are pertinent to health systems strengthening in general.

As mentioned above, paid community level workers provide a ready-made delivery mechanism for community mobilisation, screening and referral. They are, however, not the only route. *Volunteers have been used to varying degrees in many countries. Their motivation and workload is raised as one of the key challenges for a successful community component and the use of incentives, particularly by NGOs, an impediment to the sustainability of a government implemented programmes (Malawi, Niger). These issues are clearly linked to the amount of work that is required of volunteers and the geographical areas they are expected to cover, a balance that must be struck.* In **Sierra Leone**, 2668 community volunteers have been trained by MOH with NGO support in 2011 and are reported to be active. The issue of volunteerism and CMAM were at the forefront of discussions at the CMAM Conference and it is clear that *the potential role of volunteers in CMAM and maintaining volunteer momentum needs more guidance and dissemination.*

Volunteers are also not the only mechanism for effective community sensitisation, screening and referral. From the earliest research-based emergency CMAM programmes, the important role of a range of people within communities in the development and planning of the programme, in sensitisation and for identifying children suffering from SAM, has been emphasised (Guerrero & Mollison, 2005). *The modalities whereby communities can be involved have not been prescribed as they must be necessarily flexible to the context, but the mechanisms for sensitising them about the programme and eliciting their involvement have been suggested.* These include conducting community level assessment to identify key community agents, structures and communication channels (traditional healers, mother to mother networks), consultation with key community figures, and conducting coverage surveys to identify barriers to the uptake of services from the communities point of view (Collins et al, 2006b). In **Ethiopia**, where there is now a paid cadre of community health workers, MoH and partners are now looking at how to engage and harness other community networks, such as youth and women's groups in, for example,

IYCF related activities that could also benefit CMAM implementation.

*In many of the case studies, lack of focus on the community mobilisation component of the CMAM approach (community sensitisation, screening, referral and follow-up mechanisms) has been identified as a challenge and a barrier to achieving coverage of the programme, particularly during the initial stage of implementation (Pakistan, Somalia, Mozambique, Ghana, Ethiopia, Sierra Leone).* Such a gap may be the result of perceptions that it is not a priority, insufficient funds (**Somalia**), insufficient expertise, concerns about overburdening the system, or lack of leadership in that area by the MoH (**Mozambique**). This gap was echoed throughout the CMAM Conference; "putting the 'community' element back in CMAM" was one of the key issues highlighted at the conference. It is clear that much more learning is needed on how to actively involve communities in the planning and implementation of CMAM.

*"it has proven challenging to roll out the community activities, in part because of the focus so far on the health facilities. There is a limited number of experienced staff who can provide technical assistance to the MoH's efforts at the community level; this will continue to be a problem unless additional efforts and funding are geared toward this gap"*  
(Mozambique)

There are examples of community level human resources being utilised in a positive way. For example in **Mozambique**, though a full community mobilisation strategy has been lacking, community leaders, traditional healers and school teachers are included in training for CMAM so that they can recognise the signs of malnutrition and refer cases. The results were seen immediately in districts with an increase in cases coming to health centres. This training and the instigation of monthly meetings between these agents and health staff has been reported to also lead to better recognition of the importance of a constructive relationship with such community agents by health professionals. *In Kenya, the lessons of previous CMAM implementation were brought to bear in the development of the urban programme and a focus on strengthening community linkages through community leaders. Forging links between health facilities and the community towards the beginning of the programme*



were shown to increase referrals. In particular, something as simple as encouraging positive mother to mother communication to bring in new cases has been identified as very important to the success of CMAM (**Ethiopia**), and equally, negative mother to mother messages as detrimental.

It seems that as countries are utilising coverage surveys (see Section 4.6) more regularly to comprehensively assess whether CMAM is reaching target children, the importance of a strong community component for the programme is being re-emphasised. Solutions need to be flexible to the context and prioritise the most important aspects of the community component to achieve coverage, such as the sensitisation of communities about the programme and the timely identification of cases.

## 4.3 Structure, systems and roles

One of the key challenges for CMAM is how to structure the programme in the given context, including how it is delivered as part of a wider nutrition package, its place within the health package, and how the programme is able to react when numbers rise to emergency levels (as is periodically the case in many countries implementing CMAM at scale).

### 4.3.1 Structure of CMAM

In most case study countries, outpatient and inpatient components of CMAM have been set up or supported simultaneously. However delays in the establishment of sufficient capacity, particularly of stabilisation centres (SCs) close enough to the population to facilitate referral of complicated cases, has been raised as an issue in **Pakistan**, and **Somalia**. The absence of a referral centre or simply the lack of good communication between the OTP and SC components can lead to children being lost to follow-up. This is noted to be an issue particularly where different agencies are supporting these components

in emergency situations (**Pakistan**, **Ethiopia**) and has been raised in various programme evaluations. See Section 4.8 for some progress in this area.

Put in Supplementary Feeding Programmes (SFPs) target MAM and therefore serve as a mechanism to prevent acute malnutrition deteriorating into the most severe form which requires therapeutic treatment. They also provide a mechanism for children recovering from SAM to continue their rehabilitation once discharged from OTPs. As monitoring of a child's condition usually continues in a SFP, any deterioration can be picked up quickly and acted upon. However, SFPs may not be necessary for continued rehabilitation after OTPs in all contexts as indicated in research from Malawi. Amongst children followed up on discharge from OTPs directly to their homes for a period of 15 months, mortality was found to be significantly lower than that for the general population of children under 5 years of age (Bahwere et al, 2009).

SFPs can also be a vehicle for identifying cases of SAM. As mentioned earlier, the management of MAM as a component of CMAM is often only comprehensively addressed through supplementary feeding in the emergency context and with the support of WFP and NGOs. The reasons for this are multiple and linked to a lack of consensus internationally over when and how the management of MAM should be implemented outside of the emergency context, whether SFPs or other approaches to address MAM are most appropriate (cost effective) at national scale, which foods are most cost effective and what are the potential sustainable delivery mechanisms. Recent international consultations on the subject<sup>22,23</sup> have led to the setting up of a MAM task force by the Global Nutrition Cluster to produce guidance on which products to use for management of MAM, a decision tree and related guidance of when to implement SFP and in what form and a meta-analysis of operational research and grey literature on management of MAM. For consideration, the task force has been convened by an emergency related body, which may limit its potential to address the issue of management of MAM outside the emergency context.

<sup>22</sup> WHO, UNICEF, WFP and UNHCR Informal Consultation on the Dietary Management of Moderate Malnutrition in Under-5 Children, 30th September to 3rd October 2008.

<sup>23</sup> WHO, UNICEF, WFP and UNHCR Consultation on the Programmatic Aspects of the Management of Moderate Malnutrition in Under-5 Children, December 2nd to 4th, 2009.

In the meantime, though WFP have the remit to support SFPs (as detailed in a Memorandum of Understanding (MoU) with UNICEF revised in April 2011), this is usually based on food security triggers and therefore not necessarily where CMAM is being implemented. This is likely to become increasingly the case as CMAM scales up to national coverage.

Of the nine case study countries, **Niger, Kenya, Somalia, Sierra Leone, and Mozambique** are implementing traditional SFPs for management of MAM as an integral part of CMAM at least in the majority of areas. In **Niger**, all health centres have SFPs and in **Sierra Leone** the scale up of SFPs has been in parallel to OTPs and SCs with the support of WFP and international NGOs. SFP sites have increased from 385 in 12 districts in 2008 to 521 in 2010, this expansion has been based on prevalence of SAM and availability of partners. However, still not all OTPs have SFPs, due to funding constraints. The government continues to look for support from WFP to cover the remaining areas. In **Mozambique**, WFP now delivers supplies for SFPs directly to the Provincial Health Directorates for selected health centres in southern and central parts of the country. This represents an attempt to integrate aspects of the programme into the health system but again geographical coverage is not complete and it is not clear whether WFP has plans to increase coverage.

In **Mozambique** when there is no SFP at a health centre, children with MAM are admitted and treated with RUTF in OTP due to concerns that they will only deteriorate if not treated. This raises obvious issues of cost and , has led to RUTF shortages. In **Somalia**, where SFPs are being implemented as an emergency response and targeted to areas based on both food security and malnutrition indicators, similar measures are taken in areas lacking SFP. In **Ethiopia**, a less traditional approach has been taken. Instead, the national TSF (Targeted Supplementary Feeding) identifies children with MAM through Child Health Days and provides a three month supplementary ration, distributed by community workers. Again this national programme is also implemented based on food security indicators and therefore not in all areas where OTPs and SCs are functioning for the management of SAM.

In **Kenya**, concerns have been raised in areas where SFP is not being implemented that children discharged from OTP will relapse. To address this issue, if funds and capacity are not available for SFP, discharge criteria for OTP could be raised – an

option given in guidance (Valid, 2006). However as noted above, relapse or deterioration after discharge from OTP may not actually be as big a concern as it is thought to be in all contexts.

*Though a number of the case studies (with the notable exception of **Malawi** and **Ghana**) indicate that SFP is being widely implemented, whether this is feasible or advisable in the long term or for countries that do not experience periodic emergencies which can bring in funds for MAM, is still questionable. It may be that SFPs should only be implemented as part of scaled up CMAM programming where levels of GAM are high and where government and donors are confident of long-term funding. However, where SFPs are in place the challenge of ensuring smooth referral between management of SAM and management of MAM especially if different agencies are supporting different components, must be met.*

In **Somalia**, there has been an attempt to deliver CMAM as part of a wider basic nutrition services package through local NGOs. The issue encountered, however, has been the difficulty for many actors to deliver the full package that requires capacity in various areas of nutrition. In **Kenya**, the packaging of high impact nutrition interventions both at health facility and community level within existing health services is being trialled in three districts. and This trial will indicate the effectiveness of this approach (results forthcoming). In other countries, *the value of linking CMAM with preventative nutrition interventions, particularly IYCF, in order to try and address relapse and provide continuity of care has been recognised. This is generally identified as a challenge (**Ethiopia**) but some inroads have been made through links with individual preventative interventions such as with Growth, Monitoring and Promotion (GMP) in **Mozambique**, with blanket feeding in **Niger** during the hungry period and with IYCF in **Sierra Leone, Ghana, Pakistan and Malawi**. In **Sierra Leone**, mother to mother IYCF support groups both promote IYCF and conduct follow-ups on children with SAM to ensure that they comply with referrals. In **Malawi**, relapse rates of 3% in 2004 were reduced as linkages were made with other child health and nutrition activities. Today, a high proportion of SAM relapses are found to have underlying causes (HIV/TB).*

Countries have also utilised different ways of structuring CMAM within the overall health programme, both for the identification of cases and for treatment. *In most cases, outpatient care is*

managed at health clinics or centres, though in some cases (**Ethiopia** and **Niger**) outpatient care has reached health post level. The value of this further decentralisation is in bringing the service closer to the population though this has to be balanced against the capacity of the health system. In **Ethiopia**, 33,000 health posts have been staffed with two health extension workers each, in order to achieve this decentralisation. In **Niger**, despite the government directive to do so, decentralisation is hindered by capacity of the health system at the health post level and the need for systems strengthening. This raises the question of whether the drive to scale-up CMAM can bring in resources for health systems strengthening (see Section 5.3).

A further step has been taken by a research programme in one district in southern Bangladesh where community level volunteers have delivered treatment for SAM based out of their own homes for over 700 children with extremely good results (92% recovery)<sup>24</sup>. This offers potential for further decentralisation of CMAM in some contexts where capacity allows.

Within health facilities, the programme has also been structured in different ways. In **Mozambique**, Growth Monitoring and Promotion (GMP) was the initial entry point for identification of SAM. All growth faltering or underweight children were checked with MUAC and for oedema to assess whether they fell into the SAM category and then referred accordingly. The subsequent addition of CMAM screening with MUAC into the monthly health day activities and the at risk child consultations at the health facilities resulted in additional increases in numbers. In **Somalia**, the CMAM consultations have been placed within the Mother and Child health clinics in one zone and therefore delivered by MoH staff. In **Kenya**, a similar system allows close links with the expanded programme on immunisation (EPI), antenatal and post natal services. In **Malawi** and **Ghana**, IMCI services are the entry points for CMAM. In **Sierra Leone**, outpatient care for SAM has been linked closely from the start with other health services (antenatal care (ANC), IYCF, EPI, GMP) as entry points for identifying cases and as points of referral of SAM children for complementary services. This is attributed to good MoH leadership and ownership from the beginning of the programme. Outpatient sites have been placed within emergency obstetric care centres as it was felt they had the greatest potential for identifying the existing children of

pregnant women. In addition, campaigns run out of the health centres have incorporated CMAM activities, particularly the identification of cases of SAM during Child Health Weeks (**Malawi**, **Mozambique**, **Ghana** and **Ethiopia**). It is clear from the above that there are many potential entry points within the health facilities and activities for integrating CMAM. The most useful opportunities are best worked out on a country by country basis.

### 4.3.2 System for spanning emergency and long term

In countries experiencing periodic emergencies, the challenge of 'stop start' support to governments for CMAM, particularly from NGOs and UN agencies and usually driven by funding constraints, is a very real one. It can hinder progress for scale-up and lead to inappropriately resource intensive solutions to implementation issues. Emergency driven funding can also shift ownership away from government, complicate programme coordination and lead to parallel programming, e.g. dual reporting systems. A recent design framework for CMAM programming has been suggested to combat this issue (Hailey & Teweldeberha, 2010) and was presented at the CMAM Conference. This framework relies on the setting of local thresholds corresponding to the number of children SAM that the health system can manage with minimal partner support. This would usually be on a facility by facility basis but could be on a district basis. Agreement would then be reached between district/sub-national/national health teams and potential support partners, as to the type and intensity of external support required on an ongoing basis (potentially minimal and focusing at district or sub-national level) and what additional support to add as the thresholds are exceeded. The focus therefore is on dealing with the so called 'grey area' between emergency and development funding mechanisms. This represents a shift in thinking from response based on prevalence of acute malnutrition to looking at the capacity of the system to manage the total burden of acute malnutrition and determining how best to fill any capacity gaps created when the situation deteriorates in an emergency and the

<sup>24</sup> Personal communication, Dr Kate Sadler. Feinstein International Centre, TUFTS University, Boston.

burden increases. The framework therefore places disaster risk management and reduction (DRR) as the critical link between emergency and development programming. It proposes a move away from thresholds of GAM to area specific, capacity based thresholds for action to determine the level of support (internal and external) needed. If realised, this shift in approach would help overcome the grey area of funding and programme modalities. Indeed, it is often the same donors funding both sides of the emergency-development equation and maintaining the notion that CMAM is largely an 'emergency' intervention when governments and partners are increasingly asking 'what is the system for managing SAM' in all settings and how can we finance it?

*The value of this new approach is that it places increased focus on capacity development both in regular programming and during an emergency as the type of support is agreed in advance with authorities. It should guard against the emergency response undermining capacity development efforts such as responding with vertical and inappropriate support modalities which side step MoH lead (e.g. payment of*

incentives). Such issues have been identified in **Ethiopia, Niger and Pakistan**. As support is only triggered when thresholds are exceeded on a facility by facility basis, this approach should also lead to more efficient use of emergency resources from donors UN and NGOs. This type of approach has already been used successfully by Concern Worldwide to support CMAM in Uganda and the development of capacity based thresholds is being considered in **Ethiopia (see Box 3)**. As these experiences are gradually documented, the approach may become more widespread.

### 4.3.3 Roles and responsibilities

As CMAM is introduced in a country and gradually scaled up, the roles and responsibilities for the programme within the health system and at community level become clarified. There is no

#### Box 3. Concern Worldwide's experience of applying capacity-based thresholds to CMAM support in Uganda

Concern is supporting the MoH in the Karamoja region of Uganda to implement CMAM. Support is focused on capacity development of the district health teams to manage the programme and on the process of integrating CMAM within existing supervision, monitoring, reporting and supply systems. Concern Worldwide has employed a flexible system designed to provide minimal, adequate additional staff and resource support from Concern on an 'as-needed' basis to MoH health facilities during times when SAM levels spike beyond existing MoH capacity to manage. Concern and the district health teams have worked together to define the maximum numbers of SAM cases that each facility is able to deal with on a weekly basis. Should these thresholds be exceeded, gaps in clinical capacity and resources at each participating facility have also been identified. This has allowed support needs to be outlined and agreement reached as to the stage at which this additional support can be both introduced and withdrawn. Concern Worldwide, the district health teams and the participating health facilities have signed agreements outlining roles and responsibilities of each party in the event that Concern is called upon to implement this emergency response system. For example, when agreed thresholds are exceeded, Concern Worldwide provides additional clinical staff and supplies to participating facilities as agreed. Where access to existing facilities proves problematic for patients, Concern Worldwide is prepared to open additional outreach clinics on a temporary, as-needed basis. Concern Worldwide is also prepared to provide temporary, as-needed staff to support mobilisation efforts, management of facilities, HMIS (health management information systems) and logistics systems.

*Uganda case study*



prescription for this but experience has shown that it is helpful to have these roles documented to ensure that as scale-up progresses, the uptake of those responsibilities is smooth. Mistakes have been made in this process, particularly in emergency programmes where, for example, medical staff in charge of health facilities have not been involved in the allocation of roles for CMAM or have had no role in agreeing responsibilities themselves. This has led to trained staff being rotated out of the programme (**Pakistan**) and to CMAM being run as a parallel programme within the health facility. What can be said is that *clear roles and responsibilities do need to be agreed at all levels and institutionalised. This has been achieved, for example, in Ghana during the consultative process for the development of the CMAM guidelines and in Malawi through the development of Terms of Reference (TORs) for CMAM.*

Linked to the above challenge of how roles and responsibilities for CMAM are articulated and set out, is the need for clear roles for the different actors supporting CMAM scale-up. The presence of a specialised CMAM technical unit with the remit of standardising implementation activities, assisting in the development of plans and conducting training, mentoring, troubleshooting and monitoring activities, has considerably helped with scale up in **Malawi**. In the **Malawi** case, this specialised team of dedicated staff was supported by an NGO and it is really the only case of its kind. In other countries a similar role has been played by a government led technical group (**Ghana**) with positive experience. In **Ghana**, a national SAM support unit housed in the **Ghana** Health Service is credited with playing a key role in speeding up understanding of CMAM, developing guidelines and strengthening national competencies. This unit is supported both technically and financially by FANTA2/USAID, UNICEF and WHO. SAM support teams<sup>25</sup> were subsequently set up at sub-national levels to provide the higher degree of support to districts that was required to ensure quality of CMAM services through training, mentoring and supportive supervision. Similarly in **Ethiopia**, CMAM support is organised nationally and at regional level through regional health bureaus and supported by UNICEF and Concern in four main regions. In other situations, though a national technical group has been in place and functioning (e.g. technical committee in **Niger**, the nutrition clusters in **Somalia** and **Pakistan**) it has not been found to have the necessary capacity at ground level to support CMAM. In **Sierra Leone** and **Mozambique**, there is no specific

body or group for CMAM support. Instead the role of ensuring standardisation, developing plans, training mentoring etc. falls directly to the MoH structures. In these countries, NGO partners are relied on to a greater or lesser extent in their individual areas depending on government capacity. *The case study evidence seems to indicate that a specific government unit/group supporting CMAM is not a prerequisite for scale-up but may add value in terms of quality assurance and standardisation. Such a group does, however, require dedicated resources to function effectively.*

Clear roles for individual agencies are equally important for enabling scale-up. For example, in **Ghana** the positive complementary collaboration between development partners with clear division of roles (USAID, UNICEF, WHO) is identified as one of the important enabling factors for the scale-up of CMAM. As mentioned above and detailed in various sections, the UN agencies play key roles in direct support to government for CMAM. Their role begins with advocacy and support for coordination and leads to technical oversight, capacity development and contribution of resources and supplies (UNICEF for RUTF, therapeutic milks, anthropometric equipment including MUAC tapes, and in some cases therapeutic drugs, WHO for therapeutic drugs, WFP for supplementary food) to support the governments decisions to initiate and expand CMAM. These support modalities are often contained and described in wider tripartite agreements and/or specific MoUs, e.g. in **Kenya**. A tripartite agreement between MoH, UNICEF and WHO to respond to **Kenya's** regular crises has formed the basis of the CMAM collaboration and MoUs with WFP, UNICEF and WHO define support roles for CMAM in **Pakistan**. In some cases (e.g. **Kenya** and **Ethiopia**), a critical additional role for UN agencies is to broker the NGO-government relationship to bring them to a constructive partnership. There are also increasing examples of UN support focusing on development of innovations to address constraints in supervision, monitoring and reporting.

The role of NGOs in CMAM has necessarily evolved greatly as the approach has matured and moved into the realm of national scale-up. Their role began with the implementation of small-scale CMAM

<sup>25</sup> Comprising a regional nutrition officer, regional public health nurse, regional disease control officer, representative from institutional care department and an appointed clinical officer trained and experienced in the inpatient management of SAM.

programmes, and technical support through coordination mechanisms at national level. In this way, they served to influence the CMAM agenda both nationally and internationally and also move forward the research agenda. In **Niger**, for example, NGOs (20 in total) still support most of the CMAM though implemented through the health system, In **Pakistan** during the 2010 emergency, international and national NGO implemented programmes have been identified as those attaining the highest coverage and performance indicators. However, in an increasing number of countries, NGO support now focuses on the district rather than health facility level for supporting the management of CMAM (particularly supervision, supply management, monitoring and reporting) within the existing health system (e.g. **Kenya**). Support is also increasingly focused at sub-national (e.g. **Ethiopia**) or national level (e.g. **Malawi**). In **Ethiopia**, Concern Worldwide has signed MoUs with regional health bureaus that clearly define their NGO role as a technical advisory one rather than as direct implementers of CMAM (Mates, 2011). These MoUs are reported to be have been very important for clarifying roles, responsibilities and expectations from both MoH and Concern Worldwide and for making sure expansion is directed firmly by regional health bureaus. *NGOs are in this way increasingly being called on specifically to be responsive to government rather than donor agendas and to focus on capacity development. This role is easier for them to take on board if longer term funding has been secured. This requires a shift both on the part of NGOs, away from pursuing the more readily available short term emergency funding whenever it comes along, and on the part of donors, to make available more appropriate longer term funding channels for CMAM.*

In **Ethiopia**, the roll out of CMAM as part of the health extension package created some conflict between NGOs, with concerns over the maintenance of quality, and the government, keen to drive forwards decentralised implementation. In the interests of finding balance, UNICEF brokered a series of meetings over a period of a year with all parties. The result was a joint monitoring agreement for outpatient and inpatient care by Government, NGOs and UN (Chamois, 2011). Other examples of NGOs fulfilling a monitoring role are outlined in Section 4.4.

## 4.4 Monitoring and supervision (quality assurance)

### 4.4.1 Supervision and monitoring systems

As noted above in the skills section, the supervision of CMAM implementation is critical for the maintenance of quality. Reinforcement of new skills, troubleshooting of issues arising and giving feedback on performance are all critical elements of supportive supervision, particularly when a new programme is being rolled out. In **Ghana**, initial high intensity supervision after initiation of CMAM in a given district is identified as the determinant of good adherence to the treatment protocols and good motivation of staff. This is achieved through the action of national and regional SAM Support Units which conduct monthly visits to facilities implementing CMAM, coupled with district supervision every two weeks focusing on protocols and recording. As the programme progresses, it will be possible to reduce the intensity of supervision and fit it into existing district mechanisms. However, such intensity has been hard to maintain with expansion and resource challenges (particularly for transport) have been experienced. Focus is therefore shifting from national to regional and district SAM support units to conduct supervisions that has now to be factored into planning at district level. In **Malawi**, MoH has encouraged districts to include supervision and reporting for CMAM specifically in district implementation plans to address this issue.

*Capacity for supportive supervision through existing channels is raised in many countries as a challenge (**Niger, Ethiopia, Mozambique, Sierra Leone, Somalia, Kenya, Pakistan**) and joint supervision with NGOs or UN agencies supporting government has proved to be a useful solution in many cases. In some cases, NGOs have taken on monitoring, e.g. **Kenya** urban and ASAL<sup>26</sup> programme. However, a joint approach is encouraged to facilitate follow-up of recommendations by all stakeholders, as without MoH involvement the concern is that recommendations will not be acted upon. In **Sierra***

<sup>26</sup> 22 Arid and Semi-arid districts (ASAL) in Kenya.

**Leone**, though international partners conduct monitoring in their areas of operation, quarterly joint visits are undertaken by MOH, UNICEF and WFP. In **Ethiopia**, joint supervision is considered essential so that senior staff motivate health workers by showing that they are interested in the results. A checklist for field assessments was developed in partnership with NGOs and UNICEF, discussed and agreed with regional authorities. Once tested and adjusted, these have been used since 2009 and are reported to work well. A system of grading sites according to support needs in **Ethiopia** means that results can be directly linked to support from UNICEF or NGOs. The system is found to be very human resource heavy and even with additional UNICEF staff put in place to support it, was not found possible to supervise the large number of health posts. **Ethiopia** does represent particular challenges due to the sheer numbers of facilities, however, and a similar approach may be more doable in other countries.

A third compromise that has been initiated in **Ethiopia**, and which has been implemented also in **Somalia** due to security and access constraints, is third party monitoring. This entails the contracting of a third party (usually an international or national NGO not already involved in the programme but with nutrition technical expertise) to conduct monitoring according to defined criteria on behalf of the government or international agency. In **Ethiopia**, an independent International NGO (Population Service International - PSI) has been contracted to conduct monitoring and has identified on a regular basis districts with support needs. In **Somalia**, where international agencies are usually unable to conduct joint supervision with local partners, an independent organisation (a local NGO called Charity Relief Organisation (CRO) that has better access to areas than the international agencies) has also been contracted to fulfil this role using agreed upon checklists and tools. The fact that the organisation is not perceived to be directly linked to the agencies is reported to lend them better protection and access to operate. Agencies are satisfied with the method, which is producing a 95% report completion rate. However donors have expressed dissatisfaction with the third party model in **Somali**, questioning the accuracy and independence of the information obtained by the local NGO. *Some additional options being explored are rapid quality check visits by international staff for monitoring where windows of opportunity in the security situation present themselves, triangulation of data using community level informants, and rapid*

*SMS reporting. It is clear that this is an area where flexibility and innovation are required.*

## 4.4.2 Performance indicators and reporting systems

Some of the challenges of maintaining quality of CMAM programmes during scale-up have been discussed above. *Sphere indicators are still the main markers that are used to assess the performance of all CMAM programmes (at least for recovery, default, death and coverage)*<sup>27</sup>. *Though there have been questions raised as to their appropriateness in the non-emergency context, well run national programmes are achieving results within these standards, at least for recovery, default and death (coverage will be discussed below).* For example, since 2004, the national programme in **Malawi** has performed within Sphere for recovery, default and death. National figures for **Ethiopia, Kenya, Mozambique, Somalia** and **Niger** show a similar picture (UNICEF/Valid, 2010). In fact, in **Ethiopia** with the Health Extension Package expansion to 100 districts, recovery rates (77.6%) were still maintained within Sphere targets. As mentioned above, it may be that in the interests of sustainability, programmes are not able to achieve these standards in their first year, particularly where decentralisation is not sufficient to provide access to the whole population or where community mobilisation has not been comprehensively addressed. However, even early on in the development of programmes, the indicators do provide useful benchmarks to highlight areas that need to be focused on as the programme matures. For example, in the urban programme in **Kenya**, an investigation of defaulter issues was triggered by rates exceeding Sphere standards.

The actual monitoring and reporting formats and systems to assess the quality of CMAM programmes have undergone adaptation in each country. Many of the formats used in NGO programmes have proved to be too complex for national programmes. Also, formats that have been used nationally to report on SAM treatment in inpatient care,

<sup>27</sup> Recovery >75%, Default < 15%, Death <10%, Coverage >50% rural areas, Coverage > 70% in urban areas.



completed at hospital level, have been found to be too complex for a decentralised programme where reporting needs to occur at a lower level. The complexity and lack of uniformity of monitoring formats and systems has been raised as an issue in multi country evaluations (Grellety et al, 2010; Deconinck et al, 2010a; Deconinck et al, 2010b; Deconinck et al, 2010c; Deconinck et al, 2011) and there have been calls for one prescribed international simplified reporting format for CMAM. The appropriateness of this approach remains to be seen but it is clear that *in many countries monitoring formats are unnecessarily complicated and collect data that are rarely analysed or used in decision making (Mozambique, Niger)*. A suggested simplified minimum reporting format was circulated by UNICEF and has been used in some countries (e.g. **Sudan, Uganda, Kenya**) as a basis for developing national simplified formats.

Formats are not the only challenge, however. *Currently poor quality of reporting (late and incomplete reports) is noted in Sierra Leone, Malawi, Mozambique and Niger*. In **Ethiopia** when reporting completion dropped from 68% to 42% with the decentralisation of the programme to health post level, a letter from MoH was sent out to emphasise the importance of timely accurate reporting. UNICEF also recruited technical assistants to help each region with reporting, resulting in a 77% report completion. In **Mozambique**, insufficient capacity, commitment and lack of understanding of the importance of reporting are reported as issues and a separate training on monitoring and evaluation has been started as a result. It is not surprising that those collecting information are not committed if they see no action taken as a result of the data. Training in this instance may not be enough. *The whole functioning of monitoring systems, including analysis, feedback and performance review needs to be addressed.*

*Timeliness of reporting is also an issue. In Ethiopia, it takes a month for reports to reach federal level, an issue which is common to most programmes and to health management information systems (HMIS) (discussed below). Ethiopia is piloting the use of Rapid SMS technology for Health Extension Workers reports to see if the speed of reporting and feedback loops can be improved.* The results are expected in 2011.

A parallel challenge for the monitoring and reporting on CMAM performance for national programmes is that, although reporting in many

countries is being taken on by district health teams and nutrition focal points in particular, *currently reporting for CMAM is mostly run in parallel to national health management information systems. The integration into these systems will require a greater degree of simplification than most countries have achieved in their CMAM monitoring.* There are also concerns that these existing systems themselves do not function well in terms of producing timely data for decision making. The question raised is whether integration into HMIS is required in order for CMAM to be truly 'owned' by the health system. It may be that multiple systems can coexist, as is the case in **Niger**. In **Ethiopia** where the parallel CMAM reporting system supported by UNICEF but carried out by health teams works well, there may be a reluctance to change. *Compromises are possible. For example, in Ghana nutrition officers at district level compile reports, rather than the health information managers who handle health service data. The two are compiled at regional level.* In **Sierra Leone**, the district nutritionists CMAM reports go into the HMIS at national level through the directorate of planning in MOH. In **Somalia**, the partners send reports by sites electronically to an email address that is accessed at Nairobi level and the received data entered into a database. The downside of these systems is that delays and double counting can be encountered. In some instances it may be necessary to strengthen the HMIS before CMAM data can be incorporated into it.

#### 4.4.3 Monitoring coverage

The CMAM approach evolved out of the need to reach the vast majority of children with SAM who were not being accessed using traditional approaches. *The coverage of programmes (i.e. to what extent they are reaching all the children in need) is therefore one of the most critical indicators of success.* In parallel to the development of the approach, new methods to more accurately monitor and assess coverage have been and continue to be developed.

In many cases, countries are able to report on service coverage (i.e. the number of health facilities where CMAM is offered) or geographic coverage (i.e. the number or proportion of administrative or



geographic areas where CMAM is implemented). This is useful for checking progress of scale-up but it does not reflect how well those services are actually serving the catchment population. Many barriers such as communities not being aware of the service, not believing their child to be malnourished, long waiting times, previously being turned away etc., can limit uptake of those services. In some cases, attempts have been made to estimate coverage using prevalence figures from surveys, incidence estimates reported in the literature, and population figures in order to arrive at the population in need. Comparison with admission figures is then made to estimate coverage (**Somalia**). There are so many sources of error in this method, however, it cannot be used with any degree of confidence.

*To address this challenge, new survey methods (CSAS<sup>28</sup>, SQUEAC<sup>29</sup>, SLEAC<sup>30</sup>) are being used increasingly at district and regional level to reliably assess coverage and the results (which identify barriers to coverage) used to guide programming<sup>31</sup>. The methodology for assessing coverage on a national level however has remained a challenge until very recently when it was developed and implemented in **Sierra Leone** (Guevarra, 2011). The assessment took three months but the results allowed disaggregation of both point and period coverage by district. It is worth noting that the method selects areas where coverage is expected to be lowest (in order to provide useful information on barriers to uptake for programme improvement) and it is therefore important to interpret results in that light. The issue of what to expect from a national programme is also an important one. *Sphere standards have been applied to NGO supported district level programmes but when it comes to national coverage, gradual scale-up is necessary and therefore a gradual building up of coverage to be expected.* The implementation of more national coverage surveys (**Niger** and Burkina Faso already underway) will help inform our understanding of what can be achieved.*

Experience with coverage assessment for tracking progress and for identifying areas for programme improvement is generally reported to be positive in most case studies. Those countries that have not yet used the method (e.g. **Somalia**) have plans to do so. Progress is being made in this area, with donors increasingly encouraging the inclusion of coverage assessments in proposals and many organisations that support CMAM (NGOs and UN) routinely conducting assessments. UNICEF in various

countries (**Ethiopia**, **Sierra Leone** and **Niger**) has supported coverage assessments by bringing in consultants to lead the surveys. However funding is still identified as a limiting factor for carrying out larger scale regional and national assessments in particular, and advocacy is required with donors to support these initiatives. A previous criticism was also the resource intensiveness of initial methods. *However recent (SQUEAC and SLEAC) methods have greater potential to be taken up by national institutions.* In **Ethiopia**, EHNRI (Ethiopia Health and Nutrition Research Institute) has entered into partnership with MOH and the NGO Concern Worldwide in order to build their own capacity to assess coverage using both CSAS and SQUEAC methods. Their plan is to then build regional technical capacity to support the surveys. The Regional Health Bureau in Tigray, **Ethiopia**, having learnt the SQUEAC methodology already, have taken the lead and supplied a budget for the third round of assessments with technical assistance being provided by Concern Worldwide. Thus national capacity to utilise these important tools for assessing programme success is being built. It is a process that other countries have the potential to follow.

## 4.5 Modality of scale-up

Unlike programmes that are introduced in a vertical way (with a central plan, dedicated resources and staff) and managed centrally from the very beginning, the essential challenge for CMAM scale-up is building up from district level coverage into national coverage.

<sup>28</sup> Centric Systematic Area Sampling (Myatt et al, 2005)

<sup>29</sup> Semi Quantitative Evaluation of Access and Coverage (Myatt, 2008)

<sup>30</sup> Simplified LQAS Evaluation of Access and Coverage <http://www.validinternational.org/demo/reports/SQUEAC.Article.pdf>

<sup>31</sup> See issue 42 of Field Exchange for special section on SQUEAC and SLEAC (due out January 2012). [www.enonline.net](http://www.enonline.net)

## 4.5.1 Structure of scale-up

Countries have approached this in different ways. In some cases, expansion has been ad hoc initially, driven by the demand from districts and by availability of funding (e.g. **Ethiopia**) but then followed by a more structured plan. In some countries (**Pakistan** and **Somalia**), the more ad hoc, emergency and funding driven scale-up has prevailed. Though there is evidence that particularly in **Somalia** quality has been maintained, the approach brings challenges for coordination and for integration into the health system. In **Malawi**, though initially driven by demand from district level, there was central government control over the speed of CMAM expansion from the start. The value of the demand driven approach is reported to be the resultant commitment by district officials and their desire for that demand to be justified with good results.

Initially, as each new district took on CMAM in **Malawi** and **Ethiopia**, the programme was initiated in all facilities within that district within a couple of weeks. At this stage, districts were mostly supported by NGOs. As scale-up progressed and support was provided centrally through the CAS (CMAM Advisory Service) team in **Malawi**, CMAM was introduced in multiple districts in a limited number of sites and then, gradually over months, expanded to all facilities within that district. This does have implications for the initial performance of the programme, as few dispersed sites means early presentation of cases is less likely and default may be more common (illustrated in **Kenya** where a similar approach was taken). However this approach has meant a more manageable progression for district health teams and the possibility of ensuring correct implementation at learning sites (selected health facilities) before these are used to guide further expansion. In **Malawi**, for example, the MOH do not authorise scale-up to all facilities in a district until quality service delivery is demonstrated. This more gradual approach was also used from the beginning in **Sierra Leone** where districts for expansion were selected based on availability of trained staff and financial resources, with expansion within the district coming slowly. Most other non-emergency initiated programmes have taken a similar approach. **Ghana** put in place a more centrally planned, phased scale-up to five regions in 2010, whereby each choose one to two districts and a limited number of outpatient and inpatient

sites to become learning sites. Again, scale up within those districts to all sites was gradual. Selection of districts for expansion was based on availability of qualified technical personnel to provide support and availability of resources and supplies. In preparation for the second phase that commences in 2012, the remaining five regions began expansion in 2011. *By using a phased approach, expansion based on demonstrated quality of service and availability of resources (human and material) governments have managed to drive scale up forward whilst focussing efforts on maintaining quality.*

## 4.5.2 Speed of scale-up

*Balancing drive to scale-up CMAM and the necessity of maintaining the quality of the approach (effectiveness of treatment and good coverage) is a challenge. Speed of scale-up may be limited by finite numbers of trainers, limited funds, supplies, human resources, mechanisms for supervision and technical support, all of which are required for the maintenance of the quality of the programme. In **Pakistan**, where huge funds were available to drive rapid scale-up in response to the 2010 floods, quality has been identified as a major challenge. In **Ethiopia**, concerns were raised particularly by NGOs about the rapid expansion of CMAM with the health extension package. Though with the first expansion to 100 sites recovery rates of 76% were still achieved, monitoring is already showing up various quality issues and the need for additional training of Health Extension Workers to ensure that they really are competent with the CMAM protocols has been identified. In **Somalia**, the short term nature of funding has led to agencies trying to implement too much too soon, adding all the CMAM components rather than gradually building them up as their capacity to implement strengthens. This issue, particularly when local partners are being used, has been identified as compromising service quality.*

Some examples of the speed of scale-up that can be achieved are given below in Box 4, though caution should be taken not to use any of these as a blueprint, as quality indicators are not available for all. They simply give some illustrations of what has been accomplished at country level.

### Box 4. Country examples of the speed of CMAM scale-up

**Malawi:** From two district pilots (all facilities in those districts implementing outpatient care) 2002/3 to all 28 districts implementing the programme in 2011, in a total of 70% of all health facilities.

**Ethiopia:** From first pilot in 2001, slow expansion, then from 2008, rapid expansion. Currently 8,000 sites offering CMAM services. Outpatient care available in 49% of health posts and 48% of health centres, with 82% recovery.

**Kenya:** MOPHS and MOMS programme implemented in three most affected provinces of the ASAL. From 2009 to 2011, the proportion of health facilities offering CMAM services has increased from 50% to 83%. Caseloads in the urban programme have steadily doubled each year from an initial 1,600 in 2008 to 4,700 in 2010, whilst maintaining quality within Sphere standards for recovery and death rates.

**Ghana:** From initial MOH pilot in April 2008 (one district in each of two regions, in each district one inpatient and 2-5 outpatient sites) to all 19 health centres within the two districts by March 2009.

**Sierra Leone:** From initial MOH pilot of 20 outpatient and three inpatient sites in 2007, to 245 outpatient (20% of all primary health units) and 19 inpatient sites (at least one per district) in 2011.

**Mozambique:** Initial slow expansion then quicker once new guideline endorsed in 2010. By 2011, 229 out of 1,280 health facilities are implementing outpatient care, however in some this is only as a phase 2 treatment according to CMAM protocols.

**Somalia:** From 30 OTPs in 2006 to 935 OTPs in 2011.

**Niger:** Initiation of CMAM in 2005. Inpatient care for SAM with complications in all 50 national, regional and district hospitals. Outpatient care in 772 out of 800 health centres by 2011.

### 4.5.3 Effect of numbers of cases and prevalence of SAM

The challenges of scaling up CMAM where numbers presenting to individual health facilities are high (either due to high prevalence or high population density) can necessitate increased support for existing health staff. This situation may also necessitate further decentralisation of the approach, as has been initiated in **Ethiopia**. Fluctuating prevalence, in particular surges of numbers of children presenting with SAM during periodic emergencies, can also provide specific challenges to planning (see Section 4.7). They can also undermine the process of integration of CMAM into the health service as NGOs have to step in. Issues of emergency response modalities undermining capacity development approaches to supporting CMAM have been identified in **Ethiopia**, **Pakistan** and **Niger**. Some examples are MoH lead being sidestepped, paying of incentives and unsustainable community approaches. An approach such as the one discussed in Section 4.3.2 may offer

a means to avoid these issues whilst maintaining the responsiveness required during emergency.

### 4.6 Links with other sectors

Low numbers reaching facilities, such as in areas with very dispersed populations, also presents challenges. Delivering small quantities of supplies to isolated areas is resource intensive, while health staff seeing very few cases are not able to practice what they have learnt in trainings and therefore do not consolidate their skills. The use of *mobile teams* is a resource efficient solution being tried in **Somalia** with local partners, in Afar and Somali regions of **Ethiopia** by the MoH, in the north of **Kenya** and in Balochistan (**Pakistan**). *These teams are able to reach difficult areas, in some cases with multiple services (CMAM, IMCI and water, sanitation and hygiene (WASH) in Ethiopia) and are linked to a central static site for support and reporting purposes.*

The question of how CMAM can be structured to integrate within the health system and with other nutrition programmes has been dealt with above. There are, however, other opportunities for linking CMAM with programmes across the sectors. The benefit of forging these links has rarely been quantitatively assessed. However, some links may have potential to provide additional entry points for identification of children with SAM, for continuing children's rehabilitation once exiting CMAM, and for using resources, including human resources, more efficiently.

### 4.6.1 HIV/TB programmes

*The most common link (Malawi, Sierra Leone, Kenya, Mozambique and Ethiopia) is with HIV treatment and support both for children and adults. This is one area where there is good documented evidence both for the effective treatment of SAM in children suffering from HIV (Ndekha et al, 2005; Sadler et al, 2008) and of increased HIV screening uptake when offered within the CMAM programme (Bahwere et al, 2008).*

In **Malawi**, voluntary counselling and testing (VCT) for SAM children was introduced as part of CMAM protocols. Though concerns were raised of stigma and of losing the child for SAM treatment, these concerns proved unfounded. VCT is offered on an opt out basis in **Malawi** at the CMAM consultation and the current uptake of is 90%. Health workers have even reported mothers bringing fathers along to the second CMAM visit for testing. It is thought that as the well-functioning CMAM programme had already involved and gained the trust of the community, it provided an excellent entry point for HIV testing, counselling and referral. Coverage of testing therefore has improved. Although not specifically measured, it is likely that by identifying HIV and referring a proportion of the children receiving treatment for SAM for HIV treatment, the performance of the CMAM programme has also improved. Conversely and also in **Malawi**, Prevention of Mother to Child Transmission (PMTCT) clinics are being used as case detection points for SAM as a means of improving CMAM coverage, though again such an outcome has not been specifically proven.

In standard CMAM protocols, children responding poorly should be referred for HIV/TB screening. In **Kenya** and **Mozambique**, systems have been put in place to ensure this. **Mozambique** actually has one national protocol and programme for nutrition regardless of HIV status and HIV funding, particularly through PEPFAR<sup>32</sup>, reaches CMAM through this mechanism. This is one example where the provision of joint funds can actually facilitate programme links. In **Ethiopia**, the Food by Prescription (FBP) USAID-funded programme, located in 195 health facilities in five regions, also integrates identification and treatment of SAM with comprehensive HIV care and support. In **Ghana** at the district level, resources from the TB programme have been used to sensitise community workers on CMAM and provide refresher training for volunteers. In this way, more communities were sensitised and more volunteers trained than the CMAM budget would allow.

### 4.6.2 Other sectors

Links with agriculture, food security and education programmes have been less common and seldom documented. In **Mozambique**, primary school teachers were trained to identify cases of SAM as they have some exposure to the younger siblings of children in their care. In Uganda, an initiative in the north of the country mobilised school children to identify cases of SAM in their villages and link them to community health workers. Similar links may be in place but not documented in more countries.

In **Malawi**, a 'farm to mouth' approach<sup>33</sup> is being implemented alongside the local production of RUTF (see Section 4.7), but no documented examples were found of linkages between CMAM and food security programmes at community level in the case studies. One of the reasons for this may be that CMAM in most countries has been firmly rooted in the health sector, with coordination organised mainly within the sector (e.g. **Ghana**). In **Niger** and **Somalia**, nutrition services have been

<sup>32</sup> President's Emergency Plan for AIDS Relief

<sup>33</sup> Where the food producer supports smallholder farmers to produce quality crops and guarantees a market for their produce for the manufacture of RUTF (from farm to mouth), thus ensuring the quality and supply of ingredients and resulting in a quality product.



linked with WASH (providing beneficiaries with hygiene kits) and with livelihoods/agriculture (households with malnourished children provided with livelihood support) interventions.

*The value of forging closer cross-sectoral linkages is likely to lie mostly in the creation of wider community networks for sensitisation and mobilisation. Before putting considerable time and effort into forging additional links with these wider sectoral programmes, it is recommended to put in place and document some experiences at small scale to measure whether increased coverage or recovery result, whether they make the work easier for health staff and whether they create more efficient use of resources. This will help answer the question of which links are really worth pursuing.*

## 4.7 Production, supplies and demand

*RUTF lies at the centre of the CMAM approach. It represents about half of the total costs for implementation, is a heavy and 'high value' product and the programme requires a constant supply. Without it, the programme cannot run. A key challenge is therefore guaranteeing supply at national level and getting it to all the decentralised facilities in a timely and reliable manner. Stock-outs, leakages, global shortage of supply, the initiation of local production of RUTF are all challenges that are being encountered at country level. Treatment for SAM also requires essential drugs, the supply of which (in particular, routine antibiotics) can be a challenge.*

One view held in **Pakistan** is that “Government on its own cannot run CMAM programmes due to its inability to procure and maintain essential supplies”.

### 4.7.1 RUTF supply chain

*It is clear from the case studies that in order for CMAM to gain a footing in a country and begin to expand, a major RUTF benefactor has been*

*required. In most countries this has been UNICEF or the Clinton Foundation (CHAI). Currently in 73% of countries with CMAM programmes, UNICEF provides 100% of RUTF. In fact only in **Malawi** has the government now started to procure some RUTF from their own budget, though in **Mozambique** therapeutic milks have been purchased by the MoH for some time. The reliance by governments on RUTF donated by UNICEF or the Clinton Foundation is obviously a challenge to the sustainability of the approach at national level, as these donations are not guaranteed in the longer term (see Section 5.3). Despite the demonstrated cost effectiveness of the CMAM approach, the actual costs of RUTF still represent significant funds for governments to absorb. There is therefore a need to look to global financing mechanisms or potential public private partnerships for support (see Section 5.3)*

According to UNICEF, global sales of RUTF have been stable over the past three years, whilst the numbers of SAM cases is far from being reached. A key question, as raised at the CMAM Conference, is whether the plateauing of sales of RUTF reflects a lack of global production capacity or a lack of capacity at country level to reach more SAM children with RUTF. If either of these are the case, the follow up question is whether these sales figures indicate a need to do things differently if greater scale up of CMAM is to be achieved?

One such mechanism that could be relevant at national scale is being carried out in **Malawi** through a partnership between Valid Nutrition<sup>34</sup>, the Two Degrees private food company and the international NGO, Partners in Health. For every health bar that the Two Degrees company sell, a packet of RUTF is donated to Partners in Health supported government CMAM programmes in **Malawi**.

Even where RUTF supply is available at national level, there are many challenges around supply chain within the country. As articulated at the CMAM Conference, logistical requirements to deliver RUTF as well as core medical treatments to care for children (such as antibiotics and de-worming) can be a logistical challenge. Even with a decentralised programme, the time it takes for mothers to get to and from programmes still represents significant time away from other household and livelihood activities. Therefore breaks in supply lines can have dramatically negative impacts on coverage and attendance.

<sup>34</sup> A not for profit social enterprise producing RUTF in Malawi.

### Box 5. Ethiopia RUTF supply chain experience

As the weight and volume of RUTF is much bigger than the usual medicinal commodities which go through PHARMID, the decision was made for UNICEF to work directly with Regional and Zonal health bureaus to deliver straight to them. NGOs would support delivery down to facility level. Regional Health Bureaus put in requests based on monthly caseload, which are reported to them by technical CMAM focal points at district level. These same focal points are responsible for RUTF distribution. Unfortunately, requests are often limited by storage capacity. Currently plans are in place to enter RUTF supply into the national Integrated Pharmaceutical and Logistics system (IPLS). However this will be a gradual process as the capacity of that system for RUTF is built. The Food by Prescription programme (FBP) in Ethiopia has already managed to integrate RUTF into IPLS for a limited number of sites, at health centre and hospital levels. Requests are based on numbers treated over two month periods and a minimum two month and maximum four month buffer stock is held at each facility depending on storage capacity. There is also an emergency refill mechanism in place. Monitoring at facility level is supported by an NGO (Save the Children US). When RUTF arrives at the facility, it enters the pharmacy system and is distributed based on prescriptions received by patients. The NGO carried out logistics training for pharmacy staff in all the FBP facilities. It is felt that IPLS is a strong management system and avoids serious misuse of the product.

#### *Ethiopia case study*

In **Pakistan**, for example, the supply chain broke down as soon as the emergency was 'over'. In many countries, UNICEF currently plays a role in provision and delivery, at least to central (**Ghana**), and often regional (**Ethiopia, Niger**) or district (**Sierra Leone**) government warehouses. In **Kenya, Ethiopia, Mozambique** and **Niger** common pipeline breaks are attributed to poor forecasting, related to late reporting, late communication of requests and insufficient planning to take account of the effects of expansion, intensification of mobilisation activities or the additional use of RUTF for other target groups, e.g. moderately malnourished children. In **Kenya**, storage facilities are also an issue so that insufficient buffer stocks to take account of delays in requesting and receiving supplies are maintained. In **Somalia**, particular problems are encountered due to insecurity and access. *Rapid SMS has been successfully piloted in Ethiopia for RUTF stock reporting and requests and has potential for improving the communications of stock levels and requests up the supply chain and consequently for avoiding supply breaks*<sup>35</sup>. The **Ethiopia** experience of managing RUTF supply chain has been well documented and illustrates the challenges (see Box 5).

Both **Sierra Leone** and **Ghana** seem to have managed to put in place a relatively strong supply chain for RUTF. In **Ghana**, RUTF is distributed using the **Ghana** Health Service logistics system based on

requests from regional level. *Stock reporting is integrated into CMAM admissions reports on a monthly basis to prevent delays in ordering and health staff have been trained to use the system and to maintain minimum stock levels.* The system is reported to work well and may be facilitated by stable SAM rates and a clear scale-up plan. In **Sierra Leone**, UNICEF delivers to district level and districts are responsible to reach health facilities. The current system works on a 'pull' basis (adopted to increase efficiency) whereby facilities receive quantities of RUTF based on numbers registered in the facilities. Buffer stocks are also kept at all levels. With this system, stock-out has been experienced, but only as a result of a break in the national supply when the privatisation of the port and new clearance procedures disrupted consignments coming in. It is worth noting that **Ghana** and **Sierra Leone** have relatively stable prevalences of SAM, which potentially makes supply chain calculations and therefore supply planning more straight forward.

*The importance of registering RUTF as an essential supply/commodity to allow easier integration into national supply chain (easier clearance of supplies at*

<sup>35</sup> <http://www.rapidsms.org/case-studies/supply-chain-management-during-food-crises/>. Also Sylvie Chamois (2009). Decentralisation of out-patient management of severe malnutrition in Ethiopia. Field Exchange, Issue No 36, July 2009. p12. <http://fex.enonline.net/36/decentralisation.aspx>

port, government storage at central medical stores and government led distribution and logistics) is noted in **Ethiopia**, **Sierra Leone** and **Ghana**. In **Ethiopia**, though initially it was felt that RUTF should be registered as a drug, the complexity of this system, the accreditation process required nationally and the regulations that any local production facility would have to adhere to (those developed for drug manufacture) have been found prohibitive. To register as an essential commodity is reported to be more appropriate. However, there are other considerations in other countries and therefore the decision is best made according to the context. In **Ghana**, there is a move to place RUTF on the national medicines list so that it can be included under the free service programme for children under 5 years, whereby costs are covered/reimbursed by the national health insurance system. In **Sierra Leone** it has been placed on the essential drugs list so that CMAM can be included in the free health care initiative.

National level forecasting is a complicated process. Most examples above attempt to use monthly consumption at facilities as the best way of calculating distribution needs from the central or regional level. At national level, collation of all the facilities consumption is required to plan future national level requirements if supply chain is to be maintained. *It makes sense to base national requirements on consumption, as calculations based on population, SAM prevalence and coverage of programmes are fraught with difficulties (UNICEF/Valid, 2010; UNICEF, 2009). However good reporting is required for this to be reliable, and requires extrapolation where reports are missing, or to take account of future expansion and any predicted seasonal surges in prevalence. A remaining issue is also that even if needs are well calculated, the nature of short term funding means these needs cannot be supplied in a timely fashion and pipeline breaks result.*

*Reliance on limited sources of RUTF has also affected supply chain in some countries. Nutriset in France is still the dominant global supplier and the last few years have seen occasional shortages of supply compared to demand from their manufacturing plant. These shortages have largely been a result of unpredicted surges in demand, an issue that a global forecasting initiative by UNICEF aims to prevent in the future (Komrska, 2012). There has been in the last three years some diversification of global suppliers (in Norway, USA, India and*

*South Africa).* UNICEF has encouraged this competitive increase in suppliers. With just one RUTF supplier, it was difficult to determine if the price was a fair one. *Opening up the market has resulted in some price decrease though not a dramatic one (approx 15%). As the new suppliers are yet to build up their economies of scale through demand for their product, their prices are still not as competitive as Nutriset's according to UNICEF's price comparison for available RUTFs<sup>36</sup>. Today, UNICEF pays approx. \$0.5 per sachet of RUTF.*

## 4.7.2 Local production of RUTF

In many countries, local production of RUTF is believed to be the most appropriate complement, if not replacement, to global supplies. It promises hopes of reduced prices and transportation costs and of more responsive delivery times (in 2005, UNICEF **Ethiopia** had to airlift 300MT of RUTF into the country due to urgent shortages). It also promises the added benefit of contributing to countries' economies (in **Malawi**, 70% of the ingredients are purchased locally). However, there are still a limited number of facilities producing RUTF at country level. A restrictive patent held by Nutriset means that the majority of these are part of the Nutriset franchise (**Niger**, **Ethiopia**, DRC and **Mozambique**) or supported by Valid Nutrition (**Kenya**, **Ethiopia** and **Malawi**), a not for profit company with an agreement with Nutriset to operate in certain countries. As highlighted in the CMAM Conference, the international patent on RUTF covers several countries in Africa but now there is a patent usage agreement that local producers can sign with Nutriset. A licence is needed if a country wishes to use the Nutriset formula and this can be obtained through the Nutriset website.

There are some independent producers, but the technical requirements particularly to achieve the quality standards demanded by UNICEF (see below) have made it hard for these companies to manage without experienced technical support.

*In addition to the patent, the two main limiting factors for the proliferation of local production of RUTF have been the sourcing and cost of ingredients*

<sup>36</sup> [http://www.unicef.org/supply/files/RUTF\\_Pricing\\_Data\\_final.pdf](http://www.unicef.org/supply/files/RUTF_Pricing_Data_final.pdf)

(particularly sourcing of quality peanuts and the costs of milk powder) and the quality control required to ensure an absolutely safe product is supplied to such a vulnerable group. Local production has appealed in particular to countries with peanut production, however peanuts are vulnerable to aflatoxin contamination and therefore measures are needed right from growers level to ensure proper storage. Regular aflatoxin testing is a requirement for all producers and this in itself has proved problematic (**Malawi, Kenya, Sierra Leone, Ethiopia**) as samples often have to be sent abroad, causing delays. *The importance of testing was illustrated in Ethiopia where local peanuts were found with high aflatoxin levels. As a result, the local producer began to work with growers to improve quality and UNICEF put in place a requirement to test each batch of RUTF. This has added an additional two weeks lead time from production to availability for supply, however last year only one batch failed and lead time is still vastly quicker than for the global suppliers.* In **Ethiopia**, efforts are underway to look at using chickpea production as the basis for RUTF, thus replacing more expensive peanuts.

A discussion point at the CMAM Conference was the extent to which governments can further reduce the cost of RUTF by looking at a range of tax exemptions associated with the importation of RUTF materials, for example, powdered milk or industrial equipment (note that the UN is exempt from taxes thus enabling UNICEF to procure RUTF at a competitive rate). Centralised procurement in large quantities and good forecasting can also help reduce costs.

UNICEF has been the main RUTF purchaser and as local production facilities started to appear, an accreditation process was put in place with agreed product specification and quality standards to be met by the product and the production facility (a similar process is required for all supplies that the agency purchases). *The aim of this was to ensure quality of the product and most agencies and donors have confidence in this process and will only buy from facilities which have gone through this accreditation.* In some cases, accreditation can cause delays in being able to use the product. However, the implications of quality issues being identified in the field in terms of the welfare of children and the reputation of agencies are considerable. Governments are not obliged to recognise this accreditation, particularly where they have their own bureau of standards and accreditation processes. As few have been purchasing until now, it remains to be

seen if they will prefer to rely on the existing mechanism or perhaps use the UNICEF quality standards themselves to assess their national local production facilities. *It is clear that a balance must be struck between the desire for local production and the need for a safe quality product.*

In **India**, the private sector has been manufacturing RUTF but the absence of a regulatory framework has meant that the RUTF cannot be used in India for treatment SAM. As the product is approved by international agencies, it can be exported, however. Whilst much of economic growth in **India** is led by private sector, there is very strong opposition in civil society to private sector involvement in public sector service provision. Experience in **India** has been that the private sector is too difficult to regulate. An alternative model will therefore be required in India if local production is to be achieved.

*Local production is still only scratching the surface of demand. Malawi (with a total of three local producers) is the only country where local production is able to produce sufficient for national demand.* In fact, an excess is now produced and they are applying for certification to supply to neighbouring countries. This capacity of local production is reported to have greatly facilitated scale-up. In **Ethiopia**, conversely, scale-up was limited by lack of RUTF despite the existence of a certified facility, set up with UNICEF brokered backing since 2005. It has taken five years for the facility to build up sufficient capacity to keep up with programme expansion. In **Niger**, production is also insufficient for national needs and cost reductions compared to international purchase have not been significant.

The other question for local production is whether it is really benefiting farmers in the country and therefore the national economy. A World Bank feasibility study in **Ethiopia** applied a value chain approach to increasing RUTF production (Isogai, 2011). Many issues were identified such as lack of market information at each stage of the process from farmers to ingredient suppliers leaving them unable to respond to market trends, low access to finance for producers requiring essential capital to purchase ingredients which are often only available seasonally due to lack of adequate storage at farm level, need for improvement in the quality of ingredients and therefore reduce the level of risk. *The solutions suggested were strong public private partnerships with NGOs supporting small farmers and farmers being linked to producers.* As noted



above, some partnership with farmers has been started in **Ethiopia** due to the aflatoxin issues. In **Malawi**, *Valid Nutrition* are using a 'farm to mouth' approach in conjunction with the national association of smallholder farmers of **Malawi** and other organisations, with the aim of improving the quality of peanuts and providing a guaranteed market for farmers. In this way it seems that some inroads are recently being made to attaining some degree of support for country economies.

Participants at the CMAM conference also stressed the key role of government in facilitating local RUTF production. Apart from tax exemptions for importation of raw ingredients and equipment, government can also provide incentives for small farmers through investment and for producers through guaranteeing minimum purchase.

## 4.8 Knowledge/research informing scale-up

*The evolution of the CMAM approach has been evidence based right from its beginnings.* The evidence that led to the endorsement of the approach has been well documented in the Lancet, the Food and Nutrition Bulletin of the SCN (Prudhon et al, 2006) and other peer reviewed journals. It includes the initial evidence that RUTF could treat SAM effectively in inpatient settings compared to therapeutic milks (Briend et al, 1999), evidence from early programmes that Sphere standards could be met using the community-based model (Collins & Sadler, 2002; Gabouland et al, 2007) collected evidence from multiple programmes subsequently implemented in Africa (Collins et al, 2006a), demonstration of the huge differences in coverage achievable with CMAM compared to traditional approaches (Sadler et al, 2007) and documented experiences of local production of RUTF (Manary, 2006).

These studies were carried out despite some high level criticism of the approach within the nutrition community. They served to answer those critics, as well as to further the operational development of the CMAM protocols in order to maximise their effectiveness. This approach has, in some ways, set CMAM apart from many other emergency nutrition interventions that have not been based on such solid

evidence and has undoubtedly contributed to its wide and enthusiastic uptake.

Due to the innovative and initially controversial nature of the CMAM approach, sharing of learning has continued to be particularly important for driving uptake and enabling scale-up, even after the endorsement of the approach by the international nutrition community. Some of the key elements of this are briefly described below.

As mentioned in Section 4.1, *the documentation of pilot experiences has driven advocacy for the uptake of the approach in most countries.* In addition, in **Malawi** *learning forums for CMAM that were convened at national level by the MoH and the documentation of results and best practices, both for national and international workshops and publications, has been identified as a key enabling factor to the success of scale-up.* Similarly, in **Ethiopia** national workshops to share results in 2006 and in 2007 brought MoH staff from districts together with regional and national decision makers. These gave a forum to discuss challenges at district level and devise appropriate solutions at higher levels thus aiding wider scale-up.

*In some countries, research has been a prerequisite to starting CMAM.* This may be as a result of concern over the appropriateness of the approach in a different context, e.g. urban areas in **Kenya** and **Ethiopia**. It may be due to concerns of the effectiveness of the approach compared to existing national approaches that are either politically charged or heavily invested in (**India**). Or it may be as a result of safety concerns, for example, the testing of acceptability of RUTF in Sri Lanka due to concerns over peanut allergy. In most instances, operational research initiatives have managed to eventually drive uptake forward by demonstrating the appropriateness of the approach and/or recommending adaptations for the given context. However, in some examples, where it has been problematic to put sufficient research in place, the delays involved have significant implications (see Box 6.).

Particular studies have also fed into the planning and adaptation of CMAM programmes in order to address particular challenges. For example, the results of coverage assessments conducted regionally and now increasingly at national level has also been shared and discussed at regional and national levels in order to plan solutions to

## Box 6. India, SAM and CMAM

Estimates from India's most recent nationally representative survey indicate that 6.4% of children below 60 months of age are suffering from SAM<sup>37</sup>. With the country's current population of over 1 billion, this translates to roughly 8 million children under five with SAM at any point in time. This massive burden is greater than in any other country in the world and is disproportionate to the population. Indeed, India represents 16% of the world's population but has 42% of the world's severely acutely malnourished children. Furthermore, the prevalence of GAM in India is 20% which means that there are 125 million acutely malnourished children in India at any point in time. This is the same number as the total number of children who are acutely malnourished in the whole of Africa.

India has been very slow at initiating CMAM. In 2006/07, discussions were initiated coming out of the use of RUTF in an emergency response. There was great difficulty achieving consensus due to concerns about the programme being product driven without a strong community component, concerns about the cost of introducing RUTF, fears that RUTF could displace the indigenous diet, that a focus on treatment of acute malnutrition would outweigh a necessary focus on prevention, and that greater evidence was needed from within India relating to functional outcomes of SAM and alternative treatments using local recipes. Civil society has been raising the fundamental issues of looking at CMAM not as a magic bullet RUTF solution but as one component of a larger continuum of care, including preventative activities and with links to social protection.

In India there is a strong tradition of rights-based entitlements approach and efforts are underway to fit CMAM into this agenda. Large numbers of organisations are using different formulations of RUTF to treat SAM and there has been considerable movement in the introduction of Nutrition Rehabilitation Centres (NRCs) to treat SAM through inpatient care. As highlighted at the CMAM Conference by the mission Director for the State of Madhya Pradesh (MP), NRCs alone however are dramatically under-capacity and can only treat 70,000 SAM children out of a caseload of 830,000 (only a small proportion need inpatient care anyway). The MP State strategy is to first pilot CMAM in two districts and scale up to cover the entire State based on the pilot experiences. Furthermore, the Government of India has approved piloting of local production of RUTF in MP.

Overall, momentum from within India appears to be growing with pilots in Madhya Pradesh and Orissa underway.

*The Story of India. Presented at CMAM Conference, 2011*

identified bottlenecks with all stakeholders. *Additional studies such as the cost effectiveness studies in **Ethiopia, Malawi and Zambia** have contributed knowledge for planning both within their own countries and beyond.* Pilots of integrating IYCF into CMAM trainings in **Sierra Leone** helped inform the development of generic training materials with global reach.

The nature of CMAM is that the links between the programme and the community and between the

components of CMAM are essential to its effective implementation. *Challenges of maintaining coherent referral systems where children are not lost to follow-up between components (e.g. referred by a community level worker but never arrive at outpatient care) have been raised in multiple evaluations, especially due to the dispersed nature of treatment sites, the distances between outpatient*

<sup>37</sup> Defined by weight for height below -3 SD

and inpatient facilities and the large number of children involved. Solutions have been hard to come by but some innovative technologies are now showing promise in this area. In **Malawi**, rapid SMS is being used by community health nurses to communicate with volunteers conducting follow-ups on children with SAM. This has served to overcome issues of lack of transport for outreaches by health staff, however the sustainability has been questioned as currently there is no budget to cover the communication costs. In Uganda, where mobile phone coverage is relatively comprehensive, rapid SMS using a toll free number (arranged through agreement with a national mobile network) is being

tried by community extension workers to communicate with health staff when they identify a child in the community with SAM. This allows health staff to know how many referrals to expect and to inform community workers (again using rapid SMS) whether referrals fail to present to the health centre. This experience is yet to be evaluated to see if it is able to reduce losses to follow-up.

*The publication of CMAM results and experiences have also been used at high levels to advocate for resources for CMAM.*



Pakistan

Credit: Pakistan case study presentation, CMAM Conference, 2011

# 5 An overview of CMAM experiences from 12 additional countries

The CMAM Conference afforded a unique opportunity to hear from an additional twelve national representatives about their country's experiences of CMAM implementation. These informal presentations shared from plenary on Day 2 were necessarily brief but provided a snap-shot of CMAM scale up considerations and experiences<sup>38</sup>. These twelve countries are at varying stages of scale up. At one end of the spectrum are countries like Bangladesh and Cambodia that are still at the planning stage, while countries like Sudan, Uganda and Nigeria have effected considerable scale up in a short space of time covering wide geographic areas. In the case of Sudan, initial CMAM programming began in 2003 (by international NGOs) while in Afghanistan, programming only started in 2010. The experiences of these 12 countries share many similarities with the nine country case study countries, although there were also some unique elements of programming which are summarised below. Annex 1 contains the overview shared by each additional country.

## 5.1 Scale-up approach

A number of countries used pilot programmes to demonstrate effectiveness of CMAM and to inform country specific approaches, e.g. Nepal and Zimbabwe. A number of countries also strongly linked scale up to HIV programming. In Tanzania, targeting was initially only to HIV positive children, while in Zimbabwe where > 50% of SAM patients are HIV positive, all children admitted to CMAM are tested for HIV. In Uganda, RUTF is given to moderately

malnourished children who are HIV positive. In Zambia, target provinces for scale up have so far been selected on the basis of HIV prevalence.

## 5.2 Development of country specific guidelines and incorporation into policies and health and nutrition programmes

Development of country specific guidelines and incorporation of CMAM into national policies have been important parts of preparation for scale up in many countries. Country specific guidelines have been produced in Cambodia, Nigeria and Liberia. In Liberia, CMAM has been integrated into the Nutrition Programme Package. In Sudan, a CMAM scale up plan has been developed and incorporated into the National Nutrition Plan to achieve the MDGs and a CMAM database has been incorporated into the National Nutrition Plan database. In Uganda, CMAM scale up is now in the National Development Plan, as well as in the National Action Plan for Nutrition.

<sup>38</sup> Nepal, Afghanistan (formal presentation), Bangladesh, Cambodia, South Sudan, Sudan, Zambia, Uganda, Nigeria, Zimbabwe, Liberia, Tanzania



### 5.3 CMAM performance indicators

Performance of programmes has been variable. In Sudan, surveys have shown only 30% coverage with high default rates and long length of stay. In Zimbabwe, the cure rate has only been 54% with a default rate of 25%, probably reflecting the high rates of HIV amongst children with SAM. In Afghanistan, the cure rate has been 82% although defaulting is high at 17% and there are limited resources for follow up.

### 5.4 RUTF supplies and production

Lack of RUTF supplies was cited as a constraint to scale up in Tanzania and Zambia. A number of countries have set up local production of RUTF or are planning to do so, e.g. Nigeria, Sudan, Tanzania and Uganda. However, in Tanzania locally produced RUTF is currently more expensive than the imported variety, while in Uganda the government is also considering sourcing RUTF from India. In Bangladesh, as in India, there has been opposition to the use of RUTF.

### 5.5 Integration of programming with IYCFs

Numerous countries have been integrating IYCF support into CMAM or are planning to do so, e.g. Nepal, Zambia, Afghanistan and Nigeria. Linking IYCF with CMAM in Nigeria has been a response to the high level of relapses seen in CMAM programming.

### 5.6 Lack of resources for comprehensive and coordinated scale up

Lack of resources for scale up was highlighted by a number of countries. In Nigeria, the size of the country and required scale of programming means that large levels of resources are needed. In Sudan, there have been regular shortages of antibiotics while in Zambia, Zimbabwe and Liberia, lack of resources has limited capacity development and monitoring and evaluation. In Tanzania and Zambia, lack of resources has meant an unsystematic and ad hoc roll-out of CMAM, i.e. it could not be planned. In South Sudan, low government capacity at central and state level was cited as a key constraint as well as a shortage of nutrition staff and a lack of management for nutrition programmes.

### 5.7 Emergency driven programming

As with the nine case study countries, a number of country programmes started roll out in the context of emergency programming, e.g. Sudan, Uganda, Zimbabwe, South Sudan and Afghanistan. In Nigeria and Liberia, CMAM programming started on a small scale and was international NGO led, although in both cases, government has now taken greater ownership of the programmes and scale up. In Nepal, Tanzania, Zambia and Zimbabwe, there has been a more 'development' and government led approach to roll out from the start. A number of countries have highlighted issues around the sustainability of funding, e.g. South Sudan, Zimbabwe and Afghanistan. In Zimbabwe, as funding goes to international NGOs rather than national government, parallel programmes (including reporting) are operating with government health workers lacking a sense of programme ownership. In addition, when international NGOs leave, programmes collapse. In Afghanistan, the short term nature of funding makes it difficult to plan ahead. Nepal and Nigeria also raised the issue of lack of sustainable funding for scaled up programming.

# 6 Political challenges and enabling factors

The implementation and scaling up of CMAM, as with other forms of nutrition programming, requires continuous government commitment to produce clear benefits over time. In the specific case of CMAM, there are two significant challenges for long term scale up. The first is to move away from short term emergency responses to gradually incorporate CMAM into long term development processes and programmes. Whilst donors and governments may exhibit the necessary commitment to produce concrete policy actions in an emergency response, the required political incentives, funding mechanisms and capacity development needs are fundamentally different for long term programme sustainability. Longer term sustainable government funded development programming requires greater commitment to embed CMAM in a wider government strategy with coordination within and across different government sectors, including health, nutrition, education, social development and agriculture, to tackle the basic and underlying causes of all forms of undernutrition. The second main challenge, from a political economy perspective, is to gradually move away from a donor driven sponsorship of CMAM to greater government ownership and influence in the design, implementation and funding of CMAM policies and programmes. Accountability for policies and resulting programmes therefore becomes increasingly important.

Currently, nutrition governance frameworks do not explicitly address the political economy of CMAM scale up. Existing frameworks have three dimensions: a) coordination between government bodies and non-government actors like donor agencies, civil society or the private sector, mostly at the national level, b) effective programme articulation and administrative coordination to

ensure effective delivery of services across all government tiers, and c) design and sustainability of funding mechanisms that are both effective and transparent (Mejía Acosta & Fanzo, 2011).

To better understand the short and long term challenges related to CMAM scale up, this section focuses on an adapted version of the three dimensions of nutrition governance highlighted above, based on the nine country case studies and the India 'story', namely: 1) the inter-sectoral coordination and cooperation between the central government, the MoH and the donor community, 2) the vertical articulation between community based interventions and centralised and decentralised branches of government and 3) CMAM financing mechanisms, including the provision of RUTF and the interaction between donors and governments.

## 6.1 Institutional coordination around CMAM

This section shows the need to take into account the interests and strategies of different stakeholders as a condition to promoting effective scale up of CMAM. As discussed above, the successful adoption and sustained implementation of nutrition policies requires strong political leadership and commitment. Political leadership is key for promoting cooperation across different government branches, to facilitate coordination between donors and to embed initiatives within national development plans. The

presence of national level policies and directives has, for example, led to positive changes in food security in countries as diverse as Vietnam, Ghana, Brazil, Peru and **Malawi**. Political leadership has also encouraged concerted action between a range of sectors including civil society organisations, international agencies and research institutions around national nutrition agendas (Ismail et al, 2005). Furthermore, political leadership combined with strong community involvement has been critical to translate nutrition policies into action.<sup>39</sup>

*Political leadership and government coordination is a prerequisite for the long-term success of CMAM scale up.* The 'Executive level', i.e. the President or Prime Minister's Office, can play a key strategic role in enhancing the importance of CMAM in the national development agenda, to strengthen the mandate of the MoH, and to ensure the continued and coordinated financing of such programmes from government or donor contributions.

Evidence from country case studies suggests that most government efforts at executive level have been geared towards strengthening the role of the MoH to effect CMAM scale up with different degrees of success. In **Mozambique, Kenya and Malawi**, the central government has given a strong mandate to create new coordination bodies or strengthen existing institutions, attached to the executive office, to address SAM. The same country cases also demonstrate improved coordination between government and cooperation agencies around CMAM implementation. In **Ethiopia**, the government mainstreamed and funded CMAM through the public health structure, which contributed to improved coverage. In addition, the **Ethiopian** Government launched a process to review and update the National Nutrition Programme (NNP), the operational part of the National Nutrition Strategy (NNS), to include initiatives such as MAM programming. This contrasts with **Pakistan, Sierra Leone and Ghana**, where there is significant room for renewed government efforts to coordinate more effectively with donor agencies around CMAM implementation. The survey of CMAM experience, as well as the feedback from country participants at the conference, converge around the notion that CMAM scale up could benefit from clear executive involvement to feature CMAM goals as part of national development policies to ensure political ownership and long term sustainability. These findings are discussed in greater detail below.

## 6.1.1 The role of the executive

The case study evidence suggests that the executive can play a critical role in placing nutrition high on the national agenda but this may not always include the treatment of treatment of SAM. This section identifies three clusters of countries based upon the degree of executive involvement and programme coordination in scaling up nutrition programming and, in particular, CMAM.

**Malawi, Niger, Mozambique and Sierra Leone** comprise the first cluster of countries. With important differences, the governments of these countries have promoted the coordination of different national nutrition programmes under the MoH. In some cases, the executive pushed for reforms and institutional changes to give the MoH greater influence over CMAM adoption and implementation. Sometimes, the executive has also shown commitment to protect government funding for such activities or secure sustainable sources of donor funding in the long run.

A second cluster of countries includes **Ethiopia, India, Kenya and Ghana** where there is a good degree of executive involvement to promote improved nutrition programme coordination, although only some of these efforts are directed to the treatment of SAM and CMAM is not explicitly incorporated into national agendas.

A third cluster of countries includes **Pakistan** where there is limited executive involvement and leadership to advance a nutrition agenda to treat chronic or acute malnutrition. The lack of executive coordination is associated with weak interagency coordination around nutrition programming and duplication of efforts. **Somalia** presents a particular example as there is no central government and there is a rapid turnover of staff in government.

**Malawi** represents a good example of where the executive has been involved in addressing SAM. Here, the President took some aspects of the nutrition agenda away from the MoH in 2005 and placed them under his direct influence, i.e. under the Office of the President and the Cabinet (OPC). This move ensured that nutrition was on the agenda of multiple ministries. The OPC is responsible for policy direction and for mobilising resources, whilst

<sup>39</sup> <http://www.fao.org/docrep/U9920t/u9920t01.htm#editorial>

the MoH has responsibility for implementation of these policies. The OPC chairs the nutrition committee that meets twice a year and oversees multiple technical working groups, such as those looking at IYCF issues, targeted nutrition feeding programmes and nutrition and HIV. Beyond intra government cooperation, the OPC also contributed to developing strong partnerships with donors, NGOs and the CMAM Advisory Service (CAS). Other partners include UNICEF and WFP.<sup>40</sup>

**Niger** offers another example of decisive executive intervention. In 2011, the newly elected President launched a '3N' initiative to strengthen food security in the country (Les Nigériens Nourrissent les Nigériens). The 3N will be managed by a High Commission, directly responsible to the President's Office, and it is likely that the initiative will also address other nutrition-related issues beyond food security. Currently, the emergency nutrition response is also under the leadership of the Prime Minister's Office, although responsibility for the management of acute malnutrition (SAM and MAM) rests in the MoH. The MoH, through the work of the Nutrition Directorate, has taken the lead to manage the expansion of CMAM in **Niger**. Although there are multiple partners involved, an integration directive issued in 2008 made it compulsory for every partner involved in the management of acute malnutrition to integrate their activities into the government health system.

In **Mozambique**, there has been significant political leadership to define a multi-sectoral coordination body around food and nutrition security issues. In 2010, the Council of Ministers approved a Multi-sectoral Action Plan for the Reduction of Chronic Undernutrition, with a coordination body under the leadership of the Prime Minister.<sup>41</sup> The Plan however, does not include CMAM which falls under the Nutrition Rehabilitation Programme (PRN). The MoH's Nutrition Department is responsible for leading the group of PRN partners supporting the treatment of SAM. The group has an informal coordination structure with a regular schedule of meetings and a division of labour within this structure.

In **Sierra Leone**, the executive and the First Lady are directly involved in different initiatives promoting free health care and improved nutrition for mothers and children. At a recent National Nutrition and Food Security Forum, the President expressed his concern at the current high numbers of children affected by undernutrition and affirmed his government's commitment to address the problem by putting in place dedicated policies and strategies.

However, the presidential commitment has yet to be translated into stronger institutions or coordination bodies. For CMAM, the Ministry of Health and Sanitation (MoHS) is effectively responsible for overall leadership of the programme, although UNICEF has been leading monthly coordination meetings with NGO implementing partners to monitor and share updates on CMAM implementation and coordination. The presence of UNICEF has allowed CMAM to be linked to other health programmes, such as basic emergency obstetric care, Expanded Programme on Immunisation/Child Health (EPI/CH), free health care initiative and Integrated Management of Neonatal and Childhood Illnesses (IMNCI). Intense advocacy by UNICEF and the CMAM staff in the MoHS to the MoHS and senior health officials was undertaken in 2010 for the inclusion of CMAM into the Free Health Care Initiative. The advocacy was successful and resulted in the inclusion of CMAM supplies in the essential drug/food list.

The MoHS and Ministry of Agriculture Forestry and Food Security with the support of NGOs and UN REACH partners (UNICEF, WHO, FAO, WFP) conducted a comprehensive situation analysis of nutrition and food security in **Sierra Leone** in 2011. The conclusions of this analysis were shared with multi sector stakeholders in a National Nutrition and Food Security Forum and in all regions of the country during which important gaps and opportunities for scaling up nutrition and food security interventions were identified. The national forum was launched by the Minister of Information and Communication who deputised for the President of **Sierra Leone**. The participants included senior government ministers, senior government officials, decision-makers from the UN, development partners, NGOs and senior technical personnel from the represented organisations. This forum has given visibility to the issues of malnutrition and food insecurity at national and regional level.

Another important advocacy event in **Sierra Leone** was the launch of the first CMAM protocol by the First Lady in 2008 during 'Breastfeeding week'. As CMAM relies on community support for its success, advocacy for community leaders to support CMAM is ongoing, often led by NGOs (when present in the area).

<sup>40</sup> UNICEF procures and distributes all of the RUTF supplies to treat SAM, whilst WFP procure and supply products to treat MAM (CSB and oil). Both partners also provide considerable support for training, monitoring and supervision of the programme.

<sup>41</sup> This body was initially known as the Technical Secretariat for Food and Nutrition Security (SETSAN by its Portuguese acronym).



The second cluster of cases, **Ethiopia, Kenya, and Ghana**, have shown considerable coordination around nutrition programming, although not always directly related to CMAM. **Ethiopia** is a complex case where there has recently been determined executive commitment to CMAM scale up. Nutritional assessment, counselling and treatment of SAM (and MAM) is carried out by the Federal Ministry of Health (FMoH) and Regional Health Bureaus (RHBs). There has also been significant executive leadership recently in developing a National Nutrition Programme and stunting reduction strategy, for IYCF and micronutrients.<sup>42</sup> The Emergency Nutrition Coordination Unit (ENCU) is the coordinating body for nutrition, including CMAM, and is part of the MoH in **Ethiopia**. The ENCU was born out of the need to avoid duplication and gaps in emergency response which occurred during the 2003/4 emergency. More recently, the **Ethiopian** Government developed and launched in 2008 a National Nutrition Strategy (NNS). The NNS, operationalised through the NNP, established a ten year initiative to reduce the levels of stunting, wasting, underweight and Low Birth Weight (LBW). The NNS seeks to harmonise and coordinate various approaches to manage and prevent undernutrition through supporting service delivery and promoting institutional strengthening and capacity building. One of the key areas identified included MAM programming and the development of improved linkages between preventive and treatment programming. The extent to which the executive can influence coordination that directly relates to CMAM remains to be seen.

**Kenya** offers an example of improved ministerial coordination within the MoH that has not directly addressed SAM as part of the national nutrition agenda. As a result of the power sharing agreement after the 2008 electoral violence, the MoH was divided into two different ministries, the Ministry of Medical Services (MoMS), responsible for curative services in hospitals, and the Ministry of Public Health and Sanitation (MoPHS), responsible for health services delivered at health centre, dispensary and community levels. This division of roles was a positive development and was carried out in order to bring greater attention to nutrition and public health as separate issues. A joint coordinating committee between the two ministries provided political and policy direction to ensure that the nutrition sector was working towards achieving the overall policy objectives set out in the Vision 2030 and the Medium Term Plan<sup>43</sup>. The programme in

**Kenya**, referred to as Integrated Management of Acute Malnutrition (IMAM), has evolved gradually from one district focusing on a few selected health facilities to a national programme covering more than 22 districts. The policy environment has been enabling for integration within routine services and for scale up during an emergency. The government's role in funding IMAM has increased and the current year's allocation for IMAM within the health sector is Kenyan shilings 150 million, up from 65 million the previous year.

In **Ghana**, a Cross Sectoral Planning Group (CSPG) has been formed under the National Development Planning Commission to provide overall planning, policy guidance and inter-agency and inter sectoral coordination and collaboration. From the reported case evidence, the executive appears to be committed to coordinating and scaling up CMAM.

The **Ghana** Health Sector Medium Term Development Plan (HSMTDP) 2010-2013 and the **Ghana** Shared Growth and Development Agenda (GSGDA), which is a follow-up document to the **Ghana** Poverty Reduction Strategy II (GPRS II), identifies nutrition and food security as critical and as cross-cutting issues in addressing overall human resource development. The GSGDA sets out policy objectives to address the issues relating to nutrition and food security. The HSMTDP identifies the scale up of CMAM as an important intervention aimed at reducing the under-five mortality rate and also at improving nutrition status of women and children.

The third cluster of countries, **Pakistan and Somalia**, appears to have had little executive involvement or leadership in advancing the coordination of sustainable CMAM scale up. In **Pakistan**, the decentralised nature of governance in the country and the recent large scale flood related emergency has hindered any central coordination. Whilst

<sup>42</sup> This is done with the support of USAID/FBP (Food by Prescription) and the technical assistance from Save the Children USA. There are other agencies supporting treatment of SAM and MAM in Ethiopia. AID and SCUS are supporting the HIV/nutrition programming.

<sup>43</sup> A Health Sector Coordinating Committee (co-chaired by the two sector ministries, MoMS and MoPHS) had the role of ensuring that the ministerial strategic plan was implemented so that nutrition policy objectives could be achieved. There were 16 Inter-agency Coordinating Committees (ICCs), one of which was the Nutrition Interagency Coordinating Committee (NICC). Other partners were coordinated through the Nutrition Technical Forum (NTF), chaired by the MoPHS and co-chaired by UNICEF. Four steering groups were established to report to the NTF, including one on Nutrition Information and on Urban Nutrition.

**Pakistan's** Health and Nutrition Early Recovery Strategy has advocated for multi-sectoral approaches to address the underlying causes of malnutrition, lack of coordination has undermined efforts to develop nutrition policies and to ensure community engagement and participation. One of the reasons for this is that the central MoH has no direct role in the implementation of nutrition activities in the provinces or districts. Thus, the MoH has demonstrated different levels of commitment to scale up of CMAM during the flood emergency. In Balochistan, and Khyber Pakhtunkhwa (NWFP), some of the main donors and technical support agencies like UNICEF, WHO and WFP have faced multiple coordination problems. In Sind Province, partners attended coordination meetings but the pace of implementation was adversely affected by different and overlapping agency mandates. However, in Punjab Province the government established a Technical Advisory Group (TAG) for managing nutrition issues and the coordination of different stakeholders with differences in mandates.

In Somaliland and Puntland regions of **Somalia**, there is significant political intent but an absence of formal mechanism for policy coordination or sectoral cooperation. Initially UNICEF, in consultation with other organisations, departments and implementing programmes, helped set up the Somalia Nutrition Cluster. The Nutrition Cluster effectively stepped in to complement the lack of executive leadership by organising regular coordination meetings in Nairobi, with excellent participation of implementing partners to discuss coordination and operational challenges. The Nutrition Cluster also established thematic working groups for IYCF, micronutrient supplementation and capacity building for specific technical areas. In **Somaliland** there is a functioning MoH which is financially dependent upon UNICEF and other agencies for RUTF and logistical support. In **Puntland** and the South Central Zone, the government has an even more marginalised role so that most coordination is carried out by the Nutrition Cluster. In South Central Zone, UNICEF remains responsible for provision of RUTF and the delivery of CMAM programmes is mostly limited to urban areas (Mogadishu) due to the lack of secure access to other areas.<sup>44</sup>

In conclusion, greater executive involvement around nutrition programming can be a significant enabler for CMAM scale up. As illustrated by political economy analyses of non- CMAM programmes, as well as contributions from CMAM conference participants, greater executive involvement is likely

to forge intra- and multi-sectoral linkages between CMAM and other health related interventions to foster programme sustainability, increase and improve coordination between different government ministries and external actors, such as donors, civil society and the private sector, and secure political commitment around the provision of long-term funding of CMAM. The evidence suggests that executives can promote inter agency coordination around CMAM in three different ways. One means is to have direct executive involvement by incorporating CMAM into the national development (public health) agenda, another is to contain but support CMAM efforts at the MoH level. A third option is to delegate or allow CMAM scale up to be mainly driven by external agencies whilst supporting coordination mechanisms for these agencies. There has been no concrete impact assessment of these modalities on the coverage, sustainability or quality of CMAM programming. However, judging by existing evidence from non-CMAM nutrition interventions and the, it appears that the greater the degree of executive involvement, the more likely it is that programming will be successful and sustainable. Conversely, where CMAM is not a national level priority or governments lack the capacity to be more directly involved with the efforts of external agencies, there is a strong likelihood that programming will remain dependent on the (uncertain) availability of emergency funding. Furthermore, short term funding tends to undermine long term planning, thus directly affecting the prospects of CMAM scale up, as discussed in Section 4.

## 6.2 Coordinating bodies and structures

### 6.2.1 Decentralised structures

The effective translation of CMAM priorities into local ownership and direct community involvement is key for successful scale up. The paradox, however, is that a greater or more decisive executive involvement (as discussed in the previous section) may also undermine the potential for programme

<sup>44</sup> In Somalia, the term IMAM rather than CMAM is used as the management of acute malnutrition is integrated with other services.

ownership at the local or district level. *Thus, the challenge is to find a balance to decentralise functions, ensure autonomous funding and strengthen local capacities.* Some of the existing evidence suggest that effective implementation at the district level can be facilitated when the country has a significant level of decentralisation (political, administrative and fiscal), when there are strong levels of technical expertise and human capabilities at the local level, and when there are reliable and available data regarding target populations, risk areas and progress indicators. This section reviews some of these indicators in greater detail.

In **Kenya, Ghana** and **Pakistan**, strong ministerial involvement has played an important part to ensure effective articulation between different levels of government and therefore coordination of decentralised health structures. In **Pakistan**, the Nutrition Wing of the MoH coordinated with different development partners to promote the implementation of various activities through the flood affected provinces, including CMAM. Arguably, such coordination had the added benefit of reducing the need for international partners to be present in all provinces, thereby reducing operational costs. Agencies such as WHO supported the implementation of the Health Early Recovery Plan by promoting coordination with all provincial Health Authorities, regional offices and health sector implementing partners across **Pakistan**. Other agencies, such as UNICEF, helped to staff coordination positions at national and sub-national levels in order to ensure the coordination of Nutrition Cluster meetings. The 2010 floods represented an important opportunity to improve policy coordination at the local level across different regions, Early Response Plans were set in place and the Departments of Health took the lead in facilitating activities directed towards preventing nutrition deterioration on a longer term basis. The Provincial Government of Punjab set the ground rules for policy coordination, holding NGOs accountable for their work, challenging the work of district health managers who did not prioritise policy interventions, and involving Lady Health Workers as part of the disaster response, despite the opposition of the Federal Government. Clear programme roles and division of labour between different government agencies was essential for the programme to function at sub-national levels. The **Pakistan** example also illustrates the importance of policy coordination between the Provincial and the Federal level. In Balochistan Province, a team

formed by UN agencies and NGOs took proactive measures to engage with district authorities including the Department of Health. Bringing district health officials on board and ensuring frequent engagement with them from the Provincial level resulted in an unprecedented ownership of the CMAM programme at district level.

In a similar vein in **Ethiopia**, the 2008 response to the food emergency was a good opportunity to strengthen vertical coordination. The FMOH decided to decentralise CMAM services to sub-district level with the support of UNICEF and international NGOs. In **Ghana**, SAM Technical Committee (SAM TC) provided support for vertical coordination of CMAM through its technical support at national, regional, and district levels. This type of coordination was required to develop interim guidelines and strengthen national competencies. Donors also played an important role by selecting learning districts and supporting health development partners with technical assistance and CMAM supplies. A demand-driven approach was used for scale-up within the regions and districts. This was associated with faster uptake of the CMAM protocols as the implementers were keen to demonstrate that the demand was justified and that they had the capacity to implement the programme.

In **Kenya**, a number of coordinating bodies were established to facilitate nutrition coordination between stakeholders at provincial and district levels. Some of these groups included the Provincial Health Stakeholders Forum, the District Health Stakeholders Forum and the Health Facility Committee and Community Health Committees. The expansion of the OTP via routine health centre delivery services resulted in greater access to nutrition services with improved coverage in Nairobi and Kisumu East. A total of 54 health facilities (run by MoH with support from partners) now integrate the management of acute malnutrition within their nutrition services within the urban slums. In **Malawi**, the CAS provided technical support for the MoH to scale-up CMAM activities. The goal was to standardise activities at all levels. The management of nutrition information was also an effective instrument to improve vertical articulation. CMAM data were collected and reported using the same reporting structure and schedule as other health centres data and key indicators reported through the HMIS. The improved information system at all levels ensured the necessary information flow to facilitate future scaling up.

NGOs also contributed to harmonising CMAM across the country through the development of national protocols, producing reports, developing and using training materials and dissemination of best practices. In **Sierra Leone**, vertical cooperation was enhanced through institutional mechanisms such as the CMAM Protocol launched by the First Lady during 'Breastfeeding Week' in 2008.

The country case studies highlight that the use of training modules is also an effective instrument to ensure coordination between different government levels in **Mozambique, Sierra Leone, Pakistan, Ghana** and **Kenya**. In **Mozambique**, training is rolled out in a cascade manner starting with a regional training in three regions (north, central and south), followed by replication trainings at the provincial level, and finally training at the facility and community levels. Attempts are being made to include either a trained MoH staff member or a member of a clinical partner organisation to facilitate and/or supervise some of the sessions. At community-level, complementary training materials on HIV and nutrition are provided. In **Somalia**, capacity development, training and supervision are essential for CMAM scale up, especially given the significant role of local NGOs in CMAM implementation and the lack of technical expertise and political motivation in local authorities in regions such as Somaliland and Puntland.

In **Niger**, there is frequent training of service providers and on-the-job supervision to ensure quality of CMAM treatment. These efforts are carried out with the technical and financial support of UNICEF, WFP, WHO, international and national NGOs. Supervision of the management of acute malnutrition is carried out by the Nutrition Directorate and its decentralised personnel in each of the eight regions and 42 districts, thus ensuring a better vertical communication across all government tiers.

In **Niger**, the use of a common database also supports coordination of health-related efforts between the provincial health office, the national level and local districts. Close monitoring and cascade training with booklets and handouts were also used in **Sierra Leone** and **Ghana**. In **Niger**, the existence of a weekly reporting system that monitors the number of new cases admitted for treatment as well as other performance indicators has contributed to CMAM scale up. The reporting and monitoring systems, initially set up and managed by UNICEF, are now fully integrated into the national system and its management is being progressively transferred to the Nutrition Directorate.

Finally, the adoption of a health workers' national performance appraisal system, symbolic remuneration for volunteer workers, and other career promotion schemes were found to enhance the motivation of health staff and support for the programme at the local level in **Ghana, Pakistan** and **Kenya**.

## 6.2.2 Political incentives and local ownership

As illustrated by studies on chronic malnutrition, a greater involvement of concerned government officials and local elites can produce a more inclusive selection of beneficiaries, a more transparent use of resources, and greater community involvement. This has relevance for the long term sustainability and effective scale up of CMAM.

Although questions about political motivation and local ownership were not explicitly developed in the country studies, the conference discussion around CMAM scale up highlighted the important role of national and local level elites to ensure ownership, political commitment and secure funding.

A key insight from the conference is that civil society activists and health sector specialists need to better coordinate efforts to bring CMAM onto the political agenda. This effort entails *translating into clear and unambiguous language, the reasons why it is worth investing in children's good nutrition, or demonstrating the long term human and economic costs of not doing so. This requires, in turn, the sharing of available and reliable nutrition data between health experts, civil society and political elites, in order to highlight the magnitude of the problem, the cost of addressing it and the expected benefit.* The experience of Peru in reducing chronic malnutrition offers a good example of "giving a politician a number they can work with" in order to mobilise political commitment around a key issue. In 2006, the elected President Alan Garcia committed to the 5x5x5 campaign to reduce malnutrition in children under 5 years of age, by 5% in 5 years. The campaign slogan generated broader engagement of different sectors and it gave government officials, at the local and national level, a concrete target to work towards (Mejía Acosta, 2011).



## 6.3 Financing CMAM

### 6.3.1 Emergency funding, RUTF costs and the private sector

The provision of a continuous and predictable funding stream is a key requisite for ensuring a sustained CMAM scale up.

To date, the majority of CMAM funding has come from emergency budgets (although the precise amount is not known) which means it is largely short term and unpredictable in nature. CMAM programming is therefore subject to a high level of insecurity, making it difficult for governments to be strategic or to actively plan scale-up (see Sections 4.1.2 and 4.2.2). Governments find it difficult to take on lasting CMAM capacity strengthening as this requires longer-term planning and investment. Furthermore, short term funding arrangements often come with heavy reporting requirements based on short term results.

UNICEF is one of the main global buyers and suppliers of RUTF. As noted in Section 4.5, in 73% of countries with CMAM programmes, UNICEF provides 100% of the RUTF. In 2008, UNICEF spent \$43 million on RUTF (UNICEF, 2009) and in 2010 this had risen to approximately \$76 million (about 21,000MT of RUTF purchased) with the majority of this funding coming from short term donor funding mechanisms secured at country level. In 2008, UNICEF established 'thematic funds' which are allocated from headquarters to countries based on annual proposals and provide more predictable funds for CMAM at country level, although these are essentially still of a short term nature. In the same year, UNICEF also allocated \$10 million from its regular resources for CMAM, which again enables more predictable funding but is still essentially short term.

The Clinton Foundation (CHAI) is the third largest RUTF purchaser globally (behind UNICEF and Médecins Sans Frontières (MSF))<sup>45</sup>. The majority of CHAI funds are longer-term in nature and raised through UNITAIDs<sup>46</sup> Paediatric HIV/AIDS project. Through this mechanism, CHAI has donated RUTF to governments in 33 countries (through 2010) with a high HIV burden for use for treatment of SAM. Initially CHAI RUTF was restricted to HIV positive

children with SAM but was then expanded to include all children with SAM as long as CMAM programmes are linked to HIV counselling and testing. The future of CHAI funding for CMAM is unclear and the country case studies indicate that CHAI supplied RUTF is not guaranteed in the future.

There are increasing opportunities for CMAM to be funded as part of a wider nutrition package at country level, although these funds are currently earmarked for NGOs and UN agencies. For example, USAID have awarded \$50 million over 5 years for an integrated nutrition programme in **Ethiopia**, which has been won by a consortium including Save the Children US, TUFTS University and Valid International and includes a substantial amount for CMAM. A similar award is in process for Zambia. UK Aid (Department for International Development (DFID)) has included CMAM as a key intervention in their 'scaling up nutrition' position paper that informs their support for the SUN movement. In Northern Nigeria, DFID's 'improving maternal, newborn and child nutrition' programme is providing £60 million divided between UNICEF, Save the Children and Action Contre la Faim (ACF) over five years for delivery of nutrition interventions through routine health services funded by government. A significant portion is for CMAM. None of this goes directly to government.

There is also a move, due to advocacy from various agencies, to include CMAM along with other nutrition support in Global Fund proposals. The latest global fund information notes inform countries that they can include management of SAM linked to HIV programming in proposals.

Concerns regarding the role of the private sector in RUTF production were raised in the context of India's experience, specifically the absence of a comprehensive governance framework for the

<sup>45</sup> Médecins Sans Frontières (MSF) purchased around 3700 MT in 2011 for use in around 30 different countries where MSF are implementing treatment programmes for SAM. Out of the RUTF it is procuring, MSF is also receiving additional supplies in-country from UNICEF which can account as the major source of supply in some of their programmes. Source: Stéphane Doyon, Nutrition - Access Campaign, MSF

<sup>46</sup> In 2006, Brazil, Chile, France, Norway and the United Kingdom decided to create an international drug purchase facility financed with resources that would be both sustainable and predictable. The initiative was given the name UNITAID, and a tax on airline tickets was chosen as the most appropriate means of providing sustainable funding. These funds are used to provide products (ARVs, Malaria treatment drugs, TB treatment drugs, RUTF) to national governments.

private sector, regulatory standards used by donors often being used as an alibi for creating entry barriers for local producers, a history of monopolies being created for proprietary products, and competitive advantage given to companies in developed countries through discriminatory procurement procedures. However, the role of the private sector in CMAM, specifically in RUTF production appears so far to have been minimal. PEPSICO is providing small scale funding, for example in Nigeria. It seems that the major private sector interest is in supplementary and complementary foods (particularly the ready to use versions).

Given the required magnitude of CMAM funding, donors are heavily involved in providing these funds (or in-kind supplies) in virtually all countries. This level of support is important both for the actual provision of SAM treatment supplies (mostly RUTF) as well as for the funding of related activities such as distribution of supplies and capacity development. In the first case, the most prominent funders of SAM treatment and source of nutrition therapeutic supplies are UNICEF and the CHAI. Other donors providing funds for CMAM related activities include USAID, ECHO (Humanitarian Aid Department of the European Commission) and the Government of Japan. Finally, there are other donors and some NGOs, including MSF, Concern Worldwide, Action Against Hunger and Save the Children, who have provided additional funding for support activities, supplies, distribution and capacity development (UNICEF, 2011:12).

The case studies reveal some of the existing funding dynamics and modalities around CMAM. For the most part, country experiences suggest that there are no credible provisions for long term funding, for the most part, funding allocations are not fully incorporated into regular government budget programming, the isolated nature of funding undermines government ownership and hinders long term investment around CMAM and related interventions, and, in some cases emergency funding may result in stop/start programming. The case studies also illustrate the dramatic lack of consistent and comparable data across the board. At the macro level, it is difficult to gauge the magnitude of the required investment to significantly reduce SAM and MAM in a given period of time. Similarly, there are no comparable figures about CMAM coverage or rate of CMAM expansion per country. This lack of data is especially problematic to identify the size of scale up challenges and the strategy to overcome these.

The majority of country cases featured in this review face two types of challenges for CMAM scale up: the need to move from emergency funding to regular funding cycles, and the need to gradually move from donor driven funding to government owned allocation of funds. These challenges are discussed below.

### 6.3.2 The challenge of long term funding

The first financial challenge for CMAM scale up is to move programming away from donor emergency or short term funding and into to development funded programmes with a longer term commitment. The challenge of establishing long term funding appears to be, at best, a long term prospect in countries like **Kenya**, **Mozambique** and **Pakistan**. In **Kenya**, most donor supported CMAM interventions are resourced through short term emergency funding windows. In **Mozambique**, long term funding for CMAM has not been secured and donors' short funding cycles and the lack of financial resource commitment to support PRN at all levels hinders long term planning and prospects for scaling up. A similar situation is observed in **Pakistan**, where donors are reported to espouse short term and target oriented approaches only. Programme managers in Balochistan and Punjab are pessimistic about the long term financial commitment of donors which will affect the sustainability of CMAM.

International donors and NGOs play an important role in the funding of technical, financial, and logistical support for CMAM in **Malawi** and **Sierra Leone**. In **Malawi**, the nutrition sector has a separate budget line within the budgets of the district implementation plans (DIPs). This ensures some predictability in a country where health services are under resourced and dependent on external funding sources for much of basic service provision. However, CMAM interventions have also been supported through donor funds, mainly for technical support, training and supplies during the time of crisis.

The second challenge is to move away from donor dependency and ensure government ownership. This is a difficult challenge to meet, however, when the majority of funds are channelled through direct

donor interventions or budget support lines. Countries like **Ghana** have moved towards identifying long term sources of funding. Both the MoH and the GHS recognise the need to provide free health services to pregnant women, their babies and children under five as part of the NHIS (National Health Insurance Scheme). Furthermore, the country is in the process of developing a National Nutrition Policy and there is a bill in Parliament, proposing free health care for all children under 18. Given the demonstrated success of CMAM, the SAM TC should be in a good position to advocate for increased funding for children with SAM, as well as the free provision of medication and RUTF as part of the NHIS mandate. In **Ghana**, there is a specific government budget line allocation for nutrition at the national level.

In **Malawi**, the prospect of self-funding of CMAM appears to be a concrete possibility as it is anticipated that external support will be increasingly phased out and the MoH is expected to assume full management and funding of CMAM activities.

Much of the challenge in moving way from donor dependency consists of finding alternative sources for the provision or funding of RUTF. In **Malawi**, for example, the MoH has recently started procurement of RUTF from its own budget to supplement RUTF procured by UNICEF and CHAI. Yet the **Malawi** case is more the exception than the rule. In **Mozambique** and **Kenya**, the chosen funding instrument for nutrition has been budget support, which is considered to be an instrument that allows programme ownership and implementation flexibility. In **Mozambique**, half of the MoH annual budget (USD 360 million in 2011) was covered by external funding sources. Although there is a Common Fund for the Health Sector, made up through the contribution of 16 donors, the budget line for the Nutrition Department for 2011 was only about USD 260,000. In addition, UNICEF, WHO, USAID, and WFP supported the implementation of specific nutrition activities through vertical funds. The Provincial Health Directorates are covered by the central level funds and by donors. In **Kenya**, funding levels for nutrition are also very low, as they only represent 0.5% of the total health budget. More than 75% of these funds are destined to cover human resources (salaries), leaving the rest of funds for programme activities. Additionally, IMAM programmes are predominantly funded through emergency budgets provided by both the Government of Kenya and partners.

This funding section highlights the difficulty in reconciling the high intensity and short term nature of donor responses to emergencies with the long term budget needed to make scale up sustainable in the long run. Greater government ownership remains a difficult challenge precisely because country planning and budgets remain exposed to short term donor interventions and their dependency on the provision of expensive RUTF donations. Certain approaches may contribute to breaking this cycle of donor dependency and short term programming, thereby enabling CMAM scale up. One way is to explore how governments can absorb the cost of RUTF on a longer term basis, especially where there is no prospect of production in country, e.g. developing public-private partnerships to foster local production, investment in the farmers who grow peanuts, and learning from those already manufacturing RUTF. Another suggested action involves improving the quality and availability of costing information for CMAM scale up, in order to aid governments in CMAM planning. Improved costing information in conjunction with nutrition mapping (i.e. who is doing what and where) would also help to identify and maximise the benefits of existing synergies between CMAM and other lifesaving and nutrition enhancing interventions, for example, by linking CMAM activity within the day to day work of frontline health staff working on IYCF, IMCI, HIV, TB, and EPI. It will also be important to explore what type of institutional arrangements could help CMAM gain political support to ensure long term funding. These options would include the increase of budgetary earmarks to fund nutrition strategies and building funding partnerships with donors and the private sector.

*There is also a need for external partners to better align themselves with government priorities. International NGOs should not always capitalise on emergency funding windows when longer-term funding windows may serve the same end. Donors, for their part, need to re-evaluate the appropriateness of their current funding mechanisms for long-term scale up of CMAM, a significant constraint highlighted by practitioners and recognised by donors at the CMAM Conference. A conceptual shift in how treatment of SAM is to be approached and funded is needed so that the emphasis of external agencies, whether responding to emergencies or longer-term development needs, is to build up government capacity (including funding capacity) to at least be able to treat endemic levels of SAM in non-emergency years.*

# 7 Paths for scaling up: broad lessons and ways forward

The aim of reviewing the country case studies, additional literature and capturing lessons discussed at the CMAM Conference is to identify examples of success and common challenges. Two important caveats should be stated here. Firstly, whilst best practices of scaling up CMAM can be noted, it should not be assumed that what has been done in one context or at one time in the past represents the best action for another context or time. Secondly, the aim here is not to prescribe set ways to organise CMAM scale-up, particularly in terms of how the programme is structured and managed, rather to point towards some features that need to be addressed and the local and global mechanisms that could be strengthened in order to guide and support scale-up more effectively. This section highlights the key learning points and ways forward under ten sub-headings.

## 7.1 Getting CMAM onto the national level agenda

In terms of getting CMAM onto national agendas, a key enabling factor in many countries has been the onset of major or periodic emergencies. Emergencies highlight the issue of SAM, and provide the context (availability of partners and resources and willingness to operate outside the norm) in which CMAM can be introduced and demonstrated to work at limited scale. There is a danger that CMAM introduced in this way can lead to a lack of ownership by local authorities and unsustainable models of implementation which are later difficult to

transition, however, we have good examples where this hasn't been the case.

If agencies approach CMAM with a sufficient degree of engagement and consultation, governments are able to take greater ownership of CMAM and bring in other stakeholders to support national capacity development.

Beyond the emergency, factors that can facilitate CMAM being brought onto the national agenda as a service within the routine health system are: 1) advocacy and support from a key agency at national level (particularly for the provision of supplies), 2) discussions between international or regional CMAM experts, national nutrition experts and government officials in order to help demonstrate the burden of SAM in the country, its implications, and build to understanding of the approach through debate on the technical protocols, and 3) Implementation of pilots at limited scale to visibly show the striking results that can be realised in terms of recovery and coverage and to inform the adaptation of the approach to the country context. This last factor has been a key driver in all case study countries.

National or local experiences of piloting CMAM implementation carry considerable weight when it comes to adopting the approach nationally and seem to carry more weight than global endorsements.

In most case study countries, getting CMAM onto policy agendas has been facilitated by having a central technical working group, or existing government unit with wide buy in from nutrition actors, speaking with one voice to advocate for CMAM. The level of influence of this group can be



defined by the existing position of nutrition at the national level and therefore the level at which discussions about CMAM take place.

Though being firmly rooted in the health sector facilitates the uptake of the CMAM approach by all health staff, it can also limit the uptake of critical cross-sectoral aspects, particularly for community mobilisation.

Where nutrition institutionally cuts across sectors the benefits can be twofold. Firstly it can facilitate cross-sectoral work, and secondly by having a profile and decision-making apparatus above and beyond health, there is the potential to mobilise greater political will for nutrition initiatives and as a result increase resource allocation.

Finally, a new framework for engagement between local authorities and nutrition partners, addressing the necessity for scale up and down in response to periodic emergencies, based on capacities to respond rather than SAM cut-off points, shows promise for guarding against unsustainable approaches to implementing CMAM.

## 7.2 Integrating CMAM into existing policy frameworks and national development plans

When it comes to the integration of CMAM into existing policies and plans, the need to reflect CMAM in a national overarching health policy is paramount if scale-up of the delivery of treatment through national health structures is to be properly supported and resourced. CMAM is not, and must not be presented as, nor implemented as a vertical programme but as an integral part of health and nutrition packages.

In most countries there has been no clear plan for CMAM scale-up (with geographical and coverage targets, costing, support needs, training strategy, etc.). In some respects that has been one of the features of the approach, i.e. that its uptake is organic and demand driven rather than prescribed

from above. The lack of long term funding has played a key role in limiting the ability to plan CMAM and there is the risk that without plans, demand can exceed supply, resources can be wasted and quality can be compromised.

The lack of good costing and cost effectiveness data has also impinged on countries' ability to come up with national scale-up plans, or even to integrate CMAM into existing operational plans. This gap is now being filled with an increasing number of cost effectiveness studies finding similar results and offering the potential for CMAM to be reflected in decision making tools and plans. These studies find CMAM to have a similar cost-effectiveness ratio to other priority child health interventions and to be "highly cost-effective", as defined by WHO<sup>47</sup>.

Most countries have progressed with the development of national guidelines, a process that has served as a necessary step to building consensus and national buy in for the approach, for adapting it to the country context and as a prerequisite for the reflection of CMAM in policy. Job aids, including agreed monitoring and reporting formats, supervision checklists and specific training materials are also identified as critical tools for capacity development. The development of national CMAM guidelines is an important step for building consensus and by in and for standardising the approach in the country.

## 7.3 CMAM's place within the health system and nutrition programmes

How CMAM is structured within the health system and as a component of wider nutrition programming is important. Though this integration is widely believed to be advantageous in terms of efficient use of resources and increased coverage, country experience shows that how CMAM fits within existing structures and systems must be context specific. Whether CMAM is part of IMCI, whether it is

<sup>47</sup> WHO categorises interventions as cost effective if they cost less per DALY than a country's gross domestic income per capita.

delivered at health clinic or health post level depends on the capacity of those programmes and structures. A great deal more learning is needed on a country by country basis about how to integrate CMAM into broader essential health and nutrition programmes.

The value of decentralisation of CMAM in bringing the service closer to the population is clear, yet progression to further decentralisation has to be balanced with the capacity of the health system and resources available to support lower level implementation.

Links to IYCF, GMP or child health weeks should be made, but this depends on the status and strength of those interventions in the country in question. Where complementary nutrition prevention and treatment interventions are in place, attempts can usefully be made to forge links both to widen opportunities for identification of children with SAM, to provide continuity of care and rehabilitation for children and ultimately, to forge links which address the underlying health determinants of acute malnutrition and thereby, prevent its occurrence. CMAM can help to bring these issues onto the agenda. Particularly effective links have been demonstrated between HIV/TB programming and CMAM and to a lesser extent between IYCF and CMAM.

Many countries implementing CMAM scale up also have some level of SFPs for the management of MAM in place. However, there is lack of clarity over whether direct links between SFPs and CMAM is feasible or advisable in non-emergency contexts, and if so in which contexts. MAM treatment through supplementary feeding may not be a sustainable national strategy for many governments. There is therefore a need to explore alternative means to address MAM through inter-sectoral approaches and nutrition-sensitive programming. More evidence is therefore needed on effective mechanisms (including cost) to manage MAM other than traditional SFPs.

The need for clarity of roles and functions within the health delivery system and amongst support partners is clear from the case studies. A positive complementary collaboration between development partners with clear division of roles is identified as one of the important enabling factors for the scale-up of CMAM.

The case study evidence seems to indicate that a specific government unit/group supporting CMAM is

not a prerequisite for scale-up but may add value in terms of quality assurance and standardisation. Such a group requires dedicated resources to function but can help to provide the continuity and predictability of support required for scale-up.

## 7.4 CMAM capacity strengthening

Attempts are being made to strengthen capacities for CMAM integration from health facility to district, sub-national and the national level in all countries. The key obstacle identified for scale-up is the inadequate capacity of health systems at all levels and across all elements (service delivery, workforce, health information systems, access to essential medicines, health financing and leadership and governance). Specific challenges for CMAM include numbers of staff, their competencies and motivation, and over-reliance on volunteers. Furthermore, the long term commitment required for capacity strengthening for systems and structures is widely identified as a significant challenge with short term funding modalities.

Key NGOs are increasingly being called on to be responsive to government rather than donor agendas and to focus on capacity strengthening. This requires a shift both on the part of NGOs, away from pursuing the more readily available short term emergency funding whenever it comes along, and on the part of donors, to make available more appropriate longer term funding channels for CMAM.

Experience shows that with proper planning, integration can allow more staff to be trained. Integrating trainings, i.e. CMAM with IYCF or understanding and identification of severe SAM within the full training package for community health workers is a way of managing training resources more efficiently and minimising time spent away from service. An additional common assertion is the need to focus additional training on management of CMAM (planning, logistics and supply chain management, monitoring, supervising and reporting) with district health teams.

Where high health staff turnover is an issue, the training of all staff in facilities and focus on building

capacity of the district health team has allowed sufficient capacity to be built up in order for new staff to be mentored on the CMAM protocols from within. This reduces the burden on national trainers and builds ownership at local level. Integration of CMAM into pre-service training is also held up as preferable in all cases, though progress on this has only been made in a few countries so far.

In general, a combination of classroom training by experienced trainers, followed by close practical on the job mentoring and learning visits where health workers support each other, is the most effective way to maintain the quality of training, help trainees to retain skills and minimise time out of the facility. In order to facilitate reliable and predictable CMAM capacity, there is a need to locate CMAM in a variety of pre-service training curricula at national level.

All CMAM actors should actively disseminate good practices, tools, materials, training programmes and other relevant resources directly to governments and, where feasible, governments and development partners should facilitate cross-country learning and networking.

Different countries have responded in different ways to capacity constraints. For example, by placing additional nutrition staff at district and regional levels, experimenting with mobile teams and mobilising existing support staff to be involved in the CMAM service. The most appropriate solutions will be context specific. A common conclusion is that the need for assessment of existing capacities and gaps to identify where additional resources are most urgently required would help address gaps more efficiently.

## 7.5 Strengthening the role of the community

There has been a lack of attention to the community component of CMAM which is attributed to insufficient understanding of the importance of this element of programming, lack of funds, insufficient expertise, concerns about overburdening the system and lack of leadership in that area. Who to involve in CMAM and how cannot be prescribed, although

conducting investigation of potential community agents and channels, sensitising them about the programme and eliciting their involvement in elements such as case finding are critical steps in CMAM implementation and sustainability. CMAM without a strong community base is limited in its coverage and impact, and therefore strategic advocacy for incorporation of this element of CMAM in wider policies will be required in order to reflect the comprehensive approach.

The existence of community level health workers can greatly influence the progression of CMAM by providing an instant delivery mechanism for mobilisation, screening and, in some cases, treatment for uncomplicated SAM. However they are not a prerequisite. There is experience of using volunteers and key community figures effectively for mobilisation. These modalities are not without their challenges, particularly in the area of incentives and a balance must be struck between motivation, the amount of work that is required of volunteers and the geographical areas they are expected to cover.

The implications of not focusing on the community mobilisation component of the CMAM approach (community sensitisation, screening, referral and follow-up mechanisms) have been experienced in a majority of the case study countries and reflected in poor coverage. However, increasingly and with the help of coverage assessments to identify the problem and the barriers to access, this lesson is being learned. The importance of routinely implementing coverage assessments and of building national capacity to do so is consequently also emphasised. The community-level component of CMAM can be sustained by governments through existing large-scale programmes with a community element, e.g. PHC services. A national community mobilisation strategy, cutting across sectors, would support scale-up of CMAM, other nutrition programmes and other basic services.

## 7.6 Supervision, monitoring and coverage

With the exception of coverage, most country programmes are reaching internationally-agreed programme performance targets. Supervision and

monitoring for CMAM is a common challenge for the majority of countries. However, some positive experiences have been joint supervision with support partners, third party monitoring and triangulation of information through community level informants. Simplification of monitoring formats (currently often overcomplicated and rarely analysed or acted upon) and clear systems for analyses, action and feedback are required. These issues and the timeliness of reporting may be partly addressed by methods currently being piloted using rapid SMS technology. Once monitoring has been simplified it may be possible to include some aspects at least into national HMIS systems. This process has begun in a minority of countries.

For monitoring the performance of CMAM in any context, Sphere indicators are still the main markers used (at least for recovery, default, death and coverage). There have been questions raised as to their appropriateness in the non-emergency context. However, well run national programmes are achieving results within these standards, at least for recovery, default and death. This is not the case for coverage, however and as new assessment methods become increasingly applied to assess coverage at national level, we are gaining information about the kind of coverage that is possible over time.

The HMIS is critical in the flow of management information through all levels. CMAM needs to be incorporated but, until then, governments and partners may need to run parallel information systems or include a simple set of indicators in the existing system.

Impressive scale-up has been achieved in a number of countries, at its most successful reaching implementation in up to 70-90% of health facilities. Where CMAM is perhaps set apart from other interventions is that, embedded in the approach, is the fact that unless there is quality implementation, including the community component, true coverage<sup>48</sup> is not achievable. The challenge for countries therefore has been to reconcile the push for geographical coverage with that of achieving 'true' coverage of the population in need. This has proven to be more achievable using a phased approach, with expansion based on demonstrated quality of service and availability of resources (human and material).

Measures to assess and act upon poor coverage have then been added so that, within areas where the

service is up and running, coverage of the population in need can be gradually increased. This approach has in some cases been undermined by agencies trying to implement too much too soon, rushing to increase geographical coverage, or to programme supplies without checks for quality or building of sufficient local capacities. The results are compromised service quality and poor coverage, undermining the critical effectiveness of the programme and the motivation of communities. This challenge has been partly attributed to short term funding and has been identified frequently throughout this synthesis.

The drive to achieve geographical/facility coverage is common to the scale-up of all interventions but it must be balanced with the maintenance of programme quality, including coverage of all those in need.

## 7.7 CMAM and the provision of RUTF

Given the finances required to provide sufficient RUTF to cure a child of SAM (approximately \$50-60) it is clear that major RUTF benefactors are required to get CMAM off the ground. Emergency resources have provided these funds in many cases and, in other contexts, external agencies are covering the costs.

Pipeline breaks are common. A minority of these are attributed to shortage in global supplies and issues of customs clearance. However the majority are a result of insufficient buffer stocks and poor forecasting related to late reporting, late communication of requests, and insufficient planning to take account of increases in caseload due to expansion, intensification of mobilisation activities or the use of RUTF for other target groups e.g. children with MAM.

These issues are reported even in instances where parallel delivery systems supported by UN agencies and NGOs are being implemented. The registering of RUTF as an essential supply/commodity has

<sup>48</sup> True coverage, meaning the percentage of children suffering from SAM who are actually being reached by treatment (only measurable by survey/assessment).



facilitated easier integration into the national supply chain in some countries. However it is clear that considerable supply chain support is needed if supplies are to be delivered through government mechanisms.

Forecasting mistakes have been made as a result of using calculations based on population, SAM prevalence and estimated coverage, all of which are fraught with inaccuracies. Forecasting of district/sub-national/national requirement based on consumption makes more sense but improvements to the accuracy and timeliness of reporting are required for this to be reliable. Extrapolation is also required where reports are missing, or to take account of expansion plans and any predicted surges in prevalence. The inclusion of stock reporting into CMAM admissions reports, designated minimum stock levels defined on a facility basis, and the use of rapid SMS for RUTF stock reporting and requests have produced positive results.

By producing RUTF closer to home, the transit times for receiving RUTF are dramatically cut, thus alleviating some of the pressure on accurate forecasting. Additional benefits of local production are the potential for cost reductions (mostly due to decrease in transport costs), and most importantly the support for local industry and farmers.

Another key consideration is the patent held by Nutriset/IRD<sup>49</sup> for the production of RUTF (and related products) in many countries. A patent user agreement with Nutriset/IRD<sup>50</sup> must be established for production in those countries where the Nutriset/IRD has registered a common patent agreement<sup>51</sup>. A patent user agreement allows a company or an organisation (meeting specified criteria) to manufacture, market and distribute products covered by Nutriset/IRD patents in territories where a common patent has been registered. Patents are registered in Niger and Mozambique but are not covered by the patent user agreement as Nutriset/IRD previously granted exclusively licence agreements. There are no restrictions in countries where Nutriset/IRD have not registered patents. Though this agreement provides access to technical support to the producer to set up production and quality control mechanisms, it is an additional hurdle in establishing local production, with restrictions in countries where an exclusive patent exists. There is also a 'price': in return for this Agreement, the IRD invites the beneficiaries to make a 1% contribution of the turnover earned by the sale of the products

covered by the Usage Agreement, in order to support and fund IRD's research and development actions.

In many countries, local production of RUTF is believed to be the most appropriate complement, if not replacement, to global supplies. In addition to the patent, two main limiting factors restricting the setting up of local production have been the sourcing and cost of ingredients (particularly sourcing of quality peanuts and the costs of milk powder) and the quality control measures required to ensure an absolutely safe product is supplied.

An accreditation process developed by UNICEF in collaboration with MSF and CHAI to ensure quality of the product has particularly stringent criteria for aflatoxin, commonly found in peanuts. Though this criterion has delayed accreditation of production in some cases and added to lead times, it is clear that a balance must be struck between the desire for local production and the need for a safe quality product.

Governments need to develop a clear policy on local production of RUTF which can lead to new partnerships, tax-dispensations and other cost-reducing measures.

The quest for quality peanuts has led some local producers to form closer public private partnerships with NGOs and farmers in order to improve farming and storage practices, and guarantee markets for product. These initiatives which depend on producers being able to buy peanuts in bulk at certain times of the year require capital, and therefore finding investors, is a current challenge for local producers.

The evolution of the CMAM approach has been evidence based, whereby protocols are tested operationally at limited scale, with rigorous monitoring in place to assess effectiveness. This strong background to the approach and a culture of transparently disseminating results both internationally and through national learning forums is reported to be a key enabling factor and has

<sup>49</sup> IRD is a French not for profit public research institute that developed Plumpy'nut with Nutriset

<sup>50</sup> <http://www.nutriset.fr/en/access/patents-for-development/online-patent-usage-agreement.html>

<sup>51</sup> Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, Kenya, Lesotho, Malawi, Mali, Mauritania, Uganda, Central African Republic, Republic of the Congo (Brazzaville), Senegal, Sierra Leone, Sudan, Swaziland, Tanzania, Chad, Togo and Zimbabwe. (as of Jan 2012).

undoubtedly contributed to its success. Continuation of this culture, reaching into the development of new coverage assessment methodologies, testing of new RUTF formulations, operational piloting of innovative methods to strengthen referrals, monitoring and supervision or for testing new modalities for the management of MAM, is important if the integrity of the approach is to be maintained.

## 7.8 Generating sustained political commitment around CMAM

As with all forms of undernutrition, the effective implementation and scaling up of CMAM requires decisive and continuous government commitment. The presence of emergencies creates a strong but short lived impact to boost CMAM, even when countries lack the capacity to intervene themselves. In the long run, however, political commitment is key to ensure programme coordination between government and donor agencies, to guarantee effective implementation and coordination across all government tiers and to devise and sustain transparent and effective funding schemes. The executive can play a critical role in embedding local level CMAM within national poverty reduction and development goals.

Political leadership and government coordination is decisive in ensuring the long-term success of CMAM scale up. The executive can play a strategic role in enhancing the importance of CMAM in the national development agenda, in strengthening the mandate of the MoH and in ensuring the continued and coordinated financing of such programmes from government or donor contributions. The reported evidence from this synthesis suggests that the executive has played a key role in placing nutrition high onto the national agenda of case study countries but this did not always include the treatment of SAM.

Longer term development programming requires CMAM to be approached as part of a wider government nutrition strategy involving broader

coordination across different government sectors (health, nutrition, education, social development, agriculture), with donors, local level actors and service providers to tackle the basic and underlying causes of all forms of undernutrition, including SAM. The executive has a pivotal role in facilitating inter-sectoral coordination within government and with external stakeholders and improving the sustainability and quality of CMAM programming. The case studies illustrated three different groups depending on the degree of executive intervention around CMAM: one in which there was direct executive involvement to make CMAM part of the national agenda, one in which CMAM efforts were contained and supported at the MoH level, and one in which CMAM was mainly driven by external agencies with little or inconsistent government involvement.

Where CMAM programming is isolated and absent from national level priorities or governments lack the capacity to be more directly involved with the efforts of external agencies implementing CMAM, there is a strong likelihood that programming will remain dependent on the (uncertain) availability of emergency funding, which will in turn undermine long term planning and prospects of CMAM scale up. In situations where government priorities are not set out, international actors need to facilitate the articulation of government priorities/strategies and then align with these. Donors also need to increase efforts that bring about alignment of international actors (UN) with government strategies.

## 7.9 Effective decentralisation of CMAM

The effective decentralisation and implementation of CMAM at the local level is another key factor for successful scale up. Whilst it is important that the executive remains involved in national level programming, it is also critical that the government strengthens the potential for programme ownership at the district level. The extent to which CMAM can be effectively implemented at the district level depends, among other things, on the governments existing degree of decentralisation, availability of expertise and human capacity at lower tiers of government and the availability of good quality data

to identify target populations, risk areas and progress indicators. Leadership and authority for CMAM scale-up must be decentralised to the district level along with the necessary resources in support of decentralised plans.

CMAM implementation is especially enhanced when the MoH has an effective presence throughout all government levels or is already delivering other types of programmes through a decentralised structure. The review of country case studies highlighted that there are multiple drivers that can facilitate, and in some cases make up for the lack of decentralisation structures, e.g. effective training and supervision, adoption of a health workers performance, remuneration and career promotion schemes and reliable reporting, etc.

As has been illustrated by studies on chronic malnutrition, a greater involvement of concerned and committed government officials and local elites can produce a more inclusive selection of beneficiaries, a more transparent use of resources, and greater community involvement. Local elites are in a privileged position to shape decision making at the local level and influence policy making at the national level. Finally, effective CMAM implementation and scale up is likely to emerge where there is increased local ownership.

## 7.10 Financing CMAM

The provision of a continuous and predictable funding stream is a key requisite for ensuring sustained CMAM scale-up. Ensuring a continuous and transparent flow of funds for CMAM scale-up poses two challenges for implementing countries. The first is to shift away from short term emergency funding and the second is to move away from donor dependency in a way that governments are directly in charge of the allocation and management of CMAM funds.

Overcoming the first financial challenge requires long term development funded programmes rather than short term emergency funding windows. Donor support is currently important both for the provision of SAM treatment supplies, as well as the funding of related activities such as distribution of supplies and capacity strengthening. Whilst some donors are

beginning to make available longer term funding arrangements for CMAM as part of a wider nutrition package, these mechanisms are currently only offered to UN agencies and international NGOs.

In order to promote consensus around a long term donor funding strategy, governments and donors would need to develop accurate funding estimates of CMAM interventions and expected outcomes. To date, there are few country specific cost benefit analyses of CMAM, and donors and partner agencies keep separate estimates for the funding of SAM treatments, nutrition therapeutic supplies, as well as additional support activities, supplies, distribution and capacity strengthening. Governments and donors will also need to agree scale up targets and the financial implications of such targets, the percentage of resources that can be provided by governments in the short term, and a progressive and realistic funding strategy by government that would see them taking increasing financial and accounting responsibility for funding the programme.

At present, governments and their partners develop short term proposals to get specific funding from donors for CMAM scale up. There is a need to convince donors that support for RUTF provision should become part of DRR and that efforts should be made to improve sustainability of RUTF provision, as well as enable better planning and integration of CMAM into health and other sectors. There is also a need for external partners to better align themselves with government priorities. International NGOs should not always capitalise on emergency funding windows when longer-term funding windows may serve the same end. Donors, for their part, need to re-evaluate the appropriateness of their current funding mechanisms for long-term scale up of CMAM. A conceptual shift in how treatment of SAM is to be approached and funded is needed so that the emphasis of external agencies, whether responding to emergencies or longer-term development needs, is to strengthen government capacity (including funding capacity) to at least be able to treat endemic levels of SAM in non-emergency years.

Governments need to present clear costing of CMAM, demonstrate progressive financial commitment (for e.g. through earmarked government funds), and identify the elements of CMAM support that need further resources. In the event of emergencies, governments should be

prepared with clear, costed plans for surge scale-up to meet increased demand. This can help to limit the loss of government ownership frequently seen in emergencies. Furthermore, donors and other cooperating partners (e.g. UN agencies and international NGOs) need to better align their funding and implementation policies and strategies for CMAM with longer-term government nutrition and CMAM policies.

Overcoming the second challenge for scale-up requires moving away from donor dependency and incorporating funds into government budgets. The most expensive funding line is the provision of RUTF, a key component of CMAM treatment. Much of the challenge to enhance government ownership is to find alternative means for the production and funding of RUTF. In only one case study has the MoH started procurement of RUTF from its own budget to supplement external procurement. In other cases, greater government ownership has been sought through health budget. However, health budgets remain a small share of the governments' overall budget, and most of these funds are destined to cover human resources (salaries).

The case studies illustrate the dramatic lack of consistent and comparable costing data across the board. At the macro level, it is difficult to gauge the magnitude of the required investment to significantly reduce SAM and MAM in a given period of time. Similarly, there are no comparable figures about CMAM coverage or rate of CMAM expansion per country. This lack of data is especially problematic to identify the size of scale up challenges and the strategy to overcome these.

Improving the quality and availability of costing information for CMAM scale up is a key prerequisite to help improve governments' ability to manage CMAM funding. Improved costing information would also help to identify and maximize the benefits of existing synergies between CMAM and other lifesaving and nutrition enhancing interventions, for example, by linking CMAM activity within the day to day work of frontline health staff working on IYCF, IMCI, HIV, TB, and ENI. Furthermore, in order to avoid the tendency to cost out CMAM activities as vertical programme components, costing exercises need to consider where CMAM can be 'piggy-backed' onto other critical cost effective child survival strategies to increase sustainability.

Though SAM is now recognised almost universally as a major cause of childhood mortality, CMAM does not appear at the top of all global nutrition scale-up agendas. The main reason given is the fragility of many health systems to take on a new service, yet this reason is questionable if a comprehensive approach to supporting countries for nutrition is being adopted. As the Lancet Maternal and Child Undernutrition series asserts *"the debate.....is moving toward a more rational approach that recognises the need to scale-up high impact interventions and strengthen the health system simultaneously"*. (Bryce et al, 2008).

Despite this continued debate, the evidence in this synthesis paper is clear. Countries themselves are taking a measured approach. Even without long term financial backing or guaranteed support, governments, motivated by the burden of SAM and the visibly positive results, are scaling up CMAM. The challenges that arise are multiple, particularly when it comes to financing and building national capacities. However, there are successes and there are extremely encouraging examples of creative and innovative approaches to addressing some of these challenges. The challenges have not prevented the agenda for CMAM moving forward at national level. However, these country experiences raise a number of questions to those setting and resourcing global agendas and plans in relation to longer-term intentions, funding modalities and support for governments to become less dependent on external donors and RUTF donations.



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Sierra Leone

## Annex 1: Additional countries: overview of CMAM

### Afghanistan

Given a 9% GAM prevalence rate, Afghanistan has been implementing CMAM since 2008 in 15 out of 34 provinces, with OTP running in 339 sites. Currently the cure rate (82%) and death rate (0.5%) are in line with Sphere standards. The defaulter rate (17.4%) is higher and is mainly due to southern conflict affected regions. CMAM has strong commitment from the central and regional level and the nutrition cluster is helping to coordinate a number of key stakeholders. In addition, the programme structure enables CMAM to provide an entry point for many nutrition and related programmes e.g. nutrition surveillance linkages, dissemination of messages on WASH, cholera, vegetable gardening to improve families fresh produce availability and integration of IYCF, micronutrient supplementation for pregnant and lactating mothers. The key challenges to scale up include financial resource limitations. Afghanistan is dependent on short-term funding mechanisms which make longer-term planning difficult. There is limited capacity to supervise and monitor the programme, which is further limited in areas with high levels of insecurity. Currently CMAM is a mechanism to respond to high levels of GAM but a functioning surveillance system is needed to give early warning of impending increases in SAM. Efforts are underway to include nutrition surveillance within the disease early warning system to monitor the situation.

### Bangladesh

SAM affects 3% of under-fives, equating to 500,000 children at any one point in time in need of urgent treatment. It is thought that poor IYCF practices are a major underlying causal factor. Bangladesh is currently implementing a community-based nutrition programme (National Nutrition Service) covering the period July 2011 to June 2016. Under

this plan, CMAM will be piloted and then expanded based on evaluation findings. A major challenge in Bangladesh with respect to CMAM is the widespread opposition to RUTF. Advocacy on the need to manage SAM at community level utilising RUTF is a priority.

### Cambodia

SAM affects 2.5% of the under-fives (MAM 11%) in Cambodia and a programme to address this is at a pilot stage. Before piloting CMAM, Cambodia developed CMAM guidelines but the process took 14 months to finalise and the current guidelines omit the important community element. Large-scale screening was also undertaken but the lack of a protocol for screening meant that too many cases arrived at health centres and the health staff were unable to deal with the heavy caseload. It was therefore agreed that a limited number of cases should be referred each day from screening, until such time as the health system is able to cope and the community element is in place.

### Liberia

Prevalence of SAM is low (0.2%) and MAM prevalence is 6.9%. In Liberia, though CMAM has been implemented on a small scale since 2008 entirely by NGO partners until 2009, when the government decided to assess the programme impact and produce the first national guidelines on the management of SAM. In 2011, the Government took greater ownership of the programme and integrated CMAM into the Nutrition Division programme 'package' covering 4 out of 15 counties with 12 SCs and 28 OTPs. Challenges in Liberia include a lack of government capacity (logistics, human resource, materials) and the need to further integrate into health facilities and into IMCI.



## Nepal

With a GAM prevalence of 11% and food insecurity affecting 45 out of 75 districts, Nepal started to look at CMAM in 2007/08, undertaking feasibility studies and piloting in two districts in 2009/10. Evaluation is on-going but with low default rates (9%) and death rates (0.7%) the pilots have been positive. Early on in the pilots, the government brought CMAM into health centres and conducted orientation, which created a feeling of local ownership. Whilst RUTF comes from UNICEF, all other costs are covered by the government. The implementation of CMAM was found to provide an opportunity to build the capacity of health workers and community health workers (CHWs) (highly committed volunteers). The challenges in Nepal include lack of availability of resources for sustained financing, how best to address the case load of acute moderate malnutrition and integration with IYCF, WASH, safe motherhood, IMCI, etc.

## Nigeria

Prevalence of GAM in Nigeria is 14%, though there are marked geographical disparities (8.6% in the south compared to 22% in the north). Most activities are focused in the north, bordering Sahel regions. CMAM started in 2009 in 10 out of 776 local government areas, reaching 5000 children (just 1% of local government areas). In 2010, Nigeria scaled up to 168 local governments (still just 21%) reaching 40,000 children and, in 2011, to 208 local governments (still only covering 27% of total local government areas). Inpatient treatment is provided in 132 sites in 32 states and from January to October 2011, 97,000 children were reached. Discussions are underway with local industry for production of RUTF. Because of the size of the country and the number of children that need to be reached, resources are a major problem. Initially partners were working independently of government but this has since stopped, following the joint development of MOH-approved guidelines and training manuals by the government and partners already on the ground. Efforts are underway to prevent relapse by linking CMAM with IYCF programming through a training programme.

## Sudan

In 2010, prevalence of SAM was reported at 5.1% (GAM 16.4%). CMAM programming started in Darfur in 2003, largely run by NGOs but adopted by the MoH in 2009. CMAM is now implemented in seven out of 15 states and integrated into the health system and primary healthcare services. A plan for CMAM has been developed and incorporated in the National Nutrition Plan to achieve the MDGs, a CMAM database developed and incorporated in NNP database. There is a MOH-led CMAM technical working group and a technical working group comprising senior paediatricians and technical bodies from NGOs, as well as a Steering Committee at a higher level. An academic forum has been formed to develop pre-service training in universities and an annual training is given for service providers. Some of the challenges experienced thus far include low coverage (30% in one state), high default rates and long lengths of inpatient stay (due to infection). In 2011, Nutriset started by selecting a factory with the MoH and began to train staff on production, logistics and quality assurance. The first production of RUTF is expected in January 2012.

## Tanzania

CMAM was first introduced in 2006, originally targeted to HIV affected children but then broadened to all cases of SAM. Roll out has been unsystematic due to a lack of resources. This has largely involved OTP. The community-based component is not well emphasised. There is local production for RUTF but it is more expensive than imported RUTF.

## Uganda

With 2.4% SAM prevalence, CMAM first started in response to an emergency in northern Uganda, and was implemented in an ad hoc manner. Following

training in Malawi, Uganda moved towards a development approach focusing initially on the northern part of the country and then the rest of the country. RUTF is being used for the treatment of SAM and MAM cases with HIV, irrespective of age. This has improved treatment adherence. CMAM is now embedded in National Development Plan and the National Action Plan for Nutrition. Although RUTF is currently supplied by UNICEF, the government is looking at local manufacture and alternative suppliers, e.g. India.

## Zambia

With acute malnutrition prevalence at 5%, Zambia typically has low levels of SAM. Currently only four provinces are implementing CMAM where there is high HIV prevalence (RUTF was originally only given as part of HIV care). The main target is children under five years but piloting among adults is underway in two provinces. There is a shortage of RUTF and the insufficient resources for capacity development combine to limit scale up. In addition, monitoring and evaluation is problematic, with NGO implemented CMAM providing comprehensive indicators whereas government run sites are not capturing key indicators well. Zambia is looking to include supplies (including RUTF) for CMAM in the national government budget from the Ministry of Finance and National Planning (and to integrate CMAM into IYCF and other components). Scale-up plans have been compiled for 2012.

## Zimbabwe

With 0.6% SAM prevalence, Zimbabwe has been implementing CMAM since 2005. Starting with eight pilot districts (each of which had one OTP and one SC), it has since expanded to 27 health facilities in 2007, 101 in 2008, 620 in 2010 and 771 facilities in 2011. Zimbabwe aims to have reached 1192 facilities by end of 2011 and to make management of acute malnutrition part of standard treatment in all facilities in the country. A total of 17,769 people (adults, adolescents and children) were treated from

January to August 2011 and 10,000 children <5 years. Half of those treated (50%) were found to be HIV positive. Every child who is admitted is tested for HIV. The CMAM programme is not currently performing well with a cure rate of 54%, death rate 5% and default 25%. Some of the challenges include funding going directly to NGOs from UNICEF rather than via the government, and creating parallel programming with health workers not really 'owning' the programme, which results in programmes collapsing when NGOs withdraw. Reporting is also not done particularly well (reports go directly to UNICEF/NGOs but not to government). A lack of resources to expand, and high staff rotation/attrition create problems.

Source: Stéphane Doyon, Nutrition - Access Campaign, MSF









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