

Field Exchange

Emergency Nutrition Network



Special focus on government experiences of CMAM scale up

Contents

Field Articles

- 15 CMAM rollout in Ethiopia: the 'way in' to scale up nutrition
- 21 Effectiveness of public health systems to support national roll-out strategies in Ghana
- 27 Integrated Management of Acute Malnutrition (IMAM) scale up: Lessons from Somalia operations
- 39 Capacity development of the national health system for CMAM scale up in Sierra Leone
- 45 Community management of acute malnutrition in Mozambique
- 51 Management of acute malnutrition in Niger: a countrywide programme/*Prise en charge de la malnutrition aiguë au Niger: Un programme national*
- 67 Scaling up CMAM in the wake of 2010 floods in Pakistan
- 74 Creating an enabling policy environment for effective CMAM implementation in Malawi
- 78 Integrated management of acute malnutrition in Kenya including urban settings
- 85 Managing severe acute malnutrition in India: prospects and challenges
- 88 *Postscript* CMAM in India: What happened next?
- 90 From Pilot to Scale-Up: The CMAM Experience in Nigeria
- 95 Frontline experiences of Community Infant and Young Child Feeding in Zimbabwe
- 97 *Postscript* cIYCF in Zimbabwe

Research

- 36 Linear programming to design low cost, local RUTF
- 9 UNICEF Global reporting update: SAM treatment in UNICEF supported countries

News

- 58 Framework for integration of management of SAM into national health systems
- 62 Integration of the management of severe acute malnutrition in health systems: ACF Guidance
- 63 En-net update, March-May 2012
- 63 MAMI-2 research prioritization - call for collaborators
- 64 Conference on Government experiences of CMAM scale-up: meeting report
- 64 Nutrition Exchange 2012 (formerly Field Exchange Digest) now available
- 65 CMAM Forum Update
- 65 FANTA-2 reviews of national experiences of CMAM
- 65 A standard for standards in humanitarian response
- 65 What do you think of Field Exchange?
- 66 Update on Minimum Reporting Package (MRP) trainings in London and Nairobi

Evaluation

- 83 Management of acute malnutrition programme review and evaluation

Professional Profile

- 98 Dr Nadera Hayat Burhani

From the Editor

Aim and structure of this special issue

This Field Exchange special issue on 'Lessons for the scale up of Community-based Management of Acute Malnutrition (CMAM)' mainly aims to provide some insights on scaling up CMAM from a government perspective. A large part of this edition is therefore taken up with the proceedings of an international conference on government experiences of CMAM scale up held in Addis Ababa, 14-17 November, 2011. A collaborative initiative between the Government of Ethiopia and the ENN, participation was heavily biased towards senior government representatives from 22 African and Asian countries. There were however, some representatives from United Nations (UN) agencies, non-governmental organisations (NGOs), academia, bilateral donors, foundations and individual experts. Nine government-led country case studies (Ethiopia, Pakistan, Niger, Somalia, Kenya, Ghana, Sierra Leone, Malawi, and Mozambique) were presented at the conference. These take the form of nine field articles at the core of this issue, with a tenth article on experiences from India that includes a postscript of developments post conference. The Addis conference contributions are complemented by two more field articles from Nigeria and Zimbabwe and a selection of research, evaluation and news that all speak to the CMAM scale up theme.



Rabia, seven months, with her mother at an OTP

Lucia Zoro, Northern Nigeria, 2011

Éditorial

Objectif et structure de cette édition spéciale

Cette édition spéciale de Field Exchange consacrée aux « Leçons pour le déploiement de la prise en charge communautaire de la malnutrition aiguë (PCMA) » vise principalement à fournir des éclairages sur le déploiement de la PCMA d'un point de vue gouvernemental. Une grande partie de ce numéro porte en conséquence sur le déroulement de la conférence internationale sur les expériences gouvernementales en matière de déploiement de la PCMA qui s'est tenue à Addis-Abeba du 14 au 17 novembre 2011. La conférence était issue d'une collaboration entre le Gouvernement de l'Éthiopie et l'ENN et la majorité des acteurs présents étaient des représentants gouvernementaux de haut rang venus de 22 pays africains et asiatiques. Étaient également présents des représentants des Nations Unies (ONU) et d'agences non-gouvernementales (ONG), des personnalités des milieux universitaires, des bailleurs de fonds bilatéraux, des fondations et des experts individuels. Neuf études de cas sur des pays et menées par des gouvernements (l'Éthiopie, le Pakistan, le Niger, la Somalie, le Kenya, le Ghana, la Sierra Leone, le Malawi et le Mozambique) ont été présentées lors de la conférence. Ces études de cas par pays sont présentées sous la forme de neuf articles de terrain qui sont au cœur de ce numéro, un dixième article relatant les expériences obtenues en Inde, y compris une note sur les développements survenus après la conférence. Dans ce numéro, les contributions issues de la conférence d'Addis sont accompagnées de deux articles provenant du Nigéria et du Zimbabwe, ainsi que d'un choix de recherches, d'évaluations et de nouvelles qui traitent toutes du déploiement de la PCMA.

L'objectif global de la conférence d'Addis Abeba était d'identifier des exemples de déploiement fructueux d'initiatives de PCMA ainsi que des défis communs dans le domaine. Deux mises en garde importantes doivent être mentionnées ici. Tout d'abord, le fait que des pratiques de déploiement PCMA réussies aient été relevées ne signifie pas nécessairement que ce qui a été fait dans un contexte ou à un moment donné dans le passé représente le meilleur procédé à appliquer dans un autre contexte ou à un autre moment. Deuxièmement, le but n'était pas de prescrire des moyens tout faits pour organiser le déploiement de la PCMA, notamment en termes de structure et de gestion du programme. Le but était plutôt d'attirer l'attention sur quelques caractéristiques qui doivent être abordées et les mécanismes locaux et mondiaux qui pourraient être renforcés afin de guider et de soutenir le déploiement de manière plus efficace.

The overall aim of the Addis Ababa conference was to identify examples of CMAM scale up success and common challenges. Two important caveats should be stated here. Firstly, whilst successful practices in scaling up CMAM were 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 was not to prescribe set ways to organise CMAM scale-up, particularly in terms of how the programme is structured and managed. Rather, the aim was 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.

To help distil lessons for CMAM scale up, a synthesis of lessons learned from government CMAM scale up was produced by the ENN¹. This extended editorial summarises the synthesis findings and identifies the key learning points and ways forward that emerged from the case studies and conference proceedings. These are presented under ten emerging themes, illustrated with country-specific examples that are detailed in the field articles included in this edition. The Addis Ababa conference was a unique experience for the ENN, and we hope you will get a taster of the rich experience and discourse in this special edition.

Before we embark on the synthesis summary, the ENN editorial team want to give a sense of current thinking around CMAM scale up within the ENN and also 'flag' a few issues that continue to be vigorously debated within the ENN. First off, who would have thought that small pilot programmes in Ethiopia and northern Sudan between 2000 and 2001 that used Ready to Use Therapeutic Food (RUTF) to treat SAM in the community would, less than 12 years later, be replicated globally in at least 60 plus countries at scale? The latest CMAM mapping by UNICEF (see research section) indicates that since 2009, there has been an almost 100% increase in

the number of children under five years treated as part of CMAM programming. The figure is very close to 2 million. The speed and scope of scaling up CMAM is quite breathtaking and unprecedented in terms of the scaling up of other nutrition interventions. However, and without wishing to be overly cautious or even to sound negative, there are major challenges that need to be tackled in order to take this promising approach to a level whereby the majority of children that develop severe acute malnutrition (SAM) will have access to appropriate care administered through government run health systems in the long term. Actions to help plan integration into national health systems are reflected in two news pieces: a framework on integration of SAM management being piloted by UNICEF EASRO, and a guidance written by Action Contre la Faim on the same topic.

It is sobering to consider that the figure of 2 million SAM cases treated probably represents less than 10% of the global SAM case load. This partly reflects the fact that countries such as India with the most significant case-loads are only at the beginning of scale up. It also undoubtedly reflects the fact that scaling up is difficult on many levels. It is probably true to say that the majority of the 2 million SAM children admitted to CMAM in 2011 were 'easier to reach' children. It may therefore get harder and harder to increase coverage as scale up continues.

Interestingly the global mapping does not capture what is happening with moderate acute malnutrition (MAM) for which the case load could be as much as ten times higher than that of SAM. An explicit focus on the SAM only aspect of CMAM seems to increasingly be a feature of scale up efforts; both the UNICEF and ACF initiatives described in this issue of Field Exchange focus on SAM management, a position reflected in the 2007 WHO/UNICEF/UNSCN/WFP Joint Statement that addresses the community based management of SAM only. Yet for others it seems MAM does fall within the scope of CMAM – the original CTC model stipulated the

inclusion of SFPs within CMAM programming² and current CMAM working definitions from FANTA2 and the CMAM Forum specifically include MAM children within their scope. Indeed at ENN we may well be guilty of this increasing 'blind spot' when it comes to MAM, opting to focus most of our attentions on SAM management in CMAM at the Addis conference. Part of our rationale for this at the Addis conference was the lack of a clear framework for treatment and prevention of MAM and absence of leadership around the inclusion of MAM treatment in the context of CMAM; we did not want any ensuing debate to overshadow the lesson capture at the heart of the conference. MAM management certainly featured in some of the nine case study countries but not consistently so, and there were many related questions emerging (with few answers). Furthermore, where MAM does feature in programming, the emphasis seems to be on food/specialised product interventions with little programming around non-food MAM interventions. So one of ENNs (many) lessons from the conference experience is we need to talk about MAM. To this end, we encourage you to submit experiences, research and challenges to Field Exchange on this topic, and especially welcome those that describe non-food MAM interventions.

Financing challenges around long-term CMAM programming featured heavily in the government experiences shared in Addis. Three key financing issues that emerged and need urgent attention are: how to move from humanitarian funding to longer-term funding where CMAM is scaled up on the back of an emergency, whether scaled up CMAM programming is sustainable on

¹ Government experiences of scale-up of Community-based Management of Acute Malnutrition (CMAM). A synthesis of lessons. ENN, January 2012. Download from www.ennonline.net

² Khara, T., Collins, S. (2004). Community-therapeutic care (CTC). Emergency Nutrition Network 2004; (special supplement 2): 1-55.

Pour aider à tirer des enseignements du déploiement de la PCMA, l'ENN a produit une synthèse des apprentissages tirés du déploiement de la PCMA par le gouvernement¹. Cet éditorial élargi synthétise les résultats et identifie les points clés de l'apprentissage et les pistes à suivre qui ont émergé des études de cas et du déroulement de la conférence. Ceux-ci sont présentés dans le cadre de dix nouveaux thèmes illustrés par des exemples spécifiques à chaque pays, détaillés dans les articles de terrain figurant dans cette édition. La conférence d'Addis-Abeba a été une expérience unique pour l'ENN, et nous espérons que cette édition spéciale vous donnera un avant-goût des discours et de l'expérience enrichissante qui l'ont caractérisée.

Avant de se lancer dans une synthèse résumée, l'équipe rédactionnelle de l'ENN souhaiterait esquisser une ébauche de réflexions actuelles entourant le déploiement de la PCMA et signaler quelques questions toujours vivement débattues au sein de l'ENN. Tout d'abord, qui aurait pensé que les programmes pilotes mis en œuvre à petite échelle en Ethiopie et au nord du Soudan entre 2000 et 2001 utilisant d'aliments thérapeutiques prêts à l'emploi (ATPE) pour traiter la MAS au sein de la communauté seraient, moins de 12 ans plus tard, repris au niveau mondial à grande échelle dans pas moins de 60 pays ? La dernière cartographie de la PCMA réalisée par l'UNICEF (voir la section consacrée à la recherche) indique une augmentation de presque 100 % du nombre d'enfants de moins de cinq ans traités dans le cadre de programmes PCMA depuis 2009. On approche des 2 millions. La vitesse et la portée du déploiement de la PCMA sont vraiment à couper le souffle et sans précédent comparées au déploiement d'autres interventions nutritionnelles. Toutefois, sans faire d'excès de prudence et surtout sans sombrer dans le défaitisme, n'oublions pas que des défis majeurs doivent être affrontés si l'on souhaite que cette approche prometteuse soit amenée à un niveau suffisant pour que la majorité des enfants qui développent la malnutrition aiguë sévère (MAS) aient accès à des soins appropriés à long terme administrés par les systèmes de santé gouvernementaux. Les mesures visant à aider l'intégration au sein des systèmes de santé nationaux sont reflétées dans deux articles : un

article-cadre sur l'intégration de la prise en charge de la MAS piloté par UNICEF EASRO et des lignes directrices rédigées par Action Contre la Faim sur le même sujet.

Il est triste de réaliser que le chiffre de 2 millions de cas de MAS traités représente probablement moins de 10 % de la charge mondiale des cas. Cela démontre en partie que des pays comme l'Inde accusant les nombres de cas les plus élevés n'en sont qu'aux débuts du déploiement. Cela prouve également sans aucun doute que le déploiement est difficile à divers niveaux. Il n'est probablement pas faux d'avancer que la majorité des 2 millions d'enfants admis pour MAS au sein de la PCMA en 2011 étaient les enfants les « plus faciles à atteindre ». Il peut donc devenir plus difficile d'augmenter la couverture au fur et à mesure que le déploiement se poursuit.

Il est intéressant de constater que la cartographie mondiale ne tient pas compte de la malnutrition aiguë modérée (MAM), pour laquelle pourtant la charge de travail pourrait être jusqu'à dix fois supérieure à celle de la MAS. De plus en plus, l'effort de déploiement semble mettre l'accent de façon explicite sur l'aspect MAS de la PCMA uniquement ; les initiatives de l'UNICEF aussi bien que de l'ACF décrites dans ce numéro de Field Exchange se concentrent sur la prise en charge de la MAS, une position reflétée dans la déclaration conjointe OMS/UNICEF/UNSCN/PAM de 2007 qui traite de la prise en charge communautaire de la MAS uniquement. Or, certains semblent considérer que la MAM entre dans le champ d'application de la PCMA - le modèle STC original prévoyait l'inclusion des PNS² au sein des programmes de PCMA et les définitions de travail actuelles de la PCMA élaborées par FANTA2 et le Forum PCMA incluent spécifiquement les enfants souffrant de MAM au sein de leur champ d'application. À l'ENN, nous nous sentons un peu coupables d'avoir relégué la MAM dans notre « angle mort », vu que nous avons concentré notre attention sur la prise en charge de la MAS dans le cadre de la PCMA lors de la conférence d'Addis. L'absence d'un cadre clair pour le traitement et la prévention de MAM et l'absence de leadership quant à l'inclusion du traitement du MAM dans le cadre de la PCMA sont les raisons pour lesquelles nous n'avons pas inclus le thème de la MAM à la

conférence ; en effet, nous voulions éviter que le débat qui s'ensuivrait éclipses les enseignements au cœur de la conférence. La prise en charge de la MAM apparaît clairement dans certains des neuf pays de l'étude de cas mais pas systématiquement, et de nombreuses questions connexes ont émergé (avec peu de réponses). En outre, dans les programmes comprenant la MAM, l'accent semble porter sur les interventions en matière de nourriture/produits spécialisés, peu d'aspects des programmes portant sur les interventions non-alimentaires en matière de MAM. Ainsi, l'une des leçons retenues par l'ENN (même plusieurs) issues de l'expérience de la conférence est la suivante : nous devons aborder la MAM. À cette fin, nous vous encourageons à soumettre des contributions à Field Exchange faisant part de vos expériences, d'éléments de recherche et de défis sur ce sujet, et nous accueillons tout particulièrement les contributions décrivant les interventions non-alimentaires en matière de MAM.

Les problèmes de financement à long terme entourant les programmes de PCMA ont occupé une place importante dans les expériences gouvernementales partagées à Addis. Trois questions de financement clés ont émergé et nécessitent une attention urgente, à savoir : comment passer d'un financement humanitaire à un financement à long terme lorsque la PCMA est initialement déployée à l'occasion d'une urgence ; si le déploiement des programmes de PCMA est durable sur une base pays par pays et, le cas échéant, de quelle manière les modalités de financement des programmes à long terme seront établies, en particulier en ce qui a trait à la proportion de financement à apporter par le gouvernement national et les organismes bailleurs de fonds internationaux.

La qualité des programmes s'est également avérée une préoccupation majeure, ce qui est reflété dans une

¹ Government experiences of scale-up of Community-based Management of Acute Malnutrition (CMAM). A synthesis of lessons (Des expériences gouvernementales du déploiement de la prise en charge communautaire de la malnutrition aiguë (PCMA). Une synthèse des enseignements). ENN, janvier 2012. Téléchargeable sur www.ennonline.net.

a country by country basis and if so, how will financing arrangements for long-term programming be configured, particularly with regard to the proportion of funding to come from national government and international donor agencies.

Quality of programming was also a major concern and this is reflected in some of the content in this issue. The UNICEF mapping report indicates that less than 32% of countries were able to meet SPHERE standards for recovery and only 19.4% met standards for defaulting. SPHERE standards may be an appropriate aim but is it too much to expect these be attained during the process of scale up for government implemented programmes in non-emergency contexts? There is little clarity around what standards are acceptable and realisable in such contexts and over what time-frame they can be reached.

These are just some of the major challenges facing agencies and governments moving forward in their attempts to roll out CMAM. CMAM scale up has started at a sprint. However, the goal we all desire, which is universal programme coverage for acute malnutrition, will involve a marathon which like all marathons, requires an enormous and perhaps unprecedented level of political and financial commitment amongst all key stakeholders. How this plays out in the next few years will be fascinating. For the millions of families living with acute malnutrition it could well be a matter of life and death.

Jeremy Shoham and Marie McGrath, ENN

Paths for scaling up CMAM: Broad lessons and ways forward

The context

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 child³. 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-five⁴. It emphasises the importance therefore of addressing acute malnutrition for meeting the Millennium Development Goal 4 (MDG4) of reducing child mortality⁵. This message has been taken up in international fora, particularly by the 2010 multi stakeholder global effort to "Scale Up Nutrition" (SUN)⁶.

CMAM is an innovative approach which 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 of uncomplicated SAM cases, in terms of essential medicines, simple orientation for caregivers, and specially formulated 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 United Nations (UN) endorsed the community-based approach for management of SAM with a joint statement⁷. Endorsement of the approach came as a result of operational research conducted over the previous seven years which provided evidence of its impact⁸, and work from similar community-based programmes⁹. 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 what is the optimal programming approach for the treatment of SAM. It also enabled governments to start establishing and scaling-up CMAM programming at national level. A shift of focus to seeing community-based management of SAM as a requirement of routine health activities has emerged as a result.

From three countries implementing small scale CMAM programmes between 2000 and 2003, by mid-

³ The odds of dying is estimated to be 9.4 times higher in severely wasted children.

⁴ Black, M.D et al (2008). The Lancet. Vol. 371, Issue 9608, pp.243-260.

⁵ Bhutta, Z.A et al (2008). Interventions for maternal and child undernutrition and survival. Lancet Maternal and Child Undernutrition Series. The Lancet, volume 371, Issue 9610, pp.417-440.

⁶ <http://www.scalingupnutrition.org/key-documents/>

⁷ WHO, UNICEF, UNSCN, WFP, 2007 Joint Statement

⁸ Collins, S., Dent, N., Binss, P., Bahwere, P., Sadler, K and Hallam, A., 2006a. Management of severe acute malnutrition in children. The Lancet, 368(9551), pp.1992-2000. 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).

⁹ Collins, S., Sadler, K., Dent, N., Khara, T., Guerrero, S., Myatt, M., Saboya, M. and Walsh, A., 2006b. Key Issues for the Success of Community-based Management of severe malnutrition. Food and Nutrition Bulletin, volume 27 (supplement-SCN Nutrition Policy Paper No. 21), S49-82.

partie du contenu de ce numéro. Le rapport de cartographie de l'UNICEF indique que moins de 32% des pays avaient réussi à se conformer aux normes SPHERE en ce qui concerne le rétablissement et seulement 19,4 % en ce qui concerne le taux d'abandon. Certes, les normes SPHERE semblent être un objectif approprié mais n'est-il pas irréaliste d'exiger qu'elles soient respectées au cours du processus de déploiement des programmes gouvernementaux mis en œuvre dans des contextes hors urgence ? Il est difficile de déterminer les normes acceptables et réalisables dans de tels contextes et les délais que l'on peut exiger.

Il ne s'agit là que de quelques-uns des défis majeurs auxquels sont confrontés les organismes et les gouvernements dans leurs démarches de déploiement de la PCMA. Le déploiement de la PCMA a démarré sur les chapeaux de roues. Cependant, l'objectif que nous souhaitons tous, à savoir une couverture universelle des programmes traitant la malnutrition aiguë, impliquera un marathon qui, comme tous les marathons, exige des performances de pointe et possiblement un niveau sans précédent en termes d'engagement politique et financier de la part de tous les intervenants clés. Le déroulement dans les prochaines années sera fascinant. Pour les millions de familles vivant avec la malnutrition aiguë, il pourrait bien s'agir d'une question de vie ou de mort.

Jeremy Shoham et Marie McGrath, ENN

Axes pour le déploiement de la PCMA : enseignements généraux et voies à suivre

Le contexte

Globalement, on estime que plus de 19 millions d'enfants sont gravement atteints de malnutrition aiguë à un moment de leur vie. Pour ces enfants, le risque de décès est plus de neuf fois plus élevé par rapport à un enfant bien nourri³. La série 2008 de The Lancet sur la Nutrition maternelle et infantile place la malnutrition aiguë sévère (MAS) parmi les trois principales causes de décès liées à la nutrition chez les enfants de moins de cinq ans⁴. Elle met donc l'accent sur l'importance de lutter contre la malnutrition aiguë pour atteindre l'Objectif du Millénaire pour le développement 4 (OMD 4), à savoir réduire la mortalité infanto-juvénile⁵. Ce message a été repris dans les forums internationaux, en particulier par l'initiative à l'échelle mondiale de 2010 impliquant toute une série d'acteurs multiples pour le déploiement de la nutrition, « Scale Up Nutrition » (SUN)⁶.

La PCMA est une approche novatrice permettant de traiter avec succès la majorité des enfants atteints de MAS, y compris ceux qui sont séropositifs, à leur domicile. L'approche se base sur l'engagement des communautés afin d'identifier les enfants sévèrement malnutris avant que leur état se détériore jusqu'à atteindre un stade où ils ont besoin de soins en milieu hospitalier pour traiter les complications médicales. Elle permet un traitement efficace des cas simples de MAS, en termes de médicaments essentiels, de conseils simples pour les dispensateurs de soins et d'ATPE formules spécialement et destinés à être distribués sur une base hebdomadaire au sein de structures de santé décentralisées existantes à basse échelle ou au sein de sites de distribution situés maximalelement à une journée de marche du domicile. L'approche comprend des soins hospitaliers pour les cas compliqués de MAS (habituellement <10 % de la charge de travail) et dans certaines situations, en fonction du contexte et des ressources, des programmes de nutrition supplémentaire ou d'autres programmes visant à traiter la malnutrition aiguë modérée (MAM).

L'approche PCMA a été mise en œuvre pour la première fois en 2001 et suite à son succès rapide, a été

reprise par plusieurs organisations non gouvernementales (ONG) internationales travaillant dans des contextes d'urgence dans des pays d'Afrique avec différents degrés de participation de la part du gouvernement. En 2007, l'Organisation des Nations Unies (ONU) a approuvé l'approche à base communautaire pour la gestion de la MAS par l'intermédiaire d'une déclaration commune⁷. La reconnaissance de l'approche a été le fruit de recherches opérationnelles menées au cours des sept années précédentes, lesquelles ont fourni des preuves de son impact⁸, ainsi que les travaux de programmes similaires à base communautaire⁹. Cette reconnaissance à l'échelle mondiale a ouvert la voie à l'expansion de l'approche via la formation d'un consensus au sein de la communauté mondiale œuvrant dans le domaine de la nutrition et parmi les organismes internationaux et les bailleurs de fonds sur ce qu'est l'approche de programmation optimale pour le traitement de la MAS. Elle a également

² Khara, T., Collins, S. (2004). Community-therapeutic care (CTC). Emergency Nutrition Network 2004; (special supplement 2): 1-55.

³ On estime que les risques de décès sont 9,4 fois plus élevés chez les enfants émaciés.

⁴ Black, M.D et al (2008). The Lancet. Vol. 371, édition 9608, pp.243-260.

⁵ Bhutta, Z.A et al (2008). Interventions for maternal and child undernutrition and survival (Interventions pour la survie des mères et des enfants souffrant de sous-nutrition). Lancet Maternal and Child Undernutrition Series. The Lancet, volume 371, édition 9610, pp.417-440.

⁶ <http://www.scalingupnutrition.org/key-documents/>

⁷ Déclaration commune OMS, UNICEF, UNSCN, PAM, 2007

⁸ Collins, S., Dent, N., Binss, P., Bahwere, P., Sadler, K et Hallam, A., 2006a. Management of severe acute malnutrition in children (Prise en charge de la malnutrition aiguë sévère chez les enfants). The Lancet, 368(9551), pp.1992-2000. Les programmes de recherche initiaux utilisaient le terme de gestion des soins thérapeutiques communautaires (STC). Lorsque la démarche a été approuvée le nom a été changé pour un terme plus générique, à savoir la prise en charge communautaire de la malnutrition aiguë (PCMA).

⁹ Collins, S., Sadler, K., Dent, N., Khara, T., Guerrero, S., Myatt, M., Saboya, M. et Walsh, A., 2006b. Key Issues for the Success of Community-based Management of severe malnutrition (Questions clés pour la réussite de la prise en charge communautaire de la malnutrition sévère). Food and Nutrition Bulletin, volume 27 (supplément-document politique du Comité permanent de la nutrition No. 21), S49-82.



Young girl and her grandmother at Kaedi hospital, Mauritania

David Rizzi, Mauritania, 2010

A note on terminology

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. A working definition that was agreed at the conference¹¹ has four key elements, as follows:

- [Treatment 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).
- This, in turn, is integrated within a multisectoral approach to tackle the determinants of undernutrition.

CMAM may take different shapes and forms at national level. Different names and acronyms are used to describe the same or similar approaches.

2010, 55 countries were implementing CMAM to some degree. A recent UNICEF initiative has started to map and review some key indicators of progress in adopting and scaling up the approach¹⁰. The review found that 55 countries had made inroads into adopting the approach. In 52 of these countries, CMAM guidelines were in place, indicating institutional endorsement. In 34 countries, CMAM was included in national nutrition policy. The review also described the variable progress that countries were 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.

The UNICEF mapping review estimated that over 1 million children were admitted for treatment of SAM using the CMAM approach in 2009 and that the majority of these children were 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, Vietnam, 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 SAM¹² lies largely within the health sector and with community structures and systems. The aim of national scaling 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.

Getting CMAM onto the national 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. A good example comes from Pakistan where CMAM was scaled up in the wake of the 2010 floods. 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, there are good examples where this has not been the case. CMAM scale up has been rapid, particularly over the

¹⁰ UNICEF and Valid International, 2010. Global Mapping Review of community-based management of acute malnutrition with a focus on severe acute malnutrition. An update by UNICEF to the mapping conducted in 2010 is included in this issue of Field Exchange.
¹¹ Because of the different interpretation of 'integration', a group of technical experts volunteered to develop a 'working' definition that could then be used for subsequent discussions in the conference (and perhaps a starting point for further work on a definition post conference).
¹² Where CMAM also includes interventions to address moderate acute malnutrition (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 MAM component in these contexts.

permis aux gouvernements de commencer à établir et à déployer les programmes de PCMA au niveau national. Cela a débouché sur un changement de vision, à savoir que la prise en charge de la MAS basée sur la communauté a commencé à être considérée comme une activité de santé de routine incontournable.

De trois pays ayant mis en œuvre des programmes PCMA à petite échelle entre 2000 et 2003, on est passé à 55 pays ayant mis en œuvre des mesures PCMA à plus ou moins grande envergure à la mi-2010. Une récente initiative UNICEF a entrepris de cartographier et d'examiner certains indicateurs clés de progrès dans l'adoption et le déploiement de la démarche¹⁰. L'examen a révélé que 55 pays avaient entrepris d'adopter l'approche. 52 de ces pays appliquaient les lignes directrices PCMA, indiquant une approbation institutionnelle. Dans 34 de ces pays, la PCMA avait été incluse au sein de la politique nationale en matière de nutrition. L'examen a également décrit les progrès variables effectués par les pays pour intégrer la PCMA aux activités de santé régulières, par exemple dans le domaine de la prise en charge intégrée des maladies de l'enfant (PCIME), de l'alimentation du nourrisson et du jeune enfant (ANJE) et du VIH/sida, ainsi que les défis qui se posent au niveau des pays.

L'examen cartographique réalisé par l'UNICEF estime que plus d'un million d'enfants ont été admis pour le traitement de MAS en utilisant l'approche PCMA en 2009 et que la majorité de ces enfants se trouvaient en Afrique. Le déploiement de la programmation PCMA dans les pays en développement se poursuit à un rythme rapide à travers le monde, en particulier en Afrique et en Asie, en bénéficiant du soutien gouvernemental et multi-bailleurs de fonds. Selon le compte-rendu de l'UNICEF, sept autres pays (Cambodge, Laos, Vietnam, Inde, Iraq, Mongolie, Afrique du Sud) avaient l'intention d'introduire la démarche en 2011.

En résumé, il existe maintenant une approche PCMA mondialement reconnue que de nombreux pays mettent en œuvre et qui en est à divers stades de

déploiement. L'impulsion du déploiement de la PCMA pour la prise en charge de la MAS¹¹ dépend en grande partie du secteur de la santé et des structures et systèmes communautaires. L'objectif du déploiement à l'échelle nationale est donc de mettre en place une couverture nationale offrant un service continu et de qualité formant partie intégrante du système de santé et avec une solide base communautaire. En gérant la MAS de cette façon, on contribuera à exercer une incidence à l'échelle nationale sur la mortalité et, à terme, à réaliser l'OMD 4.

Inscrire la PCMA au programme national

Lorsqu'il est question de hisser la PCMA sur la scène nationale, l'apparition de situations d'urgence majeures ou périodiques s'est avéré être un facteur clé dans de nombreux pays. Les urgences mettent en évidence le problème de la MAS et fournissent le contexte approprié (la disponibilité des partenaires et des ressources et la volonté d'opérer en dehors de la norme) pour l'introduction de la PCMA et permettent également de montrer le fonctionnement de celle-ci à échelle limitée. Un bon exemple est celui du Pakistan, où la PCMA a été déployée à la suite des inondations de 2010. Le danger existant est que ce moyen d'introduire la PCMA peut conduire à un manque d'implication de la part des autorités locales et à des modèles non durables de mise en œuvre ce qui peut rendre la transition plus difficile par la suite. Néanmoins, il existe de bons exemples où cela n'a pas été le cas.

Le déploiement de la PCMA a été rapide, en particulier au cours des cinq dernières années dans de nombreux contextes nationaux différents, et souvent suite à des situations d'urgence (voir encadré 1 pour quelques exemples, plus de détails sont fournis dans les articles de terrain). Si les agences parviennent à envisager la PCMA avec suffisamment d'engagement et de consultation, les gouvernements seront plus en mesure d'adopter la PCMA et d'entraîner d'autres parties pour soutenir le développement des capacités nationales.

Au-delà de l'urgence, les facteurs grâce auxquels la PCMA est susceptible d'être intégrée au programme national en tant que service au sein du système de santé de routine sont les suivants : 1) la sensibilisation et le soutien d'une agence clé au niveau national (en particulier

Remarque sur la terminologie

L'expression « déploiement de la PCMA » est souvent jumelée à l'expression « intégration » étant donné que le déploiement n'est pas possible sans un certain niveau d'intégration. Toutefois, le terme « intégration » n'est pas toujours bien compris. Une définition de travail convenue lors de la conférence¹² comprend quatre éléments clés, à savoir :

- [les traitements de] la MAS et la MAM font partie intégrante de la PCMA
- La PCMA est l'un des services de santé de base à laquelle un enfant a accès ; ce service est fourni par les mêmes moyens que les autres services.
- Elle est intégrée au sein d'un ensemble plus large d'activités en rapport avec la nutrition (ANJE, retard de croissance, micronutriments, etc.).
- Ceci est à son tour intégré dans une approche multisectorielle pour s'attaquer aux causes de la sous-nutrition.

La PCMA peut prendre des formes différentes au niveau national. Des noms et acronymes divers sont utilisés pour décrire des approches identiques ou similaires

¹⁰ UNICEF et Valid International, 2010. Global Mapping Review of community-based management of acute malnutrition with a focus on severe acute malnutrition (Examen cartographique mondial de la prise en charge communautaire de la malnutrition aiguë avec un accent sur la malnutrition aiguë sévère). Une mise à jour de la cartographie réalisée par l'UNICEF en 2010 est incluse dans ce numéro de Field Exchange.
¹¹ Lorsque la PCMA comprend également des interventions destinées à faire face à la malnutrition aiguë modérée (MAM), un rôle plus important peut être joué par d'autres secteurs, tels que l'éducation, l'agriculture et la sécurité alimentaire. Cependant, vu les lacunes actuelles en termes de recherche et d'accords sur les interventions liées à la MAM hors situations d'urgence, la PCMA est couramment mise en œuvre sans composante MAM dans ces contextes.
¹² En raison des différences d'interprétation de l'expression « intégration », un groupe d'experts techniques s'est porté volontaire pour développer une « définition de travail » pouvant ensuite être utilisée au cours des discussions ultérieures dans le cadre de la conférence (et pourra peut-être servir de point de départ pour une élaboration de définition post-conférence).

Box 1: Country examples of the speed of CMAM scale-up

Malawi: From 2 district pilot (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 in 49% of health posts and in 48% of health centres with 82% recovery.

Kenya: Ministry-led programmes implemented in three of the most affected provinces of the arid & semi-arid lands. 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 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.

past five years in many diverse country contexts and often after emergencies (See Box 1 for some examples, more details are provided in the field articles). 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 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 many countries (See Box 2). 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 an 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 and based on capacities to respond rather than SAM cut-off points, shows promise for guarding against unsustainable approaches to implementing CMAM¹³.

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

¹³ WHO categorises interventions as cost effective if they cost less per DALY than a country's gross domestic income per capita.

Encadré 1 : Exemples de la vitesse du déploiement de la PCMA dans différents pays

Malawi : de 2 districts pilotes (tous les établissements dans les districts où des soins ambulatoires ont été mis en œuvre) en 2002/3 à l'ensemble des 28 districts de mise en œuvre du programme en 2011, pour un total de 70 % de tous les établissements de santé.

Éthiopie : une expansion lente depuis le premier pilote en 2001, puis une expansion rapide à partir de 2008. Actuellement, 8 000 sites offrant des services PCMA, des soins ambulatoires dans 49 % des postes de santé et dans 48 % des centres de santé avec un taux de rétablissement de 82 %.

Kenya : programmes dirigés par les ministères mis en œuvre dans trois des provinces les plus touchées des terres arides et semi-arides. De 2009 à 2011, la proportion des établissements de santé offrant des services PCMA a augmenté de 50 % à 83 %. La charge de travail du programme urbain double régulièrement chaque année, étant partie d'un total initial de 1 600 en 2008 à 4 700 en 2010, tout en maintenant la qualité selon les normes de Sphère pour les taux de récupération et de décès.

Ghana : du projet pilote initial du MS en avril 2008 (un district dans chacune des régions, dans chaque district un site de soins d'hospitalisation et 2-5 établissements de soins ambulatoires) à l'ensemble des 19 centres de santé dans les deux districts en mars 2009.

Sierra Leone : Du projet pilote initial du MS de 20 sites de soins ambulatoire et 3 sites de soins d'hospitalisation en 2007, à 245 sites de soins ambulatoires (20 % de toutes les unités de santé primaires) et 19 sites de soins hospitaliers (au moins un par district) en 2011.

Mozambique : lente expansion initiale puis plus rapide après approbation de la ligne directrice en 2010. En 2011, 229 sur 1 280 établissements de santé mettent en œuvre les soins ambulatoires, mais dans certains cas, cela correspond seulement à une phase 2 de traitement conformément aux protocoles PCMA.

Somalie : de 30 programmes de soins ambulatoires en 2006 à 935 en 2011.

Niger : introduction de la PCMA en 2005. Soins offerts aux patients hospitalisés pour MAS avec complications dans les 50 hôpitaux nationaux, régionaux et de district. Soins ambulatoires dans 772 sur les 800 centres de santé en 2011.

pour la fourniture de matériel), 2) les discussions entre des experts internationaux ou régionaux en matière de PCMA, des experts nationaux sur la nutrition et des représentants du gouvernement afin d'aider à démontrer le fléau que représente la MAS pour le pays et les conséquences de cette dernière, et d'aider à saisir l'approche par un débat sur les protocoles techniques, et 3) la mise en œuvre de projets pilotes à échelle limitée montrant de manière visible les résultats frappants qui peuvent être obtenus en termes de récupération et de couverture et la mise sur pied d'une façon d'adapter l'approche au contexte du pays. Ce dernier facteur a été déterminant dans de nombreux pays (voir encadré 2). Les expériences nationales ou locales de mise en œuvre de pilotes de programmes PCMA ont un poids considérable quand il s'agit d'adapter l'approche à l'échelle nationale et semblent avoir plus d'impact que les approbations à l'échelle mondiale.

Dans la plupart des pays étudiés, l'intégration de la PCMA aux programmes politiques a été facilitée par la présence d'un groupe de travail technique central, ou d'une unité de gouvernement existante largement approuvée par les acteurs de la nutrition, parlant d'une seule et même voix pour plaider en faveur de la PCMA. Le niveau d'influence de ce groupe peut être défini par la position actuelle de la nutrition au niveau national et, par conséquent, le niveau auquel les discussions sur la PCMA ont lieu.

Bien que le fait que l'approche PCMA soit fermement enracinée dans le secteur de la santé facilite l'adoption de celle-ci par l'ensemble du personnel de santé, cela peut également limiter l'adoption d'aspects intersectoriels critiques, en particulier pour la mobilisation communautaire.

Lorsque la nutrition figure dans tous les secteurs au niveau institutionnel, les avantages peuvent être doublés. Premièrement, cela peut faciliter le travail intersectoriel, et d'autre part en ayant un profil et des outils de prise de décision

au-dessus et au-delà du domaine de la santé, il est possible de mobiliser davantage la volonté politique au profit des initiatives en matière de nutrition et d'améliorer ensuite la distribution des ressources.

Enfin, grâce à un nouveau cadre d'engagement entre les autorités locales et les partenaires de nutrition sur la nécessité d'un déploiement en amont et en aval d'une réaction aux situations d'urgence périodiques et se fondant sur les capacités de réaction plutôt que sur les seuils de MAS, on peut se prémunir contre les approches non durables de mise en œuvre de la PCMA¹³.

Intégrer la PCMA aux cadres politiques existants et aux plans de développement nationaux

Quand il s'agit d'intégrer la PCMA aux politiques et aux plans existants, la nécessité de refléter la PCMA dans une politique de santé nationale globale est primordiale si l'on veut que le déploiement de l'administration du traitement à travers les structures de santé nationales soit correctement soutenu et financé. La PCMA n'est pas, et ne doit pas être présentée ni mise en œuvre, comme un programme vertical mais comme une partie intégrante des mesures de santé et de nutrition.

Dans la plupart des pays, il n'y a pas eu de plan clair pour le déploiement de la PCMA (avec des objectifs géographiques et de couverture, calcul des coûts, des besoins de soutien, une stratégie de formation, etc.). À certains égards, ceci a été l'une des caractéristiques de l'approche, à savoir que son adoption est organique et axée sur la demande plutôt que sur une quantité prescrite « par en haut ». Le manque de financement à long terme a joué

¹³ Voir Peter Hailey et Daniel Teweldeberha (2010). Suggested New Design Framework for CMAM Programming (Nouveau cadre suggéré pour la conception des programmes en matière de PCMA). Field Exchange, édition n° 39, septembre 2010. p42. <http://fex.enonline.net/39/suggested.aspx> et présentation de la Conférence PCMA 2011 sur l'intégration et le déploiement à l'adresse : <http://cmamconference2011.org/country-presentations/>

Haile Gebrselassie, Ethiopian former Olympic Champion and world record holder, in address to conference delegates



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 (see Box 3). 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 WHO¹⁴.

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 buy-in and for standardising the approach in the country.

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 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.

¹⁴ See Peter Hailey and Daniel Teweldeberha (2010). Suggested New Design Framework for CMAM Programming. Field Exchange, Issue No 39, September 2010. p42. <http://fex.ennonline.net/39/suggested.aspx> and CMAM Conference 2011 presentation on integration and scale up: <http://cmamconference2011.org/country-presentations/>

un rôle clé dans la limitation de la capacité de planifier la PCMA et en l'absence de plans, la demande risque de dépasser l'offre, les ressources peuvent être gaspillées et la qualité peut être compromise.

L'absence de données fiables sur les coûts et la rentabilité a également empiété sur la capacité des pays à développer des plans de déploiement à l'échelle nationale, ou même d'intégrer la PCMA dans les plans opérationnels existants. Cet écart est à présent comblé au fur et à mesure grâce à un nombre croissant d'études de rentabilité parvenant à des résultats similaires et offrant la possibilité de refléter la PCMA dans les outils et les plans de processus décisionnels (voir encadré 3). Ces études concluent que la PCMA présente un rapport coût-efficacité similaire à celui d'autres interventions prioritaires en matière de santé des enfants et une « très bonne rentabilité » tel que défini par l'OMS¹⁴.

La plupart des pays ont progressé dans le développement de lignes directrices nationales, un processus nécessaire à la construction d'un consensus national et à l'approbation de l'approche pour adapter celle-ci au contexte du pays ; ce processus est également une condition préalable au reflet de la PCMA dans les politiques. Les outils de travail, y compris des méthodes convenues pour la surveillance et l'élaboration de rapports, des listes de contrôle pour la supervision et du matériel de formation spécifique, sont également considérés comme des outils essentiels pour le développement des capacités. L'élaboration de directives nationales en matière de PCMA est une étape importante dans la construction d'un consensus et d'une approbation et dans la standardisation de l'approche dans le pays.

La place de la PCMA au sein du système de santé et des programmes de nutrition

Il est important de savoir comment la PCMA est

structurée au sein du système de santé et comment elle s'intègre au sein d'une programmation plus vaste en matière de nutrition. Bien que cette intégration soit généralement considérée comme avantageuse en termes d'utilisation efficace des ressources et d'accroissement de la couverture, l'expérience des pays montre que la façon dont la PCMA s'inscrit au sein des structures et des systèmes existants doit être adaptée au contexte spécifique. Que la PCMA fasse partie de la PCIME, qu'elle soit offerte au niveau des cliniques de santé ou des postes de santé, cela dépend de la capacité des programmes et des structures en question. Un apprentissage beaucoup plus intense pays par pays est nécessaire quant à la façon d'intégrer la PCMA dans les services de santé essentiels et les programmes de nutrition plus vastes.

Il est clair que la décentralisation de la PCMA a beaucoup de valeur car elle rapproche les services de la population, mais la progression vers une décentralisation plus poussée doit être équilibrée par les capacités du système de santé et les ressources disponibles pour appuyer la mise en œuvre aux échelons inférieurs.

Des liens devraient être tissés avec l'ANJE, les programmes de surveillance de la croissance (growth monitoring program - GMP) ou les « semaines de santé des enfants », mais cela dépend de l'état et de la robustesse de ces interventions dans le pays en question. Dans les contextes où des interventions nutrition de prévention et de traitement complémentaires sont en place, des tentatives pour tisser des liens pourront être réalisées à la fois pour élargir les possibilités de dépistages de la MAS chez les enfants, pour assurer la continuité des soins de santé et de réadaptation pour les enfants et,

¹⁴ L'OMS considère que les interventions sont rentables si elles coûtent moins cher par AVCI que le revenu intérieur brut d'un pays par habitant

Box 2: Influence of national pilots in Ethiopia on national 'buy in' to scale up CMAM

Ethiopia's experience was 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 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.

Encadré 2 : Influence des pilotes nationaux en Ethiopie depuis l'assentiment des autorités nationales jusqu'au déploiement de la PCMA

L'expérience de l'Éthiopie est initialement née de l'apparition d'une situation d'urgence et des efforts de plaidoyer de la part des experts internationaux et des ONG. La PCMA a d'abord été mise en œuvre suite à la nécessité d'essayer quelque chose de nouveau pendant la crise qui a frappé le sud du pays en 2001. Les taux de mortalité élevés enregistrés dans les grands centres de nutrition thérapeutique mis en place durant les urgences antérieures ont fait que les responsables locaux n'étaient pas prêts à permettre aux agences d'exécuter ces types de programmes à nouveau. Après des accords conclus par une ONG (Concern) avec les autorités gouvernementales au niveau du district et au niveau régional et malgré l'absence d'une reconnaissance mondiale de l'approche, les soins ambulatoires ont été mis à l'essai cette année.

Cette introduction - c'était alors une approche radicalement nouvelle - a été facilitée par la structure décentralisée du système de santé en Éthiopie où l'on observe un certain degré d'autonomie pour ce qui est de la prise de décision au niveau régional. L'expérience positive initiale a été suivie par des programmes de recherche pilotes et opérationnels en matière de PCMA à partir de 2003. Ces pilotes étaient soutenus par des ONG, cependant, ils ont été menés en étroite collaboration avec les autorités de santé régionales et de district et mis en œuvre par le personnel du ministère de la Santé dans les installations bénéficiant de l'appui des ONG.

Une fois que les expériences pilotes ont été partagées tant à l'intérieur du pays lors d'un atelier national qu'au niveau international, ce sont les bureaux régionaux de la santé qui ont mené la marche en propulsant la PCMA sans cesse vers l'avant au sein des projets au niveau national avec le soutien des ONG. Les agences de l'ONU ont également fourni un soutien au niveau national en 2004 pour l'intégration de l'approche dans le système de santé. En 2008, le ministère de la Santé s'est concentré sur la poursuite du déploiement et de la décentralisation de la PCMA en réaction à une augmentation spectaculaire et rapide du nombre de cas de MAS dans deux régions frappées par une urgence. Cela a incité le gouvernement à faire appel à l'UNICEF pour soutenir le déploiement de l'approche dans le cadre du « health extension package » (programme d'extension de la santé), d'abord pour 1 239 postes et maintenant pour plus de 6 400 postes de santé à l'échelle nationale.

Box 3: Cost effectiveness of CMAM

A recent study¹⁵ 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 Disability adjusted life year (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)¹⁶ and a rural CMAM programme in Bangladesh (\$26 per DALY)¹⁷.

WHO categorises interventions as cost-effective if they cost less per DALY as 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 \$1,230¹⁸. 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)¹⁹, 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)²⁰.

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.²¹

Links to IYCF, growth monitoring programmes (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 supplementary feeding programmes (SFPs) for the management of moderate acute malnutrition (MAM) in place. However, there is lack of clarity over whether a direct link 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.

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

¹⁵ Wilford, R., Golden, K. And Walker, D.G., 2011. Cost effectiveness of community-based management of acute malnutrition in Malawi. Health Policy and Planning, 2011, pp.1-11.

¹⁶ Bachmann, M. O., 2009. Cost effectiveness of community-based therapeutic care for children with severe acute malnutrition in Zambia: decision tree model. Cost effectiveness and resource allocation, 7:2.

¹⁷ Sadler, K., Puetz, C., Mothabbir, G. and Myatt, M., 2011, Community Case Management of Severe Acute Malnutrition in Southern Bangladesh. Feinstein International Centre and Save the Children report. Medford: Feinstein International Centre.

¹⁸ Bachmann, M. O., 2010. Cost effectiveness of community-based treatment of severe acute malnutrition in children. Expert review. Pharmacoeconomics and Outcome Research, 10(5), pp.605-612.

¹⁹ Edejer, T.T., Aikins, M., Black, R., Wolfson, L., Hutubessy, R and Evans, D.B., 2005. Achieving the Millennium development goals for health. Cost effectiveness analysis of strategies for child health in developing countries. BMJ, 331: 1177.

²⁰ Wilford, 2011. See footnote 14.

²¹ Horton, S., Shekar, M., McDonald, C., Mahal, A. and Brooks, K., 2010. Scaling up nutrition. What will it cost? Washington DC: The World Bank.

Encadré 3 : Rentabilité de la PCMA

Une étude récente¹⁵ a évalué la rentabilité de la PCMA pour prévenir les décès dus à la MAS chez les enfants de moins de cinq ans en utilisant des données provenant d'un district rural au Malawi en 2007. La méthode a comparé le coût de la prestation de la PCMA par rapport à l'approche alternative existante basée sur l'hospitalisation des patients. Les coûts et les effets (le nombre de décès) supplémentaires entre les deux options ont été combinés pour estimer un rapport coût-efficacité différentiel (RCED).

Les résultats ont montré que la mise en œuvre de la PCMA en complément aux services de santé existants dans le district a produit un rapport coût-efficacité de 42 \$ par année de vie corrigée du facteur invalidité (AVCI ou DALY en anglais). Ce chiffre est très proche des résultats des analyses similaires effectuées pour un programme urbain de PCMA à Lusaka, en Zambie (41 \$ par AVCI)¹⁶ et un programme PCMA rural au Bangladesh (26 \$ par AVCI)¹⁷.

L'OMS considère que les interventions sont rentables si elles coûtent moins cher par AVCI que le revenu intérieur brut d'un pays par habitant. Lorsqu'on utilise cette comparaison, la PCMA se positionne très favorablement, par exemple, le revenu intérieur brut par habitant pour la Zambie est 1,230 \$¹⁸. Ces chiffres de rentabilité se situent également dans les limites de la gamme générale des ratios coût-efficacité estimés pour d'autres interventions prioritaires en matière de santé des enfants dans les pays à faible revenu. Ces dernières comprennent la vaccination contre la rougeole (29 \$-58 \$), la prise en charge des cas de pneumonie (73 \$)¹⁹, la prise en charge intégrée des maladies de l'enfance (38 \$), l'iodation universelle du sel (34-\$36 \$), l'enrichissement en fer (66-\$70 \$) et des moustiquaires traitées à l'insecticide contre le paludisme (11 \$ pour l'Afrique subsaharienne)²⁰.

L'extrapolation de ces résultats doit tenir compte des différences potentielles dans le contexte (c.-à-d. taux de prévalence de MAS, densité de population et couverture), mais les auteurs suggèrent que les résultats sont pertinents pour un grand nombre de sites où l'on rencontre la MAS. Le montant d'environ 41 \$/AVCI évitée a par conséquent été utilisé par la Banque mondiale pour l'inclusion de la PCMA à l'analyse du coût du déploiement de la nutrition²¹.

finalement, pour former des liens en rapport avec les facteurs déterminants sous-jacents de la malnutrition aiguë et ainsi prévenir l'apparition de celle-ci. La PCMA peut contribuer à intégrer ces questions à l'agenda politique. Des liens particulièrement efficaces ont été mis en évidence entre les programmes consacrés au VIH/ tuberculose d'une part et la PCMA d'autre part et dans une moindre mesure entre l'ANJE et la PCMA.

De nombreux pays mettant en place le déploiement de la PCMA disposent également de programmes de nutrition supplémentaire (PNS) d'un certain niveau destinés à la prise en charge de la malnutrition aiguë modérée (MAM). Cependant, on constate un manque de clarté quant à savoir si un lien direct entre les PNS et la PCMA est possible ou souhaitable dans des contextes non urgents, et si oui, dans quels contextes exactement. Le traitement de la MAM par alimentation supplémentaire n'apparaît peut-être pas comme une stratégie nationale durable pour de nombreux gouvernements. Il est donc nécessaire d'explorer des moyens alternatifs pour résoudre la MAM par le biais des approches intersectorielles et des programmes prenant en charge la nutrition. Des preuves supplémentaires sont donc nécessaires

quant aux mécanismes efficaces (y compris les coûts) pour gérer la MAM en dehors des PAS traditionnels.

La nécessité de clarifier les rôles et les fonctions au sein du système de santé et parmi les partenaires de soutien apparaît comme une évidence lorsqu'on se penche sur les études de cas. Une collaboration positive et complémentaire entre les partenaires au développement avec une division claire des rôles est considérée comme l'un des facteurs importants permettant le déploiement de la PCMA.

Les études de cas semblent indiquer qu'une unité/groupe de soutien PCMA spécifique au sein du gouvernement n'est pas une condition préalable au déploiement, mais peut ajouter de la valeur en termes d'assurance qualité et de standardisation. Un tel groupe nécessite des ressources dédiées afin de fonctionner, mais peut contribuer à assurer la continuité et la prévisibilité de l'appui nécessaire au déploiement.

Le renforcement des capacités de la PCMA

Des tentatives sont faites pour renforcer les capacités d'intégration de la PCMA dans les établissements de santé au niveau du district, sous-national et national dans tous les pays. Le principal

¹⁵ Wilford, R., Golden, K. et Walker, D.G., 2011. Cost effectiveness of community-based management of acute malnutrition in Malawi. Health Policy and Planning (Rentabilité de la prise en charge communautaire de la malnutrition aiguë au Malawi. Politique et planification de la santé), 2011, pp.1-11.

¹⁶ Bachmann, M. O., 2009. Cost effectiveness of community-based therapeutic care for children with severe acute malnutrition in Zambia : decision tree model. Cost effectiveness and resource allocation, (Rentabilité des soins communautaires thérapeutiques pour les enfants souffrant de malnutrition aiguë sévère en Zambie : modèle de schéma de décision. Rapport coût-efficacité et distribution des ressources) 7 :2.

¹⁷ Sadler, K., Puetz, C., Mothabbir, G. et Myatt, M., 2011, Community Case Management of Severe Acute Malnutrition in Southern Bangladesh. Feinstein International Centre and Save the Children report (Prise en charge communautaire de la malnutrition aiguë sévère dans le sud du Bangladesh. Rapport du Feinstein International Centre et de Save the Children). Medford : Feinstein International Centre.

¹⁸ Bachmann, M. O., 2010. Cost effectiveness of community-based treatment of severe acute malnutrition in children. Expert review. Pharmacoeconomics and Outcome Research (Rentabilité du traitement communautaire de la malnutrition aiguë sévère chez les enfants. Évaluation par un groupe d'experts. Recherche sur la pharmacoeconomie et les résultats), 10(5), pp.605-612.

¹⁹ Edejer, T.T., Aikins, M., Black, R., Wolfson, L., Hutubessy, R et Evans, D.B., 2005. Achieving the Millennium development goals for health. Cost effectiveness analysis of strategies for child health in developing countries. (Atteindre les objectifs de développement du Millénaire en matière de santé. Analyse coût-efficacité des stratégies de santé de l'enfant dans les pays en développement). BMJ, 331 : 1177.

²⁰ Wilford, 2011. Voir note en bas de page 14.

²¹ Horton, S., Shekar, M., McDonald, C., Mahal, A. et Brooks, K., 2010. Scaling up nutrition. What will it cost? (Déploiement de la nutrition. Quels seront les coûts ?) Washington DC : La Banque mondiale.

governance). Specific challenges for CMAM include numbers of staff, their competencies, and motivation of 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 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 (See Box 4). In order to facilitate reliable and predictable CMAM capacity, there is

Box 4: Country examples of capacity strengthening

In Mauritania*, Burkina Faso*, Niger, Somalia, Mozambique and Pakistan, the difficulties of ensuring quality and experienced trainers as the training of trainers (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 the 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. To address this, a system of international partners mentoring local partners who would then conduct the follow-up on the ground was instituted. 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. Action Contre la Faim (ACF) acting as a training centre for local organisations and Oxfam NOVIB partnering with a local NGO 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 people) 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 (arid and semi-arid) districts, programme TOT was combined with practical training at health facilities. 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 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.

*Source: FANTA, 2010. Review of Community-Based Management of Acute Malnutrition Implementation in West Africa, Summary Report (2011). Burkina Faso, Mali, Mauritania, and Niger. <http://www.fantaproject.org/publications>

obstacle auquel le déploiement fait face réside dans la capacité insuffisante des systèmes de santé à tous les niveaux et dans tous les aspects (la prestation de services, la main-d'œuvre, les systèmes d'information de santé, l'accès aux médicaments essentiels, le financement de la santé et le leadership et la gouvernance). Les défis spécifiques que la PCMA est forcée de relever concernent la dotation en personnel, les compétences de celui-ci, ainsi que la motivation des bénévoles et la dépendance à l'égard de ceux-ci. En outre, l'engagement à long terme nécessaire pour le renforcement des capacités des systèmes et des structures est généralement identifié comme un défi de taille avec des modalités de financement à court terme.

Les ONG clés sont de plus en plus appelées à réagir aux programmes des gouvernements plutôt qu'à ceux des bailleurs de fonds et de se concentrer sur le renforcement des capacités. Cela exige un changement à la fois de la part des ONG d'une part, qui doivent cesser de faire la chasse aux fonds d'urgence disponibles à court terme quelle que soit leur provenance, et de la part des bailleurs de fonds d'autre part, qui doivent mettre à disposition davantage de moyens appropriés pour le financement à plus long terme de la PCMA.

L'expérience montre qu'avec une bonne planification, l'intégration peut permettre de former davantage de personnel. L'intégration des formations (à savoir l'ANJE au sein de la PCMA ou la compréhension et l'identification de la MAS) dans le programme de formation complet pour les travailleurs de santé communautaires constitue une façon de gérer les ressources de formation plus efficacement et en minimisant le temps que le personnel passe en dehors du service. Une autre affirmation courante concerne la nécessité d'axer davantage de formations sur la gestion de la PCMA (planification, logistique et gestion de la chaîne d'approvisionnement, suivi, supervision et rapports) à l'attention des équipes de santé de district.

Dans les lieux ayant un taux élevé de rotation du personnel de santé, la formation de l'ensemble du personnel dans les structures et l'accent sur le renforce-

Encadré 4 : Renforcement des capacités - Exemples de pays

À cause de la baisse des activités en matière de Formations de formateurs (FF) en Mauritanie*, au Burkina Faso*, au Niger, en Somalie, au Mozambique et au Pakistan, il est devenu difficile d'assurer des formateurs expérimentés et de qualité, et cela a mené à une dilution évidente de la qualité de la formation et a abouti à un changement de l'approche.

Au Niger, un grand nombre de formateurs ont été formés en utilisant l'approche FF ce qui a conduit à une bonne appropriation de la PCMA par le gouvernement. Cependant, le manque de compétences des formateurs en matière de pratique et de formation et le manque de supervision par l'équipe nationale technique plus expérimentée ont conduit à des problèmes de qualité. Le contrôle systématique sur le lieu de travail et un suivi de soutien ont été désignés comme étant un moyen de remédier à la situation, cependant, on reconnaît que la base actuelle de formateurs ne dispose pas de compétences suffisantes et de l'expérience nécessaires. On tente progressivement de remédier à ce problème par le biais d'une participation accrue de l'équipe d'experts techniques travaillant avec des formateurs existants et effectuant le suivi. Au Mozambique, le suivi étroit de la prestation des services requis après des formations a été désigné comme rôle potentiel pour les ONG.

En Somalie, il a été rapidement reconnu que la FF avait conduit à la formation des mauvaises personnes et que les compétences n'avaient pas été transmises. Fournir du mentorat sur le lieu de travail a cependant représenté un défi dans le contexte de la Somalie, compte tenu des problèmes d'accès. Pour résoudre ce problème, on a mis en place un système de partenaires internationaux assurant le mentorat des partenaires locaux dont le rôle était par la suite de mener le suivi sur le terrain. Ce système vise à aider les partenaires de mise en œuvre locaux non seulement à mieux soutenir la PCMA sur le terrain mais aussi à améliorer leur capacité technique en matière de nutrition, ainsi que leurs compétences en gestion du cycle de projet et en rédaction de propositions et de rapports. Selon les échos, le système fonctionne très bien, par exemple, Action

Contre la Faim (ACF) fonctionne comme centre de formation pour les organisations locales et Oxfam Novib travaille en partenariat avec une ONG locale pour le renforcement des capacités.

D'autres pays (le Malawi, le Kenya, le Ghana, l'Éthiopie, la Sierra Leone) ont reconnu l'insuffisance des formations de formateurs pour la PCMA dès le départ et ont mis sur des formations en classe par des formateurs expérimentés suivies de près par du mentorat sur le lieu de travail. Au Malawi, une équipe de formation nationale (39 personnes) comprend des membres expérimentés des bureaux de santé de district où la PCMA a été mise en œuvre avec succès ainsi que des membres des ONG partenaires. En Éthiopie, davantage de membres du personnel de l'UNICEF ont été recrutés pour appuyer des formations au niveau local et en particulier pour soutenir le suivi de la formation. Au Kenya, dans le cas des districts urbains et de 22 districts arides et semi-arides (ASAL), le programme de FF a été combiné avec une formation pratique dans les établissements de santé. Les équipes de santé de district ont été prises en charge par des formateurs expérimentés pour que ces dernières fournissent une formation à leur propre personnel. Un soutien sur le lieu de travail a suivi, qui a été délégué en fonction de la capacité de chaque établissement à mettre en œuvre les protocoles. Les leçons ont démontré que le soutien à l'emploi était essentiel pour le maintien des compétences et la continuité du déploiement. Les équipes ont également constaté que, comme la majorité de la formation se déroulait au travail, le personnel ne quittait pas l'établissement. Cette expérience a également montré qu'avec une bonne planification, cette méthode permettait de former plus de personnel que dans le cas de l'approche FF traditionnelle.

*Source : FANTA, 2010. Review of Community-Based Management of Acute Malnutrition Implementation in West Africa, Summary Report (2011). Burkina Faso, Mali, Mauritania, and Niger. (Examen de la Prise en charge communautaire de la malnutrition aiguë en Afrique occidentale, Résumé de rapport (2011). Burkina Faso, Mali, Mauritanie et Niger) <http://www.fantaproject.org/publications>



Anganwadi worker with children in Anganwadi centre in India

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. primary health-care services) and a national community mobilisation strategy, cutting across sectors, would support scale-up of CMAM, other nutrition programmes and other basic services.

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 health management information systems (HMIS). 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 for recovery, default and death. This is not the case for coverage 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

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.

ment des capacités de l'équipe de santé de district ont permis le développement d'une capacité suffisante pour que les nouveaux employés soient formés de l'intérieur sur les protocoles relatifs à la PCMA. Cela réduit la charge des formateurs nationaux et permet la reconnaissance au niveau local. L'intégration de la PCMA dans la formation pré-emploi est également considérée comme préférable dans tous les cas, bien que les progrès sur ce terrain n'aient été accomplis que dans quelques pays jusqu'à présent.

En général, la combinaison d'une formation donnée en classe par des formateurs expérimentés avec une mise en pratique effectuée juste après via un mentorat sur le lieu de travail et via des visites d'apprentissage où les agents de santé se soutiennent mutuellement, est le moyen le plus efficace de maintenir la qualité de la formation, d'aider les participants à s'approprier les compétences et de minimiser le temps que les participants passent en dehors de l'établissement (voir encadré 4). Afin d'assurer des capacités fiables et prévisibles en matière de PCMA, il est nécessaire d'inclure la PCMA dans une variété de programmes de formation pré-emploi au niveau national. Tous les acteurs de la PCMA devraient diffuser activement les bonnes pratiques, les outils, les matériaux, les programmes de formation et d'autres ressources pertinentes directement aux gouvernements et, si possible, les gouvernements et les partenaires au développement devraient faciliter l'apprentissage et le réseautage entre les pays.

Les différents pays ont réagi de différentes manières aux contraintes de capacité - par exemple, en plaçant davantage de personnel de nutrition au niveau du district et des régions, en expérimentant avec des équipes mobiles et en mobilisant le personnel de soutien existant pour que celui-ci s'implique dans le service de la PCMA. Les solutions les plus appropriées sont spécifiques au contexte. La conclusion commune est que l'évaluation des capacités et des lacunes existantes afin d'identifier les endroits où il faut des ressources supplémentaires de toute urgence aiderait à combler les lacunes de manière plus efficace.

Renforcer le rôle de la communauté

La composante communautaire de la PCMA n'a pas fait

l'objet d'une attention suffisante ; ceci est attribué à une compréhension insuffisante de l'importance de cet élément des programmes, au manque de fonds, aux compétences insuffisantes, aux préoccupations liées à la surcharge du système et au manque de leadership dans ce domaine. On ne peut pas prescrire qui impliquer dans la PCMA ni comment le faire, cependant, mener des enquêtes sur les potentiels agents et canaux communautaires tout en sensibilisant ces derniers à propos du programme et en suscitant leur implication dans des aspects tels que le dépistage des cas, sont des étapes cruciales dans la mise en œuvre et la durabilité de la PCMA. Sans une solide base communautaire, la portée et l'impact de la PCMA sont limités, par conséquent un plaidoyer stratégique pour l'incorporation de cet élément de la PCMA dans des politiques plus vastes sera nécessaire afin de refléter l'approche globale.

La présence des travailleurs de la santé au niveau communautaire peut grandement influencer la progression de la PCMA en fournissant un mécanisme instantané pour la mobilisation, le dépistage et, dans certains cas, le traitement de la MAS sans complications. Cependant, ce n'est pas une condition préalable. L'implication de bénévoles et des personnalités clés de la communauté a fait ses preuves en matière de mobilisation. Ces modalités présentent des défis, en particulier dans le domaine des incitations, et un équilibre doit être institué entre la motivation, la quantité de travail qui est exigé de bénévoles et les zones géographiques qu'ils sont censés couvrir.

Une focalisation insuffisante sur la composante « mobilisation communautaire » de l'approche PCMA (sensibilisation de la communauté, mécanismes de dépistage, d'orientation en vue d'un traitement et de suivi) a été expérimentée dans la majorité des pays de l'étude de cas et se traduit par une faible couverture. Cependant, avec l'aide des évaluations de couverture pour identifier le problème et les obstacles à l'accès, cette leçon est de mieux en mieux intégrée. L'importance de la mise en œuvre systématique des évaluations de couverture et du renforcement des capacités nationales pour ce faire a par conséquent également été soulignée. Le volet communautaire de la PCMA peut être soutenu par les gouvernements par l'entremise des programmes de

grande envergure existants contenant un élément communautaire (par exemple des services de soins de santé primaires) et une stratégie nationale de mobilisation communautaire à travers les secteurs supporterait le déploiement de la PCMA, d'autres programmes de nutrition et d'autres services de base.

Supervision, suivi et couverture

Hormis la couverture, la plupart des programmes nationaux atteignent les objectifs de performance convenus au niveau international. La supervision et le suivi de la PCMA constituent un défi commun pour la majorité des pays. Cependant, des expériences positives sont nées de la cotutelle avec des partenaires de soutien, de la surveillance par des tiers et de la triangulation des informations par le biais d'informateurs au niveau communautaire. Une simplification des méthodes de suivi (actuellement souvent trop compliquées et rarement analysées ou prises en compte) et l'élaboration de systèmes clairs pour les analyses, l'action et la rétroaction sont nécessaires. Ces problèmes de même que la rapidité de l'information peuvent être partiellement résolus par les méthodes actuellement à l'essai à l'aide de la technologie SMS rapide. Une fois que la surveillance aura été simplifiée, il deviendra possible d'inclure au moins certains aspects dans les systèmes de gestion des informations de la santé (SGIS) nationaux. Ce processus a été inauguré dans une minorité de pays.

Pour surveiller la performance de la PCMA dans n'importe quel contexte, les indicateurs Sphère restent les principaux repères utilisés (au moins pour le rétablissement, les abandons, les décès et la couverture). Des questions ont été soulevées quant à leur pertinence dans les contextes hors urgence. Cependant, les programmes nationaux bien gérés obtiennent des résultats conformes à ces normes en termes de rétablissement, d'abandons et de décès. Ce n'est pas le cas pour la couverture et étant donné que de nouvelles méthodes d'évaluation sont de plus en plus appliquées pour évaluer la couverture au niveau national, nous obtenons des informations sur le type de couverture possible au fil du temps.

Le SGIS est essentiel à la circulation de l'information de gestion à tous les niveaux. La PCMA doit y être incor-

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 coverage²² 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 in numerous countries.

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.

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. Increments in caseload may happen 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 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 (see Box 5).

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.

Box 5: Ethiopia RUTF supply chain experience

As the weight and volume of RUTF is much greater than the usual medicinal commodities which go through PHARMID²³, the decision was made for UNICEF to work directly with regional and zonal health bureaus to deliver directly to them. NGOs would support delivery down to facility level.

Regional Health Bureaus (RHBs) submit requests based on monthly caseloads that 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) and 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.

²² The percentage of children suffering from SAM who are actually being reached by treatment (only measurable by survey /assessment).

²³ PHARMID is a parastatal import and distribution company in Ethiopia, with all shares currently held by the Government. PHARMID has been contracted by the MOH to provide drug management services for specific programmes.

porée, mais jusque-là, les gouvernements et les partenaires doivent utiliser des systèmes d'information parallèles ou inclure un ensemble d'indicateurs simples dans le système existant.

Un déploiement impressionnant a été réalisé dans un certain nombre de pays avec une réussite de mise en œuvre au niveau portée atteignant jusqu'à 70-90 % des établissements de santé. La PCMA se situe peut-être à part des autres interventions dans le sens où, au cœur de l'approche est le fait qu'en l'absence d'une mise en œuvre de la qualité (y compris le volet communautaire), une couverture efficace²² n'est pas réalisable. Le défi pour les pays a donc été de concilier la pression quant à la couverture géographique avec la pression liée à la nécessité d'une « vraie » couverture pour la population dans le besoin. Cette démarche s'est avérée être plus réalisable par le biais d'une approche progressive, avec une expansion basée sur la qualité démontrée du service et la disponibilité des ressources (humaines et matérielles).

Par la suite, on a ajouté des mesures visant à évaluer la couverture et à réagir au manque de celle-ci afin que, dans les zones où le service est en place et fonctionnel, la couverture de la population dans le besoin puisse être augmentée progressivement. Dans certains cas, cette approche a été minée par des organismes qui tentent de mettre en œuvre trop de mesures trop rapidement, se précipitant pour augmenter la couverture géographique ou encore pour planifier l'arrivée de fournitures sans effectuer un contrôle de qualité préalable ou sans renforcer suffisamment les capacités locales. Cela débouche sur une qualité de service insuffisante et une mauvaise couverture, sapant l'efficacité cruciale du programme et la motivation des communautés. Ce défi a été attribué en partie au financement à court terme et a souvent été pointé du doigt dans de nombreux pays.

La volonté de parvenir à une couverture au niveau géographique et/ou au niveau des établissements de santé est commune au déploiement de toutes les interventions, mais doit s'équilibrer avec le maintien de la qualité du programme, y compris la couverture de tous ceux dans le besoin.

La PCMA et la fourniture d'ATPE

Compte tenu des fonds nécessaires pour fournir suffisamment d'ATPE afin de soigner un enfant atteint de MAS (environ 50-60 \$), il est clair que l'on a besoin de bienfaiteurs fournissant des ATPE si l'on souhaite que la PCMA prenne son envol. Des ressources de secours ont fourni ces fonds dans de nombreux cas et dans d'autres contextes, des organismes externes couvrent les frais.

Les ruptures d'approvisionnement sont monnaie courante. Une minorité est attribuée à la pénurie dans les approvisionnements mondiaux et à des problèmes de dédouanement. Toutefois, la majorité résulte de l'insuffisance de stocks régulateurs et d'une mauvaise prévision liée à des rapports tardifs, à une communication tardive des demandes et à une planification insuffisante lorsqu'il s'agit de tenir compte des augmentations du nombre de cas. Des augmentations du nombre de cas peuvent se produire en raison de l'expansion, de l'intensification des activités de mobilisation ou de l'utilisation d'ATPE pour d'autres groupes cibles, par exemple les enfants souffrant de MAM.

Ces problèmes sont signalés même dans les cas où des systèmes de prestation parallèles soutenus par les agences de l'ONU et des ONG sont mis en œuvre. La classification des ATPE comme marchandise/produit essentiel a facilité leur intégration au sein de la chaîne d'approvisionnement nationale dans certains pays. Toutefois, il est clair qu'un soutien important de la chaîne d'approvisionnement est nécessaire si l'on souhaite que les approvisionnements soient livrés par le biais de mécanismes gouvernementaux (voir encadré 5).

²² Le pourcentage d'enfants souffrant de MAS qui sont effectivement à portée du traitement et en bénéficient (seulement mesurable par enquête/évaluation).

²³ PHARMID est société de distribution et d'importation paraétatique située en Éthiopie, dont toutes les actions sont actuellement détenues par le gouvernement. Le ministère de la Santé a conclu une entente avec PHARMID pour qu'elle fournisse des services de gestion des médicaments dans le cadre de programmes spécifiques.

Encadré 5 : Expérience d'une chaîne d'approvisionnement d'ATPE - Éthiopie

Comme le poids et le volume des ATPE sont beaucoup plus importants que ceux des médicaments habituels qui passent par PHARMID²³, il a été décidé que l'UNICEF travaillerait directement avec les bureaux de la santé administrant les régions et les zones concernées pour leur fournir les ATPE. Les ONG appuieraient la prestation jusqu'au niveau des établissements.

Les bureaux régionaux de la santé présentent des demandes basées sur le nombre de cas mensuels qui leur sont signalés par des points focaux techniques de la PCMA au niveau du district. Ces mêmes points focaux sont responsables de la distribution des ATPE. Malheureusement, les demandes sont souvent limitées par la capacité de stockage. Actuellement, des plans sont en place pour intégrer l'approvisionnement en ATPE au système pharmaceutique et logistique intégré (SPLI) national. Toutefois, il s'agira d'un processus graduel vu que la capacité de ce système à inclure les ATPE est en cours de construction.

Le programme d'aliments par ordonnance (APO) en Éthiopie a déjà réussi à intégrer les ATPE au sein du SPLI pour un nombre limité de sites, dans les centres de santé et dans les hôpitaux. Les demandes sont basées sur les chiffres traités sur des périodes de deux mois et un stock régulateur d'un minimum de deux mois et d'un maximum de quatre mois est tenu dans chaque établissement en fonction de la capacité de stockage. Un mécanisme de recharge d'urgence est également en place. Le suivi au niveau de l'établissement est pris en charge par une ONG (Save the Children US) et quand les ATPE parviennent à l'établissement, ils sont entrés dans le système pharmaceutique et distribués sur la base de prescriptions reçues par les patients. L'ONG a assuré la formation logistique du personnel des pharmacies dans toutes les installations des APO. Il est estimé que le SPLI est un système de gestion solide qui évite les abus importants d'ATPE.



A child eating RUTF in Malawi

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/IRD49 for the production of RUTF (and related products) in many countries. A patent user agreement with Nutriset/IRD50 must be established for production in those countries where the Nutriset/IRD has registered a common patent agreement²⁴. 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 (Niger and Mozambique²⁵). There is also a 'price' as 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 Médecins Sans Frontières (MSF) and the Clinton Health Access Initiative (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 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 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.

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

²⁴ 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.

²⁵ Correct November 2011.

Des erreurs de prévision ont été commises à la suite de l'utilisation de calculs basés sur la population, la prévalence de la MAS et la couverture estimée, qui accusent tous de nombreuses inexactitudes. Les prévisions des besoins au niveau du district/sous-national/national basées sur la consommation sont plus logiques, mais des améliorations quant à l'exactitude et à la ponctualité des rapports sont indispensables pour que celles-ci soient fiables. Une extrapolation est également requise lorsque des rapports sont manquants ou pour tenir compte des plans d'expansion et de toute augmentation prévue en termes de prévalence. L'inclusion des rapports de stock dans les rapports d'admission au sein de la PCMA, la détermination des niveaux de stocks minimaux en se basant sur l'établissement concerné et l'utilisation des SMS rapides pour les rapports et les demandes de stocks d'ATPE ont abouti à des résultats concluants.

En produisant des ATPE plus près du domicile, les temps de transit pour recevoir les ATPE sont considérablement réduits, ce qui atténue quelque peu la pression quant à la précision des prévisions. La production locale offre en plus des avantages supplémentaires sous la forme d'une réduction potentielle des coûts (principalement due à la diminution des coûts de transport) et, surtout, d'un soutien de l'industrie et l'agriculture locales.

Le brevet détenu par Nutriset/IRD49 pour la production d'ATPE (et produits connexes) dans de nombreux pays est un autre facteur déterminant. Un accord d'utilisation de brevet doit être conclu avec Nutriset/IRD50 pour la production dans les pays où Nutriset/IRD a enregistré un accord de brevet commun²⁴. Il n'existe aucune restriction dans les pays où Nutriset/IRD n'a pas déposé de brevet. Bien que cet accord donne accès à un soutien technique au producteur afin qu'il puisse mettre en place la production et des mécanismes de contrôle de la qualité, il constitue en même temps un obstacle supplémentaire à l'établissement de la production locale, avec des restrictions dans les pays où un brevet exclusif a été déposé (le Niger et le Mozambique²⁵). Un « prix » découle également de cet accord, en effet, l'IRD invite les bénéficiaires à faire une contribution de 1 % du

chiffre d'affaires réalisé par la vente des produits couverts par l'accord d'utilisation, afin de soutenir et de financer la recherche et les activités de développement de l'IRD.

Dans de nombreux pays, la production locale d'ATPE est considérée comme le complément le plus approprié de l'approvisionnement mondial, voire comme le remplacement de ce dernier. En plus du brevet, deux principaux facteurs qui restreignent la mise en place de la production locale sont l'approvisionnement et le coût des ingrédients (en particulier l'approvisionnement d'arachides de qualité et les coûts de la poudre de lait) et les mesures de contrôle de la qualité nécessaires pour assurer un produit entièrement sûr.

Un processus d'accréditation élaboré par l'UNICEF en collaboration avec Médecins Sans Frontières (MSF) et l'Initiative Clinton pour l'accès à la santé (CHAI) destiné à assurer la qualité du produit comporte des critères particulièrement stricts concernant l'aflatoxine, communément trouvée dans les arachides. Bien que ce critère ait retardé l'accréditation de la production dans certains cas et prolongé davantage les délais, il est clair qu'un équilibre doit être trouvé entre le désir de voir la production locale se développer et la nécessité d'obtenir un produit de qualité et ne présentant aucun danger.

Les gouvernements doivent élaborer une politique claire sur la production locale d'ATPE, ce qui peut conduire à de nouveaux partenariats, des exonérations fiscales et d'autres mesures de réduction des coûts.

La quête d'arachides de qualité a conduit certains producteurs locaux à former plus de partenariats publics-privés avec les ONG et les agriculteurs afin d'améliorer les pratiques agricoles et de stockage et de garantir des marchés pour le produit. Ces initiatives, qui dépendent de la capacité des producteurs à acheter des arachides en vrac à certaines périodes de l'année, ont besoin de capitaux, et les producteurs locaux font à présent face au défi de trouver des investisseurs.

L'évolution de l'approche PCMA est fondée sur des preuves, de sorte que les protocoles sont testés sur le plan opérationnel à une échelle limitée, un suivi

rigoureux ayant été mis en place pour évaluer l'efficacité. On souligne la base solide de même que la culture de la transparence de la diffusion des résultats dont bénéficie l'approche tant au niveau international que par le biais de forums nationaux d'apprentissage ; il s'agit d'un facteur clé ayant sans aucun doute contribué à son succès. Si l'on souhaite conserver l'intégrité de l'approche, il est important de poursuivre cette culture, de développer de nouvelles méthodologies d'évaluation de couverture, de mettre à l'essai de nouvelles formules d'ATPE, de réaliser le pilotage opérationnel des méthodes novatrices visant à renforcer les orientations en vue d'un traitement, la surveillance et la supervision ou pour tester de nouvelles modalités de gestion de la MAM.

Générer un engagement politique soutenu en matière de PCMA

Comme pour toutes les formes de sous-nutrition, la mise en œuvre effective et le déploiement de la PCMA exigent un engagement décidé et continu de la part du gouvernement. La présence de situations d'urgence crée un impact fort mais de courte durée quand il s'agit de stimuler la PCMA, et ce même lorsque les pays n'ont pas la capacité d'intervenir. Cependant, sur le long terme, l'engagement politique est essentiel pour assurer la coordination du programme entre les organismes gouvernementaux et les bailleurs de fonds afin de garantir une mise en œuvre et une coordination efficaces entre tous les niveaux de l'administration et afin de concevoir et de maintenir des programmes de financement transparents et efficaces. L'exécutif peut jouer un rôle essentiel dans l'intégration de la PCMA au niveau local dans les mesures de réduction de la pauvreté et les objectifs de développement nationaux.

Le leadership politique et la coordination du gouvernement sont déterminants pour assurer le succès à long terme du déploiement de la PCMA. L'exécutif peut

²⁴ Un accord d'utilisation de brevet permet à une entreprise ou une organisation (répondant à des critères spécifiés) de fabriquer, commercialiser et distribuer des produits couverts par des brevets Nutriset/IRD sur les territoires où un brevet commun a été déposé.

²⁵ correction - novembre 2011.

the MoH and in ensuring the continued and coordinated financing of such programmes from government or donor contributions (see Box 6 for a Malawi example). The case study experiences 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.

Box 6: 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 MoH is responsible for 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 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.

Where CMAM programming is isolated and separate 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. This in turn will 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.

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 government's 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, remuneration and career promotion schemes and reliable reporting. Total

Box 7: Decentralisation: pros and cons in Pakistan

With the devolution of the MoH in Pakistan (18th amendment), the sole responsibility of health and nutrition policy and planning now rests with the provinces. This development has brought a number of possibilities and concerns. On the plus side, it may empower lower levels of government by giving them more autonomy and enhance responsiveness and efficiency allowing quicker action where problems are identified. The devolution may also ensure greater equity within provinces. Concerns at the outset are around capacity (insufficient technical, human and financial resources to manage services well), emergency situations (such as how provinces will manage to coordinate a large response when national response has been challenging), inter-provincial problems, especially due to lack of routine health information collection, and lack of a provincial funding mechanisms. National level stewardship is needed to complement a decentralised approach.

decentralisation, without a national framework and stewardship also carries risks (see Box 7).

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. Effective CMAM implementation and scale up is likely to emerge where there is increased local ownership.

Financing CMAM

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

jouer un rôle stratégique dans l'augmentation de l'importance de la PCMA dans le programme national de développement, en renforçant le mandat du ministère de la Santé et en assurant le financement continu et coordonné de tels programmes à partir de contributions du gouvernement ou de bailleurs de fonds (voir encadré 6 pour l'exemple du Malawi). Les expériences d'étude de cas suggèrent que l'exécutif a joué un rôle clef en situant la nutrition à un niveau élevé au sein des projets nationaux des pays où les études de cas ont eu lieu, mais sans pour autant toujours inclure le traitement de la MAS.

Pour le développement de programmes à long terme, il faut aborder la PCMA dans le cadre d'une stratégie gouvernementale plus vaste en termes de nutrition impliquant une meilleure coordination entre les différents secteurs gouvernementaux (santé, nutrition, éducation, développement social, agriculture), les

Encadré 6 : Position de la nutrition au Malawi

Au Malawi, la direction politique et la mobilisation des ressources pour la nutrition relèvent de l'Office du Président et du Cabinet (OPC). Un comité de nutrition présidé par l'OPC accueille des groupes de travail techniques pour différents secteurs de la nutrition. La mise en œuvre des politiques de nutrition relève du ministère de la Santé, c'est-à-dire que le ministère de la Santé est responsable des plans opérationnels pour la mise en œuvre de la PCMA au sein de l'ensemble (« package ») des soins de santé essentiels, y compris du placement d'un poste dans les budgets des plans de mise en œuvre de la PCMA au niveau des districts. Cela permet au ministère de la Santé de se concentrer sur la mise en œuvre alors même que l'environnement politique est renforcé en étant placé à un niveau supérieur. De même, le fait que la nutrition soit reconnue en tant que domaine transversal et que l'on compte disposer d'un nutritionniste dans chaque ministère au Malawi peut aider à hisser la problématique de la nutrition à l'ordre du jour de plusieurs ministères et à faciliter la collaboration intersectorielle.

bailleurs de fonds et les acteurs et les fournisseurs de services au niveau local s'attaquant aux causes fondamentales et sous-jacentes de toutes les formes de sous-nutrition, y compris la MAS. L'exécutif joue un rôle central dans la coordination intersectorielle au sein du gouvernement, épaulé par les intervenants externes, et dans l'amélioration de la durabilité et de la qualité de la programmation en matière de PCMA.

Lorsque la programmation PCMA est isolée et séparée de priorités au niveau national ou lorsque les gouvernements n'ont pas la capacité de s'impliquer plus directement dans les efforts des organismes externes chargés de la mise en œuvre de la PCMA, il est fort probable que la programmation restera tributaire de la disponibilité (incertaine) des fonds d'urgence. Cela nuira alors à la planification à long terme et aux perspectives de déploiement de la PCMA. Dans les situations où les priorités du gouvernement ne sont pas énoncées, les acteurs internationaux doivent faciliter l'articulation des priorités et des stratégies du gouvernement puis s'aligner sur ces dernières. Les bailleurs de fonds doivent quant à eux redoubler d'efforts afin que les acteurs internationaux (ONU) s'alignent sur les stratégies gouvernementales.

La décentralisation effective de la PCMA

La décentralisation effective et la mise en œuvre de la PCMA au niveau local sont un autre facteur clé pour réussir le déploiement. S'il est important que l'exécutif reste impliqué dans la programmation au niveau national, il est également essentiel que le gouvernement renforce le potentiel d'adoption des programmes au niveau du district. La mesure dans laquelle la PCMA peut effectivement être mise en œuvre au niveau du district dépend, entre autres choses, du degré actuel de décentralisation du gouvernement, de la disponibilité de l'expertise et des ressources humaines à des échelons inférieurs du gouvernement et de la disponibilité de données de bonne qualité pour identifier les populations cibles, les zones à risque et les indicateurs de progrès. Le leadership et l'autorité nécessaires au déploiement de la PCMA doivent être décentralisés au niveau du district, de même que les ressources nécessaires à l'appui des plans décentralisés.

Encadré 7 : La décentralisation : avantages et inconvénients au Pakistan

Avec la délégation des compétences du ministère de la Santé au Pakistan (18e amendement), l'unique responsabilité en ce qui concerne la politique et la planification en matière de santé et de nutrition revient maintenant aux provinces. Cette évolution a entraîné l'apparition de possibilités et de préoccupations. Sur une note positive, cette délégation peut déplacer les compétences vers les échelons inférieurs du gouvernement en leur donnant plus d'autonomie et améliorer la réactivité et l'efficacité en permettant une intervention plus rapide dès que les problèmes sont identifiés. La délégation des compétences peut également assurer une plus grande équité au sein des provinces. Au départ, des inquiétudes sont apparues au sujet des capacités (insuffisance des ressources techniques, humaines et financières pour gérer les services correctement), des situations d'urgence (telles que la façon dont les provinces parviendront à coordonner une intervention de grande envergure alors que l'intervention au niveau national avait déjà été difficile), des problèmes inter-provinciaux, en particulier en raison d'un manque de collecte d'information de santé de routine, et au sujet du manque de mécanismes de financement provinciaux. Une gestion au niveau national est nécessaire comme complément à une approche décentralisée.

La mise en œuvre de la PCMA est particulièrement renforcée lorsque le ministère de la Santé dispose d'une présence effective à tous les niveaux du gouvernement ou administre déjà d'autres types de programmes à travers une structure décentralisée. L'examen des études de cas par pays a souligné que plusieurs facteurs pouvaient faciliter la mise en place de structures de décentralisation (et dans certains cas, compenser l'insuffisance de celles-ci), par exemple, une formation et une supervision efficaces, des programmes de promotion de carrière et de rémunération et des rapports fiables. La décentralisation totale, sans cadre et sans gestion au niveau national, comporte aussi des risques (voir encadré 7).

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.



Volunteer Health Workers at the Sai training, Gokwe South in Zimbabwe

UNICEF, Zimbabwe, 2011

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, 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, for example, should become part of disaster risk reduction (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 (see Box 8).

Governments need to present clear costing of CMAM, demonstrate progressive financial commitment (for example, 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 INGOs) 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 (Malawi). In other cases, greater government ownership has been sought through health budgets, 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.

Comme cela a été illustré par des études sur la malnutrition chronique, une plus grande implication de la part des responsables gouvernementaux concernés et engagés et des élites locales peut mener à une sélection plus inclusive des bénéficiaires, une utilisation plus transparente des ressources et une meilleure participation communautaire. Les élites locales sont dans une position privilégiée pour façonner la prise de décision au niveau local et influencer les décisions politiques au niveau national. La mise en œuvre et le déploiement efficaces de la PCMA sont susceptibles d'émerger lorsque la reconnaissance locale augmente.

Le financement de la PCMA

La création d'un volet de financement continu et prévisible est une condition clé pour assurer un déploiement durable de la PCMA. Assurer un flux continu et transparent de fonds destinés au déploiement de la PCMA pose deux défis pour les pays de mise en œuvre. Le premier consiste à s'éloigner du financement d'urgence à court terme et le second de se soustraire à la dépendance à l'égard des bailleurs de fonds afin que les gouvernements soient directement en charge de l'allocation et de la gestion des fonds destinés à la PCMA.

Surmonter le premier défi financier exige des programmes de développement financés à long terme plutôt que des guichets de financement d'urgence à court terme. Le soutien des bailleurs de fonds est actuellement important aussi bien pour la fourniture de matériel de traitement de la MAS que pour le financement des activités connexes comme la distribution de fournitures et le renforcement des capacités. Certains bailleurs de fonds commencent à mettre à disposition des mécanismes de financement à long terme pour la PCMA dans le cadre d'un vaste programme de nutrition, or, ces mécanismes sont actuellement offerts uniquement aux agences de l'ONU et aux ONG internationales.

Afin de promouvoir un consensus sur une stratégie de financement à long terme de la part des bailleurs de fonds, les gouvernements et les bailleurs de fonds devraient établir des estimations précises de financement des interventions en matière de PCMA et des

résultats escomptés. À ce jour, on compte peu d'analyses coûts-avantages de la PCMA spécifiques aux pays et les bailleurs de fonds et les organismes partenaires maintiennent des estimations chacun de leur côté pour le financement des traitements de la MAS, de fournitures thérapeutiques nutritionnelles ainsi que des activités de soutien, des fournitures et des distributions supplémentaires et pour le financement du renforcement des capacités. Les gouvernements et les bailleurs de fonds devront également se mettre d'accord sur le déploiement des objectifs, les incidences financières de ces objectifs, le pourcentage de ressources qui peuvent être fournies par les gouvernements à court terme et aussi sur l'adoption d'une stratégie de financement progressif et réaliste par le gouvernement qui permettrait à celui-ci d'avoir une responsabilité financière et comptable croissante quant au financement du programme.

À l'heure actuelle, les gouvernements et leurs partenaires développent des propositions à court terme pour obtenir un financement spécifique de la part des bailleurs de fonds pour le déploiement de la PCMA. Il faut convaincre les bailleurs de fonds que le soutien de la fourniture d'ATPE, par exemple, devrait faire partie de la réduction des risques de catastrophes (RRC) et que des efforts devraient être faits pour améliorer la durabilité de l'approvisionnement en ATPE, ainsi que pour permettre une meilleure planification et une meilleure intégration de la PCMA dans la santé et les autres secteurs. Il faut également que les partenaires externes s'alignent davantage sur les priorités gouvernementales. Les ONG internationales ne devraient pas toujours capitaliser sur les guichets de financement d'urgence lorsque les guichets de financement à long terme peuvent remplir le même objectif. Les bailleurs de fonds, pour leur part, doivent réévaluer la pertinence de leurs mécanismes de financement actuels pour le déploiement de la PCMA à long terme. Il faut procéder à un changement conceptuel dans la façon dont le traitement de la MAS doit être abordé et financé afin que les organismes externes, qu'il s'agisse de répondre aux situations d'urgence ou à des besoins de développement à plus long terme, mettent l'accent sur le renforcement de la capacité du gouvernement (y compris la capacité de financement) pour que

celui-ci soit au moins en mesure de traiter des niveaux endémiques de MAS lors des années où il n'y a pas de catastrophes (voir encadré 8).

Les gouvernements doivent présenter une élaboration claire des coûts liés à la PCMA, démontrer un engagement financier progressif (par exemple par le biais de fonds gouvernementaux affectés) et identifier les éléments de soutien en matière de PCMA qui ont besoin de ressources supplémentaires. En cas d'urgence, les gouvernements doivent être préparés en disposant de plans clairs et chiffrés pour un déploiement accéléré visant à répondre à la demande accrue. Cela peut aider à limiter la baisse d'appropriation par le gouvernement, ce qui arrive souvent en cas de catastrophe. En outre, les bailleurs de fonds et les autres partenaires de coopération (par exemple les agences de l'ONU et les ONG internationales) doivent mieux aligner leur financement et leurs politiques et stratégies de mise en œuvre de la PCMA sur les politiques à plus long terme du gouvernement en matière de PCMA et de nutrition.

Pour surmonter le second défi lié au déploiement, il faut se soustraire à la dépendance à l'égard des bailleurs de fonds et incorporer des fonds aux budgets gouvernementaux. La ligne de financement la plus coûteuse est la fourniture d'ATPE, composante clé de la PCMA. Une grande partie du défi que pose le renforcement de l'implication du gouvernement consiste à trouver des moyens alternatifs pour la production et le financement des ATPE. Ce n'est que dans une seule étude de cas que le ministère de la Santé a commencé à fournir des ATPE de son propre budget afin de compléter l'approvisionnement externe (Malawi). Dans d'autres cas, une plus grande participation du gouvernement a été demandée dans les budgets de santé, cependant, ces derniers ne constituent toujours qu'une faible portion du budget des gouvernements dans l'ensemble, et la plupart de ces fonds sont destinés à couvrir les ressources humaines (salaires).

Les études de cas illustrent le manque dramatique de données cohérentes et comparables en matière de coûts à tous les niveaux. Au niveau général, il est difficile de mesurer l'ampleur des investissements requis pour



Filling RUTF jars in the RUTF factory in Mozambique

Photo: ARCS, UNICEF, Mozambique

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 life-saving 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 nutrition 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'²⁶.

Despite this continued debate, the evidence 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.

The full report, *Government experiences of scale-up of Community-based Management of Acute Malnutrition (CMAM). A synthesis of lessons, ENN, Jan 2012*, is available to download at www.enonline.net. A limited number of print copies are available, contact the ENN office with requests.

²⁶ Bryce, J., Coitinho, D., Darnton-Hill, I., Pelletier, D. and Pinstrup-Andersen, P. For the maternal and child undernutrition study group., 2008. Maternal and child undernutrition: effective action at national level. The Lancet, Vol. 371, Issue 9611, pp. 510-526.

Box 8: Concern's experience of applying 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 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. Gaps in clinical capacity and resources at each participating facility should these thresholds be exceeded have also been identified. This has allowed support needs to be outlined and agreement to be reached as to the stage at which this additional support can be withdrawn. Concern, 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 provides additional clinical staff and supplies to participating facilities as agreed. Where access to existing facilities proves problematic for patients, Concern is prepared to open additional outreach clinics on a temporary, as-needed basis. Concern is also prepared to provide temporary, as-needed staff to support mobilisation efforts, management of facilities, HMIS and logistics systems. (Source: Concern Uganda Project Report)

réduire la MAS et la MAM de manière significative dans un laps de temps donné. De même, on ne dispose pas de chiffres comparables sur la couverture de la PCMA ou les taux d'expansion de la PCMA par pays. Ce manque de données rend particulièrement difficile d'identifier l'ampleur des défis rencontrés par le déploiement et la stratégie pour surmonter ces derniers.

Améliorer la qualité et la disponibilité des renseignements sur les coûts liés au déploiement de la PCMA est une condition sine qua non pour aider à améliorer la capacité des gouvernements à gérer le financement de la PCMA. L'amélioration des renseignements sur les coûts permettrait également d'identifier et d'optimiser les avantages des synergies existantes entre la PCMA et d'autres interventions sauvant des vies et améliorant les conditions nutritionnelles, par exemple, en reliant les activités dans le cadre de la PCMA au travail quotidien du personnel de santé de première ligne travaillant dans le domaine de l'ANJE, de la PCIME, du VIH, de la tuberculose et de l'interaction entérovirale-nutritionnelle (Enteroviral- Nutritional Interaction - ENI). En outre, afin d'éviter la tendance à chiffrer les activités liées à la PCMA en tant que composants verticaux des programmes, les exercices d'établissement des coûts doivent essayer de déterminer des stratégies critiques rentables d'activités pour la survie de l'enfant auxquelles la PCMA peut être combinée pour accroître la durabilité de celle-ci.

Bien que la MAS soit maintenant presque universellement reconnue comme étant une cause majeure de mortalité des enfants, la PCMA ne semble pas se trouver au sommet de tous les projets mondiaux en matière de déploiement de la nutrition. La principale raison invoquée est la fragilité de nombreux systèmes de santé lorsqu'il s'agit de prendre en charge un nouveau service, bien que cette raison puisse sembler injustifiée si une approche globale visant à aider les pays en matière de nutrition est adoptée. Comme l'affirme la série de The Lancet portant sur la nutrition de la mère et de l'enfant, « le débat.....se dirige vers une approche plus rationnelle qui reconnaît la nécessité d'inten-

sifier les interventions à fort impact et de renforcer en même temps le système de santé²⁶ ».

Malgré ce débat continu, les preuves parlent d'elles-mêmes. Les pays eux-mêmes adoptent une approche mesurée. Même sans soutien financier à long terme ni garanti, les gouvernements, motivés par la charge de cas de MAS et les résultats positifs visibles, déploient la PCMA. Les défis qui se posent sont multiples, en particulier quand il s'agit de financement et de renforcement des capacités nationales. Cependant, on note des réussites et des exemples extrêmement encourageants d'approches créatives et innovatrices pour résoudre certains de ces défis. Les défis n'ont pas empêché la PCMA de se forger une place dans les projets au niveau national. Toutefois, ces expériences des pays soulèvent un certain nombre de questions destinées à tous ceux qui s'occupent de la mise en place et du financement des projets et des plans mondiaux, en ce qui concerne les intentions à plus long terme et les modalités de financement et de soutien pour que les gouvernements deviennent moins dépendants des bailleurs de fonds extérieurs et des dons d'ATPE.

Le rapport complet, *Government experiences of scale-up of Community-based Management of Acute Malnutrition (PCMA). A synthesis of lessons (les expériences du gouvernement pour le déploiement de la prise en charge communautaire de la malnutrition aiguë (PCMA). Une synthèse des enseignements)*, ENN, janv. 2012, peut être téléchargée sur www.enonline.net. Un nombre limité de copies imprimées est disponible, communiquez avec le bureau ENN pour en demander.

²⁶ Bryce, J., Coitinho, D., Darnton-Hill, I., Pelletier, D. et Pinstrup-Andersen, P. For the maternal and child undernutrition study group., 2008. Maternal and child undernutrition : effective action at national level. (Pour le groupe d'étude sur la sous-nutrition maternelle et infantile, 2008. La sous-nutrition maternelle et infantile : une action efficace au niveau national) The Lancet, Vol. 371, édition 9611, pp. 510-526.

Encadré 8 : L'expérience de Concern en ce qui concerne l'application des seuils pour le soutien de la PCMA en Ouganda

Concern soutient le ministère de la Santé dans la région de Karamoja en Ouganda pour la mise en œuvre de la PCMA. Le soutien est axé sur le développement des capacités des équipes de santé de district à gérer le programme et sur le processus d'intégration de la PCMA au sein des systèmes existants de supervision, de surveillance, d'élaboration et de communication de rapports et d'approvisionnement. Concern emploie un système flexible conçu pour fournir du soutien supplémentaire en personnel et en ressources en quantité minimale et adéquate sur une base ponctuelle et à l'attention des établissements de santé du ministère de la Santé pendant les périodes où les niveaux de MAS culminent au-delà de la capacité de gestion existante du MS.

Concern et les équipes de santé de district ont travaillé de concert pour définir le nombre maximum de cas de MAS que chaque établissement est en mesure de traiter sur une base hebdomadaire. On a également identifié les lacunes dans les capacités et les ressources cliniques dans chaque établissement participant au cas où ces seuils seraient dépassés. Cela a permis de définir les besoins en soutien et de parvenir à un accord sur le stade auquel ce soutien supplémentaire devrait être retiré. Concern, les équipes de santé de district et les établissements de santé participants ont signé des accords précisant les rôles et responsabilités de chaque partie dans le cas où Concern serait appelé à mettre en œuvre ce système d'intervention d'urgence. Par exemple, lorsque les seuils convenus sont dépassés, Concern fournit plus de personnel et de fournitures cliniques aux établissements participants, comme il a été convenu. Lorsque l'accès aux installations existantes s'avère problématique pour les patients, Concern est prêt à ouvrir d'autres cliniques de sensibilisation sur une base temporaire, selon les besoins. Concern est également prêt à fournir du personnel temporaire selon les besoins pour soutenir les efforts de mobilisation, la gestion des installations, les SGIS et les systèmes logistiques. (Source : Rapport de projet Concern Ouganda)

Introduction

Globally, more than 3.5 million children under the age of five year die each year due to the underlying causes of malnutrition. It is also estimated that 13 million infants are born each year with low birth weight (LBW), 55 million children are wasted (of which 19 million are severely wasted) and 178 million are stunted. Of the estimated 178 million stunted cases, 90% live in 36 high burden countries that include Ethiopia¹. The consequence of the many adverse interacting elements in Ethiopia is that although malnutrition rates among children are steadily decreasing, they remain at unsatisfactorily high levels. The 2010 Ethiopian Demographic Health Survey (EDHS)² estimated the national prevalence of Global Acute Malnutrition (GAM) at 9.7%, with 44.4% of children estimated to be stunted and 28.7% underweight. Encouragingly, both underweight and stunting prevalence was reducing by 1.34% per year over the past decade. While this trend is clearly progressing in the right direction, Ethiopia will only reach the Millennium Development Goal (MDG) target of halving the number of underweight children if the percentage reduction is increased to at least 1.6

¹ Black, R, Allen, L. H, Bhutta, Z. ., Caulfield, L. E, De Onis, M, Ezzati, M, Mathers, C, and Rivera, J. For the Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: global and regional exposures and health consequences. The Lancet. Published online Jan 17 2008. DOI:10.1016/S0140-6736(07)61690-0
² This data is not yet official until the full EDHS report 2010 is issued (expected December 2011).

Acronyms:

ASRI	Accelerated Stunting Reduction Initiative
CBN	Community Based Nutrition
CHD	Community Health Day
CMAM	Community Management of Acute Malnutrition
EDHS	Ethiopian Demographic and Health Survey
DRMFSS	Disaster Risk Management and Food Security Section
EHNRI	Ethiopian Health and Nutrition Research Institute
ENCU	Emergency Nutrition Coordination Unit
ENA	Essential Nutrition Actions
EOS	Enhanced Outreach Strategy
FFA	Food Fortification Alliance
FMoH	Federal Ministry of Health
GAM	Global Acute Malnutrition
GMP	Growth Monitoring and Promotion
GoE	Government of Ethiopia
HEP	Health Extension Programme
HEW	Health Extension Worker
ICCM	Integrated Community Case Management
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
INGO	International NGO
IRT	Integrated Refresher Training
IYCN	Infant and Young Child Nutrition
LBW	Low Birth Weight
MAM	Moderate Acute Malnutrition
MDG	Millennium Development Goal
MOH	Ministry of Health
MUAC	Mid Upper Arm Circumference
NCHS	National Centre for Health Statistics
NGO	Non-Governmental Organisation
NNP	National Nutrition Programme
NNS	National Nutrition Strategy
OTP	Outpatient Therapeutic Programme
RHB	Regional Health Bureau
RUTF	Ready-to Use Therapeutic Food
SAM	Severe Acute Malnutrition
TFP	Therapeutic Feeding Programme
UNICEF	United Nations Children’s Fund
VAS	Vitamin A Supplementation
WFP	World Food Programme
WHO	World Health Organisation
WoHO	Woreda Health Office
ZHD	Zonal Health Department

Seven month old Aynadis has her MUAC measured as her mother looks on, during the weekly OTP at Geter Meda Health Post

CMAM rollout in Ethiopia: the ‘way in’ to scale up nutrition

By Dr Ferew Lemma, Dr Teweldeberhan Daniel, Dr Habtamu Fekadu and Emily Mates



Dr Ferew Lemma is Senior Nutrition Advisor to the State Minister (Programs), Federal Ministry of Health, and REACH Facilitator, based in Addis Ababa, Ethiopia.



Dr Tewelde has over nine years of experience in the area of nutrition with particular focus on management of acute malnutrition. He has been a Nutrition Specialist with UNICEF Ethiopia since June 2005, previously working with Save the Children and World Vision. He has taken part in the development of Ethiopian national protocol and training materials for management of

severe acute malnutrition and development of national guidelines for HIV and Nutrition.



Dr. Habtamu Fekadu is Chief of Party for ENGINE (integrated nutrition programme), Save the Children US, Ethiopia. He has worked in health, nutrition, and academics in Ethiopia for the last 16 years. His considerable portfolio of experience includes Federal Ministry of Health nutrition lead on the five year National Nutrition Programme (NNP) of Ethiopia, amongst a broad range

of other activities including strategy development, training and evaluation, and working with other agencies, notably UNICEF and Save the Children.



Emily Mates is a public health professional with a focus in nutrition. She was lead researcher with ENN on the CMAM Conference based in Addis Ababa, where she has worked for many years in emergency and development health and nutrition programming

The authors would like to mention in particular the support of Dr Abdulaziz and Mesfin Gose (Federal Ministry of Health), Sylvie Chamois (UNICEF), Pankaj Kumar and Israel Hailu (Concern Worldwide) Iassack Manyama and colleagues (ENCU/ DRMFSS) and the many other partners implementing CMAM in Ethiopia.

percentage points per year. This implies the need to intensify and scale-up known high impact nutrition interventions and those that address wasting. Figure 1 describes the changes in malnutrition prevalence from 2000-2010.

The Government of Ethiopia (GoE) has developed a five-year development plan, the Growth and Transformation Plan (GTP), for the period 2010/11 to 2014/15. The main objectives of the GTP include:

- i) Maintain an average real Gross Domestic Product (GDP) growth rate of 11% and attain the MDGs
- ii) Expand and ensure the quality of education and health services and achieve MDGs in the social sector
- iii) Establish suitable conditions for sustainable nation building, through the creation of a stable democratic and developmental state
- iv) Ensure the sustainability of growth by realizing all of the above objectives within a stable macro-economic framework.

Under the umbrella of the GTP, the GoE launched the fourth Health Sector Development Programme (HSDP-IV). The new (and final) HSDP IV (2010 – 2015) places a strong focus on maternal health issues and has considerably more focus on nutrition than the three previous plans. There are 16 nutrition indicators within HSDP-IV, examples of which include reducing the stunting prevalence from 46% to 37%, reducing the prevalence of wasting from 11% to 3%, and increasing household utilisation of iodised salt from 4% to 95%³.

During the course of implementation of the previous health sector development programme (HSDP-III 2005/6 – 2009/10), a National Nutrition Strategy (NNS) was developed and launched in 2008. The NNS is operationalised through the National Nutrition Programme (NNP), a 10-year initiative aiming to reduce the levels of stunting, wasting, underweight and LBW infants. The first phase is for five years (2008–2013), at an estimated cost of 370 million USD and consists of two main components: 'Supporting Service Delivery' and 'Institutional Strengthening and Capacity Building'. The overall objective is better harmonisation and coordination of the various approaches to manage and prevent malnutrition.

The service delivery arm of the NNP has four sub-components: a) Sustaining Enhanced Outreach Strategy (EOS) with Targeted Supplementary Food (TSF) and transitioning of EOS into the Health Extension Package (HEP), b) Health Facility Nutrition Services, c) Community Based Nutrition (CBN) and d) Micronutrient Interventions.

A process of revision and extension of the NNP has recently commenced (October 2011) for two main reasons:

- i. To align the end of the first phase with the HSDP IV and MDGs, i.e. extend the first phase by 2 years to 2015
- ii. To strengthen initiatives that were not adequately addressed in the original document and include initiatives that have emerged since the NNP was devised. For example:

- Accelerated Stunting Reduction Initiative (ASRI) - inclusive of maternal nutrition, Infant and Young Child Nutrition (IYCN)
- Food Fortification Alliance (FFA), goals and objectives for improving micronutrient status
- Strengthening of multi-sectoral linkages – key sectors include; agriculture, education, water and energy, labour and social protection, finance and economic development, women's children and youth affairs
- Social protection policy and nutrition related indicators
- Moderate acute malnutrition (MAM) programming and the development of improved linkages between preventive and treatment programming
- School health and nutrition (SHN)

CMAM/TFP roll-out in Ethiopia

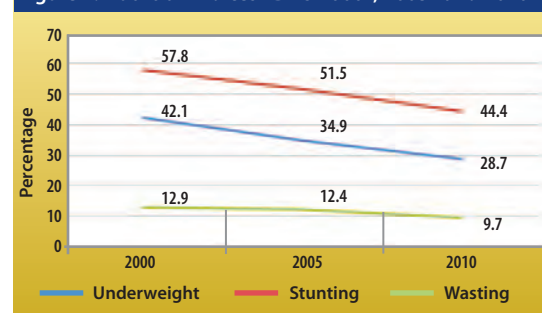
The term Therapeutic Feeding Programme (TFP) is used in Ethiopia to describe the treatment of Severe Acute Malnutrition (SAM). Much has already been written about Ethiopia's scale up experience to date⁵, so the history and development of the TFP in Ethiopia is only briefly summarised here. Community based management of acute malnutrition (CMAM) in Ethiopia traditionally does not include the management of MAM. Hence the discussion below focuses on SAM management only.

A small pilot for CMAM was first conducted in Southern Ethiopia in 2000. A research programme in three countries (Malawi, Ethiopia and South Sudan) followed, implemented from 2002 by Valid International and Concern Worldwide, to test the efficacy and safety of the CMAM approach.

A food security crisis due to drought developed across many areas of the country during 2003/4. This crisis was the catalyst for many international non-governmental organisations (INGOs) to adopt the CMAM approach of treating the majority of cases as outpatients, as they became overwhelmed trying to manage the high caseloads of malnourished children arriving at the Therapeutic Feeding Centres (TFCs).⁶

From 2004/5, the Federal Ministry of Health (FMOH), alongside partners including UNICEF and others, commenced scale-up of SAM treatment services. This involved developing guidelines and establishing more in-patient and out-patient services across the country. In 2007, following international endorsement of the CMAM approach,⁷ the national protocol for SAM treatment was revised to include detailed guidance for the Outpatient Therapeutic Programme (OTP) and community mobilisation activities.

Figure 1: Nutrition indices EDHS 2000*, 2005* and 2010



* Recalculated using World Health Organisation (WHO) Growth Standards⁴ for 2000 and 2005

Box 1. Overview of the TFP in Ethiopia

The TFP combines in-patient and out-patient care for children suffering from SAM (mid upper arm circumference (MUAC) <11.0 cm, weight for height (WFH) <70%, and/or bilateral pitting oedema). Recovery is achieved through provision of Ready to Use Therapeutic Food (RUTF) most commonly the product Plumpy'nut®, according to their body weight. A minority of children with additional complications pass through an in-patient treatment using therapeutic milk and continue follow up as outpatients with RUTF to complete their recovery at home.

It is recommended that there is at least one in-patient unit located in a health centre of each district (woreda). An OTP site is established in the health posts located in each village/kebele, staffed by two Health Extension Workers (HEW).

TFP implementation includes extensive community mobilisation, through supervised community volunteer networks. The success of OTP is dependent on a well-informed and responsive community.

In 2008, a dramatic and rapid increase of SAM cases was seen across Oromia and Southern Nations, Nationalities and People's (SNNP) regions as food security deteriorated due to drought. Responding to this emergency by maximising access and coverage of these life-saving services, the FMOH reviewed the evidence of CMAM effectiveness when implemented at health centre level and made the decision to decentralise CMAM services to primary health care (health post) level. This involved OTP managed by the Health Extension Workers (HEWs)⁸, as outlined in Box 1.

To achieve the rapid decentralisation of OTP, the FMOH led the development of simplified quick reference materials in July 2008⁹. This was immediately followed by a national level master training for nutritionists from NGOs and Regional Health Bureaus (RHBs) to enable cascading of training in 100 districts (woredas) in Oromia and SNNP regions. The master trainers facilitated regional level Training of Trainers (ToT) sessions. The trained staff then provided two-day training for district and HEW staff. By November 2008, 455 health posts in the two affected regions were managing OTP, with results reaching International Sphere recommendations for selective feeding programmes.¹⁰ These good results prompted major and accelerated efforts for scale-up of the TFP

³ Recalculated by Tulane University.

⁴ As the DHS 2010 was not out during the HSDP-IV preparation, DHS 2005 was used as a benchmark.

⁵ Field Exchange issue 40. Emergency Nutrition Network. <http://fex.enonline.net/40/contents.aspx>

⁶ TFCs were often established in a health centre compound with erection of a large tent, and heavy presence of NGO staff to manage the cases on a daily basis.

⁷ WHO/WFP/UNSCN/UNICEF. Community-Based Management of Severe Acute Malnutrition. A Joint Statement by the World Health Organization, the World Food Programme, the United Nations System Standing Committee on Nutrition and the United Nations Children's Fund, 2007. http://www.who.int/nutrition/topics/statement_combined_malnutrition/en/

⁸ 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>

⁹ See Footnote 8 for details of the rapid decentralisation process in 2008.

¹⁰ Of 27,739 SAM children treated, rates of 77.6% recovery, 0.7% mortality and 4.2% defaulter. The Sphere Project recommends recovery >75%, mortality < 10%, defaulter < 15%, coverage of >50% in rural communities, >70% in urban populations and >90% in a camp situation. The Sphere Project. Humanitarian Charter and Minimum Standards in Disaster Response. Geneva, 2011 Edition. Sphere Project. www.sphereproject.org

across the other two main regions (Amhara and Tigray). The pace of scale up has continued, with > 8,000 health facilities currently offering OTP services across Ethiopia. Table 1 shows the number and coverage of health facilities providing CMAM services in Ethiopia.

The FMOH has guided the roll-out of the TFP. It is no longer viewed as a response necessary in times of emergency only. Instead it has become part of the integrated national approach of decentralising primary health care services across the country, through the Health Extension Programme (HEP). This is described further below.

Results of national TFP scale-up

A total of 731,238 severely malnourished children were admitted to the TFP between January 2008 and September 2011, as outlined in Figure 2.

Figure 2 clearly illustrates that the number of children admitted each month continued to increase with the increasing number of OTP sites, while at the same time showing the seasonal variation of caseloads in Ethiopia.

The performance of the TFP has been highly successful with impressive programme results: an average recovery (cure) rate of 82.3%, mortality rate of 0.7% and defaulter rate of 5.0%. All results are well above the Sphere international recommendations, a major achievement for this government-led national public health initiative.

Consistently low mortality rates provide evidence of the ability of primary health care workers to identify and refer sick children - those with a lack of appetite or additional medical complications that require higher-level health care. Note that the low mortality rate is also related to the early case detection that comes from having massively decentralised services. Caregivers can access assistance early-on in the disease process of their child, reducing the need for referrals of complicated cases for in-patient care as well as the risk of death.

The low default rates also confirm the reduced opportunity costs for caregivers when services have been decentralised at scale. These low default rates (for a programme that requires more than one visit to the health facility) also demonstrate broad community confidence in the programme.

The wide-scale roll out of TFP/CMAM in Ethiopia allowed for early detection of the deteriorating nutrition situation during the 2011 Horn of Africa crisis, through identification of the rapidly increasing admission trends in SNNPR and Oromia regions. The country was better prepared to mobilize resources and further develop the capacity already built, well before the crisis was declared globally. Most importantly, the efforts made over the past few years to decentralise TFP/CMAM in Ethiopia ensured that many deaths related to SAM during this current crisis have been averted.

An enabling context for the national TFP scale up – The Health Extension Programme

HSDP III has been a triumph for primary health care in Ethiopia, with massive roll-out of the Health Extension Package (HEP). The HEP involved the training and deploying of 33,000 female HEWs to strengthen the primary health system (1 HEW per 2,500 population, 2 HEWs working together at each village health post). The HEP is well-established across the country and some evidence of its success can be seen in the preliminary results of the EDHS 2010, showing a sustained decrease in infant and under-five mortality rates.¹²

The HEP was originally designed for preventative activities only. The health leadership in Ethiopia has proven to be adaptable when presented with solid evidence, e.g. TFP/CMAM programming (that was decentralised to health post level from 2008) and early treatment of diarrhoea, malaria and Acute Respiratory Infections (ARI). The role of the HEWs has now been formally widened to include basic treatment services as outlined in the Integrated Community Case Management (ICCM), which has been included in the Integrated Refresher Training (IRT) package

currently being delivered in a phased approach to HEWs across the country. This heralds the full integration of TFP/CMAM into the public health system in Ethiopia where a severely malnourished child can access treatment in any health facility in the same way as a child with malaria.

The TFP reporting system

The rapid expansion of the TFP (from 1,240 sites at the end of 2008 to 4,325 by the end of 2009, a 240% increase) ensured that the focus needed to remain on training and capacity building of HEWs and supervisory staff in managing SAM treatment at health post level. Partners were well aware that the reporting system (designed to monitor the number of sites implementing the programme and the quality of care, through tracking recovery, death, default) was poorly functioning during the first two years, but the focus was necessarily on the capacity building of health staff. At the beginning of 2010, as the numbers of TFP sites continued to expand, it became a priority to improve the reporting rate.

UNICEF recruited a TFP Reporting Officer for each region (initially for three months but extended to 11 months of 2010), operating under the Emergency Nutrition Coordination Unit (ENCU). The reporting rates significantly improved, in part due to the TFP Reporting Officers who worked to identify the bottlenecks in the reporting system. In the short term, they also acted as ‘couriers’ for the data early in 2010. See Figure 3 for the progression of TFP expansion and reporting rate.

In order to sustain this improved reporting rate from the regions, the ENCU conducted a review in 2011 to document the lessons learned of how the TFP reporting rate improved. Some of the key lessons included the need for:

- Continuous advocacy on the importance of timely and accurate TFP reports at regional and woreda levels, by all nutrition staff in the regions.
- Training of zonal and woreda Maternal and Child Health (MCH) experts in use of the TFP data base and completion of monthly reports and providing supportive supervi-

Table 1: District level coverage of TFP/CMAM in Ethiopia, October 2011

Hotspot priority number ¹¹	Number of districts	Number of OTPs	Number of SC/TFU
1	175	3,106	192
2	138	2,677	147
3	40	655	32
4	269	1,662	102
TOTAL	622	8,100	473

¹¹ A ‘hot-spot’ classification system has been introduced in Ethiopia where woredas are classified using concepts from the IPC (Integrated Phase Classification) approach. The emergency affected woredas are ranked based on the level of existing hazards including current food security, disease outbreak, flooding, CMAM admissions, nutrition survey results and other related indicators. Emergency affected woredas are classified as priority 1, 2 and 3 woredas, while non-emergency woredas are classified as priority 4.

¹² Since 2005, infant mortality has decreased by 23%, from 77 to 59 deaths per 1,000 live births. Under five mortality

has decreased by 28%, from 123 to 88 deaths per 1,000 births. EDHS preliminary results, 2010.

¹³ A considerable effort was also placed on establishing a monitoring system for the TFP. Independent field monitoring officers worked alongside RHB and woreda officials using standardised checklists and scorecards. A detailed description of this is provided in Field Exchange issue 40, pages 38-42. See footnote 10 for full reference.

¹⁴ Development partners providing support include the World Bank, UNICEF, CIDA, Dutch Government and JICA.

Figure 2: Numbers of OTP sites, SAM children admitted, percentage recovery (cure), death and default rate, and percentage of report completion (January 2008 – September 2011)

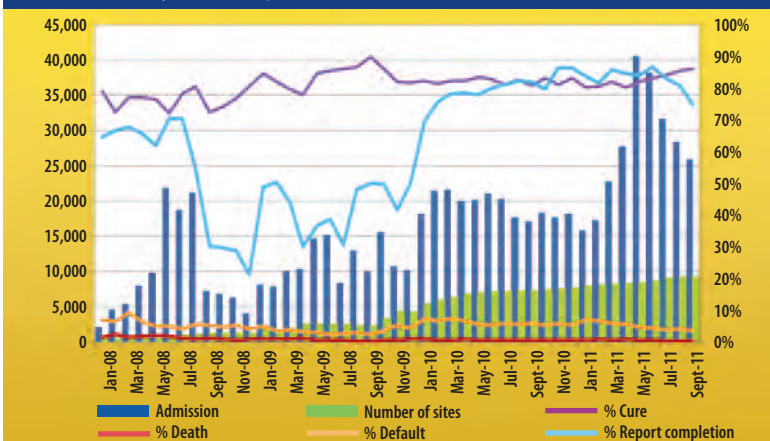
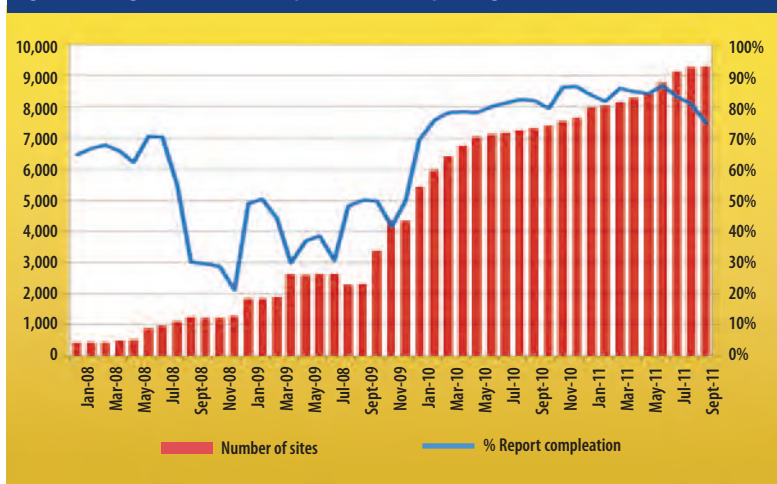


Figure 3: Progression of TFP expansion and reporting rates



sion for relevant staff.

- Including reporting rates as one of the performance evaluation indicators amongst health workers.
- Discussion of reporting rates in the monthly and quarterly review meetings held at regional level, including analysis of reporting submission to encourage the close follow up for those facilities/woredas not reporting.
- Continuous follow up and regular communications with woredas an health facility level experts, using all available means (telephone, e-mail, fax and other networks).

The benefits of the efforts towards improving the reporting rate (consistently above 80%), is that there is now trend data which shows the impressive expansion and successful performance of the TFP at primary health care level.¹³ Additionally, widespread coverage and accurate reporting of the TFP is providing invaluable trend monitoring data. In the absence of routine nutrition information (see below, challenges) reports of increasing numbers of admissions to the TFP have become crucial data alerts for authorities to deteriorating situations, as seen in the lowland drought affected areas during 2011.

There remain on-going challenges for the TFP reporting and nutrition information systems. Although the reporting rates have remained consistently above 80%, there is often a delay in timely compilation and submission of reports. The information often comes late, reducing its efficacy for 'early warning' of deteriorating situations. Also, the standardised database for TFP monitoring is only at regional level and has not yet been implemented at woreda level. With the expanding numbers of TFP sites, there is increased importance for this trend monitoring data to be accurate and timely.

There are also opportunities for the reporting systems. The HMIS has been revised and now includes TFP data in a manner that enables tracking performance standards against the Sphere indicators. Moreover, HMIS reporting from woreda to regional levels will soon change from a quarterly to monthly basis. This will create a solid opportunity to fully integrate TFP/CMAM reporting into the national HMIS.

Linkages with other programmes

TFP/CMAM in Ethiopia has developed some linkages with other nutrition programmes that are implemented under the umbrella of the NNP including:

Community Based Nutrition (CBN)

CBN is the preventative arm of the nutrition service delivery outlined in the NNP. It aims to use community capacity to assess and analyse the nutrition situation of its own community and take appropriate action. Monthly Growth Monitoring and Promotion (GMP) sessions, followed by community conversations and counselling, are used as tools to elicit the triple-

A cycle of assessment, analysis and action. The programme has been gradually expanded, training over 90,000 Community Health Volunteers (CHVs). CBN has been scaled-up to 228 woredas in the four main regions of Ethiopia (SNNP, Tigray, Amhara, Oromiya) supported by development partners of the FMOH.¹⁴ In 2012, the CBN will be rolled-out to an additional 115 woredas bringing the total number of woredas to 343. UNICEF provides technical assistance and support for government implementation.



Seta Temesgen with her seven month old baby, Aynadis, during weekly OTP (Geter Meda Health Post, Lasta District, North Wollo Zone, Amhara Region)

OTP training is provided as part of CBN training in the 343 CBN woredas where CBN is implemented, creating an opportunity for both programmes to benefit from this linkage. The community conversations within the CBN are proving useful in assessing and analysing why a child is malnourished and what behavioural changes could foster improved nutritional status for the children in a family, using their existing resources. Additionally, the presence of TFP/CMAM in all CBN woredas provides good opportunities for referrals and behavioural change messaging for severely malnourished children.

Enhanced Outreach Strategy (EOS)

The Enhanced Outreach Strategy/Targeted Supplementary Food Programme (EOS/TSF) was designed and initiated jointly by the FMOH, the Disaster Risk Management Food Security Sector (DRMFSS) (former Disaster Prevention and Preparedness Agency), UNICEF and WFP, to address some of the most critical child survival and malnutrition problems in Ethiopia and to provide a bridge to sustained nutrition

interventions through the HEP. The EOS was launched in April 2004 with the aim of reducing mortality and morbidity in 6.8 million children under 5 years, as well as pregnant and lactating mothers in 325 drought prone woredas across Ethiopia. This was to be achieved through the implementation of key child survival initiatives, including Vitamin A Supplementation (VAS), de-worming, measles vaccination and screening for malnutrition and subsequent treatment of malnutrition. A major success of the EOS programme has been Vitamin A coverage consistently recorded as over 80% since 2005.

The EOS has transitioned into Child Health Days (CHD) in the 228 Woredas where the CBN programme is currently being implemented. To facilitate the transition of more EOS woredas into the CHDs, an operational plan for transition has been prepared and is under discussion between the FMOH and key partners.

Using the opportunity presented by the six-monthly VAS campaigns, screening for acute malnutrition using Mid-Upper Arm Circumference (MUAC) in drought-affected woredas is also undertaken. Children and pregnant and lactating women (PLW) identified as moderately malnourished receive 3-monthly supplementary food rations through the TSF, while those identified as severely malnourished are referred to the nearest health facility providing TFP/CMAM services. The number of woredas implementing the TSF component of the EOS has been reduced to 167 drought affected woredas in six regions. This is largely due to the lack of sufficient resources available to procure and supply supplementary rations. A concept note has been developed by the FMOH, DRMFSS, UNICEF and WFP regarding the transition of TSF into a programme for management of MAM in the medium to long term.

RUTF in Ethiopia: supply, importation, local production and distribution mechanisms

The development and use of RUTF has been the critical factor that helped to revolutionise the management of SAM, through enabling outpatient treatment for the vast majority of malnourished children. From 2003 to 2005, INGOs generally provided their own supplies for the projects they implemented.

By 2005, the OTP was slowly being scaled up. During the hunger gap in the same year, UNICEF was required to air-lift approximately 400 metric tons of RUTF from their European supplier. In addition to the extra costs associated with air-freight, complicated and time-consuming customs clearance processes presented a challenge for the importation of RUTF. UNICEF took on the role of central

¹⁵ See article regarding UNICEF global supply of RUTF including Ethiopia in Field Exchange 42. Increasing access to RUTF. Jan Komrska, UNICEF,p46-47.

Figure 4: Quarterly distribution of RUTF to TFP from 2008-mid 2011, in metric tons. (Source: UNICEF)

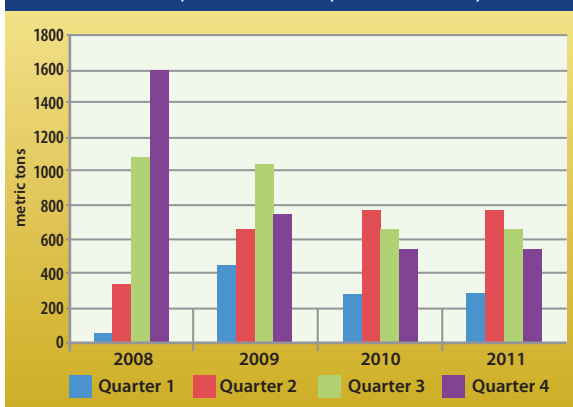


Figure 5: Source and amount (MT) of RUTF for TFP in Ethiopia (2008-2010)

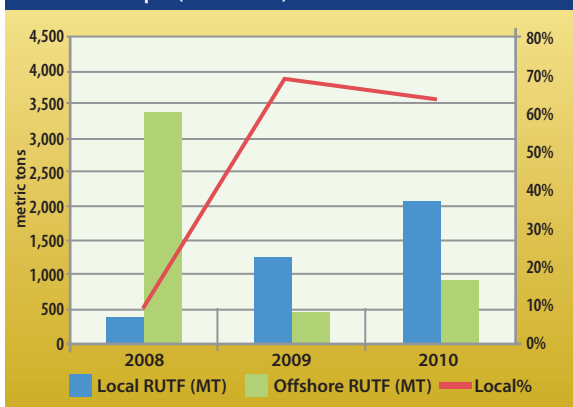
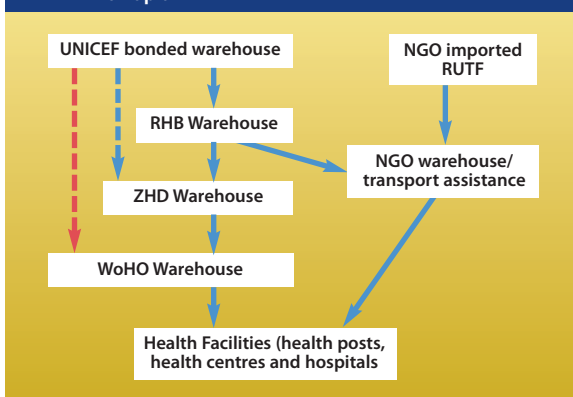


Figure 6: Delivery flow chart of RUTF for TFP/CMAM /TFP in Ethiopia



RHB: Regional Health Bureau, ZHD: Zonal Health Department, WoHO: Woreda Health Office

procurer and distributor of RUTF for most organisations to facilitate the importation processes. UNICEF procured and distributed a total of 11,472 metric tons of RUTF between January 2008 and September 2011¹⁵.

Small scale local production of RUTF was piloted from 2004/5 by Concern and Valid Nutrition, using a small scale local producer and locally produced raw materials, except for the Dried Skimmed Milk (DSM) and mineral/vitamin mix which had to be imported. However, these pilots were unsuccessful as it proved difficult to ensure the quality of the product using small-scale producers.

Success factors for local production

In early 2007, larger-scale production was established following an initial investment from a US-based philanthropist (donating over 300,000 USD, to be repaid back to UNICEF through in-kind contribution by the local manufacturer once the production was up and running). Through the use of Nutriset’s franchise network (plumpyfield), a local company HILINA received the transfer of technology and skills from Nutriset that enabled local production of RUTE, of a quality that passed the expected standards of both Médecins Sans Frontières (MSF) and UNICEF.

While the local producer was gradually scaling-up

production, it was not enough to meet the needs of the expanded TFP during nutrition stress years (such as 2008). A large amount of RUTF still needed to be imported, although the proportion supplied by local production is encouraging.

Between January 2008 and June 2011, approximately 39.3 million USD had been invested in the procurement of RUTF. This cost does not include the freight and distribution expenses. RUTF remains the most expensive component of the TFP; a cost analysis is currently being undertaken (together with the CMAM evaluation), which is expected to provide more information of the costing associated with the TFP in Ethiopia.

Challenges with local production

The local producer continues to procure all peanuts and oil from the local market, which positively contributes to the local economy and livelihoods of farmers. However, sometimes the quality of the RUTF has been compromised, with unacceptably high levels of aflatoxin contamination from poor handling and storage of peanuts. The local producer has taken several steps to ensure that levels of aflatoxin stay within acceptable recommendations. UNICEF has also instituted a system of testing each and every batch of RUTF for contamination. This has resulted in a two week lead time after completion of the production until aflatoxin test results are received from an independent laboratory in the UK. These efforts by the producer to improve the quality of the locally sourced raw materials have been showing results. Over the past 12 months, only one batch of RUTF has failed to comply with acceptable levels of aflatoxin in the final product.

Distribution systems and structures for RUTE

The in-country distribution of RUTE uses various routes to reach the health facilities. The bulky nature of the RUTE in both volume and weight that is required to ‘cure’ each severely malnourished child is considerably larger than the drug supplies usually needed for routine treatment of other life-threatening conditions. As a result, pre-positioning several months worth of RUTE supplies has often been beyond the warehousing capacity of the health system. Additionally, the seasonal and sometimes drought-related rapid increases in admissions to the TFP, intensifies the pressure on the health service logistic system for ensuring timely deliveries of large volumes of RUTE.

The FMOH uses the Pharmaceutical Fund and Supplies Agency (PFSa) logistic system for most medicines and supplies used within the health system. As described, RUTE is a bulky and heavy product, which has meant that it is beyond the current capacity of the PFSa system to handle distribution and storage. As a result, UNICEF and partners have been required to deliver the RUTE through the RHBs and ZHDs, indicated in Figure 6.

UNICEF has distributed an average of approximately 2,800 metric tons of RUTE per year since 2008 to health facilities across

Ethiopia.¹⁶ Mostly it is delivered directly to the RHB warehouses although in times of emergency, UNICEF sometimes delivers to the zonal level or direct to woredas (dotted lines in Figure 6), to minimise the risk of damaging stock-outs. Re-supplying of the RUTE is based on official requests from the RHBs using the TFP reporting system, with re-supply levels based on the monthly reported caseloads.

Major successes of the RUTE supply and distribution system

The system has enabled rapid expansion of CMAM capacity to over 7,000 health posts. It is flexible and able to respond to emergency needs. Performance is strongly related to the technical persons implementing the programme, as they take the lead in requisitioning and distributing the RUTE. NGOs can access the RUTE from ZHDs or RHBs and support its delivery to health post level. UNICEF acting as the central procurement channel has considerably eased the burden on partners for importation and customs clearance

Major challenges of the RUTE supply and distribution system

The limited warehousing capacity of the regional and zonal health offices can sometimes affect the quantity of RUTE that can be delivered and stored safely. Late requests and inadequate forecasting of projected consumption compromise programming. Some misuse/ leakage of RUTE by clients has been reported (selling and sharing), using for moderately malnourished children and at times, adults. Some duplication can occur between partners, e.g. UNICEF, the Food By Prescription programme (FBP) and GOAL, creating difficulties for some facilities to track records of clients versus commodities. Coordination meetings have been established to assist with reducing duplication.

CMAM transition in emergencies and development

Management of SAM has traditionally been considered an emergency response, often implemented by NGOs. In the context of chronic food insecurity and seasonal hunger, programmes open based on emergency thresholds of SAM and GAM rates and then close as the situation improves, only to reopen in the next hunger season. The implications of this traditional emergency focus of CMAM include irregular and short-lived funding, inadequate resources for capacity building of the health system and delays in the emergency response. These delays have mostly been linked with the time needed to identify the affected woredas and conduct nutrition surveys, in order to justify the poor situation and hence access emergency funding from the various donors. This paradigm has resulted in additional costs of repeatedly phasing in and phasing out of programmes for the management of acute malnutrition in chronically affected woredas. The timeliness and adequacy of RUTE provision can be hostage to the declaration of emergency situations and resulting donor pledges. Hence there is a need for improved funding mech-

¹⁶ This is equivalent to over 217,000 cartons or over 32.5 million sachets per year

anisms, especially for on-going situations that may not be characterised as a humanitarian emergency.

The extensive CMAM rollout in Ethiopia has enabled unusual access to longitudinal information on admissions of severely malnourished children to public health facilities over the past few years. Instead of waiting for nutrition surveys to be planned, undertaken and compiled, humanitarian actors can easily identify the progress or deterioration of a given nutrition situation, through surveillance of the monthly admissions to CMAM. The massive increase in coverage of CMAM services across the country has allowed access to first-hand information from wide areas. These constitute a considerable proportion of the country, especially if compared to the handful of woredas that were being reached through nutrition surveys. However, it must be noted that routine programming data, reports and anthropometric measurements will likely be of lower quality than standard nutrition survey data. Therefore, while the use of nutrition survey data remains relevant in specific situations, it is not necessarily the only tool available for decision making for action.

In addition to nutrition surveys, hot-spot classification has been introduced in Ethiopia. The 'hot-spot' priority list provides the basis for the Relief Requirement Plan released by the DRMFS in collaboration with all sector ministries and the UN. The use of the 'hot-spot' classification system has been a step forward from the sole reliance on the use of GAM and MAM thresholds, to decide when to start and stop interventions.

Ways forward

Integrated management of acute malnutrition at scale

CMAM has integrated very well into the primary health care system of Ethiopia and is undoubtedly saving the lives of many vulnerable children. There has been demonstrated success when linking CMAM with the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) and ICCM initiatives. Encouragingly, many opportunities for the capacity building of frontline health workers continue to present themselves in Ethiopia. What is less clear is how the level of funding for integrated treatment for SAM will be sustained over the longer-term, since the supplies are expensive. There is an urgent need to strategise the possibilities of funding sources beyond humanitarian mechanisms. This could not only provide funding sources for ongoing needs, but would enable more equity of services, if severely malnourished children in 'non-emergency' woredas were able to have the same access to treatment as those living in identified hot-spot woredas. The cost analysis of the UNICEF/MOH CMAM evaluation (currently underway) is expected to provide useful insights on the cost effectiveness of investing in the management of severe acute malnutrition.

The implementation of TFP/CMAM at scale calls for concerted efforts and investment in quality monitoring and improvement. CMAM quality improvement is contingent on many of the health system pillars¹⁷ including service delivery, information systems, the health workforce, medical products, health financing and leadership. As a result, efforts to improve



Health Extension Worker, Habtam Byabel, attends to Seta Temesgen and her baby, Aynadis, inside the Geter Meda Health Post

CMAM quality should be viewed from the health system's perspective, and therefore contribute to overall improvements in the system.

In addition, there is a need for improved linkages between TFP/CMAM, CBN and other direct nutrition interventions currently being implemented in Ethiopia to ensure that the maximum gains are being leveraged from the considerable investments being made by both government and partners.

Operational research priorities

Under the NNP, operational research is identified as crucial for developing our understanding of effective preventive and curative nutrition interventions. A number of research possibilities have been identified by FMOH/ EHNRI and partners, with priority operational research areas as follows:

- Cost effectiveness study of TFP/CMAM in Ethiopia
- Determinants of successful and lasting management of SAM through community based nutrition activities
- Assessment of quality of nutrition data; flow, data utilisation, and validation
- Study on the effectiveness, feasibility, acceptability and compliance of micronutrient powders (e.g. Sprinkles) to improve complementary feeding practices and reduce micronutrient deficiencies in children under 2 years of age.

Conclusion

The large numbers of severely malnourished children successfully treated over the last few years testifies to Ethiopia's success in fully integrating the out-patient management of SAM into all levels of the routine health system. Importantly, across this vast land, services have

been decentralised to primary health care level to improve access and coverage.

Based on our successful experience of scaling up TFP/CMAM in Ethiopia, countries that are considering starting TFP/CMAM could try to scale-up services to national level. Such actions save lives, both during emergency situations and as part of routine nutrition interventions. It is clear that the implementation of TFP/CMAM at-scale not only puts pressure on the health system, but also stimulates it to respond to the additional demands. This could be due to the fact that the programme is so visibly successful; it creates demand from within communities because of the rapid improvement in their sick malnourished children; when able to access appropriate treatment, the transition of their children - from listless and lethargic, to playful and energetic - can provide a powerful motivating force for the community.

Ethiopia has learned that to successfully roll-out TFP/CMAM, it is vital to ensure government commitment and to develop good coordination between government and development partners (especially for resource allocation). It is also crucial to create a well-established logistics system and well thought-out monitoring and evaluation systems, to ensure both quality and continuity of services.

For more information, contact: Dr Ferew Lemma, email: ferew.lemma@yahoo.com

¹⁷ WHO. Everybody's Business: Strengthening health systems to improve health outcomes: WHO Framework for action. 2007. (accessed at <http://www.who.int/healthsystems/round9.2.pdf>)



Effectiveness of public health systems to support national rollout strategies in Ghana

By Michael A. Neequaye and Wilhelmina Okwabi



Wilhelmina Okwabi is Deputy Director of Nutrition of the Ghana Health Service (GHS), a position she has held for 2 years. Her previous positions include Programme Manager of Nutrition and HIV/AIDS, National Coordinator for Infant and Young Child Feeding, Assismstant Programme Manger (Supplementary Feeding Programme) and Nutrition Course Coordinator in a Rural Health Training School.



Michael A. Neequaye works with the Ghana Health Service as the National Programme Manager, Nutrition Rehabilitation, and the National Coordinator for the CMAM programme since 2007. Previously he was the Regional Nutrition Officer of the Ministry of Health in the Eastern region of Ghana before joining World Vision Ghana as the Project Manager for the Micronutrient and Health (MICA) Project for 10 years.

The authors gratefully acknowledge the support of WHO, USAID/FANTA-2, and UNICEF in writing this article. The Nutrition Department would like to mention in particular the following people for their invaluable contributions and comments during the development of the article: Dr. Isabella Sagoe-Moses and Cynthia Obbu, Ghana Health Service (GHS), Reproductive and Child Health Department, Samuel Atuahene-Antwi GHS, Ga South Municipal Health Directorate, Akosua Kwakye, WHO/Ghana, Alice Nkoroi, USAID/FANTA-2, Catherine Adu-Asare, USAID/FANTA-2, Ernestina Agyapong, UNICEF/Ghana, Maina Muthee, UNICEF/Ghana. Special thanks also to the Director General, Director of Family Health and other Divisional and Departmental Directors of GHS for their support in the integration of CMAM into the health service delivery in Ghana. Last but not least, GHS wishes to thank all Directors and staff working in the 31 districts implementing CMAM in Ghana.

Background

National nutrition and health situation

Like most developing countries, Ghana is faced with high rates of malnutrition. According to the Ghana Demographic and Health Survey (GDHS) 2008, 14% of children under five years are underweight, 28% are stunted and 9.0% wasted. Severe wasting is 2.0% with the highest proportion of severely wasted in the Upper West (3.9%), Eastern (3.7%) and Northern (3.4%) regions of the country (see Figure 1 for map of Ghana). In terms of micronutrient deficiencies, the prevalence of anaemia is very high among the women of reproductive age (59%), pregnant women (70%) and lactating women (62%). It is equally high among children under-five at 78% with no improvement seen when compared to the 2003 GDHS. Encouragingly, infant mortality has dropped from 64/1000 live births (GDHS 2003¹) to 50/1000 live births (GDHS 2008²) whilst under-five mortality has dropped from 111/1000 live births (GDHS 2003) to 80/1000 live births (GDHS 2008).

Over recent years, the country has developed and implemented a number of strategies to combat malnutrition. Progress has been made, with an increase in exclusive breastfeeding rate among infants less than 6 months from 53% (DHS 2003) to 63% (DHS 2008). Progress has also been made towards the achievement of the MDG 1 target of halving underweight by 2015. The prevalence of underweight has reduced from 23% in 1993 to 14% in 2008, however, major challenges remain. There has been limited progress in reducing stunting (chronic malnutrition), the prevalence of which has fallen by only 6 percentage points since 1988. Ghana is among the 36 countries with a stunting prevalence above 20%³. Whilst levels of wasting have remained relatively constant, it is also of concern that the rate of overweight among children under five years is on the increase (from 1% in 1998 to 5% in 2008), indicating a dual burden of malnutrition.

¹ Ghana Demographic and Health Survey, 2003
² Ghana Demographic and Health Survey, 2008
³ Black et al, 2008. Maternal and Child Undernutrition 1. Maternal and child undernutrition: global and regional exposures and health consequences.

Acronyms:

CHIM	Centre for Health Information Management
CHO	Community health officer
CHN	Community Health Nurse
CHPS	Community Health Planning Services
CHVs	Community health volunteers
CMV	Combined Mineral and Vitamin mix
CSO	Civil society organisation
DHMT	District Health Management Team
FANTA2	Food and Nutrition Technical Assistance Project II
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GPRS II	Ghana Poverty Reduction Strategy II
GSGDA	Ghana Shared Growth and Development Agenda
HIMS	Health Information Management System
HSMTDP	Health Sector Medium Term Development Plan
ICD	Institutional Care Division
IMNCI	Integrated Management of Neonatal and Childhood Illness
IYCN	Infant and Young Child Nutrition

MOH	Ministry of Health
MUAC	Mid Upper Arm Circumference
NACS	Nutrition Assessment Counselling and Support
NHI	National health insurance
NID	National Immunisation Day
NMCCSP	Nutrition Malaria Control for Child Survival Project
NRC	Nutrition Rehabilitation Centre
PLHIV	People living with HIV
RCH	Reproduction and Child Health
RHMT	Regional Health Management Team
RUTF	Ready to Use Therapeutic Food
SAM	Severe acute malnutrition
SAM ST	SAM Support Teams
SAM SU	SAM Service Unit
SAM TC	SAM Technical Committee
SBCC	Social Behaviour Change and Communication
SFP	Supplementary Feeding Programme
PPME	Policy Planning and Monitoring and Evaluation
TMPs	Traditional medicine practitioners

Figure 1: Administrative map of Ghana



Health and nutrition policies

The National Nutrition Policy is currently being drafted⁴. Prior to the development of the national nutrition policy, a strategic document 'Imagine Ghana free of Malnutrition'⁵ was developed by a multi-sectoral group of stakeholders. The document set out strategic nutrition objectives and provided costing for implementing nutrition interventions to meet the set objectives. This document is currently being used as the basis for the nutrition policy, updating and aligning Ghana's nutrition priorities to address under-nutrition using evidence-based nutrition interventions.

The Ghana Health Sector Medium Term Development Plan (HSMTDP) 2010–2013 and the Ghana Shared Growth and Development Agenda (GSGDA), which is a follow on document to the Ghana Poverty Reduction Strategy II (GPRS II), identify nutrition and food security as critical and cross-cutting issues in addressing overall human resource development. The GSGDA sets out policy objectives to address issues relating to nutrition and food security. Both aforementioned documents express particular concern regarding the persistent and high undernutrition rates among children, particularly male children in rural areas and in northern Ghana. The HSMTDP identifies the scale up of CMAM as an important intervention for helping to reduce under five mortality rates and also for improving the nutrition status of women and children.

Vulnerability to emergencies

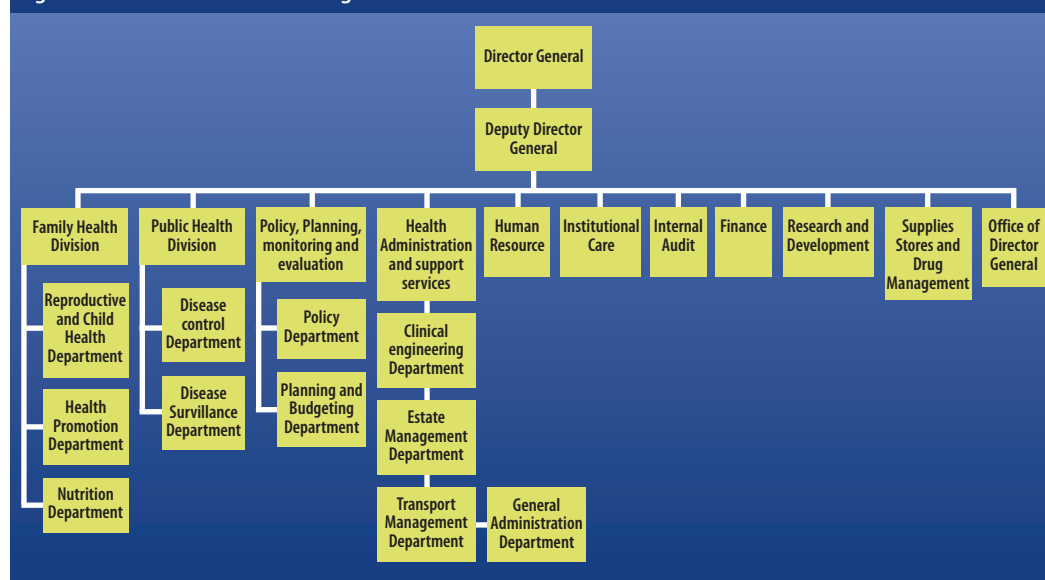
The Comprehensive Food Security and Vulnerability Analysis conducted by the World Food Programme (WFP) in May 2009 showed that, although Ghana is generally less affected by food insecurity compared to other West African and sub-Saharan countries, about 1.2 million Ghanaians are food insecure. A further 2 million people are vulnerable and could experience food insecurity during adverse weather conditions, such as floods or droughts, and as a result of post-harvest losses. Although the prevalence of acute undernutrition is below emergency thresholds, nutritional challenges threaten Ghana's overall social and economic development. There are regional variations in food security and undernutrition in the country. The Northern regions (Upper East, Upper West, and Northern) have a higher prevalence of underweight and wasting that are closely linked to food insecurity. Lack of access to food is also a determining factor for acute undernutrition in the coastal zone.

Organisation of the Ghana Health System (GHS)

The Ministry of Health (MOH) is the government ministry in Ghana that is responsible for the formulation of national health policies, resource mobilisation, and health service delivery regulation. The MOH has a number of agencies, including the Ghana Medical and Dental Council, the Pharmacy Council, Ghana Registered Nurses and Midwives, Alternative Medicine Council, Food and Drugs Board, Private Hospitals and Maternity Homes Board, National Health Insurance Secretariat, Ghana National Drugs Programme, teaching hospitals and the Ghana Health Service (GHS). See Figure 2 for an overview of the GHS structure.

The GHS is an autonomous body under the MOH, responsible for healthcare provision in accordance with MOH policies through public

Figure 2: Ghana Health Services organisation structure



hospitals, health centres, and Community Health Planning Services (CHPS) compounds. The GHS provides in-service training and develops guidelines and plans for implementation of national health policies. Private and faith-based health facilities, such as mission hospitals, administer approximately 40% of healthcare services in the country. While independent, these facilities are bound by national MOH policies and GHS guidelines and are required to submit statistics and reports to the GHS.

The Family Health Division under the GHS has three departments: Reproductive and Child Health, Nutrition, and Health Promotion. The Nutrition Department assigns Programme Officers for the various nutrition programmes such as Infant and Young Child Nutrition (IYCN), Nutrition Malaria Control for Child Survival Project (NMCCSP), Micronutrient Control Programme, which covers vitamin A, iron deficiency anaemia, iodine deficiency disorders and food fortification, Nutrition Rehabilitation, which includes CMAM and Nutrition Assessment Counselling and Support (NACS) for PLHIV, and the Supplementary Feeding Programme (SFP) in Northern Ghana. At the regional and district levels, there are assigned nutrition officers, while at the sub-district levels a health manager (Physician Assistant or Public Health Nurse) oversees nutrition activities along with other health activities.

Health services delivery

There are three semi-autonomous referral teaching hospitals, one each in the northern, central and southern parts of the country. There are ten regions of Ghana, divided into 170 districts, and each region has a regional referral hospital. All districts are expected to have a district hospital, which serves as the first referral level. However, some of the newly created districts have upgraded health facilities rather than hospitals, due to variations in levels of staffing and equipment. Districts are further divided into sub-districts, which have health centres headed by Physician Assistants and staffed with clinical and public health nurses and other auxiliary staff. Some of the larger urban health centres, referred to as polyclinics, are staffed with physicians in addition to the personnel mentioned above. Additionally, there are 42 Nutrition Rehabilitation Centres (NRCs) that were established to manage malnutrition prior to the introduction of CMAM. Ten of the

NRCs provide residential nutrition care. NRCs tend to be clustered in more urban areas. Administratively, the GHS is managed at the regional and district level by health directorates.

Beyond the sub-district level, community level health services are provided through different mechanisms. Two of the more developed mechanisms include child welfare outreach points (run from health centres) and CHPS zones. The CHPS zones comprise communities of 3,000 to 4,500 people (generally two to five villages), to which a community health officer⁶ (CHO) is assigned to provide primary health care services from the CHPS compound (the nurse's home and office, built by the community) and through frequent home visits. The CHO is supported by a number of community health volunteers (CHVs) selected by a community health committee, comprised of village leaders, women's and youth groups, traditional birth attendants and others.

Across the different levels of service delivery, health staffing is generally adequate with exceptions in newly formed districts. The Northern regions also tend to have fewer physicians and nurses compared to the southern and central parts of the country because these regions are less developed.

CMAM integration and scale up in Ghana

Introduction of CMAM

CMAM was first introduced in Ghana in June 2007 at a workshop organised by the GHS in collaboration with UNICEF, WHO and USAID for selected health care providers throughout the country. See Table 1 for an outline of key events in the development of CMAM in Ghana. Prior to 2007, the GHS had addressed the needs of children with severe acute malnutrition (SAM) in paediatric wards or NRCs, which provided nutrition counselling and foods cooked using locally available ingredients. However, these NRCs did not follow the WHO 1999 treatment protocol for the management of SAM⁷ or provide any specialised therapeutic foods for children with SAM.

⁴ As at November 2011.

⁵ 'Imagine Ghana Free of Malnutrition', NMCCSP Programme supported by the World Bank

⁶ A Community Health Officer is a Community Health Nurse or Midwife who receives additional training, upgrading his/her skills to manage a CHPS zone.

⁷ WHO. 1999. Management of severe malnutrition: A manual for physicians and other senior health workers.

Following recommendations from the June 2007 workshop, the MOH/GHS adopted the CMAM approach for the management of SAM with the establishment of learning sites in two districts, Ashiedu-Keteke sub-metropolitan area (Greater Accra region) and Agona District (Central region) in April 2008. The learning sites were later expanded to Ga South district in March 2009. These learning sites provided accessible practical experience and an opportunity to refine the strategy for the scaling-up of CMAM in phases.

Integration and scale up of CMAM

CMAM integration and scale up within Ghana has been planned in a two-phased approach. Phase 1 targeted five regions: Upper West, Upper East, Northern, Central and Greater Accra. The second phase will target the five remaining regions of Western, Eastern, Volta, Ashanti and Brong-Ahafo, which is expected to start in 2012.

The Phase 1 scale-up of CMAM began in 2010, with a limited number of districts and a gradual expansion to additional districts in 2011. CMAM scale-up activities have specifically focused on strengthening the capacities of the GHS and nutrition partners and developing competencies for sustainable, quality services for the management of SAM. An enabling environment for CMAM was created and competencies strengthened in partnership with UNICEF, WHO, USAID, the USAID-funded Food and Nutrition Technical Assistance Project II (FANTA-2), national training institutions, and other partners in health and nutrition.

In Ghana, the operational strategy for CMAM is managed by the SAM Technical Committee (SAM TC) at the national level. At

the regional level, support teams working under the regional health director oversee the roll-out of CMAM within their regions.

CMAM services and supplies were made accessible in a sustainable manner, in order that quality services could be provided to children with SAM. To ensure quality service provision, each region initiated CMAM in one or two districts with a limited number of outpatient and inpatient sites. These facilities acted as learning sites for the region, with services then gradually scaling-up to the rest of the districts in the region. Decisions to expand CMAM to new districts were based on the quality of service delivery at the learning sites, the availability of qualified technical personnel to provide technical support and the availability of resources and supplies to ensure continuous service delivery in all new districts.

A five-year National Scale up Strategy is currently being developed. It is expected that the National Strategy for CMAM will be discussed and endorsed in a national workshop.

Partnerships

The MOH/GHS is responsible for the overall coordination of CMAM services, creating an enabling environment and providing CMAM services. The MOH/GHS health care providers manage SAM cases in outpatient and inpatient care and collaborate with health volunteers to conduct community outreach activities. Other GHS human resources at managerial and auxiliary levels support CMAM services as part of existing routine health services. MOH/GHS national, regional and district technical officers are responsible for building the capacity of the implementing health care providers.

The GHS is also responsible for distributing and storing CMAM supplies through the existing GHS logistics system. The GHS also provides routine medication (antibiotics and malaria prophylaxis) free to children with SAM in some facilities.

Partners currently supporting the integration and scale-up of CMAM in Ghana are USAID, USAID/FANTA-2, UNICEF and WHO. The partners provide technical assistance that includes facilitating the development of guidelines, training materials, monitoring, reporting and quality improvement tools, and supporting the review of the learning sites that inform design of the CMAM services. UNICEF and USAID also procure CMAM supplies for the government and provide financial support to the GHS to conduct trainings and other capacity building activities.

Implementation of CMAM in Ghana

Enabling environment for CMAM

The MOH/GHS has taken the lead role in the integration of CMAM into the national health system. In December 2007, the GHS established the SAM TC to coordinate and oversee implementation and integration of CMAM activities into the service delivery system at all levels in Ghana. The SAM TC is chaired by the GHS Nutrition department and is composed of a range of representatives, including other GHS Departments, Institutional Care Division (ICD), Child Health, Policy Planning and Monitoring and Evaluation (PPME), Korle-Bu Teaching Hospital (representing the academic institutions), and partners (UNICEF, WHO, USAID and FANTA-2).

The SAM Service Unit (SAM SU), which is a core team of the SAM TC, is housed in the GHS/Nutrition Department and receives technical and financial support from USAID, FANTA-2, UNICEF and WHO. It is responsible for providing day-to-day technical guidance, coordination and advocacy for CMAM.

At the regional level, SAM Support Teams (SAM STs) were established in January 2010. Their role is to plan and coordinate CMAM implementation within the region and provide technical support to the districts and facilities. The regional SAM STs comprise of GHS staff specifically the Regional Nutrition Officer, Regional Public Health Nurse, Regional Disease Control Officer, Regional Clinical Care Officer (from the ICD) and an appointed clinician/paediatrician trained and experienced in inpatient care. The Regional SAM STs report to the Regional Health Director.

Integration and scale-up of CMAM is a key component of nutrition in the HSMTDP 2010–2013. The SAM TC prepares national annual CMAM work plans and also supports the regions to prepare region-specific CMAM scale up plans. These work plans are then integrated into the overall regional and national GHS annual work plans in line with the health sector plan. The nutrition policy under development will include policy guidance on implementation and scale up of CMAM in Ghana.

The MOH/GHS has developed and disseminated the Interim National Guidelines for CMAM in Ghana that are widely used within the implementing regions. CMAM has also been integrated into the new IMNCI

Table 1: Key events timeline

Date	Activities
June 2007	- Workshop organised to introduce CMAM into Ghana.
December 2007	- Severe Acute Malnutrition Technical Committee (SAM TC) formed to plan and coordinate the integration of CMAM into the health delivery system.
March 2008	- Sensitisation of regional and district health directorates on CMAM in Central and Greater Accra regions where learning sites were selected.
April 2008	- Training for health staff in the learning sites on outpatient and inpatient care. - Training of volunteers in community outreach. - Initial outpatient care facilities established in the learning sites of Ashiedu Keteke (2) and Agona Districts (7).
July 2008	- Field testing of the generic community outreach module conducted in Ghana. This is part of the FANTA, VALID, UNICEF, Concern Worldwide and other partners CMAM training modules developed in 2008.
March 2009	- CMAM activities scaled up within the learning sites to provide district-wide coverage in Agona West Municipality and Agona East District.
May 2009	- Field test of the global CMAM costing tool.
July 2009	- Conducted a CMAM training of trainers workshop for regional health staff from Phase 1 regions (Northern, Upper East, Upper West, Central and Greater Accra).
August 2009	- Conducted the first expanded WHO training of facilitators and clinicians workshop on the management of SAM in inpatient care. The expanded WHO training included the management of SAM in the context of CMAM.
January 2010	- Initiated the review and adaptation of the generic CMAM training materials developed by FANTA, VALID, UNICEF, Concern Worldwide and other partners in 2008 to the Ghana context. This included recent global developments and best practice in the management of SAM. - Initiated the review and adaptation of the generic WHO training materials for inpatient management of SAM in the context of CMAM in Ghana.
May 2010	- Scale up of CMAM started in the Phase 1 regions (Upper West, Upper East, Northern, Greater Accra and Central).
Feb 2010	- The SAM TC approved the Interim National Guidelines for CMAM and Job Aids.
August 2010	- Review of the integration of CMAM services into the health system.
January 2011	- Consolidated feedback from the regions and districts implementing CMAM on the Ghana adapted CMAM training materials. - Consolidated the feedback from clinicians and other trainers on the adapted Ghana inpatient care training materials.
January 2011	- Conducted regional SAM STs refresher training and annual planning workshop.
January 2011 to date (Aug 2011)	- Ongoing scale up of CMAM within Phase 1 scale up regions.

Table 2: Number of health care providers and community volunteers trained (as of August 2011)

Region	Number trained in outpatient care (OPC)*	Number trained in inpatient care (IPC)	Community Health Volunteers (CHV)
Greater Accra	330	38	515
Central Region	294	79	579
Upper East Region	156	37	304
Upper West Region	190	28	1816
Northern Region	213	83	3641
National Level Trainers	23	25	-
Total	1183	290	6555

*District nutrition officers, disease control officer, CHN (Community Health Nurse)/CHO trained on CMAM provide training to community volunteers



Follow up visit on a SAM child to prevent defaulting

(Integrated Management of Neonatal and Childhood Illness) chart booklet and training materials. In addition, the WHO pocket booklet is currently being updated to reflect Ghana-specific adaptations and will provide guidance to clinicians on the management of SAM in the hospitals.

Competencies for CMAM

In order to integrate and scale-up CMAM in Ghana, it has been necessary to conduct in-service training for health care providers to improve their knowledge and skills in recent global developments and best practices in the management of SAM. Since 2008, the SAM SU and regional SAM STs have spent considerable time conducting training to build the capacity of health care providers at the national, regional, district and facility levels. Training has also been provided to CHVs on active case search, follow up and referral of SAM cases. To date, approximately 1,473 health care providers and 6,555 CHVs have been trained on the management of SAM. Table 2 provides details of health care providers and CHVs trained since initiation of CMAM in Ghana.

In addition to in-service training, the SAM SU and regional SAM STs provide continuous supportive mentoring and supervision to the DHMT and facilities implementing CMAM. Interns from tertiary institutions assigned to the Nutrition Department and within the implementing districts receive training and orientation to provide support in the management of SAM cases. Medical and Dietetics students from the University of Ghana on rotation at Princess Marie Louise (PML) Children's Hospital (one of the learning sites) are also orientated and participate in the management of SAM.

Access to CMAM services

In 2008, CMAM service provision started in limited learning sites with one district in each of two regions, Central and Greater Accra. In 2009, new learning sites were set up in Ga South District of Greater Accra region to provide a learning experience within a peri-urban setting. Gradual expansion to other facilities within these districts and expansion to new districts in 2009 increased access to services.

In 2010, the SAM TC and SAM SU initiated Phase 1 scale up within Central, Northern, Greater Accra, Upper East and Upper West Regions (See Table 3). Each region followed the same process of implementing a limited number of outpatient and inpatient care sites in one or two districts, which served as learning sites, before gradually scaling up to other districts. Selection of initial districts was based on prevalence of malnutrition, availability of staff and geographical accessibility.

CMAM services are provided within existing MOH/GHS service delivery structures. Health facilities providing outpatient care include hospitals, polyclinics, health centres, community clinics, CHPS and community outreach points. Inpatient care services are provided solely in hospitals.

CHVs, Community Health Nurses (CHNs) and CHOs undertake the community outreach component of CMAM. Existing volunteers used

for other public health outreach activities, such as National Immunisation Days (NIDs), vitamin A supplementation, community surveillance and guinea worm eradication, are being used for CMAM community assessment and mobilisation. This ensures the efficient use of volunteers and takes advantage of additional motivation as these volunteers are given an incentive package to support the NIDs. The volunteers generally support one community each, although some support two or three communities if they are relatively close to each other.

CHVs screen children at the household level by measuring Mid Upper Arm Circumference (MUAC) and checking for oedema. They refer SAM cases to the nearest health facility. Active case finding of children with SAM is also conducted during the child welfare clinics (usually once per month) and during child health weeks. In communities where there are CHPS zones/compounds, the CHVs work in close collaboration with the CHOs.

Some strong links have been established between identification of SAM and other public health programmes. For example, assessment of MUAC and oedema has been incorporated into the World Bank supported NMCCSP (Nutrition and Malaria Control for Child Survival Project) training modules. Additionally, the Ghana IMNCI has adopted the new algorithm, which uses MUAC, bilateral pitting oedema and appetite test to diagnose SAM with and without medical complications. The IMNCI chart booklet and training materials also provide guidance on how children with SAM without medical complications should be managed in outpatient care, and explains how to refer children with SAM with medical complications to inpatient facilities.

There is a linkage also between HIV services and CMAM. Children with SAM who fail to thrive are referred for further investigation, which includes HIV testing and counselling and referral to HIV services if necessary.



Appetite test being conducted

Table 3: Summary of health facilities implementing CMAM (as of August 2011)

Region	Total number of districts	Number of districts implementing CMAM	Total number of facilities in implementing districts	Total number of outpatient care facilities	Total number of hospitals in implementing districts	Total number of inpatient care facilities
Central	17	7	71	71	9	8
Greater Accra	10	6	62	62	7	4
Northern	20	8	78	78	12	9
Upper West	9	6	119	119	6	4
Upper East	9	4	73	73	3	4
Ashanti*	-	-	-	-	-	1
Total	65	31	403	403	37	30

* Staff in one hospital in Ashanti (a phase 2 region) was trained because of the high case load.

Children with HIV who are severely malnourished are also treated using the national CMAM protocols.

Access to CMAM supplies

UNICEF procures and provides anthropometric equipment, Ready to Use Therapeutic Food (RUTF), therapeutic milk (F-75, F-100), Rehydration Solution for Malnutrition (ReSoMal) and Combined Mineral and Vitamin mix (CMV) for the programme. USAID is also procuring RUTE, F-75 and F-100 to support two regions and has committed funds for procuring CMAM supplies to support scale up in 2012.

The RUTF and equipment are stored at the National MOH/GHS warehouse. The supplies are then requested by facilities at national, regional and district level and distributed through the existing GHS supply chain system. Stock reporting has been incorporated into the weekly tally sheets and monthly reports to systematise and improve stock control and reduce the risk of 'stock-outs' due to delayed requests for re-supply. Health care providers have been trained to use the system, whereby they report on inventory levels on a monthly basis and make requests to the DHD for supplies when they reach a minimum stock level.

Quality of CMAM services

Standardised treatment protocols and job aids have been developed and are being used at all CMAM operational districts, facilities and communities. Adherence to the protocols is high, although there are variations between individuals and facilities. Experience to date has indicated that the main determinants of good adherence to standardised treatment protocols are the intensity of supervision and support received during the initial two to three months of setting up inpatient and outpatient care facilities from the national SAM SU and regional SAM STs, and the level of training received by the implementers.

The national SAM SU and regional SAM STs provide monthly and quarterly supportive supervision to the regions, districts and facilities. The DHMT also carries out weekly/bi-weekly supportive supervision. The focus of the support and supervision is on adherence to CMAM protocols, admission procedures, use of the action protocol, the quality of screening and assessment of malnutrition using MUAC tapes, testing for bilateral pitting oedema, and the quality of individual and service data recording and reporting. The quality of the management of SAM is high partly due to this intensive supportive supervision.

The CMAM monitoring tools for care include outpatient care treatment cards, tally sheets, client registers and reporting forms, bin

cards or tally sheets for supplies, supervision checklists for regional and district levels. There is generally good record keeping and reporting by the service providers. CMAM service performance is reviewed monthly at all levels: sub-metropolitan area, municipality, district, regional and national levels. CMAM data are currently managed by the nutrition officers and not yet integrated into the Health Information Management System (HIMS). Discussions are ongoing with the Centre for Health Information Management (CHIM) to review existing nutrition indicators in the system to also include CMAM indicators. CMAM data are collated at the district level and the data are then sent to the regional level where they are entered into an Excel database before being submitted to the national GHS/Nutrition Department.

CMAM service performance

Table 4 and Figure 3 provide a summary of the total number of children who were managed and some service performance indicators (from inception to August 2011).

Cure rate: Overall, 71% of children were discharged cured, which is below the recommended Sphere target of >75%. The cure rate was offset by the high default explained below.

Death rate: Overall, 2% of children died, which is an acceptable rate for the management of SAM and below the Sphere standard of <10%. Many of the children who died had presented to the health facility at a very late stage or refused referral to the inpatient care for social reasons.

Default rate: The number of children who defaulted treatment was high (21%) and above the recommended Sphere standards of <15%. The high default rate can be explained by:

- Caregivers default treatment as soon as the child starts to improve. RUTF is quite effective and children will start to show significant improvement in the third week. The health workers are urged to provide intensive counselling to caregivers to ensure that children continue to come for treatment until they are fully recovered.
- Cases where children are coming from neighbouring districts that do not have CMAM established. As soon as the child starts to show improvement, the mothers discontinue treatment. It is assumed as scale up continues and there is more access to CMAM services, the default rate will decrease.
- Seasonal migration of caregivers of children with SAM already receiving treatment, especially during planting and harvest seasons.

Non-recovery rate: Overall, 1% of children were discharged as non-recovered.

Average length of stay (LoS) and average daily weight gain: A total of 515 cards of children discharged as cured were used to analyse the average length of stay and weight gain. The average length of stay was 60 days and weight gain reported at 6.0 g/kg/day.

Promising practices (successes)

The following are notable promising practices and successes in the Ghanaian experience of rolling out CMAM:

Consensus building prior to rolling out CMAM between development partners (WHO, UNICEF, USAID), and the GHS was the key factor that enabled the principal stakeholders to become active members of the SAM TC. The good coordination established prior to roll out facilitated access to the funding required to hire sufficient external technical expertise and to purchase supplies. Selection of learning districts from regions already supported by partners made funding more easily accessible for CMAM.

The decision by the GHS to request external and in-country technical support at the planning stage allowed the existing national expertise to quickly gain confidence and to ensure the implementation of good practices from the start. It also facilitated the process of adapting guidelines and training materials to the Ghanaian context.

Exposure of the CMAM Coordinator to the experience of CMAM scale-up in other countries was key to building confidence in CMAM. This enabled effective advocacy for CMAM within the GHS Nutrition Department at the national level, District Health Management Teams (DHMTs) and Regional Health Management Teams (RHMTs).

The lead role taken by the GHS during the planning and implementation resulted in the rapid uptake of services at all levels (national, regional- and district-level structures), which facilitated the institutionalisation of CMAM.

The establishment of a SAM TC as a forum for guidance and coordination of CMAM implementation and scale-up was an important step in a number of ways. It helped to speed up the understanding of CMAM, the development of interim guidelines and the strengthening of national competencies.

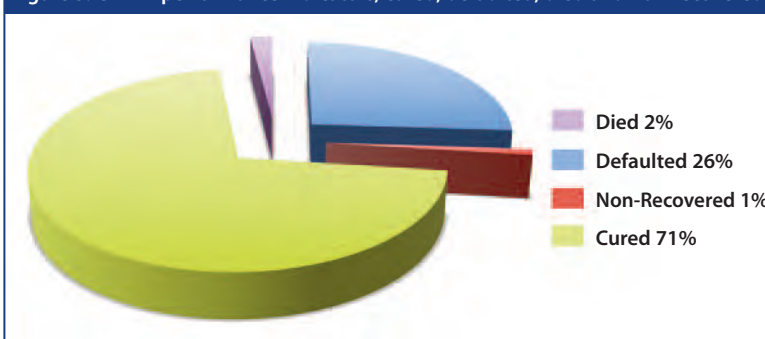
The learning site approach to implementing CMAM generated lessons learned and promising practices informed the process of scale-up.

The integration of CMAM outpatient care into the Reproduction and Child Health (RCH) service package, which mostly includes preventive activities, was very successful. The public health teams responsible for delivery were

Table 4: Summary of CMAM performance data (to August 2011)

Region	Total		Cured		Died		Defaulter		Non-recovered	
	admissions	discharges	N	%	N	%	N	%	N	%
Greater Accra	658	592	308	52	13	2	268	45	3	1
Central	516	476	244	51	19	4	213	45	0	0
Northern	1295	952	655	69	11	1	281	30	5	1
Upper East	958	902	709	79	13	1	180	20	0	0
Upper West	1504	1295	954	74	23	2	310	24	8	1
Ashanti	1042	916	771	84	16	2	102	11	27	3
Total	5973	5133	3641	71%	95	2%	1354	26%	43	1%

Figure 3: CMAM performance indicators; cured, defaulted, died and non-recovered





MUAC measurement of a child with SAM in Nyakrom hospital, Ghana

highly motivated by the rapid clinical improvement of children with SAM.

The approach of training most CHNs at the learning sites, as opposed to training only two or three CMAM focal people, enhanced team work and support for the programme. It maximised the chances of continuity of care and helped to convince implementers that CMAM is a government-owned intervention with a long-term perspective that requires the involvement of all health care providers.

Ensuring intensive and close monitoring and mentoring of implementers by adopting frequent supportive supervisory visits at initiation of services was a successful approach. It contributed to good quality service provision and also proved to be an effective motivator for staff implementing the programme.

Distribution of RUTF during the start of the programme used the same channels as other health supplies (employing the same transport and warehouse). This reinforced GHS ownership, minimised perceptions of the intervention as 'vertical' and increased the likelihood of the distribution system being sustained.

The CMAM programme did not select new volunteers, but used the same CHVs as for other health programmes. This minimised the risk of volunteers requesting a special motivation scheme and enhanced the integration of active SAM case finding with their activities.

Mother-to-mother sensitisation was used successfully, based on the ideas of 'positive deviance' whereby mothers/caregivers of recovering children are encouraged to sensitise caregivers of malnourished children to the existence and effectiveness of CMAM.

The CHNs initiated the use of new information technology (SMS messages and telephones) to communicate with the CHVs prompting them to conduct follow-up activities. This helped to increase the proportion of defaulters who returned.

At the district level, collaboration between managers of different interventions within the

DHMT ensured the integration of trainings and sensitisation meetings. For example, resources for the National TB programme and NIDs were used to sensitise community workers on CMAM and/or provide refresher training to community volunteers. This kind of synergy optimised the output of the programme, ensuring that more communities were sensitised and more volunteers trained than the available CMAM budget allowed.

Challenges

Despite the successes of CMAM implementation, some challenges and/or weaknesses have been identified (either through the CMAM review or through internal review) that need to be addressed:

- There is a lack of funding to support scale up to all the Phase 2 regions.
- Community mobilisation did not specifically target the traditional medicine practitioners (TMPs). As such, children with SAM who are taken to these informal providers first, due to the belief that SAM is a spiritual problem ('evil eye/curse'), are not identified and referred.
- The defaulter rate is high. This is because some of SAM cases come from districts that have not initiated CMAM, making follow-up difficult once clients go back to their districts of origin.
- It has been observed that volunteer fatigue sets in after a while, particularly in the urban areas. There is a need to find ways of sustaining the enthusiasm and commitment of volunteers.
- Not all SAM cases being managed at the outpatient care facilities receive routine medication. This is because although treatment is supposed to be free to children under-five years, some health facilities are not able to provide free treatment to the children who are not registrants of the national health insurance (NHI) scheme.
- Initial attempts to produce RUTF in-country failed after management issues with the selected company led to the inability of the company to meet conditions for start up.

Risks to scaling up

At present, there are a number of risks to the scale up of CMAM in Ghana. Although regional and district SAM STs help to reduce the workload of the national SAM SU, as CMAM expands nationally, the SAM SU will not have sufficient staff to successfully manage this phase of scale up. Inadequate funding for training, mentoring and supervision is a constraint, especially in Phase 2 regions that are not the focus of development partners. This will require continuous advocacy for resource mobilisation to support the scale up. Ensuring adequate and sustained availability of CMAM supplies (RUTF, F-75, F-100) remains a challenge. The high quality of CMAM service might be compromised if initial supportive supervision is not maintained during Phase 2 scale up.

Way forward

The next steps for CMAM activities in Ghana are to:

- Develop a five-year CMAM scale-up strategy (2012–2016).
- Integrate CMAM into pre-service training curricula for medical, nutrition, dietetics and nursing students.
- Conduct a coverage survey to determine the extent of SAM within the community, the current access and uptake of CMAM services and the barriers to access and uptake that exist.
- Include CMAM supplies, especially RUTF and CMV, into the national essential medicines list and hence the NHI drug list.
- Develop linkages between CMAM and informal health systems such as the TMPs.
- Conduct a capacity assessment to identify and prioritise the introduction of CMAM activities within Phase 2 regions (Western, Eastern, Volta, Ashanti and Brong-Ahafo).
- Strengthen Social Behaviour Change and Communication (SBCC) for CMAM and link with IYCN, using quality improvement tools and systems at the community level.
- Facilitate the involvement of civil society organisations (CSOs) to strengthen the community outreach component of CMAM.
- Continue to advocate for national production of RUTF.

For more information, contact: Mr Michael Neequaye, email: mikeneeq@yahoo.co.uk

Ghana Health Service:
<http://www.ghanahealthservice.org/>



MINISTRY OF HEALTH



Your Health • Our Concern



World Health Organization





L. Matunga/UNICEF, Somalia, 2011

Field article

Brief history and background

Somalia has been in a state of armed conflict since 1988, and has been without an effective government since the fall of Siad Barre in 1991, representing the longest case of state collapse in modern times¹. Two decades after the collapse of the unified state, Somalia continues to endure protracted armed conflict and a major humanitarian crisis, currently exacerbated by a severe drought and floods. The recent failure of the *deyr* 2010/11 seasonal rains and the lighter than normal *gu* rains has resulted in an estimated 32% of Somalia's 7.5 million people being in need of humanitarian assistance, including approximately 910,000 internally displaced persons (IDPs).

Somalia is an arid country of 250,000 square miles, consisting of three main zones with varied social, livelihood and economic structures. These are:

- the North-west zone (NWZ), also known as Somaliland, comprising Woq Galbeed, Awdal, Togdheer and Sool/Sanaag regions
- the North-east zone (NEZ) also known as Puntland that includes Bari and Nugal regions
- the South Central zone (SCZ) comprising Mudug, Galgadud, Hiran, Bakool, Bay, Shabelle, Juba and Gedo regions.

Somaliland and Puntland both recognise themselves as independent states and are pushing for international recognition as such. Somaliland and Puntland border each other across the contested regions of Sool and Sanaag and occasional border clashes do occur. The SCZ, by far the biggest zone in the country, has an estimated population of 4,810,837, more than 60% of the whole country population. Continued displacement as a result of the ongoing civil conflict in the SCZ

Acronyms:

BSNP	Basic Nutrition Services Package
CAP	Consolidated Appeals Process
CERF	Central Emergency Response Fund
EPHS	Essential Package of Health Services
FSNAU	Food Security and Nutrition Analysis Unit
HIS	Health Information Systems
HSS	Health System Strengthening
IDP	Internally displaced persons
IMAM	Integrated Management of Acute Malnutrition
MCH	Maternal and Child Health
MOH	Ministry of Health
NWZ	North-west zone
NEZ	North-east zone
OTP	Outpatient Therapeutic Programme
PCAs	Programme Cooperation Agreement
SCZ	South Central zone
SC	Stabilisation centre
ToT	Training of Trainers
TSFP	Targeted Supplementary Feeding Programme

has resulted in IDPs from the epicentre of the conflict in Mogadishu and neighbouring areas dispersing over the country, with many returning to their ancestral clan homeland. Although Somalia is formed of a predominantly single ethnic block, the elaborate clan system holds the checks and balances of the country.

The country's main livelihoods are pastoral (sheep, goats, camels), agro-pastoral, riverine, fishing, urban and IDP livelihoods. It is estimated that the country receives roughly in excess of 1 billion dollars in remittances from diaspora annually.

Southern and central Somalia have some of the worst social indicators in the world, with over 43% of the population living on less than \$1/day² as well as some of the worst rates of under-five and maternal mortality. Despite the extensive need, a narrowing of humanitarian space has made it virtually impossible for aid organisations to reach many of the people in need.³ The lack of central government means in effect working with three different health authorities and to an extent, involves three different approaches.

Socio-political operating environment

Since the collapse of central government in 1991 and the resulting civil war, there have been many efforts to restore a central government in Somalia without sustained success. In 1991, the NWZ declared the independent state of Somaliland, with its governing administration in the capital Hargeisa. The region is autonomous, holding democratic elections in 2010, but is not internationally recognised. The NEZ declared itself as the autonomous region of Puntland in 1998. Although governed by its administration in its capital Garowe, it pledges to participate in any Somali reconciliation and reconstruction process that should occur. In South Central Somalia, political conflict and violence continue to prevail, despite attempts to establish and support a central governing entity.

National nutrition and health situation – some history

Twenty years of war and insecurity have had devastating effects on the nutrition and health status of the people of Somalia. The combination of conflict, insecurity, mass displacement, recurrent droughts and flooding and extreme poverty, coupled with very low basic social service coverage, has seriously affected food security and

Integrated Management of Acute Malnutrition (IMAM) scale up: Lessons from Somalia operations

By Leo Anesu Matunga and Anne Bush



Leo Matunga is currently the nutrition cluster coordinator for Somalia. He has over 12 years experience working in nutrition in emergencies in Somalia, Zimbabwe, Sudan and Pakistan. He has experience working in government, international NGOs and UN agencies. He holds a Masters in Public Health from University of Western Cape, South Africa, a Masters in Development Studies from Leeds University (UK) and a BSc in Nutrition Studies from the University of Zimbabwe.



Anne Bush is a freelance consultant, engaged by the ENN to support write up of this article for the CMAM Conference. She has over 15 years experience working in the field of international public health nutrition in Kenya, Somalia, Tanzania, Ethiopia, the DR Congo, and Indonesia. She holds a Masters in Public Health from the London School of Hygiene and Tropical Medicine and a BSc in Dietetics.

The authors acknowledges the immense contributions of UNICEF Somalia, WFP Somalia, Ministry of Health officials in the Government of Somaliland, Ministry of Health officials in Government of Puntland, Ministry of Health Officials in The Transitional Federal Government, local and international organisations working in Somalia and the Nutrition Cluster team.

¹ For a more detailed analysis of the history of instability and humanitarian access in Somalia, see Ken Menkhaus (2010). *Stabilisation and humanitarian access in a collapsed state: the Somali case*, 34 *Disasters* 320 (2010).

² Mark Bradbury. *State-building, Counter-terrorism, and Licensing Humanitarianism in Somalia*. (Briefing Paper). Sept 2010 Feinstein International Centre (2010).

³ Human Rights Watch, *supra* note 9.

Box 1: Outline of the Food Security and Nutrition Analysis Unit (FSNAU)

FSNAU provides evidence-based analysis of Somali food, nutrition and livelihood security, to enable both short-term emergency responses and long-term strategic planning in food security and nutrition well-being. FSNAU works to develop the capacity of other agencies (both governmental and non-governmental) to collect evidence-based information and focus more on the overall analysis. FSNAU analysis also contributes to policy and strategy development

FSNAU/Nutrition collects primary data, undertakes household surveys and conducts assessments across different regions and livelihoods, depending largely upon its own field capacity and the contributions of collaborating organizations that also have a field presence in country.

The FSNAU analytical framework forms the basis for the nutrition situation classification and the *Estimated Nutrition Situation maps*. It is based on international thresholds (WHO, Sphere and FANTA (Food and Nutrition Technical Assistance) where available and contextually relevant analysis where these are not available. The current version of the analysis framework (July 2010) has three sections: core outcome indicators (mainly anthropometry related information and mortality), immediate causes and driving/underlying factors.

Where representative nutrition surveys are conducted, the GAM is the core outcome reference indicator, denoting the prevalence of acute malnutrition. In addition, a minimum of two anthropometric indicators

are required to make an analysis and classification of the situation into one of the five different phases (*Acceptable, Alert, serious, Critical and Very Critical*). Information from the season in progress only is used. Historical data are used for overall contextual and seasonal trends analysis.

To provide a three month outlook, the immediate and driving factors are analysed, and the convergence of the evidence of the projected scenario classified as *Stable, Uncertain, Potential to Deteriorate or Potential to Improve*. This information, including projected trend, is presented in the *Estimated Nutrition Situation Map*.

For more information: www.fsnau.org

livelihoods and greatly increased vulnerability to disease and malnutrition. The Millennium Development Goal (MDG) health-related indicators are among the worst in the world. Life expectancy is 45 years. One child in every twelve dies before the age of one year, while one child in seven dies before the age of five.

Pre-1991

The pre-war period (before 1991) in Somalia has little background information on the health and nutrition status among representative populations in Somalia. Studies during this period tended to focus on distressed populations, usually in drought affected areas. Various methods and reporting formats were used and a lot of health and nutrition records were lost during the fighting, making it difficult to trace survey reports so it is difficult to establish any baseline data for this period⁴. From 1980 to 1990, nutrition assessments conducted by different agencies in Somalia indicated varying levels of global acute malnutrition (GAM) based on weight-for-height % of median (WHM). Most surveys found a GAM prevalence of below 15% (WHM < 80% or oedema) although there were fluctuations with regular reports of a worrying nutrition situation.

Post-1991

The collapse of the government in the early nineties and the subsequent conflict marked a severe deterioration in the nutrition situation. The highest ever levels of GAM in Somalia were recorded in numerous surveys conducted in 1991 and thereafter.

With the civil conflict and the famine in 1991/92, coping strategies were severely eroded for the majority of the population. In 1991-1992, a devastating famine hit southern Somalia and led to mass starvation, resulting in rates of acute malnutrition (WHM) of 55-70% in Bay-Bakool and Gedo regions and 45% in Hiran region. These regions that were most affected by the famine are still the regions where the highest rates of acute and chronic malnutrition continue to be reported.

A note on GAM thresholds

All nutrition surveys conducted in the pre-war period estimated prevalence of acute malnutrition based on percent of the reference median. Z scores, which estimates prevalence of acute malnutrition based on standard deviations from the mean, were introduced

by WHO globally in 1992. The application of the >15% GAM threshold to classify an emergency nutrition situation is only relevant for nutrition surveys conducted using the Z score reference. However, even though direct comparison between assessments conducted before and after the introduction of the concept of Z scores is not intended, trends of malnutrition between 1993 to 2000 demonstrate a persistent poor nutrition situation with results of >15% GAM, being reported in many parts of the country.

Development of the Food Security and Nutrition Analysis Unit (FSNAU)

Following the collapse of the central government in 1991 and the persistent conflict in Somalia, the country's institutional capacity has been lost, with little to non-existent field monitoring systems in place. The FSNAU⁵, which is based in Nairobi and has been funded by a variety of donors including UN agencies, was formed in 1994 initially to provide food security situation updates to humanitarian response agencies. From 2000, the nutrition component was incorporated to provide up to date information on the evolving nutrition situation, to guide response within the context of a complex emergency (see Box 1). The FSNAU has adapted to the situation in Somalia over the years by developing an extensive network of trained Somali national enumerators and skilled Somali national field analysts spread throughout the country to reduce the dependence on international staff. FSNAU has also spearheaded adoption and implementation of standard assessment guidelines and an analytical framework by the Nutrition Cluster.

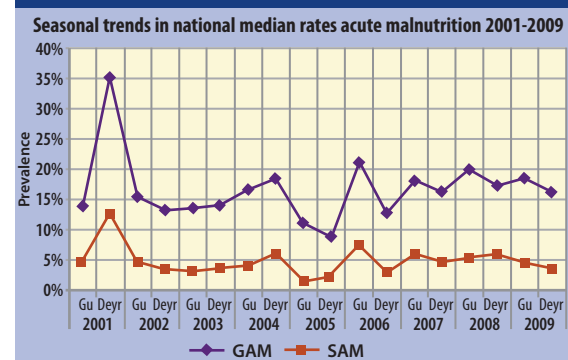
The FSNAU analysis can inform the targeting and nature of response, but does not necessarily have the capacity to monitor the effectiveness or impact of that response – these tasks therefore fall under the mandate of response agencies. FSNAU international staff have limited access to parts of Somalia because of UN security regulations and where access is permitted, essential security measures and methods of travel are often costly and time-consuming.

Results from FSNAU meta analysis of data from 2001 to 2009 show that over this

⁴ Cambrey, 1997. Unpublished report.

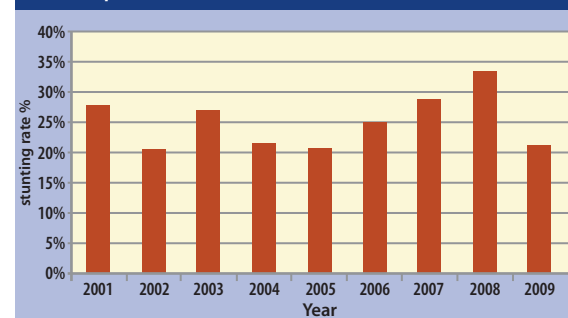
⁵ The FSNAU's technical and management support is provided by the UN Food and Agricultural Organisation (FAO)

Figure 1: Results from FSNAU meta-analysis of data from 2001 to 2009



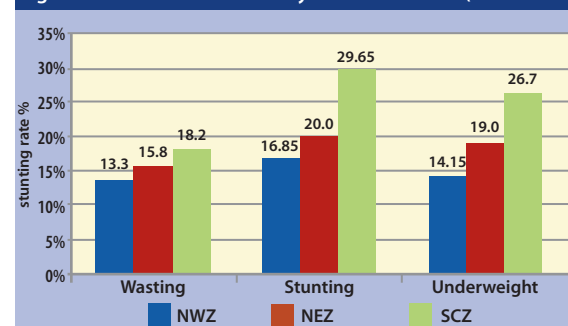
source FSNAU

Figure 2: Annual national median rates of stunting for the period 2001 to 2009



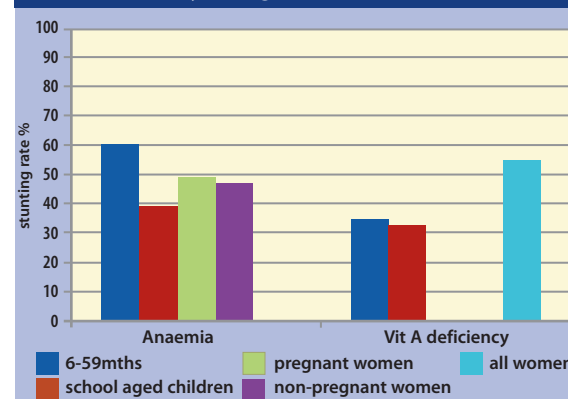
source FSNAU

Figure 3: Malnutrition rates* by zone in Somalia (2001-2009)



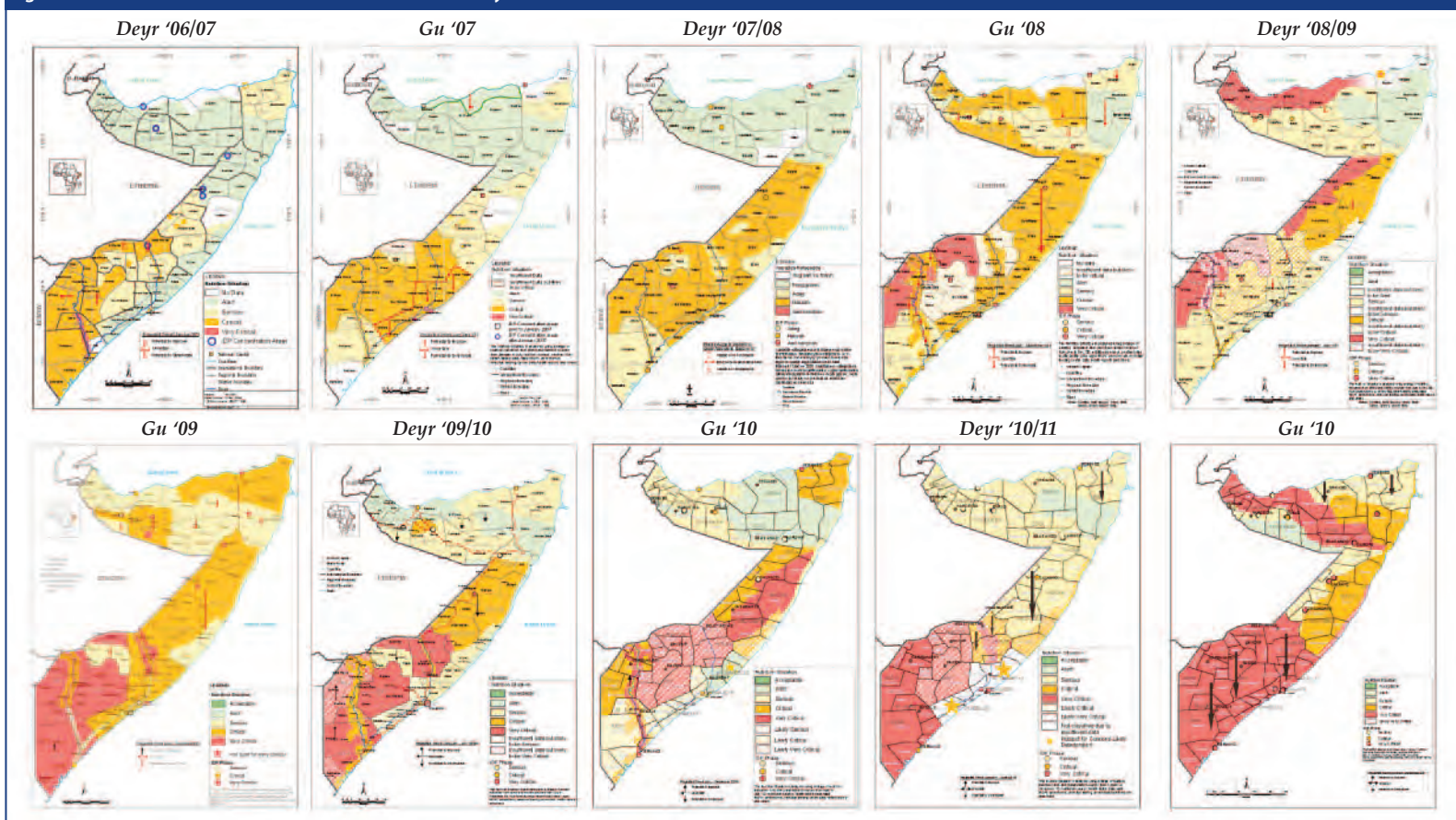
*Based on WHO Growth Standards.

Figure 4: Prevalence of nutritional anaemia and vitamin A deficiency among women and children



Source: Micronutrient survey, 2009

Figure 5: Deterioration in the nutrition situation from Deyr 2006/07 to Gu 2011



Source: FSNAU website. Note: To see the detail, download from http://www.fsnau.org/downloads/Prgrgression_of_Estimated_Nutrition_Situation_Deyr_06_10_to_Gu_11.pdf

period, median rates of GAM have remained at *serious* (10 to <15%) or *critical* (15 to <20%) levels (WHO Classification 2000) throughout with a national median rate of 16% (see Figure 1). Furthermore, annual national median rates of stunting were above 20% i.e. at serious level throughout the period 2001 to 2009, according to WHO classification (2000), as shown in Figure 2.

Results of the meta-analysis also highlight how the situation has been consistently worse in SCZ than Puntland or Somaliland. In SCZ, median rates of stunting were found to be 29.7% and wasting 18%. This compares to 20% stunting and 17% wasting for Puntland and 18% stunting and 13% wasting for Somaliland (see Figure 3). This reflects the devastating effect of chronic political conflict and insecurity in SCZ in particular.

Rates of malnutrition also vary according to the livelihood system. Results of the FSNAU meta-analysis of data 2001-2009 revealed that riverine and agro-pastoralist groups had the highest median rate of wasting, stunting and underweight. This suggests a higher nutritional vulnerability to shocks such as floods, drought, displacement and disease outbreak. Rates of malnutrition among the urban population tended to be lower, reflecting better access to a diversified diet and to public services, including health.

The 2009 National Micronutrient and Anthropometric Nutrition Survey, conducted in all three zones, highlighted that micronutrient malnutrition is a significant public health problem throughout Somalia. The prevalence of both nutritional anaemia and vitamin A deficiency among women and children of all age

groups was found to be above WHO thresholds for classifying a severe situation in each of the three zones (see Figure 4).

Emergency situations: frequency and severity

The food security and nutrition situation in Somalia is characterised by chronic and recurring emergency situations resulting from repeated episodes of drought, flooding, conflict and displacement. Communities have little chance to recover between crises. The frequency and severity are exacerbated by the absence of strong government and lack of humanitarian space. The maps in Figure 5 show the progression of the estimated nutrition situation from Deyr 2006/07 to Gu 2011.

Political will and policy environment

Political will and support for nutrition is relatively strong in Somaliland and, to a lesser extent, Puntland. It exists for the Ministry of Health (MOH) SCZ but control is largely limited to Mogadishu (see later).

There is no national nutrition policy but the Somali Nutrition Strategy for 2011 to 2013 has been developed. The strategy identifies key priorities and the need for a shift to a more integrated multi-sectoral approach to addressing malnutrition in Somalia. Integrated management of acute malnutrition (IMAM) is identified as a key approach and as programmes for the management of acute malnutrition are reasonably well funded, it is highlighted as an important delivery platform through which to deliver complementary activities. The strategy defines overall goals for the entire country and has been endorsed by the MOH of all three zones. Zonal action plans for the implementation of the strategy are to be developed and costed and will boost compliance at sub-national level. Funding remains a challenge.



L. Wabungu/UNICEF, Somalia, 2011

Nutrition outcomes are not yet included in sectoral policies and programmes but the Somali Nutrition Strategy is trying to highlight nutrition issues at policy level.

Somali specific IMAM guidelines were developed through the Nutrition Cluster in 2010 and a Basic Nutrition Services Package (BSNP) has been defined and encouraged, also through the Nutrition Cluster. However, whilst many agencies are adopting the approach and include it within activities outlined at proposal level, many organisations find it difficult to conceptualise or lack the capacity to deliver.

MOH systems and structures – where nutrition fits

After twenty years of conflict, the health care system in Somalia remains underdeveloped, poorly resourced, inequitable and unbalanced. The public health care delivery system operates in a fragmented manner, maintained largely by medical supplies provided by UNICEF and other agencies. In the absence of an efficient and adequate public health system, the private sector has flourished but remains unregulated with poor quality of services and poor access to the rural population. Over half of the estimated health workforce is unskilled and unsupervised and staff are paid a below subsistence wage. Most public facilities operate at a level far below their intended capacity and are poorly organised, with very low utilisation rates (estimated as on average, one contact every eight years⁶).

In Somaliland there is a functioning MOH and political will exists. Nutrition has been identified as a key priority area by the Minister of Health and the nutrition focal person within the ministry is motivated and active. Key staff have been appointed at Hargeisa level, and at regional and district levels. Thus a ‘traditional’ MOH structure is in place but remains financially dependent on support from UNICEF and other agencies. In Somaliland, 34 outpatient therapeutic programmes (OTPs) and four stabilisation centres (SCs) are delivered through government health facilities.

In Puntland, political will and support is present to a lesser extent, with health receiving a greater focus than nutrition, primarily due to the qualifications and background of the nutrition focal person. There is willingness to work with UNICEF support on nutrition and government will respond if funding is available. Ten OTPs operate through government health facilities.

In SCZ, the MOH recognises nutrition and ‘allows’ UNICEF and its partners to implement programmes but the public health structure and functioning is largely confined to Mogadishu. Delivery of IMAM programmes through government health facilities is limited to one SC in Mogadishu where hospital staff support the implementation of an otherwise independent centre.

Where OTP services are operating through government health facilities, the services are delivered by MOH staff but they are given financial incentives by humanitarian players. Where MOH is implementing with little staff support, reporting is provided by MOH alone. Where greater levels of support are provided,

reports are provided by the supporting NGO. Whether reporting is conducted by MOH or a humanitarian agency, reports are generally delayed. Efforts are currently underway to train staff to strengthen reporting.

Implementation of IMAM in Somalia

The implementation of all four components (community mobilisation, SCs, OTP and targeted supplementary feeding programme (TSFP)) of programmes for the management of acute malnutrition in an integrated way is not always feasible in Somalia. Existence of and access to SCs is limited, such that the ideal programme set up of OTP with SC services available (either attached to a hospital or stand alone) are usually only seen in towns in Somalia. The more common set up is a network of several OTPs with limited possibility of referring complicated cases to SCs. The lack of SC services may be due to distance to the nearest facility, or due to lack of access for other reasons (e.g. transport, clan issues, inability to leave the family for a full week or insecurity). OTPs may or may not be integrated with SFP. In some areas, SFPs are implemented in the absence of OTPs or SCs. In these cases, the centres may admit all malnourished children regardless of their severity.

During the initial expansion of IMAM, programmes were implemented according to operational guidance developed by Nutrition Cluster partners in 2005. In 2010, new guidelines were developed and endorsed by the Nutrition Cluster. These guidelines, initially promoted by UNICEF and the Somali Nutrition Cluster, have been written in consultation with all organisations, departments and agencies implementing programmes to manage acute malnutrition in Somalia. This was done with the intention of capitalising on best practices and experiences, so that lessons learnt by one can be applied by all partners. The guidelines intend to facilitate the process of training new staff and to help with the opening of new centres. These guidelines try to take specifics of the Somali context into account, whenever possible, and give practical suggestions for often difficult circumstances e.g. lack of SC referral site. Field cards have been developed with the aim of being laminated for use in the field. So far, the application of the 2010 guidelines has been limited due to problems in the process of translation into Somali. Some sections have been translated for training purposes.

Some of the specific challenges that IMAM faces in Somalia are:

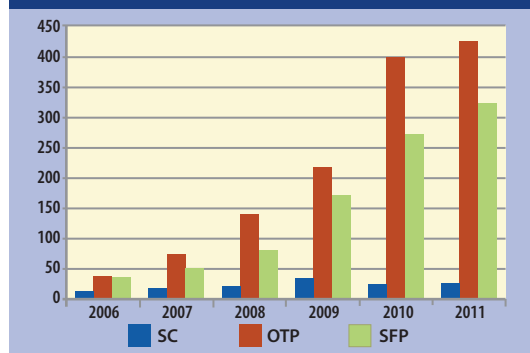
- Conflict
- High insecurity
- High mobility of population (including health staff)
- Spread of the population, with long distances and isolation
- Difficult transport and communications
- Population displacement (and the inability of IDPs to access services in some host areas)
- Regular migration among pastoralists
- Difficult social environment related to complex clan structure
- Specific conflicts between clans

⁶ Rossi and Davies, 2008. Rossi L and Davies A. Exploring Primary Health Care in Somalia: MCH Data 2007. UNICEF Somalia Support Centre Report 8.

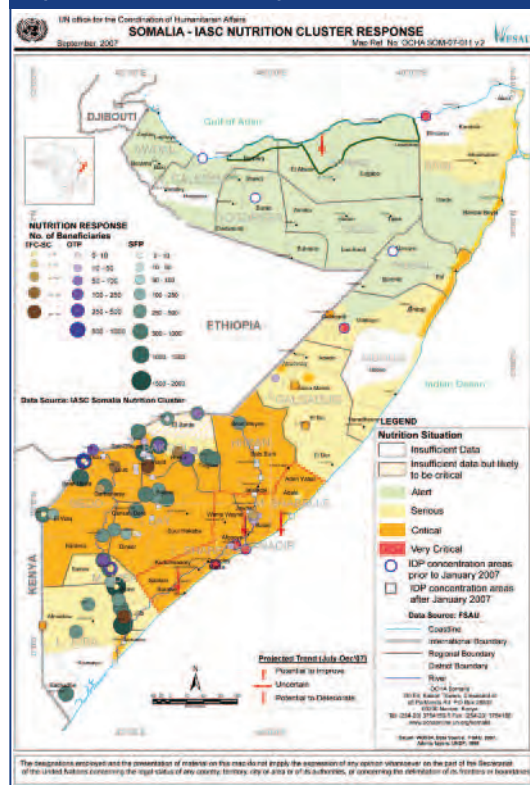


A child who has been rehabilitated in the programme

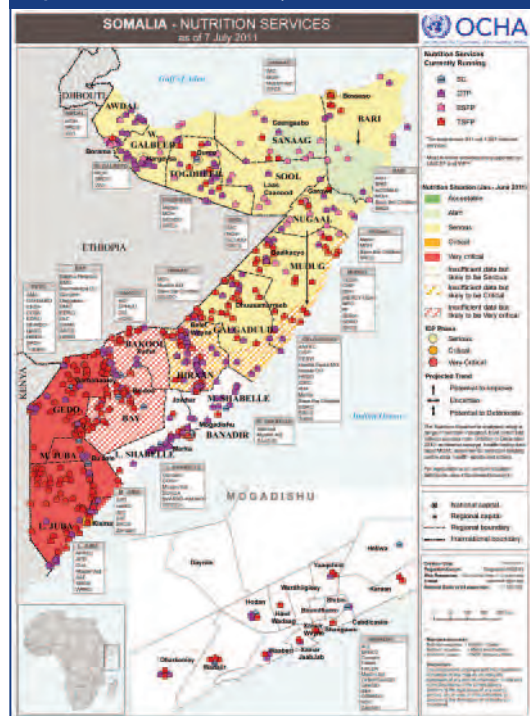
Figure 6: Scale up of UNICEF support to nutrition services, 2006 - 2011.



Map 1: Nutrition services, September 2007



Map 2: Nutrition services, July 2011



- Rigid traditional family structures that rely heavily on women's work
- Lack of health infrastructure
- Lack of training infrastructure and therefore chronic lack of qualified health staff
- In some areas, the need to pay fees to access the health system and consequently, lack of access to services.

These challenges result in many problems including:

- Inadequate number of centres to have good geographical coverage of programmes
- Low coverage, even in areas that are theoretically served by a centre
- Lack of referral of complicated cases to SCs for life-saving treatment
- Frequent and unpredictable break-downs in the supply chain
- Discontinuity of programmes in some areas, with regular closure and re-opening of programmes
- Irregular and often inconsistent community mobilisation
- Overall fragmentation of aid and of other interventions to prevent malnutrition
- Low qualification of staff and difficulty to hire new health staff when needed
- High turn-over of staff
- Difficulty in supervision, on-site monitoring or on-the-job training
- Costs for families attending health and nutrition services regularly
- Fear of mothers to attend due to insecurity and volatility of the situation.

Scale up of IMAM in Somalia

IMAM first began implementation in Somalia in 2005/6 with several international agencies adopting the approach in line with increasing global recognition of the benefits and effectiveness of community based management of acute malnutrition. Since then, an impressive expansion of IMAM services has been achieved, with no particular Somali specific trigger or strategy to the scale up. In 2006, around 30 OTP and TSFP sites were providing IMAM services, increasing to around 250 OTPs in 2010. At the time of writing (Sept 2011) there are currently 25 SCs, 461 OTPs and 662 TSFPs being implemented throughout Somalia. There are plans to add nine new SCs, 58 OTPs and 138 TSFPs in

the coming month to cover some of the identified gaps. Services are supported primarily by UNICEF and WFP, implemented in partnership with local NGOs and also by international NGOs. The number of sites continues to change with scale up plans in response to the current humanitarian emergency. The current rapid scale up has been able to build on the success of the expansion over the previous three to four years and includes greater emphasis on the use of mobile teams and community health workers.

Figure 6 demonstrates the extent of expansion of UNICEF Nutrition services throughout Somalia since IMAM was first implemented in 2006.

Maps 1 and 2 illustrate the scale up of IMAM services, comparing services provided in September 2007 with those of July 2011, in response to the changing food security and nutrition situation.

There are currently 96 Nutrition Cluster partners providing nutrition services throughout Somalia, 65 are local Somali NGOs and 23 are international NGOs⁷. The remaining partners are UN agencies or MOH centres. In addition to Nutrition Cluster partners, nine OTP sites are being implemented by MSF operations.

Funding

Currently, most funding for IMAM services is short term, although there are some donors now looking at multiple year funding. There is limited development funding for nutrition in Somalia.

Funding mechanisms available are:

- Bilateral donors – ECHO⁸, DFID (UK Department for International Development) and UNICEF fund agencies to run projects directly.
- Common Humanitarian Fund (CHF) emergency reserve – 20% CHF allocation is set aside for unexpected emergencies arising.
- CHF second allocation – funding mechanism for high priority projects within the CAP (Consolidated Appeals Process) that have not received bilateral funding. It is not available to projects not included in the CAP.
- The Central Emergency Response Fund (CERF) – Somalia is one of six countries

selected for CERF underfunded emergencies allocation.

Donors are doing all they can to provide funding to UN agencies and NGOs. Little funding goes to the government in SCZ but quite substantial amounts are directed through the governments in Somaliland and Puntland.

The CHF funding pool has been established by donors to provide funding to humanitarian players, especially local NGOs managed through the cluster system. CHF funding is available to high priority projects included within the CAP. Proposals are prioritised by the Nutrition Cluster Review Committee according to a set of criteria. These criteria include region of priority, the presence of complementary preventive activities, inclusion of capacity building activities and cost per beneficiary. The availability of CHF has increased considerably the amount of funding being accessed by local NGOs. Some international NGOs are also accessing bilateral aid directly from donors.

In Somalia, there are risks associated with scale-up. With the current crisis, funding is available and rapid expansion of services is ongoing. However, funding is usually 6 to 12 months maximum with no guarantees of continued funding thereafter. To date, there are no programmes that have been stopped due to this but it remains a concern.

The short term nature of funding for IMAM presents several challenges. First, it can lead to the 'start-stop' approach and disruption of services and limits the development of more sustained services for IMAM in Somalia. Short term funding mechanisms limit the possibilities for taking a longer term approach to the management and prevention of acute malnutrition. Malnutrition in Somalia is both an acute and chronic problem with multiple underlying causes that cannot be addressed through short term programmes. Even outside years of crisis, GAM rates remain high suggesting the importance of longer term underlying causes, for example inappropriate infant and young child

⁷ Numbers taken from latest Nutrition cluster membership list as of October 2011
⁸ European Commission for Humanitarian Aid and Civil Protection

Figure 7: UNICEF Somalia logistics hubs

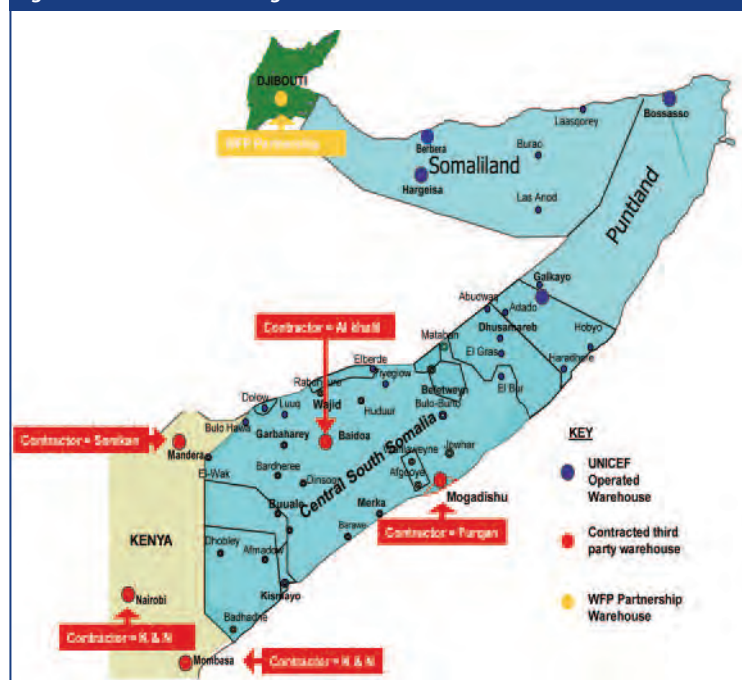


Table 1: Monthly performance indicators for OTP throughout Somalia

Month (2011)	Cure rate (>75%)	Default rate (<15%)	Death rate (<10%)	Non cure rate
January	88.8%	8.9%	1%	1.6%
February	90.4%	5.2%	1%	3.2%
March	88.2%	6.1%	1%	4.7%
April	91%	4.7%	1.1%	3%
May	84.7%	8.6%	1%	5.6%
June	85.7%	7.8%	1.4%	5%
July	85%	7.7%	1.7%	5.6%
August	84.8%	8.5%	1.4%	5.4%

Table 2: Monthly performance indicators for TSFP throughout Somalia

Month (2011)	Cure rate (>75%)	Default rate (<15%)	Death rate (<3%)	Non cure rate
January	65.5%	33%	0.2%	1.1%
February	93%	4.8%	0.4%	1.8%
March	96.1%	2%	0.1%	1.7%
April	75%	14.7%	2.8%	7.3%
May	90.1%	8.2%	1%	0.5%
June	38%	33.6%	0.7%	27.8%
July	40.2%	19.5%	0.6%	39.6%
August	58.7%	7.8%	0.4%	33%

feeding (IYCF) practices. Capacity is a major issue that requires longer term commitment to address in a more sustainable manner.

Secondly, it affects the way programmes are implemented and results in a tendency for organisations to try to implement as many activities as possible in the shortest time, rather than engage in a more gradual process of establishing a programme and introducing different components as needs and capacities are fully understood and realised. This is not necessarily the best way of achieving maximum impact. Trying to do everything at once may be too much, in particular where local implementing partners lack capacity.

Sources and opportunities for self funding in the future are limited and remain a long way off. In Somaliland and Puntland, the regions where stronger governance structures are in place and self funding could one day be more realistic, the governments are not recognised internationally. Furthermore, the governments' revenue base is very dependent on taxes to civil service and exports of livestock to the Middle East. With the drought having affected livestock, this revenue base has dwindled significantly, thereby squeezing the already cash strapped governments.

Supplies and logistics

Challenges

The Somalia operation has experienced problems with suppliers of RUTF resulting in the need to switch supplier, causing some pipeline delays. Local production in Somalia is not an option. Furthermore, there are logistical challenges in sending nutrition supplies, especially Corn Soya Blend (CSB), to various parts of the country due to numerous difficulties including active conflict, mines, rains, and multiple and changing authorisation requirements of local authorities. Logistics are further complicated by the control of access to many areas by Al Shabab and the closure of the border between Somalia and neighbouring countries. Figure 7 maps the UNICEF logistics hubs. In the insecure environment, looting of stocks in country means pre-positioning in Somalia is not possible.

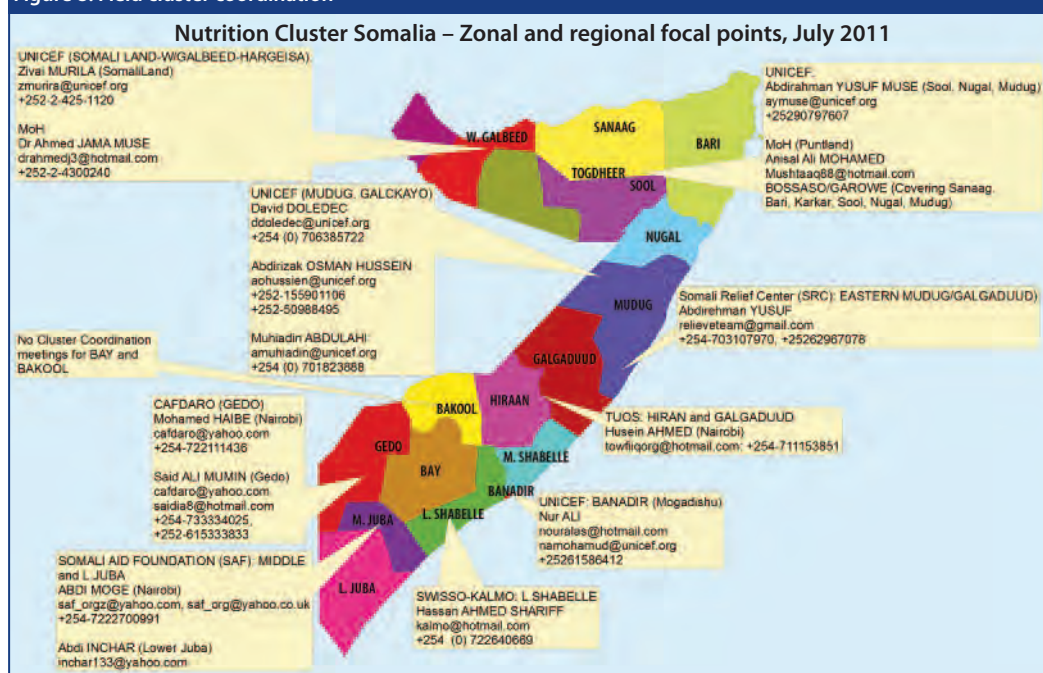
For SFPs, the current crisis places demands on implementing agencies facing pressures from the local community, resulting in more CSB being distributed than planned so that stocks run out. Some partners are contractually ready to start activities but are awaiting supplies of CSB to do so.

The suspension of WFP activities in South and Central Somalia has had a serious impact. By 2009, WFP had delivered the logistical support for delivery of food in Somalia while UNICEF delivered only on therapeutic nutrition programmes. In January 2010, WFP suspended operations in South Somalia. As provider of last resort, UNICEF picked up their 400 programmes, signing agreements with partners they had not previously worked with. Delays were inevitable in this context and with the lack of adequate notice, supplies or resources. A problem with drug supplies has also been experienced.

Nutrition Information System

Through considerable focus and effort, the completeness of reporting of nutrition information by partners has improved tremendously. With regular follow up, 95% reporting coverage

Figure 8: Field cluster coordination



has been achieved on a monthly basis, however, the quality of reporting needs to be further strengthened (see section on performance indicators below). Problems with the current database mean cross checking of this month's programme information against the previous months has to be done manually.

One challenge for nutrition information is the discrepancy between caseloads from project reporting and FSNAU estimated caseloads. Numbers of beneficiaries identified through project data are often significantly higher than FSNAU estimates for the same area, resulting in coverage rates of greater than 100%. This may be due to a problem with population denominators arising from the use of out of date population statistics. It may also be due to the incidence rate of acute malnutrition used. In view of the multitude of problems and the severity of the situation in Somalia, an incidence rate of 1.6 may not be appropriate – it could even be as high as 8. (Even in Somaliland, an incidence rate of 4 or 5 may be applicable).

There is a positive move to the increasing use of SQUEAC⁹ surveys to triangulate reporting results. Most organisations have included SQUEAC in their proposals. UNICEF will facilitate this through engaging external consultants to accelerate the process.

Performance indicators

Monthly reporting data are collated for IMAM programmes in Somalia. The data indicate that OTP programmes are performing well and meeting SPHERE standards (see Table 1). However, there is recognition that according to the data, programmes are performing better than might be expected given the challenges and constraints of implementation in many areas of Somalia. Efforts are now underway to follow reporting more closely to check the reliability of the data presented by partners.

Community mobilisation

In Somalia, where there is limited access to SCs, community mobilisation is a very important component of IMAM. Promotion of the early detection and diagnosis of cases of acute malnutrition can reduce the numbers that deteriorate into a severe condition prior to presentation. In general, the level of community

mobilisation has improved. Some challenges remain. For example, in SCZ, CHW are, in effect, salaried through the incentives they are paid. This system encourages CHWs to take on large areas (for which they are paid more) but that they may not be able to cover effectively.

Coordination systems

With the lack of effective central government, the Nutrition Cluster plays a significant role in the coordination of nutrition programmes throughout Somalia. Due to security constraints, the cluster is based in Nairobi. Traditionally, regular monthly Nutrition Cluster coordination meetings have been held with excellent participation. However, with such a large number of nutrition programmes implemented by local NGOs, the resulting number of Nutrition Cluster partners means that it has become increasingly difficult to focus on operational issues at these meetings. To overcome this, the general Nutrition Cluster coordination meeting is now held once a quarter to include partners and members, whilst the monthly coordination meeting is held for implementing partners only. In reality, attendance is still too large to be able to discuss implementation issues in a useful way. So, in addition to a monthly cluster meeting, regional meetings are held at Nairobi level. These fora bring together all partners working in a particular region to meet and discuss operational issues. This has proved very helpful to the improved coordination of activities, who is doing what and where and identifying the gaps. There are also thematic working groups for infant and young child feeding (IYCF), micronutrient supplementation and capacity building for more specific technical discussions. Furthermore, field cluster coordination fora at regional level are gradually being established (see Figure 8). This has proved useful in areas of SCZ, in particular where there is a problem with geographical coordination of activities and possible duplication. Regular field cluster coordination meetings allow organisations to discuss and agree issues such as programme coverage amongst themselves at field level. A key aim for strengthening overall coordination

⁹ Semi-Quantitative Evaluation of Access and Coverage



is to get the field cluster coordination meetings working more effectively.

Integration and linkages

Integration with MOH

In Somaliland and Puntland, IMAM services are linked with Maternal and Child Health (MCH) and health posts. In Somaliland, 34 OTPs and 4 SCs are delivered through government health facilities, whilst in Puntland 10 OTPs are operating through government structures. In practice this means the services are delivered by MOH staff with financial incentives paid by the humanitarian community. In SCZ integration with MOH is very limited.

Linkages with Essential Package of Health Services (EPHS) and Health System Strengthening (HSS)

The EPHS for Somalia was developed in 2008 and defines the four levels of health service provision (primary health care unit, health centre, referral health centre and hospital) and the six core and four additional health programmes to be implemented throughout the country. According to the EPHS, nutrition interventions are integrated across the ten programmes. Overall there is a drive to ensure that nutrition is considered a significant part of the EPHS. This is being achieved in part through the review of job descriptions and training packages of health professionals. There are however, disparities across the three zones due to differences in the presence and capacity of local government, the presence of international staff and the implementation of the cluster approach.

Integration of the Basic Nutrition Services Package¹⁰ (BNSP), IYCF and nutrition education Integration of BSNP activities into IMAM programmes is a gradual process. It is included in UNICEF's standard proposal format but many agencies struggle to understand the concept of BNSP. The level of integration is limited by supervision, capacity, supplies and logistics.

¹⁰ The BNSP for Somalia provides guidance and justification on what nutrition services should be included at various levels of the health system and throughout the lifecycle. The essential components are defined as: management of acute malnutrition, micronutrient supplementation, immunisations, deworming, promotion and support for optimal IYCF, promotion and support for optimal maternal nutrition and care, prevention and management of common illnesses, fortification (home based and food vehicles) and monitoring and surveillance.

The IYCF and nutrition education activities are linked to IMAM programmes. Their integration as components of IMAM programmes is encouraged at proposal level and is supported by UNICEF through to implementation stage. Each IMAM programme has an IYCF promoter supported through funding from UNICEF. To date, a total of 100 IYCF counselors have been trained and the programme is ongoing. Furthermore, some IMAM programmes have set up community support groups for IYCF within the community to offer advice to each other. However, with the magnitude of the problem in Somalia, the cluster recognises other approaches to improving IYCF practices also need to be considered to achieve significant behavioural change.

Nutrition education activities are also delivered on a routine basis through IMAM programmes. This may be through group education sessions with mothers attending IMAM sites and/or through sessions conducted within the community. Further strengthening and exploration of different approaches is required to improve impact. In recognition of this, nutrition and WASH clusters have started to work together on nutrition/WASH promotional messages and how best to deliver them. UNICEF has signed a contract with BBC World Trust for the development of drama, where promotional messages are delivered via the radio. Other options to be explored include the use of mobile phone technology in sending promotional messages via text messaging.

Inter-sectoral integration

In such a challenging operating environment, the use of existing programmes and structures as a delivery mechanism for integrated activities across sectors is crucial. Furthermore, the absence of integrated services can prolong recovery and increase relapse rates. At proposal stage, the current format of CAP proposals, UNICEF Programme Cooperation Agreement (PCAs) and WFP Flash Appeals requires that health and water, sanitation and health (WASH) activities, e.g. immunisation or soap distribution, are integrated within nutrition programmes. However, it is recognised that implementation of an integrated response at field level needs strengthening, particularly in SCZ. Capacity may be a limiting factor in this. Current reporting requirements for nutrition do

not capture the extent of provision of complementary services systematically e.g. number of immunisations or soap distributions. Health Information Systems (HIS) are supposed to capture this information. Third party monitors do report on level of integration but a question remains as to whether this information is collated in any way.

Inter-cluster linkages

Good coordination and collaboration exists between WASH, Health, Agriculture and Livelihoods and Nutrition Clusters at Nairobi level. Clusters share information on the strengths and weakness of potential partners and which organisations are capable of scaling up a more integrated approach to delivery. In SCZ, the Agriculture and Livelihoods and Nutrition Clusters work closely together to ensure any agriculture and livelihoods programmes, such as cash for work, include nutrition beneficiaries.

An inter-cluster strategy was developed in June 2011 to address the acute food insecurity and nutrition crisis in SCZ. This defines which inter-cluster activities are to be delivered at each target location (e.g. nutrition centres, health centres, transit points, IDP settlements) and includes nutrition, health, livelihoods and WASH cluster activities.

Capacity, training and supervision

Capacity is an important issue for the scale up of IMAM throughout Somalia. As highlighted above, the vast majority of nutrition services for the management of acute malnutrition are implemented by UNICEF and WFP in partnership with local NGOs. There is wide variation in the capacity of these local organisations. There has been notable improvement and capacity development amongst organisations that first started implementing IMAM two years ago. However, in South and Central Somalia, many of the most efficient and reliable partners have been expelled from Al Shabab controlled areas, resulting in a need to work with less experienced partners. For many local partner organisations new to nutrition programming, commitment is strong but technical knowledge, experience or understanding may be more limited. This applies not just for technical nutrition capacity but also project cycle management, funding mechanisms, proposal writing, audits reporting, etc. In the Somalia context, training and supervision are often difficult or challenging, given the limited access of senior (and particularly international) staff to the centres. Innovative ways of training and supervising staff need to be developed for this purpose.

Capacity has been a limiting factor in scale up but to what extent is not clear. The following are some examples of impact of capacity limitations on scale up. A local partner organisation effectively implementing OTP at five sites may lack the capacity to scale up to six more sites, resulting in the need for another partner to be brought in. Other agencies may agree to scale up without the capacity to deliver, resulting in delays or problems with the quality of service. Others have asked for expansion but have underestimated the funding implications with the result that the project is underfunded.

Lack of capacity also limits the extent to which nutrition services are integrated with

other cluster activities. The promotion of an integrated approach is undoubtedly something to be strived for. However, where capacity is still being strengthened, the tendency of local partner organisations to take on activities from other clusters, particularly in the context of short term emergency funding, may overstretch and overload some organisations.

In Somaliland and Puntland, capacity development within evolving local authorities is important for more sustainable effects. Appointments to the civil service are often linked to clan association with the relevant minister, rather than technical know-how. This may mean that international staff members ultimately carry out the monitoring work typically undertaken by national civil servants. This amounts to gap filling rather than skills transfer. High staff turnover is also an issue. There is a shortage of technical NGOs capable of travelling to many areas and training local communities. However, compared with 2-3 years ago, when many NGOs were established and collapsed within a short space of time, increased support from international NGOs, and improvement in partner capacity is evident.

One of the cluster's primary roles is to give hands-on technical support and supervision to partners throughout the implementation cycle, not merely in terms of capturing final results. Capacity building is one of the objectives of the Cluster Response Plan. From the first round of CHF allocation, USD\$500,000 went towards capacity building at agency level. The importance of this aspect to continuing the scale up process is highlighted by the investment in the current capacity mapping exercise. This will provide baseline information through the mapping of capacity at three levels being undertaken: i) Nairobi – general management capacity, ii) field level - technical and management capacity and iii) field level - nurses and CHWs. The aim is to gain a better understanding of the gaps and lead to formulation of a specific capacity development strategy to address priority issues for the way forward.

Lessons learned on capacity development

To date, capacity building has mainly been through Training of Trainers (ToT) at Nairobi or Hargesa level. The focus has been mainly on local NGOs and MOH staff. This approach has proved to be less effective when implemented alone and needs to be coupled with other complementary approaches, including on-the-job mentoring. Additional reasons why the ToTs have not been an effective standalone approach include: the wrong people have attending training held at Nairobi or Mandera level, skills learned at training are not passed down and weak capacity in delivering the ToT.

Increased commitment from international NGOs to train and mentor local partners has proved successful. In 2008, Action Contre la Faim (ACF) acted as a training centre for organisations with lower capacity, which had positive results. Another encouraging example is Oxfam Novib's partnership agreement with local NGO SAACID, in which Oxfam oversees and mentors the activities of the local NGO.

Innovative ways forward for capacity development

Given the significant constraints, some innovative approaches under consideration include:

On the job training where trainees from a lower capacity organisation spend a block of time with a higher capacity organisation (mentor) at the mentor's work site. This provides the advantages of having an experienced mentor at hand to address questions and difficulties and reinforces information provided during the didactic course. The challenge to using this approach is the availability of quality sites with a mentor.

Twinning, where a relationship between two organisations is established to provide a platform for sharing of expertise and experience.

Consultation using call centre allows newly trained staff to ask questions of experienced providers through direct phone calls to the centre and provides a support network that builds the confidence of newly trained providers.

Distance learning schemes can be run using different technology depending on the resources available to the trainees. It may be through internet or audio tapes combined with written materials. Distance learning has the advantage of reaching a wide geographically disparate audience and allows trainees to remain at their workplace with training in their local language. There can be a call centre to provide technical back up.

On site mentoring using mobile teams is where experienced professionals are sent to sites of less-experienced providers for a few days to offer on-site mentoring. This allows the trainee to practice skills and raise questions and difficulties specific to the trainee's work situation and means. The use of mobile teams, with a technically strong team leader and supported by a technically strong NGO, reduces the requirement for large numbers of skilled mentors.

Monitoring

Approaches to monitoring vary across the three zones, reflecting the level of security and access in each.

SCZ

With the current lack of access to international staff in SCZ, the monitoring of programme delivery by partners is a major challenge.

Programmes tend to be managed remotely and rely on partners' implementation reports. Verification in quantitative terms may be possible but verification of programme quality is more of a challenge. When experienced monitors are not available and senior staff cannot themselves reach project sites, there is a serious risk that programmes may fall below a desired standard with no repercussions for the implementing partner or direction for improvement. Furthermore, absolute verification that no aid has been diverted or misused is increasingly more difficult when senior staff cannot visit project sites. A further complication is that even when agency (e.g. UNICEF or WFP) staff are satisfied that monitoring activities are sufficient and suitable, donor organisations may continue to seek further verification and evidence of high quality project implementation.

With the challenging context of SCZ including restricted access, new and innovative operational modalities are constantly considered and a number of monitoring procedures are in place. These include the following:

- Programme support missions by technical staff

These are carried out whenever there is a window of opportunity for access. Such missions may be rapid but can provide vital opportunities to assess needs and monitor ongoing activities and define necessary follow up activities.

- Joint monitoring with communities/local authorities/partners

This approach relies on the network of partnerships that have been established over the years and is dependent on the presence and capacity of partners to carry out monitoring activities. The expulsion of international partners has reduced the pool of joint monitoring partners.

- Independent third party monitors

Third party monitoring is a new approach used by both UNICEF and WFP who each contract a different independent organisation to monitor

¹¹ The Afgooye corridor is the largest single concentration of internally displaced people in the world. There are over 400,000 people along a 40 km stretch of road, which snakes out from Mogadishu heading eastwards.



Infant and young child feeding support

their nutrition programmes by region. These organisations are local NGOs, in the case of UNICEF a local consulting group called Charity Relief Organisation (CRO). Programmes may be visited either as part of a planned schedule or 'on spec'. A monitoring visit may be requested in response to reports of problems with a particular programme, e.g. from other organisations. Monitors are provided with a checklist and monitoring tools. This includes a set of questions that are intended to flag any discrepancies in reporting and monitoring. Reports from third party monitors are cross checked with partner reports and local community reporting. Third party monitoring provides independent verification of the programme with the contracted organisation acting on behalf of UNICEF or WFP. The monitors are not perceived to be linked with either UNICEF or WFP, which gives them better protection and access in some locations. As well as monitoring, the visit is taken as an opportunity to provide on the job training as necessary. The possibility of using third party monitoring more regularly/extensively for training and supervision purposes is being explored. Donors are not always satisfied with the use of third party monitors, however.

- **Peer monitoring**
Somali staff members use family and friends in different areas to check up on project activities. There are limitations since friends and families may not possess technical skills to assess the quality of programmes.
- **Results monitoring**
Nutrition surveys carried out by FSNAU can provide independent verification of the effectiveness of assistance. A recent example is the positive impact of SFPs for IDPs in the Afogoye Corridor¹¹.
- **Triangulation of information**
Information reported by partners, different sources at community level (e.g. community elders, education committees, school clubs) and other key informants including other partners, UN agencies and information from third party monitors.
- **Direct beneficiary feedback**
Through the use of mobile phone technology available in Somalia, there is potential to source additional information from beneficiaries,

although lack of technical skills to assess quality of programmes means the approach needs careful consideration.

Somaliland

With the exception of some areas of Sool and Sanaag, where conflict persists, access to projects in Somaliland is available. The primary challenge with regard to monitoring is lack of time to visit programme sites throughout the region. Staff tend to be overstretched with a high volume of work and missions are difficult, covering long journeys on rough terrain.

Puntland

Direct monitoring is also feasible in Puntland. Agency staff can safely travel to all regions. Some of the monitoring activities in this zone include third party monitoring, monitoring by the relevant government ministry, quarterly monitoring visits to sites and to implementing partners by staff members, and periodic joint monitoring with government (for example, where UNICEF sponsor officers from the Ministry to join UNICEF officers to monitor projects together). However, administrative work often takes priority over site visits. Furthermore, some staff do not want to travel to remote areas due to fears around personal safety or other reasons. In general, staff manage to undertake once a quarter visits instead of the optimal once a month.

Impact and achievements

The real success of nutrition programming in Somalia is the achievement of such rapid scale up of IMAM services in a very difficult context, primarily through UNICEF and WFP partnerships with local NGOs. The expansion of services over the last 3 to 4 years has provided a vital base for the current response to the humanitarian emergency.

Working through local partners can be a successful model when government structures are weak and access for international agencies is limited. While estimates of population coverage greater than 100% in some areas suggests a problem either with population estimates or with incidence rates, it does indicate very positive results. With follow up, monthly reporting is now 95% although there may be some quality issues. The introduction of SQUEAC coverage surveys will allow the triangulation of results.

Even in this difficult environment, cure rates are within the Sphere standards.

More recently, the use of mobile clinics rather than static clinics is being promoted. Local organisations are being encouraged to look at the population being served and whether daily attendance warrants a static clinic or whether a mobile team would be a better use of resources (staff time and infrastructure costs). One mobile team would substitute five static sites, for example. Each mobile team provides a timetable of services to the surrounding community for weekly OTP visits and fortnightly or monthly TSFP. Mobile services are not reflected in the nutrition services map (see earlier).

Ways forward

The extent of the scale up of IMAM services over recent years in the face of all the challenges of the Somalia context is a tremendous achievement. With the current emergency, geographical coverage of services and the number of partners continues to expand. In terms of the way forward from here, the major focus is on improving the quality of services through the following:

- Innovative approaches to capacity building, both for local NGOs and government staff, combining ToTs and instructive training with complementary approaches such as on-the-job training, mentoring of lower capacity NGOs by higher capacity NGOs, distance learning and use of mobile mentoring teams.
- Strengthening project management skills as well as technical capacity of local partners.
- The use of third party monitoring to provide on the job training and supervision.
- A move towards the greater use of mobile teams linked to one static site in order to increase programme coverage.
- Introduction of the use of SQUEAC surveys to triangulate reporting results.
- Strengthening of field coordination systems.

The Scaling Up Nutrition (SUN) initiative provides a framework for action to scale up efforts at country level for addressing undernutrition through encouraging country owned nutrition strategies and programmes and taking a multi-sectoral approach that includes integrating nutrition in related sectors. Without an effective central government, Somalia is not an obvious candidate for SUN in the formal sense. However, a Somali Nutrition Strategy has been developed and endorsed by the authorities in each of the three zones. The strategy encourages the use of current IMAM to maximise opportunities arising for a more integrated response. The BNSP epitomises this. Scale up of a more integrated approach is in progress. The scale up of IMAM can certainly benefit other nutrition interventions. Particularly in a context like Somalia where IMAM programmes are reasonably well funded, they can provide a platform through which to deliver other nutrition and related interventions. However, it is essential to recognise the critical role of capacity strengthening in the expansion and effective integration of a broader spectrum of activities. Capacity of local partners and longer term funding remain key challenges, whilst the priority in the current context is the continued rapid scale up of life saving interventions to prevent morbidity and mortality.

For more information, contact:
Leo Anesu Matunga,
email: lmatunga@unicef.org,
tel: +254 728601202



A father accompanies his children to OTP

L. Matunga/UNICEF, Somalia, 2012

Linear programming to design low cost, local RUTF

Summary of research¹

Ready to Use Therapeutic Food (RUTF) is not always available where needed. In India, where the need is enormous, it has not been possible to legally import RUTF from Europe since 2009. In this and other countries, the relatively high cost of Western brands and local policies have prevented the widespread importation of RUTF, boosting the demand for regionally appropriate solutions. The current RUTF formulation is based on results from a limited number of studies, in a few settings, showing rapid weight gain. Consequently, in other settings, with different underlying nutrient deficiencies and infectious disease profiles, similar weight gains would perhaps occur with nutrient levels different from those in use. Furthermore, the current commercial formulation of RUTF is not acceptable to all the patients in need of therapeutic nutrition in developing countries, e.g. HIV positive wasted adults.

Evidence based nutrition research ideally relies on costly randomised clinical trials. Therefore a robust method is needed to design the trial RUTF before such studies. At present, there is no internationally endorsed protocol to design products of this kind. Linear Programming (LP) is a suitable decision tool for designing novel food-based formulations. The method helps by identifying the cheapest possible combination of food ingredients that meet a set of nutritional requirements, avoiding a 'trial and error' approach.

The objective of a recent study was to test a LP-based method for designing the cheapest formulation of a ready-to-use food (RUF) that fulfils predefined macronutrients requirements. It used region-specific foods that are culturally acceptable and can be processed with locally available technologies. The LP objective function and decision variables consisted of the lowest formulation price and the weights of the chosen commodities (soy, sorghum, maize, oil and sugar) respectively. The LP constraints were based on current United Nations (UN) recommendations for the macronutrient content of therapeutic feeds and included palatability, texture and maximum food ingredient weight criteria. Non linear constraints for nutrient ratios were converted to linear equations to allow their use in LP. The only software needed is MS Excel, including a freely available add-in called 'Solver' (see Figure 1).

The method was used to successfully design a prototype RUTF for the rehabilitation of HIV/TB-wasted adults and children under five years of age with severe acute malnutrition (SAM) in East Africa. The safety and acceptability of the prototype RUTF was subsequently confirmed in a trial². Laboratory analysis confirmed that the energy, protein and lipid values of the prototype formulation were within the pre-established cut-offs.

Some constraints were highlighted in applying LP to design food formulations of this kind. These were mainly to do with the accuracy of the food composition data in relation to local food ingredients, e.g. the oil descriptor used

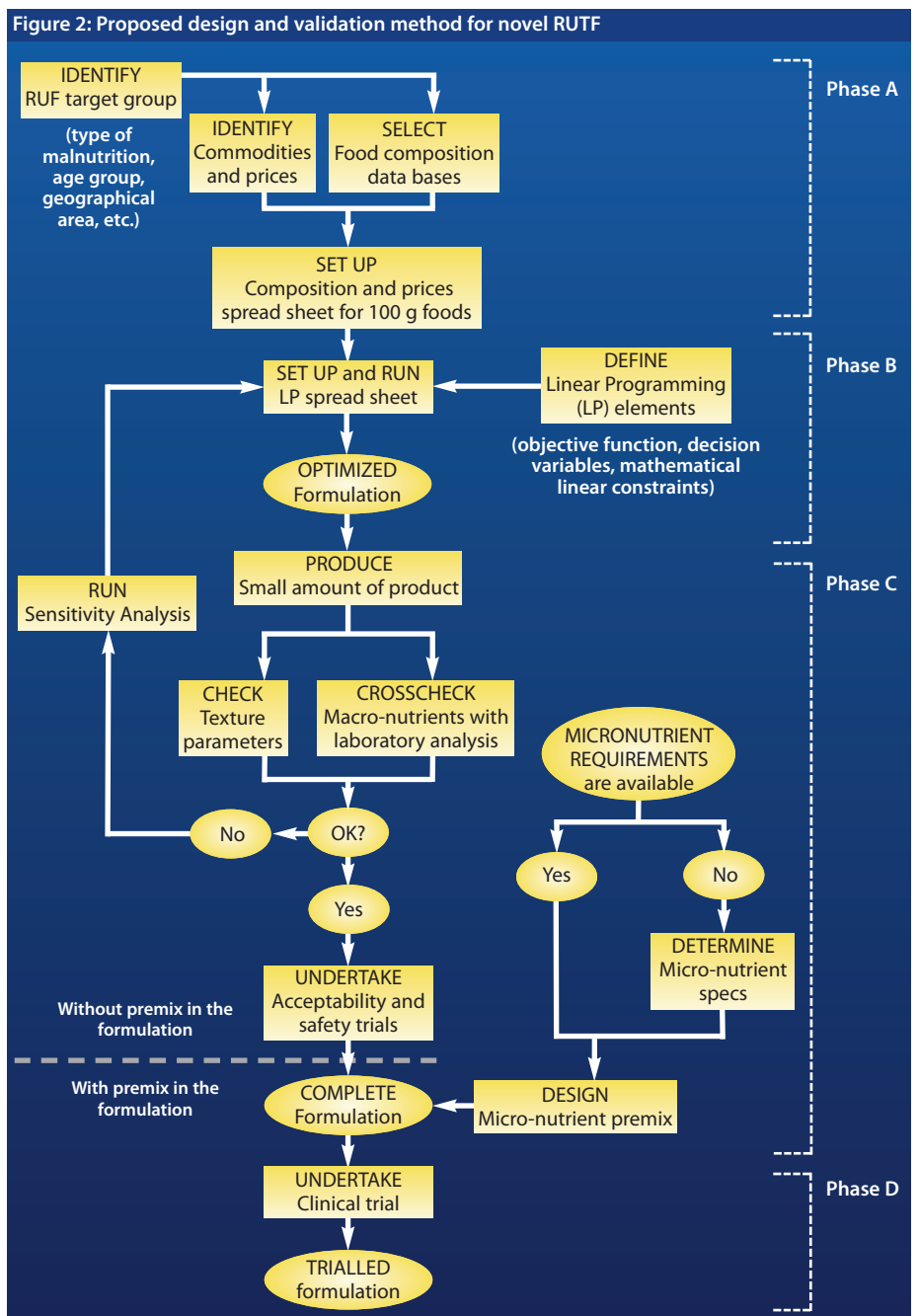
was palm oil but the actual commodity used was palm olein oil (an industrially prepared fraction of palm oil). The authors concluded that the LP method used was widely applicable for the rational design of therapeutic food products at minimum cost. The study provided a prototype formulation which met almost all the pre-defined requirements (one had to be relaxed by 0.2%). One lesson learnt is the need for improved methods to determine the ingredient prices to use in the model that takes into account seasonal/regional/national fluctuations. The RUTF cost (based only on food ingredients) was approximately 4 to 5 times cheaper than the current standard product (food ingredients and premix) – hence even with the addition of micronutrient mix, still substantially cheaper. Using the methods described in the paper, public health nutritionists and food technologists could apply these steps to design other

RUF formulations, such as ready-to-use supplementary or complementary foods. The authors do, however, caution that the macronutrient contents of LP prototypes always need to be confirmed by food composition analysis and the finalised products trialled under field conditions before they can be recommended for general use.

For more information, contact: Filippo Dibari,
email: filippo@validinternational.org

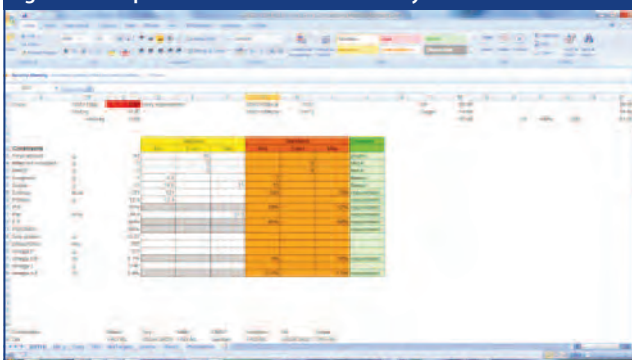
¹ Dibari F et al (2012). Low-Cost, Ready-to-Use Therapeutic Foods Can Be Designed Using Locally Available Commodities with the Aid of Linear Programming. The Journal of Nutrition. First published ahead of print March 28th, 2012 as doi: 10.3945/jn.111.156943

² Owino, V. O., Irena, A. H., Dibari, F. and Collins, S. (2012), Development and acceptability of a novel milk-free soybean–maize–sorghum ready-to-use therapeutic food (SMS-RUTF) based on industrial extrusion cooking process. Maternal & Child Nutrition. <http://onlinelibrary.wiley.com/doi/10.1111/j.1740-8709.2012.00400.x/abstract>



Source: Filippo Dibari. Adapted from Dibari et al (2012).

Figure 1: Sample of the MS excel based analysis





A child being screened for malnutrition in a UNICEF supported programme

UNICEF Global reporting update: SAM treatment in UNICEF supported countries

By UNICEF Nutrition in Emergencies Unit and Valid International

Following the CMAM mapping exercises of 2009 and 2011, UNICEF and Valid International are working together through a UNICEF-supported Project Cooperation Agreement (PCA). Thanks to Erin Boyd (UNICEF), Nicky Dent (Valid International), James Hedges (UNICEF HQ), Gideon Jones (Valid International), and Rachel Lozano for contributing to this article.

UNICEF is one of the principal organisations supporting the implementation and scale up of the community-based management of acute malnutrition (CMAM¹) approach with respect to managing severe acute malnutrition (SAM). UNICEF is the main provider of Ready to Use Therapeutic Food (RUTF), therapeutic milk (F-75, F100) and other essential supplies in treating SAM. UNICEF also provides technical guidance and supports capacity building efforts of Ministries of Health (MoHs) and non-governmental organisations (NGOs) to improve both the quality and access of SAM treatment.

A key component of UNICEF's work is monitoring and evaluation (M&E) to demonstrate impact. The need to have a standardised method to compile, collate and compare information on impact and increase accountability related to the management of SAM has been evident for some time. A Global Mapping Review in UNICEF-supported countries was conducted in 2010, based on 2009 data, to determine the current situation of CMAM programming with a focus on SAM treatment, and the findings were shared in March 2011². A major finding of this CMAM Mapping Review was the need to improve the quality and frequency of SAM treatment performance reporting and one specific recommendation was to develop a Global SAM reporting system. One step in addressing this has been the development of an annual summary, referred to as the 'Global SAM Treatment Update' to report on the status of SAM treatment for 2011 in UNICEF-supported countries. The purpose of this article is to summarise some of the key information from the 2011 SAM Treatment Update, including some comparison with the 2009 data, and outline the way forward on global SAM treatment reporting.

Overview of the 2011 Global SAM Treatment Update

Building on the 2010 Global Mapping Review, the data capture methodology for 2011 was amended with the aim to improve the quality of responses. The original questionnaire³, based on the World Health Organisation (WHO) health systems framework, was modified to increase the specificity of both the qualitative information (general CMAM programme background/ context, country objective, bottlenecks) and quantitative information (caseloads, prevalence, access and coverage, performance indicators) being requested.

The questionnaire was sent out in December 2011 to 61⁴ UNICEF Country Offices (COs), selected on the basis of previous orders for therapeutic supplies⁵. Fifty-seven UNICEF COs responded (93 per cent response rate). This exercise has provided significant learning on how to achieve a strengthened reporting system for the future and has yielded important SAM treatment information, allowing for some comparison of the progress in the quality and scale-up of CMAM programming over the last few years.

Main findings of the UNICEF Global SAM Treatment Update, 2011

Number of countries reporting services

At the end of 2009, 53⁶ UNICEF country offices reported community-based services for the

management of SAM⁷ and by the end of 2011 this had risen to 61⁸. In the 2011 questionnaire, countries were asked about their stage or objective to scale up of services for management of SAM. While the definition of classifying countries requires strengthening to ensure countries providing inpatient services only are also captured, Figure 1 gives some indication of country objectives with regard to scale up.

Annual total admissions of children with SAM 6-59 months

In total, 1,961,772 reported cases of children aged 6-59 months with SAM were admitted for treatment during 2011, compared with just over 1 million reported during 2009. While this large increase in reported admissions reflects overall improved reporting at national level, it is also indicative of the ongoing scaling up of treatment of SAM. The total reported admissions still represents between 10-15 per cent of the ~20 million expected SAM cases annually.

National reporting rates

Twenty-nine countries (48%) reported that they had >75% reporting rate (i.e. they received >75% of the required monthly reports) compared with eight countries (15 per cent) in 2009. The reporting rate demonstrated a large improvement in data collection at the national level. However, given there is no standardised system of national reporting, intra-country comparisons should be made with caution. Each country collects data differently, with the

¹ Also known as Integrated Management of Acute Malnutrition (IMAM) or Community-based Therapeutic Care (CTC)

² Global Mapping Review of community based management of acute malnutrition with a focus on SAM. March 2011. Valid International, UNICEF HQ Nutrition (long report with individual country/regional data: internal circulation only; summary report: external circulation)

³ For any additional documents pertaining to the review, please contact UNICEF New York Nutrition in Emergencies office.

⁴ Questionnaires were sent out to Guinea Conakry and Namibia later than the other country offices.

⁵ See data limitations section.

⁶ Fifty-five countries by mid 2010, with Ghana and Honduras starting services.

⁷ Note: not all countries with inpatient services only may have been captured by the questionnaire. No definition of community-based management of SAM was provided and the existence of programming is from CO reports.

⁸ Cambodia, Comoros, Ghana, Guinea Bissau, Honduras, Lao PDR, Vietnam and Zanzibar reported starting community-based programmes subsequent to the 2009/2010 mapping exercise. Mainland Tanzania and Zanzibar counted separately due to the different nature of the SAM treatment programmes.

⁹ See news piece in this issue of Field Exchange.

Figure 1: Global breakdown of country status/objective with regard to CMAM scale up (2011)

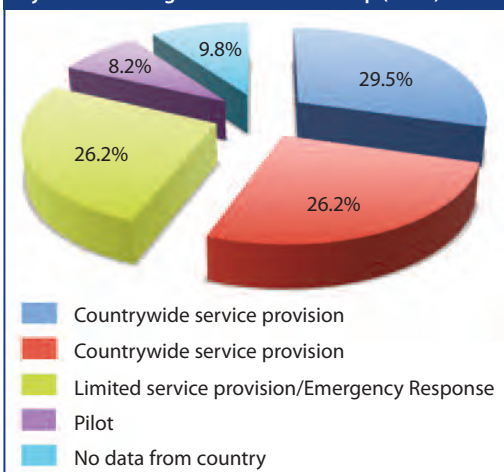


Figure 2: Global Cure Rates (2011)

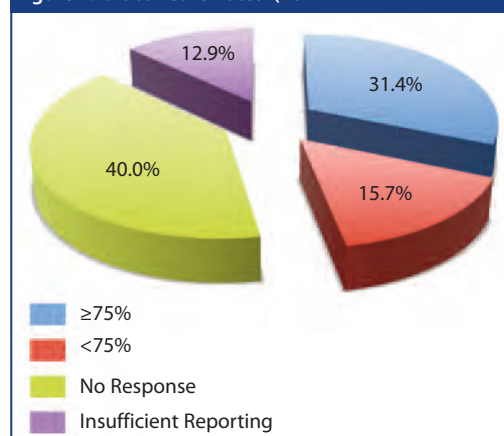
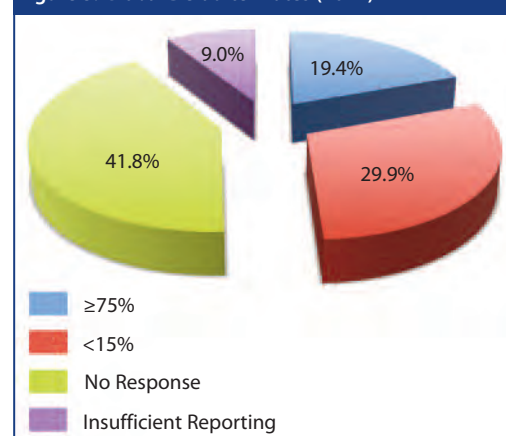


Figure 3: Global Defaulter Rates (2011)



reporting rate sometimes reflecting the percentage of reports received from health facilities with functional services for SAM, and sometimes the percentage received from implementing partners.

Performance Indicators

Cure rate: Twenty-two countries (31.4%) achieved a minimum recovered rate of >75% (SPHERE standard for recovered) (47.1% response rate) (see Figure 2). Collection of this specific information was particularly challenging given wide variance in performance indicator calculation methods, often as different denominators were used. Further guidance in this area is crucial for strengthening the quality of this information.

Defaulter rate: Twenty countries (30%) achieved a defaulter rate of <15% (SPHERE standards - defaulted rate) where adequate reports were available (50.2% of countries) (see Figure 3). Again, there is a need to support countries in collecting and collating these performance data. A benefit of this would be that default rates could be used to identify which countries might benefit in receiving more technical assistance or investigation, for example through community enquiries or specialised coverage surveys.

Geographical and treatment coverage

Despite the current absence of a standardised international way of illustrating geographical coverage for management of SAM, the data gathered from 2011 showed a marked increase in countries' ability to track geographic coverage. Attempting to strengthen the data from 2009, which yielded very varied responses, for 2011 a more precise question was posed, asking for "number of health facilities integrating the management of SAM in country/total number of health facilities in country." Encouragingly 28 countries (46 per cent) were able to respond to questions pertaining to geographic coverage based on the existence of services at health facility level. Nevertheless, reporting challenges were still apparent, illustrating continuing difficulties in measuring geographical coverage and the range of methodologies used. For treatment coverage, while admissions data were strong, further clarity on the denominator is evidently needed: the overall range of responses - from 0.004 per cent to 150 per cent - was too wide (and sometimes questionable) to allow a meaningful comparison.

Integration into Health Services

Integration of management of SAM into the health system is a strategy gaining momentum as some MoHs adopt management of SAM as part of the essential health package (note, not all countries are aiming for nationwide scale up, as management of SAM is not always a country health priority). Questions for the 2011 Global SAM Treatment Update were posed differently in the 2010 mapping so direct comparison cannot be made, apart from a slight increase in the number of countries incorporating SAM indicators in the Health Management Information System/HMIS (16 countries in 2011 compared with 14 in 2009) and a greater increase in including community-based management of SAM in pre-service training (15 countries in 2011 compared with 9 in 2009).

Procurement of RUTF

In 2011, UNICEF procured 27,000 MT - some 80 per cent of the global supply. UNICEF continues to support the local production of RUTFs

and has diversified its own supplier base to include manufacturers in Dominican Republic, Ethiopia, France, Haiti, India, Kenya, Madagascar, Malawi, Mozambique, Niger, Norway, Sierra Leone, South Africa, Sudan, Tanzania and USA.

Data limitations

The different understanding of respondents was evident in the data collection process, with mixed responses received for certain questions. It is evident that UNICEF staff have varying understanding and experience of terminology and standardisation of this understanding will be crucial for strengthening future data collection efforts. For the 2011 exercise, responses have not been 'eliminated' if they appeared out of range, apart from obviously incomplete responses for the geographical coverage question. COs were not requested to clarify or correct responses or add missing data, limiting the reliability and completeness of the data set. Another limitation was the sending out of questionnaires only to countries ordering SAM-related supplies, this measure led to some countries being missed in the initial sending of the data collection tool. In addition, the status of some countries said to be "planning" CMAM programmes from the mapping exercise is not known and a comprehensive view of countries with inpatient management of SAM services is not available.

Ways forward

Through 2012, UNICEF and Valid International have been working together to develop a web-based data collection and analysis mechanism to capture key information related to the management of SAM at country level for synthesis at global and regional level. Currently, the automated Global SAM Treatment Update mechanism is nearing the piloting phase, but work is still being done to improve the tool to ensure greater clarity and utility. This includes the incorporation of quality checks and balances in the system to minimise inappropriate data submissions.

Much of the information to be inserted within the SAM Treatment Update tool is already collected by countries currently, but the regular and systematic collation across countries and regions at the global level has exciting potential. Through the SAM Treatment Update, key data can be produced for the general health and nutrition community, fulfilling a need at the global level for big picture information on the current situation of scale up of and management of SAM. Over time, this should enable the tracking of trends and changes from year to year and country to country. This, in turn, will support the identification of gaps and guiding of advocacy efforts, decision-making, and resource mobilisation. The more detailed raw data will be utilised by UNICEF for in-depth analysis to inform its support to countries, strategic decision-making and fundraising efforts, as well as supply forecasting and programme planning.

In terms of the immediate way forward on this initiative to strengthen SAM treatment related information for improving and expanding access to SAM treatment, there are certain key actions to be undertaken:

- Finalize outputs of Global SAM Treatment Update: The major variable outputs of a web-based data capture tool need to be

finalised, as these will be reported on an annual basis for distribution internally to UNICEF management, field staff and externally to stakeholders involved in the management of SAM (other UN agencies (WHO, WFP, FAO, UNHCR), donors, NGOs, technical bodies). Information will likely include the number of countries carrying out services for management of SAM, country caseload, admissions data and so on.

- Refine data capture tools and process: Based on learning from past data capture exercises, further work is needed in terms of how best to define and request specific information required at global and regional levels including linking with the supply aspect. Further work will also be needed on how to ensure that information from all countries with services for SAM is captured, including those with inpatient services only. In addition, continued development of the web-based system for data entry with greater guidance on how to minimise errors and missing data will be undertaken.
- Develop standardised definitions and methodology and refine content: as part of the tools development, efforts are needed to further refine definitions and methods to provide a common language and methodology to measure geographical and treatment coverage, and to define the classification/stage of SAM services with international experts, stakeholders and health/nutrition technical bodies. To this end, the development of regional webinars is being planned for UNICEF staff to develop common definitions and to strengthen country capacities to improve their existing information systems. Indicators designed to effectively capture information on the integration of SAM into national systems is being piloted with UNICEF East Africa regional office as part of the development of a framework to support integration of SAM management in national health systems.⁹
- Ongoing support: The weaker data from previous global capture exercises will be used to prioritize countries and identify areas that require additional support, to be linked to competency frameworks and capacity building strategies.

Conclusions

The progress on SAM-treatment reporting over the last few years has been significant and has played an important role in highlighting the global achievements to date and the challenges remaining. This information is increasingly being utilised to inform a range of actions in support of improving and expanding treatment of SAM treatment at country level. This has led to amendment of programmatic strategies and actions and provides an evidence base for strategic decision-making, resource mobilisation and advocacy. UNICEF remains committed to the nutritional well-being of children and mothers and it is envisaged that this mandate will be increasingly strengthened through improved data reporting. The Global SAM Treatment Update initiative constitutes another important step towards this.

For further information, contact: Ilka Esquivel, Senior Adviser, Nutrition in Emergencies, iesquivel@unicef.org

⁹ See news piece in this issue of Field Exchange.

Food display used during education session



Capacity development of the national health system for CMAM scale up in Sierra Leone

By Ms Aminata Shamit Koroma, Faraja Chiwile, Marian Bangura, Hannah Yankson and Joyce Njoro

Acronyms:

ACF	Action Contre la Faim
BeMOC	Basic Emergency Obstetric Care
CHC	Community Health Centre
CHV	Community Health Volunteer
CMAM	Community Management of Acute Malnutrition
CSB	Corn Soy Blend
DHMT	District Health Management Team
DHS	Demographic and Health Survey
EPI	Expanded Programme of Immunisation
FCHI	Free Health Care Initiative
HMIS	Health Management Information System
ICC	Interagency Coordinating Committee
INGO	International Non-Governmental Organisation
IRC	International Rescue Committee
ITN	Insecticide Treated Nets
IYCF	Infant and Young Child Feeding
LQAS	Lot Quality Assurance Sampling
MAM	Moderate Acute Malnutrition
MCH	Maternal and Child Health
MCHP	Maternal and Child Health Post
MICS	Multiple Indicator Cluster Survey
MOHS	Ministry of Health and Sanitation
MSF	Médecins Sans Frontières
NGO	Non-Governmental Organisation
OTP	Outpatient Therapeutic Programme
PHU	Peripheral Health Unit
REACH	Ending Child Hunger and Undernutrition partnership
RCH	Reproductive and Child Health
RUTF	Ready to Use Therapeutic foods
SAM	Severe Acute Malnutrition
SC	Stabilisation Centre
SFC	Supplementary Feeding Centre
SFP	Supplementary Feeding Programme
SLEAC	Simplified LQAS Evaluation of Access and Coverage
SMART	Standardised Monitoring and Assessment of Relief and Transitions
SQUEAC	Semi Quantitative Evaluation and Assessment of Coverage
TCC	Technical Coordinating Committee
TFC	Therapeutic Feeding Centre
UNICEF	United Nations Children's Fund
WFP	World Food Programme
WHO	World Health Organisation



Aminata Shamit Koroma is National Food and Nutrition Programme Manager, Ministry of Health and Sanitation, based in Freetown, Sierra Leone.



Faraja Chiwile is Nutrition Manager with UNICEF Sierra Leone.



Marian Bangura is National Nutrition Programme Officer with WFP Sierra Leone.



Hannah Yankson is National Nutrition Programme Officer with WHO Sierra Leone.



Joyce Njoro is the International UN REACH Facilitator in Sierra Leone.

The authors would like to thank the members of the national nutrition technical committee, REACH secretariat, ACF, WHO, UNICEF, WFP for their time and effort and financial resources from UNICEF in putting this paper together. We extend special thanks to all health and field workers in the CMAM programme for their unrelenting hard work and to the Government of Sierra Leone for its commitment to ending malnutrition.

Background

Socio-economic status

The Republic of Sierra Leone is situated on the West Coast of Africa, bordering the North Atlantic Ocean, between Guinea and Liberia. Its land area covers approximately 71,740 sq. km. The estimated projected population for 2011 is 5,876,936 inhabitants¹, of which approximately 37% reside in urban areas. There are about 18 distinct language groups in Sierra Leone, reflecting the diversity of cultures and traditions. Administratively, the country is divided into four regions, namely Northern, Southern, Eastern regions and the Western area where the capital Freetown is located. The regions are further divided into 14 districts, which are in turn sub-divided into chiefdoms that are governed by local paramount chiefs.

Sierra Leone has suffered from declines in social and economic activities caused by a decade of protracted and devastating civil war, from 1991 to 2001. That situation led to virtual collapse of social services and economic activities in most parts of the country. Sierra Leone is classified by the United Nations as one of the least developed countries. In 2010, the country ranked 158 out of 169 in the United Nations Human Development Index.

Nutrition and health situation

Sierra Leone has some of the poorest health indicators in the world, with a life expectancy of 47 years, an infant mortality rate of 89 per 1,000 live births, an under-five mortality rate of 140 per 1,000 live births and a maternal mortality ratio of 857 per 100,000 births (DHS 2008). The majority of causes of illness and death in Sierra Leone are preventable, with most childhood deaths attributable to

nutritional deficiencies, pneumonia, malaria, and diarrhoea. Malaria remains the most common cause of illness and death in the country. Over 24% of children under the age of five years had malaria in the two weeks preceding the 2008 household survey. Prevention (Insecticide Treated Nets) and treatment are both sub-optimal in Sierra Leone (DHS 2008). Diarrheal diseases and acute respiratory infections are also major causes of out-patient attendance and general ill health in the country. The greatest burden of disease is in rural populations, especially amongst the female population. Due to the unequal burden of ill health, women are more likely to stop their economic activities because of illness than men.

While there has been some considerable reduction in malnutrition rates in Sierra Leone since 2005, it remains a serious problem in most parts of the country. According to the national SMART² survey conducted in 2010, 34.1% (327,000) of children under the age of five years are stunted, 18.7% (179,000) are underweight and 5.8% (56,000) are wasted. Infant and young child feeding (IYCF) practices indicate that only 11% of infants under six months of age in Sierra Leone are exclusively breastfed (DHS 2008). Only 52% of children 6-9 months are given timely introduction of complementary foods and amongst children 6-23 months, only 23% were fed with appropriate foods and according to recommended practices (DHS 2008). These inappropriate feeding practices are important contributors to child morbidity, which exacerbates the already heavy burden of disease.

¹ Government of Sierra Leone. 2004. Population and Housing Census, Census Tabulations.

Through twice yearly mass campaigns, Sierra Leone has achieved high coverage of under-five Vitamin A supplementation and de-worming at 91% and 85% respectively (SMART, 2010²). Anaemia is still highly prevalent at 76% and 46% in children under five years and women of child bearing age, respectively (DHS 2008). This could be due to the high rates of malaria and other parasitic infections, poor dietary intake of iron-rich foods, or a combination of reasons.

According to the Sierra Leone District Health services baseline survey (2009), 66% of pregnant women had four or more antenatal care visits as recommended, which is encouraging. The same study indicates that 40% subsequently delivered in a health facility. Currently, insufficient numbers of health facilities are equipped and staffed to acceptable standards to provide emergency obstetric care. The referral system in many districts is not functional, often leading to dangerous delays in the provision of comprehensive emergency obstetric care.

Political will and policy environment

The government recognises that issues of maternal and childhood health are key for a healthy society and is committed to reducing the high rates of maternal and child morbidity and mortality. The government has taken steps through the 'President's Agenda for Change' and has developed a Basic Package of Essential Health Services. An important initiative has been the introduction of the Free Health Care Initiative (FHCI) in April 2010 for all pregnant women, lactating mothers and children of less than five years. This initiative has considerably improved access to care as follows:

- Increased consultations of children under 5 years from 933,349 to 2,926,431 after the first 12 months of the FHCI (2009-2010)⁴
- A 45% increase in institutional delivery (87,302 pre FHCI to 126,477 one year after)⁴

Sierra Leone is fortunate that the First Lady is a champion of children and women's affairs. She has presided over a number of nutrition and health advocacy events in the country. In a recent National Nutrition and Food Security Forum, the President (in a speech read on his behalf by the Minister of Information) expressed his concern at the current high numbers of children affected by malnutrition and he affirmed his government's commitment to firmly address the problem, by putting in place dedicated policies and strategies to reduce child hunger and undernutrition. There is therefore a high level of political will at present, ready to tackle the long standing problems of malnutrition in-country.

The Ministry of Health and Sanitation (MOHS) systems and structures are outlined in Box 1. The MOHS has several policies in place, including the National Health Policy, the Reproductive Child Health Policy, the Food and Nutrition Policy, which provide clear directions for the entire health sector. The country is, however, facing challenges in the effective operationalisation of the policies. Most health facilities are inadequately staffed, making it difficult to implement outreach visits. There is also a low staff/population ratio in Sierra Leone. In 2010 there was a total of 2,787



Community Health Volunteers (CHVs), 906 Maternal and Child Health aides, 523 enrolled nurses, 244 registered nurses/midwives, 154 Community Health Officers, 56 Medical Officers, 21 Medical Superintendents and 72 District Health Management Team technical members.

Rollout of CMAM

The Community based Management of Acute Malnutrition (CMAM) programme started as a pilot project in 2007 in Sierra Leone. It was triggered by continuing high rates of malnutrition in the post war years. The main aim of the programme was to maximise coverage and increase access to services by the highest possible proportion of the malnourished population across the country. It was also expected to create a platform for comprehensive community mobilisation over the long term.

Initially, the programme was piloted in four districts – Bombali, Tonkolili, Kenema and Western area. In each of the four districts, five Outpatient Therapeutic Programme (OTP) sites were established close to major towns for ease of monitoring (as the programme was new, monitoring was particularly important). Since 2007, the programme has been gradually scaled-up, with the establishment of more OTPs and Stabilisation Centres (SC) for the treatment of complicated severe acute malnutrition (SAM) cases. Additionally, Supplementary Feeding Programmes (SFPs) were set-up at centres to treat those presenting with moderate acute malnutrition (MAM) and provide the continuum of care for SAM children.

The initial targets for scale-up were:

- To achieve at least one OTP site per chiefdom by 2010
- To achieve better coverage of remote areas
- To cater for the increased caseloads expected following the adoption in 2010 of the WHO growth standards

From the start, the CMAM programme has been closely linked with other services provided by the health system, such as antenatal care, IYCF, immunisation and growth monitoring interventions.

CMAM partners roles and responsibilities

Ministry of Health and Sanitation (MOHS)
The MOHS is responsible for the overall leadership of the programme, assuming multiple responsibilities including policy formulation, strategic planning, setting of standards and regulations, ensuring collaboration between

national, district level and partners, coalition building, resource mobilisation, monitoring and oversight to ensure effective implementation and quality programming. The MOHS also provides both the infrastructure and the bulk of the health sector personnel to implement CMAM.

Donors, UN agencies and NGOs

The main bilateral donors currently funding the CMAM programme are Irish Aid and the UK Department for International Development (DFID). Their combined investment in CMAM in 2010 was almost \$3 million. Donors also fund the UN agencies, which have specialised roles in supporting the implementation of CMAM through government, international or local NGOs. The roles of the different UN agencies and NGOs are briefly described below:

UNICEF supports community mobilisation, OTP and SC components of CMAM. The agency procures and provides supplies (Plumpy'Nut, F75, F100, routine medication), logistics, technical support and support for national surveys (DHS, SMART, coverage survey, MICS). UNICEF has also engaged NGO partners to undertake active screening of under-fives and social mobilisation for CMAM and IYCF at community level in each district.

WFP supports the SFP component of CMAM and SCs through provision of food to moderately malnourished children and mothers/caregivers of admitted SAM children. The agency provides supplies, logistics, procurement (dry rations – Corn Soya Blend, oil and sugar). WFP NGO partners conduct the distribution and monitoring of the food commodities

² 2010. The Nutrition Situation in Sierra Leone. Nutrition Survey using SMART Methods, Final Report

³ See footnote 2.

⁴ Government of Sierra Leone. Health Information Bulletin. Vol 2 No 3. Scaling up Maternal and Child Health through Free Health Care, One year on.

Box 1: MOHS systems and structure

A Minister and two Deputy Ministers, all appointed by the President, head the MOHS. The Ministry is composed of an administrative and a technical wing headed by the Permanent Secretary and the Chief Medical Officer, respectively.

The Ministry has eleven directorates, with the Food and Nutrition Programme located under the Reproductive and Child Health Programme Directorate. Other programmes in this directorate include the School and Adolescent Health, Reproductive Health and Child Health/ Expanded Programme of Immunisation.

Sierra Leone's health service delivery system is pluralistic, whereby the government, religious missions, local and international non-governmental organisations (NGOs) and the private sector are all involved in the provision of services.

Public health is delivered from three levels of health facilities (from the lowest level to highest):

Peripheral Health Units (PHUs) – composed of 1200 Maternal and Child Health Posts, Community Health Posts and Community Health Centres for frontline primary health care.

Secondary Health Units – composed of 47 hospitals in the districts, of which 18 are government owned, 19 faith-based, 8 private, located in districts and 2 non-governmental (NGOs).

Tertiary Health Care – composed of eight government tertiary hospitals, of which three are regional hospitals and five located in the Western area.

to the final destinations. WFP supports national surveys (e.g. the Comprehensive Food Security and Vulnerability Assessment) and provides technical support to government, such as during the development of national policies and protocols for CMAM and guidelines for IYCF.

The World Health Organisation (WHO) provides technical support to government for development of standards, guidelines and monitoring systems, such as the implementation of the 2006 growth standards and the development of new child growth cards. WHO has also provided support for nutritional surveillance by integrating nutrition indicators into the Health Management Information System (HMIS).

NGOs provide support in the following areas:

- For OTP and SC services, some international NGOs (INGOs) support the management of malnourished cases in their operational areas, which includes provision of training and capacity building of district staff, supplies for government PHUs and logistics for outreach services. Some INGOs also provide logistic support for RUTF distribution.
- For SFP services, the INGOs transport food supplies from the WFP district warehouses to the PHUs, train PHU staff in managing effective distributions, preparation of the food and accurate reporting.
- For community mobilisation for CMAM, support is provided by INGOs and local NGOs through provision of training for CHVs in how to conduct screening and refer identified malnourished children to the treatment centres.

Strong partnerships have emerged between the MOHS, UN agencies, NGOs and faith based organisations (FBOs) involved in CMAM implementation. Other partners who provide CMAM services are Médecins Sans Frontières (MSF) (NGO), Magbente (FBO) and Panguma (FBO). Technical support to training has been provided by Valid International. Three international NGOs partnering with WFP – Africare, Plan International and World Vision International – are now distributing and monitoring SFP commodities and giving technical support to health facility staff. These partnerships can be further exploited for implementation of preventive nutritional interventions.

Advocacy

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 2011. The conclusions of this analysis were shared with multi-sector stakeholders in a national nutrition and food security forum and in all regions in the country. Important gaps and opportunities for scaling up nutrition and food security interventions were identified during this process. 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. These fora have given visibility to the issues of malnutrition and food insecurity

at national and regional level, which will lead to more support for these programmes at both levels.

Intense advocacy to the MOHS and senior health officials was undertaken in 2010 for the inclusion of CMAM into the Free Health Care Initiative. The advocacy led by UNICEF and the MOHS Nutrition Programme was successful and resulted in the inclusion of CMAM supplies in the essential drug/food list. Anticipated benefits of this are ease of clearing imported supplies through the port, procured commodities can be stored in government central medical stores (treated the same as any other drug), and government can take on a bigger role in the distribution and logistical management of the supplies.

Another important advocacy event was the launching 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).

Coordination

The MOHS takes the lead in coordinating all the health sector partners. The coordination mechanisms within the health system relevant to the CMAM programme are indicated in Table 1. The MOHS has developed an overarching National Health Sector Strategic Plan (NHSSP) that has six pillars designed to ensure effective implementation of the national health priority areas. These are leadership and governance, service delivery, human resources, health financing, medical products and technologies and health information. UNICEF also holds quarterly coordination meetings with the NGO implementing partners to monitor and share updates on CMAM implementation.

While sufficient coordination mechanisms are in place, they are faced with various challenges such as irregularity of meetings, poor representation and poor time management. For example, the Interagency Coordinating Committee (ICC) and Technical Coordinating Committee (TCC) for Reproductive and Child Health (RCH) meetings have not always been regularly held in the ministry due to time constraints.

Implementation

To implement CMAM at-scale, sufficient numbers of health personnel and facilities must

be trained and equipped. Additionally, community mobilisation must be conducted and logistic systems organised such that uninterrupted supplies can be provided to implement the programme, as discussed below.

Health personnel

To ensure sufficient numbers of skilled health personnel during the roll out of CMAM, two strategies were applied: the hiring of new staff and capacity building of existing staff. The new staff included government nutritionists, up from six (in four districts) in 2007, to 16 (in nine districts) in 2010. The National Nutrition Programme also established two positions with support from UNICEF, a CMAM Officer and an IYCF Officer to coordinate, monitor and evaluate these separate field activities nationwide. In addition to the government employed nutritionists, partner NGOs hired a total of 12 nutritionists to assist with effective CMAM implementation in 2010. The total number of nutritionists in the CMAM programme in Sierra Leone currently stands at 14.

Since 2007, considerable effort has been expended on training many MOHS staff in the management of acute malnutrition for SC, OTP and SFP service provision. The majority of trainings were sponsored by UNICEF with technical support from Valid International, WFP and WHO. Some INGOs have also provided training for health staff in their operational districts e.g. Action Contre la Faim (ACF) in Moyamba for SFP, and MSF in Bo for OTP and SC service provision. The details of trainings conducted to date are indicated below in Tables 2 and 3.

Tools developed to support the training of staff include:

- The first version of the CMAM guidelines and protocol was developed in 2007 and validated in 2009. A revised version was developed in 2010 following the adoption of the WHO growth standards.
- Booklets of handouts were produced and used for the Training of Trainers (ToT) and cascade training of health staff on CMAM in 2010. The booklets contain extracts from the revised protocol.

CMAM facilities

The programme has gradually been scaled up from the initial five OTPs in four districts of the pilot project in 2007 with the establishment of more OTPs, SCs and SFPs in all districts.

Table 1: Coordination mechanisms under the MOHS

Coordination Mechanism	Convenor	Regularity of meetings	Details
Health Sector Coordinating Committee	Minister	Quarterly	Highest health policy coordinating body, members include heads of line ministries, departments and agencies.
Health Sector Steering Group	Chief Medical Officer	Bi-Weekly	This coordinates the work of the technical working group. Members include donors, chairmen of sector working groups. INGOs and national NGOs, CSOs, UN Agencies.
Health Sector Working Groups	MOHS/Partners	Bi-Weekly	Senior officers of partner agencies with interest and expertise relating to the six pillars of the NHSSP.
Nutrition Coordinating Committee	Nutrition Manager	Quarterly	Technical participation of organisations active in nutrition such as the government ministries, UN and NGOs.
Nutrition Technical Committee	Nutrition Manager	Monthly	Small taskforce comprising of technical agencies in nutrition that supports the Nutrition Programme.
Technical Coordinating Committee (TCC) for RCH	Chief Medical Officer	Monthly	A forum for all technical managers and implementing partners conducting RCH activities countrywide, such as UNFPA, International Rescue Committee (IRC), WHO.
District Partners Committee	District Medical Officer	Monthly	Coordinates district health implementing partners.

Table 2: Chronology of training on CMAM, OTP and SC components

Date	Staff trained	Content	Sponsor
June 2007	National/district health staff, paediatricians, nutritionists	Management of SAM	UNICEF with Valid International
2008	PHUs staff	Management of SAM	UNICEF with Valid International & MOHS
2009	PHUs staff	Integration of IYCF to support CMAM	UNICEF with Valid International
June-August 2010	National/district & PHU staff	Integrated training on the revised national protocol for CMAM New WHO growth standards	UNICEF with Valid International, WHO, WFP, HKI
February-April 2011	One DHMT member/ district	On-job training on how to conduct CMAM coverage survey	UNICEF with Valid International
March 2011	District Health Sister, NGO & other government staff in each district	On-job coaching and mentoring in OTP skills	UNICEF and Valid International
June – Oct 2011	SC staff	On-job training on how effectively to implement the SC component of CMAM	UNICEF

Outpatient Therapeutic Programme (OTP)

The OTPs were scaled up from 20 in 2007 to 245 in 2011. The decision to open more OTPs was taken based on availability of trained staff at the PHUs, community needs and financial resources. The scale-up from 2008 to 2011 per year is shown in Figure 1. The large increase in 2010 followed a major training of staff from all existing PHUs, with financial support from the WHO, UNICEF and WFP. While the scale-up to date has been impressive, it still represents only 20% of all PHUs. The scale-up should be gradually continued until OTPs are established at all PHUs; a difficult undertaking as some chiefdoms are very large and many PHUs are difficult to access due to very poor infrastructure in some rural areas.

Stabilisation centres (SCs)

In 2007, there were only three treatment centres in the whole country, located in the Western area, Bombali and Bo. These Therapeutic Feeding Centres (TFCs), admitted all SAM children for 2 to 3 months until they achieved 80% weight for height. In 2007, following the shift to CMAM programming, the TFCs were transformed into SCs, admitting SAM children with complications only and discharging them to OTP to complete their treatment once the complications had resolved. From 2007, the three SCs were scaled up to eight by 2009, then 14 in 2009 and finally 19 in 2010. Each district currently has at least one SC, with plans to open more as and when resources allow. WFP provides food for mothers/ caregivers of admit-

ted children at some of the SCs. In 2010, the number of SCs supported by WFP was 10, up from eight in 2008. One of the key challenges faced by these eight SCs is the lack of food for caregivers and so they refuse admissions to avoid the high associated cost.

Supplementary Feeding Centres (SFCs)

Supplementary feeding for MAM children has been implemented for many years, even before the war. In 2007, the supplementary feeding cycle for MAM lasted for three months in Sierra Leone. This changed in 2011 to a minimum of 60 days to align with the reviewed CMAM protocol.

In 2008, 385 PHUs were covered by SFCs in 12 districts, increasing to 440 in 2009 and 521 in 2010. The scale-up was based on the prevalence of SAM and MAM and availability of NGO partners. In Sierra Leone, 43% of all PHUs are currently providing SFPs, however not all OTP sites are covered (67 OTP sites do not have a SFP). This followed the suspension of SFPs in four districts due to funding constraints. The Nutrition Programme will make a formal request to WFP to ensure that all OTPs are covered by the SFP for the continuum of care to prevent relapse after rehabilitation.

In 2007, community mobilisation was mostly done by health staff through outreach services, such as the Expanded Programme on Immunisation (EPI). The children were screened and identified malnourished cases referred for treatment. Some PHUs had CHVs

Figure 1: Scale-up of OTPs

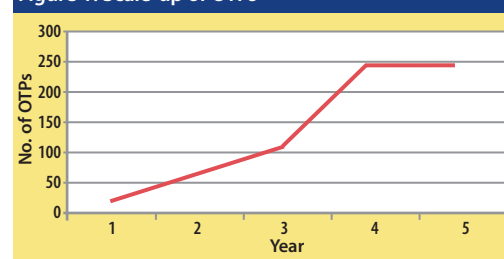
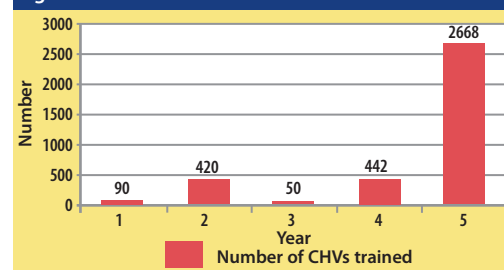


Figure 2: Number of CHVs trained



attached to them (approximately one per PHU) to support the outreach services.

To boost active case finding, from 2007 Project Co-operation Agreements (PCAs) were developed and signed between UNICEF and international and local NGOs to support community mobilisation for the implementation of CMAM. By 2011, a total of eight local NGOs and three INGOs were involved across all districts, except Koinadugu where the USAID funded Multi-Year Assistance Programme was being implemented by International Medical Corps (IMC). A series of community mobilisation messages were developed by UNICEF.

Additionally, CHVs were trained by the MOHS and NGOs at the district level. The CHVs hold periodic meetings with the community and screen children house-to-house on a quarterly basis, referring identified malnourished cases to the PHUs. They also make follow-up visits at home for referred and discharged children. The number of CHVs has been scaled up progressively over the years, with a total of 3,670 trained between 2007 and 2011 (see Figure 2).

All CHVs trained in 2010 and 2011 remain active. Training is conducted for 3 to 5 days by NGO staff with support from the District Health Management Team (DHMT). The national CMAM protocol for training CHVs in early case finding and social mobilisation is used. However, as observed during the CMAM coverage survey in 2011, a large number of mothers with SAM children reported that they were not aware of the programme. This provides clear evidence that community mobilisation in CMAM remains weak. However, since the bulk of the CHVs were trained in 2011, it is hoped that this trend may be reversed as long as the CHVs remain active.

Supplies and logistics

Since 2007, UNICEF has supplied the therapeutic food and routine medicines required for OTP and SC, including F-100, F-75 and RUTF. In 2008 and for most of 2009, nutrition supplies were sent to the regional stores in Freetown, Makeni and Kenema for distribution to the district every two to three months. Since December 2009, supply mechanisms were simplified by sending them directly to the districts, using a new food warehouse in

Table 3: Chronology of training on CMAM SFP component

Date	Staff trained	Content	Sponsor
2008	Maternal and Child Health (MCH) aides and district nutritionist in the Western Area	Orientation on SFP	WFP
2009	MCH Aides, zonal supervisors, nutritionist and nutrition focal points in Western area and Moyamba	Orientation on SFP	WFP
2010	MCH Aides in Bo, Pujehun and Bonthe	Orientation on SFP	WFP
May 2010	MCH Aides and Community Health Officers (CHOs) in Moyamba District	Comprehensive training in SFP	WFP
June-July 2010	Civil society staff ('Health for all' coalition)	Orientation on SFP with basic concepts of malnutrition to facilitate monitoring of the programme	WFP
2010	District councillors – health committee	Orientation to SFP with basic concepts of malnutrition to facilitate monitoring of the programme	WFP
July 2010	MOHS nutrition focal points and WFP field monitors	Comprehensive training in SFP	WFP
June-August 2010	Joint cascade training of PHU staff nationwide	Comprehensive training in SFP, SC, & OTP including assessment, management and reporting	WFP, UNICEF, WHO
December 2010	Training of district Nutritionists	Comprehensive training on WFP processes and procedures	WFP

Table 5: UNICEF Nutrition Food supplies in 2007 and 2011

Year	Commodity		
	F-75	F-100	RUTF
2007	1000 kg	6000kg	2,670 cartons (36.8 MT)
2011	8960 kg	8658 kg	35,312 cartons (487.3 MT)

Freetown for larger consignments. Stock allocations aim to ensure that there is a minimum of two months stock at the PHU level, a four month stock at the DHMT level, a three month national buffer stock in Freetown and a one month emergency stock at all times, shared between Freetown, Makeni and Kenema stores.

UNICEF hires transporters to move supplies from the Freetown warehouse to the districts. The districts are then responsible for taking the supplies to the PHUs. UNICEF quite often faces a shortage of supplies, for example from April - June 2008, March - June 2009, Dec 2010 and from January - June 2011 due to the long procedures involved when clearing goods from the port of entry to the central warehouse. In addition, incidents such as no road-worthy vehicles or fuel shortages for the DHMT to transport therapeutic foods from the district headquarter to the PHU or poor road networks (especially during the rainy season) have contributed to pipeline breakdown.

UNICEF initially used the PUSH system where food was sent equally to all PHUs. However, to increase the efficiency of food supply and minimise stock-outs, UNICEF adopted the PULL system in 2011 whereby food is issued to a PHU based on the caseload of malnourished children. This system is still new and only instituted in August 2011 but will be reviewed.

To further increase the efficiency of the supply chain, district nutritionists together with other DHMT members have been trained in storekeeping and monitoring of supplies. At present there is a great deal of work in progress, aiming to integrate the supply chain management for all medical supplies of the MOHS, including nutrition supplies. Encouragingly, therapeutic foods have very recently been included in the essential drugs list of MOHS.

Supplementary food supplies from WFP include CSB, oil and sugar, which are premixed prior to distribution to beneficiaries. The food is all purchased abroad and received at the Freetown port. Some food supplies are stored in two warehouses in Freetown, with the balance of food commodities then forwarded to the WFP sub-offices in Tonkolili and Kenema districts by commercial transporters and WFP trucks. WFP trucks, light vehicles and NGO trucks sometimes assist in getting the food to its

final destination. The very poor road conditions in rural areas (especially during the rainy season) again provide considerable logistical challenges.

Results

Successes of CMAM

The efforts towards scaling up CMAM have resulted in the realisation of results in different areas of investment. Overall, the number of SAM children treated has greatly increased from 2,950 in 2007 to 35,000 in 2010. Admissions in 2012 were higher (105%) than the planning figures. The cure rates of children with MAM and SAM remain impressive, at 98.7% (MAM) and 97% (SAM) (see Figure 3).

Other successes are:

- The integration of CMAM as part of the basic package of essential health services.
- Integration of therapeutic food as part of the FHC.
- Development of national policy and guidelines for treatment (CMAM guidelines and IYCF).
- Government leadership of the CMAM programme with the support of UN and partners.

Staff capacity development has been notable. To date, Sierra Leone has 150 trainers of CMAM with 1,080 health facility staff trained at all levels. Similarly, the MOHS has increased the number of district nutritionists to nine and created two new national positions on CMAM and IYCF, for better coordination and oversight.

Challenges

The following challenges have been identified during scale-up of CMAM:

Inadequate numbers and skills of health staff:

Despite the numerous efforts made to develop the knowledge and skills of MOHS staff on CMAM, the required level for effective service delivery has not yet been attained. This affects the health facilities, especially where there is high staff turnover with staff transfers and replacements without CMAM knowledge transfer. The quality of service delivery is also affected by the high burden of work, especially after the introduction of the FHCI as more people seek care. It is important therefore that pre-service CMAM training is included in institutions including those of universities, to ensure health staff are graduating with knowledge and skills for CMAM to ensure sustainability of quality services.

Inadequate community mobilisation and referral system:

As reflected upon earlier, most caregivers are not aware of the programme, thus malnourished children are not recognised or identified which in turn leads to low coverage.

Inadequate management of logistics and supplies:

The stock out experienced is likely to have a major negative effect on programmatic results, especially defaulter rates. A major cause of this pipeline breakdown was the privatisation of the port, which resulted in delays due to new clearance procedures and hence disruption of the whole supply chain in the country. Leakage of RUTF to non-target populations is also a major concern. Some moth-

ers sell rations and even use it to prepare family food. Mass sensitisation is ongoing in all districts to inform communities that RUTF is specially designed for the treatment of malnourished children and that it contains medicine. An information sheet has been produced for community members on the correct utilisation of RUTF.

Inadequate service delivery and access:

Malnourished children are not receiving adequate attention due to the distance of some OTP facilities (as identified in the SQUEAC⁵ 2011) and lack of comprehensive care in some centres. This is due to the following:

- SFP services are not provided at all OTPs.
- The CMAM programme is not understood as a comprehensive protocol to treat acute malnutrition. SC/OTP and SFP are still considered as two different programmes. For many community members, as well as some health workers, UNICEF-MOHS is understood as having the RUTF programme and WFP the SFP programme.
- Under and over rationing of food. For example, children may be enrolled longer in a programme than is necessary, i.e. more than 12 weeks in an OTP and more than 2 months in SFP after the child is cured. Some children are given smaller rations than indicated due to stockout.
- Anthropometric equipment is unavailable in some facilities.
- The updated National Protocol for CMAM has not yet been disseminated widely.

Monitoring and evaluation (M&E)

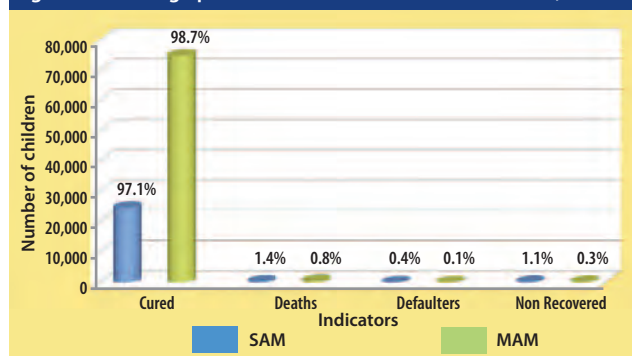
At the national level, the MOHS has developed tools, guidelines, checklist for field visits, protocols and reporting formats for use by district implementers. Monthly reports are submitted to the national or central level by the district nutritionists. Quarterly reports are written by NGO CMAM partners (where they are active) and shared during the MOHS coordination meetings. Joint monitoring visits are also conducted with the MOHS, UNICEF and WFP every quarter. The MOHS also conducts spot visits. At the community level, the NGOs (in their working areas) monitor the work of the CHVs.

Currently, data from CMAM sites on the number of children who receive therapeutic food has been integrated into the HMIS, in the Directorate of Planning and Information within the MOHS. However, the system sometimes double counts children undergoing treatment, so there is a need to review and train DHMT, nutritionists and health staff to monitor better the number of children with SAM and MAM, rather than placing too much reliance on national surveys. UNICEF has also created a database to track CMAM supplies.

At the district level, the nutritionists conduct joint supportive supervision with stakeholders to PHUs and receive reports on a monthly basis. During the district coordination meetings, the district nutritionist also receives updates regarding planned activities from NGO partners. Staff from the Community Health Centre (CHC) supervises the Maternal and Child Health Post (MCHP), who in turn supervise the government CHVs.

⁵ Semi Quantitative Evaluation of Access and Coverage

Figure 3: Discharge profile for children with MAM and SAM, 2010



The following assessment/evaluations have been conducted so far:

a) National CMAM coverage survey using SQUEAC

A survey using the SLEAC⁶ and SQUEAC methodologies was conducted in 2011⁷. This survey was a major undertaking that took three months to complete. According to the report, the point coverage of the programme was classified at 12.0%, with period coverage reported at 19.7%. While the results of this survey do appear low, it must be remembered that SQUEAC methodology purposively selects areas where coverage is expected to be lowest, in order to help identify barriers to access and uptake.

It should also be noted that CMAM at-scale is a major and relatively new undertaking. Whilst higher coverage results are desirable (and must be aimed for), it might take some time to achieve them. For EPI programmes, it is well accepted that coverage of the programme might be lower in early years, with gradual increases expected as it matures. It is therefore reasonable to expect that CMAM coverage might follow similar trajectories to other major national initiatives.

b) Evaluation of CMAM Programme
The evaluation was conducted in 2008. It had the following recommendations:

- Removal of zinc tablets, metronidazole, paracetamol, aminophylline, vogalène, anti-vomiting drugs, and antacid drugs from the pharmacy (box) used for the treatment of children with SAM. This is because use of these medicines can measurably increase the risk of mortality in children with SAM.
- Use mid upper arm circumference (MUAC) for children 6 months and older only and longer than 65 cm, to ensure correct measures of age and length before taking the MUAC measurement. All treatment sites should have as a minimum a wooden dowel (stick) of 65cm to assess children's length. Due to challenges in estimating a child's age, children older than 6 months are measured using MUAC in the community and are reassessed in the facility using weight and height.
- Ensure correct implementation of the appetite test using the table provided in the CMAM protocol (according to the weight of the child). The appetite test is a crucial part of assessing whether the child can be treated at home or whether he/she requires in-patient care.

c) Nutrition SMART survey

Conducted in 2010, it provided very useful baseline data for nutritional indicators in Sierra Leone.

Overall, the challenges to effective M&E include:

- Inadequate capacity of health staff to take accurate height measurements
- Poor quality of supply and distribution plans
- Improper recording of caseloads
- Unreliability of HMIS data due to overestimation of data in some centres and double counting of some cases
- Late submission of monthly reports and poor quality data

- Inability to accurately complete many different monitoring forms at PHUs due to multiple tasks and general work overload
- Limited logistics available for monitoring at all levels, e.g. transport constraints

Risks of scale-up

If not well managed, the scaling up of CMAM can result in a number of risks, leading to a reduction in quality and threatening the sustainability of the programme. Some of these risks include:

- Overstretching of health personnel leading to poor management and insufficient supervision of the programme.
- Large-scale loss of confidence in the programme during pipeline breakdowns, which later necessitates intensification of community mobilisation.
- Overload of the primary healthcare system, especially during the introduction of the Free Health Care Initiative in Sierra Leone, which has seen increasing numbers of people seeking health services.
- Financial sustainability can be threatened when the majority of resources are provided by donors.



Linkages with other sectors

Integration of CMAM into IYCF and other programmes

The need to link IYCF to CMAM programmes has been clearly identified. This can be effectively managed at the community level, through involving the CHVs, mother-to-mother groups and all families with children under five years of age. In some districts, the IYCF mother to mother support groups play a dual role of promoting IYCF, while also following up children identified as SAM and MAM, to ensure that screened children attend the relevant programme for treatment.

Linkages have been created between CMAM and other health sector programmes, such as:

- Basic emergency obstetric care (BeMOC). Every BeMOC centre is now an OTP site. These facilities were included in the last round of OTP expansion, so that composite care for both obstetrics and treatment of malnutrition without complications could be offered from these service delivery points.
- EPI/Child Health (EPI/CH) has been established and indicators integrated into the Child Health card. Growth monitoring is conducted at these points, weight and height measurements and age are collected for weight for height and weight for age determination. In addition there is oedema

checking for quick referral. MUAC is used for screening at community level and SAM children are referred for further assessment.

- SAM children are admitted using both MUAC and WHZ depending on what condition prevails. All children with MUAC less than 11.5 cm without medical complications are admitted into the OTP. All those with medical complications are referred to SCs. Where children have a normal WHZ but MUAC less than 11.5, such children are also admitted into the OTP. For the SFP, it is strictly based on WHZ less than -2.
- Free Health Care Initiative – all children under five years receive free health care treatment, including treatment of acute malnutrition.
- IMNCI strategy. This also caters for malnourished children, through conducting anthropometric assessment of all sick under-fives, using MUAC, WFH and checking for bilateral pitting oedema. Identified malnourished children are then referred by staff to SFP, OTP or SC, according to their classification.

Effective linkages will require a number of strategies including:

- Mobilisation and training of mother-to-mother support groups in screening and referral procedures.
- Enhancing food demonstrations in the IYCF programme and further development of backyard gardens for the community, to improve complementary feeding practices.
- Use of simple-to-understand tools such as graphs/pictorials, which better explain figures/topics such as detection of malnutrition and growth monitoring.
- Developing user friendly CMAM guide lines as an easy reference for overloaded health workers.

Linkages should also be developed between nutrition and other related sectors that support the prevention of malnutrition, including:

Food Security: Advocating to the Ministry of Agriculture, Forestry and Food Security, small holder commercialisation programmes to enhance the production and consumption of nutritious foods such as beans and sesame seeds, increase the involvement of women in farming and increase the provision of farm inputs to enhance the production of a diversity of complementary foods.

Education: Promotion of the education of girls and their retention in schools and prevention of teenage marriage that can lead to high rates of low birth weight (LBW) infants. LBW infants are, by definition, already malnourished at birth. As the Lancet series (2008) explains, undernourished children are more likely to grow into shorter adults, to have lower educational achievements and, for women, more likely to subsequently give birth to smaller infants themselves, thus perpetuating an inter-generational cycle of undernutrition⁸.

Water, hygiene and sanitation: Promotion of access to clean potable water to promote hygiene and food safety at the household level

⁶ Simplified LQAS Evaluation of Access and Coverage. LQAS: Lot Quality Assurance Sampling.

⁷ Using SLEAC as a wide-area survey method. Field Exchange 42. January 2012. p39.

⁸ Victoria, C. G et al. For the Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: consequences for adult health and human capital. Lancet 2008. Published online. Jan 17



Information, education & communication (IEC) materials on nutrition

in order to prevent diarrhoeal diseases that are strongly linked to under-nutrition.

Social sector: Addressing the social-cultural issues at community level that can have an impact on some of the underlying causes of malnutrition e.g. early marriage and lack of exclusive breastfeeding.

Ways forward

The future for CMAM requires some key actions to move forward:

Advocacy to the government for higher allocation of government funding through the annual budget allocated to the health sector, in order to ensure the effectiveness and sustainability of CMAM. Advocacy is needed also for the inclusion of CMAM training in the undergraduate curriculum of universities.

In terms of *planning and coordination*, development of a mechanism for coordination and communication between health and other sectors, in order to strengthen programming that can prevent undernutrition in a more 'holistic' manner than is currently being achieved.

Community mobilisation is critical and requires:

- Boost community mobilisation practices by training the implementing NGOs on methods of effective community mobilisation and through the promotion of better IYCF linkages. In areas where there are no NGOs, staff from health facilities in those areas will conduct such mobilisation in their catchment communities.
- Identify additional strategies to mobilise the community
- Training and sensitisation of TBA's on IYCF
- Involvement of community and traditional leaders in IYCF

In terms of support of the nutrition programme at district level, to enhance nutrition surveillance and monitoring in particular, there is an identified need to support transport (vehicles), communication (information, education and communication (IEC) tools) and information (documentation).

Lessons learned

Strengthening the capacity of health staff through regular monitoring and supportive supervision is crucial to maintain quality treatment and care of malnourished children.

Medical doctors need to be trained in CMAM for effective management of complications in SAM in-patients. A medical doctor needs to be attached to the nutrition programme in order to conduct countrywide on-the-job training of staff at the CMAM treatment site, especially in the stabilisation centres.

Supplies for the programme should be integrated into the existing health system delivery channel of medical products, together with training of health staff on stock management of supplies at the initial stage of the programme for effective management of commodities.

CMAM is a comprehensive programme and its components must be accessible to communities. In particular, it is important to ensure that every OTP site has an SFP component attached to it so that there is an effective continuum of care for patients. There is also a need to increase the number of stabilisation centres in the districts.

Community mobilisation is critical for improving coverage and access to services. A strategy must be in place to meet the community, together with the establishment of the treatment service in the community

For more information, contact: Aminata Shamit Koroma, email: shamitamin@gmail.com, tel: +232 33705866



Overview of production in the RUTF factory in Beira City

Community management of acute malnutrition in Mozambique

By Edna Germack Possolo, Yara Livia Novele Ngovene and Maaïke Arts

Field Article



Edna Germack Possolo is Chief of the Nutrition Department of the Ministry of Health, Republic of Mozambique since 2009, where she has worked since 2007 as a public health nutritionist. Her responsibilities include government policy and strategy development, and coordination and management of public health programmes within the MOH. She is also involved in curriculum development and training of health workers, nutrition technicians, undergraduate and postgraduate health professionals.



Yara Livia Novele Ngovene is a Mozambican Nutritionist who studied in Porto Alegre, Brazil. She has been working in the Mozambican Ministry of Health since 2011 and is responsible for the management of the Nutrition Department's Nutrition Rehabilitation Programme.



Maaïke Arts has a M.Sc in Nutrition from Wageningen University and works with UNICEF. Since 2009 she has been working as Nutrition Specialist with UNICEF Mozambique, coordinating UNICEF's support to the country's Nutrition Programme.

This document was drafted with support from FANTA-2/FHI360 (Alison Tumilowicz, Melanie Remane, Dulce Nhassico, Arlindo Machava), Save the Children (Tina Lloren, Vasconcelos Muatecalene, Isaltina Roque), UNICEF (Sónia Khan, Manuela Cau) and WFP (Nádia Osman, Gilberto Muai).

Acronyms:

ACS	Agente Comunitário de Saúde (type of Community Health Worker)
APE	Agente Polivalente Elementar (type of Community Health Worker)
CCR	Consulta de Criança de Risco ('at-risk child' consultation)
CHAI	Clinton Health Access Initiative
CHW	Community Health Worker
CMAM	Community Management of Acute Malnutrition
CSB	Corn Soy Blend
FANTA	Food and Nutrition Technical Assistance
JAM	Joint Aid Management
MAM	Moderate Acute Malnutrition
MoH	Ministry of Health
MUAC	Mid Upper Arm Circumference
PEPFAR	President's Emergency Plan for AIDS Relief
PRN	Programa de Reabilitação Nutricional (Nutrition Rehabilitation Programme)
RUTF	Ready-to-Use Therapeutic Food
SAM	Severe Acute Malnutrition
SUN	Scaling Up Nutrition
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WFP	World Food Programme
WHO	World Health Organisation

Brief history and background

National nutrition and health situation

Mozambique has just over 20 million inhabitants, of whom approximately 17% are less than five years of age. More than half of the population (55%) lives in poverty¹. In 2003, under-five mortality was 153 per 100,000 live births². By 2008, this had reduced to 141³. During the same period, infant mortality also slightly reduced from 101 to 95 per 100,000. The main causes of child deaths are malaria (33%), lower respiratory tract infections and HIV/AIDS (10% each), followed by prematurity (8%) and gastrointestinal infections (7%). Acute undernutrition accounts for 4% of deaths in under-fives⁴. It has been estimated that undernutrition is a contributing factor to 36% of child deaths⁵.

In 2008, 16% of newborns had a low birth weight (less than 2.5 kg). The prevalence of chronic undernutrition has remained stubbornly high for many years: 48% in 2003⁶ and 44% in 2008. However, the prevalence of acute undernutrition is relatively low: 5% in 2003 and 4% in 2008 (2.9% in urban areas and 4.7% in rural areas), with a 1.3% prevalence of severe acute malnutrition (SAM). There has been more improvement in child health and nutrition indicators in rural than in urban areas. There are also marked differences between provinces, with the prevalence of chronic undernutrition (height for age < -2 z scores) ranging from 56% in the northern province Cabo Delgado to 25% in the capital city Maputo. Key indicators are summarised in Table 1. A map of Mozambique with the acute malnutrition regional data from the Multi Indicator Cluster Survey (MICS) 2008 is shown in

The first ever population-based HIV prevalence survey conducted in 2009 found a prevalence of 11.5% in people between 15 and 49 years of age, 13.1% for women and 9.2% for men. In children up to 11 years, the prevalence was 1.4%, and in children under 12 months it was 2.3%. The northern region showed a much lower prevalence (5.6%) than the central and southern regions (12.5 and 17.8%, respectively). Prevalence in urban areas was significantly higher (15.7%) than in rural areas (9.2%) across all regions⁷.

Vulnerability to emergencies

Mozambique is prone to emergencies, including floods, cyclones and droughts. There are frequent floods in the Zambezi river basin affecting the provinces of Tete, Sofala and Zambézia. Other rivers in the centre and south of the country, such as the Limpopo and Buzi rivers, are also prone to flooding. The highest chance of flooding is from October to March, the southern Africa rainy season, and the cyclone season is usually around February/March. In addition, large parts of the

country, particularly in the south, are prone to periods of drought, the impact of which is mostly felt between November and January.

The number of people affected by emergencies varies considerably. The 2007 floods affected about 300,000 people, cyclone Flávio affected approximately 135,000 people in 2007 and a drought in the south in 2009 affected just over 250,000 people. Future climate scenarios suggest that Mozambique's exposure to natural hazards will increase as extreme weather patterns become more prevalent as a result of climate change.

Where nutrition sits in government systems and structures

The Ministry of Health (MoH) has a Nutrition Department under the National Directorate of Public Health, which is responsible for policy and protocol development, as well as the planning and oversight of nutrition activities at all levels. The treatment of acute malnutrition is mainstreamed into regular health services (both during and outside of emergency situations).

The responsibilities of the Nutrition Department are divided into five main areas:

- 1) Nutritional Surveillance,
- 2) Nutrition Education,
- 3) Prevention and Control of Undernutrition and Micronutrient Deficiencies,
- 4) Nutrition and HIV and Tuberculosis and
- 5) Nutrition and Non-Communicable Diseases.

At present, the following programmes are being managed by the Nutrition Department:

1. Nutrition Rehabilitation Programme (Programa de Reabilitação Nutricional (PRN))
2. Micronutrient Supplementation Programmes, including de-worming in preschool children
3. Nutrition and HIV and Tuberculosis
4. Infant and Young Child Feeding (IYCF)
5. Food Fortification
6. Health and Nutrition Promotion and School Nutrition

The government has markedly strengthened its emergency preparedness and response since the beginning of 2000. Multi-sectoral coordination at the national level is the responsibility of the National Institute for Disaster Management (INGC), and each community has focal persons assigned to emergency preparedness and response.

The Technical Secretariat for Food and Nutrition Security (SETSAN) is mandated with the multi-sectoral coordination of food and nutrition security. Originally, the main focus was on food security. Since 2011, coordination of the implementation of the Multi-sectoral Action Plan for the Reduction of chronic undernutrition (see below) has been added to its mandate. SETSAN carries out vulnerability

Figure 1: Map of Mozambique with acute malnutrition regional data (MICS, 2008)



assessments three times per year (around February, May and October) to document the extent of acute and chronic food insecurity.

Linkages with the Scaling Up Nutrition (SUN) Global Initiative

The Council of Ministers approved the Multi-sectoral Action Plan for the Reduction of Chronic Undernutrition in September 2010. The Technical Secretariat for Food and Nutrition Security (SETSAN) coordinates the implementation. The plan includes all components of the package of interventions included in the Scaling Up Nutrition (SUN) roadmap. However, it does not include the components related to the treatment of acute malnutrition (the PRN programme is not included) in order to avoid overloading the plan. The government participates in inter-governmental meetings relating to SUN and Mozambique received early riser status in September 2011.

CMAM/PRN scale-up

The introduction of CMAM in Mozambique

Until 2004, the standard treatment for SAM among children in Mozambique was inpatient care with specially formulated therapeutic milks (F100 and F75), which were introduced into the routine health system in 2002, following a flood emergency. However, coverage of the programme was low, children were often discharged early or their families took them out of hospital before treatment was complete, risks for cross infections were high, and mortality rates in most centres were above the threshold outlined in international standards^{8,9}. Recognising these limitations, the MoH in Mozambique revised the PRN and introduced the Community-based Management of Acute Malnutrition (CMAM) as a key component. Initially the programme focused on HIV positive children, but it was soon broadened to cover all children less than 5 years of age with acute malnutrition, regardless of HIV status.

Table 1: Key indicators for Mozambique

Indicator	2003 (DHS)	2008 (MICS)	
Poverty			55% (2008–2009)*
HIV prevalence			11.5% (2009)**
Under five mortality	153 per 100,000	141 per 100,000	
Infant mortality	101 per 100,000	95 per 100,000	
Chronic undernutrition (stunting, height for age)	48%	44%	
Acute undernutrition (weight for height z score)	5%	4%	
Underweight (weight for age)	22%	18%	

Source: *See footnote 1. ** See footnote 7.

¹ Ministry of Planning and Development, 2010. Third National Poverty Assessment, 2008–2009.

² All 2003 data (unless stated otherwise) are from the Demographic and Health Survey (DHS) 2003 (Ministry of Health/National Statistics Institute, 2004).

³ All 2008 data (unless stated otherwise) are from the Multiple Indicator Cluster Survey (MICS) 2008 (National Statistics Institute, 2009).

⁴ Ministry of Health, 2009. Mozambique National Child Mortality Study, 2009. The methodology used was verbal autopsies of family members, about child deaths reported during the 2007 General Census. A definition of undernutrition in this report was not given.

⁵ USAID, 2006. Nutrition of young children and mothers in Mozambique.

⁶ The nutrition data from 2003 (originally based on the NCHS reference population) were re-calculated based on the 2006 WHO growth standards.

⁷ National Institute of Health, National Statistics Institute and ICF Macro 2010. Inquérito Nacional de Prevalência, Riscos Comportamentais e Informação sobre o HIV e SIDA em Moçambique, 2009 (INSIDA).

⁸ MoH 2006. Proposta para o programa de reabilitação nutricional (CMAM).

⁹ UNICEF, 2006. Draft terms of reference for technical support to introducing community treatment of severe malnutrition in Mozambique.



MUAC measurement in a child in Gaza province during the Child Health Week

Maaike Arts, UNICEF, Mozambique

The term CMAM was not well accepted in Mozambique because it suggested that the management of malnourished children is only carried out in communities. The term 'outpatient treatment' has therefore been used for this element of the PRN. The PRN contains five components:

- (1) inpatient treatment for cases of SAM with poor appetite and/or medical complications
- (2) outpatient treatment for cases of SAM without medical complications
- (3) outpatient treatment for cases of moderate acute malnutrition (MAM)
- (4) active case finding and referral at the community level, and
- (5) nutrition education at the community and health centre levels.

The main aim of the PRN is to reduce the number of deaths due to SAM. In addition, it aims to reduce the incidence of SAM by improving early detection, referral and treatment of children with MAM.

Linkages with other health and nutrition interventions

The MoH actively promotes the integration of services. In principle, nutrition is an integrated component of reproductive and maternal and child health, as well as HIV and AIDS and tuberculosis services. Nutrition is also a component of health promotion, community involvement and school health activities. The extent to which integration actually takes place depends on the level of training and workload of the staff involved. In 2010, the MoH approved the broadening of the definition of child health services to include children up to the age of 15 years. Prior to this, children between 5 and 15 years of age were treated within adult health services (with the exception of those living with HIV). The Ministry is currently revising the protocols and guidelines for all related programmes (in addition to Volume 2 of the PRN), so that they are in line with this new policy. This shift should help strengthen nutrition interventions for children in this age group.

Nationwide scale up of the PRN

Outpatient treatment for SAM without complications was introduced in Maputo City in 2004 as part of treatment services for children with HIV. It was incorporated into general health services and expanded to other provinces in 2007. The health directorate of one district in Nampula Province (Ribaué) initiated a full package of treatment for acute malnutrition as a

pilot in 2007, with support from Save the Children, Valid International and UNICEF. This pilot was very successful and was subsequently expanded to other districts in Nampula. By 2010, five districts in Nampula Province had successfully established a pilot learning centre where all five components of the PRN were implemented. The lessons learned from the pilot were incorporated into the revision of the PRN manual, the Manual de Tratamento e Reabilitação Nutricional (Volume 1, covering children aged 0 to 15 years of age). The development of the manual started in 2005 and was completed in August 2010 with the approval of the Minister of Health. The new WHO growth standards (2006) have been incorporated in the revised manual.

Community-based screening, referral and follow up of SAM cases were introduced in 2006/2007 in the Nampula pilot. These have since been gradually rolled out as part of the PRN. The speed of this roll-out is increasing since the approval of the PRN manual in August 2010 and subsequent training in the implementation of these components.

The *treatment of MAM* was included as an integral part of the programme in the PRN manual. MAM treatment programmes have primarily used Corn Soy Blend (CSB) provided by the World Food Programme (WFP). In 2011, CSB was replaced with 'CSB Plus' which contains additional micronutrients. Initially, the protocol for treating MAM covered children less than 5 years of age only. This was expanded to children aged 0 to 15 years of age in Volume 1 of the revised PRN manual. Volume 2 addresses adults, including a specific focus on pregnant and lactating women, and this will be finalised in the near future.

Volume 1 of the PRN manual includes the following procedures for community screening and referral of malnourished individuals. Community-based Health Workers (CHWs), known as *Agente Comunitário de Saúde (ACSs)*, *Agentes Polivalentes Elementares (APEs)* and *activists*, screen children aged 0 to 15 years of age for acute malnutrition. This screening involves taking measurements of mid upper arm circumference (MUAC), checking for oedema, and looking for signs of wasting. Screening is also carried out annually during the National Health Weeks (NHWs). There are two rounds of NHWs, one of which includes screening for malnutrition. The CHWs refer those who meet the criteria to the nearest Health Centre (HC) where they are then assessed for acute malnutrition and other health issues and provided with the relevant treatment according to the protocols described below. In addition, children in the 'well child check-ups' who are underweight or have growth faltering are referred for screening and can enter the programme through this route.

Patients with SAM who have good appetite and no medical complications are treated on an outpatient basis with Ready to Use Therapeutic Food (RUTF).

Patients with SAM and additional complicating factors are treated with therapeutic milks and RUTF, before transitioning to outpatient treatment to complete their recovery. Patients with MAM are treated either with RUTF or CSB Plus, depending on what is available at the HC. The follow up is carried out during the 'at-risk child' consultations (*Consulta de Criança de Risco or CCR*).

Risks of scale up

A number of possible risks are associated with scale-up, including:

- The rapid roll-out of the new PRN protocols might compromise the quality of training and subsequent implementation. Adequate supervision will therefore be crucial.
- Sufficient funding for the training of staff in all health facilities and related reproduction of materials could also become a constraint. The scale up of community screening, both as a routine service and during NHWs, will most likely lead to increased demands for RUTF, CSB Plus and therapeutic milks. However, the funding for these products is not yet fully secured for the coming years. Many of the donors have a limited mandate in terms of target group, age group, geographical coverage or type of intervention (procurement, technical support, etc.), which can complicate fundraising.
- The MoH's recommendation to use RUTF for MAM in places where no CSB Plus is available could lead to shortages, since the number of MAM cases is considerably higher than the number of SAM cases. Furthermore, the introduction of Volume 2 of the PRN Manual includes protocols for the use of therapeutic milks and RUTF for the treatment of SAM in older age groups. These new protocols could also lead to shortages of therapeutic products because at present, the national supply only covers children less than five years of age. The vision is that rollout of Volume 2 will only start after the availability of supplies is ensured.

Nutritional products and local production of RUTF and CSB

When outpatient treatment was introduced, UNICEF imported RUTF from Europe. To ensure in-country availability and to increase national ownership of the product, Nutriset in



A child in PRN with her mother in one of the pilot health facilities in Nampula Province

Tina Loren, Save the Children, Mozambique, 2009

France and UNICEF supported the establishment of a RUTF factory as part of the Nutriset 'plumpyfield' network. The factory was set up in Beira City in the centre of the country, managed by the non-governmental organisation (NGO) Joint Aid Management (JAM). Planning and construction of the factory started in 2006, with equipment arriving in mid-2008. The factory was certified for local procurement by UNICEF at the end of 2009 and officially inaugurated in February 2010.

Sugar and oil are procured locally, as are increasing amounts of the peanuts. The remaining ingredients are imported. The factory produced small quantities of RUTF packaged in jars until it obtained a sachet line in mid-2011. Sachets are preferred over jars because of their longer shelf life, they are easier to prescribe (the content of the jars is 220g) and easier to handle by the patients (no spoon is needed).

The Clinton Health Access Initiative (CHAI) procured a proportion of the country's RUTF needs for 2011 from the local JAM factory via the UNITAID Programme. It is expected that the sales of locally procured RUTF will increase in the future.

CSB has mostly been imported, with the exception of small quantities procured from JAM in 2010. In 2011, WFP expanded its work with JAM to increase the volume of locally produced CSB.

Partnerships and funding

The Ministry of Health and its partners

The MoH is responsible for the management of health facilities in the country. Non-government actors are not leading any health facility. The drafting and revision of protocols and guidelines is the responsibility of the MoH.

Clinical and technical partners provide technical support to health services. At present, these include various PEPFAR¹⁰ supported partners such as CARE, the Elizabeth Glaser Paediatric AIDS Foundation (EGPAF), Vanderbilt University's Friends for Global Health (FGH), Family Health International (FHI), and the International Centre for AIDS Care and Treatment Programmes of the Columbia University (ICAP), as well as the CHAI, Médecins Sans Frontières (MSF) and Save the Children. Several of these organisations also cover the costs of in-service training and supervision for staff of selected districts or provinces.

Several organisations, including EGPAF, FANTA-2/FHI360, Save the Children, UNICEF, USAID, WFP and WHO, provide technical support at central level. The cost of training and reproduction of training materials and job aids has been shared by several of the PEPFAR clinical partners, FANTA-2/FHI360, UNICEF, USAID and WFP.

Funding

In 2011, the MoH's annual budget was USD 360 million, of which approximately half was provided through external funding sources. There is a Common Fund for the Health Sector, to which 16 donors contribute. The Nutrition Department's budget for 2011 was approximately USD 260,000, although this amount does not include the vertical funds provided by UNICEF, WHO, USAID, WFP and other partners who support the implementation of specific activities. Funds for the Provincial

Health Directorates come from both central level and donors.

Since 2008, CHAI has procured the vast majority of RUTF for the country, with UNICEF filling gaps where needed. Therapeutic milks and other products for the treatment of SAM are in principle procured by MoH, with UNICEF filling gaps where necessary (which included large amounts of therapeutic milks in 2009, 2010 and 2011). WFP provides CSB Plus but the coverage is not nationwide (in 2010, the programme covered selected districts in five provinces). The contribution to training and reproduction of materials is described above.

Implementation

Geographical coverage

In principle, the coverage of the PRN is national, although it will take some time to achieve full roll out across the country. As of mid-2011, 191 out of about 1,280 health facilities in the country (from primary to the fourth level of health care), provide inpatient treatment for SAM and 229 provide outpatient treatment. However, as yet, not all facilities or districts have been trained in the updated 2010 protocols.

Training

In the time between the introduction of outpatient treatment for SAM using RUTF and the official approval of the new PRN protocols, numerous health workers were trained in draft versions of the protocol that were under development. Outpatient treatment was initiated for the rehabilitation phase of SAM treatment and for the relatively small number of SAM cases that presented without complications.

Since the end of 2010, three regional (north, central and south) Training-of-Trainer (ToT) workshops for the new protocols have been conducted, reaching a total of 112 people. The training was rolled-out in a cascade manner starting with the three regions, followed by replication trainings at provincial level and finally, at facility and community levels. To date, each province has undertaken at least one training session for district staff (reaching 376 people). Attempts are always 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. Training materials for Mozambique were developed by adapting WHO-recognised scientific guidelines and practices to the national context. The materials were updated and improved using post-training feedback.

The complete PRN training library includes three 'packages', each consisting of an orientation training package, facilitators' guides and hand-outs for participants. Complementary training materials on HIV and nutrition are provided at community level.

A strong focus is placed on training of the full PRN package. The number of days training for each level of participants is as follows:

- Facility-based health workers: 5 days.
- CHWs: 2 days, plus an additional 2 days for training on community-based nutrition and HIV for CHWs and home-based care volunteers.
- Community leaders and traditional healers: 1 day covering the basics of the programme.
- Provincial-level health staff: hands-on 3-day training covering monitoring, evaluation,

Box 1: Flow of data in the programme and from health facility to provincial level

Once a person has been screened for acute malnutrition, community health workers (CHWs) refer them to a health centre using a standardised *referral form* that includes MUAC measurements, presence/absence of oedema, and any other notable signs. The health centre staff conduct further diagnostic tests to ascertain if the person has acute malnutrition.

Cases of SAM with complications are referred to the nearest inpatient facility, where treatment is tracked using the '*multicard*' (*multicartão*). At the end of each month, the health centre staff report the admission and discharge statistics using the *inpatient monthly reporting form*.

Cases of SAM without complications or MAM cases are admitted into the outpatient programme, and their information is recorded in the *PRN register book*. The beneficiary or the caregiver for the beneficiary is given a *malnutrition treatment card* that contains important information regarding the treatment, including a log of the medicine/products given and an indication of when they should return to the health centre. The name of the CHW is also included on the card, and the beneficiary/caregiver is advised to seek the CHW when they return home. At the end of each month, the health staff complete the *outpatient monthly reporting form* and send it to the district health office. These forms are then compiled and sent to the provincial health office.

At the provincial health office, the inpatient and outpatient monthly reports provide the information that is entered into the *PRN database* (Figure 3). The databases have been designed specifically for the PRN and are intended for use throughout the health system from health facility to central level.

The database spreadsheets automatically link to charts showing trends over time, supporting straightforward interpretation and reporting of the results by the provincial point person for nutrition to the central MoH in Maputo. Some of the results that can be derived from the analysis of data generated include the frequency of referral of new cases of acute malnutrition according to food availability, season, disease epidemics and various other factors.

planning and logistics, orientation to tools and databases for the PRN programme.

There are plans to initiate supervision activities within health facilities to observe the quality of implementation and to provide refresher sessions where needed. A supervision checklist is currently under development.

Recording and reporting

Several tools were developed for programme monitoring, including individual and programme level monitoring forms, a database to track admissions and outcomes and a database to manage the stocks of RUTF, CSB Plus and therapeutic milks. The PRN individual and programme level monitoring forms are summarised in Table 2 with the flow of the monitoring system illustrated in Figure 2 and outlined in Box 1.

Particular emphasis is being placed on the quality of data recording and reporting, as this has been identified as a weak aspect of the PRN for a number of years. A specific data-handling training course was developed alongside the new protocol training. To date, 34 staff have participated in a dedicated five day monitoring and evaluation (M&E) training that focused on the PRN database and the related reporting mechanisms. The general PRN training package also includes a section on M&E.

¹⁰ U.S. President's Emergency Plan for AIDS Relief

The implementation of the revised M&E system for the PRN has been halted due to delays in the printing and distribution of instruments required to collect health centre-level data. It is expected that final approved versions of the instruments will be printed and distributed by the end of 2011, with collection of data starting in earnest from January 2012.

Supplies and supply chain management

The primary supplies for the PRN are therapeutic milks (F75 and F100), RUTF, CSB Plus, ReSoMal, routine drugs (e.g. antibiotics, vitamin A, deworming drugs, malaria prophylaxis, etc) and anthropometric equipment (including MUAC tapes, weighing scales and height/ length boards).

The MoH receives support from several partners to procure the products required to treat acute malnutrition, including F75, F100, RUTF and ReSoMal. As mentioned, UNICEF and CHAI have been purchasing imported RUTF for the programme, although this support was phased out in 2010.

The WFP supplies CSB Plus to selected health centres in the southern and central parts of the country. Initially, this was done via NGOs but it is now supplied directly to the provincial health directorates (with financial support from WFP).

Supply chain management capacity at different levels is limited. Stock-outs of RUTF, ReSoMal and therapeutic milks are often reported. In most cases, it is due to inadequate forecasting and communication between the different levels (health facility-district-province-central level). The weak and often late reporting of numbers of children treated is a major contributor to the forecasting challenges.

Community involvement

The community components of PRN in Mozambique were initiated as part of the pilot in Nampula Province in 2008 (see earlier). The pilot showed that the strategy of encouraging active community involvement quickly produced results. Health centres in the districts where community activities were being implemented (Membra, Eráti and Ribáué districts) experienced an increase in the number of referrals. However, requirements for RUTF resulting from the subsequent increase in caseloads had not been properly forecasted. When screening of acute malnutrition was integrated into activities of the monthly health day at provincial level, there were further increases in caseloads.

Following the success of the pilot, the programme was expanded to other provinces including Sofala, Zambézia and Gaza. Save the Children (the main provider of technical assistance to MoH in this area) partnered with other community-based programmes to strengthen staff capacity. These staff have, in turn,

supported the provincial and district health services in the implementation of the community strategies included in PRN. Partner support has included training of trainers on community mobilisation in the context of PRN and home-based nutrition care for people living with HIV/AIDS in several provinces during 2011.

The experience of Nampula Province showed that it is possible to develop a close link between health professionals and community groups. Monthly meetings were conducted involving health professionals and community groups, to discuss relevant health issues. Health professionals now recognise the importance of active community involvement for wide dissemination of health messages and of community sensitisation to ensure early referrals, when the disease process is at a less advanced state and still relatively easy to treat. Many traditional healers now also recognise that the treatment of malnutrition is complex and requires referral of the child to the health centre for appropriate rehabilitation.

However, it has still proven to be challenging to roll-out the community activities, in part because the focus so far has been at health facility level. There are a limited number of experienced staff who can provide technical assistance to the MoH's efforts at community level. This will continue to be a problem unless additional efforts and funding are geared toward this gap. The delay in printing and distribution

of materials used at the community level, including reference forms, job aids, and MUAC tapes, delayed implementation, even in areas where training and mobilisation were underway.

The MoH recognises the need to prioritise community components of CMAM within the PRN, and is committed to including community-related activities into plans of action. Support will be sought from various organisations and donors. Linkages will be established with the new cadre of CHWs (APEs). In light of the current momentum to establish large-scale nutrition programmes in Mozambique, it is expected that more communities will benefit from efforts to improve community knowledge and skills for the diagnosis, referral and follow up of cases of acute malnutrition.

Coordination

The Nutrition Department of the MoH coordinates the group of partners supporting the PRN. This group meets weekly when needed and less frequently where possible. There is a division of labour between all participants, which can be flexible when required, but is based on each organisation's mandate and comparative advantage. A formal description of this coordination mechanism is currently being developed.

Results: caseload and outcomes

According to the data available to the MoH (for many provinces only partial data are available), by mid-2011 6,319 children

Table 2: Individual and programme level monitoring forms

Monitoring forms	Level used
1 Referral form (MUAC, oedema, other signs) used by CHWs to refer cases to the health centres	Community
2 Inpatient individual health card, called the 'Multicard' or <i>Multicartão</i>	Inpatient
3 Monthly reporting form (admissions, discharges, mortality rates performance) for inpatient care; from facility to district and provincial health offices	Inpatient
4 PRN register book for outpatient care; SAM and MAM	Outpatient
5 Malnutrition treatment card (<i>Cartão do Doente Desnutrido</i>) given to the caretaker to keep track of treatment and informing next appointment date	Outpatient
6 Monthly reporting form (admissions, discharges, performance) for outpatient care; from facility to district and provincial health offices	Outpatient

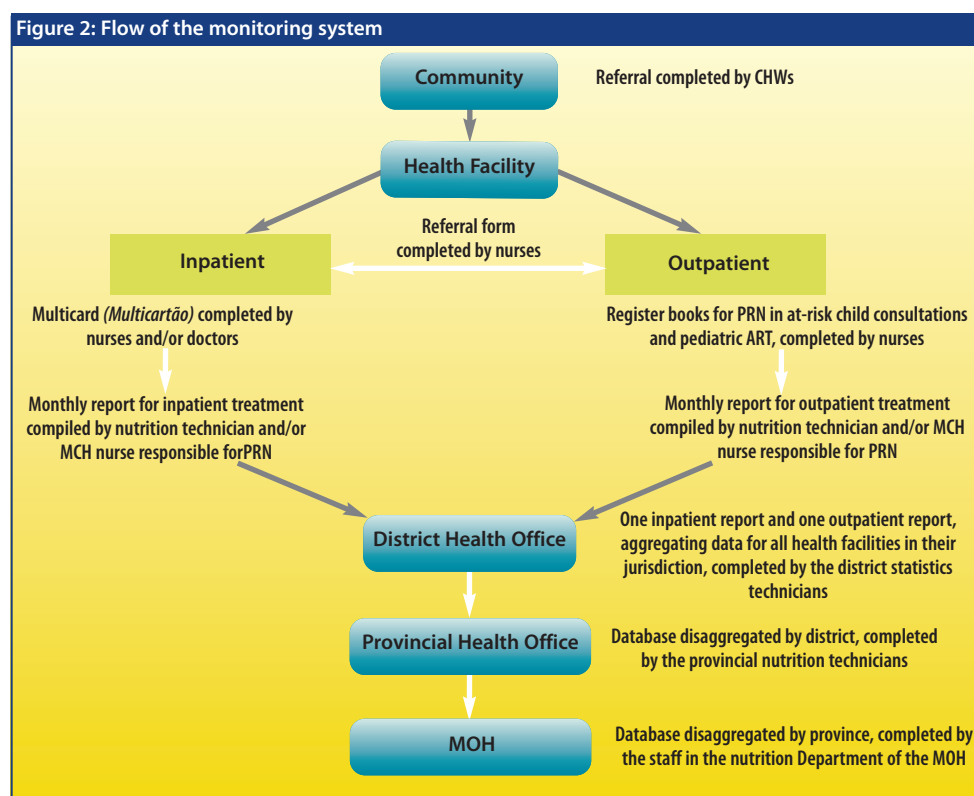


Figure 3: A snapshot of the PRN database to track admissions and outcomes

Id do doente	Provincia	Distrito	Município	Nome do Centro de Saúde	Idade (anos)	Sexo	Estado nutricional	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde	Estado de saúde
1	Manica	Chimbalá	Manica	Centro de Saúde de Manica	5-14 anos	M	Desnutrido	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente
2	Manica	Chimbalá	Manica	Centro de Saúde de Manica	5-14 anos	F	Desnutrido	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente
3	Manica	Chimbalá	Manica	Centro de Saúde de Manica	5-14 anos	M	Desnutrido	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente
4	Manica	Chimbalá	Manica	Centro de Saúde de Manica	5-14 anos	F	Desnutrido	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente
5	Manica	Chimbalá	Manica	Centro de Saúde de Manica	5-14 anos	M	Desnutrido	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente
6	Manica	Chimbalá	Manica	Centro de Saúde de Manica	5-14 anos	F	Desnutrido	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente
7	Manica	Chimbalá	Manica	Centro de Saúde de Manica	5-14 anos	M	Desnutrido	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente	Doente

Table 3: Facility-based mortality of children under 5 due to SAM¹¹

Year	2005	2006	2007	2008	2009	2010
Facility based deaths in children under five due to SAM	15.2%	N/A	11.5%	10.5%	11.8%	9.3%

under-five were admitted for inpatient treatment for SAM, of which 701 (11%) died. Just over 900 children were referred to outpatient care to continue their treatment and 5,854 received only outpatient treatment for SAM. The low percentage of children going directly to outpatient treatment is probably related to the fact that training in the new treatment protocols was only scaled up recently.

As reported by the Health Information System, the percentage of facility-based deaths due to SAM has been slowly reducing. However, in 2010 percentage mortality was still just under 10%, with wide regional differences (ranging from 5 to 20%). This could be due to high levels of complications and/or inaccurate application of the protocols and/or inaccurate reporting. This issue has yet to be studied in detail. Mortality for the past years is shown in Table 3.

In 2010, 31,503 children received a supplement for MAM (of which 27,620 received CSB Plus and 3,883 received RUTF).

Successes

The introduction and approval of outpatient treatment of SAM with community involvement has been a success in itself. In the beginning, many paediatricians and other medical practitioners were sceptical about the possibility of treating children with SAM as outpatients, particularly children with oedema. The key decision makers have now been convinced by the evidence from the pilot programmes and are endorsing the new protocols. However it has been stated that all cases of oedema should still to be treated as inpatients.

The PRN is owned by the MoH and all partners have aligned with its protocols and implementation mechanisms, actively taking part in the working group meetings.

Other successes include the development of a set of PRN training and implementation tools (job aids and registration forms and books), the implementation of a pilot learning centre in five districts in Nampula Province, continuation of training and integration in the 'at-risk child' consultations (CCR), prevention of mother to child transmission of HIV (PMTCT) services, and triage in many health centres. Additionally, in places where community leaders, practitioners of traditional medicine and APE/ACs have been trained, there is increasing interest and support from the communities.

A further success of the Mozambique experience is the integration of treatment of malnutrition for people with and without HIV. The existence of one protocol and one national programme aimed at treating malnutrition, regardless of HIV status, has resulted in cost-sharing and collaboration among partners and donors who support the target group of children less than five years and people living with HIV. For example, PEPFAR-supported partners

are very active in supporting the PRN programme.

Finally, there has been an improvement of awareness on nutritional support by many health staff and those in district and provincial health offices. This has led to increasing numbers of patients receiving nutritional assessments, counselling and rehabilitation.

Challenges

A number of challenges remain in the case of Mozambique that will affect national scale-up:

Training

Questions remain as to how to maintain the quality of training at all levels using the ToT cascade model. Potential solutions put forward include the development of a training video, increasing the number of other training tools and ensuring adequate supervision where possible.

Implementation/service delivery

Close follow up is also required for effective service delivery. This has not always been possible due to capacity constraints. It is expected that (where active), NGO clinical partners can assist the government to follow the programme closely, including via clinical mentoring.

Recording and reporting

Insufficient capacity (including knowledge of software such as Microsoft Excel), commitment, and understanding of the importance of reporting at all levels create challenges for achieving a timely and accurate reporting system. The data are rarely analysed or further scrutinised (for example, for possible causes of high mortality rates or increasing or decreasing caseloads). This could be due to heavy work-loads of MoH staff, but the barriers need to be identified in order to improve the system.

Supply chain management

Lack of effective supply chain management, forecasting and procurement create major challenges to ensuring uninterrupted supply chains. Capacity in this area is weak at all levels, not only for nutrition supplies but for all supplies managed by the MoH.

Therapeutic foods are difficult to transport and store because they are heavy and bulky. Weak logistic skills of health staff have led to poor forecasting of the quantity of products needed, resulting in frequent stock-outs.

Funding issues

The short funding cycles of donors and a lack of financial resource commitment to support the PRN at all levels hinders strategic long-term planning. RUTF supplies are not yet secured after mid-2013.

Other challenges include:

- The health infrastructure is undermined by a lack of qualified staff and high turnover of medical staff and managers. One approach to address this problem would be to train all health facility and hospital staff in districts where PRN/CMAM operates.
- Issues of community access, e.g. distance from health facilities, preference of the traditional care system and shortage of community mobilisation efforts.
- Poor understanding of malnutrition at the



community level (malnutrition is not necessarily perceived as a medical or dietary problem, but rather as a spiritual problem), which prevents communities from seeking professional health care. This should also be addressed through the strengthening of community mobilisation and involvement in the PRN activities.

The way forward

While the PRN can already claim success in expanding the availability of CMAM, the following steps are required to ensure a continued and successful scale-up of the implementation of the new protocol:

1. Finalise Volume 2 of the manual for the treatment of acute malnutrition for adults.
2. Strengthen the quality of training, including the development of additional training tools and video-based training modules.
3. Produce and distribute job aids and materials at all levels.
4. Develop a plan to support the implementation of the protocols, once training of health workers is finalised.
5. Establish supportive supervision systems and ensure that they are routinely applied (finalise the tools, implement the supervision).
6. Prioritise community involvement and initiate this in places where it does not exist. This should include building a cadre of specialists who can provide technical assistance on the community components.
7. Strengthen recording, reporting and analysis of the data (promoting the triple A cycle of assessment, analysis and action).
8. Strengthen supply management and logistic systems.
9. Secure adequate and on-going funds for supplies.
10. Consider the establishment of a technical group focusing on community based work.
11. Investigate the causes of mortality in children with SAM.
12. Design a plan for the introduction of the new protocols in pre-service training of health and nutrition workers of all levels.

For more information, contact: Edna Possolo, Head of the Nutrition Department, Ministry of Health. Email: epossolo@misau.gov.mz or ednapossolo@gmail.com, Yara Livia Ngovene, email: yngovene@misau.gov.mz, Maaiké Arts, email: marts@unicef.org

¹¹ Ministry of Health/Health Partners Group Performance Assessment Framework, March 2011.

A child enrolled in the programme eating RUTF

Management of acute malnutrition in Niger: a countrywide programme

Prise en charge de la malnutrition aiguë au Niger : Un programme national

CRENAM	Rehabilitation Centres for Moderate malnutrition
CRENAS	Outpatient Nutritional Rehabilitation Centres
CRENI	Intensive Nutritional Rehabilitation Centre (inpatient care for medically complicated cases)
GAM	global acute malnutrition
SAM	severe acute malnutrition
IMCI	Integrated Management of Childhood Illnesses
MAM	Moderate acute malnutrition
MDG	Millennium Development Goal
MOH	Ministry of Health
MUAC	Mid Upper Arm Circumference
NGO	non-governmental organisations
REACH	Ending Child Hunger and Undernutrition partnership
RUTF	Ready to Use Therapeutic Food
SISAN	International Symposium on Food and Nutrition Security
SUN	Scaling Up Nutrition
UNDP	United Nations Development Programme
UN	United Nations

ATPE	Aliments thérapeutiques prêts à l'emploi
CRENAM	Centre de récupération nutritionnelle ambulatoire pour la malnutrition modérée
CRENAS	Centre de récupération nutritionnelle ambulatoire pour la malnutrition sévère
CRENI	Centre de récupération et d'éducation nutritionnelle intensif (soins prodigués aux patients hospitalisés pour les cas compliqués)
MAG	Malnutrition aiguë globale
MAM	Malnutrition aiguë modérée
MAS	Malnutrition aiguë sévère
MSP	Ministère de la Santé Publique
OMD	Objectif du millénaire pour le développement
ONG	Organisation non-gouvernementale
ONU	Organisation des Nations-Unies
PB	Périmètre brachial
PCIME	Prise en charge intégrée des maladies de l'enfance
PCMA	Prise en charge communautaire de la malnutrition aiguë
PNUD	Programme des Nations-Unies pour le développement
REACH	Partenariat Éliminer la faim et la malnutrition parmi les enfants
SISAN	Symposium international sur la sécurité alimentaire et nutritionnelle
SUN	Renforcement de la nutrition (Scaling Up Nutrition)

By Dr Guero H Doudou Maimouna, Dr Yami Chegou and Prof Ategbo Eric-Alain

Par le Dr Guero H Doudou Maimouna, le Dr Yami Chegou et le Prof Ategbo Eric-Alain



Dr Guero H Doudou Maimouna is a Paediatrician and holds a PhD in Public Health. She has over 15 years experience in health and nutrition programme management in Niger. She currently holds the position of National Nutrition Director of the Ministry of Health, Niger and is a Lecturer in the Department of Public Health of the Faculty of Medicine of University Abdou Moumouni.

Dr Guero H Doudou Maimouna est pédiatre et titulaire d'un doctorat en santé publique. Ayant à son actif plus de 15 ans d'expérience en matière de gestion de programmes de santé et de nutrition au Niger, elle occupe actuellement le poste de Directrice nationale de la nutrition au Ministère de la Santé Publique au Niger. En outre, elle est enseignante chercheur vacataire au Département de la Santé publique de la Faculté de Médecine de l'Université Abdou Moumouni.



Dr Yami Chegou is Director General of Public Health at the Ministry of Public Health, Niamey, Niger.

Le Dr Yami Chegou est le représentant du directeur général de la Santé Publique au Ministère de la Santé Publique, Niamey, Niger.



Professor Ategbo Eric-Alain is Nutrition Manager at UNICEF, Niamey, Niger.

Le professeur Ategbo Eric-Alain est l'administrateur Nutrition à l'UNICEF, Niamey, Niger.

The authors acknowledge the contributions of the MOH staff, UN agencies and national and international NGO implementing partners in Niger.

Les auteurs tiennent à remercier le personnel du Ministère de la Santé Publique, les agences de l'ONU et les partenaires opérationnels non-gouvernementaux nationaux et internationaux au Niger pour leurs contributions.

Background

National nutrition and health situation

Niger is a land-locked Sahelian country with a population of over 15 million people, of which approximately 50 per cent are children under 15 years of age. Niger ranks 173rd out of 177 countries according to the 2010 UNDP¹ Human Development Index. Millennium Development Goal (MDG) indicators, such as child mortality and maternal mortality rate, are among the worst in the world. The maternal mortality rate has stalled over the past ten years and in 2010, was still 554 per 100,000 live births. Moreover, one child out of five still dies before the age of five in Niger.² Malaria, respiratory infections, and diarrhoea are the main direct causes of under-five mortality. Acute malnutrition is directly or indirectly responsible for 50 to 60 per cent of under-five deaths.

For years, Niger has been confronted with chronic food insecurity and high levels of maternal and child malnutrition, common to the Sahel region. National nutrition surveys carried out over the past five years all point to the conclusion that the nutritional status of young children in Niger remains a matter of great concern. Even in good harvest years, child malnutrition remains high. Since 2005, the prevalence of acute malnutrition among children in Niger has always been above the alert level of 10 per cent, with a few regions exceeding the emergency level threshold (15 per cent) (see Figure 1). The latest national nutrition survey (June 2011) revealed a national average of global acute malnutrition (GAM) of 12.3% with a prevalence of severe acute malnutrition (SAM) of 1.9%. The situation is of great concern among children aged 6–23 months. The prevalence of GAM in this age group is 20.2% according to the latest national nutrition survey.

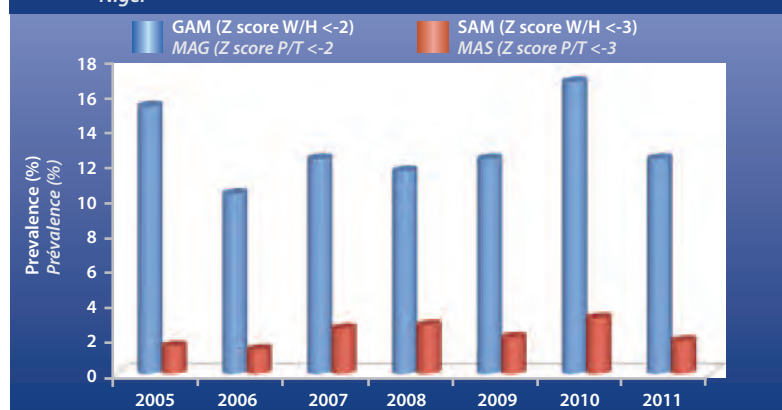
A high prevalence of chronic malnutrition is also a major problem of public health importance as every other child aged 6–59 months is stunted, and there is very little variation over the years (see Figure 2).

In Niger, only 46 per cent of the population has access to safe water. The regions of Zinder, Maradi, Tahoua and Agadez, in particular, face limited access to drinking water, low sanitation coverage, and poor hygiene practices, especially among the poor. In a context of high food and nutrition insecurity, the lack of appropriate hygiene, drinking water and proper sanitation increases the incidence of water-related diseases, including diarrhoea, which is a major underlying cause of malnutrition. The health system in Niger is well structured and quite decentralised. However, it is confronted with a serious issue of staffing.

¹ United Nations Development Programme

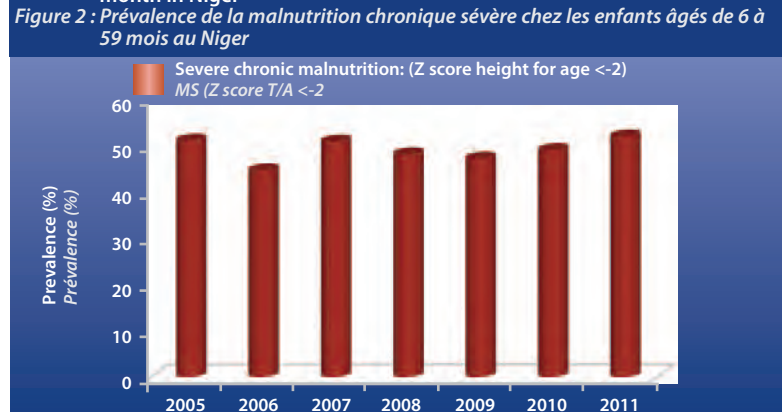
² Multiple Indicator Cluster Survey on Population and Health in Niger (EDSN – MICS), 2006

Figure 1: Prevalence of acute malnutrition among children aged 6–59 month in Niger
Figure 1 : Prévalence de la malnutrition aiguë chez les enfants âgés de 6 à 59 mois au Niger



GAM: global acute malnutrition. SAM: severe acute malnutrition
MAG: malnutrition aiguë globale. MAS: malnutrition aiguë sévère

Figure 2: Prevalence of severe chronic malnutrition among children aged 6–59 month in Niger
Figure 2 : Prévalence de la malnutrition chronique sévère chez les enfants âgés de 6 à 59 mois au Niger



Contexte

Situation en matière de nutrition et de santé au niveau national

Le Niger est un pays enclavé du Sahel, avec une population de plus de 15 millions de personnes, dont environ 50% sont des enfants de moins de 15 ans. Le Niger se classe au 173e rang sur 177 selon l'Indice de développement humain du PNUD 2010¹. Les indicateurs de l'Objectif du millénaire pour le développement (OMD), tels que la mortalité infanto-juvénile et le taux de mortalité maternelle, sont parmi les plus alarmants au monde. Le taux de mortalité maternelle a stagné au cours des dix dernières années et en 2010, il était encore de 554 sur 100,000 naissances vivantes. En outre, un enfant sur cinq meurt encore avant l'âge de cinq ans au Niger. Le paludisme, les infections respiratoires et la diarrhée sont les principales causes directes de mortalité des enfants de moins de cinq ans. La malnutrition aiguë est directement ou indirectement responsable de 50 à 60% des décès d'enfants âgés de moins de cinq ans.

Pendant des années, le Niger a été confronté à une insécurité alimentaire chronique et à des niveaux élevés de malnutrition chez les mères et les enfants, commune à la région du Sahel. Des études nationales sur la nutrition réalisées au cours des cinq dernières années mènent toutes à la conclusion suivante, à savoir que l'état nutritionnel des jeunes enfants au Niger reste très préoccupant. Même dans les années de bonnes récoltes, la malnutrition chez les enfants reste élevée. Depuis 2005, la prévalence de la malnutrition aiguë chez les enfants au Niger a toujours été au-dessus du niveau d'alerte de 10%, avec quelques régions dépassant le seuil du niveau d'urgence (15%) (Voir Figure 1). La dernière étude nationale sur la nutrition (juin 2011) a révélé une moyenne nationale de malnutrition aiguë globale (MAG) de 12.3 % avec une prévalence de la malnutrition aiguë sévère (MAS) de 1.9 %. La situation est plus préoccupante chez les enfants âgés de 6 à 23 mois. La prévalence de la MAG dans ce groupe d'âge est de 20.2 % selon la dernière étude nutritionnelle nationale en date de juin 2011.

Une prévalence élevée de la malnutrition chronique représente également un problème majeur de santé publique étant donné qu'un enfant sur deux âgé de 6 à 59 mois accuse un retard de croissance, et très peu de variations sont observées au fil des ans (voir Figure 2).

Au Niger, seulement 46% de la population a accès à l'eau potable. Les régions de Zinder, Maradi, Tahoua et Agadez en particulier ne jouissent que d'un accès limité à l'eau potable et d'une faible couverture en services d'assainissement et font état de mauvaises pratiques d'hygiène, surtout parmi les pauvres. Dans un contexte d'insécurité alimentaire et nutritionnelle élevée, l'absence de pratiques d'hygiène appropriées, d'eau potable et de services d'assainissement adéquats augmentent l'incidence des maladies d'origine hydrique telles que la diarrhée, qui est une cause sous-jacente majeure de malnutrition. Le système de santé au Niger est bien structuré et très décentralisé. Cependant, il est confronté à un problème de dotation en personnel.

Un pays exposé aux urgences

Le Niger est régulièrement confronté à des périodes d'insécurité alimentaire résultant de périodes de sécheresse et/ou d'infestations acridiennes. En 2005, le pays a été confronté à une insécurité alimentaire majeure qui s'est traduite par une crise nutritionnelle grave. Cela s'est produit à un moment où le système de santé du pays n'était pas prêt à gérer des cas de malnutrition aiguë en grand nombre. En 2010, le Niger a été à nouveau confronté à une insécurité alimentaire suite à une mauvaise saison des pluies en 2009, ce qui a également entraîné une crise nutritionnelle majeure affectant les groupes vulnérables, notamment les jeunes enfants et les femmes enceintes et allaitantes. En février 2010, le Cluster Nutrition avait estimé que 378,000 enfants âgés de 6 à 59 mois auraient à souffrir de MAS cette année-là. En juin 2010, le Cluster Nutrition a réévalué ce chiffre à 384,000. On a estimé à 1.2 millions le nombre d'enfants supplémentaires de la même tranche d'âge censés souffrir de malnutrition aiguë modérée (MAM).

En 2010, la pénurie de céréales était d'environ un demi-million de tonnes et le déficit de fourrage pour les animaux avait culminé à 16 millions de tonnes métriques. En avril 2010, une enquête de sécurité alimentaire a révélé que 7.1 millions de Nigériens, c'est-à-dire près de la moitié de la population, étaient dans une situation de vulnérabilité alimentaire, dont 3.3 millions de personnes se trouvant dans une situation de vulnérabilité sévère². Pour la première fois, cette enquête a

¹ Programme des Nations-Unies pour le développement

² La sécurité alimentaire des ménages nigériens, SAP/INS/FAO/UNICEF/UE/FEWS-NET/PNUD/PAM, avril 2010

An emergency-prone country

Niger is regularly confronted with episodes of food insecurity, resulting either from dry spells and/or from locust infestations. In 2005, the country was confronted with major food insecurity that translated into a serious nutrition crisis. This happened at a time when the health system of the country was not ready to handle large caseloads of acute malnutrition. In 2010, Niger was again confronted with food insecurity following a poor 2009 rainy season. This also resulted in a major nutrition crisis affecting mostly vulnerable groups, such as young children and pregnant and lactating women. In February 2010, the Nutrition Cluster estimated that 378,000 children aged 6 to 59 months would suffer from SAM that year. In June 2010, the Nutrition Cluster re-evaluated this number to 384,000. An additional 1.2 million children of the same age group were expected to suffer from moderate acute malnutrition (MAM).

In 2010, grain shortage was about half a million tons and the animal fodder deficit was as high as 16 million metric tons. In April 2010, a food security survey revealed that 7.1 million Nigeriens, almost half of the population, were in a situation of food vulnerability, including 3.3 million who were in a situation of severe vulnerability³. For the first time, this survey was also conducted in urban areas and showed that 26 per cent of urban populations were also affected by severe food insecurity.

The magnitude of the nutrition crisis was revealed by the National Nutrition Survey of June 2010, which indicated that the prevalence of GAM among children aged 6–59 months was as high as 16.7 per cent, exceeding the emergency threshold of 15 per cent⁴. This included 3.2 per cent of children affected by SAM. The situation was dire for children aged 6–23 months with one in four children affected by GAM. The prevalence of SAM among this age group was as high as 7 per cent. Another survey in October 2010 confirmed the same picture.

Political will

Political support for nutrition has improved over time. From a politically sensitive issue, nutrition became a national concern. The political commitment to treat nutrition as a national priority was publicly expressed through the organisation of the International Symposium on Food and Nutrition Security (SISAN) held in Niamey from 28th to 31st March, 2011. The purpose of the Symposium was to address structural causes of food and nutrition insecurity in order to reduce incidence of all forms of malnutrition among vulnerable groups. This led to development of a 5 year strategic document for nutrition and agreement to a dedicated budget line for nutrition within the health budget. Niger joined the SUN and REACH international movements and linkages were improved between other public health programmes (vaccination, Integrated Management of Childhood Illnesses (IMCI) and HIV/AIDS).

Where does nutrition fit in government?

As a cross cutting issue, nutrition is handled by several sectors including agriculture, education and health. Emergency Nutrition Response is under the leadership of the Prime Minister's Office. Responsibility for the management of acute malnutrition rests with the Ministry of Health (MOH). Within the MOH, there is the Nutrition Directorate in charge of designing nutrition policies, plans and strategies, and coordinating and overseeing implementation of nutrition interventions. In each of the eight regions and in each of the 42 districts, there is a nutrition focal point, which represents the extended arms of the Nutrition Directorate. Recently, the newly elected President launched an initiative to strengthen food security in the country. This initiative was named 3N: Nigeriens Nourish Nigeriens. A High Commission, linked to the President's Office, is managing the 3N and will probably deal to some extent with nutrition-related issues.

CMAM roll out/scale up

The aim of CMAM provision in Niger is to provide adequate care for all children affected by acute malnutrition and thus to contribute to the reduction of morbidity and mortality due to acute malnutrition among children in Niger.

Scaling up CMAM in Niger has been gradual, but not according to a particular plan. Community Management of Acute Malnutrition (CMAM) was partially introduced for the first time as part of the emergency response to the 2005 food and nutrition crisis. Actions taken were establishment of a core group for coordination, a quick survey of the nutritional situation and identification of vulnerable areas, development of a national protocol for management of acute malnutrition, and support from humanitarian organisations in supplies, training and monitoring and evaluation (M&E). Since

également été menée dans les zones urbaines et a montré que 26% des populations urbaines ont également été touchées par une insécurité alimentaire sévère.

L'ampleur de la crise nutritionnelle a été révélée par l'Enquête nationale sur la nutrition de juin 2010 qui indiquait que la prévalence de la MAG chez les enfants âgés de 6 à 59 mois atteignait 16.7 %, dépassant le seuil d'urgence de 15%³. Ces chiffres incluaient 3.2 % d'enfants touchés par la MAS. La situation était désastreuse pour les enfants âgés de 6 à 23 mois avec un enfant sur quatre touché par la MAG. La prévalence de la MAS au sein de ce groupe d'âge atteignait 7%. Une autre enquête menée en octobre 2010 a confirmé la même situation.

Volonté politique

Le soutien politique en matière de nutrition s'est amélioré au fil du temps. La nutrition est passée du statut de sujet politiquement sensible à celui de préoccupation nationale. L'engagement politique à traiter la nutrition comme une priorité nationale a été exprimé publiquement à travers l'organisation du Symposium international sur la sécurité alimentaire et nutritionnelle (SISAN) qui s'est tenu à Niamey du 28 au 31 mars 2011. Le but du symposium était de s'attaquer aux causes structurelles de l'insécurité alimentaire et nutritionnelle afin de réduire l'incidence de toutes les formes de malnutrition chez les groupes vulnérables. L'événement a débouché sur le développement d'un document stratégique sur 5 ans relatif à la nutrition et sur la signature d'un accord concernant une ligne budgétaire dédiée à la nutrition au sein du budget de la santé. Le Niger a adhéré aux mouvements internationaux SUN et REACH et les liens entre les autres programmes de santé publique (vaccination, prise en charge intégrée des maladies de l'enfance (PCIME) et le VIH/SIDA) ont été renforcés.

Où se situe la nutrition au sein du gouvernement ?

La nutrition, sujet transversal, est gérée par plusieurs secteurs dont l'agriculture, l'éducation et la santé. L'intervention d'urgence en matière de nutrition relève de la direction du Bureau du Premier ministre. La responsabilité de la gestion de la malnutrition aiguë relève du ministère de la Santé Publique (MSP). Au sein du ministère de la Santé se trouve la Direction de la nutrition en charge de la conception des politiques, des plans et des stratégies en matière de nutrition ; elle est également chargée de coordonner et de superviser la mise en œuvre des interventions nutritionnelles. On trouve dans chacune des 8 régions et dans chacun des 42 districts un point focal pour la nutrition qui représente les antennes élargies de la Direction de la nutrition. Récemment, le président nouvellement élu a lancé une initiative visant à renforcer la sécurité alimentaire dans le pays. Cette initiative a été nommée 3N : Les Nigériens Nourissent les Nigériens. Un haut-commissariat lié au Bureau du Président assure la gestion de 3N et sera sans doute amené à mettre en place un comité multisectoriel chargé, dans une certaine mesure, des questions liées à la nutrition.

Déploiement/Extension de la PCMA

L'objectif de la disposition PCMA (prise en charge communautaire de la malnutrition aiguë) au Niger est de fournir des soins adéquats à tous les enfants touchés par la malnutrition aiguë et de contribuer ainsi à la réduction de la morbidité et de la mortalité dues à la malnutrition aiguë chez les enfants au Niger.

L'extension à plus grande échelle de la PCMA au Niger a été progressive, mais ne s'est pas effectué selon un plan particulier. La prise en charge communautaire de la malnutrition aiguë (PCMA) a été partiellement introduite pour la première fois dans le cadre de l'intervention d'urgence face à la crise nutritionnelle et alimentaire de 2005. Les mesures prises ont été la mise en place d'un groupe de coordination central, une étude rapide de la situation nutritionnelle et l'identification des zones vulnérables, le développement d'un protocole national pour la prise en charge de la malnutrition aiguë et le soutien de la part des organisations humanitaires au moyen de fournitures, de formations et d'activités de suivi et d'évaluation (S&E). Depuis lors, l'approche PCMA a été institutionnalisée et rationalisée. Elle a tout d'abord été mise en œuvre par certaines organisations non-gouvernementales (ONG), tandis que les services gérés par le gouvernement opéraient encore conformément à l'approche traditionnelle selon laquelle tous les

³ Food Security of Nigerien Households, SAP/INS/FAO/UNICEF/EU/FEWS-NET/PNUD/WFP, April 2010

⁴ National Nutrition Survey, National Institute of Statistics, June 2010

³ Multiple Indicator Cluster Survey on Population and Health in Niger (EDSN - MICS), 2006

then, the CMAM approach has been institutionalised and streamlined. It was first implemented by selected non-governmental organisations (NGOs), while government-run facilities still operated following the traditional approach whereby all cases were treated as inpatients. CMAM was adopted progressively by more partners and reflected in the national protocol for management of acute malnutrition. The expansion of CMAM to all stakeholders became effective with the integration directive issued in 2008. This made it compulsory for all partners involved in the management of SAM to integrate their activities into the existing government-run health system.

At the operational level, management of acute malnutrition is undertaken in Niger by health staff, with surge capacity provided by either NGOs or United Nations (UN) agencies during periods when the caseload is high. Community health workers or NGOs undertake screening and case finding at community level and identified cases are referred to a health centre for treatment according to the national protocol. Community-level case finding is done using Mid Upper Arm Circumference (MUAC) and the diagnosis is confirmed at the health centre using weight-for-height z-score. During periods of high food insecurity, MUAC is used as an independent criterion of admission for treatment for SAM. Frequent training of service providers and on-the-job supervision are carried out to ensure quality of treatment, with technical and financial support from UNICEF, WFP, WHO and international NGOs.

Partners provide the required therapeutic supplies (Ready to Use Therapeutic Food (RUTF), therapeutic milks, and essential medicines) and other supplies, including long-lasting insecticide treated bed nets, blankets and soap. More specifically, UNICEF provides all supplies required for the treatment of SAM (RUTF, F-75, F-100, medicines, bed nets, blankets, soap, etc) and WFP provide about 80% of supplementary food required for management of cases of MAM.

The organisation of care is shown in Figure 3. As of July 2011, there is capacity for the treatment of acute malnutrition in virtually all health centres (see geographic coverage).

The Nutrition Directorate and its decentralised personnel in the regions and at district level supervise the management of acute malnutrition. Resources are provided by government, UNICEF, WFP and international NGOs.

There is a system for reporting the number of new cases admitted for treatment on a weekly basis and a weekly monitoring system of performance indicators. These systems were initially set up and managed by UNICEF as a parallel system but are now fully integrated into the national system, the management of which is being progressively transferred to the Nutrition Directorate.

Several issues related to sustainability, quality of services, completeness and timeliness of reporting remain challenges to be addressed in the near future.

To date, the management of cases of acute malnutrition in Niger is fully integrated into the existing health system and the service is provided by government staff, with support from NGOs when need arises (surge capacity).

Geographic coverage of CMAM

In each district, regional or national hospital, there is a unit for inpatient management of SAM with medical complications. A total of 50 such units are

cas étaient traités comme des patients hospitalisés. La PCMA a été adoptée progressivement par d'autres partenaires et reflétée dans le protocole national pour la prise en charge de la malnutrition aiguë. L'expansion de la PCMA à toutes les parties prenantes est entrée en vigueur par l'intermédiaire de la directive d'intégration publiée en 2008. Il est ainsi devenu obligatoire pour tous les partenaires impliqués dans la gestion de la MAS d'intégrer leurs activités au sein du système de santé actuel géré par le gouvernement.

Au niveau opérationnel, la prise en charge de la malnutrition aiguë est entreprise au Niger par le personnel de santé, avec une capacité d'appoint fournie par des ONG ou les Nations-Unies (ONU) pendant les périodes où le nombre de cas est élevé. Les agents de santé communautaires ou les ONG procèdent au dépistage des cas au niveau communautaire et les cas identifiés sont renvoyés à un centre de santé afin d'être traités conformément au protocole national. Le dépistage des cas au niveau communautaire est effectué à l'aide du périmètre brachial (PB) et le diagnostic est confirmé au centre de santé à l'aide du Z-score poids/taille. Pendant les périodes de forte insécurité alimentaire, le PB est utilisé comme critère d'admission indépendant dans le cadre du traitement de la MAS. Les prestataires de services sont formés fréquemment et supervisés en cours de travail afin d'assurer la qualité du traitement, et ce avec l'appui technique et financier de l'UNICEF, du PAM, de l'OMS et des ONG internationales.

Les partenaires fournissent le matériel thérapeutique nécessaire (aliments thérapeutiques prêts à l'emploi (ATPE), laits thérapeutiques et médicaments essentiels) et d'autres fournitures, y compris des moustiquaires imprégnées d'insecticide de longue durée, des couvertures et du savon. Plus précisément, l'UNICEF fournit toutes les fournitures nécessaires au traitement de la MAS (ATPE, F-75, F-100, médicaments, moustiquaires, couvertures, savon, etc.) et le PAM fournit environ 80% de la nourriture supplémentaire requise pour la prise en charge des cas de MAM.

La figure 3 illustre l'organisation des soins. Depuis juillet 2011, pratiquement tous les centres de santé disposent de la capacité nécessaire au traitement de la malnutrition aiguë (voir la couverture géographique).

La Direction de la nutrition et son personnel décentralisé au niveau des régions et des districts supervisent la prise en charge de la malnutrition aiguë. Les ressources sont fournies par le gouvernement, l'UNICEF, le PAM et des ONG internationales.

Il existe un système pour rapporter le nombre de nouveaux cas admis pour traitement sur une base hebdomadaire de même qu'un système de surveillance hebdomadaire des indicateurs de performance. À l'origine, ces systèmes ont été mis en place et gérés par l'UNICEF en tant que systèmes parallèles, mais sont désormais pleinement intégrés au système national dont la gestion est progressivement transférée à la Direction de la nutrition.

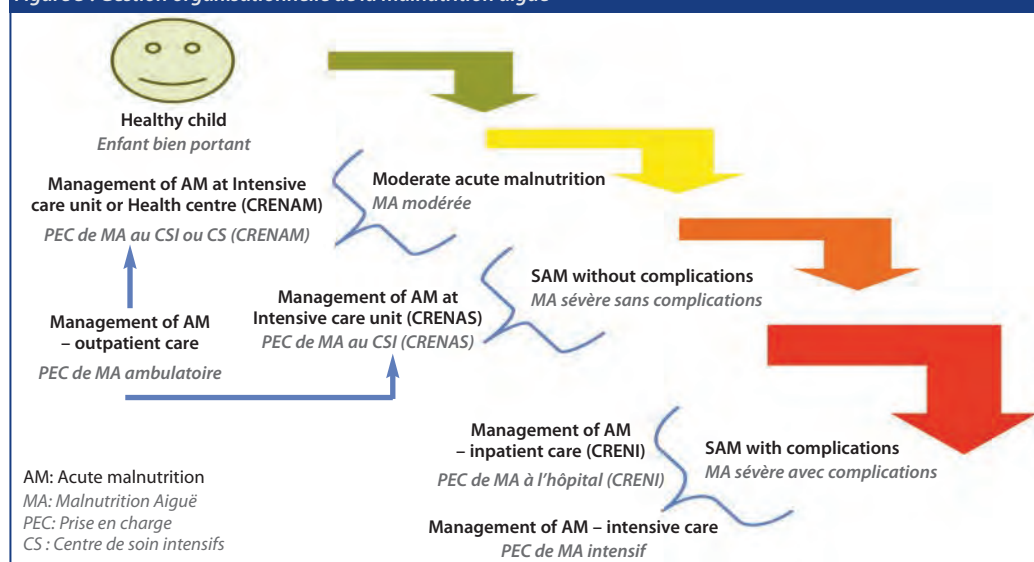
Plusieurs questions liées à la durabilité, la qualité des services, l'exhaustivité et la rapidité d'obtention des rapports demeurent des défis à aborder dans un avenir proche.

À ce jour, la prise en charge des cas de malnutrition aiguë au Niger est entièrement intégrée au système de santé existant et le service est fourni par le personnel du gouvernement avec le soutien des ONG en cas de besoin (capacité d'appoint).

Couverture géographique de la PCMA

Dans chaque hôpital de district, régional ou national, il existe une unité pour la gestion des patients hospitalisés pour cause de MAS présentant des complications médicales. Un total de 50 unités de ce type sont disponibles à travers le pays. Les enfants atteints sont traités comme des patients hospitalisés dans ces établissements connus au Niger sous le nom de Centres de récupération et d'éducation nutritionnelle intensifs (CRENI). Sur les 850 centres de santé intégrés disponibles, 772 sont en mesure de traiter les cas de MAS sans conditions médicales. Ce sont des centres où les enfants sont traités en soins ambulatoires (CRENAS). Enfin,

Figure 3: Organisational management of acute malnutrition
Figure 3 : Gestion organisationnelle de la malnutrition aiguë



available throughout the country. Affected children are treated as inpatients in these facilities, known in Niger as Centre de Rehabilitation Nutritionnelle Intensive (CRENI). Of the 850 Integrated Health Centres available, 772 are in a position to treat cases of SAM without medical conditions. These are centres where children are treated in ambulatory care (CRENAS). Finally the Integrated Health Centres and some Health Posts offer treatment for MAM. In the country, there are more than 850 sites for the treatment of MAM (CRENAM). See Figure 4.

Main partners

The management of acute malnutrition in Niger is carried out by multiple partners, all operating under the leadership of the MOH, through the Nutrition Directorate. Approximately 20 NGOs, most of whom are international, are involved in management of acute malnutrition.

MOH leadership is critical to ensure integration of the management of acute malnutrition into the existing health system and to avoid a vertical approach, as often happens in emergency settings. Donors play an important role to ensure adequate management of acute malnutrition by providing sufficient resources to procure therapeutic and supplementary foods, drugs and other supplies required for the treatment of acute malnutrition.

NGOs support this programme at the operational level to ensure quality of care. Their contribution is mainly in terms of surge capacity, capacity building, and quality assurance. Management of acute malnutrition in Niger is happening at a very large scale. This still, by and large, depends on external funding. Sustaining the gains is a challenge that still needs to be addressed.

Community-based approach

Beneficiaries could play a greater role in CMAM in Niger. To date, management of MAM is decentralised to health post level with a significant involvement of community members, especially those in charge of managing health services in collaboration with the community health worker. In addition to direct management of MAM, community members are involved, via NGOs, with case identification and referral.

Community members, through community volunteers, are in some cases involved with sensitisation on adequate infant and young child feeding practices along with other key family practices. This is a component of the CMAM programme that still needs some strengthening.

Results

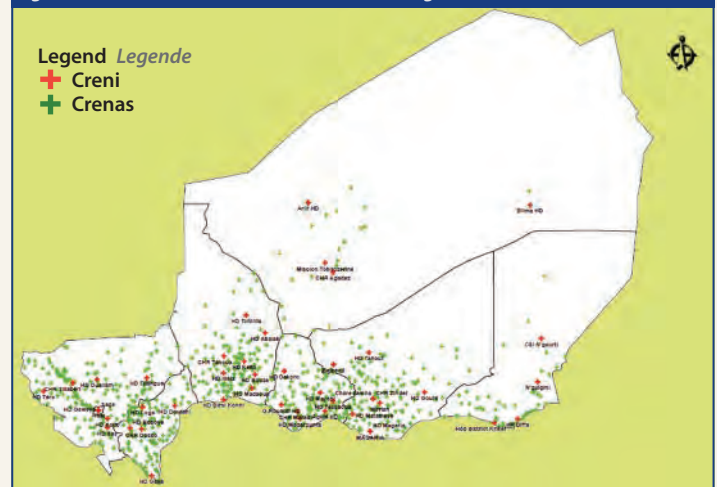
Before the 2005 nutrition crisis in Niger, there was only one therapeutic feeding centre in the whole of the country. The programme has grown over time and is now a national programme with more than 820 treatment centres for SAM and a further 1000 centres for the treatment of MAM.

Thanks to the combination of two decisions made by the government to improve access to health care for the population, more and more children now have access to treatment for acute malnutrition. These political decisions were to waive user fees for healthcare for children under five years and to integrate management of acute malnutrition into the existing health system. In addition to the increasing political commitment for nutrition in Niger, additional factors contributing to success in CMAM scale up have been the strong leadership from the Ministry of Public Health for coordination, technical support and assistance from UN and NGO partners, and development of longer term strategies to address malnutrition.

Box 1: List of NGO partners involved in management of acute malnutrition in Niger
Encadré 1 : Liste des ONG partenaires impliquées dans la gestion de la malnutrition aiguë au Niger

Action Contre el Hambre (ACH)	Action Contre el Hambre (ACH)
AFRICARE	AFRICARE
BEFEN	BEFEN
CADEV	CADEV
CARE	CARE
Croix Rouge Française (CRF)	Croix Rouge Française (CRF)
EPICENTRE	EPICENTRE
FORSANI	FORSANI
Helen Keller International	Helen Keller International
HELP	HELP
International Relief and Development	International Relief Development
Secours islamique	Islamic Relief
MSF-Suisse	MSF-Suisse
MSF-Belgique	MSF-Belgium
MSF-Espagne	MSF-Spain
MSF-France	MSF-France
Plan Niger	Plan Niger
Samaritans Purse	Samaritans Purse
Save the Children – Royaume-Uni	Save the Children – UK
Vision Mondiale	World Vision

Figure 4 : Emplacement des CRENI et CRENAS au Niger
Figure 4: Locations of CRENI and CRENAS in Niger



les centres de santé intégrés et certains postes de santé offrent un traitement de la MAM. On dénombre plus de 850 sites pour le traitement de la MAM (CRENAM) à travers le pays. Voir Figure 4.

Principaux partenaires

La prise en charge de la malnutrition aiguë au Niger est assurée par de multiples partenaires, évoluant tous sous la direction du MS par l'intermédiaire de la Direction de la nutrition. Environ 20 ONG, dont la plupart sont internationales, sont impliquées dans la prise en charge de la malnutrition aiguë.

Le leadership du Ministère de la Santé Publique est essentiel afin d'assurer l'intégration de la prise en charge de la malnutrition aiguë au système de santé existant et d'éviter une approche verticale, comme cela arrive souvent dans de nombreuses situations d'urgence. Les bailleurs de fonds jouent un rôle important quand il s'agit d'assurer une prise en charge adéquate de la malnutrition aiguë ; en effet, ils fournissent des ressources suffisantes pour se procurer des aliments thérapeutiques et supplémentaires, des médicaments et autres fournitures nécessaires pour le traitement de la malnutrition aiguë.

Les ONG soutiennent ce programme au niveau opérationnel afin d'assurer la qualité des soins. Leur contribution réside principalement dans la capacité d'appoint, le renforcement des capacités et l'assurance de la qualité.

La prise en charge de la malnutrition aiguë au Niger s'effectue à très grande échelle. Dans l'ensemble, elle dépend encore et toujours des financements extérieurs. Consolider les acquis est un défi qui reste à relever.

L'approche communautaire

Les bénéficiaires pourraient jouer un rôle plus important dans la PCMA au Niger. À ce jour, la prise en charge de la MAM est décentralisée au niveau des postes de santé avec une participation importante des membres de la communauté, en particulier ceux en charge de la gestion des services de santé en collaboration avec l'agent de santé communautaire. En plus de la prise en charge directe de la MAM, les membres de la communauté sont impliqués, via les ONG, dans l'identification des cas et dans l'aiguillage.

Grâce à des bénévoles communautaires, les membres de la communauté sont impliqués, dans certains cas, dans la sensibilisation au sujet des pratiques d'alimentation adéquates pour les nourrissons et les jeunes enfants ainsi que d'autres pratiques familiales clés. Il s'agit d'une composante du programme PCMA qui a encore besoin d'être renforcée.

Résultats

Avant la crise nutritionnelle de 2005 au Niger, le pays comptait quelques centres de nutrition thérapeutique non fonctionnels. Le programme s'est développé au fil du temps jusqu'à devenir un programme national comptant plus de 820 centres de traitement de la MAS et 1 000 autres centres pour le traitement de la MAM.

Grâce à la combinaison de deux décisions prises par le gouvernement pour améliorer l'accès aux soins de santé destinés à la population, de plus en plus d'enfants ont maintenant accès au traitement contre la malnutrition aiguë. Ces décisions politiques

Figure 5: Weekly admissions of cases of severe acute malnutrition, CRENAS/CRENI, 2010 and 2011

Figure 5 : Admissions hebdomadaires de cas de malnutrition aiguë sévère, CRENAS et CRENI, 2010 et 2011

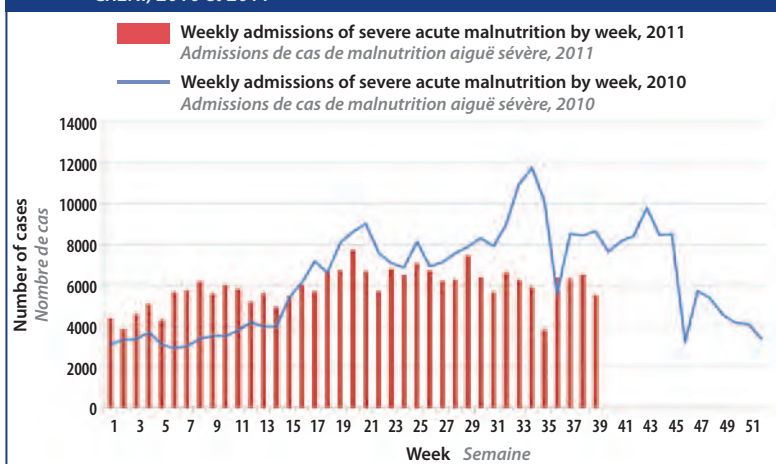
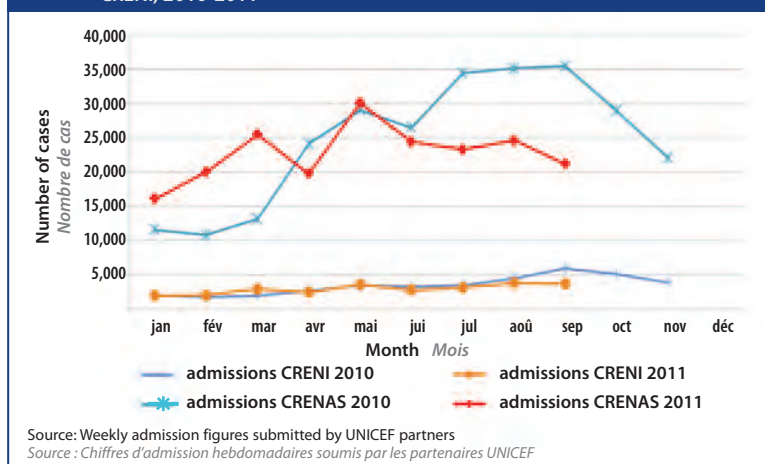


Figure 6: Monthly admissions for severe acute malnutrition, CRENAS CRENI, 2010-2011

Figure 6 : Admissions mensuelles pour la malnutrition aiguë sévère, CRENAS CRENI, 2010-2011



Source: Weekly admission figures submitted by UNICEF partners
Source : Chiffres d'admission hebdomadaires soumis par les partenaires UNICEF

There is substantial capacity for the management of acute malnutrition in Niger. In 2009, about 127,000 children aged 6–59 months were treated for SAM in the country. In 2010, when Niger was confronted with a major nutrition crisis, 330,000 children aged 6–59 months were treated for SAM and 257,000 new cases of MAM were treated. As of the 2nd October 2011, more than 230,000 cases of SAM and just over 309,000 cases of MAM had been treated in Niger. For SAM cases, 26,101 (11%) were managed in CRENI and 205,806 (89%) managed in CRENAS.

The quality of services is monitored using weekly admission data by region and monthly monitoring of performance indicators. Admission data for 2010/11 for SAM and MAM are shown in Figures 5, 6 and 7.

The programme performance indicators are shown in Table 1. As of August 2011, the mortality rate was only 1.5% while the recovery and defaulter rates were 84% and 5.2% respectively. These national averages mask regional variations. A pattern that clearly emerged from available statistics is that where there is an NGO providing technical support, quality of care, as demonstrated by performance indicators, is good. Where government staff are the sole providers, quality remains sub-optimal. The case of Niamey, with the lowest recovery rate, high mortality and defaulter rates, is illustrated in the graphs in Figures 8, 9 and 10.

Challenges

Niger is faced with major challenges as far as CMAM is concerned. First, how to ensure and maintain quality care in all treatment centres, irrespective of the presence of NGOs providing technical support and second, how to sustain adequate provision of therapeutic supplies. To address these two issues, it is essential for the government to strengthen the health system. This will require the recruitment of adequate personnel to staff health facilities. It also requires setting up and implementing an inclusive quality assurance

ont annulé les frais des soins de santé destinés aux enfants de moins de cinq ans et intégré la prise en charge de la malnutrition aiguë au système de santé existant. En plus de l'engagement politique croissant en matière de nutrition au Niger, les autres facteurs contribuant à la réussite du renforcement de la PCMA ont été le solide leadership de la part du ministère de la Santé publique en ce qui concerne la coordination, le soutien et l'assistance technique des Nations Unies et des ONG partenaires ainsi que le développement de stratégies à plus long terme dans le cadre de la lutte contre la malnutrition.

Il existe une forte capacité pour la prise en charge de la malnutrition aiguë au Niger. En 2009, environ 127,000 enfants âgés de 6 à 59 mois ont été traités contre la MAS dans le pays. En 2010, lorsque le Niger a été confronté à une crise nutritionnelle majeure, 330,000 enfants âgés de 6 à 59 mois ont été traités contre la MAS et 257,000 nouveaux cas de MAM ont été traités. Le 2 octobre 2011, plus de 230 000 cas de MAS et un peu plus de 309,000 cas de MAM avaient été traités au Niger. Pour les cas de SAM, 26,101 (11%) ont été gérés en CRENI et 205,806 (89%) ont été gérés en CRENAS.

La qualité des services est contrôlée au moyen des données sur les admissions hebdomadaires par région et par suivi mensuel des indicateurs de performance. Les données sur les admissions pour 2010/11 pour la MAS et la MAM sont présentées dans les figures 5, 6 et 7.

Les indicateurs de performance du programme sont présentés dans le tableau 1. A partir d'août 2011, le taux de mortalité n'était que de 1.5%, tandis que les taux de rétablissement et d'abandon étaient respectivement de 84% et de 5.2%. Ces moyennes nationales ne reflètent pas les variations régionales. Une tendance nette qui ressort des statistiques disponibles est que la qualité des soins, telle que démontrée par les indicateurs de performance, est bonne dans les endroits où une ONG fournit un soutien technique. Lorsque le personnel du gouvernement représente les seuls et uniques prestataires, la qualité laisse à désirer. Le cas de Niamey, accusant le taux de rétablissement le plus bas, ainsi qu'un taux de mortalité et d'abandon élevé, est illustré dans les graphiques des Figures 8, 9 et 10.

Défis

Le Niger est confronté à des défis majeurs en ce qui concerne la PCMA. D'une part, comment assurer et maintenir des soins de qualité dans tous les centres de traitement, indépendamment de la présence des ONG fournissant un appui technique et d'autre part, comment maintenir une offre suffisante en fournitures thérapeutiques. Pour résoudre ces deux questions, il est essentiel que le gouvernement renforce le système de santé. Cela nécessitera le

Figure 7: Admissions hebdomadaires de cas de malnutrition aiguë modérée, CRENAM, 2011

Figure 7 : Admissions hebdomadaires de cas de malnutrition aiguë modérée, CRENAM, 2011

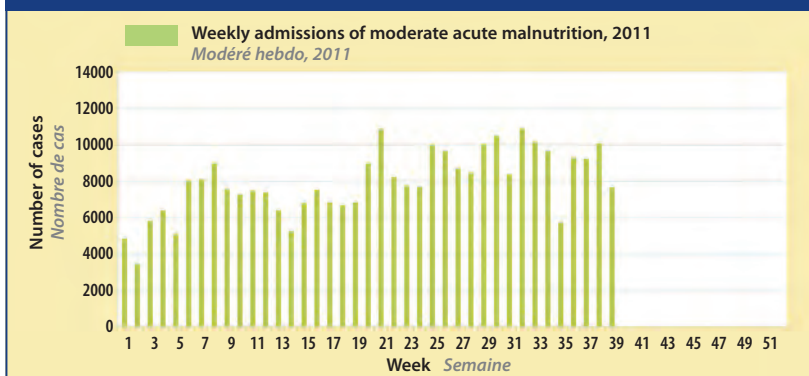


Table 1: Summary of programme performance indicators for SAM

Tableau 1 : Résumé des indicateurs de performance du programme pour la MAS

Type de centre Type de centre	Nouvelles admissions Nouvelles admissions	Total Total	Total sorties Total sorties	Cured (n) Guérison (n)	Cured (%) Guérison (%)	Death (n) Décès (n)	Death (%) Décès (%)	Defaulter (n) Abandon (n)	Abandon (%) Defaulter (%)	Data complete (%) Data complete (%)
CRENI	47,867	49,056	46,663	39,345	84%	589	7.7%	2,471	5.3%	96%
CRENAS	322,840	343,459	283,826	223,993	79%	1,964	0.7%	21,017	7.4%	100%
CRENI/CRENAS	370,707	392,515	330,489	263,338	80%	553	1.7%	23,488	7.1%	100%

system as well as providing efficient supervision, which will lead to quality of care. A third challenge is how to scale up MAM programmes across the country. Taking charge of malnutrition is an integral part of the axis of nutrition in the food and nutritional security policy document of the government. Addressing MAM will require insertion of a dedicated budget line for purchase of therapeutic inputs and development of social safety nets (with a social safety net 'cell' attached to the Prime Minister's office).

Niger depends on UNICEF and WFP for procurement of therapeutic supplies. This is a fragile situation which needs to be changed. The government could significantly reduce its dependence on UN agencies where therapeutic supplies is concerned, by allocating a budget line for procurement of therapeutic supplies to the Ministry of Health Budget and including procurement of therapeutic supplies in the social safety net package that is expanding very quickly in the country.

Key lessons

There are a number of key lessons from the scale up of CMAM in Niger. CMAM success relies on strong government vision and commitment for strategy, coordination and resource mobilisation. Strong government coordination is vital, especially when many partners are involved. Standardisation of treatment is key to ensure equity in treatment and comparable data. Operational partners prefer to focus on treatment not prevention - there is a need for more preventative programming.

Ways forward

CMAM is well established in Niger and is being carried out on a very large scale. In addition, quality of care is overall in line with Sphere standards. It is now urgent to maintain the existing capacity for the management of acute malnutrition in the country and to improve quality of care where services are still sub-optimal. In general, the community component of CMAM in Niger is rather weak and work needs to be done at this level to ensure effective involvement of communities. Next steps planned include adoption of the national nutrition plan and development of a national preventative nutrition strategy based on 'best practices'.

In terms of scaling up nutrition more broadly and given the scale of CMAM in Niger, the programme can serve as an entry point for many interventions, including other nutrition programmes, especially those designed with the aim of reducing incidence of all forms of malnutrition in the country.

For more information, contact: Dr Guero H Doudou Maimouna, email: dnutniger@gmail.com or mhalidou2002@yahoo.fr

recrutement de personnel adéquat dans les établissements de santé et également la mise en place et la mise en œuvre d'un système d'assurance qualité inclusif et d'une supervision efficace, ce qui conduira à une meilleure qualité des soins. Un troisième défi consiste à savoir comment renforcer les programmes de MAM à travers le pays. La prise en charge de la malnutrition fait partie intégrante de l'axe nutritionnel du document relatif à la politique de sécurité alimentaire et nutritionnelle du gouvernement. La lutte contre la MAM exigera l'intégration d'une ligne budgétaire spécifique pour l'achat d'apports thérapeutiques et le développement de dispositifs de protection sociale (avec une "cellule" dédiée à ces derniers rattachée au bureau du Premier ministre).

Le Niger dépend des partenaires techniques comme l'UNICEF et le PAM pour l'achat de fournitures thérapeutiques. Il s'agit d'une situation incertaine qui doit changer. Le gouvernement pourrait réduire considérablement sa dépendance envers les agences des Nations-Unies en ce qui concerne les fournitures thérapeutiques en attribuant une ligne budgétaire pour l'achat de fournitures thérapeutiques au budget du ministère de la Santé, et en incluant l'achat de fournitures thérapeutiques au sein du dispositif de protection sociale qui se développe très rapidement dans le pays.

Principaux enseignements

Plusieurs enseignements clés sont nés du renforcement de la PCMA au Niger. Le succès de la PCMA repose sur une vision forte du gouvernement et sur un engagement en matière de stratégie, de coordination et de mobilisation des ressources. Une coordination gouvernementale solide est vitale, surtout quand de nombreux partenaires sont impliqués. La standardisation du traitement est un élément clé pour assurer l'égalité dans le traitement et la comparabilité des données. Les partenaires opérationnels préfèrent se concentrer sur le traitement plutôt que sur la prévention ; ainsi, des programmes plus axés sur la prévention sont nécessaires.

Les voies à suivre

La PCMA est bien établie au Niger et elle est mise en œuvre à très grande échelle. En outre, la qualité des soins est globalement conforme aux normes Sphère. À présent, il est urgent de maintenir la capacité existante en matière de prise en charge de la malnutrition aiguë dans le pays et d'améliorer la qualité des soins là où les services laissent encore à désirer. D'une façon générale, la composante communautaire de la PCMA au Niger est plutôt faible et des progrès doivent être réalisés à ce niveau afin d'assurer la participation effective des communautés. Les prochaines étapes prévues incluent l'adoption du plan national de nutrition et le développement d'une stratégie nationale préventive en matière de nutrition fondée sur des "bonnes pratiques".

En termes de renforcement de la nutrition de façon plus générale et compte tenu de l'ampleur de la PCMA au Niger, le programme peut servir de point d'entrée pour de nombreuses interventions, y compris d'autres programmes de nutrition, en particulier ceux conçus dans le but de réduire l'incidence de toutes les formes de malnutrition dans le pays.

Pour plus d'informations, contacter : Dr Guero H Doudou Maimouna, e-mail : dnutniger@gmail.com ou mhalidou2002@yahoo.fr

Figure 8: Cure rates by region in 2010
Figure 8 : Taux de guéris par région en 2010

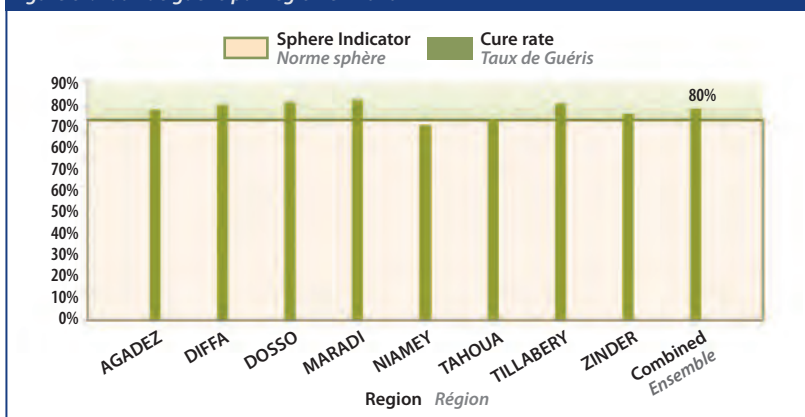


Figure 9: Defaulter rates by region in 2010
Figure 9 : Taux d'abandon par région en 2010

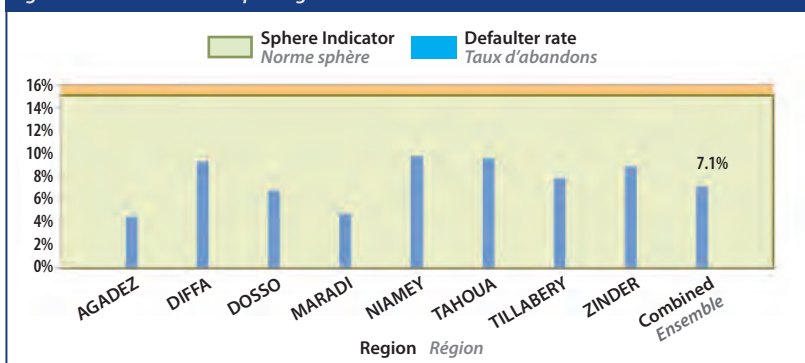
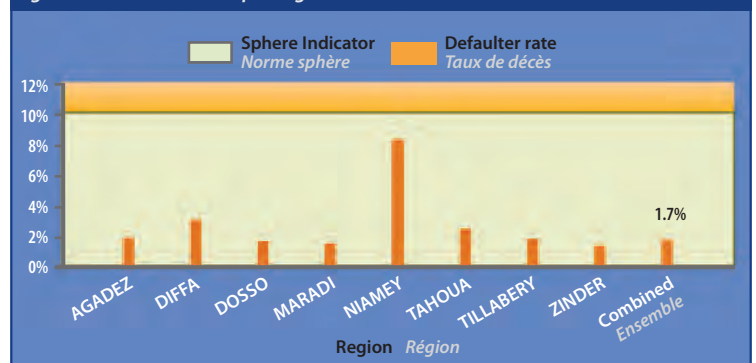


Figure 10: Death rates by region in 2010
Figure 10 : Taux de décès par région en 2010





A Baby's MUAC is measured in the rural village of Marat, Anseba Region, Eritrea

Framework for integration of management of SAM into national health systems

By Katrien Khoos and Anne Berton-Rafael

Katrien Khoos is the Nutrition Specialist on Management of Acute Malnutrition, Nutrition Information Systems, Emergencies and Disaster Risk Reduction with the UNICEF Eastern and Southern Africa Regional Office (ESARO). She is based in Nairobi, Kenya.

Anne Berton-Rafael is the UNICEF ESARO Nutrition consultant for this initiative, based in Nairobi.

Both authors have over 15 years of experience on management of acute malnutrition in emergency, post-emergency and development context.

Update credit to: The authors wish to thank UNICEF ESARO, UNICEF HQ and USAID/OFDA for the support to this work. Special thanks also go to the several individuals and their organisations that already provided inputs to the initiative. These are UNICEF (colleagues from Kenya Country Offices and from Regional offices in Dakar and Amman), ACF-F, FANTA, Valid, Carlos Navarro-Colorado (CDC) and Mark Myatt.

Background

In 2010, UNICEF approached VALID International to design and conduct a global mapping review of Community-based Management of Acute Malnutrition (CMAM) with a focus on severe acute malnutrition (SAM)¹. In addition to this global mapping, regional analyses² were conducted and indicated that 13 countries out of 18³ in Eastern and Southern Africa Region (ESAR) had plans to scale up in 2010/2011. As of May 2010, over half (53%) of CMAM programmes were integrated with Infant and Young Child Feeding (IYCF) and Integrated Management of Childhood Illness (IMCI) programmes. All countries had national coordination mechanisms and in only three countries out of 18, were UNICEF the sole RUTF provider. These findings suggested a certain degree of government ownership and sustainability. However, despite roll out through government services in all countries (except Somalia) at the time of the mapping, most of the inputs to CMAM national programmes were still provided using short term external emergency funding. Also, material and technical support often still came from specialised United Nations (UN) and non-governmental organisation (NGO) staff. Indeed, in 13 countries, more than 50% of RUTF was provided by UNICEF in 2009, and only one country indicated Ministry of Health (MoH) support for RUTF supplies. Transport of these supplies from national to district level largely happened using a parallel system instead of using the national supply chain. In those cases, UNICEF and implementing partners (e.g. NGO's) organised transport based on available stocks at national level rather than expressed needs at community level. This description around RUTF supplies is only one example to highlight the lack of a sustainable and systematic approach to scaling up CMAM. Not much has changed since the global mapping exercise.

Another consideration is in contexts where prevalence of wasting is relatively low and as in most Southern African countries, closely

related to HIV/AIDS. In such scenarios, with little or no dedicated funding available for CMAM, the approach to integrate SAM management into the health system and create or enhance systematic linkages with existing services was thought to be the most cost-effective, and typically the only option, to scale up community based management of SAM.

The Framework

Given the lack of a systematic approach to CMAM scale up identified in the 2009 global mapping and the need for integration into existing services for a sustainable approach, a framework for institutional integration of management of severe acute malnutrition (IMSAM) into national health systems has been developed and is being piloted by UNICEF (see Box 1).

The general objective of the framework is to support countries in assessing gaps, planning priority actions and guide successful and sustainable scaling up of management of severe acute malnutrition through the primary health care system.

For reasons explained below, the scope of this initiative is limited deliberately at this stage of development of the IMSAM framework.

The six WHO health system (HS) building blocks (governance, financing, human resources, supply, service delivery and health information system) are used as the health system entry points in this proposed framework. A series of field tests were scheduled in order to correct irrelevant elements and fine-tune promising parts, using different national and sub-national contexts and HS functions of the framework.

The proposed framework is relevant also in countries as part of disaster risk reduction (DRR) and/or resilience building approach, where nutrition emergencies are recurrent (e.g. Horn of Africa). As most of these countries have already integrated parts of CMAM into the health system, this proposed framework

Box 1: Process of framework development

UNICEF ESARO started developing the framework in January 2011, but this had to be interrupted because of Horn of Africa crisis. An extensive literature review already underway continued in October 2011. This review covered successes of processes, strategies and tools used in Health System (HS) strengthening, in standardised development of national programmes to address at scale public health problems such as tuberculosis and malaria, and the roll out of Enlarged Programme of Immunisation (EPI), integrated Community Case Management (iCCM) and Prevention of Mother To Child HIV AIDS Transmission (PMTCT) programmes. The assessment itself is adapted from USAID's Health Systems Assessment Approach: A How-To Manual⁴. This is based on the WHO's health systems (HS) framework of the six health system building blocks⁵ (WHO 2000, 2007) as well as from the HIS scoring card of the Health Metrics Network⁶ (WHO, 2008). Based on these lessons learned, experiences and assessment tools⁷, the framework for Institutional Integration of Management of Acute Malnutrition into national health systems, was suggested.

¹ Field Exchange 41 (2011). Global CMAM mapping in UNICEF supported countries. p10.

² Regional refers to division of UNICEF regions. For example, Eastern and Southern Africa Region (ESAR) includes 21 countries (at the time of global review 20, as South Sudan became independent in July 2011 and joined ESAR at time of independence): Angola, Botswana, Burundi, Comoros, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Rwanda, Somalia, South Africa, Swaziland, Tanzania (+ Zanzibar), Uganda, Zambia, Zimbabwe

³ ESAR countries included in this analysis are all indicated above, except Comoros and South Africa (Angola, Botswana, Burundi, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Rwanda, Somalia, Swaziland, Tanzania (+ Zanzibar), Uganda, Zambia, Zimbabwe). It was not possible to have information from Comoros on time. South Africa only implements the in-patient component of CMAM. In this article, all data used refer to analysis of these 18 countries only.

⁴ <http://www.healthsystems2020.org/content/resource/detail/528/>

⁵ http://www.wpro.who.int/entity/health_services/health_systems_framework/en/index.html

⁶ Available at <http://www.who.int/healthmetrics/tools/en/>

⁷ Among others sources of adaptation are the iCCM Benchmarks and indicators matrix developed by CCM Interagency Task Force available at http://www.ccmcentral.com/?q=indicators_and_benchmarks

⁸ Also called golden standards by the WHO/Health matrix

Table 1: Number of benchmarks per Health System (HS) function (horizontal) for the three levels of implementation (vertical) and total

HS functions	National	District	Community	Total
A. Governance	44	40	36	120
1. Information/Assessment Capacity	4	4	3	11
2. Policy Formulation and Planning	16	15	11	42
3. Social Participation and System Responsiveness	10	9	10	29
4. Accountability	10	9	9	28
5. Regulation	4	3	3	10
B. Financing	13	16	14	43
6. Pooling and Allocation of Financial Resources	7	10	7	24
7. Joint financing	5	5	6	16
8. Purchasing and Provider Payments	1	1	1	3
C. HR	33	35	33	101
9. Planning	5	6	4	15
10. Policies	5	5	4	14
11. Performance Management	4	4	5	13
12. Training and education	11	12	12	35
13. In-service training or IMSAM/MNCH* integrated training	6	6	6	18
14. Pre-service training IMSAM /MNCH integrated	2	2	2	6
D. Supply	18	17	9	44
15. Pharmaceutical Policy, Laws, and Regulations	12	13	5	30
16. Joint supply management**	3	3	3	9
17. Selection of Pharmaceuticals	3	1	1	5
E. Service delivery	23	31	29	83
18. Availability and continuity of care	2	2	3	7
19. Access and coverage of IMSAM services	3	3	4	10
20. Utilisation	6	6	5	17
21. Organisation: Integrated package	3	4	4	11
22. Quality assurance	7	13	9	29
23. Community Participation in Service Delivery	2	3	4	11
F. HIS	13	16	7	36
24. IMSAM integrated in HIS	10	13	6	29
25. M&E	3	3	1	7
TOTAL	144	155	128	427

*Maternal, newborn and child health ** RUTF supply falls under this category

intends to further guide the identification and coverage of gaps in sustained integration of CMAM.

Components of framework

The framework is composed of three parts:

- benchmark matrix to facilitate assessment
- a tool (visual) to help summarise main assessment findings
- a planning, monitoring and evaluation tool to facilitate yearly and multiyear planning, monitoring and evaluation.

The benchmarks matrix suggests for each of the six HS components, a series of conditions, referred to as benchmarks⁸, that should be in place in order to help attain a sustainable level of IMSAM into the health system (see Table 1 for an overview). Programme staff must take these into account when planning, implementing, monitoring, and evaluating IMSAM. The benchmarks matrix has three levels as planning, implementing, monitoring, and evaluating are approached differently at national, sub-national/district or community level.

The benchmark matrix can be used vertically by one of the three implementation levels (national, sub-national/district, and community) or horizontally by HS function, expressed under the six building blocks (governance, financing, human resources, supply, service delivery and health information system).

The way the benchmark matrix is used depends on national or local priorities, identified by all relevant stakeholders, especially by government services responsible and/or closely involved in CMAM. This flexible use should support CMAM programme managers in defining IMSAM technical and financial inputs in health sector audits, programmatic and financial reviews and sectoral reforms. For example, if stakeholders agree that the objective is to assess human resources (HR) for IMSAM, because investment

in HRs for the health sector is planned, the assessors can single out the benchmarks for the HR component (see Figure 1 for an example). Meanwhile the community component can be looked at, for example, in preparation for community health policy development discussions or just for regular yearly, or multi-year, planning or evaluation purposes.

Framework in practice

At this stage of development of the approach, the benchmarks are grouped per level and per HS function on excel sheets (as reflected in Figure 1).

Each level of planning and implementation (national, sub-national/district, community) corresponds to one excel sheet. On each sheet, the first column corresponds to a HS function and its sub-division (see Figure 2). The second column gives the benchmarks/conditions list followed by a column on guidance, if any.

Different assessors can assess each benchmark/condition separately according to a range of provided possible scenarios (expressed in columns: highly adequate, adequate, present but not adequate, not adequate at all). This allows for objective and quantitative rating compared to the benchmark/condition for integration.

A column for comments is included, so assessors can add qualitative comments in addition to the rating, explaining why/how/when. The next column will capture the data sources, followed by the score from interviewees and their names.

The last column will indicate the average score, reflected in the visual tool (see Figure 3).

As obvious from this description, the final results depend entirely on the opinion of assessors. It is therefore essential to include all relevant stakeholders. Ideally, these are HS

⁸ Also called golden standards by the WHO/Health matrix

Figure 1: district benchmark assessment work sheet for planning part of Human Resources (HR) HS function

Functions	Benchmarks	Guidance	Highly adequate	Adequate	Present but not adequate	Not adequate at all	Rationale/ Comments: NA or If not adequate, why?	Data source	Response from interviewees			Average
			3	2	1	0			Name 1	Name 2	Name 3	
HR												
9. Planning	9.1 Health care professionals distribution in urban and rural areas balanced		YES, highly adequate	YES, adequate	YES, partially adequate	NO, not adequate						
	9.2 Human resources data system set up		YES, the system exists and is used regularly	YES, the system exists but is seldom used	YES the system exists but it is never used	NO, no system						
	9.3 Comprehensive human-resource strategy for MNCHN initiated	including a HR planning system	YES, the strategy exists, it's comprehensive and implemented	YES, the strategy exists and implemented but not comprehensive	YES, the strategy exists, it's comprehensive but not implemented	NO, no HR strategy						
	9.4 Facilities have adequate numbers of staff and it exists scale up and down of staff according to the season and livelihood zones	At least 90% of staff are in place	YES, Staff is in place and scale up & down exists	YES, staff are in place but scale up & down are rare	YES, the position exist but is not filled	NO, no adequate staff						
	9.5 Special budget dedicated to HR		YES, it exists with adequate resources	YES, it exists but without adequate resources	YES, it exists but not used	NO, no special budget						
	9.6 Job classification system created		YES, the system exists and is functional	YES, the system exists and is functional but partially	YES, the system exists but is not functional	NO, no system						

specialists, CMAM programme managers, M&E specialists, technical and financial partners, etc. Given the importance of including the right people in the assessment, a mapping of actors prior to the assessment is advised (see below). This will limit the risk of biased results.

Using results of the assessment, the feasibility of addressing the identified gaps can be analysed using the planning tool. This planning tool can be used to facilitate comparison of the target result, also present in the benchmarks matrix as the benchmark or condition, with the existing situation, or identified gap (See Figure 4 for an example). Weaknesses, barriers to change and opportunities are identified, interventions proposed and budget and timelines defined. Once this analysis is completed, proposed actions, timeline, cost, etc. can be put together in a yearly or multiyear action plan. Progress on implementation of the action plan can then be monitored on a regular basis.

Suggested process for use of the framework

At this stage of development of the tool, four steps are suggested. They are composed of:

Step 1: Pre-assessment

As indicated, the framework needs to fit context specific needs. During the pre-assessment step, all country specific details will be agreed. These include: a) identification/ mapping of all relevant stakeholders to be invited to support assessment (government services, donors, CMAM partners, etc.), b) agreement of the scope, time frame, budget and dates of the assessment, c) identification of IMSAM and health systems data sources and documents, listing of identified gaps as well as health system strengthening interventions, etc.

Step 2: Assessment using benchmark matrix

This step starts with a literature review of all relevant documents. These can be HR policies, M&E tools used, data collected from facilities, facility registers, quality supervision reports, administrative and budget documents, supply registration lists, review of training curricula, client exit interviews reports, etc. The benchmark matrix is then filled out by different stakeholders or assessors.

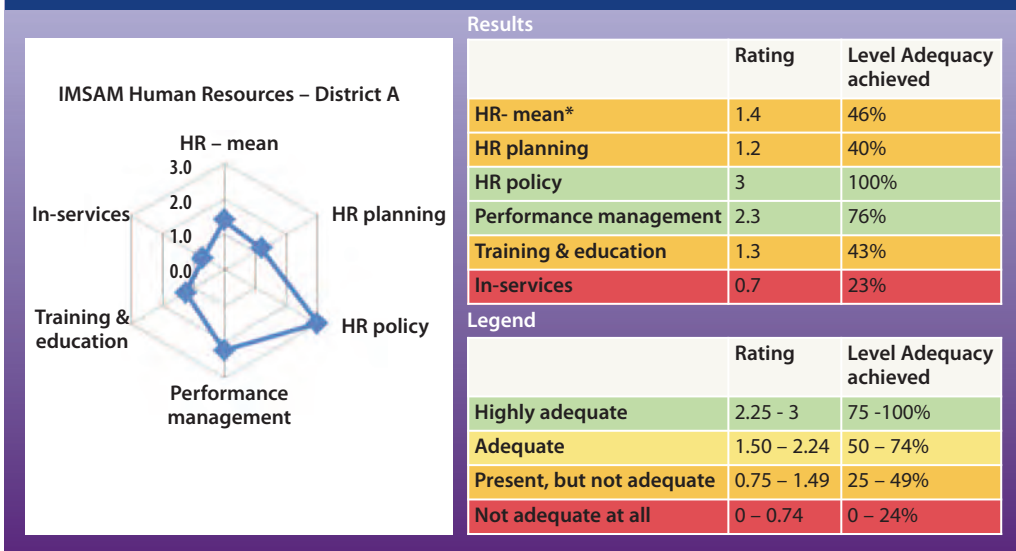
It is important to note that this is a self-assessment (important for stakeholders, especially MoH, ownership) undertaken by a group of experts. It is advised to organise group work in a way that the assessors only assess the benchmarks, or conditions, they are expert on. This also helps keep duration of assessment to a minimum, as different groups can work simultaneously. After the group work, the different results will be brought together and discussed as explained in Step 3.

When available information is insufficient, key informant interviews, e.g. health system users, can be organised in order to complete the assessment. In addition, site visits are highly



A woman feeds a child a ready-to-use food as part of a UNICEF-supported nutrition programme in Jowhar Camp, Somalia

Figure 3: Example of visualisation tool with summary of results: IMSAM Human Resources – District level assessment results



*Average for all HR section results

recommended as they allow direct observation of most of the service delivery components (e.g. facility registers, daily availability of services, stock-out, reports....) and therefore reduce the bias in the scoring.

Step 3: Analysis and validation

During the consensus building meeting, the average rating for each condition is given, visualised and results are reviewed. The presentations and final assessment report should include rating and summary of comments, as rating alone cannot capture all aspects of the conditions. For example, the condition could be present but supported 100% by NGOs and therefore not sustainable.

Steps 1 to 3 are closely linked and implemented during the same exercise, while Step 4 can be organised at a different moment after analysis of assessment results.

Step 4: Development of multi-year and yearly action plan

Starting from the identified gaps (conditions that are not fulfilled, benchmarks not reached), the stakeholders will analyse which

gaps they want to address, how these gaps will be addressed and within which time frame using the planning tool (shared earlier in Figure 4). This will be captured in the corresponding action plan. From this exercise, yearly and multi-year action plans can be defined, including a corresponding monitoring and evaluation approach.

Stakeholders can decide to repeat all steps or parts on a yearly or multi-year basis as part of monitoring, evaluation and planning of national CMAM programmes.

Expected results

The process is expected to facilitate national ownership, commitment and sustained adequate investment in the management of acute severe malnutrition and to provide a standardised approach for identification of bottlenecks in scaling up of IMSAM across countries. Even, if the approach is meant to be standardised, countries should adapt the framework to their context.

This approach will allow for development of yearly and multi-year costed actions plans

Figure 4: Example of Planning tool: HR function at community level

Level	HS function	Target Result (benchmark)	Weakness current result	Threat/ Barriers to changing result	Opportunities for change/ enabling factors	Objective /expected results	Proposed intervention to address change	Impact on other MNCH programme & HS Performance	Feasibility	Timeline/ implementation speed	Human Resources needed	Cost
Community	HR	Clear written ToR for CHW	Oral ToR	Staff turnover Lack of literate staff	National guideline exist	100% of CHWs have signed a JD	- CHW supervisor to write ToR - DMO to standardise ToR according to national guideline	- Standardisation among CHWs - Integration with iCCM HR performance	yes	Year 1	- 90% CHWs position staffed	Budget: xx USD

TOR: Terms of reference CHW: Community Health Workers JD: Job description DMO: District Medical Officer iCCM: Intergrated Community Case Management



MUAC measurement of a child in Jowhar Camp for displaced people in the city of Jowhar, Somalia

UNICEF/NVHQ/2009-0203/Yeniburg, Somalia, 2009

Partnerships

In addition, to UNICEF ESARO, other organisations are also in the process of developing approaches and models to facilitate integration of management of acute malnutrition into the health system. Linkages between these initiatives need to be developed and defined in order to avoid duplication and create complementarity.

HS 'thinking'

Introduction of the management of acute malnutrition influences overall performance of the health system. Therefore, ideally a health systems thinking approach should be applied in the proposed approach. However, this raises questions about the complexity of the tool, how to assess and address impact on health system functioning, etc. What level of complexity is acceptable for a framework that 'endeavours' to facilitate integration by using a fairly easy and quick approach?

Expand to MAM

In developing the framework it was agreed to limit the approach to the management of SAM. Expanding the tool at this initial stage to other nutrition interventions, and especially management of MAM, may have delayed the process and complicated its development. However, management of MAM must be included in the framework as soon as possible. This will definitely require active participation of additional partners (e.g. WFP and implementing NGO's).

Next steps

Three major immediate next steps have been identified: finalise field testing and tools, create a Technical Advisory Group (TAG) to discuss identified issues and organisation of a face-to-face meeting with regional and global stakeholders in order to reach consensus on aspects of concern and decide on ways forward, including roll out.

Once tools are finalised and countries introduced to their use, the same or a similar approach could be developed for all other nutrition interventions that need sustained integration into HS and/or linkages with IMSAM.

A regional and global database could be set up to capture information on progress on integration of CMAM into the health system. The same M&E system would also allow for follow up on quality and coverage of services.

Conclusions

Although only one test of the framework has been conducted so far (district level in Kenya), the approach looks very promising. The results of this first trial exceeded anticipated outcome, as the approach and content of the benchmark were indicated to be relevant and widely accepted. The test mainly helped in fine-tuning the process. Additional testing will take place over the coming months. This will allow testing the framework in different contexts and using different components. The framework, including manuals and operational guidelines, is expected to be ready for roll out mid-2013.

The authors look forward to continued exchanges, including a larger group of HS and CMAM specialists engaging in the process.

For more information or to engage with this initiative, contact: Katrien Ghooos, email: kghooos@unicef.org, or Anne Berton-Rafael, email: abrafael@unicef.org

and measuring baseline and tracking progress on IMSAM at the three HS planning and implementation levels (national, district and community level) and for the six HS functions (governance, financing, human resources, supply, service delivery and health information system) for each country, but also per region and even globally. This will enhance country level, regional and global analysis, enable quicker and tailor-made support to countries, improve documentation of lessons learned and facilitate advocacy at the different levels.

In addition, countries will be able to expand existing HS contacts to include relevant nutrition services in a systematic manner. For example, given HIV AIDS is an important cause of wasting in Zimbabwe, management of acute malnutrition is ideally linked to Preventing Mother-to-Child Transmission (PMTCT) services and promotion of optimal IYCF practices, as optimal IYCF practices are known to prevent mother to child transmission. This integrated approach will increase coverage of management of acute severe malnutrition but also improve quality of delivered PMTCT services overall. Ideally, linkages should exist at all HS levels and for all HS functions. These include, for example, that costed IMSAM action plans are linked with health sector development plans and Mid Term Expenditure Framework, indicators for measuring CMAM are included in the Health Management Information System, capacity development for CMAM is part of health sector HR development plan or policy, and supply for IMSAM is planned and implemented through the existing HS supply chain.

Ultimately, the approach can be adapted to include management of moderate acute malnutrition, IYCF, micronutrient supplementation or any other nutrition intervention that can be delivered through the health system.

Lessons learned so far

The approach is participatory and inclusive. Through the self-assessment, all partners are actively involved in sharing of experiences and information. This is believed to enhance understanding of importance of IMSAM, improve overall quality of assessment, reinforce ownership and encourage further collaboration.

Despite the long benchmarks list, the approach is not too ambitious. Depending on available information, the assessment can be conducted in one week. By going through the list, stakeholders realise that more areas can qualify for integration than considered initially. In addition, they may discover documents and policies they were not aware of prior to the exercise.

The composition of the assessors team is crucially important. The presence of health system specialists or health system strengthening specialists is essential. It is necessary to get all key stakeholders fully on board. Therefore, in addition to the initial identification/mapping of stakeholders, preparation meetings with these key stakeholders and follow up discussions are useful.

The appointment of a facilitator and co-facilitator, familiar with the health system and context, is essential to correctly adapt the framework to the local context, to increase ownership and to translate benchmarks to local context whenever needed.

Some of the benchmarks at sub-national/district or community level directly depend on benchmarks at national level. It may therefore be helpful to conduct national level assessment prior to any other level, or a HS function assessment.

The main limits of the tool are the quality of the data available and the composition of groups of assessors, as indicated earlier. Other aspects to take into account are the different areas covered by the tool. Indeed, not all participants are familiar with all components. In that case, the creation of sub-groups can be useful. Hierarchical and other links between the different participants need to be considered when establishing the groups.

The assessment and planning exercises should be planned and conducted separately.

Issues being addressed

Terminology

Different terminologies are used by different actors and usage varies between countries. Clarification at global level is needed definitions for terms like coverage, prevalence, incidence and CMAM, but also for the different performance indicators

Integration of the management of severe acute malnutrition in health systems: ACF Guidance

By Rebecca Brown and Anne-Dominique Israel

Rebecca Brown is Strategic Technical Adviser with ACF Paris

Anne-Dominique is Senior Nutrition Adviser with ACF Paris

The management of severe acute malnutrition (SAM) has improved substantially in recent years. However, despite these improvements coverage remains shockingly low. There has been a realisation that treatment can only be achieved at scale by ensuring the availability of and access to treatment at all levels of the health system and community (task shifting).

In most contexts, and outside of nutritional emergency situations, a direct non-governmental organisation (NGO) intervention approach is no longer feasible or appropriate. Awareness of the need to tackle SAM in non-emergency contexts and to integrate this within existing health services is increasing. In many countries, programmes to treat SAM now fall under the responsibility and leadership of the Ministry of Health (MoH) and its sub-national authorities. This facilitates the treatment of SAM within the system as part of a basic healthcare package.

This new approach implies that stakeholders, particularly previous direct implementers such as NGOs, must adapt their way of working to achieve proper integration of the management of acute malnutrition. For NGOs, this has meant a fundamental shift in approach, from direct implementation and often running CMAM programmes in parallel to health ministries, to supporting the health sector at every level in managing all aspects of acute malnutrition. For example, a project to document Action Contre la Faim (ACF) International's programmes found that in 2011, 80% of ACF missions were supporting the MoH in integrating CMAM. Five years previous, the exact inverse was the case with around 80% of CMAM programmes implemented directly by ACF.

Despite the recognition of the importance of switching to a more horizontal and long term approach, implementing agencies that specialise in acute malnutrition management are still often struggling to make this happen. Various adaptations need to be made to how CMAM programmes are managed and funded, in order to move towards programming embedded in national government systems. For example, NGOs with a history of direct intervention in SAM management now need to review staff skills, i.e. the type of skills required to take a more 'hands-off' approach that focuses on training, capacity building and supporting health workers and community-level agents. Good skills in negotiation, training and mentoring are

now required, as well as a credible medical or nutritional training and experience in the management of SAM; skills in service delivery alone are no longer sufficient. Moreover, NGO staff are now often physically located within the health system (at regional or district MOH offices, for example) to foster stronger working links and to ensure MOH ownership and leadership of the CMAM integration process; these staff need to have some understanding of how the health system works. There is still a serious gap between health professionals dealing with mother and child health and those dealing with nutrition issues. In the past, international NGO (INGO) staff lacked experience of working within and trying to strengthen national health systems. INGOs lacked the institutional culture and instincts needed for this.

As CMAM is scaled up, full integration through health system strengthening has still not taken place. One of the most important challenges identified in recent months is the capacity of all the partners to truly understand and plan integration within health systems that must first be strengthened. The need to mitigate potential adverse effects of CMAM intervention on a weak health system has so far not been adequately addressed. Health system strengthening strategies based on systematic approaches have not been supported sufficiently. There is vast room for improvement in this field. Even at the CMAM Conference in Addis Ababa, although all participants claimed that CMAM should not be implemented as a vertical approach (and where for the first time, WHO's six building blocks of Health Systems (HS) were mentioned), the challenges faced by government, UN agencies and international NGOs to increase access to treatment were still discussed outside this context. For example, the delivery of drugs and RUTF were not considered within the context of structural recurrent supply chain problems (one of the HS building blocks) but rather as a CMAM integration problem. Locating CMAM scale up within the HS approach is, we feel, the way to go.

In order to underpin this institutional and cultural shift in approach we believe that there is a need to develop concrete operational guidance. The soon to be published *ACF Guidance on integration of the management of severe acute malnutrition in health systems*¹ (see Box 1) aims to identify all areas where ACF and other implementing partners have to develop and further professionalise. For example, there is one chapter dedicated to development of advoca-

Box 1: Outline of ACF Integration Guidance

The ACF guide consists of 11 chapters. Although the chapters can be consulted separately as standalone chapters, they are intended to flow in a logical manner, following the different stages of the integration process

Chapter 1: CMAM background and basics

Chapter 2: Scenarios for integrating MSAM into National Health Systems

Chapter 3: Stakeholder Analysis.

Chapter 4: Health Systems strengthening

Chapter 5: Enabling and Constraining Factors for integration of SAM management

Chapter 6: The Development of National Strategic Documents

This chapter makes particular reference to National Nutrition Policy, nutrition action plans and CMAM guidelines and examines how a supporting partner can be involved in this process

Chapter 7: Advocacy for the integration of SAM management

Chapter 8: Organisation and planning for the integration of SAM management

Chapter 9: Community aspects of integration of SAM management.

Chapter 10: Capacity Development and Human Resources.

This chapter examines definitions of capacity development, capacity development needs for the integration of SAM management into government health systems and the role of INGOs. There is a focus on human resource needs. The chapter also includes a section on contingency planning and emergency responses and the issues to consider to ensure capacity to respond to increased caseloads of SAM.

Chapter 11: Monitoring, evaluating and reporting on integrated CMAM programmes

This chapter gives an overview of current national level health and nutrition data collection and monitoring systems, and considers the needs in relation to monitoring and evaluation of the integration of SAM management process.

cy strategies involving two essential aspects of CMAM integration strategies: funding mechanisms and MoH leadership. Long-term funding for nutrition programmes is vital as short-term emergency-type funding is no longer appropriate. Funding must take into account slower programme set-up, the need for assistance with policy and protocol development and implementation and staff capacity building, as well as community sensitisation and mobilisation in advance of beginning programme activities. In order to achieve successful CMAM integration, it is also essential that the process is owned at all levels within the MoH. There should be MoH commitment to a long-term strategy that includes CMAM as part of pre- and in-service training.

¹ Main authors: Alice Schmidt, Rebecca Brown and Mary Corbett. Chapter contributions from: Anne-Dominique Israel, Saul Guerrero and Yvonne Grellety.

En-net update, March-May 2012



By Tamsin Walters, en-net moderator

en-net

Thirty-six questions were posted on en-net in the three months March to May inclusive, eliciting 176 replies. In addition 25 job vacancies were posted.

Recent discussions have included: Mid Upper Arm Circumference (MUAC) changes in pregnancy and ongoing research into what are the most appropriate thresholds to use for pregnant and lactating mothers in programmes to treat acute malnutrition and how they correlate with adverse outcomes, dilemmas of whether to use weight-for-height or MUAC to diagnose acute malnutrition and the potential biases of the two measures in different population groups, the challenges inherent in attempting causal analyses of acute malnutrition, and considerations of how to continue to promote breastfeeding in community-based management of acute malnutrition (CMAM) programmes.

An interesting discussion arose from a situation in Somalia where reports came in of mothers "starving" their children in order to benefit from nutritional treatment and a protection ration being provided alongside programmes to treat acute malnutrition. This is not an unfamiliar scenario and has been reported in several countries, with greater or less emphasis, in many programmes implemented in crisis situations. The Nutrition Cluster in Somalia is trying to gather further evidence to establish how significant and widespread the problem is. Meanwhile, performance monitoring data from one programme in Somalia has shown an increase in relapses in the last three months from 8% to 17%, which could be linked to the same issue. Suggestions and solutions were sought on how to address this situation.

Discussants advised enhancing community mobilisation and counselling for both mothers and fathers, as well as engaging other influential community leaders. Contributors cited successful examples of both individual counselling as well as group discussions in programmes in Uganda, South Sudan, Ethiopia, Niger, Haiti and Bangladesh.

Despite these examples of successful approaches to address the immediate issues, it was agreed that 'starving' of children was most likely symptomatic of a much greater underlying problem of food insecurity. "These are usually decisions made under conditions of real stress which aid workers, agencies, donors and planners have never personally faced and often to not consider".

A situation where people are taking such desperate measures to access basic commodities suggests a large unmet need in terms of general rations and basic household food needs. It is a survival strategy for the family.

Excerpts from a letter from Nelson Mandela on World Food Day, September 2004, was quoted to bring home the real issues people are facing and the decisions they are making in such situations:

"Hunger is an aberration of the civilized world... Families are torn asunder by the question of who will eat. As global citizens, we must free children from the nightmare of poverty and abuse and deprivation. We must protect parents from the horrifying dilemma of choosing who will live."

The discussion concluded with a consensus that mothers should never be shamed or punished in nutrition programmes, but efforts should be made to understand and help them. Mothers do not harm their children unthinkingly; they are facing desperate life and death decisions for their families. Our work is to try to understand and respect the reality of their day to day lives and adjust our programmes accordingly to meet their needs.

To view the full discussion, go to

<http://www.en-net.org.uk/question/717.aspx>

To join any discussion on en-net, share your experience or post a question, visit www.en-net.org.uk

Contributions from Fortune Maduma, Martha N, Peris Mwaura, Yara Sfeir, Chantal Autotte Bouchard, Mark Myatt, Leo Anesu Matunga, Alex Mokori, Michael Golden, Nikki Blackwell and others.



MAMI-2 research prioritization – call for collaborators

In January 2010, the report of 'The Management of Acute Malnutrition in Infants aged <6 months' (the MAMI project)¹ was released. Key findings included:

- Large numbers of affected infants worldwide: an estimated 3.8 million severely wasted and 4.5 million moderately wasted (WHZ <-3 and ≥-3 to <-2 respectively, WHO Standards).²
- Higher mortality among infants <6m compared to children in the same treatment programmes – but no clear evidence as to how much of this might be avoidable with different treatments.
- Country guidelines focused on inpatient-based treatment for infants <6 months – in stark contrast to 'Community Management of Acute Malnutrition' for older children.

Thanks to a wide network of collaborators and supporters, the MAMI Project (MAMI-1) has already achieved one of its strategic goals: highlighting the need to tackle severe acute malnutrition (SAM) in infants <6 months. Thus, whilst previous WHO guidelines hardly mention this group, they are considered in forthcoming guidelines arising from a WHO Nutrition Guidance Expert Advisory Group (NUGAG) consultation in February 2012. This is a significant step forward. However, given current paucity of evidence as to what works for this vulnerable patient group, MAMI-1's call for more published data and evidence is all the more urgent. Follow-up work, a MAMI-2, is needed. The ENN, UCL and ACF, as the original MAMI-1 core partners, are working to realise this.

As a first critical step, given the many unanswered questions around SAM in infants <6m, it is important to prioritise those with greatest potential impact on improving outcomes. The Child Health and Nutrition Research Initiative (CHNRI)³ has developed a methodology that allows systematic listing and transparent scoring of many competing research options, thus exposing their strengths and weaknesses. This has been successfully applied to many topics ranging from diarrhoeal disease to preterm birth and stillbirth⁴.

Over July and August 2012, we will be applying the CHNRI framework to MAMI. The intended output is a peer-reviewed paper in which all possible questions will be ranked and discussed. This can be used as a key reference to generate dialogue, policy, and also help agencies apply for both programme and research funding on the theme.

We need your help to:

- Refine or add to an established long list of research questions. These will be grouped under three broad headings: (i) health systems and policy research, (ii) epidemiological research, (iii) technical research to develop new interventions or improve existing ones
- Score the research questions according to (i) ease of being answered, (ii) effectiveness, (iii) deliverability, (iv) maximum potential for disease burden reduction, and (v) predicted impact on equity in the population.

All those returning a completed ranking (minimal time input required – a lunch break amusement!) will be named as MAMI group authors⁵.

If you would like to take part in the research prioritisation exercise, please contact us at: mami.project.contact@gmail.com We also welcome dialogue with individuals and agencies wishing to become more closely involved in MAMI-2 efforts.

Please share information about this initiative with colleagues, including those in other relevant sectors such as reproductive health, psychosocial health, neonatal health, etc.

We look forward to hearing from you!

Contact: Marko Kerac (UCL),

email: marko.kerac@gmail.com and, Marie McGrath (ENN),

email: marie@ennonline.net

¹ <http://www.ennonline.net/research/mami>

² <http://adc.bmj.com/content/96/11/1008.full.pdf>

³ <http://www.chnri.org/>

⁴ <http://www.chnri.org/publications.php>

⁵ e.g. in the same way as "Blantyre Working Group" authors on this paper

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(08\)60565-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(08)60565-6/fulltext)

Conference on Government experiences of CMAM scale-up



In November 2011, ENN, in collaboration with the Government of Ethiopia (GoE) hosted a 4-day conference in Addis Ababa at which Government representatives from 22 countries in Africa and Asia, as well as members of international non-governmental organisations (NGOs), UN agencies, the private sector, academic institutions and donor agencies came together to share experiences and to identify lessons for further future CMAM scale up. The conference was the first international occasion for Governments to be at the forefront of sharing their lessons of CMAM scale up and as such, provided a unique and rich insight into the achievements and obstacles Governments face in addressing high levels of acute malnutrition in their countries.

Case study countries:

Ethiopia, Pakistan, Niger, Somalia, Kenya, Ghana, Sierra Leone, Malawi, Mozambique.

Special case:

India

Additional countries:

Nepal, Afghanistan, Bangladesh, Cambodia, South Sudan, Sudan, Zambia, Uganda, Nigeria, Zimbabwe, Liberia, Tanzania.

The conference and the participation of Government representatives was made possible with financial support from the Canadian International Development Agency (CIDA), the UK Department for International Development (DFID) and Irish Aid (IA).

The goal of the conference was to provide a learning forum for Government representatives on CMAM scale-up, to identify enabling factors and processes which allow successful scale up, and the challenges that hinder scale up. The conference focused on the policy environment, coordination, technical and supply considerations as well as the funding mechanisms that are required to establish, expand and sustain CMAM service provision at national level.

The conference was opened by His Excellency, Dr Kebede Worku, State Minister for Health, Government of Ethiopia. Her Excellency Michelle Levesque, Ambassador to Canada, welcomed delegates on behalf of CIDA, DFID and Irish Aid. Her Excellency identified that there is a need for commitment to scale up interventions shown to be effective at tackling undernutrition. His Excellency Dr Michael Hissen, Minister of Health for South Sudan, and Her Excellency Dr. Nadeera Hayat Burhani, Deputy Minister of Public Health, Islamic Republic of Afghanistan, made a few opening comments, underscoring the importance of Government leadership in the successful management of undernutrition (see her profile in this issue of Field Exchange). Both also highlighted the value of cross-country learning for the development of CMAM, as well as their commitment to strengthening programmes to address undernutrition in their countries.

A video address was made by Dr Mary Robinson, President of the Mary Robinson Foundation - Climate Justice (MRFCJ) (Day 2) and a motivational address from Haile Gebrselassie, the Ethiopian athletic legend, was very well received on Day 3. A short CMAM film compiled for the conference provided a snapshot of CMAM in action, featuring collated video footage and interviews from many of those countries represented.

The first one and a half days of the conference provided the opportunity to learn about and reflect upon country experiences with CMAM. Following an orientation to the CMAM approach, nine Government representatives presented an overview of CMAM scale up in their countries, based on detailed case studies prepared in advance of the event (see field articles in this issue of Field Exchange). The remaining 12 country delegations were also given the opportunity to provide a brief overview of CMAM in their contexts. In addition, Biraj Patnaik (Principal Adviser, Office of the Indian Supreme Court Commissioners on the Right to Food) presented the unique experi-

ences of CMAM in India. Time was provided between presentations for questions from conference delegates and these discussions helped link with the next stage of the conference, which involved a synthesis of lessons learned to date regarding CMAM scale up (see editorial summary in this issue).

Day 3 of the conference was dedicated to working group discussions aimed at drawing conclusions and identifying the next steps for CMAM scale up. The final day provided the opportunity for conference delegates to consider the findings of the CMAM experiences in the context of the Scaling Up Nutrition (SUN) Movement and the implications of the SUN Framework for Action for CMAM scale up.

The conference concluded with the development of specific action points for each of the 22 country delegations and for the donor group. Delegates were grouped according to country, with representatives from the NGO, UN, academic, donor and private sector joining the most relevant groups. Each country was asked to develop a number of points arising from the conference that they will put into action in the coming months.

The ENN is currently undertaking a follow up with attendees regarding actions emerging from the conference that will be shared online and in a future edition of Field Exchange.

The report of the conference is available at www.ennonline.net

A limited number of print copies are available, send requests to: office@ennonline.net
Film footage of the conference can be viewed or downloaded from www.cmamconference2011.org and on DVD (send requests to office@ennonline.net)



Nutrition Exchange 2012 (formerly Field Exchange Digest) now available



Nutrition Exchange is an ENN publication that offers a digested read of experiences and learning in nutrition from challenging contexts around the world for a national audience. Nutrition Exchange was developed to improve country level access to information, guidance and news on nutrition programming and policy for those working in nutrition and related fields.

Nutrition Exchange provides concise, easy-to-read summaries of articles previously published in Field Exchange, as well as original content from a variety of

challenging contexts. It also includes key articles, updated information on references, guidelines, tools, training and events. It is available in English, French and Arabic.

It is a free annual publication available as a hard copy (limited numbers) and electronically. In between publications, the Nutrition Exchange team at ENN will send periodic emails to our readers to keep you in touch with new information and issues arising in our sectors.

Why the name change?

Feedback on the first publication of Field Exchange Digest suggested that the name was too closely linked to Field Exchange. While this new publication

draws from Field Exchange, its aim is to focus on a broader range of nutrition issues in all contexts. Nutrition Exchange has been selected to replace Field Exchange Digest. It is hoped that 'Nutrition Exchange' more accurately describes this independent publication while acknowledging the obvious link with Field Exchange.

To subscribe, contribute or provide feedback on Nutrition Exchange, visit <http://www.ennonline.net/nutritionexchange> or email: nutritionexchange@ennonline.net

You can access online versions of both Nutrition Exchange and Field Exchange at: www.ennonline.net

CMAM Forum Update

Community-based management of acute malnutrition¹ (CMAM) has been adopted by over 60 countries² (as of December 2011), to help combat acute malnutrition in children under five years and reduce childhood mortality. The expansion of the CMAM approach into a variety of contexts, and the escalating demand to consolidate and share CMAM data and experiences, has created the need for a clear, accessible mechanism to facilitate information sharing. Many governments and other stakeholders share similar challenges regarding the quality of CMAM implementation and scale-up of services but are not always successful in capitalising on lessons learned within and among countries or agencies, making it difficult to move forward to achieve greater impact in a coordinated and effective manner. There has been a 'patchwork' of initiatives relating to information-sharing on the management of acute malnutrition, with no overall 'umbrella' initiative to bring these groups together and facilitate progress in a coherent manner.

In response to this need, a group of experts have collaborated in the creation of a CMAM Forum over the past year. The CMAM Forum aims to improve health outcomes of vulnerable populations through the provision of a robust information-sharing mechanism which expands the knowledge-base of management of acute malnutrition to help support implementation and monitoring of CMAM activities. CMAM Forum users are anticipated to be from a range of health and nutrition sectors with strong national representation. The Forum aims to be especially practical for those implementing programmes.

The CMAM Forum development has a phased approach where in Phase One, the working modalities were explored and foundations built and during Phase Two, the CMAM Forum activities are being rolled out (pending funding). Phase One started in September 2011 with funding from UNICEF and Action Contre la Faim France (ACF-F). Two co-facilitators, seconded from ACF-F and Valid International, were appointed to lead the activities. A steering committee has been established with technical experts³ to help guide activities.

A website has been developed and just launched at www.cmamforum.org. In addition to general resources, the website includes sections on training, advocacy and research and monthly 'Technical Briefs' to summarise current topics pertinent to CMAM. Wherever possible, the Forum will create linkages and improve access to relevant initiatives and resources, rather than duplicate them.

If you would like further information or to share any resources relevant to the management of acute malnutrition, please contact: cmamforum@gmail.com

¹ Community-Based Management of Acute Malnutrition (CMAM) includes community outreach for community involvement and early detection and referral of cases of acute malnutrition, and follow up of problem cases in their homes, management of severe acute malnutrition (SAM) in outpatient care for children 6-59 months with SAM without medical complications, the management of SAM in inpatient care for children 6-59 months with SAM and medical complications and children under 6 months with acute malnutrition, and the management of moderate acute malnutrition (MAM) for children 6-59 months. CMAM is also known as Integrated Management of Acute Malnutrition (IMAM) or Community-based Therapeutic Care (CTC).

² UNICEF Global SAM Treatment Update-2011, May 2012
Steering Committee members are from ACF-F, Concern Worldwide, Emergency Nutrition Network (ENN), Food and Agriculture Organisation (FAO), Food and Nutrition Technical Assistance II and III Projects (FANTA), IASC GNC, International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), International Malnutrition Task Force (IMTF), Ministry of Health country representatives, Save the Children UK, UNICEF, United Nations Systems Standing Committee on Nutrition (UNSCN), Valid International, World Food Programme (WFP), World Health Organization (WHO).

FANTA-2 reviews of national experiences of CMAM

In 2010 and 2011, FANTA-2 conducted a series of reviews of community based management of acute malnutrition in Mauritania, Burkino Faso, Mali, Niger, Sudan and Ghana. The reviews involved document review and field trips. Areas of focus for Mauritania, Burkino Faso, Mali and Niger included CMAM integration into the health system and into other relevant health and nutrition initiatives, CMAM scale up plans and activities (national and sub-national), capacity development, and successes and lessons learned to inform strategy development and programming.

In Sudan, community outreach experiences and strategy development for CMAM was the particular focus.

In Ghana, on the request of the SAM Severe Acute Malnutrition Support Unit (SAM SU) of the Ghana Health Service (GHS), FANTA conducted a review of CMAM activities at district and learning site level including plans for scaling up. The objectives of the review were to assess the

integration of CMAM services into the learning sites, assess learning sites' performance, review recent plans and initiatives to scale up CMAM in Ghana, and provide recommendations for strengthening those plans.

As well as individual reports for each review, a summary report of review findings in the four West African countries (Burkina Faso, Mali, Mauritania, and Niger) is available. The report discusses the key determinants for achieving maximum impact of CMAM integration, scale-up, and quality improvement. The determinants are grouped in five domains: the enabling environment for CMAM, competencies for CMAM, access to CMAM services, access to CMAM supplies, and quality of CMAM. Optimal practices, a summary of findings, constraints, and practical recommendations are provided for each key determinant.

All reports are available to download at: <http://www.fantaproject.org>

A standard for standards in humanitarian response

A new web portal has been launched recently to highlight key standards and guidance, and encourage those engaged in humanitarian response to incorporate them into their work.

Humanitarian Accountability Partnership (HAP) International, People In Aid and the Sphere Project supported by the Active Learning Network for Accountability and Performance (ALNAP) have developed this initiative to bring greater coherence amongst standards and so increase the chance of them being put into practice.

A workshop was held in May 2012 led by leaders of the Joint Standards Initiative (JSI) – HAP International, People in Aid and the Sphere Project. The JSI is working to create a coherent set of standards that can be used for small and large aid organizations involved in humanitarian response and development. The general consensus was that there is a need to consult field workers and local programme managers to determine the implementation of standards.

For more information, visit: <http://www.jointstandards.org/>



What do you think of Field Exchange?

The ENN is undertaking an evaluation of Field Exchange between June and August 2012 amongst those of you who receive it in print and access online copy. Through this evaluation, we wish to:

- Gain an insight into your use of Field Exchange
- Learn about your preference for print and online access to Field Exchange
- Hear what you think about the ENNs role and activities

We invite you all to complete the online questionnaire now available at: <http://www.surveymonkey.com/s/fexevaluation>. It should take about 20 minutes to complete and we would really appreciate that you take the time to complete it – the findings of this evaluation will be used to inform the development of Field Exchange.

The questionnaire may also be downloaded from our website and submitted by email: thom@ennonline.net

Some of you will be contacted by one of our researchers for more detailed feedback over the phone. Thanks in advance for taking the time to talk to Illyahna, Bibi or Tara.

If you have any trouble accessing the survey online and would like to feedback by phone, text us your name and number to: +44 7737 996822 or skype: thom.banks.enn

Update on Minimum Reporting Package (MRP) trainings in London and Nairobi

By Emily Mates, Nutrition Advisor, MRP, Save the Children UK



The 'Minimum Reporting Package' (MRP) has been developed to support standardised data collection for emergency Supplementary Feeding Programmes (SFPs) (see Box 1). The need for this package was identified following analysis in 2005/6 (by the Emergency Nutrition Network (ENN) and Save the Children UK) of the efficacy and effectiveness of 82 emergency SFPs implemented between 2002 and 2005. A key problem identified was that inadequate reporting standards were being followed, making it difficult to assess the efficacy of programmes without considerable re-analysis of data. An unexpected number of information gaps, inaccuracies and statistical errors were found, raising concerns over the quality of the interventions and implications, for the impact on beneficiaries, the accountability of agencies (to both donors and beneficiaries), and organisation's capacity to learn from experience.

The current phase of work (MRP rollout) is implemented by Save the Children UK and funded by ECHO to December 2012.

London ToT

Save the Children UK hosted a global training of trainers (ToT) in London in March 2012. Fourteen participants from eight international

agencies were trained in the use of the MRP tools.

Overall the MRP and accompanying software were positively received by agencies attending. Comments included:

The MRP:

"... is good and has great potential. I hope it is taken on by others (NGOs, the cluster) and can become a standard."

"... is off to a good start; (the software) is really user friendly in most aspects."

"... is an effective monitoring tool for higher level support."

The aspects of it mentioned as most useful were:

- The MRP software is able to reduce time in preparing reports.
- The user friendliness of the automatic calculation of performance indicators and graphs through the software.
- The usefulness of the harmonised reporting categories and performance indicators being standardised across agencies.

Agencies showed considerable interest in the MRP and its application at field level. All agencies present at the training announced plans to either use the MRP as their internal reporting system, or to 'feed' their internal data into the MRP centralised database, in order to contribute to the learning objective on MAM.

MRP field use and complementarity with other systems

The training initiated wider discussions on the MRP and its planned roll-out amongst agencies in 2012, with the opportunity for the MRP team to clarify issues raised by participants, for example on the MRP field use and complementarity with other systems. Whilst the focus is on emergency SFPs, indicators relevant to the collection of data from emergency therapeutic programmes that treat severe acute malnutrition (SAM) have recently been included. The development of an optional SAM module was driven by requests from NGOs who preferred to use one 'package' for reporting, where SFP was delivered as part of a 'full' CMAM programme that included both SAM and MAM treatment. Should national governments, UNICEF and other partners subsequently wish to use (or integrate) the MRP into national reporting systems, the software would need

some alteration and/or further simplification in order to fulfil this need.

Nairobi regional training

Very positive feedback on the MRP and its software was received from participants of the regional MRP training that was held in Nairobi (8th -10th May, 2012). In attendance were 15 participants from seven agencies working in Somalia, South Sudan and Ethiopia. Training is planned for June/July 2012 in Niamey, Niger, as soon as the MRP tools have been translated into French.

Additional considerations

The MRP roll-out is expected to gather pace in 2012, following the regional trainings to be held in East and West Africa and additional support from the MRP team to implementing agencies (see Box 2).

The MRP project can deliver standardised information within a short period of time, particularly for MAM programming, as long as critical stakeholders and enough implementing agencies support its application. Both the London and Nairobi trainings were well received by the implementing agencies in attendance, and were successful in training participants in the use of the MRP.

The MRP includes a specific piece of software for analysis of data. This does not rule out the use of the reporting guidelines and/or the collection and analysis of data using other software systems that have been, or will be, developed for reporting and analysis of acute malnutrition programming data

In the longer-term, the merging of MRP reporting categories within national reporting systems may prove useful. However, key to any successful merging is to ensure that systems already in place or those to be set-up have common reporting criteria and guidelines, to ensure that the data is comparable.

¹ See report at <http://www.enonline.net/research/supplementary>

² There is also an optional severe acute malnutrition (SAM) module that may be useful for programme managers to use where SFP is delivered as part of a CMAM programme.

³ The MRP project will gather SFP data from partners, using the MRP software for analysis of SFP effectiveness and efficacy (learning objective of the MRP).

⁴ Agencies attending: ACF-Spain, ACF-USA Concern Worldwide, GOAL, Islamic Relief, World Vision, WFP and Save the Children UK

⁵ Agencies attending included ACF USA, Concern Worldwide, GOAL, IMC, Islamic Relief, Save the Children, WFP

Box 1: What is the Minimum Reporting Package (MRP)?

The MRP is a monitoring and reporting tool with harmonised reporting categories, definitions and indicators for 3 different (but often joined up) programmes to treat acute malnutrition: targeted Supplementary Feeding Programme (SFP), Outpatient Therapeutic Programmes (OTP), and Stabilisation Centre (SC).

The MRP consists of three tools: user guidelines, software, and a software manual.

The MRP presents harmonised reporting categories, definitions and indicators, conforming to the revised (2011) SPHERE standards for emergency SFPs across implementing agencies and countries. The tool intends to improve SFP programme management decisions, accountability and learning for moderate acute malnutrition (MAM) management as there is strong consensus for the urgent need for this learning across the international and governmental nutrition community.

Box 2: Support services the MRP team* will provide for implementing agencies in 2012

- Regional ToT trainings for country level staff starting in May 2012
- Helpdesk for agencies for all questions around the MRP and use of the software
- Development of distance learning tool (e-learning) to complement the MRP User guidelines, the MRP software manual and the MRP software
- Translation of MRP tools into French

*The SC-UK MRP team comprises of three technical experts led by Emily Mates.

EUROPEAN COMMISSION



Humanitarian Aid

The European Commission's Humanitarian Aid department funds relief operations for victims of natural disasters and conflicts outside the European Union. Aid is channelled impartially, straight to people in need, regardless of their race, ethnic group, religion, gender, age, nationality or political affiliation.

This article has been produced with the financial assistance of the European Commission. The views expressed herein should not be taken, in any way, to reflect the official opinion of the European Commission.



Dr Baseer Khan Achakzai/National Institute of Health, Pakistan.

Scaling up CMAM in the wake of 2010 floods in Pakistan

By Dr. M. Suleman Qazi



Dr. Qazi was engaged by the ENN to capture the lessons from Pakistan on CMAM scale up. Dr Qazi is a medical graduate with a post graduate degree in Health Policy and Management. He has worked as a nutrition consultant for the past few years with the government and non-governmental organisations. His expertise and areas of interest range from policy to practice with a special focus on research, training and policy advocacy.

The author is grateful to Dr. Baseer Khan Achakzai, National Nutrition Focal Person, National Institute of Health, Islamabad, Pakistan, (Presently Director, National Disaster Management Authority, Ministry of Climate Change, Government of Pakistan) for his overall guidance and support in identifying and accessing the information rich sources and organising the field visit for the interviews. Thanks are due to the respondents for generously giving valuable time for in-depth interviews despite their busy schedules in the holy month of Ramadan (a list of interviewees is included at the end of this article). My special thanks to Ms. Emily Mates and other colleagues at ENN, for their follow up and enthusiasm in developing this case study.

BCC	Behaviour Change Communication	KP	Khyber Pakhtunkhwa
BHU	Basic Health Unit	LHW	Lady Health Worker
CBO	Community Based Organisation	MDGs	Millennium Development Goals
CMAM	Community-based Management of Acute Malnutrition	MICS	Multiple Indicator Cluster Survey
CMW	Community Midwife	MoH	Ministry of Health
DEWS	Disease Early Warning System	NDMA	National Disaster Management Authority
DoH	Department of Health	NGO	Non-Government Organisation
DHIS	District Health Information System	NNS	National Nutrition Survey
EDO	Executive District Officer	NWFP	North Western Frontier Province
ENN	Emergency Nutrition Network	OTP	Outpatient Therapeutic Programme
EPI	Expanded Program on Immunization	PC1	Planning Commission Performa 1
FATA	Federally Administered Tribal Areas	PDHS	Pakistan Demographic and Health Survey
FLCF	First Level Care Facility	PDMA	Provincial Disaster Management Authority
FP	Family Planning	PHC	Primary Health Care
GAM	Global Acute Malnutrition	PPHI	People's Primary Healthcare Initiative
GDP	Gross Domestic Product	PPP	Public Private Partnerships
GOP	Government of Pakistan	RHC	Rural Health Centre
HMIS	Health Management Information System	RUTF	Ready to Use Therapeutic Food
IASC	Inter Agency Standing Committee	SAM	Severe Acute Malnutrition
IDP	Internally Displaced Person	SC	Stabilization Centre
IEC	Information Education Communication	TFC	Therapeutic Feeding Centre
IMR	Infant Mortality Rate	UN	United Nations
INGO	International Non Governmental Organization	UNICEF	United Nations International Children's Emergency Fund
IP	Implementing Partner	WB	World Bank
IYCF	Infant and Young Child Feeding	WFP	World Food Programme
		WHO	World Health Organisation

The Islamic Republic of Pakistan is the sixth most populous country in the world (>180 million in 2011), the second largest Muslim population after Indonesia and has wide diversity in terms of culture, ethnicity, language, geography and climate. Pakistan is a federal parliamentary republic consisting of four provinces and four federal territories.

Malnutrition in Pakistan

Pakistan has some of the worst health and nutrition indicators in the Asia region. The prevalence of child malnutrition is higher than in Sub-Saharan Africa and the rate of decline of the prevalence rate is significantly slower than in the rest of South Asia. The National Nutrition Survey (NNS) 2010-2011 revealed that indicators of stunting and wasting had worsened during the last 10 years, where 43.6% of children were stunted compared to 41.6% in NNS 2001 (see Table 1). Similar trends were observed for wasting, 15.1% of children in Pakistan were suffering from wasting in NNS 2011 as compared to 14.3% in NNS 2001. Underweight rates have at least remained constant during the last decade (31.5%).

Inadequate infant feeding practices are acknowledged to be a major contributing factor to child malnutrition in Pakistan. In 2001, the Pakistan Demographic and Health Survey (PDHS) found exclusive breastfeeding to be 25%. Some years later, the PDHS 2006/7 indicated an improvement of only 12%, with exclusive breastfeeding estimated at 37%. Complementary feeding¹ improved even less, from 32% (1991) to 36.3% (2006/7)².

Factors that have an impact on the nutritional status of the overall population include inadequate food consumption, morbidity, poor health infrastructure and socio-economic factors. Since Pakistan's independence, the provision of health infrastructures has improved but remains inadequate, particularly in rural areas. The burden of infectious diseases such as respiratory and intestinal infections remains high. These are estimated to be responsible for up to 50% of deaths of children under five. Malnutrition is a major aggravating factor, especially in the most populated areas.³

Over the past few years, food prices have increased by almost 30%, while salary scales and labour rates have not increased at the same rate. Pakistan is listed among 40 countries that are facing food crises⁴. Based on current trends, Pakistan is not on track to achieve health and nutrition related Millennium Development Goals (MDGs).

High coverage has been achieved for some nutrition interventions (e.g. vitamin A supplementation and salt iodisation). Coverage of essential services that improve the nutritional status of women and children within the health sector can,

¹ The proportion of infants aged 6 to 9 months who received solid/semi solid or soft food as a supplement.

² For an overview of breastfeeding and complementary feeding trends in Pakistan, see Nisar, YB, Agho, KE, Dibley, MJ, & Hazir, T. Determinants of Breastfeeding and Infant Feeding Practices in Pakistan: Secondary Analysis of Pakistan Demographic and Health Survey 2006-07. Nutrition Wing, Ministry of Health, Pakistan 2010 and Hafsa Muhammad Hanif (2011). Trends in breastfeeding and complementary feeding practices in Pakistan, 1990-2007. Int Breastfeed J. 2011; 6: 15
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3207870/>

³ Nutrition Country Profile: Pakistan;
<http://www.fao.org/ag/agn/nutrition/pak-e.stm>

⁴ Joint Presentation Food Crisis in Pakistan April 08.
<http://www.slideshare.net/aghaimranhamid/joint-presentation-food-crisis-in-pakistan-april-08>

Table 1: Nutrition situation in Pakistan (NNS, 2010-2011)

	Provinces/Administrative Areas						Urban/Rural		Gender	
	Pakistan	Balochistan	Khyber Pakhtunkhwa	Sindh	Punjab	AJK	Urban	Rural	Male	Female
Stunted	43.6	52.2	47.8	49.8	39.2	31.7	36.9	46.3	44.2	43.1
Wasted	15.1	16.1	17.2	17.5	13.6	17.6	12.6	16.1	15.9	14.3
Under weight	31.5	39.6	24.1	40.5	29.8	25.8	26.7	33.3	32	31

AJK: Azad Jammu and Kashmir

however, suffer from poor performance. The Government of Pakistan (GoP) is aware of the problems in implementing a few successful interventions aimed at addressing the consistently high rates of under nutrition in Pakistan. The lack of progress in reducing the high prevalence of malnutrition is partly a reflection of:

- A lack of substantial investment in nutrition activities
- Absence of clarity on the roles of the different sections of government
- The need for political commitment, including a strong and sustained leadership to address malnutrition systematically
- A lack of a critical mass of people to work full time on nutrition activities, and
- The absence of routine information systems to capture nutrition status, behaviours, and service coverage.⁵

Institutional arrangements for nutrition

Prior to 2002, nutrition was not institutionalised within the GoP. This resulted in weak nutrition structures within all levels of government (federal, province and district). Recognising this, a number of structures were put in place by the Ministry of Health (MoH):

- In 2002, a *Nutrition Wing* was established, responsible for implementing and monitoring health-related nutrition activities at federal level. However, the Nutrition Wing had no direct role in the provinces or districts for the implementation of nutrition activities.
- In 2002-03, four *Nutrition Cells* were established with provincial support. The Nutrition Wing extended technical support to these cells, however they still have very limited capacity and government support at provincial level. At present, no provincial nutrition policy exists, compromising the role of Nutrition Cells.
- In 2003-04, a high level inter-ministerial body, the *Federal Nutrition Syndicate*, was

established. It comprised representatives from line ministries, non-governmental organisations (NGOs) and international agencies and was chaired by the Deputy Chairman, Planning Commission. It had responsibility for overall planning and policy guidance, and inter-agency and inter-provincial collaboration. However the Syndicate failed to operationalise.

At Federal MoH, the Nutrition Wing has had both the coordination role between different development partners, and the implementation role for various nutrition activities within the four provinces. The Nutrition Wing has proven successful in launching and coordinating nutrition-related activities in the provinces, through playing a pivotal role in ensuring resources for implementation from international partners. The successful completion of the National Nutrition Survey in 2011, which has taken almost a decade to achieve, is another major achievement for the Nutrition Wing.

On the 1st July 2011, the 18th Constitutional Amendment was passed which involved devolution of the MoH in Pakistan. This development has brought a number of possibilities and concerns. On the plus side, it may empower lower levels of government by giving them more autonomy and enhance responsiveness and efficiency through a closer feedback loop (i.e. action can be taken more quickly when problems have been identified). The devolution may also ensure greater equity within provinces. Concerns, mainly stemming from the lack of information about how it will work, include:

- *Capacity issues:* Many of the provincial, regional and district authorities do not have sufficient technical, human and financial resource to manage the services well.
- *Emergency situations:* Given the federal level had difficulty coordinating a huge response, there are questions regarding how the

provinces would cope.

- *Inter-provincial problems:* For example, around managing outbreaks or epidemics. This is a concern especially considering the lack of routine health information collection. Coordination of responses and accountability issues are also challenges.
- *Provincial funding mechanism:* It is not yet established how the donors will manage to fund the provinces, e.g. through a federal system of distribution or a series of province/regional specific agreements.

At present (August 2011), the Nutrition Wing has survived elimination, unlike other vertical programmes, and has been moved to the National Institute of Health of The Cabinet Division.

Pakistan's Public Healthcare System

The healthcare system in Pakistan is three-tiered with primary, secondary and tertiary levels of care (see Figure 1).

The 2010 Pakistan floods

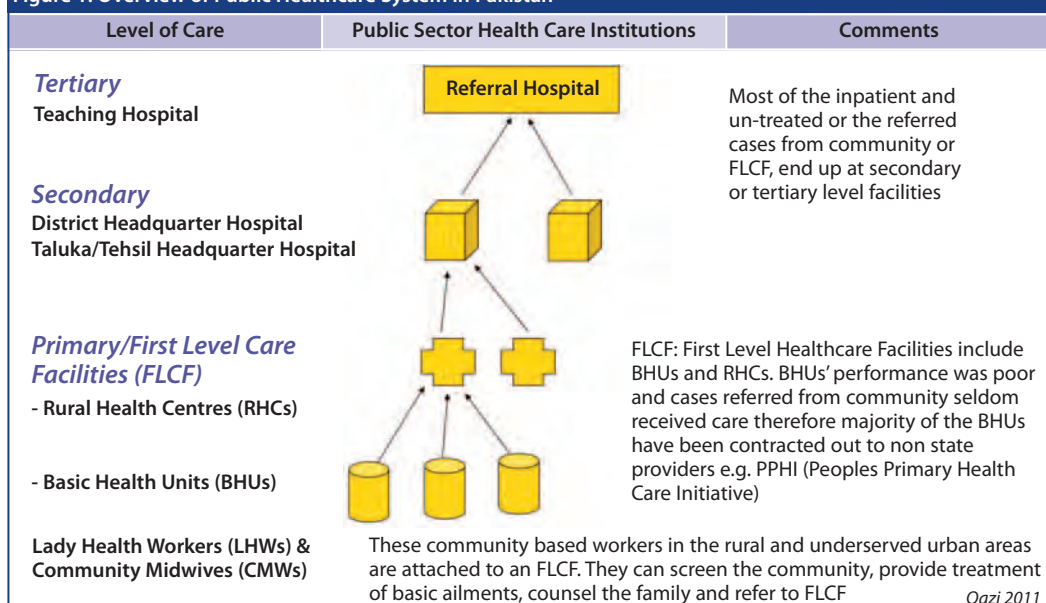
Pakistan has faced repeated natural and man-made emergencies. These emergencies have included cycles of droughts, earthquakes, major floods and armed conflict, leading to the largest internally displaced population (IDPs) in the country's history⁶. These humanitarian crises have resulted in major damage to infrastructure and livelihoods, leading to increased food insecurity and malnutrition among the affected populations.

The enormous floods seen in Pakistan during 2010 were rated by the United Nations as the greatest humanitarian crisis in recent history⁷. The floods affected more than 50% of the districts in the country (78/141 districts) and at least 20 million people (one-tenth of Pakistan's population). Close to 2,000 people died, with villages and livelihoods devastated from the Himalayas to the Arabian Sea. The World Health Organisation (WHO) reported that ten million people were forced to drink unsafe water. The Pakistani economy was extensively disrupted by the damage to infrastructure and crops. Damage to structures was estimated to exceed 4 billion USD, with wheat crop losses estimated at more than 500 million USD. Total economic impact may have been as much as 43 billion USD.⁸

In terms of the impact of the flood on health infrastructure, Khyber Pakhtunkhwa (KPK) and Sindh provinces fared the worst - approximately 11% of total health facilities in the affected districts were damaged or destroyed. The effects of the floods provided considerable challenges for the health system in service delivery, notably:

- Interruption of health care provision due to damaged facilities and displacement of the health workforce.
- An increased burden on secondary health facilities, often used as a first contact facility due to extensive damage and disruption of primary health care facilities.

Figure 1: Overview of Public Healthcare System in Pakistan



⁵ <http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1171488994713/3455847-1232124140958/5748939-1234285802791/PakistanNutrition.pdf>

⁶ Wasay M, Mushtaq K. 'Health issues of internally displaced persons in Pakistan: preparation for disasters in future.' *Am J Disaster Med.* 2010 Mar-Apr;5(2):126-8.

⁷ Millions of Pakistan children at risk of flood diseases. 16 August 2010. <http://www.bbc.co.uk/news/world-south-asia-10984477>

⁸ Preliminary Damage Estimates for Pakistani Flood Events, 2010. <http://cber.iweb.bsu.edu/research/PakistanFlood.pdf>

- An increased burden of disease and mortality, in particular due to communicable diseases.
- An increased burden of acute malnutrition: Global Acute Malnutrition (GAM) was found to be 15% in Punjab and 23.1% in Northern Sindh, compared to 2.9 and 6.1% in the same regions prior to the floods (WHO Growth Standard 2006).⁹

The GoP launched a major response to the flood with support from the international community. UNICEF as the Nutrition Cluster Lead Agency (CLA) staffed the coordination positions (including Information Managers) at national and sub-national levels to assist the MoH with coordination. The emergency phase of the response to the floods was concluded by February 2010. However 8 million people, including 1.4 million children under 5 years and another 1.4 million women still needed urgent access to health care. Following consultation with provincial health authorities, regional offices and health sector implementing partners, the WHO supported the health sector to develop a comprehensive early recovery plan for health that focused on 29 priority districts across Pakistan. Nutrition-related priorities for the 'early recovery phase' included provision of nutritional support and treatment for acutely malnourished under-five children and pregnant and lactating women.

CMAM roll-out during the 2010 floods

The scale of the problem

It was well understood by all that malnutrition was a serious problem in Pakistan before the floods. The health information system in Pakistan collects no routine data at all, thus baseline nutrition data were missing. The scale of the flooding and the resulting loss of homes and livelihoods created an urgent need for up-to-date nutrition information to assess the extent of malnutrition amongst the affected communities.

A Flood Affected Nutrition Survey (FANS) was duly undertaken (with the support of UNICEF and other partners) during October and November 2010. Data were collected in 19 worst affected districts. The FANS survey estimated the GAM prevalence to be 23.1% in northern Sindh and 21.2% in southern Sindh. These results were considerably higher than the WHO emergency threshold. Furthermore, records from Northern Sindh revealed a prevalence of SAM of 6.1%. The Sindh government estimated that about 90,000 children aged 6 to 59 months were malnourished.¹⁰ The nutrition situation was also identified as 'serious' in Punjab (see Table 2) and 'poor' in KPK and Balochistan (data not shown).

The CMAM response

Since 2003, small community-based nutrition programmes had been implemented in

Table 2: Acute malnutrition rates according to MUAC in Punjab, Northern and Southern Sindh (FANS preliminary results)

Survey	Punjab survey 2	Punjab survey 2	Northern Sindh	Southern Sindh
Survey period	1-7 November, 2010	8-14 November, 2010	29th October to 3rd November, 2010	29th October to 4th November, 2010
Indicator	% (n) (C.I.)	% (n) (C.I.)	% (n) (C.I.)	% (n)
MUAC <125mm and/or oedema	13.9% (82) (9.6-18.7)	7.3% (37) (4.6-10.3)	18.8% (74) (14.4-24.2)	12.6% (49)
MUAC <115mm and/or oedema	4.9% (29) (3.0-7.5)	2.6% (13) (1.4-4.3)	7.6% (30) (5.0-11.5)	2.8% (11)
MUAC ≥115 mm and <125 mm	9.0% (53) (6.1-12.3)	4.7% (24) (2.7-7.4)	11.2% (44) (8.6-14.5)	9.7% (38)

Balochistan for Afghan migrants and host communities. In 2007, UNICEF commenced comprehensive nutrition interventions including the promotion of infant and young child feeding practices, CMAM programmes and micronutrient supplementation in the flood prone areas of Balochistan and Sindh. In 2008/09, these interventions were expanded to earthquake-affected districts in Balochistan, flood-affected districts in Punjab, conflict-affected areas in the NWFP (as it was known then), and food insecure areas in other provinces. These programmes were effective in terms of high coverage, high cure rate, low death and low defaulter rates.¹¹ This experience is described below.

As a response to the 2010 floods, CMAM was rapidly expanded to the worst affected districts. More than 30 partnerships were established. Memoranda of Understanding were developed to clarify roles and responsibilities. Capacity development was undertaken and a network of CMAM/IYCN (Infant and Young Child Nutrition) services were established and linked to health services. A total of 1.3 million children under 5 years had been screened by March 2011. Tables 3 and 4 outline the numbers treated overall (from August 2010 to March 2011).

The feeding centres are serving a total of 55,921 out of 89,832 severely malnourished children, 155,000 out of 301,000 moderately malnourished children and 95,131 out of 180,000 pregnant and lactating women.¹²

Differing modalities of CMAM implementation

CMAM in Pakistan has mostly been piloted during crises and emergencies. With a weak health care system, poor access and low coverage of services, there has been a dependence on donor support for human resource, training and supplies. There are a number of stakeholders with sometimes overlapping and different mandates. As a result of poor coordination, the referral and treatment networks have remained fragmented. Pakistan received technical support for the formulation of National CMAM Guidelines from UNICEF, Valid International and Save the Children. However these guidelines have yet to be properly disseminated.

Three different modalities of CMAM programs have been adopted with differences in experience of implementation.¹³ These are summarised in Table 5.

A mapping of district implementation of CMAM activities found that the donor-dependent programmes aimed at addressing SAM are diverse in terms of presence/absence of 'management', 'community base' and type of malnutrition¹⁴. Thus under the title of CMAM, the support offered ranged from only provision of the product, e.g. ready to use supplementary food (RUSF) to community specific interventions without the support of health institutions.¹⁵ The experience also indicated a project-based approach: no funding = no activities.

Common issues during implementation

The role of the People's Primary Health Care Initiative (PPHI) in ensuring support for CMAM

PPHI is the largest primary health care contracting arrangement in the world. It has taken over the majority of Basic health units from the health department all over Pakistan. Up until 2005, Pakistan was facing major challenges in delivering primary health care in rural areas. The government faced problems appointing and retaining medical officers, managing supplies of drugs and equipment, and supervising the performance and functioning of these 5,000 mainly rural facilities. Following a successful pilot in Punjab, the federal government launched the PPHI contracting model in mid-2005.

Under the PPHI model, district governments can contract out primary health care facilities to provincial entities known as Rural Support Programmes (RSP). RSPs are private development organisations specialising in social work. Most of their funding comes from the government. Under contracts between the RSPs and the district governments, the PPHI receives the same funds that the district government would have transferred to the district department of health. By using the budget flexibly and by strengthening managerial practices and supervision, PPHI is expected to fill rural staff vacancies by providing additional staff incentives and allowances, particularly to medical officers and Lady Health Visitors. The federal

Table 3: Numbers of SAM treatment sites and children screened/admitted (March 2011)

Province	No. of sites (OTP/SC)	No. of children screened	No. of children admitted in OTP/SC
Sindh	163	374,646	22,741
Punjab	191	386,575	19,460
KPK	212	468,087	6,759
Balochistan	59	62,929	4,828
Total	625	1,292,237	53,788

Table 4: Numbers of MAM treatment sites and beneficiaries screened/admitted (March 2011)

Province	No. of SFP sites	No. of children admitted	No. of PLW screened	No. of PLW admitted
Sindh	152	50,764	127,164	33,872
Punjab	170	50,829	119,813	29,510
KPK	202	28,903	218,913	20,745
Balochistan	53	13,292	26,648	11,004
Total	577	143,788	492,538	95,131

⁹ Government of Pakistan, United Nations Pakistan, Pakistan Floods 'Disaster 2010: Strategic Early Recovery Action Plan'

¹⁰ UNICEF: Pakistan floods uncover dire nutrition situation. http://www.unicef.org/pakistan/media_6750.htm

¹¹ Awan S. Concept note on the implementation strategy of Community-based Management of Acute Malnutrition. Meeting on Implementation Strategy of CMAM, June 3-4, 2010, Karachi

¹² Government of Pakistan, United Nations Pakistan, Pakistan Floods 'Disaster 2010: Strategic Early Recovery Action Plan'

¹³ Ibid

¹⁴ 3W Matrix, Nutrition Wing Ministry of Health, 2009

¹⁵ 3W Matrix, Nutrition Wing Ministry of Health, 2009

Table 5: Experience from different modalities of CMAM implementation

Implementation Modality	Experience
Implementation by the local and national level NGOs	High coverage and high performance indicators (cure rate, death rate, and default rate).
Joint implementation by NGOs in collaboration with the district government	Relatively low coverage and medium performance indicators.
Implemented only by the government	Frequent interruptions in implementation in both NGO and Government supported projects encountered due to non-availability of supplies and cash (to run the programme) on time.

government gives additional financial support to cover management and the cost of rehabilitating health facilities.¹⁶

Evaluations have shown that PPHI proved its worth in terms of ensuring availability of doctor, medicines and equipments at the health facilities. However due to initial contracting out, their role in preventive medicine was not adequately defined.

The district managers of PPHI are usually managers from civil service backgrounds. They have considerable liberty in terms of taking decisions on the involvement or not of PPHI in any health initiative beyond their mandate. In the case of CMAM, some districts received extensive support while others did not. A key lesson for implementing at scale is that PPHI is an important entity that must be brought on board to ensure the success of this type of initiative.

The variable involvement of Lady Health Workers with community outreach activities

The National Programme for Family Planning and Primary Health Care, also known as the Lady Health Workers Programme (LHWP), was launched in 1994 by the Government of Pakistan. The objective of the LHWP was to reduce poverty through providing essential primary health care services to communities and improving national health indicators. The Programme objectives contribute to the overall health sector goals of improvement in maternal, newborn and child health, provision of family planning services and integration of other vertical health promotion programmes. This national initiative constitutes the main driving force for the extension of outreach health services to the rural population and urban slum communities. It involves the deployment of over 100,000 Lady Health Workers (LHWs) and covers more than 65% of the target population. The Government of Pakistan funds the National Programme for Family Planning and Primary Health Care. International partners have been offering support in selected domains in the form of technical assistance, training and emergency relief.¹⁷

While nutrition is one of the major services the LHW is supposed to provide, CMAM has not been institutionalised as yet. The programme was being controlled federally before the 18th Amendment, however, it is now in the control of provincial health departments.

The experience of involving LHWs in CMAM (community component and screening)

was mixed. Some provinces were quite open to adopt this modified role of LHWs whilst others were reluctant and awaited a federal level concurrence.

Supply of Ready to Use Therapeutic Food (RUTF) and RUSF: local production, a common problem

In general, all the provinces were concerned about the supply of the RUTF and/or RUSF. There was a general consensus that the high cost of importing such supplements (PKR 1100-1400 per kilogram) might be a significant constraint to the implementation of CMAM, particularly considering the burden of acute malnutrition. Although there is a general agreement that these should be produced locally, there is much debate but little consensus on the way this could be done.

The consequent lack of availability of locally produced RUTF is clearly a concern for many stakeholders in Pakistan. HELP, an NGO, devised and piloted a local brand of High Density Diet.¹⁸ The World Bank supported project is compiling evidence about this product. There are local food manufacturers that have the capacity and interest in preparing RUTF in particular. However, there seems to be little market for their product until international agencies start to purchase from them instead of importing.

There are also sensitivities about local production of RUTF. King Edward Medical University has, for instance, shown reservations on the caloric value and nutritional quality (in terms of absence of vitamins and minerals) of locally produced fortified blended food (FBF). Essentially, local production of RUTF is of vital concern for programme sustainability.

Experiences of rolling-out CMAM: findings

To capture the variety of experiences of implementing CMAM in Pakistan, a series of interviews were conducted with stakeholders from four provinces (Balochistan, Khyber Pakhtunkhwa, Sindh and Punjab). The unique experiences and managerial outlook of each province are presented here.

Balochistan: Banking upon excellence in coordination

Balochistan is the largest province geographically but has the lowest population density. It is the least developed province and offers a great challenge to the population in terms of access to health and nutrition interventions.

Adding to the difficulty of geographical access is the dearth of trained and skilled personnel. Balochistan has 30 districts, out of which only 6 or 7 have medical doctors, concentrated in urban or peri-urban areas. The auxiliary workers are by and large providing basic health amenities to the population, although they lack the skills to render quality health services.

In Balochistan, the management of acute malnutrition as a humanitarian response started during the 2006 floods with the support of UNICEF, Valid International and MSF. Eight food insecure districts set up CMAM programmes. The programmes focused at the community level where LHWs were available. The LHWs were given two days training on both practical and theoretical aspects of CMAM. The

LHW's Health House was used as a screening centre. In areas where no LHW was available, volunteers and civil society organizations were involved. TFCs were established by strengthening existing public sector health facilities.

The implementers encountered a host of challenges that included:

- Poor health services coverage and lack of skilled personnel
- Lack of strong mechanisms in place to monitor health interventions. Any progress was therefore difficult to measure
- Ownership by the government: time taken for government staff to understand the need to prioritise nutrition-related activities.
- Guidelines: There were conflicting guidelines on the management of acute malnutrition from UNICEF and WHO that confused practitioners.
- The Health Management Information System (HMIS) was providing data and generating unclear reports from districts to provincial level. Evidence-based decision making is still not the norm culturally.
- Frequent shortages of supplies (RUTF, therapeutic milk), especially following the end of the declared emergency. Many challenges with logistics. There is a need to include therapeutic products into essential drugs/supplies list. Practitioners increasingly expressed the need for home made recipes for treating malnutrition, rather than expensive imported products.
- There is a lack of knowledge at community-level that malnutrition is a medical problem. There is a strong culture of seeking help from faith healers for wasted children. This societal perspective as a backdrop proved another hurdle for those who had access to CMAM.
- Sharing of food among the household: general food insecurity resulting in use of RUTF as a ration for all family members.

Response to the 2010 floods

In order to scale up services in Balochistan, a team (comprising of UN and other NGOs under the auspice of a Nutrition Cell) took proactive measures of engaging with the district authorities, including the department of health at district level, from the outset of the programme.

"The MoH quickly understood the problem of malnutrition in their districts, especially among pregnant and lactating women and children. We shared with them the evidence of effective strategies and what we will be offering and expecting.. and we asked them if they will own the project?"
Provincial Nutrition Focal Person of Health Department

Bringing the district health officials on board and engaging them frequently from provincial level resulted in a strong ownership by the MoH at district level. Previously, when there was a lack of supplies, the therapeutic feeding centres (TFCs) were closed, giving the impression that the project had closed. However, despite similar supply issues, the Stabilisation Centres (SCs) remained open so that the

¹⁶ HLSP INSTITUTE : Focus on Pakistan-Health care for the people, COMPASS ISSUE 12 <http://www.hlsp.org/LinkClick.aspx?fileticket=yW1fGwq29Wg=&t>

¹⁷ <http://www.phc.gov.pk/site/>

¹⁸ Ebrahim. Z, New Fears Over Malnutrition. <http://ipsnews.net/news.asp?idnews=54680>; accessed on August 15, 2011

community understood that the service would be provided once the supplies had arrived.

At health system level, the nutrition initiative also made a positive contribution:

“The best thing is that nutrition became mainstreamed in district health system of the affected districts. Trainings on CMAM of community level workers, LHWs and community based organisations (CBOs), health care providers in the facilities and involvement of district health managers, it all resulted in a continuum of raising awareness about nutrition, of which no-one knew about previously”.

NGO Representative

Another positive aspect of the response was that all the partners had a similar understanding of roles and responsibilities.

“Everyone knew who will do what. What would each one get in terms of training, finances and logistics and who will ensure transportation of supplies till the end distribution point. Previously it had emerged as a big challenge to ensure supplies at the district level, with very limited means of distribution. This time the donor was well aware that the delivery of supplies till the last point will require additional assistance. Previously the supplies were just delivered at the district warehouse.”

Provincial Level Respondent from Health Department

Although payments were usually paid to government staff to monitor the programme,

“The district coordinators of National Programme for FP and PHC and the EDO were given a fixed per diem for the visits conducted against the approved monitoring plan previously submitted”.

Provincial Level Respondent from Health Department

During the initiation of training, each LHW was provided with a mat and utensils etc. for the strengthening of their health houses so that they could conduct activities and demonstrate good practices, such as hand washing. The LHWs also received a per diem for their work, which reportedly enhanced motivation.

Challenges for CMAM in Balochistan

The aforementioned shortage of doctors in rural areas was a major constraint in effective implementation of activities. Additionally LHWs are not present in many rural areas and there are some concerns about possible politicisation in this province, because of the importance of relationships with local tribal leaders.

A high turnover of government staff necessitated frequent re-training. It was common to find untrained staff providing CMAM services. Frequent stock-outs of RUTF and other products to treat acute malnutrition were experienced due to difficulties maintaining an uninterrupted supply chain.

The deteriorating security situation posed a great challenge both to programme implementation and monitoring. Some programmes had to close down due to escalating security concerns.

Another hurdle was engaging the medical officers of the PPHI. These medical doctors, despite invitations from the DoH, did not join the training on facility-based CMAM. It was assumed by the department of health that being a non-state provider, the PPHI thought itself to be a competitor. PPHI on the other hand had

basically no mandate for CMAM. Hence the Basic Health Units (BHUs) could not be engaged.

By virtue of their presence and roots in the community, as well as their access to donor resources, the local NGOs have an advantage. They often understand local power structures well and are able to manage the potential political pressure from local power brokers. Their ability to network can generate increasing community demand for CMAM services.

“We found significant number of people coming from villages, demanding for the ‘chocolate’ (RUSF) for their kids.”

NGO Representative

While NGO programmes are vital, particularly during disasters, sustainability issues prevail at all levels of programme implementation.



A family who had taken refuge in Sangarh District, Sind. They had lost their crops in the floods. The mother is pregnant.

Dr S Qazi, Pakistan

Lessons learned

The CMAM response in Balochistan has shown that a timely emergency response is crucial in order to contain rapidly deteriorating situations. Ownership within the health department, especially at district level, make a visible difference for programme success, although it must be recognised that payments for government staff to provide services might compromise longer-term programming, in terms of expectations (implementation of CMAM programmes resulted in additional per diem payments).

Involvement of the community in the screening process resulted in better acceptance and understanding of the programme. Local NGOs were particularly successful in breaking the substantial gender barriers in rural areas during the disaster, engaging with the affected people, especially pregnant and lactating women.

NGO staff tend to stay in positions longer, probably due to the better remuneration packages that NGOs are able to offer. Questions of sustainability are repeatedly raised.

The structural factors and underlying socio-economic conditions will influence whether a child is likely to relapse into acute malnutrition, as remarked by a representative from a NGO that implemented SCs but not OTP.

“We witnessed that kids referred from poor socioeconomic households recovered from SAM

in the SC after admission and treatment and went to their community but later returned with the same set of complaints again for which they were admitted earlier.”

NGO Representative

The future for CMAM in Balochistan

At present, the provincial team is concerned that the post-18th amendment scenario will be characterised by an immediate vacuum in policy and technical assistance that formerly came from federal level.

Additionally, the approach to date has been highly donor dependent. While these strategies provide short-term solutions for nutrition problems, longer-term financial support from donors is required to sustain programmes and to develop a province-specific nutrition policy.

Khyber Pakhtunkhwa (KPK): Scaling Up at Home, Rolling out Elsewhere

Khyber Pakhtunkhwa (KPK) was in a relatively better position to respond to the flood emergency, due to prior experience of large-scale emergencies and previous work on CMAM. At the time of the 2010 floods, the DoH was able to scale up existing operations rapidly. It is clear that the previous capacity built in nutrition response proved effective in facilitating scale-up. Despite KPK being the worst affected province, it performed better in terms of reduction in SAM and GAM prevalence in subsequent surveys, when compared with other provinces, such as Sindh.

Although there was a disaster contingency plan in place, it was not entirely successful due to extensive damage to nutrition-related commodities stored in a warehouse located on the bank of the river Kabul, which was washed away by the floods. The floods badly damaged the health facilities, most of which were submerged partly or wholly by the floodwater. It was a considerable challenge to establish SCs, the CMAM model was therefore modified. Mobile teams were introduced and provided services directly to villages.

“In Nuashetra Noushera and Charsadda the population settled along motorway, roadsides, schools and scattered pockets. Health facilities became non functional and inaccessible. Therefore

six mobile teams were mobilised. Each vehicle visited a village once a week and followed up the same on next week... The mobile team included a group of people who offered services of WASH, PHC and nutrition jointly at the spot. Screening was done there and then. EPI, ANC, safe drinking water, de-worming etc. all services were made available at the door step... We requested to with hold wheat and soya bean combination (FBF) to WFP because that needs water for preparation, which was not readily available. Instead newly introduced supplementary plumpy was distributed. High energy biscuits were distributed uniformly to all families with children under five." Manager of an INGO

2010 floods: the challenges

There were a number of challenges to the scale-up. One problem was that the UN agencies had limited communication between each other and at times appeared to be in competition. Pressure from the DoH highlighted and encouraged the need for better coordination. Coordination was made more difficult because of the complications experienced by partners having to sign separate MoUs with UNICEF, WHO and WFP (who were responsible for training and supplies of OTP, SC and SFP, respectively). Linkages between the three components of CMAM were often sub-optimal, as described below:

"What happened is that, say one agency started OTP but the other didn't establish an SC as a referral facility or vice versa. It could result in the child being referred to SC and not receiving treatment, or a child treated at SC when returned to community could not be taken care of by SFP. The missing components of CMAM were compromising the quality of care."
Provincial level manager from Department of Health

The DoH also became frustrated with programming that they were not informed or aware of:

"The donors were awarding contracts for service delivery to the local NGOs without even informing the health authorities. We had no idea who is doing what and where and for how long the local NGO is intending to serve and what is its exit strategy"
Provincial level manager from Department of Health

CMAM successes in KPK

Particular successes were noted for the programme in KPK: KPK had a functional nutrition cluster in place, which had already sensitised the provincial government for the urgent need for nutrition activities. Importantly, agencies and government staff working in KPK were able to share their skills and experience with other provinces, enabling a more rapid response in other provinces. Although, as mentioned above, there were still challenges to coordination arising from inter-agency mandates.

The response was better in KPK due to good collaboration from the start between the PPHI, DoH and NGOs. A tripartite agreement between the three partners paved the way for coordinated efforts, which were noticeably lacking in other provinces (especially in terms of coordination with the PPHI).

Much higher acceptability for the nutrition programme was seen when compared to EPI. This is likely due to the fact that the programme

provided treatment, rather than being a preventative programme. The community can often be more willing to seek out treatment options for their sick children.

The SCs function well in KPK. They are well equipped, have trained staff and reports indicate that high quality services are being provided.

Winter supplies were planned and a 2-month stock of blanket food for the targeted population was pre-positioned. This helped to ensure uninterrupted supplies during the winter months in the inaccessible mountainous areas.

The future for CMAM in KPK

The 18th constitutional amendment continues to confuse health managers. There is a lack of clarity regarding new roles and the nutrition programme. At present, nutrition does not enjoy the status of a fully-fledged entity but is being run on an ad-hoc arrangement. Additionally, the future of the Nutrition Cell in the DoH KPK is not clear as the provincial authorities are occupied with internalising and responding to the challenges of the 18th amendment. There is little understanding about IYCF and CMAM as programmatic measures at provincial level. Meanwhile, the longer-term nutrition program (the World Bank supported PCI) to support the nutrition in KPK is awaiting approval from provincial authorities.

Sindh: A Late Wakeup Call

While Sindh province had some well-established vertical programmes such as EPI, there were no institutional nutrition programmes, and there seemed to be little commitment within the health department for nutrition when the floods arrived. The provincial nutrition focal person, a dedicated female doctor, had limited influence over the Executive District Officers (EDOs), partly because nutrition was not particularly embedded within the health department and partly because she was a woman.

The response to the 2010 floods

The massive floods came as a surprise to Sindh. Out of 16 districts, nine were severely hit. Some districts were not directly affected, but received large numbers of displaced people. There was no experience to draw upon for the response to a major emergency. There was very limited capacity for nutrition-related programming within the government and NGOs

A couple of CMAM pilot projects had been implemented in food insecure areas during 2009 that were not flood affected. While support was provided from these districts, and other expertise was brought in from KPK province (as they had previous experience in CMAM), it still was not sufficient for the scale of response required. No contingency plan was available in Sindh. Initial planning was undertaken on the basis of NNS 2001, the most recently available data at the time.

"All assumptions for planning were made on the basis of 2001 survey [NNS]. The resultant response was therefore wholly insufficient. While operations had to start immediately, problems with planning and the delays in supplies resulted in a worryingly slow response"

Provincial level programme manager of health department

Involvement of LHWs and PPHI

In Sindh province, the LHWs were not permitted to engage in the CMAM programme, until direction was given from the Federal level. The PPHI programme was able to offer some space at their facilities for CMAM activities (e.g. OTP and/or SFP). However, the staff at the BHUs were not involved in programme implementation, which was undertaken by NGO staff,

Pitfalls and challenges

At the start of CMAM, the government faced a range of challenges. For example, the concept of 'nutrition' was regularly confused with food aid. This misunderstanding stretched also to civil society.

"We received an overwhelming response from the civil society. A number of NGOs approached us and showed interest in working on nutrition. But the moment they came to know that the nutrition is not about food distribution, that interest vanished"

Provincial Programme Manager

These misunderstandings were compounded when blanket food support arrived causing a change in focus of the programme. Community perception was shifted from CMAM as a treatment programme to that of food distribution. There was a great deal of demand for edible oil and biscuits, but not for medicine. The change to blanket distributions caused a great deal of problems in the community. Once the situation was stabilised, blanket feeding was replaced by targeted interventions. Despite conducting social mobilisation, there were serious misunderstandings regarding the targeting, with community members preferring the blanket distributions. Security was compromised at some of the distribution sites.

"When the community saw the vehicles of nutrition staff, they emerged as a mob, armed with canes. They were angry because the previous staff had distributed goods to much of the vulnerable population, including their kith and kin. They thought that the nutrition people were there for the same kinds of distributions."

INGO Representative

Mobile teams were introduced to cover remote rural areas, however they proved quite costly.

As described above, capacity challenges were the biggest hurdle to the scale-up of CMAM provision in Sindh province. Positions were not adequately filled and the high turnover of project staff compounded the problem. There were generally very limited handover processes amongst government staff when turnover occurred, affecting the continuity of programming.

The government faces a lack of capacity for many reasons, with the humanitarian community sometimes contributing to the shortage of skilled manpower:

"Donors can help to incapacitate the government. In order to make their projects successful, they identify, attract and lure the government personnel with attractive package. This further incapacitates the government system"

Provincial Manager from Health Department

Punjab: Slow and Steady, and with a Vision

The Government of the Punjab had already been proactively developing and implementing

an agenda for better health, even before the advent of 18th amendment. To improve quality of health care delivery, setting up standards and institutional development the province rigorously followed the Punjab Healthcare Commission.

The 2010 flood response

The floods also came as a surprise to Punjab province. Neither government nor civil society expected such a massive disaster. Punjab's previous experience in CMAM was limited to two small pilot projects in Rajan Pur and Kot Addu districts during the floods in 2008.

As the floods emerged, NGOs from KPK came forward with assistance, but their scale of operations was diluted due to the lack of skilled force to run operations of this size. Programme sustainability and ownership were the prime concerns from the outset of the Punjab Government's response. The government was in the driving seat and showed authority in addressing the issues. It held the NGOs accountable for their work. It started with the setting of ground rules, for instance:

"Before initiating new hiring, government defined the minimum structural requirements for CMAM. It was decided to avoid unnecessary and overstaffing on one hand and to ensure that the government employees perform their duties" (and not shift the task to the contracted employees). "The most critical element in the effectiveness of the response was the strong commitment of the then able leadership in department of health."

Provincial Manager, Health Department

A distinguishing feature of the response in Punjab was that, unlike the other provinces, the government only involved public sector health facilities (BHUs and RHCs). No non-governmental facilities were involved in the response.

Strong government commitment and leadership at provincial level helped to 'sell' the idea of CMAM as an appropriate emergency response. An example of this was that the provincial health secretary personally took an interest in the performance monitoring reports and questioned district managers on any poor results.

In summary, although the (government's) response could be viewed as slow in Punjab, the strong foundation of CMAM will likely have a long term impact on nutrition in emergencies in Punjab.

Coordination and use of the LHWs for CMAM

During the initial phase of the response, there was confusion about the roles and responsibilities of various partners. The cluster approach partly addressed the issue, but this was finally resolved after the signing of MoUs between UN agencies.

A Technical Advisory Group (TAG) was established by the government, which managed the various stakeholders and their different mandates and priorities well. The National Programme for Family Planning and Primary Health Care (FP and PHC) in Punjab was given a lead role in responding to flood disaster. This decision was based on the facts that:

- There was limited field level visibility/say of the provincial Nutrition Cell.

- The National Programme for FP and PHC had effective implementation and monitoring mechanisms in place.
- The 'community-based management' aspect of CMAM could only be addressed through community-based workers, i.e. LHWs.

This bold decision caused a stir in the federal programme implementation unit at national level because they were not comfortable with the involvement of LHWs in the nutritional aspects of disaster response. Nevertheless the provincial government's strong determination ensured that their decisions were not undermined by the federal office.

The quality and content of training of LHWs has been questioned in the past. The province has addressed these concerns through a number of measures, for instance: Previously there were multiple, fragmented and weak trainings on nutrition. However a new training manual of LHWs comprising of vitamin A, IDD infant and young child feeding (IYCF) and CMAM was drafted, with the training given in a single 5-6 day package. This plan is awaiting approval by the TAG.

Prior to the 18th amendment, the federal programme office had been following a trickle down training approach, i.e. the federal office developed the training material and gave training to national level trainers, who trained provincial trainers, who trained district health facility staff, who trained the LHWs. This tiered approach often diluted the quality of training. The new approach of direct nutrition training for LHWs is expected to improve their skills and knowledge on nutrition.

In Punjab, CMAM experience illustrated that the LHW can quickly become overburdened managing large numbers of beneficiaries, taking anthropometric measurements, etc, which can compromise the quality of her work. To address this, the chowkidar (guards) were instructed to provide support for managing queues at the facility, and assistants were asked to help with measurements and records. This nutrition assistant (graduate level) preferably has a diploma in nutrition (compared to LHW who are minimum 8th grade standard).

The future for CMAM in Punjab

Implementation through NGOs is a costly business and poses serious challenges for sustainability. The government has planned to gradually acquire NGO-operated projects through the LHW programme, with no new signings of PCAs. However, the NGOs are encouraging a period of transition:

"The role of NGOs should not be undermined. Some of these organizations have demonstrated strength in social mobilisation and they have engaged the population through economic opportunities, such as microcredit, which can be employed to improve nutrition. Hence the role of NGOs should be considered as complementary and the transition should be gradually phased out."

INGO Representative

At present, the government is developing an 'Integrated Module on Prevention and Treatment of Malnutrition' that contains both IYCF and CMAM. It will include all three anthropometric measurements, i.e. weight-for-age (WFA), height-for-age (HFA) and MUAC, to capture both chronic and acute malnutrition.

While the initial focus of the government and NGOs was purely on CMAM and not on underlying factors associated with SAM, the importance of IYCF in relation to CMAM has since been realised.

"Gradually the focus has shifted and now more and more is being enquired about the progress on IYCF. We now say that if a CMAM site is without a breast feeding corner and counselling services, it should not be claimed as a CMAM site."

INGO Representative

However, the effective integration of IYCF and CMAM still requires a great deal of advocacy, particularly to increase community awareness and knowledge.

Conclusions and the way forward

"The programme is doing self advocacy. Unlike Polio where the prevention doesn't show any visible effect, the community has a chance to witness real positive change among malnourished children. They found that once bed ridden, a child gets up and starts playing and taking interest in life after induction in CMAM programme. This resulted in self advocacy and people from the uncovered areas started visiting the facilities"

Provincial Manager

The positive outcome of the 2010 floods is that a country-level response established nutrition as an important area of intervention in the eyes of government, partners and the community. Despite all the hurdles, setbacks and concerns of inefficiencies, the country now has substantial local experience in the public and private sectors for implementing CMAM. This wealth and variety of experience needs to be employed in the policy and planning decisions.

Under the post-18th amendment scenario, the sole responsibility of health and nutrition policy and planning now rests with the provinces. The weak capacity of some provinces might require technical coordination and support from the existing arrangement at the federal level. The provinces need to define a nutrition policy in order to mainstream nutrition in the public health system. This would require an evidence base, which can be solicited from the other provinces. However, a central, federal-level venue could provide inter-provincial coordination and promotion of evidence-based practices. At present, the Nutrition Wing of the Cabinet Division could undertake this function.

The institutionalisation would require long-term vision and investments. This includes the introduction and embedding of relevant topics in the curricula and training courses of community based, auxiliary and the clinical care providers. The cost effectiveness would logically be achieved through strengthening nutrition services within the existing PHC system instead of introducing a vertical programme.

The trickle down of provincial nutrition policy and strategies depends on the district level leadership, capacity and commitment. This might require training of district management, including sensitisation on nutrition issues, building capacity in needs assessment, and planning and management of nutrition in emergencies and non-emergency contexts. At the district level, nutrition should be made part of 'a package' because a child with multiple problems cannot be treated and managed by

different programmes, coming from different donors, with time lags, through the same team at district level.

The policy and practice would be governed by evidence on the effectiveness and cost effectiveness of the modalities of community level implementation. For example, by defining the role of Public Private Partnerships (PPP), through contracting in/out, and determining how the services of public sector community level workers would be made available and how the non-government organisations would be enabled to serve in areas that are not covered and in emergency situations. It would be a primary responsibility of the health department to ensure transparency through strong monitoring of the nutrition initiatives.

The experience of CMAM scale up also dictates the need for well functioning logistics mechanisms for the delivery of nutrition supplies, in the right quantity, at the right time, at the right place, for the right price, in the right condition and to the right level.

The existing capacity of provinces to handle nutrition-specific interventions – not just CMAM – and to take a multi-sectoral approach falls short. As it stands, top-level advocacy and conditions from the donors will provide the substance to scaling up domestic and external assistance for country-owned nutrition programmes and capacity. For national level stewardship of scaling up nutrition, there is a need to maintain a national and provincial board, simplify the Nutrition Information System, and maintain an inter-sectoral working group made up of the 5-6 nutrition-related sectors. This working group would provide a coordinating framework and technical input to the Nutrition Board, to mainstream nutrition into all development and humanitarian projects. Strategic alliances should include academic institutions to strengthen the evidence base through better data, monitoring and evaluation, and research.

For further information, contact: Dr. Muhammad Suleman Qazi, email: suleman.qazi@gmail.com, Cell: 92-300-3842332 and Dr. Baseer Khan Achakzai, DDG Nutrition Wing, email: achakzaibk@gmail.com

List of interviewees

Dr. Sarita Neupane, Nutrition Specialist, UNICEF, Pakistan
 Dr. Raza M Zaidi, Health and Population Advisor, DFID Pakistan
 Dr. Inaam ul Haq, Senior Health Specialist, Health, Nutrition & Population, World Bank

Balochistan

Dr. Ali Nasir Bugti, Nutrition Focal Person, Provincial Nutrition Cell, Health Department
 Zohaib Qasim, Former Manager Nutrition, Provincial Nutrition Cell, Health Department
 Hassan Hasrat Manager, Society for Community Action Process, Kalat
 Dr. Mohammad Faisal Baloch, Health Officer, UNICEF

Khyber Pakhtunkhwa

Dr. Adnan Khattak, Assistant Director Nutrition, Health Department
 Dr. Ijaz Habib, Nutrition Coordinator, MERLIN

Sindh

Dr. Durre Shehwar, Nutrition Focal Person, Provincial Nutrition Cell, Health Department
 Dr. Mazhar Alam, Health Officer, UNICEF

Punjab

Dr. Mehmood Ahmed Program Manager Food and Nutrition, Department of Health
 Dr. Akhtar Rasheed, Program Manager National Program for FP and PHC
 Dr. Tahir Manzoor, UNICEF



Creating an enabling policy environment for effective CMAM implementation in Malawi

Community mobilisation

By Mr Sylvester Kathumba



Mr Sylvester Kathumba is Principal Nutritionist with the Ministry of Health, Malawi. This article was authored by Mr Sylvester Kathumba with policy and support from Catherine Mkangama, Director of Nutrition, HIV and AIDS Office of the President and Cabinet and CMAM Advisory Services.

The author would like to acknowledge the Department of Nutrition, HIV and AIDS-OPC, CMAM Advisory Services (CAS), Clinton Health Access Initiative (CHAI), UNICEF-Malawi, VALID International, CIDA Malawi and Irish Aid Malawi.

ACSD	Accelerated Child Survival & Development
ART	Anti-retroviral therapy
CAS	CMAM Advisory Service
CHAI	Clinton HIV/AIDS Initiative
DHO	District Health Officer
DIP	District Implementation Plans
EHP	Essential Health Packagev
ENA	Essential Nutrition Actions
HMIS	Health Management Information System
IMCI	Integrated Management of Childhood Illnesses
IYCF	Infant and Young Child Feeding
MAM	Moderate Acute Malnutrition

MGDS	Malawi Growth and Development Strategy
MDGs	Millennium Development Goals
MoH	Ministry of Health
NGOs	Non-governmental organisations
NRU	Nutrition Rehabilitation Units
OPC	Office of the President and the Cabinet
OTP	Outpatient Therapeutic Programme
PHC	Primary Health Care
PPB	Project Peanut Butter
RUTF	Ready to Use Therapeutic Food
TSFP	Targeted Supplementary Feeding Programme
VN	Valid Nutrition

Field Article

Background

The Community based Management of Acute Malnutrition (CMAM) approach aims to increase the coverage and accessibility of treatment for acute malnutrition. It provides treatment for malnourished individuals through decentralised care from health centres, treating the majority of severely malnourished cases as outpatients through the provision of Ready to Use Therapeutic Food (RUTF) and basic medical care.

The CMAM approach is built on the principle of community involvement and aims to increase the ability of people to prevent, recognise and manage malnutrition within their communities. CMAM complements existing health services and can potentially create new opportunities and points of contact for follow-on health and nutrition activities, such as HIV testing, family planning and nutrition counselling.

The CMAM programme in Malawi serves children less than 12 years of age through the following components:

- Community outreach to raise community awareness, identify cases and follow up malnourished children.
- Severely malnourished children who have appetite and no complications are treated in their homes using RUTF, with weekly check-ups in the Outpatient Therapeutic Programme (OTP).
- Severely malnourished children with medical complications are treated as inpatients through Nutrition Rehabilitation Units (NRU) until their condition improves and they can complete their recovery in the OTP.
- Children with moderate acute malnutrition (MAM) are given dry take-home rations through the Targeted Supplementary Feeding Programme (TSFP).

The CMAM Programme in Malawi also provides services to moderately malnourished pregnant and lactating women through the TSFP.

CMAM evolution in Malawi

CMAM in Malawi has evolved through a lengthy process that started from the food crisis that developed during 2001. A number of non-governmental organisations (NGOs) came to assist with this disaster. Two of these organisations were Valid International and Concern Worldwide who supported the Ministry of Health (MoH) in the emergency, conducting an operational research programme to test the safety and efficacy of the new CMAM approach in Dowa District during 2002. Due to the early success of the Dowa programme, the MOH added another district to the operational research in 2003.

Through the decentralisation of treatment, the CMAM approach in Dowa was able to address some of the difficulties of service access that the population were facing. These included:

- Inaccessible services for most of the children that required care.
- Recurrent seasonal rises in severe acute malnutrition (SAM), from <0.5% to >3%.
- Increased case loads that the health system was struggling to cope with, compounded by HIV/AIDS.
- Congestion in health facilities due to long in-patient stays, HIV related complications and chronic food shortages.

In 2004, the Ministry organised the first national CMAM dissemination workshop for District Health Officers (DHOs), NGOs and partners. There was a great interest among the DHOs, who demanded that the programme should also be started in their districts. In response to this, the Ministry added three more districts in 2005. Gradual scale up to cover all 28 districts of Malawi has continued since then (see Table 1 for a timeline and milestones of CMAM scale up). This clearly demonstrates the power of evidence-based research, creating demand from service providers through robust programming and dissemination of results.

In 2006, the CMAM approach was adopted by the MoH as a strategy for managing acute malnutrition among children in the country. To achieve this, a number of processes took place, including:

- Formation of the CMAM steering Committee, which provided the policy support body to guide the scale up process of CMAM across the country.
- The CMAM Advisory Service (CAS) was set up to provide support to the MoH with technical assistance for the scale up process and to ensure the standardisation of operations.
- Interim guidelines were developed to harmonise implementation modalities of the programme.

Figure 1 presents the timeline Malawi has taken to scale up CMAM programming.

The primary aim of the scale-up of CMAM was to expedite and accelerate sustainability of the programme, by incorporating it into the routine health activities of Primary Health Care (PHC) services. In this way, children with acute malnutrition who are at increased risk of morbidity and mortality can receive the care they need through the same pathways that they routinely access treatment of other illnesses or infections.

Vision for CMAM in Malawi

CMAM is not implemented as a vertical, stand-alone programme. Instead it is included as one of the many services that are routinely provided at health facilities. This implies that health policies and guidelines must fully incorporate all CMAM components into their preventive and curative protocols and monitoring and evaluation systems.

The overall aim of the scale-up of CMAM in Malawi was to ensure the programme was designed to be fully integrated within existing institutions and structures and therefore sustainable. Some characteristics important for an integrated CMAM include:

- CMAM services are fully managed, implemented and supervised by the DHO and MoH staff.
- Regular health services at both health facility and community level routinely identify, refer and treat malnourished children.
- CMAM activities are funded through District Implementation Plans (DIP) as part of the district health budget.
- RUTF and other CMAM supplies are ordered, stored and distributed through the essential supplies distribution system.
- CMAM data are collected and reported using the same reporting structure and schedule as other health centre data.

- Key indicators on CMAM are reported through the Health Management Information System (HMIS).
- Pre-service training curricula of health professionals include management of acute malnutrition.
- Effective linkages with other child survival and HIV programmes are in place.

Policy environment

During the 1990s, nutrition remained largely on the ‘back burner’ in Malawi, buried amongst the multitude of health issues that the country faced. The food crisis of 2001/2 took policy makers somewhat by surprise, as Malawi had been considered ‘food secure’ for a number of years, even exporting many agricultural products such as beans and maize. This food crisis focused attention on the neglected problems of malnutrition within the country.

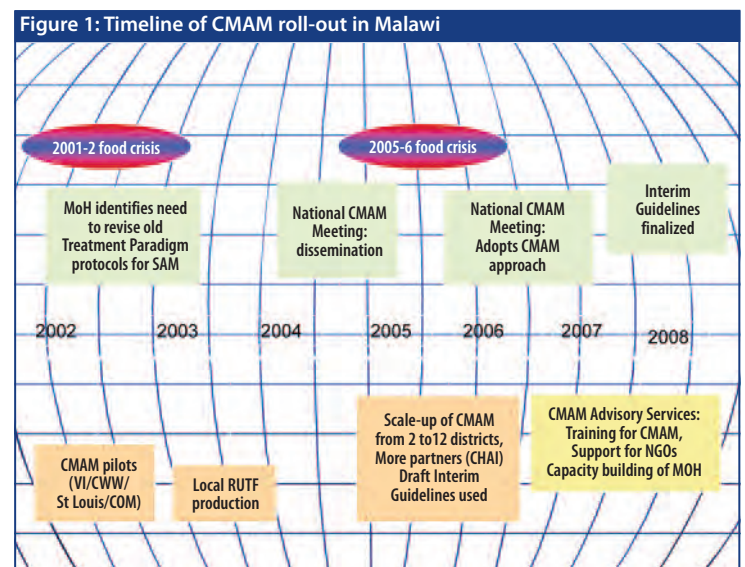
The increased attention provided the environment for a slow but steady transformation. During 2001/2, nutrition in Malawi benefited from combined forces: a conducive policy environment, a reasonably well developed NRU system within MoH structures, some nutrition ‘champions’ within the MoH, and a new revolutionary treatment for SAM cases, using RUTF. Malawi was one of the first countries to test and then adopt the CMAM approach. Evidence of the successful treatment of thousands of severely malnourished children through CMAM gradually helped to convince decision-makers that the country had the capacity and needed to tackle the issues of widespread malnutrition.

During 2005, a major change was implemented – coordination of nutrition moved to the Office of the President and the Cabinet (OPC). This move ensured that nutrition could become a cross-cutting issue, an essential step if the root causes of malnutrition were to be effectively addressed.

The OPC is responsible for policy direction and for mobilising resources, while the MoH has the responsibility for implementation of these policies, such as the National Nutrition Policy and Strategic Plan, which was developed within the wider EHP (Essential Health Package).

A Nutrition Committee is chaired by the OPC and meets twice a year. Additionally, there are multiple technical working groups established under this committee, such as those looking at Infant and Young Child Feeding

Year	Milestones
2001	Hunger crisis
2002	CMAM in emergency and operational research in 1 district
2003	Scale up to one more district for further operational pilot Local small scale RUTF production
2004	CMAM national dissemination workshop More interest generated among DHOs, partners and NGOs
2005	Another food crisis Three additional districts to pilot CMAM Second dissemination and consensus meeting
2006	CMAM adopted as a national strategy • Formation of the CMAM Advisory Service • Interim guidelines • Intensive advocacy for buy-in within MOH management, DHOs, NGOs and partners • CMAM scaled up to 12 districts
2007	Continuation of the scale up process
2008	National workshop on the institutionalisation of CMAM into health systems with DHOs
2009	Scaled up to all 28 districts in the country
2010	Scaling up facility coverage



(IYCF) issues, Targeted Nutrition Programmes, CMAM Stakeholders Committee, etc.

This move to the OPC enabled the MoH to focus its attention on implementation of programmes, while helping to strengthen the policy environment for nutrition. An example of this is the clearly defined role of nutrition in the Malawi Growth and Development Strategy (MGDS). The MDGS is an overarching operational medium-term strategy for Malawi designed to attain the nation's Vision 2020. The MGDS has six pillars. The 6th Pillar is 'Prevention and Management of Nutrition Disorders, HIV and AIDS'. This pillar has three focal areas namely:

- I. HIV and AIDS: the goal is to prevent further spread of HIV and AIDS and mitigate its impact on the socio-economic and psychological status of the general public.
- II. Nutrition: the goal is to ensure nutritional well being of all Malawians.
- III. Interaction between HIV/AIDS and nutrition: the goal is to improve the nutritional status and support services for people living with HIV/AIDS (PLHIV) for improved quality and duration of life.

Furthermore, nutrition has a separate line item within the budgets of the DIPs. Challenges remain when trying to translate policies into action, mostly due to the number of urgent health priorities that the country is trying to deal with and the limited resources for this. However, Malawi is currently on target to meet Millennium Development Goal (MDG) 4, which if successful will be a major achievement.

Due to strong leadership within government, nutrition is now being packaged as a cross-cutting issue in the same way as accounting. So while there is a general Ministry of Finance, there are also accountants located in each of the ministries to assist with the finance of each Ministry. For example, the Ministry of Transport has its own accountants. The same idea is being applied to nutrition. It is planned that each of the ministries will have a nutrition section based within it, which can ensure that that nutrition issues remain firmly on the agenda of each Ministry.

Another example of a successful advocacy tool utilised in Malawi has been the production of a 'MP's kit' in 2008. The MP's tool kit was developed to help parliamentarians guide actions. It included explanations of the magnitude of malnutrition problems, the consequences, why nutrition matters for national and economic development, their role as MPs, and what they could do to promote nutrition. This advocacy has been very effective, with MPs recently resisting the budget cuts that were suggested for nutrition.

Local production of RUTF

In most countries, all RUTF is centrally procured by UNICEF. However it is encouraging that MoH in Malawi recently

started procurement of RUTF from its own budget to supplement the supplies procured by UNICEF and the Clinton Health Access Initiative (CHAI).

Due to the high cost of imported RUTF and the long process of transportation from France, two organisations have set-up local production facilities that currently provide all the RUTF needs for Malawi. In Blantyre, Project Peanut Butter (PPB) was established during 2005. This production facility started from a small facility in a local hospital, developing into a large enterprise that has a current production capacity of 120 metric tons per month. In Lilongwe, Valid Nutrition (VN) also started from humble beginnings in a small factory, which has grown to become a major production facility capable of producing 160 metric tons per month.

There are a number of challenges associated with local production of RUTF, particularly with the importation of certain raw materials (powdered milk and the mineral vitamin complex). Problems also arise with aflatoxin contamination of the groundnuts (peanuts) used for the RUTF. Sufficient testing equipment is only available in Europe, which can mean long delays between production and test results.

Valid Nutrition are also committed to developing new formulations of RUTF using recipes intended to bring the cost of production down, whilst maintaining the curative integrity of the product. Formulations specifically for nutritional rehabilitation of persons with HIV have also been developed and tested in Malawi.

Progress on scaling up and integrating CMAM

National scale-up

Establishment of the CAS (previously known as the CTC Advisory Service) in 2006 helped considerably with the rapid country-wide scale-up of CMAM. The CAS is currently staffed by members of Concern Worldwide, with its role to provide technical support for the MOH to scale-up CMAM activities. There is particular emphasis on the standardisation of implementation activities, assistance with development of strategic plans, training and operational plans, mentoring and monitoring and evaluation (M&E) of MoH-led CMAM services.

All 28 districts of Malawi are implementing CMAM as of May 2010. However, the percentage of health facilities offering CMAM varies across districts, with some districts providing CMAM services in all hospitals and health centres, while others operate only a few CMAM sites. One of the main reasons for the disparities in site coverage is the necessary gradual nature of the scale up process. The Ministry wants quality service delivery such that it cannot authorise rapid scale up when the performance of an existing site is poor. Meanwhile, other districts benefited from NGO support and supervision, capacity building and provision of supplies.

Figure 2: CMAM scale up trends

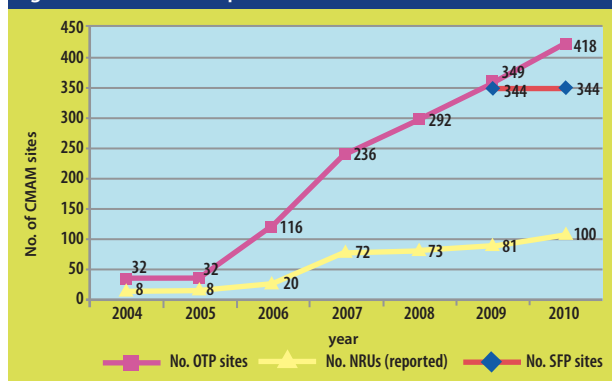


Figure 3: CMAM sites and new admission trends

	2004	2005	2006	2007	2008	2009	2010	Cumulative
No. of districts implementing CMAM	2	2	5	20	21	24	28	
No. of OTP sites	32	32	116	236	292	349	418	
No. of children admitted to OTP	2,170	3,927	15,393	23,029	23,407	25,307	24,591	117,824
No. of children admitted to NRU	1,319	1,125	1,915	9,650	8,467	12,646	12,705	47,827
No. of children admitted to SFP						46,408	42,597	89,005
No. of pregnant and lactating women admitted to SFP						21,417	21,744	43,161

Figure 4: No. of children admitted to the OTP and NRU programmes

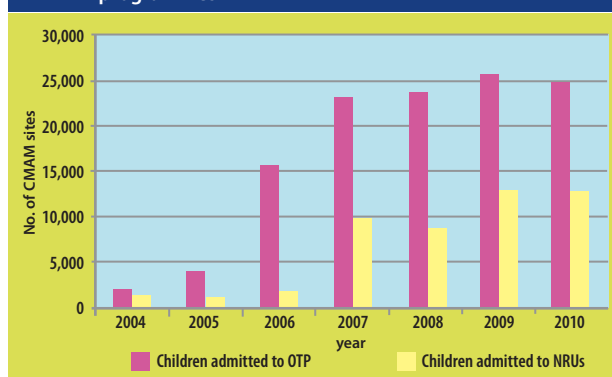
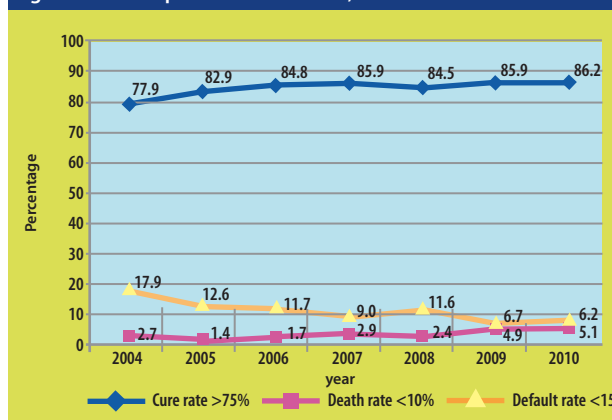


Figure 5: CMAM performance indicators, 2004-2010

Indicator (%)	2004	2005	2006	2007	2008	2009	2010	Average
Cure rate >75%	77.9%	82.9%	84.8%	85.9%	84.5%	85.9%	86.2%	86.2%
Death rate <10%	2.7%	1.4%	1.7%	2.9%	2.4%	4.9%	5.1%	3.0%
Default rate <15%	17.9%	12.6%	11.7%	9.0%	11.6%	6.7%	6.2%	10.8%

Figure 6: CMAM performance trends, 2004-2010



In total, 70% of all health facilities in Malawi currently offer CMAM services for severely malnourished children. This is a major achievement.

The admissions to OTPs increased dramatically from 2004 mainly due to the scale up process. After the adoption of CMAM programmes by the MoH senior management team in 2006, there was a rapid scale up process. This meant that a lot of malnourished children had far greater access to decentralised services. However the increase in the number of NRU admissions is mostly due to reorganisation of data management. Previously the NRU and SFP data were being captured by WFP but from 2006, data management was moved to the CAS. Unfortunately, during the process some data were lost.

From 2004, the programme performance rates have generally been above the Sphere standards. The recovery rates have always been above the Sphere cure rate of >75% and the default rate <11% since 2005. The death rate has been <3% since 2004, apart from 2009 and 2010. This is impressive for a programme largely supported by the MoH.

There are a number of possible explanations for the increase in mortality rates in 2009 and 2010. These include poor clinical participation in CMAM, sub-optimal case finding activities leading to late presentation of cases, and non-adherence to CMAM protocols. This could also be due to a higher proportion of the caseload presenting with serious underlying illnesses such as HIV/AIDS or TB.

MAM treatment and prevention

During the first four years, CMAM had focused on SAM, while MAM was treated as a separate programme managed by WFP. However in 2009, MAM was integrated into the CMAM programme. The SFP programme treats moderately malnourished children from 6 months to the age of twelve years, and pregnant and lactating mothers. The beneficiaries are usually given take home dry rations of Corn Soy Blend (CSB), which is a premix of 4kg CSB, 500ml vegetable cooking oil and 500g of sugar.

MAM cases are identified in the community through the same mechanisms as identification of SAM. Community volunteers use mid upper arm circumference (MUAC) bands and refer those identified as malnourished (by yellow colour or 11.0-11.9cm) to the site.

The three components (SFP, NRU and OTP) have strengthened the continuum of care. Children can be directly admitted to any of the three components. However children can also be referred from one component to the other depending on treatment progress.

The MoH has made efforts to increase nutritional awareness amongst the community, particularly in relation to IYCF practices. Counselling on IYCF has been included in the CMAM guidelines to assist service providers to counsel the caregivers effectively on appropriate feeding practices. The guidelines have included preventive actions and optimal IYCF behaviours are widely promoted within the community in order to reduce malnutrition.



Tibebu Lemma/for UNICEF Ethiopia. Copyright UNICEF Ethiopia

HIV linkages

Malawi is highly affected by the HIV/AIDS epidemic, with a national prevalence rate of 12%.¹ The synergistic effects of HIV and poor nutrition are well understood, both as a direct cause (HIV causing malnutrition) and due to the enhanced nutritional needs of persons taking anti-retroviral therapy (ART). Within the NRUs, there is a very high HIV prevalence of 28%, which can rise to 50% in higher level referral facilities.

During the early days of programming at OTP, there were concerns that if the issue of HIV infection were raised, that there was a danger that you would 'lose' the child, with the parents/caregivers not willing to return to the health facility, i.e. if HIV issues were openly discussed and testing offered. These fears have, however, proven to be unfounded. All children are offered HIV testing on their first visit to the OTP, with parents/caregivers required to 'opt out' if they are not willing for the child to be tested. Current testing uptake rates are very high at around 90% (programme reports). Furthermore, parents are very keen to find out the results. It has been reported by many health workers that on the second visit, the mother has brought the father in for testing after discussion at home about the benefits of determining HIV status. Having already gained the trust of the community, through effective and appropriate programming, CMAM is thus proving to be an excellent entry point for HIV testing and counselling, and referral to appropriate treatment services, as required. Prevention of mother to child transmission (PMTCT) services have also been scaled-up to 491 out of 544 health facilities in the country (90%). The PMTCT clinics are also case detection points for CMAM services.

Much of the change in attitudes by both health providers and caregivers towards HIV can be attributed to the immense efforts made by Malawi to tackle stigmatisation issues. For example, a number of 'HIV testing weeks' have been implemented since 2008. During these weeks, intensive encouragement of testing using advertisements on TV and radio, nationwide mobilisation strategies, etc. are made. Much discussion surrounds 'breaking the silence', encouraging individuals and couples to come forward and check their status. Intensive counselling is offered for individuals and couples.

Key achievements

All 28 districts now implement CMAM (72% of all health facilities). In the scale up of CMAM in Malawi, there have been a number of key achievements to date. A key achievement was the integration of CMAM into the national nutrition policy and into national strategies for Integrated Management of Childhood Illnesses (IMCI), Essential Nutrition Actions (ENA), Accelerated Child Survival & Development (ACSD), and Infant and Young Child Feeding (IYCF). Coupled with the development of national guidelines for CMAM, a harmonised CMAM approach has been made possible throughout the country (national protocols, reports, training materials, etc). Significant developments around training include development of a national training manual and establishing a national CMAM training team (39

national trainers drawn from District Health Offices and supporting partners). Encouragement to train, reporting and supervision are included in DIPs in districts implementing CMAM. Terms of reference (ToRs) for CMAM, focal points and CMAM programme monitoring tools have been developed to guide the implementation and enable supervision of programmes. Furthermore, a national monitoring and evaluation system has been developed to compile, store and enable analyses of data on the management of acute malnutrition.

There have also been significant achievements around financing. The majority of districts fund CMAM costs out of district budgets. This includes initial and refresher CMAM trainings, supervision and district based coordination meetings. MoH and partners are procuring RUTF for the districts and the expansion and certification of local production of RUTF has been a success. Other health services have been strengthened through provision of an 'entry point' for services, such as HIV testing and support, and preventive nutrition programmes. The CMAM Learning Forum is a key initiative that brings together people throughout Malawi to share experiences and best practices.

Enabling factors

Government leadership and commitment has been a key enabling factor to scale up. National and district-level coordinating bodies are present and active. There is strong partnership involving donors and NGOs. Technical support and capacity building is available through the CAS. RUTF supplies are available from local producers. Results are well-documented and best practices are shared (CMAM Learning Forums, national reviews, involvement of district staff). There is an improved nutrition management information system at all levels and promotion of research, documentation and dissemination of best practices.

Challenges

Currently, a large amount of technical, financial, and logistical support for CMAM is provided by NGOs and international donors. This means that the service faces challenges around longer-

¹ Malawi Demographic and Health Survey (MDHS), 2010

term sustainability. Malawi is a country where health services are under-resourced and dependent on external funding sources for much of basic service provision. However, it is hoped and anticipated that external support for CMAM will be increasingly phased out over the coming years, as the MoH is more able to assume full management and funding of CMAM activities.

Specific challenges to the full integration of CMAM at national level include:

- Sustained longer-term funding of CMAM resources and supplies needs to be secured. A total of US\$45,697,975 is required for 2011-2015 that comprises US\$2,625,000 for training, US\$337,975 for community mobilisation and US\$42,735,000 for supplies, equipment and service delivery.
- Continued technical support to the CMAM scale-up in Malawi is necessary to ensure high-quality, effective CMAM.
- There are human resource constraints, for example, high turnover of staff within health facilities, necessitating frequent re-training and shortages of trained clinical staff and other health workers. There are difficulties in effective monitoring and evaluation of CMAM activities, such as late or incomplete reporting and poor data quality from some facilities.
- There are difficulties sustaining community outreach work, for example, some volunteers are inactive because of lack of incentive or expectation for financial incentives and there is inadequate supervision and documentation of outreach activities.

Conclusions and way forward

In order to strengthen CMAM programmes in terms of coverage, access and quality of service, the Government of Malawi will continue to advocate for CMAM, engage partners, strengthen domestic resource allocation through DIPs and budgets and mobilise resources from non traditional donors. It will continue to invest in strengthening institutional and human capacity and strengthen district and community systems (Community Nutrition and HIV Workers).

Although CMAM in Malawi started in an emergency context, the programme has evolved and integrated into routine primary health care services implemented by MoH staff. The MOH in Malawi has a strong role in providing CMAM services. The commitment is evident from the great strides that Malawi has taken to support the scale up process. This has involved development of CMAM and nutrition strategies, policies and guidelines, financing CMAM, linking CMAM to other child health activities and interventions (notably HIV/AIDS), delivering on pre-service and in-service training, and realising national production and management of supplies of RUTF.

It is the view of the MoH in Malawi that effective and efficient implementation of a national CMAM programme will definitely contribute to the reduction of child morbidity and mortality and consequently improve the wellbeing of Malawian society.

For more information, contact:
Mr Sylvester Kathumba, email:
kathumbasylvester@gmail.com,
sylvesterkathumba@yahoo.co.uk



Integrated management of acute malnutrition in Kenya including urban settings

Mother and child in Turkana county

By Valerie Sallie Wambani



Valerie Wambani is Programme Manager for Food Security and Emergency Nutrition, Division of Nutrition, Ministry of Public Health and Sanitation. She is responsible for coordination of the Kenya's nutrition response activities, the Nutrition Technical Forum, development and dissemination of guidelines, technical support to district teams and resource mobilisation for implementation response strategy.

The author would like to acknowledge the Permanent Secretary, Director and Head of the Department of Ministry of Public Health and Sanitation, as well as the Department of Family Health and Terry Wefwafwa (Head, Division of Nutrition). The author also acknowledges the work and support of UNICEF Kenya, Concern Worldwide Kenya (special mention to Yacob Yishak and Koki Kyalo), WFP Kenya, Nutrition Technical Forum members and Dolores Rio, UNICEF New York.

AMREF	African Medical and Research Foundation
ASAL	Arid and Semi-Arid Lands
ASCU	Agriculture Sector Coordinating Unit
AOP	Annual Operational Plan
CSB	Corn Soya Blend
GAIN	Global Alliance for Improved Nutrition
GAM	Global acute malnutrition
GIZ	German Society for International Cooperation
ICC	Inter-Agency Coordinating Committees
IMAM	Integrated Management of Acute Malnutrition
IP	Implementing partners

IP	Implementing partners
KDHS	Kenya Demographic Health Survey
MDG	Millennium Development Goal
MAM	Moderate acute malnutrition
MoH	Ministry of Health
MoMS	Ministry of Medical Services
MoPHS	Ministry of Public Health and Sanitation
NTF	Nutrition Technical Forum
NICC	Nutrition Interagency Coordinating Committee
PLW	Pregnant and lactating women
RUTF	Ready to Use Therapeutic Food

Context

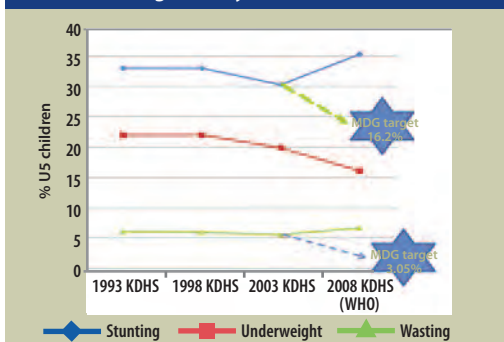
Kenya has a population of 38.7 million people, of which 5,939,308 are children under five (U5) years of age. The country is divided into eight provinces: Coast, Eastern, Central, North Eastern, Rift Valley, Nyanza, Western and Nairobi. However, with the new dispensation, these provinces are being phased out to pave way for the 47 counties that will feature more prominently after 2012 in terms of governance. Agriculture, tourism and manufacturing are the mainstay of the economy. Two indicators of nutrition status of U5 children have worsened over the last two decades (see Figure 1), with the Kenya Demographic Health Survey (KDHS) 2008-09 reporting that 35% were stunted (2,096,575 children) and 6.7% were wasted (397,934)¹. However, the prevalence of underweight children has reduced from 22% to 16.1% (956,228). The prevalence of stunting was highest in

three provinces: Eastern, 41.9%, Coast, 39.0%, and Rift Valley, 35.7%. Overall, the health status of the population is poor, with an infant mortality rate of 52 deaths per 1,000 live births, an U5 mortality rate of 74 deaths per 1,000 live births, and a maternal mortality rate of 441 deaths per 100,000 live births.

Kenya experienced a serious drought in 2011 affecting the northern parts of the country and also had a mass influx of refugees arriving from Somalia (July 2011). At this time it was estimated that more than 1,500 refugees were arriving each day, many of whom were in very poor condition after travelling for days and weeks to reach the camps. The refugee camp of Dadaab, in particular, was

¹ CBS, MOH, KEMRI, NCPD, ORC Macro, Cleverton, Maryland USA, Centre for Disease control Nairobi, (2008/2009). Kenya Demographic and Health Survey .pp 42-45

Figure 1: Trends (% prevalence in U5s) of nutritional indicators (stunting, underweight and wasting) in Kenya, 1993–2008



MDG: Millennium Development Goal

under considerable pressure, as it was not designed to hold such vast numbers of people. Available services were stretched to the limit as workers tried to cope, both with the new arrivals and also those who have been residing in the camp for some time.

Political situation

After a long period of peace and stability, the fourth multi-party General Election was held during December 2008 and the results were highly contested. Violence erupted across the country, particularly in Nyanza, Rift Valley, Coast, Western and Nairobi Provinces. It is estimated that 1,200 people died, with a further 500,000 displaced. A legacy of distrust remained between the various factions, which required a team of external negotiators to be brought in to broker a deal for power sharing amongst the opposing political parties. One of the results of the peace deal was that the Ministry of Health (MoH) was divided into two separate ministries: the Ministry of Medical Services (MoMS), which is responsible for curative services in hospitals and higher-level health services, and the Ministry of Public Health and Sanitation (MoPHS), which is responsible for health services delivered from health centre, dispensary and community levels.

Prior to the divide, public health issues received little attention, with more focus placed on curative service delivery. Once the MoPHS was established, nutrition and public health issues gained more attention and, crucially, a larger share of the health budget. A new constitution was developed and promulgated in August 2010, and currently various legislations are being put into place to guide governance

under this new dispensation. The various ministries will once again be combined into an overall Ministry responsible for Health. The challenge for nutrition will be to maintain the increased attention that it has been receiving once the MoPHS is again subsumed into the MoH. The new constitution has outlined a process of decentralisation, whereby the 47 counties will become much more autonomous with regards to health service provision, management of budgets, operational issues, etc. Overall guidance in the form of policies, guidelines and the like will still emanate from central level.

A major change outlined in the new constitution is that Ministers (for health, agriculture, etc.) will no longer be elected politicians, but instead will be technicians/professionals nominated through parliament. It is expected that this will result in the various ministers being less interested in 'politics' and more focused on the effective management of their ministries. This will be in line with the results-based management system introduced within the public service in 2005, which will hopefully encourage a focus on improved performance.

Nutritional status of the population

The devastating effects of micronutrient deficiencies in pregnant women and young children are very well known and deficiency rates remain high in Kenya. Children are particularly affected by deficiencies of vitamin A (84%), iron (73.4%) and zinc (51%)². The highest prevalence of moderate to severe anaemia has been found in the coastal and semi-arid lowlands, the lake basin and western highlands sub regions. Among women, prevalence of severe to marginal s-retinol deficiency has been found to be 51%, while severe s-retinol deficiency is 10.3%, with a prevalence of 55.1% among pregnant women. The prevalence of iodine deficiency in Kenya is 36.8%, with goitre prevalence of 6%. The national micronutrient survey has been completed and findings will provide up-to-date data on the micronutrient status of the population.

With regard to infant and young child feeding practices, indicators are also poor with only 32% of infants under six months of age being exclusively breastfed. While this percentage remains low, it does show improvement from 11% in 2003. The median duration of breastfeeding in Kenya was found to be 21 months³ (KDHS 2008–9).

Policy environment and coordination fora

An overall policy framework for Kenya has been outlined in the 'Vision 2030', which aims to transform the country into a globally competitive nation with a high quality of life. The MoPHS strategic plan 2008–2012 aims to support the implementation of 'Vision 2030' and was informed by the Kenya Health Policy Framework 1994–2010, the second National Health Sector Strategic Plan (NHSSP) 2005–2010 and the Medium Term Expenditure Framework 2008–2011. The NHSSP is being finalised to guide service delivery in the devolved system of government.

With regard to nutrition, the first food policy was developed in 1981. Its main objective was to support self-sufficiency in major foodstuffs, while ensuring equitable distribution of food of good nutritional value to the population. This policy was reviewed in 1994, but maintained

the same objective. Since this time, significant progress has been made in developing strong nutrition-related policies to address the stagnant high malnutrition levels and the underlying causes.

An example of this is the Food and Nutrition Security policy, which was developed through a wide consultative process with local and international technical support, and subsequently submitted to Cabinet. However, with the new constitution coming into force in 2012, it is currently under review to align it with the new structures that will shortly be in place. Cabinet had endorsed the Food and Nutrition Security policy and the Agriculture Sector Coordinating Unit (ASCU) is coordinating efforts on governance structures for implementation of this policy. The Food and Nutrition Security strategy will be reviewed through wide stakeholder consultations. Additionally the 'breast milk substitutes' control bill will be subject to wide stakeholder discussions to involve civil society before enactment by parliament, to regulate practices aimed at protecting appropriate infant feeding practices.

The MoPHS coordination structure includes the Joint Inter-Agency coordinating committee, which provides political and policy direction to ensure that the sector is working towards achieving the policy objectives set out in the Vision 2030 and the Medium Term Plan. Additionally, the Health Sector Coordinating Committee has the role of ensuring that the ministerial strategic plan is implemented so that sector policy objectives can be achieved. Meetings are co-chaired by the Permanent Secretaries of the two sector ministries, MoMS and MoPHS. There are 16 Inter-Agency Coordinating Committees (ICCs) and one of these is focused on nutrition, the Nutrition Interagency Coordinating Committee (NICC).

At the sub-national level, various governance structures facilitate provincial and district implementation of the national strategic plan. A number of fora have been established, including the Provincial Health Stakeholders Forum, the District Health Stakeholders Forum and the Health Facility Committee and Community Health Committees. Nutrition coordination is undertaken at provincial and district levels with clear terms of reference, through technical committees of the stakeholders.

Integrated Management of Acute Malnutrition (IMAM)

Development of IMAM in Kenya

IMAM programming started in earnest during 2007 when the MOH, UNICEF and WHO entered into a tripartite agreement to respond to the varied and complex crises that Kenya regularly faces. The response was undertaken in partnership with international, local and faith-based organisations. This initiative marked a change in the implementation strategy of the Ministry, to develop stronger working relationships with partners in order to help build capacities and strengthen systems.

By 2008, approximately 400 health workers from districts in the Arid and Semi-Arid Lands (ASALs) were trained in IMAM with support

² Mwaniki et al, (2002). Anaemia and the status of Vitamin A deficiency in Kenya.

³ Source: Micronutrient Initiative

⁴ Government of Kenya (2008). Integrated Management of Acute Malnutrition, Guidelines for health workers.



V Wambani, Kenya, 2011

from UNICEF, using the first version of the National Guideline on IMAM that had been developed during 2008⁴. Technical support was provided by partners for District Nutritionists in order to strengthen monitoring and reporting of IMAM activities.

The IMAM programme is centered mainly on the management of acute malnutrition in children under five years and pregnant and lactating women (PLW), with some emphasis also given to older children, adolescents and adults.

During 2010, Kenya adopted a package of 11 High Impact Nutrition Interventions focusing on infant feeding, food fortification, micronutrient supplementation and prevention and management of acute malnutrition at health facility and community level. These essential nutrition services are integrated into routine health services and have been proven to be efficient at preventing and addressing malnutrition and mortality in children. It is anticipated that 26% of deaths could be prevented if the services are implemented fully and at scale. The package is currently being trialed in three districts of the ASALs. An evaluation will be conducted within the near future, after which the roll out of the package will be done in additional districts/areas. The IMAM programme (as part of High Impact Nutrition Interventions) is being implemented by the MoPHS and MoMS in partnership with UN agencies (UNICEF and WFP) and several implementing partners (IPs) at health facility and community level. The programme focuses on the management of acute malnutrition, with intensive activities being conducted in four provinces of the ASALs, including the whole of North Eastern province and parts of Rift Valley, Eastern and Coast provinces. Data relating to the geographical coverage of the IMAM programme are shown in Table 1.

Populations in arid districts continue to experience a prevalence of global acute malnutrition (GAM) of between 15 and 37% (WHO 2006), due to seasonal fluctuations in food security, poor infrastructure and low levels of access to essential health and other social services. The high food and fuel prices of the last two years have dramatically reduced the population's purchasing power, contributing to the deteriorating food security situation and associated high malnutrition levels. From the weekly IMAM reports provided to the MoPHS, the child case fatality has considerably reduced with most districts reporting <3%. Through gradual expansion of services, geographical coverage of the IMAM programme has increased from 50% for SAM and 39% for MAM in 2009, to 73.9% and 60% in 2011, for SAM and MAM respectively.

Table 1: Number of OTPs and SFPs integrated in health facilities in most affected provinces as at October 2011

Province	Number of health facilities	Number of health facilities providing IMAM services	Facility coverage of IMAM
Rift Valley	131	118	90.1%
Eastern	173	114	65.9%
North Eastern	107	80	74.8%
Total	411	312	75.9%

OTP: Outpatient Therapeutic Programme, SFP: Supplementary Feeding Programme

New admissions for SAM and MAM continue to increase compared to the same period during 2010. There has been an increase in 78% of new admissions of children suffering from SAM and a 39% increase in new admissions of children suffering from MAM. Additionally an increase of 46% of new admissions of PLW suffering from acute malnutrition has been observed. This increase is largely due to the drought and deteriorating food security situation currently occurring in Kenya and as reported in the mid-season long rains assessment report. The long rains assessment report⁵ reported an increase in the number of food insecure persons from 3.5 million to 3.75 million with pastoralists accounting for 1.5 million in the emergency phase.

Progress on IMAM coverage:

- 34,168 severely acutely malnourished children <5 years
- 91,963 moderately acutely malnourished children <5 years
- 20,346 acutely malnourished pregnant and lactating women.

The nutrition section within the MoPHS estimates that approximately 385,000 children and 90,000 women are currently suffering from acute malnutrition (July 2011). Based on the nutrition and food security situation, the nutrition sector has confirmed that 10 larger ASAL districts have been classified as 'Under Alert' (Map 1).

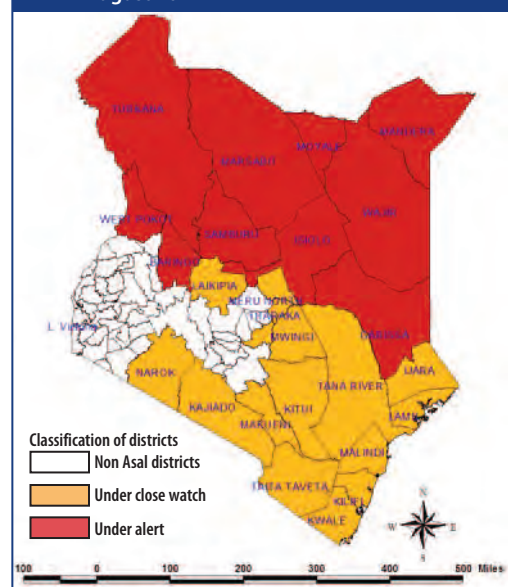
Main partners involved in IMAM implementation in Kenya

The Ministries responsible for health chair the coordination forum for nutrition stakeholders and have developed a partnership framework with clear terms of reference. The main development partners that support the MoMS and MoPHS for IMAM are UNICEF and WFP. UNICEF procures and distributes all the Ready to Use Therapeutic Food (RUTF) supplies to treat SAM, whilst WFP procure and supply products to treat MAM (Corn Soya Blend (CSB) and oil). Both partners also provide considerable support for training, monitoring and supervision of the programme.

Due to capacity constraints within the health service, support for IMAM programming is provided through a number of implementing partners (IPs). The main IPs include Action Against Hunger, Save the Children, World Vision, Food For the Hungry, Concern Worldwide, Mercy USA, Mercy Spain, CAFOD, GIZ, Islamic Relief, MSF-France, MSF-Spain, MSF-Belgium, International Medical Corps, International Rescue Committee (IRC), Merlin, Pastoralists against Hunger, The Good Neighbours' Community Programme, Samaritan's Purse, OXFAM, CCF and CARITAS.

Partners are coordinated through the Nutrition Technical Forum (NTF), which is chaired by the MoPHS and co-chaired by UNICEF. This forum was established following the post-election violence of 2008/9 and has continued to steer all emergency operations. Four working groups were also established that report to the NTF: the Capacity Development working group, the ASALs working group, the Nutrition Information working group, and the Urban Nutrition working group. A partnership framework was put in place to guide the engagement of partners with the MoPHS. Through this coordination mechanism, for

Map 1: Areas of Kenya classified by 'alert' status based on food security and nutrition situation, August 2011



example, nutrition survey methodology is vetted and results validated before dissemination. It has also strengthened the code of conduct of partners adhering with the 'three ones': one implementation plan, one coordinating body and one monitoring and evaluation plan. The main challenge has been some partners withdrawing abruptly from districts without a proper exit strategy, some having only short-term funding and others preferring to operate in areas that are already covered.

Funding of IMAM activities

Funding for nutrition in general remains at very low levels. The proportion of the total Government of Kenya health budget that is allocated for nutrition currently stands at 0.5%, of which more than 75% is for human resource needs, leaving the rest for programme activities.

IMAM programmes are predominantly funded through emergency budgets, provided by both the Government of Kenya and partners, to support commodities, logistics, capacity strengthening and monitoring and evaluation of the programme. The government has continued to increase allocation for IMAM commodities and provided guidelines on type of products to be used. In 2011, partners have received \$14,546,811 from a variety of sources to implement IMAM programmes in the country. However, the nutrition sector estimates that a total of \$55,694,269 is required to ensure appropriate response up to the end of the year. A considerable gap therefore exists between the funds received and what is required to adequately address the humanitarian crisis that is occurring in Kenya this year. Recently, the programme has received support from the German International Cooperation (€200,000) for procurement of commodities for management of SAM and MAM. World Bank has committed to provide US \$12.8 million for commodities and capacity strengthening for the IMAM programme.

Due to the nature of emergency programming, most nutrition programmes are largely short-term and humanitarian in nature. While emergency funds are generally easier to access than longer-term development funds, the resulting programming can often be more

⁵ GOK (2011). Long Rains Assessment Report

disjointed and less strategic when relying on short-term humanitarian funding sources. Effective connectivity between the humanitarian and development donors seems to be somewhat limited in Kenya, resulting in a degree of inflexibility when addressing the multiple underlying causes of malnutrition. Kenya will not be able to reverse the current trend of increasing rates of stunting without dedicated longer-term funding specifically allocated to programmes to address these underlying causes. Emergency donors have also asked partners to apply for funds that will support resilience in communities affected by drought and hopefully this should shift the focus to long term sustainable measures.

Challenges to IMAM implementation

The MoPHS, MoMS and partners face many challenges in the implementation of high quality IMAM programmes, including:

- Geographical access across the vast and inaccessible areas of northern Kenya where rates of malnutrition are highest.
- Ensuring sufficient supplies and reducing the risk of pipeline breaks.
- Funding gaps when trying to ensure that the full package of outreach services can be provided.
- High defaulter rates due to poor follow up.
- Long lengths of stay in the programme due to sharing of commodities at household level.
- Insufficient general food distribution rations due to lack of cereals and the high prices of fuel and maize. This negatively impacts on the programme through increased risk of sharing of the therapeutic and supplementary rations amongst household members.
- Constraints within the health service, most notably human resource issues that include high staff turnover, shortages of staff in hard to reach health facilities, lack of trained staff in health facilities, etc.

IMAM implementation within the urban setting

Kenya is rapidly urbanising and it is projected that by 2020, 50% of the population will live in urban areas. Nairobi alone has seen a 46.2% increase in population size since 1990 (according to the 2009 census) and is now home to over 3,138,369 people. The majority of this growing urban population resides in slums or informal settlements with little access to basic services. About 50% of the 16 million poor Kenyans live in the slums/informal settlements in the main urban centres and 40% are food insecure. The face of poverty is therefore changing due to this rapid urbanisation. Urban poverty is characterised by lack of employment or lower wages and returns from informal employment (compared to the formal sector) and extremely poor levels of basic services, such as housing, sanitation, health care and education services.

In general, poorer urban households are particularly vulnerable to changes in market prices as they are entirely dependent on the market, both to generate income and to meet their food and non-food needs. The ‘new face of hunger’ has seen slum residents adopt negative coping strategies such as skipping meals, eating lower priced and less nutritious foods and cutting back or eliminating expenditures on health or education services. Other major constraints to attaining good nutrition status are inadequate awareness and knowledge on



Mother and child in Turkana county

V Wambani, Kenya, 2011

nutritionally adequate diets, poor infant and child feeding practices, limited resource allocation and capacity to support comprehensive nutrition programs in the country. Likewise, the prevalence of malnutrition in urban areas, particularly in the slums, is expected to be much higher than the national average (KDHS, 2008-9).

From 2009 onwards, at least three factors have further compromised the livelihood security and child survival in Kenya’s slum populations:

- Loss in food production due to the impact of the post-election violence in the main agricultural producing areas in the Rift Valley.
- Global increases in food and fuel costs.
- Drought developing across the Horn of Africa.

Overall IMAM strategy

Prior to IMAM implementation the only nutritional services available for SAM children were traditional inpatient care units that existed in the main referral hospitals. As inpatient care was the only treatment available, the result was overcrowding of wards, increased risk of cross infection amongst immune-compromised patients, pressure on over-stretched and under-resourced staff from increased caseloads and limited coverage of the affected population.

The MoH started to roll out IMAM and build the long-term capacity of health staff in order that the programme could be sustained and replicated across the big cities of Nairobi and Kisumu. All the activities were planned for and implemented by provincial and district level MoH staff with support from partners, most notably Concern Worldwide.

Table 2: Performance indicators for the urban IMAM programme

Year	Number of admissions	Cured	Deaths	Defaulters
2008	1,607	48.4%	2.4%	47%
2009	2,737	67.4%	3.1%	28.1%
2010	4,669	76%	2.0%	21%

Concern Worldwide’s support to the MoH for IMAM services consisted mainly of technical assistance, which aimed to improve technical knowledge in curative and preventative nutritional services within the existing health system. The entry point for urban IMAM was through paediatrics clinics based in the informal settlements (slums) of Nairobi, supported by another partner (Lea Toto) that focused on provision of HIV/AIDS services. The support for nutrition services was not limited to HIV positive children but also extended to HIV negative children who were malnourished, identified through MoH facilities in the same catchment areas. The roll-out of IMAM in urban slums was triggered by poor health indicators as well as socio-economic factors experienced by the urban poor. Additionally, increasing caseloads of paediatric HIV cases resulted in higher numbers of malnourished children presenting to the clinics.

At present, OTP services are being offered in eight districts in Nairobi and one in Kisumu (Nyanza Province) through MoH facilities (and with the support of Concern Worldwide). Since 2008, following the post-election violence, OTP sites increased from 30 to 54. Through support from the WFP, 58 Supplementary Feeding Centres (SFCs) have also been established in the urban slums (Nairobi and Kisumu).

Linkages with other health/nutrition interventions

Most OTPs are situated at the Maternal and Child Health (MCH) clinics, which has helped to strengthen the linkages for both the caregiver and the child to other MCH services such as immunisation, ante-natal and post-natal consultations and to primary health care delivery services. In addition, children responding poorly to SAM treatment are referred for HIV and TB screening.

Operational issues: training, supplies, logistics, supervision, reporting

Following the post-election violence the expansion of IMAM services in the urban slums was accelerated. Using the interim training package

spearheaded by UNICEF/WHO, capacity strengthening was conducted with training of trainers and practical training on the management of SAM to be integrated into routine health services at health facilities. District Health Management teams (DHMT) have been supported in the nine districts of Nairobi and Kisumu to provide training of health staff in SAM/ MAM service provision. Weekly on-the-job support was provided to health facility staff. This was gradually scaled back once staff were able to implement the protocols correctly. Reporting on IMAM was also strengthened to ensure that districts provide accurate and timely reports to provincial and national levels.

Community mobilisation

The MoH has promoted the use of community health workers (CHWs) to support implementation of IMAM. A community strategy has been refined to increase early detection and home follow-ups. Each health facility is served by a group of volunteer CHWs who conduct community sensitisation, screening in the community, referrals of SAM/MAM cases, home follow-up of absentees and defaulters, and follow-up of inpatient referrals back to OTP.

The retention of CHWs is a major challenge due to their 'volunteer' status, meaning that they are not paid for services rendered (they receive payments during training days only). The MoH has recently developed a Community Strategy Policy that states that the community health extension workers (CHEWs) will be paid approximately \$25 per month. While this is a relatively small payment, it is hoped that it will encourage the CHEWs to stay in post for longer.

Successes in the urban roll-out of IMAM

The main achievements in the urban rollout include:

Gradual expansion of services has been reported, as reflected by increased admissions and steady improvement in performance of the programme. Both the percentage of cases cured and percentage of deaths meet Sphere standards (see Table 2), although default rates (while decreasing) remain high.

Management of acute malnutrition has been included in district 'Annual Operational Plans' for 2008, 2009, 2010 and 2011 in Nairobi and Kisumu East. This has ensured that the OTP has become part of 'routine health service delivery' in these districts.

Expansion of the OTP via routine health centre delivery services has 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) have now integrated management of acute malnutrition within their nutrition services in the urban slums.

The work has mobilised and used existing human resources: community health workers and community leaders. Community linkage has been strengthened between the health facilities, inpatient referral centres and the community, thus increasing referrals and home follow-ups of acutely malnourished children.

Improvements have been made in reporting and the supply chain for therapeutic products. However, further work for individual site

stock control and avoidance of supply breakdown is required to ensure uninterrupted service provision

There has been expansion of nutrition support to help districts implement the essential nutrition package previously formulated by the MoH with support from UNICEF. Key activities include strengthening infant and young child nutrition, micronutrient support, health and nutrition education and community mobilisation.

Key challenges for the urban IMAM programme

High staff turnover at health facilities. Since the inception of the programme in 2008, repeated training has often been required as a result of high staff turnover. At times, OTP services have been implemented by untrained staff, which has resulted in poorer quality service provision.

Lack of supplementary feeding to treat cases of MAM in Nairobi. Until May 2011, there was no treatment available in Nairobi for MAM cases. If these children are not treated, they are more likely to develop SAM. Furthermore, children discharged from the OTP are likely to relapse if they are not given protection rations of CSB because they come from food insecure homes.

High defaulter rates (above Sphere standards). While the default rate is slowly declining, it remains high. Main reasons include migration as families move due to house fires (caused by type of cooking facilities used), high rents, or for work opportunities. Additional important reasons are frequent absenteeism as caregivers often prioritise casual work over attendance at health facilities and frequent and lengthy illnesses of the caregivers due to HIV/AIDS related complications and other chronic diseases.

Lack of emergency indicators for urban settings. Even during times of acute crisis, the malnutrition rates in urban areas generally remain low. However, even low prevalence rates can translate into very large caseloads due to the high population density of urban slums. As there are currently no internationally recognised indicators of crisis in urban areas, it can often be difficult to mobilise resources. It is also challenging to motivate government and key stakeholders to increase their workload when a clear need has not necessarily been identified.

Other challenges include inadequate storage for supplies and equipment at health facilities, difficulties with accurate and timely reporting, coherent use of data at facility level for planning purposes, inadequate stock management of SFP commodities and lack of appropriate mixing equipment for SFP commodities.

Lessons learned from the IMAM programmes in Kenya

On-site training and intensive on the job support are essential for retention of skills and continuity of care. This also has additional benefits because staff are not taken away from the health facility and more staff can be trained with proper planning.

It is important to sensitize stakeholders sufficiently, especially donor agencies and health staff regarding the high caseloads of acute malnutrition that typify Kenya's urban slums, even when the prevalence of malnutrition is low.

Alternative indicators are required to determine nutritional emergencies in urban areas. The challenges and problems within the urban context are considerably different from the rural context upon which current Sphere standards and WHO recommendations are based.

The IMAM programme in Kenya has evolved gradually from one district and a few selected health facilities to a national programme covering more than 22 counties with a trained pool of health workers who are able to manage acute malnutrition. The policy environment has enabled partners to support integration within routine services and to scale up during emergencies. The government's role in funding the programme has increased. The 2011 allocation for emergencies within the health sector is 150 million Kenyan Shillings, compared to 65 million Kenyan Shillings in 2010. Guidelines will be reviewed to incorporate protocols for blanket supplementary feeding and new products, for example.

Within the health system, the Annual Operational Plan (AOP) is the planning tool that highlights key activities, indicating the contribution of both government and partners. Partners are invited to participate in the AOP process and commit to support government priorities outlined in the plan. In theory, the resources committed should be disclosed to determine gaps. However, some partners would rather state that they will provide technical assistance in a number of areas than put a figure in monetary terms, for example, as reflected in the Division of Nutrition work plan. The main partners supporting nutrition activities include UNICEF, USAID/MCHIP (Maternal and Child Health Integrated Programme), Global Alliance for Improved Nutrition (GAIN), Micronutrient Initiative and WFP.

Recently, the Division of Nutrition has received credit from the World Bank through the Health Sector Support Fund for the drought-affected counties for management of SAM, moderate malnutrition and blanket supplementary feeding for vulnerable groups (including PLW, older persons, widows and female headed households). The proposal went through a rigorous process of determining baseline indicators and monitoring indicators to track progress towards attainment of set objectives. All commodities for the management of malnutrition will be procured by UNICEF and distributed through the WFP pipeline to ensure that no parallel systems are set up. The German Society for International Cooperation (GIZ) has also provided funding for emergency activities and these funds must be utilised by December 2011. These funds require that UNICEF procures the commodities and the African Medical and Research Foundation (AMREF) develops the capacity of health workers.

The draft concept paper on the devolved system is in place and modalities are being discussed regarding the implementation. County governments will be independent and expected to raise funds for operations of the majority of services, including primary health care services which are a function of the county.

For more information, contact: Ms Valerie Wambani, email: vwambani@gmail.com, vwambani_don@dfh.or.ke, +254 715019069

Management of acute malnutrition programme review and evaluation

Summary of evaluation¹



Young girl recovering from severe malnutrition, OTP centre in Kaedi, Mauritania

David Rizzi, Mauritania, 2010

By Yvonne Grellety, H el ene Schwartz and David Rizzi

Yvonne Grellety is an independent advisor on international health and nutrition to humanitarian agencies working in the developing world. She has extensive experience in the emergency nutrition sector over 30 years and more, working with MSF and ICRC, ACF and UNICEF, particularly in challenging contexts.

Helene Schwartz is currently working with UNICEF WCARO as the IMAM focal point. She has previously worked in nutrition programmes including CMAM with a number of agencies in many countries, including ACF in Sudan, Burundi and Nepal, UNHCR in Chad and UNICEF in West and Central Africa.

David Rizzi is currently working for UNICEF North Korea on the CMAM programme and providing technical assistance to the Ministry of Public Health. He has worked and consulted for NGOs and UNICEF in many countries including Angola, Burundi, DRC, Mali, Mauritania and Chad.

In 2009, twenty countries in West and Central Africa were implementing programmes to address acute malnutrition. These programmes include the protocol, training modules, monitoring and evaluation and support for implementation at in- and out-patient facilities and at community level. The aim in most of the countries was primarily to increase the coverage of the programme.

UNICEF WCARO (West and Central Africa Regional Office) considered it important to have an independent evaluation of the progress and quality of implementation and coverage of the programmes and to identify their strengths and weaknesses, in order to provide sound technical advice to country offices. The planned evaluation comprised the review of the existing programmes, involving field visits of 10 to 15 days each in nine countries that were willing to participate: Benin, Burkina Faso, C ote d'Ivoire, Democratic Republic of Congo (DRC), Liberia, Mali, Mauritania, Sierra Leone and Togo.

The key tasks were:

- to analyse the national programme's documents (protocols, training modules and monitoring evaluation tools) and provide recommendations to ensure that they were in-line with the international standards, current best practice and any new scientific evidence
- to assess the implementation at field level and provide feedback on front-line activity and problems
- to review critically the effects of, and problems with, scaling up the programme

and identify the main bottlenecks, and

- to make recommendations at national and regional level in order to ensure the quality control of the programme within the region.

After a ten days preparation mission in Dakar, a first evaluation was made in Mauritania and Benin, in order to test and standardise the methods. The personnel then divided into two teams. A total of 35 interviews and/or observations were conducted with programme managers of the Ministries of Health and international/ national non-governmental organisations (NGOs), 34 evaluations of in-patient facilities (IPF), 50 of outpatient therapeutic programmes centres (OTP) and 10 of supplementary feeding centres (SFC).

For each country, the team provided a detailed report describing the protocols, tools and the strategy used, with recommendations. Available individual data and monthly reports of databases were collected, analysed and their results integrated in the annexes of the final country report.

Main results

The national protocols were updated between 2005 and 2009. All included outpatient care, but still very few countries had adopted the 2006 WHO Growth Standards. Two countries used the opportunity of the evaluation visit to update their protocol (Benin and C ote d'Ivoire). However, the protocols of Burkina Faso, Mali, Sierra Leone, Mauritania and DRC required revision. The protocol of Togo was found to be accurate, clear and well-formatted for practical

use. The protocol of Liberia was also found to be consistent with the current generic protocol.

A number of technical issues were evident in many countries, including a complete lack of standardisation. These included the admission and discharge criteria, the correct preparation of the therapeutic milks - especially problems with the scoops, the size of the packaging and preparation of small quantities - the treatment of malaria and some complications, the excessive use of some drugs such as metronidazole, anti-vomiting drugs, paracetamol, zinc tablets, the use of chloramphenicol as the first line antibiotic and management of infection where there was antibiotic resistance. Other issues needed stronger emphasis such as the correct application of the appetite test, the use of a severe acute malnutrition (SAM) number, and clearer understanding/definition of the current terms used.

Many general issues remained unsolved, such as the integration of management of acute malnutrition with other national protocols such as community Integrated Management of Child Illness (IMCI), HIV and TB programmes. The frailty of health systems with consequent danger of overburdening the system and degrading existing services, lack of human resources, the rapid turnover of staff and the

¹ Management of Acute Malnutrition Programme Review and Evaluation. Fieldwork from 18th January - 30th April, 2010. Report 2010. Yvonne Grellety, H el ene Schwartz and David Rizzi. The Field Exchange summary was prepared by H el ene Schwartz and reviewed by Yvonne Grellety.

absence of pre-service training made the process of implementation very weak and fragile. There was almost total absence of regular and adequate supervision and evaluation visits. Even if the community-based approach for outpatient care of acute malnutrition facilitated rapid scaling up, this resulted in many of those implementing the programme being isolated and often overburdened. The importance of supervision, coordination and support at the district level was repeatedly emphasised.

In terms of monitoring and evaluation, the lack of standardised definitions of terms, of printed tools and standard formatted reporting forms, complicated the analysis and the comparison between countries.

No national Ministries of Health visited had managed to have a sustainable system at community level. Community mobilisation was rare and depended entirely on the initiative and motivation of either a district officer or the supervisor of the health centre - this weakened the programme enormously.

Orders for supplies and deliveries were, for all the countries, the biggest challenge. There is a factory in DRC, Lubumbashi, but otherwise all products need to be imported. Some OTPs ran out of Ready To Use Therapeutic Food (RUTF) and had to close down due to the shortage of supplies. This was particularly a problem in emergency situations, e.g. in South DRC, programmes were opened without proper district supervision with emergency funds and then failed due to lack of supplies. This failure of logistics had a detrimental effect on the confidence of the population, and the reputation, sustainability and viability of all the programmes. The most affected were the Supplementary Feeding Programmes (SFPs) which were plagued by repeated and/or extended stock shortages in almost all the programmes and countries evaluated.

A summary of the strengths and weaknesses are given in Table 1.

Table 1: Summary of the strengths and weaknesses of the current implementation of IMAM	
Strengths	
Success of the SAM treatment with out-patient management.	
Ready to Use food (therapeutic and supplementary) easy to use.	
Out-patient treatment of acute malnutrition allows scaling up and decentralisation which dramatically increases access to treatment.	
Beneficiaries and MoH are convinced about the efficiency of the treatment.	
Limitations	
No pre-service training of health staff, rapid staff turnover.	
Inadequate or no budget allocation by Ministries of Health to address malnutrition.	
The management of SAM is entirely donor dependent, and is not perceived as a governmental responsibility yet. Need for continuous direct input from the UN and international NGOs.	
Fragility of the health system. Front line staff already overburdened with existing programmes.	
Lack of institutionalisation of supervision, coordination and logistics at district level.	
Lack of standardised tools for monitoring and evaluation. Lack of integration within other programmes (community IMCI – HIV – TB).	
No coordination between in- and out-patient facilities. Major difficulty with transport of severely ill patients.	

Lessons learned

The lack of pre-service training weakened the scale up and exacerbated the effect of the high rate of staff turnover. Supervision and in-service training then has to be continuous and considered as key activities to alleviate this problem, provided that trained supervisors and evaluators can be identified in the absence of pre-service training. Supervision of the individual facilities and coordination within the district health management team is an absolute key to ensuring acceptable programme quality.

The lack of a nutrition budget line within the Ministries of Health’s strategy weakened the sustainability of the programme and makes the programme completely dependent on UNICEF, NGOs and donors.

These programmes cannot be dependent on emergency or short-term financing. The programmes must be implemented in terms of medium and/or long-term development.

Governments and international partners, including donors, the UN staff and NGOs, face many challenges with management of acute malnutrition programmes including regular, timely delivery of supplies, regular collection and reporting of programme data and integration into an understaffed general health system faced with issues of training, recruitment, payment and support of health workers and high staff turnover.

Some countries, such as Benin, and some NGOs adopted a weekly outreach strategy to the non-catchment areas to screen and treat SAM cases. This strategy had a great effect on the defaulter rate.

Questions

Is it correct to scale up rapidly at the expense of the quality of the programme? Presumably there is a balance to be struck and a minimum standard of care and functionality of the programme defined. The very high defaulter rates in most programmes indicate that the beneficiaries are not satisfied with the quality and operation of the programmes. On the other hand, it is important to scale up as rapidly as possible to improve access to services. This will require investment in training, supervision, organisation and logistics.

Key questions remain such as can the quality and scale of the programmes improve if the health system as a whole remains weak? How should the programme be expanded and how can the danger of overburdening front line staff to the detriment of all other services provided from health centres be avoided or ameliorated?

Recommendations

The generic protocol should be reviewed to emphasize more clearly the different types of management activities, so that relevant information is readily available and all terms used clearly defined and standardised. This will allow a greater coherence at the regional level. The management of complications should be revisited with the increasing resistance of pathogens to antibiotics within the region.

Several technical details need to be addressed such as packaging of therapeutic products and the excessive use of certain medicines (administration of multiple drugs likely to be more toxic in the malnourished, is common). Training on the management of complications

should be conducted on a regular basis due to excessive turnover of the staff until pre-service training has been in place for the majority of graduates to be familiar with SAM, moderate acute malnutrition (MAM) and their management.

Better integration of the management of acute malnutrition is needed in health centres and hospitals. Proper nutritional screening methods and tools should be incorporated into the integrated management of child illness (IMCI) protocols and implemented.

For programmes implemented at district level, the training and motivation of the nutrition focal point and district team is the key to a successful programme. At this level, logistics training, in-service training and ensuring evaluation and supervision skills should be included in programme budgets and plans to ensure outreach, monitoring and quality control.

A strong coordination between health and nutrition is necessary to achieve a harmonious integration of programmes (management of SAM, community-based management of malaria, diarrhoea and pneumonia, IMCI, promotion of essential family practices) at all levels. SFP programmes with large numbers of children should not rely on existing health staff and facilities.

The continuity of a programme requires steady, long-term funding to be effective. Many do not understand that a SAM programme will prevent death but not reduce the incidence of SAM. Likewise, a MAM programme should reduce the incidence of SAM, but not the incidence of MAM. Also donors need to be aware of the challenge to sustain programme activities after the initial emergency or conditions of vulnerability fade from attention.

The increase of scale of most integrated management of acute malnutrition (IMAM) national programmes should be slowed in order to recognize and resolve the current issues in implementation.

Conclusions

Without a balance between basic training, supervision, in-service training, logistical coordination and agreements on the time-frame of the programme, the increase of scale of programming will likely be compromised and be burdensome for the existing health service. If the budgets are uncertain and programmes cease or the capacity is over-stretched and provides a poor service, the programmes may fall into disrepute. If there are large scale programme failures, donors and governments are likely to withdraw support. The programmes evaluated have many very positive aspects and in well resourced and focused hands, give impressive results. Treatment of SAM averts a large number of child deaths. Nevertheless, the integrated management of SAM programmes must be strengthened to capitalize upon these results. The positive aspects should encourage medical schools and nursing schools, the Ministries of Health and Education to prioritise and ensure that these programmes are well conceived and sustainable. It is their responsibility to ensure the success of these programmes.

For more information, contact: Helene Schwartz, email: hschwartz@unicef.org

Managing severe acute malnutrition in India: prospects and challenges

By Biraj Patnaik



Biraj Patnaik is the Principal Adviser to the Commissioners of the Supreme Court of India in the right to food case. He is also associated with the Right to Food Campaign in India. This paper reflects his personal views.



Self Help Group outside their facility for making blended food for children under 3 years

This article is based on a case study and presentation delivered by Biraj Patnaik for the Addis Ababa Conference on CMAM scale up in November 2011. He describes the scale of nutritional problems in India, current institutional mechanisms, and challenges in addressing the SAM burden in particular. Jamie Lee and Bernadette Feeney (Valid International) were invited by the India delegation to describe a number of developments in India since the conference around CMAM that are shared in a postscript.

The context

Despite being the second fastest growing economy in the world, India continues to harbour some of the worst social sector indicators. India has the highest burden of child malnutrition in the world, with 42.7% of children under 5 years of age (U5s) classified as underweight (low weight for age). Twenty per cent of children under five years of age are wasted (low weight for height). The child prevalence of malnutrition in India is twice that of Sub-Saharan Africa and more than one third of the world's children who are wasted live in India. Forty eight per cent of U5s (61 million children) are (low height for age) due to chronic undernutrition, accounting for more than 3 out of every 10 stunted children in the world¹.

According to the most recent National Family Health Survey (NFHS 3, 2005-06), one

third of children are born with a low birth weight. The percentage of under three year olds (U3s) who are anaemic has actually increased from 74.2 per cent to 79.2 per cent and immunisation coverage has decreased slightly from 26.9 per cent to 26.2 per cent. A recent survey by the National Nutrition Monitoring Bureau (NNMB 2007) shows that there is a daily deficit of over 500 calories in the intakes of children in the age group of 1-3 years and about 700 calories in children in the age group 3-6 years.

The fact that these figures are the most "updated" and that data on malnutrition is not compiled more regularly, is in itself reflective of the failure of the country's policymakers to appreciate the seriousness and scale of the problem of child malnutrition in India. What is even more worrying is the lack of progress in tackling child malnutrition. In 1999, NFHS 2 had estimated the child malnutrition rate at 47%. Only a one percent reduction in the intervening six years, between NFHS 2 and NFHS 3, points to a

serious crisis in tackling malnutrition. Table 1 (NFHS 3) reflects the indicators at the national level on a range of nutritional indicators.

While the problem of malnutrition is endemic across the country, some states bear a more than disproportionate burden of hunger and malnutrition. Figure 1 (IFPRI, Global Hunger Index, 2010) classifies all the states/union territories with respect to three indicators of child malnutrition, infant mortality and percentage of persons consuming less than 1700 calories per day. The map demonstrates how the regional distribution of malnutrition in the country varies widely, with Madhya Pradesh having the highest proportion of malnourished U3 children (60%) and Mizoram with the lowest percentage (19.9%).

There has been uneven progress in the reduction of malnutrition in India, in terms of regional variations. Table 2 summarises the performance of the best performing States between the two NFHS surveys (1999 and 2006). Sixteen states reported a reduction in child malnutrition between 1999 and 2006. However, 13 states reported an increase in child malnutrition, in the corresponding period. Even Kerala, which is also by far the best state in India with respect to most social indicators, showed a marginal increase in child malnutrition rates. Table 3 summarises the worst performing states. Ironically, some states with the highest per capita income in country, including Punjab, Haryana and Gujarat, showed an increase in the child malnutrition rates.

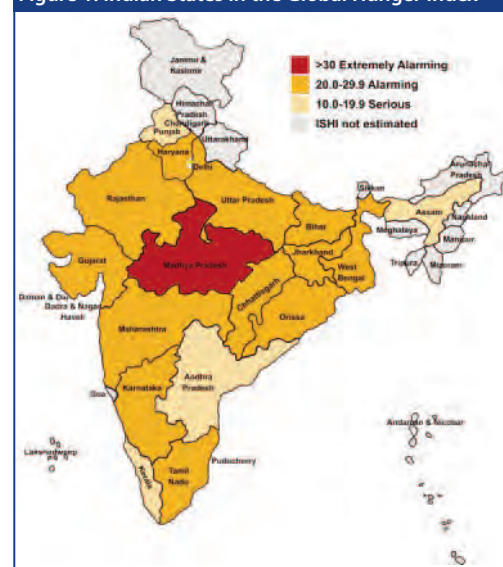
The causes of malnutrition in India are due to a variety of factors, including low birth weight of babies, early marriage and pregnancy, low status of women and lack of access to quality health care at the primary level. India has the highest rate of open defecation in the world

Table 1: National Family Health Survey: a comparative account

Status of children under six years of age	NFHS-2	NFHS-3
Infant Mortality Rate (deaths/1,000 live births)	68	57
Children under three years who are wasted (%)	19.7	22.9
Children under three years who are underweight (%)	42.7	40.4
Percentage of children 12-23 months who received all recommended vaccines (%)	43.5	42
Children with diarrhoea in the last two weeks who received ORS (%)	26.2	26.9
Children age 0-5 months exclusively breastfed (%)	46.3	40.8
Children age 6-35 months who are anaemic (%)	78.9	69.4
Children age 3-5 years who are attending a pre-school (%) (NSS, 2004-05) (%)	34.4	

Note: The figures here are based on NCHS data to facilitate comparison between NFHS-2 and NCHS-3. Figures for NFHS-3 based on 2006 WHO Growth Standards are available at <http://www.nfhsindia.org/nfhs3.html> and are reflected in subsequent tables in this article.

Figure 1: Indian States in the Global Hunger Index



(Source: IFPRI, Global Hunger Index 2010)

¹ Source of prevalence figures: UNICEF, accessed June 2012 <http://www.unicef.org/india/nutrition.html>



Anganwadi worker with Members of Anganwadi or Janch Committee, Kalahandi district

Table 2: Best performing states with regard to trend in child malnutrition (weight for age) prevalence (NFHS 2 & NFHS 3)

	NFHS 2 (1998-99) % of U3s child malnutrition	NFHS 3 (2005-06) % of U3s child malnutrition	% decline in U3s child malnutrition
Orissa	54.4	44.0	10.4
Maharashtra	49.6	39.7	9.9
Chhattisgarh	60.8	52.1	8.7
Himachal Pradesh	43.6	36.2	7.4
Rajasthan	50.6	44.0	6.6

Note: Based on NCHS references for comparative purposes

Table 3: Worst performing states with regard to trend in child malnutrition (weight for age) prevalence (NFHS 2 & NFHS 3)

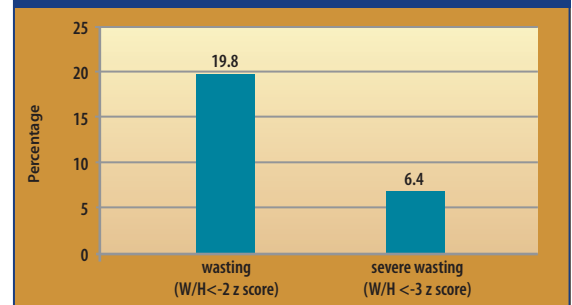
	NFHS 2 (1998-99) % of U3s child malnutrition	NFHS 3 (2005-06) % of U3s child malnutrition	% increase in U3s child malnutrition
Assam	36	40.4	4.4
Jharkhand	54.3	59.2	4.9
Madhya Pradesh	53.5	60.3	6.8
Haryana	34.6	41.9	7.3

Note: Based on NCHS references for comparative purposes

Box 1: Definition of SAM (WHO/UNICEF)

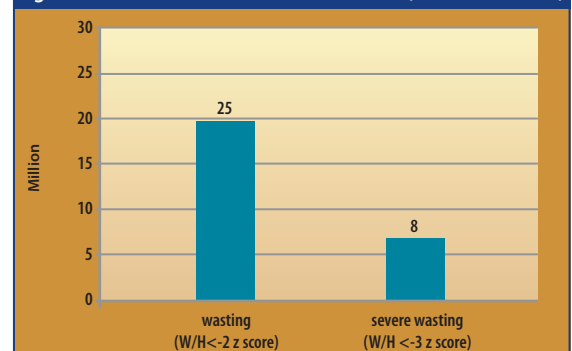
The "criteria for severe acute malnutrition in children aged 6 to 60 months include any of the following:
 (i) weight for height below -3 standard deviation (SD or Z scores) of the median WHO growth reference (2006),
 (ii) visible severe wasting,
 (iii) presence of bipedal oedema and
 (iv) mid upper arm circumference (MUAC) below 115mm".

Figure 2: Prevalence of child wasting in India (0-59 months old)



Source: NFHS 3 data, based on WHO 2006 Growth Standards (compiled by UNICEF)

Figure 3: Number of wasted Indian children (0-59 months old)



Source: NFHS 3 data, based on WHO 2006 Growth Standards (compiled by UNICEF)

(58% of the global total), poor access to potable drinking water and cultural practices that inhibit early initiation of breastfeeding. Young children also do not have access to quality foods when they are introduced to complementary foods and consume foods that have low nutrient inputs. Programmatic interventions for preventing malnutrition are therefore likely only to succeed if they are multi-dimensional and are focused as much around prevention as around dealing with the consequences of malnutrition.

The burden of SAM in India

While there is some consensus on what constitutes severe acute malnutrition (SAM), there is still considerable debate in India as to the extent of SAM in India. The Indian Association of Paediatrics (IAP) has accepted the definition of SAM adopted by WHO and UNICEF (see Box 1). The IAP's recommended diagnostic criteria (2007), adapted from the earlier WHO guidelines, are weight for height/length below 70 per cent or 3SD of NCHS median and/or visible severe wasting and/or bipedal oedema. Mid upper arm circumference (MUAC) criteria may also be used for identifying severe wasting.

The NFHS 3 data shows 19.8 per cent of Indian U5s children as wasted and 6.4 per cent of U5s children as severely wasted. In terms of numbers this would translate to almost astounding 8 million children in India who are severely wasted out of the 25 million children who are wasted (See Figure 3).

The burden of SAM in India is disproportionate to the population and this is evident from the fact that with just 16 per cent of the world's population, India has close to 42 per cent of the severely wasted children of the world. Even for the number of children who are wasted, India compares very badly with Sub-Saharan Africa. The number of children below the age of five is roughly around 125 million both in India and in Sub-Saharan Africa. However, the number of children who are wasted is 11 million for Sub-Saharan Africa and 25 million for India.

In terms of the regional variation within India, the burden of SAM is most prominent in those states which also have a high burden of poverty and malnutrition, as reflected in the regional desegregation of the Global Hunger Index given above. The states of Uttar Pradesh, Madhya Pradesh and Bihar are the three states with the highest burden of SAM in India. In some states, a disproportionate number of girls are affected as compared to boys (58 per cent and 67 per cent respectively in Madhya Pradesh and Bihar). These figures are particularly stark, given the already adverse sex ratios in these states.

SAM surveillance

The NFHS (conducted once every five years) collects data on severely wasted children. However routine surveillance for malnutrition undertaken by state governments does not collect any data whatsoever on the prevalence on SAM -MUAC and data on heights are not part of the routine data collected at the Integrated Child Development Services (ICDS) centres run by the Government.

The ICDS (which is the only institutionalised mechanism for dealing with child

malnutrition in the country) show severe under-reporting of children who are severely wasted (of child malnutrition in general), as compared to the data compiled by NFHS.

ICDS in practice

The ICDS was initiated more than three decades ago in 1975 and is the only institutional mechanism of the state for addressing issues affecting children under six years of age. Following a Supreme Court Order in 2011 the service guarantees universal coverage to 160 million children under the age of six years through delivery of six essential services (including supplementary feeding) through a network of 1.5 million centres.

Problems with the ICDS include excessive focus on the age-group of 3-6 years and not 0-2 years, the age when malnutrition manifests itself the most. The system also lacks a regular nutritional surveillance system and does not collect data on severe wasting. It is plagued with problems of understaffing (one worker per centre) which does not allow for nutritional counselling, pre-school education or effective community management of acute malnutrition and has no convergence with health programmes run by the government

The Supreme Court of India set calorie and cost norms for the supplementary feeding element of the service for children from 6 months -3 years, 3-6 years, pregnant and nursing women, and adolescent girls. Crucially, it also banned the role of the private sector in all supplementary feeding programmes due to prevalent widespread corruption. It re-iterated the order banning all private contractors from ICDS in 2006 and 2009 and monitored the removal of contractors from the system. Insistence of the Supreme Court on the removal of the private sector has had a role in the prevention of the spread of privately manufactured Ready to Use Therapeutic Food (RUTF) for the treatment of SAM and has been widely used by civil society to push for local production of calorie-rich, energy dense foods in the public sector at an appropriately decentralised level, especially through community groups and public institutions.

The ICDS is perceived by many in official policy circles as having failed to tackle the problem of child malnutrition. Yet, the experience in the field has been varied. In many states, where it has been allowed to grow to its full potential (it is a centrally funded scheme implemented by the state governments), it has managed to achieve its original objectives. However, many key issues at the programme level remain inadequately addressed in the ICDS.

Universal coverage of beneficiaries

The instructions of the Supreme Court have been categorical to ensure the coverage of all children below six years, all pregnant and lactating mothers and adolescent girls in all rural habitations and urban slums with all nutritional and health services of the ICDS in a phased manner by December, 2008 at the latest.

Although the coverage of children under six under the Supplementary Nutrition Programme (SNP) of the ICDS increased between 2007-08, less than 60% of the under 6 population are identified by the

Figure 4: Coverage of children under 6 years of age by the ICDS Supplementary Nutrition Programme (AWC survey, 2007-08)

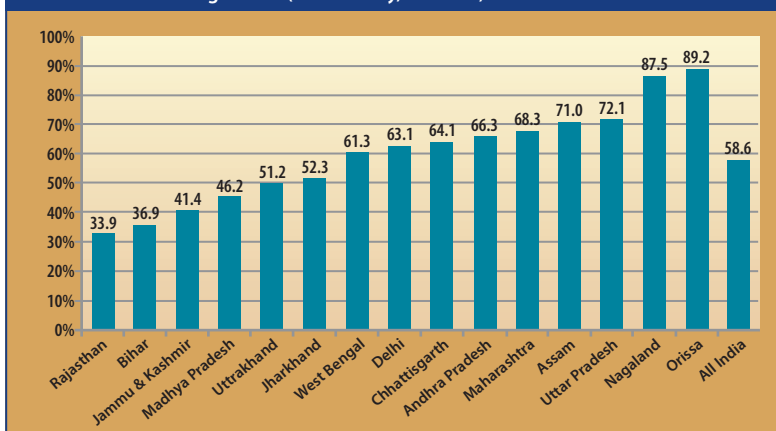
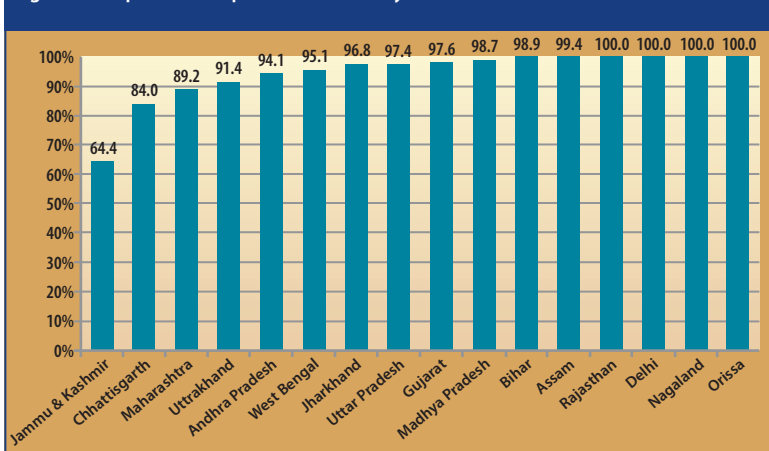


Figure 5: Proportion of operational AWCs by State



ICDS centres (anganwadis (AWC)) in the country. The NFHS-3 data show that 81 per cent children under 6 years of age were living in an area served by an AWC. About 20 per cent children have not even been covered by the AWC survey and can be assumed to be left out of any of the AWC benefits. Therefore, only about 46 per cent of children are covered by the SNP services of the ICDS.

Universal coverage of habitations

The Supreme Court in various orders directed the Government of India and the State/UT governments to ensure that there is an AWC in every habitation.

While most of the states have made good progress in the operationalisation of sanctioned AWC, Jammu and Kashmir is yet to operationalise more than 30% of the AWCs. In Chhattisgarh and Maharashtra, about 10-15% of the AWCs are yet to be operationalised (see Figure 5).

Finances

ICDS is a centrally-sponsored scheme implemented through the state governments/UT administrations with 100% financial assistance for inputs other than supplementary nutrition which the States should provide out of their own resources. From 2005-06, it has been decided to extend support to States up to 50% of the financial norms or 50% of expenditure incurred by them on supplementary nutrition, whichever is less.

The cost of supplementary nutrition varies depending upon recipes and prevailing prices. However, the central government issues guidelines regarding cost norms from time to time. The Government of India issued new guidelines in November 2008 that were to be effective from 2009-10 (see Box 2).

Analysis shows that at an all India level, Rs. 1.78 was spent on each beneficiary per day in 2007-08 (beneficiaries include both pregnant

and lactating mothers and children under six years). The states that spent less than Rs. 2 per beneficiary per day are Assam, Orissa, Jammu and Kashmir, Delhi, West Bengal, Gujarat, Uttar Pradesh, Rajasthan, Maharashtra and Chhattisgarh. States spending less than Rs 1.50 per beneficiary per day are Gujarat, West Bengal, Delhi, Jammu and Kashmir, Orissa and Assam (see Figure 6).

Severe undernutrition (or wasting)

The main objective of ICDS scheme is to tackle malnutrition among children under six years. The NFHS that are conducted at regular intervals give an estimate of the proportion of undernutrition in different states in the country. Table 4 shows the proportion of children U3 who are severely underweight based on NFHS in 1998-99 and 2005-06. It demonstrates that according to the latest survey, 15.8% of children are severely underweight in the country and that this has decreased by only 2.2 per cent in the seven year period between the two rounds of the NFHS surveys. Further, in some states, the percentage of children who are severely underweight has actually increased in this period.

However, the data maintained at the AWCs shows gross under-reporting of severely (grade III and IV²) malnourished children. According to a report prepared by NIPPCD (National Institute of Public Cooperation and Child Development) for the Ministry, the percentage of Grade III and Grade IV as per state government records is now only 1 per cent in 2006. In cases of children between 3 and 5 years of age, the percentage of children in Grade III & IV has reduced to 0.8 per cent (2006). These figures are totally at variance with the NFHS-3 figures of 15.8 per cent children being severely malnourished³.

The two critical gaps in the ICDS across the country on which there remains considerable consensus is that the programme focuses on the age group of children in the age group of 3-6

years, whereas much of child malnutrition in the country affects children before the age of two years. It is now widely acknowledged that this wasted 'window of opportunity' should become a corner-stone for recasting the programmatic priorities of the ICDS. The other major problem that has also been clearly identified is the lack of adequate staff at the ICDS centres. The lone ICDS worker in the Centre is clearly unable to cope with the multiple demands that are made on her time. As a result the outreach services for breastfeeding and complementary feeding counselling and the pre-school education are virtually non-existent in most ICDS centres in the country.

India has been very slow at initiating the community based management of acute malnutrition (CMAM) model. In 2006/7, there were discussions around the role of RUTF in community based therapeutic care for SAM. Consensus in civil society was difficult to achieve since treatment of SAM using RUTF was perceived by donors as a 'magic bullet' with little emphasis on the continuum of care for all children, including the prevention of malnutrition. There was particular concern about the programme being product driven without a strong community component. Civil society kept raising the fundamental issues of looking at CMAM not as a magic bullet with RUTF as the only solution but as merely one component of a larger continuum of care, including preventative activities with links to social protection.

There were some initial experiments with CMAM (implemented by UNICEF) using

² Grade III: <60% weight for age and Grade IV: <50% weight for age
³ See also a recent paper Prasad et al, 2012. Falling Between Two Stools: Operational Inconsistencies between ICDS and NRHM in the Management of Severe Malnutrition. Indian Paediatrics. Vol 49. March 2012. http://www.righttofoodindia.org/data/icds/March_2012_falling_between_two_stools_operational_inconsistencies_icds_nrhm_severe_malnutrition_vprasad_dsinha_sridhar_indian_pediatrics_16_march_2012.pdf

Box 2: Guidelines on cost norms by Government of India (2009-10)

The Supreme Court in its order dated 13th December 2006 states that:
 "All the State Governments and Union Territories shall fully implement the ICDS scheme by, inter alia,
 (i) allocating and spending at least Rs. 2/- per child per day for supplementary nutrition out of which the central government shall contribute Rs. 1/- per child per day.
 (ii) allocating and spending at least Rs. 2.70 for every severely malnourished child per day for supplementary nutrition out of which the central government shall contribute Rs. 1.35 per child per day.
 (iii) allocating and spending at least Rs. 2.30 for every pregnant women, nursing mother/adolescent girl per day for supplementary nutrition out of which the central government shall contribute Rs 1.15

Figure 6: Expenditure per beneficiary per day on SNP, 2007-08

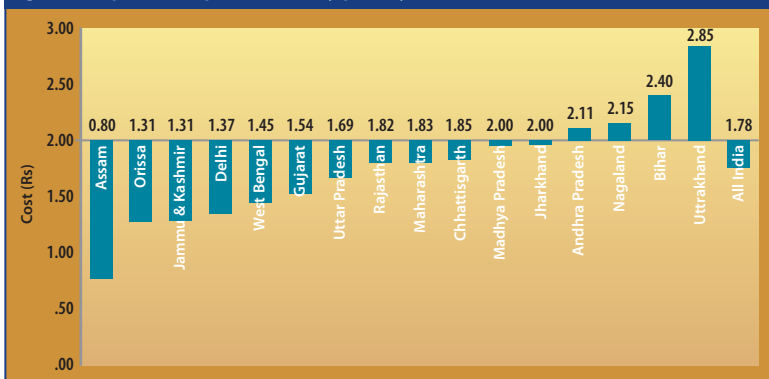


Table 4: Proportion (%) severely underweight children under three years of age

State	Weight for age percentage of the median < - 3SD*		% change
	NFHS 2 (1998-99)	NFHS 3 (2005-6)	
India	18	15.8	-2.2
Madhya Pradesh	24.3	27.3	+3
Gujarat	16.2	16.3	+0.1
Andhra Pradesh	10.3	9.9	-0.4
Bihar	25.5	24.1	-1.4
Delhi	10.1	8.7	-1.4
Assam	13.3	11.4	-1.9
Tamil Nadu	10.6	6.4	-4.2
West Bengal	16.3	11.1	-5.2
Rajasthan	20.8	15.3	-5.5
Uttar Pradesh	21.9	16.4	-5.5
Maharashtra	17.6	11.9	-5.7
Orissa	20.7	13.4	-7.3

*Based on NCHS to facilitate comparison

imported RUTF. However, the UNICEF project was closed by the Government of India on grounds of lack of permission to use imported RUTF in 2009. Since then, there have been a number of smaller scale pilot projects initiated by community groups using local foods (JSS in Chhattisgarh and CINI-ASHA in multiple sites). Simultaneously many states have initiated institutional treatment of SAM (through Nutritional Rehabilitation Centres) and states like Madhya Pradesh have included the protocol for CMAM as part of the official missions to tackle malnutrition.

A key milestone was a consensus workshop on the treatment protocol for SAM for India (2009) which brought together a wide range of stakeholders. There is now more consensus, especially in State Governments like Orissa and Madhya Pradesh, on what needs to be done to move forward, even though some groups in civil society continue to harbour reservations. This consensus converges around the need for evidence of impact of community based management of acute malnutrition, the role of the public sector in production, involvement and ownership of local communities in line



Members of Self Help Group making blended food for children under 3 years, Kalahandi district

with recommendations by the Supreme Court, and eliminating the role of the private sector.

Evidence based scale-up will require the following:

- Trials to compare approaches that do not use RUTF with those that use local foods.
- Clear distinction between therapeutic treatment and infant and young child feeding.
- Locating treatment of SAM in an integrated continuum of care that promotes good practices (such as exclusive breastfeeding).
- Impact monitoring, particularly coverage and scale.

There remain many concerns about the role of the private sector. In particular:

- Absence of a comprehensive governance framework for the private sector.
- Regulatory standards used by donors often used as a alibi for creating entry barriers for local producers.
- Historical monopolies created for proprietary products.
- Competitive advantage given to companies in developed countries through discriminatory procurement procedures.

Where are we now (November 2011)

Yet in spite of all these concerns and the need for greater evidence, the need for a new model for SAM treatment is clear. In Madhya Pradesh, there is a dramatic under capacity for treatment of SAM using the model of institutional care alone. Treatment capacity is for approximately 70,000 cases but the case load is an estimated

830,000. There is now a state strategy for integrated management of SAM (IMSAM) using facility and community based interventions. This is due to be piloted first in four districts and then scaled up to the entire state. However, the effort required to train and secure the commitment of frontline service providers is quite daunting.

The numbers of local staff who need to be trained in the community management of SAM are 90,000 ICDS workers, 50,000 community health volunteers, 20,000 health workers and 52,000 village health, sanitation and nutrition committees.

Recent efforts in Madhya Pradesh have focused on the creation of capacity in the public sector to produce therapeutic food. Similarly in Orissa, the treatment of SAM is being approached, like in MP, as a continuum of care, and not revolving around the delivery of the therapeutic product. Orissa is also attempting to innovate in the production of therapeutic food by using self help groups of women, who are currently producing complementary food, to produce therapeutic foods.

Even while the federal government in India continues to dither on dealing with the problem of child malnutrition, State Governments, including Madhya Pradesh and Orissa, have seized the initiative to take the treatment of SAM forward.

For more information, contact: Biraj Patnaik, email: biraj.patnaik@gmail.com

Postscript

CMAM in India: What happened next?

By Bernadette Feeney and James Lee

Bernadette Feeney is a Technical Advisor with Valid International. She is a nurse and public health nutritionist and provides technical support on implementation of CMAM in both emergency and non emergency contexts.

James Lee is a member of Valid International's management team and is responsible for the organisation's work in India.

State-level actors in India have been quick to use the momentum established at the Community based Management of Acute Malnutrition (CMAM) Conference in Addis Ababa to take forward the severe acute malnutrition (SAM) agenda. States have considerable autonomy under India's federal system and have a critical role in service delivery. Consistent with the powerful Indian civil society presence in Addis, next steps have been orchestrated in a three-way discussion between the NRHM¹, the DWCD² (which oversees the ICDS³) and India's Right to Food movement, with additional participation from UNICEF, donors and technical advisors present at the Addis conference. An obvious starting point for India CMAM planning has been the

agreement by all parties that an energy rich nutrient dense therapeutic food formulated to meet the nutritional needs of a child with SAM used in State CMAM programmes must not be of foreign manufacture or produced for-profit. With a lead time of at least six months before alternative RUTF local manufacture can begin, investigation of the manufacturing options is proceeding in parallel with planning for CMAM pilot programmes.

Two states, Odisha and Madhya Pradesh (both represented in Addis), are currently in the process of designing pilot programmes intended to furnish

¹ National Rural Health Mission

² Department of Women and Child Development

³ Integrated Child Development Services

possibly on a less intensive basis than planned in Madhya Pradesh.

State-level partnerships

Madhya Pradesh and Odisha each have the advantage of being able to draw on support from a DFID-funded technical assistance support team (TAST) with a permanent presence in the state. TAST has provided a valuable point of contact and coordination for external CMAM technical assistance, given that the senior state officials who are driving the CMAM agenda are also extremely busy people.

In Madhya Pradesh, the TAST, together with UNICEF, was instrumental in developing and securing high-level endorsement for a state nutrition strategy that among other things created official policy space for CMAM pilots. Above all, however, it is a good understanding and a shared vision between the senior officials overseeing the NRHM and the DWCD that has been responsible for progress to date. These officials have been clear about what they wish to see, and have created an inclusive environment for state-level CMAM planning that draws in the necessary nutrition expertise both from within India and abroad. Inputs into CMAM preparation and discussion in Madhya Pradesh have been provided at various points by India's National Institute of Nutrition, UNICEF, the Madhya Pradesh TAST, the Right to Food movement, the Real Medicine Foundation, and Valid International.

In Odisha, a technical working group for CMAM, including representatives from DWCD, NRHM, UNICEF and Odisha TAST, was established following return from the Addis conference. The technical working group has assumed responsibility for reviewing programme design, recipe formulation, determining the facility-level staff to be trained in CMAM, and reviewing both training materials and guidelines.

DFID has provided funding for an experienced Valid International CMAM advisor to spend an extended (2.5 months) period between the two states, working with stakeholders on a variety of technical questions, as well as a local counterpart to be mentored in CMAM in advance of the pilots. The same contract has made possible the site visits and technical appraisal by Valid International's local production expert and the recruitment of local counterpart food technologists.

The demand side

The energy generated out of the Addis conference comes at a fortuitous time, in that state level advocacy groups that clamoured for years for a more effective response to the problem of SAM deaths are now also being supported to make tentative steps into nutrition education and service provision. These community-level efforts are likely to form an important complement to SAM treatment services, providing the demand-side strengthening that is needed to improve participation in the ICDS (and thus successful CMAM coverage). Particularly in the matter of case-finding and referral using mid upper arm circumference (MUAC), the pilots will require a more active outreach than is typical of the ICDS at present if they are to demonstrate maximum public health impact.

For more information, contact: James Lee, email: jamie@validinternational.org



Pre School Sessions in Anganwadi Centre, Sagar District, Madhya Pradesh

Valid International, India

evidence on the impact of CMAM in the local context and inform eventual state-wide scale-up. If state (as opposed to national) level implementation strikes some readers as insufficiently ambitious, it is well to remember the size of these states. With an under-6 yr old population of 10 million in Madhya Pradesh and 5 million in Odisha, Madhya Pradesh may have over 700,000 SAM cases at any given moment. Odisha is estimated to have 260,000. The widespread implementation of the CMAM model in either state would thus have the potential to impact significantly on the global burden of SAM. Logistically, however, this is a major undertaking and initial pilots are likely to be implemented at district level or below this, at what is termed 'block' level.

Both Madhya Pradesh and Odisha have elected to implement CMAM through the ICDS system of anganwadi centres. These provide children under 6 years with either a hot meal or a dry take home ration according to age, and offers further take home rations to children identified with growth faltering (weight for age). This is a very dense network of service centres, so dense that even in a high prevalence environment like Madhya Pradesh, the number of cases per facility at any one time may be only one or two. Baseline prevalence surveys to be undertaken in pilot 'blocks' will help to determine whether pilot activities - along with all the staff training, orientation and community mobilisation to initiate them - will be required in all facilities or only a subset situated in pockets of higher prevalence.

Whilst both MP and Odisha have determined that the anganwadi centre will be the focal point for CMAM delivery, they differ in other important respects, including their approach to RUTF manufacture, and in the issues they expect evaluated through the pilots.

Manufacture of RUTF

In Madhya Pradesh, the State government wishes to explore large-scale industrial production through publicly owned facilities that would provide production capacity sufficient to supply all 50 Madhya Pradesh districts with RUTF (8,000 tonnes per annum). With the help of a food technologist from Valid international, a range of potential suppliers are being assessed and a business case being developed for review and possible investment by the State government. By contrast, the scale of production being investigated in Odisha is far smaller

(20 tonnes per annum for two blocks) and is intended to supply the block (sub-district) level with a milk based energy dense nutrient rich therapeutic food. A significant feature of the Odisha plan is that the production facility is to be staffed and managed by the same local women's self-help groups that already produce take-home rations for local anganwadi centres under contract to the ICDS. A specialist in community-level production provided by Valid International will initially work remotely and later on site with a food technologist nominated by a technical committee that has been set up on CMAM chaired by the DWCD. The support will include refurbishing existing facilities to standard, ordering the appropriate materials and equipment, commissioning the facility and training staff.

Pilot objectives

In Madhya Pradesh, where the system of Nutritional Rehabilitation Centres (NRCs) has been greatly strengthened and expanded with UNICEF assistance, the pilot will evaluate the cost effectiveness of adding outpatient care through CMAM to the inpatient care provided under the NRCs. It is expected that SAM treatment coverage will be greatly improved, despite known weaknesses in the anganwadi system (see India article earlier). However, the density of the system required may also impose significant start-up and service provisions costs. It will be important to weigh costs against coverage outcomes and through operational research, investigate how to limit the impact on costs. Before/after coverage surveys carried out in each block as the service expands within the district, are likely to be a major feature of the pilot, along with rigorous documentation of treatment outcomes during the first year of CMAM. In Odisha, the focus of the pilot is somewhat different, in that it will test the efficacy of three different modes:

- a) different hot cooked meals at fixed intervals in addition to the hot meals already provided at the anganwadi centre
- b) a specially fortified version of the dry take-home ration, prepared by women self help groups, also provided at the anganwadi centre for younger children
- c) a milk based energy rich nutrient dense therapeutic food also as a take home ration prepared by women of self help groups also to be provided from the anganwadi centre

Treatment coverage will also be evaluated to determine public health impact, although

This article describes the experiences of ACF, Save the Children and UNICEF in supporting government scale up of CMAM programming in Nigeria.

Nigeria has the third highest number of children suffering from severe acute malnutrition (SAM) and stunting¹ in the world. According to the 2008 Demographic and Health Survey (DHS), Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) rates were estimated at 13.9% and 7% respectively, with the worst rates detected in the north-western (19.9% GAM, 10.6% SAM) and north-eastern (22.2% GAM, 11.4% SAM) regions of the country (see Figure 1). UNICEF estimates that in Northern Nigeria alone, there are approximately 800,000 children suffering from SAM².

In 2009, UNICEF, with the support of Valid International, launched a Community-based Management of Acute Malnutrition (CMAM) pilot programme in Kebbi and Gombe states. The pilots demonstrated the appropriateness of the CMAM model in the Nigerian context, and generated sufficient evidence to advocate for the expansion of services to other parts of the country.

In this context, and with support from ECHO³, Save the Children and ACF International launched pilot CMAM programmes in Katsina and Yobe states respectively. Both organisations sought not only to address the needs of the population in Northern Nigeria, but also to explore and evaluate different approaches to integrate CMAM into routine services in a sustainable manner. Along with other nutrition partners in-country (including MSF-F and MSF-H), UNICEF, Save the Children and ACF started to work on the development of CMAM approaches that would complement the type of support provided to State, Local Government Areas (LGAs) and health facilities, the integration of CMAM services into the health system, and quality of the care provided by health staff in pilot states (see Box 1).

Each organisation implemented CMAM programmes independently but under a common (yet informal) framework of coordination and information sharing. This collaborative approach enabled partners to seize the opportunity provided by additional DFID funding in late 2011 to launch a joint strategy for the scale up of CMAM in selected states (see Figure 2)⁴. The present article sets out to describe the approaches used by partner agencies in the design, implementation and monitoring of their pilots, and how the (strategic and tactical) lessons learned in this pilot phase will shape the future of CMAM in the country.

Key features of CMAM implementation in Nigeria

Selection of programme areas

The success of CMAM pilots rests partly on selecting adequate locations. From the start, both organisations sought to engage closely with the relevant federal, state, local government and 'traditional' authorities to ensure that their support would serve to strengthen, rather than undermine, existing nutrition and health strategies in the country. Each organisation, however, started their pilot under distinct conditions. Save the Children, present in the country since 2001, is a member of the Partnership for Reviving Routine Immunisation in Northern Nigeria/Maternal Newborn and Child Health Initiative (PRRINN/MNCH) operating in the northern part of the country. The selection of Katsina State was designed to maximise the synergy between existing PRRINN/MNCH and CMAM services. ACF, having recently arrived in the country, based the selection of Yobe State on a more general mapping of nutrition partners and availability of technical support in different states.

¹ ACF Strategic Plan 2010-2015 & UNICEF 'Tracking Progress on Child and Maternal Nutrition. A survival and Development priority. November 2009. World Bank, Nutrition at a glance, Dec 2010

² As cited in 'Commission Decision on the financing of humanitarian actions in West Africa from the 10th European Development Fund'. European Commission, 2010

³ Humanitarian Aid and Civil Protection Department of the European Commission

⁴ Under this formalised partnership, UNICEF/Save the Children/ACF will continue to focus on the current 11 states supported by UNICEF, but will make a coordinated attempt to consolidate and extend CMAM services in five of those states (Jigawa, Zamfara, Yobe, Katsina and Kebbi) and in the process, help create the right environment for health systems across the country to plan, implement and support CMAM activities.

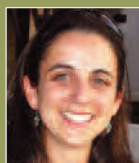
From Pilot to Scale-Up: The CMAM Experience in Nigeria

Community Mobiliser during an outreach visit in Yobe State

By Maureen Gallagher, Karina Lopez, Stanley Chitekwe, Esther Busquet & Saul Guerrero



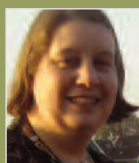
Maureen Gallagher is the Technical Coordinator for ACF-International in Nigeria since July 2010. She has worked for the last 10 years in nutrition, food security and hygiene promotion programming in Niger, East Timor, Uganda, Chad, DRC, Burma, and Sudan.



Karina Lopez is Nutrition Advisor for Save the Children in Nigeria and started the CMAM pilot in Katsina state. She has worked in nutrition and CTC/CMAM programmes for over 7 years in countries like Cambodia, DRC, Mozambique and Swaziland.



Stanley Chitekwe is currently leading the UNICEF Nutrition Team in Nigeria. He has worked with UNICEF for over 12 years. He supported CMAM implementation in Malawi from 2005 to 2009 and has worked in Nigeria since 2010.



Esther Busquet has been a Nutrition Adviser in the Hunger Reduction and Livelihoods Team with Save the Children UK in London since 2010, mainly working on CMAM, a cost of diet tool and supporting country teams. Previously she has worked in nutrition programmes in Africa and Asia for ACF, CAFOD and UNICEF (2002-2009).



Saul Guerrero is the Evaluations, Learning and Accountability (ELA) Advisor at Action Against Hunger (ACF-UK). Prior to joining ACF, he worked for Valid International Ltd. in the research, development and roll-out of CTC/CMAM. He has worked in over 18 countries in Africa and Asia.

The authors would like to thank (in no particular order), Katsina SPHCDA, the Yobe state Primary Health Care Management Board (YSPHCMB), health workers and communities in both states for their support of CMAM activities. Thanks also to Oseni Azeez, Binyam Gebru, Caroline Enye, Susan Grant and Cecile Basquin for their support with the programmes and the development of this article. The authors would like to acknowledge the contribution of the Humanitarian Aid and Civil Protection Department of the European Commission Humanitarian Office (ECHO) for their support of the CMAM programmes in Katsina and Yobe states.

DHS	Demographic and Health Survey
LGA	Local Government Area
MCH	Mother & Child Health
NHIS	National Health Insurance Scheme
OTP	Outpatient Therapeutic Programme (OTP)
PATHS2	Partnership for Transforming Health Systems 2
PRRINN/MNCH	Partnership for Reviving Routine Immunisation in Northern Nigeria/Maternal Newborn and Child Health Initiative
SHAWN	Sanitation, Hygiene and Water in Nigeria
SNO	State Nutrition Officer
SPHCDA	State Primary Health Care Development Agency
SDU	Service Delivery Units
VCT	Voluntary counselling and testing
WASH	Water, sanitation and hygiene

Box 1: Key aspects of the pilot programmes		
Programme	Katsina	Yobe
Supporting agency	ACF	Save the Children (UK)
Number of LGAs (Number of OTPs)	3 LGAs (21 OTPs)	4 LGAs (40 OTPs)
Number of admissions	9,031 (Jan-Sept 2011)	21,750 (Sept 2010 – Sept 2011)
Nutrition guidelines	National CMAM Guidelines & WHO inpatient guidelines.	No national guidelines available at the start. Save the Children developed guidelines used and then transitioned to national guidelines in April 2011.
HR support	1 Programme Manager. 1 staff seconded to state. 6 staff supporting 21 SDUs in 3 LGAs (3 community, 3 OTP). 1 staff supporting 2 inpatient units.	1 Programme Manager + 1 deputy 21 staff supporting 40 SDUs in 4 LGAs. 3 Coordinators. 5 staff supporting 6 inpatient units 1 pharmacist. 2 M&E officers & 1 data entry.
Logistics	Support transport of RUTF from LGA to SDUs.	Storage of supplies at central level Support transport of RUTF to LGAs and then to SDUs.
RUTF	ACF supplied once by UNICEF (then shifted to direct supply State-LGA as state was directly supplied by UNICEF).	First phase of the pilot RUTF supplied by Save the Children (through programme budget and CHAI donations), though due to delays, loans were received from several partners. Then transitioned to supply by state from UNICEF.
Community volunteers	30-50 per SDU. Motivation kit/no incentive.	5 per SDU. Incentive to those working on OTP days.
OTP services	Undertaken by health workers with ACF coaching support. Started once a week and some health facilities chose to extend services to 2 times a week.	2 staff supporting each of the health facilities with CMAM (1 OTP, 1 Community). Undertaken once a week. Trainings of other SDUs not providing OTP also done for stronger referral to focal health facilities.

Once the pilot states had been selected, both organisations liaised with the relevant health authorities (including the State Primary Health Care Development Agency⁵) to jointly select Local Government Areas (LGAs) in which to implement the programmes⁶. In both states, the organisations supported all LGAs identified by the authorities, either as part of the first or the second phase of the pilot programme. The final stage of the selection process involved the identification of Service Delivery Units (SDUs) to be included in the first phase of the pilot. The selection of facilities was done in consultation with the LGA's Primary Health Care (PHC) Coordinators. The selection of SDUs took into account different alternatives within each LGA, including Mother & Child Health Centres (MCH), Dispensaries and Health Posts. As part of the selection process, both organisations

Box 2: Criteria for selection of local government areas (LGAs)

- Have a demonstrable nutritional problem as evidenced by accessing nutritional interventions in neighbouring LGAs, states or Niger Republic. Where possible, statistics should validate this problem (MNCH week MUAC screening, admission for inpatient treatment, etc).
- Be new with no ongoing CMAM intervention.
- Have an existing primary health structure with functional PHC facilities.
- Have the requisite number of health staff required for the management of a CMAM Out-Patient Therapeutic Feeding Programme (OTP) in the health facilities.
- Be able to dedicate the requisite number of staff for the OTP services.
- Have the political will and express commitment to address the observed nutritional situation in the LGA.
- Have functional community committees that drive the process of community involvement and engagement in each community, including the process of selection and functionality of community volunteers to support programme activities.
- Be able to provide a child-friendly health facility with appropriate infrastructural facilities.
- Be able to provide adequate essential drugs, equipment and basic infrastructure required for the intervention with appropriate plans to ensure replenishment without stock out.
- Be a part of the Partnership for Reviving Routine Immunisation in Northern Nigeria/Maternal Newborn and Child Health Initiative (PRRINN), Partnership for Transforming Health Systems 2 (PATHS2), Sanitation, Hygiene and Water in Nigeria (SHAWN) or other DFID projects

carried out joint needs assessment with staff from the LGA PHC departments. A number of issues were considered⁷ but the decision was ultimately influenced by three factors:

- *Geographical coverage:* the selection of sites aimed to ensure maximum possible coverage of the selected LGAs. In spite of the requests from Government in some areas (e.g. Katsina) for the introduction of CMAM in nearly all health facilities simultaneously, an approach of gradual introduction was ultimately agreed upon.
- *SDU capacity:* the analysis looked primarily at staffing. In Yobe, staff motivation played an important role in the selection of facilities for the pilot.
- *Availability of routine drugs:* facilities under the National Health Insurance Scheme (NHIS) and the Millennium Development Goal (MDG) scheme, which provide free drugs to U5 children, were prioritised.

The gradual introduction of CMAM during the pilot phase has influenced the vision guiding the scale-up process. There is a clear recognition that the work carried out in selected states must be consolidated before CMAM can be expanded to other areas of the country. The scale-up will therefore focus on covering more LGAs within states with existing CMAM services. In choosing these LGAs, the experiences of the pilot have also enabled the partners to develop a specific set of criteria (see Box 2) designed to maximise the potential for success. Political will and commitment and the means by which to deliver and sustain programme quality are essential determinants in this selection process. At a more local level, the selection of SDUs will also benefit from the experiences of the pilots. The criteria developed for the selection of SDUs (see Box 3) reflects the importance of accessibility (coverage), staffing & resources, and commitment highlighted during the pilot.

Addressing human resource limitations

In both pilot areas, inadequate human resources were a primary constraint⁸. The support organisations developed plans to support and address existing gaps at different levels.

Box 3: Criteria for selection of service delivery units (e.g. health facilities)

- The health facility should be made accessible (motorable road conditions, public transport, etc)
- The health facility should be able to provide basic essential PHC services (immunisation, antenatal care, nutrition/growth monitoring and HIV voluntary counselling and testing (VCT)).
- The health facility should provide or be rehabilitated to provide a child-friendly environment. Physical facility in good state, not in danger of collapsing.
- Space for consultation and adequate sitting facilities.
- Water, sanitation and hygiene (WASH) facilities in place and adequate hospital waste management.
- Availability of basic medical equipment and adequate storage space for supplies.
- Officer in charge committed to run the programme.
- Appropriate mix of health staff including community extension workers and nutritionists, where available. Usually a minimum of five health workers.
- Presence of referral mechanism (ambulance, referral tracking etc).
- Community acceptance of the facility.
- At least one health facility per ward.

At state level, both organisations developed strategies to support State Nutrition Officers (SNOs) whose work had focused hitherto on school gardens and Vitamin A supplementation schemes⁹. The aim was to foster greater participation of the SNO in data collection, collation and analysis, supervision and supply management in all LGAs delivering CMAM (with or without the support of ACF and Save the Children¹⁰).

At LGA level, both programmes focused on supporting the PHC Coordinator and the Nutrition Focal Person. Both programmes successfully engaged Nutrition Focal Points by providing training and actively involving them in the initial assessment of facilities, the selection of Community Volunteers and their training. Whilst the involvement of Nutrition Focal Points decreased over time in Katsina, the involvement of PHC Coordinators increased, helping to secure drugs and basic equipment for CMAM activities. Other focal points at LGA level included the M&E (Monitoring & Evaluation) Officers, Health Educators and Maternal and Child Health Officers.

It was at SDU level that the approaches of the two agencies varied most. Save the Children, in order to achieve quality care (SPHERE standards) and prevent mortality among the numerous cases of SAM coming from the communities, created a robust support

⁵ State Primary Health Care Agencies (SPHCDA) are the government body in charge of all Primary Health Care (PHC) activities, with state Ministries of Health (SMOH) having a focus on policies.
⁶ In Katsina, Save the Children prioritised LGAs undertaking PRRINN/MNCH activities. In Yobe, the SPHCDA was not yet in place during this period, so ACF liaised with other health authorities, including PHC Directors from the Ministry of LGA & Chieftaincy Affairs and the Ministry of Health.
⁷ Other considerations included willingness to participate, HR capacity (including number of staff and technical expertise), physical structures available, ongoing routine activities, water availability, understanding of malnutrition and estimated caseload (based on previous weeks attendance).
⁸ In the case of Yobe State, the problem was particularly acute due to a ban, in place for over five years, on the recruitment of additional technical staff. As a result, existing staff at facility level are often trained as Community Health Extension Workers (CHEWs) and many of the in-charges possess only an environmental sanitation diploma, leading to a limited number of technical staff.
⁹ CMAM started in Katsina State in July 2010 and in Yobe State in November 2010 with support of UNICEF.
¹⁰ The state support component implemented by ACF for all of Yobe state (ACF and UNICEF supported LGAs) was jointly planned and designed with UNICEF team in Abuja. A ToR was then agreed with the state and zonal UNICEF offices.

team, comprised of (Outpatient Therapeutic Programme (OTP) Officers and Community Volunteer mentors attached to each SDU, to complement and support SDU staff during OTP days. In addition, a medical doctor was recruited to supervise the Stabilisation Centres (SC) and two M&E Officers to follow-up on overall programme performance. ACF opted not to place any staff at health facility level for fear of jeopardising the sustainability of the programme. Instead, they relied on the process of SDU selection to delineate, from the start, the terms of the support that facilities would (and would not) receive as part of ACF's involvement. From then on, much of the emphasis was placed on formal and on-the-job training¹¹.

The actual involvement of both organisations was ultimately shaped by the realities of the emerging programmes. In both states, admissions into the programme increased rapidly. Between September 2010 and September 2011, the pilots admitted a combined total of 26,621 SAM cases (see Figure 3). In many cases, health facilities and their staff were overwhelmed by the number of admissions, leading to more active involvement of NGO teams in the running of daily activities. Both of these factors also had an impact on the inpatient component of the programme, as the high caseload affected the motivation of inpatient staff, many of whom were 'volunteers' without the qualifications necessary to manage the scale and complexity of the programme. Faced with a growing number of admissions, the health authorities opted to introduce complementary responses. In Katsina, the LGA created an OTP mobile team (10 people per LGA) responsible for supporting health facilities during OTP days. Although allowances were initially offered by the authorities, this never materialised, forcing Save the Children to step in to fill in the gaps and avert total disruption to programme activities¹².

Supporting existing logistics systems

In order to maximise the impact of the pilot programmes, robust logistical support was provided to LGAs covered by the pilot.

The issue of RUTF supplies was addressed by each programme from a different perspective. Save the Children, in the initial stages, included Ready-to-Use Therapeutic Food (RUTF) as part of the support package and was therefore involved in its procurement and distribution. Yet, delays in both the arrival of RUTF in country and its release by Customs meant that the programme relied on loans from other organisations using RUTF in-country (e.g. MSF & Catholic Relief Services (CRS)), as well as requests for ad-hoc donations (Clinton Foundation (CHAI)). The high caseload and continuing delays in RUTF deliveries (for Save the Children and other organisations in-country) meant that by the time RUTF finally arrived on-site, it was quickly depleted through use and repayment. In spite of the early challenges, a more robust system was soon put in place. RUTF was provided by UNICEF through the State Primary Health Care Development Agency (SPHCDA), stored in Save the Children's central stock in Katsina and then delivered to the SDUs across the LGAs, where it fell under the supervision and management of the facilities' in-charges.

By the time ACF started operations in Nigeria, RUTF supplies into the country were

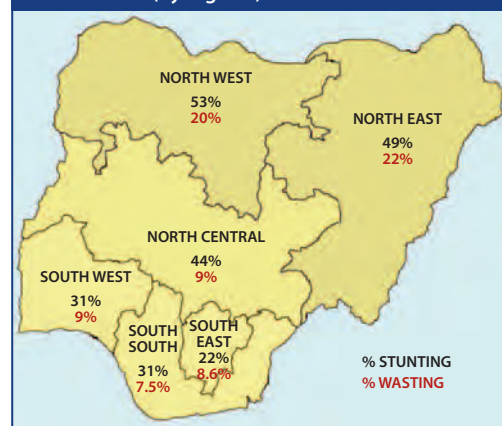
stabilising, enabling them to work directly with UNICEF for the procurement and supply of RUTF for Yobe State. Thus, only a buffer stock was included as part of the support package to enable the programme to respond to unanticipated shortages and stock-outs. Following the lead of UNICEF's approach in Nigeria, Yobe State authorities collected RUTF from UNICEF's regional office, LGA authorities collected from the State's central stock, and ACF supported the LGAs in the final delivery to the SDUs. In both programme areas, further efforts are planned to ensure a more comprehensive handover of responsibility to the local authorities for the procurement and management of RUTF. Save the Children complemented the transport provided by the SPHCDA by renting and buying other vehicles, whilst ACF donated motorcycles to the supported LGAs to support regular supervision.

In terms of essential drugs, both programmes relied on health structures for the supply of most essential drugs associated with the programme. This was recommended by UNICEF as a good mechanism to strengthen LGA ownership of CMAM. Nonetheless, drugs were also purchased to cover gaps as the LGA had challenges in providing the drugs for CMAM activities.

These experiences have had two significant implications on the scale-up of activities. The first is the delegation of all responsibilities for the procurement of RUTF at a national level to UNICEF. They will be responsible for the distribution to their zonal offices, or directly to states to minimise storage costs. From then on, each LGA will be expected to request from the State and make necessary arrangements for its collection. Save the Children and ACF will support this process by working with LGAs in calculating and forecasting needs, and accounting for

¹¹ ACF did not provide any stipend to health staff or Community Volunteer working on CMAM activities, though per diems were provided during formal trainings in line with PRRINN/MCH's standards in the state.
¹² For this, Save the Children signed an MOU with the LGA authorities in which it was stated that the first six months of allowances would be provided by the organisation and subsequently the LGA would take over this responsibility, this was done to provide some time for the LGA to allocate budget to this effect.

Figure 1: SAM & GAM prevalence rates in Nigeria, 2008 (by regions)

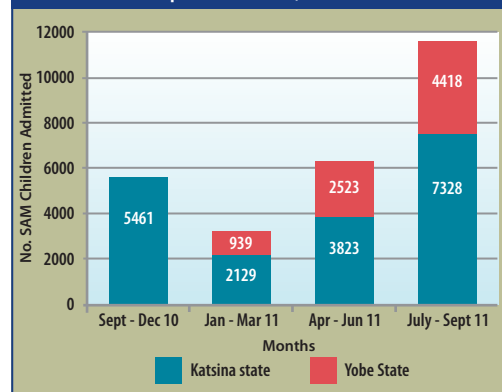


Source: NDHS, 2008

Figure 2: CMAM programme (pilot and scale-up areas)



Figure 3: Pilot programme admissions Katsina & Yobe states (number of SAM children, September 2010-September 2011)



A mother at an OTP in Northern Nigeria

Box 4: CMAM training in pilot states

Location	Participants	Facilitator	Method	Tools
Yobe State	Health Workers	ACF Nutrition Programme Officer & Nutrition Focal Persons	4 day theoretical/practical followed by on-the-job support	Module 8, FANTA Training Package, National CMAM Guidelines & Draft Training module
	Community Volunteers	ACF Staff & LGA Health Promotion Officer	1 day theoretical/practical, on-the-job follow-up	National CMAM Guidelines & Draft Training module
	Inpatient Staff	ACF Staff with participation of State Nutrition Officer	4 day theoretical training, 1 day practical training	WHO Guidelines
Katsina State	Health workers from all Health Facilities in the LGA	Save the Children staff	3 day mostly theoretical training followed by on-the-job support	FMOH/CHAI training modules, FANTA training modules, integration of IYCF support into CMAM training modules, other countries' training materials
	Community Volunteers	Save the Children Staff with LGA Nutrition Focal Persons	1 day theoretical/practical training followed by on-the-job support	Training curriculum developed by Save the Children for the programme
	Inpatient Staff	Master Trainers with Save the Children staff	5 days standard WHO inpatient training according to manual (adapted to CMAM)	WHO Training course on the management of severe malnutrition

common delays related to procurement, clearance and transport.

The second is the decision to exclude essential drugs from the support package offered by the partnership. This decision was influenced by a number of factors, including costs (which in a project of this scale would be prohibitively expensive) and monitoring the appropriate use and non-commercialisation of drugs due to the time implications for staff. Ultimately, however, it is the fact that most states have free MNCH that has proven most critical. CMAM is seen as an opportunity to advocate to states that they should honour their commitments, and assume their responsibility to include essential drugs in their annual budget. There are obvious risks associated with this approach, including the introduction of fees for essential drugs, stock-outs, and/or longer recovery times. Yet, the decision has meant that political ownership and commitment is not just important but essential to the success of the intervention.

Technical support & capacity building

The pilot programmes recognised the value of each agency's prior experience with CMAM, and made the most of this opportunity to develop and adapt national protocols, guidelines and training material to build on known best practices whilst acknowledging the particular needs of the Nigerian context.

For outpatient treatment, both programmes used pre-existing CMAM guidelines. When preparations began for the implementation of the Save the Children pilot in Katsina, discussions about CMAM Guidelines for Nigeria were still ongoing. As a result, training materials and job aids had to be developed using documents and experiences from other countries (including FANTA CMAM Training

Package, Nigeria's basic pack developed by the Clinton Health Access Initiative, and material from CMAM programmes around the world). These tools were progressively adapted based on decisions made by the CMAM Taskforce in-country and the finalisation of the National Guidelines. This had practical implications for the pilots. Whilst the pilot in Katsina originally introduced both MUAC and weight-for-height entry criteria, delays in procuring the necessary anthropometric tools and the prioritisation of MUAC at national level meant that MUAC was ultimately adopted as the primary entry criteria into the programme. In the case of Yobe, where activities began later, ACF was able to secure approval from the Federal Ministry of Health to begin using the CMAM guidelines developed by the CMAM Taskforce, facilitated by Valid International, in September 2010. This enabled the programme to begin immediately using national tools and criteria (e.g. MUAC as entry criteria). For inpatient treatment, both organisations relied on WHO manuals and the experience of local trainers previously trained by UNICEF (see Box 4).

The scale up partnership will build on the lessons learned from the pilot phase. With the support of UNICEF, the technical framework required for the scale up of CMAM will be created, including the finalisation and dissemination of national training schemes for CMAM. Existing MoH trainers will receive additional technical support, coaching and refresher training, and new trainers will be identified and supported if necessary. Training tools will be in line with the standardised package being developed by the CMAM Taskforce in the country. UNICEF will also play a pivotal role at advocating, at a national level, for improved CMAM investment and policy-making (including the introduction of CMAM into the national health curriculum).

At a more local level, Save the Children and ACF will place an advisory team in the field to support health authorities at State and LGA level in order to build capacities of key individuals (responsible for programme delivery) in programme management and planning. The approach aims to strengthen capacities at the management level in order to improve ownership and sustainability. State Nutrition Officers and the PHC Department at the LGA level will

be trained and coached until they are able to take over fully the State Nutrition Programme. They will also focus on building the capacity of local health workers and facility staff on issues ranging from CMAM implementation, infant and young child feeding (IYCF) to M&E systems. The experiences of UNICEF and ACF in training health staff at regional, state and LGA level and providing subsequent support and supervision will be replicated.

Mobilising communities

The pilot programmes introduced mechanisms to foster community participation and involvement in CMAM activities. Both programmes engaged with religious leaders, traditional leaders, administration officials, Traditional Birth Attendants (TBAs), Traditional Health Practitioners (THPs) and other key figures of the community (e.g. hairdressers). In Yobe, ACF carried out a Rapid Socio-Cultural Assessment (RSCA) designed to provide a more complete picture of the context in which the programme operates, and the opportunities and challenges presented by it. In order to strengthen case finding, the project identified and trained between 30 – 50 volunteers per SDU. These were identified jointly with community leaders to ensure that they were from communities within the SDU catchment area. By focusing on training a large group of volunteers per health facility, the project pre-empted the high dropout rate that generally accompanies CMAM programmes¹³.

In Katsina, the programme initially introduced Community Mobilisation mentors to support volunteers (five per SDU) in the sensitisation, case-finding and follow-up activities. The mentoring approach was soon superseded, however, by a desire to reach more cases and the Community Mobilisation mentors became more directly involved in sensitisation activities at community level. From the outset, community volunteers were involved in supporting OTP days at the SDUs. They learned about treatment and this became particularly useful during strikes or at times of conflict, as volunteers supported by Red Cross and National Orientation Agency volunteers (who had received similar training to the community volunteers) were responsible for maintaining activities and avoiding interruptions to the treatment.

The pilot experiences provided ample evidence of the importance of community mobilisation, but also served to highlight the challenge of linking services at SDU level with communities, and the resource implications of this process. The scale-up approach will therefore explore ways of utilising existing resources such as the Nutrition Focal Person and Health Educator at the LGA PHC to support these activities and the work of the Community Volunteers. Linking CMAM with other health activities (such as MNCH weeks, immunisation, malaria programmes) will also be used to increase community awareness about the problem and the services available. RSCAs will be conducted to support community mobilisation activities in programme areas on best message delivery mechanisms; in the new projects areas, RSCA will be used for the first time to collect information for larger (and more heterogeneous) populations. The aim of the partnership

¹³ During this process, the organisation provided no stipends or incentives, other than the tools required for their work (e.g. laminated photos, MUAC and CMAM volunteer bags).

is also to create a more meaningful dialogue with beneficiary communities, by creating mechanisms for improved accountability and capable of delivering beneficiaries views about CMAM and its activities to those responsible for CMAM policy and practice.

Monitoring & Evaluating Performance

In order to monitor and evaluate their performance, the pilot projects relied on the indicators provided by the CMAM National Guidelines. In line with most international standards, these included standards for cured (>75%), defaulters (<15%), mortality (<10%) and coverage (>50%).

Each programme established its own data collection and monitoring system. In Katsina, at the request of the SPHCDA, Save the Children collected (first weekly and then monthly) figures through their OTP support team. In Yobe, ACF support staff also visited SDUs on a weekly basis, using these visits to carry out the necessary data collection to produce weekly reports including statistics and key activities, needs and challenges faced. An additional monitoring system has also been included (mostly in Yobe) to identify “needs for strengthening” for each SDU, with all facilities categorised (red, yellow and green) according to their capacity to carry out treatment of acute malnutrition independently. Both pilot programmes also assessed their coverage using the Semi-Quantitative Evaluation of Access & Coverage (SQUEAC) methodology. These assessments were carried out jointly by both organisations in August – September 2011, and the results of these investigations led to significant changes in each pilot (see Box 5). In Yobe, it resulted in the expansion of CMAM services to new SDUs (to reduce distance) and the strengthening and diversification of sensitisation activities (including drama, radio and visual materials)¹⁴. In Katsina, it also resulted in the strengthening of community mobilisation activities, and an increase in the number of volunteers operating within catchment area of CMAM SDUs.

In both programmes, data collection and reporting has been largely the responsibility of the NGOs, who have in turn reported to state authorities. Both programmes actively encouraged the State Nutrition Officer (SNO) and LGA Nutrition Focal Point to participate in these visits with varying degrees of success. To foster greater participation, a national reporting format was presented in July and August 2011 to all State Nutrition Officers from north-eastern and north-western states. This was followed by trainings for LGA Nutrition Focal Persons and M&E Officers, and additional training of SDU staff. Trainings focused on data collection mechanisms as well as on the importance of the data in understanding what is happening at each health facility level and the rationale for its collection and reporting of such data. This helped create a simple yet innovative¹⁵ data collection and reporting line stretching from each SDU to policy makers at state level.

During the scale-up phase, monitoring activities will be carried out by M&E officers at LGA PHC departments, with the help of the M&E Advisors based at state level providing support to different LGAs. In choosing the most appropriate M&E framework, the experiences from the pilot have been pivotal. There is consensus



Mothers waiting with their children for appetite test

that the nationally agreed M&E system (based on national CMAM guidelines) is a suitable starting point. Additionally, the experiences of both Save the Children and ACF in conducting coverage assessments has led to its inclusion as a key feature of the monitoring plans for the scale-up phase

Conclusions and recommendations

While nutritional treatment services have become increasingly available in health centres across Nigeria, the need still remains extremely high. Whilst the number of SAM children treated – 44,000 in 2010 alone – are more commonly associated with emergency situations, the only response capable of addressing needs is through horizontal programmes integrated into health systems and communities. The question that the ACF and Save the Children pilot programmes sought to answer is how, in the context of Nigeria, this can be done most effectively and sustainably.

The pilots show that part of the answer lies in thinking about the delivery of CMAM services outside of the traditional NGO model, from rethinking the need for individual stations at OTP level, to admitting children on a weekly (rather than daily) basis. For integration truly to occur, CMAM services need to be tailored to fit health systems at different levels, even if this ultimately leads to significant variations across different locations. There is not one approach that will fit all of Nigeria, or even all the LGAs in a state. Tactical diversity should be encouraged.

Other aspects of CMAM programming need to be strengthened and enforced. CMAM was founded on a commitment to reaching a high proportion of the affected population, and this vision needs to remain at the core of national strategies for their CMAM integration. The number of geographical areas (e.g. states) or facilities within them offering the service is a means to this end, not an end in itself.

Ensuring that integrated CMAM programmes achieve the highest possible coverage is closely linked to the degree of community mobilisation carried out. Scarce resources, overburdened staff, and limited experience have traditionally hampered the ability of health systems to develop community mobilisation strategies to accompany the introduction and implementation of CMAM services. NGOs have a crucial role to play in

this regard. Increasing community awareness and participation in activities is a key feature of what local health systems will need to do in order to address needs. In high prevalence areas, like Northern Nigeria, increasing awareness must be accompanied by a simultaneous strengthening of health systems responsible for managing any rise in demand.

The roll-out of CMAM services in many high-prevalence contexts, including Nigeria, has stretched the capacity of government and support agencies to maintain RUTF supplies. The pilot programmes showed the risks of scaling up without proper RUTF supplies, a risk that only increases in magnitude and likelihood with the scale-up of CMAM services on a national scale. Ultimately, the sustainability and quality of CMAM programmes depends on the degree to which governments (at federal, state and local level) are willing and able to ensure adequate procurement and delivery of RUTF. Partners have a vital role in building capacities at all levels on stock management, including accurate forecasting. Having more accurate data on needs help to advocate for state governments and budget allocation.

Delivering this kind of support ultimately requires a redefinition of the role of NGOs, from a traditionally implementing role, to one as an enabler. Technical support proved essential in the implementation of CMAM in Nigeria, at federal, state and local levels. The decision not to include staff in SDUs was certainly vital to the sustainability of the project. The NGO role must become one of capacity strengthening and transfer of skills. Advocacy and the ability to support the development of national policies to create the right environment for CMAM are vital to the success of a scale-up framework.

For more information, contact: Maureen Gallagher, email: cmn.ng@acf-international.org and Karina Lopez, email: k.lopez@scuknigeria.org

¹⁴ A follow-up SQUEAC will also be conducted in 2012 to indicate the possible impact of the programme changes on its coverage.

¹⁵ CMAM programme data in Yobe State, for example, is collected by the Nutrition Focal Person who in turn shares it with the State Nutrition Officer (SNO) on a weekly basis via SMS. In-charges of health facilities send the SDU data and RUTF consumption at the end of the OTP service day or week to the Nutrition Focal Person who then compiles and sends it to the SNO by SMS. Nutrition Focal Persons often work with support of M&E Officers in the compilation of the data (a desktop, stabiliser & printer were donated by ACF to each LGA for these purposes).



Volunteer Health Workers and facilitators at Svisivi, Gokwe South

UNICEF, Zimbabwe, 2011

Frontline experiences of Community Infant and Young Child Feeding in Zimbabwe

By Wisdom G. Dube, Thokozile Ncube and Paul Musarurwa



Wisdom G. Dube is the Gokwe North district nutritionist, Ministry of Health and Child Welfare (MOHCW), Zimbabwe.



Thokozile Ncube is the UNICEF Nutrition Officer and one of the Master Trainers for community infant and young child feeding (cIYCF) trainings in Zimbabwe.



Paul Musarurwa, is a district nutritionist for MOHCW in Goromonzi district. He took part in the cIYCF training in Gokwe North district as a facilitator and was a Team Leader in one of the training sites.

The authors acknowledge the leadership of the Ministry of Health and Child Welfare, Department of Nutrition, for championing expansion of IYCF services in Zimbabwe. We would like to specifically acknowledge the work and support of Mrs. Ancikaria Chigumira (Deputy Director of Nutrition), Zephania Gomora, Provincial Nutritionist for Manicaland and Miriam Banda, Nutrition Intervention Manager. The authors also gratefully acknowledge the work of Mary Lung'aho and Maryanne Stone Jimenez (master trainers) and the facilitators in the Gokwe North training (see table of names at the end of the article). Finally, many thanks goes to all the trained community IYCF counsellors for their taking part in the training and the Gokwe North district health executive team for their support during the training.

This article shares the perspective of three individuals in Zimbabwe, directly involved in rollout of community based support to infant and young child feeding (cIYCF). The content was captured in an exchange between the authors during training between 10-14th of October, 2011 in Gokwe North, one of the districts in Zimbabwe. A postscript by Fitsum Assefa (UNICEF Zimbabwe) provides some context to the cIYCF approach in Zimbabwe.

Background to IYCF in Zimbabwe

Undernutrition is widespread in Zimbabwe, with 1 in every 3 children being stunted. Despite subscribing to the Global Infant and Young Child Strategy¹ since 1991, being a 'breastfeeding nation' with 77% of infants breastfed at least until their first birthday (mean duration of breastfeeding 18 months), and years of effort to expand infant and young child feeding (IYCF) interventions (e.g. BFHI², training of health workers on IYCF, integration of IYCF in CMAM etc.), key IYCF practices in Zimbabwe remain very poor and unchanged.

Only six per cent of Zimbabwean infants under the age of 6 months are exclusively breastfed. Nearly one in three children (27 per cent) receive soft, semi-solid, or solid foods before the age of 3 months, and more than half (52 per cent) receive soft, semi-solid, or solid foods before the age of 6 months³. Less than one in ten children (8 per cent) receive a minimum acceptable diet, and very few regularly receive eggs, meat, legumes, or fruits and vegetables, owing to economic constraints but also strong food taboos. Seventy-five per cent of Zimbabwean infants are reported to initiate breastfeeding within one hour after birth, however, qualitative studies reveal widespread use of pre-lacteal feeds and discarding of colostrum (the first breastmilk produced after birth). Considering the evidence that support for optimal IYCF practices remains the highest impact intervention towards ensuring survival, growth and development of children, improving the IYCF practices of mothers, infants and young children remains one of the key priorities for Zimbabwe.

Motivation behind community infant and young child feeding (cIYCF) innovation in Zimbabwe

In Zimbabwe, the need to build the capacity of Village Health Workers (VHWs) to support mothers and caregivers on optimal infant feeding practices and to refer issues they cannot handle to the health institutions was apparent. Hundreds of health workers at different institutions in the country have been trained in IYCF counselling using the WHO 40 hour training manual since 1991. However, the impact of the training has not been felt, as evidenced by the low rates of exclusive breastfeeding in the country (32%) that has not changed over the past two decades (DHS 2011⁴). When the UNICEF community IYCF counselling package was introduced in 2011 (see Box 1), Zimbabwe had already identified the need and was ready to strengthen and scale up effective IYCF counselling in the community.

We believe that the provision of skilled IYCF counselling services at community level, where trained VHWs have direct contact with mothers, their infants/children and broader families at large, can contribute significantly to improving IYCF practices and the reduction of chronic undernutrition. For many years, IYCF initiatives

in Zimbabwe have concentrated on training health workers. This assumes IYCF counselling is mainly provided at health institutions. However in reality, health workers are very busy and do not have enough time to give adequate attention and time (especially considering the recent economic and social crisis that has resulted in severe understaffing of the health system). At a health facility, IYCF 'talks', given as part of health talks, are mostly limited to informing mothers of the benefits of breastfeeding rather than listening and counselling based on an individual mother's condition. Such an approach only reaches those who are accessing health services because of scheduled services (e.g. antenatal care (ANC) and immunisation) or due to illness and does not reach those who are not able/have no need to access these services. In addition, such talks miss critical contact times to assess, counsel and influence IYCF practices in a proactive and sustained manner. It is also worth noting that while the social and cultural determinants of IYCF are significant, the approach of health education at a facility focuses on the mother, who does not have the sole responsibility or control over deciding IYCF practices.

While the role of VHWs in Zimbabwe includes communicating on all aspects of health, including nutrition, to date there has been very limited IYCF included in their training and job aids. Thus VHWs have not been enabled to provide an effective IYCF assessment and counselling service.

cIYCF strategy

The cIYCF strategy is to ensure that all mothers and caregivers of babies aged 0 to 24 months of age in Zimbabwe have access to skilled IYCF assessment and counselling within the communities they live in. An individual VHW covers about 100 households and knows the population in his/her catchment and their various needs very well.

Box 1: UNICEF Community IYCF Counselling Package

UNICEF has developed a set of generic tools for programming and capacity development on community based IYCF counselling. Aimed for use in diverse country contexts, the package of tools guides local adaptation, design, planning and implementation of community based IYCF counselling and support services at scale. It also contains training tools to equip community workers, using an interactive and experiential adult learning approach, with relevant knowledge and skills on the recommended breastfeeding and complementary feeding practices for children from 0 up to 24 months, enhance their counselling, problem solving, negotiation and communication skills, and prepare them to effectively use the related counselling tools and job aids. The package contains:

- Facilitator Guide
- Planning and Adaptation Guide
- Key Messages Booklet
- Training Aids
- How to breastfeed your baby - Brochure
- Nutrition During Pregnancy and Breastfeeding - Brochure
- How to feed a baby after six months - Brochure
- Counselling Cards for Community Workers

Participant materials

It is available in English and French. Download from: http://www.unicef.org/nutrition/index_58362.html

¹ A national commitment/cabinet decision for improving food and nutrition security in Zimbabwe and a response to the call by the Convention of the Right of the Child 1990, of which Zimbabwe is signatory

² Baby Friendly Hospital Initiative

³ Available from <http://www.measuredhs.com>

⁴ However, giving oil for infants is widely practiced in Zimbabwe, and survey conducted in 2010 that probed on giving oil has shown only 5.8% EBF, majorly explained by the addition of oil in the analysis.

⁵ Available at http://www.unicef.org/nutrition/index_58362.html

District training in practice

The co-ordination for training starts at national level. Trainers come from all over the country and spend one day on orientation and preparation of materials for training. A second day is spent travelling to the training sites within the district to set up the training venue before the arrival of participants. This training is different because it employs a participatory approach; it is highly practical and uses lots of visual aids. Registers and reporting forms are prepared after the training as a tool for record keeping and monitoring at community level. The training takes a period of 5 days.

While we appreciated the approach and materials of the UNICEF community IYCF package, we were concerned by the typical cascade approach of training⁶ that needs a lot of time and money to reach every health worker. Scale and speed of expanding this training and demonstrating results at scale were at the centre of discussions from the outset of starting the cIYCF initiative in Zimbabwe.

Considering various factors and opportunities, including funding, the national IYCF Technical Working Group (IYCF TWG) endorsed that at least 150 community counsellors (CC) were trained in each district (70 – 100% of VHW in a district), within the shortest period possible - one week. The TWG developed a plan on how to achieve this. The 150 CCs were divided into six groups of 25. Each group of 25 CCs was allocated four facilitators/master trainers from the national pool along with two overall organizers/managers. In order to allow 'hands on' practice/skills with cases, the trainings were conducted at a health centre/close to the community. This approach differs from previous practice that involved conducting such trainings in hotels or conference centres, an approach that was ineffective and costly. As well as ensuring coverage, this standardised training of at least 150 CCs per district in a week forms a critical mass of health workers with updated knowledge and skills and a movement towards changing IYCF practices. Furthermore, the trained CCs are required to identify and attach to 5 – 10 pregnant women or infant-mother pairs to continue practicing/perfecting their assessment and counselling skills, as well as start/continue providing a counselling service.

Cascade of cIYCF capacity development

The IYCF TWG was formed in February 2011 to review and initiate the process of adapting the UNICEF community IYCF package to Zimbabwe. An official from the Ministry of Health and Child Welfare and one from UNICEF participated in the Regional Master Training of Trainers (TOT) on cIYCF held in Nairobi, Kenya in March 2011. An action plan for Zimbabwe was developed at the regional training and the plan was endorsed by the IYCF TWG in April 2011. Since then, two national training of trainers (TOTs) have been held, generating 57 facilitators to scale up the community level trainings.

Zimbabwe was fortunate to host the second regional/ESARO TOT and managed to train a further 12 national facilitators. The regional training was followed immediately by modeling the training of CCs towards provision of skilled community IYCF counselling services in one district of Zimbabwe (Gokwe South) in July 2011. The district training was observed and supported by two international IYCF experts who had played a key role in the development

and dissemination of the UNICEF community IYCF package and who had led the regional TOT. A total of 84 CCs resulted from the initial community level training, who were each attached to ten pregnant women and/or infant-mother pairs. The one week training of 84 CCs therefore resulted in 840 women accessing skilled counselling services. This model is now being used to roll out the provision of skilled community counselling to every district in the country.

Rollout of cIYCF in Zimbabwe

A total of 12 districts were trained between August and December 2011. From the 12 districts, close to 2,000 VHWs were trained to support an initial 20,000 women from pregnancy to 24 months of lactation. Each of the trained VHWs also initiates and facilitates at least one mother support group in the community, to allow women to share experiences and support each other with optimal IYCF practices. To ensure adequate support supervision for the trained CCs, in every district where training is done, VHW trainers and one nurse from every health institution is also trained and equipped with a check list for support supervision. CCs refer mothers with complications they cannot handle to the local health centre and the health centre staff likewise refer mothers who need community support to the community counsellors. The programme is showing some promising results and there are requests to roll it out in the remaining 50 districts in 2012, funds permitting.

Follow up of cIYCF

A supportive supervision and monitoring system is currently being developed. A simple register/notebook, prepared with and for use by trained CCs, lists all pregnant mothers and infants/children aged 0 – 24 months. It documents not only IYCF practices and challenges but also other key interventions such as maternal iron/folate supplementation and compliance. VHWs have monthly meetings with health centre staff and are expected to submit monthly reports on the programme and discuss any difficult issues at the monthly meetings. Already, through these interactions, health centre staff, such as nurses, are recognising that the VHWs have greater knowledge and skills on optimal IYCF counselling than they do. As a result, they are requesting relevant training and support to enable them to effectively support and supervise the VHWs.

Experiences so far

The facilitators, who are a mixture of nutritionists, nurse midwives and tutors, are very committed and hard working. In all districts that have undergone training, enthusiastic VHWs are keen to learn new skills and greatly appreciate the training package. They enjoy using the counselling cards and feel they have been lacking this kind of material to do their work effectively. The trained CCs are challenged to 'adopt' at least 10 pregnant women during/right after their training, register them and follow them up for about 2 years. With more experience and newer pregnancies, this number per VHW will grow.

The idea is to have a simple mechanism that will allow documentation of infant feeding practices of children from birth until 24 months old, while providing timely support and counselling.

VHWs are expected to follow up various health services including maternal, newborn, expanded programme on immunisation (EPI), HIV, and conduct frequent visits to households in their catchment areas. Follow up visits will also include nutrition screening (mid upper arm circumference). The provision of good IYCF assessment and counselling skills will improve the efficiency and credibility of the VHWs as they address critical issues of various households. In addition, the peer support groups that each VHW is expected to facilitate will further contribute to addressing the challenges of mothers and families in ensuring optimal IYCF practices.

"Even as a male VHW I am now able to support mothers with positioning and attachment using the pictorial counseling cards. The pictures and the messages that go with them are so clear that supporting mothers has been made much clearer."
The VHW also commented that he had problems counseling on giving a diversified diet, but now with the pictorial food groups, he is able to discuss and help mothers identify what foods to mix together to come up with a "4 star diet."

Noel Nkomo, VHW, Gokwe North

cIYCF target

This cIYCF counselling initiative aims to improve IYCF practices, particularly the exclusive breastfeeding rate and the quality and timeliness of complementary food introduction. By doing so, it aims for a reduction in the levels of stunting that is unacceptably high in Zimbabwe. The programme will also ensure that children with acute malnutrition are quickly identified and referred to health facilities for management. This initiative will explore this by investigating nutritional outcome indicators by IYCF services received and actual practice. We look forward to sharing future experiences and outcomes of cIYCF with the Field Exchange readership.

For further information, contact: Thoko Ncube, email: tncube@unicef.org and Wisdom G. Dube, email: 23760478@nwu.ac.za (currently with the Centre of Excellence for Nutrition, Potchefstroom)

⁶ For an example of cascade training in practice, see: Fitsum Assefa, Sri Sukotjo (Ninik), Anna Winoto and David Hipgrave (2008). Increased diarrhoea following infant formula distribution in 2006 earthquake response in Indonesia: evidence and actions. Field Exchange, Issue No 34, October 2008. p30. Available from <http://fex.enonline.net/34/special.aspx>

Thanks to the facilitators for the Gokwe North Training

Zhomba RHC Kadungu Talent (Nutritionist – Rushinga) Mutimbira Isheunesu (Nutritionist – Chiredzi) Musa Mahefu (Nutritionist – Gokwe South) Nyanungo Jeanette (Snr Nurse Tutor – Mutare)	Gumunyu RHC Musarurwa Paul (MOHCW – Goromonzi) Mlambo Tambudzai (MOHCW – Chipinge) Wisdom G. Dube (MOHCW – Gokwe North) Tambudzai Kanengoni (Nutritionist – ZNA)
Tsungayi RHC Abigail Chibwa (Nurse Educator – Gokwe North) Raymond Chikomba (Nutritionist – Mudzi) Walter Chigumbu (Nutritionist – Mash West) Gapara Patience (Nutritionist – Mutoko)	Mtara District Hospital Winnie Magwera (Comm Nurse – Gokwe South) Advance Zidyia (Nutritionist – Bikita) Roy Chiruwu (ACF – Chipinge) Hlahla George (Nurse – Makoni)
Chireya Rural Hospital Tawanda Chipangura (Nutritionist – Hurungwe) Mahlalani Honest (Nutritionist – Chipinge) Simbarashe Chingoma (Nutritionist – UMP) Rose Mhiripiri (Nurse Tutor – Bindura)	Denda RHC Mudyangwe Servious (MOHCW – Zaka) Ruth Machaka (Nutritionist – Bindura) Rumbidzai Chituwu (Nutritionist Harare City) Loveness Nyanhongo (SICN – Nyanga)

Postscript

cIYCF in Zimbabwe

By Fistum Assefa

Fistum Assefa is currently working as UNICEF Nutrition Manger, in Zimbabwe.

Zimbabwe has a high prevalence of stunting (32%) and low prevalence of wasting/acute malnutrition (3%) (DHS 2011). The trend in stunting suggests deterioration as compared to the early 90s, while the prevalence of acute malnutrition remained the same or slightly improved. Of note, the national average masks the prevailing disparities across geographic regions and wealth status, for example, there are districts with stunting prevalence of over 40% and both stunting and acute malnutrition are much higher among the poorest segment of the population as compared to the wealthiest.

CMAM services in Zimbabwe were initiated as of 2006, with rapid expansion from 2009 (see Figure 1). Due to the low acute malnutrition context and existing health care infrastructure¹ it has been possible to integrate the management of severe acute malnutrition (SAM) in Zimbabwe with the existing curative and preventive health care delivery system. Currently over 70% of the 1600 health facilities provide inpatient and outpatient SAM treatment on a routine basis.

To help fill an existing gap, training materials to support integration of infant and young child feeding (IYCF) in CMAM were developed at international level in 2009² and piloted in Zimbabwe (2010). However, this approach has failed to show any impact on prevailing IYCF practices. This is partly related to the fact that it is unrealistic to expect a rare situation (<0.5% SAM) to be an entry point to a universal problem (>90% of infants and young children with poor IYCF practices). Also, CMAM offers no contact with newborns and generally speaking, with infants in the first six months of life. On the contrary, we find our cIYCF initiative as a key opportunity to ensure access and compliance to other health and nutrition services, including treatment of SAM.

The cIYCF assessment and counselling service initiated in Zimbabwe is one of the many solutions we are pursuing simultaneously to ensure optimal IYCF is practiced. These include improving policy, guidelines and tools for use

at different levels of management and service delivery, addressing the socio-cultural-economic barriers that take account of the role and influence of others/gatekeepers within the family/community (grandmothers, elders, fathers), addressing the health workers' and managers' knowledge and skill gaps, and advocating for longer term commitment, integration and resources for IYCF programming.

The missing elements in previous IYCF promotion efforts (e.g. through world breast-feeding week (WBW) communications, and the WHO 40 hours training to master trainers, facilitators and health workers) is lack of vision and accountability mechanisms that link the training to provision of counselling service and changes in IYCF practices. A typical 'cascade' approach in IYCF training takes 8 – 10 people at a time as 'master trainers' (who are not always trained through a competency based approach), who in turn train 'facilitators' (training usually undertaken in a hotel or a training facility, mainly theoretical, with little skills based training), who then are expected to further train the frontline facility staff and VHWs. Often when country training action plans are drafted, after regional or national TOT, the cost and time implications are unrealistically huge that discourage national decision makers and donors.

Because of resource and logistical challenges, training of frontline workers typically lacks quality and coverage. Such an approach results in a few 'trained' health workers spread thinly throughout the country. This means that those who are not trained or are trained using earlier guidelines outweigh those trained using more recent guidelines. The few newly trained staff often cannot exert significant influence and their skills, knowledge and passion slowly dies off.

Zimbabwe has attempted to address this by finding a means for efficient and rapid expansion of knowledge, skills and tools covering a whole district at a time (within a week) and attaching trained people to real cases that they follow, starting with pregnancy/early infancy

to about two years of life. In our approach, quality of training is emphasized and the trainer/trainee ratio is 1:4/5, as per evidence of the ideal ratio that can facilitate skills based training. Valuable tools are included in the training package for pre-post assessment that determine improvement in knowledge and skills. An example of the impact of training in one location is shown in Figure 2.

To date, 14 districts have been covered by this initiative, resulting in over 2,000 CCs and over 20,000 mothers/infants accessing counselling services on an on-going basis (1CC:10 mother/infant pairs). In addition, these 20,000 women take part in supporting other mothers and access peer support themselves, as every trained health worker facilitates the establishment of at least one mother-to-mother support group in their village.

During the trainings and supportive supervision visits, it is emphasised that assessment and counselling on IYCF is one of the key interventions towards addressing undernutrition in Zimbabwe and that the role of VHWs is pivotal to the current momentum in the country to address stunting as a matter of urgency (e.g. SUN movement, National Food and Nutrition Security Policy, etc.). We encourage a sense of accountability by each VHW towards ensuring optimal IYCF practices and to contribute to further understanding of barriers and facilitation of IYCF practices in their catchment community. Accountability is increased through location training reports that record who has trained who, the contact details of trained VHWs (including cell phone numbers where available) and who is following up which infant/mother pair. This will allow determination of any pattern of training and service provision outcome that can be explained by quality of training and support.

So far, the VHWs appear motivated and inspired to identify pregnant mothers from the early days of pregnancy (which is also required by other initiatives such as Maternal Mortality Reduction, PMTCT³, etc.) and provide IYCF counselling. They are also motivated to keep a record of how feeding practices are evolving with each infant/child over time. This can easily be linked to nutritional outcomes, given the demand for a growth monitoring and promotion service in Zimbabwe. Such a system of ongoing identification, assessment and counselling of mothers will serve as an opportunity to promote use and compliance of other health and nutrition services and serve as a backbone to build on additional interventions in IYCF, such as home fortification of food. This in turn can improve the demand and effectiveness of community level IYCF counselling services.

Zimbabwe hopes to share experiences in relation to results of this initiative on IYCF practices and nutritional outcomes in future issues of Field Exchange.

For more information, contact: Fistum Assefa, email:fassefa@unicef.org

¹ Though weakened by the recent crisis, it is in the process of recovery/being rebuilt stronger.
² Integration of IYCF support into CMAM, Oct 2009. ENN, IFE Core Group, Nutrition Policy Practice. Funded by the Global Nutrition Cluster (IASC).
³ Prevention of Mother to Child Transmission of HIV

Figure 1: Growth in CMAM services in Zimbabwe, 2006-2011

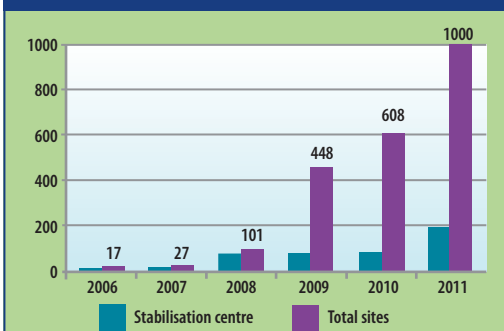
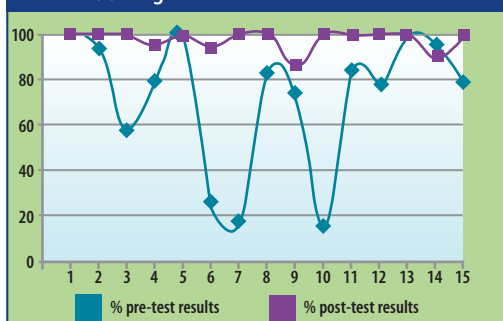


Figure 2: Pre and post test results (responses to 15 questions) for Gwanika, Gokwe South district training



Professional profile

Dr Nadera Hayat Burhani

By Carmel Dolan, ENN



Dr Burhani speaking at International Day of the Midwife (2012)

ENN interview with Dr. Nadera Hayat Burhani, Deputy Minister for Health Care Services Provision, Islamic Republic of Afghanistan

In February 2012, I interviewed Dr Nadera Hayat Burhani, Deputy Minister for Health Care Services Provision, Ministry of Public Health (MoPH), Islamic Republic of Afghanistan for Field Exchange. Dr Burhani was a guest speaker at the CMAM Conference held in Addis Ababa, Ethiopia in November 2011¹. It was at this event that I met Dr Burhani and agreed to a Field Exchange profile on nutrition in Afghanistan and Dr Burhani's experiences of working in such a complex environment.

Dr. Burhani is a medical physician (obstetrics and gynaecology speciality) and holds a Masters in International Public Health. As Deputy Minister for Health Care Services Provision, she is responsible for overseeing all aspects of nutrition from prevention to treatment of malnutrition in emergency and development situations. Previous to her current appointment in September 2008, she was Deputy Minister for Reproductive Health and Maternal and Child Health for three and a half years, following a clinical career as a gynaecologist/obstetrician and physician in Balkh Province, Afghanistan.

Q: How would you describe the current nutrition environment (policy, resources, coordination, visibility and programmes) in Afghanistan?

The current policy environment is, Dr Burhani explained, responsive to the current needs and priorities of the country. The nutrition policy and strategy has been developed as part of health and nutrition sector strategy, which falls under the Afghanistan National Development Strategy (ANDS). Based on this policy, different programmatic guidelines have been developed to facilitate implementation of the policy. For example, guidelines on the Management of Acute Malnutrition, Infant and Young Child Feeding (IYCF) and Micronutrients have been developed recently².

She described how two national legislations have been developed and endorsed by the Cabinet, one in support of breastfeeding and for the control of marketing of breast milk substitutes and the other, for Universal Salt Iodisation (USI). According to these two national legislations, two national committees comprised of representatives of different sectors have been established to oversee the implementation of related programmes through a multi-sectoral approach. We have to, she emphasizes, work on the food safety and quality control policies and guidelines, as well as the dietary guidelines, for Afghans in the near future.

In terms of financial resources, we are in a good position. The main donors of the MoPH are USAID, the World Bank, and the European Union (EU), who are financing the primary health care services and nutrition is a key component. Also, the Canadian International Development Agency (CIDA) has committed to three years funding to support implementation of nutrition activities through the primary health care system. UN partners are supporting the MoPH to manage emergency response.

In terms of technical resources, we have a department at the MoPH with technical staff to support the implementation of nutrition programmes according to the national priorities and policies. This department plays an important role in the stewardship role of the MoPH to develop guidelines, policies, strategies, provide technical assistance for implementing partners, coordinate efforts with different stakeholders and sectors and monitor the current programmes. The MoPH is planning a long term strategy to develop more technical capacity in nutrition in the near future. Links have been established with the University of Massachusetts (US) and the London School of Hygiene and Tropical Medicine (UK) to provide opportunities for a team of Afghan professionals to obtain a Master's degree in nutrition. Discussion with the Kabul Medical University,

Cheragh Medical University and the American University of Afghanistan is on-going to establish a pre-service education programmes on nutrition (bachelor degree).

The key programmes in nutrition are USI, IYCF and the prevention of micronutrients deficiencies. These programmes are at different stages of development to reach national coverage. Our USI programme is a success story. It started in 2003 and we now have an average of 61% coverage of iodised salt utilisation at the national level with above 90% coverage in the main cities. For IYCF we have had pilot projects and based on lessons learnt, we are going to scale up the programme to reach each breastfeeding mother and her family in the country. Our micronutrients supplementation programme is mainly done through health system structures and here we need to work more to reduce iron, zinc, folic acid, vitamin C, and vitamin A deficiency.

Coordination is a challenge, especially as there are several actors. Dr. Burhani observed that nutrition is a multi-sectoral activity and requires involvement of several actors from the government, UN, donor agencies and implementing partners. To coordinate efforts at different levels require serious steps. She described how they are going to address this challenge through different approaches. 'Nutrition Partners' is a committee comprised of the main donors, UN agencies and some technical agencies, where partners discuss programmatic issues in terms of nutrition, especially developmental interventions. The Nutrition Cluster is another forum gathering UN agencies, NGOs and government partners to deal with emergency situations. Another two good examples she had already mentioned: the national committee for promotion of breast-

¹ See footage of Dr Burhani's presentations at www.cmam-conference2011.org

² Available at www.moph.gov.af

feeding and a national board for USI that brings representatives from different government sectors, UN agencies and some other organisations to coordinate efforts.

In terms of how technical support is realised, a Nutrition Advisory Committee made up of experts in nutrition, provides technical advice to the MoPH through the Public Nutrition Department. "Overall, we ensure that we coordinate all partners' efforts to address the national priorities in terms of nutrition and we believe that we are on the right track. Visibility of current nutrition programmes are not at a satisfactory level. Still the dominant mentality about nutrition programmes is only treatment of acute malnutrition. The other programmes are in their infancy stages and we need to work a lot to create awareness regarding the other programmes, especially with regards to IYCF and micronutrients".

Q: What are the main priorities for nutrition in the coming years?

The main priorities for the coming years are:

- Nutrition promotion through awareness raising, counselling, participatory demonstrations and community support activities implemented.
- Infant and Young Child Feeding, especially early initiation of breastfeeding, exclusive breastfeeding until six months, restricted use of commercial infant formula and respect of the International Code of Marketing of Breast Milk Substitutes, continued breastfeeding until 2 years and beyond, and introduction of solid/semi-solid foods at six months.
- Micronutrients including nutrition education, adequate fortification of staple foods and micronutrient supplementation.
- Adequate care during severe acute malnutrition treatment through in-patient care in hospitals for complicated cases, and outpatient care from hospitals or Comprehensive Health Centres for non-complicated cases.
- Food safety and quality control to ensure all foods made available to Afghan consumers, whether produced by the households, purchased on local markets, or imported, should be safe for consumption and respect national food safety and food quality standards.
- Effective nutritional surveillance and monitoring. Information on the nutrition situation and on the results and impacts of nutrition interventions should be regularly collected and analysed as part of relevant surveillance and monitoring and evaluation systems.
- Capacity development for public nutrition. Public nutrition training should be part of pre-service and in-service training for all health workers, and relevant staff working in the fields of agriculture, education, women's and youth affairs, economics and social affairs.

Q: What are some of the main opportunities and the challenges for advancing nutrition?

Among the main opportunities is commitment of the leadership in the MoPH. There is a committed and competent team in the public nutrition department and we have commitment of donor agencies to support nutrition related activities. The Basic Package of Health Services (BPHS) is a system to deliver main services to all villages of the country.

The main challenges for advancing nutrition in the country are a shortage of technical cadres of nutrition staff, lack of institutions to generate nutritionists and experts in dietetics, dependency on donor financing and the security situation. Also, Afghanistan as a traditional society with several culturally rooted taboos on food consumption, low awareness on proper nutrition practices and barriers toward women status in the society create other challenges. In addition, many people live in very remote and often inhospitable mountainous areas making access at certain times of the year very difficult, if not impossible.

Q: With respect to the position of women, what impact is this having on their and their children's nutritional status?

It is obvious that social status of women has a direct effect on their health and nutrition status and on their children. Our priority target groups in nutrition programmes are children and women. Raising awareness through different channels, ensuring that all programmes are gender-friendly (taking all special needs and cultural issues into account), messages and activities are socially and culturally sensitive and trying to involve men in all activities that require women's participation, such as IYCF, is vital. Men are the decision makers in the Afghan society.

Providing services such as blanket food distribution, targeted supplementary feeding programmes and treatment programmes for women are the main steps we are taking to address this challenge. We are also trying to increase the age at which a girl marries to 16 years – today it is not uncommon for girls to be married at the age of 12 years. There is also a very high level of violence against women, especially in rural areas where many are also illiterate. Thus, there is a vicious cycle of early adolescent pregnancies which increases their risk of mortality and infant and child malnutrition.

Q: Afghanistan is very complex and challenging environment, can you describe how this impacts on your work in nutrition and your efforts to address women's issues?

One of the challenges in this complex environment is how to reach the women and adolescent girls to provide them with appropriate education and support in nutrition issues, especially in the remote areas. However, we have piloted projects in different parts of the country in the past years to involve women in nutrition related activities by organising them into community support groups for breastfeeding and family action groups for child survival. Using the lessons learned from these pilot projects, we can scale up activities at the national level and use this opportunity also to improve the social status of women among their communities. We are going to conduct a study on nutrition programmes targeting adolescent girls in partnership with the World Bank. This project is in its very early design stages and we hope to learn some important lessons from it to scale up our interventions targeting adolescent girls.

We have made real progress in reducing both the under-five mortality and infant mortality rates over the past ten years and we need to continue this progress through addressing nutrition related problems.

Q: How well supported is Afghanistan by external donors and agencies for nutrition advancement and will Afghanistan become part of the Scaling Up Nutrition (SUN) movement?

Currently, nutrition programmes in Afghanistan are well supported by external donors. UNICEF, WHO, WFP and FAO are the active UN partners and supporters of nutrition activities. We have already started preparation of a 'multi-sectoral plan of action for nutrition' involving five key sectors (Health, Agriculture, Education, Rural Development and Commerce). The plan is in its draft stage and we hope that it will be launched officially by the end of the current fiscal year. To oversee the implementation of this plan, a committee at the Cabinet level will be established hopefully with the leadership of the Vice-President. A Secretariat will manage and coordinate the activities which will be supported by the World Bank. These are the steps to Scaling up Nutrition as a national development agenda.

Q: Is there anything else you would want readers of Field Exchange to know about nutrition in Afghanistan?

Malnutrition in Afghanistan is a consequence, as well as a cause, of widespread poverty. The people of Afghanistan have suffered from decades of war, instability and violence, which have led to greater poverty. This poverty in turn worsened by the consequences of inadequate nutrition and affects future generations as well. Thus, combating malnutrition in Afghanistan is not only a humanitarian and survival issue but a development issue and a key strategy to eliminate poverty. We need to work hard with a long term vision to free the future generations of Afghans from the vicious cycle of poverty-malnutrition as we did in reducing maternal and child mortality rates during the past 10 years. We are confident that with a focused and coordinated effort, we can do more in the field of public nutrition. There is already support and commitment from the international community in this regard, which we are grateful for, and we hope that this international cooperation and partnership will continue so that we can contribute to the development goals.

Q: Is there a memorable moment in your professional career that you would like to recount?

When I arrived to work in the Ministry in 2005, I came from a regional hospital and was faced with a huge amount of decision-making responsibilities. I slept very little in the early days but when I became Deputy Minister, I was part of the team to work on reducing infant, child and maternal mortality which was like a 'quiet tsunami' needing urgent attention. A great personal moment was being part of the team to announce to the media the reductions in infant and maternal mortality achieved after ten years of dedicated efforts – a reduction in maternal mortality rate from 1,600 per 100,000 to 327 per 100,000, in the under 5 mortality rate from 257/100,000 in 2002 to 97/100,000 in 2010 and in infant mortality rate from 165 to 77 per 1,000 live births.

For more information, visit the MoPH website: www.moph.gov.af

People in aid

*CMAM Conference, Addis Ababa, 2011
Some of the participants during the social evening hosted by the
Federal Ministry of Health, Ethiopia*



*Some of the ENN Team - Mesene Mulualem, Leyla Kedir,
Wondwossen Mahere, Thom Banks & Marie McGrath*



Traditional dancers during the MoH hosted social evening



*Getahun Teke (WHO Ethiopia) and
Andre Briend (Independent)*



*H.E. Nadera Hayat Burhani (Deputy Minister for Health
Care Services Provision, Afghanistan) and Sohail
Saqlain (Joint Secretary, Pakistan)*



*Noel Marie Zagre (UNICEF ESARO), Zita Weise-Prinzo (WHO)
and Ilka Esquivel (UNICEF NY)*



*Sabas Kimboka (Tanzania) & Kirsten Havemann
(Danida)*



Rob Hughes (DFID) & Hatty Barthorp (Goal)



Beatrice Eluka and Philippa Momah (FMOH, Nigeria)

People in aid



Agnes Aongola (MoH Zambia) & Catherine Mkwangama (OPC, Malawi)



Anne Philpott (DFID India), Haile Gebreselasse (Ethiopia) and Biraj Patnaik (India) at Addis airport (a good omen?)



Gwyneth Coates (Concern) and Mary Corbett (Irish Aid)



Elizabeth Johnson (Food and Nutrition Programme, Sierra Leone) and Jeneba Kamara (Ministry of Health and Sanitation, Sierra Leone)



Dr Telahun Teka (FANTA Ethiopia) and Hedwig Deconinck (FANTA2)



Raj Pokharel (MOPH, Nepal) and Manohar Agnani (Madhya Pradesh, India)



Jan Kormska (UNICEF) and Martin Gallagher (Irish Aid)



Emily Mates (ENN), Kate Sadler (Tufts), Steve Collins (Valid Int) and Anne Philpott (DFID India)

Invite to submit material to Field Exchange

Many people underestimate the value of their individual field experiences and how sharing them can benefit others working in the field. At ENN, we are keen to broaden the scope of individuals and agencies that contribute material for publication and to continue to reflect current field activities and experiences in emergency nutrition.

Many of the articles you see in Field Exchange begin as a few lines in an email or an idea shared with us. Sometimes they exist as an internal report that hasn't been shared outside an agency. The editorial team at Field Exchange can support you in write-up and help shape your article for publication.

To get started, just drop us a line. Ideally, send us (in less than 500 words) your ideas for an article for Field Exchange, and any supporting material, e.g. an agency report. Tell us why you think your field article would be of particular interest to Field Exchange readers. If you know of others who you think should

contribute, pass this on – especially to government staff and local NGOs who are underrepresented in our coverage.

Send this and your contact details to:

Marie McGrath, Sub-editor/Field Exchange,
email: marie@ennonline.net

Mail to: ENN, 32 Leopold Street, Oxford, OX4 1TW, UK.

Tel: +44 (0)1865 324996 Fax: +44 (0)1865 597669

Visit www.ennonline.net to update your mailing details, to make sure you get your copy of Field Exchange.

If you are not the named recipient of this Field Exchange copy, keep it or pass it on to someone who you think will use it. We'd appreciate if you could let us know of the failed delivery by email: office@ennonline.net or by phone/post at the address above.

Field Exchange

Editorial team

Jeremy Shoham
Marie McGrath
Deirdre Handy

Office Support

Katherine Kaye
Matt Todd
Thom Banks

Design

Orna O'Reilly/Big
Cheese Design.com

Website

Phil Wilks

Contributors for this issue

Leo Anesu Matunga,	Filipo Dibari,
Anne Bush,	UNICEF Nutrition in
Aminata Shamit Koroma,	Emergencies Unit,
Faraja Chiwile,	Valid International,
Marian Bangura,	Erin Boyd,
Hannah Yankson,	Anne-Dominique Israel,
Joyce Njoro,	Rebecca Brown,
Muhammad Suleman	Katrien Khoos,
Qazi,	Anne Berton-Rafael,
Guero H Doudou	Maureen Gallagher,
Maimouna,	Karina Lopez,
Dr Yami Chegou,	Stanley Chitekwe,
Prof Ategbro Eric-Alain,	Esther Busquet,
Edna Germack Possolo,	Saul Guerrero,
Yara Livia Novele	Dr Nadera Hayat Burhani,
Ngovene,	Wisdom G. Dube,
Maaik Arts,	Thokozile Ncube,
Mr Sylvester Kathumba,	Paul Musarurwa,
Valerie Sallie Wambani,	Fitsum Assefa,
Michael A. Neequaye,	Bernadette Feeney and
Wilhelmina Okwabi,	James Lee,
Ferew Lemma,	Biraj Patnaik,
Dr Tewoldeberhan Daniel,	Marko Kerac,
Dr Habtamu Fekadu,	Tamsin Walters,
Emily Mates,	Anna Kriz (translation),
Yvonne Grellety,	Rebecca Norton
Hélène Schwartz,	(translation),
David Rizzi,	

Thanks for the pictures to:

Fitsum Assefa	Sylvester Kathumba
Wisdom Dube	Tibebu Lemma
Dr Nadera Hayat Burhani	Tewolde Daniel
Saul Guerrero	Sulaman Qazi
Maaik Arts	Patricia Esteve
Leo Matunga	Riccardo Gangale
AS Koroma	Erin Boyd
Yvonne Grellety	Emily Mates
Hélène Schwartz	ACF
MOH Ghana	Valid International
David Rizzi	UNICEF
Valerie Wambani	

Back Cover

Patients waiting for a visit at the Kaedi Hospital, Mauritania. David Rizzi, Mauritania, 2010

The opinions reflected in Field Exchange articles are those of the authors and do not necessarily reflect those of their agency (where applicable).



The Emergency Nutrition Network (ENN)

grew out of a series of interagency meetings focusing on food and nutritional aspects of emergencies. The meetings were hosted by UNHCR and attended by a number of UN agencies, NGOs, donors and academics. The Network is the result of a shared commitment to improve knowledge, stimulate learning and provide vital support and encouragement to food and nutrition workers involved in emergencies. The ENN officially began operations in November 1996 and has widespread support from UN agencies, NGOs, and donor governments. The network aims to improve emergency food and nutrition programme effectiveness by:

- providing a forum for the exchange of field level experiences
- strengthening humanitarian agency institutional memory
- keeping field staff up to date with current research and evaluation findings
- helping to identify subjects in the emergency food and nutrition sector which need more research.

The main output of the ENN is a tri-annual publication, Field Exchange, which is devoted primarily to publishing field level articles and current research and evaluation findings relevant to the emergency food and nutrition sector.

The main target audience of the publication are food and nutrition workers involved in emergencies and those researching this area. The reporting and exchange of field level experiences is central to ENN activities. ENNs five year strategy (2010-2015) is available at www.ennonline.net

The Team



Jeremy Shoham (Editor), Marie McGrath (Sub-editor) and Carmel Dolan are ENN Technical Directors.



Thom Banks is the ENN's Desk Operations Officer and provides logistical and project support to the ENN team.



Katherine Kaye is the part-time administration assistant at the ENN.



Chloe Angood is a nutritionist working part-time with ENN on a number of projects and supporting Human Resources.



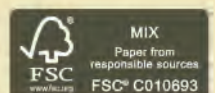
Matt Todd is the ENN financial manager, overseeing the ENN accounting systems, budgeting and financial reporting.



Orna O'Reilly designs and produces all of ENN's publications.



Phil Wilks (www.fruitysolutions.com) manages ENN's website.



The Emergency Nutrition Network (ENN) is a registered charity in the UK (charity registration no: 1115156) and a company limited by guarantee and not having a share capital in the UK (company registration no: 4889844). Registered address: 32, Leopold Street, Oxford, OX4 1TW, UK. ENN Directors/Trustees: Marie McGrath, Jeremy Shoham, Bruce Laurence, Nigel Milway, Victoria Lack, Arabella Duffield

كيف نعامل طفلا مصابا
la diarrhée, que faire?



استعملوا أكياس التسمية
Augmenter les boissons nutritives
et continuer l'allaitement au sein.
منع التجفاف باستخدام
Hydratation par la T.R.O.

لمن الأم
و يحميه
المشاة
**Le Lait maternel
est le meilleur
aliment pour le nourrisson,
et protège
des maladies**

الأُسرية
L'alimentation



تغذية متوازنة ومتنوعة
Alimentation équilibrée et variée



Aliments variés



وجبة متوازنة
Repas équilibré

— Pour la bonne santé de la famille
une alimentation équilibrée



Emergency Nutrition Network (ENN)
32, Leopold Street, Oxford, OX4 1TW, UK
Tel: +44 (0)1865 324996
Fax: +44 (0)1865 597669
Email: office@enonline.net
www.enonline.net

