Policies and best practices for reducing the harmful consumption of alcohol

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This chapter describes policy interventions designed to reduce harmful alcohol use among OECD, European Union (EU27), Group of 20 (G20) and a number of partnering non-OECD countries. It contains a special focus on the interventions outlined in the World Health Organization's *Global Strategy to Reduce the Harmful Use of Alcohol* – in particular, those with a strong evidence base. Policy interventions are grouped into six domains covering pricing, availability, marketing, drink-driving, screening and brief interventions, and consumer information. The discussions include a description of the policy intervention, evidence of its effectiveness and/or cost-effectiveness, mapping across analysed countries and best practice case studies.

Key findings

- International and national policy response: the World Health Organization (WHO), in its Global Strategy to Reduce the Harmful Use of Alcohol (2010) and Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020, outlines best practice policy responses to assist countries in reducing harmful alcohol use. As of 2016, nearly all OECD, G20 and non-OECD European countries have adopted a national written policy on alcohol (80%). However, just over one-third of these countries have an aligning action plan to implement the national policy on alcohol.
- Common policy interventions: alcohol taxes, age restrictions, blood alcohol concentration limits for drivers and penalties for drink-driving are applied across all OECD countries. These policies are implemented at differing levels of strength for example, 72% of OECD countries set the minimum drinking age at 18-19 years, compared to 28% who set it at 16-17 years (14%) or 20-21 years (14%).
- Implementation of WHO "best buy" policy interventions: across OECD countries, 84% apply an alcohol excise tax to all alcoholic beverages, while the remaining countries tax beer and spirits only. Approximately a quarter of countries adjust taxes for inflation. In addition, 43% restrict on- and off-premise sales depending on the time of day, with a further 14% restricting either on- or off-premise sales only. All OECD countries employ some form of advertising restriction on multiple media channels; however, the strength of the restriction varies (from voluntary to legally mandated restrictions).
- Emerging policy interventions: policy-makers' responses to harmful alcohol use can also include policy interventions with a developing body of literature on their effectiveness. Examples include minimum unit pricing to better target harmful drinkers, labelling methods to communicate the nutritional content of alcohol, and mass media campaigns encouraging people to abstain from alcohol for a period of time (i.e. "dry months"). To date, only a small number of OECD countries have formally adopted these policies at the national level.
- Impact of technology: advances in technology represent both an opportunity and a challenge
 for policy-makers. For example, technology provides people living in regional/remote areas with
 access to support through mobile phone applications and allows anonymity, which can break
 down barriers for seeking help. Conversely, digital media pose a significant regulatory
 challenge.
- Importance of policy packages: policies to reduce the harmful consumption of alcohol and
 associated harms cannot be addressed through one policy intervention rather, a suite of
 interventions is needed within a comprehensive strategy. Design and enforcement of policy
 interventions require a multi-sectoral approach including health, law enforcement and social
 services sectors since policies do not operate in silos.
- Role of the alcohol industry: private stakeholders in the alcohol industry implement various
 initiatives, such as self-regulation of advertising standards, the promotion of no- or low-alcohol
 content drinks and road safety campaigns. However, reviews of industry involvement in
 reducing harmful alcohol consumption indicate that substantial improvements could be made.

6.1. Consumption of alcohol is associated with negative health, social and economic consequences

The consumption of alcohol contributes to various negative health outcomes related to disability and mortality. These include chronic health conditions such as liver cirrhosis, cancer and injuries. In addition, alcohol consumption is associated with disabling mental disorders such as depression (Rehm, 2011_[1]; Griswold et al., 2018_[2]).

Given the widespread health, social and economic consequences associated with alcohol, it consistently ranks as the drug with the greatest overall harm (Bonomo et al., 2019_[3]; Nutt, King and Phillips, 2010_[4]). For example, over the next 30 years, it is estimated that harmful alcohol consumption will lead to an additional 37 million injury cases, 24 million cases of cardiovascular disease and 12 million cases of diabetes across the 52 countries analysed in this report (see Chapter 3 for further details).

To reduce the societal burden of alcohol, various policy interventions are employed that involve stakeholders across the whole of society. This chapter discusses these interventions, including their effectiveness and cost-effectiveness, and highlights best practice case studies from across the world.

6.2. Reducing the harmful consumption of alcohol: Which polices work?

6.2.1. What is the international policy context?

In 2010, Member States of the World Health Organization (WHO) agreed to the *Global Strategy to Reduce* the Harmful Use of Alcohol, thereby recognising the issue as a key public health priority. As part of the strategy, ten target areas were identified to assist national policy-makers in developing an effective, holistic policy response (Box 6.1) (WHO, 2010_[5]).¹

Box 6.1. WHO's Global Strategy to Reduce the Harmful Use of Alcohol

The Global Strategy highlights ten target policy domains:

- 1. leadership, awareness and commitment
- 2. health services' response
- 3. community action
- 4. drink-driving policies and counter-measures
- 5. alcohol availability
- 6. pricing policies
- 7. reducing the negative consequences of drinking and alcohol intoxication
- 8. reducing the public health impact of illicit alcohol and informally produced alcohol
- 9. monitoring and surveillance.

Source: WHO (2010_[5]), Global Strategy to Reduce the Harmful Use of Alcohol, https://www.who.int/publications/i/item/9789241599931.

Since harmful alcohol use is a key risk factor for non-communicable disease (NCDs), the Global Strategy played an important role in shaping the WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020.* This outlines nine high-level global voluntary targets and aligning policy options, which together aim to reduce premature deaths from the four main NCDs (cardiovascular diseases, cancers, chronic respiratory diseases and diabetes) by 25% by 2025. Regarding alcohol, the action plan aims to achieve a relative reduction of harmful use by 10% (Target 2) (WHO, 2013[6]).

To reduce harmful alcohol use, the WHO has endorsed several high-impact interventions policy-makers can adopt. In 2017, the WHO released *Tackling NCDs: "Best Buys" and Other Recommended Interventions for the Prevention and Control of Noncommunicable 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 United Nations Sustainable Development Goals (SDGs) also specify a target to reduce harmful alcohol use in line with the Global Strategy, as part of Goal 3 to ensure healthy lives and promote well-being. Specifically, SDG target 3.5 relates to strengthening the prevention and treatment of substance abuse, including alcohol (United Nations, 2019[9]).

6.2.2. What is the national policy context?

As outlined above, WHO's Global Strategy and NCD action plan are designed to assist policy-makers at all levels in implementing effective policies to reduce the harmful use of alcohol. As of 2016, nearly all OECD, G20 and non-OECD European countries have adopted a national written policy on alcohol. However, not all these countries have an action plan outlining implementation of the national policy (Figure 6.1).

Figure 6.1. Countries with a national written alcohol policy and action plan

No national written policy or action plan Action plan for implementing national alcohol policy AUS FIN LTU MLT COL IRL LVA USA CAN ROU CZE ISR MEX CYP GRC ESP PRT 7AF ITA HUN CRI LUX EST JPN SVK PER AUT GBR* POL BRA CHE ISL SWN CHL KOR SWE DFU NI D FRA NOR HRV DNK* NZL

Adopted national written policy on alcohol

Note: Dark blue = OECD countries; light blue = European Union (EU27); non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. *No data regarding a national action plan. No data for the Kingdom of Saudi Arabia.

Country abbreviations: AUS = Australia; AUT = Austria; BEL = Belgium; CAN = Canada; CHE = Switzerland; CHL = Chile; COL = Colombia; CZE = Czech Republic; DEU = Germany; DNK = Denmark; ESP = Spain; EST = Estonia; FIN = Finland; FRA = France; GBR = the United Kingdom; GRC = Greece; HUN = Hungary; IRL = Ireland; ISL = Iceland; ISR = Israel; ITA = Italy; JPN = Japan; KOR= Korea; LTU = Lithuania; LVA = Latvia; LUX = Luxembourg; MEX = Mexico; NLD = the Netherlands; NZL = New Zealand; POL = Poland; PRT = Portugal; SVK = the Slovak Republic; SVN = Slovenia; SWE = Sweden; TUR = Turkey; USA = the United States; BGR = Bulgaria; CYP = Cyprus; HRV = Croatia; MLT = Malta; ROU = Romania; ARG = Argentina; BRA = Brazil; CHN = People's Republic of China; IDN = Indonesia; IND = India; RUS = Russian Federation; ZAF = South Africa; CRI = Costa Rica; PER = Peru.

Source: WHO (2020_[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health.

Policies outlined within national written policy documents and action plans have been grouped into six policy domains; these include the domains within WHO's SAFER framework (WHO, 2018_[8]) and consumer information (Figure 6.2):

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

Figure 6.2. Policy domains to reduce harmful alcohol consumption



Alcohol pricing

Taxes

Minimum unit pricing



Alcohol availability

Times of sale and outlet restrictions

Legal minimum age



Alcohol marketing

Restrictions on advertising

Sport sponsorship



Drink-driving

BAC limits, sobriety checkpoints, penalties,

ignition interlocks



Screening and brief interventions

Screening

Brief interventions

Psychosocial and pharmacotherapy



Consumer information

Warning labels

Mass media campaigns

Preventative school programs

6.3. Alcohol pricing is a key method used to reduce consumption

Policy interventions

- Taxes based on size, alcohol content and value
- · Minimum unit pricing
- Other minimum alcohol pricing tools, such as bans on below-cost selling

Key findings

- Most OECD countries tax alcoholic beverages in particular beer and spirits.
- In OECD countries, minimum unit pricing has been implemented at the state/province/territory level in countries such as Australia, Canada and the United Kingdom, and has been approved for implementation in Ireland.
- Relatively few countries periodically adjust tax rates to reflect rising prices; this may have contributed to increasing alcohol affordability (see Chapter 2 for further details).

6.3.1. Several countries use taxation to target alcohol prices

Alcohol excise taxes can be grouped into one of three categories:

- Unitary tax: tax based on the volume (size) of the alcoholic beverage
- Specific (volumetric) tax: tax based on the ethanol content of the alcoholic beverage
- Ad valorem tax: tax based on the value of the alcoholic beverage (Sornpaisarn et al., 2017[11]).

It has been suggested that specific taxes are desirable, since they target the ingredient that causes harm (i.e. ethanol) (Chaloupka, Powell and Warner, 2019_[12]; Blecher, 2015_[13]). Consequently, individuals and manufacturers are incentivised to consume and produce low-alcohol beverages. In South Africa, for example, following the introduction of a specific tax for beers (which replaced the previous unitary tax), there has been a significant shift in advertising from high- to low-alcohol beers, since the latter are now more profitable to produce (Blecher, 2015_[13]).

There is strong evidence to support the inverse relationship between prices of alcoholic drinks and consumption. A systematic review by Elder et al. (2010_[14]) 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 an earlier meta-analysis by Wagenaar et al. (2009_[15]) which 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_[16]; Elder et al., 2010_[14]; Cobiac, Mizdrak and Wilson, 2019_[17]).

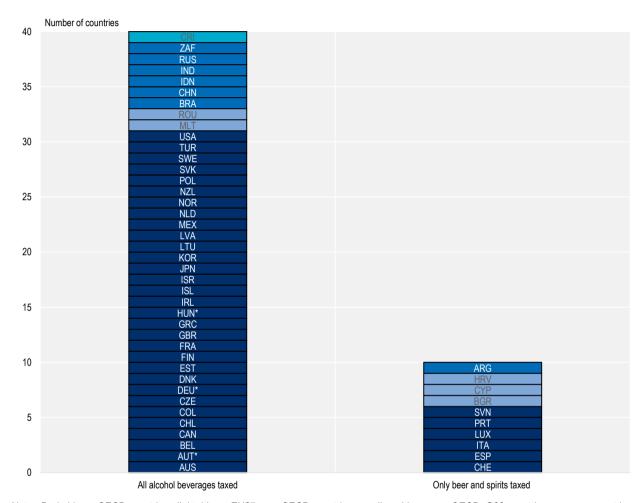
It is important to note that the impact of an alcohol tax increase differs across population groups and types of drinker. For example, Meier et al. (2016_[18]) estimated that an increase in specific (volumetric) taxes leads to greater declines in consumption among low-income than high-income groups, particularly for people who drink heavily. The same relationship exists with ad valorem taxes, albeit to a lesser degree and with minimal differences across types of drinker.

Across OECD countries, 84% tax all beverage types; the remainder tax only beer and spirits (Figure 6.3). Countries may also choose to combine taxes, as in Australia, where beer and spirits are subject to a specific tax (based on alcohol content) and wine is subject to an ad valorem tax (based on wholesale price)

(Sornpaisarn et al., 2017_[11]; Australian Taxation Office, 2019_[19]). Further analysis of taxation rates by type of alcohol can be found in OECD (2018_[21]), *Consumption Tax Trends*, https://www.oecd-ilibrary.org/taxation/consumption-tax-trends 19990979.

In addition to excise taxes, alcohol products in all OECD countries are subject to a value-added tax (VAT), ranging between 7.7% (Switzerland) and 27% (Hungary) (WHO, 2018_[20]; OECD, 2018_[21]).

Figure 6.3. Alcohol excise tax by beverage type



Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. No data for the Kingdom of Saudi Arabia. *No tax on still or low-alcohol wine – only on sparkling wine for these countries.

Source: OECD (2018[21]), Consumption Tax Trends, https://www.oecd-ilibrary.org/taxation/consumption-tax-trends_19990979; WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

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The impact of an alcohol excise tax decreases over time if it is not adjusted for inflation. This is particularly important for unitary and specific taxes as opposed to ad valorem taxes, which already incorporate changes in price. For example, in the United States, the average inflation-adjusted state-specific tax rate fell by 27-30% (depending on alcohol type) between 1991 and 2015 because it did not change to reflect higher prices (Naimi et al., 2018_[22]).

Failing to adjust for inflation can exacerbate existing health inequalities, since specific taxes are more likely to change the behaviour of people who drink heavily (Meier et al., 2016_[18]). Specifically, high-strength alcohol is more likely to be sold in the off-premise sector (e.g. supermarkets), where the majority of heavy drinkers purchase alcohol (around 74-80% compared to 47-65% of moderate drinkers).

Approximately one-fifth of all OECD countries periodically adjust alcohol taxes for inflation for all beverage types (n = 8), while two additional countries adjust for beer and spirits only (Australia and Italy, which do not tax wine) (Figure 6.4). For example:

- In Australia, excise taxes for beer and spirits are indexed to inflation and therefore adjusted twice a year (February and August).
- In Israel, taxes on alcohol are updated annually to reflect changes in the consumer price index (OECD, 2018_[21]).

35 7AF RUS IDN CHN BRA 30 CYP USA 25 **SWE** SVN* SVK* PRT POL 20 **NOR** NI D MEX LVA LUX* 15 LTU **KOR** JPN ISL ROL IRL 10 TUR HUN* NZL **GRC** ITA* **GBR ISR** FIN FRA **EST** 5 **ESP** DNK COL CZE CAN CHL BFI CHE* AUS** AUT* 0 Adjusted for inflation Not adjusted for inflation

Figure 6.4. Alcohol taxes adjusted for inflation

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. No data available for Germany, Argentina, India, Peru and the Kingdom of Saudi Arabia. *No data for wine. **Not adjusted for taxes on wine.

Source: WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

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When designing or reforming an alcohol taxation policy, it is important that policy-makers take into account potential negative side effects, such as:

- **Product substitution**: disproportionate price increases among alcoholic beverages could lead individuals to substitute one drink for another. This may have a positive or neutral effect, depending on whether individuals switch to lower-strength beverages or to other forms of alcohol. The evidence suggests that substitution generally occurs within beverages (e.g. red to white wine), as opposed to across beverages (e.g. from beer to wine) (Chaloupka, Powell and Warner, 2019_[12]). Product substitution may also occur across drugs for example, a review of the literature found that young people in "liberal cannabis environments" may substitute alcohol for this drug (Subbaraman, 2016_[23]).
- **Declines in consumption of necessary goods**: people who drink heavily are less responsive to price changes (Wagenaar, Salois and Komro, 2009_[15]), so increasing the price of alcohol may have the undesired effect of reducing spending on essential items such as food and rent (Falkner et al., 2015_[24]). Nevertheless, a small proportional decrease in consumption due to higher taxes among people who drink heavily may represent a large absolute reduction in consumption (this is important because a small change in consumption among people who drink heavily can have significant health benefits) (WHO Regional Office for Europe, 2020_[25]).
- Cross-border trade: for geographical reasons, alcohol taxation policies are not solely a domestic
 issue for certain countries. Specifically, a decrease in tax encourages residents in neighbouring
 countries to purchase alcohol across the border. It may also encourage neighbouring countries to
 lower their tax levels to protect the alcohol industry, as seen in the Baltic region, where Latvia
 announced a 15% reduction in alcohol duty on strong liquor in response to a similar policy
 implemented by Estonia (Laizans, 2019[26]).
- **Illegal trading**: steep increases in the price of alcohol can encourage illegal trade. It is estimated that 25% of all alcohol consumed is illegally sourced (OECD, 2016_[27]).

6.3.2. Minimum unit pricing is increasingly used as a policy tool

In addition to the three tax types mentioned above, some governments have become increasingly interested in minimum unit pricing (MUP). MUP is a policy tool that sets a mandatory floor price per unit of alcohol or standard drink,² 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_[28]). Other minimum pricing tools are detailed in Box 6.2.

Box 6.2. Minimum alcohol pricing policies

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_[29]).
- 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_[30]).

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_[31]).
 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_[32]).

Several countries have implemented MUP, including Canada (certain provinces) (see Box 6.3), one territory in Australia, the United Kingdom (Scotland and Wales) and the Russian Federation (Box 6.3) (Boniface, Scannell and Marlow, 2017_[33]; Coomber et al., 2020_[34]). Empirical research evaluating MUP, to date, has found promising results. In the United Kingdom (Scotland), O'Donnell et al. (2019_[28]) 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_[35]; Public Health Scotland, 2020_[36]). 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_[34]).

Box 6.3. MUP in practice

MUP has been implemented in various forms in countries such as Canada (at the subnational level) and the United Kingdom (Scotland and Wales). Examples from outside OECD countries include the Russian Federation, Ukraine, the Republic of Moldova and Uzbekistan (Boniface, Scannell and Marlow, 2017_[33]). Specific case studies for three of these countries are summarised below, with a comparison of MUP rates provided in Figure 6.5 (methodological details are provided at the end of this chapter).¹

Canada

Several Canadian provinces and territories have implemented minimum unit prices on alcohol, including New Brunswick, Newfoundland and Labrador, British Columbia, Manitoba, Saskatchewan, Quebec and Nova Scotia. Provinces/territories either set the minimum unit price by standard serving of alcohol (as specified by law) or apply minimum unit price rates per ounce of alcohol, which differs according to alcohol type (e.g. spirits are typically subject to a higher minimum price). Minimum unit price rates are reviewed annually and indexed to inflation in a few provinces and territories, including Nova Scotia, Quebec, Ontario and Manitoba (Canadian Partnership Against Cancer, 2018[37]). Several examples are provided below.

- **British Columbia:** the minimum unit price is USD 2.28 (CAD 3.02) for a standard drink of beer and wine and USD 3.42 (CAD 4.54) for spirits (excluding sales tax) (Government of British Columbia, 2020_[38]).
- **Manitoba**: a standard drink cannot be sold for less than USD 1.71 (CAD 2.27) for beer and wine (inclusive of tax) and USD 2.56 (CAD 3.40) for spirits (Government of Manitoba, 2020_[39]).
- **Newfoundland and Labrador**: a standard drink cannot be sold for less than USD 1.25 (CAD 1.66) for beer, USD 1.52 (CAD 2.02) for wine and USD 1.80 (CAD 2.39) for spirits (regulations in this case refer to standard serving sizes, which differ from a standard drink; inclusive of sales tax) (Government of Newfoundland and Labrador, 2020_[40]).

- **Nova Scotia**: beer and wine cannot be sold below USD 1.90 (CAD 2.52) per standard drink, with this figure increasing to USD 2.82 (CAD 3.74) for spirits (inclusive of tax) (Government of Nova Scotia, 2020_[41]).
- Quebec: minimum unit prices are only applied to beer, and differ according to alcohol content

 specifically, from USD 2.36 (CAD 3.13) for a litre of beer containing less than 4.1% alcohol by volume (ABV) to USD 2.67 (CAD 3.54) for a litre of beer containing over 6.2% ABV (Government of Quebec, 2020_[42]).

Russian Federation

In 1996, the Government of the Russian Federation introduced a minimum unit price for vodka, but this was not enforced until 2003 and was subsequently increased in 2010. In 2011, a strategy for gradually increasing the minimum unit price for spirits (beverages with an ABV above 28%) was instated. However, in 2015, the minimum unit price was frozen and the price of vodka decreased due to a cut in excise tax. It has been suggested that this action was taken to stop people consuming illegally distilled spirits with a higher alcohol content (BBC News, 2015[43]). The strategy to raise the minimum unit price on spirits was reinstated in 2016, alongside the introduction of a minimum unit price for sparkling wine (WHO Regional Office for Europe, 2019[44]).

United Kingdom (Scotland and Wales)

In May 2018, Scotland introduced a nationwide MUP scheme, which links the price of alcoholic beverages to their alcohol content. Under the scheme, each unit of alcohol is subject to a GBP 0.50 (USD 0.63) minimum price per unit (10 mL or 8 g), which no licence holder (i.e. retailers and drinking venues) can sell under (Scottish Government, 2018_[45]).

In March 2020, Wales introduced an act enforcing minimum prices for alcohol. As part of this, businesses, organisations and people with an alcohol licence cannot sell alcohol at a price lower than GBP 0.50 (USD 0.63) per unit (Welsh Government, $2020_{[46]}$).

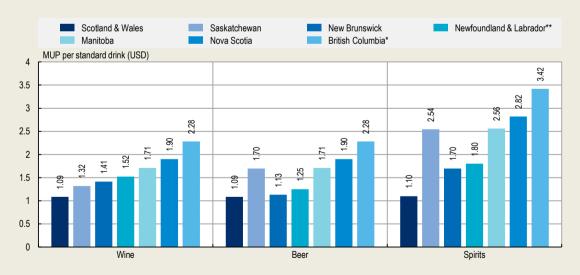


Figure 6.5. Minimum unit price per standard drink (USD)

Note: *Minimum unit prices for alcoholic beverages in British Columbia are not inclusive of taxes. **Regulations in Newfoundland and Labrador refer to standard serving sizes, which differ from a standard drink. Only countries/regions whose data could be compared are included in the analysis.

Source: See country descriptions above.

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1. Exchange rates were taken from https://data.oecd.org/conversion/exchange-rates.htm (USD to CAD = 1.327 and USD to GBP = 0.783). The analysis assumed the following standard drink sizes in ounces (oz): beer 12 oz (341 mL) (5% ABV); wine 5 oz (142 mL) (12% ABV) and spirits 1.5 oz (43 mL) (40% ABV). In Canadian provinces, the minimum unit price applies to alcohol sold in on-premise outlets only. (The price of off-premise alcohol is controlled by a liquor board in almost every province. The liquor board is responsible for implementing minimum prices for selling alcohol. In many cases, this is referred to as social reference pricing.) Data for Quebec and Australia (Northern Territory) rates could not be compared. Rates are standardised to USD; they do not reflect purchasing power parity. Rates for beer relate to canned or bottled beer (rates can differ for draught beer).

6.4. Alcohol availability can be restricted to affect intake

Policy interventions

- Restrictions on hours and days of alcohol sales
- Restrictions on the density of alcohol outlets
- Minimum legal purchasing age

Key findings

- Restricting alcohol sales according to time of day is a policy tool employed by many OECD countries. Restrictions by day, however, are less common.
- Restrictions on outlet density are effective at reducing social disorder, but their impact on consumption is less clear.
- Despite minimum legal ages for purchasing alcohol, consumption by minors is common.

6.4.1. Restrictions can be placed on physical availability

Hours and days of sale

To restrict alcohol availability and thereby limit the opportunity for people to purchase and consume alcohol, policy-makers may restrict the hours or even full days within a week during which alcohol can be sold. These restrictions may apply to on-premise (e.g. restaurants and bars) and/or off-premise establishments (e.g. liquor stores), and typically target late-night drinking in order to reduce alcohol-related violence and injury (Hahn et al., 2010_[47]).

The literature evaluating the impact of this policy focuses on alcohol-related harm. A systematic review by Wilkinson et al. (2016_[48]), which largely concentrated on studies undertaken in Australia, demonstrated that reducing hours of sale (at night) for on-premise outlets substantially reduces rates of violence. This conclusion was drawn from 21 studies including:

- Kypri et al. (2011_[49]), who found that a mandatory closing time of 03:30 and a lockout of 01:30 (meaning no entry for anyone not already in a venue) for pubs in Newcastle, Australia, led to a 37% reduction in assaults between 22:00 and 06:00. These were sustained for five years following the study (Kypri, Mcelduff and Miller, 2014_[50])
- Rossow and Noström (2012_[51]) who, based on data from 18 cities in Norway, estimated that
 extending opening times by one hour leads to a 16% increase in recorded assaults.

Regarding days of sale, a recent meta-analysis by Sherk et al. (2018_[52]) found that one additional day of sale leads to a 3.4% increase in total per capita consumption of alcohol.

Forty-three percent of OECD countries with available data restrict alcohol sales by hour in both on- and off-premise outlets; however, the same proportion apply no restrictions at all (Figure 6.6). Restrictions by days of sale are less common, with just 11% of OECD countries applying this restriction to both premise types and 73% applying no restrictions (the remainder of countries either have no data or apply restrictions to off-premises only).

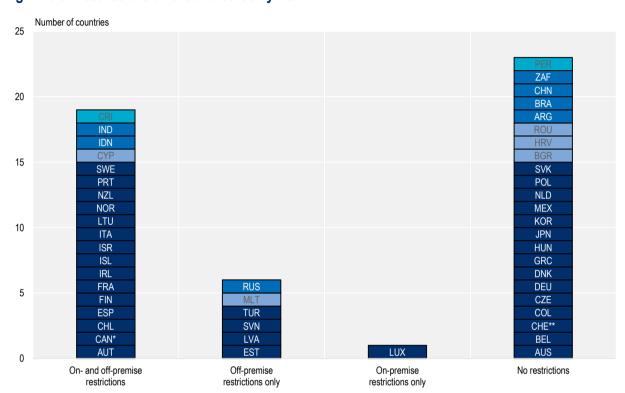


Figure 6.6. Restrictions on alcohol sales by hour

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. No data for the Kingdom of Saudi Arabia, the United Kingdom and the United States. *In Canada, hours for selling alcohol are regulated at the provincial level and differ from one province to another. **In Switzerland, restrictions apply in five of 26 cantons. Source: WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

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Outlet density

In addition to restricting hours and days of sale, policy-makers may also limit the number and concentration (e.g. by population size) of outlets in a given area with a permit to sell alcohol (for consumption on site or elsewhere).

Evidence for this policy indicates that reducing outlet density results in lower consumption and alcohol-related harm (Campbell et al., 2009_[53]), and that the effects may be felt more strongly by target groups such as socially marginalised drinkers (Livingston, Chikritzhs and Room, 2007_[54]; Gruenewald, 2011_[55]). For example, in the United States:

• Gruenewald et al. (2006_[56]) found that a 10% increase in the number of off-premise outlets led to a 2.06% increase in violence rates resulting in one additional overnight stay in hospital.

• A longitudinal analysis by Brenner et al. (2015_[57]) concluded that a one standard deviation increase in outlet density resulted in a 7% rise in alcohol consumption for men, with this figure rising to 11% for women.

Designing and implementing a policy to restrict outlet density requires careful design, as outlet types (e.g. bars, restaurants, liquor stores and supermarkets) cannot be treated as homogeneous. To date, most of the literature combines the impact of on- and off-premise outlets, which is a key limitation (Wilkinson, Livingston and Room, 2016_[48]; Gmel, Holmes and Studer, 2016_[58]; Sherk et al., 2018_[52]).

The sale of alcohol can also be restricted by the location and type of outlet (such as petrol stations). Lithuania, as of January 2020, has banned alcohol sales on beaches and pavilions, as well as during public events for drinks with an alcohol content above 7.5% (Rehm, Štelemėkas and Badaras, 2018_[59]). Latvia plans to stop the sale of alcohol at service stations as part of its action plan to reduce alcohol consumption and related harms (Ministry of Health of the Republic of Latvia, 2019_[60]).

Restricting the number of outlets, although recommended by the WHO (2017_[7]), is only applied to on-premise outlets in five OECD countries, with this figure increasing to seven for off-premise outlets (see Figure 6.7and Box 6.4 for a country example).

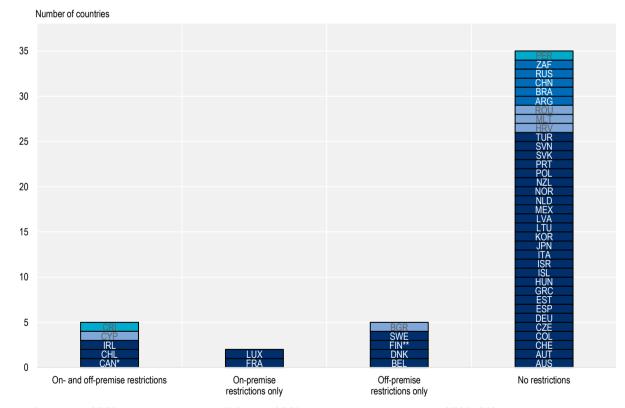


Figure 6.7. Restrictions on the density of alcohol outlets

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. *Provinces and territories delegate responsibility for regulating on-premise outlet density to municipalities, and all but two jurisdictions (New Brunswick and Prince Edward Island) grant the same power to municipalities for off-premise outlets. Jurisdictions with the greatest restrictions on outlet density are Quebec, Alberta, British Columbia, Manitoba and Yukon.

Source: WHO (2020_[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

^{**}There are no restrictions for beer in Finland. Restrictions in the United States differ widely across jurisdictions and is therefore not included in the figure above. No data for the Kingdom of Saudi Arabia or the United Kingdom.

Box 6.4. Changes to alcohol availability in Finland

In January 2018, Finland introduced changes to its Alcohol Act 1994 (1143/1994), which relaxed availability restrictions. Most importantly, under the amendments, grocery stores, kiosks and similar were permitted to sell alcohol with a higher ABV (rising from 4.7% to 5.5%) (Karlsson et al., 2020_[61]). Previously, sales of beverages with an ABV over 4.7% were allowed only in state-run alcohol outlets. Other changes included increased hours of operation for state-run alcohol outlets and permission for independent microbreweries to sell their products with an ABV up to 12%. Alongside amendments to the Act, policy-makers raised the excise tax by approximately 10% (with this figure marginally lower for spirits than for wine and beer).

The impact of changes to alcohol availability and price were recently summarised by Karlsson et al. $(2020_{[61]})$, who found that one year after implementation the changes had led to a 0.1% increase in off-premise sales. At the beverage level, sales data indicated a marked increase in demand for stronger alcoholic drinks. For example, off-premise outlet sales of pre-mixed drinks with an ABV over 4.7% increased by 380%, strong beer by 260% and strong cider by 120%. The authors also found that after one year of the new policy, total alcohol consumption had increased by 0.4%, ending a long-term declining trend.

6.4.2. Age restrictions target underage and early onset of drinking

Many risks are associated with early onset of drinking, such as violence and injury, as well as a greater likelihood of developing alcohol dependence in adulthood (Grant et al., 2006_[62]). Given that the availability of alcoholic drinks is a significant predictor of drinking behaviour among young people (Wagenaar, Salois and Komro, 2009_[15]; Kypri et al., 2008_[63]) most countries have set a minimum age at which people can purchase or consume alcohol legally. Despite legally mandated age limits for purchasing alcohol, however, a high proportion of minors have consumed or regularly consume alcohol (see Chapter 2, Section 2.3).

For minimum age restrictions to reduce underage drinking significantly, they must be strictly enforced by the law. In the Netherlands, alcohol vendors took part in an experiment to test new forms of technology to increase compliance with legal age limits, specifically through a remote age verification system. This system links the cash register to a live video connection, where a remote agent approves or declines purchases. An evaluation of the remote age verification system found that 87% of purchases were conducted without any mistakes compared to 34% for traditional identity document readers (Van Hoof, 2017_[64]).

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 6.8). The vast majority of OECD countries (84%) 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).

Given the damage caused by early onset of drinking, several countries have raised the minimum legal drinking age. For example, Lithuania raised the age limit from 18 to 20 years in 2018 (Nordic Alcohol and Drug Policy Network, 2017_[65]), while in the Netherlands, the age limit rose from 16 to 18 back in 2014 (Schelleman-Offermans, Roodbeen and Lemmens, 2017_[66]).

0

Number of countries 35 RUS CHN BRA ARG 30 **TUR** SVN 25 SVK PRT POL NZL NOR** 20 NLD MEX LVA KOR ITA 15 **ISR** IRL HUN **GRC** GBR 10 **FRA** FIN** **EST ESP** DNK 5 LUX CZE USA DEU* COL SWE*** CHL LTU

Figure 6.8. Legal minimum age for purchasing alcohol

BEL*

AUT*†

16-17 years

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. *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. For India, the age varies between 18 and 25. †Age limits are set at the subnational level. The Kingdom of Saudi Arabia has a total ban on alcohol purchases.

CAN†

18-19 years

Source: IARD (2019[67]), Minimum Legal Age Limits, https://iard.org/science-resources/detail/Minimum-Legal-Age-Limits; WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

StatLink https://stat.link/t52msq

20-21 years

6.5. Drink-driving policies seek to reduce road accident injuries and deaths

Policy interventions

- Blood alcohol concentration limits
- Sobriety checkpoints (breath tests)
- Penalties (e.g. licence suspension, fines, impoundment, community service)
- · Ignition interlock schemes

Key findings

- Blood alcohol concentration limits are a common policy tool across OECD countries, with the limit typically set at 0.05% for the general population (countries may lower this limit for young people and professional drivers).
- Other policy tools commonly employed by countries include sobriety checkpoints and penalties for drink-driving, and to a lesser extent ignition interlock systems.
- The effectiveness and cost-effectiveness of drink-driving policies differ, with evidence strongest for sobriety checkpoints.

6.5.1. Many countries set blood alcohol concentration limits

Drivers with alcohol in their system are at greater risk of being involved in a road traffic crash. A study undertaken by Taylor and Rehm (2012_[68]) estimated that for every 0.02% increase in an individual's blood alcohol content – the percentage of alcohol in a person's blood stream – the probability of being in a fatal motor vehicle crash increases by approximately 70% (odds ratio recorded was 1.74).

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. Specifically, novice or young drivers and professional drivers are often subject to lower BAC limits than the general population (WHO, 2020[10]).

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 OECD countries: Mexico, the United States (with the exception of Utah), Canada and the United Kingdom (with the exception of Scotland, where the limit is set at 0.05%) (Figure 6.9). 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 (WHO, 2020[10]).

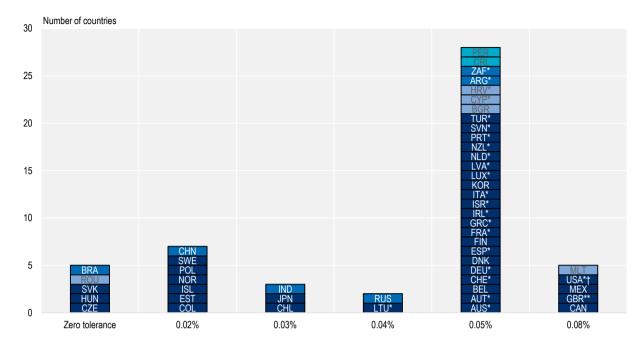


Figure 6.9. BAC limits for the general population

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. *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%. No limit is set in Indonesia. There is a total ban in the Kingdom of Saudi Arabia.

Source: WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

StatLink https://stat.link/763sjg

In recent years, several countries have reduced – or plan to reduce – BAC limits in an effort to cut road traffic crashes caused by alcohol. For example:

- In 2019, Iceland lowered its BAC limit from 0.05% to 0.02%.
- In 2019, Korea lowered its BAC limit from 0.05% to 0.03% (Japan implemented the same change in 2002).
- In 2015, Lithuania lowered its BAC limit for novice and professional drivers from 0.02% to 0%.
- In 2014, Scotland lowered its BAC limit from 0.08% to 0.05%.
- In 2017, Spain announced that it would cut the BAC limit from 0.03% for novice and professionals drivers to 0% (as of January 2020, this change had not been implemented) (European Transport Safety Council, 2018_[69]; Scottish Government, 2018_[70]; OECD, 2020_[71]).

Studies analysing the impact of these cuts differ across countries. In Japan, lowering the BAC limit was associated with a reduction in crashes for 16-19 year-olds by 64%, for adult females by 50% and for adult males by 52% (Desapriya et al., $2007_{[72]}$). In a similar study, Nagata et al. ($2008_{[73]}$) found a reduction in alcohol-related road traffic fatalities and injuries. An analysis of the Scottish experience found a reduction in alcohol consumption from on-premise outlet sales but no change in road traffic crashes. Authors suggest this may be due to the new limit not being properly enforced (Haghpanahan et al., $2019_{[74]}$).

6.5.2. Sobriety checkpoints play a role in reducing road traffic crashes

BAC limits alone are not sufficient to alter behaviour and therefore reduce alcohol-related crashes. Drivers must also believe they are at risk of encountering a sobriety checkpoint. There are two types of sobriety checkpoints:

- **selective breath tests**: 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
- **random breath tests**: for which drivers are selected at a random to have their blood alcohol level tested (Bergen et al., 2014_[75]).

Evidence on the effectiveness of sobriety checkpoints largely comes from the United States. Ecola et al. $(2018_{[76]})$ 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. $(2014_{[75]})$ estimated that sobriety checkpoints led to, on average, an 8.9% decrease in fatalities related to drink-driving. Similarly, Erke et al. $(2009_{[77]})$ 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., $2014_{[75]}$). To maximise the potential of sobriety checkpoints, it is important they are widely publicised, highly visible and conducted frequently (US Department of Transportation, $2017_{[78]}$).

With the exception of Mexico, all OECD countries implement one or both sobriety checkpoints (WHO, 2020[10]).

6.5.3. Penalties for drink-driving vary widely

Drivers caught driving over the legal BAC limit are subject to penalties, which vary in intensity. Common penalties include community service, detention, vehicle impoundment, fines, licence suspension and ignition interlock requirements (discussed later in this section).

An analysis of penalties across OECD countries revealed that the majority (n = 34) penalise drink-drivers by suspending or revoking their licence and/or imposing a fine (n = 28). Long- or short-term detention is another common tool to punish drink-drivers (n = 27); vehicle impoundment, mandatory treatment and community service are used to a lesser extent (WHO, $2020_{[10]}$). For example, Slovenia has introduced stricter legislations for drink-drivers, which includes mandatory rehabilitation for severe drink-driving offenders (i.e. education and psychosocial workshops). A further example from Korea is provided in Box 6.5.

Box 6.5. Drink-driving penalties in Korea

Since 2011, Korea has been tightening sanctions on drink-drivers. An overview of penalties from before 2011 to after 2018 are provided in Table 6.1.

Table 6.1. Timeline of drink-driving policies: Korea

Before 2011	After 2011	After 2018
Blood alcohol level in excess of 0.05%: up to three years' imprisonment or up to KRW 10 million fine	Blood alcohol level between 0.05% and 0.1%: up to six months' imprisonment or up to KRW 3 million fine	Blood alcohol level between 0.03% and 0.08%: up to one year's imprisonment or up to KRW 5 million fine*
	Blood alcohol level between 0.1% and 0.2%: six months to one year's imprisonment or KRW 3 million to 5 million fine	Blood alcohol level between 0.08% and 0.2%: up to two years' imprisonment or up to KRW 10 million fine
	Blood alcohol level in excess of 0.2%: one to three years' imprisonment or KRW 5 million to 10 million fine	Blood alcohol level in excess of 0.2%: up to five years' imprisonment or up to KRW 20 million fine

Note: *KRW 5 million is approximately equal to USD 4 200.

Source: OECD (2020[71]), OECD Reviews of Public Health: Korea: A Healthier Tomorrow, https://doi.org/10.1787/be2b7063-en.

6.5.4. Ignition interlock schemes can be used to reduce drink-driving

Ignition interlocks require drivers to take a breath test to assess their blood alcohol reading in order to start their vehicle. Ignition interlocks can also be installed voluntarily – for example, in commercial vehicles transporting goods (Vanlaar, Mainegra Hing and Robertson, 2017_[79]; European Transport Safety Council, 2018_[69]).

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_[79]). 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. These findings echo previous research by Elder et al. (2011_[80]), which largely focused on the United States.

Five OECD countries currently penalise first-time drink-drivers with ignition interlocks, and one further country imposes this penalty for repeat offenders (National Conference of State Legislatures, 2018_[81]; WHO, 2020_[10]):

- first-time offenders: Belgium, Canada, Denmark, France and certain states in the United States
- repeat offenders: New Zealand and certain states in the United States.

6.6. Policies to curb alcohol marketing help to reduce encouragement to drink

Policy interventions

- Advertising on traditional (e.g. television, radio and print media) and new digital media platforms (e.g. social media)
- Sport sponsorship

Key findings

- Advertising channels are increasingly focused on digital forms of media in particular, social media.
- Most OECD countries implement regulatory or voluntary restrictions on alcohol advertising, albeit to a lesser extent for social media.
- Regulators have not kept pace with industry innovation in the area of digital media; therefore, vulnerable populations such as children are frequently exposed to alcohol content.
- Self-regulatory advertising restrictions have not prevented exposure of alcohol content to minors.
- Alcohol brands play a significant role in sport sponsorship, despite partial or voluntary restrictions in 17 OECD countries (just five countries legally enforce a ban).

Marketing techniques are used to associate alcohol products with positive sentiments (e.g. fun, excitement, social status, success) in order to promote favourable attitudes to alcohol. Marketing therefore plays a role in supporting an "alcogenic environment" (Hill, Foxcroft and Pilling, 2017_[82]). Further, recent research

suggests that there is a causal relationship between marketing and subsequent drinking (Sargent, Cukier and Babor, 2020_[83]; Sargent and Babor, 2020_[84]).

Restrictions on marketing efforts – how, when and where they can be used and who they can target – are widely applied, although only very few countries have comprehensive bans in place. Marketing restrictions, specifically advertising, are strongly encouraged at the international level: the WHO classifies this as one of three best buys to combat the harmful use of alcohol (WHO, 2017_[7]).

The remainder of this section discusses alcohol marketing on traditional and new media platforms, with a focus on advertising and sport sponsorship.

6.6.1. Traditional media platforms have been the main channels for alcohol marketing

Alcohol brands have previously focused on traditional media channels such as television, radio and print 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[85]). Most recently, Jernigan et al. (2017[86]) 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. For example, one of the studies in the review, which included adolescents from Germany, Italy, Poland and the United Kingdom (Scotland), found that those who reported having a favourite alcohol advertisement at baseline were 1.45 times more likely to report binge drinking on follow-up (12 months later) compared to those who did not have a favourite advertisement (Morgenstern et al., 2014[87]).

Across analysed countries, most countries employ some form of statutory restriction on alcohol advertisements (see Box 6.6 for a description of different forms of restrictions). For example, regarding beer and wine, over 60% of countries apply partial restrictions on national television advertisement, while a further 16% employ a full statutory ban (Figure 6.10). Only two countries extend full advertising bans across all media channels: Norway (see Box 6.7) and Turkey.

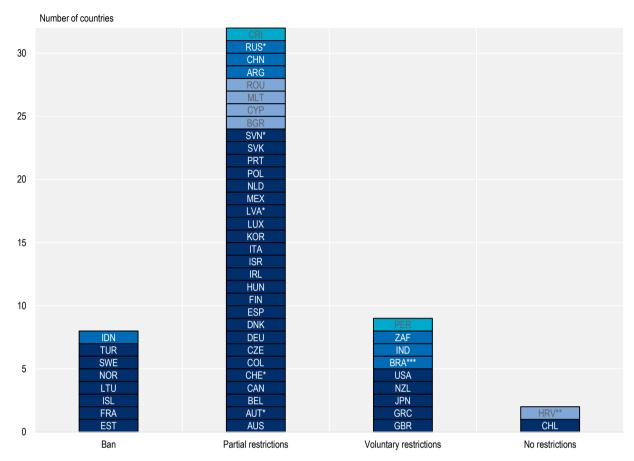
Box 6.6. Types of advertising restrictions

Data on alcohol advertising restrictions were obtained from WHO's Global Information System on Alcohol and Health (GISAH) database. The data are broken down by media type (e.g. national television, social media and the internet) and by strength of restriction, which includes four categories:

- Statutory bans: these are legally binding restrictions banning any form of advertising.
- Statutory partial restriction: this means that the restriction applies during a certain time of day or for a certain place, or to the content of events. For example, in France, the Loi Évin only allows the brand's name and product characteristics to be included in advertisements across certain media types such as radio and billboard (Gallopel-Morvan et al., 2017_[88]). Regarding timing, in Australia, alcohol advertisements can only be shown on television between 12:00 and 15:00 (Monday to Friday) and from 20:30 to 05:00 any day of the week (Australian Communications and Media Authority, 2020_[89]).
- Voluntary or self-imposed restrictions: the alcoholic beverage industry follows its internal voluntary rules.
- No restrictions: advertising restrictions do not exist.

Source: WHO Regional Office for the Americas (2018[90]), Alcohol Policy Scoring: Assessing the Level of Implementation of the WHO Global Strategy to Reduce the Harmful Use of Alcohol in the Region of the Americas, https://iris.paho.org/bitstream/handle/10665.2/49679/9789275120453_eng.pdf?sequence=2&isAllowed=y

Figure 6.10. National television advertising restrictions for beer and wine



Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. *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. No data for the Kingdom of Saudi Arabia.

Source: WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

StatLink https://stat.link/bz8sde

Box 6.7. Norway's statutory regulations on alcohol advertising

Chapter 9 of Norway's Alcohol Act bans advertisements of alcoholic beverages with an ABV >2.5%. This covers all media channels including printed text, film, radio, television, internet, posters, signs, images and exhibits. Further, alcoholic beverages cannot be included in advertisements for other goods and services. The statutory ban, however, may not cover editorial material (e.g. in magazines and newspapers), since it does not always promote the sale of alcohol; further, it is more strongly justified under freedom of speech laws. In order to be classified as an editorial piece, the content must be produced by an independent editorial team – that is, one not under the influence of alcohol brands or other companies with an interest in increasing alcohol sales.

Regarding internet/digital media, the ban applies to websites open to the public. If, however, the website is restricted via a password, advertising material can be published. The Act also forbids alcohol producers from using their branding to promote no- or low-alcohol content beverages, as well as other items such as food and clothing (VBF, 2018[91]).

The statutory law, which applies to beverages with an ABV over 2.5%, is administered by the Ministry of Health and Care Services, with the Directorate of the ministry responsible for supervising compliance with the law and imposing sanctions when it is violated. The Directorate is also responsible for setting fines, although this penalty is not brought into effect until the violation is repeated.

Source: STAP (2007_[92]), Appendix: Regulations of alcohol marketing in 24 European Countries, https://ec.europa.eu/health/ph_projects/2004/action3/docs/2004_3_16_frep_a2b_en.pdf; EUCAM (2009_[93]), Inventory Alcohol Marketing Regulations, https://eucam.info/wp-content/uploads/2016/09/alcohol-marketing-regulations norway.pdf.

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 (see Box 6.8 for further details) (ABAC Scheme, 2019_[94]). Similar arrangements exist in the United Kingdom, New Zealand and Japan (Noel, Babor and Robaina, 2016_[95]).

A systematic review of industry self-regulation 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_[95]).

Box 6.8. Australia's self-regulatory system for alcohol advertising

The Australian Association of National Advertisers is the country's national body for advertisers and exists to promote responsible, innovative and respected marketing via industry collaboration. It is also responsible for implementing comprehensive self-regulatory schemes, which include the ABAC Scheme (Reeve, 2018_[96]).

In 1998 the ABAC Scheme was established by four alcohol industry bodies, using input from advertising, media, consumer bodies and federal government representatives. For this reason, it refers to Australia's alcohol marketing sector as a "quasi-regulatory system", but it is generally accepted that it is self-regulatory (ABAC Scheme, 2019_[94]; Jones and Gordon, 2013_[97]; Reeve, 2018_[96]).

Under the ABAC Scheme, standards for alcohol marketing are set out under the organisation's Responsible Alcohol Marketing Code, which applies to print, billboard, digital, cinema, television, point of sale, radio and packaging (ABAC Scheme, 2019_[94]). The following three-stage process is then followed to ensure that advertisements meet the Code's standards:

- 1. Company and advertising agency staff should check to ensure their advertisement complies with the Code.
- 2. Alcohol companies can pay for a pre-vetting service, run by the ABAC Scheme, to minimise the possibility of the advertisement being pulled once released.
- 3. Once an advertisement is released, members of the public have an opportunity to lodge a complaint, which is then referred to the independent ABAC Adjudication Panel. This includes a representative from the Department of Health and a public health expert.

The scheme is governed by a management committee, which includes members from three industry groups, as well as communication and government representatives (ABAC Scheme, 2019_[94]). The Australian Government does not regulate the scope or breadth of the ABAC Scheme.

Studies on the impact of the ABAC Scheme indicate that it does not prevent exposure of alcohol advertisement to vulnerable groups. Pierce et al. (2019[98]) concluded that the current system permits advertising that appeals to young people, and that decisions made by the Advertising Standards Board (also self-regulated) and ABAC panel regarding breaches of the Code frequently conflict with community expectations. Further, an analysis of "placement rules" in the ABAC Scheme, which were added in 2017, concluded they were not clearly defined and narrow in scope, resulting in nearly all complaints being dismissed. Example rules include: banning marketing communication to minors via electronic direct email and ensuring that 75% of the expected audience of the marketing material are adults in cases where it is not possible to exclude minors (e.g. radio).

Alongside the ABAC Scheme, Australia implements a wider governmental regulatory framework for advertising, which also includes the Broadcasting Services Act, the Commercial Television Industry Code of Practice and the Australian Subscription Television and Radio Association (ASTRA) Code of Practice covering pay television (Australian Government, 2020[99]; Australian Communications and Media Authority, 2015[100]; ASTRA, 2020[101]). Regulation of these Acts and Codes is the responsibility of the Minister for Communications, Cyber Safety and the Arts.

6.6.2. Alcohol brands are increasingly targeting new media platforms

Adults and children spend an increasing amount of time on their mobile devices, with data showing that phone use is more prevalent than time spent watching television (Ofcom, 2018_[102]; He, 2019_[103]; OECD, 2020_[104]). Consequently, the advertising landscape has significantly altered, with brands shifting their focus from traditional forms of media to digital media platforms, including social media.

Unlike traditional media platforms, digital advertising strategies are less concerned about exposure to content. Rather, the focus is on maximising engagement with content (Carah and Meurk, 2017_[105]) – for example, the amount of time spent viewing, interacting and/or recommending content, which together reflects the quality of user-brand engagement. Digital media platforms encourage user engagement by employing algorithms that create unique content for individual users based on previous search activity. Further, these algorithms allow alcohol brands to target individuals who are more likely to consume their products, including children (OECD, 2020_[104]; Carah and Meurk, 2017_[105]).

Advertising strategies by alcohol brands have adapted proficiently to the digital age, allowing them to capitalise on its many benefits (such as lower costs and greater reach, as detailed in Box 6.9). This is reflected in advertising expenditure; for example, in the United Kingdom, online advertising expenditure grew by 189% between 2007 and 2016 (from GBP 3 562 to GBP 10 304), while television experienced a 2% decline (from GBP 5 167 to GBP 5 080) (Ofcom, 2017_[106]). The increasing role of digital media platforms to advertise alcohol products highlights the importance of expanding media regulatory frameworks – for example, considering digital media platforms when designing regulatory frameworks to curb harmful alcohol consumption (Carah and Meurk, 2017_[105]).

Box 6.9. Benefits of digital media marketing

Digital media advertising is growing in popularity among alcohol brands, since it has many benefits over traditional forms of media advertising.

- **Lower costs:** advertising via digital media is less expensive than traditional forms of advertising such as television (WHO Regional Office for Europe, 2018_[107]; Simons and van Dalen, 2017_[108]).
- **Greater reach:** digital media allow brands to extend the reach of their advertisements by encouraging user-generated marketing. Through digital media platforms predominantly social media individuals co-create content with alcohol brands by "liking", sharing and/or commenting on a brand's product. For example, alcohol content that a user has "liked" may be shown in their friend's feed, who otherwise did not engage with the brand. Social media channels have also led to a rise in user-generated promotion, whereby individuals indirectly promote brands by, more broadly, encouraging alcohol consumption, such as posting pictures with friends while consuming alcohol (Critchlow et al., 2017_[109]; EUCAM, 2018_[110]). Advertising on digital media also improves user access to alcohol content, since it can be accessed at any time, anywhere in the world, with the right device (e.g. smartphone) (Griffin, Gavin and Szmigin, 2018_[111]).
- More targeted content: digital media allow brands to target and personalise advertisements to specific audiences, thereby improving traction (Critchlow et al., 2019[112]). For example, if media platforms are able to understand the real ages of users, then age gates could be used to restrict alcohol advertisement to underage users.
- **More engaging advertising**: digital media are interactive and constantly changing, and therefore more exciting and engaging for users (Simons and van Dalen, 2017_[108]). Further, alcohol brands have used digital media to widen their approach to advertising, which may now include interviews with celebrities; competitions for user-generated videos, cocktail recipes, apps and games; and notice of events such as those related to sport or music festivals, for example (Lobstein et al., 2017_[113]).

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_[109]). For example, a study by Critchlow and colleagues (2019_[112]) 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_[114]) concluded that there is a statistically significant positive correlation between alcohol-related social media engagement and alcohol consumption among young adults. Finally, a 2017 narrative review established that digital marketing was associated with higher levels of intention to purchase alcohol, as well as consumption (Lobstein et al., 2017_[115]). For example, one of the studies included from the United States estimated that advertising on the internet reduced the impact (measured by intent to purchase alcohol) of a ban on traditional media platforms by 62% (Goldfarb and Tucker, 2011_[116]).

Alcohol advertising via digital media is proving difficult to regulate for multiple reasons. First, the line distinguishing commercial advertising and user-generated content is blurred, making regulation difficult to implement, monitor and enforce (e.g. user-generated content falls outside a brand's online space (such as their social media account) and is therefore not subject to regulatory control) (Simons and van Dalen, 2017_[108]). Second, alcohol advertising reach is often global, thereby making regulations difficult to enforce at the national level. Third, the ever-changing nature of digital media to optimise user experience means that best practice regulatory approaches change and require updating continually (Kauppila et al., 2019_[117]) (Kauppila et al., 2019_[117]). It is therefore not surprising that children are frequently exposed to alcohol messages via digital channels (Lobstein et al., 2017_[113]). For example, a study on digital media usage in four European countries found that 33% of children aged 13-14 had received promotion emails involving alcohol brands; 18% had downloaded a screensaver that included an alcohol brand; and 66% had come across an internet page including an alcohol brand (de Bruijn, 2013_[118]).

Several strategies are available to policy-makers to improve regulation of online advertising. These include reviewing, updating and broadening the scope of marketing regulatory frameworks to ensure that they meet the unique challenges posed by digital media; enhancing stakeholder collaboration – for example, through public-private partnerships; regular evaluation of policy measures to ensure that they remain relevant (using consistent indicators where possible); and regional and international collaboration, since online advertising material crosses borders (OECD, 2012_[119]; Carah and Meurk, 2017_[105]; WHO Regional Office for Europe, 2018_[107]).

To assist countries on a more practical level, in 2019 the EU27 released an online toolkit to help countries update their marketing-related policies (i.e. code of conduct), including those related to alcoholic beverages. The toolkit is designed to cover digital forms of media and consists of three key parts (European Commission, 2019[120]):

- 1. **Code structure**: an overview of sections that should be considered when developing a code of conduct (general information of a code, marketing restrictions and monitoring and evaluation)
- 2. Code checklist: a list of key aspects that a marketing code should include
- Practical guidance: an inventory of specific actions (in line with key aspects from the code checklist) that are currently included in existing marketing codes.

Relative to traditional forms of media, fewer OECD countries have regulatory arrangements in place to limit alcohol advertising via social media (see Figure 6.11). Further, where regulatory arrangements do exist, they are partial restrictions. 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[121]; EUCAM, 2018[110]). Another key example is that of Finland, which in 2015 introduced new restrictions targeted at social media (see Box 6.10 for further details). Following an inquiry by the Australian Competition and Consumer Commission, the Australian Government started a two-phase process that will review the advertising rules and restrictions across all delivery platforms and will monitor and enforce the regulatory framework across all platforms (Australian Government, 2019[122]).

Number of countries 20 7AF 15 CHN IND BRA ARG SVN* USA **PRT** SVK 10 POL** NZL **SWE** LVA NLD MEX ISR IRL LUX **GRC KOR** HUN GBR JPN FRA 5 RUS FIN* DNK ITA IDN **EST** DEU ISL TUR CZE COL **ESP** NOR CHE BEL CHL LTU AUS AUT CAN n Ban Partial restriction Voluntary restriction No restriction

Figure 6.11. Social media advertising restrictions

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. *Ban on spirits. **Ban on spirits and wine. Partial restrictions may refer to time and/or place and/or content. No data for the Kingdom of Saudi Arabia.

Source: WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

StatLink https://stat.link/4n159d

Box 6.10. Finland's statutory regulation of alcohol advertising targeted at social media

The Finnish Alcohol Act 1994 regulates alcohol advertising. In January 2015, an amendment to the Act was introduced targeting advertising on social networking sites. The amendment is designed to protect children and young people, as they are more susceptible to advertising messages and are frequent users of social media.

A high-level description of the amendments is summarised below:

- forbid brands from sharing content generated by users for advertising purposes (e.g. consumer comments, pictures or videos that use the brand's product), and state that they must remove any consumer-generated content from their social media platforms
- require brands to de-activate social media services that allow users to share their content, when possible
- require brands to not encourage consumers to share their alcohol-related content
- forbid the use of interactive games, competitions and lotteries
- forbid content that is designed to be shared by consumers
- only allow targeted advertisements when the target audience is of legal drinking age.

In 2019, Kauppila and colleagues released a report describing the impact of the legislative change in Finland. The report looked at the accounts of 38 alcoholic beverages across four major social media

platforms. By comparing social media content and user engagement in 2014 and 2017, the authors concluded that amendments to the Act did not significantly curtail the ability of alcohol brands to engage consumers. For example, over the study period, brand activity grew by 300%, while the number of likes/shares/comments per post rose by 178% (rises between 2014 and 2016 and a small reduction between 2016 and 2017). However, the authors noted that although activity grew, user engagement was low in all years.

The authors noted ultimately that it is extremely difficult to regulate alcohol-related messages on a platform designed to share content, particularly in an environment where users operate globally. In addition, due to the limited resources of Finnish's National Supervisory Authority for Welfare and Health, monitoring adherence to the new amendments was limited.

In response to the difficulty associated with regulating social media, it has been suggested by several scholars that alcohol advertising should be banned from social media platforms. However, there are concerns as to whether this is viable, given the complicated monitoring arrangements required. Further, Kauppila et al. note that the issue cannot be solved at the national level, since algorithms are developed by social media companies that operate in countries across the world.

Source: Kauppila et al. (2019[117]), Alcohol Marketing on Social Media Sites in Finland and Sweden: A comparative audit study of brands' presence and content, and the impact of a legislative change, https://blogs.helsinki.fi/hu-ceacg/files/2019/04/Alcohol-marketing-on-social-media-sites-in-Finland-and-Sweden-2019.pdf.

Efforts by the alcohol industry to self-regulate digital advertising content have, to date, had little impact. A prominent example of digital self-regulation is the Digital Guiding Principles developed by the International Alliance for Responsible Drinking (IARD) (Box 6.11). A systematic review by Noel et al. (2020_[123]) found that the Principles have not prevented alcohol advertising exposure to young people and other vulnerable populations.

Box 6.11. Self-regulation of digital marketing communications

The IARD is comprised of 11 leading beer, wine and spirits companies. Among its various activities, it created a set of Digital Guiding Principles for alcoholic beverage marketing in digital media. In short, it claims that the guidelines have been developed to ensure that the "high standards" set for traditional forms of marketing are also applied to digital marketing (ICAP, 2011_[124]).

The Digital Guiding Principles cover four areas: minors, responsible consumption, transparency and privacy. Examples from the guidelines are summarised below.

Minors

- When actively engaging users, alcohol companies must ensure that an age-affirmation mechanism is used to ensure the person is over the legal purchasing age.
- Whenever not actively engaging a user, alcohol marketing communications should only be placed in media where it is reasonable to assume that 70% of the audience is over the legal purchasing age.

Responsible consumption

 User-generated content posted on digital platforms run by alcohol companies should be moderated on a regular basis.

Transparency

Alcohol companies should not misrepresent their commercial purpose.

Privacy

 Alcohol companies should respect user privacy by, for example, requiring consumer consent prior to sending direct digital marketing communications.

6.6.3. Sport sponsorship is a key method of alcohol marketing and promotion

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_[125]). The sporting industry is vast, covering a range of demographic groups, thereby providing high levels of exposure (The Business Research Company, 2019_[126]). For this reason, the alcohol industry is a key sponsor of sporting events, sporting teams and individual athletes across the world (Jones, 2010_[127]).

Sport sponsorship by the alcohol industry comes in many different forms, including logos on players' uniforms and replica items bought by spectators; on-field/court signage; and interactive food, drink, music and game events hosted at sporting tournaments. Such sponsorship deals are not confined to major sporting events, with brands also sponsoring clubs at the local level (Brown, 2016_[128]).

Several studies analysing the level of exposure alcohol brands receive during sporting events highlight the prevalence of the alcohol industry in this sector. For example, Chambers et al. $(2017_{[129]})$ examined five key sporting events – including football, tennis, rugby and cricket – and found that alcohol brands were visible between 24.1% and 47.1% of the time, with the exception of cricket (9%). This equated to between 1.6 and 3.8 brand exposures per minute. In Australia, a study by Monash University in 2015 discovered that nearly 90% of alcohol advertisements aired in the daytime were played during sports broadcasts, compared to 14% in the evening (O'Brien et al., $2015_{[130]}$). These results suggest that children are highly exposed to alcohol brands.

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, $2009_{[85]}$; Houghton et al., $2014_{[131]}$). Studies have also examined the impact sponsorship has on athletes and sporting club members – specifically, its impact on consumption (Brown, $2016_{[128]}$). For example, O'Brien et al. ($2014_{[132]}$) 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 (measured using the Alcohol Use Disorders Identification Test questionnaire – a method to screen for excessive drinking and to assist in brief assessment; see Section 6.7.1 for further details) 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 6.12). Across OECD countries, Spain, France, Norway and Turkey have implemented legally binding bans on sport sponsorship across all beverages (WHO, 2018_[133]). 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.

Ban

Number of countries 20 18 CHN 16 ARG 14 SVN ZAF NZL 12 BRA NLD HRV** 10 IND KOR ROU SWE JPN 8 RUS* PRT SVK **ISR** IDN POL** GRC **IRL** 6 GBR HUN LTU EST TUR DNK 4 NOR DEU COL MEX* ISL CZE CHL 2 FRA FIN** **BEL** CAN ESP CHE** AUT** AUS*** 0

Figure 6.12. Restrictions on sport sponsorship for alcohol brands

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD; G20 countries; green = countries partnering with the OECD. *No restrictions for beer. **Stricter requirements for spirits. ***Alcohol-related sponsorship agreements are managed by subnational jurisdictions and individual sporting codes and teams. No data for the United States or the Kingdom of Saudi Arabia. Source: WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

Voluntary restriction

Partial restriction

StatLink https://stat.link/w7l3fh

No restriction

6.7. Screening, brief interventions and treatment target harmful drinking

Policy interventions

- Excessive drinkers are identified through various screening tools. Following screening:
 - excessive drinkers receive brief interventions, which typically last between 5 and 30 minutes over 1-5 sessions
 - o dependent drinkers may be referred to specialised psychosocial and pharmacotherapy treatment.

Key findings

- The majority of OECD countries implement guidelines for screening and brief interventions in primary care for harmful alcohol use.
- These are primarily provided in primary care and emergency department settings, and may therefore overlook certain groups such as younger people, who access health care less frequently.
- Face-to-face and digital screening and brief interventions are an effective approach to reduce alcohol consumption. Nevertheless, only 5% of individuals who consume harmful amounts of alcohol are identified by screening and offered brief advice.

6.7.1. Screening and brief interventions for hazardous and harmful drinkers aim to reduce prevalence of alcohol-related diseases

Increasingly, policy-makers are investing in preventive measures to help people stay healthy for longer. Preventing the escalation of alcohol-related diseases through screening and brief interventions (SBIs) is an example of this.

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_[134]). The process begins by screening individuals, which involves a series of questions related to their level of alcohol consumption. Many tools are available to screen for alcohol-related problems, including:

- Alcohol Use Disorders Identification Test (AUDIT): a 10-item screening tool developed by the WHO, with separate identification tests for those administered by health professionals and by individuals (self-reported). Test outcomes (low risk; risky or hazardous drinking; high risk; or dependence) are used to inform advice/interventions provided by a health professional. A shorter test also exists, AUDIT-C, which involves just three questions. Both tests are intended to be used in a primary care setting (Babor et al., 2001[135]).
- **CAGE questionnaire**: a four-item questionnaire to identify alcohol problems over an individual's lifetime (including question such as: Have people annoyed you by criticising your drinking?). Similar to AUDIT, it is designed for use in primary care.
- Fast Alcohol Screening Test (FAST): a four-item questionnaire, which was developed based on AUDIT. It was developed for use in emergency care settings, but it can be used in various other health and social care environments.

Those identified as being at risk receive further assistance via a brief intervention (of between 5 and 30 minutes depending on the health professional, delivered over 1-5 sessions). If, however, the person is a dependent drinker, they will be referred to more specialised treatment. Brief interventions therefore target

hazardous and harmful drinkers (see Box 2.3 for details on definitions) as opposed to dependent drinkers, who require greater levels of support (Kaner et al., 2018[136]).

The brief intervention manual for hazardous and harmful substance use in primary care developed by the WHO outlines the following steps (referred to as the Alcohol Smoking and Substance Involvement Screening Test (ASSIST) manual) (WHO, 2010_[137]):

- Asking: asking clients whether they would like to see their questionnaire scores.
- Feedback: offering personalised feedback on scores using the ASSIST feedback report card.
- Advice: providing advice on how to reduce the risks associated with substance use.
- Responsibility: allowing clients to take responsibility for their choices.
- Concerned: getting feedback from clients on how concerned they are about their scores.
- "Good" and "less good" things: weighing what is good about using the substance against what is less good.
- **Summarise and reflect:** going over clients' feedback on substance use emphasising the "less good things" and how clients feel about these.
- **Take-home materials**: providing clients with materials they can use to complement the brief intervention.

Evidence on the effectiveness of SBIs largely relates to primary care interventions and is positive. Kaner et al. (2018_[136]) 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_[138]) 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).

Given that individuals who drink to excess are not as likely to seek help for alcohol-related issues, primary care is an ideal setting for SBIs, as it provides health professionals with an opportunity to screen individuals who are visiting for alternative reasons. Further, patients may be more willing to act on advice provided by primary health care professionals with whom they have an ongoing relationship (Henry-Edwards et al., 2003_[139]). Screening in a primary care setting is particularly important for women of reproductive age, since past drinking habits are a strong predictor of prenatal consumption (Barry et al., 2009_[140]). Thus, screening can play an important role in reducing drinking during pregnancy and therefore the prevalence of adverse pregnancy and birth outcomes (Denny et al., 2019_[141]).

Among OECD countries, 90% 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 (Figure 6.13). For example, in the United Kingdom (England), an SBI is undertaken as part of a normal health check (Box 6.12).

Number of countries 35 ZAF IND BRA ARG 30 USA TUR SWE SVN PRT POL NZL NLD MEX LVA LTU JPN ITA ISR ISL IRL HUN 25 20 15 GBR FIN ESP DNK DEU 10 CZE COL CHL CHN 5 CHE KOR GRC BEL AUS 0

Figure 6.13. SBI guidelines for alcohol use in primary care

SBI guidelines

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. No data for Austria, Estonia, France, Luxembourg, Kingdom of Saudi Arabia, Norway, Bulgaria, Cyprus or the Russian Federation.

 $Source: WHO~(2020_{[10]}), GISAH, \\ \underline{https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health}$

StatLink https://stat.link/rbgj14

No SBI guidelines

Box 6.12. 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[142]).

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 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, 2016[143]).

Within the health care sector, SBIs are also used in emergency departments and in settings that treat patients for whom alcohol is particularly harmful (e.g. pregnant women during obstetric visits) (Moyer and Finney, 2015_[144]). This approach is common in countries such as Spain, Finland, the United Kingdom, Hungary, Latvia, the Netherlands, Portugal and Sweden (WHO, 2014_[145]). A weakness with this approach is that it overlooks key groups, such as younger people, who access health care less frequently. For this demographic, SBIs in community settings (e.g. local government and social services) may be more useful (Derges et al., 2017_[146]).

Outside the health care sector, SBIs may also be used by workplaces, particularly in fields where harmful alcohol use is dangerous to others (e.g. drivers, and public safety and national security roles) (Eurofound, 2012_[147]). Workplaces are viewed as an opportune setting, since they are where employed adults spend a large proportion of their day (see Box 6.13 for further details on workplace-based interventions) (Wolfenden et al., 2018_[148]).

Box 6.13. Alcohol interventions in the workplace

Workplaces play a unique role in providing preventive health care interventions to support employees and the wider public, for example, given it is where people spend a large proportion of their time (Wolfenden et al., 2018_[148]). Further, evidence suggests that adults who regularly consume alcohol account for a significant share of those employed (Midorikawa et al., 2019_[149]; KHNANES, 2019_[150]; ONS, 2011_[151]; Schulte et al., 2014_[152]).

Implementing workplace interventions to reduce hazardous drinking levels can also have a positive economic impact by reducing absenteeism, presenteeism, accidents and lost earnings from premature mortality. For example, an OECD analysis of several studies found that non-health-related costs associated with alcohol consumption ranged between 0.19% (Portugal) and 1.6% (Estonia) of gross domestic product in the year the costs were incurred (see Figure 4.2 in Chapter 4 for further details) (Saar, 2009_[153]; Cortez-Pinto et al., 2010_[154]).

As with SBIs in health care settings, workers at risk of hazardous drinking are often identified through short surveys (e.g. AUDIT-C). In addition, employers may require employees to undergo biomarker tests such as blood or carbohydrate-deficient-transferrin tests (as of 2016, 34% of OECD countries have in place legislation requiring alcohol tests in workplaces) (Schulte et al., 2014[152]; WHO, 2018[155]). Those who are identified as at-risk drinkers are then referred to additional services, such as normative feedback information, education, skill-building, practical advice and/or treatment from a health care professional (Osilla et al., 2010[156]).

A randomised controlled trial (RCT) among six companies in Japan found that workplace brief interventions targeted at people who drink heavily increased the number of alcohol-free days in the past 28 days by 93% (from 4.63 to 8.95 days) (Ito et al., 2015_[157]). Further, the intervention group reduced their total number of standard drinks in the past seven days by 11.1 drinks compared to 7 standard drinks in the control group. In the United Kingdom, an RCT analysing the impact of brief interventions for hazardous drinkers in a local authority council region concluded that the intervention had led to a statistically significant reduction in AUDIT-C scores (from 8.88 to 7.44) (Watson et al., 2015_[158]).

Thanks to advances in technology, people are increasingly complementing or replacing traditional face-to-face interventions with digital interventions. Digital interventions are delivered via a computer or mobile device (e.g. laptop, mobile phone or tablet) and include examples such as mobile apps to assess and monitor alcohol consumption; text message interventions; online chat rooms and fora; and online access to health professional counselling.

Digital interventions have a number of advantages over traditional face-to-face interventions, such as:

- **Greater reach**: digital interventions have the potential to reach a larger number of people as services can be accessed anywhere at any time. This is important for hard-to-reach groups such as those living in rural/remote areas and younger people, who access health care less frequently. However, it may also lead to uneven access, since those with a lower socio-economic status are less likely to own a smartphone, which is an increasingly common platform for such interventions (Nesvåg and McKay, 2018_[159]). Further, evidence from O'Connor et al. (2016_[160]) and Hardiker and Grant (2011_[161]) found that those with lower levels of education and literacy, as well as older people and certain ethnic groups, were less likely to use digital health technologies.
- Lower barriers to access: problem drinking is often associated with shame and embarrassment, which prevents people from seeking help. The anonymity of receiving support online can help break down this barrier.

- Lower cost: digital interventions can be cheaper and therefore relieve financial pressure on health providers, including governments, as well as on patients. For example, the Australian Government funds an online intervention service free of charge, which provides one-on-one assistance with qualified health coaches. A similar service provided face to face would typically cost a patient AUD 180/hour (approximately USD 120) through the country's universal health insurance scheme (Medicare) or private health insurance (see Box 6.14).
- **Continuity**: the impact of SBIs on alcohol consumption reduces over time (Wutzke et al., 2002_[162]). Digital interventions allow individuals ongoing access to support and therefore have the potential to change long-term behaviours. However, evidence on rates of sustained use vary considerably, and for simple interventions drops quickly (Nesvåg and McKay, 2018_[159]).

Research into the effectiveness of digital alcohol interventions is growing at a rapid rate, which aligns with the changing health care landscape. A Cochrane Review in 2017 found "medium-quality evidence" indicating that compared to no or minimal intervention, personalised digital interventions reduce average alcohol consumption by up to three standards drinks a week (Kaner et al., 2017[163]).

Box 6.14. Mobile phone app in Australia

Hello Sunday Morning (HSM) is an Australian social media health promotion "movement", which encourages people to rethink their attitude towards drinking. Specifically, HSM "challenges" people to reduce their consumption of alcohol or to abstain from drinking for a set time period, and to document their experience on a personal blog (which is uploaded to HSM's website) (Carah, Meurk and Hall, 2015_[164]). Since 2009, over 2.1 million stories from more than 100 000 participants have been shared online.

In 2018, HSM was superseded by the organisation's programme Daybreak, which is available through a mobile app and desktop. Daybreak is designed to help people change their relationship with alcohol using the following three features (Hello Sunday Morning, 2019_[165]):

- **Community feed**: made up of likeminded people who share their experience of cutting down alcohol consumption, which is designed to make people feel supported
- **Experiments**: access to a library of experiments to help participants self-manage urges, focus on triggers, handle peer pressure and build self-esteem
- **Health coaches**: allowing participants to send private messages to a qualified health coach (e.g. psychologists) to receive personalised assistance.

Daybreak is funded by the Australian Government Department of Health and is free to all Australians who use the mobile app. The desktop-based service, however, involves a fee (AUD 10 a month (USD 7)).

An evaluation of the programme in 2019 found that, three months after starting the programme, participants had (Tait et al., 2019_[166]):

- reduced the number of standards drinks they consumed in a week (seven days) from 37.10 to 17.49
- reduced the number of missed days of work in the past month (30 day) due to alcohol from 1.59 to 0.48
- seen their quality of life increase using an internationally recognised instrument (EUROHIS-QOL).

6.7.2. Specialised treatment is designed to assist 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[167]; Moyer and Finney, 2015[144]).

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, contingency management (where individuals are rewarded for evidence of positive behaviours), motivation enhancement therapy (designed for patients to internally motivate change), coping skills training and support groups (e.g. Alcoholic Anonymous) (Witkiewitz, Saville and Hamreus, 2012_[168]). Psychosocial treatment has been shown to be effective for alcohol dependence, but relapse within the first year is common. It is therefore often partnered with pharmacological treatments such as naltrexone, which are administered after the detoxification process in order to minimise the euphoria associated with alcohol consumption (Rösner et al., 2010_[169]).

6.8. Consumer information can improve awareness of the health risks associated with alcohol

Policy interventions

- Nutritional and health warning labels
- Mass media campaigns
- School-based education programmes

Key findings

- Mass media campaigns are prominent across OECD countries, but labelling policies are modest, with most countries implementing voluntary as opposed to mandatory schemes.
- Mass media campaigns and labels can improve awareness of the health risks associated with alcohol; however, they have limited impact on alcohol consumption.
- School-based prevention programmes can successfully reduce alcohol-related problems, but their effectiveness is hindered by poor implementation.

6.8.1. Labelling is used to enhance consumer knowledge

Alcohol labels are designed to enhance consumer knowledge to ensure that individuals have the necessary information to decide whether and how much they drink. Labelling is provided at the point of sale and in advertisements; however, it is most prominent on alcohol containers, which is the focus of this section (Siggins Miller, 2017_[170]).

Labelling is considered a key policy for tackling harmful use of alcohol. For example, in 2017, the WHO listed labels to inform consumers of alcohol-related harm among its recommended alcohol policies (WHO, 2017_[7]).

Information provided by labels differs across OECD countries, with no uniform approach applied. Nevertheless, a review of current labelling arrangements highlighted two commonly implemented approaches:

- 1. **Nutritional information**: to educate consumers on relevant nutritional aspects of the specific alcoholic product.
- 2. **Health warnings**: to inform consumers of the potential health risks associated with consuming alcohol.

Nutritional information

Alcohol consumption is a significant contributor to total calorie intake for both men and women. In Australia, results from the latest nutrition survey (2018) found that over one-third of all energy intake comes from discretionary foods (food high in energy and low in nutrients), of which alcohol is the largest contributor (AIHW, 2018_[171]). For example, 5% of all calories consumed by those aged 19-30 comes from alcohol, and this figure rises to 7% for adults aged 51-70 years. Similar results were found in the United Kingdom, Canada and the United States (Box 6.15).

Box 6.15. Alcohol's contribution to calorie intake

Alcohol has a significant impact on total calorie intake, as evidenced by several nutrition and health surveys carried out in OECD countries.

Australia

Alcohol is the leading contributor to discretionary food intake surpassing chocolate, cakes and muffins (e.g. for adults aged 31-50, alcohol comprises 17% of discretionary intake compared to 9.1% for cakes and muffins and 5.7% for soft drinks) (AIHW, $2018_{[171]}$).

Canada

Researchers in Canada estimated alcohol's contribution to estimated energy requirements at 11.2% or 250 calories a day. Beer was the largest contributor to energy from alcohol, followed by wine, spirits and ciders (Sherk et al., 2019[172]).

United Kingdom

In the United Kingdom, alcohol provides adults aged 19-64 years with 8.4% of their total energy intake (Bates et al., 2017_[173]). This figure increases significantly on their heaviest drinking day, specifically to 27% for men and 19% for women (Shelton and Knott, 2014_[174]).

United States

An analysis of the adult population (20 years and over) found that the average individual consumes 100 calories of alcohol per day (i.e. around 5% of total calorie intake based on recommended daily intake), with figures higher for men (150 calories) than women (53 calories) (Nielsen et al., 2012_[175]; U.S. Department of Health and Human Services, 2015_[176]).

Despite the growing obesity epidemic in many countries (OECD.Stat, 2019[177]), the contribution of alcohol to calorie intake has received little attention. This is reflected in low levels of consumer knowledge about the link between alcohol and calorie content. For example, a 2014 study by the UK Royal Society of Public Health found that 80% of adults surveyed did not know the calorie content of common alcoholic drinks

(Sim, 2015_[178]). Similar results were found in a selection of European countries, where the vast majority of respondents either incorrectly estimated the number of calories in a regular drink or did not know (GfK Belgium, 2014_[179]; Vecchio, Annunziata and Mariani, 2018_[180]).

Among OECD countries, only five have a national legal requirement to provide consumers with calorie information on all alcohol containers: Greece, Ireland, Israel, Mexico and Turkey (WHO, 2018[181]). Several other countries have engaged, or plan to engage, in voluntary agreements with industry to provide this information. For example, in the United Kingdom, England's Department of Health in 2011 launched a Public Health Responsibility Deal with businesses and public bodies, which pledged to raise awareness of the calorie content within alcohol drinks (pledge A3) (Knai et al., 2015[182]). However, a review of the Responsibility Deal in 2017 revealed that little progress had been made, with less than 2% of all alcohol products containing calorie information on their labels (Petticrew et al., 2017[183]). More recently in Slovenia (2020), the Nutrition Institute in co-operation with the Slovenian Consumers' Association, the Jožef Stefan Institute and the National Institute of Public Health launched a new research programme to inform people on the composition and nutritional value of alcoholic beverages ("You know what you drink: employing mobile application for reducing alcohol related harm") (Nutrition Institute, 2020[184]).

At the EU27 level, in response to calls for mandatory measures, the alcohol industry submitted a self-regulatory proposal (in March 2018) to include nutrition information and ingredients on labels or an online link/bar code/QR code that can be used to access this information. In June 2019, representatives of the spirits industry signed a memorandum of understanding committing them to provide energy labels on 66% of all containers by the end of 2022. Later that year, Brewers of Europe and its member signed a memorandum of understanding to provide ingredient and energy values on all beer bottles and cans, also by 2022 (European Commission, 2019_[185]).

Given the limited number of countries with sufficient nutritional labelling arrangements (on alcohol containers) in place, evidence of the policy's impact is poor (Walker et al., 2019[186]). The research that is available is typically qualitative, and focuses on how participants respond to different labelling schemes (Box 6.16).

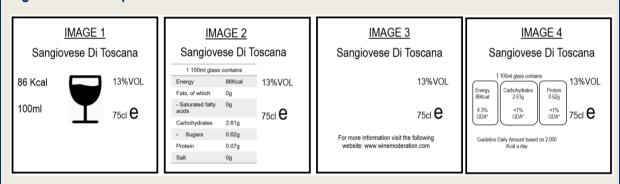
Box 6.16. Impact of alcohol nutritional labelling on consumption

Two studies from Italy and New Zealand analysing the impact of alcohol nutrition labels on consumption patterns are summarised below.

Italy

In a small study (n = 103) undertaken by Vecchio et al. ($2018_{[180]}$), participants were shown a range of nutrition alcohol labels (Figure 6.14) and asked which they preferred (measured by willingness to pay). Results from the study suggest that more informative labels (such as a nutrition panel label – image 2) are preferred to those with less information (such as a link to a website for further information – image 3): participants recorded higher willingness to pay for alcoholic beverages with image 2 than image 3.

Figure 6.14. Example nutritional labels



Source: adapted from Vecchio, Annunziata and Mariani (2018[180]), "Is more better? Insights on consumers' preferences for nutritional information on wine labelling", https://doi.org/10.3390/nu10111667.

New Zealand

Findings from focus groups found that energy labelling would have a greater impact on alcohol purchases than health warnings and low-risk drinking advice. Energy labels with the greatest impact are those that display energy intake (e.g. calories or percentage daily intake), alcohol content and amount of standard drinks contained at the front of the bottle. This label option was preferred over back-of-label nutritional information; kJ and calories only; and kJ, calories and percentage daily intake only (Walker et al., 2019_[187]).

Health warnings

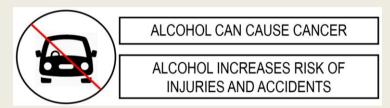
Health warning labels come in several different forms across OECD countries (Box 6.17).

Box 6.17. Types of health warning labels

Several health warning labels are present in OECD countries (Figure 6.15). These can be broadly grouped as relating to disease, injury or alcohol content:

- **Disease risks**: disease labels typically warn consumers of the link between alcohol consumption and cancer and cirrhosis, as well as the impact on congenital abnormalities (birth defects) caused by drinking while pregnant.
- Injury risks: injury-related labels warn consumers against consuming alcohol and operating
 machinery or driving a vehicle, and warn of the increased likelihood of violence.
- **Alcohol content and consumption**: alcohol content labels aim to inform consumers about the number of standard drinks they consume and give advice on how to consume.

Figure 6.15. Example health warning labels



Source: Adapted from Eurocare $(2012_{[188]}),$ Eurocare Library Alcohol Health Warning Labels https://webgate.ec.europa.eu/chafea pdb/assets/files/pdb/20113208/20113208 d04-00 en ps.pdf; Australian Alcoholic Beverage the Labelling Review Response Submission to Secretariat on Alcoholic Beverages. https://www.aph.gov.au/Parliamentary Business/Committees/House of Representatives Committees?url=/spla/fasd/subs/sub%20018% 20attachment%20a.pdf.

Evidence on the impact of alcohol health warning labels suggests that they increase consumer knowledge and awareness of the risks associated with drinking. Using a real-world quasi-experimental study, Hobin et al. (2020_[190]) found that recall of a cancer warning label increased at a greater rate for those exposed to the warning label on alcohol containers than for those who were not exposed (when both prompted and unprompted). A study by Schoueri-Mychasiw et al. (2020_[191]) found similar results for recall of a drinking guideline message.

The impact of health warning labels on behaviour, however, is less clear, with insufficient evidence to conclude that they reduce consumption (Scholes-Balog, Heerde and Hemphill, 2012_[192]; Jones and Gordon, 2013_[193]; Stockwell, 2006_[194]; Thomas et al., 2014_[195]; Knai et al., 2015_[182]; Hassan and Shiu, 2018_[196]). This does not suggest that health warning labels should be abandoned, however, given that studies to date suffer from several methodological issues such as small sample sizes, lack of control groups and limited longitudinal data (Siggins Miller, 2017_[170]; Hassan and Shiu, 2018_[196]). Further, labelling is often not implemented as intended, so researchers are not evaluating "best practice" (Al-hamdani, 2014_[197]; Stockwell, 2006_[194]). For example, a study undertaken by Kersbergen and Field (2017_[198]) in the United Kingdom concluded that current warning labels are insufficient to capture consumer attention, and have therefore had limited impact on drinking behaviour.

Based on the literature, including key lessons from the use of labels to tackle other major risk factors such as unhealthy diets, a list of best practice labelling principles is provided in Table 6.2. These can assist countries in designing more effective labels and thereby – as part of a broader alcohol strategy – reducing harms related to alcohol.

Table 6.2. Alcohol labelling best practices

Best practice principle	Details
Interpretable	Warning messages should be clear and able to be interpreted unambiguously (WHO, 2003[199]). Further, they should be easy for members of the public to understand (Jané-Llopis et al., 2020[200]).
Visible	Warning messages should be easily noticed by consumers. Therefore, the message should be written in sufficiently large font, be proportional to the size of the container, and be placed against a contrasting background and at the front of the container (Jané-Llopis et al., 2020 _[200]). Picture images are also effective in gaining consumer attention (Laughery et al., 1993 _[201]).
Tailored	Warning messages should be tailored to the consumer of the product (e.g. by age or gender) (Thomson, Vandenberg and Fitzgerald, 2012 _[202]).
Varied	Health warning messages should be rotated to avoid overexposure (Hammond, 2009 _[203]). For example, Zhao et al. (2020 _[204]) found that changing the alcohol health warning labels led to a reduction in total per capital retail alcohol sales of 6.31%.
Negatively framed	Research suggests consumers are more responsive to negatively framed health warning messages (Blackwell et al., 2018 _[205]).

Source: OECD analysis based on cited literature.

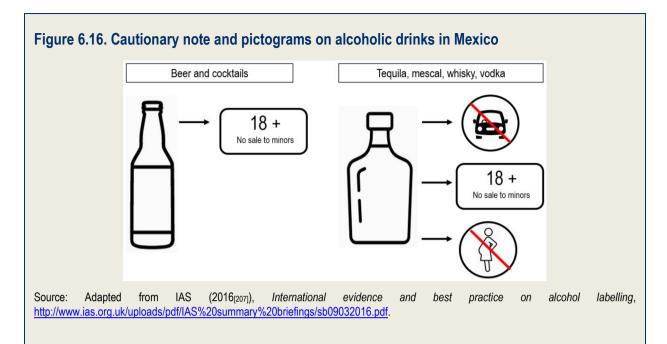
Health warning labels on alcohol containers are currently mandatory in 12 OECD countries (Colombia, France, Greece, Israel, Japan, Lithuania, Mexico, Norway, Korea, Portugal, Turkey and the United States) and in the process of implementation in three (Ireland, and also Australia and New Zealand, where the introduction of pregnancy warning labels was agreed in 2020, with a three-year implementation period) (for further details see Box 6.18 and Box 6.19) (WHO, 2020[10]). However, several other countries have voluntary arrangements in place (Siggins Miller, 2017[170]).

Box 6.18. Alcohol health warning labels in Mexico

In 2015, Mexico introduced an Official Standard Rule, Normas Oficiales Mexicanas-142, related to alcoholic beverages imported, manufactured and sold in the country. Under the Rule, all alcoholic beverages must include a cautionary note (Figure 6.16). Specifically, drinks with an ABV between 2% and 55.5% must state that "the abuse of consumption of this product is harmful to health". The way in which this message is displayed is also regulated; it must be in uppercase letters and in a contrasting colour (with the size of text varying depending on ABV level) (Diario Oficial De la Federación, 2015_[206]).

Alcoholic drinks with an ABV above 6% must also include one of several warning symbols, which relate to underage drinking, drinking while pregnant or driving under the influence. If only one symbol is used, it must be rotated every four months. For drinks with an ABV between 2% and 6%, only one symbol warning against underage drinking is required (i.e. no sale to those under 18 years) (Siggins Miller, 2017_[170]).

Beer is the most common alcoholic beverage in Mexico, at 88% of total alcohol consumed (see Figure 2.5 in Chapter 2), so the majority of beverage containers only include a warning against underage drinking (i.e. no health warning label).



Box 6.19. Alcohol health warning labels in Korea

Regulatory requirements for health warnings labels on alcoholic beverages containing more than 1% of alcohol were changed in Korea in 2016. Since then, producers must display one of the following three health warning labels, which pertain to the risks associated with drinking while pregnant and excessive consumption:

- "Drinking during pregnancy increases the risk for congenital anomaly. Alcohol is [a] carcinogen, so excessive drinking causes liver cancer, gastric adenocarcinoma and so on."
- "Drinking during pregnancy, underage drinking and excessive drinking cause congenital anomaly, brain development disruptions and cancer, respectively."
- "Drinking during pregnancy increases the risk for congenital anomaly. Excessive drinking causes stroke, memory loss and dementia."

There are specific requirements related to the design and placement of the warning statement. Text should be printed in a size at least one-tenth of the size of the brand label, and in at least seven point font for containers less than 300 mL or nine point font for those over 300 mL. Further, the warning label is subject to colour and placement requirements to ensure visibility.

Despite regulatory labelling requirements, a review by the Korea Public Health Association in 2014 found that over 80% of products evaluated failed to meet the design guidelines (e.g. 34% breached the minimum font size regulation). As outlined in a recent review of Korea's public health system, although there is a legal penalty for evading labelling rules (National 82), the Ministry of Health can do little to enforce design requirements.

Source: OECD (2020[71]), OECD Reviews of Public Health: Korea: A Healthier Tomorrow, https://doi.org/10.1787/be2b7063-en.

6.8.2. Mass media campaigns communicate messages about the harmful effects of alcohol consumption to change behaviour

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:

- Directly, mass media campaigns can affect individual-level decisions to drink less by invoking an emotional or cognitive response (e.g. by alerting people to the health risks associated with drinking, such as cancer).
- Indirectly, mass media campaigns can alter social norms regarding drinking behaviour; this affects individuals who were not directly exposed to the campaign (Wakefield, Loken and Hornik, 2010_[208]). Further, they may enhance population support for the introduction of additional alcohol policies (Christensen et al., 2019_[209]).

A systematic review of the effectiveness of mass media campaigns to reduce alcohol consumption and related harm was undertaken by Young et al. (2018[210]). Based on an analysis of 29 studies covering campaigns in Australia, Denmark, Finland, Italy, the Netherlands, New Zealand, the United Kingdom and the United States, the authors 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. Despite this, mass media campaigns are a commonly implemented policy tool among OECD countries. Areas that campaigns typically target in OECD countries are described below.

Drink-driving

Drink-driving campaigns aim to reduce road deaths and injuries caused by drivers under the influence of alcohol. These typically target younger drivers and therefore increasingly rely on social media channels such as Facebook and Instagram.

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_[211]). The authors did not find an improvement in the number of alcohol-related injuries and crashes; however, this does not mean that mass media campaigns are ineffective. Rather, heterogeneity in study design meant that it was not possible to draw overall conclusions from the studies included.

In the United Kingdom, THINK!, a dedicated campaign body established by the government to run road safety campaigns, has existed for the past 75 years. An evaluation of THINK! between 2013 and 2015 found that campaigns led to a decrease in the social acceptability and perceived safety of driving after two drinks, and that risky drivers were more likely to recognise the campaign and accept that it is possible to be over the BAC limit after two drinks (TNS BMRB, 2016[212]). THINK! frequently targets young drivers; for example, in 2018 it ran a campaign to encourage young men to stop their friends from drink-driving. Portugal too has run a campaign targeted at young drivers since 2002, which aims to encourage friends to choose a designated driver (Box 6.20). Finally, as part of their corporate social responsibilities, a number of alcohol producers are also involved in promoting safe drinking.

Box 6.20. Portugal's 100% Cool campaign

In 2002, the National Association of Companies Producing Liquor and Spirits (Associação Nacional de Empresas de Bebidas Espirituosas) created the 100% Cool campaign, a public-private partnership, which aims to enhance the profile of designated drivers (i.e. to create the image of designated drivers as "cool" – "100% Cool is 0% alcohol behind the wheel"). The campaign is run on traditional forms of media – television, radio, cinema, posters – and social media. In addition, the campaign hosts regular street events – for example, at musical festivals, which are attended by 100% Cool teams. Members of the team provide designated drivers with rewards such as EUR 20 fuel vouchers and restaurant coupons.

In 2015, research undertaken by the Association found that 85% of the target population were aware of the campaign.

Source: Drinks Initiatives (2019[213]), 100% Cool, https://drinksinitiatives.eu/initiative/100-cool.

Long-term harms of alcohol abuse

Mass media campaigns are commonly employed to improve awareness and knowledge of the long-term risks associated with alcohol consumption. They are important because a low proportion of the population are aware of these risks (Christensen et al., 2019_[209]; Gulland, 2016_[214]). As an example, a survey conducted by Cancer Research UK found that only 13% of respondents identified alcohol as risk factor for cancer (Sinclair et al., 2019_[215]).

Previous studies indicated that mass media campaigns improve awareness of the health risks associated with alcohol consumption. In Denmark, a campaign run by the Danish Cancer Society (Box 6.21) 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) (Christensen et al., 2019_[209]). The campaign also led to increased support for other alcohol policies such as MUP and mandatory nutrition labelling. A similar campaign is run in the Czech Republic (Klinika Adiktologie, 2020_[216]).

Mass media campaigns can target either the whole population or a specific subset, such as women of childbearing age. Campaigns targeting this group aim to educate women about the impact drinking can have on pregnancy and birth outcomes. Across Europe, the proportion of women who "totally agree" that alcohol can cause birth defects ranges from approximately 30% to 75%, indicating that campaigns are more relevant in certain countries (Schölin, 2016_[217]).

Box 6.21. Denmark's "Alcohol does something to us" campaign

For two weeks in November 2017, the Danish Cancer Society, in collaboration with TrygFonden (a philanthropic foundation), ran the "Alcohol does something to us" campaign. This involved a series of short clips showing that, although the immediate effects of alcohol may differ by person (e.g. they may become talkative/loud or sleepy), everyone has one thing in common: alcohol increases the risk of cancer.

The campaign was run on various media channels including social media (Facebook and Instagram) and news media (digital/print/radio).

Source: Christensen et al. (2019 $_{[209]}$), "Can a mass media campaign raise awareness of alcohol as a risk factor for cancer and public support for alcohol related policies?", https://doi.org/10.1016/j.ypmed.2019.05.010.

"Dry" months

Various organisations across OECD countries are "challenging" people to abstain from alcohol for one month. These campaigns typically run in countries where alcohol plays a significant role in social life (e.g. Australia, New Zealand and the United Kingdom). Unlike campaigns targeted at smokers (e.g. Stoptober in the United Kingdom), the goal is not permanent abstinence. Rather, they are designed to encourage people to think differently about their drinking habits.

A study undertaken by de Visser et al. (2016_[218]) found that Dry January participants in Britain reduced their consumption of alcohol six months after completing the challenge. For example, drinking days per week fell from 4.78 to 3.73, while the number of drunk episodes in the last month fell from 2.55 to 1.21. Participants also noted that they felt more able to refuse alcohol in social settings immediately after completing the challenge.

Several other campaigns also exist, including those targeted at short-term consequences (e.g. financial, "hangovers") and parental behaviour (e.g. educating parents on how their actions influence a child's attitude towards alcohol).

6.8.3. School-based education programmes target underage drinking

Despite being illegal, it is common for underage school children/young people to consume alcohol. For example, the Health Behaviour in School-aged Children (HBSC) Survey found that 16% of children aged 11-15 have been drunk at least once (OECD Analysis of HBSC data 2013-14).

Drinking initiation and drinking behaviours among school-aged children are a cause of concern for many reasons, including poorer performance at school and lower life satisfaction (see Chapter 5 for further details). For these reasons, school-based drug prevention programmes are common. Historically, alcohol prevention programmes have focused on addressing alcohol knowledge gaps (e.g. the size of a standard drink); however, interventions have since evolved and are now more interactive. Further, they may consider the interaction between students, alcohol and the social and cultural environment (Lee et al., 2016_[219]).

A recent systematic review of school-based alcohol prevention programmes in Australia found programmes typically followed one of two approaches: a social influence approach or cognitive behavioural therapy. The former is based on the idea that young people use drugs, such as alcohol, due to social and psychological pressure from peers, family and the media. Therefore, these programmes aim to teach young people skills to resist pressure to drink. The latter aims to assist individuals with analysis of irrational or negative "patterns of thinking, emotion, reactions and behaviours" (Teesson, Newton and Barrett, 2012_[220]).

Several evaluations of school-based alcohol prevention programmes have been undertaken. Recently, MacArthur et al. (2018_[221]) 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 (odds ratio = 0.72, which equates 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_[222]). In addition, Lee et al. (2016_[219]) analysed 40 studies, of which three were considered to have evidence of a positive effect. Example school-based interventions from either of these studies are summarised in Box 6.22.

Box 6.22. Effectiveness of school-based alcohol interventions

Climate Schools – Australia: an online-based private programme available to schools in Australia. The company offers several modules, including two related to alcohol: the alcohol module and the alcohol and cannabis module (Climate Schools, 2020_[223]). The module is targeted at children aged 13-16 years and is delivered over several lessons divided into two components (Vogl et al., 2012_[224]). The first component requires students to complete an interactive computer-based programme, while the second involves several individual, group and class-based activities. The cost of registering a school with the Climate Schools programme ranges from AUD 250 to AUD 950, depending on the number of students accessing it (Climate Schools, 2020_[223])

Several academic studies have evaluated the alcohol-related modules and found they are successful in reducing alcohol consumption in the short term, and in improving knowledge and attitudes towards school. Teesson et al. (2020_[225]) found that 12 months after implementation, students in schools assigned to the combined programme – which focused on prevention of substance abuse, depression and anxiety – were less likely to have consumed alcohol than the control group. In the past six months, those in the combined group were 48% less likely to have had a standard drink and 74% less likely to have engaged in heavy episodic drinking (after 30 months, these figures increased to 75% and 85%, respectively). These results support earlier findings; for example, Newton et al. (2009_[226]) found that the average number of standard drinks fell by nearly two between the beginning and six months following the intervention (from 3.55 to 1.61). Further, the number of binge episodes in the past three months fell from 1.01 to 0.72 over the same period.

Unplugged: EU Drug Abuse Prevention – EU27: designed for schoolchildren aged 12-14 years and their parents (EMCDDA, $2012_{[227]}$). The programme was developed using a life skills education and social influences approach, and includes critical thinking, decision-making, problem-solving, creative thinking, self-awareness, stress and normative beliefs, as well as addressing drug-related knowledge gaps (EMCDDA, $2012_{[227]}$; Lee et al., $2016_{[219]}$). The programme is delivered by specially trained teachers over 12 one-hour sessions in one of three formats: basic; with peers; or with parents. Findings from two RCTs show the programme may reduce alcohol-related behaviour issues, particularly for those who had already begun drinking at the onset of the programme (Lee et al., $2016_{[219]}$). For example, an evaluation by Caria et al. $(2011_{[228]})$ found that participation in Unplugged reduced the risk of reporting alcohol-related problems in the past 12 months by 22% compared to a control group (odds ratio = 0.78), although this was not statistically significant.

All Stars – United States: a high-school curriculum focusing on three areas including alcohol, tobacco and other drugs. The drug component includes 24 activities (ranging from 15 to 30 minutes) covering topics such as developing resistance and decision-making skills; reinforcing appropriate beliefs and consequences regarding alcohol; and stress management (All Stars, 2020_[229]). Sessions are delivered by teachers or trained professionals and may include interactive lessons, small-group peer support, debates, games and further discussions. Parents can also play an active role in the programme.

RCTs of the All Stars programme were undertaken in 2004 and 2007. As summarised by Lee et al. $(2016_{[219]})$, the 2004 RCT found that the programme reduced substance abuse when teachers participated in delivering the programme and were able to respond to the mediators of substance abuse (McNeal et al., $2004_{[230]}$). Additional coaching for teachers, however, was found to have no effect on key alcohol measures (Ringwalt et al., $2009_{[231]}$).

Across analysed countries, 47% have in place national guidelines regarding the prevention and reduction of alcohol-related harm in schools. This figure increases to 51% when analysing OECD countries only (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_[219]).

Number of countries 30 25 IND IDN ZAF CHN ARG 20 USA **TUR SWE** SVN SVK PRT POI 15 NZL NOR MEX NLD LTU LVA JPN HUX ITA **KOR** 10 **ISR GRC** ISI FIN IRL **EST FSP** HUN **GBR** DNK 5 FRA DFU CZE CHE CAN COL CHL AUT BEL **AUS** n Alcohol-related guidelines in schools No guidelines in schools

Figure 6.17. National guidelines for the prevention and reduction of alcohol-related harm in schools

Note: Dark blue = OECD countries; light blue = EU27 non-OECD countries; medium blue = non-OECD G20 countries; green = countries partnering with the OECD. No data for the Kingdom of Saudi Arabia.

Source: WHO (2020[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health

StatLink https://stat.link/yp8w04

6.9. Comprehensive policy packages combine various approaches for greater impact

The harmful consumption of alcohol is a complex, multi-layered issue facing many countries. For this reason, one single policy tool to tackle the issue does not exist; rather, a suite of complementary policies is needed to create an environment that supports no harmful drinking. The Russian Federation, for example, experienced a significant drop in alcohol consumption and mortality following years of reform, which included policies targeting pricing, production, drink-driving, availability and advertising (Box 6.23). In 2016, Lithuania introduced a range of policies including advertising bans, an increase in the minimum legal age, shorter retail hours and price increases, which has aligned with a decrease in alcohol consumption (see Figure 2.6) in Chapter 2, which shows that Lithuania recorded the second largest decline in alcohol consumption among OECD countries between 2010 and 2018). The extent to which policy changes were responsible for the decline in consumption will be estimated in a future study (Rehm, Štelemėkas and Badaras, 2018_[232]).

Other countries are in the process of reforming their alcohol strategies, such as Ireland, which in 2018 approved the Public Health (Alcohol) Act to reduce annual alcohol consumption by two litres per person by 2020 (from 11 to 9.1 litres for those aged over 15). Example policies in the Act include MUP; restrictions/bans on alcohol sponsorship during certain events; restrictions on alcohol advertising across different media and locations and on advertisement content; restrictions on promotions such as "buy one get one free"; and health labelling on alcohol products including energy value, alcohol content and health risks (Department of Health, 2019[233]).

Box 6.23. Alcohol reforms in the Russian Federation

The dissolution of the Soviet Union and the liberalisation of the alcohol market led to a sharp increase in alcohol consumption in the Russian Federation during the 1990s. By 2003, annual alcohol consumption per capita peaked at 20.4 litres, which played a significant role in rising mortality rates (WHO Regional Office for Europe, 2019_[44]). For example, a study by Leon et al. (2007_[234]) concluded that between 2003 and 2005 nearly half of all deaths among working-age men were attributable to alcohol.

From the mid-1990s, significant policy reforms were introduced to reduce alcohol consumption and its related harms (WHO Regional Office for Europe, 2019_[44]), including:

- stricter penalties for those caught drink-driving
- a 50% increase in excise taxes on alcohol
- minimum prices for spirits and sparkling wine
- advertising restrictions for spirits and beer
- zero BAC measures for drivers (however, the limit was subsequently increased)
- a federal ban on alcohol sales for off-premise outlets between 23:00 and 08:00
- an increase in the minimum share of capital needed to be licensed as an alcohol producer, which caused many small-scale producers to shut down or be taken over, for example, by larger state-owned producers
- establishment of the Unified State Automated Information System, a surveillance system tracking volume of alcohol produced and imported in order to curtail illicit production of alcohol
- greater penalties for producers of counterfeit alcohol (e.g. imprisonment).

Following the introduction of these policies, the Russian Federation experienced significant declines in alcohol consumption and related harms. Between 2003 and 2016, alcohol consumption fell by 43%. Further, heavy episodic drinking decreased from 75% to 48% among men and from 52% to 24% for women. Alcohol dependence and mortality also fell markedly over this period; rates of death attributable to suicide dropped by approximately 60%, homicides by approximately 80% and transport accidents by over 50%. The causal link between the Russian Federation's alcohol policies and improved outcomes are outlined in a recent report by the WHO (WHO Regional Office for Europe, 2019[44]).

Comprehensive policy packages are needed to reduce hazardous and harmful alcohol consumption. Substantial evidence on the effectiveness and cost-effectiveness of alcohol policies exists. This should guide the development of policy packages that cover a range of interventions, while also taking account of specific contextual issues.

The development of policy packages should include all relevant stakeholders, including law enforcement, schools, social services, local governments and public health experts. A whole-of-society approach to policy development is essential because interventions do not work in silos. For example, changes to the BAC threshold will have a limited effect if enforcement is inadequate (Haghpanahan et al., 2019_[74]), further,

significant increases in the price of alcohol should go hand in hand with proper support for dependent drinkers on low income to avoid further social harms such as forgoing essential items (Erickson et al., 2018_[235]).

Table 6.3 provides an alcohol policy dashboard, which reflects the implementation status of interventions across the ten policy areas within WHO's *Global Strategy to Reduce the Harmful Use of Alcohol* (see Box 6.1). The alcohol policy dashboard was developed using a framework developed by the WHO and has been used to assess implementation for countries in the Region of Americas (WHO Regional Office for the Americas, 2018_[90]) and Europe (WHO Regional Office for Europe, 2017_[236]).⁴

Table 6.3. Alcohol policy dashboard

A higher quartile (darker shade) indicates a country has implemented a greater number of interventions in line with WHO's *Global Strategy to Reduce the Harmful Use of Alcohol*.

Country	Leadership	Health services	Community	Drink- driving	Availability	Marketing	Pricing	Reducing harm	Reduce PH impact	Monitoring and surveillance
Australia										
Austria										
Belgium										
Canada										
Chile										
Colombia										
Costa Rica										
Czech Republic										
Denmark										
Estonia										
Finland										
France										
Germany										
Greece										
Hungary										
Iceland										
Ireland										
Israel										
Italy										
Japan										
Latvia										
Lithuania										
Luxembourg										
Mexico										
Netherlands										
New Zealand										
Norway										
Poland										
Portugal										
Republic of Korea										
Slovak Republic										
Slovenia										
Spain										

Country	Leadership	Health services	Community	Drink- driving	Availability	Marketing	Pricing	Reducing harm	Reduce PH impact	Monitoring and surveillance
Sweden										
Switzerland										
Turkey										
United Kingdom										
United States										
Bulgaria										
Cyprus										
Croatia										
Malta										
Romania										
Argentina										
Brazil										
People's Republic of China										
Indonesia										
India										
Russian Federation										
South Africa										
Peru										

Note: *PH = public health. Country implementation scores have been divided into quartiles, with different shades indicating the extent to which a country has implemented interventions in line with WHO's Global Strategy. Details on the methodology can be found at the end of this chapter.

First quartile
Second quartile
Third quartile
Fourth quartile

Source: WHO (2020_[10]), GISAH, https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health.

6.10. Conclusion: A combination of policy interventions is needed

Alcohol consistently ranks as the drug with the greatest overall harm, since it is associated with several negative health, social and economic outcomes, and is readily available. In 2010, the WHO recognised hazardous and harmful alcohol consumption as a severe public health problem by issuing the *Global Strategy to Reduce the Harmful Use of Alcohol*, outlining ten domains to assist policy-makers in developing an effective, holistic policy response. These policy domains were used to identify specific policy recommendations within the WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020*, which included a target to reduce harmful use of alcohol by 10%.

This chapter analysed policy interventions designed to reduce hazardous and harmful alcohol use, with a specific focus on those included in WHO's Global Strategy and NCD action plan. Alcohol excise taxes were the most commonly employed intervention, with 84% of OECD countries taxing all beverages (wine, beer and spirits) and the remaining 16% taxing beer and spirits only. However, far fewer OECD countries periodically adjust taxes for inflation (27%), which may have contributed to rising alcohol affordability (see Chapter 2, Section 2.6 for further details).

Restricting the availability of alcohol is another NCD best buy policy intervention. Nevertheless, less than half (43%) of all OECD countries regulate the hours alcohol can be sold, and a similar number apply no restrictions at all. Other policy interventions to restrict availability, such as days of sale and outlet density, are even less common.

The final best buy policy intervention relates to advertising restrictions covering several media types. A policy mapping exercise revealed that OECD countries typically apply some form of restriction on traditional media, including television, print media and radio. However, forms of digital media, including social media, are increasingly replacing traditional media; these represent a major challenge to policy-makers because of their ubiquitous reach and continual creation of user-generated content.

The list of policy interventions outlined above is not exhaustive, with policy-makers implementing various other interventions such as age restrictions, drink-driving limits and regulations on alcohol labels as part of their national alcohol policies.

Harmful alcohol consumption is a complex issue experienced by countries across the world. Therefore, it cannot be addressed through one single policy intervention. Instead, a range of interventions covering pricing, availability, marketing, drink-driving, health treatment and consumer information are needed. Similarly, responsibility for reducing harmful alcohol consumption should not fall solely on governments. Rather, a multi-sectoral approach is needed, which includes law enforcement, schools, health providers, social and community services, local governments and public health experts. Finally, efforts to ensure that policy interventions are enforced are necessary, as a comprehensive policy approach in itself cannot reduce harmful alcohol consumption.

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Notes

- ¹ On 7 February 2020, the WHO announced plans to replace the 2010 Global Strategy with a new action plan, spanning 2022-2030 (WHO, 2020_[238]).
- ² 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 (Australian Government Department of Health, 2019_[237]).
- ³ In Portugal, there is a national legal requirement to display consumer information on calories, additives, vitamins and microelements for wine; however, this requirement applies to neither beer nor spirits. In Norway, legislation has been passed to introduce nutritional value labelling, but at the time of writing the legislation had not yet been implemented (WHO, 2018_[181]).
- ⁴ A range of indicators were used to assess implementation status across the ten alcohol policy areas. An overview is provided here; for further details on the methodology, please see *Alcohol Policy Scoring* (WHO Regional Office for the Americas, 2018_[90]). The following indicators were used to score each alcohol policy dimension:
 - **Leadership** national policy document on alcohol; definition of an alcoholic beverage; definition of a standard drink; awareness activities.
 - **Health services** SBIs; special treatment programmes; pharmacological treatment.
 - **Community** school-based prevention and reduction; work-place alcohol problem prevention and counselling.
 - Drink-driving BAC limit; sobriety checkpoints; randomised breath testing; penalties.
 - **Availability** minimum age; control of retail sales; restrictions on time of sale; restrictions on place of sale, alcohol free environments and restrictions of alcohol sales at specific events
 - **Marketing** legally binding restrictions on: advertising; product placement; sport sponsorship and youth events; promotions by producers, retailers and owners of pubs and bars.
 - **Pricing** tax adjusted for inflation; affordability; other price measures.
 - Reducing harm server training; health warning labels.
 - **Public health impact** estimate of unrecorded alcohol consumption; legislation to prevent illegal production and sale of alcohol.
 - Monitoring and surveillance national monitoring system.

Due to data availability, the Kingdom of Saudi Arabia was omitted from the analysis.

Limitations: the following sub-policies were excluded due to data availability: 1.1, 1.4, 3.2, 3.3, 7.2, 9.1 and 10.2. For certain indicators, due to the clustering of scores (i.e. countries with the same score), dividing countries into four quartiles was not possible (e.g. for "Reduce PH impact" and "Community"). Because the number of countries is not divisible by four, and given the minimal variation in scores across countries, an equal number of countries in quartiles was not possible.



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