





Alcohol consumption and sustainable development

Alcohol use caused 3 million deaths worldwide in 2016

In the WHO European Region it is estimated that:

10%

of all deaths is attributable to alcohol consumption



2545

people die every day from alcohol-attributable causes

1 in every 4

deaths in young adults is caused by alcohol



The WHO European Region has the globally highest level of alcohol consumption and the lowest prevalence of abstainers in the population, with 62.3% of the adult population drinking at least once a year



Alcohol use during pregnancy is the direct cause of fetal alcohol syndrome (FAS); risk of miscarriage; preterm birth; and fetal alcohol spectrum disorder (FASD)*



Alcohol consumption and sustainable development

- Alcohol is a psychoactive and dependenceproducing substance that is classified as a Group 1 human carcinogen and has a significant global impact on population health (1,2).
- Harmful use of alcohol is broadly defined as "drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large, as well as patterns of drinking that are associated with increased risk of adverse health consequences" (3). This definition references effects beyond clinical context, highlighting that alcohol use is one of the leading risk factors for population ill health, disability and death worldwide. It emphasizes that alcohol affects not only consumers but also many third parties, including victims of road crashes or violence and children born with fetal alcohol spectrum disorders or in families with parental alcohol problems; alcohol use also leads to increased health-care costs and productivity losses (4).
- Alcohol is recognized as a cause for more than 200 diseases and injuries in the International Classification of Diseases, with at least 40 diseases and injuries being 100% attributable to alcohol (1,5). The burden of alcoholattributable mortality stems from two broader categories: the chronic noncommunicable diseases (NCDs; neurological disorders, cancer, cardiovascular diseases and cirrhosis of the liver) and the acute group of unintentional and intentional injuries (1,6).

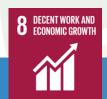
- Adverse effects of alcohol consumption are visible even in early life, being one of the leading causes of premature mortality in road traffic accidents, falls, drowning, suicides and other external causes. In the WHO European Region, close to one in four deaths of young adults aged 20–24 years is caused by alcohol.
- The WHO Global strategy to reduce the harmful use of alcohol, negotiated and agreed by all Member States in 2010, represents the international consensus that reducing the harmful use of alcohol and its associated health and social burden is a public health priority (3). The European action plan to reduce the harmful use of alcohol 2012–2020 (EAPA) complements the Global Strategy and gives tailored guidance for Member States of the WHO European Region (7).















Facts and figures

Alcohol impacts many of the SDGs

Alcohol adversely impacts 13 of the 17 Sustainable Development Goals (SDGs) and a total of 52 targets, effectively intersecting all three dimensions of the 2030 Agenda (economic, social and environmental) (8). It has a direct impact on many health-related targets within the SDGs, including those for maternal and child health, infectious diseases (HIV, viral hepatitis and tuberculosis), NCDs, mental health and road injuries (1).

The inclusion of a specific target on harmful use of alcohol (SDG 3.5: strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol) demonstrates the key role of alcohol within the global development agenda.

Two indicators are specifically relevant:

3.5.1: Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders

3.5.2: Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year, in litres of pure alcohol

Alcohol reduction targets are also included in the Global action plan for the prevention and control of noncommunicable diseases (9), the Action plan for the prevention and control of noncommunicable diseases in the WHO European Region (10), the WHO Thirteenth general programme of work 2019–2023 (11), the Global monitoring framework on noncommunicable diseases (12) and the European programme of work 2020-2025. These highlight the recognition of the harm inflicted on individuals and societies by alcohol consumption as well as the need to regulate it effectively.



Alcohol is recognized as a cause for more than 200 diseases and injuries in the International Classification of Diseases, with at least 40 diseases and injuries being 100% attributable to alcohol



The Region has the highest level of alcohol consumption per capita. Annually, every adult (15 years and older) drinks 9.8 litres pure alcohol, which equals to 196 litres of beer or 82 litres of wine or 25 litres of spirits



The WHO European Region is the region of the world with the highest prevalence of alcohol use disorders: 14.8% among men and 3.5% among women



Reduce the number of men, women and children of all ages living in poverty

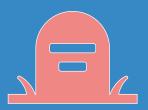
- Alcohol frequently increases inequalities between and within countries, hindering the achievement of the SDGs that call for inequalities to be reduced.
- A growing body of evidence demonstrates how socioeconomic status modifies the effect of alcohol consumption on harms to health. Harm caused by a given amount of drinking is greater for drinkers and their families with low incomes than for those with higher incomes, and this pattern of greater harm per litre is consistently found for many different alcohol-related health outcomes (1). There are a number of reasons for this relationship, causality being in both directions. For example, individuals affected with alcohol use disorders can lose their employment and with it their economic base and their basis in the social system. However, people affected by job loss and other stressful conditions can then start to engage in harmful drinking as a coping mechanism, which, over time, can result in alcohol use disorders.
- Individuals with alcohol use disorders from poorer communities and households have less extensive help and support networks and might have fewer treatment options available, particularly in settings where health care is not universal.
- The drinking environment itself often differs by socioeconomic status, influencing the relationship between alcohol use and related risks. The environments in which drinkers live, such as crowded living arrangements, quality of sanitation and the likelihood of social conflict and aggression, vary greatly by income and social status. There are more possibilities for spatial separating from the drinking and its consequences in more affluent families and communities. Drinkers of low income are also likely to have more comorbidity, which worsens the adverse effects of drinking (1).
- Given that global alcohol consumption is increasing in lower-middle income countries, it is likely that the impact of alcohol on inequalities will worsen in the future.



End hunger and ensure universal access to safe, nutritious and sufficient food all year round

- Individuals and families affected by alcohol use disorders are more vulnerable to poverty and food insecurity, as a larger proportion of household income may be expended on alcohol or on the treatment alcohol-attributable diseases. Moreover, vulnerability to harm from alcohol use is often passed on through generations, contributing to the vicious circle of social deprivation and food insecurity.
- Furthermore, alcohol also has a direct toxic effect on the entire gastrointestinal tract. It is, therefore, responsible for a significant proportion of head and throat cancers (5). Chronic alcohol consumption results in maldigestion and malabsorption of essential nutrients as well as structural alterations in the intestine and the development of various digestive diseases, such as alcoholic gastritis, hepatitis and cirrhosis (8).

The Region has the highest share of alcohol-attributable mortality: 10.1% among all-cause mortality





End preventable deaths of newborns and children under 5 years of age

- Alcohol use during pregnancy is the direct cause of fetal alcohol syndrome but also increases the risk of miscarriage, preterm birth and fetal alcohol spectrum disorders (13,14). Estimates suggest that 25.2% of women in the WHO European Region consume alcohol during pregnancy. The prevalence of fetal alcohol syndrome in the Region is estimated at 3.74 per 100 000 population. This is more than twice the estimate for any other WHO region (13).
- WHO guidelines for the identification and management of substance use and substance use disorders in pregnancy recommend screening for all pregnant women and delivering brief interventions for all women who use alcohol. This has shown encouraging results in decreasing exposure of alcohol during pregnancy, reducing high-risk alcohol use and increasing use of contraception among women (14,15).



End the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat other communicable diseases

- Alcohol consumption has been established as a major risk factor for infectious diseases, including HIV/AIDS and tuberculosis (16–21).
- Alcohol consumption, particularly heavy consumption, is considered a major contributor to the tuberculosis burden of disease. In the WHO European Region, 13 new cases of tuberculosis per 100 000 population are attributable to alcohol consumption (22) and interventions to prevent heavy alcohol consumption are essential to end tuberculosis.
- Alcohol use has also been found to be associated with HIV incidence. Recent evidence suggests that alcohol consumption increases risky sexual behaviour; alcohol also has biological effects on HIV transmission and disease progression by affecting treatment course and adherence (23).
- Comprehensive prevention as well as harm reduction strategies and integrated healthcare services can help to minimize risks and control the epidemics at global scale.

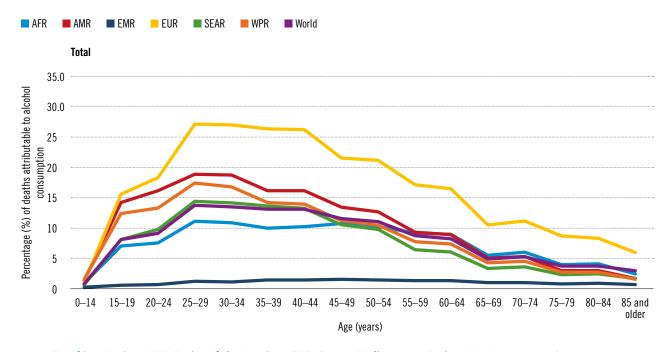


Reduce premature mortality from NCDs and promote mental health and well-being

- The WHO European Region is one of the WHO regions with the highest burden of NCDs, and alcohol use is one of the major risk factors for NCDs and premature mortality (Figs 1 and 2). It is also linked to other risk factors such as physical inactivity, unhealthy diet and tobacco use.
- In the WHO European Region, alcohol causes 31% of deaths from digestive diseases, 11% of deaths from cardiovascular diseases, 6% of deaths from cancer, 30% of deaths from unintentional injuries and 39% of deaths from intentional injuries.

 With the exception of cardiovascular diseases, these values are higher in men than in women.
- To reduce the NCD mortality burden, a target was set in 2013 of at least a 10% relative reduction in the harmful use of alcohol by 2025, as appropriate within the national context (9). The WHO European Region as a whole has reached this target (1) but variation in consumption levels between Member States is high. Greatest decreases have been achieved in eastern European and central Asian countries, where alcohol has long been a key risk factor for mortality and disease burden. Smaller decreases occurred in other parts of the Region, where there was a 12% reduction of alcohol use between 2010 and 2016, and no progress has been made in countries within the European Union (only a 1.5% reduction in total consumption) (24,25).

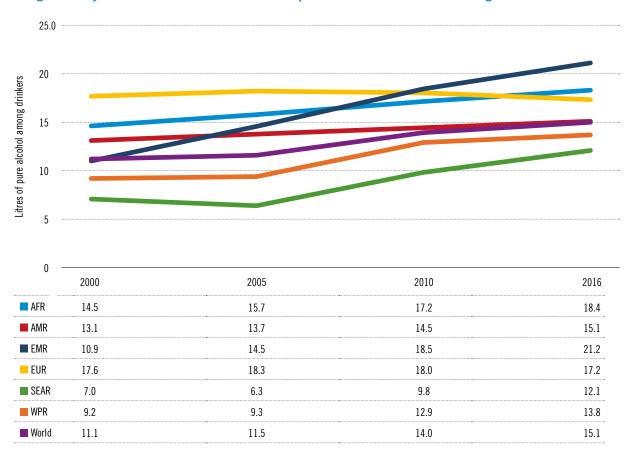
Fig. 1. Percentage of total deaths attributed to alcohol by age group, 2016



Note: AFR: African Region; AMR: Region of the Americas; EMR: Eastern Mediterranean Region; EUR: European Region; SEAR: South-East Asia Region; WPR: Western Pacific Region.

Source: WHO, 2018 (1).

Fig. 2. Trends in total alcohol per capita consumption, among drinkers only, for those aged 15 years and older (in litres of pure alcohol) for WHO regions, 2000–2016



Note: AFR: African Region; AMR: Region of the Americas; EMR: Eastern Mediterranean Region; EUR: European Region; SEAR: South-East Asia Region; WPR: Western Pacific Region.

Please note that this Figure relates to current drinkers only (individuals, who reported to have consumed alcohol in the past 12 months, thus excluding abstainers). The highest value in the Eastern Mediterranean Region is likely to be an artefact because abstention is the social and cultural norm in this region and many individuals claim to be abstainers.

Source: WHO Regional Office for Europe, 2019 (1).



Strengthen prevention and treatment of substance abuse, including narcotic drugs and harmful use of alcohol

- Total alcohol per capita consumption for those aged 15 years and older did fall within the WHO European Region between 2000 and 2016 but levels of consumption remained the highest within WHO regions (1).
- Total per capita consumption among drinkers has increased since 2000 in almost all regions except the WHO European Region (Fig.2), which indicates that drinkers, although fewer in numbers, have increased their per capita consumption in most parts of the world.
- Screening for alcohol use and provision of advice promoting awareness of the negative effects of drinking within primary health-care settings have been found to be effective in reducing alcohol-related health problems (26). Screening can also be used to identify potentially dependent drinkers, who can be referred to appropriate treatment services (27).
- While all Member States of the WHO European Region provide access to treatment for substance use disorders in some way, form and level of access vary greatly. Data on the provision of screening and brief interventions remain fragmented and few Member States report implementation (although the number has been growing in recent years).



Halve the number of global deaths and injuries from road traffic accidents

- Psychoactive substance use affects the functioning of the brain and leads to impaired driving (4,28), which increases the risk of being involved in a road traffic crash. At any blood alcohol concentration greater than zero, the likelihood of being involved in an accident on the road increases, with increasing risk as levels of alcohol consumption increase (29).
- Although all countries in the WHO European Region have implemented some policies to reduce drink-driving, such policies can be strengthened, for example through stricter implementation of random breath testing.



Achieve universal health coverage

Alcohol harm places a significant burden on health systems, and low-cost interventions to reduce the harmful use of alcohol should be adopted. These should be integrated into health systems, including primary health care (26). Expediting access to treatment services and early interventions, especially in primary health-care settings, will reduce the burden on health systems and reduce the harm to people identified with an alcohol use disorder.



FREE PRIMARY AND SECONDARY EDUCATION

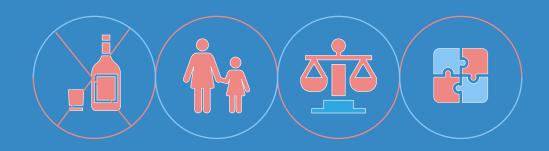
Ensure that all children complete quality primary and secondary education

- Early initiation of alcohol use, frequent alcohol consumption and intoxication can impact brain development (30) and lead to harmful outcomes, including death and injury among young people (1,31). In the WHO European Region, alcohol is one of the most widely available and most commonly used drugs for school-aged children and constitutes a major public health concern (32).
- Alcohol use has been associated with adverse psychological, social and physical health consequences for young people, including academic failure, violence, accidents, injury, use of other substances and unprotected sex (32).
- Effective policy measures should focus on preventing the initiation and continuation of substance use by children, adolescents and young people with programmes that target not only adolescents but also their parents. Interventions based in school or higher education alone tend to have no effect and are not costeffective according to the evidence (27,32).
- Children coming from socially deprived and vulnerable communities suffer disproportionately higher adverse effects from alcohol, including harm that drinkers cause to others, which can deprive them of their right to primary education. Parental violence and/or neglect can be further exacerbated by alcohol abuse or alcohol dependence. Young peoples' education should not be put at risk by their own or their carers' consumption of alcohol.



End all forms of discrimination against all women and girls

- Alcohol use creates a context that incites loss of control and is often used as excuse for otherwise socially unacceptable behaviour, including unwanted sexual attention, harassment and violence (33).
- Women and girls are also highly objectified in alcohol advertising and marketing strategies; this reinforces gender stereotypes and contributes to discriminatory attitudes towards women and girls (34).
- Alcohol policy interventions need to support equality, reduce risks to women and girls where alcohol is consumed and assist in ending all forms of discrimination.



ALCOHOL POLICY INTERVENTIONS

Reduce risks to women and girls where alcohol is consumed Support equality

Assist in ending all forms of discrimination



Eliminate all forms of violence against all women and girls including trafficking and sexual and other types of exploitation

- Prevalence and level of alcohol consumption were historically higher among males than among females, but the absolute number of female drinkers has been increasing globally (1). In many countries, adolescent girls are now consuming alcohol at the same or higher levels than boys, abetted by changing norms and targeted industry interventions (35,36).
- Available evidence suggests that women may be more vulnerable to alcohol-attributable harm from a given level of alcohol use or a particular consumption pattern. For example, for health outcomes such as cancers, gastrointestinal diseases or cardiovascular diseases, the same level of consumption leads to more pronounced negative outcomes for women (37).
- Alcohol is also closely associated with violence, including intimate partner violence, domestic abuse and sexual assault. Men perpetrate most of the violence against women, which is worsened by their alcohol consumption; and women experiencing violence are likely to increase their alcohol use as a coping mechanism. Higher-density alcohol outlets where there is a higher risk of intoxication is considered to have a causal impact in the prevalence of violence against women (38), and it has been observed that women suffer more than men from the alcohol use of others (1).



Achieve universal and equitable access to safe and affordable drinking water for all

- The WHO European Region is threatened by water insecurity, with 57 million people living without piped water at home, 21 million people lacking access to basic drinking water services and three quarters of people with no access to improved sources of drinking water living in rural areas (39). With water consumption in the Region strongly relying on external water sources, alcohol production can be an important contributor to water scarcity (40).
- Water makes up 93% of a 5% beer, and better-quality beers require high-quality water (41). As water is used in every step of the brewing process, 1 litre of beer may require as much as 10 litres of water at less-efficient breweries, where much of it is used for cleaning or is lost through evaporation. The crops such as barley

- and hops needed to make beer also require further water usage, which can lead to nearly a 10-fold increase in the beer-to-water ratio (42).
- These effects of water usage are prominent in poor communities where resources are scarce and water is used for alcohol production rather than sustainable development. A large number of the breweries operating around the world are in water-stressed areas (43).



Water makes up 93% of a 5% beer, and 1 litre of beer may require as much as 10 litres of water



Early initiation of alcohol use, frequent alcohol consumption and intoxication has an impact on brain development

DIVERSIFY, INNOVATE AND UPGRADE FOR ECONOMIC

PRODUCTIVITY

Achieve higher levels of economic productivity

- Alcohol is an obstacle to socioeconomic productivity in the WHO European Region, an effect worsened by higher levels and longer duration of alcohol consumption. The World Economic Forum has identified chronic disease as one of the leading threats to global economic growth, and alcohol is a risk factor for multiple NCDs including cancers and cardiovascular disease (44).
- Heavy drinking, in particular, increases the risk of unemployment and increases absenteeism for those in work. The indirect costs from lost productivity, absenteeism and presentism are four times higher than the direct expenditure of health-care costs from alcohol-related NCDs, such as cancer and cardiovascular diseases (45).
- In addition to productivity costs, alcohol has consequences on the health and welfare system, imposes additional costs on law enforcement and criminal justice and creates social costs from property destruction and accidental damage (46). The economic burden of alcohol on society is thought to amount to 0.45−5.44% of gross domestic product (47).
- In many areas of the Region, poverty rates are higher in rural areas. When people who are vulnerable socioeconomically are also exposed to the ill effects of alcohol use (e.g. lack of efficiency or neglect of more productive household spending), they are less able to avoid adverse long-term consequences such as NCDs.



Adopt fiscal, wage and social protection policies for achieving greater equality

- Socioeconomic factors such as economic status, education, gender, ethnicity and place of residence impact on the level of harm linked to alcohol; such inequalities do not follow a consistent pattern and vary from country to country (Box 1) (35,48–50). In general, lower socioeconomic groups experience higher levels of alcoholattributable harm than wealthier groups with the same level of alcohol consumption (35,48,49).
- Alcohol taxation and other pricing policies have the capacity to generate domestic resources while reducing alcohol consumption and associated harms, and preventing the initiation of alcohol misuse (36). The effects of taxation and pricing policies, however, vary with the type of market structures and there is a lag time between implementation and measurable effects.
- By effectively targeting cheap alcohol, minimum unit pricing has the potential to lessen health inequalities as the burden of alcohol harm is particularly concentrated in heavier drinkers from lower socioeconomic groups, who are typically more sensitive to price changes (35).
- Alcohol-attributable harm is more significant in certain groups: the burden of alcohol-attributable harm falls more heavily upon certain groups, not simply the most disadvantaged. A social gradient exists whereby each lower socioeconomic group suffers more alcohol-attributable harm than the group above them in the social spectrum (49). There are also gender differences, and men are more likely to have risky alcohol consumption habits such as heavy episodic drinking (50).



Men drink on average 3-4 times more than women and are more likely to have risky drinking behaviours such as heavy episodic drinking and are about 4 times more likely to develop an alcohol use disorder



At any blood alcohol concentration greater than zero, the likelihood of being involved in an accident on the road increases



REDUCE VIOLENCE EVERYWHERE



PROTECT CHILDREN FROM ABUSE, EXPLOITATION, TRAFFICKING AND VIOLENCE SDGs 16.1 and 16.2. Reduce all forms of violence and related deaths and end abuse, exploitation, trafficking and all forms of violence against children

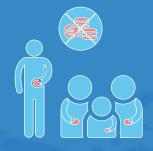
- Although levels of alcohol consumption, patterns of alcohol use and rates of interpersonal violence vary widely between countries, across all cultures there are strong links between alcohol use and violence (51). Alcohol is known to increase aggression in both men and women, but the strength of this relationship differs from culture to culture.
- In the WHO European Region, the mortality rates for all alcohol-attributable intentional and unintentional injuries decreased between 1990 and 2014, but with large differences between countries, and even increasing rates in some countries (52).
- In 2016 across Member States of the Region, 25.2% of intentional injuries were attributable to alcohol (53).
- Significant Globally, the Region has the highest rates of fetal alcohol spectrum disorders (198.2 per 10 000 population); these disorders are associated with behavioural and social problems, including delinquent behaviour, sexual violence and suicide in later life (1,54).

Alcohol consumption has been established as a major risk factor for infectious diseases, including HIV/AIDS and tuberculosis



Alcohol frequently increases inequalities between and within countries

Individuals and families affected by alcohol use disorders are more vulnerable to poverty and food insecurity





Alcohol is closely associated with violence, including intimate partner violence, domestic abuse and sexual assault

In general, lower socioeconomic groups experience higher levels of alcohol-attributable harm than wealthier groups with the same level of alcohol consumption

Commitment to act

In 2010, at the Sixty-third session of the World Health Assembly, for the first time delegations from all 193 Member States reached consensus on a strategy to reduce the harmful use of alcohol, endorsing the *Global strategy* to reduce the harmful use of alcohol (3). In the WHO European Region, Member States endorsed the EAPA in September 2011 (7).

In 2013 these commitments were reiterated with the adoption of the Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 (9), which sets a target of a minimum 10% relative reduction in the harmful use of alcohol, as appropriate within the national context, by 2025.

The WHO Global strategy to reduce the harmful use of alcohol (3), the EAPA (7) and the Global action plan for the prevention and control of noncommunicable diseases (9) have portfolios of policy recommendations and measures to be considered for reducing the harmful use of alcohol (Box 1).

Many of these policy options involve action in areas other than the health sector (Box 2).

In addition, in 2018, at the third United Nations General Assembly High-level Meeting on NCDs, Heads of State committed to strengthen laws and fiscal measures to protect people from the consumption of harmful products such as tobacco and alcohol. The private sector was invited to strengthen its commitment and contribution to the implementation of national responses intended to prevent, control and treat NCDs. Attainment of health and development objectives was to be facilitated by encouraging economic operators in the area of alcohol production and trade, as appropriate, to contribute to reducing harmful use of alcohol in their core areas, taking into account national religious and cultural contexts; and by taking concrete steps, where relevant, towards eliminating the marketing, advertising and sale of alcoholic products to minors (57,58).

Box 1. Intersectoral action

Vision Zero: this Swedish long-term goal-oriented policy on road safety was adopted by the Swedish Parliament in 1997 with the aim of revitalizing drink-driving policies as part of moves towards zero road traffic-related serious injuries and deaths. The Group for Intersectoral Collaboration for Vision Zero in Road Traffic (GNS Väg) is the established national forum for collaboration between authorities and stakeholders to support and actively contribute to Vision Zero and its targets (55).

As alcohol and/or drug-related traffic fatalities, as well as their proportion of total deaths in traffic, had been levelling off in recent years, a strategy for 2015–2020 was prepared by the GNS Expert Group for Sober Traffic, with representatives from the Public Health Agency of Sweden, the Swedish National Road and Transport Research Institute, the Swedish Police, the Swedish Transport Administration, the Swedish Transport Agency and the nongovernmental Swedish Abstaining Motorists' Association MHF. Nine interventions were formulated that were thought to have the greatest potential to reduce the extent of drink-driving; these included implementing high numbers of random breath tests, requirements for treatment and rehabilitation after being caught for drink-driving, and alcohol ignition interlocks (alcolocks) as an alternative to revoking driving licences due to diagnosed alcohol use disorder (55).

Box 2. WHO's "best buys" for policy options to reduce the harmful use of alcohol

Appendix 3 of the Global action plan for the prevention and control of noncommunicable diseases contains the following most cost-effective and feasible policy recommendations (56).

Best buys

- Increase excise taxes on alcoholic beverages
- Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)
- Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)

Effective interventions

- Enact and enforce drink-driving laws and blood alcohol limits via sobriety checkpoints
- Provide brief interventions for persons with hazardous and harmful alcohol use

Other evidence-informed recommendations

- Carry out regular reviews of alcohol prices in relation to level of inflation and income
- Establish minimum prices for alcohol where applicable
- Enact and enforce an appropriate minimum age for purchase or consumption of alcoholic beverages and reduce density of retail outlets
- Restrict or ban promotions of alcoholic beverages in connection with sponsorships and activities targeting young people

- Provide prevention, treatment and care for alcohol use disorders and comorbid conditions in health and social services
- Provide consumer information about, and label, alcoholic beverages to indicate, the harm related to alcohol

Monitoring process

The WHO Regional Office for Europe has developed a joint monitoring framework for Health 2020, the Sustainable Development Goals and the NCD indicators to facilitate reporting in Member States and to enable consistent and timely ways to measure progress (59). The following indicators, as proposed in the global indicators framework of the United Nations Economic and Social Council (ECOSOC) (60), will support monitoring progress in the implementation of alcohol control measures.

SDG indicators

- **3.4.1.** Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease
- 3.5.1. Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders
- 3.5.2. Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol

The following, as proposed by the Joint Monitoring Framework, will support measuring progress in the WHO European Region.

Joint Monitoring Framework Indicator

C. 1.1.c. Total per capita alcohol consumption among people aged 15+ years within a calendar year (Health 2020)

Monitoring, surveillance and information systems are priority themes in both the WHO *Global Strategy* and the EAPA. Initiatives such as the European Information System on Alcohol and Health *(61)* and the Alcohol Policy Timeline Database *(62)* aim to support monitoring the health situation and trends related to alcohol consumption, alcohol-attributable harm and policy responses in countries, but also to facilitate networking between Member States and to provide tools to assist the revision, update and draft of new policies on alcohol.

WHO support to its Member States

The WHO Regional Office for Europe assists Member States in the implementation, evaluation and monitoring of alcohol policies, according to their needs, culture and socioeconomic contexts. It liaises with appropriate intergovernmental partners, such as the International Labour Organization, the Organisation for Economic Co-operation and Development, the United Nations Development Programme, the World Bank and the World Trade Organization to seek the inclusion of alcohol policies in relevant social and economic development agendas (7). The Regional Office has published and distributed the EAPA, which includes the text of resolution EUR/RC61/ R4 and definitions of the indicators for 10 action areas. All the indicators defined in the EAPA are included in the European Information System on Alcohol and Health and have been systematically collected and used to produce reports on current alcohol consumption, harm and policy responses in the WHO European Region (24,53,63).

Support has also been provided for the national implementation of important policies aligned with the strategies and action plans currently guiding alcohol harm prevention initiatives in the European Union and the WHO European Region.

Policies and interventions have focused on reducing availability, reducing affordability and on restricting advertising, promotion and sponsorship (known as the three WHO "best buys"). Other areas for interventions include youth alcohol use and heavy episodic drinking, fetal exposure to alcohol, increased competence in primary health care to implement early identification of problems and development of brief interventions for hazardous or harmful alcohol consumption.

More recently, the WHO Regional Office for Europe has joined the global SAFER initiative (64) to support the global target of reducing harmful use of alcohol by 10% by 2025 and strengthen implementation of the EAPA through country-based and country-oriented policy options. SAFER has been developed based on WHO's work on implementing the WHO Global action plan for the prevention and control of noncommunicable diseases, the WHO Global strategy to reduce the harmful use of alcohol, the United Nations Interagency Task Force on the Prevention and Control of NCDs and the ioint WHO and United Nations Development Programme initiative to address alcohol-related harm, gender-based violence and HIV/AIDS.

Resources



Alcohol pricing in the WHO European Region Update report on the evidence and recommended policy actions

https://www.euro.who.int/__data/ assets/pdf_file/0007/446191/Alcoholpricing-report-on-the-evidence-andrecommended-policy-actions-eng.pdf



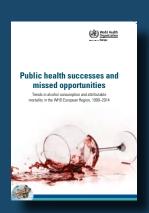
European action plan to reduce the harmful use of alcohol 2012–2020

http://www.euro.who.int/__data/assets/pdf_file/0008/178163/E96726.pdf?ua=1



Global status report on alcohol and health 2018

https://apps.who.int/iris/bitstream/han dle/10665/274603/9789241565639eng.pdf?ua=1



Public health successes and missed opportunities

https://www.euro.who.int/__data/assets/pdf_file/0018/319122/Public-health-successes-and-missed-opportunities-alcohol-mortality-19902014.pdf

Key definitions

Alcohol dependence

Disorder of regulation of alcohol use arising from repeated or continuous use of alcohol (also known as alcoholism, alcohol use disorder or alcohol dependence syndrome). The characteristic feature is a strong internal drive to use alcohol, which is manifested by impaired ability to control use, increasing priority given to use over other activities and persistence of use despite harm or negative consequences. These experiences are often accompanied by a subjective sensation of urge or craving to use alcohol. Physiological features of dependence may also be present, including tolerance to the effects of alcohol, withdrawal symptoms following cessation or reduction in use of alcohol, or repeated use of alcohol or pharmacologically similar substances to prevent or alleviate withdrawal symptoms. The features of dependence are usually evident over a period of at least 12 months, but the diagnosis may be made if alcohol use is continuous (daily or almost daily) for at least one month (65).

Harmful use of alcohol

According to WHO, the harmful use of alcohol encompasses drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large, as well as patterns of drinking that are associated with increased risk of adverse health outcomes. The harmful use of alcohol compromises both individual and social development. It can ruin the lives of individuals, devastate families and damage the fabric of communities (3). This definition is broader than that in the International Classification of Diseases version 10 (F10.2 Dependency syndrome, which is part of F10, mental and behavioural disorders due to alcohol).

Heavy episodic drinking

The consumption of five or more standard alcoholic drinks (60 grams of pure alcohol) on one occasion. For the purposes of this report, a heavy episodic drinker is defined as a person who engaged in heavy episodic drinking at least once in the past 30 days (from the date of the survey measurement) (1).

Recorded consumption of alcohol

Litres of pure alcohol (i.e. ethanol) per capita from official sales and taxation statistics, production and/or consumption data adjusted for importation and exportation of alcoholic beverages (1).

Unrecorded alcohol

Litres of pure alcohol (i.e. ethanol) per capita from alcohol production, sales and/or consumption not tracked by governments or nongovernmental organizations through official taxation statistics, production or sales (1).

References

- 1. Global status report on alcohol and health 2018. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/274603/9789241565639-eng.pdf?ua=1, accessed 6 April 2020).
- 2. Cogliano VJ, Baan R, Straif K, Grosse Y, Lauby-Secretan,B, El Ghissassi F et al. Preventable exposures associated with human cancers. J Natl Cancer Inst. 2011:103(24);1827–1839. doi: 10.1093/jnci/djr483.
- 3. Global strategy to reduce the harmful use of alcohol. Geneva: World Health Organization; 2010 (https://www.who.int/substance_abuse/publications/global_strategy_reduce_harmful_use_alcohol/en/, accessed 19 April 2020).
- **4.** Policy brief:tackling harmful alcohol use. Paris: OECD Publishing; 2015 (https://www.oecd.org/els/health-systems/Policy-Brief-Tackling-harmful-alcohol-use.pdf, accessed 19 April 2020).
- **5.** Rehm J, Gmel GE, Gmel G, Hasan OS, Imtiaz S, Popova S et al. The relationship between different dimensions of alcohol use and the burden of disease: an update. Addiction. 2017;112(6);968–1001. doi: 10.1111/add.13757.
- **6.** GBD 2016 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet. 2017;390(10100):1345–1422. doi: 10.1016/S0140-6736(17)32366-8.
- 7. European action plan to reduce the harmful use of alcohol 2012–2020. Copenhagen: WHO Regional Office for Europe; 2012 (EUR/RC61/R4; http://www.euro.who.int/__data/assets/pdf_file/0008/178163/E96726.pdf?ua=1, accessed 19 April 2020).
- **8.** 13 SDGs, 52 targets affected by alcohol. In: News [website]. Stockholm: Movendi International; 2017 (https://movendi.ngo/news/2017/06/25/13-sdgs-52-targets-affected-alcohol/, accessed 19 April 2020).
- 9. Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization; 2013 (https://apps. who.int/iris/bitstream/handle/10665/94384/9789241506236_eng, accessed 19 April 2020).
- 10. Action plan for the prevention and control of noncommunicable diseases in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0008/346328/NCD-ActionPlan-GB.pdf?ua=1, accessed 30 March 2020).

- 11. Thirteenth general programme of work 2019–2023. Geneva: World Health Organization; 2018 (https://www.who.int/about/what-we-do/gpw-thirteen-consultation/en/, accessed 16 April 2020).
- 12. The WHO global monitoring framework on noncommunicable diseases: progress towards achieving the targets for the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2017 (http://www.euro.who.int/__data/assets/pdf_file/0003/340869/ Report-3.pdf, accessed 19 April 2020).
- **13.** Popova S, Lange S, Probst C, Gmel G, Rehm J. Estimation of national, regional, and global prevalence of alcohol use during pregnancy and fetal alcohol syndrome: a systematic review and meta-analysis. Lancet Glob Health. 2017;5:e290–99. doi: org/10.1016/S2214-109X(17)30021-9.
- 14. Schölin L. Prevention of harm caused by alcohol exposure in pregnancy: rapid review and case studies from Member States. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0005/318074/Prevention-harm-caused-alcohol-exposure-pregnancy.pdf?ua=1, accessed 19 April 2020).
- 15. Guidelines for identification and management of substance use and substance use disorders in pregnancy. Geneva: World Health Organization; 2014 (https://apps.who.int/iris/bitstream/handle/10665/107130/9789241548731_eng.pdf?sequence=1, accessed 19 April 2020).
- **16.** Raviglione M, Poznyak V. Targeting harmful use of alcohol for prevention and treatment of tuberculosis: a call for action. Eur Respir J. 2017;50:1700946. doi: 10.1183/13993003.00946-2017.
- 17. Creswell J, Raviglione M, Ottmani S, Migliori GB, Uplekar M, Blanc L et al. Tuberculosis and noncommunicable diseases: neglected links and missed opportunities. Eur Respir J. 2011;37:1269–82. doi: 10.1183/09031936.00084310.
- **18.** Action plan for the health sector response to HIV in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2017 (http://www.euro.who.int/__data/assets/pdf_file/0007/357478/HIV-action-plan-en.pdf, accessed 19 April 2020).
- 19. European Centre for Disease Prevention and Control, WHO Regional Office for Europe. HIV/ AIDS surveillance in Europe 2015. Stockholm: European Centre for Disease Prevention and Control; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0019/324370/HIV-AIDS-surveillance-Europe-2015.pdf, accessed 19 April 2020).

- 20. Action plan for the health sector response to viral hepatitis in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2017 (http://www.euro.who.int/en/whowe-are/governance, accessed 19 April 2020).
- 21. Technical report: epidemiological assessment of hepatitis B and C among migrants in the EU/EEA [website]. Stockholm: European Centre for Disease Prevention and Control; 2016 (https://ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/epidemiological-assessment-hepatitis-B-and-C-amongmigrants-EU-EEA.pdf, accessed 19 April 2020).
- **22.** Imtiaz S, Shield KD, Roerecke M, Samokhvalov AV, Lönnroth K, Rehm J. Alcohol consumption as a risk factor for tuberculosis: meta-analyses and burden of disease. Eur Respir J. 2017;50(1):pii:1700216. doi: 10.1183/13993003.00216-2017.
- 23. Rehm J, Probst C, Shield KD, Shuper PA. Does alcohol use have a causal effect on HIV incidence and disease progression? A review of the literature and a modeling strategy for quantifying the effect. Popul Health Metr. 2017;15(1):4. doi: 10.1186/s12963-017-0121-9.
- 24. Status report on alcohol consumption, harm and policy responses in 30 European countries 2019. Copenhagen: WHO Regional Office for Europe; 2019 (http://www.euro.who.int/__data/assets/pdf_file/0019/411418/Alcohol-consumption-harmpolicy-responses-30-European-countries-2019. pdf?ua=1, accessed 19 April 2020).
- 25. Rehm J, Manthey J, Shield KD, Ferreira-Borges C. Trends in substance use and in the attributable burden of disease and mortality in the WHO European Region, 2010–2016. Eur J Public Health. 2019;29(4):723–728. doi: 10.1093/eurpub/ckz064.
- **26.** Anderson P, O'Donnell A, Kaner E. Managing alcohol use disorder in primary health care. Curr Psychiatry Rep. 2017;19(11):79. doi: 10.1007/s11920-017-0837-z.
- **27.** Burton R, Henn C, Lavoie D, O'Connor R, Perkins C, Sweeney K et al. A rapid evidence review of the effectiveness and cost-effectiveness of alcohol control policies: an English perspective. Lancet. 2017;389(10078):1558–1580. doi: 10.1016/S0140-6736(16)32420-5.
- **28.** A policy brief: drug use and road safety. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/249533/1/WHO-MSD-NVI-2016.01-eng.pdf?ua=1, accessed 19 April 2020).

- 29. Anderson P, Møller L, Galea G, editors. Alcohol in the European Union: consumption, harm and policy approaches. Copenhagen: WHO Regional Office for Europe; 2012 (http://www.euro.who.int/__data/assets/pdf_file/0003/160680/e96457.pdf?ua=1, accessed 19 April 2020).
- **30.** Squeglia LM, Jacobus J, Tapert SF. The effect of alcohol use on human adolescent brain structures and systems. Handb Clin Neurol. 2014;125:501–510. doi: 10.1016/B978-0-444-62619-6.00028-8.
- **31.** Townsend L, Flisher AJ, King G. A systematic review of the relationship between high school dropout and substance use. Clin Child Fam Psychol Rev. 2007;10(4):295–317. doi: 10.1007/s10567-007-0023-7.
- 32. Growing up unequal: gender and socioeconomic differences in young people's health and well-being. In: Health behaviour in school-aged children (HBSC) study: international report from the 2013/2014 survey. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0003/303438/HSBC-No.7-Growing-up-unequal-Full-Report.pdf?ua=1, accessed 19 April 2020).
- **33.** Abbey A, Zawacki T, Buck PO, Clinton AM, McAuslan P. Alcohol and sexual assault. Alcohol Res Health. 2001;25(1):43–51. PMID: 11496965.
- **34.** A rapid narrative review of literature on gendered alcohol marketing and its effects: exploring the targeting and representation of women. Liverpool: Public Health Institute at Liverpool John Moores University, Institute of Alcohol Studies; 2019 (http://www.ias.org.uk/uploads/pdf/ IAS%20reports/rp39102019.pdf, accessed 19 April 2020).
- **35.** Loring B. Alcohol and inequities: guidance for addressing inequities in alcohol-related harm. Copenhagen: WHO Regional Office for Europe; 2014 (http://www.euro.who.int/__data/assets/pdf_file/0003/247629/Alcohol-and-Inequities.pdf, accessed 19 April 2020).
- **36.** Center for Alcohol Studies Thailand, Centre for Addiction and Mental Health Canada. Resource tool on alcohol taxation and pricing policies. Geneva, World Health Organization; 2017 (https://apps.who.int/iris/bitstream/handle/10665/255795/9789241512701-eng.pdf?sequence=1, accessed 19 April 2020).
- **37.** Wilsnack SC, Wilsnack RW, Wolfgang L. Focus on: women and the costs of alcohol use. Alcohol Res. 2013;35(2):219–228. PMID: 24881330.
- **38.** Beyond the mortality advantage: investigating women's health in Europe. Copenhagen: WHO Regional Office for Europe; 2015 (http://www.euro.who.int/__data/assets/pdf_file/0008/287765/Beyond-the-mortality-advantage.pdf?ua=1, accessed 19 April 2020).

- **39.** Safe drinking-water in Europe? [website]. Copenhagen: WHO Regional Office for Europe; 2018 (http://www.euro.who.int/en/health-topics/environment-and-health/water-and-sanitation/news/news/2018/3/safe-drinking-water-in-europe, accessed 19 April 2020).
- **40.** Hoekstra AY. The water footprint of food. Twente: University of Twente Water Centre; 2008 (https://waterfootprint.org/media/downloads/Hoekstra-2008-WaterfootprintFood.pdf, accessed 19 April 2020).
- **41.** Beer and brewing [website]. Amsterdam: Heineken; 2020 (https://www.theheinekencompany.com/Brands/Brewing, accessed 19 April 2020).
- 42. Agnew M. The thirsty business of beer: how breweries are confronting the industry's water problem. The Growler. 2 March 2016 (https://growlermag.com/the-thirsty-business-of-beer-how-breweries-are-confronting-the-industrys-water-problem/, accessed 19 April 2020).
- 43. Heineken aims to replenish "every drop" of water it uses by 2019. Madrid: Smart Water Magazine. 19 March 2019 (https://smartwatermagazine.com/news/heineken/heineken-aims-replenish-every-drop-water-it-uses-2030, accessed 19 April 2020).
- **44.** From burden to "best buys": reducing the economic impact of non-communicable diseases in lowand middle-income countries. Geneva: World Economic Forum; 2011. (https://www.who.int/nmh/publications/best_buys_summary.pdf?ua=1. accessed 19 April 2020).
- **45.** NCDs cost Kyrgystan nearly 4% of gross domestic product. Geneva: World Health Organization; 2017 (https://www.who.int/ncds/un-task-force/kyrgyzstan-mission-september-2017/en/, accessed 19 April 2020).
- **46.** Single E, Collins D, Easton B, Harwood H, Lapsley H, Kopp P et al. International guidelines for estimating the cost of substance abuse, second edition. Geneva: World Health Organization; 2003. (https://apps.who.int/iris/bitstream/handle/10665/42603/9241545828_eng. pdf?sequence=1&isAllowed=y, accessed 19 April 2020).
- 47. Thavorncharoensap M, Teerawattananon Y, Yothasamut J, Lertpitakpong C, Chaikledkaew U. The economic impact of alcohol consumption: a systematic review. Subst Abuse Treat Prev Policy. 2009;4:20. doi: 10.1186/1747-597X-4-20.
- **48.** Mackenbach JP, Kulhánová I, Bopp M, Borrell C, Deboosere P, Kovács K et al. Inequalities in alcohol-related mortality in 17 European countries: a retrospective analysis of mortality registers. PLOS Med. 2015;12(12):e1001909. doi: 10.1371/journal.pmed.1001909.

- **49.** Probst C, Roerecke M, Behrendt S, Rehm J. Socioeconomic differences in alcohol-attributable mortality compared with all-cause mortality: a systematic review and meta-analysis and future alcohol policies must take into consideration any differential effect on socioe- conomic groups. Int J Epidemiol. 2014, 43(4):1314–1327. doi: 10.1093/ije/dyu043.
- **50.** Probst C, Roerecke M, Behrendt S, Rehm J. Gender differences in socioeconomic inequality of alcohol-attributable mortality: a systematic review and meta-analysis. Drug Alcohol Rev. 2014;34(3):267–277. doi: 10.1111/dar.12184.
- **51.** Interpersonal violence and alcohol policy briefing. Geneva: World Health Organization; 2006 (WHO policy briefing; https://www.who.int/violence_injury_prevention/violence/world_report/factsheets/pb_violencealcohol.pdf, accessed 19 April 2020).
- **52.** Shield KD, Rylett M, Rehm J. Public health successes and missed opportunities: trends in alcohol consumption and attributable mortality in the WHO European Region, 1990–2014. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro. who.int/__data/assets/pdf_file/0018/319122/Publichealth-successes-and-missed-opportunities-alcoholmortality-19902014.pdf?ua=1, accessed 19 April 2020).
- **53.** Alcohol consumption, harm and policy response fact sheets for 30 European countries. Copenhagen: WHO Regional Office for Europe; 2018 (http://www.euro.who.int/__data/assets/pdf_file/0005/393107/achpfs-eng.pdf?ua=1, accessed 19 April 2020).
- **54.** Kelly SJ, Day N, Streissguth AP. Effects of prenatal alcohol exposure on social behavior in humans and other species. Neurotoxicol Teratol. 2000;22(2):143–149. doi: 10.1016/s0892-0362(99)00073-2.
- 55. Minskad andel alkohol och narkotika i trafiken [Reducing the usage of alcohol and drugs in road users]. Borlänge: Swedish Transport Administration; 2015 (in Swedish, https://trafikverket.ineko.se/Files/sv-SE/12086/RelatedFiles/2015_095_minskad_andel_alkohol_och_narkotika_i_trafiken.pdf, accessed 19 April 2020).
- 56. "Best buys" and other recommended interventions for the prevention and control of noncommunicable diseases: updated (2017) Appendix 3 of the global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization; 2017 (https://www.who.int/ncds/management/WHO_Appendix_BestBuys.pdf?ua=1, accessed 19 April 2020).

- political declaration of the third high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. In:

 Seventy-third session of the United Nations General Assembly, New York, 24 September to 3 December 2018. New York: United Nations; 2018

 (A/RES/73/2; https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/73/2, accessed 19 April 2020).
- **58.** Third United Nations High-level Meeting on NCDs [website]. Geneva: World Health Organization; 2017 (https://www.who.int/ncds/governance/third-un-meeting/en/, accessed 19 April 2020).
- **59.** Targets and indicators for Health 2020. Geneva: World Health Organization; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0011/317936/Targets-indicators-Health-2020-version3.pdf, accessed 19 April 2020).
- **60.** Statistical commission: report on the forty-eighth session (7–10 March 2017). New York: United Nations; 2017 (https://unstats. un.org/unsd/statcom/48th-session/documents/ Report-on-the-48th-session-of-the-statistical-commission-E.pdf, accessed 19 April 2020).
- 61. Global Health Observatory Data
 Repository (European Region) [database].
 Geneva: World Health Organization; 2020
 (http://apps.who.int/gho/data/node.main-euro.
 GISAH?showonly=GISAH, accessed 19 April 2020).
- 62. Alcohol policy timeline database of countries in the WHO European Region. In: Global Information System on Alcohol and Health (GISAH) [database]. Geneva: World Health Organization; 2020 (https://apps.who.int/gho/data/node.gisah.A1500?lang=en&showonly=GISAH, accessed 19 April 2020).
- **63.** Fact sheet on alcohol consumption, alcohol-attributable harm and alcohol policy responses in European Union Member States, Norway and Switzerland. Copenhagen: WHO Regional Office for Europe; 2018 (https://www.euro.who.int/__data/assets/pdf_file/0009/386577/fs-alcohol-eng.pdf, accessed 8 August 2020).
- 64. WHO launches SAFER alcohol control initiative to prevent and reduce alcohol-related death and disability. In: Management of substance abuse [website]. Geneva: World Health Organization; 2018 (https://www.who.int/substance_abuse/safer/launch/en/, accessed 19 April 2020).

65. Alcohol dependence. In: ICD-11 for mortality and morbidity statistics [website]. Geneva: World Health Organization; 2020 (https://icd. who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1580466198, accessed 19 April 2020).





Authors:

Carina Ferreira-Borges

(Alcohol and Illicit Drugs & Prison Health, WHO European Office for Prevention and Control of Noncommunicable Diseases)

Maria Neufeld

(Alcohol and Illicit Drugs & Prison Health, WHO European Office for Prevention and Control of Noncommunicable Diseases)

João Breda

(WHO European Office for Prevention and Control of Noncommunicable Diseases & Physical Activity and Obesity, Division of Noncommunicable Diseases and Promoting Health through the Life-course, WHO Regional Office for Europe)

Joana Madureira Lima

(Equity and Social Determinants of Health, WHO European Office for Investment for Health and Development)

Emilia Aragón De León

(Health and Sustainable Development, WHO Regional Office for Europe)

Contributors:

Robyn Burton

(Health Improvement: Alcohol, Drugs, Tobacco & Justice Division, Public Health England)

Peter Anderson

(Institute of Health and Society, Newcastle University, and Faculty of Health, Medicine and Life Sciences, Maastricht University)

Coordinated and reviewed by:

Amine Lotfi and Bettina Menne

(Health and Sustainable Development, WHO Regional Office for Europe)

Layout: Pellegrini

Cover photo: © WHO/Mark Pellegrini

The contribution to this document was possible thanks to the funding from the Government of Germany, the Government of the Netherlands, the Government of Norway and the Government of the Russian Federation to the WHO European Office for the Prevention and Control of Noncommunicable Diseases.

URL: https://www.euro.who.int/en/SDG_factsheets

© World Health Organization 2020. Some rights reserved. This work is available under the <u>CC BY-NC-SA 3.0 IGO license.</u>

World Health Organization Regional Office for Europe

UN City, Marmorvej 51,

DK-2100 Copenhagen Ø, Denmark

Tel.: +45 45 33 70 00 **Fax:** +45 45 33 70 01 **E-mail:** sdgeurope@who.int

