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## **Improving the Nutritional and Health Status of Children under-5 and Pregnant and Lactating Women in the Centre-Nord Region of Burkina Faso**

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**Final Results Report**  
June 2013



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## Acronyms and Abbreviations

<b>ABPROSAH</b>	Association Burkinabè pour la Promotion de la Santé Humaine (Burkinabe Association for the Promotion of Human Health)
<b>ADC/PDE</b>	Association pour le Développement Communautaire/Protection des Droits de l'Enfant (Association for community development/Protection of the rights of the child)
<b>BMI:</b>	Body Mass Index
<b>CHW</b>	Community Health Workers
<b>CMO</b>	Chief Medical Officer
<b>CREN</b>	Centre de Récupération et d'Education Nutritionnelle (Centers for Rehabilitation and Nutritional Education)
<b>CSPS</b>	Centre de Santé et de Promotion sociale (Center for Health and Social Promotion)
<b>FY</b>	Fiscal Year
<b>GAM</b>	Global Acute Malnutrition
<b>IYCF</b>	Infant and Young Child Feeding
<b>IPTT:</b>	Indicator Performance tracking Table
<b>MAM</b>	Moderate Acute Malnutrition
<b>MOH</b>	Ministry of Health
<b>MUAC</b>	Mid-Upper Arm Circumference
<b>OFDA</b>	Office of U.S. Foreign Disaster Assistance
<b>PPM</b>	Program and Project Management
<b>SAM</b>	Severe Acute Malnutrition
<b>USAID</b>	United States Agency for International Development
<b>WFP</b>	World Food Program

## PROJECT SUMMARY

Insufficient rainfall during the 2011-2012 agricultural season in Burkina Faso led to a cereal deficit of 154,463 tons and affecting 170 communities in 29 provinces. Two provinces in the Center-North region, Sanmatenga and Namentenga, were declared high risks zones, facing a cereal deficit of nearly 90%. A 2010 Demographic Health Survey in Centre-North has noted that the area is sensitive to the negative nutritional impact of food insecurity, with more than 24.7% of children under-5 already suffering from forms of acute malnutrition.

In response to the Government of Burkina Faso's call to support the nutritional interventions in the Centre-North region, Plan International implemented a USAID - Office of U.S. Foreign Disaster Assistance (OFDA) funded project *Improving the Nutritional and Health Status of Children Under-5 and Pregnant and Lactating Women in the Centre-Nord Region of Burkina Faso*. The overall objective of the project is to contribute to improving the nutritional and health status of children under-5 and pregnant and lactating women.

Covering 19 communes in the provinces of Sanmatenga and Namentenga, the project worked with Health District providers to increase the capacity of healthcare facilities to address severe acute malnutrition (SAM) and with local communes and villages to engage community volunteers in nutrition screening and education. The project also worked with main implementing partners including the Ministry of Health and its decentralized structures (Health Districts of Kaya, Barsalogo and Boulsa and the Regional Health Directorate of the Center North Region) as well as local associations (ABPROSAH and ADC).

## RESULTS

During the eight-month period of performance<sup>1</sup>, 32,066 beneficiaries benefited in the project activities providing community management of MAM and SAM and nutrition education.

The project met or exceeded project targets related to training health workers and supporting CRENs in the effective management of SAM and MAM, treating SAM and MAM cases for children under five, equipping CRENs, training local associations in nutritional education, and overall working with communities on community case management and making improvements in the community nutrition screening process.

Due to a combination of social barriers including traditional practices, household income and level of literacy, however, the project fell short on meeting targets related to under-5 consultations for SAM cases, SAM referrals from health centers and CRENs, admission of adults for MAM, and knowledge of nutrient content of complementary foods.

## RESULTS BY OBJECTIVE

**Sector:** Nutrition

**Objective 1:** To improve the nutritional and health status among children under-5 and pregnant and lactating women in Burkina Faso.

Performance against indicators	Target	Achieved
Number of beneficiaries by objective	32,066	32,066
Number of internally displaced persons reached	0	0

<sup>1</sup> The project duration was originally designed to be five months but was extended to eight months in order to complete implementation of community programming.

**Sub-sector: Management of Severe Acute Malnutrition**

**Result 1.** Supporting the management of SAM cases in 12 CRENS in the two provinces.

**Performance against indicators**

Indicators	Target	Overall Target Achieved	Percent of Target Achieved
Number of health care providers and volunteers trained prevention and management of SAM	36	45	100%
Number of sites established/rehabilitated for in-patient and outpatient care	12	13	100%
Number of beneficiaries treated for SAM by type: <ul style="list-style-type: none"> <li>- &lt;5 years;</li> <li>- Adults;</li> <li>- In-patient consultations with complications; and</li> <li>- Outpatient consultations without complications.</li> </ul>	<ul style="list-style-type: none"> <li>• In-patient consultations with complications – <b>794</b></li> <li>• Outpatient consultations without complications – <b>3,319</b></li> <li>• Adults - 0</li> </ul>	544  4,267  0	68.5%  100%
Number of CRENs receiving monthly supervision visits	12	13	100%
Percent of cases of SAM referred from health centers to CRENs	85%	68.71%	80%

**Achievement against planned activities**

**1.1. Training of 36 head nurses, midwives, and health workers in 12 supported CRENs in the management of SAM.**

The project reached its target and, in collaboration with the Ministry of Health, trained 45 head nurses, midwives and health workers in the management of severe acute malnutrition. The trainings, held in September and October 2012, covered the management of MAM and SAM with a focus on the following:

- Screening for malnutrition – precise anthropometric measurement and analysis of results against appropriate thresholds;
- Government of Burkina Faso protocol for the support of children suffering from malnutrition;
- Identification and management of SAM, with or without complications;
- Referral to clinics for further training in therapeutic feeding for SAM cases;
- Modules on Ready to Use Therapeutic Food (RUTF);
- Community mobilization for the management of acute malnutrition;
- Practical tools for the monitoring support for acute malnutrition;
- Experience sharing to foster support for treatment of acute malnutrition among participants; and

- Practical exercises to apply theory into practice.

The project also extended its support to a 13th CREN exceeding the target of 12 by one CREN.

Participants have noted that the training improved their capacity to efficiently and effectively manage issues related to SAM among children under-5. As a result of the increased capacity of health workers, the project has observed a drop of mortality rate from 3% to 0% during its implementation period. Overall, the 13-supported CRENS have recorded a recovery rate of 68.5% (544 children – 267 girls, 277 boys) for under-5 in patient consultations with complications. Additionally, the project exceeded its outpatient consultations without complications target by treating a total of 4,267 children (2,091 girls and 2,176).

**1.2. Equip 12 CRENs with therapeutic food, consumables, and other supplies including bedding and cooking equipment.**

Throughout the project, 13 CRENs in Namentenga and Sanmatenga received therapeutic foods, milk, oil, iodized salt and consumables. The CRENs also received supplies including cooking gas, cooking pans, metallic buckets, plates, goblets, plastic buckets, MUAC bands, salter scales, beddings, and recreational items for children (games and toys).

**1.3. Conduct monthly supervision with MoH to ensure adequate management of in-patient cases of malnutrition.**

Ten monthly supervisions with health district staff of Kaya, Barsalogo and Boulsa were carried out during the project. These supervisions were focused on management of in-patient cases of malnutrition. Each supervision visit led to the provision of advice and recommendations on SAM management in CREN with the aim of reducing child mortality and morbidity.

**1.4. Conduct educational sessions in target communities on the effective use of supplementary foods.**

Through community outreach, Plan was able to conduct a total of 173 nutrition education sessions in 180 villages in Namentenga and Sanmatenga. The sessions were held in a classroom-style setting with participation from women and men in each target community. IEC materials such as image boxes were used to facilitate discussion on the effective management of MAM.

The educational sessions covered exclusive breastfeeding; improving infant and young child feeding; proper nutrition for pregnant women and lactating mothers; foods groups and the contents of nutritious foods; micronutrient deficiencies; vitamin A and iron supplementation; consumption of foods rich in micronutrients; how to recognize acute malnutrition among children under five; management of MAM under the supervision of community health workers; how to recognize micronutrient deficiencies among children under five; preparing fortified flour for children under five; hygiene and sanitation; prevention of malaria; and family planning.

**1.5. Train 24 health workers in 12 centers on proper referrals**

The project far exceeded the training target of 24 health workers, training 65 health workers on the referral of cases of malnutrition in the two intervention provinces.

The percentage of SAM cases referred from health centers to CRENs during the project totaled to 68.71%. The project initially targeted 85% which was not fully met due to barriers associated with household income particularly during the rainy season when the agricultural roles of mothers and their children are increased. Additionally, some households declined in-patient services for their children due to the assumption that they would have to pay for medical services.

To address this challenge, Plan staff conducted awareness-raising activities in the communities to inform households of the availability of no-cost services at the CRENs. Plan staff also worked directly with community

leaders to advocate for their support in motivating men to participate in nutrition education which has resulted to the increased involvement men in discussions centered on SAM and health facilities attendance. There has been progress in this area. However, these education/awareness-raising efforts would need to continue to ensure socialization of male community members in community nutrition activities. Further, these efforts alone would not address the more systemic problem of underfunding of GoBF health facilities, which sometimes leads to charges for medicines and treatment at these facilities despite government policy mandating free care for children with SAM.<sup>2</sup>

### Challenges

The project did not experience significant challenges or obstacles related to the management of SAM in CRENs. All related activities were carried out successfully.

### Sub-sector: Management of Moderate Acute Malnutrition

**Result 2.** Reinforcing the management of MAM cases by facilitating referrals from 12 health centers to outpatient services at CRENs, and promoting management of malnutrition at community levels, by training and equipping community health workers to carry out nutritional screening in communities and organizing educational sessions at village level.

### Performance against indicators

Indicators	Target	Baseline Survey	Overall Target Achieved	Percent of Target Achieved
Number of sites managing MAM	12	91	52	100%
Number of beneficiaries admitted to MAM services by type: - <5 years; and - Adults.	<ul style="list-style-type: none"> <li>• &lt;5 years – <b>3,770</b></li> <li>• Adults – <b>3,823</b></li> </ul>	16,179 (including projection for mid-year 2012)  0	10,174(U5s)  1338 (Adults)	100%  34.9%
Number of health care providers and volunteers trained in prevention and management of MAM	36	130	96	100%

<sup>2</sup> The continuing challenge of ensuring the free treatment of U-5s at the district level in Burkina Faso is discussed in the FANTA-2 document “Review of Community-Based Management of Acute Malnutrition Management in Burkina Faso”. See section 2.1.10 “Free Treatment for Children with SAM” (page 7), which notes that medicines are generally not provided and that often free treatment for children with SAM only results from the heavy subsidization of healthcare by INGOs and international partners. Deconinck, Hedwig; Serigne Diene, and Paluku Bawere. *Review of Community-Based Management of Acute Malnutrition Management in Burkina Faso, November 8-18, 2009*. Washington, DC: Food and Nutrition Technical Assistance II project (FANTA-2), AED, 2010.

Number of nutritional screenings carried out in communities	72	600	195	100%
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### Achievement against planned activities

#### 2.1. Train 36 head nurses, midwives, and health workers in 12 supported CRENs in the management of MAM.

The training of 36 head nurses, midwives and health workers in 13 project-supported CRENs was conducted and completed on the first quarter (September and December 2012) of the project.

#### 2.2. Train 24 health workers in 12 health centers on proper referrals.

In collaboration with the health districts of Kaya and Boulsa, Plan trained 65 health workers on proper referrals for cases of SAM and MAM. The training of health workers and CRENs on the support of MAM and SAM focused on the modules listed on the previous section of this report, under activity 1.1.

#### 2.3. Facilitate the transfer of patient notes between health centers and CRENs.

Throughout the duration of the project, Plan supported the transfer of patient notes by ensuring that CRENs are properly supplied with MoH data collection forms. Referral of malnourished cases were done from the health center to the CREN, and from the CRENs that have no doctor to the CREN associated with the medical center of Barsalogo or the CREN of the Regional Hospital Center of Kaya, both of which were better equipped and staffed.

#### 2.4. Equip 12 CRENS with resources to provide out-patient treatment and provide effective MAM case-management.

The project trained the staff of 13 CRENs on the support of SAM and MAM. Additionally, the project supplied the CRENs with food stuffs, therapeutic milk, scales, MUAC strips, cooking utensils, benches for accompanying persons, etc.

Overall, the project managed 10,174 under-5 MAM cases (4,986 girls and 5,188 boys), exceeding the target by more than 100%. The project fell significantly short of the target for MAM cases among adults (pregnant women and breastfeeding mothers). One reason for this appears to be that facility treatment of adults for MAM is not a standardized practice observed in all health centers in Burkina Faso. While the project was unable to meet the target for treatment of adults with MAM, Plan Burkina Faso intends to develop a data collection tool for screening malnutrition among women to be shared with health facilities and utilized for future nutrition programming in the country.

#### 2.5. Train two local community associations to implement community-level screening.

Plan completed the training with local NGOs ABPROSAH association in Namentenga and ADC/PDE in Sanmatenga in the first quarter of project implementation.

#### 2.6. Facilitate early screening and equip community facilitators.

180 volunteer community health workers (CHWs) were trained and equipped with MUAC bands to facilitate early screening in the communities. Throughout the project, CHWs carried out a total of 195 nutritional screenings in the targeted communities. Additionally, Plan staff and CHWs conducted nutrition sensitization sessions to detect early stages of malnutrition within the population.

#### 2.7. Train communities on the use of therapeutic foods and case-management of MAM.

The project completed the training of 105 CHWs on the use of therapeutic foods and case management of MAM.

**2.8. Conduct weekly demonstrations on preparing nutritional foods in 12 CRENs.**

Throughout the project, Plan staff conducted weekly demonstrations on preparing nutritional foods in 11 CRENs. The 12<sup>th</sup> project-supported CREN in Yalgo, Namentenga province was not able to carry out this activity due to its remoteness and delays in government issuance of legal authorization to operate. As an alternative, Plan staff provided nutritional lessons and information to mothers in the Yalgo CREN.

**2.9. Facilitate the transfer of patient notes between CRENs and communities.**

The project facilitated the transfer of sick children from the communities to the CRENs with the support of community health agents who conduct screening and direct the mothers of children toward the CRENs.

**Sub-sector: Nutrition Education and Behavior Change**

**Performance against indicators**

**Result 3.** Strengthening nutrition education and building skills and capacity of community structures, local associations and government agencies.

Indicators	Target	Baseline survey	Overall Target Achieved	Percent of Target Achieved
Number of beneficiaries receiving nutritional education	5,000	0	24,878 <sup>3</sup>	
Percentage of change in practices and/or knowledge pertaining to nutritional education topics	• Mothers of U5s in target communities who report exclusive breastfeeding of their newborns up through 6 months – <b>50%</b>	16%	50%	100%
	• % of mothers/caregivers of U5s in target communities able to demonstrate safe preparation and storage of complementary foods – <b>70%</b>	0	80%	100%
	• % of mothers/caregivers of U5s in target communities with knowledge of nutrient content of complementary foods – <b>70%</b>	0	60%	86%
Number of providers (health care and/or community volunteers) trained in how to provide nutrition education courses	194	0	237	100%

<sup>3</sup> Including 16,253 in Namentenga and 8,625 in Sanmatenga

Number of community training sessions organized in target communities	360	Sampling suggestion but not effective	423	100%
Number of community nutrition committees established in target areas	144	0	180 (1 per village)	100%

### Progress achieved

A baseline survey conducted by Plan on the pre-implementation stage demonstrated a limited data on nutritional education at the project areas. The baseline survey also noted a gap in the training of providers/health care workers, as well as community awareness on nutritional education. An initial survey in the three health districts covered by the project indicated a lack of knowledge in good nutrition practices among mothers and caregivers.

Throughout the project, Plan worked with two local community organizations (ABPROSAH in Namentenga and ADC/PDE in Sanmatenga) to implement nutrition activities. The organizations coordinated with CHWs to conduct nutritional educational sessions in communities in CRENs with key messages focused on the importance of exclusive breastfeeding, Infant and Young Child Feeding (IYCF), food diversification, preparation of complementary foods and enriched porridge, hygiene and sanitation, etc. The project also developed IEC materials (image boxes) for nutrition education. Additionally Plan organized two quarterly meetings to discuss lessons learned and exchange good practices with key project stakeholders and NGO partners working on nutrition in Burkina Faso.

The project records positive changes in terms of percentage increase in practice and/or knowledge pertaining to nutrition education. As noted in the above percentage against indicator table, the project reached its target percentage of mothers of children under 5 practicing exclusive breastfeeding of their newborns up through 6 months. The project was also successful in delivering essential nutrition messages at the community level as demonstrated by the increased percentage of mothers and caregivers of children under-5 to safely prepare and store complementary foods.

The project fell short in meeting the target for increasing the knowledge of mothers and caregivers on nutrient content of complementary foods (achieving 60%, short of the target of 70%). With majority of the beneficiaries unable to read or write, memorizing the terminology of micro-nutrients and macro-nutrients proved to be a challenge. Plan staff addressed this by classifying the three food groups by main nutrient contents: foods rich in micronutrient (fruits and vegetables), foods rich in protein (meat, fish, and vegetables), and foods rich in energy (carbohydrates and fat/oil). The project covered a number of complementary health subjects (from recognition of Malaria to family planning to hygiene and sanitation) in community education sessions. While these were important topics to discuss, one lesson learned is that more focus should be paid to the community education sessions to ensure absorption and retention of key health messages. This could take the form of more education sessions, with an emphasis on reinforcing nutrition lessons.

Overall, the project achieved the result under this subsector, successfully meeting the following indicators:

- Number of providers (health care and/or community volunteers) trained in provision of nutritional education courses: 237;
- Number of community training sessions organized in target communities: 423;
- Number of community nutrition committees established in target areas: 180.

## **Challenges**

At the outset of the project, community events and ceremonies (including weddings, naming ceremonies, and burials) necessitated the cancellation and re-scheduling of community-based project activities. To ensure the consistency of activities, Plan took into account the seasonal calendar and consulted with key community leaders in planning and designing the timeframe of activities. Plan staff also observed that community health workers preferred financial incentives to conduct their work, with some community health workers abandoning their posts to work for traditional gold mines for income. In the absence of a sufficiently-financed government health care system, small stipends to cover daily expenses such as food and transportation motivate community health workers who might otherwise seek income-generating activities in lieu of engaging in project work.

## **MONITORING AND EVALUATION**

Plan's data collection methodology is in line with the project monitoring and evaluation system. Data was collected by the health centers and CREN workers, the facilitators, and the project staff. The project staff developed tools to complete those of MOH related to data collection in nutrition. The assessment and surveillance methods used were under Plan's supervision, with data verified before its entry in the data base system. Data was collected monthly with an Indicator Performance Tracking Table (IPTT) to follow-up performance.

## **COORDINATION**

Plan signed a memorandum of understanding with the Ministry of Health and established coordination for training of health workers and CRENs in acute malnutrition management, screening follow-up in the three health districts of the Centre-North region. Plan also carried out monthly meetings with the health districts in line with the project monitoring and evaluation plan. Information and discussion meetings on the project were held with administrative authorities including health districts, political authorities (High Commissioner) and associative partners of the project implementation. Consultation meetings were held with international and local NGOs working in the field of nutrition (Save the Children, ACDI/VOCA's Vim project, OCADES project, and the Burkinabe NGO ATAD – "Alliance Technique d'Assistance du Developpement").

Two monthly meetings in Namentenga and Sanmatenga were held with the health districts and the partner associations to review the nutrition activities, data collected, and inpatient and outpatient treatment.

Since the beginning of the project, Plan became the leader in the field of nutrition in the Center-North region. Plan Burkina with its well organized monitoring and evaluation system convened monthly meetings with its partners and others NGOs involved in tackling malnutrition among children under 5.

The project also established partnership with two local associations ADC/PDE and ABPROSAH to conduct nutrition education for behavior change in the communities of intervention. Plan established training and capacity building initiatives with ADC/PDE and ABPROSAH to ensure that nutrition education activities were effectively implemented. ADC/PDE and ABPROSAH also submitted monthly reports to Plan to document progress in project activities.

## **PROCUREMENT**

Due to the unavailability of U.S. made motorcycles and the lack of vendors able to provide for replacement parts for U.S. made motorcycles in the two target provinces of Burkina Faso, Plan elected to utilize a blanket waiver and procured eleven non-U.S. made motorcycles. The procurement of eleven motorcycles was completed on the first quarter of the project (October – December 2012). The motorcycles were Chinese-made Kaizer 125 cm<sup>3</sup> from a local vendor of Burkinabe nationality.

## Annex: Success story –Treatment of a U-5 Child for SAM with Complications



*A malnourished child at phase I*



*The same child during transition phase*



*The same child during rehabilitation phase (eating Plumpy'Nut)*

This 2-year old child from Bagmanskyerga, a village in Namentenga province, was suffering from SAM with medical complications. Admitted in the CREN of Tougouri, he was treated for 23 days, recovering and returning home with his mother.

The table below summarizes this child nutritional status before and after receiving in-patient care:

	Date	Weight	MUAC	Height	W/H
Admission date	1/10/2012	5.200 Kg	8.5 cm	78 cm	<4ET
Release date	25/10/2012	7.500 Kg	12 cm		-3 ET
Treatment duration	23 days				

