RESEARCH SNAPSHOT

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# Simplifying acute malnutrition treatment in emergency settings

Tackling acute malnutrition is a global humanitarian priority. A study in Niger demonstrated that decentralisation of treatment to health post level, using a simplified-combined protocol, has the potential to increase treatment coverage and decrease costs of acute malnutrition treatment in humanitarian settings.

## Demonstrating the effectiveness of the simplified-combined protocol

The decentralisation of treatment to community health posts (HPs) has the potential to facilitate access to health services. This non-randomized community-controlled trial in Diffa included both host population and internally displaced people, analysing for the first time the decentralisation of acute malnutrition treatment to HPs using a simplified-combined protocol in humanitarian setting.

Findings suggest that this approach could be effective at treating acute malnutrition and highlighted the significant impact of programme size and coverage on treatment costs. However, further research may be needed to strengthen the evidence, and adapt the approach for different contexts.

A young child consumes ready to use food in Diffa, Niger. 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. According to the country's policy, acute malnutrition is treated only at health facilities (HF).

## How the research was conducted

The control group received standard treatment at HF and HP, while the intervention group received simplified treatment with a simplified-combined protocol at HF and HP, providing 2 sachets of RUTF/day for severe acute malnutrition (SAM) and 1 sachet/day for moderate acute malnutrition (MAM). 580 SAM cases (174 control, 406 intervention) and 664 MAM cases (181 control, 483 intervention) were admitted.

## Key findings

- Decentralisation of treatment to HP increased coverage for SAM children in *both* groups.
- The cure rate in the intervention group was 96.6% (SAM) and 99.6% (MAM); in the control group it was 87.4% (SAM) and 79.5% (MAM).
- Errors at discharge were significantly lower when the simplified-combined protocol was used.
- The average time to recovery was similar for SAM 35 days in both groups. MAM children recovered 1.5x more quickly in the intervention group.
- The cost analysis shows that treating a moderately malnourished child cost $165.2 using the standard method, while treating a severely malnourished child cost $192.4. With the simplified protocol, the treatment cost dropped to $96.5 for MAM and $118 for SAM.
- The amount of RUTF was also reduced in the intervention groups, implying a reduction in costs.

## Implications for humanitarian practitioners and policymakers

The decentralization of acute malnutrition treatment to HPs in remote villages could increase treatment coverage in humanitarian settings while reaching Sphere Standards.

The use of a simplified- combined protocol could simplify implementation, reducing errors, costs and amounts of RUTFs required to treat acute malnutrition. Programme size and treatment coverage have an impact in costs; costs can differ between neighbouring locations.

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

This was not a randomised controlled trial, so the results cannot be extrapolated to other contexts and the probability of residual confounding is increased. There was also a difference in sample sizes between groups, with a higher incidence of cases in the intervention area. However, the statistical tests used account for this sample imbalance, and the results show that the simplification of the protocol is effective. More research would be valuable to further inform implementation.

## Recommendations for future research

Future research should include how to ensure adequate supervision at HP level, and how to improve the identification of children at higher risk of mortality to improve treatment targeting.

## About the study team

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## Keywords

Acute malnutrition, ready-to-use therapeutic food, coverage, simplified approaches, health post.

## 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/