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2011. Philippines.
Rice farmers harvest rice seedlings ready for planting.
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Introduction

Why malnutrition matters

Malnutrition is a universal problem that has many forms. It affects most of the world's population at some point in their lifecycle, from infancy to old age. No country is untouched. It affects all geographies, all age groups, rich people and poor people, and all sexes. It is a truly universal problem.

Malnutrition manifests itself in many ways, all of them distinctive (Box 1.1), but all of them overlapping in countries, communities, households and people. While anyone can experience malnutrition, people who are particularly vulnerable include young children, adolescent girls, pregnant and lactating women, older people, people who are ill or immuno-compromised, indigenous people and people in poverty. Groups migrating or displaced due to conflicts, droughts, floods and other natural disasters, famines or land tenure issues are also at acute risk and vulnerable to malnutrition.

Collectively, malnutrition is responsible for more ill health than any other cause – good health is not possible without good nutrition. All forms of malnutrition are associated with various forms of ill health and higher levels of mortality. Undernutrition explains around 45% of deaths among children under five, mainly in low and middle-income countries.¹ The health consequences of overweight and obesity contribute to an estimated 4 million deaths (7.1% of all deaths) and 120 million healthy years of life lost (disability-adjusted life years or DALYs)² across the global population (4.9% of all DALYs among adults).³

Malnutrition is also a social and economic problem, holding back development across the world with unacceptable human consequences. Malnutrition costs billions of dollars a year and imposes high human capital costs – direct and indirect – on individuals, families and nations. Estimates suggest that malnutrition in all its forms could cost society up to US\$3.5 trillion per year, with overweight and obesity alone costing US\$500 billion per year.⁴ The consequences of malnutrition are increases in childhood death and future adult disability, including diet-related non-communicable diseases (NCDs), as well as enormous economic and human capital costs.⁵

Conversely, as detailed in the 2017 *Global Nutrition Report*, improving nutrition can have a powerful and positive multiplier effect across multiple aspects of development, including poverty, environmental sustainability, and peace and stability. As the late Kofi Annan, former UN Secretary-General, wrote in 2018, "Nutrition is one of the best drivers of development: it sparks a virtuous cycle of socioeconomic improvements, such as increasing access to education and employment." Without significant progress to end malnutrition in all its forms, countries will simply not be able to attain the Sustainable Development Goals (SDGs) set out to transform our world by 2030.

Malnutrition has many different causes working at different levels. Access to water, sanitation and hygiene, income, education and quality health services are all important. A common cause across all forms of malnutrition is a suboptimal diet (including inadequate breastfeeding for babies). Poor diets are the second-leading risk factor for deaths and DALYs globally, accounting for 18.8% of all deaths, of which 50% are due to cardiovascular disease.⁶ While improving diets alone is not necessarily enough to address malnutrition, it is a necessary component of reducing disability and death from malnutrition across all ages and income brackets.

BOX 1.1

The many forms of malnutrition

Undernutrition – lack of proper nutrition, caused by not having enough food, not eating enough food containing substances, and other direct and indirect causes, necessary for growth and health.

Stunting in children under five – a form of growth failure which develops over a long period of time in children under five years of age when growing with limited access to food, health and care. Stunting is also known as ‘chronic undernutrition’, although this is only one of its causes. In children, it can be measured using the height-for-age nutritional index. Stunting is often associated with cognitive impairments such as delayed motor development, impaired brain function and poor school performance, as it often causes these negative impacts.

Wasting in children under five – children who are thin for their height because of acute food shortages or disease. Also known as ‘acute malnutrition’, wasting is characterised by a rapid deterioration in nutritional status over a short period of time in children under five years of age. Wasted children are at higher risk of dying. In children, it can be measured using the weight-for-height nutritional index or mid-upper arm circumference (MUAC). There are different levels of severity of acute malnutrition: moderate acute malnutrition (MAM) and severe acute malnutrition (SAM).

Micronutrient deficiencies – suboptimal nutritional status caused by a lack of intake, absorption or use of one or more vitamins or minerals. Excessive intake of some micronutrients may also result in adverse effects. The international community has focused on several micronutrients that remain issues globally including iron, zinc, vitamin A, folate and iodine, as they are the most difficult to satisfy without diverse diets. One general indicator of micronutrient deficiencies is anaemia, as this syndrome is caused by the deficiency of many of them, and its effects are exacerbated by several diseases.

Moderate and severe thinness or underweight in adults – a body mass index (BMI) less than 18.5 indicates underweight in adult populations while a BMI less than 17.0 indicates moderate and severe thinness. It has been linked to clear-cut increases in illness in adults studied in three continents and is therefore a further reasonable value to choose as a cut-off point for moderate risk. A BMI less than 16.0 is known to be associated with a markedly increased risk for ill health, poor physical performance, lethargy and even death; this cut-off point is therefore a valid extreme limit.

Overweight and obesity in adults – the abnormal or excessive fat accumulation that may impair health. BMI is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. Overweight and obesity are major causes of many NCDs, including non-insulin-dependent diabetes mellitus, coronary heart disease and stroke. They also increase the risks for several types of cancer, gallbladder disease, musculoskeletal disorders and respiratory symptoms.

■ **Source:** UNICEF for undernutrition, World Health Organization (WHO) for overweight, WHO for thinness and child overweight, WHO for anaemia.⁷

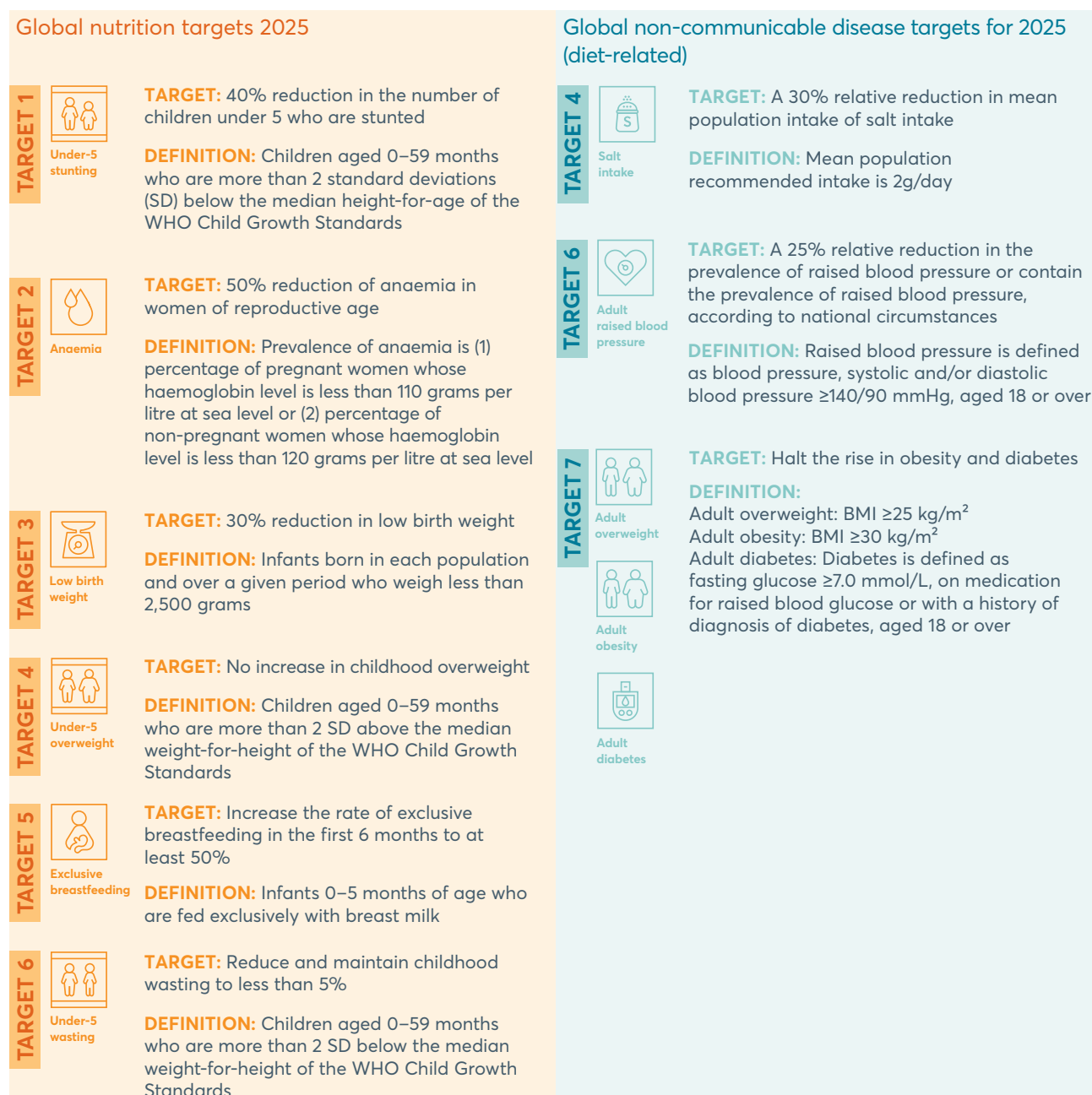
Commitments and targets to track progress to end malnutrition

Recognising the seriousness of malnutrition for global health, in 2012 and 2013, the member states of the World Health Organization (WHO) adopted a series of targets to significantly reduce the burden of many of these forms of malnutrition by 2025 (Figure 1.1). Adopted through two separate resolutions at its annual meeting, the World Health Assembly, the targets recognised the need to reduce many of the different forms of malnutrition. In 2012, the 'Comprehensive implementation plan on maternal, infant and young child nutrition' included targets on stunting and wasting among children under five years of age, anaemia among women of reproductive age and low birth weight among newborns. It also committed to no increase in childhood overweight and to increase the rate of exclusive breastfeeding of babies under six months old.

One year later, the World Health Assembly adopted the Global Monitoring Framework for the Prevention and Control of NCDs, which sets 'voluntary' targets to monitor progress in achieving targets on the four NCDs that cause the greatest amount of deaths, three of which have diet-related causes (cardiovascular disease, diabetes and some cancers) and their risk factors. Four of these targets are relevant for nutrition, to: reduce salt intake, and (related to that) reduce raised blood pressure; reduce overall mortality from cardiovascular disease, cancer and diabetes, and halt the rise in diabetes and obesity.

Recognising the importance of nutrition for development, in 2015, UN member states adopted an ambitious target: to "end malnutrition in all its forms" by 2030 as part of the SDGs (target 2.2). The SDGs also included a target to reduce mortality from NCDs by one third (target 3.4). Together these significantly overlap with the 2025 targets⁸ with a broader emphasis: ending malnutrition in *all* its forms at *all* parts of the lifecycle.⁹ This emphasis was taken forward by the UN Decade of Action on Nutrition 2016–2025, adopted in 2015 by the UN to accelerate implementation of action towards SDG target 2.2 and help realise the commitments made at the Second International Conference on Nutrition in 2014.

FIGURE 1.1
2025 targets for nutrition



Source: For more information, see: www.who.int/nutrition/global-target-2025/en and www.who.int/beat-ncds/take-action/targets/en

The Global Nutrition Report – tracking progress of commitments and actions

Since 2014, the Global Nutrition Report has existed to keep track of progress against these targets, along with the financing, commitments and actions designed to reach them. Drawing on internationally collected data, the basic picture to have emerged from the report in the past five years (2014–2018) is clear: the burden of malnutrition remains high, and not enough progress has been made to reduce malnutrition. Through tracking the financing, commitments and actions designed to end malnutrition in all its forms in the past five years, the Global Nutrition Report has, along with many others, shown that there is inadequate implementation of policies, programmes and interventions – even those with proven efficacy or effectiveness – and lack of actions across other sectors so vital to ending malnutrition. Likewise, it has found that only a tiny proportion of spending by national governments in their own countries, and by international development organisations, goes on improving nutrition. Through tracking commitments made to improving nutrition, such as at the Nutrition for Growth Summit in 2013, it has found them to be inadequately SMART (specific, measurable, achievable, relevant and timely) so making it difficult to tell what difference they have really made.

Yet despite this discouraging picture, we also know that there is progress: many are committed, global attention to nutrition is high, data collection and synthesis is getting better all the time, and much has been learned about how to address the problem more effectively. We are at a crossroads: the state of malnutrition is dire, but opportunities to end it have never been greater. In this UN Decade of Action on Nutrition 2016–2025 and the SDG era, there has been significant progress in our understanding of the problem – through the data available and its analysis – and what is needed to address it. The uncomfortable question is not so much: why are things so bad? But why are things not better when we know so much more than before?

The 2018 Global Nutrition Report

The purpose of the Global Nutrition Report is to collate and communicate high-quality, comprehensive and credible data on nutrition as a means of tracking progress, guiding and inspiring action, and committing and financing the end of malnutrition in all its forms. To quote again the late, former UN Secretary-General Kofi Annan, “Data gaps undermine our ability to target resources, develop policies and track accountability. Without good data, we’re flying blind. If you can’t see it, you can’t solve it.”¹⁰

In 2018 we bring together new sources of data to continue to strive for a more comprehensive picture of malnutrition and to track change. The *2018 Global Nutrition Report* is a data update. It shines a light on where there has been progress – and where major problems still lie. It highlights new innovations in data and the status of financing. It places actions that have been taken under the spotlight. Throughout it highlights data that can help us better understand the nature of the burden of malnutrition. For if we are to end malnutrition in all its forms, we must understand the nature of the problem we are dealing with.

This year we dig deeper into what the 2014 *Global Nutrition Report* termed the 'new normal' – that countries, communities and people experience a range of different forms of malnutrition and that addressing all of them is critical if we are to hold ourselves accountable for reaching all nutrition targets. We understand better just what countries and individual people are faced with: overlapping and coexisting burdens of the different forms of malnutrition. With a new interactive Global Nutrition Report website, we show more disaggregated nutrition data by sex, geography and socioeconomic divisions, and a stronger focus on nutritionally vulnerable populations such as adolescent girls, women and young children. We also dig deeper into the data of a crucial common cause of malnutrition in all its forms: diet composition.

While the data on malnutrition is clear, its burden high and progress unacceptably slow, the opportunity to end malnutrition has never been greater. There are signs of progress with reductions in stunting, a slight decrease in underweight women and many countries on track to achieve at least one global nutrition target. Solutions have never been more available, and the global community has never been better placed to end it. In recent years there have been numerous steps forward to enable us to better understand the nature of the burden of malnutrition in all its forms as well as its causes – and thus guide and inspire action and improve our ability to track progress. We have more knowledge, better data and successful models to base collective action, allowing us to more fully identify where we still need to act. We thus have an unprecedented window of opportunity to meet these goals and the means to end malnutrition.

The report takes the reader through the data journey, by presenting the data on the burden of malnutrition, identifying three critical areas in urgent need of further research and attention, digging deep through data on what people eat and why it matters, and looking at financing and success against commitments made. The report ends by presenting five critical steps that must be taken now to get the world on track.

NOTES

Chapter 1

- 1 Black R.E., Victora C.G. and Walker S.P. et al, 2013. Maternal and child undernutrition and overweight in low-income and middle-income countries. *The Lancet*, 382:9890, 2013, pp. 427–51.
- 2 DALY is the summary measure used to give an indication of overall burden of disease. One DALY represents the loss of the equivalent of one year of full health. Using DALYs, the burden of diseases that cause premature death but little disability (such as drowning or measles) can be compared with that of diseases that do not cause death but do cause disability (such as cataract causing blindness).
Source: www.who.int/gho/mortality_burden_disease/daly_rates/text/en
- 3 GBD 2015 Causes of Death Collaborators. Health Effects of Overweight and Obesity in 195 Countries over 25 Years. *The New England Journal of Medicine*, 377:1, 2017, pp. 13-27.
- 4 Global Panel, 2016. The Cost of Malnutrition: Why Policy Action is Urgent. Available at: <https://glopan.org/sites/default/files/pictures/CostOfMalnutrition.pdf>
- 5 Global Panel on Agriculture and Food Systems for Nutrition. Cost of malnutrition, <https://glopan.org/cost-of-malnutrition> (accessed 1 October 2018).
- 6 GBD 2016 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, 390(10100), 2017, pp. 1345–422.
- 7 UNICEF for undernutrition: UNICEF, 2012. Nutrition glossary. Available at: www.unicef.org/tokyo/jp/Nutrition_Glossary.pdf; WHO for overweight: WHO, 2018. Obesity and overweight. Available at: www.who.int/news-room/fact-sheets/detail/obesity-and-overweight; WHO for thinness and child overweight: WHO, 2010. Nutrition Landscape Information System (NLIS): Country profile indicators Interpretation Guide. Available at: www.who.int/nutrition/nlis_interpretation_guide.pdf; WHO for anaemia: WHO. Anaemia. Available at: www.who.int/topics/anaemia/en
- 8 The text of the SDGs specifies that reaching target 2.2 will involve achieving by 2025 the internationally agreed targets on stunting and wasting in children under 5 years of age, while also addressing the nutritional needs of adolescent girls, pregnant and lactating women, and older people.
- 9 It should be noted that while the overall emphasis is broader, target 2.2 includes indicators only on childhood stunting, wasting and overweight. Adult overweight and obesity is not tracked in the SDGs, leaving this indicator, which is skyrocketing all over the world, a voluntary target to work towards.
- 10 Annan K. Data can help to end malnutrition across Africa. *Nature*, 555:7, 2018. Available at: www.nature.com/articles/d41586-018-02386-3