



Putting Nutrition on the Agenda

A ONE Policy Brief

How can it be that 40% of Africa's children are so chronically malnourished by the age of five that they will never fully thrive, physically recover or mentally develop – a statistic that has not improved in two decades, despite so much other development progress?

Malnutrition Fast Facts

- In 2010, **171 million children** under the age of five had stunted growth (chronically malnourished)¹
- Every year, malnutrition causes **3.5 million child deaths** – or more than one third of all deaths of children under the age of five, and approximately 400 deaths per hour²
- **More than 600,000 children** die each year from vitamin A deficiency³
- **2 billion people** are anemic, including every second pregnant woman and an estimated 40% of school-aged children – contributing to **20% of all maternal deaths**⁴
- The economic toll of malnutrition causes the loss of **2–3% of GDP** in affected countries and more than **10% of productivity** over a person's lifetime⁵

Malnutrition: the hidden development scourge

A billion people suffer from a hidden form of hunger rarely on the development agenda: chronic malnutrition. A healthy, nutrient-rich diet is critical to a child's health, growth and cognitive development – and key to survival to her fifth birthday. Never are these nutritional needs more critical than in a child's first 1,000 days: the period stretching from pregnancy to the first 24 months of age. During this window, sufficient intake and absorption of essential vitamins like zinc, vitamin A, iron and iodine has a profound and irreversible impact on a child's ability to physically and mentally develop, learn and lead a productive life. Yet hundreds of millions of children fail to get enough nutrients to fuel their growth and development. This leads to severe and irreversible damage, and even widespread – but far too often overlooked – loss of life.

Especially in Sub-Saharan Africa and South Asia, undernutrition remains a persistent, deadly scourge, deeply rooted in poverty and deprivation. **Every year, malnutrition claims the lives of more than 3.5 million children.** This adds up to more than one in three of **all** child deaths.⁶

Millions more suffer from irreversible brain damage, cognitive difficulties and long-term illness. In 2010, an estimated 171 million children around the world were stunted (low height for age

resulting from chronic undernutrition) and up to 4–6 inches shorter than their peers.⁷ This stunting can lead to developmental problems, limited potential and academic achievement, fewer professional opportunities, and lower income.

The economic toll is staggering — silently sabotaging the future productivity of entire countries. Undernutrition results in billions of dollars in lost productivity and avoidable health care spending. An undernourished individual can lose more than 10% of his productivity over a lifetime, while countries can lose 2–3% of GDP.⁸

While the world has witnessed progress in other MDGs like girls' education, chronic malnutrition rates remain stubbornly high — especially in Africa. Rates of stunting have stagnated in Africa for the past two decades at the (unacceptably high) level of 40%. **Unless action is mobilized, the African continent is projected to be home to even more stunted children in the next decade.**⁹

Malnutrition: hidden on the development agenda

For far too long, the issue of chronic malnutrition has failed to receive the attention and resources it warrants. In the donor community, the multi-sectoral challenge of nutrition has been everyone's job and no one's — falling between health, agriculture, social protection, and emergency programs. Interventions that immediately address symptoms often fail to address underlying causes — which are vast, and span poverty, gender issues, health, sanitation, education, and access to food.

There is widespread agreement that international nutrition has been severely under-resourced. The World Bank estimates that direct nutrition spending amounted to just \$398 million in 2010.¹⁰ This figure is just 3% of the total spending on agriculture, food security and nutrition, and 0.3% of total ODA in 2010.¹¹ Likewise, in Africa, nutrition has been a low government priority for decades.¹² The World Bank notes that many African countries are trapped in a “low-priority cycle,” compounded by weak demand for nutrition services, lagging political will and public investments, and ineffective implementation.

What is stunting?

Stunting is an indicator that captures the long-term nutritional status of an individual. According to *The Lancet*, stunting is “a chronic restriction of growth in height indicated by a low weight-for-height.” Technically, stunting is the percentage of children under five years who have a height-for-age below minus two standard deviations of the WHO reference median. A stunted five year old can be 4-6 inches shorter than a healthy child.

Stunting is a reflection of chronic malnutrition, and the indicator is a proxy for effective food and nutrition-related programs and policies.

However, chronic malnutrition has many causes, spanning diverse sectors from agriculture to social protection to sanitation. As the Center for Global Development points out, stunting therefore is a good indicator of overall investment in people, reflecting health, investments in agriculture, nutrition, poverty, women's education, discrimination against female children, and family planning.

Nutrition solutions: some of the “best buys” in development

This lack of political will belies the reality that many nutrition solutions are proven successes and are some of the “best buys” in development. In 2008, *The Lancet* published a landmark series on nutrition that delineated a set of proven, cost-effective interventions designed to improve nutrition in the first 1,000 days.¹³ This set of direct nutrition interventions includes exclusive breastfeeding and appropriate, healthy foods for infants, ensuring that mothers and children get sufficient vitamins and minerals – including vitamin A, and zinc supplementation, iodized salt, and other micronutrient powders and fortified foods – while also preventing and treating cases of acute, severe malnutrition. **These proven nutrition solutions are ranked among the top 10 “best buys” in development.**¹⁴ The World Bank estimates that a million lives could be saved each year and a third of stunting prevented just by scaling these 13 interventions.¹⁵

Chronic malnutrition has many causes, spanning diverse sectors from agriculture to social protection to sanitation. Importantly, agriculture is the primary source of nutrients needed for a healthy life, and is thus closely related to nutrition. Agriculture strategies that improve the productivity of, and access to, diverse, nutrient-dense food can have a significant impact on nutrition. Likewise, health, sanitation and nutrition are also interlinked. Malnourished children have weakened immune systems that make them more susceptible to illness and infectious diseases, which in turn make the body less able to absorb nutrients. Despite the importance of these sectors, more evidence is needed for cost-effective interventions that work at scale.

Global progress against the scourge of malnutrition requires putting women at the center of the development agenda. There exists ample evidence that empowering women in the household improves children’s nutrition. The health of a mother affects a child’s health and well-being because some of the effects of malnutrition are irreversible and carry onto future generations. Empowering women is at the core: research shows that if men and women had equal influence in decision making, 1.7 million more children in Sub-Saharan Africa would be adequately nourished.¹⁶

Global Action: Putting Nutrition Squarely on the Agenda

Recently the winds have started to shift, as world leaders and the development community have begun to recognize the serious and under-addressed scourge of undernutrition. In 2010, a new global movement called “Scaling up Nutrition” (SUN) emerged to build momentum and support for global nutrition goals. 28 developing countries have signed up to SUN, pledging to commit to scaling up proven, effective nutrition interventions. In total, these 28 countries are home to 50 of the 171 million chronically undernourished children in the world.

In May 2012, the World Health Assembly added their voice to the growing call for greater focus on nutrition. The Assembly agreed to six new global nutrition targets, including a **40% reduction in stunting by 2025, or an equivalent of 70 million fewer stunted children.** In August 2012, UK Prime Minister David Cameron co-hosted a Global Hunger Event with the Government of Brazil, at the close of the London Olympic Games. The event called on global leaders in attendance to commit to accelerating progress in achieving this global target and to champion innovative new ways to tackle chronic malnutrition. Led by Irish Prime Minister Enda Kenny and UK Prime Minister Cameron, participants laid out a global goal of 25 million fewer stunted children by the next Olympics in Rio de Janeiro, Brazil in 2016. The event also included a major European Union commitment to take responsibility for reducing the number of stunted children in the world by 7 million by 2025.

Building on this momentum, ONE calls on world leaders and major donors to **commit to averting the stunting of 25 million of the world's poorest children from chronic malnutrition by 2016**, and to follow the example of the European Union and make a measurable, meaningful commitment to a portion of the global reduction.

Inspiring Innovation: The Orange Sweet Potato

One of the most promising innovations in nutrition in recent years is a new scientific technique called biofortification. This is a process by which simple, common crops widely eaten by undernourished communities are bred to deliver much stronger nutritional value. The orange flesh sweet potato was the first such crop to be introduced. Its experience taking root in Mozambique and Uganda is inspiring.

Sweet potatoes are widely eaten in Africa. An estimated 7 million tons are produced each year, primarily for human consumption. However, they are usually white in color and low in vitamin A — an essential nutrient that prevents blindness and infant deaths. More than one in three African children is deficient in Vitamin A. The health toll is enormous: more than 600,000 children die from vitamin A deficiency every year, and estimated 350,000 go blind.¹⁷

Several years ago, a Ugandan breeder in collaboration with an international research association and Harvest Plus developed a new orange-colored variety of sweet potato that is loaded with orange-hued beta-carotene, which the body converts to vitamin A.

More than 24,000 households received the orange sweet potato vine to harvest in a pilot in Uganda and Mozambique between 2007 and 2009.¹⁸



The program resulted in increases in orange sweet potato adoption and consumption. Impressively, vitamin A intake by women and children has as much as doubled. For children 6–35 months, who are especially vulnerable, OSP contributed more than 50% of their total vitamin A intake.¹⁹

Efforts are currently underway to reach more than a million households with this nutrient-packed orange-fleshed tuber over the next few years. And the orange sweet potato is just the beginning: experiments are underway to transform other staple crops like beans, wheat and maize with other life-saving nutrients like zinc and iron.²⁰ These biofortified crops can complement other nutrition interventions and potentially reach millions. It is little wonder that two recent panels of Nobel Laureate economists deemed biofortification in the top five most cost-effective solution to global challenges in the world.²¹



Endnotes

- 1 World Health Organization, “Prevalence and trends of stunting among pre-school children, 1990-2020,” Public Health Nutrition 2012. http://www.who.int/nutgrowthdb/publications/stunting1990_2020/en/
- 2 The Lancet, “Maternal and Child Undernutrition,” Special Series, January, 2008. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(07\)61693-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)61693-6/fulltext)
- 3 The Lancet 2008 <http://www.thelancet.com/series/maternal-and-child-undernutrition>
- 4 World Health Organization <http://www.who.int/nutrition/topics/ida/en/index.html>
- 5 The World Bank, “Scaling up Nutrition: What Will it Cost?” 2010 <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/Peer-Reviewed-Publications/ScalingUpNutrition.pdf>
- 6 The Lancet, 2008. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(07\)61693-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)61693-6/fulltext)
- 7 World Health Organization 2012. . http://www.who.int/nutgrowthdb/publications/stunting1990_2020/en/
- 8 World Bank 2010 <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/Peer-Reviewed-Publications/ScalingUpNutrition.pdf>
- 9 http://www.who.int/nutgrowthdb/publications/Stunting1990_2011.pdf <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/Peer-Reviewed-Publications/ScalingUpNutrition.pdf>
- 10 <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1327948020811/8401693-1327957211156/8402494-1334239337250/Chapter-5.pdf>
- 11 While this is almost certainly an underestimation — it only takes into account what donors classify as explicit nutrition spending (which can account for 1/3 of stunting overall), and nutrition is also positively impacted by spending in other sectors such as agriculture, health, sanitation that are not captured in this figure — it is still a small amount compared to the health and development burden of malnutrition.
- 12 <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1327948020811/8401693-1327957211156/8402494-1334239337250/Chapter-2.pdf>
- 13 [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(07\)61693-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)61693-6/fulltext)
- 14 <http://www.copenhagenconsensus.com/Projects/CC12/Outcome.aspx>
- 15 <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/Peer-Reviewed-Publications/ScalingUpNutrition.pdf>
- 16 World Bank, WDR Gender Equality and Development, <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/EXTWDR2012/0,,menuPK:7778074~pagePK:7778278~piPK:7778320~theSitePK:7778063~contentMDK:22851055,00.html>
- 17 The Lancet 2008 <http://www.thelancet.com/series/maternal-and-child-undernutrition>
- 18 http://www.harvestplus.org/sites/default/files/Uganda%20country%20report_web_08.08.pdf
- 19 Introduction of β -Carotene-Rich Orange Sweet Potato in Rural Uganda Results in Increased Vitamin A Intakes among Children and Women and Improved Vitamin A Status among Children. Journal of Nutrition.
- 20 <http://www.harvestplus.org/content/crops>
- 21 <http://www.copenhagenconsensus.com/Projects/CC12/Outcome.aspx>