The No Wasted Lives Research Agenda - Revisited

This article is a summary of the Research Agenda Revisited published by the No Wasted Lives Secretariat and the Council of Research Technical Advice on Acute Malnutrition.

Background
April 2021 marked the end of the CMAM 2.0: Reinventing Community Management of Acute Malnutrition grant supported by the Children’s Investment Fund Foundation that financed the No Wasted Lives initiative. Over the last five years, the initiative has been recognised for its influence in moving research forward and addressing knowledge gaps in the treatment of child wasting, with the Council of Research & Technical Advice on Acute Malnutrition (CORTASAM) playing a key role in the identification of knowledge gaps.

In January 2018, CORTASAM and the No Wasted Lives Coalition published a global Research Agenda for Wasting (CORTASAM, 2018). This was based on the results of a research prioritisation exercise (Angood, Kerac, Black et al, 2021) and outlined seven priority research areas with high potential for improving the effectiveness of, and access to, wasting treatment (Box 1).

In 2019, a Research Landscape Review was conducted to evaluate the progress made towards the Research Agenda outcomes (CORTASAM, 2020a). Based on these results, the members of CORTASAM identified outstanding gaps and published the Research Agenda Revisited in early 2021 (CORTASAM, 2021). The key findings are summarised below.

Progress in priority areas of research

Simplified approaches
Significant progress has been made in the first three research areas which are now generally grouped together under the term ‘simplified approaches’. These encompass expanded admission and discharge criteria to include moderate wasting, the use of mid-upper arm circumference (MUAC) and oedema only for admission and discharge, reduced dosage of ready-to-use therapeutic food (RUTF), the treatment of moderate and severe wasting with one product and the involvement of community health workers in wasting management.

While research on the simplified approaches is encouraging, more evidence is needed. The consequences of using MUAC and oedema only for admission and discharge require further evaluation and additional approaches to identify at-risk children should be explored. More evidence is needed on the impact of reduced treatment dosage on height, body composition and non-anthropometric outcomes, as well as on the effects among different age groups and vulnerable populations.

The Research Agenda Revisited identifies a need for research from contexts outside of sub-Saharan Africa, in particular from South Asia which has the highest global burden of wasting. Promising interventions and modifications to treatment protocols also require testing at scale and the integration of community-based approaches to wasting management need to be strengthened. Future research should recognise the continuums between moderate and severe wasting, as well as between the prevention and treatment of wasting, and should also explore effective interventions for wasting prevention.

Fluid management in severely wasted children
Recent reviews have highlighted the need to update global guidelines on fluid management in children with severe wasting. Further research is needed on which fluids to use and in what circumstances, as well as on adequate volumes and the routes of administering these.

Post-treatment relapse
The burden of, and risk factors for, post-treatment relapse across contexts is poorly understood. In order to generate evidence on relapse, a standardised definition is needed. In 2020, CORTASAM proposed interim guidance for the standard definitions of relapse, regression and reoccurrence of wasting and called for feedback from researchers and practitioners on these (CORTASAM, 2020b). A conceptual framework was also generated to support the development and testing of effective interventions to reduce post-treatment relapse (Schafer et al, 2020). There is a large body of ongoing and planned research on relapse that should consider the latest guidance on definitions and measurement.

Management of nutritionally at-risk mothers and infants
There has been significant progress in managing at-risk mothers and infants under six months of age through the piloting and implementation of the C-MAMI tool in several contexts and, more recently, remodelling of the tool as the MAMI pathway. A body of evidence is also being built on criteria to identify at risk infants using weight-for-age (WAZ) and MUAC, as well as feeding, clinical and maternal indicators.

However, there is a need for coordinated, evidence-based global guidance to advance case identification and management, as well as to inform and drive the development of policy and programming. To achieve this, coordinated formal and operational research from diverse contexts including South Asia is required. Also key is active engagement in the World Health Organization (WHO) guideline development process, engagement across sectors including health, early childhood development, maternal mental health and neonatal health and the dissemination of evidence through global and regional networks. These actions are being pursued by the MAMI Global Network (https://www.ennonline.net/ourwork/research/mami).

Alternative formulations
In recent years, several studies have investigated the effectiveness of alternative formulations of RUTF. These include aims to replace or reduce milk and/or peanut content and to change fatty acid profiles. A new guideline on the dairy protein content of RUTF is underway. Future studies should include an evaluation of the costs and the acceptability of alternative RUTF formulations, the growth, body composition and neurocognitive outcomes and whether one product can be used for managing both moderate and severe wasting.

The role of emulsifiers in RUTF should also be investigated. In addition, the effectiveness of new formulations should be tested in home-based settings at operational scale. Lastly, economic, health system and environmental implications as well as the role of the private sector in the development and delivery of RUTF should be examined.

Conclusions
Significant progress has been made towards the CORTASAM’s original research priority areas. However, gaps remain and continued evidence generation and exploration into innovative approaches are needed. These should prioritise under-researched populations to improve the effectiveness and scalability of programmes.

More details can be found in the Research Landscape Analyses and the Research Agenda Revisited on the No Wasted Lives Website (www.nowastedlives.org).

References
Emergency Nutrition Network https://www.ennonline.net/ourwork/research/mami