Alcohol in Moderation

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International Digest on alcohol and health and the responsible consumption of alcohol

Contents

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Poland

In Poland, the government has introduced a regulation that bans the sale of alcohol in plastic pouches, and sets a 200 mL minimum volume for alcohol in cans and bottles. The move follows complaints made in 2024 about the product's resemblance to children's soft drinks. The Ministry of Agriculture announced a 30-day transition period as requested by producers and the ban has been approved by European Commission.

Russia

The Ministry of Finance in Russia has halted the progression of bills to legalise online alcohol sales following sustained opposition from ministries of health and internal affairs. The government banned alcohol e-commerce in 2007 and proposals to legalise sales since 2020 have been unsuccessful. The Deputy Health Minister commented that the most recent bills have been suspended since September 2024 because of the Health Ministry's belief that online sales would increase consumption.

By the end of 2025, it is planned to launch sales of alcoholic beverages based on biometric data in Russian retail stores. This was announced by the head of the Center for Biometric Technologies, Vladislav Povolotsky. The biometrics will become an additional tool for confirming the buyer's age along with the passport. Using the service will make it more difficult for Russian minors to access alcoholic beverages.

Thailand

In Thailand, Prime Minister Paetongtarn Shinawatra has initiated a review of Thailand's longstanding afternoon alcohol sales ban, responding to business community calls for regulatory relaxation to enhance tourism. Business groups have campaigned for the ban to be lifted, alongside planned amendments to the Alcoholic Beverage Control Act. These amendments have passed a parliamentary committee and await further readings in the House of Representatives. Prime Minister Paetongtarn acknowledged businesses' concerns that alcohol sales restrictions have an economic impact and has tasked relevant agencies with reviewing the afternoon ban and the prohibition of alcohol sales on Buddhist holy days.

US

The Alaska Senate passed a bill in February that would allow teenagers to serve alcohol at restaurants and a variety of other businesses. The bill would lower the minimum age to serve alcohol from 21 to 18 years. If the bill becomes law, 18-year-olds could serve alcohol in breweries, distilleries, wineries, hotels, lodges, resorts and restaurants. The minimum age to serve in a licensed bar or any venue offering "adult entertainment," would remain 21 years.

Alaska is one of just three states, along with Nevada and Utah, to require restaurant servers to be 21 years or older according to documents filed alongside the bill.

Draft Report: Scientific Findings of the Alcohol Intake & Health Study for Public Comment

Authors

Shield, K., Keyes, K.M., Martinez, P., Milam, A.J., Naimi, T.S., Rehm, J.

Citation

stopalcoholabuse.gov/media/pdf/Report-on-Alcohol-Intake-and-Health.pdf

Author's Abstract

- The Alcohol Intake and Health Study assessed relationships between alcohol use and health in the U.S., with a focus on morbidity and mortality (i.e., deaths and reduced life expectancy) from health conditions causally related to alcohol use.
- Most of the evidence evaluated in this report is from systematic reviews and meta-analyses of "observational" cohort studies. It did not include data from quasi-experimental (e.g., Mendelian randomization) studies or randomized controlled trials.
- We assessed relationships between different levels of alcohol consumption and the risk of dying from health conditions that are causally related to alcohol consumption in the U.S. We also modelled the total alcohol-specific mortality at different levels of consumption based on all alcohol-related conditions.
- Among the U.S. population, the risk of dying from alcohol use begins at low levels of average use. Higher levels of alcohol consumption are linked with progressively higher mortality risk. Depending on the level of use, men are at a similar risk of health harms from alcohol use compared to women.
- In the United States, males and females have a 1 in 1000 risk of dying from alcohol use if they consume more than 7 drinks per week. This risk increases to 1 in 100 if they consume more than 9 drinks per week.
- Males and females who consumed 1 drink per day had an increased risk of liver cirrhosis, oesophageal cancer, oral cancer, and injuries, but a lower risk for ischemic stroke. In addition, females had a higher risk for liver cancer and a lower risk for diabetes mellitus when they drank 1 drink per day. However, drinking patterns shape risk. Specifically, even infrequent high per-occasion drinking may eliminate the lower levels of risk for ischemic stroke.
- Alcohol use is associated with increased mortality for seven types of cancer (colorectal, female breast, liver, oral cavity, pharynx, larynx, oesophagus [squamous cell type]). Increased risk for these cancers begins with any alcohol use and increases with higher levels of use. Women experience a much greater risk of an alcohol-attributable cancer per drink consumed.
- 'Per occasion' alcohol use refers to how much alcohol is consumed within a short time period, as opposed to how much is consumed on average. Higher levels of per occasion use result in higher blood alcohol levels and higher risks for injuries. Risks increase starting at one drink per occasion and are particularly pronounced for women consuming more than three drinks and men consuming more than four drinks per occasion.
- For individuals who start consuming alcohol at age 15, the risk of an alcohol-attributable death between the ages of 15 and 20 varies by consumption level. The risk of an alcohol-attributable death increases linearly with alcohol consumption. For males, the risk of an alcohol-attributable death ranges from 0.07 (95% CI: 0.05, 0.08) per 1000 for those who consume 1 drink per week, to 1.76 (95% CI: 1.42, 2.28) per 1000 for those who consume 3 drinks per day (i.e., 21 drinks per week). Similarly, for females, the risk increases from 0.03 (95% CI: 0.02, 0.04) per 1000 for those who consume 1 drink per week, to 0.75 (95% CI: 0.57, 1.06) per 1000 for those who consume 3 drinks per day (i.e., 21 drinks per week). Most of these alcohol-attributable deaths are caused by road traffic crashes, unintentional injuries, and intentional injuries. These deaths represent a substantial proportion of all deaths for individuals 15 to 20 years of age.

Forum Summary

ICCPUD initiated analyses published as a draft report entitled: "Scientific Findings of the Alcohol Intake & Health Study for Public Comment", to suggest that the recommendations for alcohol consumption should be lowered compared to the current Drinking Guidelines for Americans 2020-2025.

A main criticism of the Draft Report is that it catalogues all possible negative risks associated with alcohol consumption. It then models these negative risks in a non-transparent and methodologically criticized way without comparing their model-generated overall outcomes with real observations on overall mortality.

Further, with the reason to use lifetime abstainers as the reference group to limit abstainer bias, the authors ignore most of the overwhelming data showing risk reductions for several diseases associated with light to moderate alcohol consumption. This is in contrast to research showing that former drinker bias is not a main driving factor in the alcohol–disease associations.

Another major issue in this Draft Report is a lack of common scientific checks for internal and external consistency, simply refuting most high-quality studies that disagree with the authors' opinions.

Forum comments

Background to the Draft Report

The Dietary Guidelines for Americans 2020-2025 (DGA) are being updated this year. Certain U.S. institutions have pre-emptively initiated analyses to suggest that the recommendations for alcohol consumption should be adjusted and, more specifically, lowered compared to the current guidelines, which say that women should drink no more than seven drinks per week and men should drink no more than 14 drinks per week.

One of those initiatives is the "Scientific Findings of the Alcohol Intake & Health Study for Public Comment" (Draft Report), published by the Interagency Coordinating Committee on the Prevention of Underaged Drinking (ICCPUD), which is a US Department of Health and Human Services Committee (USHHSC) (Shield, K., Keyes, K.M., Martinez, P., Milam, A.J., Naimi, T.S., Rehm, J.R. 2025).

Although the publication concerns alcohol consumption and health in the USA, two of the Draft Report authors (Naimi, T.S., Rehm, J.R.) are affiliated with the Center of Addiction and Mental Health in Canada and the Canadian Centre on Substance Use and Addiction. They were both Scientific Expert Panel members of Canada's Guidance on Alcohol and Health (2023), evaluated in ISFAR critique #261[1]. In addition, at least two authors have received funding from Movendi International – a recognised temperance organisation. They promote that "the lifestyle of the 21st century is about living free from alcohol and other drugs[2]".[3]

The Draft Report also follows a similar approach as Canada's Guidance on Alcohol and Health (2023) in that all potential risks of alcohol consumption are considered and taken into account, while the potential benefits for health are underrepresented. The main criticism of ISFAR members in critique #261, however, was the important omission of not considering the association of alcohol consumption with overall mortality. Rather they based their advice on a model using evidence of low to very low quality. Furthermore, one of the Draft Report authors (Niami, T.S.) co-authored the meta-analysis review solely selected to evaluate cardiovascular disease (CVD) risk and alcohol.

Critique of the Draft Report

1. General methodology criticisms

1.1 The Draft Report primarily relies on observational data to assess the relationship between alcohol and health outcomes.

A main criticism of the Draft Report is that it catalogues all possible negative risks associated with alcohol consumption. It then models these negative risks in a complex and non-transparent way without comparing their model-generate overall outcomes with real observations on overall mortality. The main biases in observational studies are selection bias, information bias and measurement errors, confounding and Simpson's paradox. All the biases compromise validity, that is, selection bias compromises external validity while confounding compromises both internal and external validity.

1.2 Reference group

The authors state in the methods section that lifetime abstainers were selected as the reference group to limit abstainer bias, which can arise when studies combine lifetime abstainers with former drinkers who may have quit after becoming sick or experiencing some health effects related to their alcohol use. This way of selecting data may seem logical, but previous research has shown that former drinker bias is not a main driving factor in the alcohol–disease associations (Klatsky & Udaltsova, 2013). This choice, however, allows the authors to ignore most of the overwhelming data showing risk reductions for several diseases associated with light to moderate alcohol consumption. Indeed, even when Wood et al., (2018) in their extensive combined analysis in The Lancet eliminated non-drinkers from their analysis, their data still supported those individuals consuming more often than twice per week or engaging in binge drinking, consumption of up to 200 g alcohol/week does not seem to increase mortality compared to non-drinkers.

Furthermore, as recognised by Bondy and Rehm in 1998, "interpreting risk differences for current drinkers compared with lifetime abstainers may be difficult, because lifetime abstainers in many societies differ from the general population in several other ways, such as diet, religion, or socioeconomic status".

1.3 Selection bias

Selection bias seems probable when looking at Figure 1 and Table 2 on the selection process, which is the basis for their report. The authors found 13,998 potentially relevant reports in unspecified databases (and one additional report added by the experts, it is unclear which report this is and why it was added). Of these 13,998 records, 6,705 duplicates were removed. Then another 7003 were excluded without providing insight into the reason for such exclusion. There is a double asterisk to this statement, but the text belonging to the double asterisk is not shown. The text states: "based on title and abstract screening, the Annex indicates 2 criteria for exclusion, namely beverage-specific studies and studies focusing on patterns of alcohol use". Being aware of the much of the literature on alcohol and health it seems highly unlikely that 7003 papers needed to be excluded based on these two criteria, simply because very few studies focused on beverage-specific effects or drinking patterns only.

This left 291 reports for retrieval and full-text assessment. It is unclear what retrieval means in this context, but all reports were retrieved. Of these 291 reports another 235 were excluded for various specified reasons leaving 58 studies to be included.

1.4 Lack of checking for internal and external consistency

Another major issue in this Draft Report is a lack of the common scientific checks for internal and external consistency. Internal consistency means checking whether the results obtained correspond with what was found with other parameters and outcomes evaluated in the same study, while external consistency means checking whether the results obtained correspond to what is found in other studies published in the area or other related areas. This is to ensure that the findings align with what is already established while also presenting new insights that are not contradicted by previous research; this involves examining whether the data within the study itself is consistent (internal) and if it aligns with broader scientific understanding (external). Key points to consider on internal consistency include: a literature review - thoroughly reviewing existing research on the topic to ensure the study aligns with established knowledge and does not contradict major findings; generalizability - considering whether the study sample and conditions are representative enough to apply the results to a wider population or context; and comparison with other studies - comparing findings to similar studies conducted by other researchers. The authors of the Draft Report, unfortunately, do not explain why their results show that alcohol consumption at the lowest levels is associated with considerable risk. The vast majority of other authors, however, find a J-shaped association between light and moderate alcohol consumption and all-cause mortality.

Similar to the J-shaped association between alcohol consumption and coronary heart disease, a J-shaped association between alcohol consumption and overall mortality has been established in many studies over the past five decades. A recent study again confirmed such an association (Bryazka et al., 2022), while a similar conclusion was reached by one of the Draft Report authors (Rehm, J.R.) in yet another paper. In that meta-analysis of the alcohol consumption and all-cause mortality association, it was concluded that: "The overall beneficial effect of light to moderate drinking remained under all scenarios, indicating a high validity of the overall shape despite the heterogeneity between studies." (Gmel et al., 2003). In the discussion section of the Draft Report, the authors indicate, however, that the use of all-cause mortality studies to examine population estimates about alcohol and health is problematic since the cause-and-effect relation between alcohol consumption and health outcomes is not established. They used the epidemiological definitions of causality, where alcohol had to be necessary, either alone or in combination with other antecedent conditions as a component cause (Rothman et al. 2008), rather than diseases and injuries fully attributed to alcohol[4]. Interestingly, one author of the Draft Report (Rehm, J.R.), was a coauthor of at least two publications related to alcohol and infectious diseases informing the WHO (2017). Correlation implies associations but not causality and, conversely, causation implies association but not correlation (Altman and Krywinski 2015). As the cause-and-effect relation for alcohol has not been definitively established by the WHO for all the listed diseases and injuries used for this modelling study either, this argument is invalid[5].

1.5 Generalising observational studies to broader populations

The Draft Report generalises or extrapolates observational studies to model harm across the broader US population. Successful extrapolation hinges on similarities and differences between populations at different levels. No differences present at any of these levels such as demographics are taken into account (Khosrow, 2019) and any errors are compounded because the results of observational studies risk containing confounding biases. For example, the Draft Report states in the Discussion section, that cohort studies predominantly "consisted of middle-class, middle-aged participants from similar cultural backgrounds". As correctly stated in this Discussion section, "the RR derived from these studies may have limited generalizability to other groups [in the US population] defined by factors such as sex, age, socio-economic status, and other modifiers (112, 113)".

No study design or statistical method can account for confounders and bias as can randomised clinical trials. They are considered the 'gold standard' for producing reliable evidence as they ensure that potential confounding variables are evenly distributed between groups[6]. According to the widely-accepted hierarchy of evidence, the most reliable evidence comes from systematic reviews, followed by evidence from randomized controlled trials, cohort studies and then case-control studies. The greatest value of observational studies is that they provide preliminary evidence that can be used as the basis for hypotheses in randomised clinical trials.

1.6 Validity of correlation of burden of disease studies and low-risk drinking guidelines

A statistical modelling project, such as that described in the Draft Report, provides population-level estimates of risk attributed to alcohol consumption. It is useful for exploring cause-specific indicators and trends over time or across countries. The Global Burden of Disease (GBD) study is another example of this approach used to inform our understanding of country, regional, or global-level attributable risk and burden of disease.

In 2015, Rehm et al. pondered "how alcohol should figure in burden-of-disease studies, because for good reason these focus on aggregating risks across specific causes of death and disability. The same average drinking level will have markedly different effects in different countries based on their different composition of causes of death, often markedly different from the composition in the cohort studies." This is ignored in the Draft Report.

In general, however, modelling the burden of disease based on a population-risk approach may not be relevant for each individual. Each individual has their own risk profile depending on their characteristics, circumstances and lifestyle. As such, the modelling approach leads to very general information that may or may not be relevant for all individuals. Also, the approach chosen by ICCPUD focuses on and emphasizes all negative outcomes that may be associated with alcohol in a causal or noncausal relationship. Consequently, this general information may make individuals better aware of the possible risks but has little relevance as a basis for guidelines or legislation. More so, since the outcomes of this Draft Report do not correspond to observations on overall outcomes such as all-cause mortality.

1.7 Correction for presumed under-reporting of alcohol consumption

The Draft Report challenges the accuracy of information about alcohol exposure, since a lot of earlier evidence is based on potentially inaccurate self-reporting of alcohol consumption (Gilligan et al. 2019). Accordingly, the authors themselves selected relative risk (RR) estimates for the modelling based on publication volume, which potentially biases toward specific perspectives or their own papers. This method of selecting RR is not transparent given the pre-registered systematic scoping review used by the authors was not publicly available, nor is the rationale for their choice of RR. Further, this method is not scientifically validated.

While it is true that in observational studies epidemiologists have to rely on their human participants to tell them what they actually drink, there is always the chance that there will be mistakes in their reporting, especially under-reporting of alcohol. Consequently, self-reported alcohol consumption data are prone to bias and are challenging to harmonise across studies conducted over different time periods that used varying instruments and methods to record such data. In The Svalbard Study, for example, which was a unique setting for validation of self-reported alcohol consumption, the self-reported volume accounted for approximately 40% of the sales volume (Høyer et al. 1995), where coverage of sales estimates by surveys varied between 39% for Germany and 56% for France.

Underestimation of alcohol consumption in observational studies, however, is less than in typical population surveys (Boniface et al. 2014, Stockwell et al. 2018), where increasingly epidemiologists have become better able to identify and adjust for such potential bias, and are increasingly able to recognize under-reporting of alcohol (Klatsky et al. 2006, Klatsky and Udlaltsova 2007, Klatsky et al. 2014). The Kaiser Permanente Study, for example, found the underreporting of alcohol consumption actually partially explained the increased prevalence of hypertension among individuals reporting one to two drinks per day (Klatsky et al. 2006). It also partially explained the apparent increased risk of cancer among light-moderate drinkers (Klatsky et al., 2014). In addition, it also partially explained the apparent magnitude of the benefit of lighter drinking (Klatsky and Udaltsova 2007). Furthermore, in an observational study from Italy of men aged 45-64 years who were followed for total mortality from 1965 to 1995, men reporting drinking approximately five drinks/day had a longer life expectancy than occasional drinkers and heavy drinkers. Underreporting was not an issue in this population with almost no non-drinkers and total acceptance of drinking wine with meals (Farchi et al. 2000).

However, in addition to average volume of alcohol consumption in determining the risk relationships between alcohol consumption and alcohol-related diseases and injuries, Rehm et al. (2003) found that pattern of drinking was an additional influencing factor for alcohol-related diseases such as coronary heart disease. Consequently, the influence of self-reported patterns of drinking rather than self-reported volume in alcohol exposure may be underestimated because pattern measures have not been consistently included in epidemiologic studies (Martin et al. 2014).

Consequently, while underreporting and its correction are important, over-estimation is also important, but neither can be accurately corrected using the method described in the Draft Report. Indeed, as shown by Gilligan et al. (2019) who support previous findings of the inaccuracy of alcohol consumption volume in surveys but also demonstrate that an assumption of underestimation cannot be applied to all individual reports of consumption.

2 Criticisms specific to the relationship between alcohol and CVD

2.1 Of the 58 selected studies by the authors, 19 concerned cardiovascular diseases (CVDs), the main cause of death in the USA. In Table 2, five CVDs were mentioned including ischaemic heart disease (IHD), the leading cardiovascular disease; for IHD four systematic reviews were selected. However, of these four systematic reviews only the report by Zhao et al. (2017) was selected for inclusion in their modelling without motivation.

Equally for other diseases evaluated, not all meta-analyses initially selected were used. For every disease outcome, one study was selected, which narrows down the basis for their evaluation from 58 reviews in Figure 2 to 17 reports for 17 disease outcomes. Of these 17, some reports were used for multiple disease outcomes leaving only 15 reports underlying the author's analysis.

2.2 The analysis by Zhao et al. (2017) builds on, or updates, that of Fillmore et al. (2006) and Stockwell et al. (2016). The methodology and hence findings of Fillmore et al. (2006) were discredited by reanalysis of the studies, which showed it to be biased, as repeat studies adjusting for the claimed bias still showed a cardioprotective effect for regular light to moderate alcohol consumption. This is described in a complete supplement of the Annals of Epidemiology in 2007 (Ellison et a. 2007). Also, repeat studies adjusting for the claimed bias still showed a cardioprotective effect for regular light to moderate alcohol consumption (Di Castelnuovo et al., 2006, Ronksley et al., 2011).

Similarly, ISFAR has previously criticised certain researchers at the Canadian Institute for Substance Use Research for biased meta-analysis. For example, Stockwell et al. (2016) 'cherrypicked' a small number of studies for their meta-analysis – they discarded 2,575 studies and analysed only 87. The studies that they analysed, related reported intake to disease but they carefully avoided hundreds of validated studies that showed reduced disease among moderate drinkers. Inappropriately, the Draft Report continues to rely on discredited studies using demonstrably flawed techniques.

Indeed, Zhao et al. (2017) failed to address these criticisms. For example, the authors include in their analyses numerous older epidemiologic studies and do not acknowledge that when the "errors" that they have commented on in the past (such as including heavy ex-drinkers in the no-alcohol referent group) have been dealt with in the majority of studies over the past decade. The authors still excluded the vast majority of these well-done studies in their new meta-analysis. Results of essentially all studies that adjust for their concerns continue to show a significant and meaningful reduction in the risk of CVD and total mortality from the moderate intake of wine and alcohol.

They showed that in fully adjusted models all current drinkers had a decreased risk (a relative risk of about 0.81-0.86) for IHD for those consuming 1.3 – 24.99 g of alcohol per day, indicating cardio protection from low to medium volume alcohol consumption. In that study, however, the authors used a similarly limited number of 'higher quality[7]' studies to reach their conclusion that "neither partially nor fully adjusted estimates indicated significantly decreased risk of CHD for low- and medium-volume drinkers, although the estimated RRs for all current drinkers were less than unity". According to the authors, higher quality studies (not specified in the paper) were mainly free from abstainer bias.

2.3 The updated analysis by Zhao et al. (2017) also markedly distorted the accumulated scientific evidence on alcohol and CVD and mortality. This biased selection of studies selected by Zhao et al. (2017) undermines the value of the paper, but more importantly, promulgates misinformation in the name of the appropriate scientific method. Failure to acknowledge the robust body of knowledge supporting the opposite conclusion and disqualifying extensive studies that offer plausible biological explanations of observed benefits is unconscionable.

Indeed, Zhao et al. (2017) have been criticized in multiple peer-reviewed publications since its publication. One of the criticisms was that only using lifelong abstainers as a reference group will introduce bias as well. Such a reference group will represent a small unrepresentative fraction of the population with an overrepresentation of religious minorities as Mormons and Adventists (Ding & Mukamal, 2017). In their commentary, Ding and Mukamal also mention that meta-analyses suggest that former drinkers are at higher risk for CHD mortality but not CHD incidence (Roerecke and Rehm, 2011), which suggests that the choice of the reference group is at least irrelevant for CHD incidence.

2.4 Of course, there are problems with assessing alcohol consumption in a population and of course, former drinkers will be less healthy than abstainers once these former drinkers decide to stop drinking due to health problems. However, one can try on the one hand to assess the contribution of that former drinker's group and correct for it, or on the other hand discard most of the studies performed in this area. Choosing the first option (assessing the contribution) has been done and has shown that such a contribution does not always affect the overall outcome of protection. Choosing the second option will introduce another form of bias, namely selection bias, which will exclude most of the studies performed in this area and dramatically limit the use of available data. Data collected in studies performed according to the prevailing scientific rules and quality guarantees approval by various committees and funding parties.

2.5 The Draft Report also considers the "Impact of drinking patterns on cardiovascular disease risk". The authors use the study by Mostofsky et al. for the immediate risk after consuming alcohol rather than long-term risk. That paper states: Moderate alcohol consumption was associated with an immediately higher cardiovascular risk that was attenuated after 24 hours, and even protective for myocardial infarction and haemorrhagic stroke (≈2-4 drinks: relative risk=30% lower risk) and protective against ischemic stroke within 1 week (≈6 drinks: 19% lower risk). In contrast, heavy alcohol drinking was associated with higher cardiovascular risk in the following day (≈6-9 drinks: relative risk=1.3-2.3) and week (≈19-30 drinks: relative risk=2.25-6.2).

2.6 The authors of the Draft Report only used the last information on heavy drinking (9 drinks per day) and omitted the following: When accounting for the amount of alcohol consumed in the 24 hours prior to MI onset, there was a U-shaped association (p curve<0.001) between alcohol intake and MI risk, with the greatest benefit following approximately 28 grams of alcohol (≈2 drinks) in one day (RR=0.67) and a higher risk following approximately 108 grams (≈9 drinks) in one day (RR=1.59).

So, by selective referencing and selective use of data focusing on heavy drinking rather than on light or moderate drinking, data on the association between alcohol consumption and ischaemic heart disease are distorted, which results in an underestimation of the beneficial effect of light and moderate alcohol consumption on cardiovascular disease.

2.7 The Draft Report also does not include the conclusions of Roerecke and Rehm (2014) from their meta-analysis on the role of confounders in explaining the observed association of alcohol with health outcomes. Roerecke and Rehm (2014) stated that the "Results from our quantitative meta-analysis showed that drinkers with average intake of < 30 g/day and no episodic heavy drinking had the lowest IHD (ischaemic heart disease) risk (relative risk = 0.64, 95% confidence interval 0.53 to 0.71). Drinkers with episodic heavy drinking occasions had a risk similar to that of lifetime abstainers (relative risk = 1.12, 95% confidence interval 0.91 to 1.37)." Further, these two authors who have traditionally been concerned that confounding and errors weaken the purported relation between alcohol and a lower risk of CVD, concluded: "For drinkers having one to two drinks per drinking day without episodic heavy drinking, there is substantial and consistent evidence from epidemiological and short-term experimental studies for a beneficial association with IHD risk when compared to lifetime abstainers. The alcohol-IHD relationship fulfils all criteria for a causal association proposed by Hill."

Thus, Zhao et al. (2017) purportedly greatly reduce some of the challenges of earlier evidence, but instead markedly distort the accumulated scientific evidence on alcohol and CVD, where the biased selection of studies that are included undermines the value of the papers, but more importantly promulgates misinformation in the name of appropriate scientific method. Failure to acknowledge the robust body of knowledge supporting the opposite conclusion and disqualifying extensive animal and cell culture studies that offer plausible biological explanations of observed benefits is unconscionable. There is an immense amount of experimental data, not only animal experiments but also trials in humans, that have described the mechanisms by which moderate alcohol consumption have been shown to decrease essentially all the risk factors for CVD. These mechanisms include low HDL-cholesterol, elevated LDL-cholesterol, endothelial dysfunction, coagulopathies, inflammation, abnormal glucose metabolism, and many others (Brien et al., 2011, Ronksley et al., 2011, Hendriks, 2020). The consistent finding of lower CVD risk among moderate drinkers in all well-done cohort studies is strongly supported by experimental evidence of the mechanisms.

Indeed, the overwhelming body of observational scientific data, as well as an immense number of experimental studies, support the contention that, for most middle-aged and older men and women who choose to do so, the regular consumption of small amounts of an alcoholic beverage can be considered as one component of a 'healthy lifestyle', associated with a lower risk of CVD and total mortality.

Of note is that in Figure 6 of the Draft Report, their data actually show a J-shaped relationship and hence a reduction in IHD and ischaemic stroke for two drinks per day. This is neither emphasized nor discussed in the Draft Report.

Specific Comments from Forum Members

Forum Member McIntosh states "The authors claim on page 2 that increasing alcohol consumption from 7 drinks per week to 9 will increase the risks of getting cancer by a factor of 10. I don't believe this.

While I don't understand what they are doing and have not read all the papers my understanding of what most other researchers have done is that the statement is false.

Here is the argument. Looking at Bergmann et al. (2103), Table 4 for cancer deaths and both genders shows hazard ratios for two categories: below recommended levels at 0.0.85 and 0.87 for light to moderate drinking when the hazard ratios have been renormalized to make never drinking the reference category. So, there is a 2% increase in risk as respondents move up one category, an increase of about 2 drinks per day, nowhere near what the authors claim. It is important to note that both levels yield much lower risk levels than not drinking. This result can be shown in a large number of studies that have been carried out in the last 20 years. I chose Bergmann et al. (2013) because I believe it is the best of all studies that I have seen. First, it is a competing risk model which is important and second, former drinkers are included as a category avoiding Stockwell-type objections. Unfortunately, some of the regressors are correlated with the alcohol variables so the adjustments do not deal with the net vs gross effect of alcohol use. As we saw in the BRFSS data drinking 7 drinks a week does not minimize the risk of getting heart disease or diabetes.

To write a response to this Draft Report, I think it has to be to understand what they have actually done. It has something to do with adjusting the number of drinks so that they are consistent with alcohol sales. At a minimum, there should be a table in the Draft Report giving the distribution of respondent drinks per day that they think is appropriate. This is not done. They also say that what Bergmann et al. (2013), Mi et al. (2107), and Woods et al. (2019) suggest is wrong without explaining why. They don't ever refer to these papers. Knowing what the CCSA guideline study does is not helpful. There are large numbers of factual errors in the paper such as the number of deaths due to cancer in 2018 is around 3200 and not 17000."

Forum Member Ellison states "other Forum members have described in detail many inaccuracies, false assumptions, and unusual measures taken by the authors to support their long-stated premise, which seems to be to urge zero consumption of alcohol. A few additional points can be made as follows:

1. First, all of the figures showing 'alcohol-attributable deaths' obviously cannot show deaths unrelated to alcohol. It would be important to also show total mortality risk to clarify the relationship of alcohol consumption to the risk of death.

2. Studying alcohol and health assumes people drink (or are injected with) pure alcohol, whereas the relevant relation is between the consumption of different beverages that contain alcohol and health outcomes. Here the health effects tend to relate primarily to the amount, the type of beverage, and the pattern of drinking (frequency of consumption, in binges or not, with or without food, for example). In this Draft Report, the authors do not separate effects according to these important characteristics.

3. The analyses presented are based on the authors' combination of data from:

(a) young people (where there are generally no health benefits but increased deaths predominantly from accidents and violence related to alcohol abuse);

(b) middle age (when decreases in a few cardiovascular deaths are usually exceeded by increases in the risk of death from liver disease and some cancers, mainly among heavier drinkers); and
(c) the elderly, when deaths from cardiovascular diseases and dementia are especially common.

Mixing data from all ages in the same statistical calculations does not permit a clear appraisal of the health effects of alcoholic beverage consumption.

4. The authors have adjusted for under-reporting of intake, which is appropriate. They have, however, applied the same formula to all subjects, whereas it has been demonstrated that alcohol abusers tend to understate their consumption more than moderate drinkers (Klatsky et al., 2006, Klatsky et al., 2014).

5. The exclusions of certain publications by these authors are always interesting. They report that of 7,294 publications screened, 7,003 were excluded, leaving 291 for review. Of these 291 studies, 235 were excluded primarily because they had a "wrong outcome", "wrong exposure", or "wrong study design". For the final group of 56 studies considered in their very extensive analyses, there were only 24 providing data on neoplasms, 19 for cardiovascular diseases (but only four for IHD or ischaemic stroke), and fewer than 10 for other outcomes. Especially noted is that there were only two studies for assessing the effects of alcohol on the risk of diabetes, a rapidly increasing and important disease that is almost always found to be reduced by moderate drinking.

Overall, for the results given in this report, deficiencies have been noted indicating that little can be used to assist our attempts to judge the net health effects of moderate alcohol consumption. We require reliable and unbiased data upon which to base recommendations to the public."

Forum Member Harding makes the following observations:

1. The entire Draft Report is based on associations observed from epidemiological studies, expressed as relative risks, without even beginning to address whether the association is causal, in whole or in part. This means that throughout, the 'relative risks' are not real risks, they are a measure of the statistical association between two variables. Indeed, studies that might help to inform the issue of causation (e.g., randomised control trials) have been deliberately excluded (see second bullet point of the summary, page 3). It follows that the use of the word 'risk' in all the remaining bullet points of the summary, indeed throughout the Draft Report, in the way the authors intend, is unjustified.

2. It is clear from the section on 'Methods' (page 8) that the epidemiological data has been subjected to mathematical modelling, without

providing any information on the nature of these models. All models need a central criterion against which the data is compared (as discussed on pages 42 and 43), e.g., 'no more than a 1 in 100 chance of an alcohol-attributable lifetime mortality risk'. Whatever the criterion, it is by its nature totally arbitrary, completely made-up. If another figure were chosen (e.g., 1 in 1000), then the acceptable lifetime level of consumption, e.g., x g/day, would change. Given that this whole exercise is intended to inform the population what is sensible consumption for them as individuals, this public health message actually depends on an arbitrary number in the model, and not, as the public will assume and have the right to expect, derived from the actual evidence of the effect of alcohol on their disease risk. If a different criterion were chosen, then different public health advice would emerge from the model and would be completely unrelated to the actual evidence. That cannot be right.

3. Whatever level of consumption that emerges from the models will be passed off as appropriate consumption for all individuals in the population, when it is nothing of the sort. It is simply the level of consumption that everyone must adhere to in order to meet the made-up criteria in the mathematical model. It means that everyone is required to behave in a particular way to achieve some arbitrary national target.

4. It would appear that deaths from all alcohol-related causes have been included in the models, both chronic and acute, i.e., both those as a result of long-term regular consumption and those as a result of being intoxicated on single occasions. This means that everyone in the population will be advised to drink less because, e.g., some people drive their cars into trees or fall off ladders when under the influence of alcohol. This is completely unreasonable and unacceptable. Instead, the population should simply be advised not to get drunk, and public health advice should focus on what is sensible consumption.

Forum Member Goldfinger states "as a cardiologist, I have stressed the consistent reduction of cardiovascular disease events and reduction in total mortality with moderate alcohol consumption, despite a small increase in certain cancers with alcohol. Note the meta-analysis by Lucerón-Lucas-Torres et al. (2023) where wine has not been associated with any cancers and, in fact, may be protected."

Forum Member Waterhouse highlights that the guidelines call for recommendations based on "the preponderance of scientific and medical knowledge which is current." While it is not explicit, it would appear that a key criterion is that "knowledge" be peer-reviewed scientific papers, since the bibliographies of both the NASEM and ICCPUD reports cite such papers.

Thus, the Draft Report is flawed in the following ways:

1. As many have pointed out, the authors demonstrate a blatant bias in excluding the vast majority of the scientific literature. This includes papers that underwent rigorous peer review in the top-tier medical journals, to cherry-pick the papers that help them achieve their political goal to claim that moderate alcohol consumption is unhealthy. Many of these papers are found in third-rate journals with sloppy peer review;

2. The authors were not satisfied with just a biased selection of papers but created flawed models of morbidity and mortality to 'substantiate' their claims. These models have NOT been scientifically peer-reviewed and scientifically validated; and

3. In the section on the purpose of this Draft Report, the authors do not even claim to be creating advice for a healthy diet but instead are setting out only to define the harms of alcohol use. Of course, this is not surprising, since the stated purpose of the ICCPUD is to reduce alcohol consumption in the youth population, and their modus operandi is to show how much harm occurs to that population because of alcohol consumption.

Furthermore, this Draft Report has not been peer-reviewed and is authored by an ad-hoc subset of the panel or their unnamed advisors and experts."

Forum Member Skovenborg considers that "this ISFAR critique takes on many issues and has many good arguments, the problem is, however, that for the media, the population, and the politicians it is a very complicated and hardly understandable discussion. The very purpose of the flood of biased reviews produced by Stockwell et al. since 2006 is to create a complex narrative like professor A says that moderate consumption of alcohol is fine for individuals aged 40+ while professor B says that no intake is without risk and any intake is associated with cancer - a narrative that is not really about science, it's about creating affective polarization against alcoholic drinks at the individual level in general and the political level in particular.

The change from science to politics started in 1994, when a WHO publication published this conclusion about the association between light drinking and reduced risk of coronary heart disease: "Evidence on the protective effect of drinking on coronary heart disease is conclusive at the level of association, highly suggestive at the level of causation, but not, on present analysis, significant at the policy level. Most of the achievable benefit is likely to be obtained at an alcohol intake between one drink every 2 days, and two drinks a day." (Edwards et al., 1994). The same year a report of a WHO Scientific Group on cardiovascular disease risk factors (World Health Organization, 1994a.) concluded that "moderate drinking (10-30 g of ethanol daily, i.e., 1-3 drinks) provides a moderate protective effect against CVD, as compared with abstention and heavy drinking. The protective effect of moderate alcohol consumption is related to the modulation of several well-recognized pathogenic mechanisms leading to atheroma."

The sound WHO science reports were soon contradicted by a WHO political statement from Hans W. Emblad, then director of the WHO's Division of Substance Abuse (World Health Organization, 1994b). He said that "there is no minimum threshold below which alcohol can be consumed without any risk, and assertions that moderate alcohol consumption can be good for health, are wrong. Scientific studies show that only very low consumption, of the order of one drink every other day, is liable to reduce the risk of cardiovascular diseases compared with total abstinence." He went on to say that "there are other ways of reducing the risk of cardiovascular disease: avoid smoking, engage in physical activity, eat less fat. Those already taking these precautions are unlikely to reduce their risk still further with light drinking. We strongly believe that less is better. If you reach the point of zero, from the health point of view that is optimal."

The change of focus from science to politics has also happened to Timothy R. Stockwell who in 2000 began his Medical Journal of Australia editorial with these two statements: "The evidence amassed to date on the link between moderate alcohol intake and reduced risk of dying of cardiovascular disease might be thought already sufficient to bracket sceptics of alcohol's protective effect with doubters of manned lunar missions and members of the Flat Earth Society. Published studies demonstrating this link can now be counted in the hundreds, and no fewer than six plausible underlying biological mechanisms have been identified"; and "Alternative explanations for the protective effect of moderate alcohol intake, relying on ever more tenuous confounding effects, have been discredited one by one. The apparently protective effect of moderate alcohol consumption has so far survived the use of controls for sociodemographic status; for the 'sick quitter hypothesis'! (i.e., the suggestion that many abstainers have stopped drinking because of serious illness), for the amount of cholesterol in the diet, and even for the degree of social isolation." (Stockwell, 2000.)

The best way to maintain focus on sound science and resist the determined attempts to create confusion with abstainer bias and confounding factors like socioeconomic status and lifestyle is to focus on results from studies such as that described in the peer-reviewed publication Impact of healthy lifestyle factors on life expectancies in the US population (Li et al., 2018). Key points are:

- Data from Nurses' Health Study (n=78 865) and the Health Professionals Follow-up Study (n=44 354) = no confounding by socioeconomic status;
- Alcohol consumption assessed every four years during follow-up (NHS 34 years, HPFS 28 years) = valid updated drinker status and no abstainer bias;
- Information about five low-risk lifestyle factors (never smoking, BMI 18.5 to 24.9 kg/m2, ≥30 min/d of moderate to vigorous physical activity, moderate alcohol intake (5-15 g/d for women, 5 to 30 g/d for men), and a high diet quality score = no confounding by lifestyle;
- The projected life expectancy at age 50 years was on average 14.0 years longer among women with five low-risk factors compared with those with zero low-risk factors; for men, the difference was 12.2 years; and
- To address the concern about the potential adverse effects of moderate alcohol intake, a healthy lifestyle score based on the other four low-risk factors without alcohol was created. The projected life expectancy at age 50 years was on average 11.4 years longer among women with four low-risk factors compared

with those with zero low-risk factors; for men, the difference was 10.0 years = moderate alcohol intake was associated with 2.6 years longer life expectancy for women and 2.2 years for men.

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[7] Only 45 studies were selected from a total of 2768 studies identified

Review of Evidence on Alcohol and Health

Authors

National Academies of Sciences, Engineering, and Medicine (NASEM)

Citation

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Abstract

The abstract produced by NASEM is condensed from 14 pages down to the following main conclusions reached:

- Based on data from the eight eligible studies from 2019 to 2023, the Committee concludes that compared with never consuming alcohol, moderate alcohol consumption is associated with lower all-cause mortality (moderate certainty);
- The Committee determined that there was insufficient evidence to conclude the association between weight-related outcomes and moderate alcohol consumption compared with never consuming alcohol;
- The Committee concludes that compared with never consuming alcohol, consuming a moderate amount of alcohol was associated with a higher risk of breast cancer (moderate certainty). Also, no conclusion could be drawn regarding the association between moderate alcohol consumption compared with lifetime non-consumers and the risk of colorectal cancer. The Committee determined that no conclusion could be drawn regarding an association between moderate alcohol consumption and oral cavity, pharyngeal, oesophageal, or laryngeal cancers;
- The Committee concludes that compared with never consuming alcohol, consuming moderate amounts of alcohol is associated with a lower risk of CVD mortality in both females and males (moderate certainty);
- The Committee concludes there was insufficient evidence about the association between the risk of dementia, developing Alzheimer's disease, or cognitive decline for those with no alcohol consumption compared to those with moderate alcohol consumption; and
- The Committee determined that no conclusion could be drawn regarding the association between maternal alcohol consumption during lactation and infant development.

Forum Summary

This important NASEM report is the official guidance for adults on alcohol consumption to help maintain health. The Committee reviewed the recent literature between 2010 and 2024 and considered previous guidelines focussing on eight specific questions, concerning overall mortality, cardiovascular diseases, cancers, neurocognitive health, overweight/obesity, lactation and infant development. The Report concentrated on the health outcomes related to moderate alcohol consumption only.

The Committee concludes that there is great consistency in their conclusion that moderate alcohol consumption, compared to never consuming alcohol, is associated with a lower risk of all-cause mortality and a decreased risk of myocardial infarction, nonfatal stroke and cardiovascular death.

Strong evidence of alcohol increasing the risk of cancer of the oral cavity, pharynx and oesophagus was based on higher alcohol intakes and therefore out of the scope of the NASEM report. Breast cancer in women is the only cancer type that is increased with moderate alcohol consumption. Risk increases may vary between 5 and 10 % increase per American standard drink (viz. 14 grams of alcohol) depending on the studies analysed. This peer-reviewed report acknowledges both the potential benefits and harms of moderate alcohol consumption. Although not stated as such by the Committee, there seems to be no reason to change the dietary guidelines for alcohol consumption based on the most recent scientific evidence.

Forum comments

Background to the NASEM report

The Dietary Guidelines for Americans (DGA), a joint publication of the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services (HHS), provide guidance to Americans to help them maintain health, achieve nutrient sufficiency, and help prevent diet-related chronic diseases through healthful dietary patterns. Included in the DGA recommendations is guidance for adults who consume beverages containing alcohol. This DGA guidance on alcohol is included because it is a source of energy for those who consume it and consider it part of their diet. Thus, it should be considered as a contributor to total caloric intake.

To that purpose, the National Academies of Sciences, Engineering, and Medicine (NASEM) (National Academies of Sciences, Engineering, 2025) convened a committee of experts (the Committee) to undertake a review of the recent scientific evidence (approximately between

2010 and 2024) on the relationship between consumption of alcohol and health outcomes. The Committee focused on eight specific questions, previously published by USDA and HHS concerning overall mortality, cardiovascular diseases, cancers, neurocognitive health, overweight/obesity, lactation and infant development. The report concentrated on the health outcomes related to moderate alcohol consumption only.

The Committee determined that the evidence for five health outcomes was sufficient to conduct a new systematic review. An important requirement was to have a comparison group that did not combine never-drinkers with former drinkers because of the resulting "abstainer bias" that would occur; therefore, results in this report are not directly comparable to past evidence that does include such abstainer bias.

Although individual studies used terminology variations such as light-to-moderate, the Committee adopted the term moderate, which it defined as consuming alcoholic beverages up to the limit defined by the Dietary Guidelines for Americans, i.e., two drinks or 28 grams of alcohol in a day for men and one drink or 14 grams of alcohol in a day for women.

Critique of the NASEM report

1. Methodology

This important exercise is the official guidance for adults on alcohol consumption to help maintain health. The report consisted of 254 pages, with extensive overviews of the research underlying their advice and transparently explaining and motivating the various steps taken.

The Committee concluded that little changes be made to the current guidelines based on the state-of-the-art most recent scientific literature. This means that consuming two drinks or 28 grams of alcohol in a day for men and one drink or 14 grams of alcohol in a day for women will maintain health, achieve nutrient sufficiency, and help prevent diet-related chronic diseases through healthful dietary patterns.

The Committee identified various limitations in the research conducted so far, an important aspect of epidemiological research into alcohol and health completely misused by a small group of scientists, is the abstainer bias. The Committee addressed the effect of bias caused by including former drinkers by excluding several otherwise relevant studies.

In addition, there are other limitations, such as a lack of standard definitions of alcohol consumption levels and a lack of standardized cut offs for exposure categories, issues which the Committee urges scientists to address when publishing on alcohol consumption effects on human health.

The following comments address specific alcohol and health relationships.

2. All-cause mortality

The Committee mentions and subscribes that there is biological plausibility to the association between moderate alcohol consumption and a reduced risk for all-cause mortality. The Committee states that previous mechanistic studies have demonstrated that alcohol consumption influences serum levels of intermediary biological markers that are relevant to the incidence of heart disease and stroke (Brien et al., 2011). Specifically, the effects of alcohol consumption on lipids, platelet aggregation, inflammation, and endothelial function are well-documented in the literature (Hendriks, 2020). Furthermore, alcohol metabolites, including acetaldehyde, can play a role in the pathogenesis of certain cancers with downstream implications on the risk of death from cancers (Rumgay et al., 2021). The toxic effects of alcohol on several organs and the ability of alcohol to impair brain function have been well-established in the literature for trauma and deaths related to alcohol intoxication (Alpert et al., 2022). A combination of pathways is hypothesized to mediate the effects of alcohol consumption on multiple organ systems to ultimately affect all-cause mortality, including, for example, alcohol's effect on altering haemostatic factors to increase the risk of bleeding. The investigation of the association of moderate alcohol consumption with all-cause mortality provides an integrated estimate of the full effect of this level of alcohol consumption (Colpani et al., 2018; Gmel et al., 2003).

In addition, the Committee considered the previous dietary guidelines to Americans given in reports issued in 2010, 2015 and 2020, concluding that there is great consistency in their conclusion that moderate alcohol consumption, compared to never consuming alcohol, is associated with a lower risk of all-cause mortality.

3. Cancer

The Committee's conclusions on cancer and moderate alcohol consumption are interesting. The Committee indicates that although the mechanisms of carcinogenesis of alcohol and acetaldehyde for each cancer site have not been entirely determined, both human and animal studies provide evidence of their roles in carcinogenesis. The NASEM report focuses on what is known about the effects of moderate alcohol consumption on carcinogenesis and cancer as an outcome. Alcohol consumption and cancer incidence is topical since various U.S. and international agencies want to label alcoholic beverages as being carcinogenic. Of course, there are clear positive associations between mainly heavy alcohol consumption and some cancers, but no such association is found (yet) for other cancers. Moreover, inverse associations are described for lung (Fehringer et al., 2017), renal (Lee et al., 2007; Wozniak et al., 2015) and Hodgkin (Tramacere et al., 2012a) and non-Hodgkin lymphomas (Tramacere et al., 2012b).

Only a limited number of cancers were evaluated by the Committee since cancers of the oral cavity, pharynx, oesophagus, colorectum, and female breast were previously identified as causally related to alcoholic beverage consumption by the International Agency for Research on Cancer (IARC) of the World Health Organization (WHO) (WHO, 2014) and by the World Cancer Research Fund (WCRF) Continuous Update Project (World Cancer Research Fund / American Institute for Cancer Research, 2007). Exclusion of studies due to concerns about abstainer bias limited the number of studies that could be evaluated and, therefore, limited the overall conclusions regarding the effect of moderate alcohol consumption. Furthermore, strong evidence of alcohol increasing the risk of cancer of the oral cavity, pharynx and oesophagus was based on higher alcohol intakes and therefore out of the scope of the NASEM report.

Consequently, breast cancer in women is the only cancer type that is increased with moderate alcohol consumption. Risk increases may vary between 5 and 10 % increase per American standard drink (viz. 14 grams of alcohol) depending on the studies analysed.

For colorectal cancer, the Committee found that moderate alcohol consumption was associated with a statistically nonsignificant higher risk of colorectal cancer overall among males and females. It, therefore, resolved that no conclusion could be drawn regarding the association between moderate alcohol consumption compared with lifetime non-consumers and the risk of colorectal cancer. There were some concerns with the studies related to the risk of bias. Similarly, the Committee determined that no conclusion could be drawn on the association between moderate alcohol consumption and oral cavity, pharyngeal, oesophageal, or laryngeal cancers.

This means that for moderate alcohol consumers, the risk for cancers is limited to breast cancer in women and may be relevant to colorectal cancer in both men and women. The risk for other cancers caused by alcohol consumption is probably limited to those who drink more than the current US guidelines.

4. Cardiovascular disease

Conclusions on cardiovascular diseases, specifically myocardial infarction, stroke, and cardiovascular death, are in line with previous DGAs and have an extensively researched biological plausibility. The NASEM conclusions are in line with previous ISFAR critiques, namely moderate alcohol consumers have a decreased risk of myocardial infarction, nonfatal stroke and cardiovascular death. Thus, with moderate certainty, moderate alcohol consumption is associated with cardio protection, and a lower cardiovascular mortality.

5. Cognitive decline and dementia

An extensive review of the risk related to moderate alcohol consumption and cognitive decline and dementias did not lead to new conclusions of the Committee due to insufficient evidence. This a difficult area to study and needs innovative research before any conclusion can be drawn.

The Committee indicated that awareness of 'abstainer bias' is growing, as per the number of eligible studies that could be analysed. This is a positive development because the issue of abstainer bias is especially critical for moderate alcohol consumers. Heavy drinking and alcohol abuse are unhealthy behaviours and need hardly any further scientific substantiation. Drinking moderately, however, needs further substantiation as a healthy lifestyle factor with biological plausibility contributing to a part of daily life and in many social scenarios. These scenarios include celebrations and social interactions pursuing entertainment and enjoyment as drinking alcoholic beverages is for many. This is also a benefit of moderate alcohol consumption, recognised by the Committee as social connectivity.

Therefore, this peer-reviewed report instigated by NASEM acknowledges both the potential benefits and harms of moderate alcohol consumption. The

Committee, however, calls for higher quality studies such as double-blind randomised controlled trials to reduce bias and confounding, to enable even more definitive conclusions (Mukamal et al. 2016.)

Specific Comments from Forum Members

Forum Member Teissedre comments: "This major report on the health effects of alcohol should inform dietary guidelines for 2025 Americans, finding that moderate drinkers had lower all-cause mortality and a lower risk of death from cardiovascular disease than those who never drink or are abstinent The National Academies of Sciences, Engineering, and Medicine (NASEM) Evidence Review summarizes the available evidence published over the years. last five to fifteen years on the link between moderate alcohol consumption and lactation, weight, cancer, cardiovascular disease, neurocognition and all-cause mortality. Moderate drinking is defined as two drinks per day for men and one drink per day for women Because the Committee's findings are based on associations, the report does not explain whether alcohol consumption is directly responsible for the results.

The current Dietary Guidelines for Americans recommend that men limit their alcohol consumption to 2 drinks or less per day and for women one drink or less per day. This recommendation is supported by the preponderance of evidence. Additionally, the current Dietary Guidelines for Americans recognize that excessive alcohol consumption should be avoided and describe how calories from alcoholic beverages should be accounted for, as they can easily contribute to excessive caloric intake.

It must be emphasized for the future that the type of alcoholic beverage (wine, beer, spirits) consumed, as well as the context, habits (cultural, food/lifestyle, physical activity), must be taken into account for the definition of frequencies appropriate consumption. Research appears necessary in particular on the consumption of wine in the context of a diet and a healthy lifestyle, given that wine also contains beneficial constituents (phenolic antioxidants)."

Forum Member Skovenborg muses on the issue of underreporting, saying: "The authors of many studies are aware of the fact that self-reports may underestimate alcohol consumption, often by an average of one-half, and note that the actual levels of intake beneficial to health may actually be twice as high as those observed, however, this is most often not reflected in their conclusions about average beneficial levels of alcohol consumption."

Forum Member Ellison stated: "The Committee that was created to review reports regarding the relation of alcohol consumption to health outcomes focused only on papers published since 2010. Thus, they often had insufficient data to be able to reach conclusions for many associations. Further, they used data only on total alcohol consumption, with inadequate information on the type of beverage or the pattern of drinking (such as frequency of consumption, drinking with or without food, etc.). Further, they did not have the opportunity to include in their reviews data from a very large number of prior well-done, unbiased studies, including many that not only limited the comparison group to lifetime abstainers but also adequately controlled for other potentially confounding variables.

Despite these limitations, the conclusions from this Committee strongly support results from a very large number of earlier studies that clearly showed both risk and benefits from alcohol consumption, and particularly that moderate drinkers have a lower risk than abstainers for cardiovascular disease (CVD) and total mortality. The more recent studies reviewed by the Committee show a remarkable consistency with results from earlier research (and consistency is a very important component when trying to determine if an association can be assumed to be causal).

That moderate drinking may protect against CVD and mortality have been found in almost all well-done studies despite large variations in the populations studied in terms of age, gender, ethnicity, and culture, and within diverse populations with different lifestyles. Further, the associations have had to be related to disease outcomes despite recognized imprecise estimates of alcohol consumption, based almost exclusively on self-reports of drinking habits. It reminds me of the long-recognized and accepted increased risk of CVD found for hypertension despite very imprecise assessments of blood pressure; for many studies, they are based on the measurements in physicians' offices that are often quite different from the long-term level of blood pressure. With more precise and stable measurements of usual blood pressure, it would be expected that hypertension would be an even stronger risk factor for CVD. With more accurate assessment methods for alcohol consumption, should we not expect even a stronger relation between moderate drinking to disease outcomes?

In any case, this Committee report presents results from recent epidemiologic studies that indicate that, for many adults, moderate drinking should not be considered unhealthy. This review does not support the contention of some individuals, that complete abstinence for everyone should be the message to the public. In addition, we now have an immense number of basic scientific experiments and clinical trials that have identified numerous mechanisms by which alcoholic beverages could have a protective effect on atherosclerosis and thrombosis. Maybe it is time to focus research on providing further insight into the mechanisms that may help explain the observed protective effects of low-to-moderate alcohol consumption and suggest further potential measures for prevention and treatment of CVD."

Forum Member Harding considers that "this review represents a huge amount of work, and its sheer size makes it a real challenge to see the wood for the trees. That said, the following points occur to me:

1. It was good to see the Committee focussing on the effects of moderate consumption (page 2).
2. The eight questions this review addresses are clearly stated in Box 1-3 (page 23). I don't see the point of including No. 5 (all-cause mortality). This is simply the net result in a population of the effect of alcohol on specific diseases. No one dies of all-cause mortality.
3. The review focussed mainly on epidemiological studies and reviews but I was pleased to see the 'biological plausibility' feature in each of the sections that addressed each of the eight questions. However, the balance given to each is not clear, and it is significant that the words, 'biological plausibility' don't feature at all in Chapter 2, 'Approach to the Task'. In all of its 228 pages, the word 'association' appears 285 times. Most of the findings at the end of each Chapter are based on the outcome of epidemiological studies and reviews and often feature the words 'association' and 'risk', but rarely, if ever, mention mechanisms of action.
4. This is my main problem with the review as a whole. The purpose of epidemiology is to identify associations, to indicate the areas where future research should examine, and to try to work out what is going on. Having done that, epidemiology needs to get out of the way. No amount of epidemiology can answer the question, 'is the association causal?'
5. The sections on Biological Plausibility begin to do that but are nowhere near enough in-depth. Where, for example, is a thorough analysis of the effect of alcohol consumption on insulin sensitivity and insulin levels, now recognised as significant in the development of a range of chronic diseases, or on other biomarkers? It is the outcome of these studies on which reviews like this one should base their conclusions, on the actual effect of alcohol consumption on metabolism, rather than on increasingly sophisticated analysis of epidemiological data. In the Chapter 'Future Directions', the authors call for randomised control trials to provide the evidence they need (page 187) and then explain why these are not possible. The lack of randomised control trials has not proved a barrier to sensible public health advice in other areas, for example, on smoking and lung cancer.
6. The Bradford-Hill criteria for causation should be applied to the body of evidence summarised in each of the eight questions, and this analysis should inform the conclusions."

Forum Member Parente reiterates that "there seems to be no reason to change the dietary guidelines for Americans on alcohol consumption based on the most recent scientific evidence".

Forum Member de Gaetano provides the following observations:

1. Under-reporting: the beneficial effects of alcohol on CVD might occur even at doses higher than that shown on a J curve, while the detrimental effects on cancer attributed to low alcohol doses shown, might be, in fact, linked to higher doses. Underreporting differently affects benefits or risks;
2. The limitations of observational studies that render doubtful the beneficial effects of alcohol on CVD, equally apply to the detrimental effects on cancer. One accepts both or none; and
3. A brief methodological comment might be made from the recent paper by Domínguez-López et al. (2025) that using urinary tartaric acid as a measure of wine consumption, confirmed the beneficial effects of wine as previously observed using alcohol self-reported data.

A final bitter joke: drinking hydrogen peroxide in low doses is beneficial but at high doses is lethal."

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Association between wine consumption and migraine

It seems that diet is one of the main triggers of migraine; one of the most studied is alcohol, and also, over the years, red wine has been thought to trigger headaches. A systematic review and meta-analysis examined the strength of the association between wine consumption and migraine.

In a systematic review and meta-analysis, a search of MEDLINE (via PubMed), Scopus, Cochrane, and Web of Science databases was conducted to assess the association between wine consumption and migraine, covering baseline to December 2023 and pooled Odds Ratio (p-OR) were calculated.

Five studies were included in the review, and only four of them were in the meta-analysis. The p-OR for the effect of wine consumption on migraine was 0.63 (95% CI 0.36–1.09).

The findings of this systematic review and meta-analysis indicate that there is no conclusive evidence to support an increased or decreased risk of migraine associated with wine consumption.

Source: Lucerón-Lucas-Torres M, Ruiz-Grao MC, Pascual-Morena C, Priego-Jiménez S, López-González M, Álvarez-Bueno C. (2025) Association between wine consumption and migraine: a systematic review and meta-analysis of cross-sectional, Alcohol Alcoholism, 60(2), agaf004. doi.org/10.1093/alcalc/agaf004

Alcohol consumption and mortality among Canadian drinkers

Alcohol contributes significantly to the global disease burden. Over 50 countries, including Canada, have established low-risk drinking guidelines to reduce alcohol-related harm. Canada's Guidance on Alcohol and Health (CGAH) was released in 2023. A paper, published in the Drug and Alcohol Review, examined the relationship between weekly alcohol consumption, CGAH risk zones and mortality patterns among Canadian drinkers aged 15 and older.

A retrospective cohort study was conducted using data from three cycles of the national, population-based Canadian Community Health Survey (2000-2006) linked to mortality data up to 2017. The sample included 145,760 respondents aged 15 and older who reported alcohol consumption in the past week. Average weekly alcohol consumption was assessed. Outcomes included all-cause mortality, alcohol-related mortality, and mortality from conditions with an alcohol-attributable fraction ≥15%.

Alcohol consumption was significantly positively associated with increased risks of all-cause (hazard ratio = 1.01), alcohol-related (hazard ratio = 1.01), and alcohol-attributable fraction-related mortality (hazard ratio = 1.02). Each additional standard drink per week raised mortality risk, with women experiencing a greater increase in risk compared to men.

The findings support the CGAH recommendations, highlighting the importance of lower alcohol consumption limits to reduce health risks. Public health efforts should focus on increasing awareness and adherence to these guidelines, particularly among women who face greater mortality risks at higher consumption levels. Ongoing monitoring of alcohol consumption is critical for tracking and evaluating low-risk drinking guideline effectiveness in reducing alcohol-related harm, the researchers argue.

Source: Clay JM, Callaghan RC, Sherk A, Naimi TS, Stockwell T, Asbridge M. (2025) Alcohol consumption and mortality among Canadian drinkers: A national population-based survival analysis (2000–2017). Drug Alcohol Rev, 44(2): 434–447. doi.org/10.1111/dar.13993

Alcohol consumption and incident heart failure in men and women

Regular heavy alcohol consumption may lead to the development of alcohol-related cardiomyopathy and symptomatic heart failure (HF) later in life. However, the dose–response relationship between alcohol consumption and risk for incident HF, and whether these associations vary by sex and type of alcoholic beverage remains unclear.

A total of 407,014 participants (52% women, age 56 years) from the UK Biobank who completed alcohol-related questionnaires and without a history of HF at baseline were included in the study. Hazard ratios of the association between alcohol consumption and incident HF in men and women were calculated. The associations were adjusted for an extensive set of potential confounders. During a median follow-up of 12 years, 11,735 (34% women) cases of incident HF were identified. Total alcohol consumption was higher in men than in women (median consumption: 16 vs. 8 drinks/week). A J-shaped association was observed between total alcohol consumption and incident HF in both men and women. Drinking alcohol <28 units/week was associated with a lower risk for developing HF, with a ~20% maximum risk reduction at 14 units/week in men and 7 units/week in women, independent of common confounders. Similar trends were observed in wine consumption. However, the risk of incident HF increases with beer consumption, particularly in women. Consuming 7–14 units/week of beer was associated with a 29% increased risk of incident HF in women.

Alcohol consumption was higher among men compared with women. Although low to moderate total alcohol consumption appears to be associated with a reduced risk of developed HF, beer drinkers, particularly women, were at higher risk of developed HF.

Source: Qin H, van Essen BJ, Ter Maaten JM, Voors AA. (2025) Alcohol consumption and incident heart failure in men and women. Eur J Heart Fail, doi.org/10.1002/ejhf.3587

Dose-dependent effects of alcohol consumption on pressure pain threshold

Prior laboratory-based studies have identified significant analgesic effects of acute alcohol. Despite providing excellent experimental control, these studies are limited regarding the range of alcohol exposure that can be practically and ethically achieved. A study published in the journal Addictive Behaviors capitalized on the heterogeneity in breath alcohol concentration (BrAC) resulting from naturalistic alcohol use at a public event to improve understanding of alcohol analgesia. Researchers hypothesised that BrAC would be significantly and positively associated with pain threshold.

Participants were attendees of the 2024 Minnesota State Fair reporting alcohol use within the last month (N = 149, 55 % women). Each completed a brief assessment of pressure pain threshold at the first dorsal interosseus muscle. BrAC was measured using a standard breathalyser device. The research confirmed BrAC as a predictor of pain threshold, controlling for covariates including clinical pain, age, sex, typical drinking, participant/experimenter gender matching, and expectancies of alcohol analgesia. 30.9 % of participants had non-zero BrACs, with an average of 0.038 g/dL. The average pain threshold was 3.58 kgf/cm2. Higher BrAC predicted greater pain threshold in both the whole sample (b = 0.145) and those participants with non-zero BrACs (b = 0.1848). Men had significant greater pain thresholds than women, but no other covariates reached significance.

Results suggest a significant, dose-dependent association of alcohol use with increased pain threshold, independent of age, sex, number of reported pain conditions, participant/experimenter gender matching, or beliefs regarding alcohol analgesia. The acute analgesic effects of alcohol may scale linearly with the amount consumed, at least within the BrAC range observed in the study, the researchers say.

Source: Boissoneault J, Cushnie A, Sinclair M, Hebert S, Schorn R, Burt J, Dougherty J. (2025) Dose-dependent effects of alcohol consumption on pressure pain threshold, Addict Behaviors, 162, 108226, ISSN 0306-4603, doi.org/10.1016/j.addbeh.2024.108226.

Genetic variation and self-rated effects of alcohol in a French young adult sample

The authors of a paper published in Risk Management and Healthcare Policy say that low sensitivity to the effects of alcohol is influenced by genes and predicts risk for harmful alcohol use and alcohol use disorder (AUD). Alcohol induces effects partly by modulation of gamma-aminobutyric acid receptors type A (GABAARs). Their research investigated the relationship between genetic variation in GABAAR subunit genes and individual alcohol sensitivity among French university students.

The study involved 1,409 French university students (34.5% women; mean age 20.3 years). Alcohol sensitivity was measured by the Self-Rating of the Effects of Alcohol Scale (SRE). SRE-scores from initial drinking, regular drinking, and heavy drinking were investigated for correlations with alcohol consumption and for associations with single nucleotide polymorphisms (SNPs) in GABAAR subunit genes (GABRA2, GABRG2, GABRA6).

The researchers replicated correlations between low alcohol sensitivity and high alcohol consumption. They further found an association between the minor allele in rs211014 (GABRG2) and higher SRE-scores, linked to dizziness and motor incoordination. Genetic variation in GABRG2 has previously been associated with processes involving motor coordination (alcohol withdrawal, febrile- and epileptic seizures).

The study results suggest that genetic variation in GABRG2 may influence alcohol sensitivity, which could inform strategies for assessing risk for harmful alcohol use and AUD.

Source: Moe JS, Bramness JG, Bolstad I, Mørland JG, Gorwood P, Ramoz N. (2025) Association between GABRG2 and self-rating of the effects of alcohol in a French young adult sample. Risk Manag Health Policy, 18:291-304. doi.org/10.2147/RMHP.S483830

Effect of alcohol consumption on oncological treatment effectiveness and toxicity in patients with cancer

A systematic review and meta-analysis examined the current evidence regarding the potential effects of alcohol consumption during cancer treatments on both treatment effectiveness and toxicity, irrespective of cancer type.

A comprehensive literature search was performed across three electronic databases (Medline, Web of Science, Cochrane) covering studies from January 1990 to December 2023. Furthermore, a manual search based on the reference lists of the eligible studies was performed to identify additional potentially eligible studies. Studies were eligible if they involved cancer patients and provided data on alcohol consumption during specific oncological treatments, including its effect on treatment outcomes, or compared treatment effectiveness or toxicity between drinkers and non-drinkers.

Out of 6,734 studies identified through searching, 38 met the inclusion criteria for pooled analyses. Alcohol consumption during radiotherapy, with or without concomitant chemotherapy, was associated with worse disease-free survival (pooled HR: 2.05; 95% CI: 1.09 - 3.89), although the numerically increased risk for locoregional recurrence did not reach statistical significance (pooled HR: 2.01; 95% CI: 0.76 - 5.36). The potential impact of alcohol consumption on chemotherapy-induced neurotoxicity and acute / delayed nausea was not statistically significant. However, alcohol consumption was associated with a lower risk of overall chemotherapy-induced nausea (OR: 0.69; 95% CI: 0.57, 0.84).

The authors state that their findings suggest that alcohol consumption may have a negative impact on radiotherapy, whereas its potential impact on the effectiveness of systemic oncological therapies (chemotherapy, molecular targeted therapy, immunotherapy and endocrine therapy) has not been adequately studied. Similarly, the current evidence on the potential association between alcohol consumption and treatment-related toxicities is weak, highlighting the need for well-designed prospective studies on this topic.

Source: Fountoukidis G, Schiza A, Smith D. et al. (2025) Effect of alcohol consumption on oncological treatment effectiveness and toxicity in patients with cancer: a systematic review and meta-analysis. BMC Cancer, 25:246. doi.org/10.1186/s12885-025-13694-z

Healthy lifestyle factors and combined macrovascular and microvascular events in diabetes patients with high cardiovascular risk

An open-access article published in BMC Medicine explores whether healthy lifestyle factors predict a lower risk of major macrovascular and microvascular events and death in people with type 2 diabetes with a high risk of vascular complications.

In the study, post hoc analyses of 11,133 participants with type 2 diabetes in the Action in Diabetes and Vascular Disease: Preterax and Diamicron Modified Release Controlled Evaluation (ADVANCE) trial who were assigned a score ranging from 0 to 4 based on the number of baseline healthy lifestyle factors: never smoked, moderate-to-vigorous physical activity, ideal waist/hip ratio, and low-to-moderate alcohol consumption. Multivariable Cox models were used to determine associations of 0, 1, 2, and ≥ 3 HLFs with vascular events and all-cause mortality.

Compared to participants with no healthy lifestyle factors, hazard ratios for participants with 3 or 4 HLFs were 0.68 (95% confidence interval [CI] 0.57-0.81) for the composite of major macrovascular or microvascular events, 0.58 (0.46-0.75) for major macrovascular events, 0.78 (0.61-0.99) for microvascular events, and 0.48 (0.37-0.63) for all-cause mortality during a median follow-up of 5 years. Each increment in the healthy lifestyle factor score was significantly associated with lower rates of these outcomes. There was no heterogeneity in the effect on any outcome by healthy lifestyle factor across randomised intensive blood glucose control and blood pressure lowering treatments.

Healthy lifestyle factors are associated with lower risks of major macrovascular and microvascular events and lower rates of death in high-risk adults with T2D.

Source: You S, Zheng D, Wang Y. et al. (2025) Healthy lifestyle factors and combined macrovascular and microvascular events in diabetes patients with high cardiovascular risk: results from ADVANCE. BMC Med, 23:87. doi.org/10.1186/s12916-025-03932-3

Association between drinking patterns and diabetic kidney disease in United States adults

A cross-sectional study investigated the association between drinking patterns and the prevalence of diabetic kidney disease (DKD) among adults in the United States.

Data were analysed from the NHANES surveys conducted between 1999 and 2016, including 26,473 participants. Drinking patterns were categorised by frequency (weekly, monthly, or yearly) and quantity (light, moderate, or heavy, based on daily consumption). Among participants with diabetes, diabetic kidney disease was defined using the albumin-to-creatinine ratio (ACR ≥30 mg/g) and estimated glomerular filtration rate (eGFR <60 mL/min/1.73 m2). Associations were assessed, adjusting for potential confounders across the four models. Subgroup analyses were performed to assess the effects of modification by age, sex, race, and BMI.

The study found that heavy alcohol consumption was associated with a higher risk of diabetic kidney disease than light drinking (OR = 1.23, 95% CI, 1.04-1.46). Conversely, moderate drinking frequency (3-4 days per week, 2-5 days per month, 3-126 days per year) was associated with a reduced diabetic kidney disease risk (OR = 0.67, 95% CI, 0.49-0.91; OR = 0.75, 95% CI, 0.56-0.99, OR = 0.71, 95% CI, 0.58-0.86, respectively). A nonlinear association was observed between alcohol consumption frequency and diabetic kidney disease in terms of weekly and yearly drinking days.

This study highlights the importance of drinking behaviour in the management of diabetic kidney disease. Daily alcohol consumption was associated with an increased risk of DKD, whereas moderate alcohol consumption was associated with a reduced risk. These findings suggest that moderate drinking frequency may not exacerbate renal burden in individuals with diabetes and provide new perspectives for clinical interventions.

Source: Yang, X. (2025). Association between drinking patterns and diabetic kidney disease in United States adults: a cross-sectional study based on data from NHANES 1999–2016. Renal Failure, 47(1). doi.org/10.1080/0886022X.2025.2454970

Patterns among factors associated with myocardial infarction

Although mortality from myocardial infarction (MI) has declined worldwide due to advancements in emergency medical care and evidence-based pharmacological treatments, MI remains a significant contributor to global cardiovascular morbidity. A study examined the risk factors associated with individuals who have experienced an MI in Turkey using data obtained from the Türkiye Health Survey conducted by Turkish Statistical Institute in 2019.

The analysis identified several factors associated with an increased likelihood of MI, including hyperlipidemia, hypertension, diabetes, chronic disease status, male gender, older age, single marital status, lower education level, and unemployment. Marginal effects revealed that elevated hyperlipidemia levels increased the probability of MI by 4.6%, while the presence of hypertension, diabetes, or depression further heightened this risk. Additionally, individuals with chronic diseases lasting longer than six months were found to have a higher risk of MI. In contrast, factors such as being female, having higher education, being married, being employed, engaging in moderate physical activity, and moderate alcohol consumption were associated with a reduced risk of MI.

To prevent MI, emphasis should be placed on enhancing general education and health literacy. There should be a focus on increasing preventive public health education and practices to improve variables related to healthy lifestyle behaviours, such as diabetes, hypertension, and hyperlipidemia.

Source: Bayrakçeken E, Yarali S, Ercan U. et al. (2025) Patterns among factors associated with myocardial infarction: chi-squared automatic interaction detection tree and binary logit model. BMC Public Health, 25:296. doi.org/10.1186/s12889-025-21536-7

Evaluating the influence of nonproblematic alcohol intake on the outcome of major depression

The effect of light or moderate alcohol intake on the outcome of patients with major depression taking antidepressants is a question that remains unanswered. A study assessed the association between light or moderate alcohol consumption and the acute response (efficacy and tolerability) to pharmacological treatment in unipolar major depression. Efficacy and tolerability analyses compared 8-week outcomes between three subgroups, abstainers, light drinkers and moderate drinkers, of patients with major depression using a prospective naturalistic single-blind design.

The treatment strategy was adapted from a local clinical guideline. Antidepressants prescribed were escitalopram, venlafaxine extended-release and imipramine; benzodiazepines and antipsychotics could be prescribed as needed. The final sample consisted of 614 severe unipolar major depressive inpatients and outpatients aged 18 years or older. Notably, no significant differences in efficacy or tolerability (including all subscores assessed) were found between the abstainer and nonproblematic drinker subgroups.

The authors say that, without ever forgetting the serious implicit risks associated with the inappropriate use of alcohol, their results suggest that nonproblematic alcohol consumption does not influence the outcome of patients diagnosed with an acute severe major depressive episode.

Source: Navarro V, Guarch J, Ilham B, Tardón L, Obach A, Gastó C, Vila-Vidal M. (2025) Evaluating the influence of nonproblematic alcohol intake on the outcome of major depression. Int Clin Psychopharmacol, 40(2):110-114. doi.org/10.1097/YIC.0000000000000545.

Association between alcohol consumption and the risk of type 2 diabetes mellitus across different body mass index categories among Japanese workers

While evidence from Western countries links low-to-moderate alcohol consumption to a lower risk of type 2 diabetes mellitus (T2D), findings have been inconsistent in Asia. Since T2D in Asia involves both insulin resistance and deficient insulin secretion, both of which are differently affected by alcohol, researchers prospectively examined whether the association differs according to body mass index (BMI) categories among the Japanese.

Participants were 31,524 health checkup examinees (26,819 males and 4,705 females aged 20-64 years) who were free from diabetes at baseline. Self-reported data on alcohol use were used to estimate the average daily alcohol consumption at the baseline. Incident diabetes was identified at annual check-ups during the follow-up period.

During a median follow-up of 12.0 years, 3,527 male and 287 female participants developed T2D. The association between alcohol consumption and T2D risk differed markedly by BMI in both sexes. Among males, low- and moderate-level alcohol consumption was associated with a lower T2D risk in individuals with BMI ≥25.0 kg/m2, whereas consumption at a level of 2 go/day (approximately 46 g ethanol) was linked to an increased T2D risk in those with BMI ≤22.0 kg/m2. In females, similar patterns were observed, although confidence intervals were broad due to the smaller sample size.

In Japan, low-to-moderate alcohol consumption may lower T2D risk in those with excess body weight, while high alcohol consumption may increase T2D risk in those with lower BMI.

Source: Wang Y, Inoue Y, Yamamoto S, Fukunaga A, Yamamoto S, Honda T et al. (2025) Association between alcohol consumption and the risk of type 2 diabetes mellitus across different body mass index categories among Japanese workers. J Epidemiology, Article ID JE20240259, Advance online publication February 08, 2025, 5040, https://doi.org/10.2188/jea.JE20240259

Dose-response association between alcohol consumption and kidney cancer risk differs according to glycemic status

Previous studies suggested an association between alcohol consumption and reduced kidney cancer risk. Given a potential interaction between alcohol's insulin-sensitising effect and hyperglycemia-related insulin resistance, researchers assessed whether the dose-response association between alcohol intake and kidney cancer risk varies based on glycemic status.

This nationwide cohort study analysed data from 9,492,331 adults who underwent a national health screening program in 2009 and were followed until 2018. Multivariable-adjusted Cox regression models were applied to estimate the hazard ratios (aHRs) and 95% confidence intervals (CIs).

Over a median follow-up period of 8.3 years, 12,381 participants were diagnosed with kidney cancer. A U-shaped relationship between alcohol consumption and kidney cancer risk was observed among individuals with normoglycemia (light-to-moderate; HR, 0.94; 95% CI, 0.89-0.99 and heavy; HR, 1.00; 95% CI, 0.91-1.09, respectively). In prediabetic individuals, alcohol consumption was not significantly associated with kidney cancer risk. In individuals with diabetes, a dose-dependent increase in kidney cancer risk was noted with higher alcohol consumption (light-to-moderate consumption: HR, 1.12; 95% CI, 1.03-1.22; heavy consumption: HR, 1.24; 95% CI, 1.09-1.42).

A modest U-shaped dose-response association between alcohol consumption and kidney cancer risk was observed exclusively in individuals with normoglycemia. Individuals with diabetes demonstrated a dose-dependent increased risk of kidney cancer with higher alcohol consumption. Tailored patient education and personalised risk assessments regarding alcohol consumption and kidney cancer risk should be emphasised over a generalized 'one-size-fits-all' approach.

Source: Park JH, Hong JY, Han K, Shen JJ, Park SH. (2025) Dose-response association between alcohol consumption and kidney cancer risk differs according to glycemic status: A Nationwide Cohort Study of 9.4 Million Individuals. Cancer Res Treat, doi.org/10.4143/crt.2024.996

Consumption of red versus white wine and cancer risk

While alcoholic beverage consumption increases cancer risk, red wine has been touted as a healthier option. To address this question a meta-analysis was conducted to summarise evidence from observational studies.

A literature search of PubMed and EMBASE through December 2023 identified studies examining wine and cancer risk. A random-effects meta-analysis was performed to estimate relative risks (RRs) and 95% confidence intervals (CIs) for an association between wine intake and overall cancer risk.

A total of 20 cohort and 22 case-control studies were included. Wine intake was not associated with overall cancer risk (n = 95,923) when comparing the highest vs. lowest levels of consumption, with no differences observed by wine type (red: summary RR = 0.98 [95% CI = 0.87, 1.10], white: 1.00 [0.91, 1.10]). However, white wine intake was significantly associated with an increased risk of cancer among women (white: 1.26 [1.05, 1.52], red: 0.91 [95% CI: 0.72, 1.16]) and in analyses restricted to cohort studies (white: 1.12 [1.03, 1.22], red: 1.02 [95% CI: 0.96, 1.09]). For individual cancer sites, there was a significant difference in associations between red and white wine intake only in skin cancer risk [6 studies, white: 1.22 (1.14, 1.30), red: 1.02 (0.95, 1.09)].

The research found no differences in the association between red or white wine consumption and overall cancer risk, challenging the common belief that red wine is healthier than white wine. Their significant results related to white wine intake in subgroup analyses warrant further investigation.

Source: Lim RK, Rhee J, Hoang M, Qureshi AA, Cho E. (2025) Consumption of red versus white wine and cancer risk: A meta-analysis of observational studies. Nutrients, 17(3):534. doi.org/10.3390/nu17030534

Alcohol consumption and autoimmune diseases

As alcohol consumption may modulate the immune system's regulatory mechanisms to avoid attacking the body's tissues, it has been proven to play a dichotomic role in autoimmune diseases based on the quantity of consumption. In a review, the authors report updated evidence on the role of alcohol in autoimmune diseases, with a focus on alcohol addiction and the human biological immune system and the relationship between them, with alcohol as a risk or protective factor.

The narrative review reports the main evidence on the most studied autoimmune diseases where alcohol represents a key modulator, including autoimmune thyroiditis, multiple sclerosis, rheumatoid arthritis, systemic lupus erythematosus, diabetes, allergic rhinitis, and primary biliary cholangitis. Alcohol at low–moderate dosages seems mostly to have a protective role in these diseases, while at higher dosages, the collateral risks surpass possible benefits. The specific mechanisms by which low-to-moderate alcohol intake relieves autoimmune disease symptoms are not yet fully understood; however, emerging studies suggest that alcohol may have a systemic immunomodulatory effect, potentially altering the balance of anti-inflammatory innate and adaptive immune cells, as well as cytokines (via the NF-κB or NLRP3 pathways). It might influence the composition of the gut microbiome (increasing amounts of beneficial gut microbes) and the production of their fatty acid metabolites, such as short-chain fatty acids (SCFAs) and polyunsaturated fatty acids (PUFAs), as well as elevated concentrations of acetate, high-density lipoprotein (HDL), and nitric oxide (NO). The authors state that a definite acceptable daily intake (ADI) of ethanol is complicated to establish because of the many mechanisms associated with alcohol consumption such that despite the interesting content of these findings, there is a limit to their applicability, and risks should be weighed in cases of alcoholic drinking recommendations. The aim of future studies should be to modulate those beneficial pathways involved in the alcohol-protective role of ADs with various strategies to avoid the risks associated with alcohol intake.

Source: Terracina S, Caronti B, Lucarelli M, Francati S, Piccioni MG, Tarani L, et al. (2025) Alcohol consumption and autoimmune diseases. Int J Molecular Sciences, 26(2):845. doi.org/10.3390/ijms26020845

Effect of moderate wine consumption on the activity of enzymes involved in platelet activating factor metabolism and thrombotic biomarkers

A randomised parallel intervention study was conducted with male patients diagnosed with coronary heart disease. Participants were assigned to three groups: Group A abstained from alcohol (n=20), Group B consumed red wine (n=21) and Group C (n=16) consumed an alcoholic beverage without wine micro-constituents. Biological samples were collected at baseline, 4 and 8 weeks. Enzyme activities of acetyl-CoA:lyso-PAF acetyltransferase (LysoPAF-AT), CDP-choline:1-alkyl-2-acetyl-sn-glycerol cholinephosphotransferase (PAF-CPT), PAF-acetylhydrolase (PAF-AH) in leukocyte homogenates, serum lipoprotein-associated phospholipase-A2 (LpPLA2) and plasma markers of thrombosis were measured. PAF-, adenosine diphosphate (ADP)-, and collagen-induced platelet aggregation were measured in human platelet-rich plasma.

Red wine consumption led to 15.3% reduction in LysoPAF-AT activity at 4 weeks compared to baseline and Group A. PAF-CPT activity was reduced by 11.1% at 8 weeks compared to baseline, and by 24.9% compared to Group C. PAF-AH activity was reduced by 36.2% at 8 weeks compared to baseline and compared to Group A and Group C. Fibrinogen levels in Group B reduced by 6-9% at 4 and 8 weeks compared to baseline while d-dimer in Group C increased by 16.1% at 8 weeks (compared to baseline. Platelet aggregation against PAF and collagen was reduced in Group B (82.6% and 35.4%, respectively), and in Group C (158.4% and 37.1%, respectively) compared to baseline and Group A.

In conclusion, moderate wine consumption improved the activity of PAF-metabolism enzymes regardless of ethanol and reduced platelet aggregation probably through mechanisms different from those of ethanol.

Source: Fragopoulou E, Argyrou C, Matalliotaki E, et al. (2025) Effect of moderate wine consumption on the activity of enzymes involved in Platelet Activating Factor metabolism and thrombotic biomarkers: A randomized, single-blind, parallel, clinical study in coronary heart disease men patients. Bri J Nutrit, 1-28. doi.org/10.1017/S0007114525000273

Medical research by publication date

Dose-dependent effects of alcohol consumption on pressure pain threshold 04/12/2024 Available online, Version of Record 05/12/2024

Alcohol consumption and mortality among Canadian drinkers 12/12/2024

Review of Evidence on Alcohol and Health 17/12/2024

Draft Report:Scientific Findings of the Alcohol Intake & Health Study for Public Comment 14/01/2025

Alcohol consumption and incident heart failure in men and women 20/01/2025

Alcohol consumption and autoimmune diseases 20/01/2025

Association between drinking patterns and diabetic kidney disease in United States adults 22/01/2025

Genetic variation and self-rated effects of alcohol in a French young adult sample 24/01/2025

Patterns among factors associated with myocardial infarction 24/01/2025

Dose-response association between alcohol consumption and kidney cancer risk differs according to glycemic status 31/01/2025

Consumption of red versus white wine and cancer risk 31/01/2025

Association between alcohol consumption and the risk of type 2 diabetes mellitus across different body mass index categories among Japanese workers 08/02/2025

Healthy lifestyle factors and combined macrovascular and microvascular events in diabetes patients with high cardiovascular risk 12/02/2025

Effect of alcohol consumption on oncological treatment effectiveness and toxicity in patients with cancer 12/02/2025

Effect of moderate wine consumption on the activity of enzymes involved in platelet activating factor metabolism and thrombotic biomarkers 13/02/2025

Association between wine consumption and migraine 14/02/2025

Evaluating the influence of nonproblematic alcohol intake on the outcome of major depression Accepted 24/01/2024. To be published March 2025 08/01/2025

Impact of the COVID-19 pandemic on alcohol consumption in young adults

The COVID-19 pandemic caused unprecedented restrictions, leading to differences in the frequency and patterns of alcohol consumption, especially among young adults. A systematic review published in the journal, Public Health, aimed to investigate the overall evidence concerning changes in alcohol consumption in this period.

The studies research was carried out in PubMed, Scopus, and Web of Science. Inclusion criteria involved observational studies focusing on participants aged 18 to 35, exploring alcohol consumption during at least the first wave of COVID-19, and publications in English or Spanish. A total of 28 studies conducted in different countries were included, European (18), North American (9), and Latin American (1). Although in many studies the overall prevalence of alcohol use was reduced, it was mainly among occasional users, in which the main motivation was the lack of social contact. It was exposed that participants with a high risk of problematic use increased their alcohol consumption, showing associated factors such as poor mental health, depressive symptoms, stress, and coping motivations. Males generally exhibited a higher risk of problem use and risky behaviours than females.

During COVID-19, youth alcohol consumption decreased overall, especially among social drinkers, but increased among high-risk users due to factors like distress and loneliness. Similar trends during other disasters emphasise the importance of addressing high-risk drinking in disaster planning. Also, preventing high-risk drinking from adolescence and youth could help reduce the global burden and impact of alcohol consumption.

Source: Lorena Botella-Juan, Daniela Vargas-Caraballo, Antonio José Molina, Natalia Hernández-Segura, Tania Fernández-Villa, Impact of the COVID-19 pandemic on alcohol consumption in young adults: A systematic review, Public Health, Volume 240, 2025, Pages 1-11, ISSN 0033-3506, doi.org/10.1016/j.puhe.2025.01.004

The mediating role of family and friends in tobacco and alcohol consumption and physical activity practice among Spanish adolescents

Adolescence represents a critical period for the establishment of healthy habits, with family and peer influence playing an essential role. A study examined the relationship between family and peer influence on various lifestyle behaviours in adolescents, specifically smoking, physical activity, and alcohol consumption.

The study was conducted on a sample of 173 secondary school adolescents. Peers were found to have the strongest influence on both healthy lifestyle habits and risk behaviours. Support from friends was the dimension that had the greatest impact on the practice of healthy behaviours, especially physical activity (0.630), while the perception of satisfaction with peers had the least impact. Concerning the family, the dimension that had the least dominance in adolescent behaviour was dialogue, and the most, satisfaction with family relationships. Furthermore, during early adolescence, the family context had a greater influence on the acquisition of life habits, in contrast to middle adolescence, where the influence of peers was more relevant.

Interventions aimed at promoting healthy habits among children and adolescents should consider the role of both family and peers as critical components in the development of effective health promotion and prevention strategies, the researchers conclude.

Source: Gargallo-Ibort E, Urraca-Martínez ML, Dalmau-Torres JM, Jiménez Boraita R. (2025) El rol mediador de la familia y los amigos en el consumo de tabaco, de alcohol y en la práctica de actividad física en adolescentes españoles [The mediating role of family and friends in tobacco and alcohol consumption and physical activity practice among Spanish adolescents]. Rev Esp Salud Publica, 99:e202502005. Spanish.

Changes in alcohol consumption during and after the Covid-19 Pandemic from 2020 to 2023 in Italy

The lockdowns imposed by the Italian government during the coronavirus disease 2019 (COVID-19) pandemic have had a significant impact on the Italian population's habits.

Lockdown and lifestyles in Italy and Tuscany studies collected data on a representative sample of the Italian adult population in 2020 (6,003 participants). This sample was followed up through 2023 via four additional surveys (3,000 ≤ n ≤ 6,600) through an online self-administered questionnaire. Considering the cohort of individuals who took part in the first and at least one other wave (n = 5,378), the odds ratios (ORs) and corresponding 95% confidence intervals (CIs) of being at-risk drinkers were estimated.

The prevalence of at-risk drinkers was 26.4% before, 23.4% during the first lockdown, and stabilised around 30.0% thereafter. Being at-risk alcohol consumers decreased with decreasing economic status, and was less frequent among middle-aged compared to younger (OR 0.73; 95% CI, 0.60-0.89) and among divorced/separated (OR 0.77; 95% CI, 0.60-0.99) or single (OR 0.75; 95% CI, 0.64-0.89) compared to married individuals. It was more frequent among individuals with anxiety or depressive symptoms (OR 1.24; 95% CI, 1.12-1.37), those using psychotropic drugs (OR 1.99; 95% CI, 1.69-2.35) and users of conventional and/or alternative nicotine products (OR 3.67; 95% CI, 3.00-4.48).

The long-term trends in alcohol consumption after the COVID-19 pandemic are unfavourable in Italy. The results point to an increased vulnerability for at-risk alcohol consumption among younger individuals, women with higher economic status, and married individuals. At-risk drinking is strongly related to mental health symptoms and nicotine consumption.

Source: Cerrai S, Carreras G, Monti F, Stival C, Lugo A, Bosetti C, et al. … the "Lost in Italy" and "Lost in Toscana" Study Investigators. (2025) Changes in alcohol consumption during and after the Covid-19 Pandemic from 2020 to 2023 in a prospective cohort of Italian adults. J Epidemiol, 35(2):63-70, Released on J-STAGE February 05, 2025, Advance online publication December 17, 2024, Online ISSN 1349-9092, Print ISSN 0917-5040, doi.org/10.2188/jea.JE20230340

Age of onset of adolescent alcohol use with parental permission and its impact on drinking and alcohol harms in young adulthood

Parental permission to use alcohol is common in adolescence, and many parents believe it to be an effective harm reduction strategy because it provides an opportunity to supervise drinking. Contrary to this belief, prior research has consistently linked parental provision of alcohol and permission to drink to increases in future alcohol-related harms. Whether the age of onset of parental permission to use alcohol influences these outcomes is poorly understood. A study investigated the impact of age of onset of parental permission to use alcohol on later drinking outcomes, utilising a longitudinal US community sample of 387 adolescents. The analysis included nine annual waves of data and accounted for risk and protective factors at the individual, peer, and family levels.

Consistent with prior research, a robust relationship was found between parental permission to use alcohol during adolescence and increased alcohol use frequency and quantity, alcohol use disorder symptoms, and alcohol-related harms in young adulthood.

Age of onset of parental permission was not associated with later alcohol use outcomes, suggesting a uniform risk effect of parental permission to drink. The researchers comment that public health messaging to parents should seek to correct perceptions of supervised alcohol use as a harm reduction strategy and emphasise the harm of parental permission to use alcohol, regardless of age.

Source: Pereda B, Caluda-Perdue N, Levy S, Zhang L, Colder CR. (2025) Age of onset of adolescent alcohol use with parental permission and its impact on drinking and alcohol-harms in young adulthood: A longitudinal study. Addictive Behav, 164, 108271. ISSN 0306-4603, doi.org/10.1016/j.addbeh.2025.108271

Drinking motives among 15-16-year-old school-going students in 16 European countries

Investigating drinking motives among minors across various countries is crucial for understanding the broader social context of alcohol consumption. A paper published in the Journal of Adolescent Health study examined the differences and similarities in drinking motives among 15-16-year-old adolescents who consume alcohol across 16 European countries.

The analysis used data from the European School Survey Project on Alcohol and Other Drugs database and focused on 15-16-year-old school-going students across 16 European countries (Denmark, Estonia, Finland, Germany, Greece, Iceland, Italy, Latvia, Lithuania, The Netherlands, Norway, Poland, Portugal, Romania, Sweden, and Spain). The students were presented with a series of questions about drinking motives, exploring the reasons behind their alcohol consumption within the past 12 months.

A total of 52,141 students participated, with 75.2% reporting lifetime alcohol consumption and 65.8% reporting alcohol consumption in the past year. Among those who drank in the past year (n = 34,295), three distinct drinking motive factor groups were identified: enhancement and social motives, coping motives, and conformity motives. Enhancement and social motives were most prevalent across all countries, followed by coping motives, with conformity motives less common.

This largest drinking motive study, conducted to date, examined drinking motives among 15-16-year-old students across 16 European countries. There is a significant positive correlation between alcohol intoxication prevalence and mean score on enhancement and social motives at an aggregate level, which suggests a stronger presence of enhancement and social motives in cultures with a more intoxication-oriented drinking pattern.

Source: Drinking motives among 15–16-year-old school-going students in 16 European countries. Pigeaud L, et al. (2025) J Adolescent Health, doi.org/10.1016/j.jadohealth.2024.12.009

Educational attainment as a potential effect modifier of alcohol use and 100% alcohol-attributable mortality in the United States

Socio-economic inequalities in mortality are a growing health concern in the United States (US) with continuously increasing gaps in life expectancy that reached about a decade difference by 2018 between adults with a high school degree or less and adults with a college degree or higher. A study supported by the National Institute on Alcohol Abuse and Alcoholism of the National Institutes of Health in the US sought to investigate interaction effects between educational attainment and alcohol use on the risk of 100% alcohol-attributable mortality in US adults aged 25 years and older overall and by sex.

The Nationwide cohort study used a longitudinal design, linking data from the 1997–2018 National Health Interview Survey to mortality data of the National Death Index in 2019. The study had an average follow-up time of 10.7 years.

Of a total of 562,632 adults, 901 (635 men and 266 women) died during follow-up from a 100% alcohol-attributable cause of death [15 per 100 000 person years]. A strong interaction effect was found between low education and Category III alcohol use (>60 g and >40 g per day for men and women, respectively), with 83.68 additional deaths per 100 000 person-years (95% confidence interval = 16.48–150.87) found in individuals with low education with Category III drinking compared with a situation when there was no interaction between the two risk factors. For individuals with low education, the risk associated with Category III drinking was double that for those with high education.

The study concludes that in the US, people with combined low education and high alcohol consumption (>60 g/day for men, >40 g/day for women) appear to have a higher risk of 100% alcohol-attributable mortality compared with other combinations of educational attainment and drinking.

Source: Probst C, Zhu Y, Kilian C, Kerr W, Rehm J. (2025) Educational attainment as a potential effect modifier of alcohol use and 100% alcohol-attributable mortality in the United States—A longitudinal analysis of mortality linked survey data from 1997 to 2018. Addiction. doi.org/10.1111/add.16774

Predictors and consequences of unplanned drinking among young adults

Unplanned drinking, or drinking that violates intentions to limit alcohol consumption, has been linked to significant alcohol-related consequences in college students; however, predictors and outcomes remain incompletely understood among other populations of young adults. A study identified person- and event-level predictors of unplanned drinking and explored the association of unplanned drinking with negative alcohol-related consequences in a racially and educationally diverse cohort of young adults.

A total of 938 young adults (aged 18-25; 70 % female; 60 % non-college; 37 % Black) participating in a randomized trial testing text-message alcohol interventions completed ecological momentary assessments (EMA) reporting drinking intentions and alcohol consumption twice weekly for at least 4 weeks over a 14-week period. Controlling for intervention effects, predictors of unplanned drinking days were examined, and the relationship between the frequency of unplanned drinking and negative alcohol consequences at a 14-week follow-up was assessed.

Participants reported alcohol consumption on 16.9 % of days when they had no plan to drink. Odds of unplanned drinking was higher for older age (adjusted Odds Ratio [aOR] = 1.06), Black race (aOR = 1.25), higher AUDIT-C score (aOR = 1.14), and higher negative urgency score (aOR = 1.05), weekends (aOR = 1.6301) and the presence of friends drinking (aOR = 9.37). Compared to participants in the lowest unplanned drinking day category, those in the highest category showed a 26% higher negative alcohol consequence rate ratio (RR = 1.26, 95 % CI [1.07, 1.48]).

Unplanned drinking in young adults is strongly influenced by social context and individual risk factors. This behaviour, when extreme, was associated with increased negative alcohol-related consequences. Interventions targeting impulsivity and peer influence may reduce unplanned drinking and mitigate its harmful effects, the authors suggest.

Source: Suffoletto B, Chung T, Predictors and consequences of unplanned drinking among young adults, Addictive Behaviors, 165, 108286, ISSN 0306-4603, doi.org/10.1016/j.addbeh.2025.108286

The impact of Scotland's minimum unit pricing for alcohol policy on people accessing services for alcohol dependence

A minimum unit price (MUP) for alcohol of £0.50 per unit (1 UK unit = 10 mL/8 g alcohol) was introduced in Scotland in May 2018. Few previous studies have examined the impact of alcohol pricing policies on people who are alcohol dependent. Researchers evaluated the effect of MUP on people who are alcohol dependent including changes in alcohol consumption and health status, as well as potential unintended consequences.

Three waves of cross-sectional data were collected in Scotland (intervention) and Northern England (control) at 0-6 months pre-implementation then 3-9 months and 18-22 months post-implementation. The sample included 706 people receiving treatment related to their alcohol use. Researchers collected structured interview data including recent drinking information via a 7-day timeline-follow-back drinking diary. Changes in indicators in Scotland compared to England at both post-implementation time points were estimated.

The proportion of participants consuming alcohol costing on average <£0.50 per unit in Scotland decreased from 60.6% at 0-6 months before MUP implementation to 6.3% at 3-9 months post-implementation. There was no significant change in the indicators for alcohol consumption, severity of dependence, health status, other substance use, deprivation level or parenting.

The introduction of MUP in Scotland was associated with increases in the prices paid for alcohol by people with dependence and presenting to treatment services. There was no evidence of changes in their alcohol consumption or health status. There was also no evidence of harmful unintended consequences for this population.

Source: Buykx P, Perkins A, Hughes J, Livingston W, Boyd J, Perman-Howe P, et al. (2025) The impact of Scotland's minimum unit pricing for alcohol policy on people accessing services for alcohol dependence: A difference-in-difference structured interview study. Drug Alcohol Rev, 44(1): 90–103. doi.org/10.1111/dar.13960

Local area crime and alcohol consumption in Australia

Alcohol misuse is a major public health issue. Understanding factors that contribute to alcohol misuse or risky drinking behaviour is important for policy. A study examined if crime rates in the neighbourhood (postcode) where a person lives influence their likelihood of engaging in risky drinking behaviour. The researchers further explored social capital and mental health as channels through which neighbourhood crime influences risky drinking behaviour.

The study used 18 waves of household longitudinal data from the Household, Income and Labour Dynamics in Australia Survey for the period 2002 to 2019 merged with official police statistics on neighbourhood crime rates.

The study found that an increase in neighbourhood crime is associated with an increase in the likelihood of risky drinking (OR=1.107, 95% CI 1.073 to 1.120), alcohol expenditure (b=0.063, 95% CI 0.041 to 0.076), alcohol consumption frequency (b=0.071, 95% CI 0.055 to 0.083) and quantity (b=0.046, 95% CI 0.032 to 0.052). The study authors present exploratory evidence that social capital and mental health mediate the relationship between neighbourhood crime and alcohol use. Specifically, their results suggest that by eroding the level of trust and decreasing mental health, neighbourhood crime tends to increase the probability that people engage in risky alcohol behaviour.

The authors say that their findings suggest that targeting crime and in particular the channels through which crime influences risky alcohol behaviour (i.e., trust and mental health) can be instrumental in addressing alcohol misuse.

Source: Churchill REA, Koomson I, Awaworyi Churchill S. (2025) Local area crime and alcohol consumption: longitudinal evidence from Australia. J Epidemiol Community Health,79:159-164. https://doi.org/10.1136/jech-2024-222470

Parental drinking patterns and adolescent alcohol consumption

Research indicates that parental behaviours shape adolescents' alcohol consumption. It is unclear, however, whether mothers or fathers have a more significant impact and how this relationship varies by sex and developmental stage. A study examines the effects of parental alcohol consumption patterns on adolescents in Russia using a large representative sample.

The study used pooled data from the Russia Longitudinal Monitoring Survey-Higher School of Economics (RLMS-HSE) from 2006 to 2019. The final sample included 25 611 cases of adolescents with the available data on their parents (20% male adolescents aged 14-17, 20% female adolescents aged 14-17, 28% male adolescents aged 18-22, and 32% female adolescents aged 18-22; M = 18.22, SD = 2.63). Adolescent drinking was measured as a binary variable indicating drinking at least sometimes, while parental drinking was categorised into five levels, including moderate and excessive consumption.

Maternal alcohol consumption patterns were associated with adolescent drinking. Sex differences were observed, with parental drinking patterns showing a greater association with alcohol use for female adolescents. For middle adolescents, a positive association with excessive alcohol consumption by their parents was found.

The study emphasises the importance of considering both parents' alcohol consumption patterns when examining adolescent alcohol use, with findings indicating that maternal drinking played a more significant role than paternal drinking. It is crucial to explore this relationship separately for male and female adolescents, considering the stage of adolescence.

Source: Kondratenko VA. (2025), Parental drinking patterns and adolescent alcohol consumption: considering the role of sex and developmental stage. J Adolescence. doi.org/10.1002/jad.12474

Age at first alcohol use among a sample of autistic underage youth

Recent research has identified risk factors for hazardous alcohol use among autistic individuals, but correlates of age at first alcohol use are unclear.

A study analysed 49 US-based autistic youth (ages 16–20) who had ever consumed alcohol. Participants were categorised as being less than 16 years old or 16 years or older at first alcohol use. The analysis aimed to descriptively compare youth with younger versus older age at first alcohol use.

Younger age at first alcohol use was associated with hazardous alcohol use, higher levels of anxiety, and lower masking of autistic traits. These findings demonstrate that autistic youth are at risk for underage alcohol use. More research is needed on alcohol and substance use in this population to develop tailored prevention and intervention programs.

Source: Holingue C, Holmes LG, Cusano J, Rothman EF. (2025) Correlates of age at first alcohol use among a US-based sample of autistic underage youth. Res Autism Spectrum Disorders, 119, 102520. ISSN 1750-9467, doi.org/10.1016/j.rasd.2024.102520

Curbing adolescents' risky drinking behaviour with authenticity

A paper published in the Journal of Public Policy & Marketing states that adolescents' risky drinking behaviour continues to be a public policy concern, and insight into effective messages and behaviours that resonate with adolescents is needed. Evidence points to the potential of tapping into adolescents' need for authenticity. Drawing on authenticity literature and implementing a mixed-methods approach using family group interviews, followed by a 1×3 between-subject experiment with adolescents, research conceptualised a novel authentic engagement framework for reducing adolescents' risky behaviour.

The findings identify and test that messages about drinking need to acknowledge positive aspects while warning of the negative consequences (i.e., mixed messages) across three dimensions: social, hedonic, and safety. Alongside mixed messages, parents need to be honest about past experiences and align their behaviour by acting as positive role models. Importantly, adolescents need an environment that enables them to experiment while having clear boundaries. Together, these approaches translate into openness and authenticity, critical for trust and the ability of adolescents to be true to themselves. The research has implications for parents and policymakers/marketers engaging with adolescents authentically about risky behaviour, by providing information on message type and behaviours for effective training/educational programs and responsible drinking campaigns. The framework can be transferred to other contexts involving risky behaviour.

Source: Hess AC, Dodds S, Jaud DA, Garnier C, Gergaud O. (2025). Curbing adolescents' risky drinking behavior with authenticity. J Public Policy Marketing. doi.org/10.1177/07439156241291476

Barriers to the use of no and low alcohol products in high-risk drinkers

Consuming no or low (NoLo) alcohol products in place of regular strength alcohol products could reduce alcohol-related harms in high-risk drinkers. A study explored beliefs about NoLo products and motives for their use by level of risky drinking using a model of behaviour change.

The 2022 Global Drug Survey included NoLo product use, beliefs, and motives for consuming or not consuming NoLo products.

In a sample of 33,033 respondents (59.5% cis men; 37.3% cis women; 3.2% trans/non-binary) over 52.2% reported NoLo product use in the last 12 months. Recent NoLo use was associated with older age, employment status and more common in respondents who drank alcohol compared to non-drinkers. High-risk drinkers were more likely to believe NoLo products could help them to drink less and to avoid embarrassment. However, higher-risk drinkers who had never consumed NoLo products were more likely to report that they drank to be intoxicated and believed they would not have a good time if they switched.

The study authors state that people who are drinking for enhancement motives (e.g., for fun, to feel intoxicated) may be less amenable to substituting regular strength alcohol products for NoLo products. NoLo use may help some higher-risk drinkers consume less alcohol, and social and motivational factors could be targeted to increase their use. There should be a renewed focus on broader intervention strategies, such as creating viable social alternatives to consuming alcohol.

Source: Davies EL, Perman-Howe P, Seddon J, Piatkowski T, Puljevic C, Barratt MJ, et al. (2025) Barriers to the use of no and low alcohol products in high-risk drinkers. Drug Alcohol Rev. doi.org/10.1111/dar.14006

Association between change in alcohol use reported during routine healthcare screening and change in subsequent hospitalization

Primary care systems often screen for unhealthy alcohol use with brief self-report tools such as the 3-item Alcohol Use Disorders Identification Test for Consumption (AUDIT-C). Little research examines whether change in alcohol use measured on the AUDIT-C captures meaningful change in outcomes affected by alcohol use. A study measured the association between change in AUDIT-C and change in all-cause hospitalisation risk, measured in the year after each AUDIT-C.

A retrospective cohort study used data from the health system in Washington, USA, which conducts annual screenings with the AUDIT-C in outpatient care. It included 165,101 adults who had completed at least two AUDIT-Cs 11–24 months apart (2016–2020).

AUDIT-C scores were grouped into five risk categories reflecting no drinking (0), drinking without unhealthy alcohol use [1–2 (female)/1–3 (male)], and unhealthy alcohol use with moderate risk [3–6 (female)/4–6 (male)], high risk (7–8), and very high risk (9–12). Changes in AUDIT-C were based on the number of category levels that changed (0–4). Hospitalisations, reflecting one or more hospitalisations in the 365 days after each AUDIT-C, were identified from insurance claims.

5.7% and 6.1% of the study cohort were hospitalised the year after the first and second AUDIT-C, respectively. Decreases in AUDIT-C risk category of 1 or ≥2 levels were associated with statistically significant decreases in risk of hospitalisation, compared with the change in hospitalization risk for those with no change in AUDIT-C [1-level decrease: ratio of adjusted risk ratios (aRR) = 0.92, 95% confidence interval (CI) = 0.86–0.99; ≥2-level decrease: ratio of aRR = 0.68, 95% CI = 0.58–0.81]. Increases in AUDIT-C risk category of 1 or ≥2 levels were not associated with statistically significant differences in risk of hospitalisation, compared with those with no change in AUDIT-C.

A decrease in AUDIT-C score risk category is associated with a decreased risk of both all-cause hospitalisations and hospitalisations with conditions directly or potentially attributable to alcohol. An increase in AUDIT-C score does not appear to be associated with a change in risk of hospitalisation in the following year, the research concludes.

Source: Jack HE, Berger DB, Bobb JF, Oliver MM, Bradley KA, Hallgren KA. (2025) Association between change in alcohol use reported during routine healthcare screening and change in subsequent hospitalization: A retrospective cohort study. Addiction. doi.org/10.1111/add.16771

Social and Policy research by publication date

Curbing adolescents' risky drinking behaviour with authenticity 01/102024

The impact of Scotland's minimum unit pricing for alcohol policy on people accessing services for alcohol dependence 16/10/2024

Correlates of age at first alcohol use among a US-based sample of autistic underage youth 21/11/2024 Available online, Version of Record 21/11/2024

Impact of the COVID-19 pandemic on alcohol consumption in young adults: A systematic review 22/01/2025 Available online, Version of Record 22/01/2025

Association between change in alcohol use reported during routine healthcare screening and change in subsequent hospitalization 27/01/2025

Educational attainment as a potential effect modifier of alcohol use and 100% alcohol-attributable mortality in the United States 27/01/2025

Parental drinking patterns and adolescent alcohol consumption: considering the role of sex and developmental stage 28/01/2025

Age of onset of adolescent alcohol use with parental permission and its impact on drinking and alcohol harms in young adulthood 02/02/2025 Available online, Version of Record 06/02/2025

The mediating role of family and friends in tobacco and alcohol consumption and physical activity practice among Spanish adolescents 03/02/2025

Changes in alcohol consumption during and after the Covid-19 Pandemic from 2020 to 2023 in Italy 05/02/2025

Barriers to the use of no and low alcohol products in high-risk drinkers 09/02/2025

Local area crime and alcohol consumption in Australia 10/02/2025 Published online

Predictors and consequences of unplanned drinking among young adults 10/02/2025 Available online, Version of Record 14/02/2025.

Drinking motives among 15-16-year-old school-going students in 16 European countries 11/02/2025 Published online

Alcohol app could reduce harm, save lives and reduce NHS costs

The Drink Less app, developed at University College London (UCL), has been proven as an effective tool in helping people reduce their alcohol consumption. A study has found that the app can be a powerful tool in reducing alcohol consumption and improving public health.

A previous trial demonstrated that the free app is effective at helping heavier drinkers cut down their drinking. The study by academics at the University of Sheffield and the University of Bristol, explored the potential long-term impacts of different approaches to promote Drink Less to a wider audience. Their analysis found that a national mass media campaign would lead to an estimated 2,600 fewer deaths and 108,600 fewer hospital admissions over the next 20 years, saving the NHS £417 million. Encouraging GPs to promote the app is estimated to have an even larger impact, saving the NHS £500 million by reducing alcohol-related deaths by 4,600 and hospital admissions by 188,400. Conducted using the Sheffield Alcohol Policy Model, it was estimated the biggest health gains are likely to be in the most deprived groups, helping to narrow existing health inequalities.

Dr Claire Garnett, Research Fellow in the School of Psychological Science at University of Bristol and chief investigator on the Drink Less trial, said: "By making tools, like Drink Less, readily available and integrating them into existing healthcare systems, we can not only improve people's individual health outcomes but also contribute to a more equitable and healthier society."

"However, we must be mindful that digital health apps don't suit everybody and are one valuable tool in the box. We need a national strategy to address alcohol harm that also includes other effective interventions and policies, such as making alcohol less cheap and less available, less heavily marketed, and improving access to alcohol treatment and support."

The new research found the app is particularly effective in helping people to cut back on their alcohol intake when integrated into primary care settings, for example, encouraging healthcare professionals to recommend the app to patients during consultations. The findings estimated this to be more effective than using a large-scale public awareness campaign to increase downloads and use of the app.

sheffield.ac.uk/news/alcohol-app-saves-lives-reduces-harm-and-could-save-nhs-millions-new-study-shows

Public support for the introduction of an alcohol lock for repeat offenders in the Netherlands

A survey by Ipsos I&O, conducted among over 2,100 people in the Netherlands found that there is broad social support for stricter rules to reduce drink driving. The poll, commissioned by the Victim Support Fund, shows that 84% of respondents support the introduction of an alcohol lock for repeat offenders. In addition, almost three-quarters believe that the use of alcohol should be completely banned for drivers of cars, motorcycles and fat bikes.

Every year, between 75 and 140 people in the Netherlands die in accidents involving alcohol. Following the survey, Marijke Brouwer of the Victim Support Fund is advocating stricter rules and technological measures. "It is time to set a clear boundary," she says. "We want to prevent as much suffering as possible."

Although a ban on alcohol in traffic also has broad support, the Victim Support Fund focuses primarily on tackling repeat offenders. "It is a small group that causes a lot of misery," says Brouwer. The survey confirms this: while 84% are in favour of an alcohol lock for repeat offenders, support for an alcohol lock for a first offense is lower, at 43%.

The alcohol lock had already been introduced in the Netherlands, but was abolished in 2016 after legal objections. The Council of State and the Supreme Court ruled at the time that the measure was too drastic and did not take sufficient account of personal circumstances. Not all cars were suitable for an alcohol lock, and not everyone could afford the costs. As a result, some drivers lost their driving licenses, while others were able to continue driving with an alcohol lock.

According to Brouwer, the technology has since improved, which means the measure can be implemented more fairly and effectively. Therefore, the Victim Support Fund is calling on the Lower House to take new, effective measures and make the alcohol lock mandatory again for repeat offenders.

Portman Group to launch first proactive audit to assess responsible alcohol marketing across the market

The Portman Group has commissioned an independent audit to measure responsible marketing across the alcoholic drinks market. The Portman Group's Naming and Packaging Code of Practice consists of 12 rules that ensure that alcohol is marketed in a socially responsible way, only to those aged 18 years and over, and in a way that does not appeal particularly to those who are vulnerable. Auditor Zenith Global will select 500 alcoholic drinks in the Great British market which will be assessed against the Group's Code of Practice. The sample will be statistically representative and weighted so that all categories of alcohol are included. While the Portman Group has previously commissioned audits to test compliance following the introduction of a new edition of the Code, this is the first standalone proactive audit of its kind which will now run biannually in a move towards more proactive regulation.

If Zenith Global has any concerns about a product it will raise a complaint with The Portman Group. These cases will follow the formal complaints process and will initially be assessed by the Chair of the Independent Complaints Panel to determine how the case should be resolved. The audit will result in the publication of two reports and any products which proceed to formal investigation will have full accompanying decisions publicised. The project is likely to run throughout this year with results expected to be publicised in the Autumn.

Matt Lambert, Chief Executive of The Portman Group said: "We know that the vast majority of the alcohol industry is responsible, so we are confident that the results of this audit will show high levels of compliance across the market with our Code of Practice and enable us to proactively address any products which do not respect the code. It's an important step to demonstrate the effectiveness of the self-regulatory model and strengthen our capacity even further."

portmangroup.org.uk/portman-group-to-launch-first-proactive-audit-to-assess-responsible-alcohol-marketing-across-the-market/

WHO/Europe highlights Nordic alcohol monopolies as a comprehensive model for reducing alcohol consumption and harm

A WHO Europe report explores the role of Nordic alcohol monopolies in Europe, operating in Finland, Iceland, Norway, Sweden and the Faroe Islands (a self-governing territory of the Kingdom of Denmark). The report argues that these monopolies prioritise public health and minimise alcohol-related harm as integral components of national and local alcohol strategies. Exclusively authorised to sell most alcoholic beverages, they operate under government oversight. Unlike other retail outlets, they are not driven by profit or sales, focusing primarily on public health and welfare.

The monopolies align with WHO evidence-based recommendations for reducing alcohol consumption and harm, which include high alcohol taxes, limited availability, and restricted marketing. They implement these strategies by controlling the number of stores, limiting operating hours, enforcing age limits, banning promotional pricing, and eliminating advertising and sales promotions, including online. Additionally, they educate the public about alcohol-related harm and ensure responsible sales practices. Historically, these monopolies have contributed to a shift in northern Europe from irregular, heavy drinking to more moderate consumption, resulting in lower alcohol consumption and harm compared to most European countries.

In 2019, the average total alcohol per capita consumption among adults in the 27 EU countries was 11.0 L of pure alcohol—twice the world average of 5.5 L. In comparison, the average in Norway was 6.8 L, while in Iceland it was 8.1 L, in Finland 9.2 L, and in Sweden 9.3 L

The report concludes that evidence consistently shows that privatisation of alcohol sales increases consumption, while monopolisation decreases it. Despite recent policy changes threatening their effectiveness, the Nordic alcohol monopolies remain crucial to national alcohol strategies, safeguarding public health and reducing alcohol-related harms.

iris.who.int/bitstream/handle/10665/380178/WHO-EURO-2025-10431-50203-77026-eng.pdf?sequence=22

Alcohol-specific deaths in the UK

On 5 February 2025, the ONS released details of alcohol-specific deaths in the UK registered in 2023.

In 2023, 10,473 deaths from alcohol-specific causes were registered in the UK, the highest number on record, but the rate of alcohol-specific deaths (15.9 per 100,000 people) decreased slightly compared with 2022 (16.6 deaths per 100,000 people).

Age-specific rates decreased for the first time since 2020 for people aged between 25 and 59 years, while rates for those aged 20 to 24 and 60+ years remained similar to 2022. Consistent with previous years, the rate of alcohol-specific deaths for males remained around double the rate for females (21.9 and 10.3 deaths per 100,000 people, respectively).

England and Wales had an increase in the rate of alcohol-specific deaths (15.0 and 17.7 deaths per 100,000 people, respectively) compared with 2022. The Northeast had the highest rate of alcohol-specific deaths of any English region (25.7 deaths per 100,000); the East of England had the lowest rate (11.5 deaths per 100,000).

Scotland and Northern Ireland continued to have the highest rate of alcohol-specific deaths (22.6 and 18.5 deaths per 100,000 people, respectively), with the rate in Scotland remaining unchanged and a decrease in Northern Ireland compared with 2022.

ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registeredin2023

Does a minimum unit price for alcohol help reduce harmful levels of drinking?

The Welsh Government, through the Public Health (Minimum Price for Alcohol (MUP) (Wales) Act 2018 implemented a minimum price for alcohol that came in to force from March 2020, set at 50p. The National Centre for Social Research (NatCen) examined the effects of the MUP in Wales: firstly with a qualitative study of retailers' views and experiences of the policy between 2019 and 2024 and secondly exploring changes in levels of alcohol purchases in households from household shopping data between 2016 and 2023.

The report adds to the evidence that suggests a MUP is effective in reducing the availability and sale of cheap, high-strength alcohol. Retailers reported that customers were buying less of cheap, high-strength alcohol products from shops, that they stocked less of them, and in some cases stopped selling them altogether. Overall, the MUP also had a statistically significant impact on the number of alcohol units purchased by households in Wales compared to England. While alcohol purchases increased during the COVID-19 pandemic in both countries, the increase was less in Wales and declined more rapidly in Wales post-pandemic.

The report addresses some of the concerns raised by retailers concerning minimum unit pricing, especially 'off-trade' retailers, such as shops. For example, retailers were supportive of the policy when they understood that it was one of several measures designed to reduce harmful levels of drinking among the general population. They were less supportive, where they believed it was targeted solely at problem drinkers, where they thought the policy would have less impact. Contrary to the view that higher prices would lead to more shoplifting by problem drinkers, some retailers said they saw fewer 'troublesome' customers. Retailers adapted to the policy well over time. They said that initial negatives – such as training costs, product wastage through being unable to sell off high-strength alcohol at a discount near its use-by date, and difficulties pricing special offers – declined. There was little evidence for the need for enforcement of the MUP.

One issue that arose from the studies was the significant impact of unusually high inflation during 2023/24 on the continued effectiveness MUP. It appears that higher prices have in some cases outstripped the positive effects of a MUP set at 50p. In this context, the Scottish Government has increased the MUP in Scotland to 65p. Governments will, therefore, need to balance the level of the MUP during a cost-of-living squeeze with the benefits it brings in reducing harmful levels of drinking.

gov.wales/research-minimum-pricing-alcohol

Drinking and deprivation in England

Drinkaware published a report in February, detailing research - part of the Drinkaware Monitor for 2023 - that examined patterns of alcohol use, attitudes, and support across different deprivation levels in England. This involved a comparison between individuals living in the most deprived areas (deciles 1-2) and the least deprived areas (deciles 9-10). Key findings were that people living in the most deprived areas:

- they are less likely to drink alcohol, than those living in the least deprived areas. Yet, people living in more deprived areas are more likely to drink larger amounts of alcohol on a typical drinking day (7+ units), and they are also more likely to engage in binge drinking.
- they are more likely to be categorised as high-risk or possibly dependent drinkers based on the Alcohol Use Disorders and Identification Tool.
- they are more likely to drink for coping reasons, such as when they are feeling depressed or nervous or to forget about their problems.
- they are more likely to view their relationship with alcohol as healthy, despite higher levels of risky drinking, They are also less likely to see getting drunk as problematic, as long as it does not occur frequently or negatively impact others.
- their drinking is more likely to lead to negative or risky behaviours, such as mood swings and arguments, particularly when people drink to excess.
- They tend to be less aware of the potential harms of drinking at risky levels and are less likely to link drinking with certain health conditions
- They are more likely to have had concern expressed about their drinking, and are more likely to be concerned about someone else's drinking.
- They are less likely to report that they have had an alcohol screening test and are less likely to feel they would seek support for alcohol-related issues. Yet, they are more likely to have accessed services - especially for themselves.

The researchers say that these findings are even stronger when we look at just those who live in the 10% most deprived areas. The report argues that while highlighting differences in behaviours, attitudes and awareness is important, the alcohol harm paradox will not be addressed by focusing on downstream initiatives alone. Alcohol harm is influenced by a complex interplay of factors beyond drinking behaviour and attitudes. Wider social and economic inequalities play a key role in why those living in the most deprived areas experience worse alcohol-related harm, despite not always drinking more.

media.drinkaware.co.uk/media/jvcmcz32/drinkaware_deprivation_report.pdf

IAS video on alcohol's impact on healthcare services

In England, alcohol is now the leading cause of premature death and ill health for people aged 15 to 49 years, and alcohol-related deaths are at the highest number ever recorded. Evidence shows that quality treatment services can save lives and are cost-effective. For every £1 spent on treatment, the return is £3 in savings, rising to £26 over ten years. Despite this, most people struggling with problematic alcohol use aren't receiving treatment. The film clip argues that chronic underfunding, and fragmented services have left us without an effective approach to addressing alcohol-related harms across our healthcare services. There is a clear need for a health systems response to addressing alcohol-related harms. Why is such a response more urgent than ever, however,how have reforms to healthcare services contributed to a worsening situation, what can the government and the NHS do, and why should such a response to alcohol harm be an essential part of the Labour government's mission to rebuild Britain?

youtube.com/watch?v=2bH7ENlper8

Do alcohol 'sobriety tags' reduce reoffending?

Writing in a blog for the Institute for Alcohol Studies, Dr Carly Lightowlers reports on research examining whether alcohol monitoring/ sobriety tags successfully reduce reoffending. While wearing the tag, the wearer cannot drink alcohol otherwise it will be detected in their sweat, probation authorities would then be alerted, and the individual could be called to court to face the prospect of further sanctions. Ultimately, the aim is to reduce alcohol-related violence and crime. The government has reported a high compliance rate, stating that 97% of wearers remained alcohol-free whilst wearing the tag.

Using probation and magistrates' courts datasets for England and Wales, Dr Lightowlers' research found that compliance was 78% - lower than that found in previous research. However, there was evidence that tags reduced the likelihood of reoffending – wearers were on average 33% less likely to re-offend (controlling for similar offense and demographic profiles).

Despite these findings, Dr Lightowler highlights the need to further understand what type of alcohol interventions work and for what type of drinker. She adds that is "also important for policymakers to reflect further on the treatment components as well as the punitive and rehabilitative ideals sitting behind alcohol tagging, especially as the viability of court-enforced alcohol abstinence is contested and alcohol tags only monitoring people's alcohol use rather than extending them help for their drinking problems or associated offending".

The study findings offer insights into whether alcohol tags are working for those serving criminal sentences in the community. Alcohol tags are now also available for prison leavers in England and Wales and their use amongst this population has not yet been evaluated.

The study encourages further reflection on the challenges associated with appropriately identifying eligible recipients and allocating alcohol tags appropriately. It offers the following policy recommendations:

1. Conduct a national evaluation of the use of alcohol monitoring tags in community sentencing;
2. Review policy and practice protocols as well as practitioner training on eligibility for alcohol tagging;
3. Consider how best to support a range of alcohol users (beyond simplistic dichotomies of dependent and non-dependent drinkers);
4. Evaluate the national rollout of alcohol tagging for prison leavers; and
5. Improve the identification of alcohol-related offending in criminal justice data to assist high-quality research and evaluation studies.

adruk.org/fileadmin/uploads/adruk/Documents/Data_Insights/Data_Insight_Enforced_Alcohol_Abstinence_Does_it_reduce_reoffending_01.pdf

Rising number of alcohol-related deaths in Belgium

In Belgium, the number of deaths due to alcohol consumption increased by more than 14% between 2013 and 2021 according to the federal health institute, Sciensano. The institute bases its research on statistics from the Belgian statistics office, Statbel. An estimated 3,522 men and women died in Belgium in 2013 because of alcohol or a condition linked to alcohol consumption, in 2021 this number had increased to 4,021. This corresponds to 11 deaths per day and accounts for 3% of all deaths in Belgium. There are also regional differences, with more alcohol-related deaths in the Brussels Capital Region and the Walloon Region than in Flanders. These inequalities increased in recent years.

Alcoholism is the cause of death in 9% of alcohol-related deaths. Cancers, such as colon, esophageal or liver cancer, are by far the largest cause, accounting for more than a third of alcohol-related deaths. This is followed by liver cirrhosis, accidents, and violence or self-harm. 70% of alcohol-related deaths are in men, but the number of women has increased more sharply since 2013. Around four in ten Belgians who died from alcohol consumption in 2021 were between 65 and 84 years old; another third were between 45 and 64 years old.

On the eve of Tournée Minérale, a month without alcohol, Sciensano is calling for greater awareness for the underestimated health risks of alcohol. The health institute advocates stricter regulation of alcohol availability, advertising and the minimum age for purchase. It accuses the alcohol industry of trying to inhibit initiatives at the European level. As a result, Sciensano has now launched a study on the influence of the alcohol industry on Belgian policy.

New policy milestone aims to tackle harmful alcohol consumption in Cambodia

Two research institutions, the Southeast Asia Public Policy Institute (SEAPPI) and the Asian Vision Institute (AVI), are developing Cambodia's first-ever policy white paper on responsible drinking guidelines, a move expected to provide evidence-based recommendations to the government.

A memorandum of understanding (MoU) between the two organisations, signed on 10 February 2025, was described as a marking a broader commitment to collaborate on policy dialogues in key areas such as public health, sustainability, energy, and technology. However, the immediate focus is on tackling alcohol misuse, which remains a growing public health challenge in the Kingdom.

Ed Ratcliffe, executive director of SEAPPI, welcomed the opportunity to partner with the AVI. "The project will bring together a coalition of experts to get to the root cause of the issue of harmful alcohol consumption in Cambodia," he said.

"Our ambition is that we will fill crucial knowledge gaps and provide Cambodian policymakers with clear, actionable recommendations to enhance public health and safety, foster a culture of moderation and responsibility, and serve as a benchmark of excellence for the wider region," he added.

The new policy paper will feature a comprehensive review of existing data on alcohol consumption trends, including a new national survey conducted by Dr Chandara Gnim, CEO of MM4A, in partnership with the National Institute of Social Affairs. The initiative will also analyse best practices from other countries, examining successful policy interventions to minimise alcohol-related harm. Among the recommendations being considered are the introduction of national drinking guidelines and educational programs promoting responsible consumption.

Heineken campaign celebrates sobriety

Heineken's "0.0 Reasons Needed" campaign, launched in January with the objective of breaking down the stigma associated with choosing not to drink alcohol and defending people's right to make choices without being judged.

As part of the campaign, a series of commercials poke fun at some of the stereotypes associated with choosing not to drink alcohol, such as assuming someone has to be the designated driver or that they are on a diet.

The TV spots aired globally in January 2025. The campaign taps into the broader cultural point that people's drinking habits are changing. Alongside the campaign's adverts, new research by Professor Charles Spence of Oxford University is being publicised. After interviewing 11,842 adults in five developed non-alcoholic beer markets – the UK, US, Spain, Japan (over the legal drinking age up to 75) and Brazil (18-65) – the research found that Gen-Z (18 to 26) is the one most affected by social pressures on alcohol consumption; 21% of Gen Z in these five markets have been called out for their soft drink choice and say they have hidden their low-alcohol or no-alcohol drinking habits because of social pressure. The report also found that more than a third have felt pressured to drink alcohol in certain circumstances. Gen Z men who are over the legal drinking age are among the most likely to think that choosing a soft drink would be a social faux pas. 38% of men in this age group say they would drink low- or no-alcohol versions of alcoholic beverages, but only if their friends did, too. If and when Gen Z men do choose to drink low- or no-alcohol versions of alcoholic beverages, they feel the need to explain and justify their beverage choice and even feel like an "outsider" for doing so (29%).

The study found that a fifth of drinkers said they moderate their alcohol and soft drinks during evening social gatherings with friends or family. Many feel confident in their balanced lifestyles, regardless of what others might think of them, and many admire those who are sober or choose to drink in moderation. More respondents rated non-alcoholic drinkers as "cool" (9%) and "respectable" (25%), compared to those who deemed them "uncool" (4%) or "boring" (6%). It's also seen as a safe choice for "no-alcohol dates," with 35% of those who drink little or no alcohol choosing it as their date-night drink.

US government proposes alcohol labelling rules

In the US, the Treasury Department's Alcohol and Tobacco Tax and Trade Bureau published two proposed rules to provide consumers with better information about the contents of alcoholic beverages. One rule, similar to a Nutrition Facts Label for alcohol, requires new disclosures regarding alcohol and nutritional content, including the percent alcohol by volume, alcohol content in fluid ounces, calories, carbohydrates, fat, and protein. Sugar is also allowed but is optional. The other requires disclosure of major food allergens. None of this information is currently required on the majority of alcohol labels in the US. The proposals represent a step towards ensuring that consumers have access to the information they need to make informed choices, follow health guidelines, and avoid allergic reactions. Until now, providing alcohol content, nutrition, and allergen information has been voluntary.

Alcoholic beverages account for 9% of total calorie intake among US adults who drink and can contain high amounts of sugar and saturated fat. Alcohol content, calorie, and nutrition information can assist consumers with monitoring their alcohol intake to reduce health and safety risks, and avoid unwanted weight gain and chronic disease.

In a statement, Center for Science in the Public Interest (CSPI) Senior Policy Scientist Eva Greenthal commented "We welcome the publication of these two ground-breaking rules and urge the incoming administration to release a third notice regarding ingredient labelling that remains under review at the White House Office of Management and Budget. These rules are consistent with the incoming administration's avowed efforts to address diet-related chronic illness by equipping consumers with the information they need to make safer and healthier choices."

The Center for Science in the Public Interest filed a Citizen Petition calling for increased alcohol labelling transparency in 2003 and sued the Treasury Department in 2022 for 19 years of inaction on that petition.

cspinet.org/statement/us-government-proposes-alcohol-labeling-rules-advance-transparency-health-and-safety

IARD report on non-communicable diseases

The IARD have published a booklet detailing alcohol and health trends by country based on WHO data. In the introduction, Julian Braithwaite, President and CEO, IARD comments, "As we approach the UN High-Level Meeting on Noncommunicable Diseases (NCDs) in September 2025, it presents the most significant opportunity before 2030 to take decisive action and secure further commitments that will advance the UN's Sustainable Development Goals in public health.

"Alcohol and health remain critical components of the NCD agenda, and IARD and its member companies are fully committed to playing their part in the UN's whole-of-society strategy to reduce the harmful use of alcohol. Since the 2018 High-Level Meeting, the private sector has implemented substantial measures to eliminate the marketing and sale of alcohol to minors, responding directly to the UN's call to action."

"Encouragingly, the UN's strategy is yielding results. According to the WHO, global alcohol-attributable mortality rates decreased by 20% from 2010 to 2019, a testament to the effectiveness of coordinated efforts. However, significant national disparities persist".

The publication provides a basis for examining where there has been progress since the UN strategy came into force in 2010, and for considering which policies have worked and in which contexts.

The overall target in the WHO's Global Alcohol Action Plan is to achieve at least a 20% relative reduction in the harmful use of alcohol from 2010 to 2030. There are four indicators for measuring this target which are given for each country:

1. APC: Total alcohol per capita consumption
2. HED: Age-standardized prevalence of heavy episodic drinking
3. Mortality: Age-standardized alcohol attributable deaths (rate per 100,000)
4. Morbidity: Age-standardized alcohol attributable DALYs (rate per 100,000).

In addition, each country is given a rating for alcohol control policy based on whether the following has been achieved: Restrictions on physical availability; Advertising bans or comprehensive restrictions; and increased excise taxes.

iard.org/getattachment/69ec18ec-7ed6-4d4b-86e1-358657c7c52b/iard_trendsreport-2025hlm-alcoholandhealthwhodata2024.pdf

Diageo identifies socialising trends in new global report

Diageo's annual global trends report analyses why and how consumers will socialise during the next year. The report is powered by Diageo's Foresight System, a proprietary AI-driven listening tool which, according to Diageo "combines in-depth quantitative analysis of conversations from an array of online sources including social media platforms, forums, and digital media with expert foresights to provide a nuanced understanding of emerging cultural signals and consumer expressions."

The 'Distilled 2025' report predicts that the following consumer behaviours will increase in 2025:

- Practicing moderate drinking by "zebra striping": The behaviour of alternating between alcohol and non-alcoholic beverages during a single social occasion. This reflects a broader rise in online conversations around self-care, wellness, and slower social interactions: a 79% year-on-year growth in discussions around "decelerated occasions" (one of the largest increases identified) and a 37% rise in discussions around "celebrating self-love."
- Spending more time and money on single-unique products or experiences: Consumers are making the most of "one night only" to create once-in-a-lifetime memories. The report found that conversations about making the most of unique products and events have risen 83% year-on-year (5.6 million conversations) alongside a 42% increase in consumers talking about alternative social spaces such as virtual reality gaming lounges, hybrid physical-digital venues or pop-up bars — all offering new ways for people to connect and socialise, the company notes.
- Integrating AI into their daily lives: Conversations around AI-enabled relationships are up across every region globally — 83% worldwide with the largest growth in Europe (96%) and North America (91%), according to the report. The report explores how, as AI evolves, it will likely become a more trusted aid in navigating daily choices.

"Distilled 2025 delves into the biggest trends shaping socialising this year from the rise of the 'zebra striping' phenomenon to people worldwide wanting to spend their well-earned money on one incredible experience," said Cristina Diezhandino, chief marketing officer at Diageo.

diageo.com/en/news-and-media/consumer-trends-report/foresight-report-2025

Northern Territory scraps minimum floor pricing for alcohol

On 12 February 2025, the Northern Territory Government in Australia delivered on its election promise to remove the minimum floor price for alcohol as the Liquor Legislation Amendment (Repeal of Minimum Pricing) Bill 2024 passed through Parliament. The floor price, also known as the Minimum Unit Price (MUP), was introduced in 2018. The government established a minimum unit price of $1.30 in an attempt to bring down rates of alcohol-related violence. The first review conducted by Frontier Economics found:

- The reduction in cask wine sales was partially offset by "an increase in sales of all other alcohol types, most notable for spirits"
- There was a 25.8% decrease in alcohol-related non-domestic violence assaults per every 10,000 residents in the NT, but "no evidence of any change" in alcohol-related domestic violence assaults
- There was "no significant reduction" in alcohol-related emergency presentations across Darwin
- The Covid-19 pandemic had a bigger impact in decreasing alcohol sales and alcohol-related assaults than the minimum floor price.

Minister for Tourism and Hospitality Marie-Clare Boothby said: "The CLP Government has listened to the concerns of the community and industry, ensuring policy is rooted in evidence and effectiveness... We are committed to supporting a strong hospitality sector while ensuring alcohol policy is responsible, targeted, and evidence-based."

According to the CLP Government, the floor price drove problem drinkers towards higher alcohol products – such as spirits and pre-mixed drinks – and failed to reduce alcohol consumption. It said targeted, evidence-based measures such as Police Auxiliary Liquor Inspectors (PALIs) at bottle shops are a more effective solution for ensuring responsible alcohol sales.

Alcohol labels should warn of cancer risk, says new WHO/Europe report

A report from WHO Europe, "Alcohol health warning labels: a public health perspective for Europe", underscores the need for mandatory, standardised labelling on alcoholic beverages. Many countries of the EU Region have yet to make significant progress in implementing alcohol harm reduction policies. Despite cancer being the leading cause of alcohol-attributable deaths in the European Union (EU), public awareness of the link between alcohol and cancer remains low. A WHO Europe study featured in the report, conducted across 14 European Region countries, revealed that only 15% of respondents knew that alcohol causes breast cancer, and just 39% were aware of its link to colon cancer.).

Alcohol health warning labels are currently implemented in only three out of 27 EU countries and only 13 out of the 53 WHO European Region Member States. Key findings and policy recommendations in the report include:

- Mandatory labelling. The impact of health warnings depends on design, content and placement on the labels. Countries should mandate health warning labels on alcohol products rather than rely on self-regulation of alcohol producers, as these may opt for inconspicuous placement and ambiguous messaging;
- Prominent health warning labels. Alcohol products should display clear and prominent health warnings. These can be presented in text-only format or combined with pictograms to maximize reach and empower consumers with clear, accurate information to make informed choices about their health;
- Cancer warnings. Research involving nearly 20,000 participants from 14 European Region countries found that cancer warnings on alcohol labels significantly boost awareness of alcohol's cancer risks. Labels featuring cancer warnings are more likely to spark conversations about alcohol risks and discourage consumption compared to other types of health messages; and
- Beyond QR codes. The alcohol industry generally supports the introduction of QR codes on products, allowing consumers to seek out further health information should they wish. However, a pilot study showed that only 0.26% of shoppers scanned QR codes for health information, underscoring the importance of visible, on-pack labels.

Europe's Beating Cancer Plan sets the target of achieving a relative reduction of at least 10% in alcohol use by 2025, and one of the key activities in the Plan is the development of proposals for providing nutritional and health information on alcoholic beverages. Similarly, both the Global Alcohol Action Plan 2022–2030 and the European Framework for Action on Alcohol 2022–2025, endorsed and adopted, respectively, by all WHO Member States, propose priority actions to address alcohol-related harms, which include the development and implementation of labelling requirements for alcoholic beverages. Building on existing evidence, Ireland has enacted a new law requiring cancer warning labels on alcohol-containing products starting in 2026, making Ireland the first country in the EU and the second country worldwide (after South Korea) to introduce cancer warnings on alcohol products.

iris.who.int/bitstream/handle/10665/380399/9789289061681-eng.pdf

Sale of alcohol and tobacco to minors in Greece

At a cabinet meeting in January, the Greek government discussed new measures to control the sale of alcohol and tobacco to minors, along with strict penalties for those who do not comply.

The proposed changes would recriminalise the provision of alcohol to minors, making it a misdemeanour rather than merely an administrative offense. Sellers will be explicitly required to request identification to verify the customer's age. Violators who are caught selling alcohol to minors will face strict penalties, including business closures after the first violation, while a third offense will result in the permanent revocation of the operating license.

The bill also prohibits minors from entering entertainment venues, and private events held in such venues. The primary body responsible for enforcing the law will be the Hellenic Police, supported by the Municipal Police, the Coast Guard, and the National Transparency Authority.

AIM – Alcohol in Moderation was founded in 1991 as an independent not for profit organisation whose role is to communicate "The Responsible Drinking Message" and to summarise and log relevant research, legislation, policy and campaigns regarding alcohol, health, social and policy issues.

AIM Mission Statement

- To work internationally to disseminate accurate social, scientific and medical research concerning responsible and moderate drinking
- To strive to ensure that alcohol is consumed responsibly and in moderation
- To encourage informed and balanced debate on alcohol, health and social issues
- To communicate and publicise relevant medical and scientific research in a clear and concise format, contributed to by AIM's Council of 20 Professors and Specialists
- To publish information via www.alcoholinmoderation.com on moderate drinking and health, social and policy issues – comprehensively indexed and fully searchable without charge
- To educate consumers on responsible drinking and related health issues via drinkingandyou.com and publications, based on national government guidelines enabling consumers to make informed choices regarding drinking
- To inform and educate those working in the beverage alcohol industry regarding the responsible production, marketing, sale and promotion of alcohol
- To distribute AIM Digest Online without charge to policy makers, legislators and researchers involved in alcohol issues
- To direct enquiries towards full, peer reviewed or referenced sources of information and statistics where possible
- To work with organisations, companies and associations to create programmes, materials or policies that communicate responsible alcohol consumption messages or work to reduce alcohol related harm.

AIM Social, Scientific and Medical Council