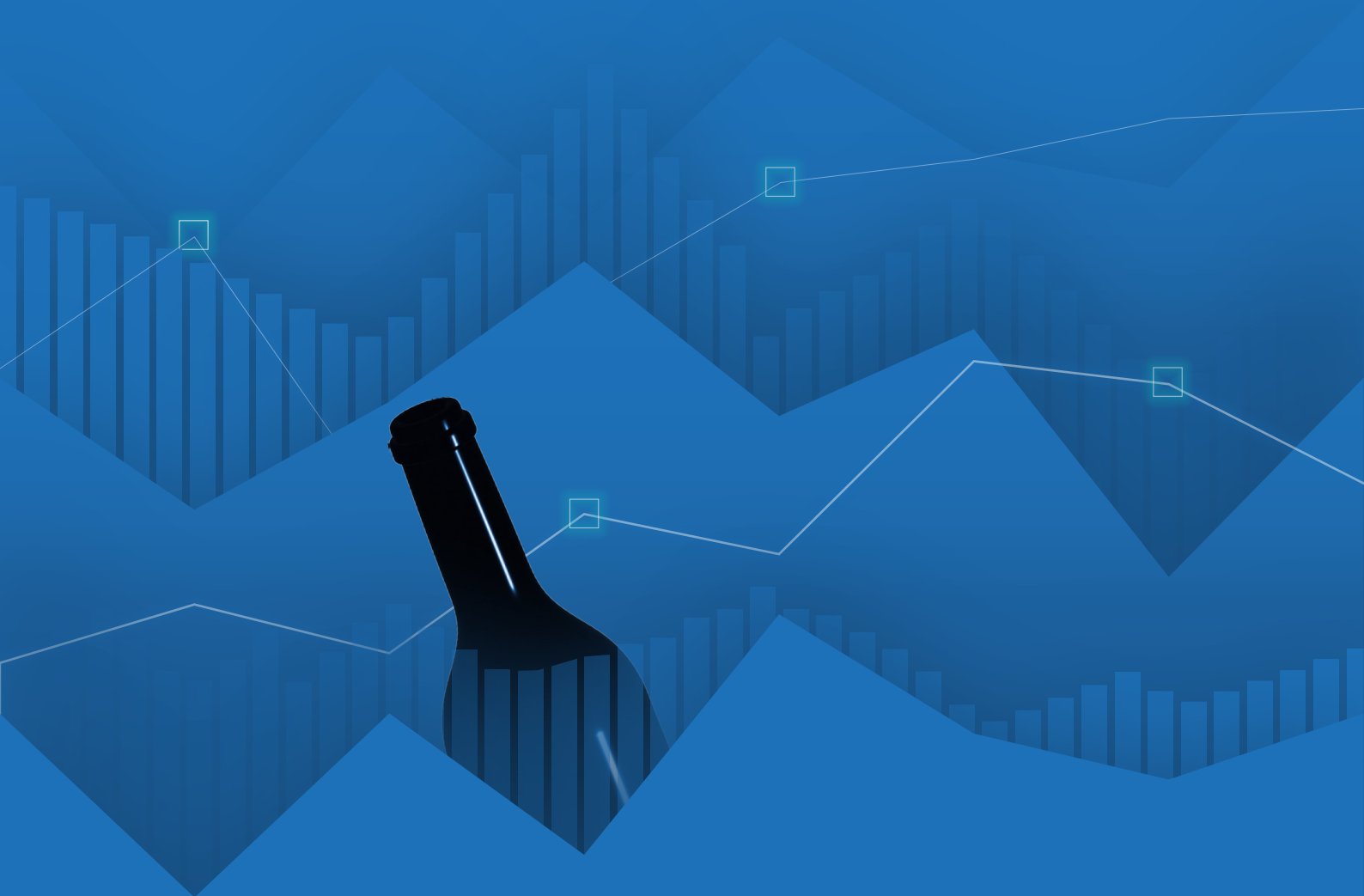


# Alcohol taxes, prices and affordability in the WHO European Region in 2022





# **Alcohol taxes, prices and affordability in the WHO European Region in 2022**

## Abstract

This report examines the implementation of alcohol tax and pricing policies in the WHO European Region as of 2022, assessing their impact on alcohol affordability and consumption, as well as their public health implications. It provides a comprehensive analysis of excise tax structures, minimum pricing policies and affordability trends across Member States. Findings indicate that while excise taxes are widely applied to beer and spirits, they remain low or non-existent for wine in many countries. Minimum pricing policies are limited, with only nine countries implementing them, often on specific products. Alcohol affordability is notably higher in European Union countries compared to the regional average, potentially undermining public health efforts. Case studies from Georgia, Germany and Portugal demonstrate that tax increases can lead to significant reductions in alcohol consumption and mortality. The report also addresses concerns regarding unrecorded alcohol, showing no automatic link between higher taxation and increased illicit alcohol consumption. These findings highlight the untapped potential of tax and pricing policies to reduce alcohol-related harm and support evidence-based policy-making in the Region, where such measures remain underutilized.

## Keywords

ALCOHOL DRINKING; COMMERCE; PRICING; PUBLIC HEALTH; TAXATION

ISBN: 9789289061940 (PDF)

## © World Health Organization 2025

**Some rights reserved.** This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BYNC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition: Alcohol taxes, prices and affordability in the WHO European Region in 2022. Copenhagen: WHO Regional Office for Europe; 2025".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<http://www.wipo.int/amc/en/mediation/rules/>).

**Suggested citation.** Alcohol taxes, prices and affordability in the WHO European Region in 2022. Copenhagen: WHO Regional Office for Europe; 2025. Licence: CC BY-NC-SA 3.0 IGO.

**Cataloguing-in-Publication (CIP) data.** CIP data are available at <http://apps.who.int/iris>.

**Sales, rights and licensing.** To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

**Third-party materials.** If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

**General disclaimers.** The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use. Photos: © WHO

# Contents

<b>Acknowledgements</b> .....	<b>vi</b>
<b>Abbreviations</b> .....	<b>vii</b>
<b>Executive summary</b> .....	<b>ix</b>
<b>1. Introduction</b> .....	<b>1</b>
<b>2. Alcohol taxation in the WHO European Region</b> .....	<b>3</b>
2.1 Coverage of excise taxes .....	4
2.2 Structures of alcohol taxation .....	5
2.3 Alcohol tax shares .....	9
<b>3. Minimum pricing policies in the WHO European Region</b> .....	<b>14</b>
<b>4. Alcohol prices and affordability</b> .....	<b>17</b>
4.1. Variations in alcohol prices .....	18
4.2. Affordability of alcoholic beverages .....	21
4.3. Adjusting taxes for inflation .....	24
<b>5. Government revenue from alcohol taxation</b> .....	<b>26</b>
<b>6. The role of unrecorded alcohol in alcohol consumption</b> .....	<b>27</b>
<b>7. The health impact of alcohol taxation</b> .....	<b>30</b>
7.1. The current impact of alcohol prices .....	31
7.2. Scenario 1: the impact of a 10% increase in retail prices .....	31
7.3. Scenario 2: the impact of a 10-percentage-point increase in tax shares ..	32
<b>8. Conclusions and policy considerations</b> .....	<b>33</b>
<b>Technical notes</b> .....	<b>35</b>
<b>References</b> .....	<b>36</b>
<b>Annex</b> .....	<b>38</b>

## Acknowledgements

This report was developed by Daniela Correia (Consultant, WHO Regional Office for Europe), Jürgen Rehm (Senior Scientist, Centre for Addiction and Mental Health, Toronto, Canada), and Maria Neufeld (Technical Officer, WHO Regional Office for Europe), with specific contributions by Sumudu Kasturiarachchi (Consultant, WHO Regional Office for Europe). It was coordinated by Maria Neufeld (Technical Officer, WHO Regional Office for Europe) under the supervision and technical guidance of Carina Ferreira-Borges (Regional Advisor, Unit Head Alcohol, Illicit Drugs and Prison Health, WHO Regional Office for Europe) and Gauden Galea (Strategic Advisor, Special Initiative on NCDs and Innovation, WHO Regional Office for Europe).

The WHO Regional Office for Europe is grateful to the following reviewers of the document: Anne-Marie Perucic (Technical Officer, WHO headquarters), Chonlathan Visaruthvong (Technical Officer, WHO headquarters), Michal Stoklosa (Technical Officer, WHO headquarters), Aleksandra Olsen (Communication Officer, WHO Regional Office for Europe) and Mindaugas Štelemėkas (Head of Health Research Institute, Lithuanian University of Health Sciences, Kaunas, Lithuania).

This publication has been produced with the financial support of the European Union. Its contents are the sole responsibility of the WHO Regional Office for Europe and do not necessarily reflect the views of the European Union. Additional financial support was received from the governments of Denmark, Estonia, Finland, France, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Netherlands (Kingdom of the), Norway, Slovenia and Sweden.



Co-funded by  
the European Union

# Abbreviations

APC	alcohol per capita consumption
CI	confidence interval
EAEU	Eurasian Economic Union
EU	European Union
GDP	gross domestic product
MP	minimum pricing
MUP	minimum unit pricing
PPP	purchasing power parity
VAT	value added tax





# Executive summary

The WHO European Region has the highest alcohol consumption per capita of all the WHO regions and a significant contribution of alcohol to mortality and disease burden. Tax and pricing measures are widely recognized as one of the most cost-effective strategies to mitigate alcohol-attributable mortality and burden of disease and are central to key WHO frameworks, including the *WHO Global alcohol action plan 2022–2030*, and the *WHO European framework for action on alcohol, 2022–2025*.

This report provides an overview of the implementation of alcohol tax and pricing policies in the WHO European Region as of 2022, assessing alcohol taxation, prices and affordability, and discussing the public health implications of these measures. It aims to inform policy decisions on alcohol excise taxation and support further research.

Section 1 sets the stage for the report's assessment of alcohol taxes, prices and affordability in the Region. It outlines the effectiveness of alcohol tax in reducing alcohol consumption and alcohol-attributable harms, emphasizing their role as cost-effective strategies. The section also highlights the need for careful consideration in the development and implementation of such policies.

Section 2 provides an overview of alcohol excise taxation on alcoholic beverages in the WHO European Region, focusing on tax coverage, structures and shares. As of July 2022, only 29 Member States apply a non-zero excise tax rate to wine. Alcohol-content-based specific excise taxes are the most common type of excise taxation for beer (63%) and spirits (90%), but only 4% of countries apply them to wine. The excise tax share for spirits is the highest at the regional level, at 37% of the retail price, followed by beer at 16%, and wine at 14%. Among European Union (EU) countries, alcohol excise tax shares are generally lower, with wine taxes being especially low, averaging just 4%.

Section 3 discusses the implementation of minimum pricing policies in the Region. Only nine Member States have such policies, with some applying them only to specific products like vodka. Ireland and parts of the United Kingdom (Scotland and Wales) are the only jurisdictions that apply minimum pricing to all alcoholic beverages.

Section 4 covers the prices and affordability of alcoholic beverages. Prices for 10 grams of pure alcohol, which was chosen as a standard measure, vary by beverage type: wine is the cheapest at Int\$<sup>1</sup> 1.13 (Int\$ 0.77 in the EU), followed by beer at Int\$ 1.17 (Int\$ 0.93 in the EU), and spirits at Int\$ 2.10 (Int\$ 1.12 in the EU). When comparing affordability, alcoholic beverages are significantly more affordable in EU countries than in the WHO European Region overall. On average, people in the EU can purchase 46% more beer, 76% more wine and 37% more spirits with their national per capita income than the regional average.

Section 5 describes how raising alcohol excise taxes reduces alcohol consumption and boosts government revenue due to alcohol's inelastic demand and discusses earmarking of tax revenue for specific programmes, like health initiatives.

Section 6 discusses the role of unrecorded alcohol, which refers to different types of alcoholic products, which are not registered, regulated, taxed or monitored by governments. Unrecorded alcohol represented 14% of total consumption in the WHO European Region in 2019, but this varied widely between countries. While some argue that increased taxation might lead to higher unrecorded alcohol consumption, studies show no automatic link. At the same time, countries should account for the potential impact of price and tax policies on unrecorded alcohol and consider countermeasures like modern tracking and tracing systems for alcohol.

Section 7 examines the impact of alcohol taxation on consumption and mortality, focusing on case studies from Georgia, Germany and Portugal under two taxation scenarios: 1) a 10% increase in retail prices driven by excise tax changes, and 2) a 10-percentage-point increase in excise tax share. These scenarios demonstrate that increases in alcohol taxation can reduce national alcohol consumption by 4.0% to 8.5% and decrease total mortality by 0.8% to 2.5%, excluding the long-term impact on alcohol-attributable cancers.

Finally, Section 8 summarizes the main conclusions and provides policy considerations for policy-makers seeking to strengthen existing excise tax policies on alcohol, based on the available evidence. Technical notes detailing the methodology can be found at the end of the document, with country-specific results available in the Annex.

# 1 Introduction

The WHO European Region has the highest alcohol per capita consumption (APC) of all the WHO regions as well as the highest contribution of alcohol to all-cause mortality and burden of disease (World Health Organization, 2024a). Addressing this challenge requires evidence-based measures that effectively reduce alcohol consumption and its associated harms. Among these, increasing the price of alcoholic beverages is a proven strategy. Higher prices reduce alcohol sales and consumption at population level, which in turn decreases alcohol-attributable harms, although the magnitude of these effects can vary across population groups (Wagenaar, Salois & Komro, 2009; Wagenaar, Tobler & Komro 2010; Sornpaisarn et al., 2013; World Health Organization, 2023a).

Tax and pricing measures are therefore recognized as high-impact strategies to decrease alcohol-attributable burden of disease and other alcohol-attributable harms and are central to many WHO guiding documents, such as the WHO Global alcohol action plan 2022–2030 and the WHO European framework for action on alcohol, 2022–2025 (WHO Regional Office for Europe, 2022a; World Health Organization, 2024b). WHO identifies increasing alcohol excise taxes as a cost-effective “best buy” intervention – an evidence-based strategy that provides substantial health benefits and is highly cost-effective in reducing the burden of noncommunicable and other alcohol-attributable diseases (World Health Organization, 2024c).

There are various types of taxes that can be applied to alcohol products, but not all of them are effective in achieving public health goals. General consumption taxes, such as value added tax (VAT), apply to a wide range of goods and services, including alcohol. While increasing VAT on alcoholic beverages may raise their prices, it does not specifically target alcohol relative to other products, which means it is unlikely to significantly reduce alcohol consumption or alcohol-attributable harm. In contrast, excise taxes are specifically designed for alcohol and can be tailored to reflect the public health risks associated with its consumption. By targeting alcoholic beverages directly, excise taxes make alcoholic beverages more expensive compared to other goods, which is the key driver to decrease consumption and alcohol-attributable harm.

Despite taxation being the most cost-effective tool to reduce alcohol consumption and alcohol-attributable harms across the entire population, additional measures can be considered to further address heavy drinking specifically, such as availability restrictions (Stumbrys et al., 2024; World Health Organization, 2023a), specific taxation designs directed at beverages associated with heavy drinking (World Health Organization, 2023b), screening and brief interventions, treatment programmes, or minimum pricing (MP). MP, particularly minimum unit pricing (MUP), can be used as a complement for tax policy in

cases where tax increases are not feasible due to legal or policy constraints. By setting a price floor for alcohol, MP targets cheap products that are often favoured by drinkers who consume heavily, making these products more expensive and discouraging consumption (WHO Regional Office for Europe, 2022b). MUP can be used in situations where heavy drinkers tend to change beverage type if the price for one specific beverage increases. These targeted measures will likely result in health benefits for this population group and help reduce health inequalities (WHO Regional Office for Europe, 2022b), as heavy drinkers experience a disproportionate share of alcohol-attributable harm (Rehm et al., 2017; Shield et al., 2020). However, implementing pricing policies without a well-designed tax system may be counterproductive, as it can transfer economic rents or excessive revenues directly to producers and retailers instead of generating government revenue (World Health Organization, 2023a).

To maintain the effectiveness of these policies over time, it is crucial to adjust the tax rate of alcoholic beverages for inflation and changes in disposable income, which can erode the real price of alcohol and undermine public health objectives (World Health Organization, 2023b). Additionally, developing and implementing effective alcohol tax and pricing policies requires a comprehensive situational analysis to understand the context and design targeted interventions (WHO Regional Office for Europe, 2025). This includes assessing consumption levels and patterns, and associated harm, as well as evaluating the effectiveness of the current policy framework in addressing key issues.

This report provides a comprehensive overview of alcohol tax and pricing policies in the WHO European Region as of 2022, examining tax structures applied to different alcoholic beverages, tax shares, alcohol prices and affordability, and illustrating the potential health benefits of increasing excise taxation through specific case studies. It aims to inform policy-makers in designing and implementing effective tax and pricing interventions to mitigate the health, economic and social consequences of alcohol consumption. Such an overview seems to be timely, as many countries of the European Union (EU) seem to view alcohol as an ordinary commodity, and despite the associated harm, fail to use effective taxation to reduce alcohol-attributable harm or generate revenues to balance the costs of these harms (Manthey et al., 2021a & 2021b). Instead, in some instance alcohol production is subsidized, for instance wine production in the EU (Kilian et al., 2024).

# 2 Alcohol taxation in the WHO European Region

Various taxes are applied to alcoholic beverages (Box 1), but not all are equally effective in achieving public health goals. General taxes apply broadly to goods and services and do not specifically target alcohol consumption or its associated harms. While general taxes contribute to government revenue, their primary purpose is not to influence behaviour, but rather to fund public services. Although these taxes can increase the overall cost of alcohol, they do not significantly discourage alcohol consumption, as they do not affect alcohol prices relative to other goods and services. Even when VAT or sales taxes are differentiated with higher rates for alcoholic beverages, they remain ad valorem taxes (applied as a percentage of the product's value), which limits their impact on prices.

Customs tariffs, which apply to goods imported into or exported from a country, also play a role in regulating alcohol trade. These tariffs generate revenue and can protect local industries or regulate trade, though many countries have reduced tariffs on alcohol (World Health Organization, 2024c).

In contrast, alcohol excise taxes are specifically designed to address the public health risks associated with alcohol consumption. Governments may apply alcohol excise taxes in different ways, such as taxing the final product per litre or bottle, taxing the amount of pure alcohol in a product, or a combination of both, as well as basing the tax on the value of the products (Sornpaisarn et al., 2017; World Health Organization, 2023b). Excise taxes are particularly effective because they directly raise the price of alcoholic beverages, making them more expensive relative to other products. This price increase creates an economic disincentive to consume alcohol, contributing to a reduction in consumption. Furthermore, alcohol-content-based taxation incentivizes product reformulation by encouraging manufacturers to reduce the alcohol content of their beverages, as lower-alcohol products are subject to lower excise taxes. Excise taxes also provide a stable and predictable source of government revenue, which can be reinvested into health services, public health initiatives, social programmes or infrastructure, creating broader societal benefits beyond reducing alcohol-attributable harms. Unless otherwise specified, the term “alcohol taxes” in this report refers to excise taxes applied to alcoholic beverages.

This chapter assesses how alcohol taxes are utilized across the WHO European Region, exploring how differently alcohol taxes are applied across the countries, and how these taxes weight in the final price of alcoholic beverages.

### Box 1. The types of taxes that affect alcohol prices

#### 1. General taxes

General taxes apply broadly to the sale of products and services. These taxes are generally applied uniformly across a wide range of goods and services and are collected by the retailer from the consumer and then remitted to the government. The main types of general taxes are as followed:

- A VAT is applied at each stage of the production and distribution process based on the value added and is ultimately borne by the end consumer. It is a consumption tax charged as a percentage of the price.
- A **goods and services tax**, similar to VAT but used more frequently outside of Europe, is a broad-based consumption tax, applied at each stage of the supply chain, from production to final sale.
- A **sales tax** is a consumption tax imposed on the sale of a product, such as alcoholic beverages, typically charged once at the point of sale as a percentage of the retail price.

#### 2. Excise taxes (or excise duties)

Excise taxes are specific consumption taxes that are directly imposed on the production/importation, distribution or sales of specific products, such as energy, tobacco, sugar-sweetened beverages or alcohol. These taxes can be designed as a "health tax" as they are charged directly on specific goods which are harmful to the individual and the wider society and can be set to compensate for these consequences. These taxes are expected to consequently pass down to consumers as an increase in price thereby reducing consumption.

#### 3. Customs tariffs or import and export taxes

Customs tariffs are imposed on alcohol when it is imported into or exported out of a country, or when it falls outside the scope of free trade agreements, such as those within the EU.

#### 4. Other taxes

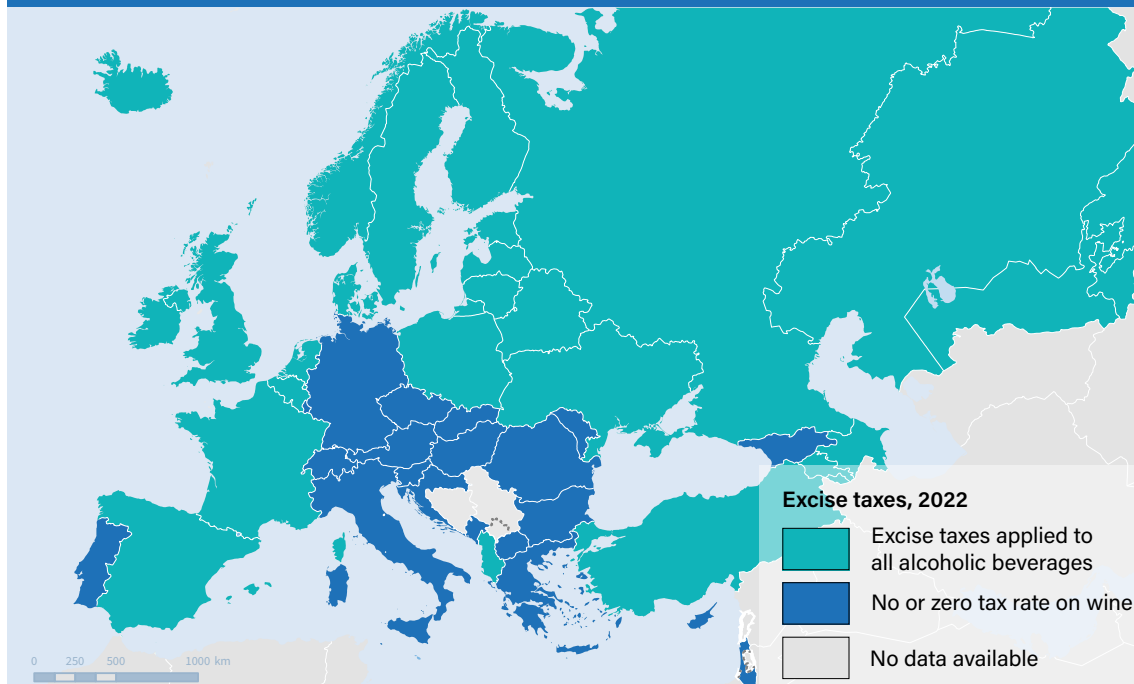
Other taxes might apply and contribute to the final price. For example, the packaging levy in Belgium and tax on non-returnable items in Norway applicable for alcoholic beverages.

## 2.1 Coverage of excise taxes

Excise taxes are a key tool in regulating alcohol consumption and reducing its public health impact. However, their application varies widely across countries, with different rates and coverage for different alcoholic beverages.

As of July 2022, at least 49 Member States in the WHO European Region imposed national-level excise taxes on beer and spirits. In contrast, only 29 of these countries applied excise taxes on wine at a non-zero rate (Fig. 1). Among the 20 Member States that either do not impose excise taxes on wine or have a zero rate for wine, 14 are EU countries. This variation highlights the diverse policy priorities and economic considerations that shape alcohol taxation across the Region.

**Fig. 1. National-level excise taxes applied to alcoholic beverages in the WHO European Region**



Notes: data only available for Member States that provided complete responses to the respective survey questions (N = 49).  
Source: created by the WHO GIS Centre for Health DNA/DDI based on the Global prices and taxes on alcoholic beverages (The Global Health Observatory, 2025). The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries. © WHO 2025; Licence: CC BY-NC-SA 3.0 IGO

## 2.2 Structures of alcohol taxation

Governments can structure alcohol taxes in various ways, including taxing the final product based on the price of the beverage, the volume, such as per litre or bottle, or taxing the amount of pure alcohol it contains. Some countries implement hybrid systems combining these methods to align taxation with public health objectives (Box 2). Additionally, tax rates and structures often differ by beverage type – such as beer, wine, or spirits – reflecting varying policy goals, consumption patterns and cultural contexts.

To ensure uniformity in excise duty regulations across the EU, Directive 92/83/EEC, established on 19 October 1992 (European Union, 1992a), introduced a standardized framework for alcohol taxation. This legislation outlines specific categories, tax bases and minimum rates for different types of alcoholic beverages, aiming to reduce trade distortions among Member States. For example, cider, wine and similar products should be taxed based on volume, whereas distilled spirits and beer are taxed according to their alcohol content. Beer can be taxed either by its alcohol concentration or through its Plato scale: a measure of the sugar content that is converted to alcohol during fermentation. Additionally, Directive 92/84/EEC (European Union, 1992b) sets minimum excise tax rates for alcoholic beverages across the EU. These include a zero minimum rate for wine, €0.748 per hectolitre/degree Plato or €1.87 per hectolitre/degree of alcohol for beer, and €550



per hectolitre of pure alcohol for distilled spirits and other non-intermediate products. While similar minimum rates are applied to tobacco products and have been periodically updated (most recently about a decade ago), the minimum rates for alcohol have remained unchanged since 1992, despite evolving public health needs and inflation.

The Eurasian Economic Union (EAEU), comprising Armenia, Belarus, Kazakhstan, Kyrgyzstan and the Russian Federation, has a harmonized approach to excise taxation, including alcohol, but lacks a directive equivalent to the EU's Directive 92/83/EEC (European Union, 1992a). Instead, the EAEU establishes common principles through agreements and the EAEU Customs Code, which governs customs and excise taxes on imports (Eurasian Economic Commission, 2024). Member states align their excise tax policies to prevent trade imbalances, but specific rates and regulations are set individually, coordinated through the Eurasian Economic Commission. While the EU directive provides detailed classifications and minimum rates for alcohol taxation, the EAEU's framework is broader and less prescriptive, relying on periodic harmonization roadmaps.

However, from a public health perspective, alcohol-attributable harm is primarily linked to the amount of pure alcohol consumed, rather than the type of beverage. As such, alcohol-content-based specific taxes are often the most desired approach to reducing alcohol consumption and its associated harms. By taxing alcohol according to its ethanol content, this method directly targets the primary driver of alcohol-attributable diseases and harms, irrespective of the beverage type. However, this tax design requires administrative capacity of the government to accurately test, label and verify the alcohol content of beverages, which may pose challenges in settings with limited regulatory or technical resources.

## Box 2. The types of alcohol excise taxes

There are two main types of excise taxes:

**1. Specific taxes**, which are based on quantity. This is the most effective tax design in raising the prices of cheap alcohol, because the tax represents a larger percentage of the retail price compared to more expensive products. Specific taxes can be one of the following:

- a Alcohol-content-based specific taxes** are based on the ethanol amount. A higher tax is charged for a higher ethanol content beverages thereby incentivising consumers to reduce consumption. This tax design helps to reduce price gaps between brands with the same alcohol content, thereby discouraging a switch to cheaper brands by consumers, and creating an incentive for manufacturers to produce low alcoholic strength beverages to benefit from the lower tax rates (i.e. reformulation of products). This tax design is considered the best to reduce health harms.
- b Volume-based specific taxes** are applied based on the total volume of the beverage. Despite being easier to administer, this tax design can encourage producers to produce higher ethanol containing beverages when tax rates increase.

12% alc 40% alc



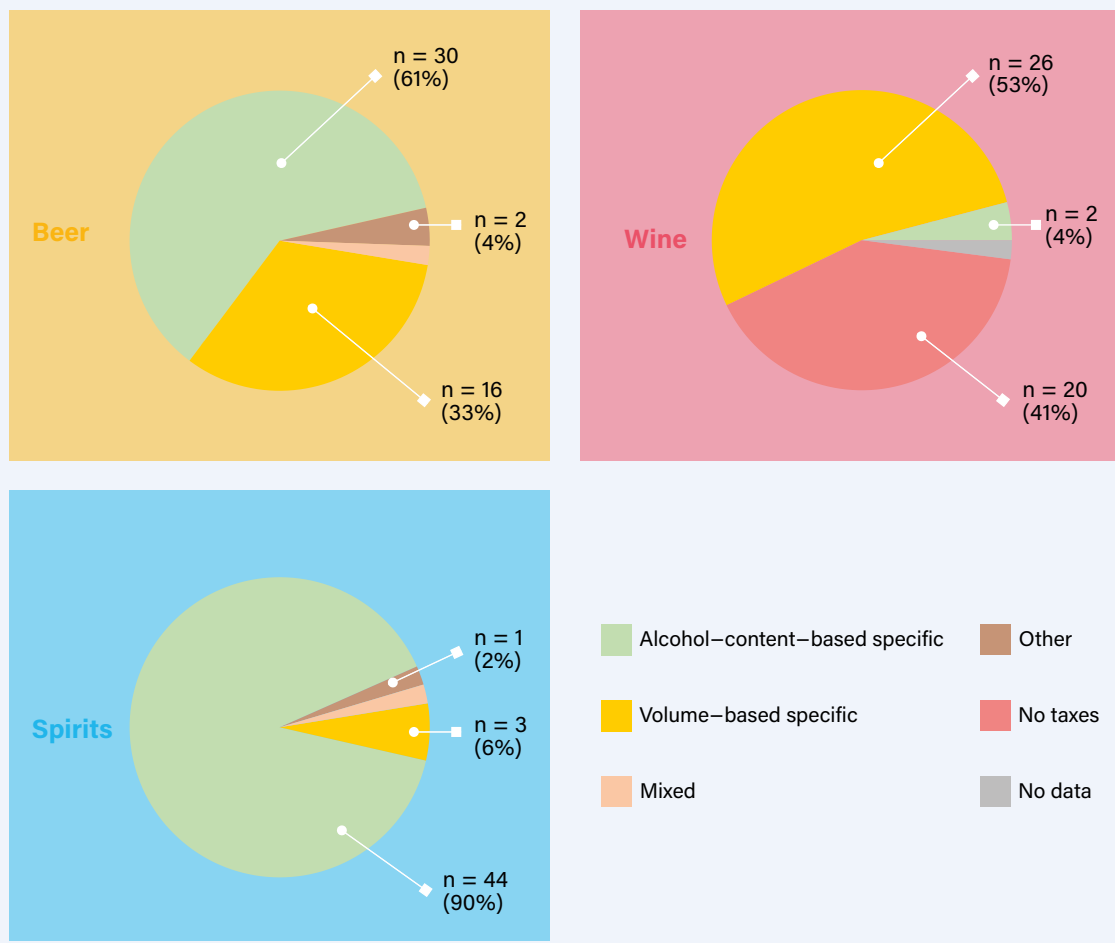
**2. Ad valorem taxes** are based on the price of the beverage. They can incentivize producers to adjust their products in ways that reduce the overall price and the tax burden, for example, by increasing the ethanol content and reducing the quality of the beverage to reduce the overall price when the tax rate increases. However, this tax design has the advantage of preserving the real value of the tax without the need for regular adjustments.



## Alcohol taxation in the WHO European Region

Alcohol-content-based specific taxation is the most common tax design in the Region for beer and spirits, applied in 61% and 90% of Member States, respectively (Fig. 2). However, only 4% apply this tax system for wine. The most common tax design for wine is volume-based specific taxes.

**Fig.2. Excise tax systems in the WHO European Region**



Notes: data only available for Member States that provided complete responses to the respective survey questions (N = 49). See Technical notes for more details.

Table 1 shows the excise tax policy design applied in the Region, by country and type of beverage. In beer and spirits, there are two examples of mixed excise tax systems, typically comprising a specific tax component and an ad valorem tax component. Additionally, three different systems fall under the category of "other". Such cases are beer taxation in Türkiye, which employs the highest of either the ad valorem or alcohol-content-based specific component for the excise tax applied, beer taxation in Latvia, which employs an alcohol-content-based tax with volume-based floor, and taxation of spirits in Armenia, where certain spirit types (e.g. vodka and rum) are subject to a volume-based specific tax, while others (e.g. cognac and brandy) are taxed based on alcohol content.

## Alcohol taxes, prices and affordability in the WHO European Region in 2022

**Table 1. Excise tax policy design by country and type of beverage in the WHO European Region**

	Beer	Wine	Spirits
Albania	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Andorra	Volume-based specific	Volume-based specific	Alcohol-content-based specific
Armenia	Volume-based specific	Volume-based specific	Other
Austria	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Azerbaijan	Volume-based specific	Volume-based specific	Volume-based specific
Belarus	Volume-based specific	Volume-based specific	Alcohol-content-based specific
Belgium	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Bulgaria	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Croatia	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Cyprus	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Czechia	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Denmark	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Estonia	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Finland	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
France	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Georgia	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Germany	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Greece	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Hungary	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Iceland	Alcohol-content-based specific	Alcohol-content-based specific	Alcohol-content-based specific
Ireland	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Israel	Volume-based specific	No taxes	Alcohol-content-based specific
Italy	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Kazakhstan	Volume-based specific	Volume-based specific	Alcohol-content-based specific
Kyrgyzstan	Volume-based specific	Volume-based specific	Volume-based specific
Latvia	Other	Volume-based specific	Alcohol-content-based specific
Lithuania	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Luxembourg	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Malta	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Monaco	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Montenegro	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Netherlands (Kingdom of the)	Volume-based specific	Volume-based specific	Alcohol-content-based specific
North Macedonia	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Norway	Volume-based specific	Alcohol-content-based specific	Alcohol-content-based specific
Poland	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Portugal	Volume-based specific	No taxes	Alcohol-content-based specific
Republic of Moldova	Volume-based specific	No taxes	Alcohol-content-based specific
Romania	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Russian Federation	Volume-based specific	Volume-based specific	Alcohol-content-based specific
Slovakia	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Slovenia	Alcohol-content-based specific	No taxes	Alcohol-content-based specific
Spain	Volume-based specific	Volume-based specific	Alcohol-content-based specific
Sweden	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Switzerland	Volume-based specific	No taxes	Alcohol-content-based specific
Tajikistan	Volume-based specific	Volume-based specific	Alcohol-content-based specific
Türkiye	Other	Volume-based specific	Alcohol-content-based specific
Ukraine	Mixed	No data	Mixed
United Kingdom	Alcohol-content-based specific	Volume-based specific	Alcohol-content-based specific
Uzbekistan	Volume-based specific	Volume-based specific	Volume-based specific

Notes: data only available for Member States that provided complete responses to the respective survey questions (N = 49).  
See Technical notes for more details.

## 2.3 Alcohol tax shares

Monitoring the share of taxes (Box 3) in the final retail price of alcoholic beverages is a crucial metric for evaluating the effectiveness of tax policies. A higher tax share typically reflects a stronger commitment to using fiscal measures to increase alcohol prices and, consequently, reduce alcohol consumption.

Excise taxes, in particular, are the preferred type of health tax, as they can be imposed at higher rates specifically on alcoholic beverages to address the societal costs of alcohol consumption, including both its external harms to others and the internal risks to the consumer. By increasing the relative price of alcoholic beverages, excise taxes help correct market failures, ensuring that alcohol prices better reflect alcohol's true social and health costs. To maximize their effectiveness in reducing affordability and consumption, alcohol excise taxes should make up the largest share of total alcohol taxes.

Comparisons with tobacco taxation underscore the importance of tax shares in influencing consumption behaviour. The 2010 *WHO technical manual on tobacco tax administration* (World Health Organization, 2010) suggests making excise taxes account for at least a 70% share of the retail price of tobacco products, but no such recommendation was ever agreed upon for alcoholic beverages. By examining alcohol tax shares, policy-makers can identify gaps and opportunities to strengthen tax structures to achieve similar success in reducing alcohol-attributable harm.

### Box 3. What is a tax share?

The **tax share** refers to the portion of the retail price that is collected as tax revenues by the government. It is expressed as a percentage, reflecting the burden of taxation on the price consumers pay for the product.

The **total tax share** includes all taxes levied on the product, such as excise taxes, VAT and other indirect taxes. The **excise tax share** – as one component of the total tax share – represents the portion of the retail price that is collected specifically through excise taxes. As a result, the excise tax share is always lower than the total tax share. For example, if an alcoholic beverage has a 40% total tax share and a 35% excise tax share, this means that for every €1 paid, 40 cents are taxes, of which 35 cents are excise taxes.

Alcohol excise tax shares vary by beverage type (e.g. beer, wine and spirits) and country, depending on the tax structure and the rates applied.

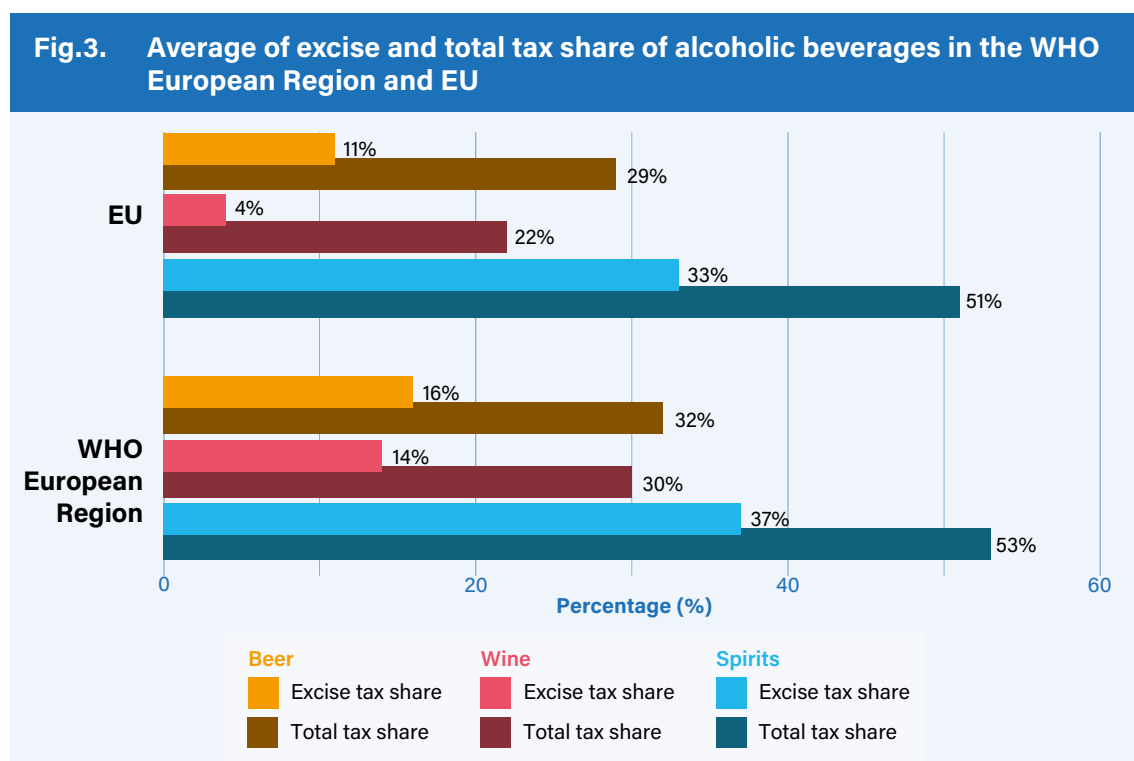
Studies suggest that the demand for alcoholic beverages is relatively price-inelastic, meaning that a price increase will lead to a non-proportional decrease in consumption (Fogarty, 2010; Ornstein & Levy, 1983). As such, tax shares must be set at sufficiently high levels to trigger meaningful price changes that can impact the relative price of alcoholic beverages compared to other products. However, there are currently no established empirical best practices for determining the optimal alcohol excise tax share.

In the WHO European Region, alcohol excise tax shares differ by beverage type (Fig. 3). Spirits carry the highest tax share, with excise taxes comprising one third (37%) of the retail price, and total taxes exceeding one half (53%). For beer, the average excise tax share is 16%, while the total tax share is 32%. In the case of wine, the excise tax share is 14%, with the total tax share amounting to 30%.

When focusing on EU countries exclusively, the tax weight in the retail price is even lower (Fig. 3). For spirits, the excise tax share is 33%, and the total tax share is 51%. The excise tax share for beer is 11%, while the total tax share for beer is 29%. For wine, the average excise tax share is particularly low at 4%, influenced by the 14 countries which apply no excise tax to this alcoholic beverage. The total tax share for wine is 22%.

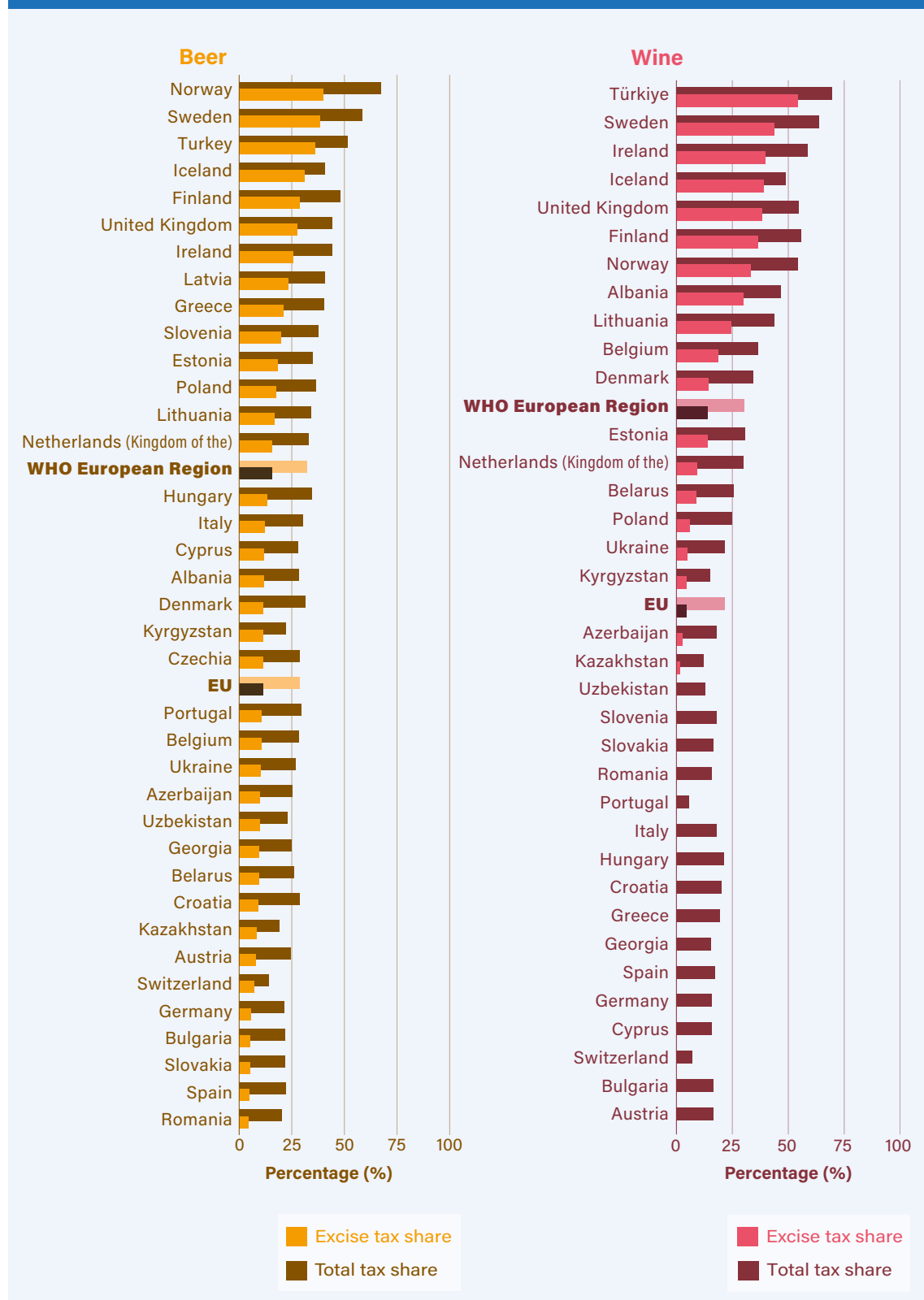
In the WHO European Region, alcohol excise tax shares differ by beverage type (Fig. 3). Spirits carry the highest tax share, with excise taxes comprising one third (37%) of the retail price, and total taxes exceeding one half (53%). For beer, the average excise tax share is 16%, while the total tax share is 32%. In the case of wine, the excise tax share is 14%, with the total tax share amounting to 30%.

When focusing on EU countries exclusively, the tax weight in the retail price is even lower (Fig. 3). For spirits, the excise tax share is 33%, and the total tax share is 51%. The excise tax share for beer is 11%, while the total tax share for beer is 29%. For wine, the average excise tax share is particularly low at 4%, influenced by the 14 countries which apply no excise tax to this alcoholic beverage. The total tax share for wine is 22%.



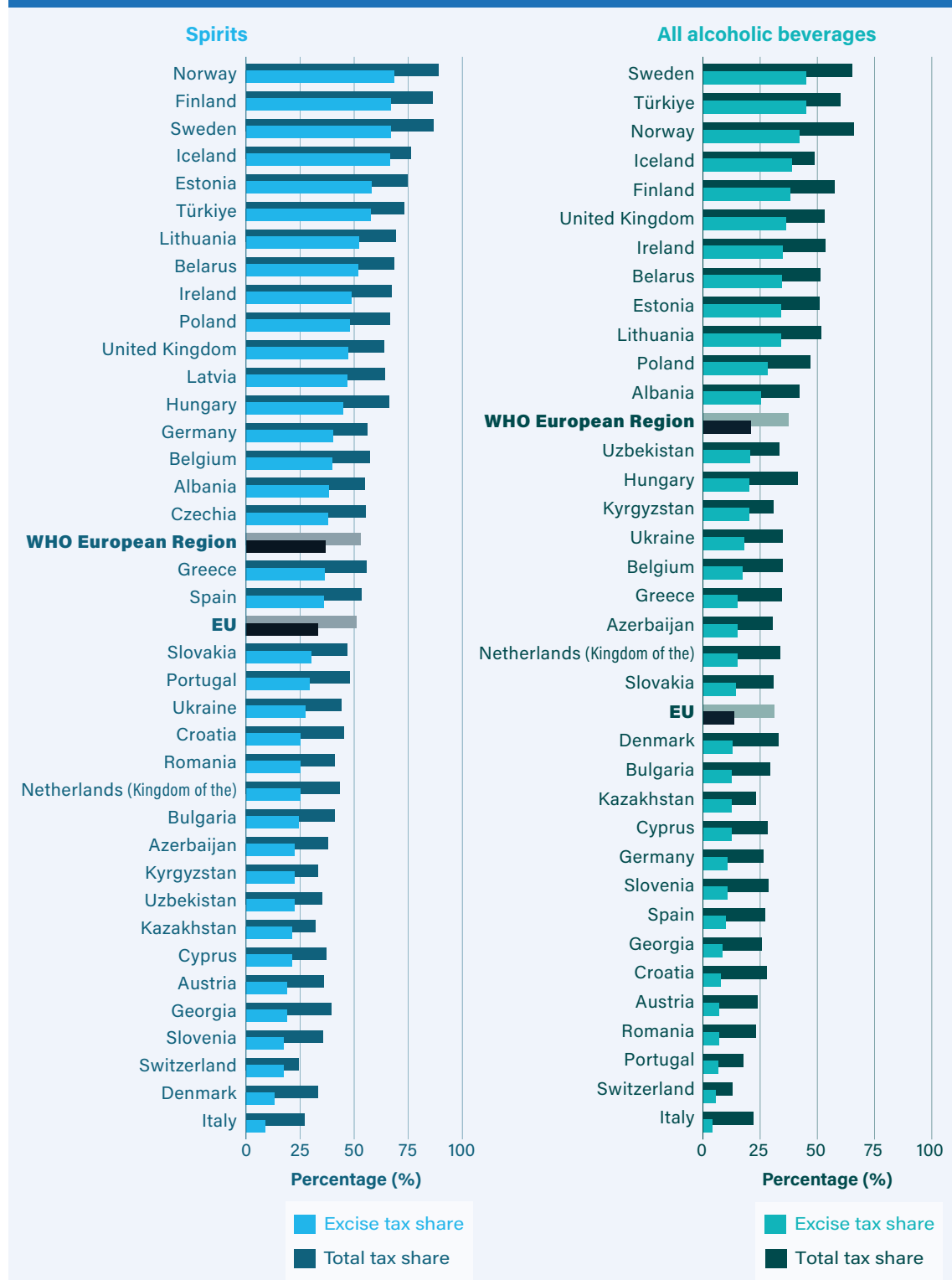
Notes: prices refer to the most sold brand of 330 ml of beer, 750 ml of wine and 750 ml of vodka or spirits in each country. Data only available for Member States that provided complete responses to the respective survey questions (beer: N = 37; wine: N = 35; spirits: N = 37; all alcoholic beverages: N = 35). See Technical notes for more details.

**Fig. 4. Total and excise tax share of alcoholic beverages in the WHO European Region and EU, by type of beverage and for all alcoholic beverages<sup>a</sup>**



## Alcohol taxes, prices and affordability in the WHO European Region in 2022

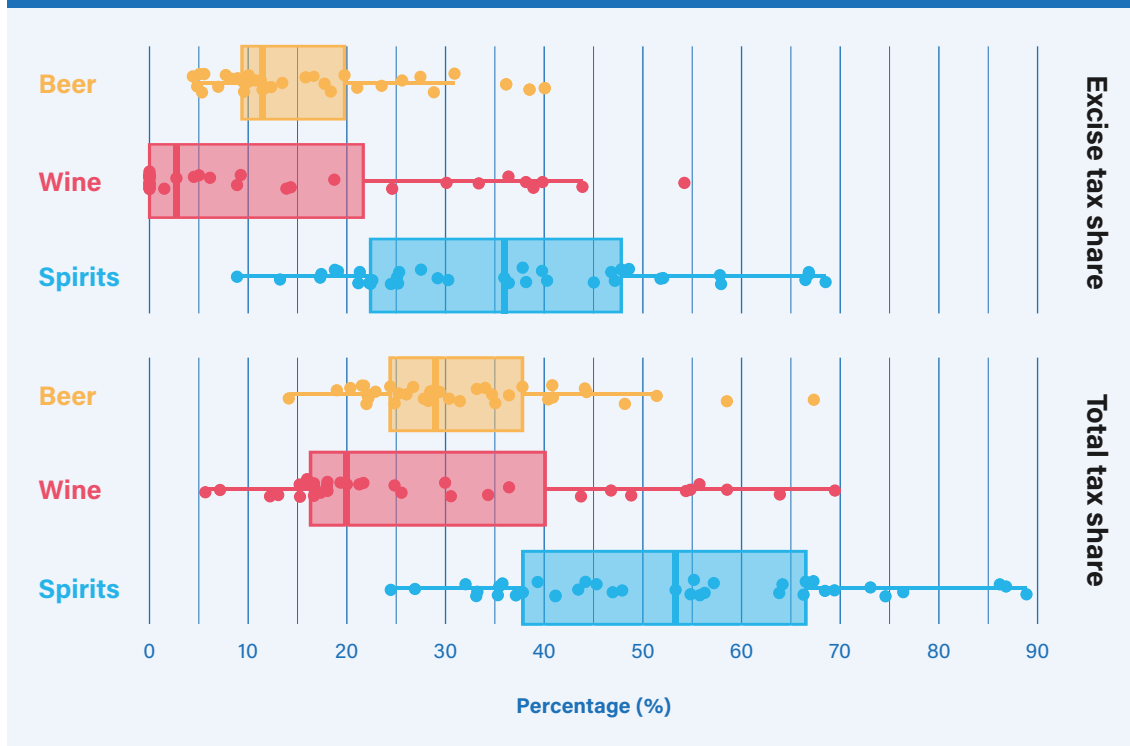
Fig. 4. contd.



Notes: prices refer to the most sold brand of 330 ml of beer, 750 ml of wine and 750 ml of vodka or spirits in each country. Data only available for Member States that provided complete responses to the respective survey questions (beer: N = 37; wine: N = 35; spirits: N = 37; all alcoholic beverages: N = 35). See Technical notes for more details.

<sup>a</sup>Weighted based on the proportion of beverages consumed in each country in 2019, using recorded APC data in litres of pure alcohol for the adult (15+ years) population from each type of beverage.

**Fig. 5. Distribution of excise and total tax share of alcoholic beverages in the WHO European Region**



Notes: Each point on the box and whisker plot indicates a country value. Data only available for Member States that provided complete responses to the respective survey questions (beer: N = 37; wine: N = 35; spirits: N = 37)

# 3 MP policies in the WHO European Region

Despite taxation being the most effective tool to reduce alcohol consumption and its alcohol-attributable harms across the entire population, additional measures can be implemented to further address heavy drinking and its associated risks. MP policies, including MUP, are tailored interventions that target the cheapest alcoholic beverages, which are disproportionately consumed by high-risk groups, including heavy drinkers and individuals with lower socioeconomic status (Box 4).

Unlike excise taxes, which increase the retail price while generating revenue for the government, minimum pricing policies do not generate government revenue. Instead, they increase profits for retailers and the alcohol industry, limiting their broader societal benefits. MP and MUP also primarily impact alcoholic beverages sold off-premises, such as in supermarkets, where cheaper alcohol is commonly sold, with minimal impact on prices in on-premise settings like bars or restaurants.

In the WHO European Region, only nine Member States currently reported having implemented MP policies (Table 2). Some countries have such policies for specific products only (such as a bottle of vodka), as is the case of Armenia, Belarus, Kyrgyzstan, Republic of Moldova and Russian Federation. Ukraine and Uzbekistan have different legislation for more than one type of product. Only two Member States – Ireland and the United Kingdom (in Scotland and Wales only) – apply MP to all alcoholic products.

## Box 4. MP versus MUP

- A **MP** on an alcoholic beverage sets a fixed price level below which a specific volume of a finished alcoholic product cannot be sold.
- A **MUP**, a particular case of MP, sets a minimum price for a volume of pure alcohol below which it cannot be sold (e.g. per gram or standard drink). Because it is linked to the alcohol content of the beverage, it will always be higher for stronger than for low-alcohol drinks, thereby incentivizing consumers and producers to favour lower-strength products.

In the WHO European Region, only nine Member States currently reported having implemented MP policies (Table 2). Some countries have such policies for specific products only (such as a bottle of vodka), as is the case of Armenia, Belarus, Kyrgyzstan, Republic of Moldova and Russian Federation. Ukraine and Uzbekistan have different legislation for more than one type of product. Only two Member States – Ireland and the United Kingdom (in Scotland and Wales only) – apply MP to all alcoholic products.



## MP policies in the WHO European Region

**Table 2. Reported MP policies in the WHO European Region**

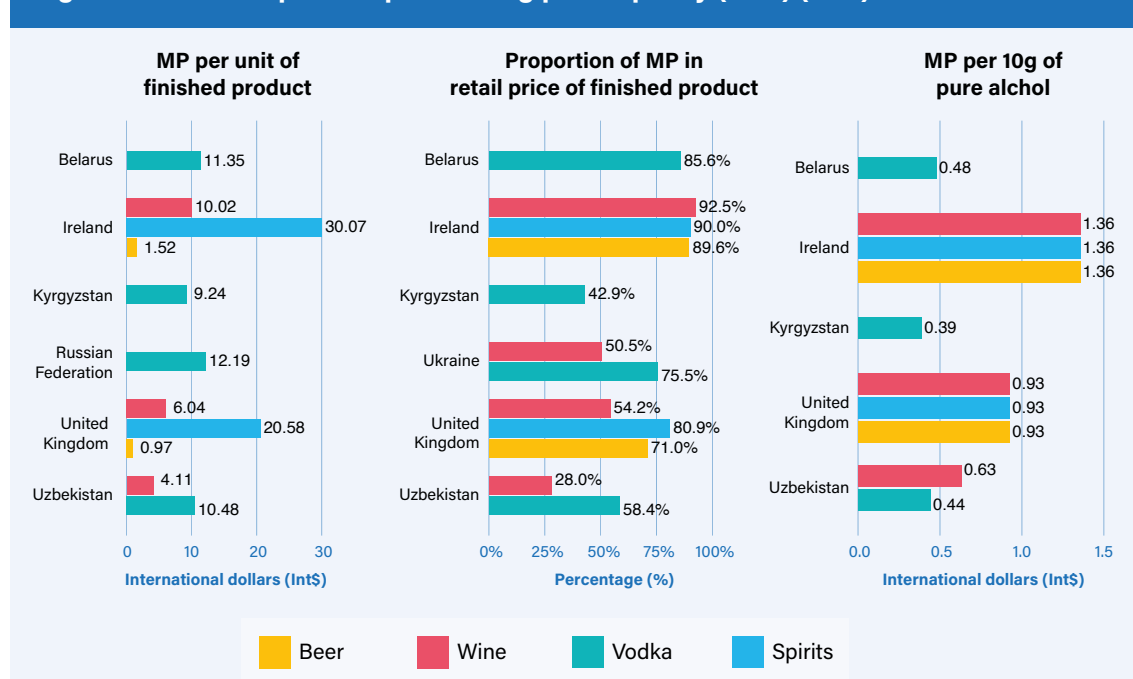
Member state	Type of policy	Applied to	Basis unit
Armenia	MUP	Vodka and other spirits	No data
Belarus	MUP	Vodka and other spirits	7.66 Belarusian Ruble per degree Plato of ethanol
Ireland	MUP	All alcoholic beverages	0.1 euro per gram of ethanol
Kyrgyzstan	MP	Vodka	134 Kyrgystani Som per 0.5 litres of finished product
Republic of Moldova	MP	Spirits other than vodka	No data
Russian Federation	MP	Vodka	261 Russian Ruble per 0.5 litres of finished product
	MP	Spirits other than vodka	480 (cognac) or 348 (brandy) Russian Ruble per 0.5 litres of finished product
Ukraine	MP	Wine	42 Ukrainian hryvnia per 0.7 litres of finished product
	MUP	Vodka and other spirits	447 Ukrainian hryvnia per litre of ethanol
United Kingdom <sup>a</sup>	MUP	All alcoholic beverages	0.5 pound sterling per 8 grams of ethanol
Uzbekistan	MP	Wine	14 200 Uzbekistani Som per litre of finished product
	MP	Vodka and other spirits	36 200 Uzbekistani Som per litre of finished product

Notes: data only available for Member States that provided complete responses to the respective survey questions (N = 46 for beer and wine, N = 45 for vodka and other spirits). See Technical notes for more details.

<sup>a</sup> Only applied in Scotland and Wales.

When comparing minimum prices across countries with MP policies (Fig. 6), Ireland (Int\$ 1.36 (Box 5)) and the United Kingdom (Int\$ 0.93) have the highest MP per 10 grams of pure alcohol, reflecting the impact of MUP in setting a price floor directly linked to alcohol content. These countries also have the highest MP per unit of finished product considering the most sold brand of spirits, at Int\$ 30.07 and Int\$ 20.58, respectively. In these cases, the price floor for spirits is set at 90% and 80% of the price of the most sold brand, respectively, ensuring that no bottle of spirits with a similar alcohol percentage can be sold for less than that fraction of the leading brand's price.

**Fig. 6. Minimum price in purchasing power parity (PPP) (Int\$)**



Notes: prices refer to for the most sold brand of 330 ml of beer, 750 ml of wine and 750 ml of vodka or spirits in each country. Data only available for Member States who provided complete responses to the respective survey questions, among Member States reporting having implemented MP policies (N = 9).

### Box 5. International dollar (Int\$)

The **international dollar**, also known as the PPP dollar, is a hypothetical currency unit that allows for more accurate comparisons of economic indicators, such as prices or income, across countries. Unlike regular exchange rates, which fluctuate based on market conditions, the international dollar adjusts for differences in the cost of living and price levels between countries.

For example, one international dollar in a specific country has the same purchasing power as one US dollar in the United States, reflecting what a dollar could buy in goods and services within each country. This approach helps to standardize data across economies, enabling fairer comparisons of wealth, economic output or spending power in different nations.

# 4 Alcohol prices and affordability

The primary objective of applying excise taxes is to increase the retail prices of alcoholic beverages, making them relatively more expensive and discouraging consumption. However, because excise taxes are charged by the government to the manufacturers or importers, this leaves room for manipulation in the way taxes are passed through to final retail prices. Evidence shows that businesses may absorb (under-shifting) the tax rates applicable on cheaper beverages to maintain low prices, while raising the price (over-shifting) of more expensive beverages further to maintain or maximize profits (Wilson et al., 2021).

As stated above, the demand for alcoholic beverages is relatively price-inelastic, meaning that while higher prices lead to reduced consumption, the decrease is less than proportional to the price increase. In simpler terms, people still buy alcohol even if the price rises, and although they purchase somewhat less, the reduction in consumption is smaller than the price hike (Sornpaisarn et al., 2017; World Health Organization, 2023a). Despite this limited responsiveness, price increases, especially through higher excise taxes, can significantly reduce alcohol consumption and related harms. For example, the most recent systematic review of studies on alcohol taxes and price levels found the following elasticities: beer (-0.3) – a 10% price increase leads to a 3% decrease in consumption; wine (-0.6) – a 10% price increase results in a 6% decrease; and spirits (-0.65) – a 10% price increase causes a 6.5% decrease (Guindon et al., 2022). Thus, monitoring the prices of alcoholic beverages is critical for understanding consumption patterns, evaluating the effectiveness of pricing strategies and developing alcohol policies.

While taxation and minimum pricing policies are essential tools for influencing alcohol prices, affordability is another key factor to consider when implementing pricing policies. Affordability reflects the relationship between alcohol prices and consumers' purchasing power. As disposable incomes rise, alcohol can become more affordable, potentially offsetting the intended effects of taxation and minimum prices and lead to increased consumption. This highlights the importance of ensuring that tax and price increases are substantial enough to meaningfully reduce the affordability of alcohol.

This chapter examines the status of alcohol prices and affordability in the WHO European Region. It highlights the differences in prices and affordability across the region, as well as variations by types of alcoholic beverages.

## 4.1. Variations in alcohol prices

The price of 10 grams of alcohol in international dollars in the WHO European Region varies depending on the type of beverage, with this standard measure chosen to enable consistent price comparisons across different beverages and countries (Fig. 7). Wine emerged as the cheapest alcoholic beverage, with 10 grams of pure alcohol priced on average at Int\$ 1.13 in the European Region, and Int\$ 0.77 in the EU. Spain and Italy had the lowest wine prices, with 10 grams of alcohol from wine costing Int\$ 0.20 and Int\$ 0.35, respectively. For wine, the highest prices were in Switzerland and Uzbekistan, with 10 grams of alcohol costing Int\$ 2.25.

Beer ranked as the second most affordable beverage in the Region, with an average price of Int\$ 1.17 per 10 grams of pure alcohol. In the EU, 10 grams of alcohol from beer were even more affordable, costing on average Int\$ 0.93, which was 20% more expensive than wine. Among Member States included in the analysis, Russian Federation had by far the lowest price (Int\$ 0.16), followed by Germany (Int\$ 0.63) and Czechia (Int\$ 0.67). The highest prices for beer were in Finland (Int\$ 2.04), Kyrgyzstan (Int\$ 2.19) and Türkiye (Int\$ 3.65).

The average value of 10 grams of pure alcohol in spirits within the Region stands at Int\$ 2.10, which is 86% more expensive than wine, and 79% more expensive than beer. Among EU countries, 10 grams of alcohol in spirits is on average 47% cheaper, at Int\$ 1.12. The lowest observed value for 10 grams of alcohol in spirits in the Region is in Belarus (Int\$ 0.56), and in Germany and Spain (both Int\$ 0.57), while the highest is recorded in Türkiye (Int\$ 3.12) and Russian Federation (Int\$ 5.41).

When weighted for the proportion of beverages consumed in the countries, the average cost of 10 grams of pure alcohol is Int\$ 1.49 in the Region and Int\$ 0.81 in EU countries. The lowest average prices are found in Italy and Spain (both Int\$ 0.50), Germany (Int\$ 0.56) and Portugal (Int\$ 0.68), while the highest prices are observed in Iceland (Int\$ 1.92), Russian Federation (Int\$ 2.63), and Türkiye (Int\$ 3.17).

Detailed information on the price of 10g of pure alcohol in PPP (Int\$), by country and beverage type, can be found in the Annex.

**Fig. 7. Price of 10g of pure alcohol in PPP (Int\$), for all alcoholic beverages<sup>a</sup> and by type of beverage**

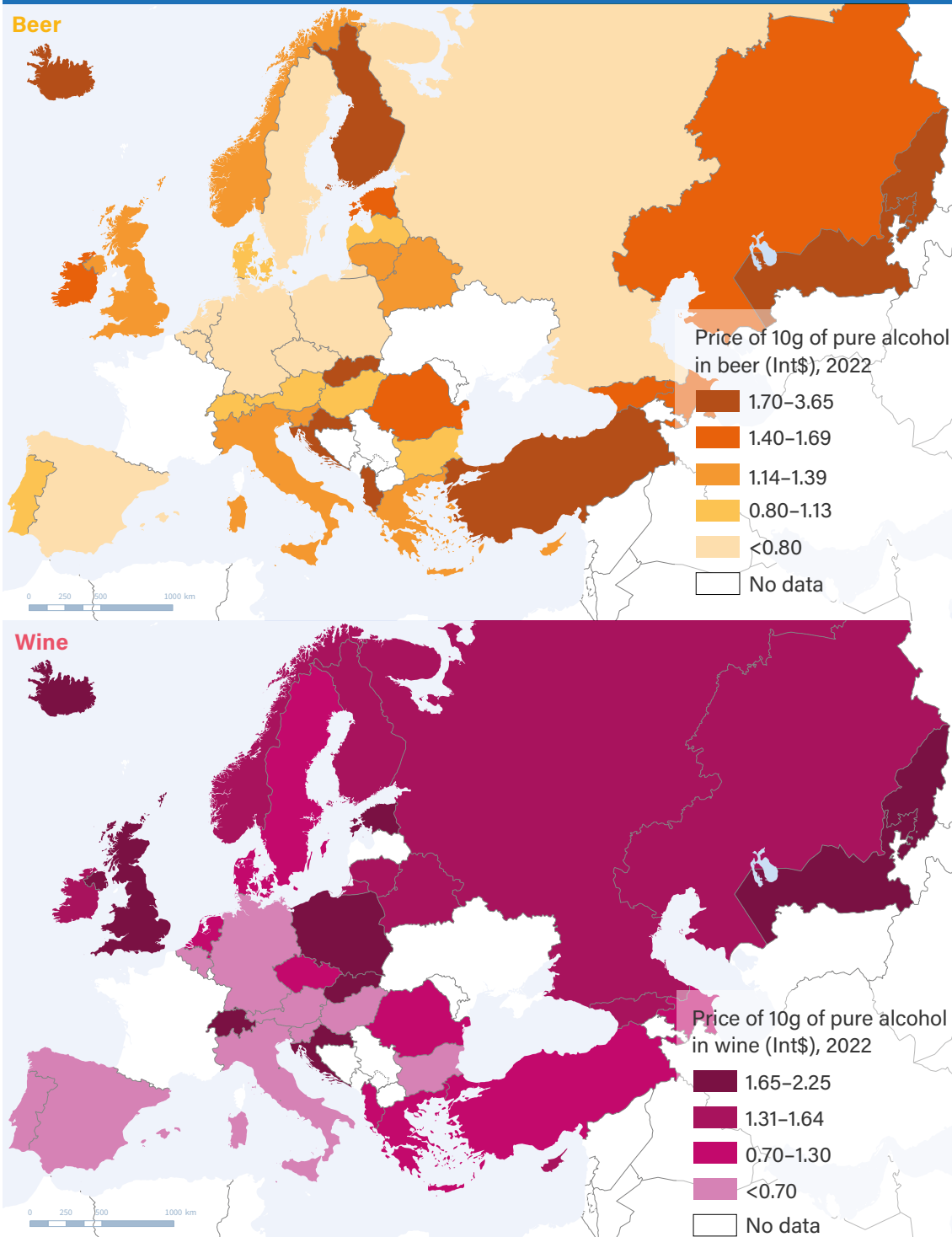
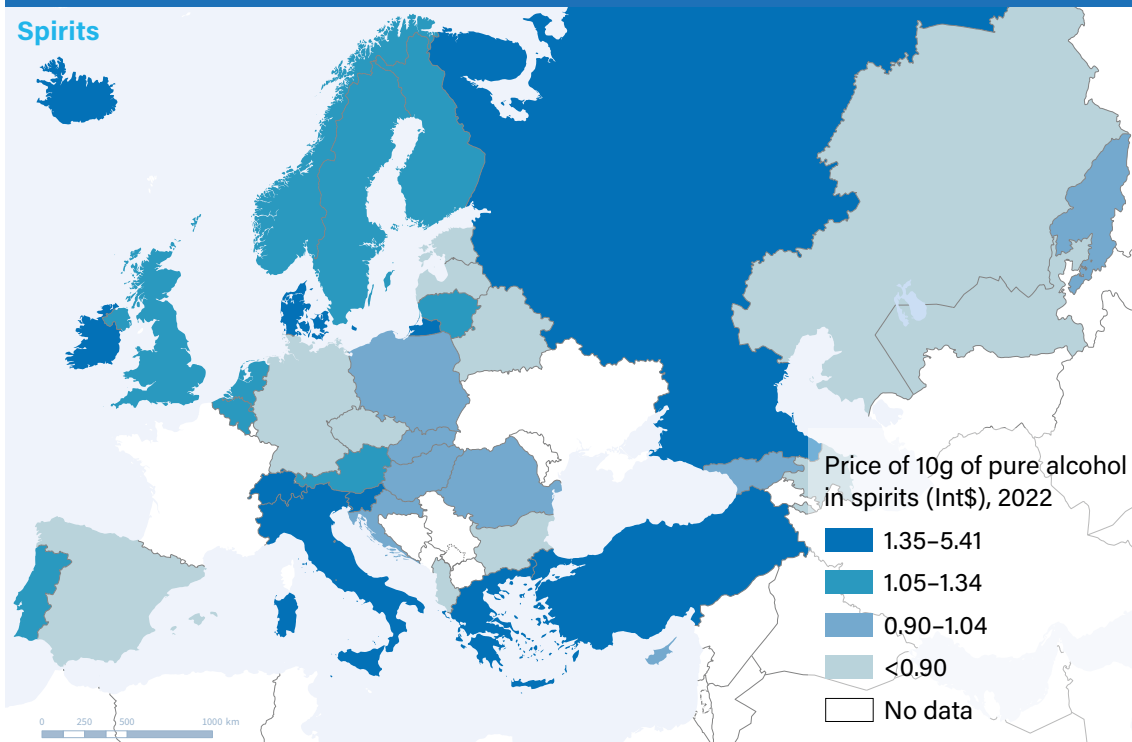
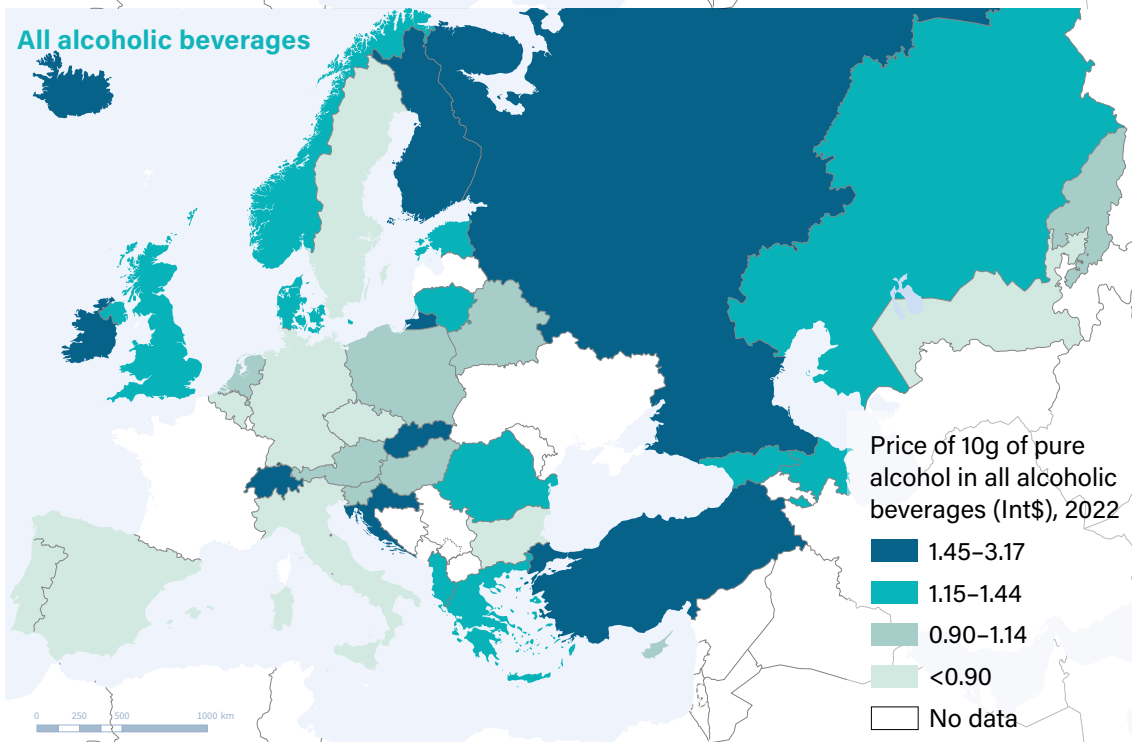


Fig. 7. contd.

## Spirits



## All alcoholic beverages



Notes: Prices refer to the most sold brand of 330 ml of beer, 750 ml of wine and 750 ml of the most sold type of spirits in each country.

<sup>a</sup> Weighted based on the proportion of beverages consumed in each country in 2019, using recorded alcohol per capita consumption (APC) data in litres of pure alcohol for the adult (15+) population from each type of beverage.

Source: created by the WHO GIS Centre for Health DNA/DDI based on Global prices and taxes on alcoholic beverages (The Global Health Observatory, 2025). The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries. © WHO 2025; Licence: CC BY-NC-SA 3.0 IGO.

## 4.2. Affordability of alcoholic beverages

Affordability (Box 6) denotes people's ability to buy alcohol and can be seen as the net effect of alcohol price and people's income. To assess the affordability of alcoholic beverages, it is essential to consider both the prices of these beverages and the income levels of individuals or households.

The affordability of alcoholic beverages plays a critical role in shaping consumption patterns, not only among current drinkers but also in influencing the initiation of alcohol consumption, particularly among young people and lower-income populations. When alcohol is highly affordable, it becomes more accessible to new and underage drinkers, increasing the likelihood of early initiation and higher consumption levels. In many countries, the high prevalence and intensity of alcohol consumption among young people remain significant public health concerns, further emphasizing the need to monitor and regulate alcohol affordability as part of comprehensive alcohol control policies.

### Box 6. Alcohol affordability

**Affordability** refers to the ability of consumers to purchase alcoholic beverages without experiencing significant financial strain. It is typically measured by the relationship between the price of alcoholic products and consumer income. The more affordable an alcoholic beverage is, the easier it is for individuals to purchase it regularly.

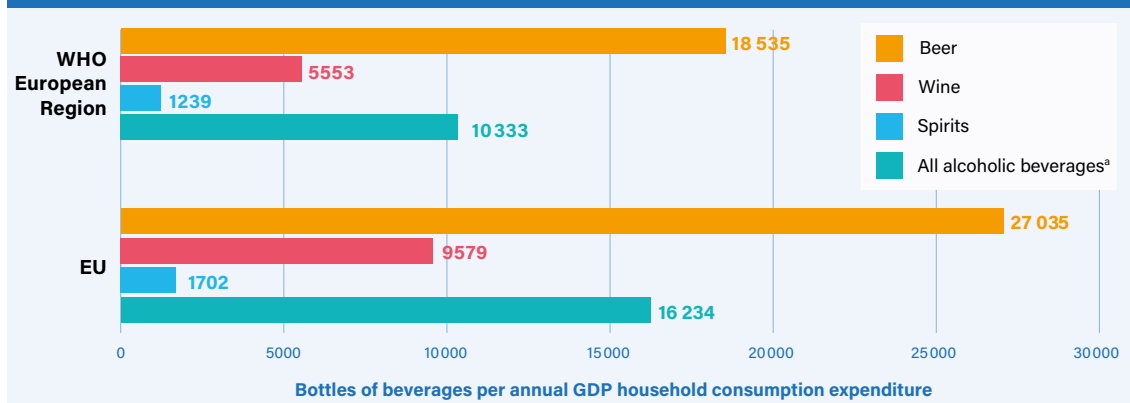
A very simple measure of affordability is to estimate how many bottles of a particular beverage individuals can purchase annually in a given country, based on the per capita household gross domestic product (GDP) consumption expenditure, a component of a country's national GDP that represents the total spending by households on goods and services for consumption. The more bottles that can be bought with the per capita GDP household consumption expenditure, the more affordable the beverage is.

Ensuring that alcohol is not easily affordable, particularly for vulnerable populations, is an important policy consideration. Higher alcohol prices, driven by taxes, can discourage consumption, thereby reducing the risk of health consequences.

On average, annually in the WHO European Region, it is possible to purchase 18 535 cans or bottles of beer (330 ml), 5553 bottles of wine (750 ml) or 1239 bottles of spirits (750 ml) based on the average per capita GDP household consumption expenditure (Fig. 8). If we consider all alcoholic beverages weighted for the beverage preferences of the countries, on average 10 333 bottles of alcoholic beverages can be bought. Among EU countries, alcoholic beverages are even more affordable. On average, compared with the regional average, people in the EU can buy 46% more cans or bottles of beer, 76% more bottles of wine, and 37% more bottles of spirits with their national per capita GDP household consumption expenditure. Fig. 9. provides a comparison of the affordability of alcoholic beverages across countries, both for all alcoholic beverages combined and by beverage type, within the WHO European Region. Detailed information on the affordability of alcoholic beverages by country and beverage type can be found in the Annex.

## Alcohol taxes, prices and affordability in the WHO European Region in 2022

**Fig. 8. Affordability of alcoholic beverages in the WHO European Region and the EU**



Notes: Affordability refers to for the most sold brand of 330 ml of beer, 750 ml of wine and 750 ml of the most sold type of spirits in each country.

<sup>a</sup> Weighted based on the proportion of beverages consumed in each country in 2019, using recorded APC data in litres of pure alcohol for the adult (15+ years) population from each type of beverage.

**Fig. 9. Affordability of alcoholic beverages, for all alcoholic beverages<sup>a</sup> and by type of beverage**

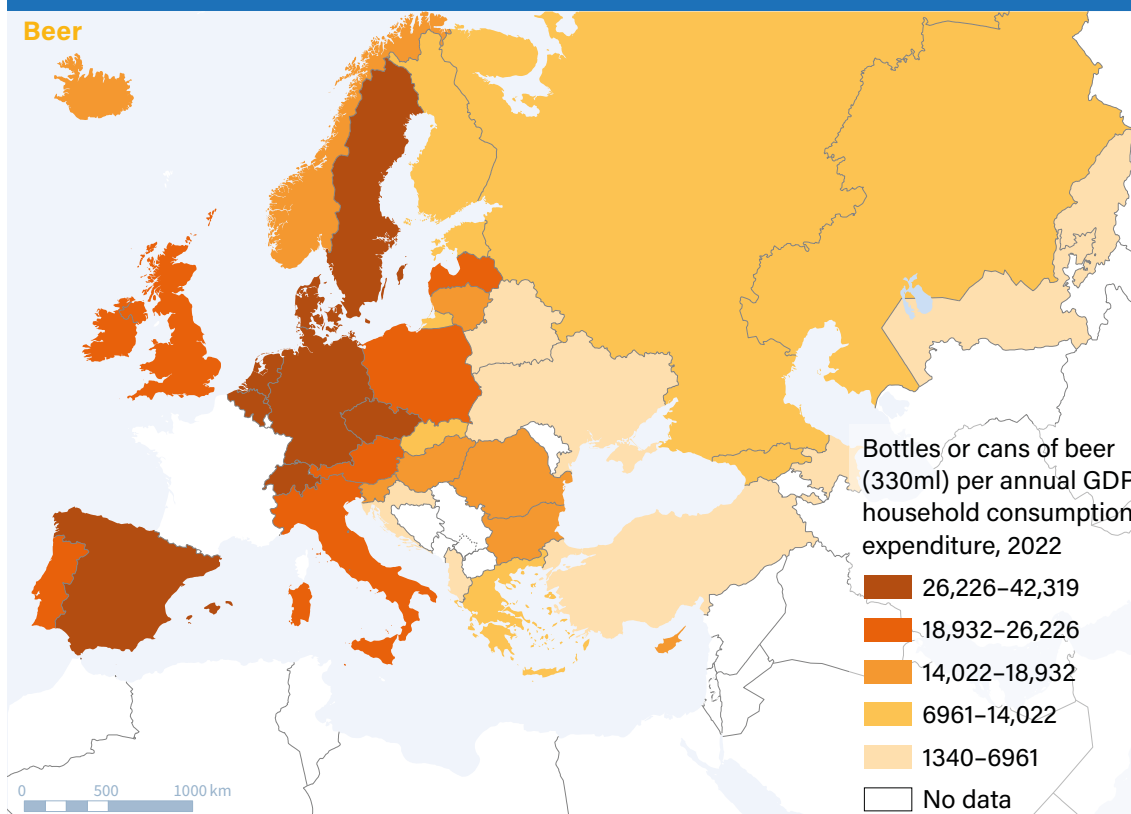
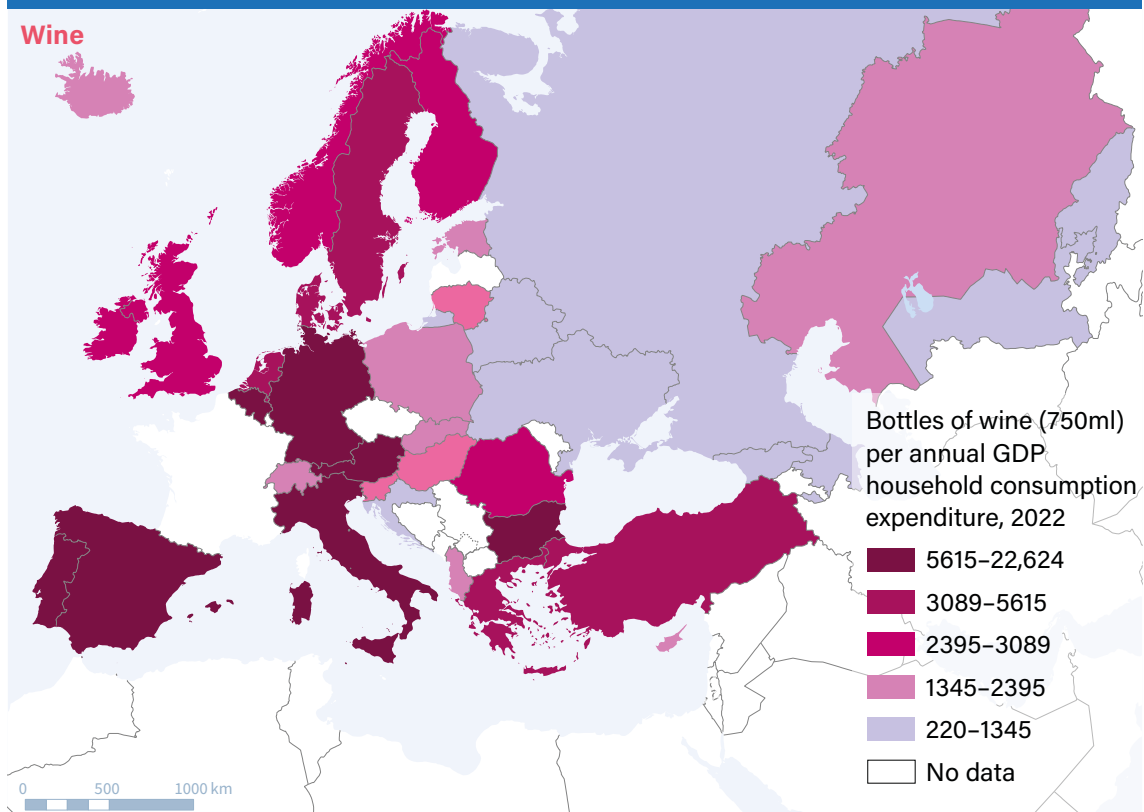




Fig. 9. contd.

## Wine



## Spirits

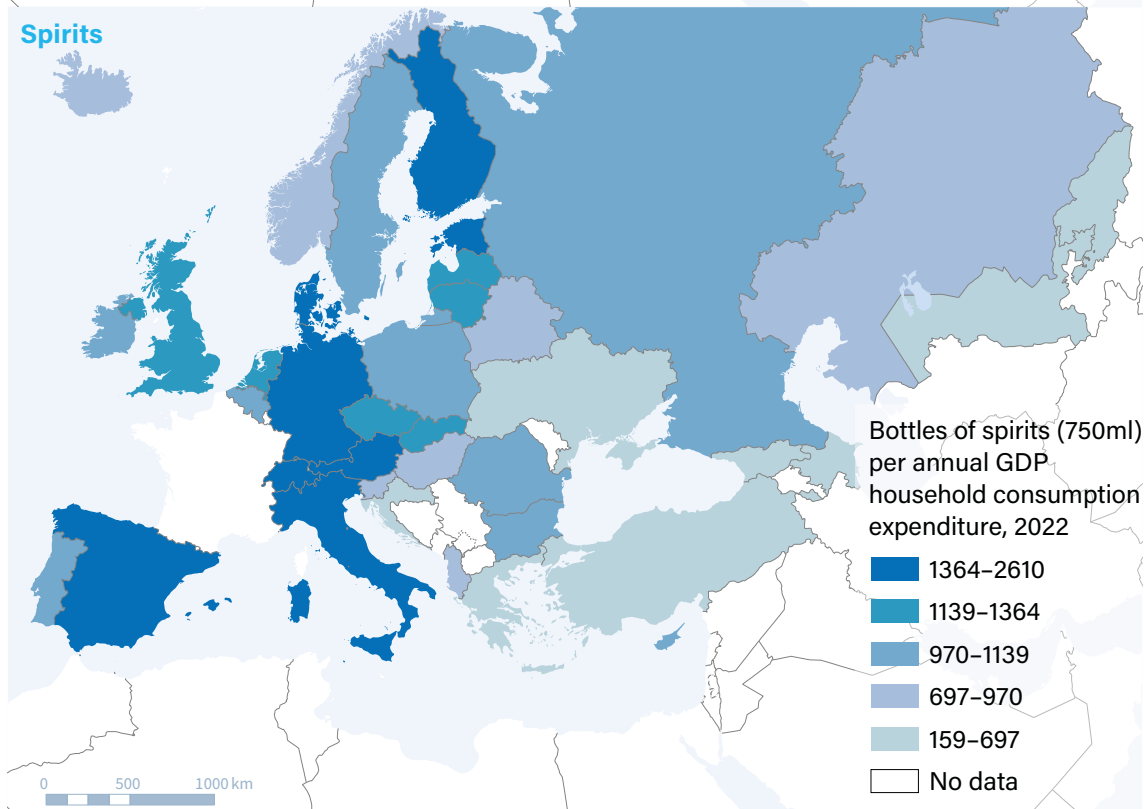
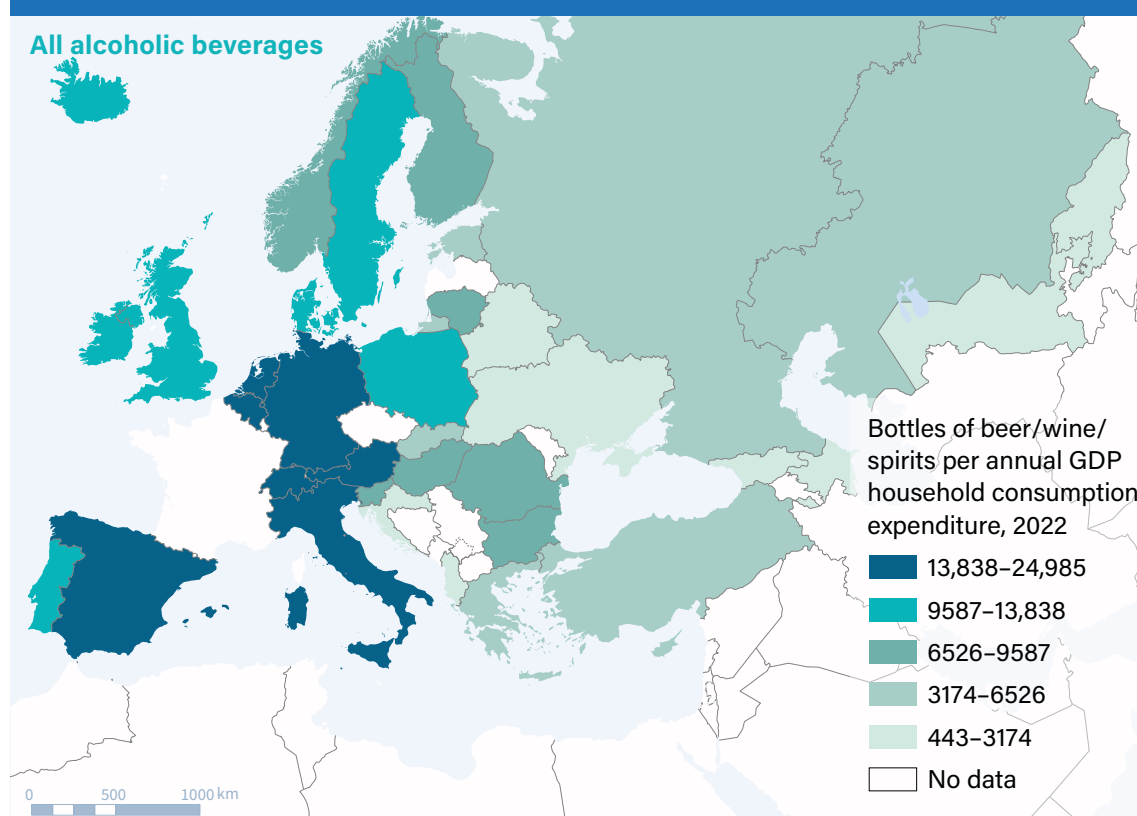


Fig. 9. contd.



Notes: Affordability refer to for the most sold brand of 330 ml of beer, 750 ml of wine and 750 ml of the most sold type of spirits in each country.

<sup>a</sup> Weighted based on the proportion of beverages consumed in each country in 2019, using recorded alcohol per capita consumption (APC) data in litres of pure alcohol for the adult (15+) population from each type of beverage.

Source: created by the WHO GIS Centre for Health DNA/DDI based on Global prices and taxes on alcoholic beverages (The Global Health Observatory, 2025). The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries. © WHO 2025; Licence: CC BY-NC-SA 3.0 IGO.

### 4.3. Adjusting taxes for inflation

If the tax rates are not adjusted for inflation (Box 7), relative to the price of other goods/ services, and income growth over time, alcoholic beverages tend to become more affordable. Among Member States, only nine reported having legislation that mandates automatic adjustments to specific excise tax rates at regular intervals (Fig. 10). However, it's noteworthy that only two of these countries, Belarus and Ireland, have implemented adjustments since 2019.

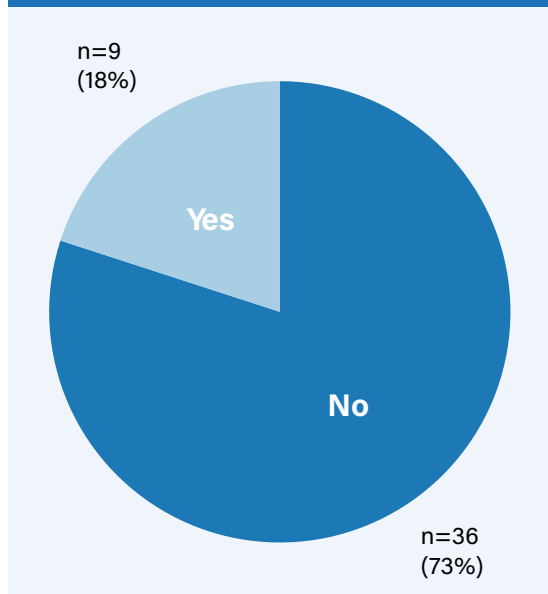
**Box 7. What is inflation?**

**Inflation** refers to the rate at which the general level of prices for goods and services increases over time, reducing the purchasing power of money. As inflation rises, the same amount of money buys fewer goods or services. It is usually expressed as an annual percentage change.

The **annual inflation rate** is a key indicator used to track how general prices change over a year. For example, if the annual inflation rate is 5%, the average price of goods and services has increased by 5% compared to the same period in the previous year.

Inflation erodes the real value of excise taxes over time, diminishing their effectiveness in curbing consumption and generating revenue. To maintain their impact, policy-makers can implement automatic tax adjustments, also known as indexation, ensuring tax rates keep pace with inflation.

**Fig. 10. Automatic adjustment of specific excise tax in the WHO European Region**



Notes: data only available for Member States that provided complete responses to the respective survey question (N = 45). See Technical notes for more details.

# 5 Government revenue from alcohol taxation

As outlined in earlier chapters, there is a fundamental difference between alcohol excise taxation and MP, although both strategies aim to reduce alcohol affordability. Alcohol excise taxation raises the price of alcohol, which can reduce overall consumption and generate government revenue, while MP sets a floor price for alcohol, primarily targeting cheap products, without generating revenue for the government and mostly affecting off-premise sales.

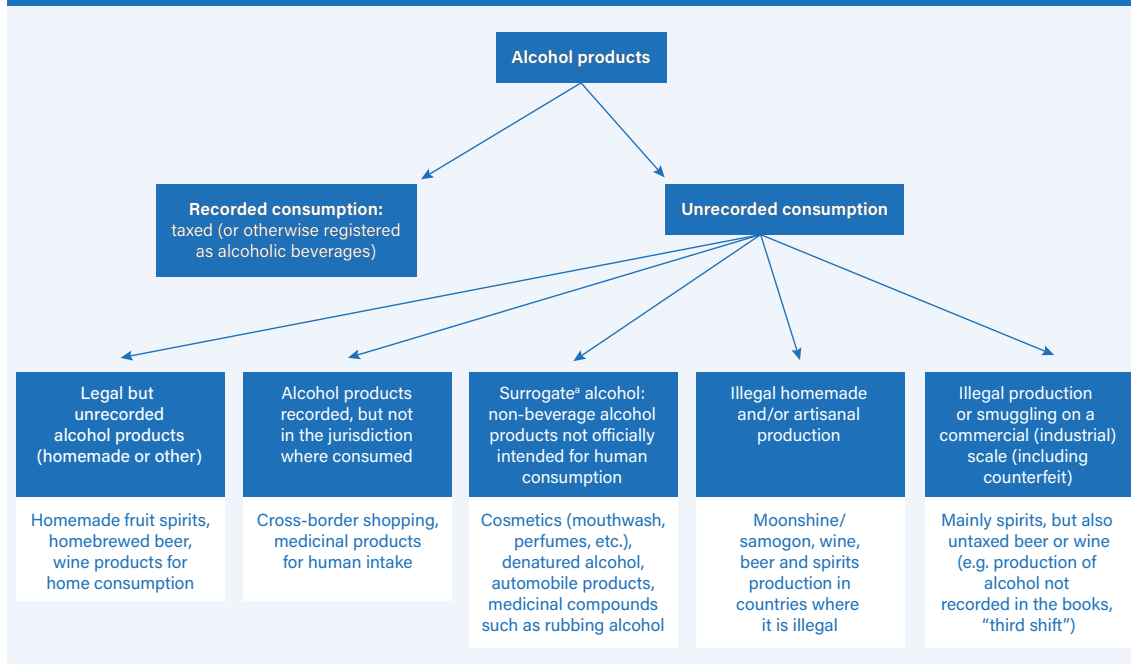
One distinct advantage of increasing alcohol excise taxation is that, when designed and implemented effectively, it leads to an increase in government revenue (World Health Organization, 2023a). The increase in revenue is based on the relative inelasticity of alcohol, meaning that increases of price will not result in proportional decreases in consumption of the same size, as outlined in section 4. Overall, the rule of thumb is that the proportional decreases are about half of the size of the increases, i.e. an increase in price of 10% will result in a decrease of consumption of about 5% (Guindon et al., 2022). This enables governments to reach both the goal of reducing alcohol consumption and thus alcohol-attributable harm and increase government revenue by increasing excise taxation. An empirical investigation of Manthey and colleagues (Manthey et al., 2024) in five European countries confirmed that the theoretical relationship could indeed be observed: countries that increased their alcohol excise taxation increased their revenue, whereas countries, that did not increase taxation, and had no automatic adjustment to inflation or disposable household income, decreased their revenue due to inflation. In summary, increases in alcohol excise taxation not only impact positively on public health, but also increase government revenue, which could be spent on improving the health-care system or on other societal needs (World Health Organization, 2023a).

Earmarking is the practice of dedicating tax revenue to specific government activities, such as funding health programmes, rather than pooling funds for general use. It can help gain public and political support for tax increases by showing that the revenue will benefit targeted initiatives, like public health programmes or community initiatives. People are generally more supportive of tax hikes when they know the revenue will directly benefit public health or social programmes. However, earmarking can be risky if the promised funding does not materialize, leading to a loss of public trust. The effectiveness of earmarking depends on how it is implemented within the broader public financial management system, and it must align with both health and finance authorities' interests to avoid inefficiencies or transparency issues (World Health Organization, 2023a).

# 6 The role of unrecorded alcohol in alcohol consumption

Potential increases in unrecorded alcohol are often brought forward as an argument against taxation increases and other financial measures to reduce alcohol consumption and attributable harm (World Health Organization, 2023b). Unrecorded alcohol denotes all forms of alcohol which are not registered in the jurisdiction where they are consumed and they are not subject to government regulation, taxation or monitoring (Lachenmeier et al., 2021). The term comprises a number of different subcategories (Fig. 11) which may or may not become relevant based on the circumstances. For example, in Nordic and Baltic countries, cross-border shopping has traditionally been the most important category of unrecorded consumption. In wine-producing countries, under-declaration and local sales of undeclared wine have been more prevalent. Meanwhile, in Russia, the main sources of unrecorded consumption stem from home production, undeclared industrially produced spirits and surrogate alcohol, often in the form of medicinal products (Rehm et al., 2014).

**Fig. 11. Categories of unrecorded alcohol**



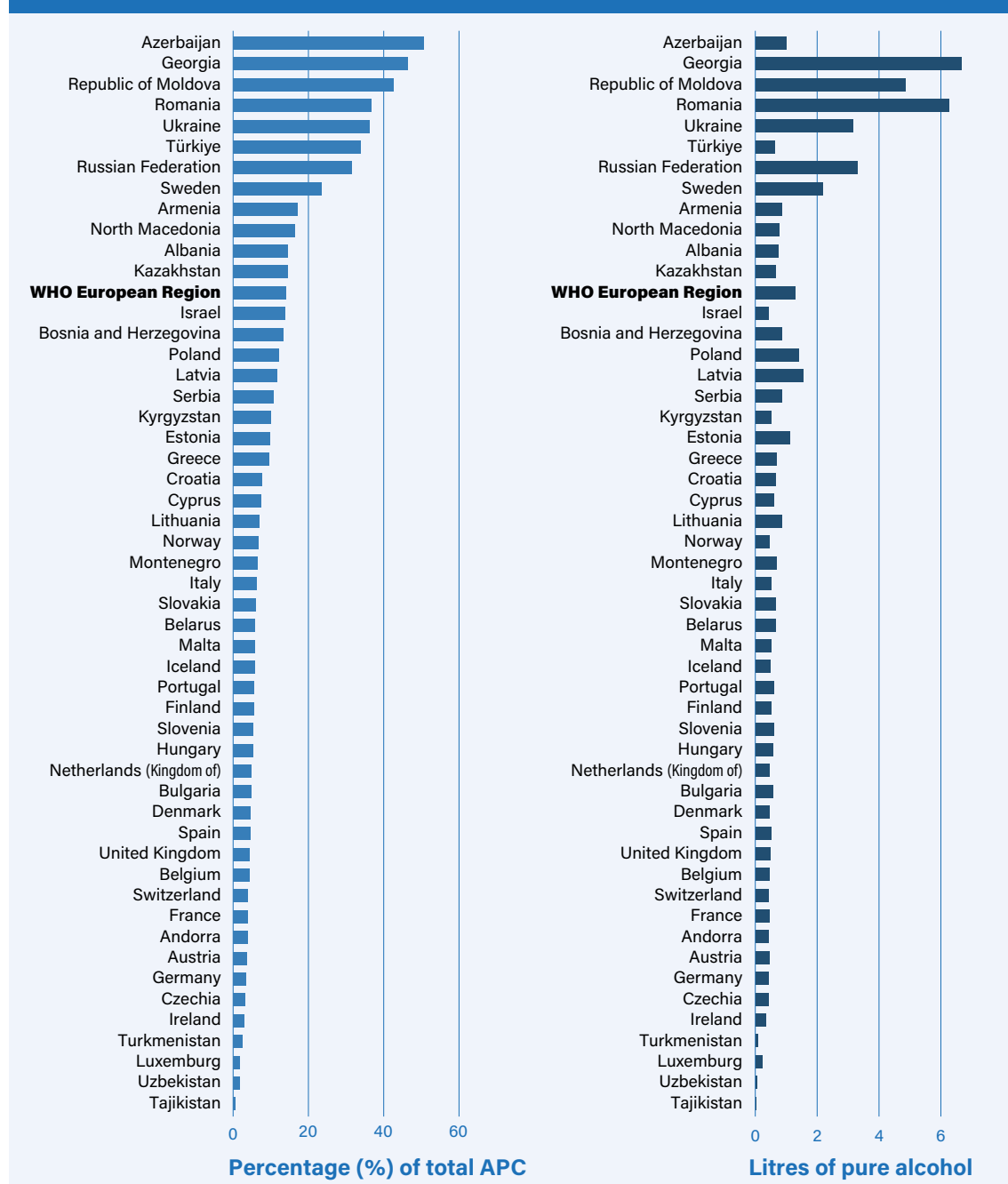
Notes: The bottom row comprises examples of the box immediately above.

\* Surrogate alcohol may be intended for human consumption, but intentionally not declared as such in order to evade taxes. For this form of surrogate alcohol, the term pseudo-surrogate is sometimes used.

Source: updated from Lachenmeier et al. (2021).

Fig. 12 shows the extent of unrecorded APC in different Member States of WHO European Region. Overall, in 2019, unrecorded alcohol represented 14% of total APC, accounting for 1.3 litres of pure alcohol per capita. However, there was a wide range in values across Member States of the Region, with unrecorded alcohol representing less than 10% of total APC in most Member States, to more than 40%, in countries such as Azerbaijan, Georgia and Republic of Moldova.

**Fig. 12. Total unrecorded APC in the adult (15+ years) population, as percentage of total APC and in litres of pure alcohol, in the WHO European Region, 2019**



## The role of unrecorded alcohol in alcohol consumption

Given the different categories and the wide range in the extent of unrecorded alcohol, each instance of implementation of taxation increase or other financial measures must be considered separately. However, a recent review of the literature (Rehm et al., 2022) showed clearly that there is no automatic link between taxation increases and increases of unrecorded consumption. For instance, the 2017 substantial increase in excise taxation in Lithuania (beer and wine by more than 110%, spirits by more than 20%) was not associated with higher levels of unrecorded consumption (Štelemekas et al., 2023). Furthermore, some decreases in excise taxation in Finland were associated with increases in unrecorded consumption.

Any implementation of an alcohol taxation increase, MP or other financial measures should consider the potential impacts on unrecorded consumption, and available countermeasures should be implemented (Lachenmeier et al., 2021; World Health Organization, 2023a). In most countries, with low levels of unrecorded consumption, this is not a major consideration. However, some countries may consider measures such as regulating surrogate alcohol products and homemade production, strengthening law enforcement, employing tax stamps and introducing electronic surveillance systems. These systems monitor and track alcoholic beverages throughout the supply chain, from production to retail, enhancing transparency, preventing tax evasion and combating counterfeiting. For instance, Russia's Unified State Automated Information System tracks alcohol production, import and retail to address tax evasion and illegal production (World Health Organization, 2023a). Similarly, in tobacco control, the EU's comprehensive track-and-trace system for tobacco products, implemented under the Tobacco Products Directive and aligned with WHO's Framework Convention on Tobacco Control Protocol, serves as an effective model for combating illicit trade (European Commission, 2024).

# 7 The health impact of alcohol taxation

This chapter explores the transformative potential of alcohol taxation through case studies from Georgia, Germany and Portugal, countries characterized by low overall excise tax shares and no or zero excise tax rates on wine. Two distinct taxation scenarios are analysed:

1. a 10-percentage-point increase in the tax share, by beverage type
2. a 10% increase in retail prices driven by tax rate changes, by beverage type.

These scenarios illustrate how strategic adjustments in taxation policies can influence alcohol consumption levels and mortality rates (Box 8), underscoring the critical role of tailored fiscal measures in advancing public health objectives. Further details on the data sources and methodology used for these scenarios are available in the Technical notes.

## Box 8. Understanding the impact of alcohol taxation on mortality reduction

Alcohol taxation is a powerful tool for influencing both consumption behaviour and public health outcomes. The primary mechanism by which increases in excise taxes can reduce alcohol-attributable mortality lies in their impact on alcohol prices and subsequent consumption:

- When excise taxes on alcoholic beverages increase, retail prices also rise. This price increase typically leads to a reduction in alcohol consumption, as higher prices tend to discourage excessive drinking. This effect is often described in terms of price elasticity, which measures the responsiveness of consumption to price changes. The price elasticity of alcoholic beverages varies according to national preferences for beverage types and specific target groups, such as heavy drinkers.
- A reduction in alcohol consumption is reflected in a decrease in the national average per capita consumption of pure alcohol. This value has been shown to be a key determinant of alcohol consumption patterns at the national level. By observing changes in national consumption, it is possible to estimate shifts in the distribution of consumption, including the prevalence of heavy drinkers within the population.
- Reduced consumption can lead to a short-term decline in alcohol-attributable deaths, including those from cardiovascular diseases, liver diseases and injuries. In the long term, it may also result in a significant reduction in alcohol-attributable cancers, which have a latency period before their impact on mortality becomes evident.



## 7.1. The current impact of alcohol prices

Georgia faces relatively low alcohol prices, with beer costing 2.07 Georgian lari per 330 ml, wine priced at 10.95 lari per 750 ml, and spirits at 23.96 lari per 750 ml. The excise tax shares are modest, with beer taxed at 9.6%, wine exempt and spirits taxed at 18.8%. In 2019, Georgia had the highest per capita alcohol consumption among the three countries, at 15.0 litres of pure alcohol per adult (15+ years). This high consumption contributed to more than 5000 alcohol-attributable deaths, out of around 39 000 total deaths in the country.

Germany currently presents some of the lowest alcohol prices in the Region. Beer costs €0.56 per 330 ml, wine €2.29 per 750 ml, and spirits €9.10 per 750 ml. Excise tax shares are also minimal, with beer taxed at 5.6%, wine at a zero-tax rate and spirits taxed at 40.3%. In 2019, Germany had an average adult per capita alcohol consumption of 12.1 litres of pure alcohol per capita, contributing to more than 46 200 alcohol-attributable deaths, out of around 327 300 total deaths.

Alcohol prices in Portugal are slightly higher than in Germany but still relatively low. Beer is priced at €0.65 per 330 ml, wine at €2.19 per 750 ml, and spirits at €14.39 per 750 ml. Excise tax shares are 10.7% for beer, a zero-tax rate for wine and 29.2% for spirits. Portugal's per capita alcohol consumption was the lowest among the three countries in 2019, at 10.6 litres of pure alcohol per adult. This level of consumption resulted in more than 5200 alcohol-attributable deaths, out of a total of almost 45 500 deaths.

## 7.2. Scenario 1: the impact of a 10% increase in retail prices

In Georgia, implementing a 10% increase in retail prices for alcoholic beverages would lead to price rises of 0.21 lari for beer (330ml), 1.10 lari for wine (750ml), and 2.40 lari for spirits (750ml). The excise tax share would increase by 6.8 percentage points for beer, 7.7 percentage points for wine and 6.0 percentage points for spirits. As a result, per capita alcohol consumption would decrease to an estimated 14.4 litres of pure alcohol per capita, reflecting a 4.0% reduction (95% confidence interval (CI): -4.7%, -3.3%). This reduction in consumption would contribute to 326.2 avoided alcohol-attributable deaths (95% CI: 274.5, 375.7), equating to a 0.83% (95% CI: 0.70%, 0.96%) reduction in total mortality due to immediate causes (i.e. excluding alcohol-attributable cancers due to latency effects).

In Germany, the price increase would be close to minimal, with retail prices rising by €0.06 for beer (330ml), €0.23 for wine (750ml), and €0.91 for spirits (750ml). Correspondingly, the excise tax share would increase by 7.1 percentage points for beer, 7.6 percentage points for wine and 4.0 percentage points for spirits. The estimated per capita alcohol consumption would decrease to 11.6 litres, reflecting a 4.3% reduction (95% CI: -4.9%, -3.7%). This reduction would lead to 1698.7 avoided alcohol-attributable deaths (95% CI: 1473.7, 1924.5), which would account for a 0.52% (95% CI: 0.45%, 0.59%) reduction in total mortality due to immediate causes.

In Portugal, the price adjustment would result in increases of €0.06 for beer (330ml), €0.22 for wine (750ml), and €1.44 for spirits (750ml). These changes would correspond to excise tax share increases of 6.4 percentage points for beer, 8.6 percentage points for wine and 4.7 percentage points for spirits. Alcohol consumption would decrease to 10.2 litres per capita, marking a 4.1% reduction (95% CI: -4.7%, -3.5%). This decrease would contribute to 662.6 avoided alcohol-attributable deaths (95% CI: 565.6, 760.8), equating to a 1.46% (95% CI: 1.24%, 1.67%) reduction in total mortality due to immediate causes.

---

### 7.3. Scenario 2: the impact of a 10-percentage-point increase in tax shares

---

In Georgia, implementing a 10 percentage-point increase in the excise tax share would raise retail prices by 0.32 lari for 330 ml of beer (15.3% increase in price), 1.46 lari for 750 ml of wine (13.4% increase in price) and 4.28 lari for 750 ml of spirits (17.9% increase in price). Alcohol consumption would decrease to 14.05 litres per capita, corresponding to a 6.3% reduction (95% CI: -7.3%, -5.2%). This would prevent 517.8 alcohol-attributable deaths (95% CI: 435.2, 597.4), equating to a 1.32% (95% CI: 1.11%, 1.53%) reduction in total mortality due to immediate causes.

For Germany, the retail price would rise by €0.08 for 330 ml of beer (14.6% increase in price), €0.31 for 750 ml of wine (13.5% increase in price) and €2.70 for 750 ml of spirits (29.6% increase in price). As a result, alcohol consumption would decrease to 11.06 litres per capita, reflecting an 8.5% reduction (95% CI: -9.6%, -7.3%). This would prevent 3395.6 alcohol-attributable deaths (95% CI: 2937.0, 3859.6), equating to a 1.04% (95% CI: 0.90%, 1.18%) reduction in total mortality due to immediate causes.

A 10 percentage-point increase in excise tax share in Portugal would result in price increases of €0.11 for 330 ml of beer (16.5% increase in price), €0.26 for 750 ml of wine (11.9% increase in price) and €3.42 for 750 ml of spirits (23.8% increase in price). Alcohol consumption would decrease to 9.9 litres per capita, reflecting a 6.9% reduction (95% CI: -7.9%, -5.9%). This reduction would prevent 1127.4 alcohol-attributable deaths (95% CI: 968.5, 1,285.6), equating to a 2.48% (95% CI: 2.13%, 2.83%) reduction in total mortality due to immediate causes.

# 8 Conclusions and policy considerations

This report highlights the critical role of alcohol taxation and pricing policies in reducing alcohol consumption and mitigating alcohol-attributable health harms within the WHO European Region. The evidence presented demonstrates that well-designed fiscal measures, especially alcohol excise taxes, can lead to meaningful reductions in both alcohol consumption and alcohol-attributable mortality.

Key findings include the following:

- **Implementation gaps:** despite the evidence supporting alcohol excise taxation as an effective public health tool, significant gaps exist in the application of these measures across the Region. Tax rates are generally low, and many countries still apply low or zero excise tax rates on certain beverages, especially wine, resulting in substantial missed opportunities to reduce alcohol-attributable harms.
- **Affordability and pricing:** affordability is a key driver of consumption, with lower prices and greater affordability contributing to higher levels of alcohol consumption. Alcoholic beverages are particularly affordable in EU countries. Ensuring that alcohol is less affordable remains an essential focus for public health policy.
- **Alcohol taxation impact:** tax increases have shown potential for significantly reducing alcohol consumption. Increases of 10% in retail prices or a 10-percentage-point rise in excise tax share have resulted in estimated reductions in consumption ranging from 4.0% to 8.5% across the case studies analysed (Georgia, Germany and Portugal). This reduction could contribute to a decline in total mortality of up to 2.5%, excluding the long-term impact on alcohol-attributable cancers. In addition, it has been shown that higher tax shares are associated with considerably higher revenues.

The findings from this report underscore the importance of strengthening alcohol tax policies to align with public health objectives. Policy-makers are encouraged to carry out the following:

- **Increase excise taxes** on alcoholic beverages, to increase the alcohol price, reduce alcohol affordability and overall alcohol consumption.
- **Change the tax structure to reflect alcohol content**, to achieve the public health goal of reducing overall alcohol consumption and alcohol harm. Evidence shows that there is no safe level of alcohol consumption, and most harm is proportional to the amount of alcohol consumed. Thus, from a public-health perspective, taxation should be applied based on the amount of pure alcohol purchased.

- **Consider if your country needs specific policy measures against heavy drinking.** This could be additional targeted forms of taxation, MP policies or other non-pricing alcohol policies, such as screening and brief interventions or availability restrictions. These policies can prevent the most harmful forms of alcohol consumption of cheap alcohol, protecting high-risk groups.
- **Consider linking alcohol taxes and MP policies to inflation and/or disposable income,** to ensure long-term effectiveness.
- **Strengthen regional and intersectoral collaboration** to share best practices and align tax and pricing policies across the European Region, particularly for addressing cross-border alcohol sales.
- **Strengthen monitoring** to ensure that decision-makers have the needed information at their disposal.

In conclusion, alcohol taxation, pricing measures and efforts to reduce affordability remain essential pillars for improving public health outcomes in the WHO European Region. Strengthening these policies, informed by the evidence presented in this report, can make a significant contribution to reducing alcohol consumption and the associated burden on public health systems.

## Technical notes

This report describes the alcohol tax data collected in the WHO European Region from August to December 2022. Conducted by WHO as part of a global initiative, this survey is scheduled to recur every 2 years. Data were collected and validated through focal points in the ministries of health and ministries of finance of Member States, who reported prices and taxes applicable to the most sold brand of 330ml beer, 750ml wine, and 750ml spirits. The collected data covered several tax types, including specific excise taxes (based on either alcohol content or volume), ad valorem excise taxes, VAT, import duties and other relevant indirect taxes.

The survey included responses from 49 countries within the WHO European Region. The remaining four Member States in the Region – Bosnia and Herzegovina, San Marino, Serbia and Turkmenistan – did not provide responses or submitted incomplete data that could not be clarified within the allotted timeframe. Additionally, no estimates for the price and tax share of beer, wine and spirits were available for Andorra, Armenia, France, Israel, Luxembourg, Malta, Monaco, Montenegro, North Macedonia, Republic of Moldova, Russian Federation and Tajikistan. For wine, estimates were not available for Czechia and Latvia. Furthermore, no data on minimum price policies for beer, wine and spirits were available for Luxembourg and North Macedonia, and information on vodka and other spirits was missing for Slovakia.

Detailed information on the calculations of tax amounts and shares is described in the technical notes of the Global report on the use of alcohol taxes, 2023 (World Health Organization, 2023b). In summary, for specific excise taxes based on alcohol content or volume, the tax amount was calculated by multiplying the concentration of alcohol by the tax rate per unit of alcohol or the volume by the tax rate per unit of volume. Ad valorem excise taxes are based on varying tax bases depending on the country, including producer or manufacturer prices, retail prices excluding some or all taxes, and values including cost, insurance and freight. To enable fair comparisons between countries, total and excise taxes were expressed as a percentage of the total retail price including all taxes, using available retail prices and tax rates.

Price per 10 grams of alcohol was calculated using the price per bottle or can, expressed in international dollars at PPP using the International Monetary Fund's World Economic Outlook implied PPP conversion rates for 2022 (International Monetary Fund, 2024), divided by the grams of alcohol in that same bottle, considering the specific volume and alcohol content of the beverage and multiplied by 10. Affordability of alcoholic beverages was estimated as the number of cans of beer (330ml), bottles of wine (750ml) and bottles of spirits (750ml) that can be purchased with the national GDP household consumption expenditure per capita for 2022 (United Nations Statistics Division, 2024).

Unrecorded APC among adults (15+ years) in 2019 was obtained from the WHO official estimates (World Health Organization, 2024b). The percentage of total alcohol consumption represented by unrecorded alcohol was estimated by dividing unrecorded APC by total APC, for each country and at regional level.

The case studies on reducing alcohol consumption and mortality through alcohol taxation were based on WHO's 2019 one-year estimates of total APC among adults (15+ years) and alcohol-attributable mortality (World Health Organization, 2024b). The impact on alcohol consumption was estimated following the methodology outlined by Rovira and colleagues (Rovira et al., 2021), while the resulting reductions in mortality were calculated using the approach described by Shield and colleagues (Shield et al., 2020). To focus on the immediate effects of alcohol taxation, cancer-related mortality was excluded from the analysis due to its longer latency period.

# References<sup>1</sup>

- Eurasian Economic Commission (2024). Customs Code of the Eurasian Economic Union. Moscow: Eurasian Economic Commission (<https://eec.eaeunion.org/upload/medialibrary/9dd/Customs-Code-of-the-EAEU.pdf>).
- European Commission (2024). Systems for tobacco traceability and security features. Brussels: European Commission ([https://health.ec.europa.eu/tobacco/product-regulation/systems-tobacco-traceability-and-security-features\\_en](https://health.ec.europa.eu/tobacco/product-regulation/systems-tobacco-traceability-and-security-features_en)).
- European Union (1992a). Council Directive 92/83/EEC of 19 October 1992 on the harmonization of the structures of excise duties on alcohol and alcoholic beverages. Brussels: European Union (<http://data.europa.eu/eli/dir/1992/83/oj>).
- European Union (1992b). Council Directive 92/84/EEC of 19 October 1992 on the approximation of the rates of excise duty on alcohol and alcoholic beverages. Brussels: European Union (<http://data.europa.eu/eli/dir/1992/84/oj>).
- Fogarty J (2010). The demand for beer, wine and spirits: A survey of the literature. *J of Econ Surv.* 24(3): 428–478 (<https://doi.org/10.1111/j.1467-6419.2009.00591.x>).
- Guindon GE, Zhao K, Fatima T, Garasia S, Quinn N, Baskerville NB et al (2022). Prices, taxes and alcohol use: a systematic umbrella review. *Addiction.* 117(12):3004–3023 (<https://doi.org/10.1111/add.15966>).
- International Monetary Fund (2024). World Economic Outlook. Washington DC: International Monetary Fund (<https://www.imf.org/en/Publications/WEO>).
- Kilian C, Braddick F, Rehm J (2024). The legal framework for the production of alcohol for personal use within the European Union. *Nord Stud Alcohol Dr.* 41(4):439–447 (<https://doi.org/10.1177/14550725241246133>).
- Lachenmeier DW, Neufeld M, Rehm J (2021). The impact of unrecorded alcohol use on health: What do we know in 2020? *J Stud Alcohol Drugs.* 82(1):28–41 (<https://doi.org/10.15288/jsad.2021.82.28>).
- Manthey J, Gobiņa I, Isajeva L, Neneman J, Reile R, Štelemėkas M et al (2024). The Impact of Raising Alcohol Taxes on Government Tax Revenue: Insights from Five European Countries. *Appl Health Econ Health Policy.* 22(3):363–374 (<https://doi.org/10.1007/s40258-024-00873-5>).
- Manthey J, Hassan SA, Carr S, Kilian C, Kuitunen-Paul S, Rehm J (2021a). Estimating the economic consequences of substance use and substance use disorders. *Expert Rev Pharmacoecon Outcomes Res.* 21(5):869–876 (<https://doi.org/10.1080/14737167.2021.1916470>).
- Manthey J, Hassan SA, Carr S, Kilian C, Kuitunen-Paul S, Rehm J (2021b). What are the Economic Costs to Society Attributable to Alcohol Use? A Systematic Review and Modelling Study. *Pharmacoeconomics.* 39(7):809–822 (<https://doi.org/10.1007/s40273-021-01031-8>).
- Ornstein SI, Levy D (1983). Price and income elasticities of demand for alcoholic beverages. *Recent Dev Alcohol.* 1:303–45 ([https://doi.org/10.1007/978-1-4613-3617-4\\_18](https://doi.org/10.1007/978-1-4613-3617-4_18)).
- Rehm J, Gmel GE, Gmel G, Hasan OSM, Imtiaz S, Popova S et al (2017). The relationship between different dimensions of alcohol use and the burden of disease—an update. *Addiction.* 112(6):968–1001 (<https://doi.org/10.1111/add.13757>).
- Rehm J, Kailasapillai S, Larsen E, Rehm MX, Samokhvalov AV, Shield KD et al (2014). A systematic review of the epidemiology of unrecorded alcohol consumption and the chemical composition of unrecorded alcohol. *Addiction.* 109(6):880–893 (<https://doi.org/10.1111/add.12498>).
- Rehm J, Neufeld M, Room R, Sornpaisarn B, Štelemėkas M, Swahn MH et al (2022). The impact of alcohol taxation changes on unrecorded alcohol consumption: A review and recommendations. *Int J Drug Pol.* 99:103420 (<https://doi.org/10.1016/j.drugpo.2021.103420>).
- Rovira P, Kilian C, Neufeld M, Rumgay H, Soerjomataram I, Ferreira-Borges C et al (2021). Fewer Cancer Cases in 4 Countries of the WHO European Region in 2018 through Increased Alcohol Excise Taxation: A Modelling Study. *Eur Addict Res.* 27(3):189–197 (<https://doi.org/10.1159/000511899>).
- Shield K, Manthey J, Rylett M, Probst C, Wettlaufer A, Parry CDH et al (2020). National, regional and global burdens of disease from 2000 to 2016 attributable to alcohol use: a comparative risk assessment study. *Lancet Pub Health.* 5(1):e51–e61 ([https://doi.org/10.1016/S2468-2667\(19\)30231-2](https://doi.org/10.1016/S2468-2667(19)30231-2)).
- Sornpaisarn B, Shield K, Cohen J, Schwartz R, Rehm J (2013). Elasticity of alcohol consumption, alcohol-related harms, and drinking initiation in low- and middle-income countries: A systematic review and meta-analysis. *Int. J. Alcohol Drug Res.* 2(1) (<https://doi.org/10.7895/ijadr.v2i1.50>).

<sup>1</sup> All references were accessed 6 March 2025.

- Sornpaisarn B, Shield KD, Österberg E, Rehm J (2017). Resource tool on alcohol taxation and pricing policies. Geneva: World Health Organization (<https://iris.who.int/handle/10665/255795>). License: CC BY-NC-SA 3.0 IGO.
- Štelemėkas M, Midttun NG, Lange S, Liutkute-Gumarov V, Manthey J, Miščikiene L, et al (2023). Unrecorded alcohol consumption in Lithuania: a modelling study for 2000–2021. *Alcohol Alcoholism*. 58(6):612–618 (<https://doi.org/10.1093/alcalc/agad063>).
- Stumbrys D, Štelemėkas M, Jasilionis D, Rehm J (2024). Weekly pattern of alcohol-attributable male mortality before and after imposing limits on hours of alcohol sale in Lithuania in 2018. *Scand J Public Health*. 52(6):698–703 (<https://doi.org/10.1177/14034948231184288>).
- The Global Health Observatory (2025). Global prices and taxes on alcoholic beverages [online database]. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/topics/taxes-on-alcoholic-beverages>).
- United Nations Statistics Division (2024). GDP by Expenditure, at current prices - National currency [online database]. New York: United Nations Statistics Division (<https://unstats.un.org/unsd/snaama/basic>).
- Wagenaar AC, Salois MJ, Komro KA (2009). Effects of beverage alcohol price and tax levels on drinking: A meta-analysis of 1003 estimates from 112 studies. *Addiction*. 10(2):179–190 (<https://doi.org/10.1111/j.1360-0443.2008.02438.x>).
- Wagenaar AC, Tobler AL, Komro KA (2010). Effects of alcohol tax and price policies on morbidity and mortality: A systematic review. *Am J Public Health*. 100(11) (<https://doi.org/10.2105/AJPH.2009.186007>).
- WHO Regional Office for Europe (2022a). European framework for action on alcohol, 2022–2025: Information sheet. Copenhagen: WHO Regional Office for Europe (<https://www.who.int/europe/publications/m/item/european-framework-for-action-on-alcohol-2022-2025>).
- WHO Regional Office for Europe (2022b). No place for cheap alcohol: the potential value of minimum pricing for protecting lives. Copenhagen: WHO Regional Office for Europe (<https://iris.who.int/handle/10665/356597>). License: CC BY-NC-SA 3.0 IGO.
- WHO Regional Office for Europe (2025). Alcohol taxation and pricing policies implementation toolkit: A practical guide for selecting, implementing and evaluating policies. Copenhagen: WHO Regional Office for Europe. (<https://iris.who.int/handle/10665/381218>) License: CC BY-NC-SA 3.0 IGO.
- Wilson LB, Pryce R, Angus C, Hiscock R, Brennan A, Gillespie D (2021). The effect of alcohol tax changes on retail prices: how do on-trade alcohol retailers pass through tax changes to consumers? *Eur J Health Econ*. 22(3):381–392 (<https://doi.org/10.1007/s10198-020-01261-1>).
- World Health Organization (2010). Technical manual on tobacco tax administration. Geneva: World Health Organization (<https://iris.who.int/handle/10665/44316>).
- World Health Organization (2023a). WHO technical manual on alcohol tax policy and administration. Geneva: World Health Organization (<https://iris.who.int/handle/10665/374284>). License: CC BY-NC-SA 3.0 IGO.
- World Health Organization (2023b). Global report on the use of alcohol taxes 2023. Geneva: World Health Organization (<https://iris.who.int/handle/10665/374614>). License: CC BY-NC-SA 3.0 IGO.
- World Health Organization (2024a). Global status report on alcohol and health and treatment of substance use disorders. Geneva: World Health Organization (<https://iris.who.int/handle/10665/377960>). License: CC BY-NC-SA 3.0 IGO.
- World Health Organization (2024b). Global alcohol action plan 2022–2030. Geneva: World Health Organization (<https://iris.who.int/handle/10665/376939>). License: CC BY-NC-SA 3.0 IGO.
- World Health Organization (2024c). Technical Annex (version dated 26 December 2022) Updated Appendix 3 of the WHO Global NCD Action Plan 2013–2030. Geneva: World Health Organization (<https://cdn.who.int/media/docs/default-source/ncds/mnd/2022-app3-technical-annex-v26jan2023.pdf>).



## Annex

Tax share, price and affordability of the most sold brand of 330ml of beer, 750ml of wine and 750ml of spirits.

Member state	Beverage	Excise tax share	Total tax share	Price of 10 g of ethanol (Int\$)	Affordability (alcohol bottles) <sup>a</sup>
Albania	Beer	11.6%	28.3%	1.93	5 963
	Wine	30.1%	46.8%	0.79	1 895
	Spirits	38.2%	54.8%	0.70	853
Andorra	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Armenia	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Austria	Beer	7.7%	24.4%	1.11	23 078
	Wine	0.0%	16.7%	0.57	8 568
	Spirits	19.1%	35.8%	1.08	1 450
Azerbaijan	Beer	10.0%	25.3%	1.58	4 248
	Wine	2.7%	18.0%	1.27	1 019
	Spirits	22.6%	37.8%	0.89	422
Belarus	Beer	9.4%	26.0%	1.31	6 849
	Wine	8.9%	25.5%	1.58	1 003
	Spirits	51.8%	68.5%	0.56	849
Belgium	Beer	10.5%	28.5%	0.78	29 521
	Wine	18.7%	36.4%	0.49	8 032
	Spirits	39.8%	57.2%	1.24	1 139
Bosnia and Herzegovina	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Bulgaria	Beer	5.3%	22.0%	1.13	14 052
	Wine	0.0%	16.7%	0.46	5 773
	Spirits	24.5%	41.1%	0.72	1 066
Croatia	Beer	8.9%	28.9%	1.73	1 340
	Wine	0.0%	20.0%	1.93	220
	Spirits	25.3%	45.3%	0.91	159



Member state	Beverage	Excise tax share	Total tax share	Price of 10 g of ethanol (Int\$)	Affordability (alcohol bottles) <sup>a</sup>
Cyprus	Beer	11.8%	27.8%	1.14	17 632
	Wine	0.0%	16.0%	1.33	2 395
	Spirits	21.2%	37.1%	1.02	978
Czechia	Beer	11.3%	28.6%	0.67	30 666
	Wine	0.0%	17.4%	0.84	3 633
	Spirits	37.8%	55.2%	0.81	1 257
Denmark	Beer	11.5%	31.5%	0.81	32 235
	Wine	14.3%	34.3%	1.07	3 529
	Spirits	13.2%	33.2%	2.17	1 440
Estonia	Beer	18.4%	35.0%	1.46	12 995
	Wine	13.9%	30.5%	1.66	1 707
	Spirits	57.9%	74.6%	0.68	1 400
Finland	Beer	28.8%	48.2%	2.04	12 451
	Wine	36.4%	55.7%	1.49	2 875
	Spirits	66.8%	86.2%	1.16	1 380
France	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Georgia	Beer	9.6%	24.8%	1.59	7 130
	Wine	0.0%	15.3%	1.42	1 345
	Spirits	18.8%	39.3%	1.01	615
Germany	Beer	5.6%	21.5%	0.63	42 319
	Wine	0.0%	16.0%	0.45	10 367
	Spirits	40.3%	56.3%	0.57	2 610
Greece	Beer	21.0%	40.4%	1.39	13 901
	Wine	0.0%	19.4%	0.82	4 141
	Spirits	36.4%	55.8%	1.57	675
Hungary	Beer	13.5%	34.7%	1.10	16 676
	Wine	0.0%	21.3%	0.59	5 615
	Spirits	45.0%	66.3%	1.04	937
Iceland	Beer	30.9%	40.8%	1.79	17 365
	Wine	38.9%	48.8%	2.17	2 215
	Spirits	66.5%	76.4%	1.97	813

## Alcohol taxes, prices and affordability in the WHO European Region in 2022

Member state	Beverage	Excise tax share	Total tax share	Price of 10 g of ethanol (Int\$)	Affordability (alcohol bottles) <sup>a</sup>
Ireland	Beer	25.6%	44.3%	1.51	19 770
	Wine	39.8%	58.5%	1.47	3 089
	Spirits	48.6%	67.3%	1.50	1 003
Israel	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Italy	Beer	12.3%	30.4%	1.21	21 254
	Wine	0.0%	18.0%	0.35	14 644
	Spirits	8.9%	26.9%	2.37	2 041
Kazakhstan	Beer	8.3%	19.0%	1.47	8 386
	Wine	1.5%	12.2%	1.56	1 511
	Spirits	21.3%	32.0%	0.88	737
Kyrgyzstan	Beer	11.3%	22.0%	2.19	2 194
	Wine	4.5%	15.2%	1.77	434
	Spirits	22.4%	33.1%	0.91	232
Latvia	Beer	23.5%	40.9%	0.83	21 794
	Wine	—	—	—	—
	Spirits	46.8%	64.1%	0.88	1 194
Lithuania	Beer	16.7%	34.0%	1.21	17 769
	Wine	24.6%	43.7%	1.46	2 592
	Spirits	52.1%	69.4%	1.07	1 148
Luxembourg	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Malta	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Monaco	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Montenegro	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—

Member state	Beverage	Excise tax share	Total tax share	Price of 10 g of ethanol (Int\$)	Affordability (alcohol bottles) <sup>a</sup>
Netherlands (Kingdom of the)	Beer	15.8%	33.2%	0.80	29 551
	Wine	9.2%	30.0%	1.27	3 269
	Spirits	25.1%	43.4%	1.12	1 238
North Macedonia	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Norway	Beer	40.1%	67.3%	1.30	18 722
	Wine	33.4%	54.4%	1.61	2 557
	Spirits	68.5%	88.9%	1.34	924
Poland	Beer	17.7%	36.4%	0.70	21 154
	Wine	6.1%	24.8%	2.04	1 907
	Spirits	47.8%	66.5%	0.95	1 028
Portugal	Beer	10.7%	29.4%	0.89	23 302
	Wine	0.0%	5.7%	0.49	6 916
	Spirits	29.2%	47.9%	1.09	1 052
Republic of Moldova	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Romania	Beer	4.4%	20.4%	1.42	14 242
	Wine	0.0%	16.0%	1.16	2 552
	Spirits	25.2%	41.2%	0.99	1 010
Russian Federation	Beer	—	—	0.16	9 310
	Wine	—	—	1.48	1 301
	Spirits	—	—	5.41	996
San Marino	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Serbia	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Slovakia	Beer	5.1%	21.7%	1.78	11 379
	Wine	0.0%	16.7%	1.93	1 734
	Spirits	30.3%	46.9%	0.90	1 175

## Alcohol taxes, prices and affordability in the WHO European Region in 2022

Member state	Beverage	Excise tax share	Total tax share	Price of 10 g of ethanol (Int\$)	Affordability (alcohol bottles) <sup>a</sup>
Slovenia	Beer	19.8%	37.8%	1.39	14 670
	Wine	0.0%	18.0%	0.68	5 394
	Spirits	17.4%	35.4%	1.72	730
Spain	Beer	4.8%	22.2%	0.69	31 514
	Wine	0.0%	17.4%	0.20	22 624
	Spirits	36.0%	53.3%	0.57	2 149
Sweden	Beer	38.5%	58.5%	0.76	27 000
	Wine	43.9%	63.9%	0.72	5 535
	Spirits	66.8%	86.8%	1.12	1 139
Switzerland	Beer	7.0%	14.1%	0.92	37 542
	Wine	0.0%	7.1%	2.25	2 713
	Spirits	17.3%	24.4%	2.05	2 108
Tajikistan	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Türkiye	Beer	36.1%	51.4%	3.65	5 008
	Wine	54.2%	69.5%	1.04	3 360
	Spirits	57.8%	73.1%	3.12	287
Turkmenistan	Beer	—	—	—	—
	Wine	—	—	—	—
	Spirits	—	—	—	—
Ukraine	Beer	10.1%	26.7%	—	4 906
	Wine	5.0%	21.7%	—	968
	Spirits	27.5%	44.2%	—	485
United Kingdom of Great Britain and Northern Ireland	Beer	27.5%	44.1%	1.31	25 066
	Wine	38.2%	54.8%	1.71	3 066
	Spirits	47.2%	63.8%	1.15	1 341
Uzbekistan	Beer	9.9%	22.9%	1.71	3 438
	Wine	0.0%	13.0%	2.25	418
	Spirits	22.3%	35.3%	0.76	342

<sup>a</sup> Number of alcoholic beverages (330ml of beer, 750ml of wine, and 750ml of spirits) that can be purchased annually in a country, based on the national gross domestic product per capita household consumption expenditure.



## The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

### Member States

Albania  
Andorra  
Armenia  
Austria  
Azerbaijan  
Belarus  
Belgium  
Bosnia and Herzegovina  
Bulgaria  
Croatia  
Cyprus  
Czechia  
Denmark  
Estonia  
Finland  
France  
Georgia  
Germany

Greece  
Hungary  
Iceland  
Ireland  
Israel  
Italy  
Kazakhstan  
Kyrgyzstan  
Latvia  
Lithuania  
Luxembourg  
Malta  
Monaco  
Montenegro  
Netherlands (Kingdom of the)  
North Macedonia  
Norway  
Poland

Portugal  
Republic of Moldova  
Romania  
Russian Federation  
San Marino  
Serbia  
Slovakia  
Slovenia  
Spain  
Sweden  
Switzerland  
Tajikistan  
Türkiye  
Turkmenistan  
Ukraine  
United Kingdom  
Uzbekistan

### World Health Organization

Regional Office for Europe  
UN City, Marmorvej 51,  
DK-2100, Copenhagen Ø, Denmark  
Tel.: +45 45 33 70 00  
Fax: +45 45 33 70 01  
Email: [eurocontact@who.int](mailto:eurocontact@who.int)  
Website: [www.who.int/europe](http://www.who.int/europe)

