RESEARCH PRIORITISATION EXERCISE:
BACKGROUND AND PURPOSE

Background

Severe acute malnutrition results in 1- 2 million preventable child deaths each year[1], severely malnourished children are 9 times[2] more likely to die from common infection than their better-nourished peers. Treatment for this particularly lethal form of malnutrition is simple and effective. More than 70% of those treated are cured[3] but less than 20% of children affected are able to access the treatment they need[4]. Despite the significant advances that have been made in the past decade, improving the quality and coverage of programmes addressing acute malnutrition, significant gaps remain in the existing evidence-based to support scale-up.

Recognising the scale of the challenge, UNICEF, the UK government, the European Commission, Action Against Hunger and the Children's Investment Fund Foundation have joined forces to accelerate collective global action. The No Wasted Lives Coalition aims do this by building knowledge about the prevention and treatment of acute malnutrition, catalysing investment, and doubling the number of children receiving treatment to 6 million a year by 2020[5]. This links with the broader global targets set by the World Health Assembly to reduce wasting to less than 5% by 2025 and the Sustainable Development Goal to end all forms of malnutrition by 2030.

The Council of Research & Technical Advice on SAM (CORTASAM) was founded under No Wasted Lives in 2016 and is comprised of leading experts in child health and nutrition. 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. A critical role of CORTASAM is to identify key research areas across acute malnutrition and support the prioritisation of focus areas between now and 2020, to fill gaps in the evidence and inform coordination and action to scale-up evidence-based prevention and treatment programmes.

Purpose

The purpose of this exercise is to provide a robust and transparent framework to collect global, regional, and country-level stakeholder feedback on the research priorities across the continuum of acute malnutrition in children 0-5 years of age. Where time, capacity, and financial resources are limited, a clear set of research priorities can ensure we concentrate on the most important areas that will ultimately translate into meaningful action across programmes, policies and within the funding environment.

As such, the aim is to produce a set of research priorities that are critical to achieve measurable improvements in the quality, effectiveness, and scale of programmes addressing acute malnutrition in children under five years of age in high burden countries by 2020.

Research Themes, Areas & Questions

Given the wide scope of research needs and evidence gaps across acute malnutrition, we have chosen to focus on the prioritisation of research *areas*. ***Research areas in this exercise reflect a question that would likely be answered by a group of studies as opposed to an individual stud***y. This allows for a higher-level strategic prioritisation when there is a longer list of specific research questions being considered. This exercise will therefore not provide the granularity of research questions, so further work will be required to highlight specific research questions.

There are a number of technical working groups and publications that have already identified and prioritised specific research questions. Where relevant, these research questions published by other organisations have been included in the long list of research questions included in this exercise. This list was further expanded to bring additional inputs from the No Wasted Lives Coalition, CORTASAM and other global, regional and country-level stakeholders working on acute malnutrition.

The accompanying survey includes a long list of 12 broader research themes and 53 research areas summarising hundreds of research questions.

A full copy of the research areas that will be ranked are included with this sheet. This includes examples of research questions that fall into each research area but this is not meant to be a final or exhaustive list.

CHNRI Approach

The exercise will use a well-established methodology developed by the Child Health and Nutrition Research Initiative (CHNRI), a systematic and transparent approach that will ultimately produce a set of research priorities and a critical strategic steer and leadership in this area[6]. The CHNRI approach is well-establish and has proved to be a flexible and transparent process. For those who would like to know more, the more detailed guidelines are available online[7].

- **Phase I:** Attached is the compiled long list of research questions described above. These research questions were compiled from existing guidelines, publications, and consultations with leading expert groups that identified priority research questions with additional inputs from a broader consultation with CORTASAM and regional stakeholders. Our aim was to capture both operational and epidemiological research areas related to the treatment and prevention[1] of Severe Acute Malnutrition.
- **Phase II:** The research questions identified in Phase I were grouped into areas and themes (described in more detail below). These will be shared with a wider group of experts and stakeholders who will score them against a set of criteria (see below). ***This Phase requires your help and feedback.***
- **Phase III:** The findings of the prioritisation exercise will be compiled and analysed to produce a ranking of priority research areas. Where possible, we will include regional analysis as well.

Outputs

The primary output of this exercise will be published analyses of global and regional research priorities to inform the research agendas of governments, researchers, donors, national international organisations. ***All respondents who complete the survey will be recognised in a group author list in the final publications.***

The key findings and publications will be made publically available and shared with survey participants as well as key stakeholders through No Wasted Lives, CORTASAM and other platforms. No Wasted Lives and CORTASAM will similarly use the findings to inform the action planning and identify priority areas of research and evidence generation to support programme improvement and scale-up through 2020.

[1] Given the state of evidence on prevention and other technical groups working on the topic, this exercise will focus on addressing areas where prevention links with treatment.

RESEARCH PRIORITISATION EXERCISE:
QUESTIONNAIRE INSTRUCTIONS

Accessing the Questionnaire

The questionnaire uses a web-based survey, available on SurveyMonkey through www.surveymonkey.co.uk/r/CHNRI. The instructions for completing the survey are included here and online at www.nowastedlives.org.

Instructions – How to Score the Questionnaire

The survey is comprised of questions that that will ask you to rate each of the 53 research areas against 4 criteria. It will take approximately 1.5 hours and we ask that you complete it in full.

Criteria

Building on previous CHNRI examples, we have tried to focus on a clear and concise set of criteria. Within the survey, you will be asked to score each research area against each of these criteria:

- ***Impact:*** would the research lead to interventions and solutions that provide the maximum potential impact (ie. on global burden of acute malnutrition or mortality due to malnutrition) by 2020?
- ***Effectiveness:*** Would the research lead to interventions and solutions that are effective (eg. under routine programme conditions) and deliverable (taking the health system infrastructure, human resources, safety, etc)?
- ***Answerability:*** would you say that the research is possible to answer (eg. is it feasible to implement within the given context and timeframe (by 2020)? Is it ethical?)?
- ***Sustainability:*** Would the research lead to interventions and solutions that are sustainable (taking into account cost and financial affordability, cost-effectiveness, favourable political climate, etc)?

Scoring each research area

The survey questionnaire will apply the four criteria outlined above to the 53 research areas, so you will answer 208 (53 x 4) questions in total. For each research area and criterion, you will be asked to provide an answer that equates to a score:

Rating in questionnaire	Explanation	Score in final analysis
YES	Self-explanatory	1 points
NO	Self-explanatory	0 points
Informed but undecided answer	This is for when you understand the question well and possess knowledge to answer it, but the answer isn't a clear YES or NO	0.5 point
Not sufficiently informed	This is when you do not have enough knowledge or information to answer the question.	Blank in both numerator and denominator

These scores for each research area and criterion will be compiled across all respondents and mean scores used to produce the rankings that will be presented in the final outputs.

Frequently Asked Questions

- ***Will my contribution be recognised?***

  We recognise and appreciate your expertise and perspective, as well as the time that you contribute to complete this questionnaire. As such, and to ensure transparency, we will include all survey respondents on a group author list for the publications resulting from this exercise. In order to ensure we that have your correct details, please fill in your full name, organisation, country, and e-mail address at the start of the survey.

- ***Can I review the research themes/areas/questions before starting the online survey?***

  Yes, in addition to this background and instructions document, a full copy of the research themes, areas, and questions are available [link]. This includes examples of research questions that fall into each research area but this is not meant to be a final or exhaustive list.

- ***Can I start the survey and return to it?***

  Yes, the survey is structured so that you can save your answers and come back to it. However, wherever possible, we encourage you to complete the survey in one sitting. If you need to make edits and are unable to for some reason, please contact the project team at info@nowastedlives.org.

- ***I am unclear about a term that is used***

  The next page contains a list of key terms used and their common definitions.

- ***How long do I have to complete the survey?***

  We are asking for responses as soon as possible. However, the online survey link will close on April 28th, 2017 and you are welcome to complete the survey at any point before then.

Frequently Used Terms

- **Research Theme:** The research themes in this exercise represent larger issues and questions that broadly link more specific research areas.
- **Research Area:** The research areas used in this exercise reflect a question that could likely be collectively answered by a group of inter-related research studies. A research area would likely not be answerable by an individual study.
- **Research Question:** The research questions used in this exercise could be answered by a single study or as part of a study.
- **Wasting:** a deterioration of fat and muscle. Wasting is one form of acute malnutrition and can be either moderate or severe.
- **Severe Acute Malnutrition:** low weight for height (WHZ), or thinness; specifically defined as below -3 z-scores of the median WHO growth standards for WHZ or by a mid-upper arm circumference (MUAC) of < 115mm, by visible severe wasting, or by the presence of nutritional oedema.
- **Moderate Acute Malnutrition:** low weight-for-height (WHZ), or thinness; specifically defined as between -2 and -3 z-scores of the median WHO growth standards for WHZ or by a mid-upper arm circumference (MUAC) between 115mm and 125mm.
- **Oedema:** an excessive accumulation of fluid in the body tissues as a result of severe nutritional deficiencies.
- **Kwashiorkor:** a form of severe acute malnutrition characterised by bilateral pitting oedema (an accumulation of fluid in the lower legs, feet, arms, hands and face).
- **Chronic Malnutrition:** low height for age (normally proportioned but shorter than others of similar age); specifically defined as below -2 Z-scores of the median WHO growth standards. This form of malnutrition occurs over time and is also called stunting.
- **Stunting:** same as chronic malnutrition.
- **Ready-to-use Therapeutic Food (RUTF):** a range of high-energy, fortified, ready-to-eat foods suitable for the treatment of children with *severe acute malnutrition*.
- **Ready-to-use Supplementary Food (RUSF):** a range of high-energy, fortified, ready-to-eat foods suitable for the treatment of children with *moderate acute malnutrition.*
- **Lipid-Based Nutrient Supplement (LNS):** a range of lipid-based foods suitable for children and adults; includes RUTF and RUSF.
- **Outpatient Treatment:** community-based model for the treatment of severe acute malnutrition without complications and who have passed an appetite test. Treatment includes regular monitoring of children and administration of therapeutic food to be administered at home.
- **Inpatient Treatment**: treatment of severe acute malnutrition administered by trained health professional, requiring children to remain in the hospital for treatment. Primarily used for cases of severe acute malnutrition with complications, treatment includes two phases: stabilisation and rehabilitation under close medical supervision.

References

1. Collins, S. et, al (2006) *Management of severe acute malnutrition in children* (The Lancet, Volume 368, Issue 9551, p. 1992-2000).
2. UNICEF (2015) *Management of severe acute malnutrition in children: working towards results at scale* (UNICEF New York, 2015, p. iii).
3. Rogers, E. & Guerrero, S (2013) *Access for All, Volume 1: Is community-based treatment of severe acute malnutrition (SAM) at scale capable of meeting global needs?* (Coverage Monitoring Network, London, June 2013)
4. Based on 16 million children being affected by SAM and 3.2 million able to get the care they need UNICEF, WHO and World Bank Group (2015) *Levels and trends in child malnutrition,* (UNICEF, New York, 2015, p 2) http://www.who.int/nutrition/publications/jointchildmalnutrition_2015_estimates.pdf?ua=1 UNICEF (2014) *Nutridash Global Report 2014* (UNICEF, New York, p. 3) http://www.cmamforum.org/Pool/Resources/UNICEF-NutriDash2014-Final-Report.pdf
5. More information available at www.nowastedlives.org.
6. Bhutta et al. Setting priorities for development of emerging interventions against childhood diarrhoea. Journal of Global Health. 2013; Angood et al. Reseearch Priorities to Improve the Management of Acute Malnutrition in Infants Aged Less Than Six Months (MAMI). PLoS Medicine. 2015; Prudhon et al. Research priorities for improving infant and young child feeding in humanitarian emergencies. BMC Nutrition 2016.
7. Rudan et al. Setting priorities in global child health research investments: guidelines for implementation of CHNRI method. Croatian Medical Journal (2008).