

### WHY CARE ABOUT UNDERNUTRITION?

Undernutrition is a largely neglected issue, which has received insufficient political and financial attention in the last decades. In 2013, 6.3 million children died before the age of five. It is estimated that about 45% of these deaths were related to malnutrition. 1 Malnourished children are more likely to succumb to, as well as die from, the leading causes of child death such as pneumonia, diarrhoea and malaria.

Poor nutrition weakens children's immune systems and renders them more vulnerable to deadly diseases, which further deteriorates their nutritional status. Hence children get stuck in a cycle of undernutrition and infection, which adversely affects their health, development, and increases the risk of mortality.

Nutrition is underpinned by intake, absorption and use of nutrients. There are many, often concurring, socio-political, economic and environmental factors that directly and indirectly impact on nutrition. These include health infrastructure and lack of access to safe water, sanitation and hygiene. The World Health Organisation (WHO) estimates that 50% of malnutrition is associated with repeated diarrhoea or intestinal worm infections as a result of unsafe water, inadequate sanitation or insufficient hygiene.2

A lack of nutrition can result in a life-threatening condition: severe acute malnutrition or what is most commonly called severe wasting. Once this state has been reached, under-fives are 12 times more likely to die than healthy children pertaining to the same age group.<sup>3</sup> However, this is not the only way undernutrition can manifest itself. "Hidden hunger"- a form of nutritional deprivation resulting from a lack of adequate vitamins and minerals in the diet, can exist without any visible early warning signs - but has long-term implications for a child's cognitive and physical development, and resistance to infection. Poor nutrition during the first thousand days (starting from a woman's pregnancy) can also result in children being stunted (chronic malnutrition), which means that they are below the international standard for height for their age.

#### **MALNUTRITION**

is a physical condition, which is a direct

#### UNDERNUTRITION

stems from the inadequate quantity micronutrient deficiencies.

### **WASTING (OR ACUTE MALNUTRITION)**

is a condition where a child's weight is too low for his/her height, and his/her body wastes away. It is associated with a

### **STUNTING** (A SIGN OF CHRONIC MALNUTRITION)

is a condition where a child's height is too low for his/her age as a consequence of long-term nutritional deprivation. It is associated with long-term developmental and health risks.

### **HIDDEN HUNGER** OR MICRONUTRIENT DEFICIENCIES

is the direct outcome of inadequate intake of vital vitamins while undermining growth and development.



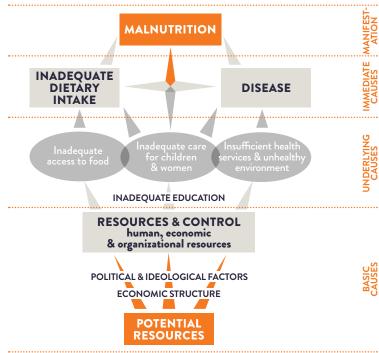
### UNDERNUTRITION: THE BASICS

# CAUSES & CONSEQUENCES OF UNDERNUTRITION

The causes of undernutrition are diverse - before birth, this can be due to intrauterine growth restriction. Later on in life, frequent illness, poor sanitation and hygiene, exposure to pathogens, poor caring practices and inadequate diets can further provoke the condition.

Undernutrition can already begin with the undernourished mother who cannot provide her child with sufficient nutrients at the foetal stage, as she herself has not benefited from optimal nutrition. However, it is during the first 1000 days from pregnancy to the second birthday that the baby is most vulnerable and that damage incurred is irreversible.<sup>4</sup>

Undernutrition is also linked to structural injustice. Children are 1.5 to 2 times more likely to be stunted when living in rural areas, in the poorest quintiles and in regions where women's status/education is lowest. This stems from the fact that they tend to be at a disadvantage in terms of access to health care, water sanitation and hygiene, as well as nutritious food and health-related information.



Source : UNICEF

Undernutrition affects large swathes of the world's population. In 2013, 51 million children below the age of five were wasted and 161 million were stunted.<sup>5</sup> However, undernutrition and its effects can primarily be felt in the developing world as 90% of undernourished children reside in 34 countries in Africa and Asia.<sup>6</sup> India is a very shocking case in point: 2.1 million Indian children die before reaching the age of 5 every year, mostly from preventable illnesses such as diarrhoea, typhoid, malaria, measles and pneumonia.

These deaths are largely attributed to undernutrition as **46% of Indian children are underweight**, **38.4%** are **stunted and 19% wasted**. The severity of the situation is further highlighted by the fact that 79.2% of under-fives are anaemic and India carries the highest Neglected Tropical Diseases (NTDs) burden in the world (an estimated 290 million cases). According to a study conducted by the World Bank, open defecation accounts for most, if not all, child stunting in India.

Undernutrition can trigger anaemia (a low count of red blood cells in a person's blood) in every second pregnant woman and is harmful to the foetus. After birth, anaemia continues to impair the baby both physically and cognitively if a more varied, iron-rich diet is not guaranteed. Moreover, there is a clear link between malnutrition and neglected tropical diseases (NTDs) - a group of 17 diseases affecting between one to two billion people in the global South. In the 34 countries with the highest malnutrition rates, NTDs are endemic. Undernutrition is both triggered and aggravated by intestinal worms (hookworm, whipworm and roundworm among others) and schistosomiasis. NTDs have a direct causal effect on stunting and wasting by preventing the body from absorbing and utilising essential nutrients for adequate women's and child health.<sup>9</sup>



# SOLUTIONS: WE KNOW WHAT WORKS!

In 2013, ten simple nutrition-specific interventions that would substantially stem child mortality linked to undernutrition were identified. If these measures were scaled up to reach 90% of those in need, a total of 900,000 under-five lives could be saved.<sup>10</sup>

An example of such an intervention is **exclusive breastfeeding**, which is the practice of feeding nothing but breastmilk for the first 6 months of a baby's life.<sup>11</sup> Mother's milk meets all the nutritional needs of the infant and provides vital protection from infections and diseases. It is thus indispensable when the child is most vulnerable.<sup>12</sup>

Nutrition-sensitive measures are equally needed in order to allow for sustainable and long-term change in an enabling environment. For example, supporting exclusive breastfeeding will require both nutrition-specific and nutrition-sensitive measures with increased numbers of dedicated health workers supporting exclusive breastfeeding, and social policies creating an encouraging and enabling environment for nursing mothers, particularly in workplaces.

Given the multifaceted nature of the determinants of undernutrition, it is important for governments to adopt coherent policies which foster

cross-sectoral cooperation and strategies. Essential investments must be made into all sectors that have an impact on the nutritional status of children if we are to make a difference. Furthermore, it has been proven that the integration of services is cost-effective and that many interventions can be combined at no extra charge.<sup>13</sup> For example, nutrition-sensitive measures could thus be added on to existing programmes that target malaria, pneumonia and diarrhoea.

It is essential to reach the most remote and vulnerable communities by relying on networks of community health workers able to provide basic services. Moreover, by recognising that it is the poor who are most affected by undernutrition and its consequences, free health care should be made available to all, regardless of their geographical location or financial means. Mothers are more likely to take their children to clinics if the consultation and treatment are free of charge provided that prohibitive costs such as transportation to the clinic are covered. This is a precondition for both the prevention and treatment of undernutrition in developing countries.

## NUTRITION-SPECIFIC INTERVENTIONS

look at the immediate causes of undernutrition, such as the promotion of appropriate infant and young child feeding practices, elimination of micronutrient deficiencies through fortification and supplementation, therapeutic food to manage acute malnutrition, behavioural change and school putrition.

## NUTRITION-SENSITIVE INTERVENTIONS

span several sectors and address the underlying and structural causes of undernutrition. They encompass interventions in the areas of agriculture, public health, water, sanitation and hygiene, and education among others.

### IMPACT OF INVESTING IN NUTRITION







Increase school attainment by at least one year



Boost wage rates from 5% to 50%



Make children 33% more likely to escape poverty as adults

Source : Milken Institute



### RATIONALE FOR INVESTMENT

Of course there are moral imperatives pushing us to intervene and to combat the scourge of undernutrition given the human suffering it entails. However, there are also important economic incentives to act. Supporting nutrition-enhancing measures is deemed great value for money as there are high rates of return on investments: for every dollar spent on chronic malnutrition, 30 dollars is saved in productivity gains.<sup>14</sup>

According to a team of Nobel Laureate economists, nutrition-specific interventions are promising as they can avert one million deaths, cut wasting numbers in half and slice a third away from current stunting numbers, all at a cost ratio of 16-1.

Furthermore, undernutrition directly affects economic growth as it undermines productivity levels. The Lancet 2013 estimated that nations incur losses of about 8% in GDP due to lower physical and cognitive performance. Asia and Africa lose as much as 11% GDP to undernutrition.<sup>15</sup>

Undernourished children are less likely to do well at school and more likely to get stuck in the vicious cycle of poverty. Their lifetime earnings tend to be 10% lower than those of a well-nourished individual, stunting entire economies for generations, as every third member of each generation is physically and cognitively stunted.<sup>16</sup>

### **AID FOR NUTRITION**

Nutrition is currently underfinanced in international aid programmes. Despite the severity of its consequences, only 0.4% of global development aid is spent on the nutrition sector. The result is a 9.6 billion USD funding gap in nutrition financing.<sup>17</sup> In fact, the interventions currently in place targeting nutrition only meet 1.4% of total needs.<sup>18</sup>

Furthermore, donor reporting is not transparent which makes it difficult to monitor whether aid commitments are being met. For instance, many high-burden undernutrition countries, do not have a specific budget line that shows how much is being spent on nutrition.<sup>19</sup>

On top of this, the global nutrition architecture is complex and fragmented which undermines its efficiency. The nutrition sector does not benefit from centralised funding in the form of a Global Fund for Nutrition similar to the Global Fund for Aids, Tuberculosis and Malaria. Most aid comes from traditional donors like Canada, the USA, the UK, the EU as well as the Gates Foundation, the Children's Investment Fund Foundation and the World Bank.<sup>20</sup>

In 2013, the EU committed €3.5 billion, with €400 million being dedicated to nutrition-specific programmes in the health sector, and €3.1 billion to nutrition-sensitive programmes in other areas such as agriculture, education, water and social protection. On top of this, it adopted an Action Plan on Nutrition, which is to help the EU reach its target of reducing the number of stunted children by 7 million by 2025.

- World Health Organisation (2008)
   "Children: Reducing mortality factsheet"
- 2 WHO (2008) "Safer water, better health" http://www.who.int/quantifying\_ehimpacts/publications/ saferwater/en/
- 3 Olofin, I. et al (2013) "Associations of suboptimal growth with all-cause and cause-specific mortality in children under five years: a pooled analysis of ten prospective studies" PLOS http://journals.plos.org/plosone/article?id=10.1371/journal. pone.0064636
- 4 The Lancet (2013) "Maternal and Child Malnutrition" http://www.unicef.org/ethiopia/Lancet\_2013\_Nutrition\_Series\_Executive\_Summary.pdf
- 5 Unicef, WHO, World Bank (2013) "Levels and Trends in Child Malnutrition" http://www.who.int/nutgrowthdb/summary\_jme\_2013.pdf
- 6 The Lancet (2013) "Maternal and Child Malnutrition" http://www.unicef.org/ethiopia/Lancet\_2013\_Nutrition\_Series\_Executive\_Summary.pdf
- 7 Global Health Progress (2013) "Action on Neglected Tropical Diseases in India" http://fr.scribd.com/doc/193292733/Action-on-Neglected-Tropical-Diseases-in-India
- 8 Spears. D (2013) "How much international variation in child height can sanitation explain?" http://econ.worldbank.org/external/default/main?-pagePK=64165259&theSitePK=469382&pi-PK=64165421&menuPK=64166093&en-tityID=000158349\_20130205082533
- 9 Global Network, Sabin (2014) "Towards a healthy future" http://www.globalnetwork.org/sites/default/files/FINAL Sabin NTD-Nutrition - 102114.pdf
- 10 These are periconceptual folic acid supplementation, maternal balanced energy protein supplementation, maternal calcium supplementation, multiple micronutrient supplementation in pregnancy, promotion of breastfeeding, appropriate complementary feeding, vitamin A administration and preventive zinc supplementation in children age 6-59 months, management of severe acute malnutrition (SAM) and management of moderate acute malnutrition. See more at: http://www.dhakatribune.com/bangladesh/2013/jul/04/10-nutrition-improvements-can-save-900000-lives-lancet#sthash.qjgFBsRu.dpuf
- 11 Results UK (2014) "Nutrition Aid Architecture" http://www.results.org.uk/sites/default/files/Nutrition Aid Architecture.pdf, p.10
- 12 WHO "Exclusive Breastfeeding" http://www.who.int/nutrition/topics/exclusive\_breastfeeding/en/
- 13 Lie, Geir Sølve Sande, Nirmala Ravishankar, Martha Benezet,-Marie Jeanne Offosse, Eyob Zere Asbu, and Dorcas Lwanga. (2011) "Developing a resource tracking system for measuring spending on nutrition in low- and middle-income countrie"
- 14 IFPRI (2012), Hoddinott J., Rosegrant M. and Torero M. "Investments to reduce hunger and undernutrition", Paper prepared for 2012 Global Copenhagen Consensus. http://www.copenhagenconsensus.com/sites/default/files/ Hunger+and+Malnutrition.pdf
- 15 Horton and Steckel (2013) "The Economics of Human Challenges", ed B. Lomborg. In Press. Cambridge University Press
- 16 World Bank (2006) "Repositioning Nutrition as Central to Development – A Strategy for Large-Scale Action" http://siteresources.worldbank.org/NUTRITION/ Resources/281846-1131636806329/NutritionStrategy.pdf
- 17 Results UK (2014) "Nutrition Aid Architecture" http://www.results.org.uk/sites/default/files/Nutrition Aid Architecture.pdf
- 18 The Lancet (2013), Maternal and Child Nutrition Series, "Nutrition: a quintessential sustainable development goal", p.3
- 19 One (2013) "The Sun, Moon and Stars: A Nutrition Policy Agenda for the Next 1,000 Days" http://www.one.org/us/policy/nutrition-for-growth/
- 20 Global Nutrition Report (2014) http://globalnutritionreport.org, p.85

THE **GENERATION NUTRITION** CAMPAIGN BRINGS TOGETHER A
DIVERSE AND GROWING GROUP OF CIVIL SOCIETY ORGANISATIONS
WHO WISH TO SEE AN END TO CHILD DEATHS FROM ACUTE
MALNUTRITION. **GENERATION NUTRITION** IS A GLOBAL CAMPAIGN,
CALLING ON GOVERNMENTS AND THE INTERNATIONAL COMMUNITY
TO TAKE URGENT ACTION TO PRIORITISE THE FIGHT AGAINST ACUTE
MALNUTRITION, AND SAVE THE LIVES OF MILLIONS OF CHILDREN
UNDER THE AGE OF FIVE.

WE BELIEVE THAT, WITH STRONG POLITICAL WILL, OUR GOAL OF A WORLD FREE OF CHILD DEATHS FROM ACUTE MALNUTRITION CAN BE ACHIEVED WITHIN A GENERATION. A FULL LIST OF COALITION MEMBERS IS ON OUR WEBSITE.

www.generation-nutrition.org



GENERATION NUTRITION EU IS COMPOSED OF A WIDE RANGE OF CIVIL SOCIETY ORGANISATIONS WORKING IN DIFFERENT SECTORS AND ACTIVELY ENGAGING WITH THE EU ON NUTRITION-RELATED ISSUES.













