Global report on the use of sugar-sweetened beverage taxes

2025

World Health Organization

Global report on the use of sugar-sweetened beverage taxes

2025

World Health Organization

Global report on the use of sugar-sweetened beverage taxes, 2025

ISBN 978-92-4-011894-2 (electronic version)

ISBN 978-92-4-011895-9 (print version)

Contents

Acknowledgements	v
Abbreviations	vi
Executive summary	vii
1. Background	1
2. Excise taxes on sugar-sweetened beverages	4
3. Excise tax policy design	5
4. Other non-excise sugar-sweetened beverage taxes	11
5. Tax share	13
6. Tax level	16
7. Affordability	19
8. Earmarking of excise tax revenue	21
9. Takeaways	22
10. Technical notes	24
References	36

Acknowledgements

The data collection management and report development were done by Anne-Marie Perucic from the Department of Health Determinants, Promotion and Prevention at the World Health Organization (WHO) headquarters in Geneva, Switzerland.

Acknowledgements are due (in alphabetical order) to Jeremias Paul Jr (WHO), Mark Goodchild (WHO) and Chonlathan Visaruthvong (WHO) for their contribution to the development of the report.

WHO would like to thank the following reviewers of this report for their invaluable comments (in alphabetical order):

- WHO: Delia Itziar Belausteguigoitia (Regional Office for the Americas), Kaia Engesveen (WHO headquarters – HQ), Melanie Aldeon, See Hoe Ng , Xi Yin (Regional Office for the Western Pacific).
- External reviewers: Evan Blecher (World Bank), Jo Birckmayer (Bloomberg Philanthropies), Carlos Guerrero (Johns Hopkins University), Anne-Marie Thow (University of Sydney), and Nicole Vellios (University of Cape Town).

Acknowledgements are also due to all those who contributed to the data collection efforts and analysis (by WHO office and in alphabetical order):

- WHO: Mark Goodchild, Anne-Marie Perucic, Chonlathan Visaruthvong, Guillermo Sandoval (HQ), Nivo Ramanandraibe, Joseph Saysay, Noureiny Tcha-Kondor (Regional Office for Africa), Delia Itziar Belausteguigoitia, Jose David Caicedo Gallardo (Regional Office for the Americas), Natalia Fedkina (Regional Office for Europe), Ayoub Al-Jawaldeh (now retired), Nashwa Mansour, Abdul Baseer Qureshi (Regional Office for the Eastern Mediterranean), Jagdish Kaur, Padmini Angela de Silva (Regional Office for South-East Asia), Melanie Aldeon, Mina Kashiwabara, Xi Yin (Regional Office for the Western Pacific) as well as colleagues in all the WHO Country Offices.
- External: Victor Andrade (Consultant), Rose Zheng (University of International Business and Economics).

Production of this document has been supported by a grant from Norway and from the Global RECAP, a collaborative program between WHO and the International Development Law Organization (IDLO), supported by the Swiss Agency for Development and Cooperation (SDC) and the European Union, and in coordination with the International Development Research Centre (IDRC). The contents of this document are the sole responsibility of WHO and should not be regarded as reflecting the position of the funders.

Abbreviations

CIF	Cost, insurance and freight
GIFNA	WHO Global database on the Implementation of Food and Nutrition Action
HS	Harmonized Systems tariff codes
IMF	International Monetary Fund
NCD	Noncommunicable diseases
PAHO	Pan American Health Organization
SSB	Sugar-sweetened beverage
UN	United Nations
VAT	Value added tax
WHO	World Health Organization

Executive summary

This report provides an assessment of taxes applied in 2024 to sugar-sweetened beverages at the global level, updating the assessment first undertaken in 2022 *(1)*. It qualitatively compares their design and provides the first global estimation of standardized metrics to compare tax levels among countries. The assessment builds on and complements the World Health Organization (WHO) manual on sugar-sweetened beverage taxation policies to promote healthy diets *(2)*. It aims to inform policy-making and support research.

Sugar-sweetened beverages (SSBs) represent a significant source of free sugars and have been associated with the development of several non-communicable diseases (NCDs) *(2)*. Reducing the affordability of SSBs through the use of excise taxes is an effective tool to reduce their consumption. Over the past 20 years, an increasing number of countries are now taxing SSBs to promote healthy diets. However, these taxes differ widely in terms of design and level, and many are not optimized to achieve public health goals.

Section 1 provides a background on SSB consumption and its negative consequences, the recommendation to tax such beverages, and the importance of assessing the use of SSB taxes drawing from WHO's successful experience of monitoring tobacco taxes globally since 2008.

Section 2 describes the global coverage of the policy. Key takeaway from this section:

- As of July 2024, excise taxes were applied at national level to at least one type of SSB in at least 116 countries, with 114 applying such taxes to sugar-sweetened carbonated beverages, the most-sold type of SSBs. They are present in all WHO regions, at varying extents.

Section 3 assesses the design of SSB excise taxes. These taxes should apply to all beverage types to prevent the substitution of consumption from taxed beverages to untaxed beverages containing free sugars. Key takeaways from this section:

- Most countries do not tax 100% fruit juices, sugar-sweetened ready-to-drink tea or coffee, or sugar-sweetened milk-based drinks (including plant-based milk substitutes) even though these products contain free sugars.
- Almost half of the countries that apply excise taxes to non-alcoholic beverages include unsweetened bottled water in their list of taxable beverages. The consumption of healthy substitutes such as water should be incentivized and not taxed.
- Among the 114 countries that tax sugar-sweetened carbonated beverages, *ad valorem* (applied by 50 countries) and volume-specific excise (applied by 51 countries) taxes are the two most common types of excise applied.
- Only 14% of countries that apply either a specific or mixed excise tax system automatically adjust their specific excise tax component to inflation by law.

- Less than a quarter of countries surveyed account for sugar content when they impose taxes on these non-alcoholic beverage products (either through a sugar-content-based specific excise or a volumetric specific excise tiered based on sugar content). Countries with a sufficiently strong tax administrative capacity are encouraged to tax beverages based on sugar content, as it can encourage consumers to substitute with alternatives that have lower sugar content, as well as incentivize the industry to reformulate beverages to contain less sugar.

Section 4 briefly looks at other non-excise sugar-sweetened beverage taxes. Key takeaway from this section:

- Some countries apply varying rates of VAT on sugar-sweetened beverages. Only 1% of countries where data was available reported applying a VAT rate on SSBs higher than the standard VAT rate, while 12% reported applying lower VAT. Since SSBs are not essential items and are associated with multiple negative health consequences; they should not benefit from reduced VAT rates.

Section 5 presents estimates of the share of taxes in the retail price for 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverage. This indicator allows standardized comparisons between countries with varying tax designs. Key takeaway from this section:

- The tax burden of sugar-sweetened carbonated beverages is very low, with the global median excise tax share and total tax share being 2.4% and 17.8%, respectively, with significant heterogeneity across WHO regions.

Section 6 focuses on tax and price levels. While no empirical best practice for effective SSB tax levels has been set, excise taxes need to be sufficiently high to impact affordability. Key takeaways from this section:

- Excise tax levels are generally very low. Globally, the population weighted average retail price for 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverage is US$ 1.56 at purchasing power parity (PPP), composed only of PPP US$ 0.15 of excise taxes (9.7% of the retail price).
- When converted to a standardized quantity of sugar, the excise amount is also very low, on average excise taxes per 10 g of sugar represent PPP US$ 0.038 globally.

Section 7 looks at changes in affordability of sugar-sweetened carbonated beverages between 2022 and 2024. Key takeaways from this section

- Sugar-sweetened carbonated beverages have become less affordable since 2022 in only 34 countries (28% of countries with available estimates). Countries need to increase taxes sufficiently to ensure those products do not become affordable over time.

Section 8 looks at countries that earmark revenue from excise taxes applied to SSBs. Key takeaway from this section:

- Of the 116 countries that apply excise taxes to non-alcoholic beverages and for which information on earmarking is available, 10 countries earmark such revenue for health programmes, mostly channelling funds towards universal health coverage.

Section 9 reiterates the main takeaways and provides key considerations to guide policy-makers in advancing public health by implementing or improving existing SSB excise taxes.

Technical notes are provided in **section 10**, with more information on the methods used in this analysis as well as the rationale behind the choice of indicators. Detailed results for each country are available on the WHO's Global Health Observatory website.

Overall, excise taxes on SSBs are not currently being used to their fullest potential. Improving tax policy design and increasing taxes so that SSBs become less affordable should be pursued more systematically by countries in order to effectively reduce the intake of free sugars as part of improving population diets and preventing and controling diet-related NCDs, including obesity and dental caries.

1. Background

The significant prevalence of obesity and diet-related noncommunicable diseases (NCDs) being driven by the rise of diets high in sugars, salt and saturated fats is of global health concern *(3)*. Significant attention has been given to reducing intake of free sugars, including from sugar-sweetened beverages (SSBs), as they can greatly contribute to the overconsumption of sugars. SSBs are "all types of non-alcoholic beverages containing free sugars[1], including carbonated and non-carbonated soft drinks, fruit and vegetable juices and drinks, nectars, liquid and powder concentrates, flavoured waters, vitamin waters, energy and sports drinks, ready-to-drink teas, ready-to drink coffees, flavoured milks and milk-based drinks, and plant-based milk substitutes" *(4)*.[2]

These beverages are among the leading sources of free sugar intake in many countries, while offering little-to-no added nutritional value. The increased intake of SSBs is associated with increased risk of excess weight and obesity, and adverse health outcomes including type 2 diabetes, cardiovascular disease, dental caries, and osteoporosis *(5-9)*.

Available private sector data suggest that global consumption of soft drinks,[3] excluding water, increased by about 14% globally between 2013 and 2024 *(10)*.[4] The affordability of the most-sold brand of the most-sold type of SSBs (sugar-sweetened carbonated beverages) was found to have increased in the last three decades in most countries (i.e., the proportion of income needed to purchase such beverage has declined), and more rapidly in low- and middle-income countries *(11)*.

Empirical evidence suggests that SSB taxes are an effective intervention to increase prices and reduce sales. These taxes are more effective in reducing consumption when implemented as part of a broader package of population-based measures to improve diets. Increasing evidence also suggests that, depending on tax design, they may impact on sales not just through prices but by creating incentives for firms to reduce the sugar content in those beverages *(2,12)*. They can assist reductions in free sugar intake *(13)*. WHO recommends taxing SSBs as part of the updated menu of cost-effective and evidence-based policies in the WHO Global Action Plan for the Prevention and Control of NCDs 2013–2030 with its updated Appendix 3 (World Health Assembly resolutions WHA70.11 and WHA72.11) *(14,15)*. And more recently, the document Fiscal policies to promote healthy diets: WHO Guideline, *(4)* provided a strong recommendation for the "implementation of a policy to tax sugar-sweetened beverages (SSBs)". SSB taxes represent a triple win strategy by improving public health and reducing healthcare costs, generating government revenue and contributing to health equity. (*2,16)*.

[1] Free sugars are monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates).
[2] SSBs do not include alcoholic beverages containing sugar.
[3] "Soft drinks" is the reference used by GlobalData where most of the SSB types covered in this report are included (see full list of different beverage types covered by this report in Technical notes sub-section e).
[4] Among countries with available data (111 countries) from 2013 to 2024.

The WHO has developed a manual on sugar-sweetened beverage taxation policies to promote healthy diets *(2)*. It provides a practical guide for the policy-cycle development process to implement SSB taxation, as well as country experiences and evidence on policy impact. As highlighted in the manual, SSB taxes are currently applied using a variety of designs, which in turn have different implications for their effectiveness to reduce consumption. Given such heterogeneity, standardized indicators are required to compare SSB taxes and their levels across countries.

Since the International Conference on Nutrition in 1992, WHO has been monitoring progress in developing and implementing national nutrition policies and strategies, including fiscal policies to promote healthy diets. For excise taxes on SSBs, monitoring has been limited to countries applying them and the beverage types covered by such taxes *(17,18)*. On the other hand, since 2008, WHO has been monitoring tobacco tax designs and levels, as well as tobacco product prices and affordability, with standardized indicators for all Member States. This monitoring has informed best practices and institutional opportunities and barriers to applying tobacco taxes with a health rationale, enabled comparisons across countries over time, and provided a powerful tool for advocacy and research *(19)*.

Work to develop comparable measures for SSB taxes started in the WHO Region of the Americas in 2016 *(20)*, where the Pan American Health Organization (PAHO) adapted WHO's method to monitor tobacco taxes and developed SSB tax policy and tax level indicators *(21-24)*. In 2022, the World Bank launched the Global SSB Tax Database, which includes information on tax design and provides the respective legislation *(25,26)*.

In an effort to extend this work, WHO initiated the collection of prices and taxes of sugar-sweetened beverages globally in 2022. The results of this data collection and its analysis were summarized in the Global report on the use of sugar-sweetened beverage taxes, 2023 *(1)*. The current report is an update to the 2023 report, with data collected in 2024, presenting again standardized indicators of tax level. Sugar-sweetened carbonated beverages were selected as the main focus for this analysis, as they represent the most-sold type of SSBs globally *(10)*. Additional information is provided on excise tax design and application to other SSBs. The results are discussed in the context of the key considerations for implementing SSB outlined in the WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets *(2)*.

The data was collected through a survey instrument disseminated to all WHO Member States through WHO's regional and country offices[5]. The data collection and analysis covered the July 2024—June 2025 period, which included direct communication with countries to confirm data validity. The cut-off date for the data and legislation collected, and each estimated indicator, was 31 July 2024.

The data reported in this analysis, once completed, was shared with country officials for review and feedback, and they were given four-to-six weeks to respond with further clarifications or corrections before the data analysis was closed and completed for this report. Of the 195 Member States and Associate Members contacted, 35 did not provide any response. Based on the responses received, it was possible to compile standardized indicators of tax and price levels of an internationally comparable brand of sugar-sweetened carbonated beverage for 160 countries for 2024. From the responses collected either in 2024 or 2022 and through searches in government

[5] Note that data collection for sugar-sweetened beverages was done at the same time as data collection for tobacco and alcoholic beverages.

websites, it was possible to compile information for the section on tax design applied to non-alcoholic beverages for 179 countries. In total, it was assessed that in 2024, at least 116 countries have some type of excise tax applied to SSBs.

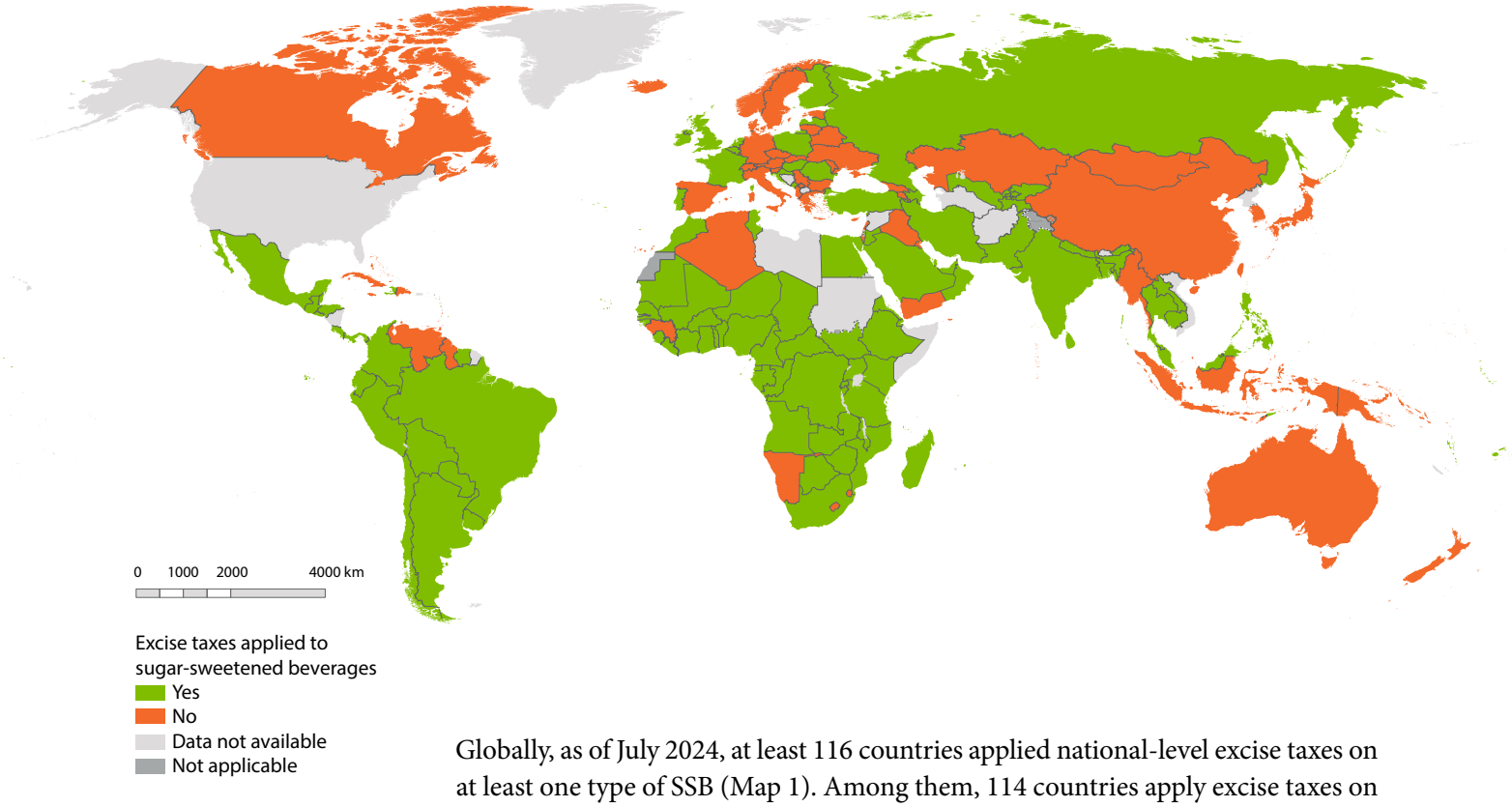
While the price and tax share indicators were compiled only for sugar-sweetened carbonated beverages, information on tax structure covered all types of sugar-sweetened beverages, including sugar-sweetened non-carbonated waters, fruit drinks (less than 100% fruit juice), fruit juices (100% fruit juice), energy and sports drinks, sugar-sweetened milk-based drinks, sugar-sweetened ready-to-drink tea and coffee, and sugar-sweetened syrups and liquid concentrates or powdered beverage preparations, non-sugar-sweetened carbonated or non-carbonated waters, as well as sugar-sweetened carbonated beverages. Information was also provided on unsweetened carbonated or non-carbonated bottled waters which are not SSBs but fall under the classification of non-alcoholic beverages. More information on those beverage classifications can be found in the technical notes of this report.

The method followed in compiling any recommendation in this report was based on the evidence collected in the WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets *(2)*.

2. Excise taxes on sugar-sweetened beverages

Among the various types of consumption taxes, excise taxes are preferred from a public health perspective as they raise the relative price of SSBs compared to other products and services in the economy, thereby helping reduce affordability.

Map 1 National level excise taxes applied to sugar-sweetened beverages, as of July 2024



Globally, as of July 2024, at least 116 countries applied national-level excise taxes on at least one type of SSB (Map 1). Among them, 114 countries apply excise taxes on sugar-sweetened carbonated beverages.[6] The World Health Organization (WHO) African Region showed the highest coverage, with 89.4% of countries (42 of 47 countries covered) applying excise taxes to sugar-sweetened beverages, followed by the Eastern Mediterranean Region (13/17 or 76.5%), the South-East Asia Region (6/8 or 75%), the Region of the Americas (22/33 or 66.7%), the Western Pacific Region (12/24 or 50%), and the European Region (21/50 or 42%). By income group, low-income countries show the highest coverage (20/21 or 95.2%), followed by lower-middle-income countries (40/48 or 83.3%), upper-middle-income countries (27/48 or 56.3%) and high-income countries (29/62 or 46.8%).

[6] Azerbaijan and Haiti do not apply excise taxes to sugar-sweetened carbonated beverages but apply such taxes to some other SSBs.

3. Excise tax policy design[7]

The use of excise taxes on non-alcoholic beverages is not a new policy. There has been growing momentum in recent years to utilize excise taxes on SSBs as a public health policy and not just a revenue raising tool.

However, countries implement this policy in many ways (e.g., with varying tax designs and tax levels) and not all excise taxes on SSBs have the same effectiveness in their design from a public health perspective. To assess tax effectiveness across multiple countries, excise taxes applied to SSBs must be monitored in a comparable manner with standardized indicators to characterise tax designs and tax levels to inform policy-making.

Types of beverages covered by the SSB taxes

Table 1 Proportion of countries* applying excise taxes to non-alcoholic beverages, by type, World Bank income groups[8] and WHO Regions, among countries applying excise taxes to sugar-sweetened carbonated beverages**, as of July 2024

		Sugar-sweetened carbonated beverages		Energy and sports drinks		Sugar-sweetened non-carbonated waters (e.g.. lemonade)		Non-sugar-sweetened carbonated or non-carbonated waters (e.g.. diet soft drinks)		Fruit drinks (less than 100% fruit juice)	
Income groups	High income	100%	29/29	97%	28/29	96%	27/28	69%	20/29	69%	20/29
	Upper middle income	96%	26/27	100%	26/26	92%	24/26	65%	17/26	73%	19/26
	Lower middle income	98%	39/40	95%	35/37	90%	35/39	86%	32/37	74%	28/38
	Low income	100%	20/20	100%	19/19	100%	20/20	89%	16/18	89%	16/18
WHO regions	Africa	100%	42/42	98%	39/40	98%	41/42	82%	32/39	85%	34/40
	Americas	95%	21/22	100%	22/22	91%	20/22	73%	16/22	64%	14/22
	Eastern Mediterranean	100%	13/13	92%	11/12	82%	9/11	67%	8/12	75%	9/12
	European	95%	20/21	100%	21/21	95%	20/21	62%	13/21	67%	14/21
	South-East Asia	100%	6/6	100%	4/4	100%	5/5	100%	4/4	100%	4/4
	Western Pacific	100%	12/12	92%	11/12	92%	11/12	100%	12/12	67%	8/12
	All countries	**98%**	**114/116**	**97%**	**108/111**	**94%**	**106/113**	**77%**	**85/110**	**75%**	**83/111**

[7] Please refer to the Technical Notes for more information on the definition of beverages and elements of SSB tax design.

[8] World Bank income classification of July 2024.

		Sugar-sweetened syrups, liquid concentrates or powders beverage preparation		Sugar-sweetened ready-to-drink tea or coffee		Fruit juices (100% fruit juice)		Unsweetened carbonated or non-carbonated bottled waters		Sugar-sweetened milk-based drinks (including plant-based milk substitutes)	
Income groups	High income	75%	21/28	67%	18/27	31%	9/29	28%	8/29	31%	9/29
	Upper middle income	72%	18/25	52%	13/25	50%	13/26	38%	10/26	24%	6/25
	Lower middle income	44%	16/36	35%	13/37	45%	17/38	51%	20/39	19%	7/37
	Low income	63%	10/16	69%	11/16	71%	12/17	68%	13/19	41%	7/17
WHO regions	Africa	53%	20/38	53%	20/38	67%	26/39	54%	22/41	33%	13/39
	Americas	70%	14/20	45%	9/20	41%	9/22	32%	7/22	14%	3/21
	Eastern Mediterranean	58%	7/12	45%	5/11	25%	3/12	58%	7/12	8%	1/12
	European	76%	16/21	62%	13/21	24%	5/21	33%	7/21	38%	8/21
	South-East Asia	67%	2/3	75%	3/4	75%	3/4	60%	3/5	50%	2/4
	Western Pacific	55%	6/11	45%	5/11	42%	5/12	42%	5/12	18%	2/11
	All countries	**62%**	**65/105**	**52%**	**55/105**	**46%**	**51/110**	**45%**	**51/113**	**27%**	**29/108**

Notes: *Data only available for Member States where information collection was possible. See Technical notes for more details. **Some countries did not provide information on the application of tax for each beverage identified in this table and some of this information could not be independently retrieved from the legislation. Therefore, the number of missing countries varies by type of beverage. This is why the proportion of countries applying excise taxes to each beverage type is provided as a percentage and ratio, with the denominator indicating the number of non-missing countries.

Table 1 provides information on the number and proportion of countries applying excise taxes to non-alcoholic beverages. The tax applied varies significantly across countries in terms of beverage type coverage. Most countries tax sugar-sweetened carbonated beverages (98%), energy and sports drinks (97%) and sugar-sweetened non-carbonated waters (e.g., lemonade) (94%). More than two thirds (75%) of these countries apply excise taxes to fruit drinks (less than 100% fruit juice) and nearly two-thirds of countries apply excise tax on sugar-sweetened syrups, liquid concentrates or powders for beverage preparation (62%). Around half the surveyed countries tax sugar-sweetened ready-to-drink tea or coffee (52%). While 100% fruit juices also contain free sugars, only 46% of countries applying an excise on non-alcoholic beverages include them in their excise tax base, with less than a third doing so in the WHO Eastern Mediterranean and European Regions. Also, sugar-sweetened milk-based drinks (including plant-based milk substitutes) are not often subject to excise taxes (from 8% in the Eastern Mediterranean Region to 50% in the South-East Asia Region).

Fifty-one countries that apply excise taxes to non-alcoholic beverages also apply such taxes to unsweetened bottled waters (45%)[9], most of them are low-income countries (68%) and countries from the South-East Asia Region (60%). Only six countries (Bangladesh, Barbados, Côte d'Ivoire, Gabon, Niger, and Togo) apply excise taxes to all SSB types while exempting unsweetened bottled water[10].

Finally, 77% of countries include non-sugar-sweetened carbonated or non-carbonated waters (e.g., diet soft drinks) as part of their list of excisable products. Recent WHO guidelines advise that non-sugar sweeteners should not be used for weight control and to consider other ways to reduce free sugar intake, for example by replacing free sugars in the diet with sources of naturally occurring sweetness, such

[9] Five countries (Brazil, Guinea-Bissau, Jordan, Sri Lanka and Thailand) apply excise taxes to unsweetened carbonated bottled water but exempt unsweetened non-carbonated bottled water.
[10] The list does not cover countries that tax non-sugar-sweetened carbonated and non-carbonated mineral waters (e.g., diet soft drinks).

as fruit, as well as using minimally processed unsweetened foods and beverages *(26)*. As these beverages may potentially increase the risk of adverse health outcomes and to avoid product substitution of these beverages, countries may consider applying excise taxes to non-sugar-sweetened beverages.

Types of excise taxes

Excise taxes can either be applied as a percentage of the value of a beverage (*ad valorem*) or as a monetary value proportional to the volume (volume-based specific) or the sugar content of a beverage (sugar-content-based specific). Some countries may apply a mixed excise tax system by combining two of these excise tax types in one system simultaneously.

Normally, a*d valorem* excise taxes have the perceived advantage (but see also *27*) of preserving the real value of the tax without the need for regular adjustment.[11] However, they do not effectively target cheap products as these have a smaller tax base, widening the price range within products and incentivising unintended substitutions to cheaper sweetened beverages without reducing the volume of sugar consumed. *Ad valorem* excise taxes are also more prone to tax avoidance strategies, like underreporting the value on which the tax is based *(2)*.

On the other hand, specific taxes effectively target cheap brands as the same rate applies to all products, whether based on volume or sugar content, regardless of price. They are also less prone to industry price manipulation and are generally preferred from a public health perspective. Nevertheless, specific excise taxes need to be periodically adjusted for inflation or their real value risks erosion over time. Sugar-content-based specific excise taxes can be used to incentivize consumers to substitute for alternatives with lower or zero sugar content but may require more effort from a tax administration point of view *(2)*.

Table 2 Number of countries* applying different types of excise taxes to sugar-sweetened carbonated beverages, by World Bank groups and WHO Regions, as of July 2024

		Ad valorem	Volume-based specific	Sugar-content-based specific	Mixed – Volume-specific & Ad valorem	Specific mixed – Sugar & Volume-specific	Mixed – Sugar-specific & Ad valorem	Grand Total
Income groups	High income	9	16	2	0	2	0	29
	Upper middle income	9	12	3	1	0	1	26
	Lower middle income	18	20	1	0	0	0	39
	Low income	14	3	2	1	0	0	20
WHO regions	Africa	23	12	6	1	0	0	42
	Americas	10	10	0	0	0	1	21
	Eastern Mediterranean	10	3	0	0	0	0	13
	European	1	16	1	0	2	0	20
	South-East Asia	3	2	0	1	0	0	6
	Western Pacific	3	8	1	0	0	0	12
	All countries	**50**	**51**	**8**	**2**	**2**	**1**	**114**

Notes: *Data only available for Member States where information collection was possible.

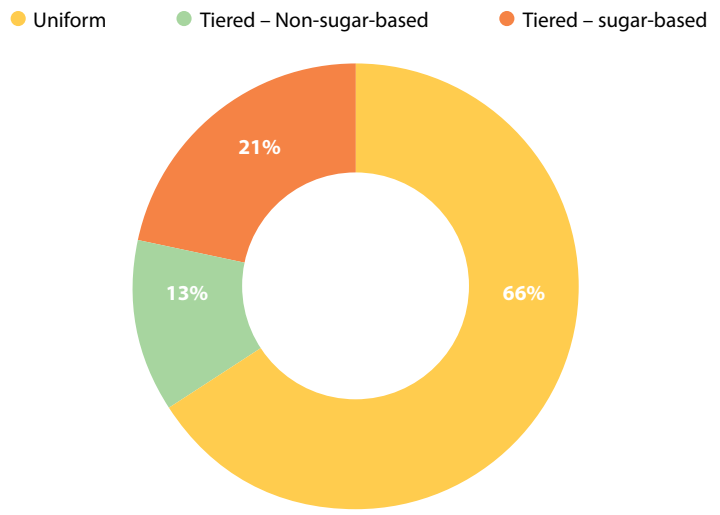
[11] However, this is not always the case. In some countries ad valorem excise is applied to the wholesale or ex-factory price of beverages. According to the IMF, if inflation affects only retail prices, then excise revenue would not automatically and entirely adjust to it.

Ad valorem and volume-based specific excise taxes are almost equally used as tax types globally for sugar-sweetened carbonated beverages (50 and 51 out of a total of 114 countries, respectively). *Ad valorem* taxes tend to be favoured by countries in WHO's African Region (23/42) and low-income countries (14/20). On the other hand, the majority of countries in the European Region apply volume-based specific excise taxes to sugar-sweetened carbonated beverages (16/20). Sugar-content-based specific excise taxes are applied in only eight countries globally (Botswana, Cook Islands, France, Mauritius, Mozambique, Sierra Leone, South Africa and Zimbabwe). For example, Botswana applies a specific excise tax of 0.02 Botswanan pula for each gram of sugar over an initial threshold of 4 g of sugar/100 ml. Ecuador applies a sugar-content-based specific tax on beverages above 2.5 g of sugar/100 ml and an *ad valorem* tax to those below this threshold (classified as applying a mixed – *ad valorem* and sugar-content-based specific – excise), while Sri Lanka applies whatever is the higher between a sugar-content-based specific and a volume-based specific tax. Finally, Croatia and Poland apply a specific mixed excise tax system with both volume-based and sugar-content-based specific excises, while Guinea-Bissau and Thailand, apply both *ad valorem* and volume-based specific excises (Table 2).

Uniform vs tiered excise taxation and taxation based on sugar content

Excise taxes can either be applied using a uniform rate across all beverages of the same type or they can be tiered based on product characteristics such as volume, sugar content, or type of sweetener. Tiered excise taxes based on the sugar concentration of beverages may encourage consumers to substitute with alternatives containing lower or no sugar content (demand-side effect) as well as incentivize the industry to reformulate and decrease sugar content in the overall portfolio of beverages (supply-side effect). But uniform excise taxes tend to be simpler to administer. In case of tiered excise taxes based on sugar content, the lowest tier should not exempt any SSB from taxation *(2)*. Among the countries where data was available, around 15 countries had no tax applied on beverages falling in the lowest tier.

Fig. 1 Proportion of countries* with uniform vs. tiered excise tax system applied to sugar-sweetened carbonated beverages, as of July 2024.

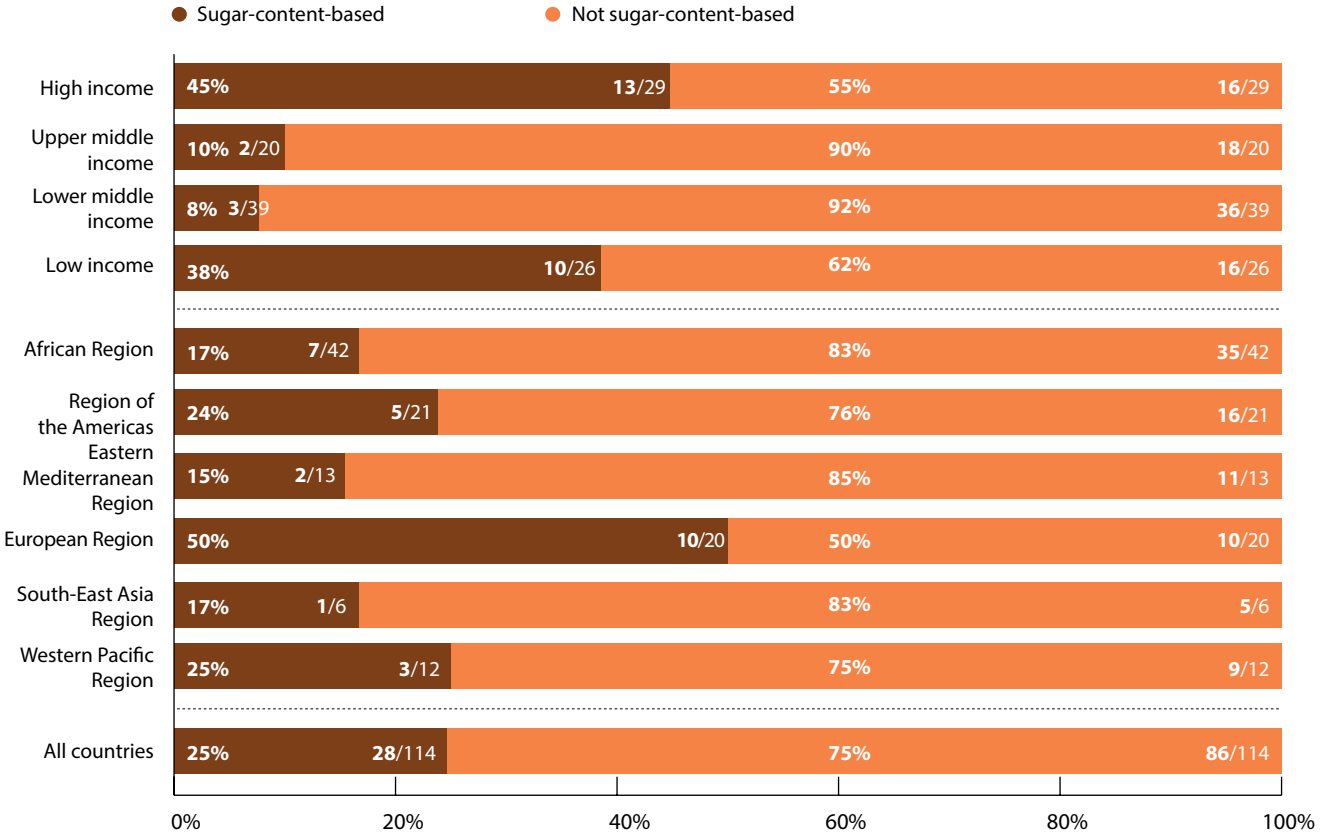


Notes: * Countries for which data are available (112 countries). This analysis only accounts for tiers within sugar-sweetened carbonated beverages and not across all SSBs.

Fig. 1 shows that 66% of countries apply uniform excise taxes to sugar-sweetened carbonated beverages. Among countries applying a tiered excise tax system to sugar-sweetened carbonated beverages, approximately two out of three do so based on sugar content. Others such as the Philippines apply tiers based on the type of sweetener used (high fructose corn syrup or sugar) and Cameroon, Liberia and Madagascar differentiate their excise taxes between locally produced and imported beverages.[12] The highest proportion of countries applying tiered excise taxes based on sugar content to sugar-sweetened carbonated beverages is found in the WHO Region of the Americas where all those applying a tiered tax do so based on sugar content (Chile, Colombia, Ecuador, Paraguay and Peru) followed by the European Region (91%). For example, Ecuador applies a sugar-content-based specific excise for beverages with more than 25g/Liter and an *ad valorem* excise for those with sugar equal or less than 25g/L. Portugal applies increasing volumetric-specific excise rates for the following thresholds: below 25g of sugar/L, 25-50g/L, 50-80 g/L and 80g/L or more.

Countries with a sufficiently strong tax administration capacity may consider accounting for sugar content in the design of excise taxes applied to SSBs, without exempting any SSB *(2)*. Table 2 shows that only 11 countries use a specific excise tax component set proportionally to the sugar content of beverages. Nevertheless, as seen in Fig. 1, other countries apply *ad valorem* or volume-based specific excise taxes with varying rates (i.e., tiers) based on sugar concentration thresholds.

Fig. 2 Proportion of countries* with excise taxes applied to sugar-sweetened carbonated beverages that account for sugar content, by World Bank income group and WHO Region, as of July 2024



Notes: *Countries for which data are available (114 countries).

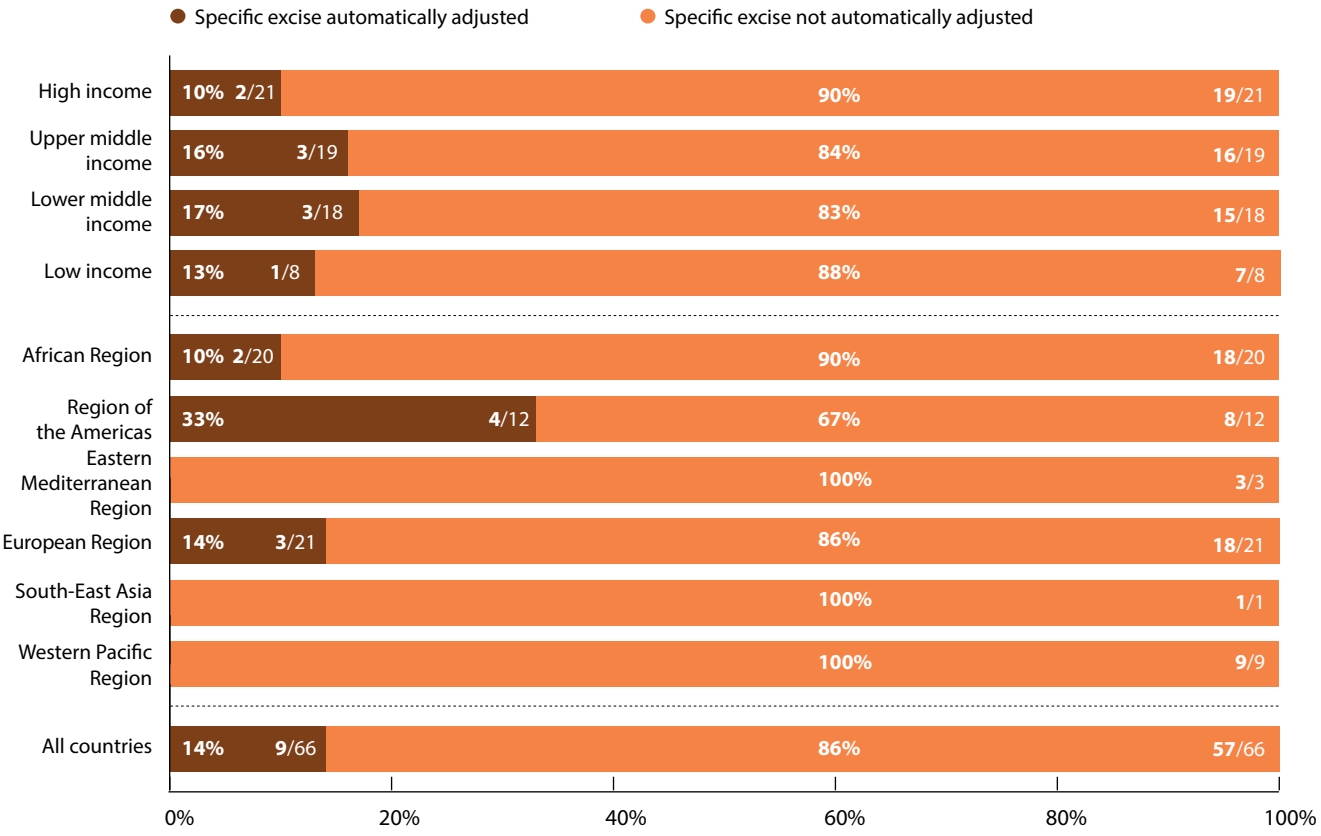
[12] This may incentivize unintended substitutions from imported to locally produced beverages, so offsetting the effect of the tax on consumption. To limit the risk that excise taxes might be considered discriminatory, they should be equivalent for imported and locally produced SSBs.

Fig. 2 displays the proportion of countries applying excise taxes to sugar-sweetened carbonated beverages based on sugar content in each World Bank income group category and WHO Region (either by applying a sugar-content-based specific excise tax or using tiered rates based on sugar content). This is the case for 25% of countries (or 28 countries with available information), with the lowest proportion in lower-middle-income countries (8%) and 45% in high-income countries. Half of the countries in the European Region do so, compared with 15% in the Eastern Mediterranean Region.

Automatic adjustment to excise

WHO recommends countries include a legal provision to automatically adjust specific excise taxes to account at least for inflation and ideally income as well. Not doing so risks the real value of specific excise taxes will erode over time *(2)*.

Fig. 3 Proportion of countries* with automatic adjustment of specific excise taxes, by World Bank income groups and WHO Regions, as of July 2024



Notes: * Countries for which data are available (66 countries).

Overall, very few countries implement automatic tax increases on SSBs (14% of countries applying specific excise taxes globally). However, one-third of countries in the Region of the Americas — which includes many middle income countries — automatically increase their SSB tax rates while none do so in the Eastern Mediterranean, South-East Asia, and Western Pacific Regions (Fig. 3). [13]

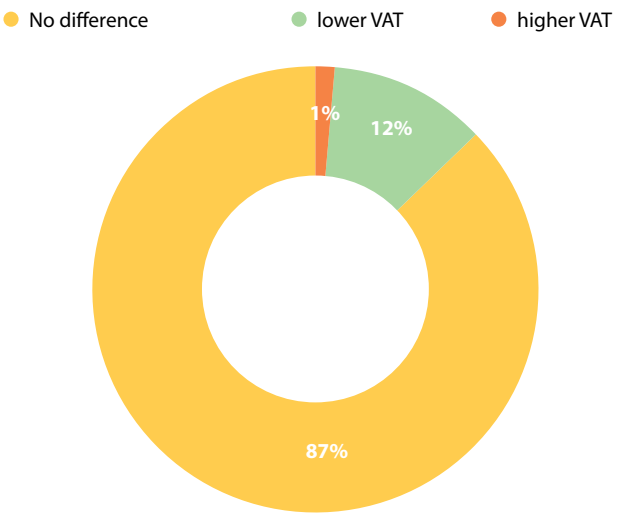
[13] Only two countries and one associate member in the Eastern Mediterranean Region and only three countries in the South-East Asia Region apply a specific excise tax.

4. Other non-excise sugar-sweetened beverage taxes

Some countries use other indirect taxes as instruments to target the affordability of SSBs. For example, Maldives, Marshall Islands and Nauru use import duties. In such small island states where no domestically produced substitutes are available, import duties function like excise taxes and may be effective in reducing overall consumption. However, tariffs on imported products that may also be produced domestically will raise the relative price of the imported products and may induce tax substitution (tax avoidance) in favour of domestically produced products. Import duties may also create risks for countries with trade agreement commitments. For these reasons, import duties are not considered a best practice as an effective policy tool aimed at reducing SSB consumption.

While excise tax is the preferred tool for addressing the affordability of sugar-sweetened beverages (SSBs), some countries use value-added taxes (VAT). When VAT is applied uniformly across all goods, it broadly increases prices. However, differentiated VAT rates by product category may influence relative prices—making some items more expensive (with higher VAT) and others more affordable (with lower VAT). These price variations can shape consumer behaviour; for instance, a higher VAT on SSBs may reduce their consumption. Nonetheless, using VAT to pursue health objectives is generally discouraged, as VAT is fundamentally a broad-based tax designed primarily to generate revenue.

Fig. 4 Proportion of countries* applying a special VAT (or sales tax) rate on non-alcoholic beverages



Notes: *Countries for which data are available (147 countries).

Fig. 4 shows the proportion of countries that provided a response on whether a special VAT (or sales) rate was applied on non-alcoholic beverages, and whether lower or higher than the standard VAT rate. Only 1% of countries (Brazil and Grenada[14]) reported applying a VAT rate on SSB higher than the standard rate. On the other hand, 12% of countries (17 countries) reported applying a VAT rate lower on SSBs than the standard rate. Paradoxically, eight[15] out of the 17 countries that reported applying a reduced VAT rate for SSBs also apply an excise tax on those beverages. Since SSBs are not essential and are associated with multiple negative health consequences, they should not be considered basic foodstuffs from a public health perspective and they should not benefit from reduced VAT rates. Additionally, policy coherence must be pursued to optimize the impact on public health.

[14] Spain was not listed here because the VAT rate applied on SSBs is at the same level as the standard VAT rate (21%). Nonetheless, this rate is higher than the one applied to food and other non-alcoholic beverages, which is a reduced rate (10%, 4%).

[15] Those countries are: Belgium, Finland, France, Monaco, Netherlands, Panama, Poland and Turkey.

5. Tax share[16]

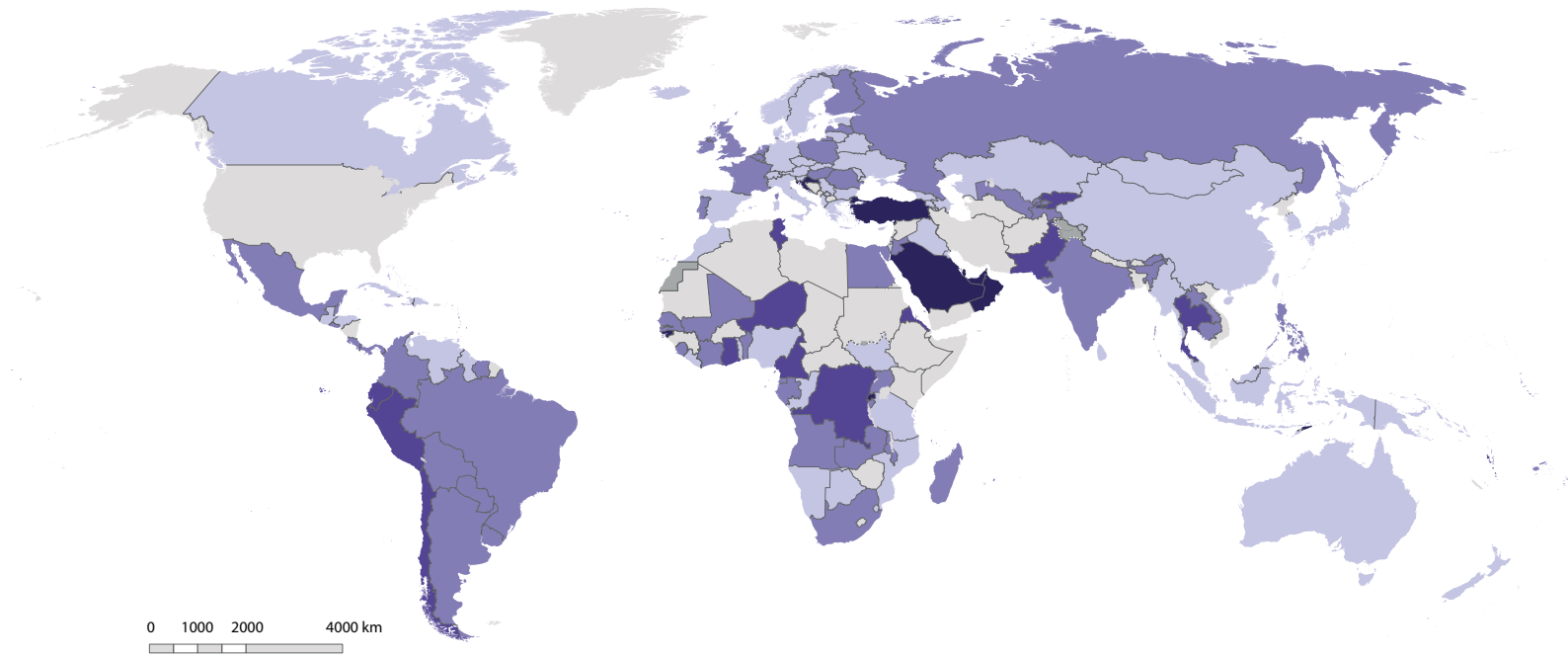
The tax share indicator represents the proportion of indirect taxes in the retail price. This indicator has been used biennially by the WHO to monitor tobacco taxes since 2008. It was also used for the first time in 2022 to estimate the tax share of prices of selected alcoholic beverages and the tax share of the retail price of 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverage *(1)*. This indicator allows for trend monitoring and standardized country comparisons. In this analysis, in an effort to update the results published in 2023 *(1)* the report defines the total tax share as the sum of all indirect taxes (excise, value-added taxes or sales taxes, import duties, and other indirect taxes) as a proportion of the retail price of 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverage. The excise tax share measures the proportion that excise taxes alone represent in the retail price.

Amongst SSB product categories, sugar-sweetened carbonated beverages were selected as they continue to represent the most-sold type of SSBs globally *(10)*. The standardized volume of 330 ml was used as a mid-point volume for bottles or cans with a container size ranging between 300 ml and 360 ml. These container types and this range of volume sizes are the most prevalent globally for individual-sized containers of the international comparable brand considered (see Technical notes for more details).

Research to date suggests that excise taxes levied on SSBs lead to a decrease in consumption roughly proportional, and sometimes higher, than the price increase *(4,12)*. Tax levels need to be high enough to trigger sufficiently high changes in price to alter the underlying product affordability and consumption (relative to income). Conventional economic theory suggests that larger tax and price changes are likely to induce bigger changes in consumption *(2)*. Increased monitoring and evaluation will help to inform their development and definition.

[16] Please refer to the Technical notes for detailed information on the methodology used to estimate the tax share.

Map 2 Excise tax share for an internationally comparable brand of sugar-sweetened carbonated beverages, as of July 2024.



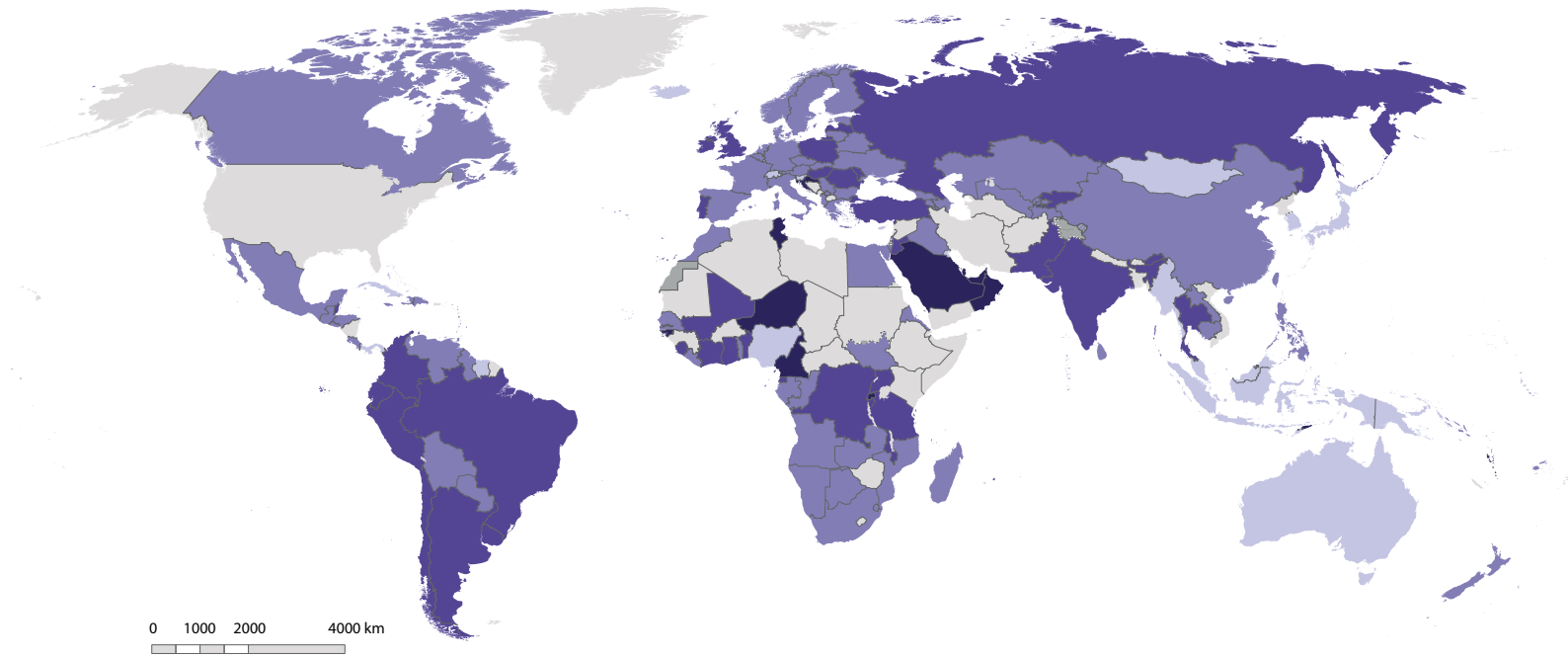
Notes: Bolivia and Denmark: Tax structures and rates have been validated by authorities but not prices or tax share estimates. Maldives: While there is no excise tax in place, products that are typically subject to excise tax in other jurisdictions often carry either specific/composite or higher import duty rates compared to other imported products. This also applies to sugar-sweetened beverages. Philippines: Price used for the calculation of the tax share was not reported by the Department of Finance. Slovakia: A tax on sugar-sweetened beverages was to be implemented effective 1 January 2025.

Globally, the median excise tax share for a 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverages is 2.4%.[17] Excise taxes represent the highest proportion of the retail price in Timor-Leste (49.5%) from the South-East Asia Region. The maximum excise tax share is found in Guinea-Bissau for the African Region (24.7%), Dominica for the Region of the Americas (15.8%), Qatar for the Eastern Mediterranean (33.3%), Croatia for the European Region (28.9%), and Tonga for the Western Pacific Region (11.3%). The median excise tax share amounts to 0%[18] in high-income countries and increases as the level of income group decreases with a median of 7.2% in lower income countries. It also varies across WHO Regions, with a 0% median in the European and Western Pacific Regions up to a high of 14.1% in the Eastern Mediterranean Region (Map 2).

[17] Calculated among all countries with price and tax data estimates (160 countries), including those with zero excise.

[18] Because many do not apply an SSB tax.

Map 3 Total tax share for an internationally comparable brand of sugar-sweetened carbonated beverages, as of July 2024.



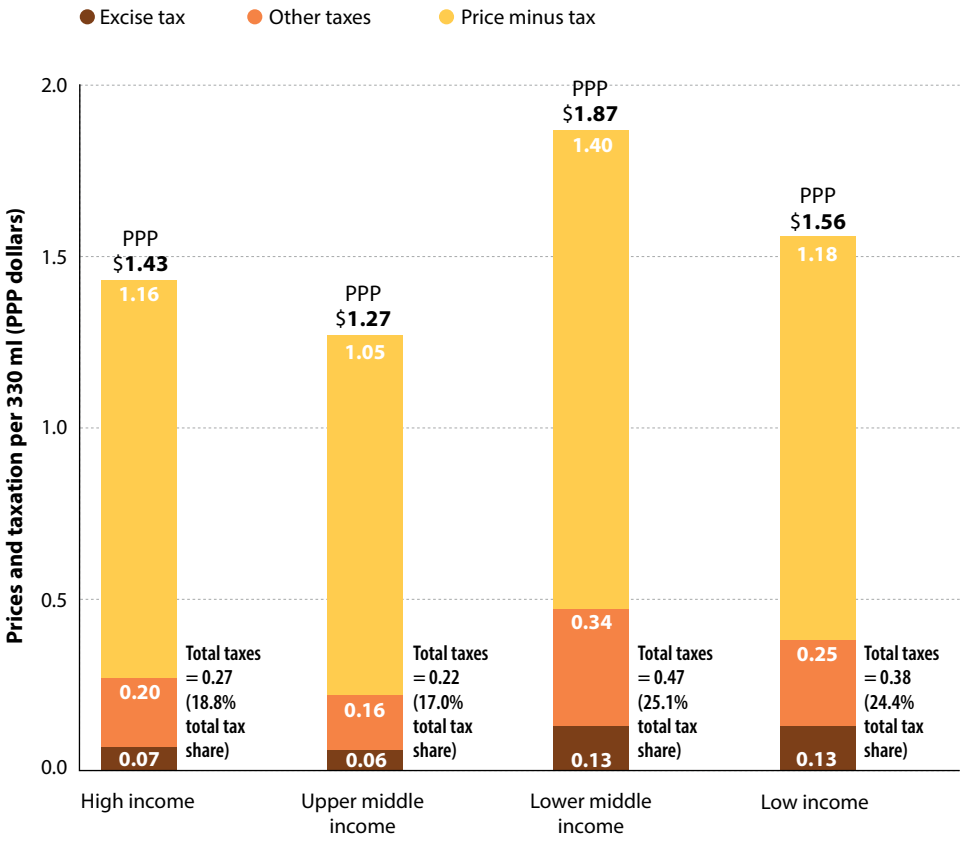
Notes: Bolivia and Denmark: Tax structures and rates have been validated by authorities but not prices nor tax share estimates. Maldives: While there is no excise tax in place, products that are typically subject to excise tax in other jurisdictions often carry either specific/composite or higher import duty rates compared to other products imported in the country. This also applies to sugar-sweetened beverages. Philippines: Price used for the calculation of the tax share was not reported by the Department of Finance. Slovakia: A tax on sugar-sweetened beverages was to be implemented from 1 January 2025.

While excise taxes are the preferred fiscal instrument to reduce the relative affordability of SSBs, it is also informative to measure the total tax burden applied to such beverages. Globally, the median total tax share for 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverages is 17.8%. Total taxes represent the highest proportion of the retail price in Timor-Leste (53.02%). The median total tax share is lowest in WHO's Western Pacific Region (13%), followed by the European Region (16.7%), the Region of the Americas (17.1%), the African Region (20.8%), the South-East Asia Region (22.7%) with Eastern Mediterranean Region (29.4%) the highest (Map 3).

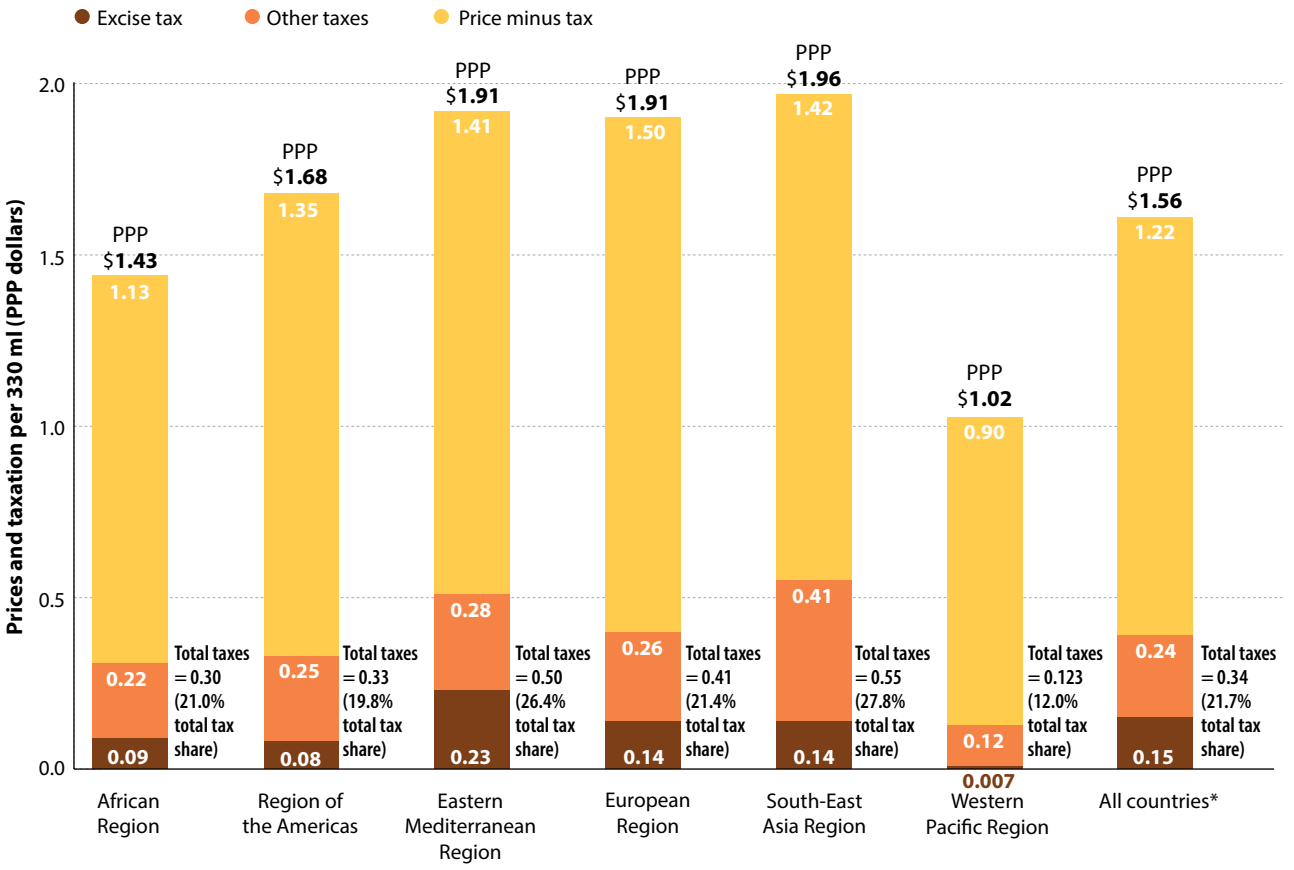
6. Tax level[19]

This section looks at average price and tax levels for an internationally comparable brand of sugar-sweetened carbonated beverages (per 330 ml). Tax share estimates are multiplied by retail prices to obtain tax level indicators. Such indicators are expressed in international dollars at purchasing power parity (PPP). Averages by region and income group are weighted by the population of each country for which estimates are available.

Fig. 5 Population weighted average retail price and taxation (excise and total) for an internationally comparable brand of sugar-sweetened carbonated beverages, 330 ml, in Purchasing Power Parity (PPP) adjusted dollars (or international dollars), by World Bank income groups and WHO Regions, as of July 2024.



[19] Please refer to the Technical notes for detailed information on the methods used to estimate tax level.

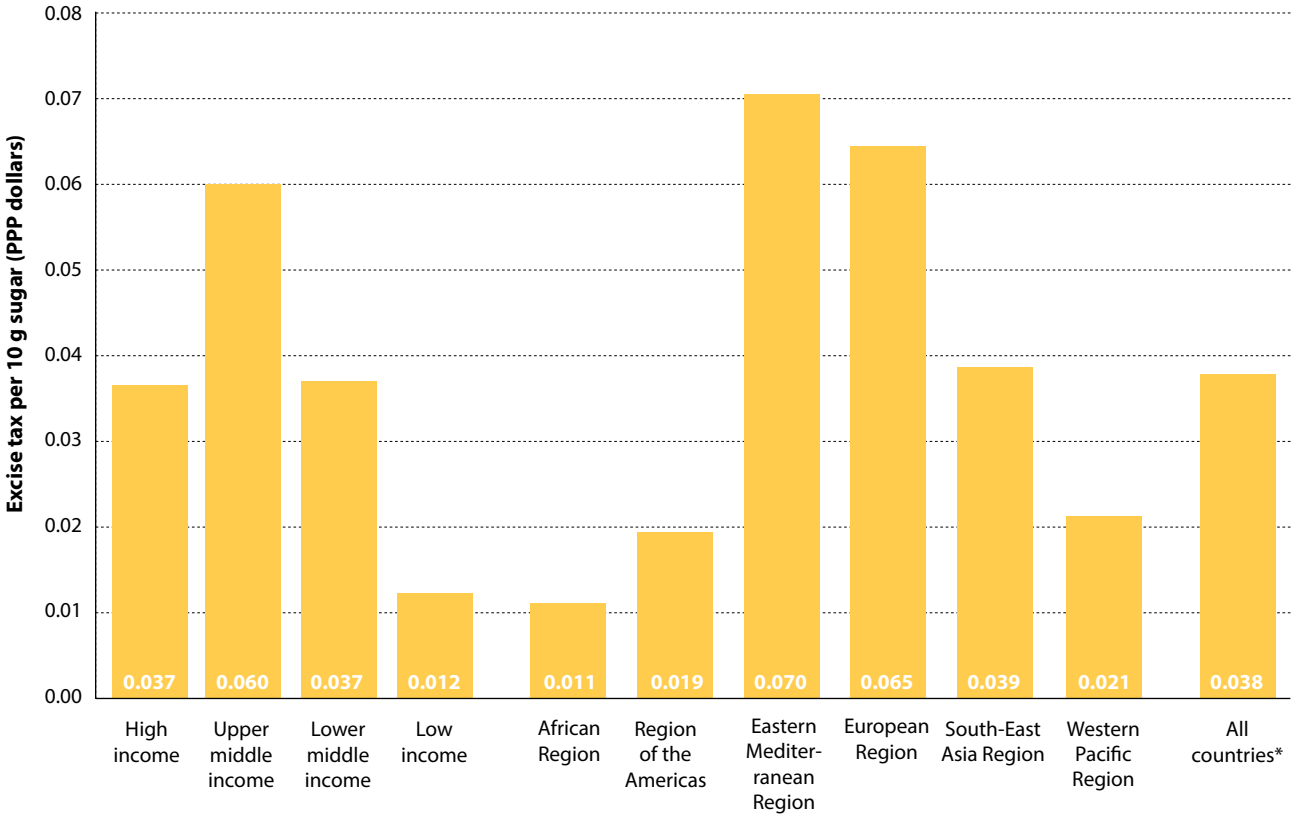


Notes: *Countries where data was available (156 countries). Missing values were not accounted for in population-weighted average calculations. Totals may not add up due to rounding errors.

After adjusting for differences in purchasing power (expressed in international dollars)[20], population-weighted excise tax levels are highest in WHO's Eastern Mediterranean Region (PPP US$ 0.23, or 12% of retail price) and lowest in the Western Pacific Region (PPP US$ 0.01, or 0.7% of the retail price). The Western Pacific Region also reports the cheapest price for 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverage (PPP US$ 1.02), while it is the most expensive on average in the South-East Asia Region (PPP US$ 1.96). Prices and excise taxes are the highest at purchasing power parity in lower-middle-income countries (PPP US$ 1.87 and PPP US$ 0.13, respectively, representing an excise tax share of 6.9%). When accounting for all indirect taxes, the total share of taxes in the price reaches between 12% in the Western Pacific Region and 27.8% in the South-East Asia Region. Globally, the population-weighted average retail price is PPP US$ 1.56, composed of PPP US$ 0.15 of excise taxes (9.7%) and PPP US$ 0.34 of total indirect taxes (including excise, i.e., total tax share) (21.7%) (Fig. 5).

[20] An international dollar at PPP would buy in a given country the same amount of goods and services a United States dollar would buy in the United States during the same time period. This approach allows a comparison of the cost of goods and services at one point in time (i.e., purchasing power) across countries using different currencies.

Fig. 6 Population weighted average excise tax for an internationally comparable brand of sugar-sweetened carbonated beverages, 330 ml, per 10 g of sugar, in Purchasing Power Parity (PPP) adjusted dollars (or international dollars), by World Bank income groups and WHO Region, as of July 2024.



Notes: *Countries where data was available. Missing values were not accounted for in population-weighted average calculations.

As the main public health objective of taxing SSBs is to reduce free sugar intake, it is interesting to compare excise tax levels for a standardized quantity of sugar derived from a comparable brand of sugar-sweetened carbonated beverages (Fig. 6). This analysis uses 10 g of sugar as it approximately represents the average sugar content per 100 ml of the internationally comparable brand of sugar-sweetened carbonated beverage selected.[21] On average, excise taxes per 10 g of sugar represent PPP US$ 0.038 globally, the highest average being found in upper-middle income countries (PPP US$ 0.06) and in the Eastern Mediterranean Region (PPP US$ 0.07).

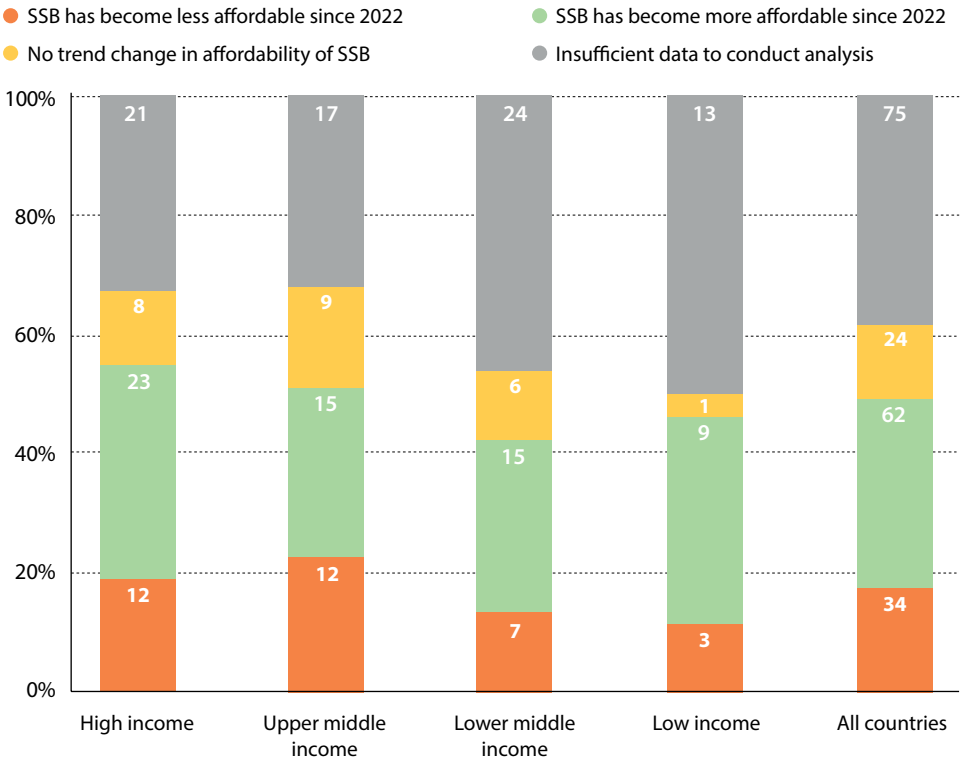
[21] Information was collected on the sugar content as labelled on the bottle or can of the internationally comparable brand of sugar-sweetened carbonated beverages in each country. This was used to determine the applicable excise tax rate and estimate the excise tax per 10 g of sugar.

7. Affordability

With economic growth, sugar-sweetened beverages risk becoming ever-more affordable if prices remain unchanged, including for young people with lower disposable incomes. Increased affordability has been identified as a driver of SSB consumption and is significantly associated with the prevalence of excess weight and obesity *(2)*. Tax policies are an effective tool to raise price and target affordability.

The affordability of sugar-sweetened beverages measured in this report focuses on the price of sugar-sweetened carbonated beverages. It is calculated by looking at the per capita GDP required to purchase 50 litres of an internationally comparable brand of sugar-sweetened carbonated beverages in a given year[22]. Changes in affordability over time can give an indication of whether SSB consumption is on a rising trend and can guide policy-makers on the approaches needed to address consumption in an effective way.

Fig. 7 Percentage and number of countries with change in the affordability of an internationally comparable brand of sugar-sweetened carbonated beverages between 2022 and 2024



[22] See Technical notes for more information on the compilation of the affordability indicator and assessment of change in affordability.

Sugar-sweetened carbonated beverages have become less affordable since 2022 in only 34 countries (28% of countries with available estimates) with the largest numbers found in upper middle and high income countries (12 countries in each income group). Most countries have either experienced an increase in affordability (62 countries) or no change (24 countries).

8. Earmarking of excise tax revenue

Taxing SSBs raises public revenue. Earmarking this revenue for a specific government program is a contentious topic in public financial management as it can introduce rigidities in the budget and lead to inefficient allocation of resources. It is secondary from a public health perspective, as the primary goal is to reduce the demand for SSBs. Nonetheless, using soft earmarking of some portion of excise tax revenue for health promotion or other public goods may help to garner public support for SSB taxation while potentially complementing its intended health impact *(30)*. Soft earmarking means that tax revenues are designated for a particular service but do not determine the amount spent such that there is no hard expenditure ceiling and transfers to and from general funds are possible. An earmark is "hard" if it is the only or main revenue for a particular service or programme and none of the earmarked revenue can be allocated to any other purposes *(30)*.

Table 3. Earmarking of excise tax revenue, by main programme type, as of July 2024

Health coverage expansion	NCD prevention and control programmes	Other, more general or unspecified health programmes
Azerbaijan France (through social security) Hungary Philippines United Republic of Tanzania	Panama (cancer and diabetes) Zimbabwe (NCD treatment) Russian Federation (diabetes)	Poland (National Health Fund) Portugal

The collected data shows that 10 countries (13%) out of the 78 countries that apply excise taxes to SSBs, and for which data was available, earmark the revenue for a specific purpose. The most-reported destinations of revenues from SSB taxes being health coverage expansion and NCD prevention and treatment (Table 3).

9. Takeaways

This report has shown that significant heterogeneity in the adoption and implementation of taxes on SSBs, their design, and tax levels remain, similar to the findings of the initial report *(1)*. Globally, at least 116 countries apply national-level excise taxes to at least one type of SSB. Not all these taxes are public-health motivated or equivalent in how effective their design is from a public health perspective.

For example, not all SSB taxes apply to the same set of products. Some SSB types, such as fruit juices (100%), sugar-sweetened ready-to-drink tea or coffee, and sugar-sweetened milk-based drinks (including plant-based milk substitutes), are often not included in the list of products subject to excise taxes. This may induce undesirable substitutions. On the other hand, almost half of countries applying a tax on non-acholic beverages include unsweetened bottled water, a healthy alternative. The WHO Manual on sugar-sweetened beverage taxation policies to promote healthy diets *(2)* indicates that SSB taxes should apply to all SSB types to avoid incentivizing undesirable substitutions but should exclude unsweetened bottled water. In addition, countries may consider taxing non-sugar sweetened beverages because recent evidence has shown that non-sugar sweeteners are not an effective tool for weight control *(26)*.

Most countries apply either volume-based specific excise taxes (51 countries) or *ad valorem* excise taxes (50 countries) on sugar-sweetened carbonated beverages. Among countries applying specific excise taxes, only a fraction mandate their automatic regular adjustment for inflation or other economic indicators (14%). One in four countries apply an excise tax rate based on sugar content (through either a sugar-content-based specific excise or a tiered tax based on sugar content). This tax directly targets the harmful ingredient and may incentivize industry reformulation, but it may also require a stronger tax administration. Note also that in case of tiered excise taxes based on sugar content, taxation should not be exempted from the lowest tier.

Countries should consider the trade-offs when deciding on the design of SSB taxes, as each design alternative creates different incentives and disincentives, requires varying levels of administrative capacity, and may have different impacts on SSB consumption and associated impact on public health *(2)*.

Despite increased interest globally in leveraging SSB taxes, taxes remain low. For example, the median excise tax share represents 2.4% of the price of 330 ml of an internationally comparable brand of sugar-sweetened carbonated beverage globally (taking into account all countries, those with and without an excise on sugar-sweetened carbonated beverages) and 6.8% among countries applying excise taxes to sugar-sweetened carbonated beverages.

Additionally, in most countries sugar-sweetened carbonated beverages have become more affordable since 2022 (62 countries compared to only 34 experiencing a reduction in affordability). Countries need to increase taxes sufficiently to ensure such products do not become affordable over time.

The evidence to support implementing or raising taxes on SSBs is robust *(2,4,31)*. Member States have endorsed a series of mandates, action plans and strategies for preventing NCD and promoting healthier diets that specifically call for the introduction of taxes on SSBs, including the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2030 *(14)*, updated Appendix 3 (Resolution WHA70.11) *(15),* and the WHO acceleration plan to stop obesity in 2022 *(32)*. In addition, the Commission on Ending Childhood Obesity in 2016 identified taxing SSBs as a priority measure to address childhood obesity as well as the Draft Global Oral Health Action Plan (2023–2030) for dental caries *(33, 34)*. And more recently, in July 2025 WHO launched the "3 by 35" Initiative, a global effort to increase the real prices of any or all of three health-harming products — tobacco, alcohol, and sugary drinks by at least 50% by 2035 through tax increases, while taking into account each country's unique context *(35)*. Yet, most countries still do not apply public health-motivated taxes on SSBs. Existing taxes on SSBs could be further leveraged to decrease affordability and reduce consumption, particularly when implemented as part of a broader package of population-based measures to improve diets.

While other perspectives and competing factors have to be accounted for when designing taxation policies, the protection of health should be a key consideration, particularly considering the health and economic burden associated with obesity and diet-related NCDs.

10. Technical notes

These technical notes contain information on the WHO methodology to estimate the share of total and excise taxes in the price of a 330 ml bottle or can of sugar-sweetened carbonated beverage of an internationally comparable brand using country-reported data. They also provide information on other data collected in relation to non-alcoholic beverage taxation and price as well as tax policy information. They build on and are an update of the first report published in 2023 *(1)*. Detailed country data values for both 2022 and 2024 are available to view and download on WHO's Global Health Observatory website: https://www.who.int/data/gho/data/themes/topics/taxes-on-nonalcoholic-beverages.

a. Data collection

The data for this report was collected between July 2024 and June 2025 by WHO regional data collectors. In total, some information on excise tax was collected for 179 Member States and territories, but price data and tax share estimates for sugar-sweetened carbonated beverages were calculated for 160 Member States and territories. The list of Member States which did not respond to the survey questionnaire or who provided incomplete responses which could not be clarified within the time frame of data collection and analysis is provided below by WHO Region:

- African Region: Algeria*, Burkina Faso*, Central African Republic*, Chad*, Ethiopia*, Guinea*, Kenya*, Lesotho, Mauritania*, Zimbabwe*.
- Region of the Americas: Nicaragua, United States of America.
- Eastern Mediterranean Region: Afghanistan, Djibouti*, Iran (Islamic Republic of)*, Lebanon*, Libya, Somalia, Sudan, Syrian Arab Republic, Yemen*.
- European Region: Bosnia and Herzegovina, Montenegro*, San Marino*, North Macedonia, Turkmenistan.
- South-East Asia Region: Bangladesh, Bhutan, Democratic People's Republic of Korea, Nepal*.
- Western Pacific Region: Cook Islands*, Micronesia (Federated States of), Niue, Tuvalu, Viet Nam.

*Data was provided on tax design for those countries in 2024 or extrapolated from data collected in 2022 or from government websites, but no estimates of price and tax share of sugar-sweetened carbonated beverages was possible.

The two main inputs in calculating the share of total and excise taxes were (a) retail prices and (b) tax rates and structure. Prices were collected for an internationally comparable brand of sugar-sweetened carbonated beverage. The cut-off date for the price data and tax legislation collected, and each estimated indicator, was 31 July 2024. Some exceptions were made when complete information was collected with some delay and covered tax rates and prices applied after the cutoff date to

maximize country representation. This applied to Dominica (as of September 2024) and Zambia (March 2025).

Data on tax design was collected mainly through contacts with ministries of finance. The validity of this information was cross-checked against other sources. For many countries, this was done through the wealth of work and knowledge accumulated by WHO while working directly with the ministries of finance on tobacco taxation since 2009 and on sugar-sweetened beverage and alcohol taxation since 2020. Other sources, including tax law documents, decrees and official schedules of tax rates and structures and trade information, when available, were either provided by data collectors or were retrieved from ministerial websites or from WHO's Global database on the Implementation of Food and Nutrition Action (GIFNA) *(18)*.

The tax data collected focus on indirect taxes levied on SSBs (e.g., excise taxes of various types, import duties, value added taxes), which usually have the most significant impact on the price of SSBs. Among indirect taxes, excise taxes are the most important because they are applied exclusively to SSBs (however, they are sometimes also applied to unsweetened bottled waters) and are the most commonly used instrument to increase the price of SSBs. Thus, rates, amounts, and points of application of excise taxes are central components of the data required and collected for the calculation of the tax share. Subnational-level excise taxes are omitted from this analysis.

Direct taxes such as corporate taxes are not considered in this analysis because of the practical difficulty of obtaining information on these taxes and the complexity of estimating their potential impact on price in a consistent manner across countries.

The table below describes the types of tax information collected.

1. Sugar-content-based specific excise taxes	A sugar-content-based specific excise tax is a tax on a selected beverage applied proportionately to the sugar content on the beverage and produced for sale within a country or imported and sold in that country. In general, the tax is collected from the manufacturer or at the point of entry into the country by the importer, in addition to import duties. These taxes come in the form of an amount in currency per gram of sugar, per gram of sugar per litre, or per gram of sugar per 100 ml. Example: US$ 0.10 per gram of sugar per 100 ml.
2. Volume-based specific excise taxes	A volume-based specific excise tax is a tax on a selected beverage applied to a certain volume of the beverage (regardless of sugar content) produced for sale within a country or imported and sold in that country. In general, the tax is collected from the manufacturer or at the point of entry into the country by the importer, in addition to import duties. These taxes come in the form of an amount in currency, per litre, per 100 ml, or per fluid ounce. Example: US$ 1 per litre.
3. *Ad valorem* excise taxes	An *ad valorem* excise tax is a tax on a selected beverage produced for sale within a country or imported and sold in that country. These taxes come in the form of a percentage of the value of a transaction between two independent entities (for example: between the manufacturer and the retailer/wholesaler) at some point in the production/distribution chain. In general, the tax is collected from the manufacturer or at the point of entry into the country by the importer, in addition to import duties. Example: 10% of the producer/manufacturer's price.
4. Import duties	An import duty is a tax on a selected beverage imported into a country to be consumed in that country (i.e., the goods are not in transit to another country). In general, import duties are collected from the importer at the point of entry into the country. These taxes can be either specific or *ad valorem*. Specific import duties are applied in the same way as specific excise taxes (e.g., an amount per litre). *Ad valorem* import duties are generally applied to the CIF (cost, insurance, freight) value, i.e., the value of the unloaded consignment that includes the cost of the product itself, insurance, and transport and unloading. Example: 50% import duty levied on CIF.

5. Value added taxes and sales taxes	The value added tax (VAT) is a "multi-stage" tax on all consumer goods and services applied proportionally to the price the consumer pays for a product. Although manufacturers and wholesalers also participate in the administration and payment of the tax all along the manufacturing/distribution chain, they are all reimbursed through a tax credit system, so that the only entity that pays in the end is the final consumer. Most countries that impose VAT do so on a base that includes any excise tax and customs duty. Example: VAT representing 10% of the retail price. Some countries, however, impose sales taxes instead. Unlike VAT, sales taxes are generally levied at the point of retail on the total value of goods and services purchased. For the purposes of the report, care was taken to ensure the VAT and/or sales tax shares were computed in accordance with country-specific rules.
6. Other taxes	Information was also collected on any other tax that is not called an excise tax, import duty, VAT or sales tax, but that applies to either the quantity/volume of beverages or to the value of a transaction of a beverage, with as much detail as possible regarding what is taxed and how the base is defined. This includes for example environmental or packaging levies.

b. Data analysis

The price of the selected internationally comparable brand of sugar-sweetened carbonated beverage was considered in the calculation of the tax as a share of the retail price. In the case of countries where different levels of taxes are applied on SSBs based on the volume, quantity produced, beverage category, or sugar content, only the relevant rate that applied to the internationally comparable brand of sugar-sweetened carbonated beverage selected, and its respective sugar content, was used in the calculation.

The analysis only covers countries that apply an SSB tax at national level (either uniformly or varying at subnational level). For example, Spain was not accounted for in the coverage of tax use in this report even if the Autonomous Community of Catalonia has established in 2017 its own tax on sugar-sweetened beverages because no excise tax policy for SSBs is implemented at national level. However, where countries had a national excise tax on SSBs which varied at subnational level (e.g., state or province) or those where VAT/sales tax or tax structure varied also at subnational level, price and tax data were collected for the most populated state or province and the rates and tax structure corresponding to that state or province was applied. This was the case only in Brazil (data collected for the State of Sao Paulo)[23] and Canada (data collected for the Province of Ontario). For those two countries the rate differentiation was only applicable to the VAT/Sales tax.

The import duty was only used in the calculation of tax shares if the internationally comparable brand of sugar-sweetened carbonated beverage was imported into the country. Import duty was not applied in the total tax calculation for countries reporting that the internationally comparable brand was produced locally. In cases where the imported beverages originated from a country with which a bilateral or multilateral trade agreement waived the duty, care was taken to ensure that the import duty was not taken into account in calculating taxes levied.

Comparing reported statutory *ad valorem* excise tax rates without taking into account the stage at which the tax is applied could lead to incorrect results. In the below example, Country Y apparently applies the same *ad valorem* excise tax rate (20%) as Country X, but in fact ends up with a higher tax share and a higher retail price because the tax is applied later in the value chain.

[23] All indirect taxes applied to alcoholic beverages in Brazil are applied at federal level except value-added tax, the rate of which varies by state.

	Country X (US$)	Country Y (US$)
[A] Producer/manufacturer's price (same in both countries)	2.00	2.00
[B] Country X: Ad valorem excise tax on producer/manufacturer's price (20%) = 20% x [A]	0.40	–
[C] Retailer's and wholesaler's profit margin (same in both countries, US$ 0.20)	0.20	0.20
[D] Country Y: ad valorem excise tax on retailer's price (20%) = 20% x [E]	–	0.55
[E] Final retail price = P P = [A] + [B] + [C] or [A] + [C] + [D]	2.60	2.75
Ad valorem excise tax share (as % of P)	**0.40/2.60 = 15.4%**	**0.55/2.75 = 20%**

The next step of the analysis was to convert all taxes as a percentage of the tax-inclusive retail price (hereafter referred to as P), i.e., estimating the tax share for each tax type. This standardized metric allows unbiased comparisons of tax incidence between countries.

c. Calculation

As an example of the calculations performed, denote S_{ts} as the total share of taxes in the retail price of a bottle or can of the selected internationally comparable brand of sugar-sweetened carbonated beverage. Then,

$$S_{ts} = S_{ss} + S_{vs} + S_{av} + S_{VAT} + S_{id} + S_{o} \qquad \text{(Equation 1)}$$

Where:

S_{ts} = Total share of taxes in the retail price of a bottle/can of sugar-sweetened carbonated beverage, i.e., the total tax share indicator;

S_{ss} = Share of sugar-content-based specific excise taxes in the retail price of a bottle/can of sugar-sweetened carbonated beverage;

S_{vs} = Share of volume-based specific excise taxes in the retail price of a bottle/can of sugar-sweetened carbonated beverage;

S_{av} = Share of *ad valorem* excise tax in the retail price of a bottle/can of sugar-sweetened carbonated beverage;

S_{VAT} = Share of value-added tax or sales tax in the retail price of a bottle/can of sugar-sweetened carbonated beverage;

S_{id} = Share of import duties in the retail price of a bottle/can of sugar-sweetened carbonated beverage (if the internationally comparable brand is imported and the import duty is applicable); and

S_{o} = Share of other indirect taxes in the retail price of a bottle/can of sugar-sweetened carbonated beverage (if applicable).

Calculating S_{ss} and S_{vs} is straightforward and involves dividing the specific tax amount defined by sugar content or volume of the beverage by the retail price. On the other hand, the share of *ad valorem* excise taxes, S_{av}, depending on the base it is applied on, can be much more difficult to calculate and can involve making some assumptions described below. VAT rates reported for countries are usually applied on the VAT-exclusive retail price, but are sometimes reported on VAT-inclusive retail prices. S_{VAT} is calculated to consistently reflect the share of VAT in VAT-inclusive retail price.

The price of a bottle/can of sugar-sweetened carbonated beverage can be expressed as the following:

$$P = [(M + M \times ID\%) + (M + M \times ID\%) \times T_{av}\% + T_{ss} + T_{vs} + \pi] \times (1 + VAT\%), \text{ or}$$

$$P = [M \times (1 + ID\%) \times (1 + T_{av}\%) + T_{ss} + T_{vs} + \pi] \times (1 + VAT\%) \qquad \text{(Equation 2)}$$

Where:
P = Retail price per bottle/can of the internationally comparable brand of sugar-sweetened carbonated beverage;
M = Producer/manufacturer's/distributor's price, or import price if the brand is imported;
$ID\%$ = Import duty rate (where applicable) on a bottle/can of sugar-sweetened carbonated beverage;
$T_{av}\%$ = Statutory rate of *ad valorem* excise tax applied on the base M;
T_{ss} = Sugar-content-based specific excise tax on a bottle/can of sugar-sweetened carbonated beverage;
T_{vs} = Volume-based specific excise tax on a bottle/can of sugar-sweetened carbonated beverage;
π = Retailer's and wholesaler's profit per bottle/can of sugar-sweetened carbonated beverage (sometimes expressed as a mark-up);
$VAT\%$ = Statutory rate of value-added tax on VAT-exclusive price.

Changes to this formula were made based on country-specific considerations such as the base for the *ad valorem* excise tax and the VAT, the existence — or not — of *ad valorem* and specific excise taxes, and whether the internationally comparable brand was locally produced or imported. In many cases (particularly in low- and middle-income countries), the base for *ad valorem* excise taxes was the producer/manufacturer's price (as in equation 2 above). However, this base varies significantly between countries and can include other bases, such as the retail price, the retail price net of some taxes (and/or some predefined margins), the retail price net of all taxes, the CIF value, etc.

Given knowledge of the retail price (P) and the specific excise tax (T_{ss} or T_{vs}), the shares S_{ss} and S_{vs} are easy to recover ($=T_{ss}/P$ or T_{vs}/P). For sugar-content-based specific excise taxes, T_{ss} is calculated by multiplying the total sugar content of the beverage by the corresponding tax amount per defined quantity of sugar, as applicable (e.g., US$ 1 per 10 g of sugar per 100 ml). For volume-based specific excise taxes, T_{vs} is calculated by multiplying the volume of the beverage by the corresponding tax amount per taxable unit volume, as applicable (e.g., US$ 1 per litre).

The case of *ad valorem* excise taxes (and, where applicable, S_{id}) is fairly straightforward when, by law, the base is the retail price. The calculation is more complicated when the base is the producer/manufacturer's price (M) and needs to be recovered to calculate the amount of *ad valorem* excise tax. In most cases, the value of M was not known (unless specifically reported by the country) and therefore had to be estimated.

Based on the price composition and tax base for *ad valorem* defined from Equation 2, it is possible to recover M:

$$M = \frac{\frac{P}{1 + VAT\%} - \pi - T_{vs} - T_{ss}}{(1 + T_{av}\%) \times (1 + ID\%)} \qquad \text{(Equation 3)}$$

π, or wholesalers' and retailers' profit margins, are rarely publicly disclosed and will vary from country to country. While it could be assumed that supermarket retail

margins are small, assuming distribution margins (retailer and wholesaler margins) to be zero would overestimate the base *M* and in turn the share of *ad valorem* excise taxes in the retail price. On the other hand, there is a risk of underestimating the base *M* by assuming high distribution margins in countries where the distribution of SSBs is a very competitive market. Consequently, following Roche et al *(24)* and PAHO *(21)*, for domestically produced beverages, we considered to be 20% of *M* ($\pi = 20\% \times M$), unless country-specific information was made available to WHO. In the rare case of countries for which *M*, the base of the *ad valorem* tax, is set as the wholesaler price, π is assumed to be half the total distribution profit margin, i.e., 10%.

For countries where the internationally comparable brand is imported, the import duty is applied on the CIF value, and the consequent *ad valorem* excise taxes are typically applied on a base that includes the CIF value and the import duty, but not the importer's profit. For domestically produced beverages, the producer/manufacturer's price includes its own profit, so it is automatically included in π. However, the importer's profit can be relatively significant and setting it to zero would substantially overestimate *M*, and thereby substantially overestimate the share of *ad valorem* excise taxes in the retail price. For this reason, had to be estimated differently for imported products: $M^{\star}$ (or the CIF value) was estimated either based on information reported by countries or using secondary sources such as the United Nations Comtrade database *(36)*. In most cases, $M^{\star}$ was calculated as the import price of beverages in a country and estimated as the total value of sweetened beverages imported (Harmonized System tariff, HS code 22.02.10)[24] divided by the total volume of imports for the importing country for a given year. However, in exceptional cases where no such data were available, the export price was considered instead (Equatorial Guinea and Iraq). The *ad valorem* excise tax and other taxes were then calculated in the same way as for local beverages, using $M^{\star}$ rather than *M* as the base, where applicable.

For VAT, in most cases, the base was excluding the VAT (or, similarly, the producer/manufacturer/distributor's price plus all excise taxes and margins).

In other words:

$S_{VAT} = VAT\% \times (1 - S_{VAT})$, equivalent to

$$S_{VAT} = VAT\% \div (1 + VAT\%) \qquad \text{(Equation 4)}$$

In some cases, however, WHO was informed that the VAT was not effectively collected at all levels of the supply chain but mainly levied at the importing or manufacturing gate. In such countries, the VAT was calculated on the basis of *M* (or $M^{\star}$) and the different taxes collected at this stage, mainly import duties, other taxes, and excise taxes (Cabo Verde, Chile, Eritrea, Ghana, Lao People's Democratic Republic, Malaysia, Pakistan, Solomon Islands, Suriname, and Uganda).

Import duties may vary depending on the country of origin in cases of preferential trade agreements. WHO tried to determine the origin of the bottle/can and the relevance of using such rates where possible.

In sum, tax shares are calculated using Equation 1 and the following formulas:

[24] The harmonized tariff or Harmonized System (HS code) is a standardized international nomenclature (six digit numbers) used to classify traded products. It is administered by the World Customs Organization (WCO).

$S_{ss} = T_{ss} \div P$ or $S_{vs} = T_{vs} \div P$

$S_{av} = (T_{av}\% \times M) \div P$ or

$(T_{av}\% \times M^* \times (1+ ID\%)) \div P$ if the internationally comparable brand was imported

$S_{VAT} = VAT\% \div (1 + VAT\%)$

$S_{id} = (ID\% \times M^*) \div P$ (if the import duty is value-based) or

$ID \div P$ (if the import duty is amount-specific per bottle/can or for a determined weight/quantity)

$S_o = (T_o\% \times M^*) \div P$ (if the other tax is value-based) or

$T_o \div P$ (if the other tax is amount-specific per bottle/can or for a determined weight/quantity)

Tax share estimates are multiplied by retail prices to obtain tax level indicators. Such indicators are expressed in international dollars at purchasing power parity (PPP) using the International Monetary Fund (IMF)'s World Economic Outlook implied PPP conversion rates for 2024 *(37)*. Population size data from the United Nations (UN) World Population Prospects for 2024 *(38)* are used to estimate population-weighted average indicators. For Brazil and Canada, subnational-level population data are used for the State of Sao Paulo and the Province of Ontario, respectively.[25]

For the first time, the Western Pacific Region estimates included Indonesia. This accorded with World Health Assembly resolution WHA78.25 (2025) *(15)*, whereby Indonesia was reassigned to the WHO Western Pacific Region as of 27 May 2025. Data pertaining to Indonesia are therefore included in the Western Pacific regional aggregates.

d. Prices

Primary collection of price data in this report was done though the survey instrument described in section a. of these Technical notes. It involved surveying retail outlets by focal points involved in the compilation of the survey. The internationally comparable brand of sugar-sweetened carbonated beverage collected was Coca Cola original (not diet or other variety). Sugar-sweetened carbonated beverages were selected as they represent the most-sold type of SSBs globally and this brand is the most-sold brand of sugar-sweetened carbonated beverages globally (also the most sold brand among all SSB types). In addition, it was found to be sold in all countries with market share data available and was the most-sold brand in the majority of them, while being one of the top three most-sold brands in all of them *(1)*.

Price data were collected from two different types of outlets, defined as follows:

[25] State of Sao Paulo, Brazil: IBGE, Population estimates published in DOU, 2024 (total population). Province of Ontario, Canada: Statistics Canada, demographic estimates by provinces and territories, 2024 (total population).

- Supermarkets/hypermarkets: chain or independent retail outlets with a selling space of over 2,500 square metres and a primary focus on selling foods/beverages and other groceries. Hypermarkets also sell a range of non-grocery merchandise.
- Independent small grocery stores: retail outlets selling a wide range of predominantly grocery products. These outlets are usually not chains and if they are, have fewer than 10 retail outlets (e.g., family-owned).

In some instances, price was collected from online stores belonging to supermarket chains (for 12 countries in WHO's European Region, two countries in the African Region and two countries in the Western Pacific Region). Prices were collected, to the extent possible, for a bottle or can with a container size between 300 ml and 360 ml. These container types and this range of volume sizes are the most prevalent globally for individual-sized containers of the international comparable brand considered *(1)*. To allow for cross-country comparisons of tax shares and prices, the volume size was then linearly standardized to the mode of the distribution of volume sizes collected (to reduce the number of standardizations), i.e., 330 ml.

Information was collected on the sugar content of the bottle or can of the internationally comparable brand of sugar-sweetened carbonated beverages in each country. This was used to determine the applicable excise tax rate and estimate the excise tax per 10 g of sugar.

Whenever errors were found in the 2022 estimates, whether in relation to prices or taxes, retroactive changes were made to estimates and the revised numbers are published along with the new 2024 estimates.

e. Taxation of other non-alcoholic beverages

While sugar-sweetened carbonated beverages represent the most-sold type of SSBs worldwide, we report if excise taxes apply on other non-alcoholic beverage types, based on their definition and harmonized tariff code. These include:

- Unsweetened carbonated or non-carbonated bottled waters, typically found in HS tariff code 22.01;
- Non-sugar-sweetened carbonated or non-carbonated waters, e.g., diet soft drinks, typically found in HS code 22.02;
- Sugar-sweetened non-carbonated waters, e.g., lemonade, typically found in HS code 22.02;
- Fruit drinks (less than 100% fruit juice), containing water, unpasteurized or pasteurized juice, free sugars, and artificial or natural flavourings, typically found in HS code 20.09 or 22.02;
- Fruit juices (100% fruit juice), containing free sugars but not containing any added sugars or non-sugar sweeteners, typically found in HS code 20.09;
- Energy and sports drinks, containing caffeine, taurine, amino acids or other similar substances, water and added sugars, typically a sub-item of HS code 22.02;
- Sugar-sweetened milk-based drinks (including plant-based milk substitutes), containing milk, plant-based milk substitutes, dairy-like ingredients, and added sugars, typically found in HS code 04.02 or 04.03 or 04.04;
- Sugar-sweetened ready-to-drink tea, coffee, containing tea or coffee and added sugars, also includes mate, or chicory-based beverages or preparations for beverages, typically found in HS code 22.02 or 21.01;

- Sugar-sweetened syrups, liquid concentrates or powders beverage preparations (including powder coffee preparations), used to make SSBs by adding water, carbonated water, milk or plant-based beverages. These can be either intended for individual or for commercial use. Typically found in HS codes 22.02, 18.06 or 21.01.

This analysis only reports if excise taxes apply to such beverages. The tax share in the price for such beverage types is not reported, as the necessary information was not collected.

f. Supplementary tax information

Many aspects of SSB taxation need to be taken into account to assess if a tax policy is well designed. A tax share indicator does not tell the whole story about the effectiveness of a tax policy. To explore other dimensions of tax policy, additional information was collected and compiled into data that can inform researchers and policy-makers further on tax policy in different countries.

The information is compiled and classified in this report according to two main themes: tax structure and earmarking. Information was also collected in relation to countries that earmark SSB taxes to fund health programmes and/or promotion activities. The different sets of data/indicators reported under each of the themes were developed and are justified based on the WHO Manual on sugar-sweetened beverage taxation policies to promote healthy diets *(2)*.

Tax structure

- Type of excise taxes applied to sugar-sweetened carbonated beverages: if excise tax applied is *ad valorem*, sugar-content-based specific, volume-based specific, a mix, or if no excise tax is applied.
- Uniform vs tiered excise tax system applied to sugar-sweetened carbonated beverages: a uniform excise tax system corresponds to a unique rate applying to all sugar-sweetened carbonated beverages; a tiered excise tax system corresponds to different rates applied to sugar-sweetened carbonated beverages, which can be based on sugar content, beverage characteristics, volume, etc. If the excise tax system applied to sugar-sweetened carbonated beverages is tiered, we indicate if the tiers are defined based on the sugar content of beverages.
- If the excise tax system applied to sugar-sweetened carbonated beverages is based on sugar content: this is the case if an excise tax has a sugar-content-based specific component or is tiered by sugar content.
- Base for the *ad valorem* excise tax component on the internationally comparable brand of sugar-sweetened carbonated beverage, among countries with *ad valorem* or mixed excise tax systems with an *ad valorem* component: *ad valorem* excise taxes are applied on a base value which can be set at different stages of the value chain. They can be applied on the all-inclusive retail price, the retail price excluding VAT, the retail price excluding VAT and excise taxes, the wholesaler's price, the producer/manufacturer's price, the CIF value, the CIF value and import duties, or the CIF value and import duties and other taxes.
- If the specific excise tax component is automatically adjusted for inflation (or another economic indicator).

- Information was also collected from countries to identify if a special VAT rate was applied on sugar-sweetened beverages that was different to the standard applicable VAT rate. Information was also sought to identify if the rate was higher or lower than the standard VAT rate.

Affordability

With the second wave of data collected in 2024, it is possible to look into changes in the affordability of sugar-sweetened carbonated beverages between 2022 and 2024. Building on the commonly used indicator of affordability for cigarettes, which is calculated by dividing the price of 2000 cigarettes by GDP per capita, a similar approach was used to build the indicators for sugar-sweetened carbonated beverages.

The estimated average carbonates per capita consumption (total sales divided by total population of each country) data for 111 countries amounted to around 56 litres in 2024 *(10)*. For ease of reference, the amount was rounded to 50 L and the affordability indicator was calculated by dividing the price of 50 litres of the internationally comparable brand of sugar-sweetened carbonated beverage divided by GDP per capita for 2022 and 2024. A positive change between 2022 and 2024 would indicate a reduction in affordability while a negative change would indicate an increase in affordability of sugar-sweetened carbonated beverages.

GDP data in local currency units were sourced from IMF's World Economic Outlook (WEO) *(37)* while population data (for the per capita calculations for all ages) were sourced from the United Nations (UN) World Population Prospects for 2024 *(38)*.

Changes in affordability were assessed by comparing the relative change in the affordability indicator between 2022 and 2024 with a margin of 10% change to account for some significance in affordability change in the short period of 2022-2024 (10% identified as the most frequent range of relative change in the indicator between the two years among countries covered).

Earmarking: the portion of excise taxes or revenues from excise taxes dedicated to specific government programs, particularly health-related.

Excise taxes can generate substantial revenues. Earmarking all or a part of revenues from excise taxes on SSBs can be a useful tool for improving the political economy of such taxes. Setting aside portions of tax revenue to fund obesity or NCD prevention programmes, safe drinking water, nutrition awareness campaigns, or other relevant health programmes can help convince the public, politicians, and officials of the value of excise taxes on SSBs, the ultimate goal of which is to reduce the consumption of SSBs.

g. Data validation and sign-off

For each country, every data point was assessed against market information where available for prices and volumes, and against reported or tax laws in relation to tax information acquired by the WHO headquarters with the support of the regional and country offices. Data were also checked for completeness and logical consistency across variables.

Final validated data for each country were sent to the respective governments for review and sign-off. To facilitate the review, a summary sheet was generated for each country and was sent prior to the closure of the report database. In cases where retroactive changes were made for the price and tax share of sugar-sweetened

carbonated beverages in a specific country, the revised data was also included in the summary sheet. In cases where national authorities requested data changes, the requests were assessed by WHO expert staff according to both the legislation/ materials or data previously collected and the clarification shared by the national authorities. Following further communication with authorities, data were updated or left unchanged. Further details about the data processing procedure are available from WHO.

For the review of this report, all external experts submitted to WHO a declaration of interest disclosing potential conflicts of interest that might affect, or might reasonably be perceived to affect, their objectivity and independence in relation to the subject matter of this guidance. WHO reviewed each of the declarations and concluded that none could give rise to a potential or reasonably perceived conflict of interest related to the subjects discussed at the meeting or covered by the guidance.

h. Limitations

The present analysis is subject to some limitations presented below, which are largely due to data availability constraints and the necessity to standardise the indicators for comparability across countries:

- Tiered excise tax systems based on SSB type: Given the main focus on sugar-sweetened carbonated beverages, as the most sold type of SSBs globally, the analysis of uniform vs tiered excise tax systems only captures tiered systems within sugar-sweetened carbonated beverages and not between SSB types. This underestimates the number of tiered excise tax systems applied to SSBs and overestimates the proportion of tiered excise tax systems that are based on sugar content as tiers based on beverage type are more common *(26)*.
- National representativeness of prices: In most countries, national-level brand specific price statistics were not available, thus the retail price data were collected from one supermarket or hypermarket usually in the capital city of the country (where survey respondents were mostly located), and were therefore potentially not nationally representative. The same limitation applies to prices collected from online stores. Retail prices from other store types were not taken into account in this analysis, even though such store types may represent a significant market share in some countries.
- Standardization of volume sizes: Linear transformation of retail prices to 330 ml for countries reporting data on other volume sizes may alter tax-share estimations as larger-size beverages tend to have a lower price per unit. However, since 330 ml represents the mode of the distribution of volume sizes collected, the number of required linear transformations of retail prices is minimized. Additionally, in some countries (four in total), the price point was collected as a pack of four to eight bottles/cans of 330 ml as the price for one bottle/can was unavailable and it was further converted into a unit price per 330 ml for this analysis. This may underestimate the actual unit price of the beverage since package prices tend to be lower than prices per unit bottle/ can, but this applies to a very small number of countries. Additionally, as data has been collected so far for 2022 and 2024, the volume reported in both years for the internationally comparable brand of sugar-sweetened carbonated beverage was not always consistently reported, which may have impacted comparability of the price of beverage per ml but care was taken to minimize this to the extent possible.

- Distribution margins assumption: The estimation of the share of *ad valorem* excise taxes in the retail price for locally produced beverages requires an assumption on the total distribution margins for countries using the producer/ manufacturer's price as tax base. Due to a lack of market data, 20% distribution margins are assumed following PAHO and Roche et al *(21,24)*. This may lead to overestimation or underestimation of tax share estimates. However, this assumption is applied to all countries using the producer/ manufacturer's price as tax base, therefore allowing for comparisons of tax share estimates among them.
- CIF value: The brand of interest is not the only one traded between two given countries under HS code 22.02.10 for a given year. The total value and volume traded may contain trade information for other brands. However, as the internationally comparable brand selected is the most-sold brand in most countries, or among the top three most sold brands in others, the CIF value obtained by dividing the total traded value by total traded volume should be representative of the selected brand.
- Tax legislation cut-off: Data and information presented in this analysis are based on legislation that was in effect as of 31 July 2024. Legislation that could have been replaced, amended, or repealed since this cutoff date is not analysed to maintain comparability of data at the same point in time in all countries. A very few exceptions were made when complete information was collected with some delay to maximize country representation (for specific countries identified earlier in the Technical Notes).

References

1. Global report on the use of sugar-sweetened beverage taxes, 2023. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO. (https://www.who.int/publications/i/item/9789240084995)
2. WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets. Geneva: World Health Organization; 2022. Licence: CC BY-NC-SA 3.0 IGO. (https://www.who.int/publications/i/item/9789240056299).
3. Afshin A, Sur PJ, Fay KA, Cornaby L, Ferrara G, Salama JS et al. Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. The Lancet. 2019; 393 (10184), 1958–1972. (doi:10.1016/S0140-6736(19)30041-8)
4. Fiscal policies to promote healthy diets: WHO guideline. Geneva: World Health Organization; 2024. Licence: CC BY-NC-SA 3.0 IGO. (https://www.who.int/publications/i/item/9789240091016)
5. Hirahatake KM, Jacobs DR, Shikany JM, Jiang L, Wong ND, Steffen LM et al. Cumulative intake of artificially sweetened and sugar-sweetened beverages and risk of incident type 2 diabetes in young adults: the Coronary Artery Risk Development In Young Adults (CARDIA) Study. The American Journal of Clinical Nutrition. 2019; 110 (3), 733–741. (doi:10.1093/ajcn/nqz154).
6. Malik VS, Pan A, Willett WC, Hu, FB. Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis. The American Journal of Clinical Nutrition. 2013; 98 (4), 1084–1102. (doi:10.3945/ajcn.113.058362).
7. Vartanian LR, Schwartz MB, Brownell KD. Effects of Soft Drink Consumption on Nutrition and Health: A Systematic Review and Meta-Analysis. *American Journal of Public Health*. 2007; 97 (4), 667–675. (doi:10.2105/AJPH.2005.083782).
8. Tahmassebi JF, Duggal MS, Malik-Kotru G, Curzon MEJ. Soft drinks and dental health: A review of the current literature, Journal of Dentistry. 2006; Volume 34, Issue 1, pp-2-11. (doi:10.1016/j.jdent.2004.11.006).
9. Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review21–3. The American Journal of Clinical Nutrition. 2006; 84 (2), 274–288. (doi:10.1093/ajcn/84.2.274).
10. Consumer data on soft drinks market, reproduced under license from GlobalData PLC, 2025. (https://www.globaldata.com/)
11. Blecher E, Liber AC, Drope JM, Nguyen B, Stoklosa M. Global Trends in the Affordability of Sugar-Sweetened Beverages, 1990–2016. Preventing Chronic Disease. 2017; 14, 160406. (doi:10.5888/pcd14.160406).
12. Andreyeva T, Marple K, Marinello S, Moore TE, Powell LM. Outcomes Following Taxation of Sugar-Sweetened Beverages: A Systematic Review and Meta-analysis. JAMA Network Open. 2022; 5 (6), e2215276. (doi:10.1001/jamanetworkopen.2022.15276).
13. Guideline: sugars intake for adults and children. Geneva: World Health Organization; 2015. (https://apps.who.int/iris/handle/10665/149782).
14. Global action plan for the prevention and control of noncommunicable diseases 2013-2020.Geneva: World Health Organization; 2011. (https://apps.who.int/iris/handle/10665/94384).
15. Resolutions and related documents. Geneva: World Health Organization. (https://www.who.int/observatories/global-observatory-on-health-research-and-development/resources/publications/world-health-assembly-(wha)-resolutions-and-related-documents).
16. Backholer K, Sarink D, Beauchamp A, Keating C, Loh V, Ball K et al. The impact of a tax on sugar-sweetened beverages according to socio-economic position: a systematic review of the evidence. Public Health Nutr. 2016; Dec;19(17):3070-3084. (doi:10.1017/S136898001600104X). Epub 2016 May 16. PMID: 27182835; PMCID: PMC10270974.
17. Global nutrition policy review 2016-2017: country progress in creating enabling policy environments for promoting healthy diets and nutrition. Geneva: World Health Organization; 2018. (https://iris.who.int/handle/10665/275990).

18. Global database on the Implementation of Food and Nutrition Action (GIFNA). Sugar-sweetened beverages (SSBs) taxation. Geneva: World Health Organization; 2023. (https://gifna.who.int/summary/SSBtax).
19. Sandoval RC, Roche M, Perucic A-M, Alvarado M, Belausteguigoitia I, Galicia L et al. Monitoring and Measuring Health Taxes. Health Taxes: Policy and Practice. Lauer JA, Sassi F, Soucat A, Vigo A, eds. World Scientific; 2023. (doi:10.1142/q0365).
20. Meeting to Develop a Standardized Tax Share Indicator for Alcoholic and Sugar-Sweetened Beverages. Washington, D.C., 24-25 July 2018. Pan American Health Organization; Washington D.C.; 2019. (https://iris.paho.org/handle/10665.2/51715).
21. Calculating Standardized Tax Share and Other Price and Tax Policy Indicators for Sugar-Sweetened Beverages in Latin America and the Caribbean: Methodological Note. Pan American Health Organization: 2021. (https://iris.paho.org/handle/10665.2/54917) .
22. Sugar-sweetened Beverage Tax Indicators in Latin America and the Caribbean. Pan American Health Organization: 2022. (https://iris.paho.org/handle/10665.2/56103).
23. Sandoval RC, Roche M, Belausteguigoitia I, Alvarado M, Galicia L, Gomes FS et al. Excise taxes on sugar-sweetened beverages in Latin America and the Caribbean. Revista Panamericana de Salud Pública. 2021; 45, e21. (doi:10.26633/RPSP.2021.21).
24. Roche M, Alvarado M, Sandoval RC, Gomes F da S, Paraje G. Comparing taxes as a percentage of sugar-sweetened beverage prices in Latin America and the Caribbean. The Lancet Regional Health – Americas. 2022; 11, 100257. (doi:10.1016/j.lana.2022.100257).
25. SSB Tax Database. World Bank Group Global: 2023 (https://ssbtax.worldbank.org/).
26. Hattersley L, Mandeville KL. Global Coverage and Design of Sugar-Sweetened Beverage Taxes. *JAMA Network Open*. 2023; 6 (3), e231412. (doi:10.1001/jamanetworkopen.2023.1412).
27. Mansour M, Petit P and Sawadogo F. How To Design Excise Taxes on Alcoholic Beverages. IMF How to notes. Washington D.C.; International Monetary Fund. 2023. (doi:10.5089/9798400257902.061).
28. Use of non-sugar sweeteners: WHO guideline. Geneva: World Health Organization; 2023. (https://www.who.int/publications/i/item/9789240073616).
29. Pell D, Mytton O, Penney TL, Briggs A, Cummins S, Penn-Jones C et al. Changes in soft drinks purchased by British households associated with the UK soft drinks industry levy: controlled interrupted time series analysis. BMJ. 2021; 372, n254. (doi:10.1136/bmj.n254).
30. Ozer C, Bloom D, Martinez Valle A, Banzon E, Mandeville K, Paul J et al. Health Earmarks and Health Taxes: What Do We Know? World Bank. 2020. (https://openknowledge.worldbank.org/handle/10986/34947).
31. Fiscal policies to promote healthy diets: policy brief. Geneva: World Health Organization; 2022. (https://www.who.int/publications/i/item/9789240049543).
32. WHO acceleration plan to stop obesity. Geneva: World Health Organization; 2023. (https://www.who.int/publications/i/item/9789240075634).
33. Report of the commission on ending childhood obesity. Geneva: World Health Organization; 2016. (https://iris.who.int/handle/10665/204176).
34. Draft Global Oral Health Action Plan (2023-2030). Geneva: World Health Organization; 2023. (https://www.who.int/publications/m/item/draft-global-oral-health-action-plan-(2023-2030)).
35. The 3 by 35 Initiative. Geneva: World Health Organization; 2025. (https://www.who.int/initiatives/3-by-35).
36. United Nations Comtrade Database. (https://comtrade.un.org/)
37. World Economic Outlook. Washington D.C.: International Monetary Fund (IMF). 2025. (https://www.imf.org/en/Publications/WEO/weo-database/2025/april).
38. United Nations World Population Prospects 2024. New York: United Nations; 2024. (https://population.un.org/wpp/).