

# Economic costs by alcohol in the RESET Alcohol Initiative countries

## Key Messages

1. Alcohol consumption causes significant burden of disease through premature death and disability.
2. This burden of disease attributable to alcohol use causes considerable economic costs, that could even exceed 2% of the Gross Domestic Product.
3. Raising the prices of alcoholic beverages through taxes is the most cost-effective and potentially most effective intervention to reduce the consumption of alcohol and its negative consequences.
4. Strengthening fiscal policies for alcoholic beverages would help governments to collect more revenue which would help to offset the economic costs from alcohol use.

## Background

Alcohol consumption is associated with more than 200 diseases including at least six cancers, premature death, disability, violence, traffic crashes, injuries, and other undesirable economic and social consequences. In 2019 alone, the World Health Organization (WHO) estimates that alcohol caused 2.6 million deaths worldwide (World Health Organization, 2024).

The health-harming consequences of alcohol consumption are primarily premature death and disability caused by the diseases and conditions associated with alcohol use. Premature mortality due to alcohol is typically measured in years of life lost (YLL), while disability is measured using the years lived with disability (YLD). The YLL are calculated in a population by multiplying the deaths attributable to

alcohol by the standard life expectancy at the age that the deaths occurred.

Meanwhile, the YLD are calculated by multiplying the prevalence of diseases and conditions attributable to alcohol by their respective disability weights (Ferrari et al., 2024). The sum of the YLL and the YLD is the disability-adjusted life-years (DALYs). Therefore, the DALYs are a comprehensive and useful metric of the burden of disease in a country or territory. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) provides internationally comparable information on disease burden estimates.

The significant harm to the health of individuals and the population caused by alcohol represented by these DALYs imposes sizeable economic costs. These

costs are both direct and indirect. Direct costs include the expenses related to health care, such as medicines, medical devices, qualified health care, health care facilities, and more. Because direct cost estimates require exhaustive data inputs and time-intensive detailed cost analyses for each disease associated with alcohol consumption, there is limited research. Indirect costs encompass the time of patients and families consumed by diseases and conditions, and thus, are largely related to productivity losses (Drummond, 2007). In contrast to direct costs, we can utilize DALYs more easily to generate defensible estimates of indirect ones.

To value the burden of disease caused by alcohol in the RESET Alcohol Initiative<sup>1</sup> countries (Brazil, Colombia, Kenya, Mexico, Philippines, and Sri Lanka), we employed DALYs estimates from the GBD Study (Institute for Health Metrics and Evaluation, 2024) and the Human Capital Approach (HCA) (Zweifel et al., 2009). In this method, a measure of productivity is required, and we assumed that 1 GDP per capita is equivalent to a DALY, following the Copenhagen Consensus (Arias et al., 2022). To calculate the indirect economic costs attributable to alcohol in each RESET country, we multiplied DALYs by the corresponding GDP<sup>2</sup> per capita in local currency units (LCU) (World Bank, 2024). To have a raw estimate of the direct costs attributable to alcohol, we assume that these are one-third of the total costs, based on a recent systematic review and modeling study (Manthey et al., 2021).

### Findings

Alcohol caused 4.5% of DALYs in Brazil, 2.39% in Colombia, 2.54% in Kenya, 3.75%

in Mexico, 2.94% in Philippines and 2.24% in Sri Lanka.

Table 1 shows the calculations of the indirect and direct costs caused by alcohol consumption in the RESET countries. Total costs caused by alcohol consumption represent 1.9% of the GDP in Brazil; 1% in Colombia; 1.4% in Kenya; 2.1% in Mexico; 1.5% in the Philippines, and 1% in Sri Lanka. These numbers are consistent with Manthey et al., who found that the mean costs of alcohol amounted to 1.5% of GDP and, with adjusting for all omitted components, these costs could increase to 2.6% of GDP in the countries included in their study (2021).

	DALYs	Indirect costs		Direct costs		Total costs % of GDP
		Billion LCU	% of GDP	Billion LCU	% of GDP	
<b>Brazil</b>						
Females	412,960	17.4	0.2%	8.7	0.1%	0.3%
Males	2,297,407	96.6	1.1%	48.3	0.5%	1.6%
<b>Total</b>	<b>2,710,367</b>	<b>114.0</b>	<b>1.3%</b>	<b>57.0</b>	<b>0.6%</b>	<b>1.9%</b>
<b>Colombia</b>						
Females	50,696	1173.6	0.1%	586.8	0.0%	0.1%
Males	295,949	6851.4	0.6%	3425.7	0.3%	0.9%
<b>Total</b>	<b>346,645</b>	<b>8025.0</b>	<b>0.7%</b>	<b>4012.5</b>	<b>0.3%</b>	<b>1.0%</b>
<b>Kenya</b>						
Females	59,403	13.5	0.1%	6.7	0.1%	0.2%
Males	426,721	96.8	0.8%	48.4	0.4%	1.2%
<b>Total</b>	<b>486,124</b>	<b>110.3</b>	<b>0.9%</b>	<b>55.2</b>	<b>0.5%</b>	<b>1.4%</b>
<b>Mexico</b>						
Females	146,186	30.7	0.1%	15.4	0.1%	0.2%
Males	1,605,965	337.4	1.3%	168.7	0.6%	1.9%
<b>Total</b>	<b>1,752,151</b>	<b>368.1</b>	<b>1.4%</b>	<b>184.1</b>	<b>0.7%</b>	<b>2.1%</b>
<b>Philippines</b>						
Females	147,529	25.1	0.1%	12.6	0.1%	0.2%
Males	1,008,203	171.8	0.9%	85.9	0.4%	1.3%
<b>Total</b>	<b>1,155,732</b>	<b>197.0</b>	<b>1.0%</b>	<b>98.5</b>	<b>0.5%</b>	<b>1.5%</b>
<b>Sri Lanka</b>						
Females	9,567	7.6	0.0%	3.8	0.0%	0.1%
Males	134,163	106.6	0.6%	53.3	0.3%	0.9%
<b>Total</b>	<b>143,729</b>	<b>114.3</b>	<b>0.6%</b>	<b>57.1</b>	<b>0.3%</b>	<b>1.0%</b>

Notes: own calculations based on DALYs estimates by the IHME and GDP and GDP per capita from the World Bank.

By sex, the burden of disease caused by alcohol, and thus the economic costs, are greater among males, because alcohol consumption has been linked to personal violence and risk-taking behaviors more commonly among males (Ragonese & Barker, 2019). Importantly, it is also

<sup>1</sup> <https://www.vitalstrategies.org/reset-alcohol-a-new-initiative-to-reduce-alcohol-related-health-harms/>

<sup>2</sup> Gross Domestic Product.

necessary to acknowledge that these costs do not include the indirect costs related to caregiving, which in most countries relies heavily on women (Rodriguez, n.d.) and that more research is needed regarding direct costs in each of the RESET countries. It is plausible that the one-third calculation used here underestimates these costs.

While the indirect costs estimates are substantial following the HCA, other methods for valuing health outcomes, such as the Willingness to Pay Approach (WTP),<sup>3</sup> would value the mortality attributable to alcohol in even greater amounts. For instance, the economic valuation of the mortality attributable to alcohol following the WTP approach (only indirect costs) exceeds by several times the indirect costs estimated under a Human Capital Approach (Table 2). Thus, the estimates presented in this policy note should be interpreted as a minimum bound of the true indirect costs caused by alcohol in the RESET countries.

**Table 2. Indirect costs by mortality caused by alcohol using a Willingness to Pay Approach. All ages, Brazil, Colombia, Kenya, Mexico, Philippines, Sri Lanka, 2021.**

Country	Deaths attributable to alcohol	VSL in million USD	Attributable costs in million USD	Attributable costs in million LCU	% of GDP
Brazil	53063	1.2	61550.8	332029.9	3.7%
Colombia	4966	0.9	4676.2	17508687.1	1.5%
Kenya	12824	0.4	4509.7	494435.7	4.1%
Mexico	38853	1.5	58234.9	1180561.0	4.4%
Philippines	27478	0.6	15347.0	755911.0	3.9%
Sri Lanka	3542	0.6	2253.4	447894.2	2.5%

Notes: own calculations based on mortality estimates by the IHME following the OECD's transfer method.

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<sup>3</sup> In this method to value health outcomes, calculations and estimates of the society's willingness to pay to recover or to get a hypothetical health outcome, for instance, the value of a life or a year of life within a certain society. To produce our

## Conclusions

Alcohol consumption is related to a considerable burden of disease due to premature death and disability, which in turn imposes substantial costs to society and the economy, while concentrating the benefits to the alcohol industry owners.

Decades of evidence show that interventions, like those included in the WHO's SAFER initiative (Organización Panamericana de la Salud, 2020), are effective in reducing alcohol consumption and related negative consequences.

Moreover, raising the price of alcoholic beverages through increased excise taxes, and better tax structures are among the most cost-effective—and potentially most effective interventions—to reduce alcohol consumption (Babor et al., 2023; Lauer et al., 2022; World Health Organization, n.d.). Better tax structures could facilitate regular and large increases, and make sure to incorporate the harm caused by alcohol into price.

In addition, raising taxes on alcoholic beverages could help governments to collect more revenue that could be used to fund health care and other strategies aimed at mitigating the pernicious consequences of alcohol consumption and/or to engender healthier and more prosperous societies more generally.

estimates, we followed the OECD transfer method, (OECD, 2016) starting from a Value of Statistical Life from a meta-analysis of meta-analysis (Banzhaf, 2022) and GDP per capita values from the World Bank (World Bank, 2024).

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