

Contents

News from around the world

Medical News

Alcohol consumption and prognosis and survival in breast cancer survivors: the Pathways Study

Moderate alcohol consumption, types of beverages and drinking pattern with cardiometabolic biomarkers in three cohorts of US men and women

Previous psychiatric hospitalizations and future alcohol-related hospitalizations in patients with alcohol use disorders

Sleep and circadian influences on blood alcohol concentration

High-density lipoprotein functionality, cardiovascular health, and patterns of alcohol consumption

Relationship between lifestyle habits and cardiovascular risk factors in familial hypercholesterolemia

Global trends in incidence, death, burden and risk factors of early-onset cancer from 1990 to 2019

Scientific Drug and Alcohol Conference APSAD Adelaide 2023

Alcohol consumption and antihypertensive treatment effect in male patients with hypertension

Changes in smoking, alcohol consumption, and the risk of Parkinson's disease

Association between alcohol consumption and ectopic fat in the Multi-Ethnic Study of Atherosclerosis

Mortality risk in older people who drank alcohol in the past by varying duration of alcohol abstinence

Early onset adolescent binge drinking is associated with reduced white matter integrity in post-9/11 adult veterans

Variety of fruit and vegetables and alcohol intake are associated with gut microbial species and gene abundance in colorectal cancer survivors

Associations of smoking and alcohol consumption with the development of open angle glaucoma

Social anxiety disorder is a risk factor for alcohol use problems in the National Comorbidity Surveys

Healthy lifestyle can help prevent depression

Medical research listed by publication date

Social and Policy News

Effect of provision of non-alcoholic beverages on alcohol consumption

Associations between parental drinking and alcohol use among their adolescent children

Drinking motives, personality traits and life stressors-identifying pathways to harmful alcohol use in adolescence

Social media may increase the risk of teenage alcohol use and binge drinking

Dual alcohol and cannabis use in male and female adolescents: Relationships with family variables

2	Experiences of the health and social care system for co-occurring heavy alcohol use and depression	22
3	A scoping review of alcohol marketing to sexual and gender minorities	
10	The complexity of physical activity and alcohol consumption in adolescents aged 13-16 years	23
11	Problem drinking linked to alcohol on social media	
11	Does the decline in Swedish adolescent drinking persist into early adulthood?	24
12	Alcohol intake and academic performance and dropout in High School	
12	Alcohol-related morbidity and mortality by fathers' parental leave	25
13	Associations between state-level general population alcohol policies and drinking outcomes among women of reproductive age	
13	Factors associated with higher alcohol concentrations in emergency department presentations	26
14	Prevalence of alcohol and other drug detections in non-transport injury events	
14	Social research listed by publication date	27
14	IARD launches resources for retail staff and servers to help prevent sale of alcohol beverages to minors	
15	EU driving licence changes	
15	New modelling of alcohol harms in Scotland	28
15	Scottish MUP consultation - 5 years on	
15	Alcohol ignition interlock devices in Ireland	
16	Driving change using lived experience from alcohol harm	
16	Scottish Alcohol Industry Partnership appoints first chairperson	29
16	Belgium record-breaking drink driving campaign	
16	Dutch teens are better informed about the risks of alcohol than adults	
17	Young adults in the UK are more likely to drink at high risk levels despite growth in non-drinkers	30
17	Scottish Government supports Made to be Measured campaign	
18	Labelling guidance for no and low-alcohol alternatives in the UK	
18	Support for an 18-year age limit for alcohol sales in Denmark	31
19	Educational virtual reality experience for teens in the US	
19	Canadian town lifts Prohibition law after 121 years	
20	Impaired driving in Canada	32
20	Smart drinking campaign in Canada	
20	Éduc'alcool's fall responsibility campaign	33
20	The 2023 NDARC Annual Symposium	
21	International Fetal Alcohol Spectrum Disorder (FASD) Awareness Month in Australia	34
21	Addressing blind spots to accelerate the implementation of high-impact policy interventions	35
21	\$42.6 Million in the US awarded to Implement evidence-based prevention strategies	
21	New statistics on causes of death in Australia	
21	5,000-year-old intact wine jars discovered	

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Antarctica

McMurdo Station, the US scientific research facility in Antarctica, has banned the sale of alcoholic drinks from its bars to resident scientists after a report found that 59% of female employees said that they had been harassed or assaulted by colleagues. Workers at the base will still be able to buy the permitted alcohol ration of 18 beers, three 75cl bottles of wine, or one 75cl bottles of spirits per week, but they will not be able to buy alcoholic drinks from the station's bars, with only non-alcoholic options being served.

Canada

Moderate-drinking advocate, WineLaw.ca blogger, and wine-sector lawyer Mark Hicken has launched a lobby group that urges Canadians to not fear drinking alcohol in moderation. The Canadian Association for Responsible Drinkers launch follows the Canadian Centre on Substance Abuse and Addiction (CCSA) proposed new alcohol-drinking guidelines, which have not yet been adopted.

Sweden

In September, the National Board of Health and Welfare in Sweden released its updated guidelines on alcohol consumption. These recommendations aim to guide healthcare professionals in recognising when to offer additional support based on drinking patterns. The updated guidelines highlight that determining a consumption level where alcohol is completely without risk is not feasible.

Germany

According to Germany's Commissioner for drug and addiction, the country needs more extensive restrictions on alcohol advertising in order to protect young people. Burkhard Blienert said that much stronger and clear guidelines were needed. Alcohol advertising should be stopped where children and young people are exposed to it: on social media and in the peak hours of television and radio until 11 pm, he said.

Blienert is in talks with the minister for family affairs and the minister for agriculture to push through stricter regulations in this legislative period. He has also called for the age limit for the purchase of alcohol to be raised from the current 16 years for beer and wine.

Italy

A package of road safety reforms, which includes a three-year restriction on engine power for new drivers, mandatory helmets and insurance for e-scooter riders and alcohol interlocks for repeat drink-driving offenders has been approved by the Council of Ministers in Italy. The latest version of the reforms, which have yet to be passed by the Italian parliament, would mean that the BAC limit for drivers previously caught drink-driving would be zero; the alcohol interlock will be mandatory for repeat offenders; and a positive drug test would be enough for driving licence withdrawal, with no need to prove psychological impairment.

Alcohol consumption and prognosis and survival in breast cancer survivors: the Pathways Study

Title: Alcohol consumption and prognosis and survival in breast cancer survivors: the Pathways Study

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Author's Abstract

Background The impact of alcohol consumption on breast cancer (BC) prognosis remains unclear.

Methods The authors examined short-term alcohol intake in relation to recurrence and mortality in 3659 women who were diagnosed with stage I-IV BC from 2003 to 2015 in the Pathways Study. Alcohol drinking in the past 6 months was assessed at cohort entry (mean, 2 months postdiagnosis) and 6 months later using a food-frequency questionnaire. Study end points were recurrence and death from BC, cardiovascular disease, and all causes. Hazard ratios (HRs) and 95% confidence intervals (CIs) were estimated using multivariable Cox proportional hazards models.

Results Over an average follow-up of 11.2 years, 524 recurrences and 834 deaths (369 BC-specific and 314 cardiovascular disease-specific) occurred. Compared with non-drinkers (36.9%), drinkers were more likely younger, more educated, and current or past smokers. Overall, alcohol consumption was not associated with recurrence or mortality. However, women with higher body mass index (BMI ≥ 30 kg/m²) had lower risk of overall mortality with increasing alcohol consumption for occasional drinking (HR, 0.71; 95% CI, 0.54-0.94) and regular drinking (HR, 0.77; 95% CI, 0.56-1.08) around the time of diagnosis, along with 6 months later, in a dose-response manner ($p < .05$). Women with lower BMI (<30 kg/m²) were not at higher risk of mortality but were at possibly higher, yet nonsignificant, risk of recurrence for occasional drinking (HR, 1.29; 95% CI, 0.97-1.71) and regular drinking (HR, 1.19; 95% CI, 0.88-1.62).

Conclusions Alcohol drinking around the time of and up to 6 months after BC diagnosis was associated with lower risk of all-cause mortality in obese women. A possible higher risk of recurrence was observed in nonobese women.

Forum comments

Background including previous results

In the USA, approximately one in eight women, and in the European Union and Australia one in seven, respectively, will be diagnosed with

breast cancer in their lifetime. The aetiology of breast cancer is attributed to a complex interaction between various modifiable and non-modifiable factors. Breast cancer aetiology is determined by an interaction of genetics, environmental, nutritional and hormonal elements. Risk factors include age, prior history of breast cancer, positive family history, obesity, smoking, alcohol consumption, early menarche, late menopause, sedentary lifestyle, nulliparity and hormone replacement therapy (Fakhri et al., 2022). Certain inherited high penetrance gene mutations greatly increase breast cancer risk, the most dominant being mutations in the genes BRCA1, BRCA2 and PALB-2 (Shiovitz & Korde 2015). Factors associated with decreased risk of breast cancer include multiparity, history of breastfeeding, physical activity and weight loss (Admoun & Mayrovitz, 2022). Risk increases with older age with about 80% of breast cancer patients being older than 50 years.

Whereas US breast cancer incidence rates have increased by 0.5% per year in recent years, for example, potentially due to improved screening and awareness, breast cancer death rates have been decreasing steadily since 1989, for an overall decline of 43% through 2020. This decline has been similarly observed in the EU and Australia. Breast cancer, however, remains the second leading cause of cancer death in women, second only to lung cancer each year in these countries (ACS, 2023). For all stages of breast cancer combined, Western European countries have all attained a five-year net survival of at least 80%, while Australia has attained a five-year net survival of 92% and a 10-year relative survival of 86.8%.

The association between alcohol consumption and breast cancer incidence has been established since 1998. Smith-Warner et al. (1998) performed a pooled analysis on six cohort studies showing a linear increase in breast cancer incidence in women over the range of consumption reported by most women. Similarly, other more recent meta-analyses have confirmed the association between alcohol consumption and breast cancer incidence (Bagnardi et al., 2001, Ellison et al., 2001). With the possibility that some overdiagnosis may exist (Mu & Mukamal, 2016)

and with the possibility that the increased risk of any cancer among light-moderate drinkers may be substantially due to underreporting of intake (Klatsky et al., 2014), it is well-accepted that a woman's risk of breast cancer will increase. Increase estimates range from 4% (Seitz et al., 2012; Zhou et al., 2022) to about 10% (Smith-Warner et al., 1998) with each 10 g of daily alcohol consumption. This means that a consumption of 10-12 g alcohol per day (one glass) will increase a woman's risk for breast cancer from approximately 12.5% to about 13-13.75%.

It has been proposed that factors other than genetic factors, may act additively with this family history risk factor and even that some of these risk factors may be limited to those women who have a positive family history of breast cancer (Gapstur et al. 1992). A similar conclusion was drawn from a recent meta-analysis showing that the effect of alcohol consumption on the incidence of breast cancer is mainly manifested in oestrogen receptor (ER) positive breast cancer (Sun et al., 2020).

The mechanisms underlying the alcohol-breast cancer association are less well established. Based on the strong ER-positive breast cancer association, alcohol consumption may increase steroid hormones and oestrogen receptors (Oyesanmi et al., 2010). Alcohol consumption does not seem to increase mammographic density (McDonald et al., 2016) as a way to increase breast cancer risk.

Lifestyle in general appears to be very important in reducing the risk for breast cancer. In a recent observational study of patients with high-risk breast cancer, strongest collective adherence to cancer prevention lifestyle recommendations including drinking up to one alcoholic beverage daily, was associated with significant reductions in disease recurrence and mortality (Cannioto et al., 2023). In this study with most patients being diagnosed with ER-positive breast cancer, patients with highest versus lowest lifestyle index scores experienced a 37% reduction in disease recurrence and a 58% reduction in mortality.

One of the positive lifestyle factors in the Cannioto et al. (2023) study was also eating a colourful variety of vegetables, fruits, and plenty of whole grains. This may have contributed to a higher folate intake, whereas a higher folate

intake is associated with a decreased risk of breast cancer among Japanese women (Islam et al., 2013) and younger American women (Ja Kim et al., 2017). Also, fibre intake may have been higher, where low fibre intake (<18.5 g/day) was associated with an increased risk for breast cancer (Romieu et al., 2017).

Prognosis and survival in individuals with breast cancer in relation to alcohol consumption is a topic that has been researched before. Various cohort studies indicated no association between pre- and post-diagnosis alcohol consumption and breast cancer recurrence or breast cancer specific mortality. A recent population-based cohort study including 1926 Black or African American breast cancer survivors also studied the association between pre-diagnostic alcohol consumption with all-cause mortality and breast cancer-specific mortality. No statistically significant association was found between alcohol consumption and all-cause mortality or breast cancer-specific mortality (Zeinomar et al., 2023).

A meta-analysis by Ali et al. (2014) based on 11 cohort studies also showed that there was little evidence that pre- or post-diagnosis alcohol consumption was associated with breast cancer-specific mortality for women with ER-positive disease. There was weak evidence that moderate post-diagnosis alcohol consumption was associated with a small reduction in breast cancer-specific mortality in ER-negative disease.

Another recent systematic review and meta-analysis was performed by the Japanese Breast Cancer Society to assess breast cancer recurrence associated with alcohol consumption. This study also showed that no significant increase or decrease in risk associated with alcohol consumption. Concerning breast cancer-related mortality, similarly no significant increase or decrease in risk associated with alcohol consumption was observed (Nomura et al., 2023).

Thus, whereas the positive association between alcohol consumption and breast cancer incidence is well-established, so is the absence of a positive association between pre-diagnosis and post-diagnosis alcohol consumption and breast cancer recurrence and breast cancer specific mortality.

Design and main outcomes

The Pathways Study is a prospective cohort study of 3659 female breast cancer survivors who were diagnosed with invasive breast cancer from 2005 to 2013 at Kaiser Permanente Northern California (KPNC). Alcohol consumption was collected from participants at enrolment into the cohort and six months later using a Food Frequency Questionnaire. Women reported their average frequency of consumption over the past 6 months for wine, beer, and liquor. Baseline assessment captured the period just before and around the time of breast cancer diagnosis (peri-diagnosis), whereas the 6-month assessment captured the early period after breast cancer diagnosis (post-diagnosis). Study outcomes included breast cancer recurrence, breast cancer mortality, cardiovascular disease (CVD) mortality, and all-cause mortality. Recurrences were ascertained during follow-up interviews at 6, 12, 24, 48, 72, and 96 months.

For peri-diagnosis consumption, compared with no consumption, occasional consumption (0.36 to <0.6 g/day) and regular consumption (≥ 6.0 g/day) of alcohol were not associated with any outcomes. No significant dose-response effect for increasing consumption was observed. For alcohol drinking post-diagnosis, all associations were nonsignificant, including for all-cause mortality, with no significant dose-response effects observed. Across all models, the type of alcohol, including wine, beer, and liquor, was not associated with any outcome, except for beer consumed at follow-up, which was associated with a higher risk of breast cancer mortality (HR, 1.47; 95% CI, 1.06–2.03).

Risk associations varied by BMI. Specifically, in obese women, compared with no drinking, occasional consumption of two or more drinks per week was associated with a decreased risk of overall death, contributed in part by decreased risk of CVD death. Also, occasional consumption was possibly associated with an increased risk of recurrence in nonobese women.

Comments on outcomes and methodology

This study further adds to the existing evidence that pre- or post-diagnostic alcohol consumption is not positively associated with breast cancer occurrence. Although the authors claim that this

is the largest prospective cohort study of breast cancer survivors, the overall number of person-years in this study was relatively small (some 40,000). Whereas the results are consistent with previous meta-analyses, a meta-analytical approach would provide stronger results on the various interesting sub-questions addressed in this study.

One of the interesting sub-questions addressed in this study was a possible beverage specific effect. The data indicated that no such beverage specific effects exist, such that across all models the type of alcohol was not associated with any outcome, except for beer consumption at follow-up; this was associated with a considerably higher risk of breast cancer mortality. The authors do not explain how this beverage specific effect may have occurred in the analysis, since the association was only observed with beer consumption at follow-up. Possibly, the authors considered this observation of less importance since no statement was made on beverage-specific effects in their conclusions.

Another recent meta-analysis specifically on breast cancer incidence from 22 cohort studies and 45,350 breast cancer cases, showed that current drinkers had an increased risk compared with never drinkers for ER-positive cancers mainly. In a dose-response analysis, there was a statistically significant linear trend with breast cancer risk increasing gradually by total amount of alcohol and wine, but not amount of beer and spirits (Sun et al., 2020).

One possible explanation may lie in the lack of data on the pattern of alcohol consumption or even the lack of data on the change in the pattern of alcohol consumption. It may be that women drink less after their breast cancer diagnosis and concomitantly change their beverage preferences. The authors indicate, however, that the majority of women stay in the same or in the adjacent category of alcohol consumption from pre-diagnosis to early post-diagnosis exposure. It may be interesting to analyse these data in more detail, not only to describe these changes but also to investigate the effects of changes in the amount of alcohol drunk on study outcomes and to study the effects of changes in alcoholic beverage preference after breast cancer diagnosis.

Specific Comments from Forum Members

Forum member Ellison stated: "The authors have done as good a job as possible given the number of cases in their cohort but unfortunately, by having to do separate analyses for the subjects with alcohol consumption estimates pre- and post- diagnosis, there were limitations due to small numbers in some subgroups. Further, while there were tendencies for an increase or decrease in risk associated with alcohol in some comparisons, it is noted that the continuous alcohol estimates were almost always either 1.0 (the same as that of non-drinkers) or very close to 1.0 when comparing effects of alcohol intake on outcomes. This does not support large or meaningful health effects (either beneficial or adverse) associated with alcohol consumption in women with breast cancer. Also, it would have been interesting to see the alcohol effects for 'normal' weight subjects (BMI < 25), 'overweight' subjects (BMI values between 25 and 30), rather than having only one BMI cut-point of 30 for assessing obesity.

A key weakness of this study is that data were not available on the pattern of drinking, not even whether or not there was reported binge drinking. Also, the characterization of being an 'occasional' or 'regular' drinker based only on the average amount of alcohol reported is not considered a useful separation of subjects; the amount consumed per occasion (which may be important for a relation with cancer) cannot be assessed with such a classification. It is stated that there was skewness in the upper group, and it would have been helpful to know the effects of regular moderate versus regular heavy drinkers. Most previous studies indicate that regular (even daily) moderate alcohol consumption, especially when consumed with food, is associated with the healthiest outcomes (Tricholpoulou et al., 2009, Hellmann et al., 2010, Barberia-Latasa et al., 2022)"

Forum member Mattivi adds that "it would have been interesting to validate the consumption deduced from the food frequency questionnaire with biomarkers by collecting non-invasive biofluid samples (e.g. urine), especially to identify possible misclassifications due to unreported consumption."

Forum member de Gaetano considers: "This study supports the importance of including all-cause mortality as an outcome in alcohol consumption studies. When I read that alcohol is a risk for cancer, I would always read at the same time data on all-cause mortality. As an example, in post-menopausal, likely overweight or obese women, the risk of cardiovascular morbidity/mortality is high, which is different from the relative low risk of pre-menopausal, normal weight women. Thus, I am not surprised that in this paper moderate alcohol consumption is reducing total mortality in obese but not in non-obese women."

Forum member Skovenborg follows on that "the Pathways Study have assessed alcohol consumption at baseline (on average 2.3 months postdiagnosis) and at 6-month follow-up (on average 8.4 months postdiagnosis.) Little is known about whether survivors of breast cancer do make more health behaviour changes than other women. To my knowledge, only two prospective studies have addressed changes in the post-diagnosis alcohol consumption of breast cancer survivors. The study from Norway (Skeie et al., 2009) found no differences in change of alcohol consumption or BMI in breast cancer survivors before and after breast cancer diagnosis. In the study from Denmark (Bidstrup et al., 2013.), women with breast cancer did not reduce their BMI, or modify their alcohol use compared with cancer-free women. Both studies found a small increase in alcohol consumption in both groups of women and the results suggest that the pre-diagnosis alcohol consumption of the breast cancer survivors in the Pathways Study might be similar to their post-diagnosis consumption. Neither study had information about the drinking pattern.

According to Jones (2019), ethanol distributes into the total body water (TBW) compartment, which represents between 50 and 60% of body weight or 43–51 L for a person weighing 85 kg. Women are generally smaller than men, are shorter and have lower body weight, as well as more fatty tissue. For a water-soluble drug like ethanol, its distribution volume (Vd) is influenced by a person's age and gender, with lower values observed in women and in elderly men. Table #3 makes a comparison of ethanol Vd

determined for healthy male and female subjects in controlled drinking experiments.

The average Vd was 0.69 L/kg for men compared with 0.60 L/kg for women, which suggests that after drinking the same dose/kg of ethanol females achieve a roughly 15% higher peak BAC than males. The Vd in obese people suggests that after drinking the same dose/kg of ethanol obese people will achieve a higher peak BAC than non-obese people. As a result, the same dose of alcohol per kg bodyweight and the higher peak BAC would be expected to increase the adverse health effects of alcohol and not decrease the effects as the authors write. According to Maudens et al. (2014), the Vd of ethanol varied between 0.40 and 0.68 L/kg for women, and between 0.43 and 0.73 L/kg for men. For both sexes, the Vd decreased with increasing BMI with an increasing peak BAC as result of a similar alcohol dose (g alcohol/kg) in obese women”.

Forum member Lanzmann-Petithory further explained that “many of the studies of the Danish Centre for Alcohol Research (e.g., Petri et al., 2006, Hellmann et al., 2010) suggested that there was a difference in risk of breast cancer before and after menopause with alcohol consumption. After menopause, the risk of breast cancer increased with the first glass of wine, whereas before menopause, it was 2 or 3 glasses of wine. This could potentially be due to the estrogen-like polyphenol stilbenoids found in wine that may increase levels of estrogen and other hormones associated with hormone-receptor-positive breast cancer. In France, Bougnoux et al. (2005) carried out a number of studies on the role of the omega-6 to omega-3 ratio in the risk of breast cancer recurrence, in particular the protective role of omega-3 alpha-linolenic acid and DHA (Liu & Ma, 2014)”. [Other polyphenol components of wine, however, may stimulate the synthesis of EPA and DHA from the precursor alpha-linolenic acid to prevent the ethanol-induced oxidation of long chain fatty acids, thus delaying their breakdown, and potentially reducing the risk of breast cancer (Di Giuseppe et al., 2009)]; “further research has been published on this subject quite recently.”

In addition, Forum member Boban shared that “the most recent systematic review observed

no association between wine consumption specifically and breast/gynaecological cancers (Lucerón-Lucas-Torres et al. 2023)”, while Forum member Waterhouse reminds that “we have another demonstration that alcohol reduces cardiovascular disease mortality, and Rimm et al. (1998) published another study showing a strong interaction between folate and alcohol consumption” allied to a reduced risk of cardiovascular disease. Furthermore, Baglietto et al. (2005) subsequently suggested that women who had high alcohol consumption and low intake of folate had an increased risk of breast cancer, but those women who had high alcohol consumption and moderate to high levels of folate intake had no increased risk.

Concluding comments

As previously mentioned, practicing certain healthy behaviours such as a healthy diet, physical activity, maintaining optimal weight, and avoiding excessive alcohol consumption and total tobacco use, is known to improve quality of life and/or be associated with survival among individuals diagnosed with early-stage cancer (Hanna et al., 2013, Palesh et al., 2014, LoConte et al., 2018, Scott et al., 2018, Campbell et al., 2019, Boyd et al., 2020). An evidence gap is that despite this knowledge, it is not clear whether individuals living with advanced or metastatic cancer receive the same benefits from these healthy behaviours (Mollica, 2022). In addition, there is a lack of evidence regarding the effectiveness of existing recommendations for healthy behaviours such as physical exercise, alcohol consumption and weight management for individuals living with advanced or metastatic cancer (Piercy et al., 2018). An overall goal of further research would be to determine the optimal type, amount, and frequency of positive health behaviours including alcohol consumption necessary to maintain or improve health outcomes for these populations; determine their acceptability and feasibility for patients; and determine how health-care providers and health systems can support healthy behaviours throughout the care trajectory.

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Moderate alcohol consumption, types of beverages and drinking pattern with cardiometabolic biomarkers in three cohorts of US men and women

Underlying mechanisms of the inverse relationship between moderate alcohol consumption and cardiometabolic disorders are unclear. Modification by types of alcoholic beverages consumed and drinking pattern remains understudied. A research team aimed to provide insight into the mechanisms by examining 14 insulinemic/glycemic, inflammatory and lipid markers. Cross-sectional data from 15,436 women in the Nurses' Health Study, 19,318 women in the Nurses' Health Study II, and 6,872 men in the Health Professionals Follow-up Study were used in the study to estimate the percentage differences in biomarker concentrations according to alcohol intakes.

The average alcohol intake in the combined cohort was 3.3 servings/week. A 1 serving/d increment in alcohol intake (14 g ethanol, 44 ml liquor or 355 ml beer or 118 ml wine per day) was associated with a 0.6% lower level of HbA1c, 1.7-3.6% lower proinflammatory markers and 4.2% higher adiponectin, as well as 7.1% higher HDL-cholesterol and 2.1% lower triglyceride with

a significant linear trend. Wine, especially red wine, was associated with lower inflammation in particular. Beer had weaker favourable to null associations with blood lipids and adiponectin. Liquor was associated with higher C-peptide and interleukin-6, yet equally associated with lower HbA1c and higher HDL-cholesterol as other beverages.

Drinking 3 days or more per week was related to a better biomarker profile than nonregular drinking independent of intake levels. Drinking appeared to have similar associations irrespective whether done with meals or not. The data indicated moderate alcohol intake, especially if consumed from wine and done regularly, was associated with favourable profiles of insulinemic/glycemic and inflammatory markers and blood lipids, the researchers conclude.

Source: Li, X., Hur, J., Cao, Y. et al. Moderate alcohol consumption, types of beverages and drinking pattern with cardiometabolic biomarkers in three cohorts of US men and women. *Eur J Epidemiol* (2023). doi.org/10.1007/s10654-023-01053-w

Previous psychiatric hospitalizations and future alcohol-related hospitalizations in patients with alcohol use disorders

People with alcohol use disorder (AUD) often have co-occurring psychiatric conditions. The association between psychiatric conditions and AUD relapse has not yet been fully explored. A study aimed to quantify different psychiatric comorbidities as risk factors for first and multiple AUD rehospitalizations in patients already hospitalized once for AUD.

The study used a nation-wide routine health-care database in Scotland, UK, between 2010 and 2019. Individuals with a first hospitalization for AUD (codes F10.0-9 in the ICD-10 codes) were checked for previous hospitalizations where the main or co-occurring cause was a psychiatric condition (any other F0-F99 code in ICD-10). The final cohort included 23 529 patients, 18 620 of whom did not have a history of any other psychiatric comorbidity. First, individuals with a history of any previous psychiatric hospitalization were grouped and compared with those without on the basis of time to AUD rehospitalization. Then, individuals with different histories of psychiatric hospitalization were compared with each other.

The AUD rehospitalization rate in individuals with a previous psychiatric hospitalization was 8% higher compared with those without

[hazard ratio (HR)=1.08, 95% confidence interval (CI)=1.01–1.14]. The difference in rehospitalization rate reduced following the first rehospitalization (HR at second rehospitalization from first: 0.95, 95% CI=0.87–1.04 and HR at third rehospitalization from second: 0.94, 95% CI=0.84–1.07). Mood disorders and neurotic, stress-related and somatoform disorders were associated with a 54% (HR=1.54, 95% CI=1.38–1.72) and 39% (HR=1.39, 95% CI=1.17–1.66) increase in the risk of a first AUD rehospitalization. Other conditions, such as disorders due to psychoactive substance use or schizophrenia, were associated with decreases in future AUD rehospitalization (HR=0.89, 95% CI=0.82–0.97 and HR=0.82, 95% CI=0.58–1.16, respectively).

Patients with AUD appear to have different rates of AUD rehospitalization based on different co-occurring psychiatric conditions. Addiction-related characteristics may be more relevant risk indicators for multiple AUD readmission than psychiatric comorbidities.

Source: Manca, F, Lewsey, J. Previous psychiatric hospitalizations as risk factors for single and multiple future alcohol-related hospitalizations in patients with alcohol use disorders. *Addiction*. 2023. doi.org/10.1111/add.16352

Sleep and circadian influences on blood alcohol concentration

Anecdotally, adults reach higher levels of subjective intoxication on days they are fatigued or sleep deprived; but sleep is not discussed as a predictor of blood alcohol concentration (BAC) in clinical settings. To inform clinical work and future research, an analysis examined the impact of sleep and circadian factors on indicators of BAC in humans and animal models.

Literature searches of medical and psychological databases were conducted to identify articles that manipulated sleep/circadian factors and reported effects on indicators of alcohol pharmacology (e.g., BAC, alcohol metabolism). 21 studies met inclusion criteria.

Studies included manipulations of time of day, circadian phase and time in bed. Evidence for time-of-day effects on alcohol pharmacology was most compelling. Studies also provided evidence for circadian phase effects, but failed to find

support for time-in-bed effects. Although results were not uniform across studies, most evidence from human and animal models indicates that peak BACs occur toward the beginning of the biological day, with some studies indicating slower alcohol elimination rates at this time.

Circadian factors likely influence alcohol pharmacokinetics, perhaps due to altered elimination of alcohol from the body. This means that individuals may reach higher BACs if they drink during the morning (when, for most people, circadian alerting is low) vs other times of day. Alcohol prevention and intervention efforts should highlight sleep/circadian health as a potential contributor to alcohol-related harm.

Source: Miller MB, Cofresí RU, McCarthy DM, Carskadon MA. Sleep and Circadian Influences on Blood Alcohol Concentration. *Sleep*. 2023 Sep 26:zsad250. doi.org/10.1093/sleep/zsad250

High-density lipoprotein functionality, cardiovascular health, and patterns of alcohol consumption

Cardiovascular diseases (CVD) pose a significant public health challenge, contributing to 422 million disability-adjusted life years in 2021. The role of high-density lipoproteins (HDL) and alcohol consumption, one of their major modifiable determinants, remains controversial. A review aimed to provide a comprehensive narrative overview of HDL functionality and its predictive value for CVD in relation to patterns of alcohol consumption.

The reviewers find that HDL phenotypes beyond HDL-cholesterol (HDL-c) such as distribution of HDL subspecies, HDL particle abundance, and reverse cholesterol transport capacity are promising indicators of atherosclerotic CVD risk. Low-to-moderate alcohol consumption seems to improve HDL functionality and reduce the incidence of CVD among primarily middle-aged men and postmenopausal women. Advancements in our understanding of HDL

biogenesis, structure, and function hold promise for improving HDL-related measures and their predictive value for cardiovascular health.

Low-to-moderate alcohol consumption appears to not only increase HDL-c concentration found in the HDL fraction of plasma but also enhance HDL functionality, providing insights into the underlying mechanisms linking alcohol exposure and cardiovascular health benefits. However, rigorous, well designed intervention trials of alcohol consumption on hard cardiovascular outcomes are needed to identify robust causal associations of HDL phenotypes and alcohol consumption with cardiovascular risk.

Source: Trius-Soler M, Mukamal KJ, Guasch-Ferré M. High-density lipoprotein functionality, cardiovascular health, and patterns of alcohol consumption: new insights and future perspectives. *Curr Opin Lipidol.* 2023 Oct 4. doi.org/10.1097/MOL.0000000000000906.

Relationship between lifestyle habits and cardiovascular risk factors in familial hypercholesterolemia

Little is known about the cardioprotective potential of a healthy lifestyle in familial hypercholesterolemia (FH). A study evaluated the relationship between lifestyle and cardiovascular risk factors in adults with FH.

This cross-sectional study leveraged data from the CARTaGENE Quebec population-based cohort (Canada). Participants with FH were identified using the validated Simplified Canadian Definition for FH. A healthy lifestyle score (HLS), ranging from 0 to 5, was calculated per adherence to 5 lifestyle habits: 1) not smoking; 2) being physically active (≥ 150 min/week of moderate or vigorous physical activity); 3) eating a healthy diet (Alternate Healthy Eating Index $\geq 50\%$); 4) having a light to moderate alcohol consumption (men: 1-30 g/day; women: 1-15 g/day); and 5) sleeping 7-8 h/day.

Among the 122 study participants, 92 (75.4%) had a HLS $\leq 3/5$, while only 5 (4.1%) had a HLS

of 5/5. After adjustments for sex, age, body mass index, and lipid-lowering medication use, the researchers found no evidence of an association between the HLS and concentrations of LDL-cholesterol ($\beta = 0.04$, 95% CI = -0.08, 0.15 mmol/L; $P = 0.54$). However, the HLS was favourably associated with HbA1c levels ($\beta = -0.07$, 95% CI = -0.13, -0.01%), and statistical trends suggested favourable associations with HDL-cholesterol ($\beta = 0.06$, 95% CI = -0.02, 0.14 mmol/L) and waist circumference ($\beta = -2.22$, 95% CI = -4.62, 0.17 cm).

This study suggests that a healthy lifestyle is favourably associated with CVD risk factors in adults with FH.

Source: Dessureault L, Roy G, Couture P, Gangloff A, Guasch-Ferré M, Pérusse L, Tremblay A, Drouin-Chartier JP. Relationship between lifestyle habits and cardiovascular risk factors in familial hypercholesterolemia. *Nutr Metab Cardiovasc Dis.* 2023 Oct;33(10):2044-2052. doi.org/10.1016/j.numecd.2023.06.014.

Global trends in incidence, death, burden and risk factors of early-onset cancer from 1990 to 2019

A study explored the global burden of early-onset cancer based on the Global Burden of Disease (GBD) 2019 study for 29 cancers worldwide.

The study found that global incidence of early-onset cancer increased by 79.1% and the number of early-onset cancer deaths increased by 27.7% between 1990 and 2019. Early-onset breast, tracheal, bronchus and lung, stomach and colorectal cancers showed the highest mortality and DALYs in 2019. Globally, the incidence rates of early-onset nasopharyngeal and prostate cancer showed the fastest increasing trend, whereas early-onset liver cancer showed the sharpest decrease. Early-onset colorectal cancers had high DALYs within the top five ranking for both men and women. High-middle and middle Sociodemographic Index (SDI) regions had the highest burden of early-onset cancer. The morbidity of early-onset cancer increased with the SDI, and the mortality rate decreased considerably when SDI increased from 0.7 to 1. The projections indicated that the global number of incidence and deaths of early-onset cancer would increase by 31% and 21% in 2030, respectively. Dietary risk factors (diet high in red meat, low in fruits, high in sodium and low in milk, etc), alcohol consumption and tobacco use are the main risk factors underlying early-onset cancers.

The authors conclude that early-onset cancer morbidity continues to increase worldwide

with notable variances in mortality and DALYs between areas, countries, sex and cancer types. Encouraging a healthy lifestyle could reduce early-onset cancer disease burden.

Source: Zhao J, Xu L, Sun J, et al. Global trends in incidence, death, burden and risk factors of early-onset cancer from 1990 to 2019. *BMJ Oncology* 2023;2:e000049. doi.org/10.1136/bmjonc-2023-000049

Writing for the science media centre, Prof Dorothy Bennett, Professor of Cell Biology, St George's, University of London (SGUL), commented: "This is a global report on "early-onset" cancer, meaning cancer diagnosed in people between 14 and 45 years old.. The press release mentions a "striking 79% increase" in new cases of early-onset cancer over the period. This refers to total numbers rather than rates (or risk) of cancer per person. The world human population increased by 46% between 1990 and 2019 (Worldometer data), which explains part of the increase in total case numbers, though I don't know the exact % increase for the 14-45 age group.

"Some changes in some countries may also be due to changes (usually improvements) in reporting, as they note, potentially explaining another part of the increase in reported numbers. The increase in numbers of cancer deaths in this age group was notably lower than for diagnoses, namely 28%, which is below the increases in total population and case numbers, indicating a fall in the average cancer death rate in this group".

SCIENTIFIC DRUG AND ALCOHOL CONFERENCE

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Alcohol consumption and antihypertensive treatment effect in male patients with hypertension

Alcohol consumption is a proven risk factor of hypertension. Researchers investigated the use of antihypertensive medications and blood pressure control in male alcohol drinkers and non-drinkers with hypertension (systolic/diastolic blood pressure 160-199/100-119 mm Hg).

The study participants were patients enrolled in a 12-week therapeutic study and treated with the irbesartan/hydrochlorothiazide combination 150/12.5 mg once daily, with the possible up-titration to 300/12.5 mg/day and 300/25 mg/day at 4 and 8 weeks of follow-up, respectively, for blood pressure control of <140/90 mmHg or <130/80 mmHg in patients with diabetes mellitus. Alcohol consumption was classified as non-drinkers and drinkers.

The 68 alcohol drinkers and 168 non-drinkers had similar systolic/diastolic blood pressure at baseline (160.8±12.1/99.8±8.6 vs. 161.8±11.0/99.2±8.6) and other characteristics except for current smoking (80.9% vs. 47.6%).

In patients who completed the 12-week follow-up (n=215), the use of higher dosages of antihypertensive drugs was similar at 4 weeks of follow-up in drinkers and non-drinkers (10.6% vs. 12.4%), but increased to a significantly higher proportion in drinkers than non-drinkers at 12 weeks of follow-up (54.7% vs. 36.6%). The control rate of hypertension tended to be lower in alcohol drinkers, compared with non-drinkers, at 4 weeks of follow-up (45.6% vs. 58.9%), but became similar at 12 weeks of follow-up (51.5% vs. 54.8%).

Alcohol drinkers compared with non-drinkers required a higher dosage of antihypertensive drug treatment to achieve similar blood pressure control.

Source: Ye XF, Wang WY, Wang XY, Huang QF, Li Y, Wang JG. Alcohol consumption and antihypertensive treatment effect in male patients with hypertension. *Am J Hypertens.* 2023 Sep 28;hpad091. doi.org/10.1093/ajh/hpad091.

Changes in smoking, alcohol consumption, and the risk of Parkinson's disease

There have been no studies on the association between changes in smoking and alcohol consumption or combined changes in smoking and alcohol consumption frequencies and PD risk. To assess the influence of changes in smoking and alcohol consumption on the risk of Parkinson's disease (PD).

The National Health Insurance Service (NHIS) database was analyzed between January 2009 to December 2011. A total of 3,931,741 patients were included and they were followed up for the incidence of PD until December 2017.

Compared to the sustained non-smokers, sustained light smokers (adjusted hazard ratio [aHR] 0.80, 95% confidence interval [CI] 0.75-0.85), sustained moderate smokers (aHR 0.54, 95% CI 0.47-0.61), and sustained heavy smokers (aHR 0.49, 95% CI 0.44-0.55) had a lower risk of PD. Compared to those who sustained non-drinking, sustained light drinkers (aHR 0.85 95% CI 0.89-0.91), sustained moderate drinkers (aHR 0.68, 95% CI 0.60-0.78), and sustained heavy

drinkers (aHR 0.77, 95% CI 0.68-0.87) showed decreased risk of PD. Among non-drinkers, those who started drinking to a light level were at decreased risk of PD (aHR 0.84, 95% CI 0.77-0.91). Among non-smoking and non-drinking participants, those who initiated smoking only (aHR 0.78, 95% CI 0.70-0.86), drinking only (aHR 0.77, 95% CI 0.68-0.87), and both smoking and drinking (aHR 0.69, 95% CI 0.58-0.82) showed decreased risk of PD.

Smoking is associated with decreased risk of PD with a dose-response relationship. Alcohol consumption at a light level may also be associated with decreased risk of PD. Further studies are warranted to find the possible mechanisms for the protective effects of smoking and drinking on PD, which may present insights into the etiology of PD, the authors say.

Source: Jung SY, Chun S, Cho EB, Han K, Yoo J, Yeo Y, Yoo JE, Jeong SM, Min JH, Shin DW. Changes in smoking, alcohol consumption, and the risk of Parkinson's disease. *Front Aging Neurosci.* 2023 Sep 13;15:1223310. doi.org/10.3389/fnagi.2023.1223310.

Association between alcohol consumption and ectopic fat in the Multi-Ethnic Study of Atherosclerosis

The relationship between alcohol consumption and ectopic fat distribution, both known factors for cardiovascular disease, remains understudied. Researchers examined the association between alcohol consumption and ectopic adiposity in adults at risk for cardiovascular disease.

In a cross-sectional analysis, alcohol intake among participants in MESA (Multi-Ethnic Study of Atherosclerosis) was categorised as follows (drinks/day): <1 (light drinking), 1 to 2 (moderate drinking), >2 (heavy drinking), former drinking, and lifetime abstinence. Binge drinking was defined as consuming ≥ 5 drinks on 1 occasion in the past month. Visceral, subcutaneous, and intermuscular fat area, pericardial fat volume, and hepatic fat attenuation were measured using noncontrast computed tomography. The research examined the associations between categories of alcohol consumption and natural log-transformed fat in ectopic depots. 6,756 MESA participants were included in the study, of whom 6,734 had chest computed tomography (pericardial and hepatic fat) and

1,934 had abdominal computed tomography (subcutaneous, intermuscular, and visceral fat).

Analysis found that heavy drinking, relative to lifetime abstinence, was associated with a higher (relative percent difference) pericardial 15.1 [95% CI, 7.1-27.7], hepatic 3.4 [95% CI, 0.1-6.8], visceral 2.5 [95% CI, -10.4 to 17.2], and intermuscular 5.2 [95% CI, -6.6 to 18.4] fat but lower subcutaneous fat -3.5 [95% CI, -15.5 to 10.2]). The associations between alcohol consumption and ectopic adiposity exhibited a J-shaped pattern. Binge drinking, relative to light-to-moderate drinking, was also associated with higher ectopic fat.

The analysis found that alcohol consumption had a J-shaped association with ectopic adiposity. Both heavy alcohol intake and binge alcohol drinking were associated with higher ectopic fat.

Source: Kazibwe R, Chevli PA, Evans JK, Allison M, Michos ED, Wood AC, Ding J, Shapiro MD, Mongraw-Chaffin M. Association Between Alcohol Consumption and Ectopic Fat in the Multi-Ethnic Study of Atherosclerosis. *J Am Heart Assoc.* 2023 Sep 19;12(18): e030470. doi.org/10.1161/JAHA.123.030470.

Mortality risk in older people who drank alcohol in the past by varying duration of alcohol abstinence

A study explored the mortality risk in older people who drank alcohol in the past by varying the duration of alcohol abstinence.

In total, 31,999 participants aged ≥ 65 years from the Chinese Longitudinal Healthy Longevity Survey (Waves 1998-2014) were included. Duration of alcohol abstinence was assessed and the association with all-cause mortality was examined.

During a follow-up of 140,974.8 person-years, all-cause mortality occurred in 24,257 participants. Compared with mortality among those who were current drinkers, mortality significantly increased by 23% in people who drank alcohol in the past with ≤ 5 years, by 17% in people who drank alcohol in the past with 5-10 years of alcohol abstinence and by 17% in people who drank alcohol in the past with 10-20 years of alcohol abstinence. After 20 years of

alcohol abstinence, the increased mortality risk disappeared (adjusted hazard ratio=1.06, 95% CI=0.97, 1.15, $p=0.204$). Stratified and sensitivity analysis revealed similar results. In addition, compared with the risk of all-cause mortality among people who never drink alcohol, the risk of all-cause mortality in those who drank alcohol in the past also significantly increased in the following 20 years after they stop drinking, and then the increased risk disappeared afterward.

An increased risk of all-cause mortality in older people who drank alcohol in the past was observed, which disappeared after 20 years of alcohol abstinence.

Source: Wang Z, Liao H, Zheng Y, Ruan H, Li L, Zhang M, Ma M, He S. Mortality Risk in Older People Who Drank Alcohol in the Past by Varying Duration of Alcohol Abstinence. *Am J Prev. Med.* 2023 Oct;65(4):678-686. doi.org/10.1016/j.amepre.2023.05.019.

Early onset adolescent binge drinking is associated with reduced white matter integrity in post-9/11 adult veterans

Adolescence represents a critical period of neural development during which binge drinking (BD) is prevalent. Though prior work has shown that white matter (WM) integrity is susceptible to damage from excessive alcohol intake in adults, the effect of early adolescent BD on WM health in adulthood remains unknown.

Veterans with a history of BD onset before age 15 and after age 15 were studied with diffusion tensor imaging. Group differences in fractional anisotropy (FA; movement of water molecules along the WM) and mean diffusivity (MD; average movement of water molecules) were examined as indices of WM integrity. Lower FA and higher MD are thought to represent degradations in WM integrity. A reference group (RG) of social drinkers with no history of BD was used to provide comparative normative data.

The researchers observed widespread decreased FA and increased MD in early binge drinkers,

compared to late binge drinkers, as well as decreased FA in the pars triangularis, lateral orbitofrontal cortex, superior frontal cortex, isthmus cingulate, and genu and splenium of the corpus callosum, early binge drinkers also had lower WM integrity compared to the RG.

Adults who initiated BD during early adolescence demonstrated decreased FA and increased MD throughout the frontostriatal circuits that mediate inhibitory control and thus may result in impulsive behavior and a predisposition for developing alcohol use disorder during adulthood.

Source: Knoff AA, Knight AR, Salat DH, Bedi A, Currao A, Fonda JR, McGlinchey RE, Fortier CB. Early onset adolescent binge drinking is associated with reduced white matter integrity in post-9/11 adult veterans. *Alcohol*. 2023 Oct 3: agad062. doi: [10.1093/alcalc/agad062](https://doi.org/10.1093/alcalc/agad062).

Variety of fruit and vegetables and alcohol intake are associated with gut microbial species and gene abundance in colorectal cancer survivors

Adherence to the American Cancer Society (ACS) guidelines of avoiding obesity, maintaining physical activity, and consuming a diet rich in fruits, vegetables, and whole grains is associated with longer survival in colorectal cancer (CRC) survivors. Dietary components of the ACS guidelines may act in part by changing the microbiome, which is implicated in CRC outcomes.

A paper published in the *American Journal of Clinical Nutrition* reports on a pilot cross-sectional study that explored associations between ACS guidelines and the gut microbiome.

Stool samples and questionnaires were collected from 28 CRC survivors at the University of California, San Francisco from 2019 to 2020. ACS scores were calculated based on validated questionnaires.

The overall ACS score was not significantly associated with variations in the fecal microbiota. However, fruit and vegetable intake and alcohol intake accounted for 19% and 13% of variation in the microbiota, respectively. Fruit/vegetable consumption was associated with increased microbial diversity, increased

Firmicutes, decreased Bacteroidota, and changes to multiple genes and metabolic pathways, including enriched pathways for amino acid and short-chain fatty acid biosynthesis and plant-associated sugar degradation. In contrast, alcohol consumption was positively associated with overall microbial diversity, negatively associated with Bacteroidota abundance, and associated with changes to multiple genes and metabolic pathways. The other components of the ACS score were not statistically significantly associated with the fecal microbiota in our sample.

These results guide future studies examining the impact of changes in the intake of fruits, vegetables, and alcoholic drinks on the gut microbiome of CRC survivors.

Source: Kyaw TS, Upadhyay V, Tolstykh I, Van Loon K, Laffan A, Stanfield D, Gempis D, Kenfield SA, Chan JM, Piawah S, Atreya CE, Ng K, Venook A, Kidder W, Turnbaugh PJ, Van Blarigan EL. Variety of Fruit and Vegetables and Alcohol Intake are Associated with Gut Microbial Species and Gene Abundance in Colorectal Cancer Survivors. *Am J Clin Nutr*. 2023 Sep;118(3):518-529. doi: [10.1016/j.ajcnut.2023.07.011](https://doi.org/10.1016/j.ajcnut.2023.07.011).

Associations of smoking and alcohol consumption with the development of open angle glaucoma

The associations of alcohol consumption and smoking with the development of perimetric glaucoma was investigated in patients with suspected glaucoma.

Researchers conducted a retrospective cohort study of patients suspected to have glaucoma enrolled in the Diagnostic Innovations in Glaucoma Study (DIGS) and the African Descent and Glaucoma Evaluation Study (ADAGES). 825 eyes of 610 patients with glaucoma suspect eyes with normal visual fields (VF) at baseline were followed over an average of 9 years from the DIGS and ADAGES studies.

Development of glaucoma was defined as occurrence of three consecutive abnormal VF tests during follow-up. The research investigated the lifestyle-related factors associated with development of VF loss over time.

VF tests were abnormal three times in a row in 235 (28.5%) eyes. Alcohol consumption was associated with a higher risk of developing glaucoma (HR 1.57, 95% CI 1.03 to 2.38). In men, the risk of developing glaucoma in alcohol

drinkers (HR 1.92, 95% CI 1.00 to 3.68) was greater than non-alcohol drinkers. In individuals of African descent, the risk of developing glaucoma in alcohol drinkers (HR 1.79, 95% CI 1.02 to 3.15) was greater than non-alcohol drinkers. Age was a modifier of the relationship between smoking and glaucomatous VF defects. The risk of developing glaucoma in smokers (HR 1.73, 95% CI 1.10 to 2.72) was greater than never smokers after adjustment for confounding factors in older patients (age >61 years).

Alcohol consumption was associated with an increased risk of developing glaucoma, particularly in men and individuals of African descent. The risk of developing glaucoma among smokers suspected of having glaucoma was influenced by age, with older individuals having a higher risk than younger people.

Source: Mahmoudinezhad G, Nishida T, Weinreb RN, Baxter SL, Chang AC, Nikkhoy N, Walker E, Liebmann JM, Girkin CA, Moghimi S. Associations of smoking and alcohol consumption with the development of open angle glaucoma: a retrospective cohort study. *BMJ Open*. 2023 Oct 4;13(10):e072163. doi.org/10.1136/bmjopen-2023-072163.

Social anxiety disorder is a risk factor for alcohol use problems in the National Comorbidity Surveys

According to the self-medication and biopsychosocial models, individuals with social anxiety disorder (SAD) are at increased risk of developing an alcohol use disorder (AUD) as alcohol represents a maladaptive coping mechanism for some sufferers of SAD. The SAD-to-AUD causation was earlier supported in Norwegian longitudinal twin data and later questioned using longitudinal data from the USA.

Researchers re-analysed partly the same USA-based data (National Comorbidity Surveys, with 5001 participants), conducting theoretical and simulation analyses on different formulations of temporality to investigate whether baseline SAD was associated with AUD at the follow-up.

The researcher found that SAD preceded AUD. Specifically, SAD was the only one of the seven anxiety disorders that predicted 10-year later

AUD after adjusting for all other anxiety disorders and AUD at the baseline (odds ratio was 1.70% and 95% CI= 1.12–2.57). SAD was also associated with incident AUD (OR = 1.64, 95% CI = 1.14–2.37). The researchers demonstrated temporality and specificity in SAD-to-AUD association, which are considered signs of causation.

The findings add support for models positing causal effects of SAD on AUD, such as the self-medication and biopsychosocial models. The available evidence suggests that treating SAD should incur better chances of preventing AUD compared to treating other anxiety disorders, which lack comparable evidence on causation.

Source: Tom H. Rosenström, Fartein Ask Torvik. Social anxiety disorder is a risk factor for alcohol use problems in the National Comorbidity Surveys, *Drug and Alcohol Dependence*, Volume 249, 2023, 109945 ISSN 0376-8716, doi.org/10.1016/j.drugalcdep.2023.109945.

Healthy lifestyle can help prevent depression

A healthy lifestyle that involves moderate alcohol consumption, a healthy diet, regular physical activity, healthy sleep and frequent social connection, while avoiding smoking and too much sedentary behaviour, reduces the risk of depression, new research has found.

In research published in *Nature Mental Health*, an international team of researchers investigated how a combined range of lifestyle factors, including alcohol consumption, diet, physical activity, sleep, smoking, sedentary behaviour and social connection contribute to depression, and examine the underlying neurobiological mechanisms.

The researchers used data from the UK Biobank, a biomedical database and research resource containing anonymised genetic, lifestyle and health information. By examining data from almost 290,000 people – of whom 13,000 had depression – followed over a nine-year period, the team was able to identify seven healthy lifestyle factors linked with a lower risk of depression.

Having a good night's sleep – between seven and nine hours a night – made the biggest difference, reducing the risk of depression, including single depressive episodes and treatment-resistant depression, by 22%. Frequent social connection, which in general reduced the risk of depression by 18%, was the most protective against recurrent depressive disorder. Moderate alcohol consumption decreased the risk of depression by 11%, healthy diet by 6%, regular physical activity by 14%, never smoking by 20%, and low-to-moderate sedentary behaviour by 13%.

Based on the number of healthy lifestyle factors an individual adhered to, they were assigned to one of three groups: unfavourable, intermediate, and favourable lifestyle. Individuals in the intermediate group were around 41% less likely to develop depression compared to those in the unfavourable lifestyle, while those in the favourable lifestyle group were 57% less likely.

The team then examined the DNA of the participants, assigning each a genetic risk score. This score was based on the number of genetic variants an individual carried that have a known link to risk of depression. Those with the lowest genetic risk score were 25% less likely to develop

depression when compared to those with the highest score – a much smaller impact than lifestyle.

In people at high, medium, and low genetic risk for depression, the team further found that a healthy lifestyle can cut the risk of depression. This research underlines the importance of living a healthy lifestyle for preventing depression, regardless of a person's genetic risk.

To understand why a healthy lifestyle might reduce the risk of depression, the team studied a number of other factors.

Firstly, they examined MRI brain scans from just under 33,000 participants and found a number of regions of the brain where a larger volume – more neurons and connections – was linked to a healthy lifestyle. These included the pallidum, thalamus, amygdala and hippocampus.

The team then looked for markers in the blood that indicated problems with the immune system or metabolism. Among those markers found to be linked to lifestyle were the C-reactive protein, a molecule produced in the body in response to stress, and triglycerides, one of the primary forms of fat that the body uses to store energy for later. The pathway from lifestyle to immune and metabolic functions was the most significant, meaning that a poorer lifestyle impacts the immune system and metabolism, which in turn increases the risk of depression.

Dr Christelle Langley, also from the Department of Psychiatry at the University of Cambridge, said: "We're used to thinking of a healthy lifestyle as being important to our physical health, but it's just as important for our mental health. It's good for our brain health and cognition, but also indirectly by promoting a healthier immune system and better metabolism."

Professor Jianfeng Feng, from Fudan University in China and Warwick University, added: "We know that depression can start as early as in adolescence or young adulthood, so educating young people on the importance of a healthy lifestyle and its impact on mental health should begin in schools."

Source: Zhao, Y & Yang, L et al. The brain structure, immunometabolic and genetic mechanisms underlying the association between lifestyle and depression. *Nature Mental Health*; 11 Sept 2023; doi.org/10.1038/s44220-023-00120-1

Medical research listed by publication date

- Mortality Risk in Older People Who Drank Alcohol in the Past by Varying Duration of Alcohol Abstinence 29/05/2023
- Relationship between lifestyle habits and cardiovascular risk factors in familial hypercholesterolemia 22/06/2023
- Social anxiety disorder is a risk factor for alcohol use problems in the National Comorbidity Surveys 01/08/2023
- Alcohol consumption and prognosis and survival in breast cancer survivors: The Pathways Study 23/08/2023
- Variety of Fruit and Vegetables and Alcohol Intake are Associated with Gut Microbial Species and Gene Abundance in Colorectal Cancer Survivors 03/09/2023
- Global trends in incidence, death, burden and risk factors of early-onset cancer from 1990 to 2019 05/09/2023
- Association Between Alcohol Consumption and Ectopic Fat in the Multi-Ethnic Study of Atherosclerosis 08/09/2023
- The brain structure, immunometabolic and genetic mechanisms underlying the association between lifestyle and depression 11/09/2023
- Changes in smoking, alcohol consumption, and the risk of Parkinson's disease 13/09/2023
- Moderate alcohol consumption, types of beverages and drinking pattern with cardiometabolic biomarkers in three cohorts of US men and women 25/09/2023
- Sleep and Circadian Influences on Blood Alcohol Concentration 26/09/2023
- Previous psychiatric hospitalizations as risk factors for single and multiple future alcohol-related hospitalizations in patients with alcohol use disorders. 26/09/2023
- Effect of provision of non-alcoholic beverages on alcohol consumption: a randomized controlled study 28/09/2023
- Early onset adolescent binge drinking is associated with reduced white matter integrity in post-9/11 adult veterans 02/10/2023
- Associations of smoking and alcohol consumption with the development of open angle glaucoma: a retrospective cohort study 04/10/2023
- High-density lipoprotein functionality, cardiovascular health, and patterns of alcohol consumption 4/10/2023

Effect of provision of non-alcoholic beverages on alcohol consumption

A study investigated whether non-alcoholic beverages impact the alcohol consumption of excessive drinkers.

Participants aged 20 years or older who were not diagnosed with alcoholism, who drank at least four times a week, and whose alcohol consumption on those days was at least 40 g in males and 20 g in females, were recruited to a trial. They were randomised into the intervention or control group by simple randomisation using a random number table. In the intervention group, free non-alcoholic beverages were provided once every 4 weeks for 12 weeks (three times in total), and thereafter, the number of alcoholic and non-alcoholic beverages consumed were recorded for up to 20 weeks. The consumption of alcoholic and non-alcoholic beverages was calculated based on a drinking diary submitted with the previous 4 weeks of data. The primary endpoint was the change from baseline in total alcohol consumption during past 4 weeks at week 12. The participants were not blinded to group allocations.

Fifty-four participants were allocated to the intervention group and 69 to the control group. The change in alcohol consumption was -320.8 g (standard deviation [SD], 283.6) in the intervention group and -76.9 g (SD, 272.6) in the control group at Week 12, indicating a significant difference. Even at Week 20 (8 weeks after the completion of the intervention), the change was -276.9 g (SD, 39.1) in the intervention group, which was significantly greater than -126.1 g (SD, 41.3) in the control group. The change in non-alcoholic beverage consumption and alcohol consumption at Week 12 was significantly negative only in the intervention group.

The study found that providing non-alcoholic beverages significantly reduced alcohol consumption, an effect that persisted for 8 weeks after the intervention.

Source: Yoshimoto, H., Kawaida, K., Dobashi, S. et al. Effect of provision of non-alcoholic beverages on alcohol consumption: a randomized controlled study. *BMC Med* 21, 379 (2023). doi.org/10.1186/s12916-023-03085-1

Associations between parental drinking and alcohol use among their adolescent children

A study examined associations between parent and child drinking using recent United States national survey data.

Responses of 740 parent-child dyads from 2020 SummerStyles and YouthStyles surveys were analysed. Parents and their adolescent children answered questions about past 30-day alcohol use. The study authors estimated the prevalence of adolescent drinking and explored differences by socio-demographics. A multivariable logistic regression model assessed whether parents' drinking behaviors were associated with drinking among their children.

Overall, 6.6% of adolescents drank alcohol, with no significant differences by sociodemographics. Adolescents whose parents drank frequently (≥ 5

days/month), or binge drank, had significantly higher odds of drinking than adolescents whose parents did not drink or did not binge drink, respectively.

Parents could drink less to reduce the likelihood of drinking among their children. Implementation of effective population-level strategies (e.g., increasing alcohol taxes, regulating alcohol sales) can reduce excessive drinking among both adults and adolescents, the authors say.

Source: Associations Between Parental Drinking and Alcohol Use Among Their Adolescent Children: Findings From a National Survey of United States Parent-Child Dyads, Bohm, M.K., Esser M.B. Journal of Adolescent Health, Published online September 14, 2023. doi.org/10.1016/j.jadohealth.2023.05.028

Drinking motives, personality traits and life stressors—identifying pathways to harmful alcohol use in adolescence using a panel network approach

Models of alcohol use risk suggest that drinking motives represent the most proximal risk factors on which more distal factors converge. However, little is known about how distinct risk factors influence each other and alcohol use on different temporal scales (within a given moment versus over time). A group of researchers estimated the dynamic associations of distal (personality and life stressors) and proximal (drinking motives) risk factors, and their relationship to alcohol use in adolescence and early adulthood using a novel graphical vector autoregressive (GVAR) panel network approach.

The researchers estimated panel networks on data from the IMAGEN study, a longitudinal European cohort study following adolescents across three waves (aged 16, 19 and 22 years). Their sample consisted of 1,829 adolescents who reported alcohol use on at least one assessment wave.

Risk factors included personality traits (NEO-FFI: neuroticism, extraversion, openness, agreeableness and conscientiousness; SURPS: impulsivity and sensation-seeking), stressful life events (LEQ: sum scores of stressful life events), and drinking motives [drinking motives questionnaire (DMQ): social, enhancement, conformity, coping anxiety and coping

depression]. Alcohol use (quantity and frequency) and alcohol-related problems of participants were assessed using the alcohol use disorders identification test (AUDIT).

Within a given moment, social and enhancement motives co-occurred most strongly with drinking quantity and frequency, while coping depression motives, openness and impulsivity were related to alcohol-related problems. The temporal network showed no predictive associations between distal risk factors and drinking motives. Social motives, previous alcohol use and openness predicted alcohol-related problems over time.

The researchers conclude that heavy and frequent alcohol use, along with social drinking motives, appear to be key targets for preventing the development of alcohol-related problems throughout late adolescence. No evidence was found for personality traits and life stressors predisposing towards distinct drinking motives over time.

Source: Freichel, R, Pfirrmann, J, Cousjin, J, de Jong, P, Franken, I, Banaschewski, T, et al. Drinking motives, personality traits and life stressors—identifying pathways to harmful alcohol use in adolescence using a panel network approach. Addiction. 2023; 118(10): 1908–1919. doi.org/10.1111/add.16231

Social media may increase the risk of teenage alcohol use and binge drinking

Teenagers who spend 30 minutes or more on social media every day may be more at risk of alcohol use and binge drinking, according to new research led by the University of Glasgow and published in the *European Journal of Public Health*. Researchers analysed how often teenagers used social media every day at 14 years and investigated if it was associated with their reported use of alcohol at 17 years, including behaviours such as binge drinking.

Using the UK-representative Millennium Cohort Study, the time spent on social media was assessed using questionnaires and time-use-diaries and the relationship between time spent on social media and frequency of alcohol use in the past month and binge drinking was estimated. Associations within low and high parental education groups were compared to examine effect modification.

Social media use was associated with higher risks, although not always demonstrating a dose-response relationship. Overall, the 17 year-olds who had been spending 30 minutes or more each day on social media when they were aged 14 were more likely to report using alcohol and the more time young people spent on social media from age 14 was also found to be closely related to the amount of alcohol they consumed, and how often.

Compared to teenagers who spent one to less than 30 minutes on social media each day, those

who spent between 30 minutes and less than 1 hour a day were 62% more likely to drink alcohol six or more times a month, and 51% more likely to binge drink. As the amount of time spent on social media each day increased, so did the likelihood of alcohol use and binge drinking, with adolescents who spent 2 or more hours a day on social media almost five times more likely to report using alcohol than those who spent 1 to less than 30 minutes on the social media platforms.

In addition, the study found that prolonged daily social media use impacted particular groups of teenagers more than others. The research highlighted that more time spent on social media had a greater influence on the likelihood of binge drinking amongst teenagers who were more socioeconomically advantaged compared to those more disadvantaged.

The authors say that their findings suggest social media use may increase risk of alcohol use and binge drinking. Regulatory action protecting adolescents from harmful alcohol-related social media content is therefore necessary.

Source: Purba A.K., Henderson M., Baxter A., Katikireddi S.V., Pearce A. The relationship between time spent on social media and adolescent alcohol use: a longitudinal analysis of the UK Millennium Cohort Study. *Eur J Public Health*. 2023 Sep 12:ckad163. doi.org/10.1093/eurpub/ckad163.

Dual alcohol and cannabis use in male and female adolescents: Relationships with family variables

Family dynamics influence adolescents' use of alcohol and other substances, such as cannabis. A study explored the relationship between family variables and alcohol use, dual use of alcohol and cannabis, and non-use in adolescents according to sex.

A cross-sectional study was conducted with a sample of 879 adolescents with an average age of 14 years. Analysis showed that for boys, the presence of family conflict increased the likelihood of being an alcohol (OR = 1.19) and dual (OR = 1.23) user rather than a non-user. For girls, communication reduced the probability

of being an alcohol user (OR = 0.88), and the presence of consequences for breaking rules reduced the probability of being a dual user rather than a non-user (OR = 0.83) or an alcohol user (OR = 0.84). These findings highlight the importance of family prevention of adolescents' substance use, bearing in mind the participants' sex.

Source: Eslava D, Martínez-Vispo C, Villanueva-Blasco VJ, Errasti JM, Al-Halabí S. Dual alcohol and cannabis use in male and female adolescents: Relationships with family variables. *Addict Behav*. 2023 Nov;146:107798. doi.org/10.1016/j.addbeh.2023.107798.

Experiences of the health and social care system for co-occurring heavy alcohol use and depression

Heavy alcohol use and depression commonly co-occur. However, health and social care services rarely provide coordinated support for these conditions. Using relational autonomy, which recognises how social and economic contexts and relational support alter people's capacity for agency, a study aimed to (1) explore how people experience formal care provision for co-occurring alcohol use and depression, (2) consider how this context could lead to adverse outcomes for individuals and (3) understand the implications of these experiences for future policy and practice.

The study took place in Northeast England and North Cumbria and included thirty-nine people (21 men and 18 women) with current or recent experience of co-occurring heavy alcohol use ([Alcohol Use Disorders Identification Test [AUDIT] score ≥ 8]) and depression ([Patient Health Questionnaire test ≥ 5]). Semi-structured interviews were conducted to explore the treatment and care people had sought and received for heavy alcohol use and depression.

Most participants perceived depression as a key factor contributing to their heavy alcohol use. Three key themes were identified: (1) 'lack of

recognition' of a relationship between alcohol use and depression and/or contexts that limit people's capacity to access help, (2) having 'nowhere to go' to access relevant treatment and care and (3) 'supporting relational autonomy' as opposed to assuming that individuals can organise their own care and recovery. Lack of access to appropriate treatment and provision that disregards individuals' differential capacity for agency may contribute to delays in help-seeking, increased distress and suicidal ideation.

Among people with co-occurring heavy alcohol use and depression, lack of recognition of a relationship between alcohol use and depression and formal care provision that does not acknowledge people's social and economic context, including their intrinsic need for relational support, may contribute to distress and limit their capacity to get well.

Source: Jackson, K, Kaner, E, Hanratty, B, Gilvarry, E, Yardley, L, O'Donnell, A. Understanding people's experiences of the formal health and social care system for co-occurring heavy alcohol use and depression through the lens of relational autonomy: A qualitative study. *Addiction*. 2023. doi.org/10.1111/add.16350

A scoping review of alcohol marketing to sexual and gender minorities

In a paper published in the journal *Drugs: Education, Prevention and Policy*, the authors state that harmful alcohol use is more prevalent among sexual and gender minorities (SGMs) than their cis-gender/heterosexual counterparts. The reasons for this are complex, incorporating alcohol's normalization and availability in social settings, its importance to identity construction, and drinking to cope with stigma and discrimination. However, commercial determinants have been underexplored, particularly how alcohol is marketed to SGM communities.

In a scoping review, research databases were searched for relevant articles and fourteen articles were included. The review authors report that they found 'a complex web of alcohol marketing targeting SGMs on multiple fronts. Traditional advertising media was

augmented digital marketing. Venue-based marketing on the commercial scene exploited the industry's domination of community spaces, and the dearth of alcohol-free alternatives. Further, appropriation of SGM iconography, and sponsorship of SGM events, positioned the industry as an ally, forging public-facing personae of solidarity and acceptance'.

The authors conclude that multifaceted marketing of alcohol saturates SGM communities, entrenching understandings of its ubiquity and importance. Further work is needed to describe and quantify the impact of these strategies on alcohol use within SGM communities.

Source: Whiteley D., Rickards-Hill D., Dimova E. & Emslie C. (2023) Performing solidarity? A scoping review of alcohol marketing to sexual and gender minorities, *Drugs: Education, Prevention and Policy*, doi.org/10.1080/09687637.2023.2260550

The complexity of physical activity and alcohol consumption in adolescents aged 13-16 years

A recent review indicated that physical activity (PA), facilitated by organisations or clubs, may reduce alcohol consumption in early to mid-adolescence. Researchers examined these factors and identified how health determinants may influence the association.

A cross-sectional secondary data analysis was conducted using UK cohort data from the Avon Longitudinal Study of Parents and Children (ALSPAC). Data was collected at 2 timepoints: TP1 - 1,824 participants aged 13-14 and TP2 1,334 participants aged 15-16. Explanatory variables included: Psychosocial health (PSH); Socioeconomic status (SES); Educational attainment; BMI; Smoking status, and Gender.

The study collected data on how many minutes per day were spent in moderate to vigorous physical activity. Ancillary physical activity variables were Club-type (CT); and frequency of attending club (FAC) collected age 15 only. Risk of alcohol-related harm (RARH) was categorised as: no current risk, increasing risk, and at risk.

The analysis showed a positive association between physical activity and risk of alcohol-related harm at both time points. Odds of being 'at risk' at TP1 were 1.31 greater for each 30-minute increase in physical activity (95%CI 1.10-1.57). At TP2: OR 1.24 (95%CI 1.01, 1.52;

$p=.036$). At TP1, Club-type was not statistically significant at age 13. However, 'sports club only' had the greatest risk of alcohol-related harm (OR 1.04; 95%CI .806, 1.35) vs. no club type.). At TP2, although club type was not statistically significant, 'sports club only' had the greatest risk of alcohol-related harm (OR 1.22; 95%CI .798, 1.86). Risk of alcohol-related harm was reduced if attending club most evenings vs. no attendance (OR .796; 95%CI .499, 1.27). Statistically significant explanatory variables were Psycho-social health (OR 4.27; 95%CI 3.32, 5.51) and smoking (OR 5.39; 95%CI 3.99, 7.29).

The authors conclude that the relationship between physical activity and alcohol consumption is complex. While facilitated physical activity can provide many benefits for adolescents, potential unwanted consequences may be an increase in risk-behaviours like alcohol consumption. Further research is needed for greater comprehension of this association.

Source: Codling S, Phillips T, Martin CR, Huang C, Smith L. O.4.2-6 The complexity of physical activity and alcohol consumption in adolescents aged 13-16 years: cross-sectional analysis of Avon Longitudinal Study of Parents and Children data (ALSPAC). *Eur J Public Health*. 2023 Sep 11;33(Suppl 1):ckad133.181. doi.org/10.1093/eurpub/ckad133.181.

Problem drinking linked to alcohol on social media

A University of Queensland study highlights a direct link between young people's exposure to alcohol-related social media content and problem drinking.

The study led by PhD candidate Brandon (Hsu-Chen) Cheng from UQ's Australian National Centre for Youth Substance Use Research examined results from 30 international studies of more than 19,000 people aged 24 and younger.

Meta-analyses of cross-sectional studies showed both greater exposure and self-posting of alcohol-related content was associated with greater alcohol consumption. Meta-analysis of three prospective studies also identified that greater exposure predicted greater future alcohol consumption. Narrative analyses of studies that could not be meta-analysed due to incompatible methodologies were also conducted. Most

studies (all four prospective, one of two cross-sectional) identified positive associations between exposure to alcohol-related content and greater average consumption. Most studies (three of four prospective, four of six cross-sectional) reported a positive association between of alcohol-related self-posting and greater average alcohol consumption.

Both exposure to, and self-posting of, alcohol-related content on social networking sites are positively associated with current average consumption, problem drinking, and drinking frequency, the authors conclude.

Source: Cheng, B, Lim, C.C.W., Rutherford, B.N., Huang, S., Ashley, D.P., Johnson, B., et al. A systematic review and meta-analysis of the relationship between youth drinking, self-posting of alcohol use and other social media engagement (2012–21). *Addiction*. 2023. doi.org/10.1111/add.16304.

Does the decline in Swedish adolescent drinking persist into early adulthood?

Sweden has experienced a substantial decrease in adolescent drinking over the past decades. Whether the reduction persists into early adulthood remains unclear. Using survey data, a study aimed to determine whether reductions in indicators of alcohol use observed among adolescents re-main in early adulthood and whether changes in alcohol intake are consistent among light/moderate and heavy drinkers.

A total of 52,847 respondents aged 16 and 30 years were included in this study from the Swedish monthly Alcohol Monitoring Survey (2001–20). Data were used to construct five 5-year birth cohorts (1978–82, 1983–87, 1988–92, 1993–97 and 1998–2002). For both males and females, temporal changes in the prevalence of any drinking, the prevalence of heavy episodic drinking (HED) and total alcohol intake in the past 30 days in centilitres were analysed.

The prevalence of any drinking in more recent cohorts remained low until young people came into their early (females) and mid- (males) 20s. Male cohorts differed in the prevalence of HED

across age, with the later cohorts showing lower odds than earlier cohorts (odds ratios between 0.54 and 0.66). Among females, no systematic differences between cohorts across age could be observed. Later male birth cohorts in light/moderate drinkers had lower alcohol intake than earlier cohorts. No statistically significant cohort effects were found for male heavy drinkers. Although differences in alcohol intake among females diminished as age increased, the cohorts did not differ systematically in their level of alcohol intake.

In Sweden, the reduced uptake of drinking in adolescents appears to fade as people move into adulthood. Observed reductions in alcohol intake among light and moderate drinkers appear to persist into adulthood. More recent male cohorts show a lower prevalence rate of heavy episodic drinking.

Source: Kraus, L, Loy, JK, Olderbak, S, Trolldal, B, Ramstedt, M, Svensson, J, et al. Does the decline in Swedish adolescent drinking persist into early adulthood? *Addiction*. 2023. doi.org/10.1111/add.16342

Alcohol intake and academic performance and dropout in High School

During the teenage years, many adolescents start drinking alcohol, and binge drinking is prevalent. A study published in the *Journal of Adolescent Health* investigated the relationship between alcohol intake and academic performance.

Researchers conducted a longitudinal cohort study by combining data from the Danish National Youth Study on 65,233 high school students aged 15–20 years, with information on dropout and grade point average. The associations between alcohol intake and academic performance were assessed.

The average alcohol intake was 10 drinks per week, and 43.6% engaged in binge drinking 3+ times per month. During follow-up, 9.8% of the boys and 6.7% of the girls dropped out. The incidence rate ratio was higher in never drinkers, frequent binge drinkers, and those with a high weekly alcohol intake as compared to those with a low intake. For example, the incidence rate ratio

was 1.47 (95% confidence level: 1.24, 1.76) in girls who drank 21–27 drinks per week and 1.29 (95% confidence level: 1.13, 1.48) in girls who never drank as compared to those who drank <7 drinks per week. Alcohol associated with a lower grade point average over the entire span of intake in a dose-dependent manner, in both boys and girls. Findings were consistent across socioeconomic groups and individual academic ambition.

Alcohol intake has implications for academic performance and poses a threat for the prospects of the individual as well as society, the study authors say. Therefore policies and interventions aimed at lowering the intake among high school students are warranted.

Source: Hjarnaa L, Møller SP, Curtis AB, et al. Alcohol intake and academic performance and dropout in high school: a prospective cohort study in 65,233 adolescents. *J Adolesc Health*. Published online September 12, 2023. doi.org/10.1016/j.jadohealth.2023.07.008

Alcohol-related morbidity and mortality by fathers' parental leave

Fathers' parental leave has been associated with decreased risks of alcohol-related hospitalizations and mortality. Whether this is attributable to the health protections of parental leave itself (through stress reduction or behavioural changes) or to selection into leave uptake remains unclear, given that fathers are more likely to use leave if they are in better health. A study assessed whether fathers' parental leave influences alcohol-related morbidity and mortality.

The study was conducted in Sweden and included 220 412 fathers of singleton children born from January 1992 to December 1997.

Exposure was indicated by the child's birthdate before or after the reform and used to allow fathers' 2- and 8-year parental leave uptake. Outcomes included fathers' hospitalization rates for acute alcohol-related (intoxication; mental and behavioural disorders) and chronic alcohol-related diagnoses (cardiovascular, stomach and other diseases; liver diseases), as well as alcohol-

related mortality, up to 2, 8 and 18 years after the first child's birthdate.

Fathers of children born after the reform exhibited immediate decreases in alcohol-related hospitalization rates up to 2 (incidence rate ratio [IRR]=0.66, 95% confidence interval [CI]=0.51–0.87), 8 (IRR=0.74, 95% CI=0.57–0.96) and 18 years after birth (IRR=0.72, 95% CI=0.54–0.96), particularly in acute alcohol-related hospitalization rates, compared with those with children born before. No changes were found for alcohol-related mortality. After controlling for confounding alcohol-related hospitalization decreases were driven by fathers' parental leave uptake (e.g., 2-year hospitalizations: IRR=0.16, 95% CI=0.03–0.84).

In Sweden, a father's parental leave eligibility and uptake may protect against alcohol-related morbidity, the authors conclude.

Source: Honkaniemi, H, Juárez, SP. Alcohol-related morbidity and mortality by fathers' parental leave: A quasi-experimental study in Sweden. *Addiction*. 2023. doi.org/10.1111/add.16354

Associations between state-level general population alcohol policies and drinking outcomes among women of reproductive age

Policies specific to alcohol use during pregnancy have not been found to reduce risks related to alcohol use during pregnancy. In contrast, general population alcohol policies are protective for the general population. A research team assessed whether US state-level general population alcohol policies are related to drinking outcomes among women of reproductive age.

The researchers conducted a secondary analyses of 1984–2020 National Alcohol Survey data (N=13,555 women ≤44 years old). State-level policy exposures were government control of liquor retail sales, heavy beer at gas stations, heavy beer at grocery stores, liquor at grocery stores, Sun-day off-premise liquor sales, and blood alcohol concentration (BAC) driving limits (no law, 0.10 limit, 0.05–0.08 limit). Outcomes were past 12-month number of drinks, ≥5 drink days, ≥8 drink days, and any DSM-IV alcohol abuse/dependence symptoms.

The analysis found that allowing Sunday off-premise liquor sales versus not was related to having 1.20 times as many drinks (95% CI: 1.01, 1.42), 1.41 times as many ≥5 drink days (95% CI: 1.08, 1.85), and 1.91 times as many ≥8 drink days (95% CI: 1.28, 2.83). BAC limits of 0.05–0.08 for driving versus no BAC limit was related to 0.51 times fewer drinks (95% CI: 0.27, 0.96), 0.28 times fewer days with ≥5 drinks (95% CI: 0.10, 0.75), and 0.20 times fewer days with ≥8 drinks (95% CI: 0.08, 0.47).

US state-level policies prohibiting Sunday off-premise liquor sales and BAC limits of 0.05–0.08 for driving are related to less past 12-month overall and heavy drinking among women 18–44 years old, the researchers conclude.

Source: Subbaraman, M.S., Sesline, K., Kerr, W.C. & Roberts, S.C.M. (2023) Associations between state-level general population alcohol policies and drinking outcomes among women of reproductive age: Results from 1984 to 2020 National Alcohol Surveys. *Alcohol: Clinical and Experimental Research*, 47, 1773–1782. doi.org/10.1111/acer.15156

Factors associated with higher alcohol concentrations in emergency department presentations

A research team from Brisbane, Australia say that identifying factors associated with higher alcohol consumption when presenting to the emergency department (ED) will inform public health policy and enable more targeted health care and appropriate referrals

Their study conducted secondary testing of blood samples collected during routine clinical care of 1160 ED patients presenting to the Royal Brisbane and Women's Hospital in Queensland, Australia, between 22 January and 1 February 2021. The study used two alcohol markers to identify factors associated with higher alcohol concentrations in emergency presentations; alcohol was measured by blood ethanol (intake in recent hours) and phosphatidylethanol (PEth; intake over 2–4 weeks). Demographic and clinical factors associated with higher alcohol concentrations were identified.

Younger patients, males, injury-related presentations and those brought in by ambulance or involuntarily, were significantly more likely to have higher blood ethanol concentrations on emergency department presentation than the rest of the cohort. Males were found to have 83% higher blood ethanol and 32% higher

PEth concentrations than females (adjusted rate ratio [ARR] 1.83, 95% confidence interval [CI] 1.37–2.45 and ARR 1.32, 95% CI 1.04–1.68, respectively). Blood ethanol concentrations were 3.4 times higher for those 18–44 years, compared to those aged 65+ (ARR 3.40, 95% CI 2.40–4.82). Patients brought in involuntarily had eight-times higher blood ethanol concentrations than those who self-attended. Higher PEth concentrations were identified for middle aged, males with those aged 45–64 years having concentrations 70% higher than those aged 65+ (ARR 1.70, 95% CI 1.19–2.44).

The researchers argue that the findings demonstrate how these biomarkers can provide informative data for public health responses and monitoring of alcohol use trends. In addition, understanding the factors associated with higher alcohol use using reliable biomarkers can inform patient-tailored interventions and pre-emptive patient management.

Source: Cameron, C.M., Vuong, K., McWhinney, B., Zournazi, A., Manzanero, S., Warren, J., et al. Factors associated with higher alcohol concentrations in emergency department presentations: PACE study. *Drug Alcohol Rev.* 2023. doi.org/10.1111/dar.13744

Prevalence of alcohol and other drug detections in non-transport injury events

A Monash University-led study measured the prevalence of alcohol and/or other drug (AOD) detections in suspected major trauma patients with non-transport injuries who presented to an adult major trauma centre.

Published in *Emergency Medicine Australasia*, the project analysed valid pathology tests from 1,248 people treated by The Alfred trauma team for serious non-transport injuries from 1 July 2021 to 31 December 2022. Of those admitted to the hospital, 37.4% tested positive for alcohol and other drugs. This included 68.7% of those injured due to violence, 47.2% hurt by self-harm and 32.6% of those who'd had falls. This compared to a previously reported figure of 28.7% of injured car drivers testing positive to alcohol and other drugs after hospital admission. Alcohol

was the most commonly detected substance (25.1%), followed by cannabinoids, (14.1%), benzodiazepines, (13.4%), amphetamine-type substances (10.9%), opioids (3.8%) and cocaine (2.3%). 61.8% of those injured on Friday and Saturday nights tested positive for alcohol or other drugs.

The authors conclude that population-level surveillance of AOD-related injury events is needed to inform prevention approaches that address AOD use as a risk factor for all causes of injury.

Source: Lau, G., Mitra, B., Gabbe, B.J., Dietze, P.M., Reeder, S., Cameron, P.A., Smit, D.V., Schneider, H.G., Symons, E., Koolstra, C., Stewart, C. and Beck, B. (2023), Prevalence of alcohol and other drug detections in non-transport injury events. *Emergency Medicine Australasia*. doi.org/10.1111/1742-6723.14312

Social research listed by publication date

Drinking motives, personality traits and life stressors—identifying pathways to harmful alcohol use in adolescence using a panel network approach 08/05/2023

Dual alcohol and cannabis use in male and female adolescents: Relationships with family variables 07/07/2023 Version of Record 3/07/2023.

The complexity of physical activity and alcohol consumption in adolescents aged 13-16 years: cross-sectional analysis of Avon Longitudinal Study of Parents and Children data (ALSPAC). 11/09/2023

Alcohol Intake and Academic Performance and Dropout in High School: A Prospective Cohort Study in 65,233 Adolescents 12/09/2023

The relationship between time spent on social media and adolescent alcohol use: a longitudinal analysis of the UK Millennium Cohort Study 12/09/2023

Does the decline in Swedish adolescent drinking persist into early adulthood? 13/09/2023

Factors associated with higher alcohol concentrations in emergency department presentations: PACE study. 13/09/2023

Associations Between Parental Drinking and Alcohol Use Among Their Adolescent Children: Findings From a National Survey of United States Parent-Child Dyads 14/09/2023

Prevalence of alcohol and other drug detections in non-transport injury events 17/09/2023

Alcohol-related morbidity and mortality by fathers' parental leave: A quasi-experimental study in Sweden 19/09/2023

Associations between state-level general population alcohol policies and drinking outcomes among women of reproductive age: Results from 1984 to 2020 National Alcohol Surveys 20/09/23

A systematic review and meta-analysis of the relationship between youth drinking, self-posting of alcohol use and other social media engagement (2012–21) 26/09/2023

Understanding people's experiences of the formal health and social care system for co-occurring heavy alcohol use and depression through the lens of relational autonomy: A qualitative study 1/10/2023

Performing solidarity? A scoping review of alcohol marketing to sexual and gender minorities 3/10/2023

IARD launches resources for retail staff and servers to help prevent sale of alcohol beverages to minors

The IARD has launched two new resources, Responsible Retailing of Beverage Alcohol and Responsible Service of Beverage Alcohol. Designed for in-store and server staff, the resources aim to support anyone selling alcohol beverages to do so responsibly and in accordance with the law. A core element of selling alcohol lawfully and responsibly is ensuring staff are empowered to deny sale when necessary. The online courses focus specifically on:

- The importance of verifying a customer's age and sobriety during in-store purchases.
- The consequences of selling alcohol to those underage and intoxicated people.

- Communication techniques to handle difficult situations.
- Methods server staff can use to better promote and support responsible choices.
- Advice on appropriate ways to respond if server staff are asked directly for drinking advice.

The resources are available in several languages to help retail and hospitality sector staff across the globe sell alcohol in the right way, and to deny sale where necessary.

edapp.com/iard/signup

EU driving licence changes

Karima Delli, the MEP in charge of drafting the European Parliament's response to a European Commission proposal to revise rules on driving licences, has called for a number of changes that could boost road safety. The proposal addresses a number of issues including dangerous behaviour on the road, particularly by novice drivers. The

Commission suggests a probationary period with zero tolerance on alcohol for new drivers, but the Delli response goes further and includes restrictions on drugs and night-time driving for new drivers.

europarl.europa.eu/doceo/document/TRAN-PR-750248_EN.pdf

New modelling of alcohol harms in Scotland

In September, the Sheffield Alcohol Research Group published a report on the impact of alcohol pricing policies, alcohol consumption and harm in Scotland. Commissioned by Scottish Government, the report uses the Sheffield Tobacco and Alcohol Policy Model to appraise the impact of:

- raising or lowering the current Minimum Unit Pricing threshold, or removing MUP entirely
- changes to alcohol taxation, including the reforms introduced by the UK Government in August
- changes to drinking behaviour during the COVID-19 pandemic and how these might affect harms in the longer-term
- recent high levels of inflation on the effectiveness of Minimum Unit Pricing

The modelling finds that if alcohol prices, consumption and harms in Scotland were still at similar levels to 2019, increasing the MUP level would lead to greater health benefits; while reducing it, or removing the MUP altogether, would lead to a substantial increase in harms. However, much has changed since 2019. In the report, an analysis of drinking during the COVID-19 pandemic estimates that heavier drinkers increased their drinking in 2020 and even under the most optimistic assumptions about how quickly this might return to pre-

pandemic levels (if at all), the report authors estimate this will lead to a marked increase in alcohol harms.

The report also estimates the impact of high inflation, which has eroded the real-terms value of the 50p MUP level, and finds that alcohol consumption is likely to have increased as a result. The potential impact of alternative approaches to linking the MUP level to inflation in the future is explored.

Overall, the report highlights that a combination of high inflation and the long-term effects of the pandemic on drinking behaviour are likely to lead to increases in alcohol-related harm that will cancel out some of the beneficial impacts of MUP.

sarg-sheffield.ac.uk/wp-content/uploads/2023/09/sarg-scottish-mup-report-2023.pdf

Scottish MUP consultation - 5 years on

The Scottish government is consulting on whether Minimum Unit Pricing (MUP) should be continued as part of the range of policy measures in place to address alcohol related harm, and, in the event of its continuation, the level the minimum unit price should be set going forward. The consultation closes 22 Nov 2023.

consult.gov.scot/population-health/review-of-the-minimum-unit-pricing-and-continuation/

Alcohol ignition interlock devices in Ireland

The introduction of Alcohol Ignition Interlock devices is an action plan in the Irish Government's Road Safety Strategy and has now been included in Minister of State for Road Safety Jack Chambers' ministerial priorities for 2023 and 2024. The Medical Bureau for Road Safety director, Prof Denis Cusack, said that plans to introduce the device here are at an advanced stage. It is likely that the alcohol interlock would initially be introduced on a voluntary basis for commercial fleets and businesses, and school bus service providers. The Medical Bureau for Road Safety has been actively involved to ensure the device, once approved, complies to the highest EU standards.

irishtimes.com/politics/2023/09/27/plans-to-introduce-alcohol-breath-test-devices-that-stop-vehicles-from-starting-if-driver-is-over-limit/

Driving change using lived experience from alcohol harm

Alcohol Action Ireland has launched a new initiative, Voices of Recovery, to harness the lived experience of people in recovery from alcohol harm to drive much needed policy change.

The initiative, led by people in recovery from alcohol, aims to remove the stigma around getting help for alcohol problems and to drive evidence-based policy change on issues such as better alcohol treatment services, curbs on alcohol marketing and holding the alcohol industry to account for the harm its product causes. The campaign was launched ahead of International Recovery Day (Sept 30) and included well-known recovery advocates Olympic boxer Kenneth Egan, Senator Frances Black and singer Mary Coughlan.

alcoholireland.ie/campaigns/voices-of-recovery/

Scottish Alcohol Industry Partnership appoints first chairperson

Kieran Healey-Ryder, of whisky makers Whyte and Mackay, has been appointed the first chairperson of the Scottish Alcohol Industry Partnership (SAIP), representing the alliance of distillers, brewers, retailers and hospitality venues which provides a platform for the alcohol industry to promote responsible drinking and contribute towards tackling alcohol-related harm.

SAIP membership is drawn from every aspect of the sector in Scotland, and includes producers, business owners and trade associations. In addition to engaging with Scottish Government through policy consultations, it develops public campaigns including the national 'It'll Cost You' National Campaign, designed to

tackle youth disorder, developed with Police Scotland and Community Alcohol Partnerships to communicate the consequences of adults buying alcohol for minors.

Kieran Healey-Ryder said, "As a responsible industry we take our commitment to ensuring responsible drinking extremely seriously. This partnership has proven how together we can deliver impactful campaigns to tackle harmful drinking, and initiatives that promote responsible enjoyment. I am looking forward to an opportunity to advance the work that we do, and to promote the positive contribution the Scottish Alcohol Industry makes at a local and national level."

Belgium record-breaking drink driving campaign

In Belgium, 360,000 drivers were stopped and tested during the summer BOB campaign - an increase from last year (322,000 tests). Over 12 weeks, from Friday June 2 to Monday August 28, 2023, the Local Police and the Federal Highway Police carried out blood alcohol checks across the country as part of the VIAS BOB summer campaign. 8,025, or 2.24%, tested positive for alcohol, a slight decrease compared to last year (2.5% of positive drivers). In total, 2,870 drivers had their driving licenses revoked.

Koen Ricour, director of the Federal Highway Police (Federal Administrative Police): "As a historic partner of the BOB campaign, the Integrated Police were once again present this summer to ensure the safety of road users. The reduction in the number of positive drivers is good news in itself. However, this percentage is still too high. Road safety is a top priority and the police will continue to carry out alcohol checks."

The BOB campaign, launched by VIAS in 1995, has been raising citizens' awareness on drink driving for more than 25 years.

Dutch teens are better informed about the risks of alcohol than adults

The Dutch Health Council advice is "don't drink alcohol or drink no more than one glass daily." Research in the Netherlands shows that compared to adults, young people (10-17 years) are more wary about the potentially harmful effects of alcohol.

A survey investigated the knowledge of, and attitudes towards, alcohol in young people aged 10 to 17 years old. 73% of young people believe that drinking 1 glass of alcohol per day is unhealthy compared to 47% of adults. More generally, 39% of young people think of alcohol as unhealthy, compared to 27% of adults.

Young peoples' perception of alcohol use varies. Many think of it as appropriate at a party (50%) and something for adults (48%). Respondents were more positive about alcohol as they approach the age of 18, with 13% of 10- and 11-year-olds

thinking that alcohol is fun, compared to 52% of 16- and 17-year-olds. Young people are also less likely to think that that alcohol can lead to unpleasant situations between people (youth 47% and adults 61%). The average age at which children first taste alcohol is 13. Compared with 10 years ago, fewer youngsters drink alcohol.

The survey was carried out as part of the 'For your health?' campaign, an initiative within the framework of the Healthy Generation that 22 health funds are committed to, including the Dutch Digestive Diseases Foundation and the Dutch Cancer Society. The current campaign aims to raise awareness of a raised risk of 7 types of cancer associated with alcohol consumption. Campaign commercials will run on TV until 22nd October.

gezondegeneratie.nl.

Young adults in the UK are more likely to drink at high risk levels despite growth in non-drinkers

A report published in October by Drinkaware analyses the results of surveys on more than 5,200 young adults aged 18-24 from across the UK between 2017 and 2023.

According to the report, young adults have the highest rates of non-drinking, rising from 14% in 2017 to 21% in 2023, but despite this, 79% of young adults drink alcohol and, compared to the rest of the population, those who drink alcohol are more likely to binge drink (74% vs 63%), and are twice as likely to drink at high risk or possible dependent levels (11% vs. 6%).

The survey also found that compared to drinkers aged 25 and over, young adult drinkers are

more likely to screen positive for anxiety or depression (43% vs. 26%); are more likely to experience memory loss (40% vs. 19%), morning cravings (14% vs. 4%), and failure to meet their usual responsibilities (24% vs. 12%). Young adult drinkers are more likely to drink alcohol on nights out with friends (84% vs. 74%) but less likely to drink alone at home (43% vs. 52%). They also drink less often, with 46% drinking at least once a week compared to 56% for the rest of the adult drinking population.

drinkaware.co.uk/research/research-and-evaluation-reports/the-sober-myth-are-young-adults-really-a-generation-of-non-drinkers

Scottish Government supports Made to be Measured campaign

The Scottish Government has pledged to help to support the Scotch Whisky Association's (SWA) Made to be Measured responsible consumption campaign ahead of the festive period. The campaign was launched in March to raise awareness of the alcohol content of drinks and the chief medical officers' low-risk drinking guidelines. The most recent evaluation showed that awareness of the recommended weekly limit of 14 units grew from 17% to 27% in Scotland, meaning three quarters of the population are still unaware of guidelines. Since its launch, the campaign has already reached 800,000 adults across the country and it is hoped the Government can communicate the message further.

First Minister Humza Yousaf said: "The whisky industry's willingness to raise awareness of alcohol misuse and the health risks associated



with high consumption of alcohol, through the Scotch Whisky Association's 'Made to Be Measured' campaign, is very welcome.

"This is just one of the key areas of partnership that the Scottish Government and whisky industry can work together on – and I look forward to furthering our productive partnership on shared priorities such as the transition to net-zero, global trade and investment, and economic growth."

Labelling guidance for no and low-alcohol alternatives in the UK

The UK government wants to increase substitution of alcoholic drinks with NoLo alternatives among people who drink above low-risk levels. Research suggests that the main policies that encourage substitution of higher strength drinks with lower strength drinks relate to price, availability and clear labelling.

The UK government is therefore consulting on options for updating recommendations on labelling of NoLo alcohol drinks, including

seeking evidence on whether these options could facilitate industry to shift the alcohol market towards lower strength options by making them more available, acceptable and affordable as substitutes for standard alcoholic drinks.

The consultation period will run until 11:59pm on 23 November 2023.

gov.uk/government/news/action-taken-to-help-promote-no-and-low-alcohol-drinks

Support for an 18-year age limit for alcohol sales in Denmark

In Denmark, unlike most of Europe, teenagers between 16 and 17 years old can purchase beer, alcoholic soft drinks, and other alcoholic beverages under 16.5%ABV in supermarkets and kiosks. However, the Health Authority recommends that young people under 18 do not drink alcohol.

The Blue Cross Denmark is an organisation that assists people with alcohol and drug abuse issues and offers therapy to children and teenagers who have grown up in homes with substance abuse problems. Their survey conducted by Voxmeter found that 63% of Danes were in favour of raising the age limit for selling all alcohol to 18 years.

Secretary-General Morten Skov Mogensen, said "There's overwhelming support from both sides of the Parliament when you ask the voters. We obviously hope the parties will take this into

account and listen. Danes are ready to take the first step towards a healthier alcohol culture."

A recent survey of school children from the National Institute of Public Health shows that the percentage of 15-year-olds who drink alcohol has risen. 22% of the girls surveyed in 9th grade state that they drink at least once a week, compared to 12% in 2014. The proportion for boys over the same period has also increased from 21% to 29%.

"Engaging with parents and educational institutions is crucial in this context and cannot replace a higher age limit. However, an 18-year limit might help alleviate the pressure for 16-year-olds to drink alcohol," says Morten Skov Mogensen from Blue Cross Denmark.

nordicalcohol.org/post/denmark-massive-voter-support-for-an-18-year-age-limit

Educational virtual reality experience for teens in the US

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) recently launched Alcohol and Your Brain, a virtual reality (VR) module to engage and educate young audiences about how alcohol affects the brain. Designed for Oculus Quest, Quest 2, or Meta Quest Pro headsets, this activity takes users on a virtual rollercoaster ride through the brain, with stops to describe alcohol's harmful effects on the prefrontal cortex, nucleus accumbens, amygdala, hippocampus, and cerebellum.

NIAAA created a complementary desktop video version of the VR module to make the Alcohol and Your Brain content even more accessible. Parents and educators can share the video with middle schoolers on any computer or mobile device. NIAAA also created a second video

version that provides audio descriptions for users with low or no vision. Both videos provide captions for viewers who are deaf or hard of hearing.

The NIAAA will showcase the VR experience at upcoming professional association conferences. Students, caregivers, stakeholder groups, news media, and the general public are invited to engage with and share this free resource.

niaaa.scienceblog.com/



Canadian town lifts Prohibition law after 121 years

The town of Cardston in Alberta, one of Canada's few remaining dry towns, has voted to remove laws forbidding the sale of alcohol. For more than a century the residents of Cardston in southern Canada have had to leave their town to buy alcohol if they wished to have a drink, but the town council has now voted in favour of allowing

"limited liquor sales" by permitting restaurants and some recreational facilities such as golf courses the right to apply for liquor licenses. Despite the easing of anti-alcohol laws, bars, liquor stores and alcohol-delivery services will still be prohibited from operating in Cardston.

Impaired driving in Canada

The Impaired Driving Coalition of Canada (IDCC) combines the knowledge and expertise of 21 member organizations that are working collaboratively to tackle education, technology, and data action items. IDCC has released a new infographic and fact sheet to increase public awareness about the different impairing effects of alcohol and cannabis and to summarize the impaired driving risks specifically for younger drivers.

In Canada, more than half (55%) of fatally injured drivers tested positive for any drug in 2020 and half of those drivers (54.7%) tested positive for cannabis. Drivers aged 20-34 years were most likely to test positive (TIRF's National Fatality Database, 2022) of any age group.

Traffic Injury Research Foundation (TIRF) partnered with Diageo North America in early 2022 to establish the Impaired Driving Coalition of Canada (IDCC) and create a National Action Plan. Two new documents have been developed to address educational priorities in the Plan.

'Alcohol, Other Drugs & Driving: Know the Facts,' answers tough questions about impaired driving, why people drive impaired, the risks for younger age drivers, and why it is important for passengers to speak up if the driver is impaired. It also provides information on how alcohol and cannabis, both alone and combined affect driving skills, Mandatory Alcohol Screening in Canada, and the consequences of impaired driving for new drivers.

'Are you impaired? Zero is the safe choice' is a poster illustrating the acute impairing effects of alcohol on driving skills, of cannabis on driving skills, and of alcohol and cannabis on driving skills.

tirf.ca/download/idcc-alcohol-other-drugs-driving



Smart drinking campaign in Canada

Social norms marketing is AB InBev's largest initiative to advance moderation and responsible drinking, called Smart Drinking. These campaigns feature positive social behaviours, such as eating before and while drinking, and not driving after drinking.

Andres Penate, Global Vice President, Corporate Affairs at AB InBev commented "People often take their cues from the actions of others... Social norms campaigns highlight positive actions, creating a sense of belonging to a larger, responsible group of people."

In one such campaign, Budweiser Zero has joined up with the Canada's Major League Baseball team, the Toronto Blue Jays, to promote Smart Drinking.

81% of Canadian fans of legal drinking age enjoy alcohol while at baseball games. In order to reduce drinking and driving, the Blue Jay's stadium stops serving alcohol at the end of the seventh inning, making Bud Zero the perfect partner to become "The Official Beer of Your Cut-off Time." Throughout the game, fans are encouraged to "sub in" no-alcohol Budweiser Zero, and from the top of the eighth inning through the end of the game, all concession sellers serve no-alcohol Budweiser Zero. Throughout the game, the campaign raises awareness among at-home fans with a Budweiser Zero broadcast takeover on Sportsnet.

"The Budweiser Zero campaign transformed a typical moment - the venue's cut-off time - into a responsible choice," said Andres. "The combination of convenience, timing and awareness demonstrates the power of our brands to positively shift drinking social norms."

ab-inbev.com/smart-drinking/



Éduc'alcool's fall responsibility campaign

In September, Éduc'alcool unveiled its new responsibility campaign for 2023. A year ago, the organization refocused its approach, inviting people to question their drinking habits and reasons for drinking. Now they are 'diving even deeper into this initiative to trigger realizations about drinking habits and vulnerabilities towards alcohol'. All of this is pursued with an emphasis on compassion, potentially leading to behavioural changes, encouraging the public to choose, for instance, their occasions and contexts for consumption. Éduc'alcool also aims to remove the stigma associated with choosing not to consume alcohol.

The new campaign will unfold in various ways to generate discussion and become a central part of the discourse. Executive Director of Éduc'alcool, Geneviève Desautels, said "Every realization begins with a question. Thus, the campaign will revolve around the following tagline: It's a question of setting your own bar... This is a concise message in tune with the organization's values that encourages introspection and realizing one's own responsibility concerning alcohol consumption."

The first phase of the campaign focuses on personal introspection regarding the relationship the population of Quebec has with alcohol. Éduc'alcool has partnered with the popular reality show *Occupation Double*, which enjoys high viewership amongst the youth. To trigger awareness among this target demographic and to generate discussions among families, friends, and colleagues, the campaign will highlight, in an accessible and positive tone, everyday situations experienced in our society regarding



alcohol consumption and the deeply ingrained justifications for it.

The second part of the campaign will focus on the broadcasting of informative content, and the collection and distribution of personal experiences to heighten the public's awareness of alcohol consumption and its associated risks. Collaborating with specialists renowned in their medical disciplines, a range of topics will be presented in informative segments titled 'In full transparency'. Subjects to be discussed include mental health impacts; social health impacts, featuring contributions from Dr Youssef Allami, a psychologist, addiction clinician-researcher, and scientific consultant for Éduc'alcool. Physical health effects will also be tackled, with insights from Dr Anne Julie Frenette, a pharmacist and Clinical Professor at the Faculty of Pharmacy, Université de Montréal. These segments aim to provide a deeper understanding of the impacts of alcohol consumption, all while prompting viewers to further reflect on the issue.

educalcool.qc.ca/en/media/press-releases/generate-discussions-and-engaging-in-reflections-to-improve-support-for-the-population-of-quebec-regarding-alcohol/

The 2023 NDARC Annual Symposium

Hosted by the National Drug & Alcohol Research Centre (NDARC) at the University of New South Wales (UNSW) Sydney, The 2023 NDARC Annual Symposium will showcase the foremost research in the alcohol and other drugs sector, and related fields.

This face-to-face one-day event will be held in Sydney on Friday, 27 October with a live stream option for selected sessions only. The latest findings on a wide range of topics will be covered including: Trends in substance use, and the future of drug monitoring systems; Substance use and treatment in rural/regional

Australia; Co-designed projects/partnerships; Illicit drug use and treatment; Commerce and health; E-cigarettes and vaping; The safety of quit smoking medications during pregnancy.

The program features international and national keynote speakers, panel discussions, breakout sessions and a networking event. It will be facilitated by leading researchers, clinicians, and community leaders, providing an information forum and opportunity to network and collaborate.

ndarc.med.unsw.edu.au/2023-ndarc-annual-research-symposium

International Fetal Alcohol Spectrum Disorder (FASD) Awareness Month in Australia

In Australia, to coincide with International Fetal Alcohol Spectrum Disorder (FASD) Awareness Month, the Foundation for Alcohol Research and Education (FARE), the National Organisation for Fetal Alcohol Spectrum Disorder (NOFASD) and the National Aboriginal Community Controlled Health Organisation (NACCHO) launched the Red Shoes Rock campaign in September.

NOFASD COO Sophie Harrington said, "This September we're encouraging people to wear red shoes or socks to spark conversations and create understanding about FASD, and how to prevent it."

In September, more than 50 public landmarks across Australia were lit up red and community events were held across the country. Red flags were flown throughout central Canberra, and on 5 September an event was held at Parliament House with people who have a lived experience of FASD.

Federal Minister for Health and Aged Care, Mark Butler said "The Australian Government is proud to support the Every Moment Matters and Strong Born national prevention campaigns – the first of their kind in Australia and the world. "These campaigns are making an impact and are contributing to a generational change, where families and communities are healthier, and more people are supported to have alcohol-free pregnancies."

The results of the ongoing evaluation led by the University of Adelaide demonstrate that Every

Moment Matters is raising awareness about alcohol and pregnancy, as well as increasing understanding about FASD. To date, the campaign video has reached over 2.3 million women aged 18-49 years and been viewed 28 million times and the campaign website is visited by more than 30,000 people every month.

The results of the evaluation suggest that the campaign is making a difference, with surveys of the target audience finding that between January 2022 and March 2023:

- 82.3% of respondents stated there is no safe number of alcoholic drinks that can be consumed during pregnancy (up from 58.3%)
- 80.3% of respondents reported not drinking any alcohol in pregnancy (up from 68.8%)
- 63.5 % of respondents have heard of FASD (up from 52.3%)
- 70.2% of respondents now know that FASD is a risk of alcohol consumption in pregnancy (up from 59.4%)
- 90.9 % of respondents said they will not drink alcohol if they become pregnant (up from 82.6%).

Through the Strong Born campaign, NACCHO has provided \$1.6 million of grant funding to Aboriginal community controlled organisations across Australia to raise awareness and understanding of FASD and the risks of alcohol use during pregnancy.

redshoesrock.org.au

Addressing blind spots to accelerate the implementation of high-impact policy interventions

In 2023, the WHO Less Alcohol Webinar Series returns for its third edition. This year, the series continues its aim to start global conversations on policy blind spots critical to reducing alcohol consumption.

Each 60 minute webinar will include a keynote presentation, three to four spotlight country cases, active moderation and an interactive experience for online participants. All events are free with prior registration. In the 3 remaining webinars, the following topics will be explored:

- Alcohol monopolies: what does it take for alcohol monopolies to work? 18/10/2023, 13–14:00 CET
- Youth and alcohol: do new trends demand new solutions? 7/11/2023, 13–14:00 CET
- Measuring alcohol policy implementation: are existing tools and methods fit for purpose and use? 7/12/2023, 13–14:00 CET

cdn.who.int/media/docs/default-source/health-promotion/less-alcohol-webinar-series-2023-overview.pdf

\$42.6 Million in the US awarded to Implement evidence-based prevention strategies

In the lead up to Youth Substance Use Prevention Month and Substance Misuse Prevention Month, the Biden-Harris Administration has awarded \$42.6 Million to expand and strengthen the capacity of states and local community prevention providers to implement evidence-based prevention strategies

The U.S. Department of Health and Human Services (HHS), through the Substance Abuse and Mental Health Services Administration (SAMHSA), awarded \$42.6 million in Strategic Prevention Framework - Partnerships for Success (SPF-PFS) grants to 17 states and 60 communities (located across 33 states). These grants, a foundational investment for substance use prevention in the US, focus on preventing substance use initiation and reducing the

progression of substance use and related problems by supporting the development and delivery of state and community substance use prevention and mental health promotion strategies. Increasing youth substance use prevention is a key goal in the Biden-Harris Administration's National Drug Control Strategy, and an essential strategy to helping to beat the overdose epidemic – a core pillar of President Biden's Unity Agenda for the nation.

This is the first year that the SPF-PFS program has provided two distinct funding opportunities - one for states, and one for communities - leveraging the unique strengths of states and communities to advance comprehensive substance use prevention strategies in communities across the US.

New statistics on causes of death in Australia

The Australian Bureau of Statistics has issued an update to statistics on the number of deaths, by sex, selected age groups, and cause of death in Australia. Alcohol-induced deaths are those where the underlying cause can be directly attributed to alcohol use, including acute conditions such as alcohol poisoning or chronic conditions such as alcoholic liver cirrhosis. On average, 70.1% of alcohol-induced deaths are certified by a doctor. These deaths are primarily caused by chronic alcohol-induced conditions.

In 2022 there were 1,742 alcohol-induced deaths (1,245 males and 497 females). There was a 9.1% increase in the alcohol-induced death rate,

with 164 additional deaths since 2021. The age-standardised rate for alcohol-induced deaths was 8.7 for males and 3.4 for females, representing the highest rates per 100,000 people in the 10-year time series. The rate increase is largely due to complications associated with chronic alcohol use including liver cirrhosis and liver failure. The largest numerical increase in alcohol-induced deaths from 2021 was in females aged 45-64 years (55 more deaths) and males aged 65-84 years (47 more deaths).

[abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release#overview-of-key-mortality-indicators-sex-and-age-](https://abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release#overview-of-key-mortality-indicators-sex-and-age)

5,000-year-old intact wine jars discovered

An archaeological team has discovered complete wine jars that are still intact and containing 'well-preserved remains' of 5000-year-old wine in Egypt.

Archaeologists from Egypt, Germany and Austria were excavating the tomb of Meret-Neith, who it is believed was an important woman from the 1st dynasty of Ancient Egypt. They found various grave goods, including hundreds of the sealed jars containing the remains of ancient wine.

Dietrich Raue, the director of the German Archaeological Institute, stated Meret-Neith was the only woman in Egypt's first royal cemetery at Abydos to have her own monumental tomb. Recent excavations have revealed new information about Meret-Neith and her era, leading to speculation that she may have been the first female Queen in Ancient Egypt, predating Queen Hatshepsut of the 18th dynasty.

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 www.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.

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