

Editorial

Promoting healthy growth and preventing childhood stunting: a global challenge

The ambitious target set by the World Health Assembly (WHA) resolution 65.6 (WHA 2012) to reduce the number of under-five stunted children by 40% (2010 to 2025) has provided a focus and rallying point for financial commitments by governments and international development partners. A number of high-level political processes are underway globally to put in place collaborative mechanisms, develop coordination and monitoring frameworks, mobilize resources and build strategic alliances for stunting reduction (e.g. Global Nutrition for Growth Compact, June 2013).

Complementary efforts are ongoing within the scientific and development communities to build the evidence base, refine strategies, and provide technical assistance to countries. A visible one, the Lancet Maternal and Child Nutrition Series (hereafter, Lancet Series) has compiled critical insights on various practical issues such as interventions over the life-course that are expected to have the largest impact on tackling undernutrition and overweight (Black *et al.* 2013); an update on evidence-based interventions and their cost (Bhutta *et al.* 2013); the place of required nutrition-sensitive interventions and programmes (Ruel *et al.* 2013); and how to leverage the current political momentum to accelerate progress and deliver results (Gillespie *et al.* 2013).

Supported by a Bill & Melinda Gates Foundation grant, the World Health Organization (WHO) is implementing the project *Promoting Healthy Growth and Preventing Childhood Stunting* (the so-called Healthy Growth Project). Among its aims are to develop tools and a framework for countries to set and implement stunting reduction agendas and, through the implementation of the WHO Child Growth Standards, help shift national focus from underweight to stunting. While promoting best practices for growth assessment and infant and young

child feeding (IYCF) the project will highlight links between healthy growth and complementary feeding. The papers in this supplement are a contribution to ongoing reflections on multiple aspects of the challenges presented by the stunting reduction goal and ways to address them.

In the first article of the supplement, de Onis *et al.* (2013) describe the background and rationale for the global goal on stunting reduction, present forecasts of prevalence and numbers of stunted children to 2025, and propose a methodology to adapt the global target at the national level taking into account current stunting levels and trends, population growth and availability of resources. The paper also reviews what can be done to reduce stunting, what inputs are required, and where and when should they be invested for highest returns. The authors recognize that nutrition interventions alone are almost certainly insufficient, hence the numerous efforts under way to foster – in addition to nutrition-specific interventions – nutrition-sensitive development, including nutrition-sensitive agriculture; maternal education and women's empowerment; improved hygiene, sanitation and water quality to reduce infections; and social protection programmes to increase purchasing power and access to services and amenities. Along with the interventions, countries will need accountability frameworks and functioning surveillance systems to monitor achievement on commitments and targets.

Although the stunting reduction target refers to children under five, the literature abounds with evidence that a large proportion of the linear growth deficits that make up the under-five stunting burden are accumulated in the first 1000 days (Dewey & Huffman 2009; Victora *et al.* 2010). Within that critical period, the age between 6 and 24 months – when the child transitions from exclusive breastfeeding to full dependence on the household diet – poses particular

challenges for infant and young child nutrition programmes. The paper by Stewart *et al.* (2013) in this supplement presents a conceptual framework centred on stunted growth and development with special emphasis on the contribution of inadequate complementary feeding to childhood stunting. Many of the contextual factors being addressed by nutrition-sensitive development efforts will help reduce stunting if they positively impact complementary feeding. The most critical investments for healthy growth and development are made at the household level, and these include the care and nurturing that the home environment affords for the mother and child.

The notion of transdisciplinarity in the approaches required to address stunting effectively is introduced by Stewart *et al.* (2013) and elaborated further in the Casanovas *et al.* (2013) paper that reviews multi-sectoral interventions for healthy growth. Stunting serves as a composite measure of physical and developmental wellbeing and has concurrent, short-term and long-term health and economic consequences. The risk of stunting is affected by interdependent influences rooted in the political economy, health and health care, education, society and culture, agriculture and food systems, water and sanitation, and the environment. Therefore, the interventions required to prevent stunting are anchored in many different sectors. This reality is acknowledged by the multiplicity of actors attempting to address stunting. What presents some challenge is establishing a common agenda within which different sectors recognize their roles and how each can contribute synergistically to stunting prevention.

Historically population-wide changes in attained height occur in secular trends that span decades; so, is the United Nations Secretary General's zero-hunger challenge realistic? Can zero childhood stunting be attained in our lifetime? (United Nations Secretary General 2012). Observed growth patterns in the six country sites of the WHO Multicentre Growth Reference Study (MGRS) demonstrated that when growth constraints are minimized, variability in child growth among ethnically diverse populations, as were the samples in Brazil, Ghana, India, Norway, Oman and the USA, can be reduced dramatically (WHO MGRS Group 2006). The analyses presented by

Garza *et al.* (2013) in this supplement explore this question in more depth and illustrate that although mid-parental height contributes importantly to between-child variability in growth, in four countries where parental stature was relatively low, progeny's adult height (predicted from attained length at age 2 years) would exceed parents' heights by 6–8 cm. By contrast, predicted adult heights for the children in Norway and the USA were about equal to their parents' heights. The authors conclude that given appropriate care and nutrition, communities can attain significant advances in children's linear growth within one generation, notwithstanding adverse conditions likely experienced by their parents. Measurable progress towards zero-stunting is achievable in a single generation.

The economic rationale for investing in stunting reduction is presented by Hodinott *et al.* (2013) in a framework showing how the impacts of familial and public investments in stunting reduction are manifested at six stages of the lifecycle. Despite the salient issues of intervention-outcome attribution and assumption-dependent benefit-cost estimation methodologies, the authors present benefit estimates that exceed intervention costs by ratios ranging from 3.8 to 34.1 for stunting reduction investments in 17 high-burden countries. The interventions considered are those proposed in the Lancet Series (Bhutta *et al.* 2008, 2013) and although the approach used here is different, the estimates are comparable with the Lancet Series figures.

The rationale for investing in stunting reduction is a powerful tool for advocacy. Pelletier and colleagues examine the principles and practices of nutrition advocacy and how they could be applied in support of the stunting reduction cause (Pelletier *et al.* 2013). International commitments and high-level political attention at national level are important but insufficient to drive the global stunting reduction agenda and achieve the target. Drawing from experience in a few selected countries, the authors argue that concerted, well-planned and well-implemented advocacy can achieve improvements and that investments should be made in strategic and operational capacities for advocacy as integral to stunting reduction programming.

Despite the strong rationale for investing in stunting reduction and the existence of interventions that have been largely accepted as efficacious and demonstrated as such in multiple community level programmes, there are few reports of successful stunting reduction programmes at scale (Lutter *et al.* 2013). Lutter and colleagues propose a set of principles that should be applied in a programme planning, implementation and evaluation cycle to improve complementary feeding interventions. The authors provide useful reflections on dissemination, replication and scaling up of successful programmes. These processes require political commitment and dedicated budgets, an indication of the need for programme-integrated capacity for advocacy to secure these inputs in support of programme scalability and sustainability.

The programming-support tools presented by Daelmans *et al.* (2013) in this supplement provide a systematic approach to understanding local food choices and complementary feeding practices – a critical first step to identifying nutrient gaps – and then developing and testing appropriate, context-specific feeding recommendations. The ProPAN and Optifood tools complement each other and are available to inform programming decisions on feasible, acceptable and affordable complementary feeding options. They also provide reliable assessments of contexts in which nutrient supplementation and other measures are essential to complement local diets for children's nutritional needs to be met.

Country processes to reduce stunting are the building blocks of the global efforts required to meet the WHA target. Country-specific stunting reduction agendas will benefit from frameworks with clear indicators for monitoring progress towards medium- and long-term goals. The IYCF indicators defined by WHO *et al.* (2008) are pertinent to this process since IYCF mediates both nutrition-specific interventions and nutrition-sensitive programmes addressing malnutrition. Vietnam is an appropriate case study of what nutrition advocates should do to incorporate the IYCF indicators into national monitoring systems. Hajebehoy *et al.* (2013) provide a detailed account of the process in Vietnam that owed its success to strategic timing, stakeholder

buy-in so that information is used for decision-making, capacity building to ensure good quality data and continuing investments to refine methodologies and quality assurance systems. It is instructive for other countries as they consider and develop their monitoring frameworks.

This compendium of reflections on a wide range of issues should feed a constructive dialogue on how best to pool efforts and address effectively the 'wicked problem' (Conklin 2005) of childhood stunting. Development agencies and the nutrition community are challenged to translate the existing high-level political and financial commitments into effective synergistic actions, coordinated among multiple actors to reduce the global burden of stunting. Through this supplement and other initiatives, the Healthy Growth Project hopes to make positive contributions to meeting that challenge.

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