



World Health  
Organization

India



# The growth of ultra-processed foods in India

An analysis of trends, issues and policy recommendations

WHITE PAPER





# The growth of ultra-processed foods in India

An analysis of trends, issues and policy recommendations

WHITE PAPER



## Acknowledgement



This white paper has been developed by the World Health Organization (WHO) Country Office for India in collaboration with the Indian Council for Research on International Economic Relations (ICRIER). The WHO team comprised Dr Rachita Gupta (National Professional Officer, Nutrition) and the ICRIER team included Prof Arpita Mukherjee, Mr Dripto Mukhopadhyay (Consultant) and Ms Eshana Mukherjee (Research Associate). WHO acknowledges the invaluable contribution of the ICRIER team throughout the conceptualization, development, and production of this white paper from the report titled “The growth of ultra-processed foods in India: An analysis of trends, issues and policy recommendations”. Dr Deepak Mishra (Director and Chief Executive of ICRIER) provided unwavering support for the development of this white paper.

Special thanks are due to many colleagues and experts who provided valuable inputs and peer-review comments that shaped the white paper. Their comments and insights into areas of complementarity to their ongoing work have helped improve the white paper’s usability and relevance from different stakeholder perspectives and policy environments. Valuable peer-review comments and inputs were provided by Mr Harsh Hiroo Gursahani (Partner, PLR Chambers), Mr Rijo John (Research Consultant-Health Economics and Public Health Policy, Rajagiri College of Social Sciences) and Prof Sitanshu Sekhar Kar (Head of Preventive and Social Medicine, Jawaharlal Institute of Postgraduate Medical Education and Research).

The white paper benefited from inputs from Mr Anu Mohandas, Ms Athira Thomas, Ms Dikshya Majhi, Ms Kasvi Sansanwal and Ms Srishti Pal from ICRIER. The white paper is grateful to Mr Anshu Shekhar Roy and Ms Rina Sinha from WHO Country Office for India for their support in technical editing and designing of this white paper and Adsyndicate for designing the cover page.





## Abstract

Closely linked with India's rapid economic growth is a simultaneous transition in dietary patterns. There has been a shift towards consuming ultra-processed foods, a key risk factor for noncommunicable diseases (NCD) early in life, documented in multiple studies. However, there is inadequate data on trends in sales and consumption of ultra-processed foods in India.

In this context, this white paper:

- (1) analyses the sales trends in India's ultra-processed food category and the changes post-COVID-19 pandemic;
- (2) forecasts growth;
- (3) examines global best practices and India's initiatives on ensuring access to healthy diets; and
- (4) recommends policy actions to reduce the consumption of unhealthy food and help India attain nutrition security.

This white paper provides a multi-sectoral framework for achieving a sustainable food system focussed on ensuring availability and accessibility to affordable balance diets, with the broader objective of meeting the UNSDGs by 2030.

**Keywords:** HFSS food, processed food and beverages, WHO, India, government policy

**JEL Classification:** H2, I18, L66, L81







## Introduction

Closely linked with India's rapid economic growth is a simultaneous transition in dietary patterns. There has been a shift towards consuming ultra-processed foods, a key risk factor for contracting noncommunicable diseases (NCD) early in life, documented in multiple studies.

Processed food can be segregated into two broad categories:

- a) Essential foods: that are part of the staple diet and
- b) Ultra-processed foods: Individual or composite foods and beverages high in fat, sugar and sodium (HFSS) and/or low in other beneficial nutrients such as protein, vitamins, minerals, fibres and non-nutrient compounds. These foods and beverages mostly have strong salty and/or sweet taste and rich mouthfeel from fat.

### Box 1: Evidence on rising burden of diet related noncommunicable diseases (NCDs)

- **Indian Council of Medical Research (ICMR)-National Institute of Nutrition (NIN) (2020):** In India, the average daily intake of 'visible fats' among the urban population in 7 metro cities was 33 gm/day, higher than the recommended levels of 20 gm/day.
- **National Family Health Surveys in India between 2005-2006 and 2019-2020:** 29.8% of men and 33.2% women in urban India and 19.3% and 19.7%, respectively, in rural India are overweight. Obesity rates among children have increased by 19.3% between 2005-06 and 2015-16.
- **Comprehensive National Nutrition Survey of 2019:** 4% of children and 5% of adolescents are overweight.
- **ICMR (2016):** The percentage of deaths due to NCDs in India increased from 38% in 1990 to 61.8% in 2016.

To achieve the United Nations Sustainable Development Goals (UNSDGs) on universal access to safe and nutritious food and end to malnutrition (SDG 2) and reduce mortality from NCDs (SDG 3) by 2030, it is important to develop evidence-informed policies promoting healthy diets. However, there is inadequate data on trends in sales and consumption of ultra-processed foods in India.

### Objectives

This white paper:

- (1) analyses the sales trends in India's ultra-processed food category and the changes post-COVID-19 pandemic;
- (2) forecasts growth;
- (3) examines global best practices and India's initiatives on ensuring access to healthy diets; and
- (4) recommends policy actions to reduce consumption of unhealthy food and help India attain nutrition security.

## Methodology and data

The white paper is based on analysis of secondary data (Fig. 1). It presents a descriptive analysis of the past trends in the growth of ultra-processed foods across various categories and sub-categories and provides a three-scenario growth forecast over the next decade in India.

**Fig. 1: Examples of secondary data sources**

Euromonitor International's Passport	National Accounts Statistics, Ministry of Statistics and Programme Implementation (MoSPI)	Reserve Bank of India and International Monetary Fund	Directorate General of Ministry of Commerce and Industry (MoCI)
<ul style="list-style-type: none"> <li>All India level retail volume/value of retails sales, per capita retail sales, sales by retail channel - store based retailing</li> </ul>	<ul style="list-style-type: none"> <li>Macro-economic trends like gross domestic product (GDP), private final consumption expenditure, disposable income, GVA, etc.</li> </ul>	<ul style="list-style-type: none"> <li>India's growth assumptions for forecasting</li> </ul>	<ul style="list-style-type: none"> <li>Trade data at HS 4/6-digit level, which is available in fiscal year (the latest year being 2022–2023, till January)</li> </ul>

This study covers five popular categories of ultra-processed foods, as shown in Fig. 2.

**Fig. 2: Categories and sub-categories of ultra-processed foods**

Chocolate and sugar confectionery	Salty snacks	Beverages	Ready-made and convenience foods	Breakfast cereals
<ul style="list-style-type: none"> <li>Chocolate confectionery (like boxed assortments)</li> <li>Sugar confectionery (like boiled sweets)</li> <li>Sweet biscuits</li> </ul>	<ul style="list-style-type: none"> <li>Potato chips, tortilla chips, puffed snacks</li> <li>Nuts, seeds and trail mixes</li> <li>Other savoury snacks (like namkeen and bhujia)</li> </ul>	<ul style="list-style-type: none"> <li>Soft drinks/ carbonated soft drinks</li> <li>Fruit juices (like 100% juice and reconstituted 100% juice)</li> <li>Energy and sports drinks</li> </ul>	<ul style="list-style-type: none"> <li>RTE* cereals</li> <li>Ready meals</li> <li>Sauces/ dressing/ condiments</li> <li>Frozen seafood</li> </ul>	<ul style="list-style-type: none"> <li>Hot cereals (like oats and porridges)</li> <li>RTE cereals (like children's breakfast cereal and flakes)</li> </ul>

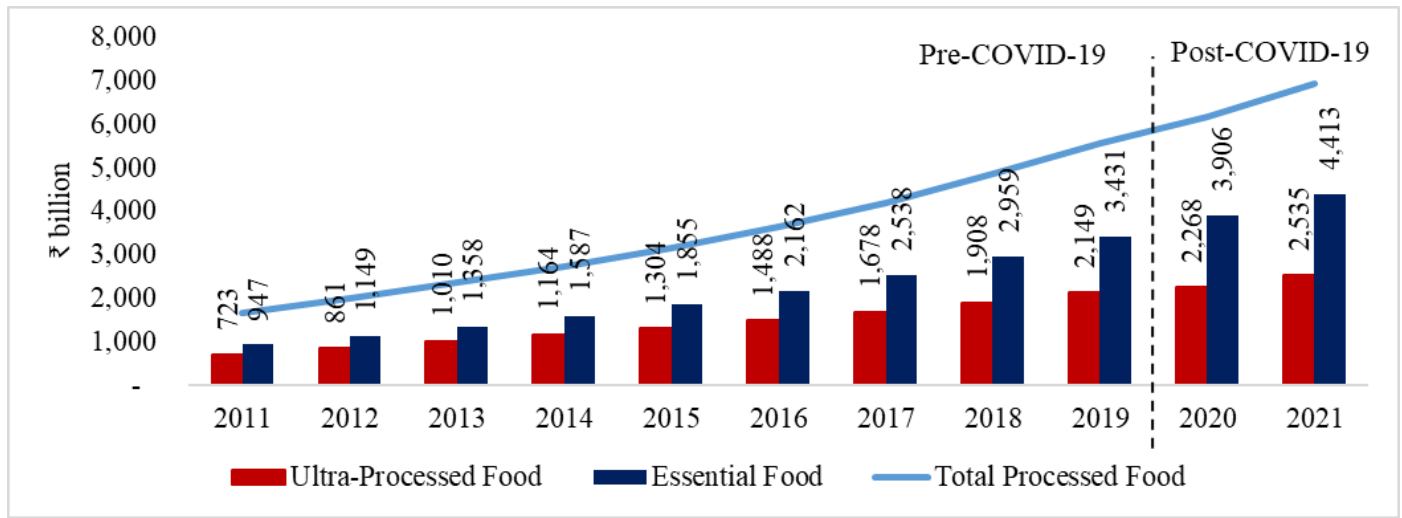
Note: \*Ready to eat

## Key findings

The ultra-processed food sector grew at a compound annual growth rate (CAGR) of 13.37% in retail sales value from 2011-2021, wherein the share of ultra-processed foods in the retail sales of total processed foods (essential/staple plus ultra-processed):

- varied from 43% in 2011 to 36% in 2021 in sales value and is projected to be at 39% by 2032;
- declined from 47.7% in 2011 to 46.1% in 2021 in sales volume.

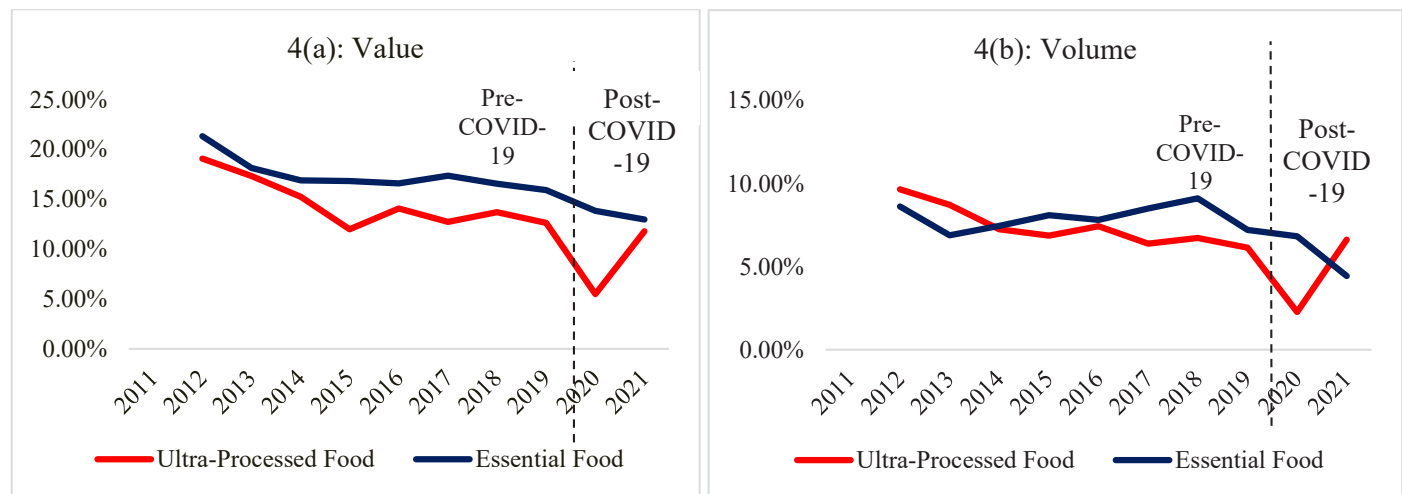
**Fig. 3: Retail sales value of processed foods vs essential foods vs ultra-processed foods**



Source: Compiled from Euromonitor Database

After the pandemic, there seems to be a sharp 'V-shaped' recovery (11.29% growth between 2020-2021) in the year-on-year (y-o-y) growth rate in ultra-processed foods retail sales, as seen in Fig. 4.

**Fig. 4: Year-on-year growth rate of ultra-processed foods' retail sales**



Source: Compiled from Euromonitor Database

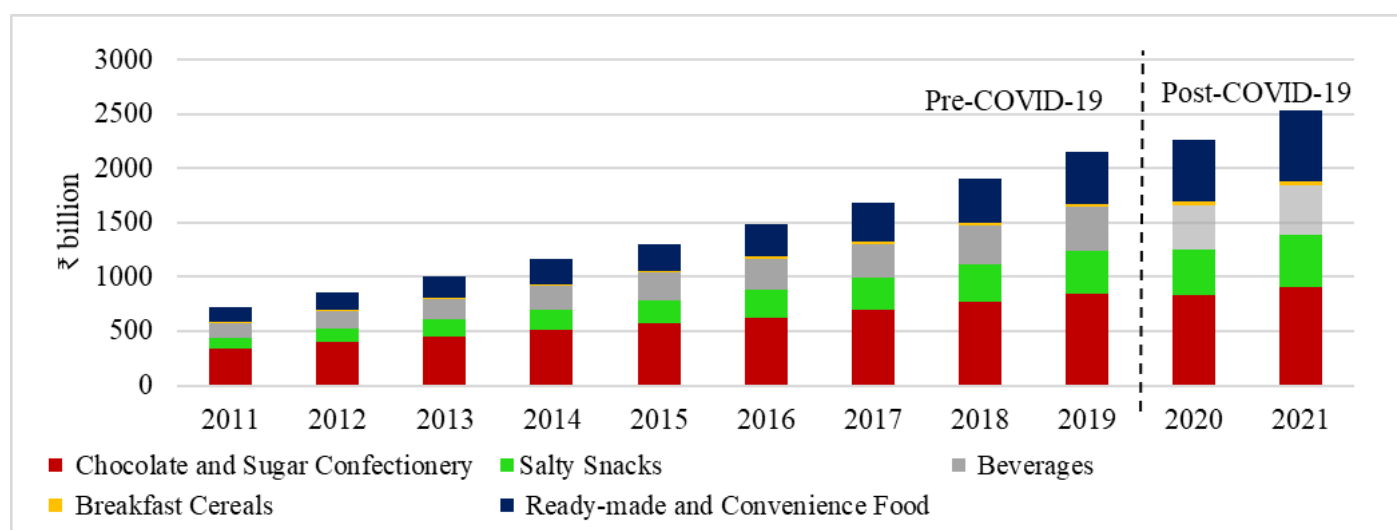
### 3.1 Trends in the sale of different categories of ultra-processed foods

Variation in the growth of ultra-processed foods across the five categories (Fig. 5) was observed:

- Retail sales value: chocolate and sugar confectionery accounted for the maximum market share during 2011-2021, followed by ready-made and convenience foods. Beverages were the 3rd largest category till 2019 but were overtaken by salty snacks in 2021;
- Retail sales volume: beverages were the most popular product category during 2011-2021 with the highest retail sales volume, followed by chocolate and sugar confectionery and ready-made and convenience foods;
- Per capita, retail sales of ready-made and convenience foods increased quickly even during the pandemic (since they take less preparation time), while categories like beverages saw a dip.

Salty snacks had a CAGR of 16.78% in retail sales between 2011-2021. Its share in the total ultra-processed retail sales value rapidly increased from 14% in 2011 to 18% in 2020, and further to 19% in 2021.

**Fig. 5: Retail sales value of different categories of ultra-processed foods**



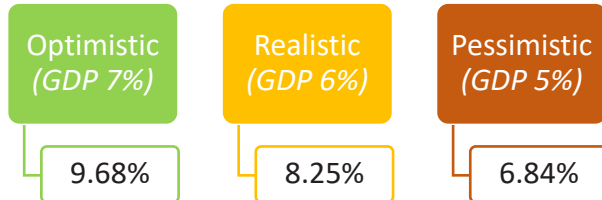
Source: Compiled from Euromonitor Database

### 3.2 Trends in the sale of different sub-categories of ultra-processed foods

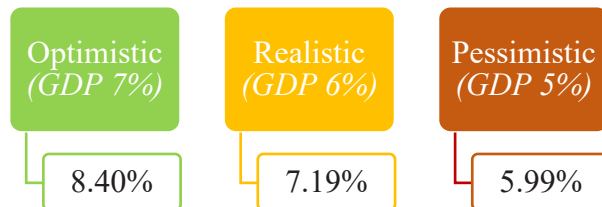
- Within the chocolate and sugar confectionery product category, sweet biscuits accounted for over 43% of the market share in retail sales value in 2021.
- Within the beverages category, the share of soft drinks/carbonates declined from 59% in 2011 to 37% in terms of retail sales value in 2021. Concentrates/squashes accounted for 77% of the market share in retail volumes, followed by soft drinks/carbonates (13%) and juices (9%) in 2021.
- While the market for breakfast cereals is much smaller in India compared to many other countries, a number of varieties available in India have high sugar content.

## Three scenario growth forecast for ultra-processed vs essential foods over the next decade

### (a) Ultra-processed foods



### (b) Essential/staple foods



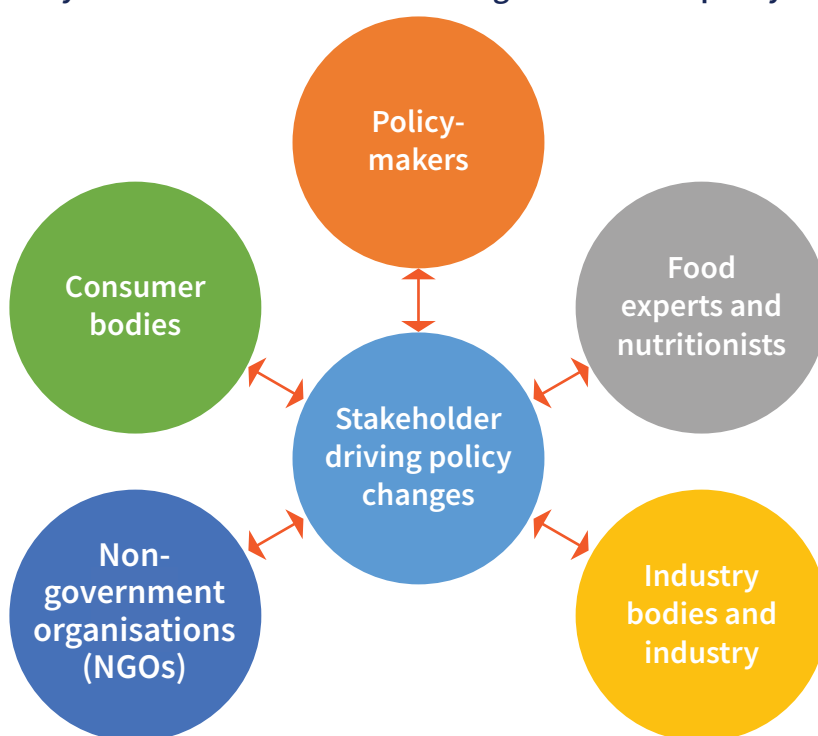
- Under all three GDP growth scenarios, both ultra-processed and essential foods have a higher growth rate than the GDP growth rate.
- Ultra-processed foods are predicted to grow at a faster rate than essential foods.
- Hence, as a growing economy, shifting the population's consumption to healthier foods is imperative to prevent an obesity epidemic.
- By categories:
  - Salty snacks are estimated to have the highest projected growth rate, followed by breakfast cereals and beverages.
  - By 2032, despite a decline in market share, chocolate and sugar confectionery will continue to dominate sales of ultra-processed foods, followed by salty snacks and ready-made and convenience foods.

Overall, the forecasted values show a persistent upward trend in the consumption of ultra-processed foods. Even if this consumption is currently low compared to home-cooked foods, the upward trend needs to be curtailed with policy interventions to prevent an obesity epidemic in India.

## Key stakeholders and policies to promote healthy diet

Globally, countries have adopted many policies to promote healthy diets and/or reduce unhealthy food consumption. These include a comprehensive nutrition policy or roadmap; nutrition-focused regulations; higher taxes on unhealthy food and lower taxes or subsidies/incentives for healthy food products; nutrition labelling for guiding consumers towards right purchases; awareness programmes; nutrition-linked public procurement policy; regulations limiting advertising/marketing of ultra-processed foods and ban on certain products like partially hydrogenated fats (PHVOs) rich in trans fats; to name a few. Execution of such policies/programmes involve multiple stakeholders (see Fig. 6).

**Fig. 6: Key stakeholders who can work together to drive policy changes**



The key stakeholders to whom such interventions are targeted include food processors/manufacturers and consumers.



## Current policy landscape in India

The Government of India has introduced several policies and initiatives to promote a healthy diet (Fig. 7). Regulations such as front-of-the-pack labelling (FoPL) are currently under discussion. Overall, most of the current policies are focused on addressing undernutrition. Several initiatives undertaken to date are voluntary and not mandatory, leading to challenges in policy implementation at scale (Box 2).

**Fig. 7: Some Examples of India's policies/initiatives**

Eat Right India campaign	Limit on trans-fat in oils and foods	Integrated Child Development Services (ICDS) scheme
Food Safety and Standards (Advertising and Claims) Regulations 2018	Food Safety and Standards (Safe Food and Healthy Diets for School Children) Regulations 2020	National Multisectoral Action Plan for Prevention and Control of Common NCDs 2017-22

### **Box 2: Challenges in policy implementation, which, when bridged, can fast-track the journey towards nutrition security**

- (1) absence of an agreed definition of ultra-processed or HFSS foods;
- (2) absence of an overarching nutrition roadmap targeting a reduction in the consumption of unhealthy foods;
- (3) inadequate nutrition-based taxes and incentives to support innovation and product reformulation for increasing the availability and affordability of healthy foods;
- (4) government procurement policies focussing on the treatment of undernutrition alone rather than the entire spectrum of malnutrition, including overweight/obesity;
- (5) lack of comprehensive regulation limiting all forms of marketing of unhealthy foods, including various over-the-top (OTT) platforms such as video streaming platforms and social media.

## Measures to attain nutrition security and meet UNSDGs in India

To attain nutrition security and meet the UN Sustainable Development Goals (UNSDGs) by 2030, India should:

- i. **Develop a transparent definition of different categories of HFSS foods:** The Food Safety and Standards Authority of India (FSSAI), in consultation with key stakeholders, should clearly define different categories of HFSS foods for use by other governments to design nutrition-linked policies and non-governmental stakeholders for creating awareness and monitoring compliance of related policies.
- ii. **Remodel existing policies and programmes to address both undernutrition and overnutrition:** While India already has come up with policies and programmes such as Saksham Anganwadi and Poshan 2.0, these lack focus on prevention and treatment of overnutrition and diet-related non-communicable diseases. By including a target on halting the rise in overweight and obesity and strengthening the health system and community-based structures to screen, counsel and treat overweight/obesity, the dual burden of malnutrition can be addressed cost-effectively. The National Nutrition Policy (2021-2030) of Sri Lanka, which aims to address the dual issue of undernutrition and overnutrition, serves as an example of double-duty policy action.
- iii. **Implement nutrition-linked taxes:** Once the FSSAI defines HFSS foods, the GST Council must link its tax structure with it. A nutrient-based tax model focuses on higher taxes for products which contain fat, sugar and salt beyond the recommended levels and lower taxes for the healthier and reformulated options. Moreover, nutrition-linked taxes must meet three objectives: (a) incentivise manufacturers to reformulate their products; (b) make healthy products cheaper for consumers; (c) discourage the production of unhealthy products.
- iv. **Link fiscal incentives to nutrition:** Subsidies and other fiscal incentives can drive production, exports and consumption. Hence, these should be linked to the nutritional content of products. For example, the PLI scheme by the Ministry of Food Processing Industries (MoFPI) can be nutrition-linked. Under the Foreign Trade Policy, the Ministry of Commerce and Industries (MoCI) can support exports of reformulated and healthy products, the demand for which is rising in key export markets. Positive fiscal incentives, such as food vouchers or coupons, can help influence and change consumer behaviour towards the consumption of healthy foods. Further, the incorporation of ingredients like sugar which are highly subsidised can reduce the cost of manufacturing in comparison to that of more nutritious options. Hence, such subsidies need to be revisited in view of their adverse health impacts.
- v. **Implement front-of-pack labelling (FoPL):** The Draft Notifications on Food Safety and Standards (Labelling and Display) Amendment Regulations (2022) of FSSAI should be finalised and implemented in consultation with key stakeholders. Manufacturers should be made accountable for false health and nutrition claims through monitoring and enforcement so that consumers are not misinformed.
- vi. **Regulate marketing and advertisement:** All forms of marketing and promotion of HFSS foods by the manufacturer and the retailer (both offline and online) should be restricted by FSSAI. Consumer awareness should be promoted regarding the benefits of healthy eating habits and the adverse impact of unhealthy diets. Both traditional as well as social media can be used for this purpose. Such behaviour change communication campaigns should be multilingual, covering all age groups and different institutional settings.



- vii. Build awareness about healthy eating habits and the harmful impacts of an unhealthy diet:** The government, in collaboration with institutions such as schools, universities, NGOs, as well as food bloggers and nutritionists, should actively promote the consumption of fruits and vegetables, and increase awareness of the National Institute of Nutrition (NIN)'s Dietary Guidelines for Indians.
- viii. Ensure the provision of healthy food under the food safety net programmes:** Procurement guidelines for the Poshan 2.0 (Integrated Child Development Services Scheme), PM Poshan (Mid-Day Meal Scheme) and the public distribution system should allow for the provision of healthy foods to the beneficiaries of these programmes to ensure they receive optimal nutrition.
- ix. Undergo data-driven policy making:** The availability of disaggregated data by product category/subcategory linked to its nutritional content is a challenge. This prevents evidence-informed policy making. Hence, dietary/market research surveys should capture such data. In addition, surveys at the retail end can look at the nutrition content of different products displayed in the retail outlets; consumer surveys can help to understand consumer preferences and consumption habits. Also, a mapping of existing government provisions needs to be done to assess their nutritional content. Such surveys can help to design efficient policies, understand the effectiveness of existing policies and monitor policy outcomes.

#### **Box 3: Areas of future research**

- Developing a comprehensive national nutrition policy with targets for addressing the dual burden of malnutrition.
- Mapping of different varieties of HFSS foods linked to their nutritional content, tax structure, labelling and marketing requirements.
- Analysis of sub-national policy interventions/best practices promoting a healthy diet.
- Analysis of the trends in sales of ultra-processed foods through the informal sector.

## Notes



