6 The economics of alcohol consumption in Brazil

Harmful alcohol use is a growing public health issue in Brazil. There are worrying signs that consumption has increased in all population groups in recent years, particularly for heavy episodic drinking among adults. While Brazil adopted important and effective alcohol control policies including drink driving policy or mass media campaigns, there remains scope to improve. Implementing a more comprehensive alcohol policy package, including pricing policies, limiting advertising and introducing regulation of alcohol sports sponsorship, can help tackle harmful alcohol consumption in Brazil. Embedding more systematically screening and brief interventions in primary health care, and implementing education and awareness programmes, are other key strategies to combat alcohol consumption and reduce its harmful consequences in Brazil.

6.1. Introduction

Alcohol use is a leading cause of death and disability worldwide, particularly in those of working age. High alcohol intake is a major risk factor for heart diseases and stroke, liver cirrhosis and certain cancers, but even low and moderate alcohol consumption increases the long-term risk of these diseases. Foetal exposure to alcohol increases the risk of birth defects and intellectual impairment. Alcohol misuse is also associated with a range of mental health problems, including depression and anxiety disorders, obesity and unintentional injury, while it contributes to more accidents, injuries, violence and homicide, all this particularly among young people. The definition used in this chapter are presented in Box 6.1.

In this chapter, we explore the current epidemiological landscape of alcohol consumption in Brazil in comparison with OECD countries, along with its impact over the health system and the economy. Then, we review the main policies that Brazil has put in place, from population-level initiatives to individual interventions within the health system and other sectors. Subsequently, the chapter outlines a policy framework for alcohol consumption control and makes a number of recommendations to be considered in future reforms in Brazil. It finalises by providing evidence about the impact of implementing such policies over population health, the health system and the economy, while discussing some implementation considerations.

Box 6.1. Definitions of harmful alcohol use

Definitions and limits of harmful drinking differ by country and study

Based on a recent OECD study, this chapter uses the following definitions (OECD, 2021[1]):

- **Heavy or hazardous drinking** = more than 20 grammes (women) or 40 grammes (men) of pure alcohol per day. This is an often-used definition in alcohol research (Rehm et al., 2006[2]) and corresponds roughly to the various national guidelines set by countries.
- **Harmful drinking** = more than 40 grammes (women) or 60 grammes (men) of pure alcohol per day. This is an often-used definition in alcohol research (Rehm et al., 2006[2]).
- **Heavy episodic ("binge") drinking** = consuming 60 grammes or more of pure alcohol on a single occasion. This is in line with the definition used by the WHO (2021[3]).

In this research (OECD, 2021[1]), the amount of alcohol is quantified in grammes of pure alcohol for the sake of simplicity and harmonisation across the various types of beverage. The density of alcohol is 0.8 grammes per millilitre. However, the common usage is to quantify alcohol in volume. ABV stands for alcohol by volume and measures the amount of alcohol as a percentage of the drink's volume (here in millilitres). For example, various types of beverage contain different levels of alcohol:

- A 500 mL can of beer at 5% ABV contains 25 mL (or 20 grammes) of pure alcohol.

A 100 mL glass of wine at 12.5% ABV contains 12.5 mL (or 10 grammes) of pure alcohol.

There are some differences between the WHO GISAH database and the *Pesquisa Nacional de Saúde* 2019

In order to make valid cross-country comparisons, the chapter uses the World Health Organization Global Information System on Alcohol and Health (GISAH) database, rather than data from the last national health survey "*Pesquisa Nacional de Saúde 2019*". The GISAH database, which covers 52 countries, reports per capita alcohol consumption, while the national health survey reports the proportion of the population reported consuming alcohol once or more a week. The data from the national health survey thus differ from the WHO figures owing to methodological differences.

The results from the *Pesquisa Nacional de Saúde 2019* show an increase in alcohol consumption between 2013 and 2019 in the Brazilian population. In 2019, 26.4% of the adult population reported drinking once or more a week, compared to 23.9% in 2013. The increase in mainly driven by women, with an increase of 4.1 percentage points in the proportion of women reported drinking alcohol once or more a week (from 12.9% of women in 2013 to 17% in 2019). The *Pesquisa Nacional de Saúde 2019* also shows that 17% of drivers reported drinking while driving, ranging from 23% in the North and Northeast regions to 14.8% in the South and Southeast regions.

6.2. Alcohol consumption and its consequences in Brazil

6.2.1. Brazilians have a lower alcohol consumption than OECD averages

In terms of alcohol consumption, Brazil with 7.4 litres per capita amongst adults in 2018 is above the Latin America and the Caribbean (LAC) average of 6.9 but below OECD average of 10. Brazilian men drink 11.8 litres, around 4 litres less than the OECD average, while Brazilian women drink 3.3 litres, a bit less than 2 litres than the OECD average (Figure 6.1).

Figure 6.1. Alcohol consumption by gender in Brazil, OECD and LAC average, 2018

Total per capita (aged 15+) alcohol consumption (litres of pure alcohol), 2018
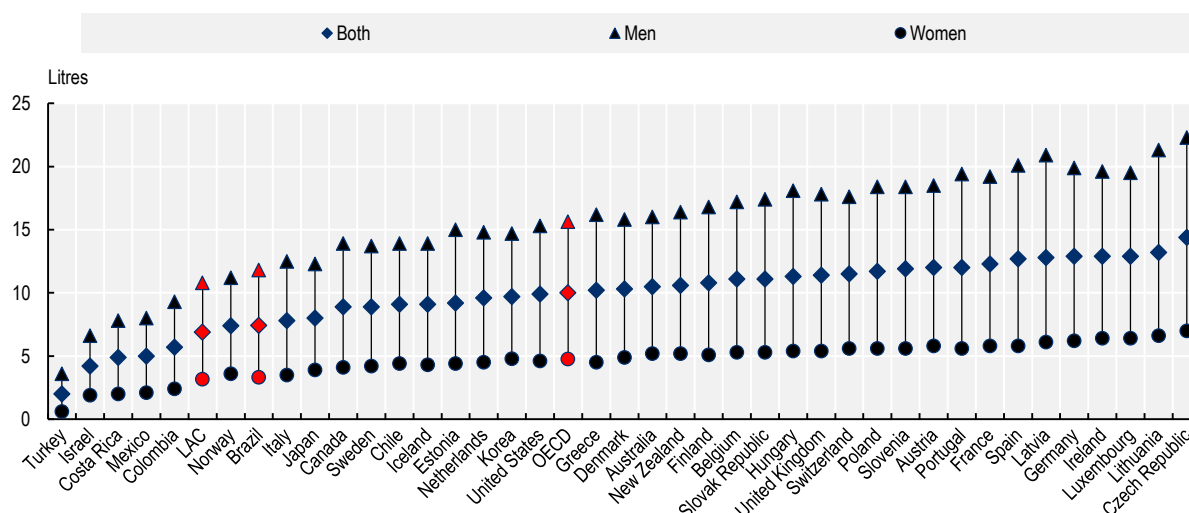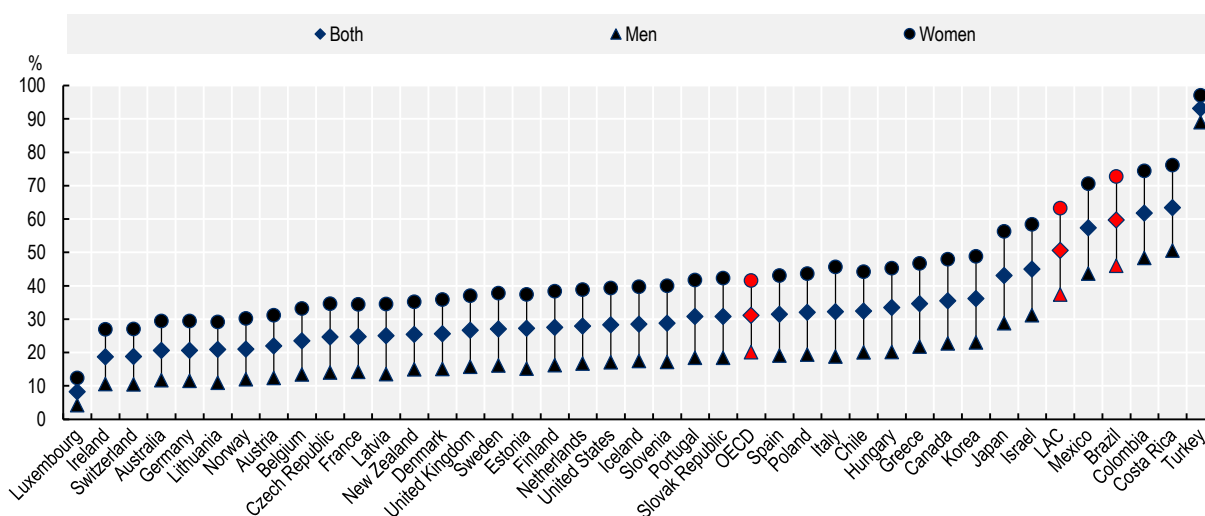

Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en, based on WHO Global Information System on Alcohol and Health 2020.

Brazil has a rate of abstainers – defined as people who did not consume alcohol in the preceding 12 months- of 59.7%, higher than the OECD average of 31.1% and closer to the 51% in LAC in 2016. Almost 73% of women in Brazil are abstainers, higher than the 42% in OECD countries, while 46% and 20.1% of men in Brazil and the OECD are abstainers, respectively (Figure 6.2).

Figure 6.2. Prevalence of abstainers by sex, Brazil and OECD

Proportion of population (aged 15+) that abstained from drinking alcohol in the past 12 months (%), 2016
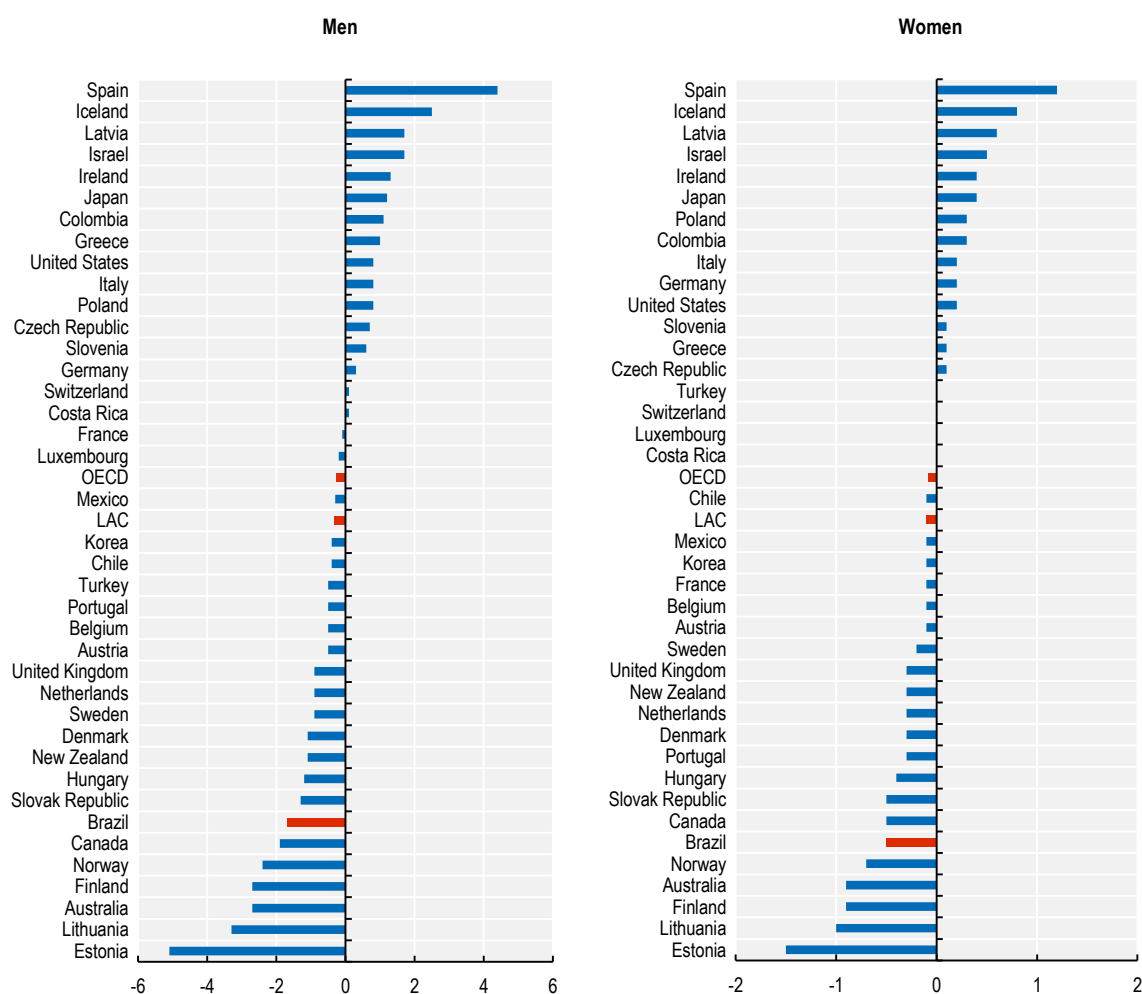

Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru. The latest national data sources about abstainers in Brazil are from 2012. For more details about methodological differences, please see Box 6.1.
Source: OECD (2021[4]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en, based on WHO Global Information System on Alcohol and Health 2020.

Between 2010 and 2018, the average total per capita alcohol consumption changed little for OECD countries. Amongst women, it decreased by 0.1 litres per capita and by 0.3 amongst men. The reduction was larger in Brazil: -0.5 litres for women and -1.7 litres for men (Figure 6.3). However, partly due to different methodologies, data sources, and different points in time, the National Health Survey of Brazil (PNS) shows that alcohol consumption among people aged 18 and more grew from 24% in 2013 to 26.4% in 2019, a 10% increase. Among men, it went from 36.3% in 2013 to 39.5% in 2019 (8.8% increase), while for women it augmented from 13% to 20.7% (59.2% increase).

Figure 6.3. Change by gender in alcohol consumption over time in Brazil and OECD countries

Change in total per capita (aged 15+) alcohol consumption between 2010 and 2018 (litres of pure alcohol).

Note: Positive numbers indicate an increase in alcohol consumption between 2010 and 2018, while negative numbers reflect a decrease in per capita consumption. LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
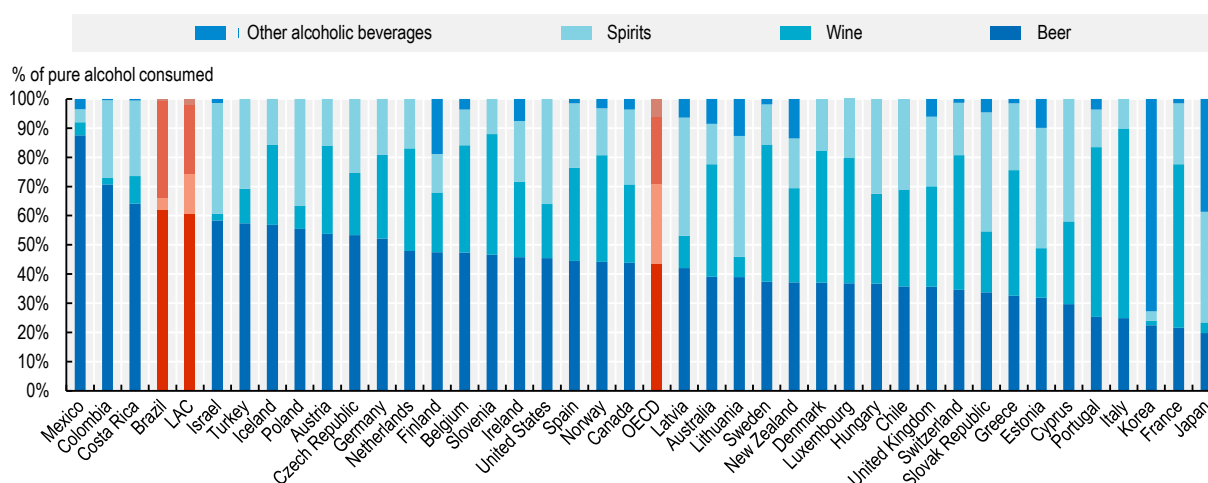Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en, based on WHO Global Information System on Alcohol and Health 2020.

6.2.2. The pattern of alcohol consumption in Brazil is different than in OECD countries, with binge drinking substantially increasing in recent years

On average in OECD countries, 43% of alcohol is consumed in the form of beer, 28% as wine and 23% as spirits. Brazil consumes a higher percentage of both beer and spirits, with 62% and 33%, respectively, while wine only reaches 4% (Figure 6.4).

Figure 6.4. Alcohol consumption by type of beverage in Brazil and OECD

Recorded consumption of pure alcohol by type of beverage (%), 2018

Note: Share of alcohol consumption by type of beverages is calculated by WHO using a standard approach across all the countries. Individual counties may use different approaches, which may result in slightly different estimates, for example, in Estonia. LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
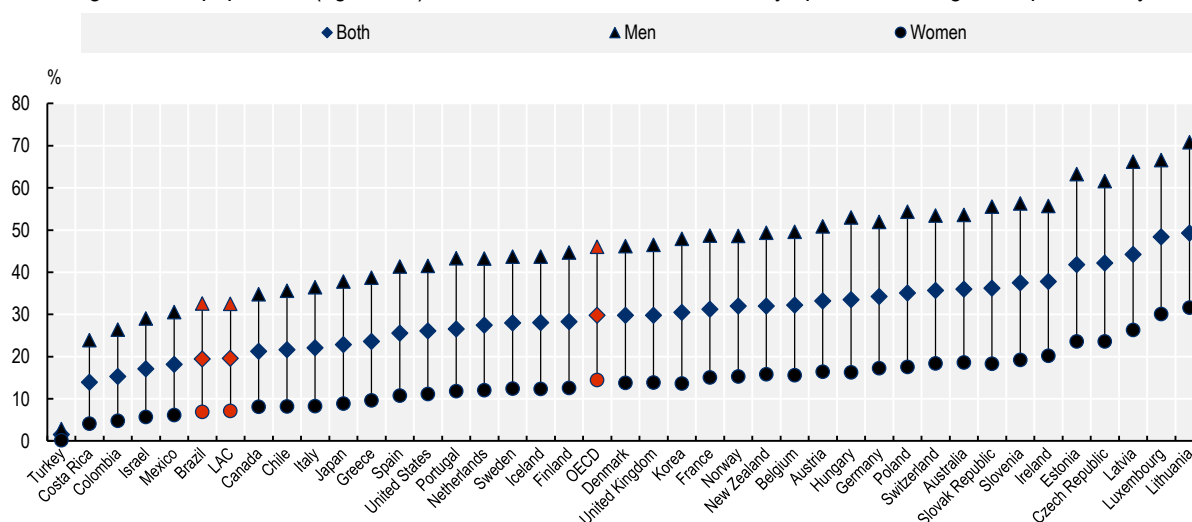Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en, based on WHO Global Information System on Alcohol and Health 2020.

While consuming large quantities of alcohol carries significant public health risks, heavy episodic drinking – drinking a large amount in a single sitting – poses health threats that go beyond the impact on overall consumption. Based on WHO data, on average, 30% of adults in OECD countries engage in heavy episodic drinking at least once within 30 days, while in Brazil this percentage is close to 20%. Heavy episodic drinking is higher among men in all countries.

Likewise, the National Health Survey of Brazil shows that heavy episodic drinking among Brazilians aged 18 and more has almost tripled, from 5.9% in 2013 to 17.1% in 2019. The increase was larger among women growing 3.8 times from 2.4% to 9.2%, but it is higher among men (9.9% to 26%). Worryingly, heavy episodic drinking grew across all age groups, with largest increase among people aged 18-24 years moving from 7.1% in 2013 to 22.9% in 2019, followed by people aged 25-39 who increased from 7.8% to 23.7%. In addition, heavy episodic drinking also increased across all educational groups, with people having higher education experiencing the largest increase moving from 5.2% in 2013 to 18.7% in 2019. People with no education or incomplete school increased from 5.4% to 12.7%.

Figure 6.5. Prevalence of heavy episodic drinking in Brazil and OECD countries

Percentage of adult population (aged 15+) with at least one occasion of heavy episodic drinking in the past 30 days, 2016


Note: Heavy episodic drinking is defined as consuming at least 60 grammes or more of pure alcohol. LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en, based on WHO Global Information System on Alcohol and Health 2020.

Repeated or continuous use of alcohol can result in alcohol dependence. In OECD countries, 3.7% of the population is alcohol dependent, while 1.4% of the population in Brazil is alcohol dependent. In all countries, alcohol dependence is higher amongst men than women. In the OECD, 5.9% of men and 1.6% of women are alcohol dependent, whereas in Brazil it reaches 2.3 and 0.5, respectively (Figure 6.6).

Figure 6.6. Prevalence of alcohol dependence in Brazil and OECD countries

Alcohol dependence (population aged 15+) by sex, 12-month prevalence (%), 2016
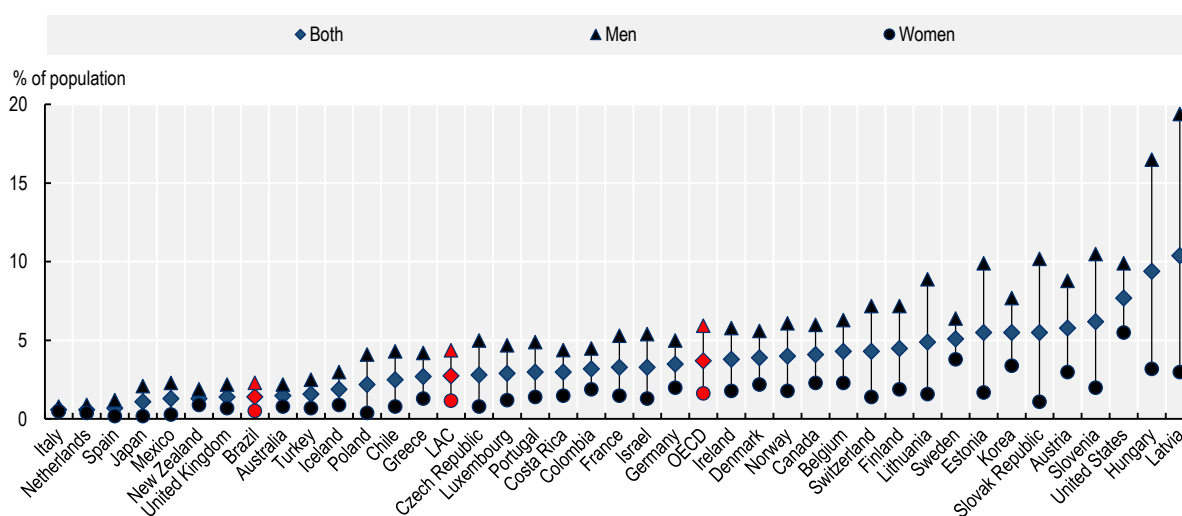
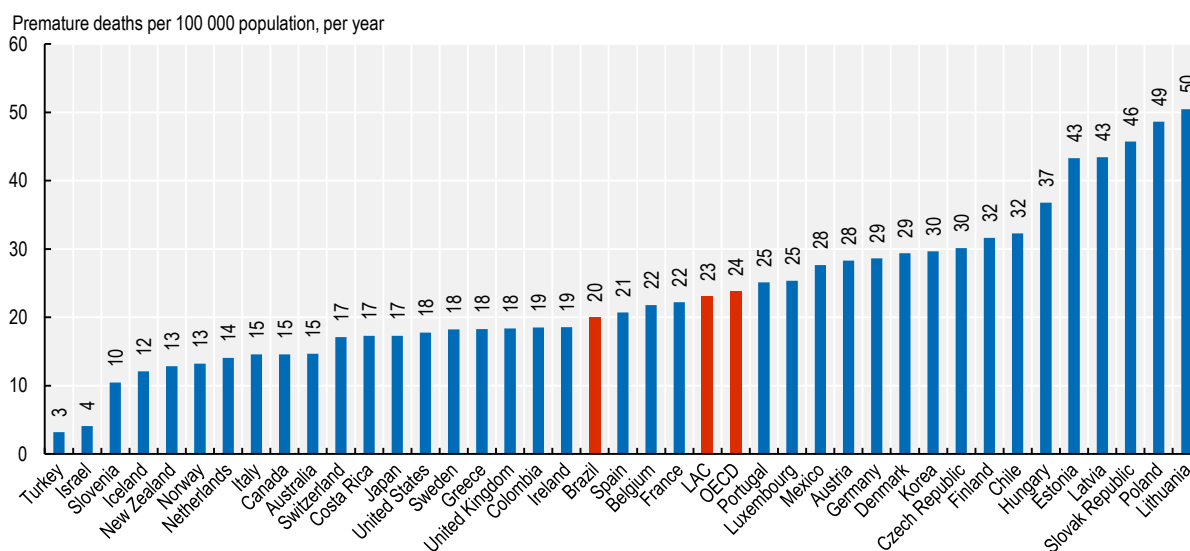Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en, based on WHO Global Information System on Alcohol and Health 2020.

6.2.3. The projected impact of alcohol consumption in Brazil's population health gets closer to OECD averages

Alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men can also lead to people dying prematurely – between ages 30 and 70, according to the WHO definition (WHO, 2018[4]). Specifically, the OECD 2021 model predicts that, on average across OECD countries, 24 people per 100 000 population will die prematurely each year due to alcohol consumption above the 1/1.5 drinks per day cap. In Brazil, this rate reaches 20 people per 100 000 population (Figure 6.7), which is higher the Colombia, the United States and Canada in the region of the Americas.

Figure 6.7. The impact of alcohol consumption in premature mortality

Annual number of premature deaths per 100 000 population due to alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men, average 2020-50
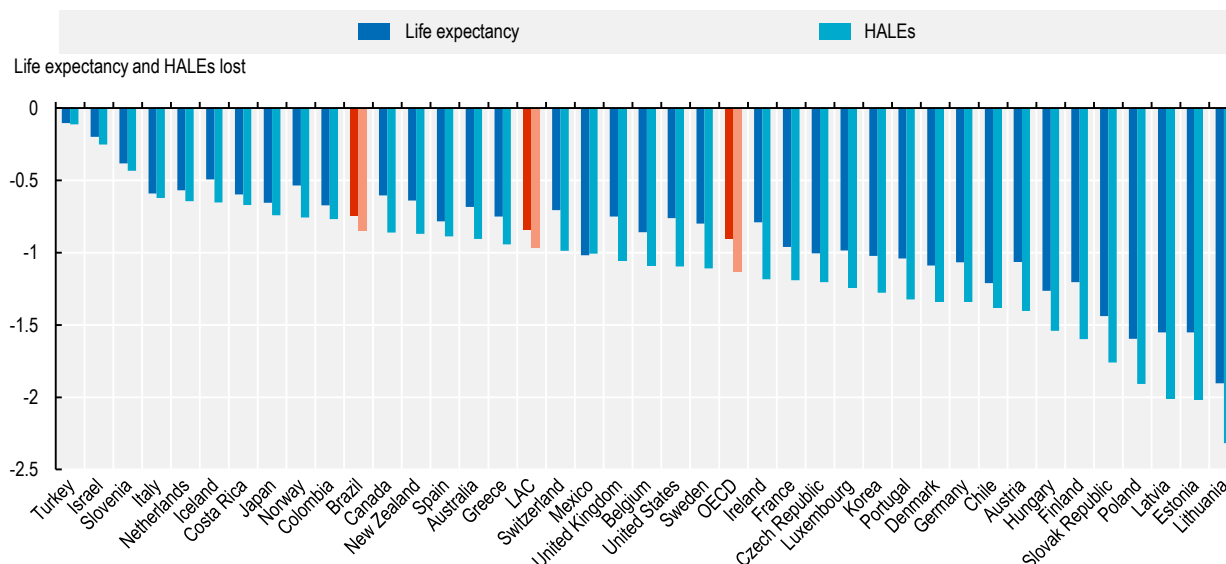

Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

The impact of alcohol consumption above the 1/1.5 drinks per day cap on population health can also manifest itself in shorter life expectancy. On average across all OECD countries, this risk factor decreases life expectancy by about 0.9 years over 2020-50, while in Brazil the decrease gets close to 0.8 years. The effect on years of healthy life expectancy (HALEs) – i.e. after taking into account the quality of life years lived through disability-adjusted weights for people with diseases – is even greater. Across all OECD countries, 1.13 HALEs are lost over 2020-50 due to this level of alcohol consumption, with Brazil predicted to lose 0.85 HALEs in the same period (Figure 6.8).

Figure 6.8. The impact of alcohol consumption in life expectancy

Life expectancy and HALEs lost due to alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men, average 2020-50

Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en,

Importantly, the general calculations of the negative impacts of any level of alcohol consumption are developed in Box 6.2.

Box 6.2. Any level of alcohol consumption causes population health harms

The risk of some diseases and outcomes such as dependence, cancers, cirrhosis and injuries is increased even at low levels of alcohol consumption. This means that the burden of total alcohol consumption (i.e. any drinking at all, as opposed to drinking above the 1/1.5 drinks per day cap) is greater. More specifically, the OECD model calculated that any alcohol consumption cumulatively over the next 30 years in 52 countries causes:

- approximately 14% more cases of dependence than drinking above the caps (1 263 million cases, 100% of the total, vs. 1 111 million cases, 88% of the total);

- an additional 48 million cases of injury (128% more cases than the burden caused by drinking above the caps) and extra 10 million of cancer (97% more cases);

- an extra 4.2 people per 100 000 population who will die prematurely (18% more than the premature deaths caused by drinking above the 1/1.5 drinks per day cap). In total, about 1.1 million people will die prematurely each year due to drinking above the cap, and about 1.3 million due to any level of alcohol consumption;

- an extra reduction in life expectancy of two months on average at the population level, on top of the lowering by nine months of life expectancy for consumption above the caps (17% greater reduction, compared to drinking above the 1/1.5 drinks per day cap).
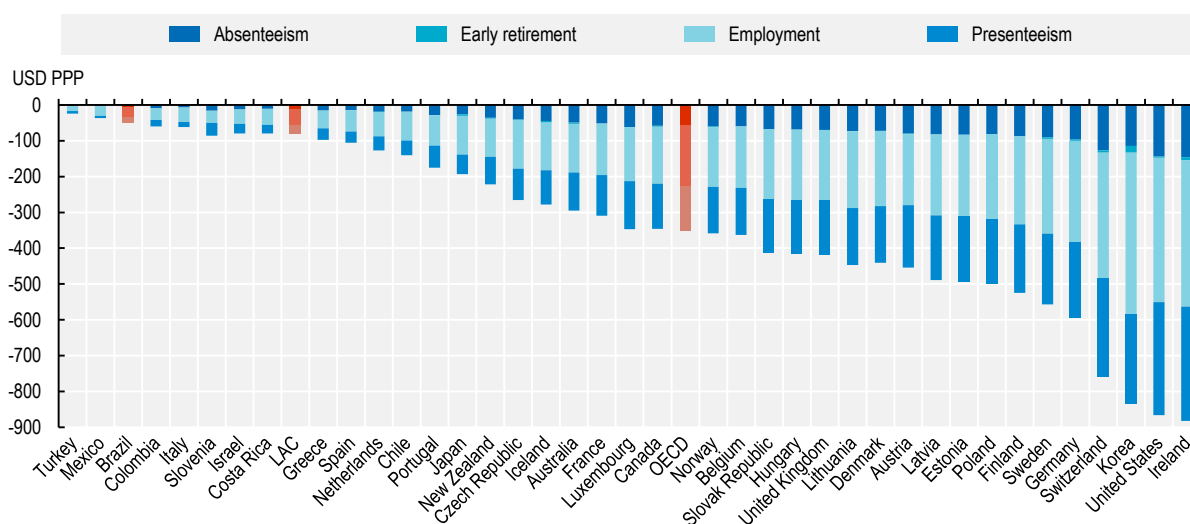
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

6.2.4. Current trends of alcohol consumption will adversely affect Brazil's economy

When the impact of alcohol consumption above the 1/1.5 drinks per day cap is translated into employment and productivity lost as measured by PPP-adjusted market wages, OECD countries lose on average USD PPP 351 per capita per year (see Figure 9). This is equivalent to a labour-related economic loss of about USD PPP 595 billion per year in OECD countries. This roughly corresponds to the annual GDP of Belgium or Sweden. Brazil is projected to lose on average USD PPP 47 per capita per year. In general, The majority of costs are due to decreases in employment, while the effect on early retirement is small (Figure 6.9).

Figure 6.9. Economic impact of diseases caused by alcohol consumption on employment and productivity

Per capita employment and productivity losses based on average wages due to alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men, per year, in USD PPP, average 2020-50

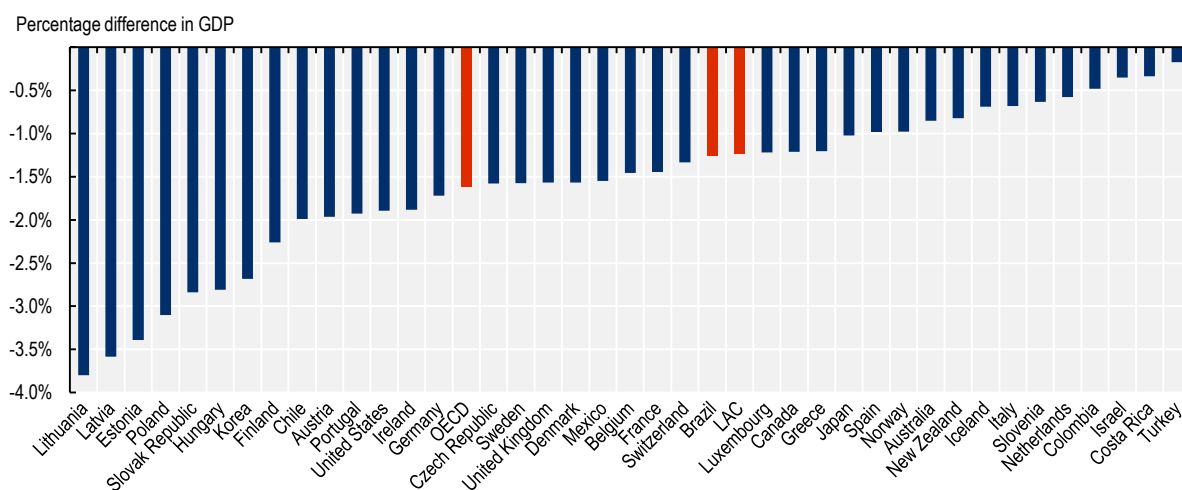Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

The general economy is also affected by alcohol consumption. On average in Brazil, GDP will be near 1.3% lower over the next 30 years due to the impact of diseases caused by alcohol consumption above the 1/1.5 drinks per day cap, just below of the 1.6% in average across OECD countries (Figure 6.10).

Fiscal pressure is another measure in the analysis of the long-term macroeconomic burden of diseases caused by drinking. Fiscal pressure is measured as government primary revenue needed to stabilise the public debt ratio, and is equivalent to an overall tax rate (under the assumption that governments respond to rising fiscal pressure by raising additional revenue). The impact of diseases caused by alcohol consumption on the overall tax rate can be translated into an equivalent impact on per capita taxes for the public. In Brazil, every person will be subject to USD PPP 16 per year in additional taxes due to alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men in 2020-50. However, this is lower than the USD PPP 232 in average across OECD countries (Figure 6.11).

Figure 6.10. The impact of diseases caused by alcohol consumption on GDP

Percentage difference in GDP due to diseases caused by alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men, average 2020-50

Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

Figure 6.11. Equivalent per capita tax increase due to diseases caused by alcohol consumption

Per capita annual tax needed to cover the increased fiscal pressure due to diseases caused by alcohol consumption above 1 drink per day for women and 1.5 drinks per day for men, in USD PPP, average 2020-50
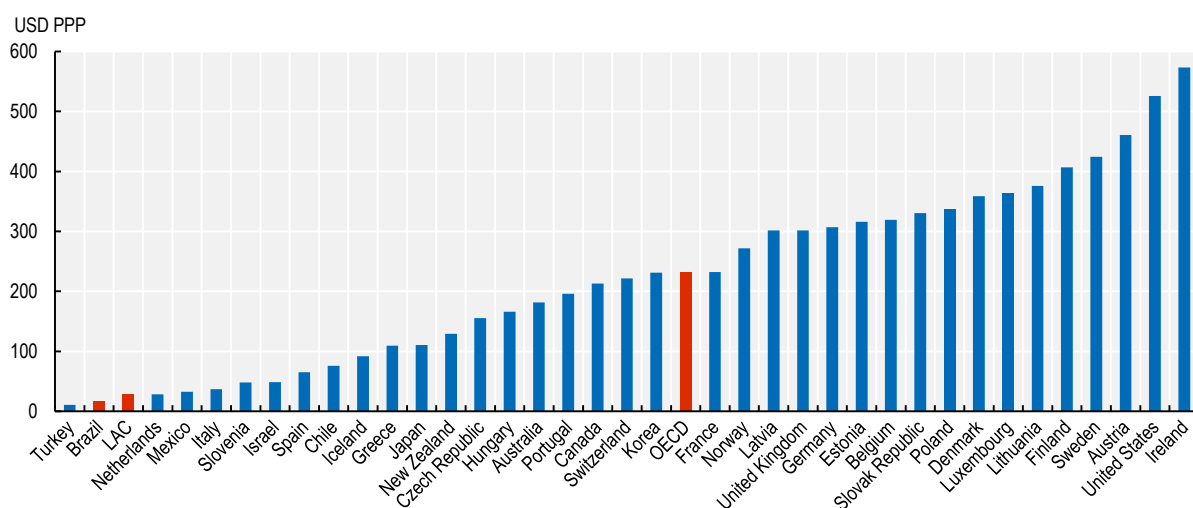
Note: LAC: Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

6.3. Brazil has adopted important and effective alcohol control policies

Recognising harmful use of alcohol as a key public health issue, in 2010, Member States of the WHO agreed to the Global Strategy to Reduce the Harmful Use of Alcohol (WHO, 2010[5]). Later on, this Global

strategy played an important role in shaping the WHO Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013-20, which included the aim of achieving a relative reduction of harmful alcohol use by 10% (Target 2) (WHO, 2013[6]). In 2017, the WHO released Tackling NCDs: "Best Buys" and Other Recommended Interventions for the Prevention and Control of Non-communicable Diseases, which outlined 11 interventions considered the best use of resources based on an assessment of their cost-effectiveness and feasibility to implement. Of these, taxation, restrictions on the availability of alcohol and bans on alcohol advertising were identified as best buys for alcohol policy (WHO, 2017[7]). These interventions are reflected in WHO's SAFER initiative which, in addition to the best buys, promotes the importance of drink-driving counter-measures and screening and brief intervention treatments (WHO, 2018[8]).

The OECD report on alcohol of 2021, presented new analysis and alcohol policies, which are further analysed and applied to the Brazilian context in the present section.

6.3.1. Brazil has adopted a national policy on alcohol but implementation is still a challenge

The 1988 Federal Constitution gave the basis for future alcohol policies in Brazil, particularly due to the recognition of health as one of the essential conditions for a dignified life, and therefore a fundamental right of citizens. The Inter-Ministerial Working Group of the Ministry of Health in 2003 and the Special Chamber of Public Policies on Alcohol in 2005 meant important institutional steps in terms of alcohol policy developments. In 2007, the first national policy on alcohol was created. Box 6.3 describes the most relevant national alcohol policy developments in Brazil until nowadays.

Box 6.3. Brazil's alcohol policy development through time

Política Nacional sobre o Álcool, 2007

The first national strategy of its kind in Brazil, the National Policy on Alcohol 2007 provides strategies for the collective confrontation of problems related to the consumption of alcohol, with an intersectoral and integral approach for the reduction of harm to health, as well as situations of violence and criminality associated with the harmful use of this substance.

Plano Emergencial de Ampliação do Acesso ao Tratamento e Prevenção de Álcool e outras Drogas, 2009

The Emergency Plan for the Expansion of Access to Treatment and Prevention of Alcohol and Other Drugs 2009 aims to expand health care access to people in need through the SUS. It also looks to diversify actions aimed at prevention, health promotion, treatment, risk and harm reduction, and build effective intersectoral responses, sensitive to the cultural environment, human rights and the particularities of the users' alcohol and other drugs.

Política Nacional Sobre Drogas, 2019

The new policy places the Ministry of Citizenship as responsible for the treatment of drug users, with a focus on drug abstinence. Among the changes, the Decree Nº 9.761 of 11 April 2019 strengthens the Therapeutic Communities as a measure for treatment. The units offer shelter, assistance and treatment for people with drug dependency, through structuring the services at the community level in order to offer a higher quality treatment to patients.

Source: CISA (2020[9]), Álcool e a Saúde dos Brasileiros: Panorama 2020", https://cisa.org.br/index.php/biblioteca/downloads/artigo/item/207-panorama2020.

In October 2019, the Ministry of Health, in partnership with the Pan American Health Organisation (PAHO), and with the support from CONASS, CONASEMS, the civil society and the academia, organised an event with the aim of mobilising key actors in the dissemination and implementation of WHO's SAFER initiative. This marked the Council's support in the face of public discussion and mobilisation regarding political engagement with the WHO initiative (OPAS/OMS Brasil, 2019[10]).

As of 2016, 32 of 37 OECD countries have adopted a national written policy on alcohol, which is also the case of Brazil. However, only 17 OECD countries have an action plan outlining implementation of the national policy, an instrument currently absent in Brazil (OECD, 2021[1]).

6.3.2. The law about minimum age for accessing alcohol has been very important in Brazil

All OECD countries have implemented a minimum age restriction for purchasing alcohol. Many risks are associated with early onset drinking, such as violence and injury, as well as a greater likelihood of developing alcohol dependence in adulthood (Grant et al., 2006[11]). Given that the availability of alcoholic drinks is a significant predictor of drinking behaviour among young people (Wagenaar, Salois and Komro, 2009[12]; Kypri et al., 2008[13]), most countries have set a minimum age at which people can purchase or consume alcohol legally.

The legally mandated minimum age for purchasing alcohol in OECD countries ranges from 16 to 21 years, with most setting the threshold at 18 years (Figure 6.12). The vast majority of OECD countries (83%) apply the same threshold across all alcohol types; those who do not typically increase the minimum age by two years for spirits (e.g. in Norway and Finland (off-premise), the minimum age is 18 for beer and wine but 20 for spirits).

In 2015, Law 13.106 was approved making a crime to offer alcoholic beverages to minors (Planalto, 2015[14]). It is prohibited to sell, supply, serve, administer or deliver to children and adolescents alcoholic beverages or other products that may cause addiction. Anyone who fails to comply with this rule is subject to two to four years' imprisonment and a fine of BRL 3 000 to BRL 10 000 (USD 545 to USD 1 800). As for the establishment where the sale is made, an administrative measure of interdiction is applied.

**Figure 6.12. Legal minimum age for purchasing alcohol in Brazil and OECD countries**
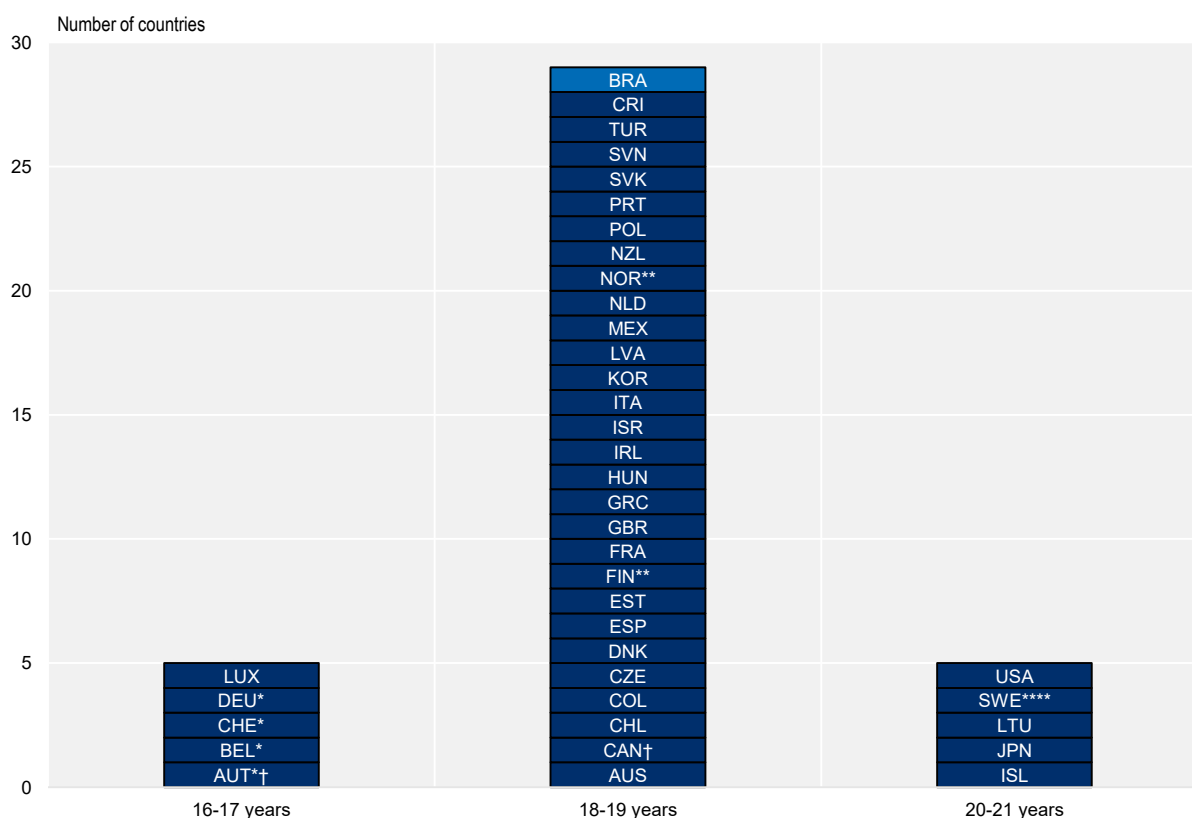
Note: Dark blue = OECD countries. *18 for spirits. **20 for spirits (for Finland, this applies to off-premise only). ***18 for beer (both on- and off-premise) and 20 for wine and spirits (off-premise only). ****In Sweden the legal age is 20 for beer, wine and spirits when purchasing from Systembolaget (government-owned liquor stores – off-premise), with the exception of light beer, which can be purchased at 18 years. The legal purchasing age in restaurants and bars, however, is 18. †Age limits are set at the subnational level.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

6.3.3. The drink-driving zero-tolerance policy has been positive in Brazil

Given the higher risk of accidents when driving under the influence of alcohol, it is common for countries to employ blood alcohol concentration (BAC) limits for drivers, which may differ according to the type of driver. The majority of OECD countries (57%) set the BAC limit at 0.05% for the general population. The highest BAC limit in OECD countries is 0.08% and is enforced in four countries: the United States (with the exception of Utah), the Slovak Republic, Canada and the United Kingdom (with the exception of Scotland, where the limit is set at 0.05%) (Figure 6.13). Over half of OECD countries (n = 21) enforce lower BAC limits for professional and novice/young drivers. In these countries, BAC limits range between zero tolerance to 0.03% for professional and novice/young drivers and between 0.04% and 0.05% for the general population. Brazil is in the latter group with a zero tolerance alcohol policy for drinking-driving.

Figure 6.13. BAC limits for the general population in Brazil and OECD countries
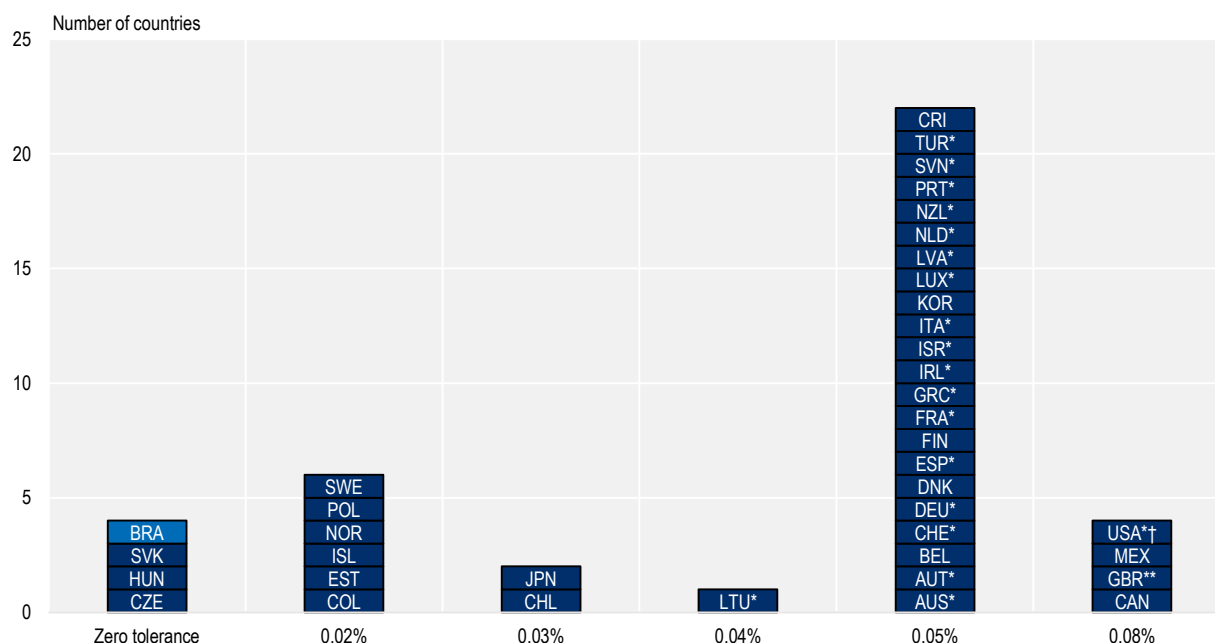
Note: Dark blue = OECD countries. *Lower limit set for novice and/or professional drivers. **The limit is 0.05% for Scotland. † In the United States, the limit in the state of Utah is 0.05%.

Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

In 2008, law 11.705 (the so-called Dry Law or "*Lei Seca*") Brazil amended the Brazilian Traffic Code, establishing more severe penalties for drivers who drive under the influence of alcohol. Any alcohol concentration detected was considered an infraction (Planalto, 2008[15]). It becomes a crime when the BAC reaches 0.6 g/L of blood or 0.34 mg/L on a breathalyser test. The fine reaches BRL 957.69 (USD 175). The *Lei Seca* was amended in 2012 (Planalto, 2012[16]). The fine was increased from to BRL 1915.38 (USD 350), and the possibilities of proof for driving under the influence of alcohol – or any other substance – were expanded. The crime is configured in cases where the driver has a BAC equal to or greater than 0.6 g of alcohol per litre of blood, a measurement equal to or greater than 0.34 mg of alcohol per litre of exhaled alveolar air, or signs of altered psychomotor capacity. In these cases, the driver is subject to detention from 6 months to 3 years, a fine and suspension or prohibition to obtain a driving licence. More recently, the 2017 law 13.546 (Planalto, 2017[17]) increased the fine to BRL 2 934.70 (USD 530). The BAC levels were maintained, but the amendment determined stricter punishments for drivers who, under the influence of alcohol or other psychoactive substances, commit crimes of culpable homicide (without intent) or bodily injury of a serious or very serious nature. In these cases, the penalty is 5 to 8 years and in cases of culpable homicide, 2 to 5 years. None of these situations allows for the payment of bail.

In terms of evaluations of the law, a preliminary study found no evidence of reduced traffic-related mortality in Belo Horizonte, Rio de Janeiro, and São Paulo, 5.5 years after the Lei Seca 2008 was adopted (Volpe, Ladeira and Fantoni, 2017[18]). A later study evaluating the same law in Rio de Janeiro did not find an impact on overall mortality rates due to road traffic accidents. However, the study found statistically significant association between the Lei Seca and reductions between 0.1% and 1.5% a year in the mortality due to road traffic accidents of cyclists and motorcyclists aged ≥60 years and pedestrians of both sexes aged ≥20 years (Jomar et al., 2019[19]). A third study in Brazil's Federal District assessed the effect of law 11.705 (the Lei Seca of 2008) and law 12.760 of 2012, which was called the new Lei Seca, which sought to address loopholes in the original legislation. The study found that while the 2008 law had no significant impact, the 2012 one did have a statistically significant impact in reducing lethal accidents (Guimarães and

da Silva, 2019[20]). The latter results highlights the importance of enforcement, particularly through the introduction of different ways to prove that a person is driving under the influence of alcohol. The latest development relates with the tightening of Lei Seca. Starting in April 2021, drivers under the influence of alcohol or drugs who cause accidents involving bodily harm – even those considered without intention – will be arrested. meaning that the offender will no longer have the right to substitute prison sentences for lighter ones, such as community service, which was previously permitted (DNIT, 2021[21]).

6.3.4. Drink-driving mass media campaigns are regularly conducted in Brazil

Mass media campaigns are a commonly implemented tool used to communicate messages regarding the harmful effects of alcohol consumption. They can have either a direct or an indirect influence on consumer behaviour. A systematic review of the effectiveness of mass media campaigns to reduce alcohol consumption and related harm covering campaigns in Australia, Denmark, Finland, Italy, the Netherlands, New Zealand, the United Kingdom and the United States, concluded that although campaigns can enhance knowledge regarding the impact of alcohol consumption and treatment-seeking behaviour, there is little evidence to suggest they reduce alcohol consumption (Young et al., 2018[22]).

Mass media campaigns are commonly devoted to topics such as drink-driving and the long-term harms of alcohol use. A systematic review of the impact of mass media campaigns found that they reduce instances of drink-driving by around 15% (Yadav and Kobayashi, 2015[23]). The authors did not find an improvement in the number of alcohol-related injuries and crashes, but heterogeneity in study design meant that it was not possible to draw overall conclusions. A study assessing a Danish campaign found that awareness of alcohol as a risk factor for cancer rose by 5 percentage points (from 45% to 50% when prompted and from 22% to 27% when not prompted). The campaign also led to increased support for other alcohol policies such as minimum unit pricing (MUP) and mandatory nutrition labelling (Christensen et al., 2019[24]). This is important as a low proportion of the population are aware of the risks of alcohol consumption. For instance, in the United Kingdom only 13% of a national survey respondents identified alcohol as risk factor for cancer (Sinclair et al., 2019[25]).

In Brazil, the Federal Government regularly conduct drink-driving media campaigns in the context of the Carnival celebrations (Box 6.4). However, no impact evaluations have been conducted so far, which would be helpful for re-designing future campaigns.

Box 6.4. Carnival drink-driving mass media campaigns in Brazil

Almost on a yearly basis, the Federal Government of Brazil conducts drink-driving mass media campaigns during the Carnival period. In 2019, the "Accident Prevention Campaign – Carnival" aimed to promote zero alcohol consumption before driving to reduce traffic accidents and seeking to provoke a reflection in the population about the gravity and extent of the consequences caused by the use of alcoholic beverages (Ministério da Infraestrutura, 2019[26]).

The campaign was broadcast between 25 February and 10 March of 2019 on the internet and radio, the second and third best placed media exposure, as they convey credibility and coverage within the defined target population in Brazil. The first, open television, was not used due to the low availability of funds for this campaign.

6.4. A comprehensive policy package can contribute to further reduce alcohol consumption and its harmful consequences in Brazil

In order to analyse the main policies outlined within national policy documents and action plans, the OECD 2021 Alcohol report grouped them into the following policy domains – these include the domains within WHO's SAFER framework (WHO, 2018[8]) and consumer information:

- alcohol pricing
- drink-driving
- alcohol marketing
- screening and brief interventions
- consumer information

According to the OECD report, these policy actions have a positive impact on Brazil's economy and population health. In particular, a comprehensive "PPPP approach" – including actions to protect children from alcohol promotion; policing to limit alcohol-related injuries and violence; primary care to help patients with harmful patterns of alcohol consumption; and pricing to limit the affordability of cheap alcohol – is both effective and cost-effective to tackle harmful alcohol consumption.

The present sections analyse the current stand of Brazil in each domain and make benchmark with OECD countries. It also resumes the best available scientific evidence behind the main interventions.

6.4.1. Minimum alcohol pricing policies could be introduced in Brazil

There is strong evidence to support the inverse relationship between prices of alcoholic drinks and consumption. A systematic review by Elder et al. (2010[27]) found that nearly all studies (95%) calculating price elasticities were negative, with this figure ranging from -0.5 to -0.79 (i.e. a 10% increase in the price of alcohol corresponds with a decrease in consumption ranging from -5% to -7.9%), depending on the type of alcohol. These findings are supported by a meta-analysis by Wagenaar et al. (2009[12]) that concluded that a 10% increase in alcohol prices decreases consumption by approximately 5%. Higher prices were also found to reduce alcohol-related mortality and morbidity (e.g. cirrhosis, road-traffic deaths, assault and suicide) and are considered highly cost-effective (Wagenaar, Tobler and Komro, 2010[28]; Elder et al., 2010[27]; Cobiac, Mizdrak and Wilson, 2019[29]).

Minimum unit pricing (MUP) is a policy tool that sets a mandatory floor price per unit of alcohol or standard drink,[1] thereby targeting cheap alcoholic beverages. Unlike taxes, it prevents retailers from absorbing the additional cost of production. Further, it has been argued that MUP is more effective, since problem drinkers and/or young people are more likely to consume cheap forms of alcohol (O'Donnell et al., 2019[30]).

Several countries have implemented MUP, including Canada (certain provinces), one territory in Australia, the United Kingdom (Scotland and Wales) and the Russian Federation. Empirical research evaluating MUP, to date, has found promising results. In the United Kingdom (Scotland), O'Donnell et al. (2019[30]) found that MUP led to a 7.6% reduction in alcohol purchases, which is equivalent to 41 alcohol units per person, per household every year. The impact on price was greatest in households that consumed the most alcohol, indicating that the policy was successful at targeting people who drink heavily. Findings from this research is supported by more recent analysis undertaken by Public Health Scotland and the University of Glasgow, which found that alcohol sales in supermarkets and off-licence outlets fell by 4.5% one year after the introduction of MUP (with the impact greatest for cheap products) (Christie, 2020[31]; Public Health Scotland, 2020[32]). In Australia, an investigation into the introduction of MUP in the Northern Territory (AUS 1.30 per standard drink) found that the policy led to a reduction in the wholesale supply of alcohol per capita (by 0.22 litres of pure alcohol), a reduction in alcohol-related assaults and a fall in alcohol-related ambulance and emergency admissions (Coomber et al., 2020[33]).

In addition to MUP, other policy tools to minimise the price of alcohol include:

- Bans on below-cost selling: to restrict the sale of heavily discounted alcohol, several countries have banned the sale of alcohol below the cost of production. In the United Kingdom, for example, it is illegal to sell alcohol at a price less than the amount of duty plus VAT (UK Home Office, 2017[34]).

- Bans on volume discounts: under this policy it is illegal to offer customers discounts based on the volume of alcohol bought, such as two drinks for the price of one. This policy is used, for example, in Iceland in off-premise settings and in Sweden (WHO Regional Office for Europe, 2014[35]).

- Minimum mark-ups and profit margins: by capping minimum profit margins for wholesalers and retailers of alcohol, policy makers are effectively setting a minimum price (Sassi, 2015[36]). For example, in the United States, seven states require wholesalers to establish a minimum mark-up/maximum discount on beer, wine and spirits (Alcohol Policy Information System, 2019[37]).

In Brazil, no policy related to alcohol minimum pricing seems to have been considered. Therefore, authorities and stakeholders could study this area of reform as an alternative for the future.

6.4.2. Drink-driving policies

Sobriety checkpoints could be better targeted by alcohol-related data

Sobriety checkpoints can help with the enforcement of drink-driving policies in place. There are two types of sobriety checkpoints: selective breath tests, which are pre-determined check points where police officers must have reason to believe the driver is under the influence of alcohol to test blood alcohol levels; and random breath tests, for which drivers are selected at a random to have their blood alcohol level tested (Bergen et al., 2014[38]).

Evidence on the effectiveness of sobriety checkpoints largely comes from the United States. Ecola et al. (2018[39]) summarised findings from five meta-analyses, which indicate that selective and random breath tests play a significant role in reducing road-traffic crashes. As an example, Bergen et al. (2014[38]) estimated that sobriety checkpoints led to, on average, an 8.9% decrease in fatalities related to drink-driving. Similarly, Erke et al. (2009[40]) found that checkpoints resulted in a reduction in crash injuries by 16% and fatalities by 6%. Regarding cost-effectiveness, a 2014 systematic review concluded that the benefits associated with sobriety checkpoints exceed the associated costs, with cost-benefit ratios ranging from 2:1 to 57:1 (Bergen et al., 2014[38]). To maximise the potential of sobriety checkpoints, it is important they are widely publicised, highly visible and conducted frequently (US Department of Transportation, 2017[41]).

With the exception of Mexico, all OECD countries implement one or both sobriety checkpoints (WHO, 2020[42]). Brazil reports conducting both types of sobriety checkpoints, which is linked to the enforcement of the *Lei Seca* that allowed public entities to inspect, fine and prevent alcohol-related traffic accidents through alcohol breath tests at points of sobriety. However, its application does not seems to be homogeneous among the states, and are more present in the capitals, where the breath tests are more frequently used (Fiocruz, 2017[43]). Therefore, this is an area where public actors could better plan the widespread use of sobriety checkpoints by making a better use of alcohol-related data. For instance, information about traffic accidents, concentration of alcohol outlets and well-known events where alcohol is consumed could help to guide planning of sobriety checkpoints in Brazil.

Alcohol ignition interlock programmes can be a good addition for a future update of the Brazilian "Lei Seca"

Alcohol ignition interlock programmes give offenders who would normally lose their driving licence a possibility to continue driving, as long as they are sober. Ignition interlocks require drivers to take a breath test to assess their blood alcohol reading in order to start their vehicle. They can also be installed voluntarily

– for example, in commercial vehicles transporting goods (Vanlaar, Mainegra Hing and Robertson, 2017[44]; European Transport Safety Council, 2018[45]).

An evaluation of an ignition interlock programme in Canada (Nova Scotia) concluded that the scheme was successful in reducing recidivism rates (Vanlaar, Mainegra Hing and Robertson, 2017[44]). Specifically, the study compared recidivism rates between three groups of offenders: 1) those who voluntarily agreed to use the ignition interlock; 2) those who were mandated to use the ignition interlock; and 3) those who made up the control group, who were not enrolled in the ignition interlock programme. The offenders who agreed to use the ignition interlock had a lower recidivism rate while the device was installed (0.9% for voluntary and 0.3% for mandatory participants) compared to those not enrolled (8.9%). Although recidivism rates rose once the device was removed (1.9% for voluntary and 3.7% for mandatory enrolees), the rates were still significantly below those who did not enrol, suggesting that the scheme had an ongoing impact. A study comparing 18 states that made interlocks mandatory against 32 that did not found that requiring ignition interlocks for all drunk-driving convictions was associated with 15% fewer alcohol-involved crash deaths (Kaufman and Wiebe, 2016[46]). Similarly, a study assessing alcohol-involved fatal crashes in the United States between 1982 and 2013 found that state laws requiring interlocks for all drunk driving offenders were associated with a 7% decrease in the rate of BAC >0.08 fatal crashes and an 8% decrease in the rate of BAC ≥0.15 fatal crashes. This translated into an estimated 1 250 prevented BAC >0.08 fatal crashes.

Laws requiring interlocks for segments of high-risk drunk driving offenders, such as repeat offenders, may reduce alcohol-involved fatal crashes after two years of implementation (McGinty et al., 2017[47]). In the Netherlands, another study showed that the percentage of repeat offenders in the ignition interlock programme group was lower than in the control group. When the ignition interlock programme was imposed alongside a criminal settlement, recidivism was reduced from 8% to 4% (Blom and Blokdijk, 2021[48]). These findings echo previous research by Elder et al. (2011[49]), which largely focused on the United States and the review of Burton et al. (2017[50]), which found that ignition interlocks reduce reoffending in both first-time and repeat offenders and can be cost-effective.

Nine OECD countries currently penalise first-time drink-drivers with ignition interlocks (Austria, Belgium, Canada, Denmark, Finland, France, Poland, Sweden and certain states in the United States), and another group of countries imposes this penalty for repeat offenders (Belgium, France, New Zealand, Sweden and certain states in the United States) (WHO, 2020[51]; National Conference of State Legislatures, 2018[52]; ETSC, 2020[53]).

Box 6.5. Swedish alcohol ignition interlock after drink-driving programme

The Swedish Transport Agency began a trial of an ignition interlock programme in 1999. It took until 2012 to entry into force. The voluntary programme give the possibility for drink drivers to enter a one-year programme for drivers convicted with a BAC level between 0.2 and 0.9 g/l; or a two-years programme for convicted repeat offenders (within a five-year period) and offenders with a BAC level of at least 1.0 g/l.

The programme is not designed to include a rehabilitation aspect but, in many cases, it has shown these kinds of effects for the participants anyway. Especially since there is a demand to undergo medical exams, including leaving blood samples before, during and sometimes after participation in the programme.

> The estimated costs for the one-year programme ranged between EUR 2000 and EUR 2 700, while the two-years programme moved between EUR 2 800 and EUR 4 000.
>
> In practice, 30% of offenders have entered the programme, while 83% of participants completed the programme. In March 2018, a new legislation does not allow offenders with a dependency or an addiction to enter the alcohol interlock programme, unless they can prove that they fulfil all the medical demands beforehand, e.g. prove sobriety six months prior to entering the programme. In 2018, about 3 000 people were driving with an alcohol interlock.
>
> Source: ETSC (2020[53]), "Alcohol interlocks in Europe: a an overview of current and forthcoming", www.etsc.eu/safe-and-sober/.

In Brazil, an alcohol ignition interlock programme does not exist. This policy would be a good alternative for the country to upscale its measures for drink-driving offenders and repeat offenders aiming to reduce alcohol-related traffic accidents with the consequent injuries and deaths. A future update of the Brazilian "Lei Seca" could legally introduce alcohol ignition programmes. Pilots can be undertaken within states and municipalities with higher alcohol-related traffic accident rates in order to better understand the implications for the Brazilian context.

6.4.3. Alcohol marketing

Alcohol marketing in traditional and new media platforms could be further regulated, having children and adolescents as an initial priority

Countries can limit advertising on traditional (e.g. television, radio and print media) and new digital media platforms (e.g. social media). Research suggests that there is an association between alcohol advertising through traditional media channels and alcohol consumption, with young people particularly vulnerable (Smith and Foxcroft, 2009[54]). Most recently, Jernigan et al. (2017[55]) concluded from their systematic review that there is a positive association between exposure to alcohol marketing and initiation of alcohol consumption, as well as binge and hazardous drinking.

Across OECD countries, 31 employ some form of statutory restriction on alcohol advertisements, legally banning any form of advertising. For example, regarding beer and wine, 24 countries apply partial restrictions on national television advertisement (e.g. restriction during a certain time of day or place), while 7 countries employ a full statutory ban (Figure 6.14). Only two countries extend full advertising bans across all media channels: Norway and Turkey.

Active surveillance schemes to monitor adherence to alcohol advertising regulations also exist and are implemented by 35 of the 37 OECD countries. In Australia, alcohol marketing is characterised as a "quasi-regulatory" system, with guidelines (the Alcohol Beverages Advertising Code – ABAC- Scheme) set by industry, advertising and government representatives (ABAC Scheme, 2019[56]). Similar arrangements exist in the United Kingdom, New Zealand and Japan (Noel, Babor and Robaina, 2016[57]). In relation to the latter, a review exploring self-regulation of marketing industry concluded that alcohol advertisements continually violate self-regulatory codes, meaning that young people are frequently exposed to alcohol advertising material (Noel, Babor and Robaina, 2016[57]). Similarly, a review of advertisement self-regulation in Brazil determined that there are sufficient evidences on the need for government regulation of advertisements addressed to children and adolescents complementarily to institutional self-regulation. For instance, most ethical transgressions informed to CONAR on food and beverage advertisements are related to alcoholic beverages and processed foods, especially regarding trustworthiness, social responsibility and children/adolescents (Kassahara and Sarti, 2017[58]).

Figure 6.14. National television advertising restrictions for beer and wine in Brazil and OECD countries
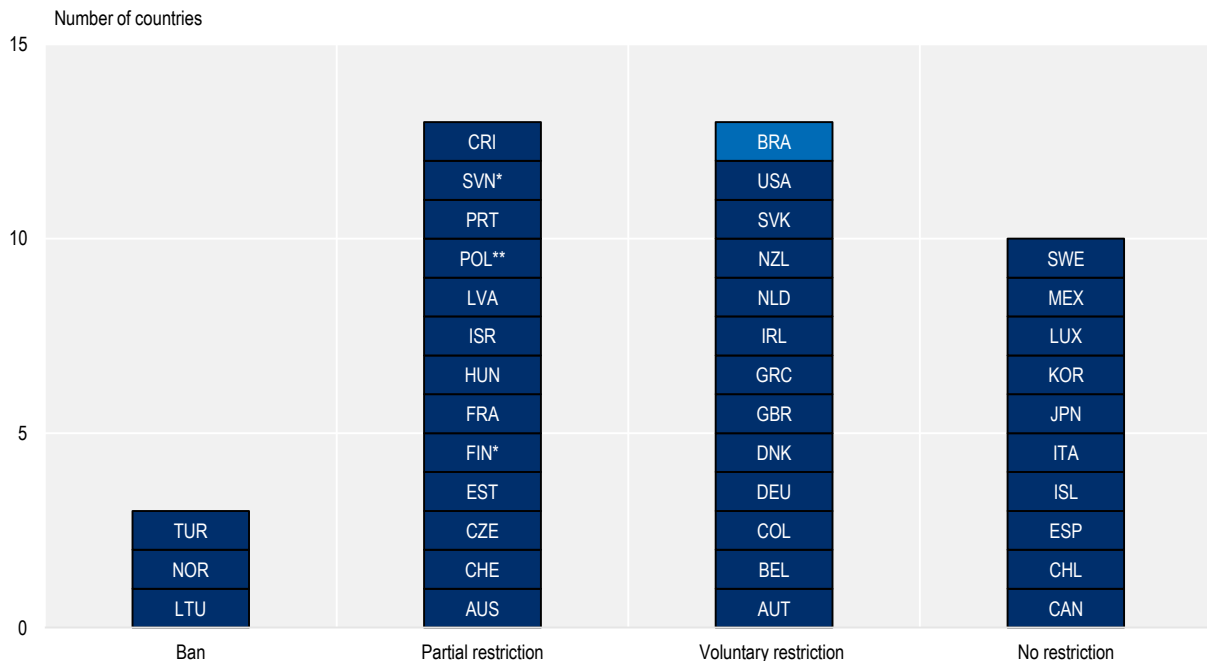
Number of countries
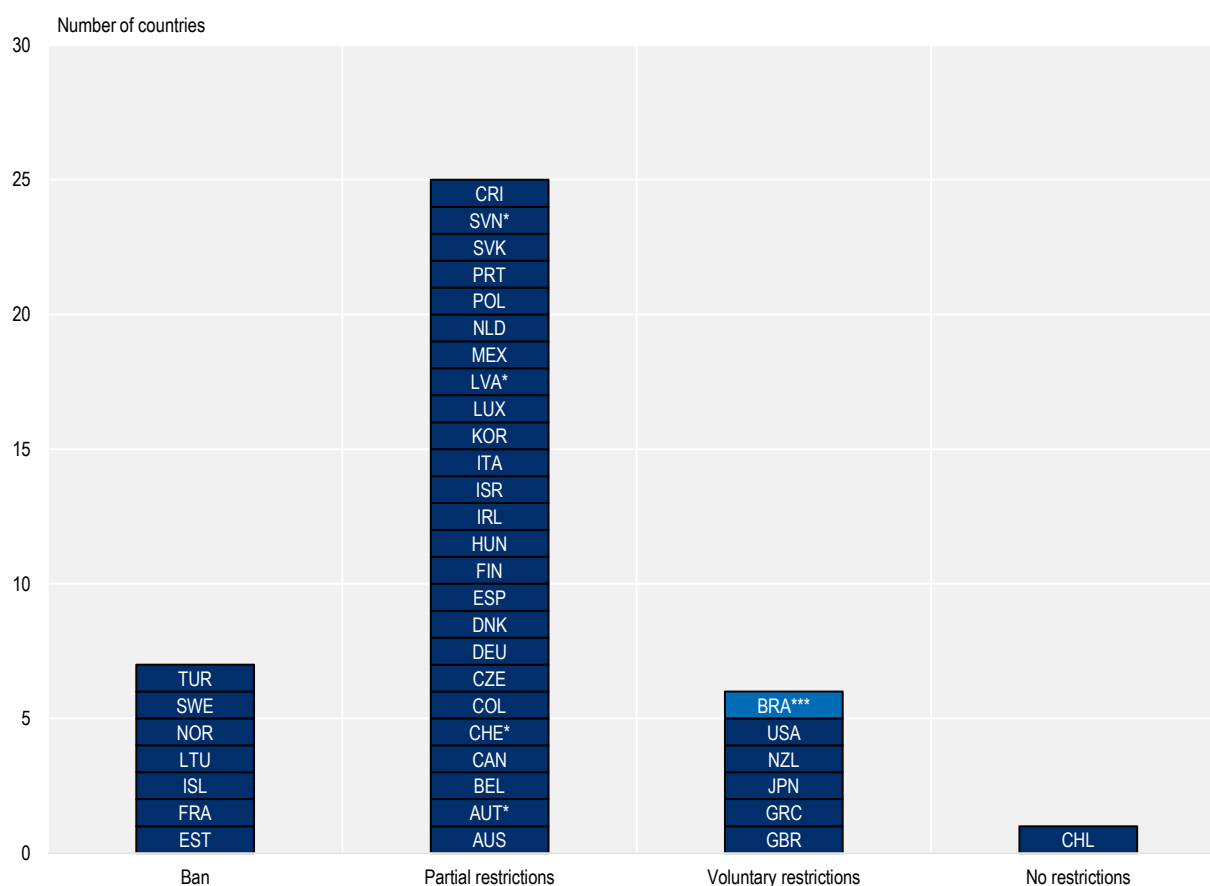
Note: Dark blue = OECD countries. *Ban for spirits. **Brazil applies stricter restrictions for spirits – that is, partial as opposed to voluntary restrictions.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

As adults and children spend an increasing amount of time on their mobile devices (more than time spent watching TV), brands have shifted their focus from traditional forms of media to digital media platforms, including social media. Advertising via digital media channels can lead to greater increases in alcohol consumption, particularly when audiences participate (e.g. co-create, share or engage in the content) (Critchlow et al., 2017[59]). For example, a study by Critchlow and colleagues (2019[60]) found that young people (aged 11-19) who currently drink are twice as likely to be high-risk drinkers if they participate in two or more forms of alcohol marketing via social media. This figure increased to over three times for those who participated in user-created promotion. A meta-analysis by Curtis et al. (2018[61]) concluded that there is a significantly positive correlation between alcohol-related social media engagement and consumption among young adults. Finally, a 2017 narrative literature review established that digital marketing was associated with higher levels of intention to purchase alcohol, as well as consumption (Lobstein et al., 2017[62]). Linked to this, several studies have examined alcohol advertising practices on social media platforms such as Twitter, Instagram and Facebook. The finding suggests that posts and interactions have a low utilisation of alcohol moderation or risk-related content, while there is persisting content appealing to youth and in violation of the alcohol industry's self-developed marketing codes (Niland et al., 2017[63]; Barry et al., 2018[64]; Barry et al., 2018[65]).

Relative to traditional forms of media, fewer OECD countries have regulatory arrangements in place to limit alcohol advertising via social media (Figure 6.15). Further, where regulatory arrangements do exist, they are partial restrictions in 13 countries and full ban in only 3. For example, in Estonia regulations forbid alcohol advertising on social media networks, except on the website of the account handle of the alcohol brand. As part of this ban, alcohol brands cannot share user-generated content or content that is intended to be shared (e.g. competitions and prizes, production of videos intended to go viral) (WHO, 2018[66]; EUCAM, 2018[67]).

Figure 6.15. Social media advertising restrictions in Brazil and OECD countries

Note: Dark blue = OECD countries. *Ban for spirits. **No restriction for beer only (total ban for wine). Partial restrictions may refer to time and/or place and/or content. ***Brazil applies stricter restrictions for spirits – that is, partial as opposed to voluntary restrictions.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

In Brazil, Law 9 294 of 1996 limit advertising of alcoholic beverages with alcohol contents above 13°Gay Lussac. In addition, the National Council of Self-Regulatory Publicity (*Conselho Nacional de Autorregulamentação Publicitária*, CONAR) includes in its recommendations all alcoholic beverages, regardless of alcohol content.

Brazil can join most of OECD countries in passing further restrictions to traditional media advertising of alcohol, particularly on TV and prioritising children and adolescents (e.g. statutory ban on alcohol advertising to children). Social media platforms could be also considered as people, in particular the youth, spend more time on these new media platforms. This could be also linked to regulating alcohol sport sponsorship as well in a more broad alcohol marketing reform (see next sub-section). Collaborative alternatives exist to create schemes where public, civil society and private actors (e.g. CONAR) could converge to define mandatory rules and compliance systems in Brazil.

Restrictions on alcohol sport sponsorship can be expanded to all types of alcohol
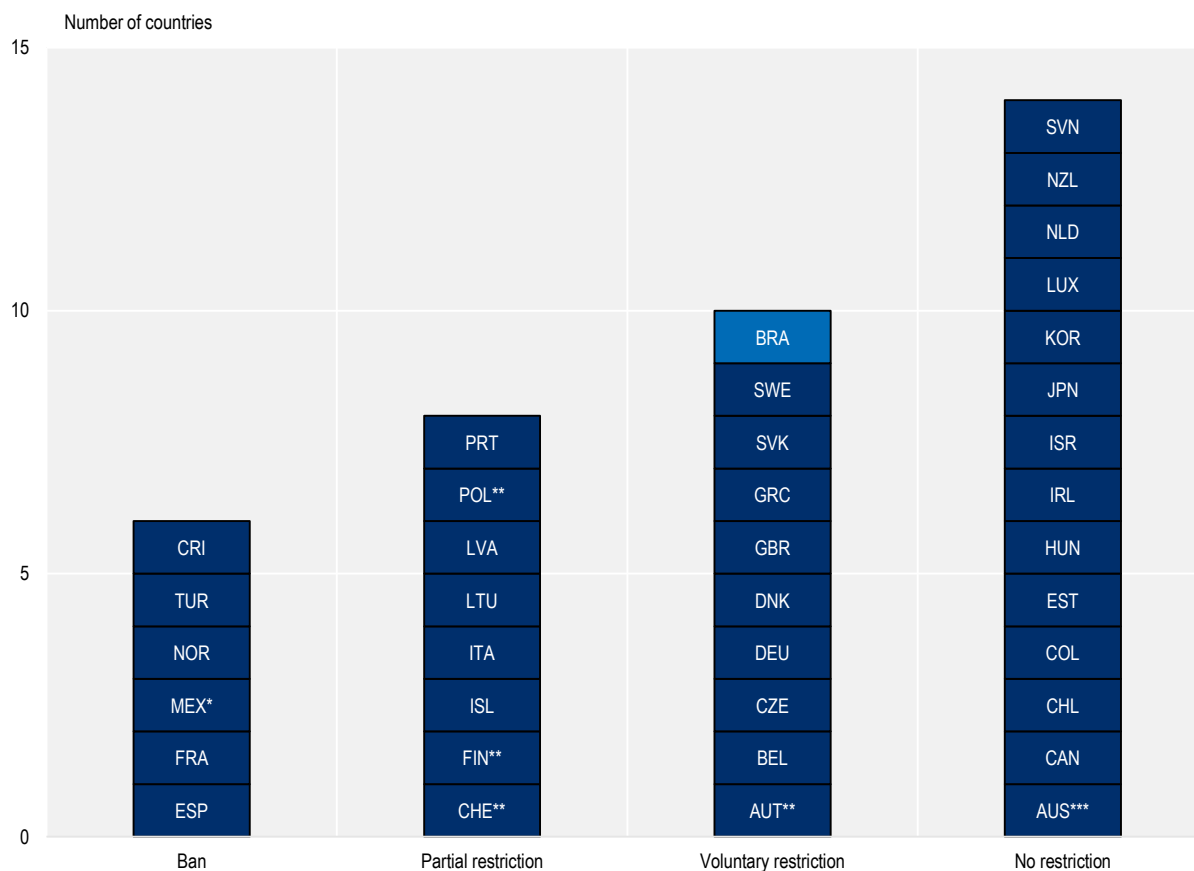
Sport sponsorship allows alcohol producers to "promote their product and create a positive, emotional relationship between the brand and consumers" (Babor, Robaina and Noel, 2018[68]). For this reason, the

alcohol industry is a key sponsor of sporting events, sporting teams and individual athletes across the world (Jones, 2010[69]).

There are public health concerns regarding alcohol industry's sponsorship of sport, since alcohol advertising is associated with initiation of drinking for previous non-drinkers and higher levels of consumption among current drinkers (Smith and Foxcroft, 2009[54]; Houghton et al., 2014[70]). Studies have also examined the impact sponsorship has on athletes and sporting club members – specifically, its impact on consumption (Brown, 2016[71]). For example, O'Brien et al. (2014[72]) found that university students in the United Kingdom whose team and club are sponsored by the alcohol industry are approximately twice as likely to report hazardous levels of drinking as those with no sponsorship.

In response to public health concerns, most OECD countries have implemented some form of ban to restrict the alcohol industry's influence in sport (Figure 6.16). Across OECD countries, Spain, France, Norway, Turkey and Costa Rica have implemented legally binding bans on sport sponsorship across all beverages (WHO, 2018[73]). A further 17 countries apply partial or voluntary restrictions (e.g. restrictions on sponsoring sporting teams and/or sporting events), while 14 countries apply no restrictions.

In Brazil, law 9294 of 1996 recognises as alcoholic beverages those with alcohol contents above 13°Gay Lussac, leaving out beer, which is the most predominant category in sports sponsorships. CONAR, on the other hand, includes in its recommendations all alcoholic beverages, regardless of alcohol content, and issues recommendations applicable to broadcast of sponsored events. The advertising strategy must be limited to the identification of the brand and/or manufacturer, slogan or promotional phrase, without the presence of recommendation of consumption of the product, without restricting the time of broadcast. In practice, a study identified that beer brands sponsored 16 of the 20 studied football clubs of the Brazilian League in 2018 (Matos, Araújo and Horta, 2021[74]). A qualitative study investigated the nature of relationships between the alcohol industry and university student sports clubs in Sao Paulo found that most clubs (n = 53; 88%) reported having signed contracts with beer brands to have their sports events and parties sponsored. In return, clubs agreed to exclusively sell the sponsors' brand of beer and/or order and sell a quota of beer at their events. Forty-nine interviewees (81%) reported agreements with alcohol companies whereby open bars (free alcohol events) would also be provided (Pinsky et al., 2017[75]).

Figure 6.16. Restrictions on sport sponsorship for alcohol brands in Brazil and OECD countries

Number of countries

Ban	Partial restriction	Voluntary restriction	No restriction
			SVN
			NZL
			NLD
			LUX
		BRA	KOR
		SWE	JPN
	PRT	SVK	ISR
	POL**	GRC	IRL
CRI	LVA	GBR	HUN
TUR	LTU	DNK	EST
NOR	ITA	DEU	COL
MEX*	ISL	CZE	CHL
FRA	FIN**	BEL	CAN
ESP	CHE**	AUT**	AUS***

Note: *No restrictions for beer. No data for the United States. **Stricter requirements for spirits. ***Alcohol-related sponsorship agreements are managed by subnational jurisdictions and individual sporting codes and teams.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

In this scenario, Brazil can revise its current regulation that does not cover alcohol beverages below 13°Gay Lussac in terms of its participation in sport sponsorship. With a more broad perspective, a general reform could include expanding regulation to all types of alcohol in traditional media, new social media and sport sponsorship, having children and adolescents as the main target population.

6.4.4. Screening, brief interventions and treatment

Guidance and monitoring of screening and brief interventions for alcohol drinkers can be enhanced in primary care in connection to Centros de Atenção Psicossocial

Screening and brief interventions (SBIs) are designed to identify, at an early stage, individuals with a "real or potential" problem with alcohol and to motivate them to address the issue (Babor and Higgins-Biddle, 2001[76]). The process begins by screening individuals, which involves a series of questions related to their level of alcohol consumption. Excessive drinkers can be identified through various screening tools. Following screening, excessive drinkers receive brief interventions, which typically last between 5 and 30 minutes over 1-5 sessions; or dependent drinkers may be referred to specialised psychosocial and pharmacotherapy treatment.

Evidence on the effectiveness of SBIs largely relates to primary care interventions and is positive. Kaner et al. (2018[77]) in their systematic review estimated that after one year, brief interventions reduced individuals' alcohol consumption by 20 g a week compared to those who received no or minimal interventions. SBIs are also estimated to be cost-effective. For example, Angus et al. (2016[78]) modelled the impact of a national SBI programme across Europe and found it would be cost-effective in 24 of 28 EU countries and dominate in 14 countries ("dominate" indicates that brief interventions are more effective and cheaper than no or minimal interventions).

Among OECD countries, 78% with available data have developed and implemented national guidelines and standards of care for SBIs in primary care related to hazardous and harmful alcohol use. For example, in the United Kingdom (England), an SBI is undertaken as part of a normal health check (Box 6.6).

Box 6.6. SBIs in the United Kingdom (England)

In 2008/09, National Health Service (NHS) employers and general practitioners agreed on five new clinical areas where services should be enhanced (i.e. clinical directed enhanced services). One of these areas was alcohol, which encouraged general practitioners to deliver simple brief interventions in order to identify adults who drink at harmful and hazardous levels (NHS Employers, 2008[79]).

As part of the enhanced services, general practices were required to engage in the following steps:

- screen newly registered individuals aged 16 and over, using either tools such as the AUDIT-C or FAST test;
- if positive, the remaining AUDIT questions must be asked to determine the level of hazardous, harmful or dependency drinking;
- provide a brief intervention to hazardous and harmful drinkers using the five-minute tool developed by the WHO, which was adapted for the United Kingdom;
- refer dependent drinkers to a specialist service.

Data at each step were collected in order to reimburse general practices financially. Specifically, practices received GBP 2.33 for each newly registered patient who was screened.

The enhanced services ended in 2015; however, since then, SBI protocols have been integrated into the main GP contract. Today, SBIs form part of the NHS Health Check (NHS, 2019[80]).

In Brazil, SBIs in primary care do not have a clear guidance nor incentives. The national guidelines for screening in primary care includes a recommendation for alcohol screening and counselling, suggesting to use instruments such as AUDIT or CAGE (Ministério da Saúde, 2010[81]). However, implementation at the level of doctors, nurses or other health professionals is not supported and there is no monitoring. An important initiative was Pathways of Care (*Caminhos do Cuidado*), a strategy implemented in 2013 by the Federal Government to build capacity in alcohol and drug use disorders, which trained more than 290 000 community health workers and nursing assistants (Spector et al., 2015[82]). Importantly, Psychosocial Care Centres (Centros de Atenção Psicossocial, CAPS) are strategic points of care of the Network for Psychosocial Care (Rede de Atenção Psicossocial, RAPS). CAPS are community-based health care services consisting of a multidisciplinary team providing care to people with mental health conditions, including those with needs arising from the use of alcohol and other drugs. The modality of CAPS for alcohol and drugs provide services to all age groups, serving cities and/or regions with at least 70 000 inhabitants. The modality of CAPS level III for alcohol and drugs have 8 to 12 places for night admission and observation, with 24 hours operation, serving cities or regions with at least 150 000 inhabitants (Ministério da Saúde, 2017[83]). SBIs are mainly conducted in these CAPS and patients then receive appropriate care.

Taking advantage of the extensive and strong primary care, Brazil could develop a national policy to enhance SBIs for hazardous and harmful drinkers at this level of care. SBIs could be included as part of the core services of Family Health Teams, in particular as part of health check-ups. A register and monitoring system could be implemented, which would be very important to connect with CAPS in order to integrate services in a better way, making care more people-centred.

National clinical guidelines can be developed for the specialised treatment for dependent drinkers

People with alcohol use disorders, particularly in the most severe forms, may have trouble controlling consumption, neglect other interests in order to drink and persist with drinking despite clear evidence of its harmful effect. Compared to other excessive drinkers, dependent drinkers require more intense, specialised treatment. The objective of treatment for dependent drinkers can be either total abstinence or a significant reduction in consumption. The former is necessary for patients with psychiatric or physical comorbidities (e.g. depression, alcohol-related cirrhosis), while the latter is only appropriate for mildly to moderately dependent drinkers (NIAAA, 2005[84]; Moyer and Finney, 2015[85]).

Treatment for dependent drinkers can be broken into two complementary components: psychosocial treatment and pharmacotherapy. Individuals diagnosed with alcohol dependence typically receive psychosocial treatment including cognitive behavioural treatment, 12-step facilitation (self-help groups promoting abstinence through acceptance, surrender and active involvement), motivation enhancement therapy (designed for patients to internally motivate change), coping skills training and support groups (e.g. Alcoholic Anonymous). Psychosocial treatment has been shown to be effective for alcohol dependence, but for some patients it might be necessary to combine it with pharmacological treatments such as naltrexone, acamprosate, disulfiram, topiramate or gabapentin (APA, 2018[86]).

In Brazil, CAPS provides services to patients diagnosed with alcohol use disorders. These patients may also receive inpatient treatment in specialised wards of the public hospital system or psychiatric clinics. Despite the improvements brought by the creation of RAPS, the system is reported to be highly fragmented, with no organised structure to reach and retain patients (Pinsky et al., 2018[87]). Furthermore, there are gaps reported in terms of the availability and clinical use of pharmacological treatment in CAPS, as although medications might be officially listed these does not guarantee their obtainability at the health units (Dalago, 2018[88]) nor its clinically appropriate prescription when needed as no updated clinical practice guideline exist in Brazil. Therefore, Brazil could make a significant progress by developing an official national clinical practice guideline for the management of dependent drinkers, which could be done in collaboration with Brazilian clinical experts or professional associations. This would be a fundamental step towards developing further initiatives for improving care such as navigation systems or care management (Pinsky et al., 2018[87]).

6.4.5. Consumer information

The "Programa Saúde na Escola" can benefit of boosting its component for alcohol use prevention among students

Despite being illegal, it is common for underage school children/young people to consume alcohol. School-based education programmes can influence drinking initiation and drinking behaviours among school-aged children. Several evaluations of school-based alcohol prevention programmes have been undertaken. Recently, MacArthur et al. (2018[89]) found that school-based interventions targeting multiple risk behaviours compared to "usual practice" reduced alcohol use from 163 per 1 000 students to 123 per 1 000 students 12 months after implementation (equating to a 28% reduction in alcohol use). However, the evidence suggests no long-term effects after the end of the period of exposure. These results support earlier studies – for example, a systematic review of the effectiveness of universal school-based

programmes (i.e. delivered to all students, not just those at risk) concluded that they can be effective in reducing drunkenness and binge drinking (Foxcroft and Tsertsvadze, 2011[90]).

Across OECD countries, 19 have in place national guidelines regarding the prevention and reduction of alcohol-related harm in schools (Figure 6.17). A country with no national school guidelines does not necessarily mean that students are not accessing alcohol prevention programmes. For example, in Australia, where they are no national guidelines, students may access the Climate programme (Lee et al., 2016[91]).

Figure 6.17. National guidelines for the prevention and reduction of alcohol-related harm in schools
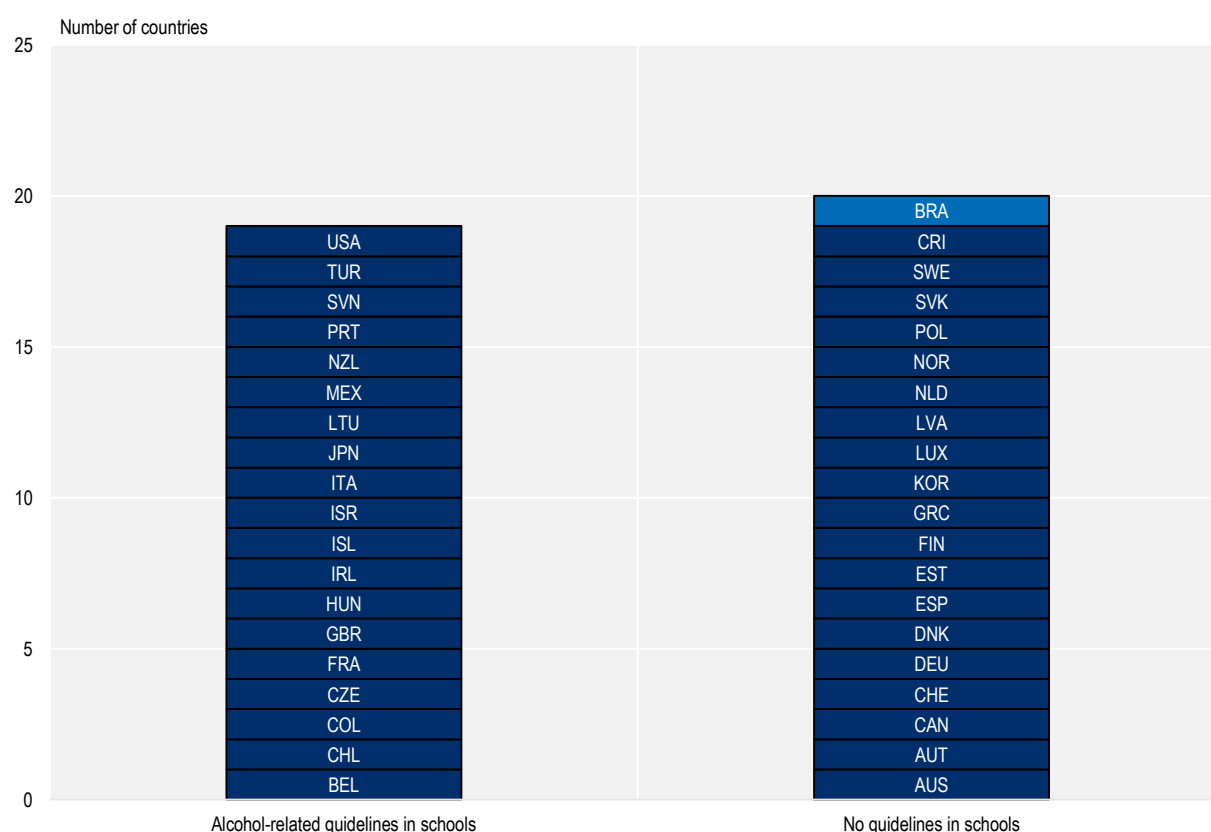
Note: Dark blue = OECD countries.
Source: OECD (2021[1]), *Preventing Harmful Alcohol Use*, https://doi.org/10.1787/6e4b4ffb-en.

In Brazil, the Health at School Programme (*Programa Saúde na Escola*, PSE), an intersectoral policy of the health and education sectors, was established in 2007 with the aim to provide comprehensive care (promotion, prevention and care) to protect the health of children, adolescents and youth in public schools. The PSE is delivered in partnership with primary care units bringing together the Family Health Teams and education professionals. The actions of the PSE include the prevention of alcohol, tobacco and other drug use (Ministério da Saúde, 2021[92]). However, the programme does not have guidelines specifically devoted to alcohol-related harms in schools. In practice, this means that promotion and prevention activities in schools are conducted, in fact, in 2019 there were 22.480 activities in the PSE related to alcohol, tobacco and others drugs prevention. This situates the alcohol area in 10th place out of 12 areas monitored by the Ministry of Health (Ministério da Saúde, 2020[93]). Seven of the top nine areas have their specific guidelines (*cadernos e guias temáticos*) available online (Ministério da Saúde, 2021[92]).

In addition to PSE, the #Tamojunto programme was implemented by the Ministry of Health in 2013 to prevent the use of alcohol, tobacco and other drugs among adolescents in the 8th grade of primary schools. The current format of #Tamojunto is the result of an adaptation of the Unplugged Program, created by European researchers and recommended by the United Nations Office on Drugs and Crime. In the second half of 2013, #Tamojunto was implemented in the cities of Florianópolis, São Paulo and São Bernardo do Campo; and, in the first half of 2014, it reached a total of nine cities across six states (Ministério da Saúde, 2017[94]). The programme was evaluated with a randomised controlled trial. A first analysis found that students in the experimental group had a 30% increased risk of initiating alcohol use during the 9-month follow-up (Sanchez et al., 2017[95]). A second analysis showed that adolescents in the programme group were 30% more likely to have reported past-year use of alcohol than students in the control group at 21 months follow-up (Sanchez et al., 2018[96]). This rigorous evaluation is very important as it reveals that the Brazilian version of the European Unplugged programme may be misinterpreted by public school students, perhaps arousing their curiosity regarding alcohol use, which could lead to a full revision of this programme component.

In this context, the Ministry of Health jointly with the Ministry of Education could develop a PSE national guidelines devoted to alcohol-related harms for school children and adolescents, along with developing initiatives to further support professors and health workers to implement the guidelines. Likewise, an evaluation system could be put in place to assess the impact of such guidelines implementation. Learning from the experience of #Tamojunto programme will be crucial for either upscaling a revised form of it in the area of alcohol use or developing a new programme for PSE students.

6.5. Conclusion

Alcohol consumption in Brazil stands below OECD averages, but there are signs that in recent years consumption has increased in all population groups. These increases are particularly worrying for women and young adults, for instance in relation to heavy episodic drinking. This scenario will increasingly damage health, increasing premature mortality and decreasing life expectancy at slightly lower rates than for OECD countries. It will also have a significant impact on health expenditure and the broader economy in terms of GDP reduction, although of smaller magnitude than OECD averages.

Brazil has adopted important and effective alcohol control policies, by having national strategies dedicated to it with an intersectoral focus. The country has a remarkable zero tolerance drink-driving law, which has been amended several times to tighten the BAC limits and its associated penalties. This has been accompanied by regular mass media campaigns to alert and create awareness about the dangers and harms associated with drink and driving. Brazil also approved a law about minimum age for accessing alcohol that has been important in protecting children and adolescents. With this as baseline, Brazil could aim for a more comprehensive alcohol policy package to further reduce alcohol consumption and its harmful consequences. It can include initiatives around pricing policies such as introducing a minimum unit pricing to target cheap alcoholic beverages. It can also expand on the existing drink-driving policies by using more data to better plan sobriety checkpoints and by introducing ignition interlock programmes on a future update of the Lei Seca. On the health system, guidance and monitoring of screening and brief interventions for alcohol drinkers can be enhanced in primary care in connection to CAPS, while national clinical guidelines can be developed for the specialised treatment for dependent drinkers. Finally, the Programa Saúde na Escola could benefit of boosting its component for alcohol use prevention among students.

OECD analysis shows that all these policies are predicted to have a positive impact on Brazil's population health and the economy. OECD (2021[1]) shows minimum unit pricing can produce the largest reductions on health expenditure and on labour market related costs (e.g. employment), while generating the biggest gains on population health (e.g. life expectancy) and the broader economy (e.g. GDP).

The proper combination of policies in Brazil can effectively reduce harmful alcohol consumption. As a result, Brazilians health will improve and the economy will substantively benefit, with important returns on the investment made. Taking a participative approach in policy design and by including robust monitoring and evaluation systems, the pursue of such comprehensive alcohol policy package would be beneficial for all Brazilian society.

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Notes

[1] A standard drink is a measure of alcohol consumption in a drink and differs across beverage types and countries. In Australia, for example, one standard drink includes 10 g of alcohol, so a 750 mL bottle of wine (13.5% ABV) contains eight standard drinks.