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The Wasting-Stunting Technical Interest Group

Phase 4 Work Plan: June 2020 to June 2022

Updated: October 2020

Introduction

The WaSt TIG is in its 7th year of work and entering Phase 4 to take us through to June 2022. The original impetus for the WaSt TIG was to explore the separation between wasting and stunting in programmes, policy and research and question whether this is empirically justified. Together, we have focussed on understanding the physiological, biological and epidemiological relationships between these two forms of undernutrition and have built a body of evidence that underpins our call for an end to historic separations. Given the success of the TIG so far, we are viewed as being well placed to continue to identify and fill some of the remaining evidence gaps. In this new phase, we also want to go further with disseminating our findings and influencing, understanding further the implications of the evidence, articulating why things need to change and how to make change happen. We aim for our work to become more impactful, tailored and relevant to the needs of all those concerned with child malnutrition.

This document sets out the objectives and activities we envisage being the TIG's focus for the next two years and will be complemented by a likely schedule for implementation. It is a living document and will be reviewed periodically to ensure it reflects new developments and thinking in the TIG. The first review will be before the end of 2020 as there are specific areas of focus within this time frame for which ENN has secured some funding. Overall, we envisage work in 2020 to focus on taking relatively small steps towards finalising key areas but with greater ambitions from 2021 onwards. Quarterly WaSt TIG updates will also report on progress against this workplan.

Objectives

For this 2-year period, we will focus on **three objectives** that reflect our experience so far, the priorities collectively identified and the groups expertise, ability to deliver and access to resources. These are outlined below and for each objective, the distinct activities which will allow us to deliver on it are set out. New areas of work being taken on in Phase 4 are highlighted in italics.

Objective One. To continue to generate evidence to increase the understanding of the relationship between wasting and stunting and what this tells us about their aetiology, consequences, treatment and prevention.

Objective Two. To translate the implications of the evidence for policies and programmes to better meet the needs of national and global actors.

Objective Three. To further influence the research agendas of donors, academia and implementation research focussed agencies.

See Annex 1 for list of all sub-working groups (SWGs) of the WaSt TIG and the activities planned under each.

Objective One: Evidence Generation

We will complete and extend key elements of evidence generation already underway and develop new evidence focussed workstreams to fill remaining gaps in knowledge of the links between wasting and stunting, the metabolic and growth processes that contribute to risks, how different levels of risk are managed, and will also focus efforts on understanding the implications of the relationship between wasting and stunting for prevention.

1.1 Completion of the Systematic review

The Systematic Review on the relationship between wasting and stunting is guided and reviewed by the dedicated Systematic Review SWG. This work is well advanced and should be ready to submit for publication in 2020.

1.2 Concurrent wasting and stunting, mortality risk and implications

This has been a critical and long-standing area of work, which is now ready to be written up and submitted for peer review, and which underpins the WaSt study. Elements of this work also warrant extension in Phase 4, as outlined below.

1. Multiple cohort mortality analysis (Mortality SWG)
 - Completion and publication of the multiple cohort analysis
 - Additional analysis of the implications of length of follow-up on predication of mortality (from a subset of 4 mortality cohorts which included MUAC data) and publication
 - Extended analysis of mortality cohorts (including from Gates KI) - to explore the association between mortality, anthropometry, age (between 6-59 months), and geographical regions. Report to feed into WHO wasting guideline processes and publication.
2. Analysis of response to treatment for children with low WFA
 - Completion and publication of the CompAS WaSt related analysis conducted to feed into the WaSt study protocols (Led by IRC.)
 - Sourcing of additional data on children with low WFA from research studies collecting data on children during treatment, meta-analysis and publication - ACF/WaSt TIG.
3. WaSt study - The WaSt cohort study which brings the findings of the mortality analyses into a programme context, is testing an alternate model for identifying and treating malnourished children most at risk of near-term death. Protocol and study tool design and set-up activities for the study took place in 2020 and the implementation of the cohort study is envisaged to start in early 2021. Specific activities for Phase 4 include:
 - Disseminate the study protocol with a view to influencing other researchers to adopt or adapt to increase the evidence base.
 - Provision of SWG and ENN study team advisory role for the implementation of the study.
 - Advocate for resources to implement the cohort study and take the findings (efficacy) to the next stage of examining the wider operational implications (effectiveness).
 - Explore potential partners who are willing to take cohort and operational studies forward and consider whether members of the Study SWG wish to provide an advisory role to support the technical development of the operational study protocol and technically advise as needed during its implementation.
 - Disseminate the cohort study findings and ensure the implications for treatment programming are clearly articulated and widely shared.

1.3 Sex differences in wasting and stunting

Considerable progress was made in Phase 3 on this subject area. It is overseen by the sex differences SWG, and implemented in partnership with LSHTM.

1. Systematic review 'Boys are more likely to be undernourished than girls: A systematic review and meta-analysis of sex differences in undernutrition' – already submitted for publication.
2. Publication of a narrative paper providing a more detailed look at some of the reasons for sex differences that emerged from the literature.
3. Taking findings through to programmatic implications - improving assessment of high-risk malnutrition in children - via retrospective secondary data analysis of population level longitudinal data collected during nutrition programming - comparing indicators in relation to boys and girls.

1.4 Systematic review of evidence of supplemental feeding (with high fat products) and risk of later overweight/ obesity across various contexts.

There are many sources for this review including published papers and potentially, 'found data' (ComPAS, Ethiopia and Jamaica cohorts) which could be analysed specifically to look at impacts in the relative short term on body composition as a predictor for longer term outcomes. Doctoral work is already being done by MRC Gambia on cohort data which is looking at the consequences of different trajectories of growth on body composition and which this review could form part of.

1.5 Research concept - pathways to wasting and stunting.

Within the TIG, we have been discussing the need for greater clarity on the research that would be needed to explore the metabolic and physiological pathways for wasting and stunting and concurrence to better identify the risk factors driving these processes and, through research, highlight where risks can be mitigated. To kick start this work, we will develop a research focussed concept note for investment which will also highlight the relevance of better risk identification in advancing prevention focussed efforts. One potential angle for this would be to focus on a concept piece for identifying the drivers of wasting and stunting prospectively once a period of wasting has occurred, to better understand why vulnerability to future wasting even after recovery is happening and how this interacts with stunting.

Objective Two: Implications for programme and policy

The WaSt systematic review assesses the body of evidence that has been built by the group and beyond and it is timely therefore to concentrate on maximising the impact of our work by ensuring it is accessible to key actors within and outside the nutrition community spanning the worlds of wasting and stunting and humanitarian and development contexts. The focus will be on engaging more closely with stakeholders to further elaborate on the policy and programmatic implications and from there, identifying key opportunities for influencing. This objective will also benefit from capitalising on allied initiatives such as the MAMI project. A new Programme & Policy SWG will be formed to drive this work, particularly drawing in new regional and country based TIG members, to help deliver four distinct pieces:

2.1 A plain language technical brief - an update on the original brief written in 2014 which builds on the systematic review and which is widely disseminated via digital and audio means as appropriate.

2.2 A communications/influencing schedule and plan which will consider the utility of pre-prepared tools (PPT, infographics etc) for presenting at key events and also ways of influencing key initiatives

such as the GNR, Joint Estimates Group, N4G as well as normative guidance engagement where appropriate. It will also consider the existing routes for communicating the work of the group through ENN's platforms and how we further capitalise on this.

2.3 Programme and policy implications outreach/consultation through a webinar/series which could usefully focus on discussions with regions or sub-regions and agency specific discussions with donors and international actors.

2.4 Consolidation of what we know about prevention based on prior work from the TIG, within ENN, and other sources, it is the right time to consolidate knowledge and evidence relating to wasting prevention within the wider context of prevention of undernutrition, particularly given the inclusion of prevention in the UN GAP on child wasting, and within WHO guidance development plans. In particular, how preventing wasting links with the prevention of LBW, undernutrition in early infancy, stunting and micronutrient malnutrition. This piece will need to pull out the implications for policy, programmes and research and be widely disseminated via a plain language brief, and via podcasts and webinars.

3.4 A WaSt TIG podcast/s series ('the WaSt TIG discusses') drawing firstly on the WaSt May 2020 meeting presentations and discussions will be developed. Other podcasts in the series could explore, for example, the research underpinning the narrative around risk to promote a better understanding of the implications relating to policies, programmes, and the global nutrition architecture. This could also be expanded to live, interactive events, including e.g. online polls to promote more engagement and determine the interests and understanding of listeners.

3.5 Scientia Global (<https://www.scientia.global/>) will be pulling together an article on the work of the WaSt TIG - 'communicating science to society' which will be based on material already produced to date complemented by conversations with members of the TIG describing our work. This offers an opportunity to showcase the WaSt TIG as a unique collaboration and communicate our work to a broad non-technical audience.

Objective Three: Influencing Research

The WaSt TIG has accumulated considerable knowledge and experience of harnessing 'found data' to help answer research questions. It has given us insights into the quality of existing data, the strengths and weaknesses as well as the opportunities being missed when research is being designed and financed. A new Research SWG will be formed to support the following five distinct but related areas.

3.1 Opinion piece on implications for primary research. Given the work undertaken in prior phases, a short opinion piece on the learning/implications from the WaSt work for future primary research concerned with malnutrition would be timely. We know that being more ambitious in extending the period of data gathering offers greater gains in tracking longer term child growth and survival outcomes. Other important findings from the WaSt work include, the importance of tracking growth over time, the value of a focus on process rather than defined cut off points, the limits of anthropometry for identifying risk, and the importance of longitudinal data. An opinion piece or briefing note aimed at the research community and those that support research on a number of these key considerations would be a good mechanism to share our learning. It may be possible to do this jointly with others engaged in these issues such as those analysing the Gates data (Mertens et al) and the MAMI research team.

3.2 Research methods brief. In order to capitalise on and share the extensive experience of the group in scrutinising found data through the lens of the relationship between wasting and stunting (including

from multiple data sets drawn from diverse settings and which have been collected with a variety of objectives, methodologies and designs), a secondary data research methods brief will be developed targeting a research audience. It will aim to reflect on best practice methods for working with different data sources and unpack the value and limitations of different types of found data.

3.3 Research engagement/commentaries. The TIG has already used its influence through opinion pieces to alert those working on child nutrition to new thinking and developments and has put forward research focussed recommendations. In Phase 4 we would like to draw on this, and other pieces under this objective to influence the research focus and methodologies being used within the wider research community. This could be through opportunistic connections, paper commentaries and engagement in research agenda setting fora.

Annex 1. Sub Working Groups within the WaSt TIG - and activities under each.

SWG	In progress & planned activities
WaSt study SWG	Development of study protocol, cohort implementation and operational study implementation (advisory role).
	Analysis of response to treatment in children with low WFA (and low MUAC) - multiple studies meta-analysis and publication
Mortality SWG	Completion and publication of multiple cohort analysis on identification of risk in children 6-59m
	Analysis of the implications of length of follow-up on predication of mortality (from a subset of 4 mortality cohorts which included MUAC data) and publication
	Extended analysis of mortality cohorts (inc. Gates KI) to explore association between mortality, anthropometry, age and geographical regions. Report and publication.
Sex differences SWG	Systematic review and meta-analysis of sex differences in undernutrition
	Narrative paper providing a more detailed look at some of the reasons for sex differences that emerged from the literature - development and publication
	Retrospective secondary data analysis for improving assessment of high-risk malnutrition in children considering sex difference and publication.
Systematic Review SWG	Systematic Review of the relationship between wasting and stunting.
Programme and Policy SWG	Plain language technical brief based on the systematic review (update of 2014 brief) highlighting programme and policy implications.
	Communications/influencing plan based on scoping of audience for the work of the WaSt TIG
	Programme and Policy implications outreach/consultation
	Consolidation and communication of what we know on prevention
	WaSt TIG podcast/webinar series highlighting key outputs from the group
	Scientia piece showcasing the WaSt TIG as a unique collaboration
Pathways SWG	Research concept note for investment on pathways to wasting and stunting - what would be required to explore the metabolic and physiological pathways for wasting and stunting and concurrence to better identify the risk factors driving these processes and, through research, highlight where risks can be mitigated.
Research Influencing SWG	Opinion piece on implications of the findings of the WaSt project for primary research.

	Research methods brief - drawing on experience of the group in scrutinising found data to outline best practice for working with different data sources and unpack the value and limitations of different types of found data
	Research engagement/commentaries on emerging research opportunistically
Obesity risk SWG	Systematic review of evidence of supplemental feeding (with high fat products) and risk of overweight/ obesity across various contexts