



# FISCAL POLICIES TO PROMOTE HEALTHY DIETS: POLICY BRIEF

## Policy issue and context

Childhood malnutrition remains one of the most prominent global public health problems. In 2020, 38.9 million children aged under 5 years were estimated to be affected by overweight, 45 million by wasting and 149 million by stunting (1), and in 2016 more than 340 million children and adolescents aged between 5 and 19 years were affected by overweight or obesity (2). A major driver of the increases in obesity that have been seen in almost all countries – which in turn contribute to the increasing global burden of disease associated with obesity (3) – is current food environments, with increasing availability, accessibility, affordability and marketing of foods that are high in saturated fats, *trans*-fats, sugars or salt and are usually highly processed (4).

Countries across the world have committed to taking action to eliminate malnutrition in all its forms (5-7), including through the creation of food environments that facilitate healthy dietary decisions (5). Affordability of foods (which is a function of price and disposable income) is a key aspect of food environments that influence dietary decisions (8), with changes in price influencing consumer demand for many foods and beverages (9). Hence, use of fiscal policies that influence the relative price of foods and beverages – including both taxes on foods and beverages that are high in fat, sugars or salt, and subsidies on foods that contribute to a healthy diet – has been repeatedly

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recommended as a policy option to promote healthy diets. For example, the Framework for Action adopted at the Second International Conference on Nutrition in 2014 recommended exploring the use of “economic incentives or disincentives” to promote healthy diets (10), and the World Health Organization (WHO) has recommended the implementation of taxation on sugar-sweetened beverages as a cost-effective intervention to reduce consumption of sugars (11). WHO has also recommended the implementation of fiscal policies to promote healthy diets as part of a policy package to achieve nine global targets for noncommunicable diseases (NCDs) by 2025, now extended to 2030<sup>1</sup> (6, 12). Based on a literature review in 2019, WHO again recommended that countries consider taxing all sugar-sweetened beverages (13); the Commission on Ending Childhood Obesity also recommended the implementation of sugar-sweetened beverage taxes as part of a policy package to tackle childhood obesity (14). Although the issue of sustainability is beyond the scope of this policy brief, there is growing interest in the

possibility of using taxes and subsidies to promote diets that are both healthy *and sustainable*, and minimize the negative impacts of diets on the environment (15-19).

Malnutrition has many complex and often interrelated causes; thus, fiscal policies to promote healthy diets should be embedded in a comprehensive approach to improve population diet through food system transformation and the creation of healthy food environments. When fiscal policies are part of such an approach, they can be used to shift consumption patterns, encourage product reformulation, and raise domestic revenue (which in turn can be used for health promotion, strengthening health systems or efforts towards universal health coverage).

This policy brief provides policy-makers, programme managers, health professionals and advocates with information on the evidence on the impact of fiscal policies to promote healthy diets with a focus on taxation; challenges and opportunities; and policy options related to the design of taxes to promote healthy diets.

### Box 1. Definitions used in this brief (20)

**Fiscal policies to promote healthy diets:** taxes and subsidies (government spending) to promote healthier decisions by consumers

**Taxes** here refer to indirect /consumption taxes, which are taxes imposed on goods or services that cause consumers to pay higher prices and may serve as price disincentives to *consumers*. There are various types of indirect taxes. **Excise taxes**<sup>2</sup> are consumption taxes targeting specific products to increase their price relative to other consumer goods. They can take the form of **ad valorem excise taxes** which are levied as a percentage of the value of a product, or as **specific excise taxes** which are levied as a monetary value according to a certain physical characteristic of the product (e.g. its volume or nutrient content) (21). These types of excise tax can be applied at a uniform or a differential (tiered) rate, and on their own or in combination (i.e. a mixed system).

**Subsidies** here refer to those that result in price incentives to *consumers* (including through rebates, discounts or monetary vouchers or coupons), but do not include cash transfer or in-kind transfer programmes, agricultural subsidies or trade policy instruments.

**Sugar-sweetened beverages** refers to a broad set of non-alcoholic beverages, defined as all types of beverages containing free sugars, including carbonated or non-carbonated soft drinks; fruit or vegetable juices and drinks; liquid and powder concentrates; flavoured water; energy and sports drinks; vitamin waters; ready-to-drink teas; ready-to-drink coffee; flavoured milks and milk-based drinks; and sweetened plant-based milk substitutes.

<sup>1</sup> The Seventy-second World Health Assembly extended the period of the global action plan to 2030 to ensure its alignment with the 2030 Agenda for Sustainable Development.

<sup>2</sup> Excise taxes are the primary policy tool used to correct for market-failures, including negative externalities, negative internalities, and information asymmetries. Negative externalities are costs that are not borne by the consumer or producer of the product but by others in society, or society at large. For example, the costs to third parties of second-hand smoke are not reflected in market prices—that is, smokers do not pay a market price that reflects the negative impact on others. Negative internalities arise when individuals do not fully consider or account for the cost on their futures of their current behavior. In other words, internalities arise when consumption of a given product results in long-term net losses which individuals neglect in favor for short-term benefits. Information asymmetries refer here to the fact that some consumers may not be fully aware of the negative consequences of the use of harmful products.

## Progress in implementing fiscal policies to promote healthy diets

Although countries are increasingly heeding recommendations to implement fiscal policies to promote healthy diets, some have yet to do so. In 2016, the first Global Nutrition Policy Review found that 39 WHO Member States reported having implemented fiscal policies, including for example increasing taxes on foods and beverages that contribute to an unhealthy diet, increasing subsidies on foods and beverages that contribute to a healthy diet (22). Among WHO regions, implementation was highest in the Western Pacific Region (48% of responding countries), followed by the Americas (35%), Europe (28%), South-East Asia (27%) and the Eastern Mediterranean (24%) (22). Only 9% of countries in the WHO African Region reported implementation of fiscal policies to promote healthy diets (22).

In recent years, there has been a surge in momentum for the implementation of taxes on sugar-sweetened beverage, including those with a stated objective to reduce consumption of beverages such as sugar-sweetened carbonated soft drinks (23-25). Between 2017 and 2019, the proportion of countries implementing taxes on sugar-sweetened beverage rose from 23% to 38% (26). In 2019, the WHO Region of the Americas led

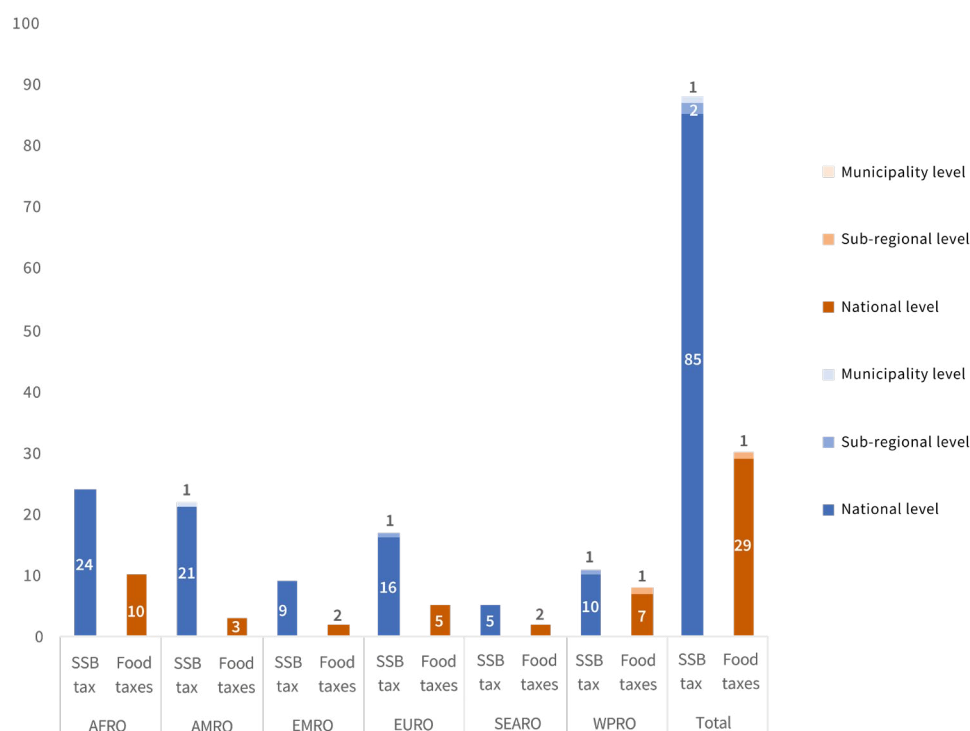
globally, with 60% of countries having implemented such taxes (26). As of May 2022, 85 of the 194 Member States (44%) taxed sugar-sweetened beverages at the national level, while three Member States had subnational or municipality level taxes (Fig. 1) (26, 27).<sup>3</sup>

Taxes on **foods** high in salt, sugars and fat are less widely implemented, but have also seen increased adoption, from seven Member States in 2017 to 12 (6%) in 2019 (26). As of 2022, 29 Member States implemented national level taxes on food products (Fig. 1).

As with taxes on foods high in salt, sugars and fat, **subsidies** on foods that contribute to a healthy diet are less widely implemented. For example, among WHO regions in 2019, South-East Asia led, with 18% of countries reporting subsidies, followed by the Eastern Mediterranean with 10%, the Western Pacific with 7%, and Africa, the Americas and Europe with just 6% (26).

Of 39 countries that reported detailed information on the type of fiscal policy they had implemented in the second Global Nutrition Policy Review, 54% increased taxes on foods and beverages that contribute to unhealthy diets and 23% increased subsidies on foods and beverages that contribute to healthy diets. Only 15% reduced taxes on healthier food and beverage options and just 10% reduced subsidies on less healthy foods and beverages (22).

**Figure 1. Member States by region with national, subregional or municipality level taxes on sugar-sweetened beverages and on foods**



<sup>3</sup> The surveys (Global Nutrition Policy Review and the NCD country capacity survey) do not ask respondents to differentiate between taxes to generate fiscal revenue and taxes to pursue a public health objective. Hence, it is not known how many of the reported taxes on sugar-sweetened beverages are designed to pursue a public health objective.

Some countries have levied taxes on less healthy foods and beverages (e.g. carbonated beverages and chocolate) since as early as the 1920s and 1930s, primarily to generate revenue rather than for health purposes (22). More recently, countries are increasingly seeing such taxes as a strategy for achieving healthier diets, perhaps driven by the inclusion of this approach in the WHO *Global action plan for the prevention and control of noncommunicable diseases 2013–2020*<sup>4</sup> (6).

## Evidence on the impact of fiscal policies to promote healthy diets

### Taxes

Modelling studies suggest that taxes on less healthy foods and beverages would bring about positive dietary changes, and there is growing evidence from “real world” country experience of the benefits of implementing such taxes (9, 20, 24, 28-35).

Much of the evidence available is on the impact of taxes on sugar-sweetened beverages, with countries seeing

positive outcomes such as reductions in purchases and consumption of taxed beverages (13, 36-44); increases in purchases and consumption of untaxed beverages, including bottled water (13, 37, 39, 40, 44); product reformulation to reduce sugar levels (13, 43); increased public awareness of dietary advice to limit the consumption of sugar-sweetened beverages (43); and generation of revenue that can be used for health purposes (43, 44).



### Box 2. South Africa's health promotion levy

In 2018, South Africa introduced a specific excise tax on sugar-sweetened beverages, known as the Health Promotion Levy, to tackle rapidly rising intakes of such beverages and a growing burden of diet-related NCDs (45). The tax is based on the sugar content of beverages. Specifically, a fixed ZAR 0.021 (around US\$0.0015) tax rate for every gram of sugar above a 4 g/100 ml threshold (the first 4 grams per 100ml are tax free). In 2021, the Health Promotion Levy represented about 11% of the price per litre. An evaluation based on household purchase data collected between 2014 and 2019 found that the average volume of taxable beverages purchased, as well as the calories and sugar purchased from taxable beverages, fell after the tax was announced (but before it was implemented) and then again in the year after implementation. Over the same period, there was a small increase in purchases of beverages that were not subject to the tax. The reductions were greatest in lower socioeconomic households. Compared with the trend in sales predicted before the tax was announced, the volume of taxable beverages purchased was reduced by 28.9% (31.6% in low socioeconomic households), and the calories and sugar purchased from those beverages were reduced by 52% and 51% (45). A key lesson learned from the South African experience is that the design of a tax influences producer and consumer responses; the tiered tax based on sugar content of beverages both reduced purchases of taxed sugar-sweetened beverages (SSBs) among consumers, and induced producers to reduce the sugar content in beverages.

<sup>4</sup> The Seventy-second World Health Assembly extended the period of the global action plan to 2030 to ensure its alignment with the 2030 Agenda for Sustainable Development.

There is limited evidence (much less than in relation to taxes on sugar-sweetened beverage) from research or country experience in relation to taxation of foods that contribute to unhealthy diets (e.g., foods high in saturated fats, *trans*-fatty acids, free sugars or salt). However, the evidence that is available suggests that such taxes can reduce purchases (46-49) and consumption (50) of taxed foods, encourage product reformulation (47), generate revenue that can be used for health purposes (47) and increase awareness of healthy eating (47).



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### Box 3. Hungary's Public Health Product Tax

In Hungary, the Public Health Product Tax, which came into effect in September 2011, is intended to reduce consumption of unhealthy foods, promote a healthy diet, increase the accessibility of healthy foods choices and raise revenue for health care services. The specific excise tax is applicable to ready-to-eat food and beverages with high salt, sugar or caffeine content, with rates varying depending on the product category. An impact assessment estimated that purchasing of processed foods decreased by 3.4% following the introduction of the tax, while purchasing of unprocessed foods was estimated to have increased by 1.1%, with the lowest-income groups most responsive to the tax (46). Another assessment found that 16% of surveyed consumers of salty snacks changed their consumption of salty snacks, and 14% of surveyed consumers of pre-packaged sweets changed their consumption of pre-packaged sweets (51). In terms of reason for changing consumption, higher prices were cited by 56% of salty snack consumers and 66% of pre-packaged sweets consumers. Consumers who decreased their consumption were two to three times more aware that the product was unhealthy (51).

An important lesson from the experience in Hungary is their use of a nutrient profile model to differentiate tax rates and making sure that there are healthy substitutes.

### Box 4. Mexico's tax on nonessential energy-dense foods

In October 2013, the Mexican Government passed legislation to introduce a specific excise tax of one peso (about US\$ 0.05) per litre on sugar-sweetened beverages, equivalent to a 10% price increase on taxed beverages. The success of the tax in reducing purchases and consumption of sugar-sweetened beverages has been widely reported (40, 52). Less well known is an 8% ad valorem excise tax on nonessential foods with an energy density of more than 275 kcal per 100 g that became effective in January 2014, designed to help slow the country's rising obesity rates and generate tax revenues (53). Evaluations conducted annually for the first three years of implementation found decreases in the volume of taxed food purchased – particularly in lower socioeconomic households – compared with expected levels based on pre-tax trends (54-56). No changes in purchases of untaxed foods were observed in the post-tax period. In the first year after introduction of the tax, purchases of taxed foods did not change for households with high socioeconomic status, but they decreased by 5.8% in those with medium socioeconomic status and by 10.2% in those with low socioeconomic status (54).

### Box 5: Tonga and Fiji's tax exemptions for healthy foods

In July 2016, the Government of Tonga abolished a 15% VAT on products including fruits and vegetables, eggs, water and yoghurt (57). Similarly, in 2013, the Government of Fiji removed a 10% excise duty on imported vegetables, and the volume of imported vegetables that are not grown in Fiji increased substantially between 2010 and 2014 (58). While these examples show that governments can use fiscal policies as tool to increase the availability of fruit and vegetables in a country, it is important to monitor whether such increases benefit all population groups (58). Monitoring of the prices of foods subject to tax exemptions provides insights to whether the goal of price reductions and increased consumption of healthier options was achieved (57).

## **Subsidies**

Modelling and intervention studies suggest that subsidies (including food vouchers, price discounts or public distribution systems) to reduce prices of fruit and vegetables are likely to be effective in increasing consumption of these foods and improving overall diet quality, although the effect on energy intake and weight is unclear (41, 59-61). Evidence from policy evaluations is limited. A recent systematic review of evidence found that fruit and vegetable subsidies targeting low-income populations increase their purchase of fruit and vegetables (35). There is growing evidence that combining taxes on foods that contribute to unhealthy diets with subsidies of foods that contribute to healthy diets is likely to be the most effective approach (31, 62). The impact of agricultural subsidies, including both the removal of subsidies on products that are inconsistent with a healthy diet and applying subsidies to products consistent with a healthy diet are beyond the scope of this brief.

## **Impact on health equity**

A commonly used argument regarding taxes on unhealthy foods and beverages is that these are financially regressive (i.e. people of lower socioeconomic status spend a bigger proportion of their income on these goods compared to the people of higher socioeconomic status) (63). However, because of the likely stronger response of lower socioeconomic groups to price changes, in other words, lower socioeconomic groups decrease consumption of taxed products by a greater extent (64), the health benefits of taxes on less healthy foods and beverages, as well as the reduction in health care expenditures associated with diet-related diseases, are likely to be progressive. Evaluations of taxes implemented in Mexico and South Africa, for example, indicate greater reductions in purchasing of taxed foods and beverages among lower socioeconomic groups (45, 54). Similarly, modelling studies have found greater health benefits for lower socioeconomic groups (32, 45, 54, 65, 66). Hence, carefully designed taxes could reduce health inequities, particularly if the tax revenue is used progressively (i.e. where lower socioeconomic groups receive a greater benefit) (67) and if taxes are implemented in combination with subsidies (64). Often, subsidies are targeted to lower socioeconomic groups and thus have the potential to reduce health inequities.

In general, the evidence on the impact of fiscal policies to promote healthy diets collected in low- or middle-income countries is sparse, but some studies suggest that the use of taxes and subsidies is also appropriate in such settings (33, 38, 67, 68).

## **Elements to consider when designing fiscal policies to promote healthy diets**

The health impact of a fiscal policy is influenced by its impact on prices and by how consumers respond to price changes in the targeted foods and beverages. Designing a tax or subsidy involves consideration of several policy design elements, including products subject to the tax or subsidy, the type of tax, as well as the tax base and rate. Importantly, a tax can only be levied if authorized by a law and the mentioned policy design elements are determined by a law. Consideration must be given to the country's existing national legal framework for taxation. In addition, member countries of the World Trade Organization (WTO) must ensure that the proposed policy design elements do not discriminate, for example between imported and locally-produced products, as WTO law also disciplines tariff and non-tariff measures.

### **Products subject to the tax or subsidy**

One key policy design element is the coverage of foods and beverages that are taxed or subsidized. The foods and beverages (or nutrients) included within a tax or subsidy base should be those that are associated with poorer health outcomes (in the case of taxes) or better health outcomes (in the case of subsidies), based on epidemiological evidence and the likelihood that consumption will be affected by a tax or subsidy (69). In the case of taxes, given that consumers may respond to a tax by substituting taxed products with untaxed foods and beverages, the products subject to the tax should be chosen to ensure that substitutes are not less healthy foods and beverages (59). Additionally, as the experience from Hungary shows, it is important to complement these efforts with policy options to ensure that healthy substitutes are available.

Determining the set of taxable products on the basis of nutrient profiles (i.e. the nutritional composition of foods and beverages) may be less likely to have unintended consequences than those based on an individual nutrient, because they are less likely to also apply to healthier foods and beverages (28). Nutrient profile models can be a useful tool for determining the products to be taxed (59), but how the taxable products are defined may influence the feasibility of implementing taxes. For example, taxes on simply defined foods (e.g. sugar-sweetened beverages) may be more straightforward to implement than taxes targeting multiple nutrients, especially in countries with low resources (69). However, the Harmonized Commodity Description and Coding System<sup>5</sup> for

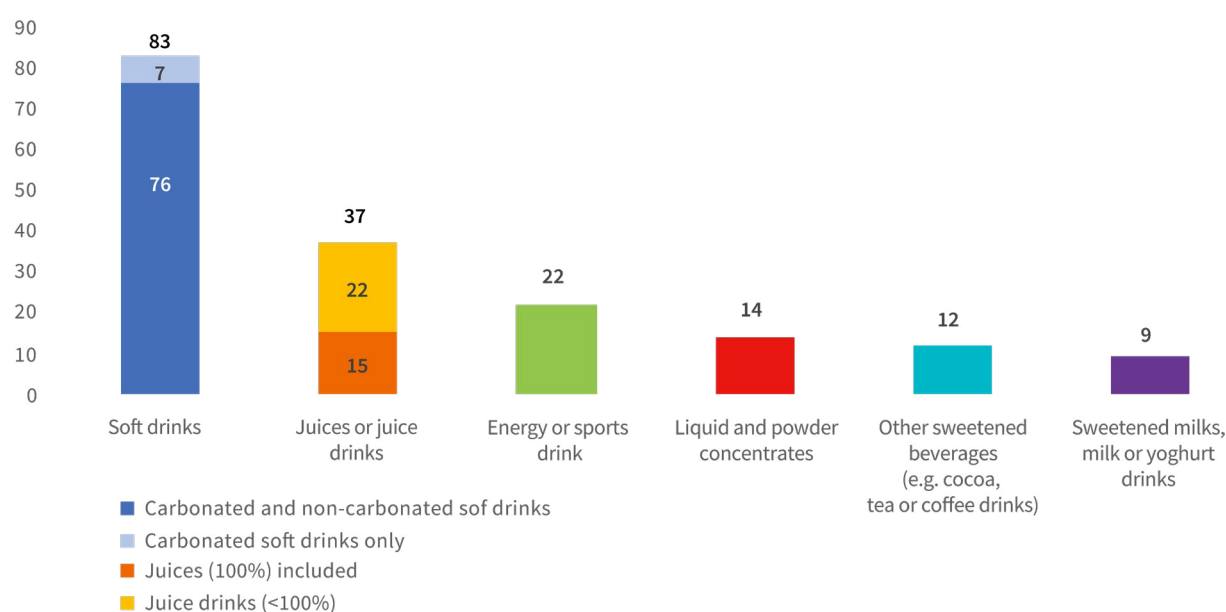
<sup>5</sup> World Customs Organization. <http://www.wcoomd.org/en/topics/nomenclature/overview/what-is-the-harmonized-system.aspx>

classifying commodity groups, which is used in most national tax systems, does not include categories based on healthfulness of products, for example grouping beverages with and without sugars in the same category. Taxes targeting an individual nutrient may also be administratively burdensome to implement, given that they would apply to a wide range of foods (28).

Currently there is large variation in the products subject to SSB taxes of policies already implemented in WHO Member States. Fig. 2 shows the variation in the products subject to sugar-sweetened beverage taxes. As of 2022, 83 WHO Member States tax “soft drinks”, although seven

only tax those that are carbonated.<sup>6</sup> Juices and juice drinks can be significant dietary sources of sugars, but less than half (37) of the countries include these within the taxed products; also, countries often exempt fresh fruit and vegetable juices, pure juices (100%) or juice drinks with a specific minimum level of pulp. Energy drinks and sports drinks are increasingly being included in national excise taxes, often at a higher rate than other sugar-sweetened beverages. As such, there is ample space within already implemented policies taxing SSBs to better define the list of taxable products to align more closely with public health objectives.

**Figure 2. Products taxed in national level sugar-sweetened beverage taxes in 85 WHO Member States**



*Foods that have been taxed in countries include those that are typically high in sugars, unhealthy fats and salt, such as confectionery, ice creams, meat preparations, or specific food commodities such as unhealthy meat cuts, instant noodles or bouillon cubes. See box 6 for examples of what foods have been taxed in different countries for health purposes*

<sup>6</sup> Two countries are not taxing soft drinks. One has a tax at national level covering yoghurt drinks, and the other covering energy drinks.

## Box 6. Examples of what foods have been taxed in countries

**Mexico:** Nonessential foods with an energy density of more than 275 kcal per 100 g have been subject to an 8% ad valorem excise tax since 2014. Taxed food items include crisps and snacks, candies and sweets, chocolate, puddings, peanut and hazelnut butters, ice cream and ice pops, and cereal-based products with substantial added sugar (54).

**Ethiopia:** In February 2020, Ethiopia introduced an ad valorem excise tax on imported and locally produced foods, including fats and oils with high levels of saturated or *trans*-fatty acids, sugar and sugar confectionery, chocolate and food preparations with cocoa and soft drink powders (70).

**Hungary:** The Public Health Product Tax is a specific excise tax applied to a variety of products including snacks with more than 1 g salt per 100 g, condiments with more than 5 g salt per 100 g, flavourings with more than 15 g salt per 100 g, energy drinks, soft drinks (sugar-sweetened and artificially sweetened) and pre-packaged sugar-sweetened products (47).

**Tonga:** Since 2016, Tonga has imposed an excise tax and/or import duty on high fat foods – including very fatty meat products such as turkey tails and mutton flaps – as well as foods and beverages high in sugars and instant noodles (57).

**Denmark:** In 2011, Denmark introduced a specific excise tax on saturated fat in foods, but the tax was abolished after just over a year for economic reasons after misleading negative media coverage (72). Research has since shown that the tax reduced fat consumption by between 10% and 15% (50). Denmark still taxes chocolates, confectionaries, biscuits and cakes via specific excise taxes.

### Type of tax

Beyond establishing what products are subject to the tax, another key policy design element of taxes to promote healthy diets is determining the tax type. From a public health perspective, excise taxes are generally preferable to sales taxes and VAT because they are applied to a specific product or products, decreasing their affordability relative to other products; in contrast, VAT or sales taxes typically apply to a broad range of goods and services, and do not affect the relative price of the product. Also, compared with sales taxes (another type of indirect tax), the increased price due to an excise tax is more likely to be visible to consumers in the shelf price, which may increase the likelihood of behavioural change (69). Among the different types of

increase the price of all taxed foods and beverages by the same (absolute) amount, reducing the incentive for consumers to substitute a cheaper taxed product (59, 69, 72). Specific excise taxes may also be easier to implement than other tax types and are not susceptible to price manipulation by industry; however, as noted above, they should be regularly adjusted in line with inflation and income growth to ensure they remain effective (59). Specific excise taxes based on nutrient content (e.g. sugar-sweetened beverage taxes based on sugar content) are likely to have a larger impact, because they encourage consumers to substitute to healthier untaxed substitutes and encourage industry to reformulate, but simpler taxes (e.g. volume-based

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