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Review of Community-Based Management of Acute Malnutrition Implementation in Burkina Faso

November 8–18, 2009

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Acronyms

ACF	Action contre la Faim
AIDS	acquired immune deficiency syndrome
CAPN	Centre d'accueil pour le projet de nutrition
CHR	centre hospitalier régional (regional hospital)
CHW	community health worker
C-IMCI	Community Integrated Management of Childhood Illness
CMA	centre médical avec antenne chirurgicale (medical center with surgical capacity)
CMAM	Community-Based Management of Acute Malnutrition
CNCN	Conseil National de Concertation en Nutrition (National Council for Consultation on Nutrition)
CREN	centre de réhabilitation et de l'éducation nutritionnelle (center for rehabilitation and nutrition education)
CSPS	centre de santé et de promotion sociale (health center)
DCHA	USAID Bureau for Democracy, Conflict, and Humanitarian Assistance
DN	Directorate of Nutrition
ENA	Essential Nutrition Actions
FANTA-2	Food and Nutrition Technical Assistance II Project
GAM	global acute malnutrition
GOBF	Government of Burkina Faso
GRET	Groupe de recherche et d'échanges technologiques (Group for Research and Technology Exchange)
HIV	human immunodeficiency virus
HKI	Helen Keller International
HMIS	health management information system
IMCI	Integrated Management of Childhood Illness
IRSS	Institut de Recherche en Sciences de la Santé (Research Institute of Health Sciences)
M&R	monitoring and reporting
MAM	moderate acute malnutrition
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MOH	Ministry of Health
OFDA	USAID Office of U.S. Foreign Disaster Assistance
MSF	Médecins Sans Frontières
MUAC	mid-upper arm circumference
NCHS	National Center for Health Statistics
NGO	nongovernmental organization
PADS	Programme d'Appui au Développement Sanitaire (Health Development Support Program)
PM2A	Preventing Malnutrition in Children under 2 Approach
PRSP	Poverty Reduction Strategy Paper
RUTF	ready-to-use therapeutic food
SAM	severe acute malnutrition
SBCC	social and behavior change communication
SFP	supplementary feeding program
TBA	traditional birth attendant
TG	thematic group
USAID	United States Agency for International Development
WFP	World Food Programme
WHO	World Health Organization

1. Introduction

The United States Agency for International Development (USAID) Bureau for Democracy, Conflict, and Humanitarian Assistance Office of U.S. Foreign Disaster Assistance (DCHA/OFDA) requested Food and Nutrition Technical Assistance II Project (FANTA-2) assistance to review Community-Based Management of Acute Malnutrition (CMAM) in four West African countries—Burkina Faso, Mali, Mauritania, and Niger—to help identify DCHA/OFDA 2010 and 2011 program priorities, including where DCHA/OFDA investment should be directed to support CMAM. The goal was to review CMAM program implementation and its integration into national health systems to provide DCHA/OFDA a status report for each country; draw lessons learned; and make recommendations on challenges, promising practices, gaps, and priority areas for DCHA/OFDA support during 2010 and 2011. The review was intended for DCHA/OFDA program planning purposes and also potentially as an advocacy tool to guide other donors in planning CMAM support in the region. After all four countries have been reviewed, FANTA-2 will develop a synthesis report. The current document presents a summary report on CMAM in Burkina Faso only.

1.1 OBJECTIVES

Burkina Faso was the first country FANTA-2 reviewed. The review had the following objectives:

a) Review the overall status of CMAM implementation and provide a status report on CMAM efforts in the country.
b) Analyze the effectiveness of CMAM programs in terms of improved nutritional indicators (e.g., prevalence of global acute malnutrition [GAM]).[1] If sufficient data are unavailable, develop recommendations for improved data collection.
c) Analyze the relevance of DCHA/OFDA-funded activities and the extent to which they are contributing to viable national health systems.
d) Identify challenges, opportunities, gaps, promising practices, and lessons learned in CMAM implementation.
e) Make recommendations to DCHA/OFDA on how to address challenges, pursue opportunities, and fill identified gaps on promising practices that should be incorporated into other programs and on how to build on lessons learned in the region and globally.

1.2 METHODS

An examination of existing nutrition policy and strategy, national protocols, and performance information from some of the selected programs in Burkina Faso was conducted to understand the CMAM program context, structure, and performance.

The FANTA-2 review team (Hedwig Deconinck, Senior CMAM and Emergency Nutrition Advisor, FANTA-2; Serigne Mbaye Diene, Senior HIV and Nutrition Advisor, FANTA-2; and Paluku Bahwere, Community-Based Therapeutic Care Advisor, Valid International) visited Burkina Faso from November 8 to November 19, 2009. During the visit, the team reviewed CMAM implementation at the national, subnational, and district levels, with the aim of documenting how implementation is taking place in terms of access to services and supplies; quality of services; and health staff competencies, including a basic understanding of procedures to identify acute malnutrition and implementation of the national protocol. The team also looked into how CMAM is being integrated into the health system at all levels, the extent of the enabling environment for such integration, and the development of strategies for its replication.

To accomplish this, the review team conducted site visits for observation and held meetings and interviews at the national, subnational, and district levels, with the Ministry of Health (MOH), UNICEF Burkina Faso, the World Food Programme (WFP)/Burkina Faso, USAID, nongovernmental organization

[1] This was not possible for the following reasons. Data were not available to assess the impact of CMAM on GAM rates. Coverage is still low and the program is too new to have had a real impact on GAM rates. CMAM is mostly a therapeutic intervention and does not affect incidence. It can therefore only affect GAM rates if the coverage is good. In addition, the review team could not control for the food security situation and many other confounding factors. Doing so would have required a full, formal evaluation as opposed to a short review.

(NGO) representatives and staff, and staff members of national training institutions. The review team visited sites from all NGO programs currently operating CMAM services in Burkina Faso. Sites were prioritized based on the scheduling of weekly activities, so that the team would be able to observe service provision. The team visited implementing partner or MOH offices and health centers in the same catchment areas. The team also visited a number of MOH sites not receiving external support. For each CMAM program, health facilities with inpatient care and outpatient care sites and supplementary feeding program (SFP) sites were selected for visits.

The team conducted site observation, key informant interviews, and focus group discussions with health managers, health care providers, community outreach coordinators and workers, beneficiaries (mothers or caregivers), community leaders, and community members. Key questions on CMAM implementation and integration for the review of programs and services at the national, subnational, district, and community levels were prepared and adapted for different informants. Interview questions followed themes taken from the CMAM analytical framework, developed by FANTA during a 2007 three-country review of CMAM integration (see Annex 6). The CMAM analytical framework includes five categories that are fundamental to successful CMAM implementation: 1) the enabling environment for CMAM, 2) CMAM competencies, 3) access to CMAM services, 4) access to CMAM supplies, and 5) quality of CMAM services.

1.3 COUNTRY BACKGROUND

Malnutrition is a significant problem of public health importance in Burkina Faso. Malnutrition rates are extremely high, affecting large segments of the population and limiting the nation's ability to make economic and social strides. Twenty-three percent of Burkinabe children under 5 are wasted, 35 percent are stunted, and 37 percent are underweight (UNICEF Multiple Indicator Cluster Survey [MICS] 2006). While major stakeholders share a belief that acute malnutrition data in Burkina Faso are not reliable, like other countries in the Sahel, it is certain that entrenched acute malnutrition rates hover on a regular basis around the emergency threshold of 15 percent prevalence and surpass it seasonally, even though Burkina Faso is not currently in a state of crisis. The sixth poorest country in the world (UNDP 2009), Burkina Faso faces many of the same structural problems as the rest of the Sahel, including widespread poverty; illiteracy; a harsh climate with frequent droughts and other natural disasters; chronic food insecurity; lack of hygiene, sanitation, and clean water; and harmful infant and young child feeding and care practices.

In the years following the 2005 Sahel-wide nutrition crisis, the Government of Burkina Faso (GOBF) has assigned a higher priority to nutrition interventions. The 2005 Burkina Faso Poverty Reduction Strategy Paper (PRSP), developed to guide International Monetary Fund and World Bank investments, lists among its strategic objectives promoting access for the poor to health care services and nutrition programs. However, the PRSP includes only low birth weight and underweight as indicators of nutrition progress. The MOH has established high-level nutrition structures and has developed a national nutrition policy and strategic plan for nutrition (2010–2015). Nutrition policies and strategies also exist at lower levels of the health system. Although national policies do not provide for the management of acute malnutrition specifically, the MOH has recognized that addressing this problem will help the country achieve its Millennium Development Goals (MDGs).

The MOH has demonstrated its commitment by developing guidelines for the management of acute malnutrition and rolling out services. Even after the development and release of official guidelines, it remains important to distinguish between two separate but related approaches to the management of acute malnutrition. The GOBF focuses on a facility-based management of severe acute malnutrition approach, offering treatment for children under 5 with severe acute malnutrition (SAM) in inpatient care until full recovery, while international NGOs have adopted the CMAM approach, with its specific community-based components of community participation for active case-finding and referral for treatment, treatment in outpatient care when appropriate, and home visits for problem cases, thus ensuring increased service access and utilization (i.e., coverage).

2. Review Findings

2.1 ENABLING ENVIRONMENT FOR CMAM

2.1.1 Ministry of Health Leadership for CMAM

The GOBF's desire to give more visibility to nutrition and make it a priority in its developmental policies and strategies has been translated into concrete actions. The GOBF has elevated the Directorate of Nutrition (DN) to be one of the five national directorates under the General Direction of Health Services within the MOH. Burkina Faso is one of the few West African countries where nutrition is raised to the level of a national directorate. The appointment of a national director and a team of technical staff has bolstered the technical leadership of the MOH in nutrition. Moreover, nutrition is integrated into the country's development plan and into the planning and monitoring of progress toward achieving the MDGs.

MOH/DN efforts to ensure technical leadership for nutrition include:

- A multi-sectoral body—*le Conseil National de Concertation en Nutrition* (CNCN) (the National Council for Consultation on Nutrition)—to discuss and adopt policy changes and coordinate established nutrition initiatives
- A national nutrition policy document
- A national strategic plan for nutrition for 2010–2015

Prior to 2006, Burkina Faso had limited experience in the management of acute malnutrition. However, an enabling environment for CMAM has since been created. Even though acute malnutrition lacks a dedicated CNCN thematic group (TG) and the management of acute malnutrition has not yet been treated as a priority nutrition intervention, initial implementation and scale-up of services have begun and have gained momentum.

MOH efforts to strengthen technical leadership and capacity in CMAM have achieved:

- Development and dissemination of national guidelines for the management of acute malnutrition
- Strengthened capacities of mangers and heath care providers
- Appointment of nutrition focal points in charge of training, mentoring, and monitoring CMAM implementers in all regional MOH and health districts

Despite the promising leadership role the MOH/DN is playing for CMAM, its technical expertise requires reinforcement. Inconsistent technical leadership has resulted in low coverage of CMAM services and different CMAM strategies being implemented in different locations. And while Burkina Faso is a development context requiring development solutions, some management of acute malnutrition strategies follow an emergency model with high financial and human resource inputs. This model, often introduced by emergency donors to respond to acute situations where achieving widespread coverage rapidly is an imperative to save lives, discourages sustainable integration and does not enhance longer-term capacity and expertise strengthening.

Challenges in MOH technical leadership and capacity in CMAM are related to:

- Lack of a strategy for sustainable capacity development
- Lack of a strategy for continuous quality improvement
- Lack of a strategy for scale-up of quality services
- Insufficient in-country expertise and experience in CMAM, including from key national and regional MOH staff members
- Incomplete initial CMAM training, including orientation without mentoring and a major focus on inpatient care
- Limited or no strategy and/or guidance on supplementary feeding

2.1.2 MOH Coordination

In 2007, the GOBF created the CNCN, which has more than 15 participating institutions, including representatives from the major nutrition NGOs. The CNCN meets every 6 months and its four TGs meet every 3 months. The TGs are:

- Nutrition and Community Participation
- Nutrition and Food Security
- Nutrition and Public Health
- Nutrition and School Health

The CNCN/Nutrition and Community Participation TG serves as a discussion forum where CMAM issues are dealt with. There is no CMAM- or acute malnutrition-specific TG. Regional-level coordinating bodies exist in the regions of Fada Ngourma, Ouahigouya, and Kaya. The Fada Regional Coordinating Committee, created in 2008, held its first semester meeting in 2009. The regional governor presides over the meeting with the DN's participation, underscoring the importance high-level officials attach to nutrition issues. Regional nutrition coordinators and district nutrition focal points have been appointed, ensuring that the coordination bodies and mechanisms are in place.

NGOs have their own separate nutrition consultation platform for strengthening information sharing and coordinating activities. In most countries, NGOs typically set up their own information mechanisms outside government structures to preserve their independence. In spite of this platform, cohesion among the NGO partners is not perceived as strong, and one partner is not well informed of the activities of the other partners operating in the same region.

Overall, there is limited knowledge of the different strategies being implemented and a lack of sharing lessons learned, which makes it difficult to determine how the differences in CMAM implementation by the various partners (the MOH and NGOs) could contribute to learning country-specific lessons, strengthening the national strategy for integration of CMAM into the health system, scaling up services, and strengthening and sustaining CMAM capacities in a coordinated manner.

Limited coordination between the DN and the implementing NGOs, as well as insufficient technical expertise, are the source of inconsistencies in implementation strategies and lack of harmonization in CMAM practices, especially in international NGO-supported areas.

Observed weaknesses in coordination among different partners at the national, regional, and district levels include:

- Uneven application of the policy for free treatment of children with SAM
- Different criteria and reference populations used for detection and admission, resulting in children with SAM referred from the community not being admitted, and in dual admission in supplementary and therapeutic feeding programs
- Unspecified roles and responsibilities for community health workers (CHWs) for CMAM
- Differing motivation strategies for CHWs for CMAM community mobilization resulting from lack of coordination and inadequate implementation of government policies

2.1.3 CMAM Integration into National Health and Nutrition Policies and Strategic Plans

The MOH has not yet systematically integrated CMAM into national health and nutrition policies and strategic plans. However, acute malnutrition has been included in nutrition policies and strategic plans and the management of acute malnutrition has been recognized as a key intervention to accelerate progress toward achieving the MDGs. Along with a national policy for nutrition, the MOH has developed a new national strategic plan for nutrition (2010–2015), which includes among its objectives improving integration and delivery of nutrition services at the health facility and community levels. The strategic plan could serve as a starting point for integrating CMAM into policy and strategy. Current policies and strategies addressing lower levels of the health system also allow the health districts to integrate CMAM activities into their annual work plans. Because of the flexibility at their level, the districts are a driving

force in promoting integration of CMAM into the health system. And, thanks to their additional resources and expertise, the integration of CMAM is more advanced in the NGO-supported districts.

2.1.4 Advocacy for CMAM

No CMAM advocacy plans or activities per se exist. However, starting in 2005, the DN and other actors have each played an important role in advocating for CMAM. In a sense, Burkina Faso benefited from the 2005 Niger crisis, which revealed the existence of a general malnutrition crisis throughout the Sahel, overlaying very high baseline GAM rates. The crisis pushed Sahelian governments, including the GOBF, and developmental partners, particularly United Nations agencies, to consider acute malnutrition a priority. The DN turned this visibility into an opportunity to advocate for increased support to national nutrition services in general and to the DN in particular by emphasizing how improving nutrition services would accelerate progress toward achieving the MDGs. As a direct result, the DN went from being an understaffed and poorly funded unit to a well-funded and well-staffed directorate.

The 6-day UNICEF Burkina Faso/MOH-facilitated 2007 course on the management of SAM, and the subsequent CMAM orientation and cascade trainings and orientations throughout Burkina Faso, can be considered a major advocacy event for CMAM. This clinical orientation course served as a launch pad for the nationwide CMAM rollout. Forty senior health professionals, including senior pediatricians, attended the course and became national CMAM trainers. The dissemination of the guidelines and the distribution of therapeutic foods also contributed to and encouraged the CMAM rollout.

The excellent working relationship between the DN and UNICEF Burkina Faso contributes to the effectiveness of nutrition advocacy activities. The DN has strongly benefited both technically and materially from UNICEF Burkina Faso support. UNICEF Burkina Faso has equipped the central-level office and all 13 regional offices with four-wheel drive vehicles to strengthen operational capacity. A similar working relationship between the NGOs and the DN is missing despite the potential of stronger collaboration to enhance the capacity of the nutrition community to benefit from the current favorable national and international environment, which places nutrition at the center of developmental programs.

Advocacy also takes place informally in several important ways. Most nutrition partners (UNICEF Burkina Faso and NGOs) have included CMAM in their work plans for the next several years, which demonstrates their success in advocacy for CMAM support. Nurses in charge of the *centres de santé et de promotion sociale* (CSPSs) (health centers) with CMAM services have become strong advocates for CMAM by appealing for its institutionalization and scale-up in the health system. Communities with CMAM services are very pleased with the quality and effectiveness of the CMAM services, and have also become good advocates of CMAM.

2.1.5 National Guidelines for the Management of SAM

With support from UNICEF Burkina Faso, the MOH developed and disseminated national guidelines following the cascade orientation training of health managers and health care providers. Because the guidelines have become an important reference document in the field, there is a need to review them to transition from the National Center for Health Statistics (NCHS) reference to the World Health Organization (WHO) child growth standards with adapted admission and discharge criteria, and to refine some technical inconsistencies. As they are written, certain aspects of the strategy and treatment protocols in the national guidelines leave room for interpretation, which has confused CMAM implementers. The DN plans to revise the guidelines in the first quarter of 2011. However, this would delay correcting important technical weaknesses related to contra-referral to outpatient care, use of the mid-upper arm circumference (MUAC) indicator, monitoring and reporting (M&R) of services, CMAM terminology, different measures used for community screening and admission, promoting sustainability for integration and scale-up, and transitioning to the WHO child growth standards, which identify greater numbers of younger children at increased risk of death.

2.1.6 National Repository

The review team found a pervasive lack of clarity about the purpose of data collected on CMAM services and an apparent lack of feedback from the reporting system. All the sites visited collect monitoring data, which are compiled in a standardized reporting sheet and sent to the district and regional CMAM and health information system focal points, who then compile district reports and send them to the national level, where UNICEF Burkina Faso maintains a national repository. The role of the MOH in the data repository management was undefined. It was unclear whether nutrition partners in the regions and health districts received either a consolidated situation report or feedback on the overall performance of the services. It was also unclear how the CMAM data are used at the national level for resource planning, advocacy, or continuous quality improvement, for instance. Moreover, discussions with nutrition staff at the health facility level revealed a problem in understanding the purpose of the data collection and the forms used for data collection, which may be due to lack of training and/or a lack of consolidated reports and feedback.

2.1.7 CMAM Technical Support Team

Neither the DN nor the nutrition partners have recognized the need for establishing a team with technical expertise housed at the DN. Instead, the DN plans on building the CMAM capacity of the whole DN. However, the DN and partners would highly benefit from such a service, where a small team of experts could focus on developing and implementing strategic plans for sustainably strengthening in-country CMAM capacities. Some national nutrition partners in Burkina Faso have technical expertise in a specific field and the capacity to collaborate with the DN to provide support. Some national physicians have good clinical knowledge and skills from previous academically organized training courses and from working with NGO implementing partners. But a consolidated support team would consistently cover expertise in inpatient care, outpatient care and community outreach for CMAM.

The CNCN Nutrition and Community Participation TG has the potential to strengthen CMAM technical expertise. For instance, a core group of experts could be identified and their capacities strengthened by partnering with a DN-based CMAM technical expert.

2.1.8 Accountability for Health Care Providers

The national CMAM guidelines describe the role of the different levels of care, such as the health district, the health center, and the community, in implementing CMAM, but they do not explicitly describe the specific roles and responsibilities of the different levels of health care providers, such as clinicians, nurses, and CHWs. Some initiatives at the regional or district level have compensated for this shortcoming by reviewing and adapting health care provider job descriptions or by defining the roles of the different CMAM implementers and posting these on the health facility wall.

The CMAM training and the gradual rollout of CMAM services encouraged spontaneous adaptations to health care providers' roles and responsibilities, including requirements for adherence to the CMAM guidelines. Thanks to these adaptations, CMAM activities are being carried out on a routine basis in the health facilities where the services have been introduced.

Nevertheless, health care providers' motivation is a much recognized problem since training and continuous supportive supervision remain limited. Some health care providers expressed their motivation in relation to their perceived success in treating children and the job satisfaction that comes with it. For them, positive treatment outcomes and the sense of improving the quality of health services increase the visibility and public trust in the health services, which boosts their morale. Other health care providers express that their morale is boosted whenever they receive training and increased support from supervisors. Some nutrition partners use alternative motivation strategies, such as a competitive way of acknowledging good quality care (electing sites with the best service delivery, for example) or translate the need for a motivation into performance-based financial incentives paid for days involved in activities.

The motivation of CHWs involved in community outreach is especially of concern for the sustainability of community participation and screening. Training and mentoring of CHWs is also an issue affecting the accountability and clarity of roles of CHWs performing CMAM duties in Burkina Faso. Most CHWs were recruited in the early days after the country's independence. There is no new recruitment strategy for CHWs and the position is often inherited. Thus, the body of CHWs is relatively static and not easily motivated or strengthened. Yet there are examples of CHWs who take on their new CMAM role because they are motivated to strengthen their status within their community. However, CHWs also often carry out their work with limited supportive supervision.

2.1.9 Sustainability of Funding

Most funding for CMAM for nutrition partners comes from emergency donors. The government's takeover of these costs will be a long-term process that is not yet planned. UNICEF Burkina Faso covers the cost of therapeutic supplies (therapeutic food, equipment, and drugs) and training and coordination meetings. WFP/Burkina Faso provides supplementary foods (including their transportation) for the management of moderate acute malnutrition (MAM).

Given that the management of SAM has been recognized as an intervention that contributes to achieving the MDGs, ideally, the GOBF and its development partners should gradually absorb the costs of CMAM. The GOBF has already established a budget line for nutrition, but, as with any health intervention, it is unlikely that the GOBF will be in a position to cover all the supply costs of CMAM without external support. The MOH strategic plan for nutrition, through the *Programme d'Appui au Développement Sanitaire* (PADS) (Health Development Support Program), a World Bank-funded health program, is providing US$80 million over the next 5 years. The PADS supports the National Health Development Plan to improve quality and utilization of maternal and child health services and malaria prevention and treatment. It also supports the country's HIV/AIDS programs. In 2008, in an effort to help Burkina Faso make more rapid progress toward achieving the MDGs, the World Bank provided an additional US$15 million grant to the PADS through 2012 for community-based health and nutrition activities to be carried out by NGOs and community-based organizations at the regional and district levels. This level of funding translates to US$0.85 per capita per year for the Burkinabe population. The GOBF budget support to the health plan at the district level targets an estimated 20 percent to nutrition and 80 percent to all other health activities. Thus, despite these government commitments, CMAM activities are underfunded. The current GOBF contribution to financing CMAM activities seems to be limited to the payment of MOH staff salaries.

2.1.10 Free Treatment for Children with SAM

The GOBF recognizes that the treatment of children with SAM should be free, as stated in the national nutrition policy. In reality, since free drugs are offered only when UNICEF Burkina Faso-supplied drugs are available, caregivers must pay for drugs associated with treating SAM. While health districts have a budget that is supposed to cover health care for the needy, most health districts do not consider this to mean providing free drugs for children with SAM, which implies a lack of recognition of SAM as a health problem. The most frequently mentioned reason for charging for drugs was budget insufficiency.

Several nutrition partners who support the MOH in CMAM implementation subsidize or entirely cover the financial cost of SAM treatment in their districts of operation. Most districts without such support have not been able to provide free care for SAM. Some NGO partners have gone as far as ensuring free health care to all children under 5 and pregnant and lactating women. The MOH is planning to draw lessons from these different financial support models. They could also look into the examples of some African countries that have sustained systems of free health care for children under5, which is the case in many Southern African Development Community countries, including Malawi. However, even in Malawi, this heavily donor-subsidized system cannot be sustained without continued donor support to the MOH.

2.2 COMPETENCIES FOR CMAM

Burkina Faso lacks a broad base of experienced CMAM health trainers and managers and health care providers in the MOH and implementing partners. Currently, all national-level DN staff is informed about CMAM, but not all staff is skilled in CMAM management and implementation. Most of the staff involved in implementing CMAM has had limited exposure to the approach prior to taking on their current CMAM position or responsibilities, while some staff members have gained great expertise in a specific but limited area of the approach. Regional and district nutrition focal points have a major focus on CMAM, but have limited opportunities to strengthen their knowledge and skills in CMAM management, including support and supervision and M&R. Moreover, the team of national and regional CMAM trainers has not received specific CMAM management and implementation skills strengthening.

2.2.1 Pre-Service Training

There is currently no emphasis placed on pre-service training. Reflecting the dearth of courses on the treatment of SAM, some CMAM trainers, academicians, and health care providers recognized that the management of SAM is not covered well in the health professionals' curriculum. However, solid training on the 1999 WHO protocol on the management of severe malnutrition existed in 2000–2004. Academic-based training on the management of SAM was provided for 3 days during a 3-week modular course on nutrition and public health, which was part of the public health course for medical undergraduate students at the University of Ouagadougou. Unfortunately, the course ended because of lack of political support and funding. The reason for failure to maintain the course could be that the package on nutrition and public health was provided as a separate module instead of being integrated into the curriculum, as is the case with the management of childhood illness.

The MOH/DN and UNICEF Burkina Faso plan to introduce the CMAM guidelines into the curriculum for nurses and paramedics at the National Schools of Public Health, where the DN staff has been at the forefront in teaching nutrition. These schools are located in Ouagadougou, Bobo Dioulasso, and Fada Ngourma. Revision of the training modules used for the CMAM course is under consideration.

Teaching institutions and universities have expressed interest in participating in CMAM training courses. This interest could generate opportunities. One proposal is to reintroduce the modules on the management of SAM within existing medical school curriculum courses. A second proposal is to introduce short modules that can be organized as extracurricular private courses. The latter is likely to start as an initiative of the Department of Nutrition at the Institut de Recherche en Sciences de la Santé (IRSS) (Research Institute of Health Sciences) with support from the University of Montreal.

2.2.2 In-Service Training and Mentoring

Following the first UNICEF Burkina Faso/MOH-facilitated 6-day orientation training, a series of cascade trainings was organized at the regional and district levels, resulting in the training of 350 trainers and service providers. Health care managers expressed skepticism about the effectiveness of the cascade training approach, including specific concerns that the orientation training was not an effective training of trainers because the training did not cover training skills. While the effectiveness of the cascade training approach has not yet been evaluated, many health care providers emphasized the importance of the continuous support, supervision, and mentoring they receive from the NGO partners. According to many health care providers with whom the review team met, in the absence of NGO support, it would have been difficult to correctly apply the treatment protocols. However, the reality is that the vast majority of health districts (53 of 63) do not benefit from NGO support.

To address the need for follow-up training, the MOH has a plan to organize a new cycle of trainings for new nurses and at least three CSPS staff members in 2010 with financial support from the national budget, UNICEF Burkina Faso, and NGOs. Unfortunately, health care providers who previously received training will not be eligible to participate.

A patchwork of other training opportunities exists, but it was unclear if these trainings are standardized and institutionalized. Health care providers from health districts implementing CMAM are trained by the MOH, by the supporting NGOs, or by both. NGOs usually provide the training for CHWs on community outreach, covering aspects of community mobilization, early detection, referral of children with SAM, and home visits. NGOs usually train health care providers on methods for M&R. Where there is no NGO, the MOH covers these specific aspects. One regional training initiative supported in Fada Ngourma, focusing on supply chain management, procurement, and the management of SAM in inpatient care, was still in the planning stage during the review visit.

The MOH, with UNICEF Burkina Faso support, has begun testing an alternative way of strengthening health care provider CMAM capacities through a mentoring approach in one district. The mentoring approach covers five CSPSs and consists of a 1-day orientation on community mobilization and active case-finding and the treatment of SAM without complications in outpatient care. In a second phase, the district focal point with the trained health care providers will scale up mentoring and services to cover all CSPSs in the health district. This experiment is still under development and has not been externally evaluated, but it promises to be a source of valuable lessons. The effectiveness of this approach to replicate at scale while ensuring service quality will need to be evaluated before it is promoted and supported on a larger scale. Box 1 summarizes the approaches to in-service training used in Burkina Faso.

Box 1. The Three In-Service CMAM Training Approaches That Have Been Used in Burkina Faso

1. Six-day orientation training using the cascade training approach, with limited MOH support follow-up

- Starting in 2007, the MOH/DN, with UNICEF Burkina Faso support, initiated orientation training on CMAM for health managers and health care providers using a cascade training approach.
- The cascade approach was not an effective training of trainers because participants were not trained to train. The training did strengthen knowledge, but did not include practical skills training.
- A team of senior clinicians and nutritionists was trained by international experts in the first national training. These trainees then became national trainers who trained regional trainers who, in turn, trained district trainers, who, in turn, trained district health care providers. Regional trainers could potentially also support district-level training.
- The training at the national level had a major focus on inpatient care for the management of SAM. The other CMAM components were covered in only a few hours. On the last day of the training, national CMAM guidelines were drafted and endorsed by the participants.

2. In addition to the cascade training, the district-based NGO provides continued mentoring support at the implementation level

3. In addition to the cascade training, an international expert agency, with supervision support from the regional MOH and health district, provides limited mentoring support at the implementation level

- In-service training with mentoring support was introduced in one district to support CMAM start-up. The practical, 1-day training was followed by a 2-week mentoring of health care providers and CHWs focusing on outpatient care and community outreach in five CSPS catchment areas.
- The health district will repeat the in-service training with mentoring support from the five CSPSs and expand the services to the remaining health facilities in the district.

2.2.3 Learning Sites: Learning Visits and Internships

Opportunities for sharing expertise and experiences among partner agencies have been underused. No formal learning site has been established nationally and no proposition has been made to visit a learning site abroad. Learning visits or possibilities for internships to sites with quality care and expert mentors able to accommodate trainees have not taken place or been organized. No one from the MOH has participated in a learning visit or internship nationally or internationally. Another limiting factor is that, if in-service learning does exist, it is often limited to strengthening capacities within an individual partner agency and their MOH counterparts without being promoted outside of the partner agency's program area.

Furthermore, none of the CMAM sites currently in-country has the potential to serve as a comprehensive CMAM learning site. None of them has quality and expertise in all CMAM components: inpatient care, outpatient care, and community outreach. However, some of the sites provide quality care and have the potential to offer learning opportunities for a specific CMAM component. They could therefore serve as "partial" learning sites for the components at which they excel (inpatient care, outpatient care, or community outreach, but not the three components combined). Some sites could offer excellent in-service training for inpatient care, but would not be recommended for outpatient care with varying levels of community outreach, for example.

2.2.4 Peer Exchange of Information and Interactive Learning Forums

Burkinabe health care providers have limited access to CMAM-related publications that could help them learn about new developments and solutions to challenges in other countries. The extent to which information exchange on CMAM implementation experience takes place among implementing partners is not clear, but the review team noticed that national activity updates and global-level information were not shared between and within partner agencies. The occasional NGO coordination meetings and the national CNCN and TG meetings and regional MOH meetings serve as important forums where CMAM implementers meet; however, they are not used as opportunities to discuss technical aspects of CMAM.

A striking illustration of this lack of information exchange is that some key MOH and implementing partner field staff members were unaware of the 2007 and 2009 WHO/WFP/Standing Committee on Nutrition/UNICEF joint statements on CMAM and their contents. Most CMAM implementers were also unaware of international websites, discussion groups, and publications that provide information and offer technical support to CMAM implementers at field levels.

2.2.5 Operational Research

Some research on CMAM and related topics is taking place in Burkina Faso. One implementing partner is validating alternative admission and discharge criteria based on the WHO child growth standards, and results are expected to be presented at the WHO informal meeting on the management of moderate malnutrition (Geneva 2010).

Of concern is that some new interventions and approaches not yet validated by research evidence have been introduced in the form of programs without a system in place for adequate monitoring and documenting of the results to allow an evaluation of their effectiveness. Some of these interventions and approaches that potentially could offer valuable lessons if monitored and documented appropriately are:

- The use of Plumpy'doz® in at-risk children to prevent the occurrence or the relapse of SAM
- The use of trained CHW at the CSPS level for the triage of children with SAM coming for weekly follow-up to determine those in need of a clinician's medical assessment or those who can receive the ready-to-use therapeutic food (RUTF) ration without medical assessment
- The use of trained CHWs in the classification of children with SAM with medical complications to be referred to the nearest CSPS and children with SAM without medical complications and appetite to be fully managed by CHWs at the village level

- The use of village registers to determine the change in incidence of malnutrition after the introduction of CMAM and to estimate the overall impact of the program
- The integration of SAM detection in growth monitoring programs
- Different motivation systems for CHWs and health care providers
- Free treatment for all ill children under 5 and pregnant and lactating mothers
- The impact of a general food distribution on nutrition status during the lean period targeted at vulnerable populations in a non-emergency context

2.3 ACCESS TO CMAM SERVICES

2.3.1 Initial Implementation of Learning Sites and Gradual Scale-Up of CMAM Services

The integration of CMAM into routine health services is progressing, with integration in the NGO-supported districts being at more advanced stages. NGO support has been instrumental in demonstrating the feasibility of implementing CMAM and integrating it into routine health services. The other health districts (53 of 63) are implementing CMAM with limited MOH/UNICEF Burkina Faso support with much less advanced geographical (and service) coverage. Integration in NGO-supported districts has also progressed in spite of a donor preference for aspects of the CMAM emergency mode, which saves the greatest number of lives in a short time, but also means using NGO-employed health care providers, NGO-supported field supervision, and NGO-financed motivation for CHWs. This model successfully detects many children with SAM resulting in high caseloads, thereby also demonstrating that the prevalence of SAM is high. It shows that treatment through CMAM is efficient. On the other hand, reliance on a model with substantial external support, both in terms of staff and inputs, could give the impression that CMAM is only manageable with extensive NGO involvement and cannot be sustained in the long term.

After the initial training was completed in 2007, all health districts of Burkina Faso were supposed to initiate CMAM services. CMAM supplies were distributed to all the health districts in the country, even when the health care providers had not yet acquired the knowledge or skills for using them. This situation led to some misuse of therapeutic products, such as using RUTF for the treatment of MAM.

At the national level, the introduction of the management of SAM was not considered a scale-up of a new approach (CMAM) but as the scale-up of an already existing MOH activity (i.e., the management of SAM as promoted through facility-based care in the centre de réhabilitation et de l'éducation nutritionnelle (CREN) (center for rehabilitation and nutrition education). The MOH/DN did not implement a strategy for a phased introduction of CMAM starting from learning sites prior to scale-up and covering all the aspects of the CMAM approach.

Despite the MOH plan to start implementing CMAM nationwide, the scale-up seems to be largely NGO-driven. About 10 of the 63 districts are advanced in CMAM scale-up thanks to NGO support. Only the districts with NGO support actually introduced the full CMAM approach, with the exception of one health district that initiated CMAM with mentoring support for start-up in a few CSPSs before expanding to all health facilities and communities in the health district.

2.3.2 Community Outreach for Community Assessment and Mobilization, Active Case-Finding, and Referral

The MOH and implementing partners use several community outreach strategies. However, the MOH and partners have not reviewed, shared, or used lessons from the different strategies for the promotion and scale-up of CMAM. Examples of these community outreach strategies include:

- Relying on existing CHWs and using different motivation modalities
- Integrating screening for CMAM into community-based growth promotion activities
- Involving volunteer grandmothers and providing incentives
- Screening children on a monthly basis using a door-to-door approach based on the register of children under 5 and pregnant women, which was established at the initiation of the program

- Conducting active case-finding campaigns during periods with low self-referral or on a biannual basis

Most CSPS use the existing network of CHWs, many of whom were selected by the communities four decades ago, for community mobilization and screening. The CHWs received training at the initiative of the health district or from the officer in charge of the CSPS. The resulting weakness of the system is evident in the small numbers of children with SAM admitted for treatment in places where the prevalence is known to be high. In such places, the referral and counter-referral system between services is not well established, and it was not possible to know the proportion of children with SAM referred from the community to the health facility, the proportion of those who effectively reached the health facility site and were admitted, or the proportion counter-referred after inpatient care to continue treatment in outpatient care.

In the 10 NGO-supported districts, CHW networks are strengthened and incentives are used for motivation, resulting in varying degrees of success in community outreach. In these districts, CHWs do a better job of following up on absentees and defaulters thanks to the use of extra CHWs to strengthen the outreach activities and to NGO incentives, such as per diem. Some NGOs have even paid the CHWs in their districts for every successfully retrieved absentee or defaulter, which had a positive impact on CMAM service performance.

Most NGO-supported CMAM services the review team visited had a social and behavior change communication (SBCC) component to improve infant and young child feeding and care practices and family planning. Some districts also attempt to integrate community outreach activities with MOH-promoted Essential Nutrition Actions (ENA). To relay key public health messages, the MOH/DN, with nutrition partner support, developed illustrated flip charts that include nutrition counseling messages. These flip charts have been disseminated and are used by nutrition partners in the field. However, it was unclear if the health districts systematically promoted and disseminated these materials. Some NGOs collaborate closely with the health management committees, which are in charge of the Bamako Initiative fee-for-service system, to strengthen community-based initiatives with SBCC activities. SBCC activities include the use of radio spots, community drama, and the SBCC flip chart material.

2.3.3 Expanded Outpatient Care in Decentralized Health Facilities

Even though coverage data are scarce, access to CMAM services is known to be improving thanks to increased community outreach and financial support. The MOH and UNICEF Burkina Faso strive to provide all required CMAM supplies to every region in the country to make CMAM available in all CSPSs. The national CMAM guidelines designate the CSPS as the provider of outpatient care for the management of SAM in children 6–59 months without medical complications. In most districts, this strategy has been adopted, but has not always been effectively put into place. In the 10 NGO-supported health districts where there are trained health care providers, outpatient care has been established or has been planned for, aiming at district-wide coverage.

Some health districts with successful active case-finding have up to 60 children in outpatient care per CSPS, overwhelming the health care providers. To better manage these high caseloads, they have set up weekly decentralized care points where a mobile health team provides services at the village level. One site with a high caseload provides services 2 days a week. Where CMAM is integrated more evenly into the CSPS with routine outreach activities covering the health district, the health care providers' workloads and the opportunity costs to the caregivers are reduced.

Despite the decentralization of the activities at the village level, CMAM services could remain time-consuming for health care providers and caregivers, especially when CMAM activities and community-growth monitoring promotion activities are integrated. However, some implementation methods, such as the use of the weight-for-height criterion at the community level and the multiplicity of registers and forms to be filled out upon admission, contribute to the long periods needed to provide the service and could be simplified.

Focus group discussions with community leaders and mothers in some of the health districts highlighted that decentralization by itself has an educational impact, especially for men, since they are able to witness the CMAM activities, understand what CMAM is, and are made aware of how children's nutrition status progresses. They then realize why CMAM services are important and become more willing to let their spouses attend the services. Nurses in charge of the CSPS in health districts where not all the communities have decentralized CMAM access points described how community leaders in areas lacking coverage have asked to have their communities included the program.

2.3.4 Inpatient Care in Health Facilities with 24-Hour Care Capacity

The national guidelines can be interpreted as promoting the management of SAM in inpatient care until full recovery, and this tendency was apparent during the review visit. Facility-based therapeutic care is widespread in Burkina Faso. According to the MOH/DN, there were 106 inpatient care sites in Burkina Faso in 2008. However, in most of the health districts visited, the number of inpatient care sites seemed inadequate. Long distances to health facilities with inpatient care are considered a major barrier to access, especially when caregivers have to pay for treatment for SAM. Moreover, the health system does not facilitate transportation for caregivers. Also, few inpatient care sites were admitting children under 6 months old. Two of the three health facilities with inpatient care visited during the review favored facility-based care until full recovery. The other site considered outpatient care as post-SAM treatment following full recovery in inpatient care. Explanations for preferring inpatient care until full recovery included the absence of outpatient care sites in the area where the children come from, the desire to minimize the risk of relapse, the uncertainty about the quality of care at the outpatient care site, and the presence of complications usually requiring prolonged medical treatment. As a consequence, the length of stay in inpatient care was long.

Efforts are being made to upgrade the facility-based units known as CREN and to strengthen their adherence to the CMAM guidelines. However, numerous technical gaps were identified during the review visit, such as in some places family foods were provided to children with SAM during the stabilization phase, follow-up on defaulting was not always performed, referral to outpatient care after stabilization was not always made, and follow-up of counter-referred cases from inpatient to outpatient care were not well traced.

2.3.5 Referral System between Inpatient and Outpatient Care

The CMAM guidelines propose that children with SAM be identified in the community through active case-finding and referred to the CSPS, where a decision is made for referral in case of medical complications. In compliance with the CMAM guidelines, NGO-supported services have systems in place to refer the children that are in need of inpatient care. In the non-NGO-supported services, the CMAM referral system is very much based on the existing referral and counter-referral system rather than being part of the routine health system. The low mortality rate reported among cases managed as outpatients during the review visit suggests that the quality of triage was good and that SAM cases with medical complications were identified and appropriately referred to inpatient care. However, a good system was not in place to effectively trace referred children to verify that they had arrived.

2.3.6 Qualified Health Care Providers

As indicated above, according to different MOH and NGO representatives, about half of all health service providers in Burkina Faso have been trained in CMAM. All health care providers implementing CMAM have been trained either by the MOH or an NGO, but there is a need for refresher training and continued mentoring and support. Moreover, the current high staff turnover limits the availability of experienced and trained staff.

A CSPS usually has one nurse, one nurse assistant, and one midwife. During the review visit, the team noticed that not all positions at the health facility were filled satisfactorily. On some occasions, lower-level

health care providers were in charge of the management of SAM without having the qualifications for prescribing or administering antibiotic treatment.

2.3.7 CMAM Integration into Routine Health and Nutrition Services

There is a demonstrated willingness among most implementing partners to integrate CMAM into health and nutrition services and to direct their support for CMAM through the national health system. One emergency NGO that usually implements parallel health services was even planning to increase its collaboration with the district health team by promoting the integration of CMAM activities into the district work plan and requesting increased involvement and shared responsibilities for CMAM.

The integration of CMAM into routine health services was apparent during the review visit. Where ENA activities were implemented, the integration was automatic, as CMAM and ENA activities were implemented by the same CHW. Integration with growth monitoring was evident and effective mostly in NGO-supported CMAM programs where they had established routine community-based growth monitoring activities. For example, CMAM integration into ENA and growth monitoring activities had started in some of the districts of Fada Region in 2007 with the help of one implementing partner. On the other hand, community-based integrated management of childhood illnesses (C-IMCI) was initiated in the same region but did not integrate with CMAM. Routine active case-finding from CSPS outpatient departments where CMAM was established was limited. However, when checked, health care providers in outpatient departments had the necessary diagnostic and treatment tools, e.g., MUAC tape, scale, weight-for-height tables, and RUTF ration tables.

In most of the areas visited, CMAM was not linked with voluntary counseling and testing for HIV. This is possibly thanks to the low HIV prevalence, which is around only 2 percent in Burkina Faso. Moreover, HIV services are not well developed despite World Bank investments. There were no indications of CMAM being linked with tuberculosis services, probably because tuberculosis programs predominantly targets adults.

2.3.8 CMAM Linkages with Informal Health Systems: Traditional Healers and Birth Attendants

Experience with linking CMAM with the informal health systems was sparse. Only one implementing partner indicated a potential to link with traditional healers. Most actors did not regard traditional healers as potential CMAM partners despite the fact that traditional healers play a very important role in the treatment of SAM, as they often are the first care providers for SAM, and they could suggest harmful practices and often delay presentation at the health facility and start of conventional medical treatment. A village chief confirmed that traditional healers are systematically consulted when a child loses weight and looks thin. To underscore this point, many children admitted in inpatient care had scarifications, indicating that they had visited a traditional healer prior to presenting at the health facility.

In addition, because of the importance and influence that traditional birth attendants (TBAs) have in health-seeking behavior, it is important to work with them. Yet attitudes toward TBAs were similar to those toward traditional healers. This may not improve, because TBAs are often accused by the conventional health system of delaying presentation of health complications at the CSPSs, thereby increasing the risk of death, which has resulted in pressure from the United Nations Population Fund to phase out the TBA system.

2.3.9 CMAM Linkages with Other Community Services

CMAM integration with other community services is limited, and, where it exists, the linkage is not well structured. One implementing partner has initiated food security and livelihood activities alongside CMAM. The linkage is fostered through a multisectoral steering committee that oversees the integration of agriculture, animal husbandry, environment, education, and health-related activities. Another partner links CMAM beneficiaries with the general food distribution that takes place during the lean season. Other

partners were involved in developing a USAID Title II multi-year non-emergency food aid program application, through which they plan to investigate ways to promote CMAM as part of the Preventing Malnutrition in Children under 2 Approach (PM2A).

2.4 ACCESS TO CMAM EQUIPMENT AND SUPPLIES

2.4.1 Procurement and Management of CMAM Equipment and Supplies

UNICEF Burkina Faso is the main provider of CMAM equipment and supplies, purchasing and distributing all required drugs and therapeutic foods in the country. Some NGOs also provide equipment and supplies. During the review visit, health facilities with inpatient care sites were functional and did not report problems with therapeutic food supplies. Similarly, outpatient care sites had all the required therapeutic foods and other necessary equipment. The type of MUAC tape available at some sites was only numeric and not color-coded, which could be a problem for illiterate CHWs.

The *Centrale d'Achats des Médicaments Essentiels Génériques et des Consommables* Médicaux (Center for the Purchase of Essential Generic Medicines and Medical Supplies) is the national agency that manages drugs and medical supplies for both the public and private health sector. CMAM equipment and supplies follow a different channel, as they are managed directly by the MOH/DN, UNICEF Burkina Faso, WFP/Burkina Faso, and a few NGOs that have a direct supply route. One NGO is planning to strengthen supply chain management of therapeutic equipment and supplies in one region.

UNICEF Burkina Faso and WFP/Burkina Faso provide transportation for therapeutic and supplementary supplies to the CMAM sites. Sometimes, the regional health bureau takes advantage of professional trips to Ouagadougou to bring back supplies. Some NGOs have established their own procurement and management mechanisms. Stocks are organized at the health district level, with distribution to health facilities.

Some concerns were shared about access to free drug supplies due to reported irregularities in the supply chain. Some inpatient care sites that do not benefit from NGO support reported having difficulties accessing drugs and ensuring free treatment for children with SAM, especially in case of second line antibiotics.

2.4.2 National Production Capacity for RUTF

There is no national RUTF production capacity. Nutriset has discussed possibilities for establishing a national RUTF production unit with national partners, but no details have yet been worked out.

2.4.3 Information on Other Opportunities for RUF

The *Groupe de recherche et d'échanges technologiques (*GRET) (Group for Research and Technology Exchange) is involved in producing fortified food supplements and complements based on local foods to target children with MAM. The food supplements and complements include Mizola, a millet, soy, and peanut blend. In the context of the high food price crisis, WFP/Burkina Faso contracted with GRET to produce 60 metric tons of food supplements for urban beneficiaries in Ouagadougou and Bobo Dioulasso.

2.5 QUALITY OF CMAM SERVICES

2.5.1 Adherence to Standardized Treatment Protocols

The national CMAM guidelines, which are in fact guidelines on the management of SAM, do not provide comprehensive guidance on the community-based approach. However, they are well disseminated and referenced, and rather well adhered to. The DN reprimands NGOs that attempt to introduce the latest

international guidance, since it is not yet incorporated into the national CMAM guidelines. Some technical inconsistencies leave room for differing interpretations during training and supervision and during field-level implementation, which leads to a lack of standardized approaches. Some notable variations include promoting the use of the weight-for-height indicator and ignoring MUAC as an admission criterion and not completing treatment until full recovery in inpatient care.

Inconsistencies in adhering to the national guidelines also exist because of variations in the level and quality of technical support and training. For instance, adherence to the guidelines is better in the NGO-supported districts because of a stronger support and supervision system. Implementation variations also result from operations research, where new approaches are piloted, such as the adaptation of admission and discharge criteria using the WHO standards. Additionally, it has not always been possible to provide all routine medicine as prescribed in the treatment protocol because of drug shortages.

2.5.2 Support and Supervision

Supervision takes place at the different levels. The MOH and UNICEF Burkina Faso initiated joint supervision and developed a monitoring tool for quality improvement, but concrete results from the use of the tool were not observed during the review visit. Health district, regional, and/or national focal points supervise health care providers involved in CMAM. NGOs have also organized supportive supervision for their field teams. But on numerous occasions health care providers expressed the need for strengthened support and supervision. This finding underscores the need to enhance knowledge and skills of coordinators who work at the national level to appropriately enhance knowledge and skills of coordinators and health care providers in the field.

2.5.3 Monitoring of Individual Care

The national guidelines promote standardized monitoring tools. An example is the CMAM individual treatment card, which is well adapted for inpatient care but less so for outpatient care. However, occasionally, individual cards were replaced by the CSPS's register, or were locally designed or adapted. There is no standard referral slip to monitor children referred from the inpatient to outpatient site and vice versa.

The review team noted that health care providers do not always entirely understand the reason for collecting extensive monitoring information. Therefore, cards are infrequently filled out or are not used for their intended purpose: to monitor clinical status, to monitor progress in nutritional status, and to assist in decision making for correcting treatment.

There is no well-organized filing system for keeping individual cards at the CSPS, and individual treatment cards are often kept in disarray. For instance, treatment cards of children with SAM no longer in treatment were stored on the same premises, but could not be retrieved or were mixed in with cards from children in ongoing treatment.

2.5.4 Monitoring and Reporting of Service Performance and Integration into the National Health Management Information System

Continuous monitoring of CMAM service performance contributes to its quality by identifying weaknesses and constraints and enabling initiation of corrective measures. Unfortunately, during the review visit, it was not possible to gain access to national reporting data, so the team could not determine if systems were in place to analyze the data and report on national CMAM service performance. However, the review visit offered ample opportunities to evaluate M&R performance at the field level.

The CMAM M&R system is not thoroughly developed. It is not part of a nutrition surveillance system or linked with the national health management information system (HMIS). At the same time, monitoring tools could be improved. The MOH and UNICEF Burkina Faso have recognized this need and are in the process of strengthening the tools for monitoring, supervision, reporting, and performance of CMAM

programs. The national guidelines call for collecting monitoring data on a monthly basis to be sent to the district and regional levels. Regional reports are sent every quarter to the national level and integrated into a national CMAM repository, which UNICEF Burkina Faso manages. Some districts with NGO support have the capacity to locally interpret the monitoring data and are able to analyze service performance.

As described above, the review team noted flaws in the M&R system, such as duplication of registries, unsorted files, absence of tally sheets, complicated individual monitoring cards, and lack of training in their use, resulting in incomplete monthly reports. Systematic analysis of service performance and a feedback system for health care providers are absent. There is no system to tally weekly performance or to fill out the monthly report in the absence of such a tally sheet. During the review visit, none of the CSPSs was using weekly tally sheets, so reports seemed to be compiled at the end of the month based on the facility's register. The monthly reporting sheet also does not promote understanding of service performance on the part of the person in charge of filling it out: There is neither a tally sheet nor a summary sheet that shows performance indicators or provides the formula to calculate the performance indicator, leaving reporting tool users unable to calculate and interpret their performance. The lack of capacity to interpret one's own data could influence motivation to report and collect quality data. Moreover, there is no district, regional, or national feedback system that would partially fill this gap in analyzing and consolidating national and regional reporting on acute malnutrition and service performance. The CMAM information gathered in the national repository also does not appear to be analyzed, interpreted, or summarized into a qualitative reporting system.

2.5.5 Evaluation of CMAM Services, including Coverage and Barriers to Access

No coverage surveys have been carried out to date. During the review visit, in most of the health districts with CMAM, it was hard to understand or obtain accurate coverage estimates in the absence of an appropriate coverage survey method. In addition, two factors make coverage estimates more difficult: Most of the NGOs do not cover the whole health district they support, and children also come for treatment from untargeted neighboring health districts.

Several of the NGOs supporting CMAM expressed their intention to conduct a coverage survey in the coming year. The actual coverage is expected to be low, with the possible exception of one NGO that had a very heavy caseload in its health district compared to the others, which implies expected high service coverage. One donor commissioned an evaluation of health districts supported by two implementing partners, but since the evaluation took place in the early phase of implementation, it did not report on coverage or offer findings to suggest adapting implementation strategies to promote coverage. The UNICEF Regional Office in Dakar plans to review CMAM programs in 10 West African countries, including Burkina Faso, and will look into this issue.

3. Conclusions

The CMAM review visit occurred at an early stage of the integration and scale-up of CMAM in Burkina Faso. However, the review team identified considerable strengths and potential promising practices related to active case-finding, community involvement, and quality outpatient and inpatient care, as well as some constraints.

The MOH/DN and national and international implementing partners initiated an effective rollout of the CMAM approach under MOH/DN leadership, supported by UNICEF Burkina Faso and implementing partners. By prioritizing nutrition, the MOH/DN fostered an enabling environment for CMAM with active involvement and leadership of the MOH/DN and partners contributing to a potentially effective rollout of the CMAM approach. This collaboration in CMAM contributed to further strengthening coordination and collaboration among the key nutrition partners in the country, but this did not necessarily affect coverage of and access to quality services.

The national CMAM guidelines are the main reference for CMAM field operations, and they serve as the basis for training health managers and health care providers at the health district, health facility, and community levels. The guidelines need substantial technical revisions to better reflect the country-specific context in which CMAM is implemented. Key aspects that revisions should take into consideration are the limited number of health facilities and the shortage of skilled health care providers. Revisions should aim to maximize the chances of achieving the main CMAM service objectives: to reduce child mortality and accelerate progress toward achieving the MDGs.

Despite the significant effort made to train a large cadre of district mangers and health care providers, important gaps in the management, quality, and number of trained staff were reported during the review visit. Moreover, the existing CHW network showed weaknesses that negatively affect CMAM services, as reflected in the small number of children referred in areas with a high SAM prevalence rate. CHWs lack competencies and means to provide quality community outreach, and there is not yet a national strategy in place to strengthen the CHW system.

Access to services received a boost from financial subsidies and support provided by donors, NGOs, the United Nations, and the GOBF. Equipment and supplies for CMAM implementation seemed to be adequately provided, even though the question of long-term sustainability of resources remains to be answered adequately. The MOH/DN secured a line for nutrition activities in the national budget, which is a hopeful major step toward promoting sustainable CMAM scale-up.

Deliberate efforts to achieve integration of CMAM with the other relevant child survival strategies were considered, including Integrated Management of Childhood Illness (IMCI) and growth monitoring.

A standardized CMAM M&R system was established, but data on performance of case management and coverage were not readily available nationally or regionally. The CMAM information system was therefore limited and unable to inform corrective strategies for improving services. The information system did not link to the national nutrition surveillance system or the HMIS.

Promising practices and innovative initiatives were identified, but have not been documented or shared. A forum for CMAM technical information exchange was missing and existing nutrition forums underutilized.

While the MOH did not yet systematically integrate CMAM into national health and nutrition policies and strategic plans, acute malnutrition gained in importance at the national and regional policy and implementation levels. The progress of the past 3 years needs to be consolidated and translated into long-term capacity strengthening strategies to adequately and sustainably address CMAM in Burkina Faso.

4. Recommendations

4.1 GENERAL RECOMMENDATIONS TO SUPPORT THE MOH/DN AND IMPLEMENTING PARTNERS IN CMAM

- Strengthen the technical leadership role in CMAM of the national MOH/DN, regional coordinators, and health district focal points. Enhancing the MOH/DN technical leadership could include the following activities:
  - Strengthening technical expertise, e.g., a technical expert could contribute to consolidating national and international evidence-based learning and information, and support national experts to strengthen national and regional capacities.
  - Establishing learning sites that offer internships with qualified mentors.
  - Developing a capacity strengthening strategy to support the scale-up of quality CMAM services, with a special focus on strengthening the knowledge and skills of the health care and community service providers.
  - Revising the CMAM guidelines in 2010 and addressing the technical constraints that have negative implications for service quality.
  - Strengthening the information-sharing system and creating a national information forum.
  - Strengthening the M&R system and systematically evaluating performance and coverage to inform the scale-up strategy, eventually linking it with the national HMIS. CMAM will need a parallel and reinforced M&R system until there is a good understanding and strategy for continuous quality improvement before it can be integrated into a national nutrition surveillance system and the HMIS. A more elaborate M&R system will be required and a standardized minimum reporting system should be put into place and promoted.
  - Reviewing and documenting innovative approaches and lessons learned on integration and scale-up.

- Put in place a strategy to strengthen capacities for implementation and scale-up. To increase and maintain CMAM knowledge and skills it is recommended to:
  - Develop a national training strategy to provide pre-service and in-service training to health managers and health care providers, including practical training and mentoring.
  - Temporarily hire a CMAM expert to establish an expert team in the MOH/DN to train CMAM trainers and supervisors, and strengthen continuous supervisory support to significantly enlarge the base of highly qualified CMAM experts in-country.
  - Strengthen supervisory support at the field level to be more systematic. For this to materialize there is a need to enhance the knowledge and skills of coordinators who work at the national level to appropriately enhance the knowledge and skills of coordinators and health care providers in the field.

- Organize a national workshop for developing a strategy for capacity strengthening, strengthening information sharing and lessons learned, and reviewing guidelines. An international expert could assist the MOH/DN for 2 months in preparing a national CMAM workshop covering the following activities:
  - Revising the national CMAM guidelines to better reflect international best practices, and transitioning to the newly established admission and discharge criteria.
  - Providing guidance and technical assistance to the MOH/DN and implementing partners.
  - Reviewing and standardizing CMAM training materials.

- Create a forum as an opportunity to share and discuss lessons from promising practices and challenges from field implementation. Such a forum would enable policy makers, coordinators, and implementers to discuss, learn, adapt, and strengthen coordination and collaboration, and inform strategies.

- Support national academic and teaching institutions in Ouagadougou that are interested in participating in CMAM training and research to:

  - Adapt the current IRSS training modules on the management of acute malnutrition to incorporate the CMAM approach, and support reinsertion of the modules into the sixth year of the medical school curriculum.
  - Take a leading role in CMAM in-service training for health care providers, in collaboration with the MOH/DN and UNICEF Burkina Faso.
  - Explore opportunities to integrate CMAM pre-service training into other health professional institutions in the country.
  - Encourage and support research institutions to be involved in CMAM operations research.
  - Evaluate different methods of supervising, training, mentoring, and motivating CHWs.

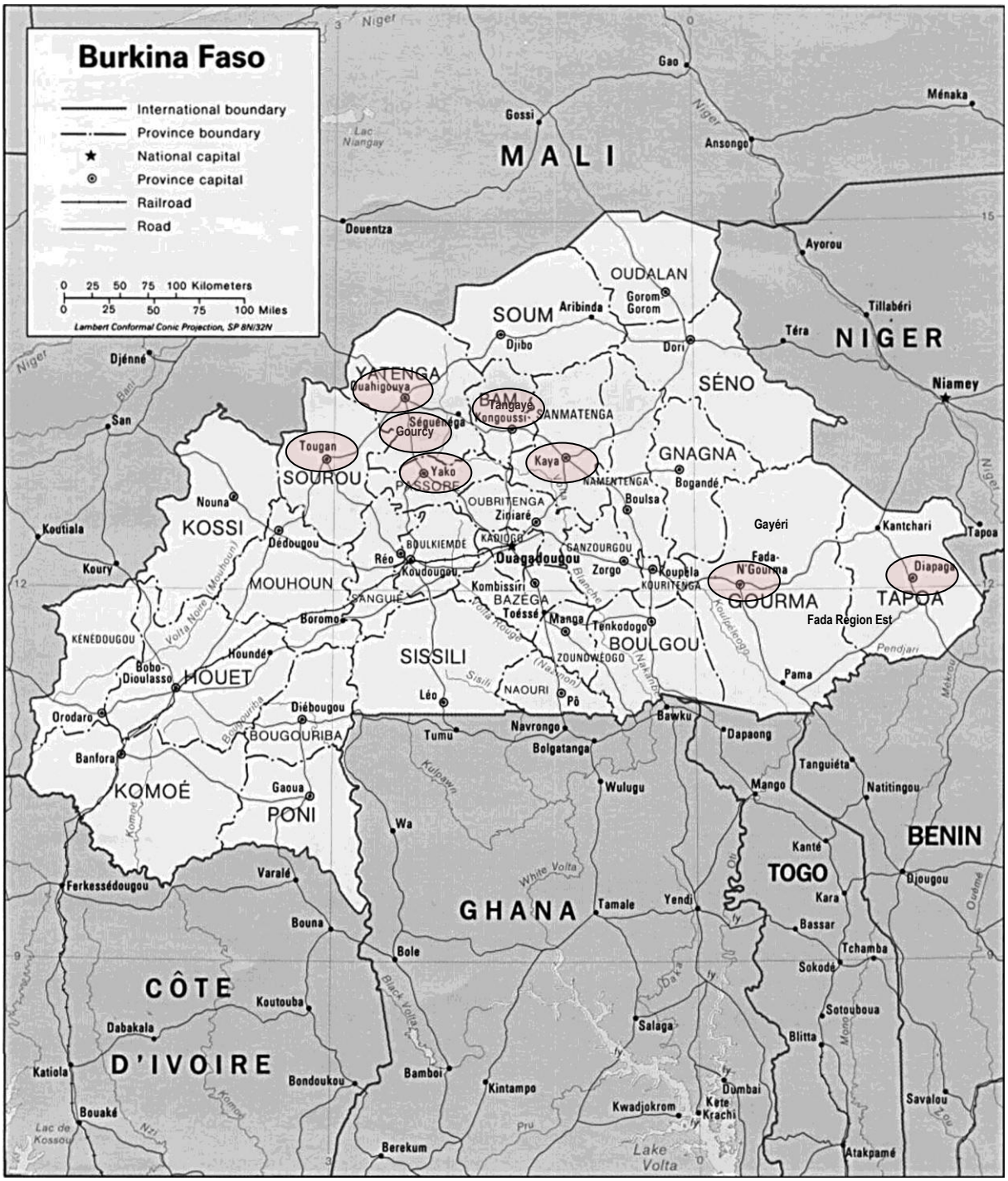
- Policies and strategies must be further refined to ensure that CMAM is integrated into the health system and scaled up throughout the country. The GOBF should ensure consistency in the continuum of services at the health policy level:
  - Adapt a national antibiotic policy that allows lower-level health care providers to prescribe and administer antibiotic treatment.
  - Adopt international criteria for diagnosing acute malnutrition, and revise the role of CHWs, based on the IMCI policy, including an institutionalized system for community outreach.

4.2 SPECIFIC RECOMMENDATIONS FOR OFDA AND ITS IMPLEMENTING PARTNERS

- CMAM should be viewed as a disaster risk reduction activity in countries with endemic crisis-level acute malnutrition. OFDA should therefore build preparedness capacity by supporting the sustainability of CMAM services within national structures and strengthening in-country technical expertise. OFDA can do so by encouraging and providing funds to implementing partners to:
  - Provide an international expert to strengthen national expertise.
  - Provide national and international learning visits for national and international staff and national MOH key partners to countries with more advanced CMAM activities.
  - Establish quality learning sites with a qualified mentor and opportunities for internships, and facilitate/organize/invite learning visits.
  - Promote operations research by involving national institutions.

At the same time, OFDA should recognize that Burkina Faso continues to experience emergency levels of GAM. OFDA should work with the USAID/Burkina Faso to consider emergency funding to international partners skilled in CMAM, not only as a disaster response, but also through disaster risk reduction programs that aim for a longer-term strategic approach, including training national NGOs to take on the implementation role. OFDA should continue to encourage development donors to recognize acute malnutrition as a development problem and to fund programs that address the management of acute malnutrition to establish a more strategic international aid package.

Annex 1: Map of Burkina Faso Site Visits



Annex 2: Burkina Faso Schedule of Meetings and Site Visits

Date	Organization	Location	Purpose
November 8	UNICEF	Ouagadougou	Meeting
November 9	USAID	Ouagadougou	Meeting
November 9	Croix Rouge Belgique	Ouagadougou	Meeting
November 9	Helen Keller International (HKI)	Ouagadougou	Meeting
November 9	UNICEF	Ouagadougou	Meeting
November 10	Terre des Hommes	Ouagadougou	Meeting
November 10	Action contre la Faim (ACF)	Ouagadougou	Meeting
November 10	GRET	Ouagadougou	Meeting
November 10	WFP	Ouagadougou	Meeting
November 11	Save the Children CREN, centre médical avec antenne chirurgicale (CMA) (medical center with surgical capacity)	Kaya	Meeting and site visit
November 11	DN	Kaya	Meeting
November 12	Médecins Sans Frontières (MSF) CREN, CSPS	Yako	Site visit
November 12	MOH, CREN, CSPS	Goursi	Site visit
November 13	Croix Rouge CREN, CSPS	Ouahigouya	Site visit
November 13	Terre des Hommes CREN, CMA	Tougan	Site visit
November 15	Institut régional de santé publique (IRSP)	Ouagadougou	Meeting
November 16	HKI CSPS, Partner Country Advisory Council	Fada Ngourma	Site visit
November 17	CREN, CHR	Fada Ngourma	Site visit
November 18	IRSS	Ouagadougou	Meeting
November 18	UNICEF	Ouagadougou	Meeting
November 18	ECHO	Ouagadougou	Meeting
November 18	HKI	Ouagadougou	Meeting
November 18	DN	Ouagadougou	Meeting
November 19	WFP	Ouagadougou	Meeting

Annex 3: Burkina Faso Contacts

Affiliation	Name	Position
Donors		
ECHO, European Commission	Heriette Nikiema	Principal program assistant
USAID	Mark Wentling	Country program manager for Burkina Faso
NGOs		
ACF	Claire Ficini	Country director
ACF	Benedicte Hilaire	Nutrition Program Coordinator Diapaga
ACF	Dr Emmanuel Kalivogue	Nutrition coordinator
Croix Rouge Belgique	Rosine Jourdaine	Chef de mission
Croix Rouge Belgique	Francois Morisho	Nutrition technical assistant
Croix Rouge Belgique	Medah Thiombiano Rahamatou	Nurse
Croix Rouge Belgique	Sanga Yahiya	Facilitator
Croix Rouge Belgique		Centre d'accueil pour le projet de nutrition (CAPN)
GRET	Claire Kaboré	Country representative
HKI	Anne Tarini	Director
HKI	Felix Ouoba	Fada Regional Coordinator
HKI	Vebanga Olivier	Health Post Chief
HKI	Ouedraogo Rasmata	Monitoring officer
HKI		Coordinator Gayeri
MSF	Morchid Mohamed	Country Director
MSF	Pascal Muhimiriza	Yako health coordinator
MSF		Yako CREN medical coordinator
MSF		Yako CREN manager
MSF	Toumi Romeo	Yako Mobile Team1 supervisor
Save the Children Canada	Karine Buisset	Kaya Program Manager
Save the Children Canada	Suzanne Lalsaré	Kaya CREN/CHR
Terre des Homme	Thierry Agagliate	Delegate
Terre des Homme	Dr Noel	Nutrition program coordinator
United Nations		
UNICEF	Biram Ndiaye	Nutrition specialist
UNICEF	Ambroise Nanema Ilaria Bianchi	Nutrition project officer Program Officer
WFP	Annalisa Conte	Country Representative
WFP	Paola	Nutrition Officer

Affiliation	Name	Position
Ministry of Health		
MOH	Dr. Sylvestre Tapsoba	Director, DN
MOH	Mr Bambara Dominique	Head of Food Quality Division, DN
MOH	Ouili Romeo	Head dietetic and health
MOH	Prosper Sawadogo	Epidemiological surveillance division
MOH	Mme Helene Ouedraogo	Dietetic division
MOH	Compaore Roland	Dietetic division
MOH	Koubore Alain Bambare	Dietetic division
MOH	Estelle	
MOH - Diapaga		Diapaga CREN and CSPS health staff
MOH - Diapaga		Diapaga MOH district - MCD (médecin chef du district)
MOH - Fada	Dr Yabré Zaccaria	Fada Regional Director of Health - Deputy
MOH - Fada	Gnongre Souleymane	Fada Nutrition and IMCI focal point, CMAM trainer
MOH - Fada	Sana Salam	Infirmier attaché sanitaire, Fada CREN/CHR
MOH - Fada	Zenabu Ouadraogo	Nurse, Fada CREN/CHR
MOH - Goursi	Dr Nakoulma Noel	Goursi Doctor - CMA (Medical center with surgical capacity)
MOH - Goursi	Savadogo Mamouni	Goursi MOH district, administrator
MOH - Goursi	Kavambiri Mamadou	Goursi Tangaye nurse major CSPS
MOH - Kaya	Adama Compaore	Kaya CHR director administrator
MOH - Tougan	Dr Sib Rodrigue	Tougan Doctor - CHR, and health staff CREN
National Research and Training Institutions		
IRSS	Prof. Blaise Sondo	Director
IRSS	Dr Seni Kouanda	Researcher
Other		
Free Consultant	Patrick Kabore	Health and nutrition researcher

Annex 4: CMAM Components and Integration Framework

Figure 1. CMAM and its components

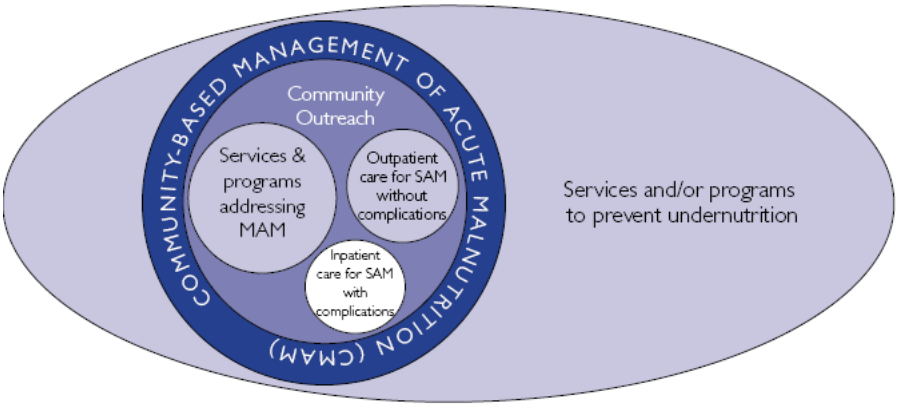


Figure 2. CMAM integration framework domains including enabling environment, competencies, access to services, access to supplies and quality or services