The Family MUAC Approach: COOPI in DRC

COOPI has been working in the Democratic Republic of Congo since 1977. With 42.6 percent of children suffering from moderate and severe acute malnutrition across the country, new solutions are needed to detect and treat this disease as early as possible.

The Democratic Republic of the Congo is one of the biggest African nations and one of the richest in natural resources. However, multiple internal conflicts have led to great instability that has in turn produced a complex humanitarian crisis. The healthcare system is unable to meet the population's needs, and the frequent outbreaks of violence have produced thousands of refugees and displaced people.

The MUAC mothers approach

The approach, also known as "Mamans Lumières" and "Mamans PB" in the DRC, was integrated into the detection protocol for malnourished children. When visiting nutrition units with their children, parents and carergivers attend training sessions to learn how to screen for malnutrition, and to monitor the recovery of their child. During the practical training, the caregivers learn how to recognise oedema, and how to use MUAC tapes.

Caregivers of children with uncomplicated severe acute malnutrition are given the training at each visit to the outpatient programme; the training for caregivers of severely acutely malnourished children with medical complications in inpatient programmes takes place during nutritional education sessions. The mothers of the malnourished child are shown a detection method based solely on the colours on the MUAC tape. These mothers are then supervised by Community Health Workers (CHWs) to practice measuring the mid-upper arm circumference, and to identify oedema.

In the village or community, these mothers screen their children, and pass the results on to the CHWs. The mothers also screen their neighbours' children, and refer them directly to the CHW at the health centre. Due to the popularity of the MUAC Mothers approach, this detection method was extended from the hospital sessions to a mobile strategy. Furthermore, some mothers volunteered to take part in the Mebendazole deworming campaign, and conducted screening for malnutrition at the same time. Some of these mothers have also been employed to screen children at nutrition centres.

In areas with a high prevalence of malnutrition, a number of parents were trained as MUAC Mothers to screen children aged 6-59 months, and to continue to monitor the nutritional status of children in the village. In some catchment areas (villages) where some CHWs have disengaged from their voluntary community work, the MUAC Mothers have efficiently filled the gap, and taken over the identification and referral of children to the nearest health centres.

WHAT WORKED WELL?

1. Improvement of the screening coverage in the intervention zone

The fact that mothers of malnourished children are taking care of the screening and follow-up of the children in their village, allows CHWs to screen in other villages, and to come back only to follow up with the children detected by the mothers.

2. Early detection of cases and faster recovery of malnourished children

In addition to the CHWs' screening, the MUAC mothers' screening allows for the early detection of cases of malnutrition. This way, children are screened by mothers at least four times a month instead of once a month by the CHWs. It is very rare that CHWs are able to follow up with cases as regularly as this.

As part of the integrated care and prevention project of severe malnutrition among children under five as well as pregnant women and lactating mothers, 10,809 children were admitted to nutrition centres, 3332 of whom were admitted through active screening in the Malemba Nkulu territory between June 2014 and February 2015. These included:

- 2,071 admitted through referrals by CHWs (62.2%)
- 1,261 admitted through referrals by mothers of malnourished children (37.8%)
- Out of the 714 children screened by their mothers, 629 were screened at least 4 times per month

The performance of the screening and the follow-up of malnourished children in the community can be summed up with the following statistics:

- Of the 2,244 children who came to health centres upon referral by CHWs, 2,071 (93.1%) were admitted
- Of the 1,302 children who came to health centres hupon referral by MUAC mothers, 1,261 (97%) were admitted

With regards to the recovery of children screened and admitted by CHWs and MUAC mothers:

- The average length of stay of the children referred by CHWs was 41 days
- The average length of stay of the children referred by MUAC mothers was 32 days

In villages where mothers were in charge of the screening and the follow-up malnourished children, malnutrition was detected at an earlier stage, with an average length of stay of 32 days before being discharged as cured compared to 44 days in villages where CHWs were responsible for detection and follow-up. Therefore, by taking MUAC measurements at least four times per month, MUAC mothers improve nutrition surveillance and the early detection of malnourished children. The earlier the detection, the shorter and more efficient the treatment, which therefore reduces the risk of medical complications and mortality.

The MUAC mothers' performance compared to the CHWs is attributable to:

- The mothers are responsive to the health of their children and to the correct use of the MUAC tape
- The willingness by other mothers to bring their children to the health centres once they have been referred
- The repetition of the MUAC measurement of a child during the same month

Challenges

- The refusal of some husbands to allow their wives to carry out the screening
- The mothers don't have enough time to carry out the screening due to other household duties
- The screening by mothers stopped at the end of the project in the absence of partners
- The health authorities involve parents less in activities in health centres
- This strategy should be encouraged and tried out where an NGO is present. Nevertheless, in less covered zones, where ministries of health already struggle to supervise community health centres, it is hard to see how the strategy can be supported.

The Case of Maman NgoieFideline

Laudriennewa Ngoieagé, a 33-months old girl, was screened by the CHWs at the Seyale camp health centre on 21 August 2014 during the lean season. This child was referred to the inpatient programme in Malemba where she was looked after for eight days. Leaving the programme, the child was referred to the outpatient programme in Seya where she stayed for 28 days, between 28 August and 26 September 2016.

Laudriennewa's mother was trained to use the MUAC and in recognising oedema while her daughter was in the programme. The training sessions were repeated every time they visited the health centre in Seya. At home, the mother measured her daughter's MUAC every day, and established a relationship with the CHW nearest to her home.

Seeing how her child's condition improved, the mother started screening other children in her village and in the camp based on the nutritional status of her ill child who was cured. From October 2014 until February 2015, Maman NgoieFideline screened and referred 22 children aged 6 to 59 months, of whom 17 fulfilled the admission criteria, and received treatment for an average of 31 days.