

Webinar 2

Core elements of effective, evidence-based policies

21 April 2022

This document summarizes the presentations and perspectives provided by speakers representing the UN, academia and civil society during this webinar. This webinar is part of a series to build the knowledge and capacity of UNICEF nutrition staff and partners. The term 'food industry' is used to refer to large manufacturers of ultra-processed and unhealthy food and beverages.



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Summary of key points and resources

Key points ●

- ▶ Food environments, including how foods are marketed, labelled, and priced, play a critical role in influencing children's diets.
- ▶ Front-of-pack labelling, marketing restrictions, regulating school food environments and fiscal policies are evidence-based and proven measures to address unhealthy food environments.
- ▶ Strong nutrient profile models (NPM) need to be developed and adapted for the country context.

1 Why is food environment regulation necessary?

Food environments around the world make it harder and harder for children to access, afford, and even desire healthy diets. Fuelled by the actions of a powerful food and beverage industry, the globalisation of food systems is driving a transition towards unhealthy food environments where unhealthy, ultra-processed foods and drinks are now more available, convenient, cheaper, and promoted than ever before. This transition of food environments has become the major driver of overweight, obesity, and diet-related NCDs around the world.¹

To curb this shift towards unhealthy diets, WHO has urged its member states to implement a comprehensive suite of food environment regulations and policies.

This webinar focused on four WHO recommended policies which UNICEF advocates to curb children's exposure to harmful food and beverage and to increase access to healthy options. These evidence-based policies help shape food environments so that the healthiest option becomes the easiest, cheapest, and most desirable:

- ▶ Restrict marketing of unhealthy foods and beverages;
- ▶ Establish interpretative front-of-pack nutrition labelling to help identify unhealthy foods;
- ▶ Introduce fiscal measures to encourage healthy diets (e.g., taxes on sugary drinks);
- ▶ Set standards for foods and beverages available in and around daycare centers, preschools, and schools.

2 What are nutrient profile models (NPMs)?

Nutrient profiling is "the science of classifying / ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health". Nutrient profile models (NPM) are used as a foundation for public health policies to promote healthy diets, such as marketing restrictions, procurement of food for public institutions (e.g., schools), front-of-pack nutrition labelling, fiscal policies, or a combination of policies.

Two types of NPMs exist: models that generate a single score or grade for the food item, and models that apply thresholds for several different nutrients. The aim of the latter is to determine a food's unhealthfulness by focusing on nutrients which are harmful when consumed excessively (e.g., sugar, sodium, saturated fat). Both models can be used to determine which food items are considered unhealthy and, therefore, are subject to policy restrictions (e.g., requiring a warning label, prohibited from being sold in schools, or prevented from being advertised to children).

WHO has developed regional NPMs (see resource section) which can help countries develop their own, context- and policy-specific NPM.

3 What are general principles of effective food policy design and implementation?

The four policies above share common principles and key elements which should be followed to ensure the policies' effectiveness:

- ▶ The development of the policy should be government led and designed without conflicts of interest;
- ▶ A clear policy objective is essential to inform policy design and evaluation;
- ▶ Scientific evidence (global, regional, and local) should underpin and inform policy design;

¹ In 2019, 38.2 million children under 5 had overweight or obesity. Over 340 million children and adolescents aged 5-19 had overweight or obesity in 2016. [Childhood overweight and obesity affects countries of all income-levels](#). Overweight and obesity exist alongside undernutrition (wasting, stunting, micronutrient deficiencies) in communities, households, and individuals. Overweight and obesity are leading drivers of diet-related chronic diseases causing death and disability globally (e.g., diabetes, heart diseases, some cancers).

- ▶ An evidence-based NPM developed by the government is needed to classify products and ingredients to be included within the policy scope;
- ▶ The policies should be enshrined in law, mandatory, and include enforcement with sanctions for non-compliance;
- ▶ Monitoring & evaluation systems (including resources needed) should be developed from the outset and incorporated into the legal mechanisms.

4 Why and how to adopt interpretative front-of-pack labelling

Food labels provide a source of information to overcome the information asymmetry between consumers and food manufacturers. Back-of-pack labelling is usually factual, intended to inform consumers of the ingredients (ingredient list) and nutritional properties of a food (nutrition declaration). The front of a food or drink package is usually used by the manufacturer to advertise the product and is considered a key component of the marketing strategy.

Front-of-pack nutrition labels (FOPNL) are positioned on the front principal display area of a product to provide a simplified summary of its nutritional composition. They aim to help consumers easily and quickly identify unhealthy foods and healthier alternatives. FOPNL encourages healthier food purchases. In the long-term, this [promotes healthier diets](#), positively impacting health outcomes. As a side effect, [FOPNL encourages reformulation](#) as manufacturers seek to have no or only favourable interpretative labels² on their food products.

Many different types of FOPNL have been implemented using a variety of descriptive words, warnings, colours, and/or symbols to illustrate specific nutrient contents (see Figure 1). Independent of the chosen model, it is essential that FOPNL are:

- ▶ Developed by government based on objective scientific evidence;
- ▶ Inclusive of the information about a food's unhealthfulness;
- ▶ Accessible in multiple languages and/or literacy levels depending on country context (i.e., using symbols, graphics and/or colours in addition to text);
- ▶ Communicated clearly to the public and food manufacturers (e.g., using guidance documents and public communication campaigns);
- ▶ Mandatory for all pre-packaged food products sold on the market.

Note that [industry usually favours and promotes voluntary schemes that are non-interpretative](#)³. Voluntary schemes are promoted to avoid government-led mandatory labels which usually use stricter NPMs and more effective FOPNL schemes. Non-interpretative systems are preferred by industry because [consumers understand them less](#), therefore they are less likely to influence their decisions to purchase unhealthy foods. Where mandatory schemes are developed by governments, industry interference is aimed at weakening them, for example by proposing more lenient NPMs or less intrusive graphics.

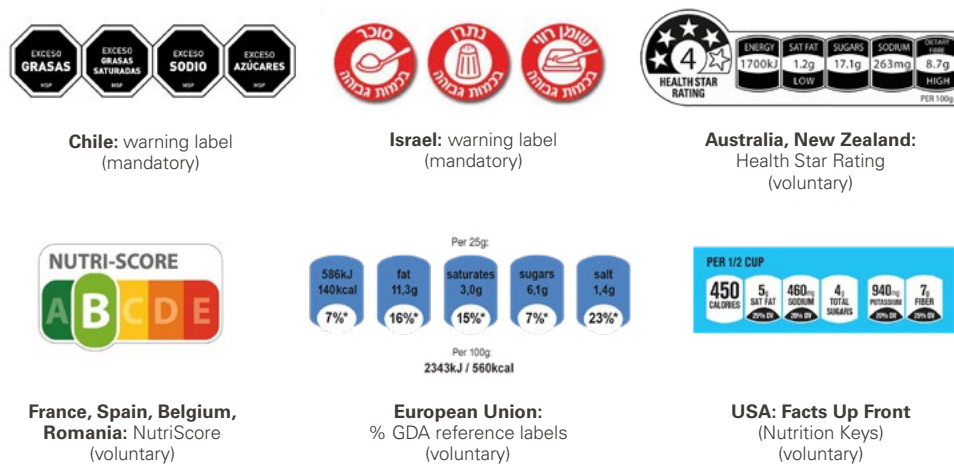
Box 1. [Check out UNICEF's full technical policy brief for Front-of-Pack Nutrition Labels, including an accompanying call to action video and cartoon advocacy booklet.](#)



2 Interpretative labels are FOPNL which communicate a recommendation or judgement about the healthfulness of the food product. Examples are warning labels and "high in" symbols.

3 Non-interpretative symbols show nutritional information only (numbers, percentages) without a recommendation or judgement on the healthfulness of the food. They are usually monochrome. Examples are the % GDA system (GDA = Guideline Daily Amount) or the US Facts Up Front system (also called Nutrition keys).

Figure 1. Examples of implemented front-of-pack interpretative labels



5 Why and how to restrict food marketing

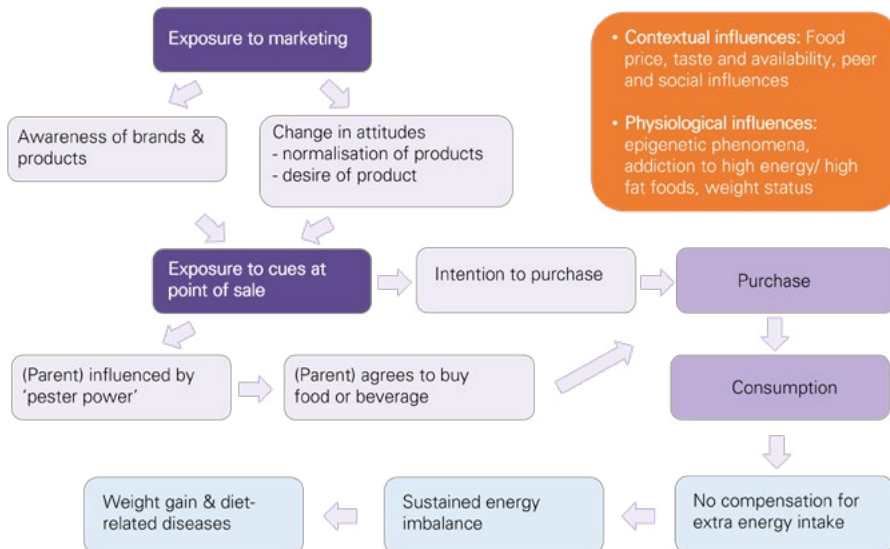
Consistent evidence from around the world shows that the majority of food and beverage marketing, across all media and settings, is classified as unhealthy and dominated by ultra-processed foods⁴. Children and adolescents are exposed to large volumes of unhealthy food marketing, which is increasingly moving from traditional media such as TV to [digital marketing](#) online (e.g., social media, company websites). Clear evidence shows that unhealthy food marketing is highly persuasive and powerful in influencing children. It creates social norms around foods and eating, increases children’s preference and consumption for ultra-processed foods, increases total energy intake, and leads to weight gain (see Figure 2).

[Restrictions on food and beverage marketing have been shown to be effective](#) at reducing the exposure to marketing and decreasing children’s consumption of unhealthy products and energy intake. Modelling studies have also provided evidence that they have long-term positive health outcomes (e.g., decrease in the incidence of overweight, obesity, and related chronic diseases) and consequently decrease healthcare costs for governments, society, and individuals.

Box 2. [Check out UNICEF’s full technical policy brief for marketing restrictions, including an accompanying call to action video and cartoon advocacy booklet.](#)



Figure 2. Cascade of effects of food marketing



Adapted from: Kelly et al. (2015). [A hierarchy of unhealthy food promotion effects: identifying methodological approaches and knowledge gaps.](#) *AJPH* 105(4):e86-95.

4 Ultra-processed foods and beverages are industrially manufactured formulations of food substances, typically containing excess amounts of concerning nutrients, such as sugar, sodium, and saturated or trans fats, and are often highly calorie dense. Ultra-processed foods are designed and manufactured for maximum profit: they contain low-cost ingredients, have long shelf-lives, are hyper-palatable, and are highly branded and marketed to consumers.

The following elements need to be considered when designing an effective policy to restrict food marketing:

- ▶ Aim to reduce exposure *and* power of marketing;
- ▶ Design the policy to protect children up to 18 years;
- ▶ Restrict marketing to which children are *actually* exposed, not just what is labelled or perceived to be “child marketing” by defining “marketing to children” broadly;
- ▶ Comprehensive implementation across multiple media, channels (digital and off-line) and settings, including sponsorship and brand marketing⁵.

6 Why and how to improve school food environments

Children spend a significant amount of time in school, and in many contexts receive a significant portion of food through school meal programmes or food sold on school premises (e.g., breakfast clubs, lunches, tuck shops). They are also exposed to marketing of food and non-alcoholic beverages on school premises, for example through advertisements in canteens, on vending machines, outdoor advertising on school buildings, or branded school items. In addition, they may buy food and see marketing messages around school grounds on their way to/from school or during breaks.

The school food environment, therefore, has the potential to impact children’s diets, preferences, and attitudes. Regulating this setting ensures that school meals adhere to healthy nutrition standards and unhealthy foods and beverages are not marketed and sold in and around school premises.

Components of effective school food policies include:

- ▶ High nutrient standards for school meal programmes;
- ▶ Restrictions on the sale of unhealthy food and drink in schools;
- ▶ Restrictions on the marketing of unhealthy food and beverages on school premises;
- ▶ Restrictions on the sale and marketing of unhealthy food and beverages around schools (e.g., a perimeter of 100m around school grounds);
- ▶ Financial support and resources for schools to enable compliance with school food regulations (e.g., provide healthy recipes and weekly meal planning, training for chefs, upgrade school kitchens, support procurement of healthy ingredients).

7 Why and how to use fiscal policies to encourage healthy diets

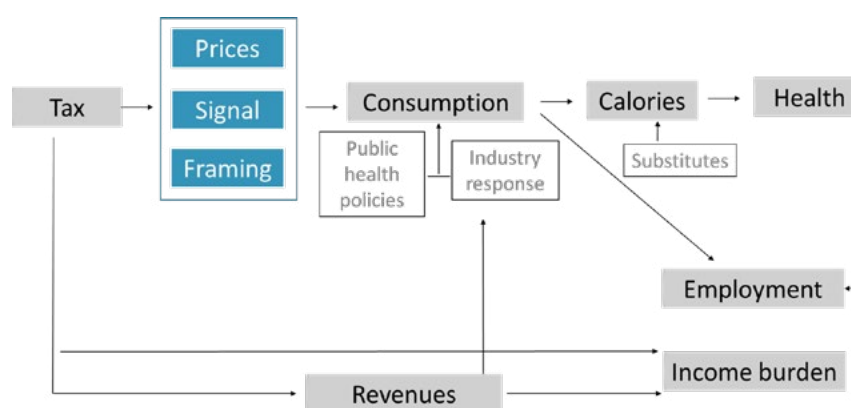
The affordability of food and beverages influences consumption habits and behaviours. Health taxes can incentivize a reduction in consumption of unhealthy foods and sugar-sweetened beverages (SSBs) by increasing their price (see Figure 3). The evidence has shown that a 10% tax levied on SSBs leads to an 8-10% reduction in purchase and consumption; a 20% tax on SSBs has been demonstrated to reduce the prevalence of overweight by 1-3% and the prevalence of obesity by 1-4%. Consequently, SSB taxes can significantly reduce the incidence of type 2 diabetes, heart disease, stroke, and premature mortality.

In children, SSB taxes also help to decrease the risk of overweight and obesity, and will have substantial health benefits as children grow older. In addition, revenue generated from a SSB tax may be used to fund health and social programmes benefitting the population or children specifically.

Box 3. [Check out UNICEF’s full technical policy brief for SSB taxes, including an accompanying call to action video and cartoon advocacy booklet.](#)



⁵ Brand marketing, as opposed to product marketing, aims to establish or grow a relationship between a brand and consumers. Instead of featuring an individual product (or service), brand marketing promotes the entirety of the brand, using the products (and services). For example, a football game sponsored by Coca-Cola is brand marketing whereas a TV commercial for Coke Zero is product marketing. Using Ronald McDonald (a brand character owned by McDonald’s) is brand advertising whereas a billboard showing a Big Mac is product marketing.

Figure 3. Potential impacts of food and beverage taxes

Source: webinar presentation by Arantxa Colchero

While many countries have introduced taxes on food and beverages, such as value-added taxes (VAT) and sales taxes, many of them aim to only raise fiscal revenue rather than improve health. Consequently, the tax design and tax rates don't consider the public health impact; usually, the rates are set too low to effect behavior change. Conversely, health taxes should be designed in a way that impacts purchasing behavior because their primary policy objective is health promotion (while also raising revenue). To date, [over 50 countries and local jurisdictions](#) have implemented such health taxes on SSBs, showing that the introduction of SSB taxes is feasible, effective, and appealing to policymakers. The experience with these SSB taxes has also shown that [there is no robust evidence of a negative economic effect](#) on employment, industry or government revenue.

Elements of a strong SSB tax include:

- ▶ Support from key stakeholders such as the Ministry of Health and Treasury, health organisations, and academia (excluding the beverage industry which never supports SSB taxes);
- ▶ Sufficiently high tax rate to impact purchasing decisions (recommended is at least 20% or higher);
- ▶ Tax design ensures pass-through to consumers (excise taxes are more effective than ad valorem taxes);
- ▶ Aligned with policy objectives (if the objective is to reduce sugar and incentivize reformulation, set cut-off points for sugar content; if the objective is to reduce SSB consumption, tax based on volume);
- ▶ Covers a wide range of SSBs, including milk-based SSBs, fruit juices and energy drinks, ensuring any exemptions are grounded in health, to avoid issues of trade discrimination. Ideally, include beverages sweetened with non-caloric sweeteners;
- ▶ Dependent on tax design, consider adjustments to account for inflation;
- ▶ Earmarking (soft or hard as permitted under national law);⁶
- ▶ Communicate clearly to the public via strategic campaigns that explain the benefits to everyone;
- ▶ Ensure access to clean drinking water that is free or more affordable than purchasing SSBs.

Experience with SSB taxes has shown what information is needed for the effective design of food and beverage taxes:

- ▶ Types of the taxable product in the market (main brands and potential substitutes);
- ▶ Range of prices by brand and package size (for non-alcoholic beverages: if large variations exist, a tax on volume rather than sugar content could reduce the gap and potential substitutions for cheaper brands);

⁶ Earmarking tax revenue means to designate generated revenue of a particular tax, in this case the SSB tax, for a defined purpose. Earmarking SSB tax revenue for public health or social programmes can increase public support of the measure. For example, Mexico earmarked SSB tax revenue to increase access to clean water in schools. "Hard" earmarks are included in legislation and are binding, while "soft" earmarks are not legislated but may be included in a policy document. Soft earmarks can be used in countries that don't permit earmarking.

- ▶ Amount of target nutrient by type of taxable product (e.g., sugar content by type of beverage or salt content by type of processed food);
- ▶ Price elasticities (overall and by income level, age group, high/low consumption of the taxable food product or beverage);
- ▶ Estimates on potential reductions in consumption can guide the magnitude of the tax;
- ▶ Population groups that would benefit most or not at all (conduct an equity analysis to understand the tax's impact on different socioeconomic groups⁷);
- ▶ Estimated fiscal revenue.

⁷ Note that in many countries, population groups of lower socioeconomic status consume more SSBs. While the tax impacts them more economically, it has the potential to benefit these groups more from a health perspective.

Resources

1 Background information on childhood obesity and food environments

- UNICEF: [Prevention of Overweight and Obesity in Children and Adolescents, Programming Guidance](#) (2019), [Prevention of Overweight and Obesity in Children and Adolescents, Advocacy Strategy and Guidance](#) (2020).
- WHO: [Report of the Commission on Ending Childhood Obesity](#) (2016), [Global action plan for the prevention and control of noncommunicable diseases 2013-2020](#) (2013), [Tackling NCDs: 'best buys' and other recommended interventions for the prevention and control of noncommunicable diseases](#) (2017).
- WHO, World Obesity Federation (2018). [Taking Action on Childhood Obesity](#).

2 Overview

- UNICEF (2019). [Protecting Children's Right to a Healthy Food Environment](#).
- UNICEF (2022). [Effective regulatory approaches to protect, support and promote better diets and create healthy food environments for children](#). UNICEF Technical Note.
- UNICEF. [UNICEF Advocacy Packages for Food Environment Policies](#). Includes advocacy material for front-of-pack labelling, SSB taxes and marketing restrictions.
- UNICEF (2020). [Landscape Analysis Tool on Overweight and Obesity in Children and Adolescents](#). Pilot version, October 2020.

3 Food policy databases

- World Cancer Research Fund International: [NOURISHING database on implemented food policies](#) (includes policy summaries and evaluations from around the world)
- WHO: [Global database on the Implementation of Nutrition Action \(GINA\)](#) (summaries, documents and links to policies of all WHO member states)

4 Nutrient profile models (NPMs)

- WHO [EURO NPM](#) (Europe)
- WHO [SEARO NPM](#) (Southeast Asia)
- WHO [WPRO NPM](#) (Western Pacific)
- WHO [EMRO NPM](#) (Eastern Mediterranean)
- WHO [AFRO NPM](#) (Africa)
- WHO [PAHO NPM and background information](#) (Americas)

5 Food marketing restrictions

- UNICEF (2021). [Marketing of unhealthy foods and](#)

[non-alcoholic beverages to children](#).

- UNICEF (2021). Restrictions on the Marketing of Unhealthy Food and Non-Alcoholic Beverages to Children Advocacy Cartoons in [English](#) and [Spanish](#).
- UNICEF Mexico. [Marketing de alimentos y bebidas dirigido a niñas, niños y adolescentes](#) (nota técnica y infografías).
- UNICEF Mexico (2021). Food and beverage marketing on the Internet: what are children and adolescents exposed to in Mexico? Public policy recommendations (in [Spanish](#) and English).
- WHO (2010). [Set of recommendations on the marketing of foods and non-alcoholic beverages to children](#).
- WHO (2022). [Food marketing exposure and power and their associations with food-related attitudes, beliefs and behaviours: a narrative review](#).
- WHO (2021). [Implementing policies to restrict food marketing: a review of contextual factors](#).
- WHO. [Monitoring of Marketing of Unhealthy Products to Children and Adolescents – Protocols and Templates](#).
- WHO EURO (2016). [Tackling food marketing to children in a digital world: trans-disciplinary perspectives](#).
- WHO EURO (2018). [Monitoring and Restricting Digital Marketing of Unhealthy Products to Children and Adolescents](#).
- WHO EURO (2018). [Evaluating implementation of the WHO Set of Recommendations on the marketing of foods and non-alcoholic beverages to children](#). Progress, challenges and guidance for next steps in the WHO European Region.
- World Cancer Research Fund International (2020). [Lessons on implementing robust restrictions of food and non-alcoholic beverage marketing to children](#). Report, summary, table of evidence.
- Center for Science in the Public Interest (2016). [Carbonating the World. The Marketing and Health Impact of Sugar Drinks in Low- and Middle-income Countries](#).
- Bite Back 2030 (2021). [Lifting the lid on the secretive online strategies global food giants are using to manipulate British children](#).
- INFORMAS. [Modul on food promotion](#).
- Scientific evidence
 - Boyland E et al. (2022). [Systematic review of the effect of policies to restrict the marketing of foods and non-alcoholic beverages to which children are exposed](#). *Obesity Reviews* e13447.
 - Boyland E et al. (2016). [Advertising as a cue to consume: a systematic review and meta-analysis of the effects of acute exposure to unhealthy food and nonalcoholic beverage advertising on intake in children and adults](#). *Am J Clin Nutr* 103(2):519-33.
 - Smith Taillie L et al. (2019). [Governmental policies to reduce unhealthy food marketing to children](#).

Nutr Rev 77(11):787–816.

- Smith Taillie L et al. (2021). [Changes in food purchases after the Chilean policies on food labelling, marketing, and sales in schools: a before and after study](#). *Lancet Planet Health* 5(8):e526-33.
- Sadeghirad B et al. (2016). [Influence of unhealthy food and beverage marketing on children's dietary intake and preference: a systematic review and meta-analysis of randomized trials](#). *Obes Rev* 7(10):945-59.
- Russell S et al. (2019). [The effect of screen advertising on children's dietary intake: A systematic review and meta-analysis](#). *Obes Rev* 20(4):554-568.

6 School food environments

- Global Food Research Program, University of North Carolina at Chapel Hill (2018). [Fighting Childhood Obesity with Healthy School Food Environments](#).
- UNICEF (2021). [The role of schools in preventing overweight and obesity among students in Latin America and the Caribbean](#).
- WHO (2021). [Assessing the existing evidence base on school food and nutrition policies: a scoping review](#).
- WHO (2021). [Implementing school food and nutrition policies: a review of contextual factors](#).
- Scientific evidence:
 - Micha R et al. (2018). [Effectiveness of school food environment policies on children's dietary behaviors: A systematic review and meta-analysis](#). *PLoS One* 13(3):e0194555.
 - Chaudary A et al. (2020). [Promoting Healthy Eating among Young People-A Review of the Evidence of the Impact of School-Based Interventions](#). *Nutrients* 12(9):2894.
 - Gonçalves VSS et al. (2021). [The food environment in schools and their immediate vicinities associated with excess weight in adolescence: A systematic review and meta-analysis](#). *Health Place* 71:102664.
 - Pineda E et al. (2021). [Improving the school food environment for the prevention of childhood obesity: What works and what doesn't](#). *Obes Rev* 22(2):e13176.
 - Capper TE et al. (2022). [What makes interventions aimed at improving dietary behaviours successful in the secondary school environment? A systematic review of systematic reviews](#). *Public Health Nutr* 31;1-50.
 - Driessen CE et al. (2014). [Effect of changes to the school food environment on eating behaviours and/or body weight in children: a systematic review](#). *Obes Rev* 15(12):968-82.

7 Front-of-pack labelling

- UNICEF (2021). [Policy Brief: Front-of-pack nutrition labelling of foods and beverages](#).
- UNICEF (2021). [Front-of-pack Nutrition Labelling: A 'How-to' Guide for Countries](#). UNICEF Technical Note.
- UNICEF (2021). Front-of-Pack Nutrition Labelling (FOPNL) Advocacy Cartoons in [English](#) and [Spanish](#).

- UNICEF (2016). [Review of current labelling regulations and practices for food and beverage targeting children and adolescents in Latin America countries \(Mexico, Chile, Costa Rica and Argentina\) and recommendations for facilitating consumer information](#).
- WHO (2019). [Guiding principles and framework manual for front-of-pack labelling for promoting healthy diets](#).
- WHO (2021). [Implementing nutrition labelling policies: a review of contextual factors](#).
- WHO EURO (2020). [Manual to develop and implement front-of-pack nutrition labelling: guidance for countries on the selection and testing of evidence-informed front-of-pack nutrition labelling systems in the WHO European Region](#).
- Codex Alimentarius. [Guidelines on Front-of-pack Nutrition Labelling. Annex 2 to Guidelines on Nutrition Labelling](#) (CXG 2-1985).
- World Cancer Research Fund International (2019). [Lessons on implementing a robust front-of-pack food label](#). Summary, report, table of evidence.
- INFORMAS. [Module on food labelling](#).
- Ares G et al. (2021). [Analysis of the policy process for the implementation of nutritional warning labels in Uruguay](#). *PHN* 24(17):5927–5940.
- Scientific evidence:
 - Ares G et al. (2020). [Sick, salient and full of salt, sugar and fat: Understanding the impact of nutritional warnings on consumers' associations through the salience bias](#). *Food Qual Prefer* 86:103991.
 - Ares G et al. (2020). [Immediate effects of the implementation of nutritional warnings in Uruguay: awareness, self-reported use and increased understanding](#). *PHN* 24(2):364–375.
 - Song J et al. (2021). [Impact of color-coded and warning nutrition labelling schemes: A systematic review and network meta-analysis](#). *PLoS Med* 18(10): e1003765.
 - Jones A et al. (2019). [Front-of-pack nutrition labelling to promote healthier diets: current practice and opportunities to strengthen regulation worldwide](#). *BMJ Global Health* 4(6):e001882.
 - Temple NJ (2020). [Front-of-package food labels: A narrative review](#). *Appetite* 144:104485.
 - de Alcantara M et al. (2020). [Gain vs. loss-framing for reducing sugar consumption: Insights from a choice experiment with six product categories](#). *Food Res Int* 136:109458.
 - Reyes M et al. (2020). [Changes in the amount of nutrient of packaged foods and beverages after the initial implementation of the Chilean Law of Food Labelling and Advertising: A nonexperimental prospective study](#). *PLoS Med* 17(7):e1003220.
 - Julia C & Hercberg S (2016). [Research and lobbying conflicting on the issue of a front-of-pack nutrition labelling in France](#). *Arch Public Health* 74:51.

8 Fiscal policies to promote healthy diets

- UNICEF (2021). [Policy Brief: Sugar Sweetened Beverage Taxation](#).

- UNICEF (2021). Sugar-Sweetened Beverage (SSB) Taxation Advocacy Cartoons in [English](#) and [Spanish](#).
- WHO (2021). [Implementing fiscal and pricing policies to promote healthy diets: a review of contextual factors](#).
- World Cancer Research Fund International (2018). [Lessons on implementing a robust sugar sweetened beverage tax](#). Report and table of evidence.
- Scientific evidence:
 - Popkin B & Ng SW (2021). [Sugar-sweetened beverage taxes: Lessons to date and the future of taxation](#). *PLoS Med* 18(1):e1003412.
 - Thow AM, Downs S, Mayes C, et al. (2018). [Fiscal policy to improve diets and prevent noncommunicable diseases: from recommendations to action](#). *Bull World Health Organ* 96(3): 201–210.
 - Cawley J et al. (2019). [The Economics of Taxes on Sugar-Sweetened Beverages: A Review of the Effects on Prices, Sales, Cross-Border Shopping, and Consumption](#). *Annu Rev Nutr* 39:317-338.
 - Teng AM et al. (2019). [Impact of sugar-sweetened beverage taxes on purchases and dietary intake: Systematic review and meta-analysis](#). *Obes Rev* 20(9):1187-1204.
 - Mounsey S et al (2020). [The macroeconomic impacts of diet-related fiscal policy for NCD prevention: A systematic review](#). *Econ Hum Biol* 37:100854.