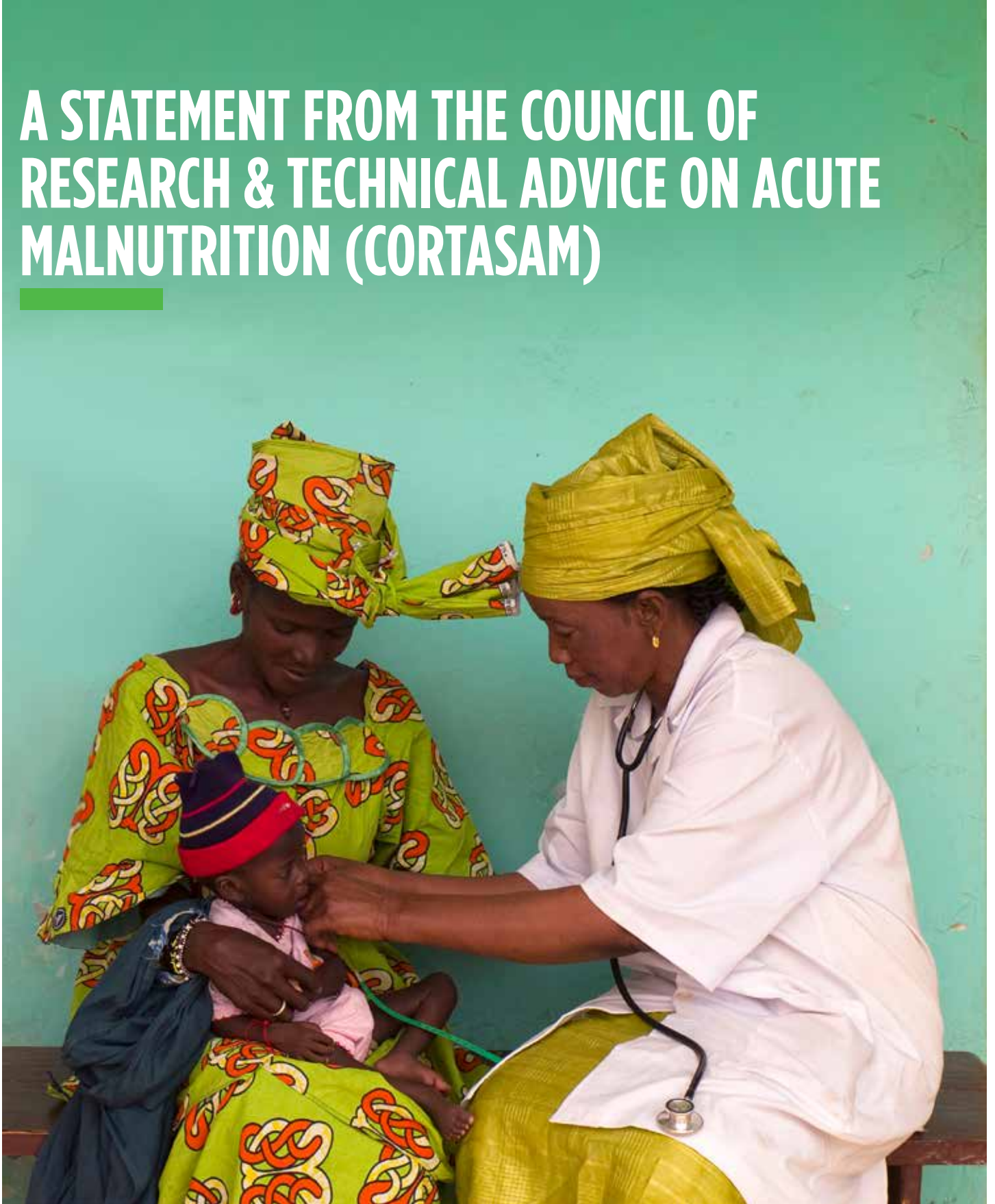


A RESEARCH AGENDA FOR ACUTE MALNUTRITION

A STATEMENT FROM THE COUNCIL OF
RESEARCH & TECHNICAL ADVICE ON ACUTE
MALNUTRITION (CORTASAM)



BACKGROUND

Malnutrition is estimated to contribute to upwards of half of all child deathsⁱ and **children with acute malnutrition are three to nine times more likely to die than well-nourished children**^{ii,1}. In recent years, we have witnessed a scale-up of the community-based management of acute malnutrition (CMAM). This approach is safe, cost-effective, and evidence-based for the management of acute malnutrition^{iii,iv}. And yet, we continue to fail to reach those in most need, with less than 20% of children with acute malnutrition, both moderate and severe, receiving treatment^{v,vi,2}.

The No Wasted Lives Coalition was formed in 2016 to accelerate the scale-up of effective prevention and treatment of acute malnutrition. The Council of Research & Technical Advice on Acute Malnutrition (CORTASAM) is an independent group of experts that provide technical guidance to No Wasted Lives. The goal of the Council is **to drive the use of evidence for action, in order to ultimately reach more children with effective treatment and prevention programmes across the continuum of acute malnutrition**. This will catalyse progress towards the Sustainable Development Goal to reduce wasting to <5% amongst children under five years of age.

In mid-2017, CORTASAM led the implementation of a global research prioritisation exercise for the treatment of acute malnutrition. Over 300 individuals from 63 countries and 167 organisations participated in this survey. This exercise identified key research areas that were priorities to achieve scale-up of management of acute malnutrition by 2020³.

Building on this exercise, CORTASAM identified the leading research areas with **the highest potential impact towards the effective management of acute malnutrition at scale by 2020**. This included an assessment of the available evidence and ongoing research in these areas to determine outstanding gaps and priority actions to progress this research agenda. The following recommendations have come from this process.



Photo: © Kathleen Prior for Action Against Hunger, Bangladesh

I II Black et al. *Maternal and Child Undernutrition: global and regional exposures and health consequences*. *The Lancet*. 2008; 371: 243-260.

III Collins et al. *Management of severe acute malnutrition in children*. *The Lancet*. 2006; 368: 1992-2000.

IV Collins et al. *Key issues in the success of community based management of acute malnutrition*. *UN Food & Nutrition Bulletin*. 2005.

V *Annual Results Report 2016 Nutrition*. UNICEF. 2016.

VI *The Year in Review Report 2016*. *World Food Programme*. 2016.

1 Odds ratio for mortality in children with severe acute malnutrition is 9.4 (5.3 – 16.8) based on WHZ <-3 z-score. Odds ratio for mortality in children with moderate acute malnutrition is 3.0 (2.0 – 4.5) based on WHZ -3 to -2 z-score.

2 3.4 million children received treatment for SAM (source: UNICEF 2016) and 9 million children received prevention and treatment of malnutrition in 2016 (source: WFP 2016).

3 The survey focused primarily on research supporting the treatment of acute malnutrition. Where specifically linked with treatment (ie. treatment of MAM or infants to prevent SAM or later nutritional vulnerability), prevention was also included. Preliminary findings and further publications available at www.nowastedlives.org

A RESEARCH AGENDA FOR ACUTE MALNUTRITION: RECOMMENDATIONS FROM CORTASAM

The priority areas identified through this prioritisation and review process form the **CORTASAM Research Agenda**, which outlines outstanding questions where further research is needed to effectively generate critical evidence to advance policy and operational outcomes by 2020. The seven priority research areas are:

- 1 EFFECTIVE APPROACHES TO DETECT, DIAGNOSE, AND TREAT ACUTE MALNUTRITION IN THE COMMUNITY:** taking community detection using mid-upper arm circumference (MUAC) to scale while building the evidence on diagnosis and treatment of acute malnutrition in the community across contexts and health platforms. It is recognised that further research is needed on the expansion of current MUAC thresholds for use in the community across contexts.
- 2 APPROPRIATE ENTRY AND DISCHARGE CRITERIA FOR TREATMENT OF ACUTE MALNUTRITION TO ENSURE OPTIMUM OUTCOMES:** building the evidence base on expanded MUAC thresholds, both entry and discharge criteria, for treatment to capture children earlier and improve treatment outcomes for all children with acute malnutrition. However, it is recognised that MUAC<115mm does not select all high risk children and MUAC does not currently capture large proportions of the burden in some contexts. Research is needed to explore different options to identify high risk children. Further analysis on the impact of expanded thresholds on burden estimates and operational feasibility, including supply chain of treatment products, are also needed.
- 3 REDUCED DOSAGE OF READY-TO-USE FOOD (RUF) FOR TREATMENT OF ACUTE MALNUTRITION:** investigating the safety, effectiveness, and cost-effectiveness of reduced dosage of RUF for treatment of acute malnutrition.
- 4 EFFECTIVE TREATMENT OF DIARRHOEA IN CHILDREN WITH SEVERE ACUTE MALNUTRITION (SAM):** using evidence to streamline guidance and generating implementation research to understand how the operational application of guidelines can inform improved practice and better treatment outcomes.
- 5 RATES AND CAUSAL FACTORS OF POST-TREATMENT RELAPSE TO ACUTE MALNUTRITION ACROSS CONTEXTS:** understanding the burden of relapse post-treatment and, if found to be high, effective solutions to reduce relapse across contexts.
- 6 IDENTIFICATION AND MANAGEMENT OF AT-RISK MOTHERS AND INFANTS <6 MONTHS OF AGE (MAMI):** generating the evidence required to support country-level policies and implementation at scale, including implementation research and operational case studies.
- 7 ALTERNATIVE FORMULATIONS FOR READY-TO-USE FOODS FOR ACUTE MALNUTRITION:** continuation of the large amount of ongoing research to investigate the effectiveness, and cost-effectiveness, of formulas using alternative and local ingredients⁴.

FURTHER DETAILS ON EACH OF THESE RESEARCH AREAS CAN BE FOUND AT THE END OF THIS STATEMENT

⁴ For research area seven the Council is calling for a continuation of the large amount of ongoing research to investigate the effectiveness, and cost-effectiveness, of formulas using alternative and local ingredients. Therefore, there is no call for additional new research in this document.

USE OF MUAC IN THE COMMUNITY: RECOMMENDATION FROM CORTASAM

In addition to the Research Agenda, there is a key recommendation from CORTASAM that underpins the interpretation and application of many of these research areas. This recommendation builds on existing global guidance and consensus and is aimed to encourage immediate action and use of the growing evidence-base in this sector:

Mid-upper arm circumference (MUAC) should be used as the primary tool for the detection, diagnosis, and discharge of acute malnutrition in children 6-59 months of age in the community.

This recommendation is in line with the WHO guidelines^{vii} that recommend the use of MUAC and examination for bilateral pitting oedema in children 6-59 months of age by trained community health workers and community members for early identification and referral of children with severe acute malnutrition (SAM) for full assessment at a treatment centre. WHO recommends that children 6-59 months of age with a MUAC <115mm **OR** a WHZ <-3 z-score or have bilateral oedema should be admitted into a treatment programme.

A consultation on MUAC and WHZ in 2012^{viii} concluded that **the primary objective of SAM management is to identify and treat SAM children most at risk of short-term mortality**. It recognised that MUAC and WHZ identify different children. However, MUAC appears to be the better predictor of mortality and has practical advantages. The consultation recommended that MUAC should be the primary indicator used in active case finding efforts in the community and health facilities. Where a child is not identified as SAM by MUAC, WHZ should be used where it is available and feasible to do without jeopardizing other essential health services. At facility level, WHZ should be measured in particular where there are relevant clinical conditions and contextual risk factors for acute malnutrition specifically as well as related to the double burden of malnutrition.

Since 2012, there has been increasing evidence on the use of MUAC for detection by mothers and caretakers in the community, demonstrating they can effectively detect acute malnutrition and children at high risk of mortality [review pending publication]. This approach has the potential to improve active case finding and earlier treatment resulting in reduced severity of acute malnutrition and should be promoted. While further research is needed across contexts, recent research has demonstrated the advantage of use of MUAC for discharge to eliminate the effect of shorter treatment, based on percent weight gain, in the most severely malnourished children^{ix}.

Given this, CORTASAM has issued the recommendation, consistent with WHO 2013 guidelines and the 2012 consultation, that MUAC should be used as the primary tool in the community for the detection, diagnosis, and discharge of acute malnutrition in children 6-59 months of age. In doing so, CORTASAM recognises that the current MUAC admissions criteria for SAM, MUAC <115mm, does not select for all high risk children, including some children diagnosed as SAM by WHZ, or WAZ, and the optimal approach will vary across different contexts. More research is needed to identify different options to identify these high risk children and ensure successful diagnosis and treatment.



Photo: © Jean-Luc Luyssen for Action Against Hunger, Burkina Faso

VII *Guideline: Updates on the management of severe acute malnutrition in infants and children*. World Health Organization. 2013.

VIII *A consultation of operational agencies and academic specialists on MUAC and WHZ as indicators of SAM*. Field Exchange. 2013; 45: 34. Available from: www.ennonline.net/fex/45/consultation

IX Dale et al. *Using MUAC to end treatment of SAM leads to higher weight gains in the most malnourished children*. PLoS ONE. 2013, 8(2): e55404. Available from: <https://doi.org/10.1371/journal.pone.0055404>

CONCLUSION

In releasing this Research Agenda, it is the aim of CORTASAM to provide clear recommendations where the growing evidence-base supports immediate action and where further research against outstanding priority actions is required. Together, this will support the achievement of reaching more children with effective treatment and prevention programmes across the continuum of acute malnutrition.

In reviewing existing guidance and the latest available evidence, CORTASAM recommends that **mid-upper arm circumference (MUAC) should be used as the primary tool in the community for the detection, diagnosis, and discharge of acute malnutrition in children 6-59 months of age in the community**. With this recommendation, more children can be detected and diagnosed for effective treatment. Coupled with this recommendation is the recognition that there are critical outstanding questions that need to be further researched to investigate the safety, effectiveness, and operational implications.

This Research Agenda is a call to the sector to progress key research areas that have a significant potential impact towards the scale-up of effective, and cost-effective, management approaches across the continuum of acute malnutrition. **If you are interested in working with us to progress this agenda please go to www.nowastedlives.org to submit an Expression of Interest for a specific area of work.**

This statement has been written and endorsed by the members of the Council of Research & Technical Advice on Acute Malnutrition (CORTASAM)⁵:

André Briend (University of Copenhagen and University of Tampere)
Elhadj Issakha Diop (Helen Keller International)
Ferew Lemma (Ministry of Health, Ethiopia)
Marie McGrath (Emergency Nutrition Network)
Mark Manary (Washington University, St Louis)
Marko Kerac (London School of Hygiene & Tropical Medicine)
Nancy Aburto (World Food Programme)
Noël Marie Zagre (UNICEF West Africa Regional Office)
Paluku Bahwere (Valid International)
Robert Black (Johns Hopkins Bloomberg School of Public Health)
Stephen Jarrett (Independent Consultant)
Susan Shepherd (ALIMA)
Tahmeed Ahmed (icddr,b)
Zita Weise Prinzo (World Health Organization)



⁵ And with feedback from Dr. Purnima Menon from the International Food Policy & Research Institute (IFPRI).

1 RESEARCH AREA: EFFECTIVE APPROACHES TO DETECT, DIAGNOSE, AND TREAT ACUTE MALNUTRITION IN THE COMMUNITY

WHY IS THIS IMPORTANT?

A recent review [publication pending] summarises the evidence base on the use of MUAC by community members for detection of acute malnutrition and the use of health platforms, including the iCCM model, for the diagnosis and treatment of acute malnutrition by community health workers.

OUTCOMES BY 2020

More children are diagnosed and treated for acute malnutrition due to 1) an increase in the proportion of children detected and referred from the community; and 2) an increase in the proportion of children who are treated at the household level by community health workers.

- **POLICY-LEVEL:** Global and national guidance supports the use of MUAC as a primary tool and criteria for detection by community members and diagnosis by community health workers, including context-specific thresholds to capture the true burden of children with acute malnutrition. High-burden countries include national-level guidance on treatment in the community at household level where feasible.
- **OPERATIONAL-LEVEL:** Community detection of acute malnutrition is delivered at scale in high-burden countries with clear policies to guide roles and responsibilities for screening and training. High-burden countries are able to successfully implement integrated treatment of acute malnutrition into their health platforms and systems. Communities are mobilised to promote community-based detection, diagnosis, and treatment.

CORTASAM CALL FOR ACTION

- **DETECTION:** A number of recent studies have demonstrated the effectiveness and benefits of training community members to use MUAC for the detection of acute malnutrition. Further work includes:

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Further expansion and documentation of the use of MUAC by community members at scale and across contexts	<ul style="list-style-type: none"> • Compilation and documentation of existing evidence across contexts. • Implementation research to refine and expand this model across contexts, including demand generation within the community
Identification and testing of context-specific MUAC thresholds for detection by community members	<ul style="list-style-type: none"> • Robust trials to inform policy and guideline development with priority to randomised control trials

- **DIAGNOSIS & TREATMENT IN THE COMMUNITY:** With a number of ongoing studies, there is a growing evidence base but a clear need for robust trials, including randomised control and quasi-experimental design, to demonstrate the safety and effectiveness of these interventions at scale to inform national and global guidance and policies.

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Further evidence on use of CHWs for diagnosis and treatment in the community across contexts, including appropriate referral of complicated cases	<ul style="list-style-type: none"> • Robust trials, with priority to randomised control trials, and cost-effectiveness analyses to demonstrate safety and effectiveness and inform policy and guideline development
Identification and testing of tools to support the integration of treatment of acute malnutrition into health platforms	<ul style="list-style-type: none"> • Implementation Research

2 RESEARCH AREA: ENTRY AND DISCHARGE CRITERIA FOR TREATMENT OF ACUTE MALNUTRITION TO ENSURE OPTIMUM OUTCOMES

WHY IS THIS IMPORTANT?

While MUAC is an easy-to-use tool that identifies children at highest risk of mortality, it is known that the current threshold using **MUAC <115mm does not select all high risk children**. A small number of studies have been conducted to test the hypothesis that expanded MUAC thresholds would better capture children previously identified by WHZ only and improve treatment outcomes through earlier detection and reduced relapse. However, **further evidence in this area is needed including research exploring different options to identify high risk children**. This is linked with the recent work to test a combined protocol that simplifies the existing protocol for the community-based management of acute malnutrition (CMAM) by treating severe and moderate malnutrition as one condition and with a simplified dosage of one ready-to-use food product.

OUTCOMES BY 2020

- **POLICY-LEVEL:** Global and national guidance supports a cost-effective and feasible protocol for the treatment of acute malnutrition, including expansion of context-specific MUAC thresholds to capture all high risk children and/or combined/simplified protocols.
- **OPERATIONAL-LEVEL:** Clear policies and operational guidance is in place to support the use of expanded thresholds and combined/simplified protocols across emergency and non-emergency contexts. The operational and supply implications are clearly known and used for programme planning.

CORTASAM CALL FOR ACTION

- **ENTRY CRITERIA:** The Global Nutrition Cluster (GNC) produced a decision-making tool for the use of combined/simplified protocols in emergencies* but the use of this approach across different, and specifically, non-emergency contexts requires further research.

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Evidence on expanded MUAC entry criteria and alternative options to identify high risk children that are not identifiable by MUAC	<ul style="list-style-type: none"> • Robust trials, with priority to randomised control trials, and cost-effectiveness analyses • Implementation research
Evidence on combined/simplified protocols and MAM Decision-Tool including expanded entry criteria for treatment, to non-emergency contexts	<ul style="list-style-type: none"> • Robust trials, with priority to randomised control trials, and cost-effectiveness analyses to establish treatment effectiveness in various contexts • Analysis of operational feasibility and supply chain implications

- **DISCHARGE CRITERIA:** Less evidence has been produced to date on discharge criteria for treatment but this is a critical question linked with post-discharge outcomes, including relapse.

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Evidence on expanded context-specific discharge criteria for both MAM and SAM, including where programmes addressing MAM are not operational.	<ul style="list-style-type: none"> • Development of a standard definition of successful treatment • Exploratory pilot research in contexts where MAM programmes are not operational

- Coordination across other linked research, including the **MAMI Special Interest Group (SIG)** where additional anthropometric and other indicators of risk are being examined in infants under six months and with the **Wasting Stunting Technical Interest Group (WAST TIG)** that is examining the direct relationship between wasting and stunting (including concurrence).

X Moderate Acute Malnutrition: A Decision Tool for Emergencies. Global Nutrition Cluster MAM Task Force. 2017. Available here: <http://nutritioncluster.net/resources/ma/>

3 RESEARCH AREA: REDUCED DOSAGE OF READY-TO-USE FOOD (RUF) FOR TREATMENT OF ACUTE MALNUTRITION

WHY IS THIS IMPORTANT?

Observational data has suggested that reduced dosages of Ready-to-Use Therapeutic Food (RUTF) have comparable outcomes to the standard dosage following treatment of severe acute malnutrition. Further research has begun to investigate this more robustly. However, little work has been done to explore reduced dosages of Ready-to-Use Supplementary Food (RUSF) for moderate acute malnutrition. While the potential impact on cost-effectiveness of treatment from reduced dosage is high, *robust trials to demonstrate the safety and effectiveness of these interventions at scale to inform national and global guidance and policies is needed.*

OUTCOMES BY 2020

The overall cost of product required to successfully treat a child with acute malnutrition is reduced, resulting in an overall reduction in the cost of treatment and expansion of programmes using existing resources.

- **POLICY-LEVEL:** Global and national guidance supports a safe and effective reduced dosage schedule for the treatment of acute malnutrition.
- **OPERATIONAL-LEVEL:** Clear policies and operational guidance are in place to support a reduced dosage schedule across programmes at scale.

CORTASAM CALL FOR ACTION

- **REDUCED RUTF/RUSF DOSAGE:** There are a number of ongoing studies testing reduced dosage of RUTF, with findings coming available in 2018-2019. However, further research to demonstrate safety and effectiveness of reduced dosage of RUTF across contexts is required in addition to investigation of reduced dosage of RUSF. Researchers should look to broader upcoming research where this research question can be incorporated and rigorously tested.

OUTSTANDING NEEDS

Evidence on the safety and effectiveness of reduced dosage of RUTF/RUSF for treatment across contexts

TYPE OF EVIDENCE/RESEARCH NEEDED

- Robust trials, with priority to randomised control trials, and cost-effectiveness analyses to establish safety and effectiveness of new dosages
- Analysis and modelling of operational feasibility and supply chain implications

- Ongoing coordination with WHO to establish evidence on the safety and effectiveness required for normative guideline updates will be critical.

Photo: © Raquel Barrera for Action Against Hunger, Kenya



4 RESEARCH AREA: EFFECTIVE TREATMENT OF DIARRHOEA IN CHILDREN WITH SEVERE ACUTE MALNUTRITION

WHY IS THIS IMPORTANT?

While WHO guidelines exist for the management of diarrhoea in children with SAM, it is recognised that there are outstanding research gaps in this area. In addition, the operational application of guidelines could inform improved practice and better treatment outcomes.

OUTCOMES BY 2020

All children with SAM who also experience acute watery or chronic diarrhoea receive safe and effective treatment.

- **POLICY-LEVEL:** Global and national policies and guidance are clear and easily accessible. Where needed, interim guidance is made available for emergency contexts.
- **OPERATIONAL-LEVEL:** Operational guidance on the implementation of global and national policies is clear and easily accessible to inform programmes in both emergency and non-emergency contexts.

CORTASAM CALL FOR ACTION

- **TREATMENT OF DIARRHOEA IN CHILDREN WITH SAM:** Where guidelines and operational recommendations exist, there is a clear need to understand the barriers to successful implementation across contexts and identify effective approaches in addition to addressing existing research gaps. Broader questions on pathogenic causes and associated risk for increased morbidity and mortality should first look to reviews of existing evidence and to broader upcoming research where this research question can be incorporated and rigorously tested.

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Improved recognition of the signs of dehydration and monitoring of rehydration process within inpatient treatment	<ul style="list-style-type: none"> • Implementation research to test improvements to the application of existing guidelines and identify further research gaps
Evidence on the pathogenic co-morbidity and risk of mortality in children with diarrhoea	<ul style="list-style-type: none"> • Inclusion into broader research studies currently being planned
Evidence on the effectiveness of nitazoxanide for the treatment of cryptosporidium infections and associated diarrhoea in children with SAM	<ul style="list-style-type: none"> • Systematic review of existing evidence available across completed studies.
Review and update of the evidence supporting guidelines for the treatment of chronic diarrhoea	<ul style="list-style-type: none"> • Systematic review of existing evidence available across completed studies.

- Coordination with WHO in the follow-up of the cholera treatment guideline group to identify further outstanding research questions relevant beyond cholera-specific diarrhoea in children with SAM.

5 RESEARCH AREA: RATES AND CAUSAL FACTORS OF POST-TREATMENT RELAPSE TO ACUTE MALNUTRITION ACROSS CONTEXTS

WHY IS THIS IMPORTANT?

Post-treatment relapse is linked with a number of other research areas, including broader prevention of the regression from moderate to severe acute malnutrition (SAM), defaulting, and expanded discharge criteria. However, there is no current estimate of the burden of relapse or an effective intervention to reduce relapse after treatment. To date, more evidence has been published on relapse following treatment for SAM but there may be common causal factors that also link with relapse following MAM treatment that could be explored further.

OUTCOMES BY 2020

A standard definition of relapse post-treatment is available and consistently measured across research. Estimation of readmission, based on a standard definition and methodology, is also regularly monitored in programmes. The burden of relapse across contexts is clearly understood and, where burden is high, there are effective interventions to prevent it.

- **POLICY-LEVEL:** Global and national policies include a standard definition of relapse post-treatment for acute malnutrition.
- **OPERATIONAL-LEVEL:** Relapse is consistently measured in research projects and programmes and, where burden is high, there are clear minimum standards for relapse and interventions in place to mitigate risk of relapse.

CORTASAM CALL FOR ACTION

- **ESTIMATING THE BURDEN AND CAUSAL FACTORS OF RELAPSE:** A recent review [publication pending] summarises the existing evidence on relapse post-discharge from SAM treatment programmes. This review found wide variation both in the definition of relapse and in the measurement approach. Total burden of relapse remains unclear and merits further analysis using existing data if available and gathering new data where not.

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Development of a standardised definition of relapse and recommendations for measurement	<ul style="list-style-type: none"> • Systematic review/meta-analysis of existing data and evidence available across completed studies
Estimate of the burden of relapse and, if possible, identify potential risk factors for relapse across different contexts	<ul style="list-style-type: none"> • Analysis and modelling using existing data available across completed studies. • Inclusion of post-treatment relapse measurement in upcoming research studies

- **IF BURDEN OF RELAPSE IS FOUND TO BE HIGH:** further evidence would be needed to guide operational guidelines to reduce relapse.

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Testing of effective interventions to reduce post-treatment relapse	<ul style="list-style-type: none"> • Implementation research
Establish minimum standards for excess relapse and operational guidelines to support programmes in reducing relapse.	<ul style="list-style-type: none"> • Systematic review/meta-analysis of existing data and evidence available across completed studies.

6 RESEARCH AREA: IDENTIFICATION AND MANAGEMENT OF AT-RISK MOTHERS & INFANTS <6 MONTHS OF AGE (MAMI)

WHY IS THIS IMPORTANT?

The MAMI Special Interest Group (SIG) has significantly progressed the advocacy and research agenda focused on the identification and management of infants <6 months of age (infants <6m) who are nutritionally vulnerable and/or already malnourished. Originally an acronym for 'Management of Acute Malnutrition in Infants <6m' that reflected the origins of this work, MAMI work to date has evolved to highlight:

- The common coexistence of different types of anthropometric deficit in the same infant (e.g. stunting alongside acute malnutrition; low birth weight as a predisposing problem);
- The importance of identifying key risk factors which are better addressed before malnutrition develops (e.g. disruptions to exclusive breastfeeding);
- The need for holistic assessment (anthropometry, clinical, feeding and maternal health) and integrated packages of care that manage the mother-infant dyad and consider the individual, household and community circumstances;
- The potential for early 'treatment' to 'prevent' later adverse outcomes (e.g. managing a breastfeeding problem during the first 6 months of life can also help avoid later SAM/MAM/stunting) and reduce malnutrition burden in older age groups (e.g. reducing number of cases presenting for treatment at 6 months+).

Global level guidelines have strong recommendations for managing infants <6m but further evidence is needed to influence national policies and scaling up programmes, and to translate policy into operational guidance and procedures. A particular challenge is the operational rollout of new WHO recommendations to recognise uncomplicated as well as complicated infant malnutrition and to provide care in outpatient/community settings. Since infants <6m are not included in routine anthropometric surveys, e.g. SMART, the burden of care is not visible.

OUTCOMES BY 2020

Simplified new criteria to identify nutritionally vulnerable/at-risk infants, scalable packages of care focusing on outpatient management are being tested across multiple contexts, informed by context-specific burden data.

- **POLICY-LEVEL:** Simplified new criteria for identifying at-risk infants have been agreed; national policy makers recognise outpatient management of infant with clinically uncomplicated malnutrition as per WHO 2013 SAM guidelines; infants <6m are included in routine anthropometric surveys.
- **OPERATIONAL-LEVEL:** Operational guidance based on best current evidence supports caseload estimation and roll-out of programmes focused on identification and management of nutritionally at-risk infants at scale and across contexts.

CORTASAM CALL FOR ACTION

- CORTASAM is working with the MAMI SIG to progress the following research priorities:

OUTSTANDING NEEDS	TYPE OF EVIDENCE/RESEARCH NEEDED
Demonstration of an approach to identify and manage nutritionally vulnerable/at-risk infants <6m across contexts to influence country-level policies and roll-out.	<ul style="list-style-type: none"> • Robust trials, with priority to randomised control trials, to explore the effectiveness and cost-effectiveness of MAMI programmes. • Implementation research across contexts to demonstrate replicability of the model.

- Ongoing coordination with the MAMI SIG on outstanding research priorities and opportunities for collaboration.

**For more information and to find out how
you can get involved in the work of the
Coalition visit NoWastedLives.org.**

**For more information, global and country
level data and resources on Acute
Malnutrition visit AcuteMalnutrition.org.**