Unhealthy diets and malnutrition
Unhealthy diets and malnutrition are a major driver of noncommunicable diseases. Learn more about this link and how increased accessibility of unhealthy food and drinks are displacing healthier choices, and what measures and policies can be put in place to improve diets and promote health in our communities.
Fast Facts

- Unhealthy diets and the resulting malnutrition are major drivers of noncommunicable diseases (NCDs). [1] around the world.
- Malnutrition includes undernutrition, overweight and obesity, and other diet-related NCDs like type 2 diabetes [2], cardiovascular disease [3] (heart diseases) and stroke, and some cancers [4].
- What people eat has changed dramatically over the last few decades. This has been driven by shifts towards calorific and fatty foods, eating out, and an increase in food portion sizes, combined with a lower intake of fruit, vegetables, and high-fibre foods.
- Healthy diets are unaffordable for the poor in every region of the world and people are increasingly exposed to ultra-processed, unhealthy foods and diets that lead to poorer health.
- Policy solutions to tackle poor diets are considered low-cost. The World Health Organization (WHO) ‘Best Buys’ include interventions to reduce salt and sugar intake, such as front-of-pack labelling, fiscal tools and educational initiatives, and measures to eliminate industrial trans-fats.
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Malnutrition occurs when the body is not receiving enough of the right nutrients to function properly. This can present as under-nutrition, such as wasting and stunting, but also as overweight, obesity, and diet-related NCDs such as cardiovascular disease and stroke, type 2 diabetes and some cancers.

Many countries now experience a ‘double burden’ of malnutrition. This is where under-nutrition occurs alongside over-nutrition, where unhealthy diets are contributing to unhealthy weight gain and diet-related poor health. These unhealthy diets consist of food and drinks with high levels of energy (calories), salt, sugar, and fats, notably industrial trans fats (also known as trans-fatty acids, TFAs or iTFA).

Around the world, 1.9 billion adults are overweight or obese, while 462 million are underweight. In a study that looked at global deaths from 1990 to 2017, it was found that one in every five deaths were the result of poor nutrition.

What is a healthy diet?

According to the WHO, healthy diets are rich in fibre, fruit, vegetables, lentils, beans, nuts, and wholegrains. These diets are balanced, diverse and meet a person’s macronutrient (protein, fat, carbohydrate and fibre) and micronutrient (minerals and vitamins) needs depending on their stage of life.

Generally, healthy diets contain:

- Fat intake of less than 30% of total energy. These should be mainly unsaturated fats, with less from saturated fats. Trans fats should not be consumed.
- Sugar intake of less than 10% of total energy, but preferably less than 5%.
- Salt intake of less than 5g per day.
- Fruit and vegetables intake at least 400g per day.

Food systems and changes in the way we eat

A person’s ability to maintain a healthy diet is often not within their control – it is influenced by the food environment where they live, early life nutrition, income, and accessibility. The ‘food system’ refers to all processes of getting food from production to our plates. The food system is often dictated by location, climate, culture, consumer behaviour, industry practices and the regulatory environment, among other factors.

Rise in ultra-processed foods and drinks

Over several decades, dietary habits have changed dramatically around the world. Globalisation and urbanisation have paved the way for a rise in convenience food and drinks products, junk food, and eating out, with fewer people growing or making their food from scratch.

These cheap and ready-to-consume food and drinks products are often ‘ultra-processed’ and high in calories, fats, salt and sugar and low in nutrients. They are produced to be hyper-palatable and attractive to the consumer, like burgers, crisps, biscuits, confectionery, cereal bars, and sugary drinks.

Ultra-processed foods and drinks typically have a long shelf life, making them appealing for businesses like supermarkets, rather than highly perishable fresh goods. Intensive marketing by the industry – especially to children – has also increased the consumption of these types of goods. Increasingly, these products are displacing fresh, nutritious, and minimally processed goods, shifting population diets and food systems.

Vulnerable populations and poorer people in all parts of the world struggle to access and maintain a healthy diet. It is in these settings where ultra-processed food and beverage products are most prevalent. An estimated three billion people cannot afford healthier food choices with poverty negatively impacting the nutritional quality of food.

Which diseases are linked to unhealthy diets and malnutrition?

Unhealthy diets and resulting malnutrition are linked to several noncommunicable diseases, including:
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- Overweight and obesity – also associated with elevated blood pressure, high cholesterol, diabetes, cardiovascular disease and stroke, cancers and resistance to the action of insulin.
- Cardiovascular disease (heart disease) and stroke.
- Type 2 diabetes and hypertension (high blood pressure).
- Some cancers – including oesophageal cancer; tracheal, bronchus and lung cancer; lip and oral cavity cancer; nasopharynx cancer; colon and rectum cancer.[8 [7]]

These diseases are driven by common dietary risk factors, including:

- High salt intake – a leading dietary risk factor for death and illness worldwide. High salt consumption increases blood pressure, which increases the risk of cardiovascular disease and stroke, chronic kidney disease and some cancers.
- High sugar intake – excess sugars can contribute to tooth decay and weight gain, leading to overweight and obesity, as well as higher blood pressure, cardiovascular disease and stroke, and some cancers.[9 [12]]
- High trans fats intake – linked to cardiovascular disease and stroke.
- Low fruit and veg intake – linked to several cancers, cardiovascular disease and stroke.
- Low intake of fibres, grains, nuts, seeds, micronutrients – linked to diabetes, cardiovascular disease and stroke, and some cancers.[10 [7]]

Childhood malnutrition

Early life nutrition has important impacts on the likelihood of disease and poor health later in life. But childhood malnutrition remains one of the biggest challenges in public health today.

In 2020, an estimated 22% and 7% of children under five were affected by stunting and wasting, respectively, and 7% were overweight. Most of these children live in lower- and middle-income countries. Asia and Africa account for nine out of ten of all children with stunting and wasting and more than seven out of ten children who are affected by overweight.[11 [8]]

Breastfeeding is one of the most effective ways to ensure the development of a healthy immune system in children, protecting against childhood malnutrition and poor health throughout the life course. But aggressive marketing of formula and baby foods seeds doubt in mothers, compromising breastfeeding and other healthy feeding practices in early childhood.[12 [9]] Policies that protect and promote breastfeeding, including the regulation of breast milk substitute industry, are critical public health interventions.

What can be done to tackle unhealthy diets and malnutrition?

Strategies to tackle unhealthy diets and malnutrition – leading to overweight, obesity and many noncommunicable diseases – should be part of a comprehensive package of policies that aim to improve the food system.

One of the most straightforward nutrition policies is the elimination of industrially-produced trans fats, or trans fatty acids (iTFA), from the global food supply. If all countries removed this harmful compound that causes heart disease, 17 million lives could be saved by 2040. An additional estimated 2.5 million deaths could be prevented each year if global salt consumption were reduced to the recommended level.[13 [14]]

Implementing strong nutrition policies will not only accelerate progress towards global NCD targets – but is essential to build healthier and more resilient populations that are better prepared to deal with future health emergencies, such as COVID-19.

What’s more, many nutrition measures are considered cost-effective by the WHO and included in their ‘Best Buys’ of recommended interventions to reduce the burden of NCDs around the world.[14 [15]]

Specific measures include:
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- Reformulation of food and drinks products to contain less salt, sugar and fats – with the goal of eliminating all trans-fats.
- Limiting marketing and promotion of unhealthy food and drink products – especially to children and adolescents, including online and in places where they congregate.
- Front-of-pack nutrition labels which clearly warn of the high content of ingredients including fats, sugar, and salt. Front-of-pack labelling systems have now been implemented in more than 30 countries (where governments have led and supported their development), and systems are under development in many other countries.
- Taxes on sugar-sweetened beverages to reduce sugar consumption.
- Subsidies on fruit and vegetables to increase intake of healthier food choices.
- Increasing incentives for producers and retailers to grow, use and sell fresh fruit and vegetables.
- Protecting and promoting breastfeeding.
- Promoting awareness of better nutrition through mass media campaigns.
- Nutrition education and counselling in preschools, schools, workplaces and health centres.

Case study: Bold action in Mexico leads the way

*NCD Alliance acknowledges support from Resolve to Save Lives in the production of this video.*

Mexico has among the highest prevalence of diet-related NCDs and obesity in the world. Around three-quarters of people in Mexico live with overweight or obesity, including one-third of all children. Diet-related conditions such as type 2 diabetes and hypertension are rising in prevalence.

Mexico has been taking big steps to improve health by reducing the high prevalence of largely preventable chronic diseases like obesity, type 2 diabetes and some cancers. But the government and health civil society have faced fierce challenges from the big businesses behind the products that are making people sick. As the pandemic took hold in 2020, and world leaders debated the crisis, the Mexican Minister of Health drew attention to how neglecting to prevent NCDs had made the world’s people more vulnerable to the novel coronavirus.

Health authorities urged Mexicans to transition to healthier diets and habits to reduce the COVID-19 burden. Yet the junk food industry continues to operate despite the government’s efforts, using the pandemic food crisis to put foods high in sugar, salt and fat into children’s hands as much as possible, with no regard to the harmful impact of these foods.

So, while the Mexican federal government persists with its effective soda tax, they have also strengthened their position with strong front-of-pack labelling and trans-fats elimination to create healthier environments for the people of Mexico.

“The tax on sugar-sweetened beverages in Mexico is projected to prevent 239,900 instances of obesity, of which almost 40% would be among children.”

But impatient for Federal regulations to come into force and be implemented, Congress in the region of Oaxaca went a step further, voting to ban the sale of junk food to children altogether and placing the control of purchasing into the hands of parents. The Ley Anti Charra (Anti-Junk Food Law), applies to stores, schools and vending machines. Enforcement is complex, but there is strong public support to defend the health of the most vulnerable population: children. One thing is for sure, with rates of obesity and diet-related NCDs rising in most countries, more must take bigger, braver steps like Mexico to fix food systems and protect children from the foods and drinks that are making us all sick.

*Page last updated in November 2021*

Related Resource: [Ambitious SMART commitments to address NCDs, overweight and obesity](#) [16]
[INFOGRAPHIC: End malnutrition in all its forms - A call to action to governments](#) [17]
[2017 Global Nutrition Report](#) [18]
Number of children living with obesity worldwide has risen tenfold in the past four decades

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