POLICY REPORT

GETTING FISCAL POLICIES RIGHT

Lessons and recommendations across NCD risk factors

NCD Alliance

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ACRONYMS

CIF	Customs value
FCTC	Framework Convention on Tobacco Control
FTZ	Free trade zone
GDP	Gross domestic product
HFSS	High in fat, sodium and/or sugar
IMF	International Monetary Fund
LMIC	Low- and middle-income country
NCDs	Noncommunicable diseases
NPM	Nutrient profile model
SDGs	Sustainable Development Goals
SSBs	Sugar-sweetened beverages
UHC	Universal Health Coverage
UPFs	Ultra-processed foods
VAT	Value-added tax
WHO	World Health Organization
WTO	World Trade Organization

ACKNOWLEDGEMENTS

This report was prepared by Barbora Kohoutová under the guidance of Alison Cox, Liz Arnanz Daugan, Mercedes Carballo and Douglas Mushinge of NCD Alliance.

An Advisory Group comprised of subject matter experts guided the development process, reviewed and provided input on draft versions of the report. We would like to thank them for their content guidance and review:

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The report does not necessarily reflect the views of key informants or of the institutions they are affiliated with.

Additional valuable inputs were provided by:
David Luke, London School of Economics and Political Science
Martha Yaneth Sandoval, Global Health Advocacy Incubator

EXECUTIVE SUMMARY: SEEKING COHERENCE

Mainstreaming noncommunicable diseases (NCDs) prevention into fiscal policies can save lives, promote equity, and support sustainable development. Yet, incoherent and poorly designed tax policies and subsidies often fuel consumption and production patterns that contribute to the world's 41 million NCD-related deaths annually, drain resources, and perpetuate poverty. As many countries today face debt distress, well-structured and mutually supportive measures could transform fiscal policy from a missed opportunity into a powerful driver of better public finance, health, and environmental outcomes.

Around 80% of NCDs are preventable and associated with modifiable risk factors: tobacco and alcohol use, unhealthy diets, physical inactivity, and air pollution. NCDs exhaust household incomes when diseases incapacitate breadwinners, keep children out of school, or force women out of work to care for sick family members, and lead to catastrophic healthcare spending. Tobacco and alcohol expenditures crowd out family budgets that could otherwise be spent on nutritious food, education, or housing.

Economies lose 2-10% of their gross domestic product (GDP) due to NCD-related healthcare costs and productivity losses. Health-harming industries deliberately undermine health policies, making unhealthy products affordable, available, and attractive, while enjoying large profits often supported by flawed fiscal incentives. Health is a human right and should take precedence over commercial interests. Fiscal policies must reflect this priority.

Health taxes, recognised by the World Health Organization (WHO) as highly cost-effective interventions, remain under-used. Their designs often contain gaps that weaken their health impacts and revenue potential. Progress on adopting health taxes has been slow, with some setbacks in recent years. Tobacco is a leading cause of premature death and disability, but only 3.6% of countries meet the WHO's recommended levels of tobacco excise tax. Taxes on alcoholic beverages and sugar-sweetened beverages (SSBs) are similarly low. Few countries have implemented excise taxes on unhealthy foods beyond SSBs, despite their importance in disincentivising diets high in fat, sodium, and/or sugar (HFSS), which are linked to NCDs, including mental health conditions.

In contrast, production and consumption of health-harming products often benefit from fiscal incentives such as direct subsidies, tax exemptions, or lower rates. These inconsistencies fuel NCDs, weaken health-promoting tools, and divert investment from other priority areas. Subsidising unhealthy products, including tobacco, alcoholic beverages, sugar, and fossil fuels, burdens public budgets twice: once by the cost of the subsidy, and again by the resulting health consequences and productivity losses. According to the International Monetary Fund (IMF), globally over US$7 trillion is spent annually on fossil fuel subsidies, equivalent to 7.1% of global GDP, often without benefiting the most vulnerable. Removing these subsidies could prevent 1.6 million premature deaths a year caused by air pollution by 2030 and generate enough revenue for developing countries to achieve the Sustainable Development Goals (SDGs), including universal healthcare coverage (UHC) (making quality healthcare accessible to everyone without financial hardship). Redirecting health-harming subsidies to health- and equity-promoting policies, such as subsidies for nutritious food or measures supporting access to clean cooking, can have substantial, overarching benefits.

Mainstreaming health into fiscal policies can reduce spending on treating preventable NCDs, leverage human capital, and enhance budgetary and debt management. Freed resources can be redirected to sustainable development and human and planetary health. This report highlights key aspects of fiscal policies for NCD prevention and potential revenue sources for financing NCD responses. It does not aim to provide a comprehensive overview of all fiscal policies impacting NCD prevention. We call on governments to take action to address the growing burden of NCDs by implementing cohesive, health-promoting fiscal policies.

Call to action

We call on policymakers to:

- **Urgently implement well-structured health taxes on unhealthy products, including tobacco, alcohol, SSBs, and other HFSS foods, to significantly decrease the affordability of products associated with NCD risk factors and promote substitution to healthier alternatives.**
- **Strengthen multisectoral and multilevel cooperation to ensure coherent, health-mainstreaming, and mutually reinforcing policies across all sectors and prevent industry interference.**
- **Strengthen social and financial protection schemes to achieve UHC, minimise out-of-pocket expenditures and support the prevention of NCDs by unlocking domestic revenue through coherent fiscal policies and efficient budget allocation.**
- **Review and refine existing taxes to ensure efficiency, consistency, and alignment with health promotion and NCD prevention objectives.**
- **Implement environmental taxes to support human and planetary health.**
- **Remove subsidies and tax incentives that promote the affordability and consumption of unhealthy products and/or create loopholes that aggravate exposure to NCD risk factors and undermine health policies.**
- **Ensure that measures reducing the affordability of unhealthy products are complemented by targeted, change-enabling fiscal policies, including those promoting access to nutritious diets and clean energy sources.**
- **Commit to implementing a more coherent fiscal policy approach for NCD prevention and financing by the 2025 UN High-Level Meeting on NCDs, recognising its pivotal role in alleviating the burden of NCDs.**

INTRODUCTION

Governments around the world struggle to pay for services for their citizens, including healthcare. Servicing of extensive debt crowds out, in many places, investment in sustainable development. Over 41 million people die globally from noncommunicable diseases (NCDs) every year, which is around 74% of all deaths [1]. This robs economies and households of resources and perpetuates poverty. Up to 80% of NCDs are preventable, driven by modifiable risk factors: tobacco and alcohol use, unhealthy diets, physical inactivity, and air pollution [2]. Yet, effective fiscal policies with potential to reduce the burden of NCDs remain underused and often, in contrast, tax incentives and misplaced subsidies aggravate the NCD epidemic.

NCDs, such as heart disease and stroke, cancer, diabetes, chronic respiratory disease, and mental and neurological conditions, are the leading cause of death and disability globally. They disproportionately affect low-income groups and, in 2019, dragged more than 1.5 billion people globally into extreme or relative poverty due to out-of-pocket (OOP) healthcare spending [3]. Universal Health Coverage (UHC), where all people can access essential health services without financial hardship, remains inaccessible for most people living with NCDs [4]. In many cases and often influenced by external forces, families spend their scarce budgets on unhealthy products, which crowds out spending on healthy diets, education, and other areas that would promote health and human capital development [5] [6].

Economies lose 2%-10% of their gross domestic product (GDP) due to NCDs, via avoidable healthcare costs and productivity and human capital losses [7] [8].[1]

The consumption of unhealthy products undercuts economic growth even before the outset of disease: alcohol use lowers productivity [9]; people living with obesity have a higher risk of work accidents [10]; and cigarette users spend roughly an extra 10 minutes per day on smoke breaks than their non-smoking colleagues [11], which can add up to substantial losses in GDP [12]. Production of health-harming products is linked to child and forced labour [13], fragile jobs, and serious environmental damage, including air and plastic pollution [14].

Fiscal policies with proven potential to reduce the NCD burden, such as health taxes and health-promoting subsidies, remain under-used or implemented sub-optimally. Health taxes have been listed as a highly cost-effective measure to save lives [15]. Despite that, only a small portion of countries (3.6%) reach the recommended levels of tobacco excise taxation set by the guidelines for implementing Article 6 of the

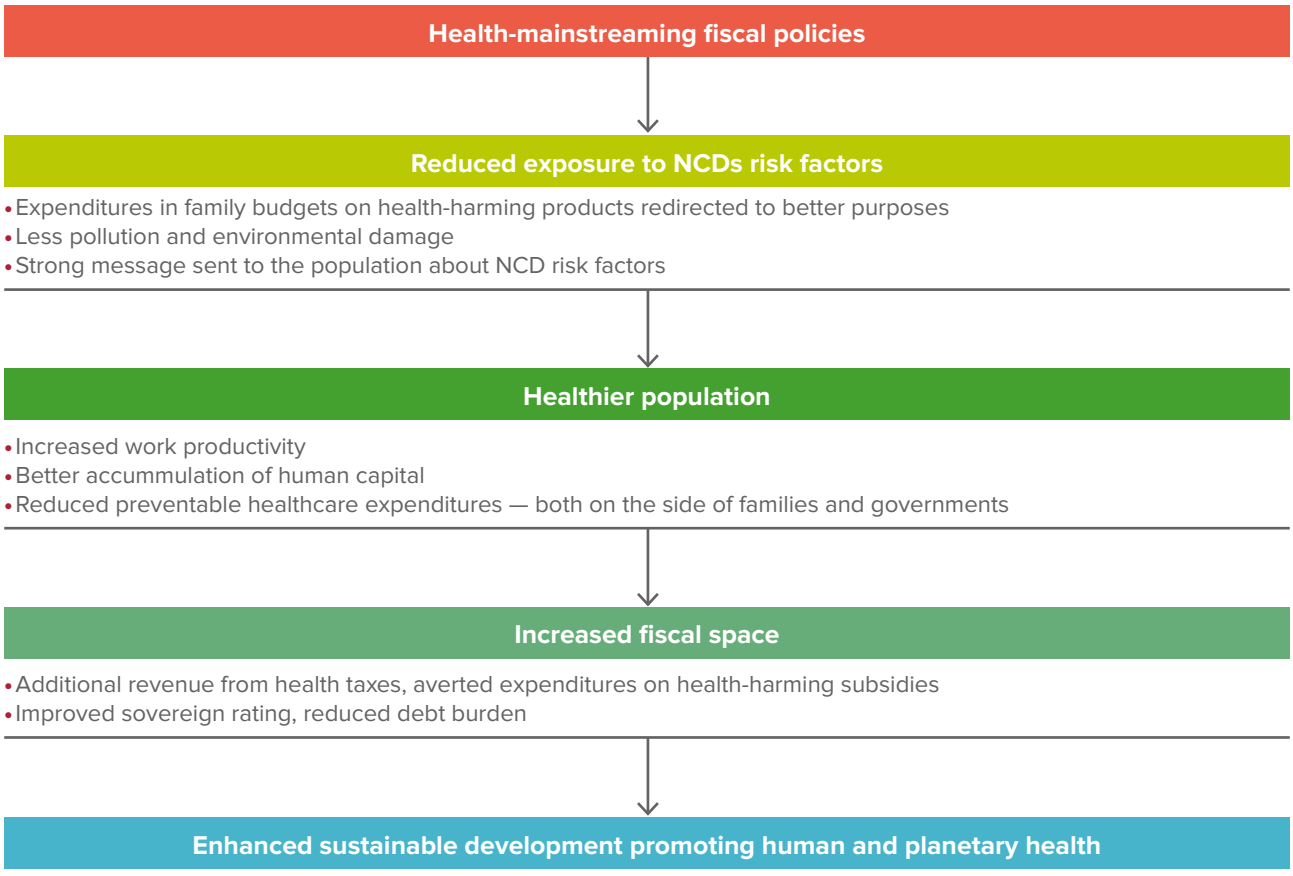
[1] Data based on published cases for investment for 21 countries across income groups.

World Health Organization Framework Convention on Tobacco Control (WHO FCTC)[16] [17], and between 2020 and 2022 tobacco taxation experienced a setback across regions [18]. Taxes on alcoholic and sugar-sweetened beverages (SSBs) remain very low [19] [20]. Health tax designs often contain gaps that weaken their health effects and government revenue potential. Very few countries have implemented excise taxes on unhealthy food beyond SSBs, despite the importance of disincentivizing diets high in fat, sodium and/or sugar (HFSS) linked to NCDs [21]. Tax incentives and subsidies for unhealthy products, in contrast, remain frequent, including alarmingly high fossil fuel subsidies.

To efficiently tackle the growing NCD epidemic, policy coherence and a systems approach is needed, including in fiscal policies. Health ministries alone cannot win the fight. NCD prevention must be mainstreamed into all levels of budgeting and across sectors. Macroeconomic stability and fiscal responsibility are key to prevent crowding out of healthcare funding. Currently many countries, especially low- and middle-income countries (LMICs), struggle with debt financing and sustainability. In 46 countries, net interest payments on debt surpassed the spending on health between 2020 and 2022 (up from 36 countries in 2010-2012), of which 43 are LMICs [22]. More governments may be forced to further reduce their healthcare spending due to fiscal pressures [23]. Well-designed, health-centred fiscal policies can alleviate debt burden through averting unnecessary healthcare costs, unlocking additional funds, and receiving improved sovereign credit ratings [24]. More domestic revenue mobilisation is needed to reach the target of tax collection equivalent to 15% of GDP, which is considered a tipping point in providing for basic needs of citizens, such as healthcare and social policies, and to support economic growth [25]. Before the COVID-19 pandemic, half of LMICs were below this threshold [26].

Fiscal policies that positively impact public health hold one of the most efficient keys to addressing NCDs as they have the capacity to influence prices of goods, address market inefficiencies—and by that alter consumers' decisions—and finally, to reduce exposure to modifiable risk factors. Moreover, coherent, health-promoting fiscal policies can send a strong message to a population about the health effects of targeted products and can change social norms [27]. Their effect can be further amplified if they are implemented as part of a wider policy package.

Figure 1. Fiscal policies for health and development



NCDs and gender

Women are affected by NCDs differently than men. Women are more likely to become victims of second-hand smoke [28]. Women are also more likely to experience intimate-partner violence, whose frequency and severity is aggravated by alcohol consumption [29], and are at the same time at higher risk of NCDs related to alcohol consumption even with lower levels of consumption, such as breast cancer [30] [31]. Women in some countries are less physically active due to the lack of safe and supportive environments, a shortage of income and leisure time, or cultural stereotypes [32]. Women (and children) are more often exposed to deadly indoor air pollution due to domestic chores [33]. Women have increased risk of pregnancy complications due to NCDs, and NCDs in women can also worsen the life outcomes of their offspring [34] and therefore contribute to the perpetuating circle of NCDs and poverty.

Women are also frequently those who care for a sick family member, which can keep them out of work or school [32]. Women are frequently targeted by marketing of health-harming industries [32], and experience gender-related barriers in accessing healthcare, including poverty, power imbalances in the household, limited access to information on NCD risk factors, and social norms [32]. On the other hand, women seem to be more price sensitive. Studies have shown, for example, that households led by women were almost four times more responsive to changes in tobacco prices [35].

Fiscal policies mainstreaming NCD prevention, if applied with a gender lens and combined with other gender policies, could not only protect women from these risks and promote gender equality, but also amplify the policy effects in general.

Key concepts and definitions

Price and affordability[2] are at the centre of consumers' decisions. Fiscal policies, i.e., the use of government spending and taxation to influence the economy [36], combined with other policies—including price policies—have a strong potential to impact these two factors and behaviour.

[2] Affordability is usually assessed by the share of income per capita needed to purchase a fixed quantity of the product.

Market failures

As highlighted in the NCD Alliance report, Selling a Sick Future: How to counter harmful commercial marketing towards children and young people across NCD risk factors, price is also a marketing element that influences consumers' decisions to purchase a product. Price strategies and other forms of marketing are used heavily by health-harming industries, including those involved in tobacco, alcohol, and HFSS foods, to encourage consumption of their unhealthy products. Misdirected fiscal policies often enable the commercial determinants of health—defined by the WHO as private sector activities that impact people's health, both positively and negatively—to drive the consumption of unhealthy products.

Prices usually reflect products' manufacturing and sales costs and taxes but often do not reflect the true costs and benefits to the user or the society. Consumers might not always be able to estimate the true costs or benefits of their behaviour. First, consumers may not necessarily have accurate and complete information about the product and its effects, as highlighted in NCD Alliance's brief, Warning against Harm: Lessons and recommendations to advance labelling policy across NCD risk factors. Second, even if they do have that information, consumers may not take into account costs or benefits occurring to other members of society (externalities) or even to themselves (internalities). In the case of diseases, consumers may underestimate the risks ("this will not happen to me") and the costs that a disease would entail. Such costs are then not considered when the decision is taken as they are not part of the price. This is especially true for young people and children, who may not make fully rational decisions even with correct information, due to undeveloped decision-making abilities and susceptibility to aggressive marketing. Additionally, the addictive nature of some products can impair judgment [37]. As a result, consumers are often not able to make informed decisions.

Fiscal policies do not limit peoples' choices but modify the conditions under which the decisions are taken, by correcting market failures and by incorporating externalities and internalities into product prices.

Shaping price, shaping decisions

Targeted measures, such as health taxes, aim at shaping market signals and swaying populations' choices towards healthier options. The prices of health-harming products are often too low to reflect the true cost to society, and the prices of health-promoting products are often too high to reflect all their benefits. **Fiscal policies can be used to incorporate true costs and benefits into product prices through taxation and subsidies.** This should be in line with and supported by other policy instruments, implemented as part of a wider package of NCD prevention policies. Such measures may include laws directly regulating prices or proportionality of prices of offered goods, setting a minimum unit price as recommended by the WHO technical package on alcohol policy [19], prohibition of discounts on unhealthy products, or standardising pack sizes to prevent product size manipulation by industries, as these can considerably weaken the effects of health measures.

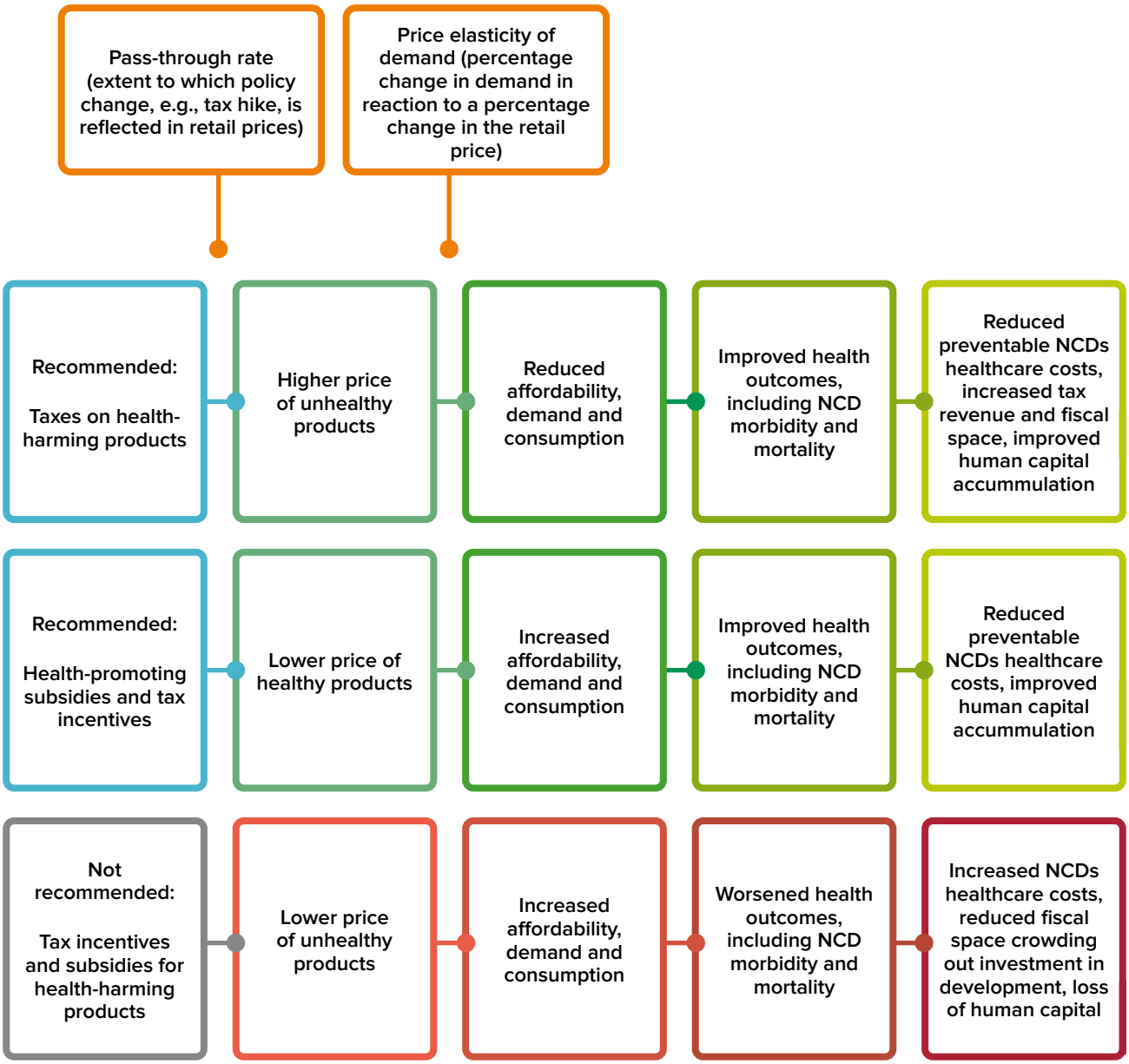
Health taxes aim at increasing prices and reducing consumption of unhealthy products. Producers, importers, and retailers may be willing to temporarily absorb part of the tax increase by reducing their margins (see below). However, tax increases are usually ultimately shifted onto consumers in the retail price. The demand for tobacco and alcoholic beverages is described as inelastic because consumption of these products decreases less than the price increases [38].[3] This creates space for tax revenue generation. For SSBs, the estimated elasticity varies country by country but tends to be higher than for tobacco and alcohol [38].[4] Nevertheless, SSBs too can generate considerable tax revenues (see below).

On the contrary, tax incentives and subsidies lower product prices leading to increased affordability and demand. Tax incentives and subsidies can stimulate demand for health-promoting foods, such as fruits and vegetables, but also for health-harming products, such as gasoline and diesel.

[3] Price elasticity of demand indicates a percentage change in demand in response to percentage change in retail price. Price elasticity of demand for tobacco and alcoholic beverages varies by country and consumers groups (e.g., by income or age), however, the average elasticity of demand is estimated at -0.48 for tobacco [273], -0.3 for beer and –0.6 for wine and spirits [19].

[4] For SSBs, the price elasticity of demand for SSBs is estimated to range between -0.8 to -1.59; LMICs tend to be at the upper end of the interval [45].

Figure 2. Pathways in which fiscal policies impact behaviour and consumption



HEALTH TAXES – THE URGENT PRIORITY

Health taxes, i.e., excise taxes[5] applied on unhealthy products, are considered the most effective form of tax to discourage consumption of unhealthy products through tax-induced price hikes. Health taxes have at the same time the capacity to widen fiscal space. They have the potential to reduce healthcare spending to treat NCDs and to generate considerable revenue. Implementation or reform of health taxes can contribute to rating agencies' decisions to improve sovereign ratings, which can lead to lower borrowing costs for countries and lower debt burdens [24] [39] [40]. Health taxes are relatively easy to implement and administer and offer a relatively stable source of revenue. This can facilitate medium- and long-term planning, which is important for effective use of resources [41]. Health taxes are included among the WHO NCD 'best buys' and other recommended measures, i.e., measures that are the most cost-effective in saving lives. For every US$100-500[6] invested in the implementation and administration of an SSBs excise tax, a year of healthy life can be gained. For tobacco and alcohol excise tax, the amount is less than US$100 [15]. Health taxes can also send a strong message to consumers about the harmfulness of a product, especially if accompanied by communication campaigns.

Health taxes can function as a stand-alone policy, but they work better when part of a wider set of measures. These could include awareness-raising campaigns, campaigns that support cessation, advertising, and marketing restrictions, labelling and package warnings, compensatory measures to minimise effects on industries or farmers, or subsidies on healthier options, which also strengthens health messaging to the public.

Health taxes are most frequently applied on **tobacco, alcohol and SSBs**, but excise taxes on other unhealthy products have emerged, including taxes on HFSS foods, which are often ultra-processed products.

Health tax design

Decreasing affordability

Tax design plays an important role in the impact of the health tax on consumption and health, on government revenue, as well as on sustainability of the tax over time. **Health tax design should lead to higher prices and less affordable unhealthy products, and promote substitution to healthier options, not to other unhealthy products**.

Ad valorem vs specific tax

Ad valorem taxes, i.e., taxes calculated from a price,[7] result in a **lower amount of tax per unit of cheaper products and wider price spreads between premium and economic brands than do specific taxes, which can motivate consumers to switch to cheaper products** (trading-down) in response to tax hikes instead of cutting consumption. This may encourage early uptake and consumption of unhealthy products and may prompt production of lower quality products at lower prices. One way to prevent this is to set a **minimum excise tax floor** which, in a way, sets a minimum retail price, similar to minimum price policy. In the case of a minimum price policy, the additional revenues go to the industry however, while in the case of a minimum excise tax, the revenue goes to the governments. Ad valorem taxes are more administratively demanding than specific taxes as they require regular monitoring of prices, especially if applied early in the value chain [19].

Specific taxes are set as a fixed amount per volume **(volumetric tax**, e.g., tax per litre of a SSB or alcoholic beverage) or as **content-based tax** (e.g., per gram of sugar or ethanol volume). **Specific taxes tend to be more effective in decreasing consumption** as they lead to lower price spreads and less consumer trading-down than ad valorem taxes; however, they need to be regularly **adjusted for inflation and income growth** to prevent tax erosion with respect to price increase and affordability, which is rarely the practice.

Some countries use tax designs that combine both ad valorem and specific taxation in a **mixed system** for tobacco and alcoholic beverages, and less frequently, for SSBs. **Specific taxes and mixed regimes tend to generate more revenue** than ad valorem taxes alone [42].

[5] An excise tax is a tax on selected services, activities, and products, such as tobacco, alcohol, fuel, or sports betting, usually with the purpose to include externalities in the price of the goods. Excise taxes can be levied at the level of the manufacturer/importer or retailer, but are usually in the end paid by the consumer in the retail price.

[6] Dollars expressed in purchasing power parity, i.e., reflecting differing price and wage levels across countries.

[7] Either invoice price at a given point in the value chain or final net-of-tax retail price.

For tobacco, uniform specific taxes are recommended as the most effective form of taxation. The FCTC Guidelines on implementation of Article 6 recommend that total taxes on tobacco products represent at least 75% of the retail price, with the **excise tax representing at least 70% of the retail price** [43]. Progress in tobacco taxation has been slow and between 2020 and 2022 experienced a setback [18]. As of 2022, only 41 countries met the former threshold and just seven met the latter [16]. In some cases, the ad valorem tax is applied to a low retail price, as in Bangladesh[8] [44], or is applied on the **customs value (CIF)**[9] for imported goods and the **manufacturer's price** for domestic production, leaving the final effective tax low. As the CIF and manufacturer's prices are established early in the production chain, the taxed price tends to be low (much lower than the retail price), leading to a lower effective tax. Using CIF as the tax base may lead to manipulation through transfer pricing and underreporting as well as differences in taxation between imported and domestic goods (disadvantaging domestic production). This affects the health impact of the tax and its revenue potential.

Uniform vs tiered tax design

A **uniform design** means that all like products within a category (e.g., all cigarettes) are taxed at the same rate. In contrast, a **tiered design** means that different tax rates are applied based on product characteristics, such as price segments (e.g., premium cigarettes are taxed at higher rates, as in Thailand), inputs used (e.g., beer produced with locally grown crops is taxed at a lower rate than imported products, Uganda), or content of the harmful element (e.g., SSBs with higher sugar content are taxed at higher rates, South Africa or Portugal). Tiered designs motivate consumers to switch from more expensive to cheaper products (if based on product price) as well as encourage industries to modify their products to fit into lower tax tiers through price or product size reformulation. In some cases, product reformulation triggered by tiered design may be desirable, e.g., lowering sugar content for SSBs. **Uniform designs on tobacco products lead to larger decreases in consumption and more predictable revenue** for governments. In the case of alcohol, **tiered structures may effectively raise tax revenue and target consumption but they must be well designed, and they are more difficult to administer [19].**

For SSBs and alcoholic beverages, the tax design may depend on the country context, administrative capacity, and specific policy goals [19]. **While there are no internationally agreed targets for the share of excise tax in retail prices of SSBs and alcoholic beverages, excise taxes on these products remain very low.** For SSBs, the average excise tax reached only 5.5% of retail price in 2022 [20]. Evidence suggests that taxes on SSBs should lead to a 20% rise in retail price in order to result in significant decrease in consumption [45] [21]. Higher tax rates are expected to result in a larger decrease in the prevalence of overweight and obesity than lower rates [45]. For spirits, the average excise tax reached only 27% and for beer not even 16% [46]. **Given the heterogeneity of alcoholic beverages, alcohol taxes should be tailored to country needs and policy goals. The WHO technical manual on alcohol tax policy and administration highlights the importance of defining categories of alcoholic beverages clearly so that they can be taxed according to the harm caused** [19]. Research shows that when alcohol taxes double, alcohol-related deaths decrease by 35% [47].

The final aim of tax design on retail price and affordability must be to motivate a decrease in consumption.

[8] Ad valorem tax rates of 57% and 65% are applied on retail price (net-of-tax) of cigarettes for low- and higher-price tiers respectively. Nevertheless, the retail prices in the country are low, much lower than neighbouring India and Sri Lanka, and therefore the taxation remains low too [16].

[9] Customs, insurance and freight value: the price of a good delivered at the frontier of the importing country, or the price of a service delivered to a resident, before the payment of any import duties or other taxes on imports or trade and transport margins within the country [250].

Taxed products—definition and scope

When defining the scope of products to be covered by an excise tax, it is important to prevent any loopholes and to deter substitution to other unhealthy products.

For example, in Bulgaria the tax on roll-your-own cigarettes was 51.5% lower than the tax on manufactured cigarettes [48].[10] In that case, it was important to understand the habits of consumers of loose tobacco in order to set appropriate levels of taxation. Additional products that are of public health concern should be subject to regulations and potential taxation, including **new and emerging nicotine products and tobacco products**. The evidence on the harm of new and emerging nicotine and tobacco products is still emerging, and their use is not considered to be risk-free. It is important to prevent nicotine addiction in younger populations and tobacco non-users as it can normalise smoking and lead to the risk of tobacco use or dual use [49].

Alcoholic beverages with low alcohol content frequently remain untaxed. Nevertheless, **there is no safe level of alcohol consumption** [50], **and all alcoholic beverages should be taxed**. While the health impacts of low-and no-alcoholic versions of alcoholic beverages remain unclear, concerns have emerged over insufficient regulation, labelling, marketing, and normalisation of alcoholic brands, especially for young people and people with alcohol use disorders [51]. Also, many countries lack sufficient control, monitoring, and taxation of the input materials used in illegal alcohol production, such as ethanol, which can result in cheap fabrication and sales [52].

For SSBs, the tax design should motivate people to switch to healthier options, not to other sweet beverages. The WHO recommends reducing consumption of free sugars[11] to a maximum of 10% of daily energy intake and to 5% in order to generate more significant health benefits [53]. SSBs can represent around 50% of many consumers' sugar consumption [54] [55]. Consumption of SSBs in infancy and childhood can lead to a preference for sweetness later in life, resulting in long-term health impacts [56]. There is strong evidence showing the beneficial impact of SSBs taxes on consumption. For example, in Fiji and Vanuatu, two countries that have increased their SSBs taxes by 20% since 2000, the consumption of SSBs was the lowest among the Pacific Islands. In contrast, Kiribati and Solomon Islands, which reduced SSBs taxes by about 20% since 2000, reported the highest daily consumption of SSBs [57].

In the majority of countries, SSB taxes apply to water-based beverages, but do not cover other products such as sweetened milk-based drinks, coffees with sweet sirups, or juices that can contain excessive free sugars, often at levels similar to soda drinks. All beverages with free sugars should be taxed. Consumption of SSBs, including those with artificial sweeteners, has been linked directly to obesity and NCDs [58] and if consumed during pregnancy, breastfeeding, and in early infancy, worsens pregnancy outcomes [59] and health and education outcomes of the offspring later in life [60]. Globally, 76% of SSB taxes worldwide apply to low/zero-calorie sweetened beverages, for example in Barbados or Monaco [61]. WHO recommends against the use of **non-sugar sweeteners** to control body weight or reduce NCD risk, based on a systemic review that found they do not confer any long-term benefit in reducing body fat in adults or children and which suggested potential undesirable health effects from long-term use [62].

Over a quarter of SSB taxes target bottled unsweetened water [61]. While bottled water is linked to plastic pollution, it is still considered a healthier alternative to SSBs, especially in settings where safe tap water is not available, and it should remain untaxed to ensure its affordability. Benin, for instance, imposes an SSBs tax on all non-alcoholic beverages, including milk-based products, but exempts non-carbonated unsweetened water [61].

Health taxes on tobacco, alcohol and SSBs are common, but generally applied far below their potential. Raising taxes is a proven, effective way to further curb NCD risk factors and generate sorely needed revenue.

[10] Assumption: a roll-your-own cigarette contains 0.6 grams of tobacco. A standard cigarette weighs around 1 gram of which the tobacco content varies between 65-100% depending on the type of cigarette and country context [249].

[11] Free sugars refer to monosaccharides (such as glucose, fructose) and disaccharides (such as sucrose or table sugar) added to foods and drinks by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices, and fruit juice concentrates [53].

Excise taxes on unhealthy foods

Unhealthy food is increasingly recognised as a major driver of NCDs. Unhealthy diets are estimated to be responsible for over seven million deaths per year [28].[12] In Europe, for example, unhealthy diets cause up to 40% of NCDs [63]. Currently, taxes on SSBs are the most used form of unhealthy food tax, and are applied in 134 territories [20]. **While taxing SSBs remains a priority, imposing excise taxes on other unhealthy food should be considered a natural next step**. Besides SSBs, excessive amounts of sugar are also consumed through other food products. Some of these foods often have a false "health halo" (e.g., granola) and/or are targeted to children (e.g., morning cereals or hazelnut cream). Growing evidence suggests that taxing unhealthy foods beyond SSBs can be effective in reducing their consumption and can promote switching to healthier options [64]. Various methods have been used to define which food should be subject to the tax: single nutrient targeting, nutrient profiling, targeting energy density and/or level of processing. The selected method would depend on the country context, including administrative capacity. Evidence about the effects of these various methods is only now emerging but some lessons can be already drawn from the available experience.

Ultra-processed foods

Ultra-processed foods (UPFs)[13] frequently contains high levels of sugar, sodium, saturated, and trans fats, and highly refined carbohydrates, are calories-dense, and have low nutritional value. Unfortunately, in some countries UPFs represent the majority of food consumed [65]. UPFs crowd out healthier food from diets and are especially tempting for many reasons: their typically ready-to-eat format; attractiveness to the senses and intensive taste; a structure that delays the feeling of fullness; addictiveness, and powerful marketing, often focused on children and youth. UPFs can contain harmful substances, including carcinogens, hormone-disrupting chemicals, and industrial additives linked to inflammation and gut microbiome imbalances [65]. Focusing on processed foods and UPFs can be part of designing taxes on unhealthy foods.

Energy density targeting has been used in Mexico, where tax is applied on high-calorie, non-essential[14] food. However, results from Mexico suggest that targeting energy density may lead to substitution between taxed and untaxed products and have limited health impact. Single-nutrient targeting, in addition to SSBs taxes, has been also used to reduce the consumption of sodium and unhealthy fat. Currently for instance, Ethiopia applies taxes on margarines, fats, and oils that contain high shares of saturated and trans fats [64]. Nevertheless, single-nutrient targeting for food beyond SSBs may lead to consumers switching from one nutrient of concern (the taxed one) to another (the untaxed one), e.g., from sweet to salty snacks [66] and may also cover a wide range of products, [21] increasing administrative demands.

[12] Value for 2021.

[13] There is not a single definition of UPF. However, the NOVA classification recognised by FAO as the most referenced definition describes UPF as: Formulations of ingredients, mostly of exclusive industrial use, made by a series of industrial processes, many requiring sophisticated equipment and technology (hence 'ultra-processed'). Processes used to make ultra-processed foods include the fractioning of whole foods into substances, chemical modifications of these substances, assembly of unmodified and modified food substances using industrial techniques such as extrusion, moulding and pre-frying; use of additives at various stages of manufacture whose functions include making the final product palatable or hyper-palatable; and sophisticated packaging, usually with plastic and other synthetic materials. Ingredients include sugar, oils, or fats, or salt, generally in combination, and substances that are sources of energy and nutrients that are of no or rare culinary use such as high fructose corn syrup, hydrogenated or interesterified oils, and protein isolates; classes of additives whose function is to make the final product palatable or more appealing such as flavours, flavour enhancers, colours, emulsifiers, and sweeteners, thickeners, and anti-foaming, bulking, carbonating, foaming, gelling, and glazing agents; and additives that prolong product duration, protect original properties, or prevent proliferation of microorganisms.

[14] Defined in a list of food categories.

Nutrient profiling

Nutrient profiling models (NPMs) set thresholds for sodium, free sugars, total fat, saturated fat, and trans fats, to define unhealthy food. They have been used with proven success for front-of-pack labelling in various countries, such as Argentina and Chile, as well as for restricting marketing of unhealthy food to children. The structure of the models, however, could be used for taxation too. In designing a tax on unhealthy food, a country specific NPM can be developed or existing NPMs employed, such as those that have been validated for food policies, beyond marketing restrictions, including taxes. Colombia, Hungary, and Tonga have used NPMs for food taxes [67]. Using a consistent NPM approach across policies, i.e., mainly taxation, labelling (as for example in Colombia – see the Country case below), or marketing restrictions, could facilitate the implementation of these policies, strengthen the message that these measures send to consumers, as well as provide a single set of criteria for the industry for compliance and potential reformulation.

The aim of food taxes is to maintain food accessibility but promote substitution to healthier choices. This could be further supported by implementing subsidies on healthy food, such as fruit and vegetables (see below). **Existing food tax policies, including value-added tax (VAT) and sales tax, should be revised to ensure they are aligned with healthy diets** (see below).

Designing NPM for taxation

Using an existing, recognised NPM with rigorous standards has its advantages, such as saving resources and time during the tax development stage, but also more resiliency in communication with the public and when facing challenges from opponents. Any NPM adopted for health taxes should:

- **be based on evidence and developed in a transparent manner with the support of health experts;**
- **reflect WHO recommendations on consumption of the nutrients concerned;**
- **be free from industry influence and conflict of interest;**
- **set a threshold for each concerned nutrient only for two food categories, i.e., a threshold for solid food and a threshold for beverages. Dividing food into more than these two categories with different thresholds for each category could open space for loopholes that can be exploited by industry. Simpler frameworks are also easier to monitor, which is useful for improving the model based on gained experience;**
- **be based on nutritional guidelines for the general population in the country, not only for specific subgroups;**
- **target only processed and ultra-processed food (UPF) [261];**
- **be based on volume or weight thresholds, as NPMs based on serving sizes again provide an opportunity for industry to devise avoidance tactics [280].**

Some other NPMs, such as Nutri-Score, score food also taking into account “good nutrients”. This approach may create space for the industry to manipulate the system by adding nutrients to unhealthy food and masking it as healthy. Fortifying unhealthy food with added vitamins or fibre does not compensate for the unhealthy characteristics of the product [280].

The role of health taxes for NCDs financing

Revenue potential

All countries, including LMICs, could achieve or nearly achieve SDG target 3.4 (reducing NCDs by one-third by 2030) by implementing a package of highly cost-effective interventions aligned with the WHO NCD 'best buys', including health taxes on tobacco and alcohol. This would require an additional US$18 billion annually before 2030, could save 39 million lives, and generate an average net economic benefit of US$2.7 trillion, that is a 19:1 return on investment [68]. Health taxes can, in addition to their health impact, help to generate government revenue.

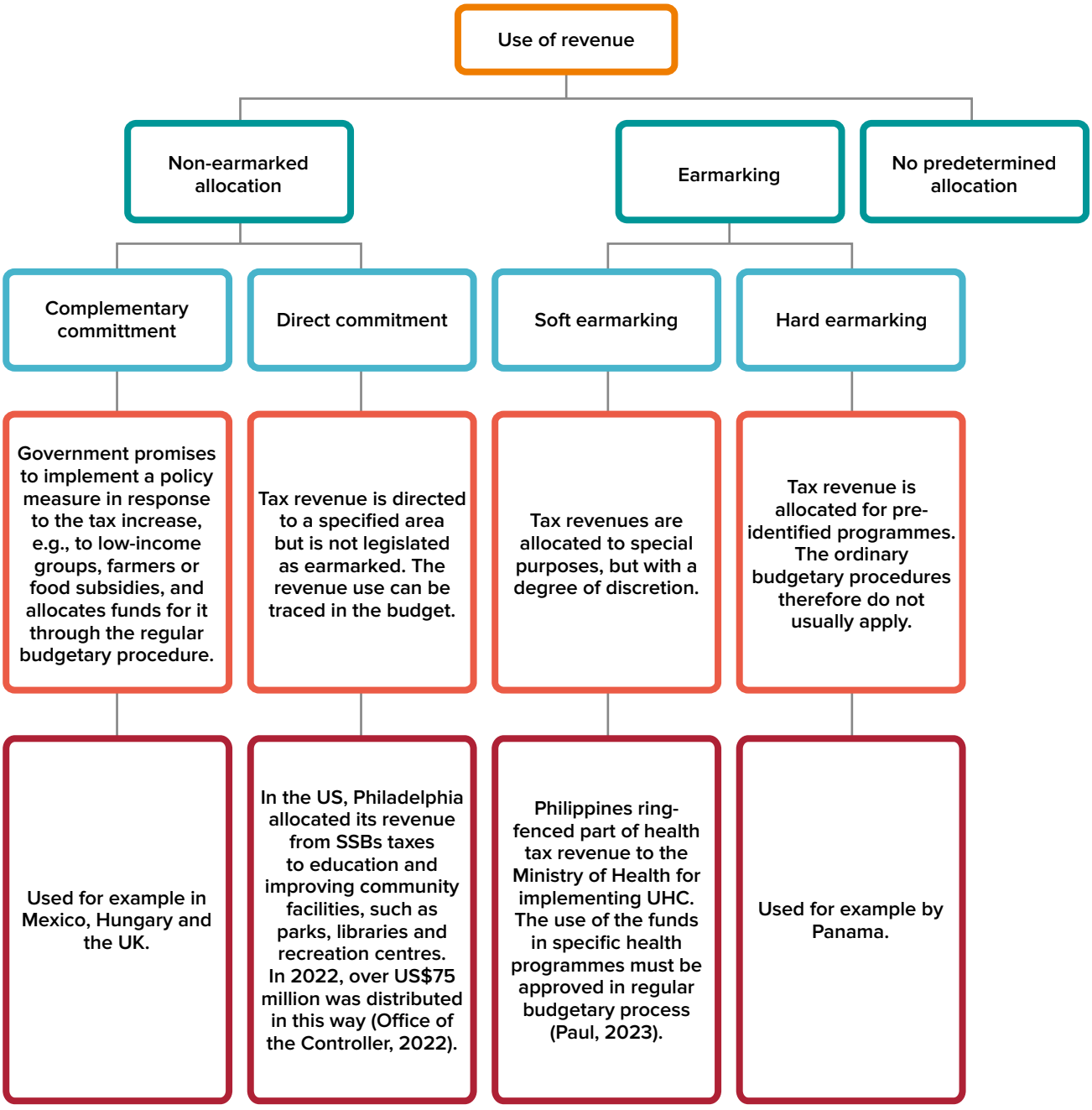
Among health taxes, tobacco tax has been the most widely used (in 63% of countries) followed by alcohol tax. However, given the currently low levels of taxation, alcohol has significant untapped revenue potential [69] [52]. Tobacco and alcohol excise taxes generate on average around 0.6% and 0.3% of GDP, respectively, across country-income groups, with some exceptions. For example, in Nauru tobacco tax revenue accounted for 3.4% of GDP, while alcohol tax revenue in the Seychelles made up 1.8% of GDP in 2019 (Blecher et al., 2023). SSBs taxes tend to generate lower revenues given the more elastic demand for SSBs, ranging between 0.1%-0.16% of GDP [70]. Also, raising or introducing health taxes may generate additional revenue from VAT/sales taxes as well because the latter taxes (and some other special levies) are usually applied as a percentage of a price that already includes excise taxes.

The revenue generating potential of taxes on unhealthy food remains less clear as only a few have been implemented. However, the tax on unessential food implemented in 2011 in Hungary tallied around US$219 million for the national budget in its first four years, which allowed wages of 95,000 health sector workers to be increased and also helped to address brain drain [71] [72]. The non-essential food and SSBs tax in Mexico led to an increase in collection of the Special Tax on Products and Services (equivalent to an excise tax) by more than 50% in the first year after implementation [73].

Allocation of revenue

Revenues from health taxes can go to the general government budget to improve the fiscal space or to be allocated based on emerging needs. The revenues can be also allocated in advance to specific purposes, either through commitment or earmarking (also known as hypothecation).

Figure 2. Allocation of health tax revenue



Source: Adapted from Danielle Bloom, Health tax revenue use: Evidence, policy considerations and country experience, 2 November 2023.

In 2022, around 52 countries earmarked revenues from tobacco, alcohol, and/or SSBs taxes, mainly for health and social protection purposes. The most common was earmarking of tobacco tax revenue (in 43 of 184 countries with tobacco tax) and the least common was for SSBs tax revenues (in 9 out of 134 countries with SSBs tax) [61, 16, 46, 20].[15]

Earmarking can strengthen accountability and trust between the government and the public as the allocated funds are not merged with other funds but are directed to the specified purpose. Earmarking can increase public support for health taxes and are favoured by ministries of health to secure funds as they eliminate the need to jostle with other entities during ordinary budgetary procedures [74].

Constraints on aligning resource allocation with identified priorities however, may prove problematic, particularly during economic fluctuations or to address specific challenges, such as demographic and labour market changes [74]. Rigid resource assignment can also create inefficiencies as some policy areas or programmes receive more than what is needed while funds lack in others. The entity receiving the earmarked revenue streams can see other funds fall in value, which can even lead to a net decrease in funding for health, as has been the case in Gabon, Ghana, and Estonia (Ozer, et al., 2020).

Earmarking of tax revenues may be a highly political issue given that considerable amount of money may bypass the budgetary process and take away the chance of other sectors benefitting from these revenues. **Transparent, flexible and well-functioning budgetary processes that prioritise health are considered the most efficient way to use tax revenue**. According to the World Bank, in certain settings where revenue allocation or public support of health taxes needs to be strengthened, soft earmarking or commitments are preferred over hard earmarking and should be determined in partnership between the health and finance ministries so they can align their priorities and provide for (periodic) revision of the allocation [74].

Revenue-related arguments should not jeopardise implementation and sustainability of health measures, which happened for example in New Zealand, where the government, cited maintaining tobacco tax revenues as a reason to repeal the generational smoking ban. Additionally, when budgeting health tax revenues it is important to use conservative estimates as lower-than-promised revenues can be used by opponents as an argument for repealing the tax and, in case of earmarking, cause financing problems for the linked programme.

Country case: Panama – earmarking for health

Panama uses hard earmarking for allocation of tax revenues from tobacco and alcoholic beverages for the advancement of public health. In 2018, the Panama government received over PAB 28 million (around US$28 million) in tobacco taxes, half of which was earmarked for public health promotion and prevention (including to the National Cancer Institute), surveillance, and tobacco control (including to the Customs Authority to combat smuggling) [234, 16]. Excise tax revenue from alcoholic beverages was allocated to social and health purposes, such as sports promotion or a mental health programme to treat addictions [46]. Revenues from the SSBs tax, effective since 2020, were to be allocated to health purposes as well, including promotion of healthy diets; however implementation of the SSBs tax earmarking has been delayed [252].

[15] Out of 185 countries that tax tobacco, 132 also tax alcoholic beverages, and 134 apply taxes on SSBs. Some of these countries earmark tax revenues from multiple unhealthy products, while others allocate funds from only one or a few. The data is based on reports from the respective sources. sources.

Challenges in implementing fiscal policies for NCDs prevention

Industry tactics

Implementing, increasing, and sustaining health taxes often faces considerable opposition despite their proven effectiveness. Industry groups, often hidden behind a veil of business associations and "smoke and mirrors" foundations, try to build positive images, conduct corporate social responsibility activities, and nurture relationships with decision-makers. With huge resources at their disposal, [75] such groups have blocked or watered down health taxes by manipulating politicians and hijacking discussions in the media. In California in 2016, the beverage industry spent US$30 million to oppose local taxes on SSBs [76]. Food industry spending on lobbying to influence the discourse on UPF regulations has surpassed the lobbying spending of tobacco and alcohol combined and is increasing. As in the case of tobacco and alcohol, that spending includes funding to researchers and policymakers [77].

Industry tactics include threats of or actual legal challenges, which have been, however, repeatedly rejected by courts or other institutions. The food tax in Hungary, for example, was opposed by the industry, which claimed that it was regressive, harmed competitiveness, and would negatively impact the economy, especially small and medium-size enterprises. The industry commissioned global consulting firm PricewaterhouseCoopers to create a study to support its arguments, which the government was able to discredit thanks to independent studies. The industry turned to the European Commission, arguing that the tax discriminated against international food products, but the claim was rejected [71].

Country case: Colombia UPF tax – important court ruling

In November 2023, Colombia imposed the most comprehensive UPF tax globally.[16] It comprises a specific tiered tax on SSBs and specific taxes on UPFs. These are based on NPM thresholds for salt/sodium, sugar and saturated fat content per calories or grams above which the tax is applicable, set by the Pan American Health Organization [78]. The tax thresholds align with the limits for front-of-pack labelling [79]. During the implementation process, the government made compromises with business lobbies which led to a lower rate for some sugary drinks. The SSBs tax faced multiple legal challenges from business, which claimed the tax was unconstitutional both on procedural grounds and against the principles of equality, economic freedom, and free competition. **The Constitutional Court made a historical ruling in October 2023 stating that the principles of economic freedom and free competition have limits, which are set by ensuring that citizens' fundamental rights are respected and their overall well-being is protected**. This decision sets an important precedent for similar efforts in other countries [80] [81] [82] [83] [84].

Conflict of interest policies must be strengthened to prevent aggressive industry interference in the decision-making process, including revolving door practices.[17]

[16] Baby formulas and beverages used for special nutritional or medical purposed are exempted from the tax.

[17] Situation when a person with a high-level public position switches to a job in industry in the same area and the other way around, using their knowledge of the environment and contacts for lobbying in favour of the industry [251].

Price and product manipulations

Industries tend to find ways to avoid or minimise the impacts of taxes. The most frequent tactics are:

- **Differential shifting of taxes:** The tax is shifted fully to the consumer in the price or even beyond the tax hike (so-called, overshifting) for premium brands to maintain profits while the increase is less for cheaper brands, as low-income groups tend to be more responsive to price increases. This practice is more common in high-income countries. In contrast, in low-income countries industry tends to increase the prices less than the tax (undershifting) and voluntarily absorbs part of the tax hike as often its primary goal in these markets is expansion as opposed to profit maximisation.

- **Price smoothing:** Industries absorb part of the tax in the short-term and increase prices only slowly to maintain customers [85]. Such manipulations are aided by the high profits that some companies generate and depend on the country context and the industry's goals. In Colombia, the tobacco industry overshifted the tax during smaller tax hikes between 2007 and 2016, which boosted its margins, while in 2017, after a larger tax hike, the tax was partly absorbed by the industry for some price segments and overshifted for others. Despite these tactics, the smoking prevalence and average number of cigarettes smoked per day declined. Yet the fact that the industry was able to overshift the tax to consumers suggests that there was space for even higher taxation [83].

- **Product modification:** The industry introduces new brands, products, or product variants, modifying the product characteristics to fit in a lower tax category or to reduce the size of the product, while keeping the price unchanged. In Thailand after a tax hike, a new, cheaper cigarette brand, with slightly smaller cigarettes, was introduced and thanks to its lower price fit into the lower tax tier [86].

Targeted product promotions are also a common practice in response to tax hikes. These can be especially pronounced in jurisdictions bordering or close to jurisdictions that are not impacted by the tax [85].

Health tax implementation should be accompanied by measures preventing forestalling, i.e., an increase in the production or stock of a product that is expected to become taxed [17].

Busting industry myths

Industry often sows doubts about the links between NCDs and risk factors, effectiveness of health policies, including health taxes, and feeds fears about potential negative economic impacts of health policies in order to weaken, delay, or block their implementation. Most industry arguments, however, have been disproved or are not supported by evidence.

MYTH: Health taxes are ineffective and there are better ways to achieve their objectives

TRUTH: Health taxes are most effective in reducing the affordability and consumption of unhealthy products

Health taxes have been proven to reduce the consumption of unhealthy products by making them more expensive [38]. Health taxes are recommended by WHO and considered highly cost-effective measures to reduce exposure to tobacco, alcohol, and SSBs [15]. WHO also recommends taxation of unhealthy foods beyond SSBs [21].

MYTH: Health taxes increase illicit trade and tax evasion

TRUTH: Health taxes do not cause illicit trade

Spreads in prices between licit and illicit products can motivate purchases of the illicit ones. However, the link between taxes and illicit trade seems to be weak [89] and having administrative capacity and effective measures against illicit trade play more important roles (see the country case on Montenegro below) [90]. Industry itself has often been complicit in illicit trade [91] and overestimates the illicit trade scope to induce fear in governments to weaken or cancel taxes [92] [93]. Industry has also used tax hikes to increase its margins by passing on more than 100% of the tax to consumers despite claims about the threat of illicit trade caused by higher prices [94] .

MYTH: Health taxes hurt competitiveness of domestic producers

TRUTH: Health taxes tax domestic and imported products equally

Health taxes should apply equally to all products on the market regardless of the product origin. Domestic producers and importers have a level playing field in this regard. Health taxes do not affect domestic producers disproportionately.

MYTH: Health taxes impact farmers producing or contributing to targeted products

TRUTH: Farmers can be better off growing other crops

Farmers, as producers of the raw materials, may be impacted by health taxes when the demand for taxed products decreases due to a tax-induced price hike. However, the quality of the work, especially of tobacco [14] and sugarcane farmers [101], is often very low and alternative crops or forms of livelihoods may bring better outcomes for small farmers.

MYTH: Health taxes do not generate additional tax revenues

TRUTH: Well-designed health taxes generate additional tax revenue

While the revenue-generating capacity of health taxes may vary based on the country context and the tax design, health taxes have the capacity to generate considerable tax revenues [38]. The revenues tend to be higher for products with inelastic demand, such as tobacco or alcoholic beverages, and lower for SSBs, where consumers respond more to tax induced price increases [38].

MYTH: Health taxes are regressive and hurt low-income groups

TRUTH: Low-income groups benefit from health taxes

Low-income groups bear a higher NCDs burden. They tend to be more exposed to NCD risk factors, experience more barriers in access to healthcare and health information, and healthcare spendings can push them quickly into poverty, especially as they commonly lack savings or assets to tap into in cases of need [1]. Low-income groups also tend to spend a larger portion of their budgets on tobacco and alcohol (Jolex, 2022). On the other hand, young people and low-income groups are more sensitive to price increases; therefore, while they may be more impacted by health taxes in the short-term, in the medium- to long-term the net impact is positive [95]. Low-income groups benefit more from health taxes than their high-income peers [96].

MYTH: Health taxes limit personal freedom

TRUTH: Health taxes allow for free decision-making under using truer market signals

Health taxes do not limit the decisions of consumers; health taxes modify the terms under which these decisions are taken by including internalities and externalities (the latter are costs or benefits occurring to other members of society; the former are costs and benefits to the person affected) into the price that shapes the decision.

MYTH: Health taxes increase unemployment

TRUTH: Health taxes do not lead to increased unemployment

Health taxes do not increase unemployment. While they can lead to gross job losses in the industries affected by the tax, such losses tend to be compensated for by jobs created in other sectors, so that health taxes can lead to an increase in net employment [87] [88], in addition to more productivity due to their impact on population health outcomes.

MYTH: Health taxes increase inflation

TRUTH: Health taxes have a minimum impact on inflation

The share of unhealthy products in the total consumer basket that is captured by the consumer price index (CPI) tends to be limited, which also limits the impact of tax increases on inflation [97] [98]. The impact depends on the type of tax introduced (ad valorem tax responds to inflation through its link to prices while specific tax needs to be regularly adjusted to inflation otherwise its relative value and impact decrease) and the country context, which is reflected in the pass-through rate (extent to which policy change, e.g., a tax hike, is reflected in retail prices) of the tax and the decrease in consumption in response to the tax hike. The effect can be mitigated by excluding health-harming products from the CPI basket to avoid cascading of the price increase through the economy in case other measures are linked to changes to the CPI, such as minimum wage or social benefits [97].

MYTH: Targeted products are not the cause of diseases, there are other causes

TRUTH: Tobacco, alcohol, unhealthy foods, including SSBs, have been linked to NCDs

Yes, there are other factors, such as physical inactivity, or genetics, but there is sufficient evidence that tobacco [99], alcohol [100], and unhealthy food, including SSBs, cause NCDs [1].

MYTH: Earmarking tax revenues is unconstitutional, unfair, and ineffective

TRUTH: Earmarking health tax revenue is legal, and can be effective and fair

As earmarking tax revenues from health taxes tends to increase public support for such taxes, it is opposed by the concerned industries as unconstitutional since it does not go through a budgetary process. Industry also claims that the process represents excessive interference and unwarranted power, that the tax revenues are unreliable, so it is irresponsible to use health taxes to fund social programmes. Other arguments include that it is unfair that taxes are paid by consumers of unhealthy products but often benefit others, and that earmarking creates unnecessary bureaucracy. While the benefits of using earmarking may depend on the country context, most of these industry arguments remain unsupported or have been disproved by evidence. Legal efforts to label earmarking unconstitutional failed, for example in the US state of Massachusetts [104] [105].

Overcoming challenges

Thorough preparation and involvement of multiple actors, including civil society organisations, international organisations, and media, helps in getting health taxes on the agenda, raising awareness, gathering evidence, and enhancing technical preparedness during health tax reform. Evidence provided by independent actors, such as academia, is crucial for effectively framing the reform. In Mexico, the National Institute of Public Health carried out evidence gathering and research in the six years prior to the SSBs tax being adopted, which was an important driver for the SSBs tax being selected as a policy option [106]. **The process of tax design must include health professionals as well as the ministry of finance with respect to administrative demands**, and ideally other ministries as well. A tax on fat introduced in Denmark in 2011 survived only 15 months. It was developed with the strong involvement of the food industry and without sufficient input from public health experts, leading to poor design and low support levels [107] [108] [109]. **The purpose of the tax must be clearly defined, and its design should be regularly assessed and modified if needed to close potential gaps**.

The structure of the tax should be tailored to the country context, guided by internationally recognised best practices, address issues specifically pressing in the jurisdiction, and take into account cultural and religious factors, to prevent not only potential undesired substitution but also public resistance. For example, in its UPF tax Colombia exempts some traditional foods such as *arequipe* or *dulce de leche* (milk caramel), *salchichon* (sausage), *oblea* (thin round wafer), and *bocadillo* (guava paste) [110].

While health taxes are frequently well accepted by the public [111], **communication strategies can play a decisive role both during implementation but also for sustainability of the tax**. In the case of some Pacific islands,[18] **combining the health and revenue benefits of the taxes** in communication efforts increased public support [112]. Malaysia included **arguments around voluntary product reformulation by manufacturers and highlighted the use of tax revenue for social programmes** [113]. In Mexico, civil society managed to pre-empt the argument that health taxes are regressive by explaining **the impacts of NCDs on low-income groups and the potential benefits of the tax for such groups** [106]. Earmarking or using additional tax revenues to mitigate potential negative impacts on people can help in gaining public support for health taxes.

[18] Study based on Fiji, Samoa, Nauru, and French Polynesia.

International agreements – a challenge and an opportunity

In the past, several health taxes have been repealed or modified due to international disputes raised at the World Trade Organization (WTO).[19] Chile and the Philippines had to revise their alcohol taxes after WTO tribunal rulings that the structures of the taxes gave an advantage to domestic production [114] [115].

Botswana is limited in imposing excise taxes on tobacco products due to its membership in the Southern African Customs Union (SACU), which requires the country to mirror the tobacco excise tax regime in South Africa. In an effort to strengthen its health policies without breaking the rule, Botswana decided to impose an additional levy on tobacco [116]. As a result, cigarettes prices are higher there than in neighbouring countries [16].

Countries should not employ fiscal tools available to them on an exceptional basis under the international trade regime to promote industries that produce unhealthy products. The Marrakesh Agreement Article XI offers a more lenient approach to least developed[20] countries with respect to WTO rules. Additionally, the so-called "infant industry clause"[21] of the GATT Agreement allows countries "in the early stages of development" to take protective measures to support the growth of certain industries [117]. These articles enable, for instance, Uganda to apply more favourable tax rates on domestically produced cigarettes and beer and spirits containing local inputs compared to their respective imported variants. Such an approach, however, weakens the price mechanism, promoting a shift between products of the same category rather than away from them. Tonga is another case in point—the country introduced a tax wedge between local and imported SSBs and reports one of the highest daily SSB per capita intake among Pacific Island countries [57].

International cooperation

On the other hand, international agreements can be a valuable tool to promote public health-oriented policies by strengthening international cooperation and harmonisation and preventing the "race to the bottom" (i.e., efforts to gain economic advantage through lowering taxes in comparison to neighbouring countries). In 2016, the Gulf Cooperation Council (GCC) signed an agreement on the excise taxes to be applied on tobacco, alcohol, and SSBs. Along with harmonising their approach, the deal sparked motivation in member countries and the potential for strengthening tax policies on unhealthy products. In 2024, Armenia increased its taxes on tobacco from AMD 12,730 (around US$32) to AMD 14,640 (US$37) as it was bound to do, according to the Eurasian Economic Union agreement signed by the country in 2019.

Regional and international cooperation can significantly contribute to the sustainability and effectiveness of taxes as it has the capacity to reduce cross-border shopping and support the fight against illicit trade, which can undercut the effects of health taxes [118] [119].

The WHO FCTC, to which 183 countries are Parties, highlights the need for cooperation in research, surveillance, and exchange of information in the efforts to tackle tobacco harm, and represents a key document in tobacco control efforts. **Similar cooperation is needed to address other unhealthy products and impose effective measures to address the NCD epidemic.**

[19] Article III of the General Agreement on Tariffs and Trade (GATT) 1994 prohibits WTO Members from imposing, on imported goods, internal taxes or charges that are in excess of those applied to like domestic products.

[20] Recognised as such by the United Nations.

[21] Article XVIII of the GATT Agreement on Governmental Assistance to Economic Development "…required to promote the establishment of a particular industry with a view to raising the general standard of living of its people …"

OTHER FORMS OF TAXING TOBACCO, ALCOHOL, AND UNHEALTHY FOOD

Besides health taxes, other forms of taxation are being used to tax tobacco, alcohol and unhealthy food, such as customs duties, sales taxes, and VAT. These taxes interact with health taxes by influencing each other's tax base (i.e., the price on which a tax is applied). However, while these taxes can produce additional revenues, they are not seen as health taxes and are considered to be less effective in decreasing consumption of unhealthy products than health taxes.

Customs duties target only imported products and do not apply to local products. Even in the case of negligible or non-existing local production, taxing only imports may stimulate such local production. Custom duties are, moreover, commonly calculated as ad valorem tax from the CIF value, which may motivate importers to under declare the value of goods. CIF is also lower than retail price, making the base for the duty also low. Finally, customs may hit ceilings defined by international trade agreements containing set customs tariff schedules, which are bound by WTO rules. In 2015, GCC countries were considering increasing tobacco import duties; however the 100% rate in place represented a ceiling set by international treaties for some countries. As a solution, the GCC agreed to impose tobacco excise taxes instead [120].

Many countries apply different rates of VAT or sales taxes of different goods categories. For instance, in India SSBs are taxed at 28% compared to 0%, 5%, 12%, or 18% for other foods and beverages [121]. However, VAT and sales taxes are harder to index to income growth and therefore may not lead to reducing the affordability of products. VAT and sales taxes also tend to be politically more sensitive, so it may be more challenging to increase their rate than in the case of excise taxes. Moreover, differing VAT rates add complexity to the system, making it cumbersome for administrations and creating loopholes between product categories if not well-defined. They can also open the door to negotiations to move a product from one rate category to another (see country case below).

Country case: UK – Blurred marshmallow VAT line

In the UK in 2022, a court ruling allowed a company to avoid paying VAT related to sales of its large marshmallows,[22] accepting the company's claim that these larger-than-standard marshmallows were purposed for roasting and consumed between two chocolate cookies as per a special American recipe, i.e., as an ingredient for cooking, which is subject to 0% VAT, and not a confectionery, which is subject to 20% VAT [122]. In the UK alone, numerous court cases have decided on which side of the thin VAT line between taxed and non-taxed food a product falls [123].

Some other measures used to regulate consumption of tobacco, alcohol, and SSBs are licences, stamps, or special taxes and fees. For example, Thailand imposes a special surcharge on tobacco and alcoholic beverages (2% of the excise tax) dedicated to the Thai Health Promotion Foundation. The average annual budget of the Foundation is about US$120 million and is used for evidence generation, campaigns, and social mobilisation to address NCD risk factors [124]. In Kenya, tobacco companies pay a special compensatory levy of 2% of the value of sales or imports to compensate for the harm tobacco causes. This levy is allocated to fund research on tobacco harm and cessation promotion [125] [126].

[22] Sweets made from sugar, water, and gelatine with soft consistency with standard size around 2.5 cm. The concerned marshmallows measured 5 cm.

ENVIRONMENTAL TAXES

Air pollution kills roughly eight million people every year [28], of which over five million deaths are attributed to fossil fuels [127]. Globally, 99 out of 100 people breathe air containing excessive amounts of pollutants [128]. Environmental degradation leads to poor health and heightens the NCD burden. The climate crisis is expected to cause 250,000 additional deaths per year between 2030 and 2050 and has been linked with mental health issues, including stress, anxiety, and depression [129] [130], which in turn represent risk factors for the consumption of unhealthy products. Like health taxes, environmental fiscal policy seeks to align the true cost of products with price signals and can result in positive health effects.

Taxation can help policymakers to achieve various environmental objectives. Carbon taxes, typically in the form of excise taxes [131] on carbon emissions during the production of goods and services, are being increasingly introduced with the aim of aligning the price of carbon with its real cost so as to reduce climate change, air pollution, and crop damages [132] [133].

In some instances, taxation efforts still fail. Jet fuel and aviation gasoline burnt by aircraft emitting carbon dioxide, which contributes to global warming, are frequently exempted from tax, even on short flights, benefiting mainly people from higher income groups, who fly more often [134]. This gives aviation an advantage over other forms of transportation, such as rail, and may influence people to choose flying despite the larger amounts of pollution produced. Nonetheless, France, for instance, in addition to banning short-haul flights, increased taxes on airline tickets for flights from its airports, with the revenue to be invested in rail transportation [135]. Attempts to start taxing polluting aviation fuels at the EU level have ended in a deadlock, however [136].

Other fiscal tools designed to reduce environmental damage and recognise the value of biodiversity may include taxes on specific pollutants and agrochemicals, and payments for "ecosystem services" (e.g., the environment's role in regulating the climate), as well as fiscal incentives designed to boost energy efficiency of production sites and buildings. Taxes on plastic – itself a pollutant with adverse effects on human and animal health – have proliferated and are in force in Colombia, the European Union, Israel, Nigeria, and Turkey, among other countries [137]. These can go hand in hand with direct bans. In 2008, Rwanda was among the first countries in the world to introduce a ban on single-use plastic bags and bottles.

Health and environmental fiscal policies can reinforce each other. Jamaica's national health fund receives funds levied through a special consumption tax on fuel, tobacco, and alcohol, among other products [138]. Evidence suggests that a combination of carbon and health taxes leads to positive synergic effects on environmental and health outcomes [139].

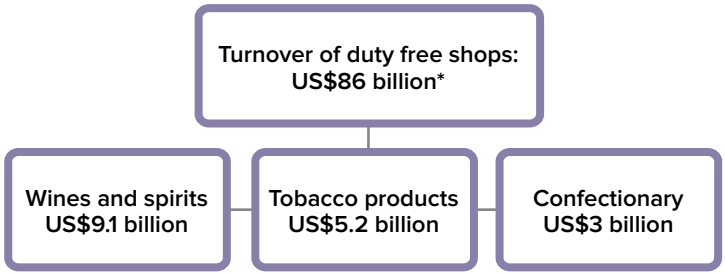
PHASING OUT HEALTH-HARMING FISCAL INCENTIVES

Despite the enormous losses that countries experience due to NCDs, health-harming products such as tobacco, alcoholic beverages, sugar, and fossil fuels, are too often subsidised. Such subsidies burden public budgets twice – first by the subsidy itself, which is ultimately paid by citizens through taxes or by getting fewer resources to provide services in other sectors; and second by the health consequences, and related productivity loss. Direct subsidies and indirect subsidies, in the form of tax exemptions, lower tax rates and other fiscal incentives, open space for health-harming industries to generate large profits, allowing them to make their products affordable, use aggressive promotion policies, especially during tax increases, and in some cases facilitate illicit trade. Implementing health taxes on health-harming products is a top priority; however, **subsidies that impede NCD prevention undermine health efforts and coherence of fiscal policies, and should be revised**. The extent of these subsidies, and therefore the urgency to re-assess them, varies country-by-country but may be present both at the retail level, such as tax exemptions in duty-free shops; in the value chain, as tax breaks in free trade zones; in the form of corporate or agricultural subsidies; or across the economy, as in the case of fossil fuel subsidies.

Tax exemptions for duty-free shops

Duty-free shops allow travellers to purchase products free of tax. **Duty-free shops represent a form of tax avoidance,[23] increase affordability of unhealthy products, and reduce government revenues** [140]. Moreover, marketing and labelling requirements are often more relaxed in duty-free shops than in the rest of the country [141].

Figure 3. Sales of unhealthy products in duty-free shops[24]



Duty-free shops should not enjoy tax exemptions on unhealthy products and should be subject to the same regulations as other selling points in the country. Article 6 of the WHO FCTC recommends prohibiting or restricting sales to and/or import by international travellers of tax- and duty-free tobacco products [142].[25] Even so, applied limits can be rather generous (see box below).

Generous duty-free allowances

As of 2020, 48 WHO FCTC signatories allowed customers to purchase over 200 cigarettes per journey and a further 111 permitted 50-200 cigarettes. In some cases, the allowed imports are limited by the value of the imported goods. In Armenia, goods worth US$315 can be brought into the country for personal use (equivalent to around 160 cigarette packs in local prices, but more than double that if purchased in neighbouring Georgia or in Russia) [143].[26] Incoming travellers can bring up to 69 litres of alcoholic beverages into the UK [144].

Selling unhealthy products in duty-free shops fuels illicit trade of these products, as in many countries there are limits on the quantity purchased but not on the number of purchases [119] [145]. Products bought with lower prices in duty-free shops can then be found on the illicit market, for example in Chile and Peru [145].

Health concerns around duty-free shops also fall into broader arguments about the efficiency and equity of this type of regional support, especially as many airports already receive public subsidies in other forms [146]. Additionally, in contrast to health taxes, duty-free shops tend to benefit richer groups in the population, who are more likely to travel by air.

[23] Behaviour aiming at reducing or avoiding tax payments within legal boundaries.

[24] Values for 2019 before slowdown in air travel due to the COVID-19 pandemic, Source: [266] [267].

[25] Duty-free shops are also addressed in Article 13 of the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products.

[26] Armenia has not yet signed the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products but is a Party of the WHO FCTC.

Corporate subsidies and tax incentives

Tobacco, alcohol, and food companies enjoy economy-wide direct subsidies and tax incentives, which boost their resources, which can then be used for public relations activities with a view to shaping the regulatory environment, including tax treatment, and creating a buffer to absorb health tax hikes, reducing or removing the desired price effect. This creates gaps in revenue generation as well as in health policies.

Reduced taxes and tax exemptions, including excise tax cuts, concessional loans[27] or equity investments, accelerated depreciation of assets [147], which results in lower taxable income,[28] and tax-deductible marketing and promotion expenses [19] feature among the typical fiscal advantages that companies enjoy. Wine is exempted from excise taxes in at least 22 countries, the majority of them in the European Region [148]. Armenia, which annually losses AMD 273.1 billion (US$700 million) due to tobacco, in 2022 exempted a local tobacco producer from customs duties on raw material imports worth around AMD937.7 million (US$2.3 million) against the promise of an investment of AMD11.9 billion (US$24.67 million) and creation of 100 new jobs [149].

As highlighted in the NCDA report, Selling a Sick Future: How to counter harmful commercial marketing towards children and young people across NCD risk factors, some countries allow tax deductions on marketing spending for unhealthy products. Weak enforcement and legal loopholes further expand the scope of marketing campaigns, including to neutralise the impacts of taxes. Spending on marketing, including sports sponsorships, are reported as costs, which can then be deducted from the corporate income tax base. Governments have started addressing the issue of tax deductions, however. China has excluded tobacco companies from deductions related to research and development and advertising [150] [151].

In some countries, gift exchanges within the business community and freebies given out to customers, such as wine and spirits, can also create entitlements to tax deductions, and so decrease companies' taxable income, stimulating demand and producers' profits [152] [153].

Unsportsmanlike tax cuts

During major sports events, such as Olympic Games or football cups, hosting countries usually offer the organising sports associations, e.g. International Olympic Committee or Fédération Internationale de Football Association (FIFA), and third parties involved in the event, tax breaks, such as corporate income tax exemptions, exemptions from taxes for events production, or duty-free imports. In 2014, during the soccer World Cup in Brazil, the country was estimated to give up US$530 million in tax revenue in tax breaks for sponsors, including McDonald's and Budweiser [265].

Country case: Czech wine gifts

In 2024, Czechia abolished the practice of companies deducting "marketing" expenses for still wines purchased as gifts for their clients, which until then was very common. For some local winemakers such gifts accounted for up to 40% of their sales [154] [155] [156].

[27] Loans with more favourable conditions than on the regular market.

[28] Accelerated depreciation allows companies to write off a larger portion of an asset's cost in the earlier years of its useful life, which can result in reduced base for corporate income tax.

Free-trade zones

Free-trade zones (also known as freeports or special economic zones) enjoy considerable tax advantages, including duty-free imports for manufacturing mostly export-oriented products.[29] The purpose of free-trade zones (FTZs) – of which there are about 7,000 worldwide – is to boost local economic activity through fiscal advantages and leaner administrative and regulatory procedures [157] [158]. However, tax incentives, large volumes of moved goods, and reduced oversight create favourable conditions for illicit trade [159].

According to a WHO report, tobacco-related goods have been impounded in 10% of seizures of goods inside FTZs and in 16% of seizures of goods coming from other countries' free zones. In a separate Organisation for Economic Cooperation and Development (OECD) survey, 34% of respondents reported finding tobacco smuggling in FTZs. The WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, Article 12, focuses on FTZs and international transit, and obliges parties to the Protocol to implement effective measures to prevent illicit trade. Researchers suggest that the most efficient way to stem illicit trade flowing through FTZs is to prohibit storage of high-risk products, such as cigarettes [160].

FTZs do not raise concerns only in the case of tobacco and alcohol. In Brazil, tax incentives offered in FTZs for production of SSBs are abused through price and other forms of manipulations with buyers outside the zone and lead to foregone fiscal revenue of 4 billion Brazilian reals (around US$800,000) annually [161].

Country case: Montenegro's free trade zone regulation and illicit trade

Illicit trade is one of the most frequent arguments against tobacco excise taxes and it is feared by many governments. FTZs represent some of the weakest spots for illicit trade to take place. However, strengthening the measures that reduce weaknesses in the regulatory systems can help to address the issue and provide opportunities to reinforce regulatory policies, including taxes. The Government of Montenegro prohibited the storage of cigarettes in the country's main FTZ in the Port of Bar in July 2021 and enhanced surveillance in all FTZs in the country. The share of the cigarette illicit market decreased by half in 2022 (to 22.1-26%) compared to 51% in 2019, in part because of these regulatory changes [160].

Aligning agricultural subsidies with health

Power imbalances and the lock-in effect

Agriculture generates irreplaceable economic, social, and cultural value. It is therefore extremely important to carefully design strategies and policies to support any needed transition towards production that is better aligned with health and environmental priorities. Currently, subsidies for the production of unhealthy products, both direct and indirect, too often undermine the effectiveness of fiscal policies influencing consumption. In addition, such subsidies give more oxygen to sectors characterised by power imbalances and marred by poor labour and human rights practices.

[29] From the customs and tax perspective, goods in free-trade zones are considered to be outside of the customs territory of the host country [119].

Agricultural subsidies can take different forms (such as direct cash transfers, provision of cheaper inputs, tax deductions, exemptions, credits, and concessional loans) but what they have in common is that they fuel the allocation of capital to crops that would not be otherwise economically viable. While a case can be made for subsidies for nutritious crops, where the positive health externalities can outweigh the market distortions, tobacco products, alcohol, and SSBs all become more affordable due to subsidies even in the face of higher taxes for consumers. Subsidies increase the relative costs of transitioning to alternative crops.

Direct subsidies to tobacco farming are inconsistent with the WHO FCTC [162]. In Bulgaria, the value of subsidies exceeded more than three times the value of tobacco produced [163]. The EU channelled into tobacco growing an estimated €100 – €270 million (US$109 – US$295 million) between 2017 and 2022, despite its commitment to eliminate such support [164] [165]. **Governments should aim at implementing measures that would eliminate subsidies to tobacco farming and farming of other crops used in unhealthy products, and support farmers to switch to health-promoting crops or other income-generating activities** (see below)**.**

Country case: North Macedonia

North Macedonia has one of the highest smoking prevalences in the world, about 45% of its adult population, leading to over 4,000 deaths annually [166] [28]. At the same time, in 2008-2019 tobacco claimed about a quarter of national agricultural subsidies, beating all other agri-sectors. The government touts the importance of tobacco to many families' livelihoods as well as its 20% share of agricultural and food exports. However, tobacco farmers' earnings are below the national average income [163]. North Macedonia's trade balance is burdened by imports of foodstuffs that could be produced domestically without subsidies and even potentially exported for additional earnings [167].

The value of culture and tradition, as well as support for tourism, are often put forward in defence of wine production subsidies despite the disastrous cost that alcohol consumption has on economies in the form of diseases, related healthcare spending, violence, and road accidents [168]. Around EUR 4.6 billion (US$5.0 billion) was lost just from alcohol-related cancer in the 31 European countries in 2018 [169].[30] Yet in the EU, almost EUR 1.1 billion (US$1.2 billion) is spent annually to support the wine sector [170]. Raw materials used in production of alcoholic beverages, such as apples, rice, and sorghum, have alternative purposes. There is very limited evidence on what portions of such crops are used to produce alcoholic beverages or on what portions receive any form of fiscal support. It is clear however, that the resources could have a better use, mainly food security [19].

Similarly, products such as corn, soybeans, wheat, rice, sorghum, dairy, and livestock, lend themselves to various types of final products. Some may end up in refined grains, high-fat meat and dairy, high-calorie beverages sweetened with corn syrup, and processed food [171]. For instance, around 5% of corn production is converted to high-fructose corn syrup used in processed food, especially SSBs. In the US, a deterioration in health outcomes has been linked to agricultural subsidies. People consuming the highest levels of processed food had a 14-41% higher risk of developing heart disease and diabetes [172]. In addition, production of UPF—especially for SSBs [173]—has been linked to diversion of water, even in settings experiencing water scarcity.

[30] Iceland, Norway, Switzerland, and the United Kingdom.

Influence of the sugar industry

Due to various strong measures put in place by multiple countries, such as tariffs, quotas, tax incentives, and concessional loans, [174] the sugar market is the most distorted agricultural commodity market. These support measures are usually applied by administratively stronger countries, while countries with lower capacity may not be able to manage them. Globally, around 70% of sugar cane goes to human sugar consumption, with the exception of Brazil, where 60% goes to the production of biofuels [101]. The sugar industry is a very powerful player. It has been demonstrated that it challenge regulations and influences politics [175] [176], including paying researchers to disguise the role of sugar in heart diseases [177].

One of the strongest and most frequent measures protecting farmers is setting a minimum price for their crops. This in theory should increase sugar prices and therefore discourage consumption. On the other hand, minimum prices promote overproduction of the crop. There is missing evidence about the impact of removing this form of protection.

In many countries, such as India [178], Brazil [179], Pakistan [180], and Nigeria [181], sugar is listed as an essential good, despite being considered as “empty calories” [182]. In Mexico, sugarcane farming enjoys both the benefit of the set minimum price and subsidies, yet at the same time the country applies a tax on SSBs, revealing an inconsistency in fiscal policies [183] [184].

Perpetuating poverty, causing environmental damage

Tobacco and sugarcane farming were linked to serious environmental degradation caused by water use and pollution, soil degradation, and deforestation [14] [185], and to child and forced labour [13]. They frequently do not provide a decent earning, which motivates families to engage children to maximise production. In India, Pepsi and Coca-Cola urged the government to exempt their products from health taxes [186], while at the same time cases of human rights abuses were reported on the side of their sugar suppliers [187]. Farmers are exposed to dangerous quantities of agrochemicals and in the case of tobacco, also absorb large quantities of nicotine, which causes serious health issues, especially for children and pregnant women [14]. Many farmers, particularly tobacco and sugarcane farmers, stick to the crop because inputs are provided directly from the buyers, who then have control over prices and quantities purchased. This perpetuates a circle of indebtedness [14]. It is not a coincidence that a large number of tobacco-growing countries face high levels of food insecurity and poverty [14] [188].

Due to power imbalances on the markets between farmers and buyers, subsidies frequently do not reach the most vulnerable, who continue to earn little, but directly benefit industries. Argentina provides around US$75 million worth of subsidies to tobacco factories, mainly for the purchase of inputs, capital goods, and labour [189]. The subsidised factories often do not pay decent wages, nor minimum excise tax, and facilitate illicit trade [189].

Opportunities untapped

Improving access to input funding, loan guarantees, or concessional loans, tax breaks, or providing inputs for other, health-promoting crops at subsidised rates may motivate farmers to switch crops. These measures should consider the specifics of the farming activities and adapt to the farmers’ needs, such as timing loans and repayments to the agricultural cycle, using flexible collateral arrangements, and linking credit with weather insurance [190]. Strengthening markets and providing information about options, too, could contribute to the change [191] [17].

While the WHO FCTC provides guidance in the case of tobacco, there is no such tool for crops used in production of alcoholic beverages and unhealthy food, including SSBs.

Fossil fuel subsidies

Fossil fuel subsidies distort price mechanisms, and so encourage consumption of these fuels that are associated with environmental pollution and climate change, rendering the energy transition relatively more costly [192]. They also tend to be socially regressive. In addition to health and environmental benefits, their removal is justified on efficiency and equity grounds. At the 28th Session of the United Nations Framework Convention on Climate Change (COP 28), political leaders agreed to eliminate "inefficient fossil fuel subsidies" [193], thus providing contours to a global reform agenda. Reliance on fossil fuels can threaten national security for importing countries and for governments with heavy reliance on fossil fuel revenues, lead to fiscal challenges in the future.

According to the IMF, explicit subsidies, including direct payments, accelerated depreciation, and export credits for fossil fuel projects abroad, totalled US$1.3 trillion in 2022, double from 2020. However, when implicit subsidies, (essentially a failure to correct for externalities),[31] are taken into account, the total bill reaches more than US$7 trillion, or about 7.1 % of global GDP—more than on education (4.3%), and nearly two-thirds of the health budget (10.9%) [194] [195]. Globally in 2022, 149 countries provided explicit fossil fuel subsidies, i.e., direct payments or accelerated depreciation, while 168 provided implicit subsidies [194]. Removing these subsidies would not only remove an essential roadblock to the climate transition, but also avert 1.6 million premature deaths every year by 2030 and bring in public revenue equivalent to 3.6% of global GDP. It would be more than the amount needed for LMICs to achieve the SDGs [194], including to provide UHC, making healthcare accessible for all. Removing fossil fuel subsidies would also contribute to equity, as members of high-income groups benefit more from such supports than their low-income counterparts as they more frequently have access to cars, larger households with electricity or gas heating, and electricity or gas cooking devices.

Country case: India

India spends US$32 million on explicit fossil fuels subsidies for the oil and electricity sectors (the latter reliant primarily on coal). However, implicit subsidies are almost 10 times that figure at US$314 billion. Indian cities are among the most polluted around the world [196]. Consumer prices of fossil fuels do not reflect their true costs. Implicit subsidies on diesel alone, for example, equal 3.3 % of GDP, if not only adverse environmental effects but also increased travel time and road accidents are factored in. If the price of fossil fuels reflected their true costs, over 380,000 lives would be saved every year before 2030 by reduced air pollution. Ending the subsidies would generate 7.7% of GDP in environmental benefits, 4.9% GDP in welfare and 2.8% GDP in avoided economic losses [197].

[31] These include air pollution, road traffic jams, noise linked to traffic, and others.

It is true that reforming fossil fuel subsides hits low-income households directly, through price increases for various items (e.g., the commute to work, gas for heating and cooking, transport of products, and diesel for agricultural machinery) as well as via a general price hike owing to the pass-through mechanism. Low-income households may live in smaller spaces but tend to have appliances with lower energy efficiency and less access to other measures to enhance the efficiency of energy use [201]. Urban populations seem to be more impacted by the phasing out of fossil fuel subsidies as they are more dependent, for example, on moving around the city [202]. However, targeted measures can mitigate the impacts of phasing out subsidies. The Philippines provided assistance to Jeepney drivers,[32] which not only protected the drivers' jobs but also helped retain a common form of public transit for locals [192]. Special programmes can improve access to clean cooking (see below).

Alternative value propositions based on underlying needs can make reform more acceptable. For example, foreign investors active in Vietnam were open to a gradual increase in fossil fuels prices as it would help to eliminate failures in power supply, which caused inefficiencies and additional costs [192]. From a labour perspective, renewable energy creates more jobs than fossil fuel energy production [192]. Finally, echoing lessons learned in health taxes, the public was more enthusiastic about energy reform if it was made clear to them what the extra resources would be used for [203].

Public funds investment

Easy access to funding for health-harming industries, including from publicly controlled funds, can be seen as a form of implicit subsidy because it can lower industries' cost of capital. Publicly controlled funds, such as sovereign wealth funds and public pension funds, invest in bonds, equities, and other instruments, including investment in industries. It is unclear what portion of such investment goes to health-harming industries. The WHO FCTC urges its Parties to ensure that government-controlled funds are not invested in tobacco. Nevertheless, only a few entities have made such commitments, including New Zealand, Australia, France, Ireland, Sweden, and the Netherlands. Similar approaches should be considered for public investment in other health-harming sectors.

Not-so-harmless funding

The Norway Government Pension Fund Global administers around NOK 16, 854 billion (about US$1,623 billion) and holds a small stake in all of the world's listed companies [204]. The Fund pledged to divest from companies whose activities are linked to societal harms, and in 2002-2022, it excluded 19 tobacco and 72 coal mining or coal-based power production companies. Additionally, 24 companies were excluded for causing environmental damage, and four more for contributing to greenhouse gas emissions [205].[33] However, the Fund still holds equities in Coca-Cola, Pepsi, and Nestlé as well as Anheuser-Busch InBev, Heineken, and Diageo, the latter three among the world's largest producers of alcoholic beverages [206].

[32] A form of minibus used in public transport.

[33] 18 companies remain excluded; the exclusion has been revoked for one company.

PHASING IN HEALTH-PROMOTING SUBSIDIES AND OTHER FISCAL INCENTIVES

Health-promoting subsidies and fiscal incentives can function as stand-alone policies or as complementary measures to other fiscal policies, such as health taxes, which can in addition serve as a source of financing. For example, taxing unhealthy food can be complemented with healthy food subsidies paid from tax revenues. Aligned measures have the capacity to amplify the health impact of each other and therefore offer efficient use of public sources.

Direct incentives for consumers

Food subsidies

Over 3.6 billion people worldwide cannot afford healthy food, the majority in low-income countries where the share of people for who a healthy diet was unaffordable reaches 86%. About 7% of countries provided price subsidies for healthy food in 2019 to improve the diets of their populations through increased consumption of fresh fruits and vegetables, legumes, and whole grains, among other items [207].

Subsidising healthy foods is among the WHO recommended measures to enhance access to healthy diets and reduce existing inequities in disease burden. According to the WHO, targeted subsidies on healthy food are acceptable for the public, feasible, and probably cost-effective. Targeted foods should include those rich in naturally occurring fibre and/or unsaturated fatty acids, low in saturated fatty acids, trans-fatty acids, free sugars and/or salt, free of non-sugar sweeteners, and/or food whose consumption is associated with positive health outcomes. Subsidies of healthy food can either work as stand-alone policies or serve as complementary initiatives to taxes on unhealthy foods, to offer consumers affordable and healthier food options. Healthy food subsidies can also strengthen public support for food taxes [21] [38]. Food subsidies at the consumer level can take the form of lower tax rates, rebates, discounts, vouchers and coupons, or reduced VAT. Evidence from interventions in seven mostly industrialised countries suggests that subsidising healthier food can bring about a change in dietary behaviour [208]. A research review from 2022 concluded that fruit and vegetable subsidies that decreased prices more than 10% resulted in sales rising by 5.9% [209].

Food subsidies must be targeted and in line with healthy diets, which is not always the case [210]. Food subsidies often include unhealthy products, such as fats and sugar [211]. In some cases, the unhealthy foods fall under too broadly defined tax advantages [210], giving rise to inefficiencies and inconsistencies and causing health harm. For example, in Panama and Saint Kitts and Nevis, SSBs are exempted from VAT as part of the whole food category, while at the same time excise taxes are applied on SSBs [121]. Moreover, if a subsidy is offered in the form of reduced taxes, the tax cut may not be fully reflected in the final price, leading to increased margins without the expected health benefits. In Bermuda, reducing the import duty did not result in lower prices for fruits and vegetables [212].

On their own, tax incentives may also prove ineffective due to low consumer enthusiasm. After the Government of Fiji removed import tariffs, more fruits and vegetables were imported but the effect on consumption remains unclear or was insignificant [213], perhaps because in Fiji, vegetables are often seen as foods with low social value [214]. Health promotion campaigns may help to prevent such outcomes.

Promoting physical activity

Physical inactivity is a major NCD risk factor and enabling physical activity opportunities is crucial for people's health. Socioeconomic factors can pose barriers to engaging in sports and physical activity. Subsidies or free access can improve participation, especially of people with lower socioeconomic backgrounds. New South Wales in Australia successfully increased physical activity of children (and adolescents) through a universal voucher scheme supporting structured, out-of-school physical activity [215]. The design of the programme matters, however. In Canada, a support programme based on income tax deductions was more frequently tapped by high-income families [216]. This can be likely explained by the fact that the cost of the activity had to be paid directly while the tax credit could be claimed only after a delay, when taxes were due [216]. Moreover, evidence suggests that people most deprived of access to physical activities, such as people from low-income groups, culturally diverse communities, persons with disabilities, or those living with chronic health conditions, may face more complex barriers and may require targeted policies to promote inclusion and health for all.

Subsidies on energy from clean sources, more efficient housing, and cleaner cooking

Subsidies on renewable energy sources have been increasing in recent years, but they are significantly lower than those on fossil fuels. The International Energy Agency estimated that to reach a net-zero scenario by 2050 globally, an investment of US$1.1 trillion annually in renewables will be needed by 2030, with around 70% coming from private sources (IEA, 2020). Public backing for clean energy sources can crowd-in private capital. For example, Indonesia has introduced a slew of tax incentives for renewable energy projects and set up a policy framework for blended finance funded by international partners [217] [218].

Investing in greener energy sources works in tandem with enhancing the energy effectivity of buildings. In a bid to clean the air of its cities and reduce the energy bills of its citizens, Poland operates a programme to improve the energy efficiency of housing through replacement of heating systems (often still based on coal) and better insulation. In Chile, where wood burning in poorly isolated homes in winter months takes air pollution to among the world's highest levels, a special scheme to improve insulation is underway, but its roll-out has been slow in part because of the complicated socioeconomic conditions faced by parts of the population in the wake of the COVID-19 pandemic [219] [220].

Improving access to clean cooking represents a key policy priority in a number of developing countries. In 2022, around 2.3 billion people lacked access to clean cooking facilities [221]. About 3.2 million people die prematurely every year from illnesses attributable to the household air pollution caused by the incomplete combustion of solid fuels and kerosene burned in cooking [33]. Targeted measures tapping into private capital and reflecting the needs of the most vulnerable could bring considerable health and economic benefits, as well as clear the path to energy transition.

Subsidies for better agricultural waste management

Burning open fires to clear agricultural land at the end of a season before new crops are sowed represents a major source of local air, soil, and water pollution, a cause of decreasing soil fertility, and an increased risk of wildfires in numerous low- and middle-income countries [222] [223]. Farmers often lack the means to implement alternative strategies that do not result in lower soil fertility. Appropriate incentives, especially when combined with training and awareness-raising, can promote a shift towards more sustainable practices [224]. A randomised control trial demonstrated that providing direct conditional cash payments can be effective, especially if they arrive partly before the target period to remove liquidity barriers, such as the need to pay in advance for renting waste management machinery [225].

Incentives to strengthen the healthcare workforce

Shortages in the healthcare workforce constrain the ability of the health system to provide brief interventions and counselling and detect early emerging health issues. By 2030, there will be a shortage of about 18 million health workers, most acutely felt in developing and emerging economies [226]. Some countries have already taken steps to strengthen their healthcare labour force, including through fiscal policies, such as the UK and Zimbabwe.

Country case: Zimbabwe's tax incentives for healthcare workers

In Zimbabwe, the government has implemented various tax incentives, such as income tax exemptions and housing subsidies, to support healthcare workers. These are aimed at attracting and retaining skilled health professionals, improving the overall health system, and promoting healthcare services for the population [255].

Support for developing green spaces

Supporting the development of green spaces, such as parks, green rooftops, and community gardens, can promote mental health and physical activity, improve pregnancy outcomes, and reduce the burden of NCDs and obesity, especially for low-income groups [227]. Green spaces and water sources (ponds, fountains, etc.) can mitigate impacts of air pollution and global warming, especially during heat waves that are causing an increasing number of deaths from cardiovascular episodes [228].

CONCLUSION

This report highlights some of the most common fiscal policies consistent with NCD prevention as well as measures that are recommended as highly effective in reducing the enormous strain of NCDs. NCDs weigh on economies and exacerbate poverty and food insecurity. They hinder growth and rob countries and families of human capital and opportunities. The costs of NCDs are expected to grow, which may further jeopardise sustainable development. The trend is stark: a growing share of people are dying from NCDs globally. In 1980 they accounted for just over half of all deaths, in 2019 it was almost three-quarters. Meanwhile, SSBs are becoming more affordable, as are tobacco products and alcoholic beverages in many countries. Governments have the tools to halt this trend. An holistic approach, involving a wide range of stakeholders, that includes coherent fiscal policies aligned with other public health measures has the potential to mitigate the burden of NCDs by reducing exposure to the main risk factors. Achieving SDG 3.4 is within our reach. We call on governments, international organisations, and civil society to take action and adopt measures that can save lives.

Call to action

We call on policymakers to:

- Urgently implement well-structured health taxes on unhealthy products, including tobacco, alcohol, SSBs, and other HFSS foods, to significantly decrease the affordability of products associated with NCD risk factors and promote substitution to healthier alternatives.
- Strengthen multisectoral and multilevel cooperation to ensure coherent, health-mainstreaming, and mutually reinforcing policies across all sectors and prevent industry interference.
- Strengthen social and financial protection schemes to achieve UHC, minimise out-of-pocket expenditures, and support the prevention of NCDs by unlocking domestic revenue through coherent fiscal policies and efficient budget allocation.
- Review and refine existing taxes to ensure efficiency, consistency, and alignment with health promotion and NCD prevention objectives.
- Implement environmental taxes to support human and planetary health.
- Remove subsidies and tax incentives that promote the affordability and consumption of unhealthy products and/or create loopholes that aggravate exposure to NCD risk factors and undermine health policies.
- Ensure that measures reducing the affordability of unhealthy products are complemented by targeted, change-enabling fiscal policies, including those promoting access to nutritious diets and clean energy sources.
- Commit to implementing a more coherent fiscal policy approach for NCD prevention and financing by the 2025 UN High-Level Meeting on NCDs, recognising its pivotal role in alleviating the burden of noncommunicable diseases.

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