

Building Convergence in Science, Programs, and Policy Actions on Child Undernutrition: Symposium Rationale and Overview^{1,2}

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ABSTRACT

Childhood stunting and wasting are often portrayed as relatively distinct manifestations of undernutrition. Little is known about how children progress from one manifestation of undernutrition to another as they grow older, nor how intervention strategies need to consider the potential overlap of these manifestations of undernutrition. While much is known about the causes of growth faltering in general, much less is known about which pre-disposing contextual and biological factors cause children to become stunted as opposed to wasted or both. Increasingly, nutrition researchers have tended to focus on one form of malnutrition or the other, lacking an integrated framework for understanding both phenomena. Similarly, some practitioner communities focus on prevention of stunting while others focus on recuperative treatment of wasting. The fragmentation of interests and perspectives on childhood undernutrition has negative consequences for advocacy efforts that aim to bring attention and resources to child nutrition across the globe. It also has serious implications for how children worldwide receive nutrition interventions and services. The symposium aimed to bring together a set of speakers from academic, practice and policy communities to discuss and debate these issues. *Adv. Nutr.* 3: 224–226, 2012.

Introduction

In 2008, a series of articles in the *Lancet* highlighted the high burden of undernutrition and its short- and long-term consequences (1) as well as the role of different interventions to improve nutrition among women and children in developing countries (2). The series has been extremely successful at raising attention to the issue of nutrition in research, program, and policy circles. Another remarkable success of the series, based on prior research (3), was the emphasis it laid on the importance of the first two years of life for improving childhood nutrition. This was later re-affirmed in further analyses of global and regional patterns and trends in childhood nutrition (4). At the same time, in order to estimate the global disease burden due to undernutrition, assumptions were made,

based on past studies using cross-sectional multi-country data sets (5), that childhood stunting and childhood wasting are relatively distinct manifestations of undernutrition. Geographically, the countries with high prevalence of wasting or stunting in children show some overlap but are not identical (6).

In proposing this symposium, we argued that the view that stunting and wasting are separate manifestations, with little overlap, has had substantial consequences for how the nutrition community has approached these problems and for the intervention and program/policy guidance offered by the global nutrition community. With the goal of unpacking and debating these issues of convergence and divergence in childhood undernutrition, therefore, we brought together a symposium that offered perspectives related to 1) the biology of child growth and determinants of child growth, 2) programs that aim to either treat wasting or prevent stunting, and 3) future research on ensuring optimal child growth.

Symposium rationale

Previous research on the links between stunting and wasting among children showed that when examined in cross-

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sectional data sets, there was little to no overlap between these manifestations of child undernutrition (5). More recently, work that examined the overlap between stunting and wasting by child age in India, again using cross-sectional data, found very high levels of early wasting without stunting among young infants, but at older ages, very high levels of stunting occurred, sometimes in combination with wasting (7). This led to questions about the possible drivers of the early wasting, as well as about the link between early wasting and later stunting in individual children. Is it possible that early wasting is part of the causal path to later stunting? Considering also the intrauterine period, what is the role of maternal nutrition during pre-pregnancy and pregnancy in relation to very early wasting and later stunting in these contexts? Finally, what interventions might have the potential to address high levels of wasting in early infancy in regions such as South Asia?

In the published literature on interventions to address child malnutrition, the divergence of work on stunting and wasting is strongly apparent. Some studies and reviews have focused on preventive interventions such as food or nutrient supplementation and/or behavior change communications interventions with stunting or length gain as an outcome (8–11). Many others have focused on curative interventions to manage severe acute malnutrition and have been primarily focused on wasting or weight gain as outcomes (12–16). More recently, however, there is evidence of a desire to take a preventive approach to addressing severe wasting as well, using products developed for curative interventions (17).

This divergence in intervention research has also had implications for the program community and there have also emerged broadly two major practitioner communities who often use different programmatic models to address stunting and wasting. Programmatic models to prevent stunting typically include such interventions as behavior change communications models with or without food or nutrient supplements, whereas programs to treat wasting (or severe acute malnutrition) usually involve screening and special therapeutic food products. There are a substantial number of technical guidance documents and websites that potentially reinforce the divergence in thinking and action by focusing on single topics or approaches rather than providing a more comprehensive view of what it will take to address all manifestations of undernutrition among children.

Last but not least, there is divergence in the nutrition goals that different actors in the policy and advocacy space have pursued, with implications for the strategies that are set in place around those goals. Those focused on building human capital and using an economic lens to bring attention to the issue of nutrition have gravitated toward stunting (18,19). Those concerned with the Millennium Development Goals (MDG), especially MDG1, have focused on child underweight as a marker of progress (<http://www.un.org/millenniumgoals/poverty.shtml>). Finally, those working in contexts of chronic extreme poverty or complex emergency situations have tended to focus on wasting and its immediate mortality risks as core goals. As advocacy and attention to nutrition become more frequent and high profile [e.g., the Scaling Up Nutrition

movement (18) and recent advocacy by the US Secretary of State (6)], much more clarity is needed on the implications these different goal-setting processes have for actions that need to be taken by global and national actors. The fragmentation or divergence of goals, interests, and approaches across the scientific, practitioner, and policy communities can create confusion and lack of cohesion in global and national advocacy efforts, policy, and program actions (20). Ultimately, this may cause inefficiencies and negative consequences for young children themselves.

The papers in this symposium supplement highlight the links between wasting and stunting from a child growth perspective, the links between the mother-child dyad and interventions at different points in time in that life-cycle, the challenges for programs, and the implications for future research. A key goal for the symposium was to facilitate conversations among the scientific community about these issues, particularly with a view to building further cohesion and dialog and to pre-empt further fragmentation and confusion.

Symposium overview

In these symposium proceedings, four papers are presented that address biological, programmatic, and policy- and research-related questions pertaining to the links between different manifestations of childhood undernutrition. Richards et al. (21) present a review on what is known about the overlap between childhood wasting and stunting and raise questions for further original research on the topic. Martorell and Young (22) discuss the factors that influence wasting and stunting in their review. Bergeron et al. (23) discuss how programmatic models to address wasting and stunting have evolved and why convergence between these models is critical. Finally, Piwoz et al. (24) present a synthesis of key issues that emerge from different literatures related to healthy growth in childhood, including the role of maternal nutrition, water sanitation, and tropical enteropathy. Together, these papers highlight critical perspectives that can help further convergence in research, policy, and action.

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