iCCM+ APPROACH
COMMUNITY HEALTH WORKERS ADDRESSING ACUTE MALNUTRITION.
FROM IDEA TO REALITY
THE PROBLEM

World hunger remains a scourge and a huge challenge, affecting more than 700 million people, with the most serious consequences leading to the death of those who suffer from it. Some 8,500 children die every day from undernutrition, accounting for almost half of all deaths of children under five.

Acute malnutrition represents the most dramatic face of child undernutrition, with a 12-fold increase in the risk of death in severe cases [1], and continues to threaten the lives of an estimated 6.8 per cent of children under five worldwide [2].

A highly effective treatment for severe acute malnutrition (SAM) is now available. This involves providing children diagnosed with SAM Ready-to-Use Therapeutic Food (RUTF), which consists of an energy- and nutrient-rich peanut paste, to children for a period of 6-8 weeks. If the child is diagnosed with SAM without complications, which is the case in 85% of cases, treatment is administered in health centres. Only in the remaining 15%, when there are complications, it is necessary to treat the child at hospital [3].

Between 80 and 84 per cent of children with SAM who have received treatment are cured of the disease. More than two-thirds of the 45 million children suffering from acute malnutrition do not have access to treatment [4]. This is due to a variety of reasons ranging from stock shortages of RUTF, to economic, social, or geographical barriers to accessing health facilities. Within the variety of African countries where we work, more than 50% of the population lives more than 5 km from a health centre, and roads are dangerous or impassable at certain times of the year. In addition, travelling to the centre on a weekly basis is difficult when mothers, who are usually responsible for taking their children to treatment, also have to ensure the livelihoods of the family and take care of the other children.

THE ANSWER

Faced with these difficulties, in 2014, we set ourselves the challenge of improving the coverage of nutrition-related services. To this end, working hand in hand with communities where malnutrition is a problem, we launched a project in which research and innovation have been key.

The response to this challenge came from the successes of the Integrated Community Case Management (ICCM) intervention. It consists of community-based management of childhood illnesses (diarrhea, malaria and respiratory infections) through community health workers (CHWs). These are non-medically trained people who acquire general health knowledge and care for families in the community in which they live.

Based on this intervention, Action Against Hunger proposed the incorporation of the treatment of SAM into the CHWs’ activity package. This is known as the "iCCM+ approach".

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**THE PROCESS**

### 2014-2016
**SOLUTION IDEATION, RESEARCH, AND DEMONSTRATION PHASE**
- **Location:** Mali and Pakistan
- **Community health workers:** 19
- **Partners:** National Institute of Public Health of Mali (INSP), Mali Nutrition Directorate, Aga Khan University
- **Donors:** Innocent Foundation

### 2017-2019
**DEVELOPMENT AND TRANSITION TO PROJECT SCALING-UP**
- **Location:** Mali, Niger, Mauritania, Kenya
- **Community health workers:** 182
- **Partners:** Centre de Recherche Médicale Sanitaire du Niger (CERMES), Research Group of the Complutense University of Madrid (EPINUT), National Institute of Public Health of Mali (INSP), University of Nouakchott.
- **Donors:** Childrens Investment Fund Foundation, Innocent Foundation, People’s Postcode Lottery, UNICEF, USAID
- **Achievements:** (2019) Inclusion of iCCM+ as one of UNICEF’s simplified approaches to the treatment of severe acute malnutrition in children.

### 2020-2022
**SCALING-UP**
- **Location:** Mali, Niger, Mauritania, Kenya, Senegal, Cameroon
- **Community health workers:** 510
- **Partners:** CERMES, EPINUT, INSP, University of Nouakchott.
- **Donors:** ELRHA, Innocent Foundation, SIDA, UNICEF, USAID
- **Achievements:** (2020) Recommendation by Unicef, WHO, ICRC to work with CHWs during the covid 19 pandemic.

### 2023-2025
**LONG-TERM SUSTAINABILITY OF SCALING-UP**
- **Location:** All countries with a high prevalence of undernutrition and low treatment coverage treatment coverage
- **Counterparts:** At least one technical counterpart in each country of intervention.
- **Donors:** In the process of renewal.
- **Achievements:** (2023) Inclusion of treatment through CHWs in the revised WHO case management guidelines for malnutrition.
TOP 8 FINDINGS OF THE ICCM+ APPROACH

Community health workers, treating severe acute malnutrition...

(1) ... are as effective as nurses in health centres, with a similar cure rate for both.

Evidence

CHWs achieve a cure rate equal to that of nurses in health centres and halve the proportion of children who drop out of treatment.

In studies conducted in Mali, the cure rate for CHW treatment was 94.2%, while the cure rate for facility-based treatment was 88.2%.

Evidence

(2) ... have the potential to increase the coverage of SAM treatment.

Evidence

In the period under study, there was an increase in the coverage offered by CHWs in the treatment of SAM, while coverage from health centres did not increase in Mali, Mauritania and Niger. Intervention at the regional level confirms these results.

(3) ... provide treatment of the same quality as nurses in health centres.

With proper training and supervision, CHWs can treat SAM without complications: in Mali and Pakistan, they correctly assess signs of severity and anthropometric measurements of weight and arm circumference, and correctly perform the appetite test.

Evidence

(4) ... contribute to cost-effective intervention.

It costs half as much to treat a child through CHWs in Mali as it does in a health centre. In addition, families who receive treatment through CHWs use half as much time and a third less money per week than families who go to health centres. This achievement is similar in Niger.
Evidence

(5) ... can identify and treat severe acute malnutrition early and provide integrated care for children under five.

Children treated by CHWs in Mali are identified early and their anthropometric conditions (weight and arm circumference) are less severe than those treated in health centres.

CHWs have the potential to treat severe acute malnutrition in an integrated manner with the other pathologies (diarrhea, malaria and acute respiratory infections) treated in Mali.

Evidence
- Chichon et al. Integrating acute malnutrition treatment into integrated community case management at scale in Kita, Kayes and Bafoulabé districts in Mali: an economic evaluation. To be published.

(6) ... improve the quality of treatment if they work under supervision, although such supervision has no effect on the cost-effectiveness of the intervention.

The quality of treatment provided by CHWs receiving any supervision is better than that of those who received no supervision at all.

Evidence

(7) ... in emergency situations in Niger maintain effectiveness, increase treatment coverage, and improve the cost of intervention when applying the simplified protocol.

There is no difference in the cure/abandonment ratio when using the simplified protocol (use of the arm circumference as the sole diagnostic criterion and decrease in the number of RUTF bags administered). On the contrary, fewer errors occur in the application of the simplified protocol and treatment coverage increases when it is decentralised in CHWs.

Treatment costs depend on the specific conditions of each population, the coverage and the protocol used. SAM is cheaper to treat than moderate acute malnutrition (MAM).

Evidence
(8) ... in emergency situations in Mali, maintain effectiveness, increase treatment coverage, and prove to be a cost-effective intervention, if they apply the treatment with a simplified protocol.

The proportion of cured and drop-outs when CHWs use the simplified protocol (arm circumference as the only diagnostic criterion and decrease in the number of RUTF bags administered) is not lower than when the standard protocol is used in health centres. CHWs increase treatment coverage.

It proves to be a cost-effective intervention in Mali due to reduced protocol costs and increased coverage.

Evidence


THE RESULTS

Action Against Hunger is behind the third revolution in the treatment of acute malnutrition, the decentralisation of treatment to CHWs. The first revolution was the discovery of F-100 and F-75 therapeutic milks and the second was the discovery of ready-to-use therapeutic food (RUTF), which enabled outpatient treatment of SAM.

Action Against Hunger is an international leader in the treatment of SAM through CHWs thanks to the research and evidence generation work developed over the last 10 years, in collaboration with other partners in ministries of health and research centres at global and local levels.

In this time, the iCCM+ approach has achieved:

In the field of scientific evidence generation
- Research projects in different contexts, which have resulted in 14 publications in scientific journals and 4 pending publications.

In the field of international recommendations for decision-making
- The recommendation by Unicef, WHO, ICRC to work with community health workers during the covid 19 pandemic (2020).
- Inclusion of treatment through community health workers in the revised WHO case management guidelines on malnutrition (July 2023).

In the area of national recommendations for decision-making
- MALI
  - Inclusion of SAM treatment through CHWs in primary health care guidelines (2015).
  - Inclusion of SAM treatment through CHWs in Mali’s malnutrition case management policy (2022).
- NIGER
- MAURITANIA
  - Protocol for the Integrated Management of Acute Malnutrition under revision.
- SENEGAL
  - Protocol for the Integrated Management of Acute Malnutrition under revision.

In the area of scaling up the iCCM+ approach
- Facilitating the training of community health workers through training of trainers. Accessible in English and French.
- Structuring the monitoring of the iCCM+ approach through monitoring and supervision tools on the KOBO platform.
- Support the expansion of the iCCM+ intervention through the dissemination of the Implementation Guide for the treatment of malnutrition by community health workers.
- Share information useful for the implementation of the iCCM+ approach through the regular publication of newsletters.
- Continue advocacy actions to achieve the institutionalisation of CSAs in order to guarantee their salary and recognition.
UPCOMING CHALLENGES

ICCM+ is a project of the Action Against Hunger network in which all of the organisation’s sites participate. Its strategy has 4 key objectives:

Increase the number of countries where the intervention is implemented

— To develop an action plan in collaboration with the Nutrition Directorate, for the implementation of the approach throughout the country with a high prevalence of SAM and low treatment coverage.

— Establish collaboration agreements with various local and international NGOs and donors.

Contribute to scientific evidence with new research studies

— Contribute to filling research gaps by producing new evidence on treatment relapse.

— Measure the social impact of the approach, by integrating prevention actions into the model, as well as cross-cutting environmental and gender issues.

Develop an advocacy plan in favour of the approach

— Promote the professionalism of CHWs by integrating them into the health system and guaranteeing their recognition and remuneration.

— Work to involve all the key players in implementing the approach, in particular the community itself.

By country

- **MALI**: scaling up in the districts of Kayes, Gao, Tombouctu
- **NIGER**: scaling up in Mayahi, Bouza, Madaoua districts
- **MAURITANIA**: scaling up in the region of Guidimakha and Hod el Chargui
- **SENEGAL**: pilot in the Matam region
- **CAMEROON**: pilot in Mora district
- **KENYA**: pilot in Isiolo and Turkana districts
- **SOMALIA**: pilot project under development
- **SOUTH SUDAN**: pilot project under development
- **UGANDA**: under discussion for a pilot project
- **NICARAGUA**: national level during cyclone emergency 2021
- **VENUEZUELA**: regional pilot in 2023
- **HONDURAS**: incorporated to the National Protocol 2023
- **PAKISTAN**: pilot project in Dadu district, Sindh

For further information on the project:

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