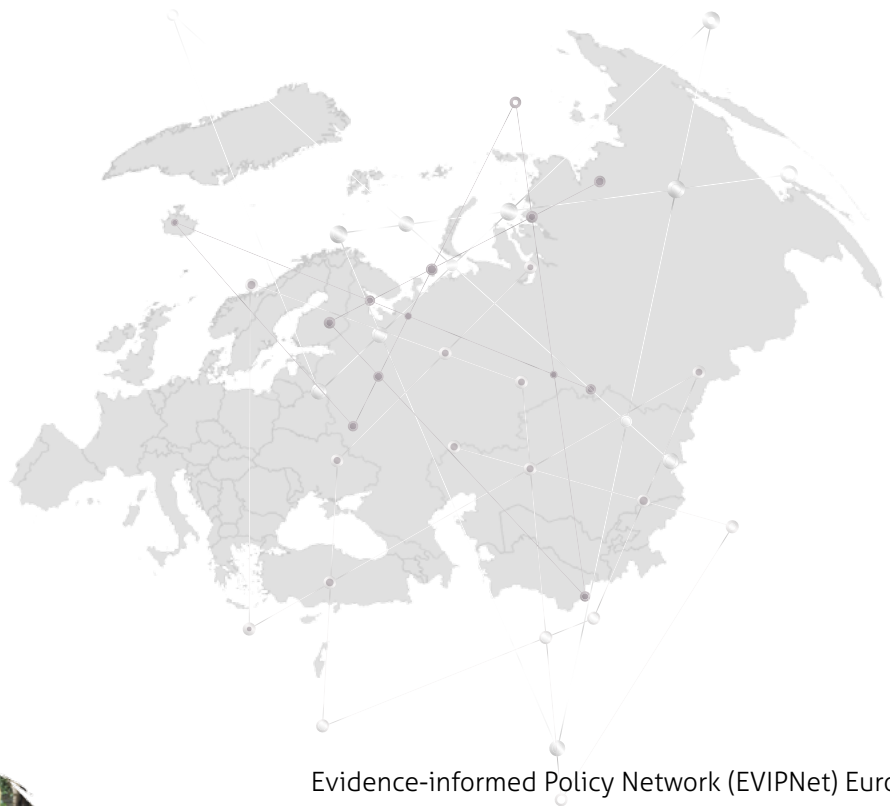


Evidence brief for policy

EVIPNet Europe

Informing amendments to the alcohol control
legislation directed at reducing harmful
use of alcohol in the Republic of Moldova



Evidence-informed Policy Network (EVIPNet) Europe



Evidence brief for policy

EVIPNet Europe

Informing amendments to the alcohol control
legislation directed at reducing harmful
use of alcohol in the Republic of Moldova



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LIST OF ABBREVIATIONS

CVD	cardiovascular disease
DALY	disability-adjusted life year
EBP	evidence brief for policy
EU	European Union
GHO	Global Health Observatory
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
KAP	knowledge, attitudes and practices
K2P	knowledge to policy (Center)
MLDA	minimum legal drinking age
MUP	minimum unit price
NCDs	noncommunicable diseases
NICE	National Institute for Health and Clinical Excellence (now the National Institute for Health and Care Excellence)
OECD	Organisation for Economic Co-operation and Development
UNICEF	United Nations Children’s Fund
WHO	World Health Organization

WHO EVIDENCE-INFORMED POLICY NETWORK (EVIPNet)

EVIPNet promotes the systematic use of health research evidence in policy-making.

The network promotes partnership at country level between policy-makers, researchers and civil society in order to facilitate both policy development and policy implementation through the use of the best scientific evidence available. EVIPNet composes networks that bring together country-level teams, coordinated at both regional and global levels.

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MAIN MESSAGES

The problem

In the Republic of Moldova, alcohol is readily accessible to the population, even children, leading to high consumption levels and thus burdening both the population and society as a whole with alcohol-related negative health and economic consequences. This problem is amplified by incomplete, inadequate and improperly implemented regulations related to policies on alcohol pricing, advertising bans, and unrestricted access to beer, wine and wine products in retail outlets.

Approaches to solving the problem

Approach 1. Regulating retail sales of alcoholic beverages

- Restrictions on alcohol sales are a cost-effective intervention to control damage caused by alcohol consumption; however, their effectiveness is enforcement dependent.
- Other effective policy measures, alongside regulating alcohol trading hours, include a government monopoly on alcohol sales, a retail licensing system defining specific opening times, and an increase in the minimum legal drinking age (MLDA).

Approach 2. Regulating advertising of alcoholic beverages

- Policies on advertising should be implemented within the context of a thorough monitoring and evaluation programme.
- Advertising restrictions should be implemented among other preventive measures.
- Advertising bans are only effective when they are implemented in full.
- Voluntary regulation of advertising is not effective.

Approach 3. Regulating excise taxation and prices of alcoholic beverages

- The price policy is among the most cost-effective alcohol control intervention.
- Introducing a minimum unit price MUP can complement taxation policies, in the context of appropriate studies to identify specific parameters for maximum effect.

Implementation considerations

In order to ensure the approval of the draft law on alcohol control policies, a variety of implementation considerations must be taken into account at the individual, professional, organizational and system levels.

EXECUTIVE SUMMARY

The problem

In the Republic of Moldova, alcohol is readily accessible to the whole population, even children, leading to high consumption levels and a number of alcohol-related negative health and economic consequences. This problem is amplified by incomplete, inadequate and improperly implemented regulations related to policies on alcohol pricing and advertising bans, as well as unrestricted access to beer, wine and wine products in retail outlets.

Magnitude of the problem

Alcohol is the third risk factor for disease burden in the country, and 10% of deaths were caused by consumption of alcoholic products, which is twice as high as the global average. About 56% of deaths from liver cirrhosis, 9% of cancer deaths, 25% of deaths from cardiovascular disease and 51% of intentional injuries (as a result of deliberate acts of violence against oneself or others) and unintentional injuries (including road traffic injuries, drowning, burns, poisoning and falls) are attributable to alcohol consumption.

One in five alcohol consumers aged 18–69 years are episodic heavy drinkers: 29% of men and 9.2% of women consume six or more servings of alcohol at least once a month. In 2014, 28% of children aged 11 years, 43% of children aged 13 years, 73% of children aged 15 years and 82% of young people aged 17 years had consumed alcohol at least once in their lifetime. One in ten children aged 11 years, one in four children aged 13 years, 44% of children aged 15 years and 59% of young people aged 17 years had been drunk at least once in their lifetime. About 46% of pupils in the 8th and 9th grades (children aged around 16 years in the Republic of Moldova) can easily or very easily get at least one alcoholic beverage. Pupils in large urban centres (58%) can get alcoholic products more easily than those in small urban areas (49%) and rural areas (42%).

Underlying factors

Several factors – both individual and societal in nature – are associated with widespread access to alcohol and high consumption levels.

In the Republic of Moldova, beer, wines and wine products are sold in retail outlets without restriction in terms of availability (that is, 24/7). Moreover, the evidence indicates that alcohol use is directly determined by the amount of alcohol sold; higher alcohol sales are associated with higher mortality and morbidity caused by alcohol consumption. Furthermore, advertising of alcoholic beverages remains a problem, as the current regulation only prohibits direct advertising of alcoholic beverages, direct and indirect advertising intended for minors, and advertising in institutions for children, educational

institutions and medical facilities. No comprehensive law exists banning alcohol advertising. Despite the abundance of data showing the cost-effectiveness of pricing policies in alcohol consumption reduction, this has not translated into effective alcohol control public policies in the Republic of Moldova.

Approaches to solving the problem

WHO has called upon all Member States (including the Republic of Moldova) to address alcohol-related harm by requesting implementation of effective harm-reduction interventions. In Europe in the period 2006–2010 education and community actions in the area of alcohol control policies expanded rapidly; however, the policies on pricing and advertising control grew weaker and, according to analysis carried out by the Centre for Addiction and Mental Health, this was “simply the wrong way round”. Some evidence-based interventions are outlined in the subsections below. These have proven to be effective in alcohol consumption control and should be part of national legislation on alcohol control.

Approach 1. Regulating retail sales of alcoholic beverages

Four systematic reviews of the time at which alcohol was sold have indicated the effectiveness of the restrictions on alcohol sales. One such systematic review concluded that the reduction of alcohol selling time decreases damage caused by alcohol consumption, both when the hours during which alcohol is sold are reduced, and the days on which it is sold. Furthermore, an overview of the systematic reviews concluded that the application of alcohol sale restrictions is a cost-effective intervention, and this is certainly also applicable to the Republic of Moldova.

Evidence from one systematic review established that the reduction of alcohol sales during night hours could significantly decrease the rate of violence and damage attributable to alcohol consumption.

According to the systematic reviews, alcohol sales in retail outlets can be regulated by having an MLDA and by implementing a government monopoly or a licensing system for alcohol sales. Raising the MLDA correlates with a decrease in road traffic accidents, and, inversely, reducing the MLDA is associated with more car crashes. Government monopolies on alcohol sales have proven to reduce alcohol-related harm by reducing the number of retail outlets, in comparison with the privatization of alcohol retail. In countries in which government monopoly is not possible, a licensing system for retail outlets with specific opening hours and days can reduce alcohol consumption and its related harms.

However, controlling alcohol sales from retail outlets can lead to the activation of an informal market, including illegal imports, smuggling and home production. Nonetheless, these can be tackled through various enforcement measures.

Approach 2. Regulating advertising of alcoholic beverages

There is consistent evidence that adolescent exposure to alcohol advertising and promotion is strongly associated with early initiation and engaging in binge and hazardous drinking. Evidence from systematic reviews concluded that stricter regulations on advertising are associated with lower prevalence of hazardous drinking and a lower number of traffic accidents resulting from alcohol consumption. Advertising restrictions are an appropriate intervention for low-resource settings.

A meta-analysis concluded that measures from advertising restrictions up to a ban should be implemented as part of a research programme that is of high quality, well monitored and evaluated. Also, bans are only effective when they are fully implemented (not fragmented) within the framework of comprehensive laws, including systematic monitoring of the influence of the alcohol industry on legislation. To increase effectiveness and to reduce the harms of alcohol use for population health, advertising restrictions should be part of a complex system of measures, including *inter alia* price increases and limiting the availability, accessibility and affordability of alcohol.

According to the evidence, existing systems of voluntary regulation do not meet the goal of protecting vulnerable populations from alcohol marketing. A systematic review confirmed that self-regulation of advertising by advertisers can provide subjective interpretations and fail to (i) protect vulnerable groups (namely children and adolescents) from exposure to alcohol and (ii) avoid advertising messages that encourage irresponsible and excessive alcohol consumption.

Approach 3. Regulation of excise taxation and pricing on alcoholic beverages

An overview of the (two) systematic reviews and (one) meta-analysis concluded – with robust evidence to support the conclusion – that price policy is among the most cost-effective alcohol control interventions that can reduce alcohol consumption and bring about a significant decrease in alcohol-related morbidity and mortality. Doubling alcohol tax is associated with an average decrease in alcohol-related mortality of 35%, deaths in traffic accidents decreasing by 11%, sexually transmitted diseases decreasing by 6%, violence by 2% and crime by 1.2%.

Systematic reviews found that a 10% increase in alcohol price can reduce alcohol consumption by 2–10%. In addition, heavy drinkers are not highly sensitive to price increases, since they can shift to cheaper alcoholic products, and such behaviour is typical across the age groups, and is the same for both male and female heavy drinkers.

Implementing an MUP is an alternative solution for excise taxation, in particular for cheap alcohol, and would therefore be more likely to impact heavy drinkers (especially those in the low-income quintiles). Furthermore, contextualized studies should be conducted to identify which beverages should be subjected to an MUP or taxation, since tax increases on specific beverages resulted in different outcomes across different countries.

Implementation consideration

Implementation considerations are discussed in detail for each approach in the chapters that follow, in order to ensure that the commitment set out in the Action Programme of the Government of the Republic of Moldova 2016–2018 (approving the package of laws on alcohol control and increasing excise duties on alcoholic beverages) will be achieved.

DEFINING THE PROBLEM

In the Republic of Moldova, alcohol is readily accessible to the whole population, even children, leading to high consumption levels and a number of alcohol-related negative health and economic consequences. This problem is amplified by incomplete, inadequate and improperly implemented regulations related to alcohol pricing policies, advertising-ban policies and unrestricted access to beer, wine and wine products in retail outlets.

Efforts relating to the promotion and approval of regulations on alcohol consumption control policies in the Republic of Moldova (Box 1) should focus on the following issues: (i) how the problem was brought to light; (ii) the magnitude of the problem; (iii) the consequences of the problem; (iv) which factors determine the access to and consumption of alcohol.

How was the problem brought to light?

The problem came to light through the Action Programme of the Government of the Republic of Moldova 2016–2018 (Government of the Republic of Moldova, 2016b). This government programme aims to approve a set of laws on alcohol control and increase excise duties on alcoholic beverages. Thus the Government is aiming to reduce the burden of alcohol consumption on society and the health system and to approximate the structure of excise duties on alcohol in European Union (EU) legislation; this will be aligned with the requirements of the EU law on the harmonization of the structures of excise duties on alcohol and alcoholic beverages (Council of the European Union, 1992), according to the commitments set out in the Association Agreement between the EU and the Republic of Moldova (EU, 2014), ratified by Law No. 112 of 2 July 2014. As well as to ensure the implementation of committed policy options at international and regional levels as stipulated in the Global Strategy to Reduce the Harmful Use of Alcohol (WHO, 2010b), Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020 (WHO, 2013), European Action Plan to Reduce the Harmful Use of Alcohol 2012-2020 (WHO Regional Office for Europe, 2012) and the Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region 2016-2020 (WHO Regional Office for Europe, 2016).

Box 1: What are alcohol control policies?

Alcohol consumption control policies are described in alcohol policy documents as laws, regulations and practices used to reduce excessive alcohol consumption and its harmful effects in society.

Such policies can include the presence or absence of supporting legislation and/or operational aspects reflecting their implementation and execution, as well as allocation of resources at national level (e.g. taxation, density of commercial outlets) (Nelson et al., 2013).

The inclusion of this commitment in the Action Programme of the Government of the Republic of Moldova was determined as a result of several shortcomings in the current legislation relating to alcoholic beverages. Since 2012 the Ministry of Health, Labour and Social Protection has been working to promote and approve a draft law to try to address some of these inadequacies, but has not yet succeeded.

The Ministry of Health, Labour and Social Protection therefore drafted a legislative act – using the available evidence (Box 2) – outlining possible options to address the shortcomings in the legislation, to be submitted to Parliament for discussion and approval, along with an evidence brief for policy (EBP) as supporting justification.

What is the magnitude of the problem?

Alcohol is one of the four main behavioural risk factors for noncommunicable diseases (NCDs), affecting many systems and organs in the human body (Box 3). Alcohol consumption levels in the Republic of Moldova are among the highest in the WHO European Region, although in recent years a slight decrease has been recorded, from 16.8 litres of pure alcohol per capita in 2010, to 16.3 litres in 2014 (WHO, 2014; Shield, Rylett & Rehm, 2016), to 15.2 litres in 2018 (according to data from the WHO Global Health Observatory (GHO)).¹ National data show that

Box 2: Mobilizing the evidence relating to the problem

The evidence relating to the problem was sought in the published scientific literature, as well as in other not scientific sources. Scientific publications were searched for within the HINARI Programme, including in PubMed, and informal/unpublished literature was identified by accessing the websites of national and not scientific, such as the Ministry of Health, Labour and Social Protection of the Republic of Moldova, the National Bureau of Statistics, the National Centre for Health Management, the Broadcasting Coordination Council, and WHO.

Priority was given to the most recent publications and those developed in or about the Republic of Moldova.

Box 3: What is alcohol?

Alcohol (ethylic alcohol, ethanol) is a chemical substance (C₂-H₆-O), present in beer, wine and other alcoholic beverages, as well as certain medicines, mouthwash, household products and essential oils (liquid fragrance extracted from plants). It is a volatile liquid prepared through the fermentation of carbohydrates. Alcohol is used as depressant of the central nervous system, diuretic and disinfectant. This agent destroys organisms by denaturing proteins (NCI, 2017).

Ethanol mainly affects the liver and the digestive tract, followed by the cardiovascular and neurological systems. The consumption of alcohol in small doses (10–20 g of pure alcohol per day) could increase the incidence of dilated cardiomyopathy, cancer and road accidents, and could lead to alcohol addiction, reducing any potential benefits. Evidence shows that the moderate consumption of alcohol (up to 20 g of pure alcohol per day) reduces the risk of cardiovascular disease (CVD) in people with a healthy lifestyle and those with a Mediterranean diet (Fernández-Solà, 2015).

1 The GHO is WHO's portal providing access to data and analyses for monitoring the global health situation (WHO, 2018).

69% of the population consume wine, 19% consume beer and 8% of the population aged 16–55 years prefer strong alcoholic beverages (Ministry of Health, Labour and Social Protection, 2015).

Prevalence of heavy drinking is also high in the Republic of Moldova. One in five alcohol consumers aged 18–69 years (19.5%) are episodic heavy drinkers;² that is, 29.0% of men and 9.2% of women consume, at least once a month, six or more servings of alcohol (WHO Regional Office for Europe, 2014b).

Furthermore, alcohol consumption among young people in the Republic of Moldova is high and increasing. National data show that in 2014, 28% of children aged 11 years, 43% of children aged 13 years, 73% of children aged 15 years and 82% of young people aged 17 years had consumed alcohol³ at least once in their lifetime (Lesco, 2015). In 2012, 73% of children and adolescents aged 10–19 years consumed alcohol. Moreover, in 2014, 13.5% of boys and 7.4% of girls aged 11–17 years drank homemade wine weekly or more often, and 8.3% of boys and 2.0% of girls drank beer weekly or more often (Lesco, 2015). In 2012, only 6.4% of adolescents aged 10–19 years consumed alcohol weekly or more often. One in ten children aged 11 years, one in four children aged 13 years, 44% of children aged 15 years and 59% of young people aged 17 years had been drunk at least once in their lifetime (Lesco, 2015).

This increase is probably due to the fact that alcohol (including homemade wine) is highly accessible to children in the Republic of Moldova. According to the evidence studied, about 46% of pupils in the 8th and 9th grades in the Republic of Moldova (children aged 16 years) can easily or very easily get access to at least one alcoholic beverage, and only 15% said that it was impossible to do so. Pupils in large urban centres (58%) can get alcoholic products more easily than those in small urban areas (49%) and rural areas (42%). The national evidence indicates that 35.5% of pupils can easily or very easily get alcopops; 29.9% of pupils can get wine; 27.4% of pupils can get beer; and 10.8% can get strong alcoholic beverages (spirits). As an exception, in large urban centres, the accessibility of various types of alcoholic beverage varies: the most accessible is also alcopops (46.0%), followed by beer (37.0%), wine (34.2%), and spirits (14.9%) (National Centre for Health Management & EMCDDA, 2016).

Alcohol consumption patterns in the country are similar in international comparison. Based on data about recorded alcohol consumption, of the total of 6.3 litres of pure (registered) alcohol consumed per capita in the Republic of Moldova, 65% is spirits drinks, 30% is beer and 5% is wine (WHO, 2014). Beer consumption has been constantly increasing since the early 2000s, while wine consumption has been decreasing, despite the fact that the Republic of Moldova is traditionally a wine-producing country (WHO, 2014).

At the global level, the most consumed alcoholic drinks are spirits, reaching 50.1% of consumed (registered) alcohol, followed by beer at 34.8%, and 8% of the registered alcohol consumed is wine. In the WHO European Region, wine represents a quarter of registered alcohol consumption (25.7%) (WHO, 2014). Evidence indicates that globally the alcoholic

2 Episodic heavy drinkers are men who had five or more drinks, and women who had four or more drinks on any day in the past 30 days (WHO, 2010a).

3 This is according to a knowledge, attitudes and practices (KAP) survey carried out in 2012 by the United Nations Children’s Fund (UNICEF) in the Republic of Moldova; the results of which are yet to be published.

beverage consumption habits have changed in all Organisation for Economic Co-operation and Development (OECD) countries, with wine consumption increasing in many countries in which beer is traditionally consumed, and vice versa. Wine-producing countries such as France, Greece, Hungary, Italy, Portugal, the Slovak Republic, Spain and Switzerland recorded a decrease in wine consumption per capita by 20% or more since 1990 (Sassi, 2015).

What are the consequences of the problem?

International evidence indicates that alcohol consumption can have both protective and detrimental effects on health (Sassi, 2015). At population level, studies on the global burden of diseases, however, show that the negative effects surpass the positive effects in all countries (Lim et al., 2012). The balance between protective and adverse effects needs to be taken into account for each individual case (Fernández-Solà, 2015).

Evidence indicates some level of causal relationship between alcohol consumption and more than 200 diseases and injuries (WHO, 2014). Alcohol results in NCDs, including cancer, CVD and liver diseases; as well as communicable diseases – that is, increasing the risk of HIV/AIDS, tuberculosis and community-acquired pneumonia. Many types of intentional and unintentional injuries also occur in correlation with alcohol consumption, including murders and suicides. Furthermore, alcohol causes harm to others, including those who do not (or have not) consume(d) alcohol, either through violence in the street, domestic violence, or simply through use of government resources – particularly the costs of providing medical care, unemployment and incapacity benefits, and those associated with crime and disturbances (Anderson, Møller & Galea, 2012).

In the Republic of Moldova alcohol is the third risk factor for disease burden (after blood pressure and body weight) and 10% of deaths were caused by consumption of alcoholic products, which is twice the global average (5%). Of the total number of deaths caused by alcohol consumption (3976), 2551 were among men and 1425 among women (IHME, 2015).

Recent data show that in the Republic of Moldova about 56% of deaths from liver cirrhosis, 9% of cancer deaths, 25% of CVD-related deaths and 51% of injuries are attributable to alcohol (Shield, Rylett & Rehm, 2016). Maria Sklodowska-Curie Memorial Cancer Centre and the Institute of Oncology in Warsaw indicate that 25% of the difference in life expectancy at middle age (individuals aged 20–64 years) between the countries to the east and the west of the EU is attributable to alcohol consumption (Zatonski, 2008).

In 2015, 142 traffic accidents in the Republic of Moldova were caused by drunk drivers, resulting in 24 deaths and 188 people experiencing various traumas. Furthermore, 3689 cases of people driving while intoxicated were documented (General Police Inspectorate, 2016).

Of the 63.4% of women in the Republic of Moldova who had been subjected to violence (psychological, physical or sexual) by their husband/partner during their lifetime, every second woman stated that the main problem was their partner's excessive alcohol consumption (NBS, 2011).

Globally, alcohol is the sixth risk factor for disease burden, which in 2013 caused just over 2.78 million deaths and resulted in just over 99.27 million disability-adjusted life years (DALYs). Both indicators have increased compared to the year 1990, in which about 1.97 million deaths and almost 76.03 million DALYs were recorded (Forouzanfar et al., 2015).

The costs associated with alcohol consumption account for about 1% of gross domestic product (GDP) in high- and middle-income countries, and if the social costs are also taken into account, their share is even higher (Rehm et al., 2009).

The evidence shows that in the EU, costs arising from road accidents in 2003 caused by alcohol abuse amounted to €10 billion, and the crimes directly attributable to alcohol consumption amounted to €33 billion (Anderson & Baumberg, 2006). In 2012 in the United Kingdom alone the economic losses caused by road accidents while intoxicated were estimated at £1.5 billion, equating to about 10% of the cost of all road accidents, including loss of production as a result of accidents, the cost of ambulance and hospital treatment, vehicle and property damage, police and other human costs, and accident insurance administrative costs (Sassi, 2015).

Regarding violence, identical data are provided by the Crime Survey for England and Wales, which indicates that one in every two victims of violence believe that the offender was drunk (Sassi, 2015). In England, the estimated annual costs caused by crimes and antisocial behaviour related to alcohol amounted to about £7.3 billion in 2004, with those involving productivity losses equating to about £6.4 billion (Prime Minister's Strategy Unit, 2004).

What factors influence access to and consumption of alcohol?

Several factors – both individual and societal in nature – are associated with widespread access to alcohol and high consumption levels. At the individual level these include: age, gender, family factors and socioeconomic status. At the societal level, alcohol consumption is influenced by the stage of development of the society, along with culture and the context of alcohol control policies and regulation of consumption (WHO, 2014).

The sale of alcohol in retail outlets

The evidence indicates that alcohol use is directly determined by the amount of alcohol sold; higher alcohol sales are associated with higher mortality and morbidity caused by alcohol consumption (Popova et al., 2009). The hours and days on which alcohol is marketed, the minimum age of individuals to which alcohol can be marketed, the location of information on alcohol units, and the licensing system all directly impact the amount of alcohol consumed (Sassi, 2015; WHO, 2014). In the Republic of Moldova, beer, wines and wine-based products are sold in retail outlets without restrictions (that is, 24/7) and the alcohol industry has been involved in alcohol policy decisions, namely those related to regulation of availability and affordability of alcoholic beverages.

Beer is exempt from the regulations relating to the production and circulation of ethyl alcohol and alcoholic products (Article 3(2) of Law No. 1100-XIV of 30 June 2000), which permits the sale of it in retail outlets without restrictions in the Republic of Moldova. Wines and products produced from wine hold the same status (Articles 2(1) and 3(1) of Law No. 1100-XIV of 30 June 2000).

The exemption of beer and wine from restrictions on the selling of alcoholic beverages has come about as a result of the influence of the alcohol industry, an important actor in policy development, including the applicability of regulations on alcohol consumption control, particularly in Europe (Gilmore, 2015). During the period 2006–2010, education and community

actions in the area of alcohol control policies expanded rapidly in Europe, supported by the alcohol industry. At the same time policies on pricing and advertising control grew weaker and, according to analysis carried out by the Centre for Addiction and Mental Health, this was “simply the wrong way round” (Gornall, 2014).

In the Republic of Moldova, the alcohol industry participates actively in the meetings of the working group for regulating entrepreneurial activity,⁴ discussing the regulatory impact analysis resulting from alcohol control policies. International evidence has concluded that the industry should not be involved in the decision-making process, particularly as it relates to control measures, as it could affect decisions in its own favour (Anderson, 2009; Vendrame & Pinsky, 2011).

Marketing policies

The combined evidence suggests that alcohol advertising increases the overall consumption of alcohol and this effect is greater for heavy alcohol consumers (Sassi, 2015). According to the published literature, advertising and promotion of alcoholic beverages increase the likelihood that adolescents will start using alcohol, and will consume more alcohol if they already drink (Anderson et al., 2009a). Young people drinking beer – who are susceptible to alcohol advertising and loyal to brands – are more likely to become heavy alcohol users later (Connolly et al., 1994). Advertising has the maximum effect over time on heavy alcohol drinkers (Ross, 2014).

A systematic review indicates that displaying adverts relating to alcohol (even without images) may increase alcohol consumption immediately,⁵ in small amounts. Furthermore, the viewing of media images of alcohol consumption in a positive context and with positive consequences seems to increase the general connection with alcohol and the expectations that alcohol consumption will lead to positive results (Stautz et al., 2016).

Advertising and marketing through different media outlets and channels have also proven to be associated with increased alcohol consumption. Robinson et al. came to the conclusion that for each additional hour spent watching TV (where alcohol is shown) per day, the risk of initiating alcohol consumption increases by 9% over the next 18 months (Robinson, Chen & Killen, 1998). Similarly, Sargent et al. found that for an additional hour of exposure to alcohol in popular films, the probability of trying to consume alcohol during the next 13–26 months increases by 15% (Sargent et al., 2006). Exposure to beer in retail outlets also foretells the initiation of beer consumption during the following two years (Robinson, Chen & Killen, 1998; Sargent et al., 2006; Ellickson et al., 2005). Moreover, advertising directly influences consumption frequency among young people, including advertising on the internet and social media platforms (Scott et al., 2016). One study ascertains the existence of a reciprocal

4 The activity of the working group is safeguarded by the Ministry of Economy (through Government Decision No. 1429 of 16 December 2008 (see Government of the Republic of Moldova, 2008)).

5 Immediate consumption means consuming alcoholic beverages immediately after experimental manipulation, which includes the duration of presentation, number of portrayals, and/or duration of portrayals (Stautz et al., 2016).

relationship between the possession of goods representing the relevant alcohol brand (t-shirts and other branded items) and alcohol consumption itself (McClure et al., 2009).

This evidence is confirmed by another review, which indicates that exposure to advertising of alcoholic beverages can lead to an increase in immediate alcohol consumption in small quantities (from 0.39 to 2.67 alcohol units for men and from 0.25 to 1.69 units for women). However, no evidence was found to indicate that exposure to an image of alcohol in TV programmes or films has any effect on immediate alcohol consumption (Stautz et al., 2016). Evidence of a study (Koordeman, Anschutz & Engels, 2011) shows that heavy alcohol drinkers (having consumed >7 alcoholic drinks over the past week) consume more alcohol than moderate drinkers (≤ 7 drinks) because of exposure to alcohol advertising, while another study (Koordeman, Anschutz & Engels, 2012) found no difference in consumption between heavy and moderate alcohol drinkers.

A systematic review carried out in 2016 – involving 12 studies and about 35 200 subjects – indicated a significant association with exposure to, awareness of, engagement in and/or responsiveness to alcohol marketing and the initiation of alcohol consumption, or with parties involving alcohol consumption (Jernigan et al., 2016). Morgenstern et al. arrived at the conclusion that children that are aware of alcohol brands and who have a favourite brand are 45% more likely to participate in parties involving alcohol compared to children who do not meet these criteria (Morgenstern et al., 2014). The same review indicated the following mediating factors associated with advertising alcohol consumption, which contribute to the influence of alcohol marketing on young people: exposure to alcohol marketing itself, positive expectations regarding alcohol consumption, interpersonal discussions and expectations regarding alcohol consumption resulting from advertising influence, and recognition of alcohol brands (Lobstein et al., 2017; Jang & Frederick, 2013; Hoffman et al., 2014; Siegel et al., 2016; Ross et al., 2015).

Furthermore, the evidence shows that the alcohol industry spends billions of dollars each year creating a positive image for alcohol brands (Sassi, 2015). Thus, for each additional alcohol advertisement viewed, the number of drinks consumed increases by 1%, while for each additional US\$ 1 per capita spent on alcohol advertising, the number of drinks consumed increases by 3% (Snyder, Fleming Milici & Slater, 2006; Smith & Foxcroft, 2009). In the EU, expenditure on TV advertising of alcoholic products has doubled since beer advertising was allowed, from €46 million in 2002 to €96 million in 2007 (de Bruijn, 2012). The producers of alcoholic beverages are concentrated in several large (predominantly beer production) companies, consolidating their presence in the market and their active involvement in promoting marketing policies (Hawkins et al., 2016).

Alcoholic beverages are advertised in the Republic of Moldova. Existing legislation only prohibits: direct advertising of alcoholic beverages (presenting alcohol consumption); direct and indirect advertising intended for minors; and advertising in institutions for children, educational institutions and medical facilities, including at a visibility distance and range of less than 100 metres (according to Article 19(1) of Law No. 1227-XIII of 27 June 1997).

Evidence from the Broadcasting Coordination Council shows that in 2009 several media sources received official public warnings for advertising beer and vodka (Broadcasting Coordination Council Decision No. 133 of 23 December 2009), while in 2015 only one source was detected and penalized (publicly warned) for advertising alcoholic products (Broadcasting Coordination Council Decision No. 5/31 of 03 March 2016). This indicates that the role of

the Broadcasting Coordination Council in monitoring and control of alcohol advertising is decreasing. It can be determined by the fact that Audiovisual Code of the Republic of Moldova does not clearly indicate the mechanism and periodicity of its monitoring function.⁶

The price of alcoholic beverages

Scientific evidence indicates that alcohol consumption is sensitive to price. Increasing the price of alcoholic beverages leads to less alcohol being consumed and, consequently, fewer adverse effects from alcohol (and vice versa). This is the case in both high-income and low-income countries (Anderson, Chisholm & Fuhr, 2009; Cook, Bond & Greenfield, 2014).

Study data indicate that alcohol consumption in the Republic of Moldova varies by welfare level and area of residence. Among women aged 15–49 years, alcohol consumption is more common in urban (61%) than rural areas (54%) and among women who belong to the richest households (64%) compared to the poorest households (57%). Among men, differences by level of welfare are similar to those found among women (ranging between 76% and 85%), while differences by area of residence (ranging between 78% and 81%) are less marked than among women (National Centre of Public Health & UNICEF, 2012).

Scientific evidence shows that demand for alcoholic beverages is inelastic by price (Gallet, 2007). Thus, increasing the price of alcohol leads to increasing revenues in the state budget (Anderson & Baumberg, 2006a). However, data from the Ministry of Finance show that in 2015 the state budget revenues from excise tax on alcoholic beverages amounted to MDL 532.907 thousand (1.2% of the national public budget), decreasing compared to 2014 and 2013, when these amounted to MDL 567.575 thousand (1.3% of the national public budget) and MDL 595.687 thousand (1.6%), respectively. Furthermore, the amount of financial resources received in the period 2011–2014 from excise tax on alcoholic beverages was lower than planned (Ministry of Finance, 2016). The Republic of Moldova, along with four other countries in the WHO European Region, is imposing an MUP on alcoholic beverages (WHO Regional Office for Europe, 2014a).

The estimated average retail prices of alcoholic beverages (for 50 cl of beer, 75 cl of table wine, 70 cl of local spirits and 70 cl of imported spirits) in the Republic of Moldova in comparison with other countries in the WHO European Region are among the lowest for spirits of both local and imported brands, in the middle for beer, and among the highest for wine (WHO Regional Office for Europe, 2014a). However, the retail price of one bottle of beer (50 cl) in the local market is equivalent to the same amount of bottled water and 10 cl of milk.⁷

6 This is according to Article 40, paragraph 1, points d and d1 of Audiovisual Code No. 260 of 27 July 2006.

7 The price of 50 cl of beer varies from 8 to 22 MDL (€0.41–1.14); 50 cl of bottled water varies from 7 to 15 MDL (€0.36–0.78), and 10 cl of milk varies from 9 to 21 MDL (€0.47–1.09).

PROBLEM-SOLVING APPROACHES

Increased alcohol consumption is a multifactorial problem that requires a comprehensive solution at legislative level, involving public awareness programmes. However, this EBP focuses only on the following elements: retail trading hours (with a specific focus on wine and beer), alcohol advertising, and pricing of alcoholic beverages, to provide required evidence in support of the Ministry of Health legislation initiative (developed based on the concept of “best buys” (Bloom et al., 2011)), for a more comprehensive approach than the already existing policy options. At the same time, additional cost-effective policies must be considered to reduce alcohol consumption and related harms.

To facilitate discussions with stakeholders on approving the legislative package on alcohol control and increasing excise duties on alcoholic beverages (Government of the Republic of Moldova, 2016b), the following three options were chosen for thorough analysis as part of the EBP process (Box 4): (1) regulating retail trading hours for alcoholic beverages; (2) regulating advertising of alcoholic beverages; and (3) regulating excise duties on alcoholic beverages. The methodology used for data collection is specified in Box 5.

Box 4: The process of developing the EBP

The EBP, entitled *Informing amendments to the alcohol control legislation directed at reducing harmful use of alcohol in the Republic of Moldova*, has been developed to underpin the draft law related to alcohol control policies, which represents the Government’s commitment, set out in the Action Programme of the Government of the Republic of Moldova 2016–2018 (Government of the Republic of Moldova, 2016b).

An open consultation process was used, with coordination from two deputy ministries, to identify a list of priority issues from among which the topic for the EBP was developed, focusing on the reduction of alcohol consumption. A working group was established from representatives of the Ministry and Health, Labour and Social Protection, and the State University of Medicine and Pharmacy. The coordinator of activities at country level was appointed head of the Ministry’s Department of Analysis, Monitoring and Evaluation of Policies.

The first draft of the EBP was presented and discussed as part of the national policy dialogue conducted in November 2016. The researchers and public and civil society sectors represented at the policy dialogue decided by consensus to reshape the defined problem and prepare a new EBP. With mentoring from the Knowledge to Policy (K2P) Center, Lebanon, and collaboration with the WHO Secretariat of EVIPNet Europe, the new version was prepared by the EBP team and discussed at the policy dialogue in August 2017.

This EBP was reviewed by a number of researchers and policy-makers to ensure its scientific rigour and relevance for the health system. Reviewers included WHO, the EVIPNet Europe Secretariat, the K2P Center, the Ministry of Health, Labour and Social Protection’s Department of Public Health, the National Centre of Public Health and the State University of Medicine and Pharmacy (Department of Social Medicine and Sanitary Management).

The EBP and the dialogue summary from August 2017 will be presented for discussion at the planned second policy dialogue to be organized at the Parliament of the Republic of Moldova.

This section provides evidence on what is known about these options, and the following section discusses possible barriers to the implementation of such options, along with strategies that could be applied to overcome the barriers identified.

Approach 1. Regulating retail sales of alcoholic beverages

Overview and context

This approach provides an overview of the evidence available about restricting trading hours for alcoholic beverages, especially beer and wine (as well as alcoholic products obtained from grapes), representing beverages sold without time-based limitation in the Republic of Moldova (Law No. 1100-XIV of 30 June 2000).

National data show that alcohol in the Republic of Moldova is easily accessible, especially among youth (National Centre for Health Management & EMCDDA, 2016). Meanwhile, international evidence shows that extending trade hours for selling alcoholic beverages leads to an increase in access (Sassi, 2015; WHO, 2014), a higher level of alcohol consumption and an increase in violent incidents (Anderson, Chisholm & Fuhr, 2009). A thorough review of scientific literature educes a direct relation between the time of alcohol sale, the quantity of consumed alcohol and the damage caused (Popova et al., 2009, Hahn et al., 2010; Middleton et al., 2010; Wilkinson, Livingston & Room, 2016).

Box 5: Collection of evidence on options identified as potential solutions to the problem

Evidence regarding approaches to solving the problem was found in the databases accessed via the HINARI Programme (Access to Research in Health, <http://www.who.int/hinari/en/>). Thus, systematic reviews that contained subject-related keywords in the title or in the abstract were collected. The keywords were: “alcoholic beverage”, “alcohol consumption”, “alcoholism”, “alcohol abstinence”, “alcohol-related disorders”, “beer”, “wine”, “strong alcoholic beverages”, “nutrition policy”, “public policy”, “health policy”, “law”, “laws”, “legislation”, “guidelines”, “practical guidelines”, “retail trade”, “marketing”, “social marketing”, “advertising”, “direct advertising”, “mass media”, “social media”, “communication on health”, “taxes”, “excise duties”, “fees”.

Sources published during the period from 1 January 2007 to 10 December 2016 were analysed. If the number of sources found was deemed to be too small, the period was extended.

Key findings were extracted from each review identified, assessed by quality (the SURE assessment sheet was used; see Lewin et al., 2009), local applicability (the share of studies carried out in Europe and in low- and middle-income countries), equity aspects (the share of studies explicitly addressing priority groups), as well as by the amount of reviews focusing on a problem. Option-related evidence was later summarized and relevant interpretations regarding the key findings of the review authors were included, based on quality, local applicability, equity and the focus on the problem.

A total of 39 systematic reviews were identified. After reading the titles and abstracts of the identified systematic reviews, 24 of them were selected. Following content-related analysis, 21 systematic reviews were included in the EBP. An overview regarding the efficiency and cost-effectiveness of alcohol consumption reduction strategies was also included.

Results of the scientific literature review

Out of six systematic reviews that were found on the time of alcohol sale, four were included in the EBP (see annexes 1 and 2).

A systematic review (determined to be of moderate quality) concluded that reducing alcohol selling time decreases damage caused by alcohol consumption (Popova et al., 2009); this was found to be the case both in terms of reduction of alcohol trade hours (Hahn et al., 2010) and the reduction of the days on which it is sold (Middleton et al., 2010). Furthermore, an overview of the systematic reviews concluded that applying alcohol sales restrictions is a cost-effective intervention (Anderson, Chisholm & Fuhr, 2009), and this conclusion also applies to the Republic of Moldova (Tirdea et al., 2011).

Evidence from a systematic review of moderate quality established that reducing sales of alcohol during night hours could significantly decrease violence rates and damage caused by alcohol consumption. Results of studies carried out in Australia, Canada, Norway and the United States support interventions to reduce the alcohol trade hours, leading to a decrease in the damage caused by alcohol consumption (Wilkinson, Livingston & Room, 2016). The inverse is also true: one review concluded that extending alcohol trading hours by ≥ 2 hours actually causes damage induced by alcohol consumption. The same cannot be claimed for extending alcohol trade hours by <2 hours, owing to lack of evidence (Hahn et al., 2010).

Moreover, a systematic review of moderate quality showed that limiting the days on which alcohol is sold (for example, not selling it on Saturdays or Sundays) can reduce the damage caused by alcohol. The results of studies carried out in Norway, Sweden and the United States show that prohibiting alcohol sales for one day a week will serve as protection against damage caused by alcohol consumption. The evidence is consistent for selling alcohol both in shops, and in bars and restaurants. Legalizing alcohol sales on Saturdays and Sundays can increase alcohol consumption and its associated harms; for example, studies carried out in Australia, Greece, and Scotland (United Kingdom) show that legalizing alcohol trading on Sundays will lead to an increase in both alcohol consumption and the number of traffic accidents that occur under the influence of alcohol. The data from the analysis of road traffic accidents show that after lifting the prohibition of packaged alcohol sales on Sundays in New Mexico (United States), the rate of deaths from traffic accidents caused by alcohol increased by 42%, which resulted in US\$ 6 million in additional annual costs for that state (McMillan & Lapham, 2006). Furthermore, two studies applying experimental designs carried out in Sweden showed that reintroducing permission to sell alcohol on Saturdays (but maintaining prohibition on Sundays) would cause an increase in alcohol's negative effects as well (Middleton et al., 2010).

Alcohol retail trade can also be regulated by applying an MLDA and by having government monopolies or a licensing system (Ghandour et al., 2017). An MLDA reduces minors' access to alcohol (and therefore consumption), alcohol-related motor vehicle accidents and other alcohol-related problems (Komro & Toomey, 2002; Shults et al., 2001). Raising the MLDA in Canada from 18 to 19 years decreased car crashes by an estimated 6.2% (Callaghan et al., 2014). Inversely, reducing the MLDA is associated with road traffic accidents (Kypri et al., 2006). For example, lowering the MLDA in New Zealand from 20 to 18 years increased car crashes significantly among youth aged 15–19 years (Kypri et al., 2006). Government monopolies on alcohol sales have been proven to reduce alcohol-related harms (Anderson, Chisholm & Fuhr, 2009) by reducing the number of outlets responding to retail demand in comparison with privatization of alcohol retail trade (Holder, 2008). In countries where monopolies are not

possible, a licensing system for retail outlets – including specific opening hours and days – can reduce alcohol consumption and its related harms (Ghandour et al., 2017; Anderson, Chisholm & Fuhr, 2009).

The principal conclusions from the systematic reviews relevant for Approach 1 are summarized in Table 1.

Table 1. Summary of the main conclusions from the systematic reviews relevant to Approach 1. Regulating retail sales of alcoholic beverages

Category of the conclusion	Summary of the main conclusions
Benefits	<ul style="list-style-type: none"> ● A systematic review concluded that the reduction of alcohol trading time leads to a decrease in damage caused by alcohol consumption (Popova et al., 2009); this conclusion is valid for the reduction of both alcohol trade hours (Hahn et al., 2010) and the days on which it is sold (Middleton et al., 2010). ● Evidence from a systematic review concluded that the reduction hours of alcohol trade at night could significantly decrease the rate of violence and damage caused as a result of alcohol consumption (Wilkinson, Livingston & Room, 2016). ● Evidence from the cross-sectional analyses concluded that restricting the sale of alcohol is associated with reducing alcohol consumption in low- and middle-income countries, as well as in high-income countries. Thus, reducing the time during which alcohol can be sold reduces the current consumption of alcohol, the amount and frequency of use, the frequency of binge drinking and the volume of alcohol consumed (Cook, Bond & Greenfield, 2014).
Potential damages	<ul style="list-style-type: none"> ● No studies were found that specifically estimated the magnitude of commercial losses in sales and tax revenues resulting from a policy restricting alcohol sales hours (Hahn et al., 2010). ● One systematic review concluded that no studies were found estimating the losses caused by restricting the days on which alcohol is sold (Middleton et al., 2010). ● A systematic review suggested that illegal production and sales of alcohol could increase after introducing days on which alcohol trading is prohibited; however, no evidence of this is available (Middleton et al., 2010). ● Changing the days and hours of alcohol trade can lead to redistribution of the times at which alcohol-related road traffic accidents occur, which requires extra police work (e.g. additional/different shifts) (Anderson & Baumberg, 2006a).
Resources, costs and/or cost-effectiveness of the intervention	<ul style="list-style-type: none"> ● A study conducted on the Republic of Moldova confirmed that alcohol trading restrictions are very cost-effective, with MDL 4589 per DALY saved (Tirdea et al., 2011). ● An overview of the systematic reviews concluded that applying alcohol trading restrictions is cost-effective, saving I\$⁸ 567 per DALY (with the cost per capita at I\$ 0.47 for some European countries) (Anderson, Chisholm & Fuhr, 2009). ● Enhanced enforcement by police and regulatory authorities may involve substantial costs, but for effective programmes these costs may be offset entirely by cost savings in health services, as a result of the reduction in problems (Babor et al., 2010).
Uncertainty related to potential benefits and damages (whereby monitoring and evaluation could be justified if the option is examined)	<ul style="list-style-type: none"> ● The effectiveness of this approach is dependent on the level of enforcement (Flewelling et al., 2013). ● No studies were found.

8 An international Dollar [I\$] has the same purchasing power as an American Dollar (US\$) in the United States and is used as a common point of reference to compare costs from country to country.

Key elements of the policy option if it was applied elsewhere	<ul style="list-style-type: none"> ● An overview of the systematic reviews concluded that government monopolies on alcohol sales have been proven to reduce alcohol-related harms (Anderson, Chisholm & Fuhr, 2009) by reducing the number of outlets meeting retail demand in comparison with privatization of alcohol retail trade (Holder, 2008). ● In countries in which government monopoly is not possible, a licensing system for retail outlets with specific opening hours and days can reduce alcohol consumption and its related harms (Ghandour et al., 2017; Anderson, Chisholm & Fuhr, 2009). ● Evidence from the scientific literature concluded that an MLDA reduces minors' access to drinking, alcohol-related motor vehicle accidents and other alcohol-related problems (Komro & Toomey, 2002; Shults et al., 2001). Raising the MLDA (e.g. in Canada, from 18 to 19 years of age) decreases car crashes (Callaghan et al., 2014), while reducing the MLDA (e.g. in New Zealand, from 20 to 18 years of age) increases car crashes significantly among youth (Kypri et al., 2006). ● The most effective means of enforcing the MLDA is to ensure the conformity of the sellers, who have a vested interest in retaining the right to sell alcohol (Anderson, Chisholm & Fuhr, 2009).
Opinions and experience of the stakeholders	<ul style="list-style-type: none"> ● The alcohol industry supports the elimination of alcohol sales restriction policies (Giesbrecht, 2000). ● Some industrial groups or individual enterprises support maintaining the prohibition of alcohol trading on Sundays (Hoover, 2008).

Approach 2. Regulating advertising of alcoholic beverages

Overview and context

This approach was identified to adduce arguments regarding the effects on consumption of banning advertising of alcoholic beverages and to present the conditions under which it produces these effects.

As already mentioned, alcoholic beverage advertising exists in the Republic of Moldova. According to the legislation in force, only direct advertising of alcoholic beverages (depicting the process of alcohol consumption) is forbidden.

Results of the scientific literature review

A total of 11 systematic reviews about the impact of alcohol advertising on alcohol consumption were found (with one systematic review in Portuguese). The EBP includes 10 systematic reviews (see annexes 1 and 3).

Legislative regulation of advertising

A systematic review of longitudinal studies found consistent evidence that adolescent exposure to alcohol advertising and promotion is strongly associated with the subsequent onset of alcohol use and engaging in binge and hazardous drinking (Andersen et al., 2009; Jernigan et al., 2016). The evidence concluded that similarities are emerging from reviews of the impact of tobacco and food marketing on young people (Andersen et al., 2009).

Another systematic review and meta-analysis of experimental studies found that exposure to alcohol advertising increases immediate alcohol consumption by 0.39–2.67 alcohol units for males and 0.25–1.49 units for females (Stautz et al., 2016). It was also found that repeated discrete exposures to alcohol advertising, each of which contributes to a small increase in consumption, cumulate into higher levels of consumption over time among more exposed people (Stautz et al., 2016).

A systematic review by Bryden et al. (2012) concluded that greater exposure to advertising is strongly associated with higher levels of alcohol consumption; by 50% in terms of likelihood of ever having had an alcoholic drink, and by 42% for the increase in alcohol consumption (Bryden et al., 2012).

In a 2010 published summary of the second edition of the book *Alcohol: no ordinary commodity* (Babor et al., 2010), the Alcohol and Public Policy Group reported that there is consistent evidence to show that alcohol marketing reduces the age of onset of drinking and increases consumption by those who are already drinkers (Siegfried et al., 2014).

A systematic review concluded that population-wide interventions, such as advertising bans, are more equitable than individual-level interventions aiming to reduce alcohol harm, which rely on health care professionals for delivery, arguing that advertising restrictions may be an appropriate intervention for resource-constrained settings (Siegfried et al., 2014).

Bosque-Prous et al. (2014) found that stricter marketing regulations were associated with a low prevalence of hazardous drinking among people aged 50–64 years in 16 European countries (Jernigan et al., 2016). Smith and Geller (2009) found 32.9% fewer youth traffic fatalities in United States jurisdictions with laws prohibiting alcohol advertising targeting minors, compared with states lacking such laws (Jernigan et al., 2016).

However, an overview of systematic reviews and meta-analysis concluded that effectiveness of alcohol advertising restrictions is still controversial, with inconclusive evidence in support of or against restricting alcohol advertising to reduce its consumption (Ghandour et al., 2017; Martineau et al., 2013; Siegfried et al., 2014). In the examples of studies assessing the effects of changing a total ban on alcohol advertising to a partial ban involving the volume of all forms of alcohol, sales decreased when the volume of spirits was decreased and the volumes of beer and wine were increased. The evidence advises that the results should be interpreted with caution (Siegfried et al., 2014).

A meta-analysis concluded that advertising controls – from restrictions to bans – should be implemented as part of a research programme that is of high quality, and well monitored and evaluated (Siegfried et al., 2014). Furthermore, and based on the experience of Lithuania in this field, bans are only effective when they are implemented in full (not fragmented) and supported by comprehensive laws, including systematic monitoring of the influence of the alcohol industry on legislation (Paukštė et al., 2014). Similarly, the National Institute for Health and

Clinical Excellence (NICE) recommended that marketing and advertising of alcoholic products, especially involving new media (e.g. web channels and smartphones), as well as product placement should be covered by a rigorous regulation system with continuous monitoring (NICE, 2010). Evidence from a systematic review concluded that stricter marketing regulation for alcoholic products is associated with a lower prevalence of hazardous alcohol consumption (Jernigan et al., 2016). Similarly, evidence from the cross-sectional analyses conducted for low- and middle-income countries concluded that tougher restrictions on alcohol advertising have the same effect as in high-income countries in terms of reducing the quantity and volume of alcohol consumption (Cook, Bond & Greenfield, 2014). A cross-sectional study across 16 European countries concluded that the countries with stricter alcohol advertising policies had lower prevalence of hazardous drinking, with a gradient effect (Bosque-Prous et al., 2014). Countries with no restrictions had a 30.6% prevalence of hazardous drinking; those with some restrictions in place had a 20.3% prevalence of such drinking; and the prevalence was 14.4% among countries with severe restrictions (Bosque-Prous et al., 2014). Comprehensive policy elements, from restricting alcohol marketing and advertising to banning, have been shown to be effective in reducing the early onset of alcohol consumption and the amount of alcohol use among adolescents (Ghandour et al., 2017).

Voluntary regulation of advertising

Furthermore, evidence shows that the existing systems of voluntary regulation do not meet the goal of protecting vulnerable populations from alcohol marketing (Noel & Babor, 2017; Noel, Babor & Robaina, 2017). A systematic review confirmed that self-regulation of advertising by advertisers can (a) provide subjective interpretations, and (b) fail to protect vulnerable groups (e.g. children and adolescents) from alcohol and advertising messages that encourage irresponsible and excessive alcohol consumption (Vendrame & Pinsky, 2011). Further systematic review evidence concluded that no evidence exists to indicate that voluntary regulation and partnerships between the alcohol industry and governments lead to the reduction of the harmful effects of alcohol (Babor et al., 2010; de Bruijn, Johansen & van den Broeck, 2010; Hastings et al., 2010; Anderson, Chisholm & Fuhr, 2009; Savell, Fooks & Gilmore, 2016). The alcohol industry uses as a tactic the slogan “responsible drinking” to capture the attention of alcohol researchers and people working in the public health field. However, the industry is also driven by the imperative for sales and profits, which is in fundamental conflict with the public health goal of reducing hazardous drinking and alcohol-related harm (Barry et al., 2010). Using imprecise slogans and other advertising tactics, the industry has cleverly turned the prevention message into a marketing tactic, which appeases critics and consumers, yet does not positively influence public health (Barry et al., 2010).

Applying the right approach and precautionary principle to alcohol advertising

The precautionary principle, used for marketing foods and non-alcoholic beverages to children to reduce children’s exposure to unhealthy food promotion (Vienna Declaration, 2013) could be extended to alcohol marketing and the argument may be made for a ban on alcohol marketing, especially in schedules and venues where children can be directly or indirectly targeted (Martuzzi & Tickner 2004; Scott et al., 2016). This entails taking preventive action even in the face of uncertainty, to shift the burden of proof to the proponents of a potentially harmful

activity, to offer alternatives to harmful actions, and to increase public involvement in decision-making.

When applied to alcohol policy, the precautionary principle implies that decision-making in areas such as international trade agreements, the introduction of new alcoholic products, the removal of restrictions on hours of sale, and the promotion of alcohol through advertising should be guided by the likelihood of risk, rather than the potential for profit. The application of the precautionary principle to alcohol policy will help to increase both public participation in the policy-making process and the transparency of decision-making (Babor et al., 2010).

The main conclusions from the systematic reviews relevant to Approach 2 are presented in Table 2.

Table 2. Summary of main conclusions from the systematic reviews relevant to Approach 2. Regulating advertising of alcoholic beverages

Category of the conclusion	Summary of the main conclusions
Benefits	<ul style="list-style-type: none"> ● Evidence from a cross-sectional study established that stricter regulations on the marketing of alcoholic products is associated with a lower prevalence of hazardous alcohol consumption among individuals aged 50–64 years in 16 European countries (Bosque-Prous et al., 2014). ● The meta-analysis came to the conclusion that since the demand for alcoholic beverages is responsive to advertising (the most receptive type of alcohol being spirits), an advertising ban will reduce alcohol consumption, especially when focused on the mass media (most frequently used by producers of alcoholic beverages to target consumers) (Gallet, 2007). ● Evidence from the cross-sectional analyses conducted for low- and middle-income countries concluded that tougher restrictions on beer advertising reduce the quantity and volume of alcohol consumed; more severe restrictions on wine advertising reduce the quantity of wine consumed; and restrictions on spirits reduce consumption and the total volume of alcohol consumed (Cook, Bond & Greenfield, 2014). ● One systematic review concluded that restricting advertising may be an appropriate intervention for societies with resource constraints, where intervention effectiveness has been proven (Siegfried et al., 2014).
Potential damages	<ul style="list-style-type: none"> ● None of the studies dealt with the adverse effects of banning alcohol advertising, such as revenue losses in the alcohol and advertising industries, a reduction in GDP caused by alcohol sales reductions, or job losses in marketing and advertising sectors caused by such a ban (Siegfried et al., 2014).
Resources, costs and/or cost-effectiveness of the intervention	<ul style="list-style-type: none"> ● Data from a study carried out in the Republic of Moldova shows that the ban on advertising alcoholic beverages is very cost-effective (MDL 3528 per saved DALY) (Tîrdea et al., 2011). ● An overview of the systematic reviews concluded that banning alcohol advertising is a cost-efficient intervention, with the cost of each DALY saved being less than I\$ 970, both for Europe and for Latin America (Anderson, Chisholm & Fuhr, 2009).

<p>Uncertainty related to potential benefits and damages (monitoring and evaluation could be justified if the option is examined)</p>	<ul style="list-style-type: none"> ● According to one systematic review, neither prohibition of nor permission for alcohol advertising is necessary. It is recommended that the authorities introduce a credible monitoring and evaluation mechanism to demonstrate that a ban on alcohol advertising will reduce alcohol consumption (Siegfried et al., 2014). This can be demonstrated by the fact that a drop in beer sales was registered only 18 months after the ban on advertising was introduced, and that it only takes 6 months from the reintroduction of advertising to see a pattern of sales growth (Siegfried et al., 2014). ● Lithuania’s experience with banning alcohol advertising led to the conclusion that bans are only effective when they are comprehensive (not fragmented, or partial), including systematic monitoring of the influence of the alcohol industry on legislation (Paukštė et al., 2014). ● One systematic review concluded that, given the expanding influence of the Internet and social media, it would be impossible to effectively implement a ban on advertising alcoholic beverages (Siegfried et al., 2014). The industry would still be able to invest in promoting their products through other, unrestricted approaches or avenues (Babor et al., 2010).
<p>Key elements of the policy option if it was applied elsewhere</p>	<ul style="list-style-type: none"> ● An overview of the systematic reviews concluded that if the decision were to be made to introduce the ban on advertising, it would also be necessary to develop an action plan to implement this measure (Anderson, Chisholm & Fuhr, 2009). ● One study concluded that restriction of advertising is most likely to be suitable for high-income countries, where there is longer life expectancy, a higher share of young people among the population, and/or where the majority of the population is Muslim (Gallet & Andreas, 2011). ● One systematic review concluded that effects of a ban on advertising may be diluted by the dissemination of advertising in neighbouring countries, thus compromising the integrity of the intervention (Siegfried et al., 2014). ● Comprehensive policy elements of restricting alcohol marketing and advertising, including banning, have been shown to be effective in reducing the early onset of alcohol consumption and the amount of alcohol used among adolescents (Ghandour et al., 2017).
<p>Opinions and experience of the stakeholders</p>	<ul style="list-style-type: none"> ● No reviews provided information about stakeholders’ views or experiences.

Approach 3. Regulating excise taxation and prices of alcoholic beverages

Eight systematic reviews were found on regulating excise duties on alcoholic beverages and all were included in the EBP (see annexes 1 and 4). An overview of the (two) systematic reviews and (one) meta-analysis concluded – with robust evidence to support the conclusion – that price policy is among the most cost-effective alcohol control interventions that can reduce alcohol consumption and bring about a significant decrease in alcohol-related morbidity and mortality (Bloom et al., 2011; Elder et al., 2010; Wagenaar, Salois & Komro, 2009; Wagenaar, Tobler & Komro, 2010). Doubling alcohol tax is associated with an average decrease in alcohol-related mortality by 35%, deaths in traffic accidents by 11%, sexually transmitted diseases by 6%, violence by 2% and crime by 1.2% (Wagenaar, Tobler & Komro, 2010). Evidence from both high-income countries and countries with low-to-middle incomes consistently confirmed that the price of alcohol is inversely associated with the quantity as well as the frequency and volume of alcohol consumed (Cook, Bond & Greenfield, 2014).

Despite the abundance of data showing the cost-effectiveness of strategies aiming to reduce alcohol consumption, such approaches are not translated into effective public alcohol control policies (Gilmore, Chikritzhs & Gilmore, 2013). This is even more evident in low- and middle-income countries (Casswell & Thamarangsi, 2009), including the Republic of Moldova, as determined by their limited capacity to generate the necessary scientific evidence, and their effectiveness in developing public health care policies (Santoro et al, 2015).

A systematic review of moderate quality carried out in 2013 showed that increasing the alcohol price by 10% can reduce the consumption of beer by 2.9%, of wine by 4.6%, of spirits by 5.4% and of alcohol overall by 4.9% (Nelson, 2013). Another systematic review of moderate quality indicated that consumption of beer can be reduced by 4.6%, wine by 6.9% and strong drinks by 8.0%. Increased alcohol prices also affect heavy drinkers, whereby the increase in price can reduce their consumption by 2.8% (Wagenaar, Salois & Komro, 2009). Another high-quality systematic review concluded that at societal level, an estimated 10% increase in alcohol price can reduce consumption by between 3% and 10%. The reduction is affected by factors such as available income and demand elasticity (Elder et al., 2010).

Similarly, a high-quality systematic review concludes that the justification for higher alcohol taxes to cover social costs is based on demand elasticity; in particular the demand elasticity for harmful or abusive alcohol consumers, as well as for specific drinks (e.g. beer) chosen by harmful alcohol consumers (Nelson, 2014). Nelson (2014) indicates that a 10% increase in the price of beer reduces consumption by 2%. This extremely inelastic estimation has important implications for how tax policy affects alcoholic beverages. Gallet (2007) indicates that demand for alcoholic beverages is price inelastic, especially in the short term (price increase leads to a smaller reduction of alcohol consumption), while price elasticity is the most inelastic in the case of beer (compared to wine and strong drinks). Price elasticity tends to be more inelastic when the price of tobacco products is included as a determinant of per-capita consumption at country level. Younger individuals are less responsive to price than older individuals (Gallet, 2007). Furthermore, Nelson (2015) indicated in a recent review that heavy drinkers are not highly sensitive to increased price, since they can choose cheaper alcoholic products instead. This is typical in both young people and older drinkers, and is the same for both male and female heavy drinkers (Nelson, 2015).

Evidence from the literature concluded that introducing an MUP or fixing a standard price per unit of alcohol (below which it cannot be sold) is an alternative solution for excise taxation, especially for cheap alcohol (Ludbrook, 2009; Sassi, 2015). The MUP would therefore be more likely to impact heavy drinkers than moderate drinkers. Furthermore, reducing alcohol consumption by heavy drinkers would benefit moderate drinkers as well, by reducing the burden of social costs and risks of secondary harm (Ludbrook, 2009). Evidence from a study conducted in Scotland established that implementing an MUP of 50p (£ 0.50) is estimated to reduce alcohol consumption by 3.5%; among harmful drinkers the reduction is estimated to be 7.0%, while the smallest effects would be seen among moderate drinkers (1.2%). To achieve the same reduction in deaths among hazardous and harmful drinkers, an estimated 28% increase in alcohol taxes is required (Angus et al., 2016). Also, alcohol taxation is considered to be regressive, while an MUP is not highly regressive and is effective in reducing alcohol consumption. A study concluded that implementing an MUP is more effective than introducing specific taxes to reduce alcohol consumption, particularly for low-income population quintiles (Vandenberg & Sharma, 2016).

Furthermore, contextualized studies should be conducted to identify which beverages should be subjected to an MUP or taxation. Tax increases on specific beverages resulted in different outcomes in different countries. For example, a study conducted in Canada concluded that an increase by 10% in the MUP for specific beverages reduced consumption by 16.1%, whereas an increase by 10% in the MUP for all beverages resulted in a 3.4% decrease in consumption (Stockwell et al., 2012).

The main conclusions from the systematic reviews relevant to Approach 3 are summarized in Table 3.

Table 3. Summary of main conclusions from the systematic reviews relevant to Approach 3. Regulation of excise taxation and prices of alcoholic beverages

Category of the conclusion	Summary of the main conclusions
Benefits	<ul style="list-style-type: none"> ● An overview of the studies (2 systematic reviews and 1 meta-analysis) concluded (with robust supporting evidence) that price policy is among the most cost-effective alcohol control interventions to reduce alcohol consumption and engender a significant decrease in alcohol-related morbidity and mortality (Bloom et al., 2011; Elder et al., 2010; Wagenaar, Salois & Komro, 2009; Wagenaar, Tobler & Komro, 2010). ● 4 systematic reviews concluded that a 10% increase in alcohol price can reduce alcohol consumption by 2–10% (Nelson, 2013, 2014; Wagenaar, Salois & Komro, 2009; Elder et al., 2010). ● Doubling taxes on alcohol is associated with a decrease in alcohol-related mortality by 35%, in deaths in traffic accidents by 11%, in sexually transmitted diseases by 6%, in violence by 2% and in crimes by 1.2% (Wagenaar, Tobler & Komro, 2010). ● One study concluded that establishing an MUP is estimated to reduce alcohol consumption by 3.5% on average (among harmful drinkers the reduction is estimated to be 7.0%, while the smallest effects would be seen among moderate drinkers, at 1.2%). To achieve the same reduction in deaths among hazardous and harmful drinkers, an estimated 28% increase in alcohol taxes would be required (Angus et al., 2016). ● Evidence from a study of low- and middle-income countries indicates that the price of alcohol is inversely associated with the quantity as well as the frequency and volume of alcohol consumed. Previous evidence showed that this type of phenomenon is specific to high-income countries (Cook, Bond & Greenfield, 2014).
Potential damage	<ul style="list-style-type: none"> ● Higher alcohol prices can result in product substitution (for cheaper beverages) or lead to alcohol smuggling (Lachenmeier, Taylor & Rehm, 2011).
Resources, costs and/or cost-effectiveness of the intervention	<ul style="list-style-type: none"> ● Data from a study carried out in the Republic of Moldova show that increasing excise duties on alcoholic beverages by 25% and 50% is very cost-effective (MDL 1627 and MDL 1647, respectively, per saved DALY). Reducing the amount of unregistered alcohol will result in a 50% increase in excise duties, being more cost-effective than a 25% increase in excise duties (Tîrdea et al., 2011). ● Anderson et al. indicated that increasing excise taxation from 20% to 50% is a very cost-effective intervention (each saved DALY costs less than I\$ 500, both for Latin America and for Europe), which, as well increasing the price of alcohol, leads to increasing revenues in the state budget (Anderson, Chisholm & Fuhr, 2009). This is further backed by an overview of studies that concluded that price policy is among the most cost-effective alcohol control intervention for reducing alcohol consumption and producing a significant decrease in alcohol-related morbidity and mortality (Bloom et al., 2011).

<p>Uncertainty related to potential benefits and damages (monitoring and evaluation could be justified if the option is examined)</p>	<ul style="list-style-type: none"> ● In countries with a high level of production and consumption of unregistered alcohol, it is necessary to focus initially on the growth of the registered alcohol share of the market. Reducing unregistered alcohol consumption by 20–50%, by applying a coordinated implementation strategy, is estimated to be more expensive by 50–100% than increasing excise duties (but with the same effect) (Anderson, Chisholm & Fuhr, 2009). ● Contextualized studies should be conducted to identify the appropriate MUP for specific beverages (Stockwell et al., 2012).
<p>Key elements of the policy option if it was applied elsewhere</p>	<ul style="list-style-type: none"> ● The reduced sensitivity of young people to the price of alcoholic beverages indicates that price interventions aiming to reduce alcoholic beverage consumption should be complemented by other interventions, such as: prohibiting sales of alcoholic beverages to young people; observing time limits on alcohol sales; banning advertising; implementing awareness campaigns; and so on (Gallet, 2007). ● Excise taxation needs to be adjusted according to inflation (Anderson, Chisholm & Fuhr, 2009). ● The reduction of alcohol consumption resulting from increasing tax is affected by factors such as available incomes and demand elasticity (Elder et al., 2010). ● An MUP can complement taxation policies, in particular to impact heavy drinkers and people in the lower income quintiles (Ludbrook, 2009).
<p>Opinions and experience of the stakeholders</p>	<ul style="list-style-type: none"> ● None of the systematic reviews identified any stakeholder opinions.

Equity-related observations about the approaches

Approach 1

Regulating retail sales of alcoholic beverages does not in itself have any bearing on specific aspects of inequity. The regulation to be introduced into national legislation will affect the entire population of the country (WHO, 2010b).

Approach 2

Population interventions, such as banning alcohol advertising, may be more equitable than interventions that focus on reducing the harmful effects of alcohol (such as those provided by physicians) (Doran et al., 2010).

Furthermore, evidence shows that the population groups most vulnerable to marketing and advertising of alcoholic beverages are children, adolescents and young people (Anderson et al., 2009; Smith & Foxcroft, 2009; Scott et al., 2016; Siegfried et al., 2014; Jernigan et al., 2016). The arguments of the alcohol industry that it does not promote alcoholic products to children are misleading; evidence to the contrary indicates that the alcohol industry marketing activity often appeals to young people and people aged under the MLDA (Babor et al., 2010; Jackson et al., 2000; Mosher & Johnsson, 2005; Jernigan et al., 2004; Savell, Fooks & Gilmore, 2016).

Approach 3

Increasing excise taxation/prices of alcoholic beverages does not in itself have any significant social inequality implications (Nelson, 2014; Wagenaar, Salois & Komro, 2009; Nelson, 2015).

Furthermore, evidence from one systematic review concludes that increasing excise taxes on alcoholic beverages would have some negative effects on low-income individuals in the population (Elder et al., 2010). Evidence arising from mathematical modelling for England indicates that introducing an MUP or alcohol taxes based on alcohol content would (a) lead to greater reductions in health inequalities across all income groups and (b) have the greatest impact on harmful alcohol consumption, with minimal effects on those who consume moderate amounts of alcohol (Meier et al., 2016).

Similarly, higher excise taxes can produce direct benefits for people with low incomes, if the income generated by this is used to improve access to health services for uninsured people or those from vulnerable groups of the population (Elder et al., 2010).

IMPLEMENTATION CONSIDERATIONS

The possible barriers to the implementation of the three policy approaches and strategies to overcome them are summarized in Table 4 (Approach 1), Table 5 (Approach 2) and Table 6 (Approach 3).

Table 4. Barriers and strategies relating to Approach 1. Regulating retail sales of alcoholic beverages

Level	Barriers	Strategies
Professional level	<ul style="list-style-type: none"> ● Sellers may not comply with the time limit for the sale of alcohol. 	<ul style="list-style-type: none"> ● Enforcement should focus on alcohol retailers, who have a vested interest in retaining the right to sell alcohol (Anderson, Chisholm & Fuhr, 2009). ● Enhanced enforcement by police and regulatory authorities may involve substantial costs, but for effective programmes these costs may be offset entirely by cost savings in health services resulting from the reduction in alcohol-related problems (Babor et al., 2010).
Organizational level	<ul style="list-style-type: none"> ● The alcohol industry supports the elimination of alcohol sales restriction policies (Giesbrecht, 2000). ● Illegal production and sale of alcohol could increase (Middleton et al., 2010) the already large proportion of unrecorded alcohol in the Republic of Moldova (WHO, 2014). 	<ul style="list-style-type: none"> ● Some industrial groups or individual enterprises support maintaining the prohibition of alcohol sales on Sundays (Hoover, 2008). Thus, these should be identified and made partners in promoting the draft law on alcohol control policies (with a view to restricting sales). ● Strict regulatory controls need to be applied to non-taxed alcohol (Anderson, Chisholm & Fuhr, 2009); and illegal alcohol production and sale can be prevented by means of enforcement strategies (Babor et al., 2010).
System/societal level	<ul style="list-style-type: none"> ● The drinking culture, social norms and public attitudes toward drinking can be barriers at system/societal level (Anderson & Baumberg, 2006b). ● Lack of prioritization of alcohol on the political agenda is a barrier (Anderson & Baumberg, 2006b). ● Insufficient transparency and information, poor organization and preparation for the introduction of new policies and laws, inadequate financing, corruption, and public distrust of authority all make it hard to accept, integrate, implement and enforce effective policy (Anderson, Chisholm & Fuhr, 2009). ● Outdated laws, as well as limited government resources and capacity to implement and enforce policies are barriers at system/societal level (Babor et al., 2010). 	<ul style="list-style-type: none"> ● Developed policies need to be comprehensive, keeping to a minimum any negative consequences resulting from perverse incentives (Anderson, Chisholm & Fuhr, 2009). ● The WHO Framework Convention on Tobacco Control (WHO, 2005) can inform alcohol control efforts and aid in protecting against vested interests in countries with high levels of corruption (Paukštė et al., 2014).

Table 5. Barriers and strategies relating to Approach 2. Regulating advertising of alcoholic beverages

Level	Barriers	Strategies
Individual level	<ul style="list-style-type: none"> ● Advertising is accepted by the population because the adverse effects of alcohol consumption on health are not immediate and are not acknowledged, especially by teenagers and young adults (Winpenny et al., 2012). ● Evidence from a study conducted in the Republic of Moldova indicates that more than half of the drinkers who have seen some information or advertising about alcohol in the past year did not feel motivated to reduce alcohol consumption (59%) (Ministry of Health, Labour and Social Protection, 2015). 	<ul style="list-style-type: none"> ● Information and programmes with an educational focus can play an important role in raising awareness among youth about the negative consequences of harmful alcohol drinking and underage drinking, as well as increasing attention to and acceptance of alcohol on national political agendas (Anderson, Chisholm & Fuhr, 2009).
Organizational level	<ul style="list-style-type: none"> ● The alcohol industry (especially wine and beer companies), along with the advertising industry, are against banning advertising of alcoholic beverages. This resistance is explained by the direct impact of the marketing of alcoholic products, including advertising, on key alcohol consumption outcomes, e.g. initiation, continuation, frequency and intensity of alcohol consumption (Scott et al., 2016). ● Bans on alcohol advertising are often in effect alongside codes of industry self-regulation that specify the content of permitted forms of alcohol advertising (Babor et al., 2010). ● Using imprecise slogans and other advertising tactics, the alcohol industry has cleverly turned the prevention message into a marketing tactic that appeases critics and consumers, yet does not positively influence public health (Barry et al., 2010). ● The Broadcasting Coordination Council, tasked with monitoring the content of programmes broadcast by television and radio stations (Article 34, Parliament Decision No. 433 of 28 December 2006), has only limited capacity to monitor the advertising of beverages in the mass media (Parliament of the Republic of Moldova, 2006). ● The expansion of the Internet and social media is a barrier to ensuring the regulation of alcohol advertising (Siegfried et al., 2014). ● Evidence from a survey indicates that in the Republic of Moldova about 68% of households have computers and are connected to the Internet (CBS-AXA, 2015); the number of users accessing the Internet via mobile phones is about 1.7 million, of which most are young people (Horten, 2016). 	<ul style="list-style-type: none"> ● Advocacy, lobbying, creating coalitions, community mobilization, media support and public polls can all be used to fight the industry's influence. Constant monitoring by advocates is recommended to enable a quick response to counter-measures from the industry (Paukštė et al., 2014). ● International regulations are needed to limit the influence of the alcohol industry on national law-making (Paukštė et al., 2014). ● Regulation should not be left to the alcohol industry's self-regulation efforts; nor should the industry be involved in the decision-making process about alcohol control measures, as they could try to affect the decisions in their favour (Anderson, 2009; Vendrame & Pinsky, 2011). ● Nongovernmental organizations should be involved in monitoring advertising compliance with the draft law on alcohol control policies. ● The creation of an independent monitoring body could reveal violations of the regulations (Vendrame & Pinsky, 2011).
System/ societal level	<ul style="list-style-type: none"> ● The drinking culture, social norms and public attitudes toward drinking are barriers to successfully regulating advertising (Anderson & Baumberg, 2006b). ● Lack of prioritization of alcohol on the political agenda is a barrier (Anderson & Baumberg, 2006b). ● Insufficient transparency and information, poor organization and preparation for the introduction of new policies and laws, inadequate financing, corruption, and public distrust of authority all make it hard to accept, integrate, implement and enforce effective policy (Anderson, Chisholm & Fuhr, 2009). ● Outdated laws, along with limited government resources and capacity to implement and enforce policies are barriers at system/societal level (Babor et al., 2010). 	<ul style="list-style-type: none"> ● Policies that are developed need to be comprehensive, keeping to a minimum any negative consequences resulting from perverse incentives (Anderson, Chisholm & Fuhr, 2009). ● The WHO Framework Convention on Tobacco Control (WHO, 2005) can inform alcohol control efforts and aid in protecting against the effects of vested interests in countries with high corruption levels (Paukštė et al., 2014). ● The precautionary approach should be considered in order to protect children and young people by strengthening advertising regulations (Scott et al., 2016).

Table 6. Barriers and strategies relating to Approach 3. Regulating excise taxation and prices of alcoholic beverages

Level	Barriers	Strategies
Individual level	<ul style="list-style-type: none"> ● Increasing excise taxes may not be supported by consumers (Elder et al., 2010). Furthermore, it is unlikely to be effective to reduce binge drinking, regardless of gender or age group (Nelson, 2015). 	<ul style="list-style-type: none"> ● Public support for increased alcohol taxes increases substantially when tax revenues are specifically directed to fund prevention and treatment programmes, instead of being used as an unrestricted source of general revenue (Elder et al., 2010).
Industry level and trade sector	<ul style="list-style-type: none"> ● The alcohol industry can resist the increase in excise taxes on alcohol (Elder et al., 2010); distributors and trade enterprises do not accept any tax increase on alcohol. ● Some large companies can absorb the costs of raising excise taxes, so the retail price may not be increased (Sassi, 2015). ● The existence of a substantial illicit market for alcohol (smuggled, illegal, and informal) affects the link between taxation policies and affordability (Anderson, Chisholm & Fuhr, 2009) and the already large proportion of unrecorded alcohol in the Republic of Moldova (WHO, 2014). 	<ul style="list-style-type: none"> ● Science and research have a role in the development of a knowledge base on the risk factors and in creating evidence-based public policies (Vendrame & Pinsky, 2011). ● Applying direct price controls, including setting MUPs, can be an effective strategy (Sassi, 2015). ● There should be an incentive for the distilleries to register with the state and to refrain from illegal production; the enforcement authorities need to be established to control the quality of the alcohol, as well as correct registration and other aspects of the businesses (such as hygiene) (Lachenmeier, Taylor & Rehm, 2011). ● The approval of the Government of the Republic of Moldova of the “Technical concept of the automated information system ‘Grape and wine-making register’”, approved by Government Decision No. 282 of 11 March 2016 (Government of the Republic of Moldova, 2016a) is an effective strategy. The register will contain data on vineyard parcels with a surface area greater than 0.15 hectares, as well as on wine-growing units and the traceability of wine products (grape harvest, quantity of produced and stored products).
System/ societal level	<ul style="list-style-type: none"> ● Lack of prioritization of alcohol on the political agenda is a barrier (Anderson & Baumberg, 2006b). ● There is limited capacity for generating scientific evidence and its use in developing public health care policy (Santoro et al., 2015). ● Insufficient transparency and information, poor organization and preparation for the introduction of new policies and laws, inadequate financing, corruption, and public distrust of authority all make it hard to accept, integrate, implement and enforce effective policy (Anderson, Chisholm & Fuhr, 2009). ● Outdated laws and limited government resources and capacity to implement and enforce policies are barriers at system/societal level (Babor et al., 2010). 	<ul style="list-style-type: none"> ● Policies that are developed need to be comprehensive, keeping to a minimum any negative consequences resulting from perverse incentives (Anderson, Chisholm & Fuhr, 2009). ● A comprehensive strategy with sustained investment in the training and career development of researchers must be put in place. International collaboration and investment in mechanisms to bridge the gap between research and policy are urgently required (Santoro et al., 2015). ● The WHO Framework Convention on Tobacco Control (WHO, 2005) can inform alcohol control efforts and aid in protecting against the effects of vested interests in countries with high corruption levels (Paukštė et al., 2014).

NEXT STEPS

The aim of this EBP is not to advocate for any specific policy approaches or to conclude the discussion, but rather to foster dialogue informed by the best available evidence, allowing further actions to flow from the deliberations that ensue among policy-makers and stakeholders. Such deliberations might include refining elements of the policy approaches described in the EBP, for example by incorporating, removing or modifying some components.

The Ministry of Health, Labour and Social Protection of the Republic of Moldova has therefore scheduled a technical-level policy dialogue with representatives from relevant ministries and authorities, as well as nongovernmental organizations. The EBP and the dialogue summary will be presented for discussion at the second policy dialogue that is planned to be organized at the Parliament of the Republic of Moldova.

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ANNEXES

The tables presented in the annexes to this report provide details about the systematic reviews identified for each approach. Annex 1 lists all systematic reviews found, their reliability and acceptability, and whether they are included in the evidence brief for policy (EBP).

In annexes 2–4, each systematic review relevant to the respective approach is listed in the first column as a reference, alongside the focus of the review in the second column and the main findings in the third column, with an overall assessment of the quality of the review. The quality of every systematic review was assessed using the SURE checklist, which establishes its quality according to a rating of the methods used to identify, select and critically appraise studies and the methods used to analyse the results of the studies included. Based on a summary assessment, each systematic review is rated according to the following system: (a) fatal flaws – the limitations of the systematic review are important enough that the results of the review are not reliable and they should not be used in the EBP; (b) important limitations – the limitations of the review are important enough that it would be worthwhile searching for another systematic review and interpreting the results of this review cautiously, if a better one cannot be found; (c) reliable – the review contains only minor limitations and can be used as a reliable summary of the best available evidence. A reliable rating indicates that the reader of the review may have a high level of confidence in its conclusions. On the other hand, an important limitation rating does not mean that the review should be rejected; it simply implies a lower level of confidence in its conclusions and that the review should be examined with caution so as to identify its specific limits (Lewin et al., 2009).

The last column of Annexes 2–4 shows the proportion of studies conducted in Europe and/or in low- and middle-income countries.

Annex 1. Reliability and acceptability of the systematic reviews found for the three policy approach options, according to the SURE checklist

Approach	Systematic review	SURE rating	Local acceptability	Inclusion in EBP
Approach 1. Regulating retail sales of alcoholic beverages	Fitterer JL, Nelson TA, Stockwell T (2015). A review of existing studies reporting the negative effects of alcohol access and positive effects of alcohol control policies on interpersonal violence. <i>Front Public Health</i> 3:253 (https://www.ncbi.nlm.nih.gov/pubmed/26636055 , accessed 20 October 2017).	Fatal flaws	Not assessed	Not included
	Holmes J et al. (2014). The impact of spatial and temporal availability of alcohol on its consumption and related harms: a critical review in the context of UK licensing policies. <i>Drug and alcohol review</i> 33(5):515–525 (https://www.ncbi.nlm.nih.gov/pubmed/25186193 , accessed 25 November 2017).	Fatal flaws	Not assessed	Not included
	Hahn RA et al. (2010). Effectiveness of policies restricting hours of alcohol sales in preventing excessive alcohol consumption and related harms. <i>Am J Prev Med.</i> 39(6):590–604 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3712516/ , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Middleton JC et al. (2010). Effectiveness of policies maintaining or restricting days of alcohol sales on excessive alcohol consumption and related harms. <i>Am J Prev Med.</i> 39(6):575–589 (https://www.ncbi.nlm.nih.gov/pubmed/21084079 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Popova S et al. (2009). Hours and days of sale and density of alcohol outlets: impacts on alcohol consumption and damage: a systematic review. <i>Alcohol Alcohol.</i> 44(5):500–516 (https://www.ncbi.nlm.nih.gov/pubmed/19734159 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Wilkinson C, Livingston M, Room R (2016). Impacts of changes to trading hours of liquor licences on alcohol-related harm: a systematic review 2005–2015. <i>Public Health Res Pract.</i> 26(4) e2641644 (https://www.ncbi.nlm.nih.gov/pubmed/27714387 , accessed 20 October 2017).	Important limitation	Acceptable	Included

Approach 2. Regulating advertising of alcoholic beverages	Anderson P et al. (2009). Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. <i>Alcohol Alcohol.</i> 44(3):229–243 (http://alcalc.oxfordjournals.org/content/44/3/229 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Barry AE, Goodson P (2010). Use (and misuse) of the responsible drinking message in public health and alcohol advertising: a review. <i>Health Educ Behav.</i> 37(2):288–303 (https://www.ncbi.nlm.nih.gov/pubmed/19667064 , accessed 20 October 2017).	Fatal flaws	Not assessed	Not included
	Bryden A et al. (2012). A systematic review of the influence on alcohol use of community level availability and marketing of alcohol. <i>Health & place</i> 18(2):349–357 (https://www.ncbi.nlm.nih.gov/pubmed/22154843 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Gallet CA (2007). The demand for alcohol: a meta-analysis of elasticities. <i>Aust J Agric Resour Econ.</i> 51:121–135 (http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8489.2007.00365.x/abstract , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Jernigan D et al. (2016). Alcohol marketing and youth alcohol consumption: a systematic review of longitudinal studies published since 2008. <i>Addiction</i> 112 (Suppl 1):7–20 (http://onlinelibrary.wiley.com/doi/10.1111/add.13591/full , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Scott S et al. (2016). Does industry-driven alcohol marketing influence adolescent drinking behaviour? A systematic review. <i>Alcohol Alcohol.</i> 52(1):84–94 (https://academic.oup.com/alcalc/article/52/1/84/2614654/Does-Industry-Driven-Alcohol-Marketing-Influence , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Savell E, Fooks G, Gilmore AB (2016). How does the alcohol industry attempt to influence marketing regulations? A systematic review. <i>Addiction</i> 111(1):18–32 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4681589/ , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Smith LA, Foxcroft DR (2009). The effect of alcohol advertising, marketing and portrayal on drinking behaviour in young people: systematic review of prospective cohort studies. <i>BMC Public Health</i> 9:51 (https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-9-51 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Stautz K et al. (2016). Immediate effects of alcohol marketing communications and media portrayals on consumption and cognition: a systematic review and meta-analysis of experimental studies. <i>BMC Public Health</i> 16(1):1 (https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-3116-8 , accessed 20 October 2017).	Reliable	Acceptable	Included
	Siegfried N et al. (2014). Restricting or banning alcohol advertising to reduce alcohol consumption in adults and adolescents. <i>Cochrane Database Syst Rev.</i> 11:CD010704.	Reliable	Acceptable	Included
Vendrame A, Pinsky I (2011). Inefficacy of self-regulation of alcohol advertisements: a systematic review of the literature. <i>Rev Bras Psiquiatr.</i> 33(2):196–202 (https://www.ncbi.nlm.nih.gov/pubmed/21829914 , accessed 20 October 2017).	Important limitation	Acceptable	Included	

Approach 3. Regulating excise taxation and prices on alcoholic beverages	Elder RW et al. (2010). The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. <i>Am J Prev Med.</i> 38(2):217–229.	Reliable	Acceptable	Included
	Gallet CA (2007). The demand for alcohol: a meta-analysis of elasticities. <i>Aust J Agric Resour Econ.</i> 51:121–135 (http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8489.2007.00365.x/abstract , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Lachenmeier DW, Taylor BJ, Rehm J (2011). Alcohol under the radar: do we have policy options regarding unrecorded alcohol? <i>Int J Drug Policy</i> 22(2):153–160 (https://www.ncbi.nlm.nih.gov/pubmed/21242085 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Nelson JP (2015). Binge drinking and alcohol prices: a systematic review of age-related results from econometric studies, natural experiments and field studies. <i>Health Econ Rev.</i> 5:6 (https://www.ncbi.nlm.nih.gov/pubmed/25853004 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Nelson JP (2013). Meta-analysis of alcohol price and income elasticities – with corrections for publication bias. <i>Health Econ Rev.</i> 3(1):1–10 (https://www.ncbi.nlm.nih.gov/pubmed/23883547 , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Nelson JP (2014). Estimating the price elasticity of beer: meta-analysis of data with heterogeneity, dependence, and publication bias. <i>J Health Econ.</i> 33:180–187 (https://www.ncbi.nlm.nih.gov/pubmed/24362352 , accessed 20 October 2017).	Reliable	Acceptable	Included
	Wagenaar AC, Tobler AL, Komro KA (2010). Effects of alcohol tax and price policies on morbidity and mortality: a systematic review. <i>Am J Public Health</i> 100(11):2270–2278 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2951962/ , accessed 20 October 2017).	Important limitation	Acceptable	Included
	Wagenaar AC, Salois MJ, Komro KA (2009). Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies. <i>Addiction</i> 104(2):179–190 (https://www.ncbi.nlm.nih.gov/pubmed/19149811 , accessed 20 October 2017).	Important limitation	Acceptable	Included

Annex 2. Summary of systematic reviews relevant to Approach 1. Regulating retail sales of alcoholic beverages

Reference	Focus of systematic review	Main findings	SURE rating	Proportion of studies conducted in Europe and/or in low- and middle-income countries
Hahn RA et al. (2010). Effectiveness of policies restricting hours of alcohol sales in preventing excessive alcohol consumption and related harms. <i>Am J Prev Med.</i> 39(6):590–604 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3712516/ , accessed 20 October 2017).	<ul style="list-style-type: none"> ● Effectiveness of local, state, and national policies that limit the retail hours of alcoholic beverages. ● Effects of increasing retail hours in on-premises settings. 	<ul style="list-style-type: none"> ● Policies decreasing retail hours by 2 hours or more at on-premises alcohol outlets may be an effective strategy for preventing alcohol-related harms. ● The evidence from 6 qualifying studies was insufficient to determine whether increasing alcohol retail hours by less than 2 hours increases excessive alcohol consumption and related harms. 	Important limitation	16 studies, of which 7 in Europe
Middleton JC et al. (2010). Effectiveness of policies maintaining or restricting days of alcohol sales on excessive alcohol consumption and related harms. <i>Am J Prev Med.</i> 39(6):575–589 (https://www.ncbi.nlm.nih.gov/pubmed/21084079 , accessed 20 October 2017).	<ul style="list-style-type: none"> ● Effectiveness in preventing excessive alcohol consumption and related harms of laws and policies that maintain or reduce the days on which alcoholic beverages may be sold. 	<ul style="list-style-type: none"> ● Increasing days of alcohol retail at on- and off-premises outlets leads to increases in excessive alcohol consumption and alcohol-related harms. ● Reducing the number of days that alcoholic beverages are sold generally decreases alcohol-related harms. 	Important limitation	11 studies, of which 4 in Europe
Popova S et al. (2009). Hours and days of sale and density of alcohol outlets: impacts on alcohol consumption and damage: a systematic review. <i>Alcohol Alcohol.</i> 44(5):500–516 (https://www.ncbi.nlm.nih.gov/pubmed/19734159 , accessed 20 October 2017).	<ul style="list-style-type: none"> ● The effectiveness of changing retail hours and days, as well as the density of alcohol outlets. 	<ul style="list-style-type: none"> ● Restricting outlet density, and alcohol retail hours and days had an impact on one or more of the three main outcome variables, such as overall alcohol consumption, drinking patterns and damage from alcohol. 	Important limitation	15 studies, of which 6 in Europe and low- and middle-income countries
Wilkinson C, Livingston M, Room R (2016). Impacts of changes to trading hours of liquor licences on alcohol-related harm: a systematic review 2005–2015. <i>Public Health Res Pract.</i> 26(4) (https://www.ncbi.nlm.nih.gov/pubmed/27714387 , accessed 20 October 2017).	<ul style="list-style-type: none"> ● The impact on alcohol-related harms of changing the alcohol retail hours. 	<ul style="list-style-type: none"> ● Restricting the late trading hours of bars and hotels is a key approach to reducing late-night violence. 	Important limitation	21 studies, of which 10 in Europe

Annex 3. Summary of systematic reviews relevant to Approach 2. Regulating advertising of alcoholic beverages

Reference	Focus of systematic review	Main findings	Rating	Proportion of studies conducted in Europe and/or in low and middle income countries
Bryden A et al. (2012). A systematic review of the influence on alcohol use of community level availability and marketing of alcohol. <i>Health & place</i> 18(2):349–357 (https://www.ncbi.nlm.nih.gov/pubmed/22154843 , accessed 20 October 2017).	<ul style="list-style-type: none"> The influence on alcohol use of community-level availability and marketing of alcohol. 	<ul style="list-style-type: none"> The results are inconclusive regarding the influence of advertising on alcohol use, but there was some indication that greater exposure to advertising may be associated with an increase in drinking and, in particular, the likelihood that adolescents have ever tried alcohol. Further studies are required to better understand the influence of advertising on alcohol use. 	Important limitation	7 studies, all conducted in the United States
Vendrame A, Pinsky I (2011). Inefficacy of self-regulation of alcohol advertisements: a systematic review of the literature. <i>Rev Bras Psiquiatr.</i> 33(2):196–202 (https://www.ncbi.nlm.nih.gov/pubmed/21829914 , accessed 20 October 2017).	<ul style="list-style-type: none"> The efficacy of industry self-regulation of alcohol advertising 	<ul style="list-style-type: none"> The industry self-regulation of alcohol advertising does not show evidence of efficacy; such regulation does not prevent alcohol advertising targeting children and adolescents. Further measures should be considered to control the broadcasting of alcohol advertising, such as independent monitoring and legal controls. 	Important limitation	11 studies, of which 4 in Europe and middle-income countries
Scott S et al. (2016). Does industry-driven alcohol marketing influence adolescent drinking behaviour? A systematic review. <i>Alcohol Alcohol.</i> 52(1):84–94 (https://academic.oup.com/alcalc/article/52/1/84/2614654/Does-Industry-Driven-Alcohol-Marketing-Influence , accessed 20 October 2017).	<ul style="list-style-type: none"> The influence of specific marketing components (price, promotion, product attributes, and place of sale/availability) on key drinking outcomes in young people aged 9-17 years; continuation, frequency, and intensity. 	<ul style="list-style-type: none"> Authors tended to report that greater exposure to alcohol marketing had an impact on drinking initiation, continuation, frequency and intensity during adolescence. The evidence is inconclusive in all four areas of marketing, but strongest for promotional activity. Future research with standardized measures is needed to build on this work and better inform interventions and policy responses. 	Important limitation	35 studies, of which 10 in Europe and low- and middle-income countries
Anderson P et al. (2009). Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. <i>Alcohol Alcohol.</i> 44(3):229–243 (http://alcalc.oxfordjournals.org/content/44/3/229 , accessed 20 October 2017).	<ul style="list-style-type: none"> The impact of alcohol advertising and media exposure on future adolescent alcohol use. 	<ul style="list-style-type: none"> Alcohol advertising and promotion increases the likelihood that adolescents will start to use alcohol, and to drink more if they are already using alcohol. 	Important limitation	13 studies, of which 2 in Europe

<p>Savell E, Fooks G, Gilmore AB (2016). How does the alcohol industry attempt to influence marketing regulations? A systematic review. <i>Addiction</i> 111(1):18–32 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4681589/, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● Alcohol industry efforts to influence alcohol marketing policy, compared with those used by the tobacco industry. 	<ul style="list-style-type: none"> ● The alcohol industry argues against marketing regulation by emphasizing industry responsibility and the effectiveness of self-regulation, questioning the effectiveness of statutory regulation and by focusing on individual responsibility. ● Arguments relating to industry responsibility are often reinforced through corporate social responsibility activities. ● The industry primarily conveys its arguments through manipulating the evidence base and by promoting ineffective voluntary codes and non-regulatory initiatives. ● There are considerable commonalities between tobacco and alcohol industry political activity, with differences found to be the result of differences in policy contexts and perceived industry legitimacy. 	<p>Important limitation</p>	<p>17 studies, of which 4 in Europe and 4 transnational</p>
<p>Jernigan D et al. (2016). Alcohol marketing and youth alcohol consumption: a systematic review of longitudinal studies published since 2008. <i>Addiction</i> 112 (Suppl 1):7–20 (http://onlinelibrary.wiley.com/doi/10.1111/add.13591/full, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● To inform debates regarding regulation of commercial alcohol marketing activities. 	<ul style="list-style-type: none"> ● Alcohol marketing affects youth drinking behaviour and public health-orientated policies are needed to prevent, reduce or mitigate this effect. ● Additional external factors – including non-marketing pro-alcohol messages, family and cultural factors and individual personality types – may explain some of the associations of youth drinking behaviour. 	<p>Important limitation</p>	<p>12 studies, of which 7 in Europe and low- and middle-income countries</p>
<p>Smith LA, Foxcroft DR (2009). The effect of alcohol advertising, marketing and portrayal on drinking behaviour in young people: systematic review of prospective cohort studies. <i>BMC Public Health</i> 9:51 (https://bmcpublihealth.biomedcentral.com/articles/10.1186/1471-2458-9-51, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● The relationship between exposure to alcohol advertising, marketing and portrayal and subsequent drinking behaviour in young people. 	<ul style="list-style-type: none"> ● An association exists between exposure to alcohol advertising or promotional activity and subsequent alcohol consumption in young people. 	<p>Important limitation</p>	<p>7 studies, of which 1 in Europe</p>
<p>Gallet CA (2007). The demand for alcohol: a meta-analysis of elasticities. <i>Aust J Agric Resour Econ</i>. 51:121–135 (http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8489.2007.00365.x/abstract, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● Price, income and advertising elasticities of the demand for alcohol, beer, wine and spirits. 	<ul style="list-style-type: none"> ● The demand for spirits is more responsive to advertising than the demand for beer. ● There are no differences between the advertising elasticities of beer, wine and other alcohol types. 	<p>Important limitation</p>	<p>132 studies, of which 34 in Europe, 2 studies covering multiple countries and 2 on low- and middle-income countries</p>

<p>Stautz K et al. (2016). Immediate effects of alcohol marketing communications and media portrayals on consumption and cognition: a systematic review and meta-analysis of experimental studies. <i>BMC Public Health</i> 16(1):1 (https://bmcpublihealth.biomed-central.com/articles/10.1186/s12889-016-3116-8, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● Immediate effects of exposure to alcohol marketing on alcoholic beverage consumption and related cognitions. 	<ul style="list-style-type: none"> ● Exposure to alcohol advertisements in television programmes or films (but not portrayal of people drinking alcohol) may increase the quantities of alcoholic beverages that people immediately consume by small amounts, in both males and females. ● Exposure to portrayal of alcohol being consumed, but not alcohol advertisements, may increase positive explicit alcohol-related cognitions. ● It remains to be established whether these findings can be generalized beyond students and to other marketing channels. 	<p>Reliable</p>	<p>24 studies, of which 8 in Europe</p>
<p>Siegfried N et al. (2014). Restricting or banning alcohol advertising to reduce alcohol consumption in adults and adolescents. <i>Cochrane Database Syst Rev.</i> 11:CD010704.</p>	<ul style="list-style-type: none"> ● The benefits, harms and costs of restricting or banning the advertising of alcohol (in any format), compared with no restrictions or counter-advertising on alcohol consumption in adults and adolescents. 	<ul style="list-style-type: none"> ● The review cannot recommend for or against banning alcohol advertising. Governments that are considering implementing alcohol advertising bans would be advised to implement the ban in a research-based context and to monitor the effects over time to build the evidence base. 	<p>Reliable</p>	<p>4 studies, of which 1 in Europe</p>

Annex 4. Summary of systematic reviews relevant to Approach 3. Regulating excise taxation and prices of alcoholic beverages

Reference	Focus of systematic review	Main findings	Rating	Proportion of studies conducted in Europe and/or in low and middle income countries
<p>Nelson JP (2015). Binge drinking and alcohol prices: a systematic review of age-related results from econometric studies, natural experiments and field studies. <i>Health Econ Rev.</i> 5:6 (https://www.ncbi.nlm.nih.gov/pubmed/25853004, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● The effects of alcohol prices (or tax surrogates) on binge drinking for three age groups: youth, young adults, and adults. Examined outcomes include participation, intensity and frequency of binge drinking. 	<ul style="list-style-type: none"> ● Increased alcohol taxes or prices are unlikely to be effective as a means to reduce binge drinking, regardless of gender or age group. 	<p>Important limitation</p>	<p>67 studies, of which 7 in Europe</p>
<p>Wagenaar AC, Tobler AL, Komro KA (2010). Effects of alcohol tax and price policies on morbidity and mortality: a systematic review. <i>Am J Public Health</i> 100(11):2270–2278 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2951962/, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● The effects of alcohol taxes and prices on alcohol-related morbidity and mortality (as a means to assess their public health impact). 	<ul style="list-style-type: none"> ● Doubling the alcohol tax would reduce alcohol-related mortality by an average of 35%; deaths from road traffic accidents by 11%; sexually transmitted diseases by 6%; violence by 2%; and crime by 1.4%. ● The mechanisms involved in taxing alcoholic beverages produce large public health benefits without requiring additional fiscal resources, and actually generate additional revenues that can be used for other pressing public health infrastructure and prevention needs. 	<p>Important limitation</p>	<p>67 studies, of which 7 in Europe and 2 studies across multiple countries</p>
<p>Wagenaar AC, Salois MJ, Komro KA (2009). Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies. <i>Addiction</i> 104(2):179–190 (https://www.ncbi.nlm.nih.gov/pubmed/19149811, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● Effects of price on alcohol consumption by type of alcohol: beer, wine and spirits, as well as on heavy drinking. 	<ul style="list-style-type: none"> ● Public policies that raise alcohol prices are an effective means to reduce drinking and effects are significant compared to other prevention policies and programmes. ● Demand for beer is more price inelastic (-0.46) than wine (-0.69) or spirits (-0.80). Meta-analytical results document the highly significant relationships between alcohol tax or price measures and indices of sales or consumption of alcohol. ● Alcohol price (and the tax component thereof) also significantly affects heavy drinking; at individual level, elasticity is -0.28, but the magnitude of the effect is smaller than the effect on overall drinking. 	<p>Important limitation</p>	<p>112 studies, of which 22 in Europe</p>

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<p>Nelson JP (2013). Meta-analysis of alcohol price and income elasticities – with corrections for publication bias. <i>Health Econ Rev.</i> 3(1):1–10 (https://www.ncbi.nlm.nih.gov/pubmed/23883547, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● The effect of price and income elasticities of alcoholic beverages on alcohol use. 	<ul style="list-style-type: none"> ● Price or tax increases are less effective or more costly than previously claimed. Cumulative average price elasticities are 28–29% smaller than the consensus estimates, with a price inelastic demand for all three types of beverage (-0.30 to -0.55) and total alcohol (-0.50). ● Income elasticities are more substantial for all beverages. Affordability of alcohol is therefore likely to be significantly influenced by real income increases. ● The demands by heavy drinkers are less responsive to price compared to the general population. 	<p>Important limitation</p>	<p>182 studies, of which 68 in Europe, 9 studies across multiple countries and 14 in low- and middle-income countries</p>
<p>Nelson JP (2014). Estimating the price elasticity of beer: meta-analysis of data with heterogeneity, dependence, and publication bias. <i>J Health Econ.</i> 33:180–187 (https://www.ncbi.nlm.nih.gov/pubmed/24362352, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● Precise estimates of price elasticities of beer in the context of alcohol tax policy. 	<ul style="list-style-type: none"> ● The average beer price elasticity is about -0.2, which is less elastic than values used in alcohol tax policy simulations. 	<p>Reliable</p>	<p>114 studies, of which 82 in Europe and 9 in low- and middle-income countries</p>
<p>Elder RW et al. (2010). The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. <i>Am J Prev Med.</i> 38(2):217–229.</p>	<ul style="list-style-type: none"> ● The effectiveness of alcohol tax policy interventions for reducing excessive alcohol consumption and related harms. 	<ul style="list-style-type: none"> ● Raising alcohol excise taxes is an effective strategy for reducing excessive alcohol consumption and related harms. The impact of a potential tax increase is expected to be proportional to its magnitude and to be modified by such factors as disposable income and the demand elasticity for alcohol among various population groups. 	<p>Reliable</p>	<p>75 studies, of which 10 in Europe</p>
<p>Gallet CA (2007). The demand for alcohol: a meta-analysis of elasticities. <i>Aust J Agric Resour Econ.</i> 51:121–135 (http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8489.2007.00365.x/abstract, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● Price, income and advertising elasticities of the demand for beer, wine, spirits, and all alcohol. 	<ul style="list-style-type: none"> ● Short-run elasticity is more inelastic than long-run elasticity. ● The demand for beer is more price inelastic than the other beverage types. ● There is no difference between the price elasticities of wine, spirits and all alcohol. ● Price inelasticity tends to be more inelastic when the price of tobacco is included as a determinant of per-capita country-level consumption. ● Younger individuals are less responsive to price than older individuals. 	<p>Important limitation</p>	<p>132 studies, of which 34 in Europe, 2 studies across multiple countries and 2 in low- and middle-income countries</p>

<p>Lachenmeier DW, Taylor BJ, Rehm J (2011). Alcohol under the radar: do we have policy options regarding unrecorded alcohol? <i>Int J Drug Policy</i> 22(2):153–160 (https://www.ncbi.nlm.nih.gov/pubmed/21242085, accessed 20 October 2017).</p>	<ul style="list-style-type: none"> ● Policy and intervention options regarding unrecorded alcohol consumption. 	<ul style="list-style-type: none"> ● It is important for the state to gain effective control over informal alcohol production and distribution to reduce or eliminate contaminated, low-quality alcohol in circulation; this is achievable through an effective taxation regime. ● The disparity in consumption levels and the close link between some types of unrecorded alcohol and local culture and traditions means that different measures are likely to have different results in different parts of the world. 	<p>Important limitation</p>	<p>30 articles, of which 8 relating to western Europe, 7 in central and southern newly independent states of the former USSR, and 2 in other low- and middle-income countries</p>
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ANNEX REFERENCES

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