

Anna Pļuta, Baltic International Center for Economic Policy Studies (BICEPS)
Anna Zasova, Baltic International Center for Economic Policy Studies (BICEPS)
Inese Gobiņa, Rīga Stradiņš University
Inese Stars, Rīga Stradiņš University
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Alcohol-Related Costs and Potential Gains from Prevention Measures in Latvia

Latvia has the highest per capita registered alcohol consumption rate among EU and OECD countries (OECD, 2024). In this brief, we show that the total budgetary (direct) and non-budgetary (indirect) costs associated with alcohol consumption in Latvia in 2021 amounted to 1.3–1.8 percent of the GDP. Non-financial costs from alcohol abuse amounted to a loss of nearly 90 thousand years spent in good health and with a good quality of life. We assess the potential effects of five alcohol misuse prevention measures, all recognized by the World Health Organization (WHO) as effective in reducing harmful alcohol consumption – especially when implemented together. Our analysis focuses on the individual effects of each measure and shows that raising the minimum legal age for alcohol purchases and enforcing restrictions on alcohol advertising and marketing are likely to yield the largest reductions in alcohol-related costs, although these effects will take time to fully materialize.

Introduction

Alcohol consumption is an important risk factor for morbidity and premature death worldwide. It is associated with over 200 diagnoses recorded in the International Statistical Classification of Diseases and Related Health Problems (CDC, 2021), including liver diseases, injuries, malignancies, and diseases of the heart and circulatory system (WHO, 2018). Alcohol consumption at any level is considered unsafe (Burton & Sheron, 2018).

Globally, an average of 3 million people die each year due to alcohol-related harm, accounting for 5.3 percent of all deaths (Shield et al., 2020). In 2019, alcohol consumption was the main risk factor for disease burden in people between 25 and 49 years of age and the second most important risk factor in people aged 10-24 years (GDB, 2019).

Alcohol use is associated not only with health problems but also with social issues, posing risks to people's safety and well-being. It causes harm not only to the individual but also to family members and society at large (Rehm & Hingson, 2013). Various sectors, including health, justice, home affairs, and social care agencies, are involved in preventing the consequences of alcohol misuse and reducing the harm this causes. This demonstrates the multiple negative impacts of alcohol use on public health and well-being (Flynn & Wells, 2013).

Latvia has **the highest per capita registered alcohol consumption rate among the EU and OECD countries** (OECD, 2024), and no clear trend of declining levels has been observed in recent years. Moreover, the consumption of spirits, which can potentially cause more harm than other alcoholic beverages (Mäkelä et al., 2011), is steadily increasing. According to WHO data (WHO, 2024), the high per capita consumption of registered absolute alcohol in Latvia, compared to other countries, is largely due to the consumption of spirits. In Latvia, the share of spirits in total consumption is around 40 percent. By comparison,

in the Czech Republic and Austria, where total per capita alcohol consumption is similar to Latvian levels, spirits account for only 25 and 16 percent of total consumption, respectively, while the proportions of beer and wine are higher.

This policy brief reports the estimated costs related to alcohol use in Latvia in 2021, based on the study *Alcohol Use, its Consequences, and the Economic Benefits of Prevention Measures* (Pluta et al., 2023). It also provides an overview of the expected benefits from implementing preventive measures, such as raising the minimum legal age for buying alcohol and restricting alcohol advertisements.

Costs of Alcohol Use in Latvia

We estimate three types of costs associated with alcohol consumption:

- Direct costs: These include budgetary costs related to alcohol consumption, such as healthcare, law enforcement and social assistance costs, as well as expenses for public education.
- Indirect costs: These costs represent unproduced output in the economy and arise from the premature deaths of alcohol users, as well as their reduced employment or lower productivity.
- Non-financial welfare costs: This type of cost arises from the compromised quality of life of alcohol users, their families, and friends.

We estimate direct costs by utilizing detailed disaggregated data on alcohol-related budget costs in the healthcare sector, law enforcement institutions (including police, courts, and prisons), costs of public education (e.g., educating schoolchildren about the consequences of alcohol consumption), costs of awareness-raising campaigns, and social assistance costs. For cost categories that are only partially attributable to alcohol consumption, we classify only a fraction of these costs as attributable to alcohol use (e.g., liver cirrhosis is attributable to alcohol usage in 69.8 percent of the cases, so only this fraction of the budget costs on compensated medicaments is



attributable to alcohol use). To estimate social assistance costs, including public expenditure on social services, sobering-up facilities, social care centres, orphanages, and specialized care facilities for children and out-of-family care, we conduct a survey among social assistance providers.

To estimate non-budgetary costs, we construct a counterfactual scenario where alcohol is not being overly consumed, ensuring higher productivity, a lower rate of unemployment, and lower mortality within the labour force. Finally, non-financial welfare costs are estimated by measuring the reduction in quality of life or QALYs lost (quality-adjusted-life-years) (for details, see the methodology section in Pluta et al. (2023)).

The total direct and indirect costs of alcohol abuse in 2021 amounted to 1.3–1.8 percent of Latvia's GDP. In comparison, revenues from excise tax on alcoholic beverages in 2021 accounted for 0.7 percent of the GDP.

Direct costs, which entail expenses directly covered by the state budget, comprised 0.45 percent of the GDP. Among these costs, healthcare expenses was the largest component, constituting 37.8 percent of total direct costs and 2.7 percent of general government spending on healthcare. Nearly half of these healthcare costs were attributed to the provision of inpatient hospital treatment for patients diagnosed with alcohol-related conditions. Another significant component of budgetary costs is associated with addressing alcohol abuse and combating illicit trade through law enforcement, accounting for 31.9 percent of total direct costs and 6.5 percent of general government spending on public order and safety.

Alcohol-related indirect costs amount to 0.9-1.3 percent of Latvia's GDP. Despite not being directly covered by the state budget, they represent unproduced output and thus entail economic losses. The primary components of these indirect costs are linked to decreased output resulting from higher unemployment and reduced economic activity (0.6-0.8 percent of the GDP), as well as decreased output due to premature death

among heavy drinkers (0.2-0.4 percent of the GDP). Notably, indirect costs attributed to alcohol misuse by males constitute almost two-thirds of the total indirect costs.

Finally, the non-financial costs from alcohol abuse in 2021 are estimated to reach 88 620 years spent in good health and with a good quality of life. These losses primarily stem from the distress experienced by household members from alcohol users, the decline in the quality of life among alcohol users themselves, and the premature mortality of such individuals.

The Effects of Preventive Measures

We consider five alcohol misuse preventive measures, all of which are included in the list of WHO "best buys" policies that effectively reduce alcohol consumption (WHO, 2017):

- Reducing the availability of retail alcohol by tightening restrictions on on-site retail hours
- Raising the minimum legal age for alcohol purchase from 18 to 20 years
- Increasing excise tax on alcohol
- Lowering the maximum allowed blood alcohol concentration limit for all drivers from 0.5 to 0.2 per mille (currently 0.2 for new drivers and 0.5 for all other drivers)
- Restricting alcohol advertising and marketing

Our estimates of the expected reduction in alcohol-related costs resulting from these measures are based on two main components: (1) our own estimates of alcohol-related costs in Latvia, as described above, and (2) external estimates of the impact of the five misuse preventative measures on alcohol consumption derived from existing literature on other countries. We then apply these external estimates to the calculated alcohol-related costs and Latvian data on alcohol consumption to determine the estimated impact for Latvia (for further details, see the methodology outlined in Pluta et al. (2023)).



Our findings indicate that the most substantial reduction in direct costs attributed to alcohol misuse is anticipated through raising the minimum alcohol purchase age to 20 years (yielding an 11.4-15.8 percent estimated cost reduction). Previous literature has shown that early initiation of alcohol use significantly increases the likelihood of risky drinking, and that risky drinking during adolescence significantly increases the risk of heavy drinking in adulthood (Betts et al., 2018; McCarty, 2004). Hence, raising the minimum legal age for alcohol purchase represents an effective tool to reduce alcohol consumption also among the adult population.

Another highly effective measure to reduce alcohol consumption is imposing restrictions on advertising, which results in a 5.0-8.0 percent estimated reduction of direct costs. There is a large body of literature indicating that alcohol advertising increases alcohol consumption among young people, as well as significantly increases the likelihood of alcohol initiation among adolescents and young adults (Noel, 2019; Jernigan et al., 2017). Also, among the adult population, alcohol consumption decreases with stricter advertising restrictions (see Casswell, 2022; Rossow, 2021).

However, it is important to emphasize that the full impact of both above discussed preventative measures will only manifest in the long run.

The Effect of Illicit Markets

It is often argued that illicit alcohol markets, which provide access to cheaper alternative alcohol than registered commercial markets, can limit the effectiveness of preventive measures on overall alcohol consumption (Rehm et al., 2022).

To explore the interplay between illicit alcohol circulation and alcoholism prevention measures we conduct semi-structured interviews with experts regarding the prevalence of illicit alcohol circulation in Latvia and strategies to mitigate it.

While our main findings emphasize the inherent challenge of precisely quantifying the size of the

illicit alcohol market, our analysis suggests that the share of illicit alcohol in total alcohol consumption in Latvia is relatively low. We also conclude that the size of the illicit alcohol market has been diminishing in recent years, and that public interest in engaging with illicit alcohol is declining. Given these findings, the current scope of the illicit market is unlikely to substantially undermine the efficacy of alcohol control measures. This especially as the consumers of illicit alcohol represent a specific group minimally affected by legal alcohol control measures in the country.

Conclusion

Our findings underscore the substantial costs associated with the large alcohol consumption in Latvia. In 2021, budgetary (direct) and non-budgetary (indirect) costs reached 1.3–1.8 percent of Latvia's GDP. Furthermore, non-financial costs from alcohol abuse represent a loss of nearly 90 thousand years spent in good health and with a good quality of life.

Furthermore, non-financial costs from alcohol abuse represent a loss of nearly 90 thousand years spent in good health and with a good quality of life. This stems primarily from the distress experienced by alcohol users' household members, and the decline in life quality and premature mortality among users themselves.

Latvia stands out as a country with exceptionally high levels of absolute alcohol consumption per capita compared to other countries. Policy makers should implement effective preventive measures against alcohol consumption to maintain the sustainability of a healthy and productive society in Latvia.

Acknowledgement

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Anna Pluta

BICEPS

Anna.Pluta@biceps.org

www.biceps.org

Anna Pluta is a Research Fellow at the Baltic International Centre for Economic Policy Studies (BICEPS) and a doctoral degree candidate at the University of Latvia. Her main research interests include labour taxes, social benefits and consumption taxes.



Anna Zasova

BICEPS

Anna@biceps.org

www.biceps.org

Anna Zasova is a Research Fellow at the Baltic International Centre for Economic Policy Studies (BICEPS). She received her PhD degree in Economics from the University of Latvia. Her main research interests include public economics and labour economics.



Inese Gobiņa

Rīga Stradiņš University (RSU)

Inese.Gobina@rsu.lv

<https://www.rsu.lv/en/inese-gobina>

Inese Gobiņa (PhD, Associate Professor) has a public health and epidemiology background. Her research interests lie in health determinants and health-related outcomes at a population level.



Inese Stars

Rīga Stradiņš University (RSU)

Inese.Stars@rsu.lv

<https://www.rsu.lv/en/inese-stars>

Inese Stars has studied social sciences and obtained her PhD in pedagogy at the University of Latvia. Her research interests are related to social determinants of health, health literacy, and qualitative research methods in health research. She is an Assistant Professor in the Department of Public Health and Epidemiology at Rīga Stradiņš University.

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