A Montpellier Panel Briefing
Scaling Up Nutrition (SUN)

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195 million children are stunted. This is a third of all children in the world who are under five years old. Of these, 90% live in just 36 countries, 21 of which are in Sub-Saharan Africa. In some African countries the proportion of children stunted is as high as 50%.

Undernutrition causes an estimated 3.5 million maternal and child deaths annually. As US Secretary of State, Hilary Clinton said, “these deaths are intolerable because they are preventable.”

Adequate nutrition is critically important during the first 1,000 days - (from pregnancy to two years old) - of a child’s life. Undernutrition increases infant and child mortality and has largely irreversible long-term effects on health and on cognitive and physical development.

What can be done?

The steps that need to be taken are well understood. They include:

- a number of direct nutrition-specific interventions focusing on pregnant women and children under the age of two.
- broader multi-sectoral approaches such as:
  - supporting agricultural development;
  - improving social protection and;
  - ensuring access to healthcare.

Many of these direct interventions are highly cost-effective. In 2009, a World Bank study identified a package of 13 such interventions for the first 1,000 days. They would be delivered as part of wider public health programmes or, in the case of fortified foods, through private markets. They are summarised in Table 1.

This study estimated the total costs of the 13 interventions in the 36 highest burden countries at $11.8 billion annually and that the package of interventions would save the lives of one million children annually.

The Scaling Up Nutrition (SUN) Framework

The SUN Framework was launched in April 2010 to advocate a better focus on child undernutrition. A Road Map was subsequently produced and adopted at the UN General Assembly Summit for the Millennium Development Goals on 20th-22nd September 2010. A Transition Team, chaired by the UN Secretary General’s Special Representative for Food Security and Nutrition, Dr David Nabarro, is now in place to oversee the Road Map.

The 1,000 days initiative

The Road Map was given further support when the US and Irish governments, represented by Secretary of State Hillary Clinton and Foreign Minister Michael Martin, launched the ‘1,000 Days: Change a Life, Change the Future Call to Action’ at a meeting during the summit. The two governments pledged that, over the next 1,000 days, they would seek to provide leadership to promote the SUN Road Map, drawing support from national governments, donors, civil society and the private sector.

Donor Support

Seven international donors - Canada, France, Ireland, the Bill & Melinda Gates Foundation, UK, US and the World Bank have committed to support SUN.

Developing Countries Engagement

A number of developing countries have also indicated they wish to engage with the SUN agenda. These ‘early riser’ countries include Bangladesh, Ghana, Malawi, Nepal and Uganda. Potential additions to this list include Tanzania, Mozambique, Ethiopia and some others.

Next Steps

- Completion of the details of the Road Map
- Commitments by donors (either alone or in partnership) to provide funds to developing country programmes pursuing the SUN agenda.

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The Economic Rationale for Intervention

TABLE 1 - Evidence based direct interventions to prevent and treat undernutrition

Promoting good nutritional practices ($2.9 billion):
- Breastfeeding
- Complementary feeding for infants after the age of six months
- Improved hygiene practices including handwashing

Increasing intake of vitamins and minerals ($1.5 billion)

Provision of micronutrients for young children and their mothers:
- Periodic Vitamin A supplements
- Therapeutic zinc supplements for diarrhoea management
- Multiple micronutrient powders
- De-worming drugs for children (to reduce losses of nutrients)
- Iron-folic acid supplements for pregnant women to prevent and treat anaemia
- Iodized oil capsules where iodized salt is unavailable

Provision of micronutrients through food fortification for all:
- Salt iodization
- Iron fortification of staple foods
- Therapeutic feeding for malnourished children with special foods ($6.2 billion)
- Prevention or treatment for moderate undernutrition
- Treatment of severe undernutrition (“severe acute malnutrition”) with ready-to-use therapeutic foods (RUTF)


The benefits of investing in early childhood nutrition have been highlighted by the Copenhagen Consensus Panel, a panel of leading economists, who ranked the provision of micronutrients as the world’s best investment for development. Vitamin A and zinc supplementation for children came in top yielding benefits worth $1 billion per year for an annual investment of $60 million.

Yet despite the strong evidence of the cost effectiveness of spending on basic nutrition, expenditure by major aid donors on nutrition totalled just $439 million between 2002 and 2007 (less than 1% of total bilateral development assistance).

The SUN Road Map

The SUN Transition Team draws on six Task Forces aimed at ensuring sustained support for SUN actions within participating countries. These Task Forces deal with (a) National capacities and systems strengthening, (b) Advocacy and communications, (c) Social mobilization, (d) Engagement of development agencies/donors, (e) Involvement of the private sector in nutrition sensitive sustainable development and (e) Monitoring and evaluation.

The Road Map envisages three stages of country participation: (a) national authorities taking stock of the national nutrition situation and of existing strategies, institutions, actors and programmes (b) national authorities developing their own plans for scaling up nutrition (c) rapid scaling up of programmes with domestic and external financing.

The aim is that at least eight countries will start to receive intensive support for scaling up nutrition by end 2011, building on an on-going mapping of current donor activities and country readiness.

The governments of those countries facing the greatest undernutrition problems must be the main investors in efforts to scale up nutrition. But they cannot progress without support from the other stakeholders committed to improve nutrition. Civil society has an important role to play in facilitating the participation of affected communities and groups, particularly women and children, in scaling up nutrition policy or processes.

National health systems which integrate improved nutrition practices need sustained investment and trained personnel. Additional financial resources will be required, some from a re-prioritisation of national resources and international aid, others from additional net resources for early childhood nutrition.

The social and cultural barriers to achieving improved child nutrition, including the low status of women in many societies, must also be honestly acknowledged and addressed.

The Evidence Base

In January 2008 The Lancet issued a five part series on nutrition which provided evidence on the impact and costs of early childhood undernutrition.

The most common forms of malnutrition across the world are deficiencies in micronutrients, which affect some two billion people. The four most widespread are deficiencies in Vitamin A, zinc, iodine and iron. Overall deficiencies in these four major micronutrients are associated with 10% of all deaths in children under five.

Malnourished children are more at risk of contracting illnesses such as diarrhoea, malaria and pneumonia, are more likely to grow to be shorter adults and give birth to low birth weight offspring. Impaired cognitive function leading to lower educational performance and economic productivity means child undernutrition is at the heart of barriers to economic development.

In Zimbabwe, children who were stunted at preschool age started school seven months later, lost an average of 0.7 grades of schooling and earned 12% less over their lifetime, a trend mirrored in many studies. Where childhood malnutrition is at the most alarming levels, the loss to GDP can be as severe as 2% to 3%,
not including the indirect costs of malnutrition such as healthcare and lost wages due to illness.

The barriers children, young women and mothers face in meeting their nutrition needs include poverty, a lack of education on healthy diets and infant care, a lack of access to a diverse variety of nutritious foods, a lack of access to adequate health care and sanitation, restrictive cultural practices and low social status.

Poor nutrition throughout women’s lives creates a vicious circle whereby young girls become short women who give birth to smaller children who grow up to be smaller adults (Figure 1).

HarvestPlus found that, in terms of DALYs (Disability-adjusted life years) averted, biofortification of crops to address Vitamin A, iron and zinc deficiencies was highly cost-effective.

Better nutrition also requires improved access to markets, for example, through community associations and public-private partnerships and investment in agricultural research and development. Additionally, strong political leadership, with national and regional agricultural policies to support smallholder food production and ensure access to food, is essential.

As more than 60% of farmers in Africa are women, empowering women in their roles as caregivers and farmers will also aid development. In recent years women working in the agriculture, forestry and fisheries sectors have received only 7% to 9% of agricultural development assistance.

In parallel with direct health interventions, global investments in agriculture and food security present a real opportunity to address maternal and child undernutrition. The price the international community pays for not tackling undernutrition is significant and as such this opportunity should be seized.

Agricultural Development and Food Security

Nutrition security depends on food security which, in turn, depends on sustainable agricultural development.

The first Montpellier Panel Report concluded that, for the first time in three generations, Africa has the opportunity to achieve food and nutrition security. This will not be achieved without a focus on agricultural development. Short-term interventions may be unsustainable over time and should, therefore, go hand in hand with longer term strategies to ensure farmers in developing countries are producing enough food - in terms of both quantity and quality.

The majority of the world’s poor and malnourished live in rural areas and approximately 80% of the poor depend on agriculture for their livelihood. They need help and investment in achieving:

- increased productivity of crops high in micronutrients;
- increased storage capacity and waste reduction especially to reduce undernutrition during the hungry season;
- education on growing a greater diversity of crops through farmer field schools and participatory approaches, and;
- an increased capacity to process raw crops including fortification of staple crops to ensure a more nutritious diet.

In most countries of Sub-Saharan Africa over 20% of women have a low body mass index and about 11% of children in the developing world are born small. In countries where gender inequality is great, high rates of hunger also occur as female members of a household will ‘eat least and last’.

Low rates of exclusive breastfeeding (in developing countries this rate is less than 50%) also inhibits a child’s growth and development and ‘suboptimal’ breastfeeding results in the death of 1.4 million young children each year. Complementary foods, ideally introduced at six months, may also be unavailable, of poor nutritional quality or introduced too early or too late.

Fig. 1 - Intergenerational cycle of growth failure

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Key References


Morris, P., Cogil, B. & Uauy, R. 2008. *Effective international action against undernutrition: why has it proven so difficult and what can be done to accelerate the progress?* The Lancet. 371: 608-621.


The Montpellier Panel

This briefing is endorsed by the Montpellier Panel whose members are:

**(Members serve in their personal capacity)**

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- Tom Arnold
- Henri Carsalade
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The Montpellier Panel Report was published on 26th October 2010 and can be found here: www.imperial.ac.uk/africanagriculturaldevelopment/themontpellierpanel/panelreport

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