

Distr.: General
30 September 2024

Original: English

**Committee of Experts on International
Cooperation in Tax Matters
Twenty-ninth session**

Geneva, 15-18 October 2024

Item 3(o) of the provisional agenda

Health Taxes

**Co-ordinators' Report: Chapter 1 - Introduction to the Handbook on Health Taxes for
Developing Countries**

Summary

This note is provided to the Committee *for first discussion* at its Twenty-ninth Session.

At its Twenty-third Session in October 2021, the Committee established the Subcommittee on Health Taxes. Health taxes are excise taxes on tobacco, alcohol, sugar-sweetened beverages and other harmful products that are intended to reduce their consumption, thus improving health outcomes. Health taxes therefore directly support a number of the Sustainable Development Goals. The Committee's work on this topic would focus on providing tax policy and administration guidance to assist countries in adopting the most effective health taxes, from both a health and revenue perspective.

At its Twenty-fourth Session, the Committee approved a work program ([E/C.18/2022/CRP.4](#)) that would focus on producing a handbook on health taxes for developing countries.

This document contains a draft of the first chapter of the proposed handbook, which provides an overview of the handbook's contents and health taxes' links to the Sustainable Development Goals.

The Subcommittee now asks the Committee to have a *first discussion* of this chapter.

Chapter 1: Introduction to the Handbook on Health Taxes for Developing Countries

A. Purpose and Scope

The United Nations Handbook on Health Taxes for Developing Countries is a response to the need, often expressed by developing countries, for guidance on the considerations that countries should take into account in introducing or revising health taxes in order to balance the dual goals of raising revenue and improving health outcomes.

The consumption of tobacco, alcohol and unhealthy foods, including sugar-sweetened beverages, is related to the incidence of many non-communicable diseases, such as cardiovascular disease, cancer, chronic respiratory disease and diabetes, which resulted in millions of premature deaths a year, the vast majority of which occurred in low-middle income countries. Well-designed excise taxes on such products (health taxes) have been shown to be an effective measure to reduce consumption of those products so as to improve health outcomes. By decreasing such consumption, health taxes can also contribute to other public goods, such as decreasing violence and traffic accidents. In fact, adopting appropriate health tax policies can further almost all of the Sustainable Development Goals. (See Box 1).

This Handbook outlines some of the common reasons why countries might want to introduce or revise health taxes and provides options for policy design and administration that might cater to the different needs and priorities of countries. It is meant as a practical guide, and it contains many real-world examples and practical tools, including checklists to guide the design and administration of the tax.

In most countries, excise taxes are the preferred tool for achieving these goals because they can be easily targeted to change the relative price of a narrow range of goods and apply to all such goods consumed in a jurisdiction, independent of whether they are imported or domestically produced, and do not apply to exported products. Some countries may, in certain circumstances, choose to further health goals through the adoption of import duties or differentiated sales taxes (including value-added taxes). This possibility is discussed in Section 5.3.A.1.

It is important to note that this Handbook does not advocate for differentiated value-added tax rates. Most tax policy guidance agrees that a uniform VAT rate is generally the preferred policy as differentiated VAT systems are administratively more complex and costly to administer than a uniform VAT rate and can create significant economic distortions. However, in order for the Handbook to provide practical guidance, it also takes into account the fact that many countries, primarily for political reasons, have adopted VAT systems that provide for different rates for different types of goods. In those cases, it is important that health tax policy is not undermined by the details of such other systems.

SDG 1	No Poverty	<p>Health taxes can contribute to reductions in poverty (target 1.1) and extreme poverty (target 1.2); by redirecting family budgets from harmful consumption, preventing catastrophic expenditure on healthcare, preventing income loss or reduction caused by NCDs and death of family members linked to harmful consumption (Do & Bautista, 2015; World Bank, 2019; NCD Alliance, 2023). Health taxes also, in line with target 1.a, help to mobilize domestic resources to implement programmes and policies to end poverty in all its dimensions. In 2021, expenditures on essential services, including education, health and social protection accounted for approximately 53 percent of total government expenditures globally, a rise from 47 per cent in 2015. A gap remains between advanced economies (with 62 percent) and emerging and developing economies (with 44 percent) (United Nations, 2023b). Health taxes are estimated to generate between 0.4 and 0.8 percent of GDP, which could represent considerable source of funding for poverty reduction and investment in essential services (Lauer et al., 2022).</p>
SDG 2	Zero Hunger	<p>Spending on harmful consumption takes away often scarce resources in household budgets that could otherwise be used for nutrition (John, 2008; Jolex & Kaluwa, 2022; Azad & Hugue, 2023). Health taxes could free these budgets and allow families to purchase more or more nutritious food and thus reduce hunger and malnutrition (targets 2.1, 2.2). Additionally, by reducing consumption of unhealthy food and creating incentives for substituting for healthier food, health taxes reduce overweight and obesity (target 2.2.2), effects which are particularly important in children as child obesity has long-term health consequences in adulthood. Reduction of obesity and over-weight would also save public resources dedicated to treatment of related NCDs, such as diabetes. Globally, the total health expenditure for diabetes in adults was US \$966 billion in 2021, which is four times more than in 2007 (Journal of Health Economics and Outcomes Research, 2022). Furthermore, health taxes could free up land used for farming ingredients entering harmful products (such as tobacco leaf) to be used to farm nutritious crops and increase food security (target 2.3 and 2.4). While between 691 and 783 million people faced hunger in 2022, 35 million hectares of land were used for production of tobacco, sugar cane and sugar beet (FAO, IFAD, UNICEF, WFP and WHO, 2023; FAO, 2024).</p>
SDG 3	Good Health & Well-being	<p>Health taxes reduce exposure to the common risk factors of NCDs, such as tobacco use, harmful use of alcohol, and an unhealthy diet, contributing to SDG target 3.4 aiming at reducing premature mortality from NCDs by one third by 2030. Besides that, consumption of tobacco and alcohol during pregnancy and</p>

		<p>breastfeeding, as well as cigarette smoke and alcohol consumption in households, are all linked to an increased risk of infant mortality (American Lung Association, 2022). By reducing the consumption of alcohol and tobacco products, health taxes could reduce the number of such unnecessary deaths (in line with target 3.2). In line with target 3.5, health taxes strengthen the prevention of substance abuse, namely tobacco and alcohol. Taxes on alcohol may, in addition, help to reduce the number of deaths from road traffic accidents (target 3.6). Health taxes represent an opportunity to advance progress towards Universal Health Coverage (target 3.8) by reducing healthcare spending needed to treat NCDs and thus releasing resources for preventive care. Health taxes could raise additional resources to be used for health financing and strengthening the healthcare workforce (target 3.c) or for prevention and management of global health risks (target 3.d).</p> <p>Moreover, health taxes may reduce the number of cases of unintentional poisoning, either by alcohol, nicotine or substances used in new smoking devices (if those are not banned), where poisoning often concerns children (target 3.9) (Tin, 2023).</p> <p>Finally, health taxes on tobacco directly contribute to the achievement of the target 3.1, aiming at implementation of the WHO Framework Convention on Tobacco Control.</p>
SDG 4	Quality Education	<p>Consumption of harmful products drains family budgets needed for other essential items, including education (Do & Bautista, 2015). Redirecting household expenditures from harmful consumption and governmental expenditures spent on NCDs treatment to better use, could support the achievement of SGD 4, mainly through target 4.1 (ensuring that all girls and boys complete free, equitable and quality primary and secondary education) and target 4.2 (ensure that all girls and boys have access to quality early childhood development, care, and pre-primary education). Health and education are the two key factors of human capital, and impact each other: health facilitates and benefits from education and education is facilitated by health. Consumption of tobacco or alcohol, and the resulting increased risk of NCDs affect schooling attendance and dropout rates (Perelman et al. 2019; Austin, 2012; Müller-Riemenschneider, 2008). Health taxes could furthermore contribute to averting the loss of teachers' human capital, making an indirect contribution to target 4.c. Additional revenues stemming from economic benefits of health taxes can also be invested in education and support achieving the SDG 4.</p>

SDG 5	Gender Equality	<p>All genders benefit from health taxes: men mostly through decreased direct consumption (as main tobacco, alcohol and SSB consumers) and women through decreased indirect consumption (main victims of second-hand smoke and gender-based violence caused by alcohol) (Gram et al., 2021; Movendi, 2021; PAHO, 2022). Alcohol consumption can increase a risk of domestic violence against women and of sexually transmitted diseases (Movendi, 2021; PAHO, 2022). Violence against women bears high costs for economies, for example from healthcare treatment of injuries or reduced hours work by the victims, with estimates ranging between 0.065 to 2.05 percent of GDP loss (Duvvury et al., 2013). Poverty exacerbates the risks of women to become victims of sexual exploitation, including trafficking (UN Women, 2014). Additional funding stemming from health tax revenue directed to poverty reduction could also help to end violence against women.</p> <p>Additionally, women are more likely to take care of a sick household member, often for extended periods of time, which creates a burden and substantial obstacle for their other activities (NCD Alliance, n.d.). Furthermore, spending on harmful consumption crowds out spending on education where gender gaps disadvantaging girls remain, especially in LMC, including lower primary school enrolment of girls (Do & Bautista, 2015; Kattan & Khan, 2023; World Bank-Data, 2023).</p>
SDG 6	Clean Water & Sanitation	<p>Addressing water scarcity and related economic burden may require substantial expenditures from governments around the world. It is estimated that for some regions, such as the Middle East and the Sahel in Africa, cost related to water scarcity can be up to 6 percent of their GDP (World Bank, 2016). Approximately 5.3 liters of water is needed to produce a typical single-use soda bottle (Olson-Sawyer & Madel, 2020). Almost 35 liters of water are needed to produce a teaspoon of refined sugar (World Wildlife Fund, 2015). One cigarette consumes about 3.7 litres of water from production to waste which sums up annually to up to 22 billion tonnes of water lost for tobacco production around the world (Zafeiridou, Hopkinson, & Voulvoulis, 2018). In addition, a significant volumes of tobacco product waste, mainly cigarette butts, end up in water through rains or directly. One disposed cigarette pollutes around 1,000 liters of water, which sums up to further 100 trillion litres of water polluted every year with cigarettes waste globally (World Health Organization, 2022). Water used for one kilogram of tobacco produced, consumed, and disposed of, could cover the annual needs of one person (Armstrong & Johnson, 2018).</p>

		Health taxes can reduce the water footprint from production of these harmful products through significant decreases in their consumption.
SDG 7	Affordable & Clean Energy	No clear link between SDG7 and Health Taxes
SDG 8	Decent Work & Economic Growth	<p>Economic costs incurred to the global economy over the period of 2011-2030 due to NCDs are estimated to reach between US\$30 trillion and US\$47 trillion (Bloom et al., 2011). Such costs represent a significant barrier to economic growth. Health taxes can help to sustain economic growth (target 8.1) and contribute to achieving higher levels of economic productivity (target 8.2) by reducing morbidity, mortality and disability caused by harmful consumption, increasing productivity by averting work force drop out, presenteeism (reduced productivity on workplace) and absenteeism (time away from work), and smoking breaks, which deplete countries' human capital.</p> <p>Health taxes have an indirect effect on reducing child labour (target 8.7), as some of the industries whose products are targeted by health taxes are also the ones that rely the most on child labour, specifically tobacco and sugarcane farming, and indirectly through poverty reduction, as poverty is often among the key factors forcing families to engage children in income-generating activity (World Health Organization, 2023a; International Labour Organization, 2017). Moreover, tobacco farmers are often exposed to agrochemicals causing several serious health issues and are at risk of poisoning, especially children due to their low body weight and pregnant women, and frequently cannot afford to purchase protective equipment (World Health Organization, 2023a). A tobacco farmer may absorb nicotine volume equivalent to 50 cigarettes per day (World Health Organization, 2023a). This hinders progress towards target 8.8 on safe working environments and health taxes have the potential to change that. Tobacco farming is labour intensive work, which often requires extensive work hours and involvement of a whole household. When these factors are considered, tobacco farming is less profitable than growing other crops. This is further amplified by the fact that smallholder farmers often have limited power for negotiating selling conditions to their larger counterparts (Lencucha et al., 2022).</p>

		Second-hand smoke caused the deaths of 1.3 million people in 2019 (Global Burden of Disease, 2023). Around 392 million adults are exposed to second-hand smoke in their workplace (Verma et al., 2020). Tobacco taxes could reduce these numbers and contribute to target 8.8 promoting safe and secure working environments for all workers.
SDG 9	Industry, Innovation & Infrastructure	Health taxes have the potential to create incentives for industries to shift production towards healthier products that work as substitutes, such as beverages with lower sugar content or non-alcoholic beer and wine. This creates an opportunity for product reformulation and diversification (target 8.2), creativity and innovation (target 8.3) without hurting industries concerned (Cancer Council, 2023).
SDG 10	Reduced Inequalities	NCDs tend to be disproportionately clustered in lower socioeconomic groups of a society, further taking a toll on patients and their families (World Health Organization, 2023b). Higher exposure to risk factors ultimately creates health inequalities, which are linked to increased poverty due to multiple factors. Primarily, low-income groups tend to spend larger portion of their budgets on tobacco and alcohol than richer peers (Jolex & Kaluwa, 2022). They also have worse access to health care and insurance (World Health Organization, 2023b). To make things worse, low-income group members, when they lose income due to an NCD, may not be able to tap into savings or sell assets as their richer peers. On the other hand, low-income groups tend to respond more to price changes and therefore reduce their consumption more in the wake of a tax increase (WHO FCTC, 2010). In the medium to long run, this means that health taxes are progressive because the health and economic benefits for low-income groups surpass benefits of high-income counterparts (World Health Organization, n.d.; World Bank, 2020). By protecting low-income individuals from catastrophic health expenditures or loss of income due to NCDs, health taxes can prevent individuals from falling below 50 percent of the median income, contributing to progress on targets 10.2 and 10.2.1.
SDG 11	Sustainable Cities & Communities	By reducing harmful consumption through health taxes, a contribution can be made towards the target 11.6 aiming at reducing adverse impacts of cities, including air quality, municipal and other waste. Health taxes can also help to create safe and inclusive public spaces, particularly for women and children, older persons, and persons with disabilities (target 11.7), through preventing alcohol-based violence and second-hand smoke exposure.

SDG 12	Responsible Production & Consumption	Taxes on SSBs can contribute to reducing plastic waste from SSBs bottles and tobacco taxes can contribute to reducing waste from cigarette butts and cigarette packaging, which both include, microplastics, and waste caused by electronic cigarettes. Through these mechanisms, health taxes can support the progress on reducing waste generation through prevention (target 12.5).
SDG 13	Climate Action	<p>Harmful consumption exacerbates climate change. Cutting it could accelerate progress toward target 13.2 on greenhouse emissions reduction. Processes in manufacturing and distribution of tobacco products generate a substantial amount of greenhouse gas emissions, estimated to be around 0.2 percent of the global total or equal to 3 million transatlantic flights (World Health Organization, 2023c; Zafeiridou et al., 2018). Additionally, forest loss and damage cause around 10 percent of global warming, and around 5 percent of global deforestation is attributed to tobacco farming (World Wildlife Fund, 2023).</p> <p>A bottle of wine (0.75 liters) creates between 0.15 to 3.51 kg CO₂ in its lifecycle (Da Silva & Esteves da Silva, 2022). Almost 35 billion bottles of wine were produced in 2022 around the world (own calculations based on International Organisation of Vine and Wine, 2022). It is estimated that in 2021, beer, ciders, wine, spirits, and ready-to-drink alcoholic beverages were responsible for 371 million tons of greenhouse gas emissions (Rocha et al., 2023).</p> <p>Per liter of soft drink, around 0.17 kg of CO₂ is produced, with the majority coming through PET bottles production, sweeteners, and distribution (Beverage Industry Environmental Roundtable, 2012).</p> <p>Similarly, livestock farming for meat contributes between 12 and 18 percent to the total global greenhouse emissions (Gomez-Zavaglia et al., 2020; Allen & Hof, 2019).</p> <p>It is estimated that extreme weather events caused by climate change costs the global economy US\$143 billion per year in the last two decades, with the majority coming from loss of almost 70,000 human lives (Newman & Noy, 2023) and that \$196 trillion in investments is needed to bring the global carbon emissions to zero by 2050 (Gongloff, 2023).</p>
SDG 14	Life Below Water	At least 14 million tons of plastic pollute oceans annually (IUCN, 2021). Plastic waste is frequently ingested by marine fauna or threatens it by entanglement and creates risk to food safety and quality and human health. Reducing consumption of sodas could reduce the production of single-use bottles and reduce ocean pollution. In addition, tobacco and sugarcane production requires

		<p>the use of fertilizers and other chemicals. These are often washed into waters and pollute them (World Wildlife Fund, 2015).</p> <p>Cigarettes butts can take a very long time to decompose. Microplastics from around 4.5 trillion discarded cigarettes annually enter the environment, including waters (Zafeiridou, Hopkinson, & Voulvoulis, 2018).</p> <p>Health taxes would reduce consumption of these products and create an opportunity to reducing water pollution contributing to target 14.1</p>
SDG 15	Life on Land	<p>Tobacco farming has destructive impacts on ecosystems due to wood use and desertification, even more than livestock. Approximately 200,000 hectares of land are newly dedicated to tobacco agriculture and curing each year (World Health Organization, 2023a). Similarly, sugar cane farming has been linked to deforestation of some of the most valuable and fragile ecosystems, such as Brazil's rain forests. Growing sugarcane will push farmers to increase the cultivated areas by almost 50 percent by 2050 (World Wildlife Fund, 2015).</p> <p>Reducing the consumption of harmful products, like tobacco, alcohol and sweet beverages, and the waste derived from such consumption, would contribute to slowing down deforestation and contribute to preservation of terrestrial ecosystems (targets 15.1 and 15.2).</p>
SDG 16	Peace, Justice & Strong Institutions	<p>Health taxes generate revenues that can be allocated to strengthening of institutions supporting by that the targets of the SDGs 16, including institutions focused on violence and trafficking prevention.</p>
SDG 17	Partnerships for the Goals	<p>The goal of health taxes is to change incentives on health-related behaviours, and in addition, as a side-effect, they generate tax revenues. Health taxes represent a win-win-win situation by additional revenue generation, reduced NCDs related health care costs and supporting growth and fiscal position in line with strengthening domestic resource mobilisation targets 17.1 (domestic revenue mobilization), 17.3 (mobilization of resources from diverse sources) and 17.4 (long-term debt sustainability). Investment of tax revenues in tax administration can support the domestic capacity for tax collection (target 17.1)</p>

Overview of the Chapters

This section provides an overview of the topics covered in each chapter of the Handbook. The Handbook is divided into [five] Parts: General Considerations, Issues in Designing Health Taxes, Implementing Health Taxes, The Political Economy of Health Taxes, and Special Considerations.

Part I: General Considerations consists of Chapters 1 and 2, which set the scene for the more detailed policy guidance to follow.

Development of sound health tax policy requires coordination between finance and public health experts, who may have different perspectives on the issue. **Chapter 2: An Introduction for Policymakers: Looking at health taxes through different lenses** is intended to introduce some important concepts discussed throughout the handbook. It is meant to be accessible for a wide audience of officials, especially within the areas of health and finance. In particular, it provides an explanation, at a high level, of the different ways that health and finance officials may approach some of these topics to facilitate intragovernmental cooperation.

Health taxes must make sense within a country's overall budget. **Chapter 3: Role of Health Taxes in National Budgets** therefore provides an introduction to public finance and the ways that countries' budgets can be affected by health taxes.

Chapters 4, 5 and 6 comprise Part II: Issues in Designing Health Taxes, which provide more detailed practical guidance, include country examples and case studies.

Chapter 4: General Issues in Designing Health Taxes introduces the main design features that need to be taken into account when designing health taxes. It starts by introducing the main tax policy considerations that policymakers want to take into account when designing any specific tax. The second part of this chapter then applies this guidance for tax policy design to the specific case of health taxes.

Chapter 5: Setting the Health Tax Structure and Rate addresses the essential elements in the policy design of a health tax. Decisions regarding these elements have consequences for attaining the desired health and fiscal objectives, the economic impact, the distributional impact, as well as administrative and compliance costs. This chapters examines practical approaches to determining the tax structure and rate, complemented by country examples.

Chapter 6: Revenue Use discusses the complexities of revenue use in the context of the political economy of health tax design and implementation. Health taxes may raise significant revenues; the use of those revenues co-determines health taxes' net economic benefits (beyond the direct effects on health outcomes); it can affect distributional impacts, as well as strengthen support for their introduction or modification. The chapter identifies possible revenue uses and discusses how countries can establish revenue commitments and communicate those choices.

Part III, consisting of Chapters 7 and 8, addresses practical issues encountered in implementing health taxes, which can affect, and are closely linked to, the policy choices discussed in Part II.

Tax policy choices must take into account the ability of the tax authorities to implement those choices. Accordingly, **Chapter 7: Administering Health Excise Taxes** provides guidance regarding effective tax administration, focusing on specific aspects that make the administration of health excise taxes unique, starting from the fact that such taxes increasingly are levied based on weight, quantity, product content or volume rather than value.

The primary, intended effects of health taxes, as discussed in previous chapters, are mainly to reduce consumption of harmful goods through price increases as well as to generate tax revenue for the government. Besides those primary effects, health taxes can have a range of potential secondary and spill-over effects. The risk of these potential effects is often cited in order to deter governments from introducing or increasing health taxes. **Chapter 8: Addressing Potential Secondary Effects of Health Taxes** examines the most significant of these potential effects and provides guidance for countries to assist them in conducting their own assessment of the potential secondary impacts of health taxes.

Chapters 9 and 10, which may up Part IV, address political economy aspects of designing and implementing improved health tax systems.

Chapter 9: Ensuring Coherence Between Policy Instruments aims to support policymakers in identifying which existing policy instruments may interact with health taxes in ways that affect achievement of its intended goals and their effectiveness. It also discusses how health taxes may interact with countries' obligations under international legal instruments, such as trade and investment agreements.

Chapter 10: How to Generate Public Acceptability for Health Taxes argues that, to introduce or reform health taxes, policymakers should consider not only how to achieve the best technical design, but also how to ensure public acceptability. Therefore, governments interested in the implementation of health taxes may consider strategies to achieve immediate acceptability and permanent acceptance.

The final three chapters of the Handbook apply the general guidance in the preceding chapters to specific products. **Chapter 11: Specific Issues with Respect to Tobacco Taxation** discussed why tobacco use, which has been a persistent problem, can be addressed through health taxes and other measures so that it is not a “forever” problem. **Chapter 12: Specific Issues with Respect to Alcohol Taxation** explains the factors, including cultural and political economy issues, that make it difficult to provide general policy guidance with respect to this very heterogenous group of products. **Chapter 13: Specific Issues with respect to Taxation to Support Improved Nutrition** addresses the use of nutrition-targeted taxes as a tool to reduce the affordability of unhealthy foods and beverages and encourage substitution for healthy alternatives in order to reduce the impact of unhealthy diets.

References:

- Allen A.M., Hof A.R. Paying the price for the meat we eat. *Environmental Science and Policy*. 2019;97(April):90–94. doi: 10.1016/j.envsci.2019.04.010
- American Lung Association (2022). Sudden Infant Death Syndrome (SIDS) Risk Factors. <https://www.lung.org/sudden-infant-death-syndrome-sids/sids-syndrome-risk>
- Armstrong, L. E., & Johnson, E. C. (2018). Water intake, water balance, and the elusive daily water requirement. *Nutrients*, 10(12), 1928. <https://doi.org/10.3390/nu10121928>
- Austin, W. A. (2012). The Effects of Alcohol Use on High School Absenteeism. *The American Economist*, 57(2), 238-252. <https://doi.org/10.1177/056943451205700208>
- Azad, A.K., Huque, R. The crowding-out effect of sugar-sweetened beverages (SSBs) on household expenditure patterns in Bangladesh. *BMC Public Health* 23, 1411 (2023). <https://doi.org/10.1186/s12889-023-16290-7>

- Beverage Industry Environmental Roundtable. (2012). Research on the Carbon Footprint of Carbonated Soft Drinks. https://www.bierroundtable.com/wp-content/uploads/49d7a0_7a5cfa72d8e74c04be5aeb81f38b136b.pdf
- Cancer Council. (2023). PREVENTION: TAX AND PRICING. Countries that have taxes on sugar-sweetened beverages (SSBs). <https://www.obesityevidencehub.org.au/collections/prevention/countries-that-have-implemented-taxes-on-sugar-sweetened-beverages-ssbs>
- Da Silva, L. P., & Esteves da Silva, J. C. G. (2022). Evaluation of the carbon footprint of the life cycle of wine production: A review. *Cleaner and Circular Bioeconomy*, 2, 100021. <https://doi.org/10.1016/j.clcb.2022.100021>
- Do, Y.K., & Bautista, M.A. (2015). Tobacco use and household expenditures on food, education, and healthcare in low- and middle-income countries: a multilevel analysis. *BMC Public Health*, 15, 1098. <https://doi.org/10.1186/s12889-015-2423-9>
- Duvvury, N., Callan, A., Carney, P., & Raghavendra, S. (2013). Intimate partner violence: Economic costs and implications for growth and development. World Bank Women's Voice, Agency, & Participation Research Series No. 3.
- FAO, IFAD, UNICEF, WFP and WHO. 2023. *The State of Food Security and Nutrition in the World 2023. Urbanization, agrifood systems transformation and healthy diets across the rural–urban continuum.* Rome, FAO. <https://doi.org/10.4060/cc3017en>
- FAO. (2024). Faostat – Crops and livestock products. <https://www.fao.org/faostat/en/#data/QCL>
- Global Burden of Disease. (2023). <https://vizhub.healthdata.org/gbd-results/>
- Gomez-Zavaglia A., Mejuto J.C., Simal-Gandara J. Mitigation of emerging implications of climate change on food production systems. *Food Research International*. 2020;134(April) doi: 10.1016/j.foodres.2020.109256.
- Gongloff, M. (2023). \$200 Trillion Is Needed to Stop Global Warming. That's a Bargain. <https://www.bloomberg.com/opinion/articles/2023-07-05/-200-trillion-is-needed-to-stop-global-warming-that-s-a-bargain>
- Gram, I. T., Wiik, A. B., Lund, E., Licaj, I., & Braaten, T. (2021). Never-smokers and the fraction of breast cancer attributable to second-hand smoke from parents during childhood: The Norwegian Women and Cancer Study 1991–2018. *International Journal of Epidemiology*, 50(6). <https://doi.org/10.1093/ije/dyab153>
- International Labour Organization (2017). Child labour in the primary production of sugarcane. Fundamental Principles and Rights at Work Branch. Geneva.

- International Organisation of Vine and Wine. (2022). STATE OF THE WORLD VINE AND WINE SECTOR IN 2022. https://www.oiv.int/sites/default/files/documents/OIV_State_of_the_world_Vine_and_Wine_sector_in_2022_2.pdf
- IUCN. (2021). Marine plastic pollution. <https://www.iucn.org/resources/issues-brief/marine-plastic-pollution>
- John RM. Crowding out effect of tobacco expenditure and its implications on household resource allocation in India. *Soc Sci Med.* 2008 Mar;66(6):1356-67. doi: 10.1016/j.socscimed.2007.11.020. Epub 2008 Jan 9. PMID: 18187245.
- Jolex A, Kaluwa B. Crowding Out Effects of Alcohol Consumption Expenditure on Household Resource Allocation in Malawi. *PLoS One.* 2022 Feb 4;17(2):e0263330. doi: 10.1371/journal.pone.0263330. PMID: 35120166; PMCID: PMC8815938.
- Journal of Health Economics and Outcomes Research. (2022). Global increase in diabetes prevalence imposes a substantial health and economic burden. <https://jheor.org/post/1265-global-increase-in-diabetes-prevalence-imposes-a-substantial-health-and-economic-burden>
- Kattan R.B., Khan M.M. (2023). Closing the gap: Tackling the remaining disparities in girls' education and women's labor market participation. World Bank. <https://blogs.worldbank.org/education/closing-gap-tackling-remaining-disparities-girls-education-and-womens-labor-market>
- Lauer, J. A., et al. (2022). Health taxes: Policy and practice. World Health Organization. <https://doi.org/10.1142/q0365>
- Lencucha R, Drope J, Magati P, et al Tobacco farming: overcoming an understated impediment to comprehensive tobacco control *Tobacco Control* 2022;31:308-312.
- Malik, V.S., Hu, F.B. The role of sugar-sweetened beverages in the global epidemics of obesity and chronic diseases. *Nat Rev Endocrinol* **18**, 205–218 (2022). <https://doi.org/10.1038/s41574-021-00627-6>
- Movendi International. (2021). South Africa: Clear Link Between Alcohol and Gender-Based Violence. <https://movendi.ngo/news/2021/12/07/south-africa-clear-link-between-alcohol-and-gender-based-violence/>
- Müller-Riemenschneider F, Reinhold T, Berghöfer A, Willich SN. Health-economic burden of obesity in Europe. *Eur J Epidemiol.* 2008;23(8):499-509. doi: 10.1007/s10654-008-9239-1. Epub 2008 May 29. PMID: 18509729.
- NCD Alliance. (2023). Financing NCDs. <https://ncdalliance.org/why-ncds/financing-ncd>

NCD Alliance (n.d.). Non- communicable diseases: a priority for women’s health and development.

https://ncdalliance.org/sites/default/files/resource_files/Non%20Communicable%20Diseases%20A%20priority%20for%20womens%27s%20health%20and%20development.pdf

Newman, R., & Noy, I. (2023). The global costs of extreme weather that are attributable to climate change. *Nature Communications*, 14, Article 6103.

<https://www.nature.com/articles/s41467-023-41888-1>

Olson-Sawyer, K., & Madel, R. (2020). The water footprint of your plastic bottle. *Foodprint*.

<https://foodprint.org/blog/plastic-water-bottle/>

Pan American Health Organization. (2022). Alcohol And Violence Against Women.

https://iris.paho.org/bitstream/handle/10665.2/56009/PAHONMHMH220009_eng.pdf?sequence=1&isAllowed=y

Perelman J, Leão T, Kunst AE. Smoking and school absenteeism among 15- to 16-year-old adolescents: a cross-section analysis on 36 European countries. *Eur J Public Health*. 2019 Aug 1;29(4):778-784. doi: 10.1093/eurpub/ckz110. PMID: 31168621; PMCID: PMC6660109.

Rocha G., Kirste A., Dittmar F., Asua I. (2023). Achieving net zero in beverages. *Kaerney*.

<https://www.kearney.com/industry/consumer-retail/article/achieving-net-zero-in-beverages>

Tin A. (2023). E-cigarette sales surge — and so do calls to poison control, health officials say.

CBS News. <https://www.cbsnews.com/news/e-cigarette-sales-vapes-poison-control-cdc-fda/>

United Nations. (2023b). The Sustainable Development Goals Report 2023.

<https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf>

UN Women. (2014). Women and poverty. <https://www.unwomen.org/en/news/in-focus/end-violence-against-women/2014/poverty>

Verma, M., Kathirvel, S., Das, M., Aggarwal, R., & Goel, S. (2020). Trends and patterns of second-hand smoke exposure amongst the non-smokers in India-A secondary data analysis from the Global Adult Tobacco Survey (GATS) I & II. *PloS one*, 15(6), e0233861.

<https://doi.org/10.1371/journal.pone.0233861>

WHO FCTC. (2010). Conference of the Parties to the WHO Framework Convention on Tobacco Control. Price and tax policies (in relation to Article 6 of the Convention). Technical report by

WHO’s Tobacco Free Initiative. https://apps.who.int/gb/fctc/PDF/cop4/FCTC_COP4_11-en.pdf

- World Bank. (2016). High and Dry: Climate Change, Water, and the Economy. <https://www.worldbank.org/en/topic/water/publication/high-and-dry-climate-change-water-and-the-economy>
- World Bank. (2019). High-Performance Health-Financing for Universal Health Coverage: Driving Sustainable, Inclusive Growth in the 21st Century. <https://www.worldbank.org/en/topic/universalhealthcoverage/publication/high-performance-health-financing-for-universal-health-coverage-driving-sustainable-inclusive-growth-in-the-21st-century>
- World Bank. (2020a). Sugar-sweetened beverages and prepackaged foods: the impact of taxation on price, consumption, and revenues and its contribution to achieving the sustainable development goals in Central America, Panama, and the Dominican Republic. <https://thedocs.worldbank.org/en/doc/611961599658512658-0090022020/original/TF0A4082FullreportSugarSweetDrinksEnglishFinal20201.pdf>
- World Bank (2023). Data, School enrolment, Primary, Male (% net), Male and Female (% net). <https://data.worldbank.org/indicator/SE.PRM.NENR.MA>; <https://data.worldbank.org/indicator/SE.PRM.NENR.FE>
- World Health Organization (n.d.) Health taxes. https://www.who.int/health-topics/health-taxes#tab=tab_2
- World Health Organization. (2022). Tobacco: Poisoning our Planet. <https://iris.who.int/bitstream/handle/10665/354579/9789240051287-eng.pdf?sequence=1>
- World Health Organization (2023a). World No Tobacco Day 2023. Grow food, not tobacco. <https://iris.who.int/bitstream/handle/10665/368076/9789240073937-eng.pdf?sequence=1>
- World Health Organization (2023b). Noncommunicable diseases – Key facts. <https://iris.who.int/bitstream/handle/10665/368076/9789240073937-eng.pdf?sequence=1>
- World Health Organization. (2023c). More than 100 reasons to quit tobacco. <https://www.who.int/news-room/spotlight/more-than-100-reasons-to-quit-tobacco>
- World Wildlife Fund. (2015). Sugarcane Farming's Toll on the Environment. <https://www.worldwildlife.org/magazine/issues/summer-2015/articles/sugarcane-farming-s-toll-on-the-environment>
- Zafeiridou, M., Hopkinson, N. S., & Voulvoulis, N. (2018). Cigarette Smoking: An Assessment of Tobacco's Global Environmental Footprint Across Its Entire Supply Chain. *Environmental science & technology*, 52(15), 8087–8094. <https://doi.org/10.1021/acs.est.8b01533>