

1 What is a food system?

World Obesity adopts The Food and Agriculture Organization of the United Nations (FAO)'s definition of food systems:

"Food systems (FS) encompass the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption, and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal, and natural environments in which they are embedded."

Food systems encompass all of the processes involved in the production, processing, retailing and marketing of food from "farm to table". Food systems, and the way in which we interact with them (known as our food environments), play an integral role in human health and planetary health.

2 How are food systems linked to obesity?

Food systems are inextricably linked to malnutrition in all its forms, due to their influencing role in our relationships with food and nutrition globally, as well as their direct influence on food availability, quality, and nutritional content. Access to sufficient quantities of healthy, affordable, and nutritious diets are a key part of obesity prevention and management strategies.

The Global Syndemic of Obesity, Undernutrition, and Climate Change highlights the causal relationship between food systems and all forms of malnutrition. Rising prevalence of obesity can be partially attributed to dysfunctional food systems and their current inability to provide healthy, sustainable, and nutritious diets.

The global increase in obesity prevalence has been concurrent with the worldwide rise in the consumption and marketing of ultra-processed foods (UPFs), which are energy-dense, rich in sugars, saturated/trans fats, and sodium.

Food systems must deliver affordable, healthy, nutritious diets to halt the rise in obesity and address all forms of malnutrition.

3 Food Systems drivers of obesity

ENVIRONMENTAL

Urbanisation and globalisation are altering how we distribute, process, market, and consume food. For example, UPFs have become more commonly available and less costly in comparison to nutrient-rich, fresh foods. This is contributing to the 'nutrition transition', whereby more people are now overweight than underweight.

COMMERCIAL

Current food systems are market-driven, often poorly regulated, and economic incentives are not aligned with public health priorities.

ECOLOGICAL

Obesity and climate change share many common drivers, and in turn, climate change and ecological degradation also influence the obesity pandemic. Some examples of ecological drivers of obesity in the food system include: biodiversity loss in soil and gut microbiome, air pollution on physical activity, and climate change on food supply, price shocks, and adaptive thermogenesis.

Marketing strategies employed by large, processed food corporations are contributing to the failure of the food system to deliver nutritious diets.

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Diets and obesogenic environments

A healthy diet is one which is protective against all forms of malnutrition and noncommunicable diseases. An unhealthy diet is one which involves the consumption of high levels of sugars, saturated fats, trans fats, foods low in fibre, and increased consumption of highly processed foods.

The global food system is creating dietary patterns resulting in rapidly rising obesity rates worldwide, even in countries where food insecurity and other forms of malnutrition are present. We live in environments where the proliferation of cheap, processed, and high-energy density food dominates, while opportunities to be physically active are reduced – resulting in obesogenic environments which are not conducive to good health and increase the burden of malnutrition, including overweight and obesity.

Adult obesity prevalence is 'rising sharply' across all regions of the world - with global prevalence increasing from 11.7% in 2012 to 13.1% in 2016. Contrary to popular beliefs, the prevalence of obesity is now fastest rising in low- and middle-income countries. Childhood obesity is following similar trends: in 2020, 158m children aged 5-19 years were estimated to be living with obesity, a number predicted to reach 254m by 2030.

Healthy diets must be made affordable for all through systemic changes and local interventions.

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Cost of inaction

The cost of inaction to transform food systems is far-reaching beyond diet-related health costs. Climate change disruption and the subsequent loss of income due to biodiversity loss (which in turn impedes productivity in the farming sector) is a major concern.

A shift from unhealthy diets has been estimated to have potential reductions in both direct costs (e.g., medical treatment costs) and indirect health costs (e.g., loss of productivity) of up to 97%.

If we fail to act, diet-related health costs linked to mortality and NCDs are estimated to cost 1.3 trillion USD per year, and 'greenhouse gas emissions associated with current dietary patterns is estimated to be more than 1.7 USD trillion per year by 2030'.

Food systems must be transformed to deliver sustainable, nutritious diets in order to avoid catastrophic economic, human health and planetary costs.

6

The impact of COVID-19

Food systems and supply chains have been strained as a result of the COVID-19 pandemic, resulting in food and nutrition insecurity concerns globally.

COVID-19 response measures and the need for self-isolation has prompted many to rely on processed foods with longer shelf life (instead of fresh produce) and canned food (with higher quantities of sodium) which could prompt a further rise in the prevalence of overweight and obesity globally.

The COVID-19 pandemic has disproportionately affected those living with obesity. Obesity-related conditions have been observed to worsen the effects of COVID-19.

The COVID-19 pandemic has emphasised the need for all individuals to have access to healthy, nutritious food. We must transform our food systems in a way that achieves this.

7

Transforming food systems

The pandemic has disrupted the food system and has provided an imperative to rethink and redesign in a sustainable way which supports healthy and nutritious diets.

This transformation can be achieved through the introduction of multisectoral policies which support the establishment of a healthy, fair, and nutritious food system - removing the focus from individual responsibility, and exposing the true cost of unhealthy foods in health terms; such as the recommendations from The Global Syndemic of Obesity, Undernutrition, and Climate Change. This report suggests a series of double and triple-duty actions which can simultaneously address the growing burden of undernutrition, overnutrition and climate change

"When transformed with greater resilience to specifically address the major drivers, food systems can provide affordable, healthy diets that are sustainable and inclusive, and become a powerful driving force towards ending hunger, food insecurity and malnutrition in all its forms." - FAO

'Double-duty' or 'triple-duty actions' are needed to address the common drivers of obesity, undernutrition, and climate change simultaneously through systems-level interventions.

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Recommendations for food system transformation

- Establish multisectoral policies which support a healthy, fair, and nutritious food system and remove the focus from individual responsibility.
- Update dietary guidelines to include sustainability considerations.
- Disincentivise the consumption of unhealthy foods and beverages by implementing marketing regulations and increasing health and nutrition education.
- Support small- and medium-enterprise farmers with subsidies and tax incentives, in particularly women and youth developing innovative solutions for sustainable, green, and local food production.
- Improve social protection systems by providing families, particularly those with young children, with the financial support to access healthy and nutritious diets.
- Develop triple-duty actions that can simultaneously address the growing burden of undernutrition, overnutrition and climate change.
- Give young people a seat at the table during decision-making processes.
- Strengthen accountability systems to create healthy food environments.
- Human rights – all individuals have the right to nutrition. Their best interests must be at the front and centre of efforts to create healthy food environments.