

Simplifying acute malnutrition treatment in emergency settings

Tackling acute malnutrition is a global humanitarian priority. This randomised controlled trial (RCT) in Mali demonstrated that CHWs, using a simplified-combined protocol, increased treatment coverage for acute malnutrition and are a cost-effective intervention in humanitarian settings.

Demonstrating effectiveness of the simplified-combined protocol

Community health workers (CHWs) have the potential to facilitate increased access to health services for vulnerable families. This 3-arm non-inferiority RCT was conducted in Gao. The study tested, for the first time, CHW-led treatment using a simplified-combined protocol in humanitarian setting. Findings demonstrate this approach is effective at treating acute malnutrition, and cost-effective, lowering costs and improving coverage.



A mother and her baby at a healthcare facility in Gao. Credit: ACF

Background

The standard protocol for acute malnutrition treatment uses weight- for-height z-score (WHZ), middle upper arm circumference (MUAC) and oedema as diagnostic criteria, treatment products and dosages differ between children with severe acute malnutrition (SAM) and moderate acute malnutrition (MAM), making implementation of treatment complex. The simplified-combined protocol uses MUAC as the sole diagnostic criterion, and a single product (Ready-to Use Therapeutic Food- RUTF) at fixed doses for SAM and MAM.

How the research was conducted

In the control and intervention 1 group, standard treatment was provided at Health Facilities (HF) only or at HF and CHW sites, respectively. In the intervention group 2, treatment was provided at HF and CHW sites using a simplified- combined protocol, with 2 sachets RUTF/day for SAM (< 5 kg, 1 sachet/day) and 1 sachet RUTF/day for MAM.

Key findings

- CHW-led treatment improved coverage in both intervention groups, while coverage of SAM in the control group, saw a slight decrease.
- Treatment effectiveness using a simplified-combined protocol in intervention group 2 is not inferior to the standard protocol. The cure ratio was 76.3% in the control group, 81.8% in the intervention group 1, and 92.9% in the intervention group 2. Children dropping out of treatment was less than 5% in all the groups, and under 1% at intervention group.
- Errors at discharge were significantly lower when the simplified-combined protocol was used.
- The average time to recovery was similar in the three groups (42-43 days), but the amount of ready to use foods (RUFs) was reduced in the group with CHWs applying the simplified-combined protocol in both SAM and MAM cases, implying a reduction in costs.

Implications for humanitarian practitioners and policymakers

The involvement of CHWs in acute malnutrition treatment located in remote villages can increase treatment coverage in humanitarian settings while maintaining quality of care.

The use of a simplified- combined protocol could simplify implementation, reducing errors, costs and amounts of RUFs required to treat acute malnutrition.

Decentralization of treatment to CHW sites is a cost-effective strategy due to lower costs and impact on treatment coverage.

Including acute malnutrition treatment into the package of activities provided by CHW allows the integration of acute malnutrition treatment with other diseases and ensure the continuum of care when extended to children with MAM.

These results provide evidence to advocate for integration of CHWs into the health system.

Recommendations for future research

Future research should focus on how to ensure adequate supervision of CHWs to maintain quality at scale, and how to improve the identification of children at higher risk of mortality to improve treatment targeting, using other anthropometric variables or key socio-economic characteristics. Other outcomes, such as relapse, could be evaluated.

About the study team

Action against Hunger (AAH) Spain. Pilar Charle Cuéllar, Antonio Vargas; AAH UK, Bernardette Chichon; AAH ROWCA, Abdias Ogobara Dougnon, Fanta Touré; AAH Mali, Salimata Samake, Magloire Bunkembo

Nutrition Direction of the Ministry of Health Mali. Mahamadou N'tji Samake, Aliou Bagayokoe

EPINUT research group of the Complutense University in Madrid (Spain). Noemí López Ejeda, Luis Javier Sánchez Martínez

UNICEF. Saul Guerrero.

Keywords

Community health workers, severe acute malnutrition, ready-to-use therapeutic food, coverage, simplified approaches.

Articles and further reading

The study had two sites, in Niger and Mali. Read about all the results from this study at the project page on the Elrha website.

<https://www.elrha.org/project/effectiveness-cost-effectiveness-and-coverage-of-severe-acute-malnutrition-sam-treatment-delivered-by-community-health-workers-chws-in-mali-and-senegal/>

Read more about the project on the ACF website [Action Against Hunger has contributed to the definition of new global protocols to address child malnutrition | Action against hunger \(accioncontraelhambre.org\)](#)



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<http://www.elrha.org/programme/research-for-health-in-humanitarian-crises/>