



**OPERATIONS RESEARCH BRIEF**

October 2013

# Delivering Essential, Life-Saving Treatment in Hard-to-Reach Areas of Tahoua, Niger

Concern Worldwide is piloting an innovative, community-based approach to delivering basic health services for children under five in their home by training and empowering a cadre of community mothers to identify, treat, and prevent illness.

A Mother Leader in Bambeye Commune is using a rapid diagnostic test to evaluate a sick child for malaria. Photo: M. Christensen, Concern Worldwide, US

## KEY FINDINGS

- 21 Mother Leaders have treated 1,303 children between July–September 2013
- It is feasible to develop CCM tools and reporting forms for extremely low-literate providers
- Community Health Agents at the Health Post require intensive training and support to supervise Mother Leaders
- Community members and district-level stakeholders are extremely supportive of CCM provided by Mother Leaders at the household level
- CCM activities are providing relief to under-staffed Health Centers and Health Posts

## BACKGROUND

Concern Worldwide is implementing a child survival project in the Tahoua Region of northwestern Niger in partnership with the Niger Ministry of Health (MoH) and Tahoua District Health Team (DHT).

The goal of the project is to sustainably reduce child mortality in the Illéla and Tahoua Districts, reaching 164,962 children under five and 145,167 women of reproductive age between October 2009 and September 2014.

Niger is one of the poorest countries in the world, with the fourth highest level of child mortality. Evidence from the MoH Health Information System indicates that malaria, malnutrition, pneumonia, and diarrheal disease account for 95 percent of child mortality in the Tahoua Region, with the same four conditions responsible for 80 percent of child illness.

The critical challenges for health service delivery in Niger and in Tahoua District are those of access and quality of services. Physical access to health services is very low: only 53 percent of the population lives within 5 kilometers of a health center. Although the government has invested heavily in establishing Health Posts at the community level, coverage with basic health services remains inadequate.

Global evidence exists on the benefits of trained community members providing curative care for common childhood illness at the household level, known as community case management (CCM). Furthermore, Care Groups are a well-documented and an evidenced based community level social and behavior change strategy. However, there is a lack of evidence whether Care Group Mother Leaders can implement CCM in addition to routine Care Group activities. In Niger, there has been no documented attempt to implement CCM at the household by community members, particularly by those with low-level education. Currently, CCM services are provided by a trained Community Health Agent (CHA) based at the Health Post. The project will contribute to the existing CCM evidence base by emphasizing learning around the best delivery strategies for provision of treatment at the household with a low literacy population. The findings of the study could introduce change in areas of health policy, health service structure, training, and delivery of health care.



A mother waits with her child outside a health facility during a nutrition outreach day in Bambeye Commune. Photo: M. Christensen, Concern Worldwide, US

## INTERVENTION DESIGN AND IMPLEMENTATION

In order to overcome access barriers to child health services, Concern is testing a CCM model that trains Care Group Mother Leaders, to manage common childhood illnesses including malaria, diarrhea, pneumonia, and malnutrition within their community, while strengthening the health system to support this strategy.

Formative research focused on identifying appropriate mechanisms for Mother Leaders to implement CCM in their communities, and lasted from 2009 to 2011. The purpose of the formative research was to gather information on previous experiences with community-Integrated Management Childhood Illness (c-IMCI), CCM, or CCM-related activities in Niger; assess health provider and community opinions on factors necessary for quality CCM; and benchmark the quality of CCM currently practiced by CHAs at the Health Posts. To do so, Concern conducted desk reviews; clinical observations of CCM provided by the CHA at the Health Post; and key informant interviews and focus group discussions with the DHT, Health Center and Health Post staff. In the second phase of the formative research, the project, in collaboration with the DHT and MoH, developed a CCM training curriculum and job aides for Mother

Leaders and CCM data collection and supervision tools based on existing MOH tools and protocols which have been customized for use by Mother Leaders with low levels of educational attainment.

Evaluative research seeks to assess the improvement of access to child health services, both in terms of use of services and timeliness of care-seeking, as well as the quality of the CCM services provided by the Mother Leader. In addition, the OR seeks to evaluate the feasibility and outcomes of integrating CCM at the household level into the formal health system, looking specifically at the identification, training, and supervision of Mother Leaders and strengthening community support mechanisms to foster sustainability. The learning presented in this brief specifically addresses these evaluative research questions.

## METHODOLOGY

Project activities began with the formation of Care Groups. From the results of a community census, a total of 270 Mother Leaders were elected and formed into Care Groups in 19 villages of Bambeye Commune.

From 2011 to 2012, Mother Leaders were trained on providing behavior change communication messages for select health topics and on conducting home visits.

Once the Care Groups had been active for one year, 60 of the 270 Mother Leaders were selected to receive additional training on case management for sick children with fever, pneumonia, and diarrhea and the identification and referral of malnutrition. Considering their low level of literacy (most have a primary school level education or less), the project designed tools that could be used with low literate/illiterate Mother Leaders, and at the same time, harmonized these with national guidelines and tools.

In July 2013, the project commenced training in CCM for an initial group of 21 Mother Leaders with some literacy skills. The CCM training for Mother Leaders was a four-day course led by DHT under the support and supervision of Concern. Following their training, Mother Leaders completed a five day practicum to reinforce their skills at the Health Center. A post-training assessment was administered to Mother Leaders to evaluate their performance and approval was provided by DHT certifying that their skills were adequate to perform CCM.

Once trained, each Mother Leader was provided with a 'care box' which included illustrated treatment algorithms for case management; data collection

forms and referral slips especially designed for low literate providers; counseling cards which address key health behaviors and preventative practices; and medication and materials to treat diarrhea (zinc and oral rehydration salts), malaria/fever (rapid diagnostic test, paracetamol, ACT, gloves and sharp box), pneumonia (timer, counting beads to assist in measuring respirations, co-trimoxazole), and identification of malnutrition (Mid-Upper Arm Circumference band).

Initial supervision visits were planned bi-weekly, for the first two months, followed by monthly supervision. The findings below are collected from supervision forms and the Mother Leaders data collection forms and registers.

In the coming weeks, the additional 39 Mother Leaders with low or no literacy skills will be trained on CCM. It is anticipated that this cadre will require additional support and likely require several additional days in a facility on practicum to build confidence and strengthen their skills in CCM. Upon completion, the project is identifying methods to pair up the illiterate Mother Leaders with those who have literacy skills at least for a period of time to ensure quality, provide support and reinforce their skills. **This intervention is expected to reach a total population of 33,714, including 5,630 children under five.**



A Mother Leader, recently trained to conduct community case management in Bambeye Commune, completes a form specifically designed for low literate Mother Leaders that emphasizes illustrations over words. Photo: M. Christensen, Concern Worldwide, US

## FINDINGS TO DATE

- To date, 21 literate Mother Leaders have been trained, observed by the DHT, and certified as having the necessary skills to perform CCM. A total of 1,303 children have been treated by a Mother Leader between July and September 2013 including 717 cases of malaria, 268 cases of diarrhea, and 318 cases of acute respiratory infection.
- Although it was envisaged that the CHAs, based at the Health Post, would provide supervision to the Mother Leaders, it became evident that they did not have adequate experience or skills to conduct supervision. Joint supervision by Health Center nurses and the CHAs is currently being conducted on a monthly basis to strengthen the CHAs' skills. Additional training is planned for the CHAs to reinforce supervision skills.
- The DHT has been actively involved in all aspects of CCM and has taken strong ownership over this activity. All training and supervision has been led by the DHT and medical staff at the Health Posts and Health Centers.
- Qualitative evidence at the community level suggests there is significant support for the Mother Leaders and their work. Husbands frequently call their wives when patients arrive

and some accompany caregivers returning to their homes after visits that occur during the night; and at least one husband has constructed a special storage room for his wife's care kit and a place to consult patients. The local health management committee and local leaders have also been overwhelmingly positive and supportive of the Mother Leader activities.

- The CCM activities are providing relief to overworked health clinicians and understaffed HPs through task shifting basic services to Mother Leaders, especially as CCM has begun during the peak malaria season. They are also creating referral and supervision linkages between the health providers and communities.



A Mother Leader uses 'counting beads' along with a timer to count the number of respirations of a sick child. Photo: M. Christensen, Concern Worldwide, US

**In the first three months of implementation from July to September 2013, a total of 1,303 children under five years of age have been treated by a Mother Leader for common illnesses including malaria, diarrhea, and acute respiratory infections**

## CONCLUSIONS AND LESSONS LEARNED

**While it is too early to draw conclusions on the quality of care provided by Mother Leaders and the feasibility of household-level CCM being integrated into the formal health system, it is clear that the community, health facility personnel, and DHT are supportive of Mother Leaders providing basic services at the household level.**

Establishing this cadre of trained Mother Leaders has not come without challenges. First, there were significant delays in the start up of CCM due to national level policy negotiations and reaching agreement on the concept of home-based care, which was followed by the development of new national guidelines for volunteers working at the community level. These new guidelines stipulate that community volunteers must be able to read and write. To accommodate this policy, literate Mother Leaders have been the first to be trained. There has been strong resistance at the national level to allow illiterate populations to provide curative care at the community level. A compromise has been reached whereby illiterate Mother Leaders are initially paired with literate counterparts.

Another core area that poses challenges is supply chain management and the prevention of stock-outs of essential drugs. While the project has provided the initial stock of supplies and medications for the Mother Leaders, the chronic shortage of drugs at the health facilities will need to be addressed if CCM is to succeed.



A Mother Leader, trained to conduct community case management, interviews a member of her Care Group with a sick child. Photo: M. Christensen, Concern Worldwide, US

Despite support from village leaders and community members and the engagement of the DHT and health providers, community level activities are only weakly integrated into the formal health system and receive limited formal support from community structures at the communal level. There is a need for a system to be put in place at the community level to support the work of the Mother Leaders and reinforce the communication link between the health facilities and community.



Two Traditional Birth Attendants and the mother (center) of the newborn boy share their experiences with maternal health in the Niger context. Photo: M. Christensen, Concern Worldwide, US

## RECOMMENDATIONS AND USE OF FINDINGS

This operations research is contributing to the CCM evidence base by emphasizing learning around the best delivery strategies for provision of treatment at the household level.

The findings of the study could introduce change in areas of health policy, health service structure, training, and the delivery of health care, especially in under-resourced settings such as Tahoua. Emerging recommendations for district, regional, and national policy makers include:

- If CCM is to be sustainable and scaled-up, local mechanisms for supervision must be identified and reinforced to ensure that Mother Leaders have adequate supplies and are providing quality care. Some possibilities beyond the Health Center or Health Post include involving local health management committees in these areas in order to further bolster the links between the community and the health facility.

- For CCM to be successful and sustainable in any context, there must be an adequate supply of essential medication and materials to provide basic curative care.
- Adequate and timely reporting is critical to the sustainability and success of CCM, particularly with a population who has a low level of literacy. All tools and curriculum will be shared at the national level and harmonized with national guidelines to ensure compliance with government policy and that community monitoring data is included in the national health information system.



Care Group Volunteers with their children in Guezzia Village, Bambeye Commune, attend a project mid-term review meeting. Photo: J. Weiss, Concern Worldwide, US