Maternal and child nutrition: building momentum for impact

In the 5 years since the Maternal and Child Undernutrition Series1-5 was published in The Lancet there has been a substantial increase in commitment to reduction of malnutrition at global and national levels. Most development agencies have developed or revised their strategies to address undernutrition focused on the first 1000 days of life—the period from pregnancy to a child’s second birthday—as called for in the 2008 Series. One of the main drivers of this new international momentum is the Scaling Up Nutrition movement.6,7 National commitment in low-income and middle-income countries (LMICs) is growing, donor funding is rising, and civil society and the private sector are increasingly engaged.

Despite this progress, improvements in nutrition still represent a massive unfinished agenda. The 165 million children with stunted growth in 2011 have compromised cognitive development and physical capabilities, making yet another generation less productive than they would otherwise be.8 Countries will not be able to break out of poverty or sustain economic advances when so much of their population is unable to lead healthy lives. Addressing undernutrition is integral to achieving the Millennium Development Goal of poverty reduction and the post-2015 sustainable development agenda.

This mounting international momentum is why the Maternal and Child Nutrition Study Group, led by Robert E Black, for the development of this Series. We also acknowledge the generosity of the Bill & Melinda Gates Foundation for providing financial support.

to achieve the nutritional security that is needed for a healthy and productive life. Undernutrition is estimated to reduce a nation’s economic advancement by at least 8% (direct productivity losses, losses via poorer cognition, and losses via reduced schooling).9,10

Although preventable child mortality continues to decrease, undernutrition is responsible for 45% of deaths of children younger than 5 years, amounting to more than 3 million deaths each year.9 Deficiencies of essential vitamins and minerals are widespread and have important adverse effects on child survival and development. Additionally, overweight in adults and increasingly in children constitutes an emerging burden that is quickly establishing itself globally, affecting both poor and rich populations.8

Evidence presented in the accompanying Series on Maternal and Child Nutrition8,10–12 shows the importance of adolescent and maternal nutrition for the health of the mother and for ensuring healthy fetal growth and development. Fetal growth restriction is a cause of 800,000 deaths in the first month of life each year, more than a quarter of all neonatal deaths.9 Newborn babies with fetal growth restriction have a substantially increased risk of developing stunting by 24 months of age. Furthermore, these adverse nutritional insults early in life, when coupled with rapid weight gain later in childhood, are important determinants of obesity and non-communicable diseases in adulthood. Thus, it is imperative to act as early as possible in the crucial window of opportunity of pregnancy and the first 2 years of life.8 The emerging platforms for adolescent health and nutrition might offer opportunities for enhanced benefits.10

According to our conservative estimates, we identify a set of ten proven nutrition-specific interventions, which if scaled up from present population coverage to cover 90% of the need, would eliminate about 900,000 deaths of children younger than 5 years in the 34 high nutrition-burden countries—where 90% of the world’s stunted children live—and reduce the prevalence of stunting by a fifth, reducing the number of children with stunted growth and development by 33 million.10 The interventions with the largest predicted effects on child mortality are treatment of severe acute malnutrition throughout childhood; promotion of infant and young child feeding, including breastfeeding and appropriate complementary foods; and zinc supplementation. It is, however, important that interventions that have so far contributed to reductions in child mortality, such as vitamin A supplementation, be continued where the need still exists. The cost of scaling up this set of needed nutrition interventions to 90% coverage is estimated at Int$9.6 billion per year.10

Additionally, nutrition-sensitive activities should be pursued in sectors that address the underlying determinants of nutrition. Some, but not all, programmes in agriculture, cash transfers, early child development, and schooling have been shown to improve nutrition and broader developmental outcomes for children.11 The studies with the most positive effects had strong designs (including nutrition goals and actions), reached mothers and children early (and for longer durations), and targeted the poorest and most undernourished groups. Many also included actions to empower women and enhance their social status. More evidence is needed from programmes that have good designs, strong implementation, and rigorous evaluation.

An enabling environment for nutrition requires empirically sound, timely data about the nature of the problem, evidence for what works and how, good coherence between sectors, good coordination between national and subnational levels, sufficient capacity to build commitment, implementation of programmes at scale, and sustainable public and private means to finance interventions.12

Countries that have managed to improve nutritional status in these contexts have adopted an approach that targets the whole of society.13 This approach requires a good understanding of the political economy of nutrition. Governments and other stakeholders in successful countries have built alliances, managed tensions, identified win-win outcomes, established strong

Panel: Global nutrition targets for 2025, endorsed by the World Health Assembly

- 40% reduction of the global number of children younger than 5 years who are stunted
- 50% reduction of anaemia in women of reproductive age
- 30% reduction of low birthweight
- No increase in childhood overweight
- Increase the rate of exclusive breastfeeding in the first 6 months to at least 50%
- Reduce and maintain childhood wasting to less than 5%
accountability mechanisms, and innovated in the mobilisation of resources for nutrition.11

The private sector is an important force in shaping nutrition outcomes and has the potential to do more. Much more needs to be known about how different forms of public policy, regulation, and financial incentives can support private organisations to do the right things to improve nutrition. Knowledge in this area is scarce and must be expanded rapidly.

The impetus for improving nutrition is stronger today than 5 years ago. The World Health Assembly nutrition targets14 for reduction of stunting, wasting, low birthweight, anaemia, and overweight, and increasing exclusive breastfeeding in the first 6 months of life (panel), can be achieved by 2025 with sufficient support. The costs of inaction are enormous. As economies grow and the rate of population growth slows, the returns to improved cognitive performance and psychological functioning in the workforce will expand substantially. Benefits will be greater where strategies integrate the promotion of nutrition and child development.15

The new evidence provided in the Maternal and Child Nutrition Series strengthens the case for a continued focus on the first 1000 days. Investments within this window can help meet crucial goals: the prevention of undernutrition, overweight, and poor child development outcomes with longlasting effects on human capital formation. Because many women do not access nutrition-promoting services until month 5 or 6 of pregnancy, we draw attention to the need to ensure women enter pregnancy in a state of optimum nutrition.

Nutrition is foundational to both individual and national development. The post-Millennium Development Goals agenda must put the resolution of all forms of malnutrition at the top of its aims. An increase in donor spending is crucial if nutrition targets are to be met or surpassed. Government spending in LMICs needs to match or exceed this rate of increase. Nutrition budget lines need to be established in all high-burden countries. Governments need to be supported to raise public resources for nutrition.

The increased mobilisation of private resources from individuals, businesses, and new philanthropies needs to be incentivised towards the most effective ways of improving nutrition. Scaling Up Nutrition is a crucial driver of these needed actions and support for it must remain strong.

Many nutrition gains have been made, but they need to be protected in the face of new stressors such as climate change, humanitarian crises, and food price volatility. We need to encourage innovation in design and delivery of nutrition-specific interventions, to make them even more affordable at scale. New incentives need to be established that support innovations in nutrition-sensitive programme design and implementation—to unleash their potential to achieve their own goals by providing crucial additional support to efforts to reduce malnutrition. This Series strengthens the evidence that good nutrition is a fundamental driver of a wide range of development goals.

Investments need to be directed not only to interventions, but also to the creation of environments that enable them. This approach requires strategic investment in commitment building, capacity, and leadership; timely data describing the nature of the malnutrition problem and its causes; evidence for what works; accountability mechanisms; resource mobilisation; and building of institutions required for sustainable implementation. A political economy approach to prioritisation of such investments is crucial if viable enabling environments are to be created.

More research is needed to develop scalable interventions or improve the effectiveness of existing ones to have greater effects, especially by preventing fetal growth restriction and growth faltering in infancy. Although promising service delivery platforms exist in communities, evidence is needed about how to ensure that nutrition interventions reach the populations with greatest need. More research is needed into the barriers to effective implementation and into the costs and logistics of scaling up: into the crucial elements of capacity at different levels, into the development and assessment of financing mechanisms for nutrition, and into ways to reduce the costs of implementation.

Rigorous evidence is needed to show how the private sector can best support optimum nutrition. Research is also needed into the drivers of country success, how to create enabling environments, and into the features of nutrition-sensitive programmes that improve nutrition.

This year, 2013, represents the best opportunity yet to make these proposed actions a reality. National and international momentum to address human nutrition and related food security and health needs is at a high level. Nutrition is now more prominent on the agendas
of the UN, G8, and G20, and supporting civil society, business, and academic organisations. We must work together to seize this opportunity.

**Maternal and Child Nutrition Study Group**

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**Nutrition-sensitive food systems: from rhetoric to action**

Action to improve the nutrition sensitivity of food systems—and thereby increase the nutritional value of food for people around the world—offers substantial but underused opportunities. The rhetoric about such opportunities brought about by the global food crisis in 2007–08 has not resulted in much new action, for at least two reasons. First, goals other than improved nutrition are pursued by strong economic and political interests in both the agricultural sector and the post-harvest value chain. Farmers and other economic agents in food systems aim to make money subject to reasonable levels of risk, and governments pursue policies that are compatible with the interests of politically powerful stakeholder groups. Malnourished populations are rarely among these interests.

The very high value of improved nutrition to societies should be supported by alignments to create compatibility between nutrition and economic goals for farmers and processors, and political momentum has to be created to foster policy interventions that make food systems nutrition sensitive. Governments could pursue two kinds of policy action: they could either change the behaviour of farmers, consumers, food processors, and other economic agents in the system through incentives, regulations, and knowledge; or they could accept present behaviours and introduce health-specific and nutrition-specific interventions to compensate for any nutritional damage done or improvements forgone. Although changing of behaviour is likely to be more cost-effective and sustainable, the second option is the most common. For example, food-system policies and the private sector promote inexpensive calories and expensive nutrients, resulting in overweight and micronutrient deficiencies. Health and nutrition-specific interventions, such as treatment of chronic diseases and micronutrient...