FOOD SYSTEMS AT RISK
NEW TRENDS AND CHALLENGES
Currently, one in three people in the world is affected by at least one type of malnutrition and, if no action is rapidly taken, this could become one in two by 2025. Different types of malnutrition coexist in almost every country, causing severe consequences in terms of human health and economic losses: 45 percent of the mortality in under-five children is linked to undernutrition and globally malnutrition in all its forms costs US$ 3.5 trillion per year. Inadequate diets are a major cause of malnutrition and access to healthy diets for all would save 11 million lives per year.

**Malnutrition in all its forms: current situation is alarming**

Currently, one in three people in the world is affected by at least one type of malnutrition and, if no action is rapidly taken, this could become one in two by 2025 (Giopan, 2016). Malnutrition is a multifaceted, truly universal problem. The number of undernourished people has again been growing since 2015 and has now reached 820 million people (FAO et al., 2018). There are also 151 million under-five children whose stunted growth compromises the achievement of their full physical, intellectual and health potential and 51 million whose life is threatened by wasting. Anaemia in women is on the increase at the global scale (FAO et al., 2018); more than 500 million women of reproductive age suffered with anaemia in 2011 (Stevens et al., 2013). In addition, around 2 billion people suffer from micronutrient deficiencies. Simultaneously, around 2 billion adults are overweight, among which 670 million are obese. The world obesity epidemic continues to grow and to date no country has reversed this trend (Roberto et al., 2015). Overweight even starts at a young age as 38 million under-five children are overweight. This category of malnutrition contributes to the rise in non-communicable diseases (NCD) such as type 2 diabetes, hypertension, heart disease, strokes and some cancers.

While every country in the world faces at least one serious form of malnutrition, most countries face several nutritional challenges. The coexistence of persisting undernutrition and growing obesity and diet-related chronic diseases is a consequence of a rapid nutrition transition occurring in Low-Income (LI) and Lower Middle-Income (LMI) countries, leading to a double burden that is a complex issue to tackle for underequipped national health systems. There is even a triple burden in many countries, with deficiencies in some essential micronutrients added to the mix (cf. Map 11). Of the 141 countries with consistent data on three forms of malnutrition - childhood stunting, anaemia in women of reproductive age and overweight among women - 88 percent experience a high level of at least two types of malnutrition, with 29 percent experiencing high levels of all three. Most of these countries are in Africa. Coexisting burdens bear down on millions of children, with 16 million children affected by both wasting and stunting, which increases the risk of child mortality, and 8 million children are affected by stunting and overweight (Development Initiatives, 2018).

There has been some progress in reducing malnutrition, but it has been too slow and not spread across all its forms meaning that projections for the next 20 years are threatening. The prevalence of overweight, obesity and diet-related NCD such as diabetes are increasing in all regions and most rapidly in LI and
LMI countries. For example, for sub-Saharan African men, the growth rate of overweight and obesity now exceeds that for underweight and projections of these indicators suggest the situation is going to get much worse by 2030 (NCD-RisC, 2016). In 2017, there were 425 million adults with diabetes in the world, four in five living in LI and LMI countries. The projection is that 630 million adults in the world will be affected by diabetes by 2045 (IDF, 2017). Obesity contributes to an increase in chronic NCD, including diabetes and hypertension, which is why the World Health Organization is calling on countries to phase out artificial trans fats by 2023.

The consequences of undernutrition are severe as it is linked to 45 percent of the mortality in children under the age of five (Black et al., 2013). In addition to affecting survival, undernutrition in childhood affects growth, development, health and educational and economic outcomes. It has lasting effects on following generations, hampering the human capital of countries and is a risk factor for overweight and NCD in later life (Branca et al., 2019).

NCD were responsible for 41 million deaths (71 percent of all deaths) in 2016 (Branca et al., 2019). Approximately 4 million people aged between 20 and 79 died from diabetes in 2017. Diabetes accounted for 11 percent of the global all-cause mortality among people in this age group. This is higher than the combined number of deaths from infectious diseases. In Africa, 77 percent of all deaths due to diabetes occurred before the age of 60 (IDF, 2017).

The economic consequences of undernutrition represent losses in gross domestic product (GDP) ranging from 3 percent to 16 percent in various African countries. Conversely, investment in stunting reduction would generate a benefit-cost ratio of 16:1 across 40 LI and LMI countries (Hoddinott, 2016). Estimates of the economic consequences of nutrition-related NCD are also large. Globally, in 2014 the total economic impact of obesity was about US $2 trillion (Dobbs et al., 2014).

Consequences of malnutrition are huge

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Inadequate diets are the major drivers of all forms of malnutrition

All forms of malnutrition have several drivers, including non-food related causes, but inadequate diets are common to all of them. The last global study estimated that a change towards healthy diets would save 11 million deaths per year (Willett et al., 2019).

Food production has benefitted from massive progress and change over the past century. Hunger (insufficient caloric intake) and undernutrition are no
longer a problem of supply but a question of uneven distribution at the global or local levels. The average global food supply reached 2,904 kcal/cap/day in 2015-17, compared to 2,196 kcal/cap/day in 1961. Despite this steady rise, progress in universal access to food is still too low: today there are still 820 million people who lack access to the minimum calorific intake needed to maintain a productive life. Most people suffering from undernourishment are the rural poor and live in South-East Asia, although the prevalence of undernourishment remains highest in sub-Saharan Africa.

Simultaneous to progress in food production, LII and LMI countries have witnessed an unprecedented demographic transition, which was at the origin of the speedy nutritional transition in the global South (Popkin, 2006). Economic development, globalisation of trade and urbanisation, along with a decrease in the relative price of many foods, first helped improve access to higher quantities and diversity of food. However, today increased production of processed food, aggressive marketing and changing lifestyles have led to a shift in dietary patterns.

With urbanisation and economic development, demand is growing for more processed and convenient food, street food and fast food. Many people in LII and LMI countries have access to cheap and empty calories, particularly in the form of ultra-processed food, while the availability and affordability of nutrient-rich food is too low. Many processed products contain high levels of added sugar, salt, fat and other additives that could lead to NCD and death if consumed in large quantities. Taken together, the consumption of both healthy and unhealthy food items increased between 1990 and 2010, but the latter outpaced the former in most regions (Imamura et al., 2015).

Beyond this threatening global picture, local diets and trends vary considerably across countries. For example, the consumption of sugar-sweetened beverages exceeds 400 g/cap/day in Latin America, followed closely by North America. This is in contrast to East Asia, where intakes are ten-fold lower (~40 g/cap/day). In America and Europe, consumption of red meat is excessive in terms of both the health and environmental impact. It is associated with increased risk of type 2 diabetes and coronary heart diseases. At the same time, sub-Saharan African consumers do not eat enough animal-sourced foods (Willett et al., 2019).

These contrasting dietary and malnutrition patterns make it complicated to design simple and universal policies, especially when considering countries that have recently struggled to combat hunger and undernourishment and whose food systems are transitioning. However, there is a renewed and solid consensus for promoting multi-sectoral integrated approaches for transforming food systems, targeting the promotion of healthy food environments, including physical and economic access to healthy food items.

References


