Alcohol in Moderation

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

Contents

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Finland

The Finnish government plans to loosen a number of restrictions on alcohol sales that will allow consumers to have alcoholic drinks delivered to their homes from shops and restaurants. The government is aiming for alcoholic beverages to be available to order from any retailer with a licence, including shops, kiosks and restaurants. Stronger drinks would remain restricted to the state alcohol monopoly Alko, which would also get the right to bring in home deliveries for their own products, such as wines. The upper limit on alcohol strength for other retailers is slated to increase to 8 percent from spring 2024. In addition, the government is preparing legislation to expand the rights of breweries and wineries to sell their products directly to consumers.

Hong Kong

Bloomberg reports that alcohol consumption in Hong Kong has declined over the past few years. According to the city's health department, alcohol consumption has dropped nearly 20%, from 2.84 litres of alcohol per capita per year in 2018 to 2.29 litres last year. Leading the change in behaviour is Gen Z. According to a survey by the Hong Kong Centre for Health Protection, in 2018-19, 15.3% of respondents aged 15 to 24 reported binge drinking in the previous 12 months, but for the period between 2020-22, that number droppeded to 3.6%.

Australia

From November 7, 2023, public intoxication (public drunkenness) will no longer be a criminal offence in Victoria, following the Government's 2019 announcement that the law would be removed. Victoria is the second last Australian jurisdiction to decriminalise public intoxication.

Latvia

The Saeima Public Health Sub-Committtee in Latvia has agreed to advance a joint proposal on restrictions on alcohol sales, which provides for a prohibition on selling alcohol on working days and Saturdays from 20:00 in the evening until 10:00 the next day and on Sundays and public holidays from 15:00 to 10:00 on the next working day. It has also been reported that the Saeima Social and Labor Affairs Committee supports the intention to raise the alcohol-purchase age limit from 18 to 20.

Thailand

In Thailand, extended opening hours are to be introduced on 15 December in Bangkok, Chiang Mai, Chon Buri and Phuket, allowing outlets to sell alcohol until 4am in special designated zones. The Ministry of Public Health is proposing that nightspots offering longer opening hours should conduct an alcohol breathalyser test on their customers before they leave and, if they appear too drunk to get home safely, the venues should be responsible for finding them safe transport home.

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

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Author's Abstract

Background 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. We aimed to provide insight into the mechanisms by examining 14 insulinemic/glycaemic, inflammatory and lipid markers.

Methods We used cross-sectional data from 15,436 women in the Nurses' Health Study, 19,318 women in the Nurses' Health Study II, and 6872 men in the Health Professionals Follow-up Study. Multivariable linear regression was used to estimate the percentage differences in biomarker concentrations according to alcohol intakes.

Results The average alcohol intake in the combined cohort was 3.3 servings/week. We found 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.

Conclusions Our data indicated moderate alcohol intake, especially if consumed from wine and done regularly, was associated with favourable profiles of insulinemic/glycaemic and inflammatory markers and blood lipids.

Forum comments

Background including previous results

Cardiovascular diseases (CVDs) are the leading cause of death globally, taking an estimated 17.9 million lives each year (World Health Organization, 2021). CVDs are a group of disorders of the heart and blood vessels and include coronary heart disease (CHD), cerebrovascular disease, rheumatic heart disease and other conditions. More than four out of five CVD deaths are due to myocardial infarctions or heart attacks and strokes, and one third of these deaths occur prematurely in people under 70 years of age. Leading risk factors for CHD and stroke are high blood pressure, high low-density lipoprotein (LDL) cholesterol, diabetes, smoking and second-hand smoke exposure, obesity, unhealthy diet, and physical inactivity.

Previous observational studies have consistently shown an inverse association between moderate alcohol consumption and a lower risk of CVDs, such as heart attacks (Hu et al., 2022, Ronksley et al., 2011). The effect of moderate alcohol consumption as cardiovascular protector is considerable and is the main contributor to the beneficial association of moderate alcohol consumption to overall mortality (Di Castelnuovo et al., 2006, 2022). However, the protective effect of moderate alcohol consumption has been previously challenged by a hypothesis that the inclusion of former heavy drinkers who quit drinking due to sickness would confound the association. This ´sick quitters´ hypothesis has, however, been regularly debunked over the past 20 years (Klatsky and Udaltsova 2007, Klatsky, 2010). Although researchers have used various other control groups, such as non-drinkers without sick quitters, non-drinkers without previous alcohol abusers, rarely drinkers or very light drinkers, a J-shaped curve showing a protective CVD effect could always be observed (Harriss et al. 2007, Rimm and Moats 2007, Athyros et al. 2008, Djoussé et al. 2009a, Streppel et al. 2009, Holahan et al. 2010, Fuller et al. 2011, Howie et al. 2011, Rostron 2012).

Epidemiological studies that investigate associations may be sensitive to confounding,

some confounders may be corrected for, others may be unknown. Therefore, randomized controlled trials may better able to study cause and effect relations since the intervention allows control for potentially confounding factors. Randomized controlled trials, however, are usually short-term interventions which make use of biomarkers that may or may not be representative indicators for the health outcome of interest such as CVDs. The combination of the two types of research is optimal: epidemiological research providing associations; and randomized trials providing mechanistic explanations.

Various randomized controlled trials have previously identified biomarkers that change with moderate alcohol consumption and which may explain its beneficial effects on CVDs. These biomarkers include, as mentioned by the authors of this study, HDL cholesterol, glycaemic control as HbA1c and adiponectin and inflammatory markers. Other relevant biomarkers changing with moderate alcohol consumption are fibrinogen (Sierksma et al., 2002), fibrinolysis (Hendriks et al., 1994), platelet aggregation (ISFAR critique 268), other lipoproteins, such as LDL cholesterol (Van Der Gaag, Sierksma, et al., 2000), HDL functionality (Trius-Soler et al., 2023), oxidative markers and triglycerides.

Some previous epidemiological studies even calculated the contribution of several biomarker change to the cardioprotective effect (Rimm et al. 1999, Mukamal et al., 2005). The latter authors concluded that, "Levels of HDL-C, HbA1c, and fibrinogen, which have been causally linked to frequent alcohol use in randomized trials, appeared to mediate the bulk of the alcohol-myocardial infarction relation. The present results provide support for the hypothesis that the observed relationship of alcohol intake and risk of myocardial infarction is causal, although definitive confirmation of this will require long-term, randomized outcome trials." It has been further suggested that alcohol-induced changes in HDL, fibrinogen and adiponectin are pharmacologically relevant and comparable, if not greater than that induced by traditional US Food and Drug Administration-approved drug therapy (Brien et al. 2011).

Compared to studies examining amount of an alcoholic beverage and CVD risk, there have been relatively few prospective studies also examining associations between CVD risk and drinking frequency or patten (McElduff and Dobson 1997, Mukamal et al. 2003, Britton and Marmot 2004, Tolstrup et al. 2006). Drinking pattern is important for both the beneficial and adverse effects of alcohol consumption. Binge drinking, per se and in combination with regular moderate alcohol consumption, negatively affects short-term behaviour and health as well as long-term health (Bagnardi et al., 2008).

Li et al. (2023) in addition to evaluating mediating biomarkers, also analysed drinking pattern and beverage types using three cohorts consisting of primarily women. Drinking pattern considered frequency with, and without, a concurrent meal. Previous studies suggested that more frequent or regular drinking is more cardioprotective than irregular moderate alcohol consumption (Mukamal et al., 2005), with the lowest risks among those who drank three to seven days per week. Drinking with meals is usually advised since considerably lower blood alcohol concentrations are achieved when drinking with meals. Blood alcohol concentrations are probably lower with a meal because the liver is metabolically active and metabolizes a considerable portion of the absorbed alcohol during the first pass and subsequent passes through the liver (Cederbaum, 2012).

Beverage type analyses are interesting since alcoholic beverages such as beer, wine and spirits, not only contain alcohol but also varying quantities of water and other bioactive substances such as polyphenols and xanthohumols. It has been long debated whether the three main alcoholic beverages themselves contribute to a different disease profile or that the consumers of beer, wine and spirits may differ in their behaviour other than their drinking behaviour, for instance in their dietary habits (Tjønneland et al., 1999, Klatsky et al. 20003) or other healthy lifestyle factors. Wine consumers, for example, are often considered to generally have 'healthier' traits, such as a healthier diet and lifestyle, and an optimal amount and pattern of consumption (Klatsky et al. 1990, Grønbaek et al, 1999, Mortensen et al. 2001, Barefoot et al. 2002, Hansel et al. 2013).

An additional complicating factor in epidemiological studies is that most people do not restrict themselves to one specific alcoholic

beverage type, most people drink various beverage types depending on the occasion. Indeed, in the long-term, however, the moderate consumption of only one specific alcoholic beverage does not seem to be significantly better or best associated with disease outcome (Estruch & Hendriks, 2021).

Direct comparison of alcoholic beverages types in their effect on CVD risk biomarkers has not been extensively investigated in clinical trials. Those nutrition interventions that did compare beverage types, however, did not show major differences. HDL cholesterol and associated reverse cholesterol transport (Van Der Gaag et al., 2001), LDL cholesterol and antioxidative capacity (Van der Gaag et al., 1999), overall serum antioxidant capacity (Van Der Gaag, Van Den Berg, et al., 2000) and the majority of liver enzymes (Sillanaukee et al., 2003) were not essentially different after drinking either beer, water, wine or spirits.

Design and main outcomes

This epidemiological study used cross-sectional data from three cohorts mainly consisting of women (34,754 women and 6,872 men) evaluating 14 biomarkers. Overall, moderate alcohol consumption was associated with a reduced HbA1c, lower proinflammatory markers, lower triglycerides, higher adiponectin and higher HDL cholesterol. All these changes are consistent with a reduced CVD risk. Some beverage types affected some biomarkers differently; wine and specifically red wine was associated with lower inflammation particularly. Drinking in moderation on three or more days per week was associated with a better biomarker profile than irregular drinking, while drinking with meals seemed to have no affect.

Comments on outcomes and methodology

This interesting study provided further mechanistic insight in the beneficial association between moderate alcohol drinking and CVD risk reduction. The study confirmed that HDL cholesterol, glycaemic control and inflammation are beneficially affected by moderate alcohol consumption. These outcomes were shown in a cross-sectional analysis of three similar American cohorts but also in a follow-up increase in alcohol consumption by calculating the effect of a one serving/day increment to the average alcohol consumption. Interesting to see that some but not all inflammatory markers and HbA1c did not change with a serving per day increment, whereas HDL cholesterol, some other inflammatory markers, triglycerides and adiponectin increased further with such an increment. This may be due, as the authors discuss, to the relatively older population of women that are exposed to moderate alcohol consumption for a longer period of time.

HDL cholesterol and HDL/triglyceride ratio are important biomarkers for CVD risk. However, the biomarker HDL cholesterol has been criticized. Main reason being that some nutrition and pharmacological interventions have shown an increase in HDL cholesterol, whereas the incidence of CVDs was not beneficially affected (Rosenson, 2016, Tariq et al., 2014). It was suggested that whereas HDL cholesterol may be increased, its functions residing in the proteins associated with the HDL particle may be compromised (Femlak et al., 2017). In a study using the functionality of HDL, viz HDL mediated reverse cholesterol transport capacity, it was shown that reverse cholesterol transport, was indeed inversely associated with the incidence of cardiovascular events, whereas baseline HDL cholesterol level was not in fully adjusted analysis (Rohatgi et al., 2014). So, HDL cholesterol levels may be an oversimplification and may not provide a comprehensive understanding (Trius-Soler et al., 2023). It would have been interesting to know if HDL functionality, be it reverse cholesterol transport or HDL anti-oxidative capacity or HDL anti-inflammatory activity, was stimulated by moderate alcohol consumption and if this functionality would differ between the various alcoholic beverage types.

Some biomarkers changes did not differ between the various alcoholic beverages whereas other biomarkers changes did differ. The type of drinkers was defined in this study based on the beverage they consumed with the highest frequency as an average of the two last food frequency questionnaires. This implies that at least some portion of the beer drinkers, for example, were also drinking wine. In these three cohorts, the women primarily drank white wine and liquor, whereas the men primarily drank liquor (Supplemental Figure 1). The authors discuss the beverage differences and state that variation by beverages remained when

socio-economic status (SES) and lifestyle were adjusted in these quite homogeneous cohorts, as such minimizing the potential for residual confounding. Although confounding has been minimized in this study, differentiation of the effects of the various alcoholic beverages may be too difficult to assess in an epidemiological setting. Also, HDL cholesterol and HbA1c increase did not show a clear beverage type effect, whereas these biomarkers in combination with fibrinogen may be responsible for the majority of the beneficial CVD outcomes (Mukamal et al., 2005).

It is surprising that drinking with meals did not affect the biomarker outcomes of this study. Drinking with meals does yield lower blood alcohol concentrations, which is considered beneficial. Supplementary Table 5 describes the changes in all biomarkers compared to those that drink less than 25% of their alcohol with meals. Those drinking between 25 and 75% of their alcohol with meals did show tendencies in the direction that corresponds to an improved biomarker profile, but none of the changes were significant. No trend analysis over the three categories of drinking with meals was performed. Possibly, the study had insufficient power to detect differences induced by drinking with meals. Alternatively, the average drinking levels of alcohol consumption were relatively low. The highest alcohol consumption category was about 35 +/- 10 g alcohol/day. At these relatively low alcohol consumptions, very high blood alcohol concentrations may not be generated even in the case where alcohol was consumed without a meal.

Specific Comments from Forum Members

Forum member Skovenborg considers that "this is a much-needed study with an admirable quality. I also agree that the study did not have sufficient power to detect differences induced by drinking with meals. To compare drinkers of less than 25% of their alcohol with meals with people that drink 25-75% of their alcohol with meals is far away from the proper Mediterranean Alcohol Drinking Pattern where close to 100% of the alcohol intake takes place with a meal and where the reference group should have a clear pattern of drinking on an empty stomach." He went on to say that "the condition to demonstrate a certain "safe level" without risk does not conform with the current scientific method – the principle of falsifiability, a deductive standard of evaluation of scientific theories and hypotheses, that was introduced by the philosopher of science Karl Popper."

Forum member Ursini states that "the fundamentals of what is beneficial and detrimental to our well-being are well-established in basic science and he wholeheartedly supports the study's conclusions. Nevertheless, politicians and the media insist on a statistical validation, an inherently impossible demand termed 'evidence-based.' Let's continue engaging in substantive arguments, but I am uncertain how much longer we can sustain this discourse"

Forum member Ellison added: "This is a very important paper as it comes from the Harvard-based Nurses' Health Studies and the Health Professionals Follow-up study. These are probably the most-balanced ongoing epidemiologic studies currently being carried out, as they are very well designed, implemented, and analyzed. These studies combine high levels of follow up from similarly educated subjects (which decreases potential confounding by lifestyle and other socio-economic factors) along with repeated assessments of potential confounders and reliable assessments of outcomes. Their results are key in estimating the net unbiased effects on health of beverages containing alcohol. These studies also provide valuable data for setting alcohol policy.

The results of this publication support that has been demonstrated regularly over many decades from experimental studies and clinical trials: moderate alcohol consumption leads to a variety of biologic/physiologic mechanisms that would be expected to reduce the risk of cardiovascular disease and total mortality. Thus, when cohort studies consistently show fewer heart attacks and strokes and lower risk of mortality among moderate drinkers, this is only what would be expected."

Concluding comments

Extensive biochemical, pharmacological and physiological evidence supports the existence of a causal relationship between regular moderate alcohol consumption and cardioprotection. Indeed, Brien et al. (2011) observed that "favourable changes in several cardiovascular

biomarkers (higher levels of HDL lipoprotein cholesterol and adiponectin, and lower concentration of fibrinogen) provide indirect pathophysiological support for a protective effect of moderate alcohol use on CHD". The results of this observational study also support that of preceding studies which concluded that the optimal or most cardioprotective amount of alcohol was up to 15 g alcohol/day for women and up to 30 g alcohol/day for men (Rimm et al. 1999).

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Association of a healthy lifestyle with mortality in older people

Unhealthy lifestyle behaviours such as smoking, high alcohol consumption, poor diet or low physical activity are associated with morbidity and mortality. Public health guidelines provide recommendations for adherence to these four factors, however, their relationship to the health of older people is less certain.

A study followed 11,340 Australian participants (median age 73.9) from the ASPirin in Reducing Events in the Elderly study for a median of 6.8 years. Researchers investigated whether a point-based lifestyle score based on adherence to guidelines for a healthy diet, physical activity, non-smoking and moderate alcohol consumption was associated with subsequent all-cause and cause-specific mortality.

Compared to those in the unfavourable lifestyle group, individuals in the moderate lifestyle group (Hazard Ratio (HR) 0.73 [95% CI 0.61, 0.88]) and favourable lifestyle group (HR 0.68 [95% CI 0.56, 0.83]) had lower risk of all-cause mortality. A similar pattern was observed for cardiovascular related mortality and non-cancer/non-cardiovascular related mortality. There was no association of lifestyle with cancer-related mortality.

In a large cohort of initially healthy older people, reported adherence to a healthy lifestyle is associated with reduced risk of all-cause and cause-specific mortality. Adherence to all four lifestyle factors resulted in the strongest protection.

Source: Robb C, Carr PR, Ball J, Owen A, Beilin LJ, Newman AB, Nelson MR, Reid CM, Orchard SG, Neumann JT, Tonkin AM, Wolfe R, McNeil JJ. Association of a healthy lifestyle with mortality in older people. BMC Geriatr. 2023 Oct 11;23(1):646. doi.org/10.1186/s12877-023-04247-9.

The relationship between alcohol consumption, BMI, and type 2 diabetes

Moderate alcohol use may be associated with lower risk of type 2 diabetes mellitus (T2DM). Previous reviews have reached mixed conclusions. A study aimed to quantify the dose-response relationship between alcohol consumption and T2DM, accounting for differential effects by sex and BMI.

A search of medical research databases for cohort studies on the relationship between alcohol use and T2DM identified fifty-five studies and one secondary data source for inclusion, with a combined sample size of 1,363,355 men and 1,290,628 women, with 89,983 and 57,974 individuals, respectively, diagnosed with T2DM.

For women, a J-shaped relationship was found with a maximum risk reduction of 31% (relative risk [RR] 0.69, 95% CI 0.64–0.74) at an intake of 16 g of pure alcohol per day compared with lifetime abstainers. The protective association ceased above 49 g per day (RR 0.82, 95% CI 0.68–0.99). For men, no statistically significant relationship was identified. When results were stratified by BMI, the protective association was only found in overweight and obese women.

The authors caution that the analysis relied on aggregate data and some articles were included that determined exposure and cases via self-report, and the studies did not account for temporal variations in alcohol use.

The observed reduced risk seems to be specific to women in general and women with a BMI ≥25 kg/m2. The findings allow for a more precise prediction of the sex-specific relationship between T2DM and alcohol use, as the results differ from those of previous studies.

Source: Laura Llamosas-Falcón, Jürgen Rehm, Sophie Bright, Charlotte Buckley, Tessa Carr, Carolin Kilian, Aurélie M. Lasserre, Julia M. Lemp, Yachen Zhu, Charlotte Probst; The Relationship Between Alcohol Consumption, BMI, and Type 2 Diabetes: A Systematic Review and Dose-Response Meta-analysis. Diabetes Care 1 November 2023; 46 (11): 2076–2083. doi.org/10.2337/dc23-1015

The association between alcohol intake and obesity in a sample of the Irish adult population

Obesity epidemic is one of the most serious public health challenges of the twenty-first century. Alcohol has been studied as a possible risk factor for obesity, but the evidence is mixed. A study examined the association between alcohol consumption and obesity in a sample of the Irish adult population.

An analytical cross-sectional study was conducted using secondary data from the 2017 Healthy Ireland Survey. The primary survey recruited patients using a two-stage probability-based technique and a face-to-face-administered questionnaire to collect data. Descriptive and comparative data were analysed to identify associations between alcohol-related variables with waist circumference (WC) and body mass index (BMI). The associations between harmful alcohol consumption (AUDIT-C score ≥ 5) (exposure variable) and obesity indicators (WC and BMI) were examined. Adjustments were made for sociodemographic, health-related, and other alcohol-related variables.

6,864 participants aged 25 and older took part in this survey. 81.9% of the participants were alcohol drinkers, with the majority (76.3%) drinking less than three times per week; 47.7% were considered harmful drinkers (AUDIT-C score ≥ 5). After controlling for possible confounders, positive associations of harmful alcohol consumption with WC (β = 1.72, 95% CI: 0.25, 3.19) and BMI (OR = 1.47, 95% CI: 1.10, 1.96) were observed. Binge drinking was positively associated with WC (β = 1.71, 95% CI: 0.50, 2.91), while alcohol consumption frequency was significantly and inversely associated with BMI (OR = 0.59, 95% CI: 0.44, 0.78).

Harmful alcohol consumption was associated with obesity (high BMI, large WC) after controlling for possible confounders. Frequent binge drinkers were more likely to have a large WC, while frequent alcohol consumers were less likely to have obesity. Further longitudinal studies to examine the exact association between alcohol consumption and obesity are warranted.

Source: AlKalbani, S.R., Murrin, C. The association between alcohol intake and obesity in a sample of the Irish adult population, a cross-sectional study. BMC Public Health 23, 2075 (2023). doi.org/10.1186/s12889-023-16946-4

The interaction of diet, alcohol, genetic predisposition, and the risk of breast cancer

Dietary factors have consistently been associated with breast cancer risk. However, there is limited evidence regarding their associations in women with different genetic susceptibility to breast cancer, and their interaction with alcohol consumption is also not well understood.

Researchers analysed data from 261,853 female participants in the UK Biobank. Hazard ratios (HR) and 95% confidence intervals (CI) were estimated for associations between dietary factors and breast cancer risk. Additionally, the interaction of dietary factors with alcohol consumption and polygenic risk score for breast cancer were assessed.

A moderately higher risk of breast cancer was associated with the consumption of processed meat (HR = 1.10, 95% CI 1.03, 1.18). Higher intake of raw vegetables and fresh fruits, and adherence to a healthy dietary pattern were inversely associated with breast cancer risk [HR (95% CI):0.93 (0.88-0.99), 0.87 (0.81, 0.93) and 0.93 (0.86-1.00) respectively]. Furthermore, a borderline significant interaction was found between alcohol consumption and the intake of processed meat with regard to breast cancer risk. No multiplicative interaction was observed between dietary factors and polygenic risk score for breast cancer.

Processed meat was positively associated with breast cancer risk, and vegetables, fruits, and healthy dietary patterns were negatively associated with breast cancer risk. No strong interaction of dietary factors with alcohol consumption and genetic predisposition for risk of breast cancer were found.

Source: Zhu P, Zhang Y, Chen Q, Qiu W, Chen M, Xue L, Lin M, Yang H. The interaction of diet, alcohol, genetic predisposition, and the risk of breast cancer: a cohort study from the UK Biobank. Eur J Nutr. 2023 Nov 1. doi.org/10.1007/s00394-023-03269-8.

Texas lab unlocks keys to alcohol withdrawal headache

About 283 million people worldwide suffer from alcohol use disorder, a debilitating health challenge for which limited therapeutic options are available. The cost to society is estimated at greater than $2 trillion annually.

Yu Shin Kim, Ph.D., a neuroscience researcher at The University of Texas Health Science Center at San Antonio states that "Headache is one of the severe withdrawal symptoms that pushes the rehabilitating patient back to alcohol, because people know that, after drinking, alcohol will actually reduce the headache. It becomes a vicious cycle. This is how they develop alcohol dependence."

Kim, associate professor of oral and maxillofacial surgery in the health science center's School of Dentistry, and colleagues found that a stress hormone called corticotropin-releasing factor (CRF) activates immune cells known as mast cells in the dura—the thin, transparent membrane under the skull. Dura matter includes peripheral nerve fibers and peripheral blood vessels. CRF plays a pivotal role in activating pain signals during alcohol withdrawal by binding to a specific mast cell receptor, MrgprB2.

"After alcohol withdrawal, the CRF stress hormone is released from the hypothalamus, a brain region that controls many functions," Kim said. "The CRF travels through peripheral blood vessels to dura matter, where it is released from the vessels and binds to MrgprB2. This signals the mast cells to degranulate, or open, and secrete chemical messengers that induce functions including blood vessel dilation (widening).

"This also activates peripheral nerve fibers extending from trigeminal ganglia neurons, which are sensory neurons. That is how these neurons are sensitized and a person has alcohol-withdrawal headache."

This research may benefit further studies of various substance use disorder mechanisms including withdrawal, he said. Targeting the interaction between CRF and MrgprB2 could lead to new therapeutic strategies for alleviating pain during alcohol withdrawal and could pave the way for targeted drug therapies, potentially breaking the vicious cycle of addiction.

Source: Mast cell-specific receptor mediates alcohol withdrawal-associated headache in male mice, Neuron (2023). doi.org/10.1016/j.neuron.2023.09.039.

Alcohol consumption and health-related quality of life in regional, rural and metropolitan Australia

Relationships between alcohol consumption and health are complex and vary between countries, regions, and genders. Previous research in Australia has focused on estimating the effect of alcohol consumption on mortality. However, little is known about the relationships between alcohol consumption and health-related quality of life (QoL) in Australia. A study investigated the levels of alcohol intake and QoL in males and females in rural, regional and metropolitan areas of Australia.

1,717 Australian adults completed an online cross-sectional study. Males and females were compared on measures including the AUDIT-C and WHOQOL-BREF. Data were stratified into risk of alcohol use disorder (AUD) and associations were examined between alcohol consumption and QoL, adjusting for sociodemographic variables.

Males had higher alcohol consumption and were at greater risk of AUD than females (20% vs 8%). Relationships between alcohol consumption and QoL were positive or non-significant for low-moderate AUD risk categories and negative in the severe AUD risk category. Males in regional communities reported higher alcohol consumption (AUDIT-C score 6.6 vs 4.1) than metropolitan areas. After adjusting for sociodemographic variables, alcohol consumption was positively related to overall, environmental, and physical QoL and general health.

The results indicate that alcohol consumption is negatively related to QoL only in those with severe risk of AUD. Males in regional areas reported higher alcohol consumption than those in metropolitan areas. These results provide further information about relationships between alcohol intake and health in Australia that can help inform prevention, screening and delivery of interventions.

Source: Redwood L, Saarinen K, Ivers R, Garne D, de Souza P, Bonney A, Rhee J, Mullan J, Thomas SJ. Alcohol consumption and health-related quality of life in regional, rural and metropolitan Australia: analysis of cross-sectional data from the Community Health and Rural/Regional Medicine (CHARM) study. Qual Life Res. 2023 Oct 25. doi.org/10.1007/s11136-023-03522-x

Alcohol consumption and epigenetic age acceleration across human adulthood

Alcohol-associated biological aging remains to be studied across adulthood. Researchers explored the associations between alcohol consumption and two DNA methylation-based biological age acceleration metrics in 3,823 Framingham Heart Study participants (24-92 years and 53.8% women) adjusting for covariates. In addition, they investigated whether the two epigenetic aging metrics mediated the association of alcohol consumption with hypertension.

The study found that higher long-term average alcohol consumption was significantly associated with biological age acceleration assessed by GrimAge acceleration (GAA) and PhenoAge acceleration (PAA) in middle-aged (45-64 years, n = 1866) and older (65-92 years, n = 1267) participants while not in young participants (24-44 years, n = 690). For example, one additional standard drink of alcohol (~14 grams of ethanol per day) was associated with a 0.71 ± 0.15-year (p = 2.1e-6) and 0.60 ± 0.18-year (p = 7.5e-4) increase in PAA in middle-aged and older participants, respectively, but the association was not significant in young participants. One additional standard serving of liquor (~14 grams of ethanol) was associated with a greater increase in GAA (0.82-year) and PAA (1.45-year) than beer (GAA: 0.45-year; PAA: 0.48-year) and wine (GAA: 0.51-year; PAA: 0.91-year) in middle-aged participant group. The researchers observed that up to 28% of the association between alcohol consumption and hypertension was mediated by GAA or PAA in the pooled sample. These findings suggest that alcohol consumption is associated with greater biological aging quantified by epigenetic aging metrics, which may mediate the association of alcohol consumption with quantitative traits, such as hypertension.

Source: Wang M, Li Y, Lai M, Nannini DR, Hou L, Joehanes R, Huan T, Levy D, Ma J, Liu C. Alcohol consumption and epigenetic age acceleration across human adulthood. Aging (Albany NY). 2023 Oct 26;15(20):10938-10971. doi.org/10.18632/aging.205153.

Association between wine consumption and cancer

Alcohol consumption is related to the risk of developing different types of cancer. However, unlike other alcoholic beverages, moderate wine drinking has demonstrated a protective effect on the risk of developing several types of cancer. An international research team analysed the association between wine consumption and the risk of developing cancer.

The MEDLINE (through PubMed), Scopus, Cochrane, and Web of Science databases were searched to conduct a systematic review and meta-analysis. Seventy-three studies were included in the systematic review, and 26 were included in the meta-analysis. The pooled RR for the effect of wine consumption on the risk of gynecological cancers was 1.03 (95% CI: 0.99, 1.08), that for colorectal cancer was 0.92 (95% CI: 0.82, 1.03), and that for renal cancer was 0.92 (95% CI: 0.81, 1.04).

The study findings reveal no association between wine consumption and the risk of developing any type of cancer. Moreover, wine drinking demonstrated a protective trend regarding the risk of developing pancreatic, skin, lung, and brain cancer as well as cancer in general.

Source: Lucerón-Lucas-Torres Maribel, Cavero-Redondo Iván, Martínez-Vizcaíno Vicente, Bizzozero-Peroni Bruno, Pascual-Morena Carlos, Álvarez-Bueno Celia. Association between wine consumption and cancer: a systematic review and meta-analysis. Frontiers in Nutrition Vol 10, 2023 doi.org/10.3389/fnut.2023.1197745

Regional cortical thickness recovery with extended abstinence after treatment in those with alcohol use disorder

Several cross-sectional investigations reported widespread cortical thinning in those with alcohol use disorder (AUD). The few longitudinal studies investigating cortical thickness changes during abstinence are limited to the first month of sobriety. Consequently, cortical thickness changes during extended abstinence in those with AUD is unclear.

In a study published in the journal Alcohol, AUD participants were studied at approximately 1 week (n=68), 1 month (n=88) and 7.3 months (n=40) of abstinence. Forty-five never-smoking controls (CON) completed a baseline study, and 15 were reassessed after approximately 9.6 months. Participants completed magnetic resonance imaging studies at 1.5T and cortical thickness for 34 bilateral regions of interest was quantitated. AUD demonstrated significant linear thickness increases in 25/34 regions of interest over 7.3 months of abstinence. The rate of change from 1 week to 1 month was greater than 1 month to 7.3 months in 19/34 regions of interest. Proatherogenic conditions were associated with lower thickness recovery in anterior frontal, inferior parietal and lateral/mesial temporal regions. After 7.3 months of abstinence, AUD were statistically equivalent to controls on cortical thickness in 24/34 regions of interest; the cortical thickness differences between AUD and controls in the banks superior temporal gyrus, post central, posterior cingulate, superior parietal, supramarginal and superior frontal cortices were driven by thinner cortices in AUD with proatherogenic conditions relative to controls. In actively smoking AUD, increasing pack-years was associated with decreasing thickness recovery primarily in the anterior frontal regions of interest.

Widespread bilateral linear cortical thickness recovery over 7.3 months of abstinence was the central finding for this AUD cohort. Proatherogenic conditions were associated with decreased thickness recovery and thinner cortex after 7.3 months of abstinence in several regions of interest; this suggests alterations in perfusion or vascular integrity may relate to structural recovery in AUD. These results support the adaptive and beneficial effects of sustained sobriety on brain structural recovery in those with AUD.

Source: Durazzo TC, Stephens LH, Meyerhoff DJ. Regional cortical thickness recovery with extended abstinence after treatment in those with alcohol use disorder. Alcohol. 2023 Aug 30:S0741-8329(23)00263-X. doi.org/10.1016/j.alcohol.2023.08.011.

The gut microbiome modulates associations between adherence to a Mediterranean-style Diet, abdominal adiposity and C-reactive protein in population-level analysis

Adherence to a Mediterranean-style dietary pattern is likely to have variable effects on body composition but the impact of gut microbiome on this relationship is unknown.

A study sought to examine the potential mediating effect of the gut microbiome on the associations between Alternate Mediterranean Diet (aMed) scores, abdominal adiposity, and inflammation in population-level analysis.

In a community-based sample, 620 individuals aged 25-83 years from Northern Germany, researchers assessed the role of the gut microbiome, sequenced from 16S rRNA genes, on the associations between aMed scores, estimated using validated food-frequency questionnaires, magnetic resonance imaging-determined visceral (VAT) and subcutaneous (SAT) adipose tissue and C-reactive protein (CRP).

Higher aMed scores were associated with lower SAT (-0.86 L (95%CI:-1.56,-0.17)), VAT (-0.65 L (95%CI:-1.03,-0.27) and CRP concentrations (-0.35 mg/L; β: -20.1% (95% CI: 35.5, -1.09)) in the highest versus lowest tertile after multivariate adjustment. Of the taxa significantly associated with aMed scores, higher abundance of Porphyromonadaceae mediated 11.6%, 9.3% and 8.7% of the associations with lower SAT, VAT and CRP, respectively. Conversely, a lower abundance of Peptostreptococcaceae mediated 13.1% and 18.2% of the association with SAT and CRP levels. Of the individual components of the aMed score, moderate alcohol intake was associated with lower VAT (-0.2 (95%CI:-0.4, -0.1), p=0.01) with a higher abundance of Oxalobacteraceae and lower abundance of Burkholderiaceae explaining 8.3% and 9.6% of this association, respectively.

These novel data suggest that abundance of specific taxa in the Porphyromonadaceae and Peptostreptococcaceae families may contribute to the association between aMed scores, lower abdominal adipose tissue, and inflammation.

Source: Jennings A, Kuhn T, Bondonno NP, Waniek S, Bang C, Franke A, Kassubek J, Müller HP, Both M, Weber KS, Lieb W, Cassidy A. The gut microbiome modulates associations between adherence to a Mediterranean-style Diet, abdominal adiposity and C-reactive protein in population-level analysis. Am J Clin Nutr. 2023 Nov 3:S0002-9165(23)66236-7. doi.org/10.1016/j.ajcnut.2023.11.001.

Cancer risk based on alcohol consumption levels

Alcohol consumption is a well-established risk factor for cancer. Despite extensive research into the relationship between alcohol consumption and cancer risk, the effect of light alcohol consumption on cancer risk remains a topic of debate. To contribute to this discourse, researchers conducted a comprehensive systematic review and meta-analysis.

A systematic review investigated the associations between different levels of alcohol consumption and the risk of several cancer types. Prospective associations were analysed using data from 139 cohort studies. Among them, 106 studies were included in a meta-analysis.

The analysis did not find a significant association between light alcohol consumption and all-cause cancer risk (relative risk [RR]=1.02; 95% confidence interval [CI] 0.99-1.04), but a dose-response relationship was observed. Light alcohol consumption was significantly associated with higher risks of esophageal, colorectal, and breast cancers. Light to moderate drinking was associated with elevated risks of esophageal, colorectal, laryngeal, and breast cancers. Heavy drinking was also found to contribute to the risk of stomach, liver, pancreas, and prostate cancers, thereby increasing the risk of almost all types of cancer. Additionally, women generally had lower cancer risks compared to men.

The findings highlight that cancer risks extend beyond heavy alcohol consumption to include light alcohol consumption as well. These findings suggest that there is no safe level of alcohol consumption associated with cancer risk. The results underscore the importance of public health interventions addressing alcohol consumption to mitigate cancer risks.

Source: Jun S, Park H, Kim UJ, Choi EJ, Lee HA, Park B, Lee SY, Jee SH, Park H. Cancer risk based on alcohol consumption levels: a comprehensive systematic review and meta-analysis. Epidemiol Health. 2023 Oct 16:e2023092. doi.org/10.4178/epih.e2023092.

Alcohol consumption and the diversity of the oral microbiome in postmenopausal women

Alcohol reduces neutrophil function and decreases salivary flow, which could affect the composition of the oral microbiome.

Researchers hypothesised that the α- and β-diversity of the oral microbiome and the relative abundance of bacterial taxa would differ by frequency and type of alcohol consumption. The study in published in The Journal of Nutrition.

A food frequency questionnaire (FFQ) was used to assess the frequency of consumption of beer, wine, and liquor (drinks/week) in a sample of 1,179 postmenopausal women in the Osteoporosis and Periodontal Disease Study (OsteoPerio). Women were categorised as non-drinkers, drinking <1 drink/week, ≥1 to <7 drinks/week, or ≥7 drinks/week for total alcohol consumption and for beer, wine, and liquor consumption. The composition and diversity of the oral microbiome was assessed from subgingival plaque samples using 16S ribosomal RNA (rRNA) amplicon sequencing. β-diversity (between-sample diversity) in the microbiome between alcohol consumption categories was examined. ANCOVA was used to examine the mean α-diversity (within-sample diversity) and observed operational taxonomic unit (OTU) count, and the mean relative abundance of 245 bacterial taxa across alcohol consumption categories.

67% of the participants consumed alcohol, with 14% reporting ≥ 1 drink/day. The β-diversity across categories of total alcohol consumption, but not categories of alcohol type, was statistically significantly different. Mean α-diversity measures were statistically significantly higher in the highest category of total alcohol and wine consumption compared to non-drinkers; no significant associations were found for beer or liquor consumption. The relative abundance of 1 OTU, Selenomonas sp._oral_taxon_133, was significantly lower in the highest level of total alcohol consumption compared to non-drinkers after adjustment for multiple comparisons.

Alcohol consumption was associated with the diversity and composition of the subgingival microbiome, the authors conclude.

Source: Samantha J. Maley, Yihua Yue, Kaelyn F. Burns, Kathleen M. Hovey, Jean Wactawski-Wende, Jo L. Freudenheim, Daniel I. McSkimming, Michael J. LaMonte, Chris A. Andrews, Yijun Sun, Michael Buck, Amy E. Millen, Alcohol Consumption and the Diversity of the Oral Microbiome in Postmenopausal Women, The Journal of Nutrition, 2023, ISSN 0022-3166, doi.org/10.1016/j.tjnut.2023.10.025.

Sleep, alcohol, and caffeine in financial traders

In a study published in journal PLOS One, scientists looked at the combined impact of alcohol and caffeine on nightly sleep.

Using a six-week micro-longitudinal study, the researchers examined the real-world impact of alcohol, caffeine, and their combined consumption in a cohort of financial traders. They found that alcohol consumption significantly degrades the subjective quality of sleep. Caffeine consumption led to a different phenotype of sleep impairment, resulting in a detrimental reduction in sleep quantity, rather than a marked alteration in sleep quality. Contrary to the researchers' hypothesis, when consumed in combination, evening alcohol consumption interacted with ongoing caffeine consumption such that alcohol partially mitigated the impairments in sleep quantity associated with caffeine. This finding suggests the sedating effects of alcohol and the psychoactive stimulant effects of caffeine obscure each other's impact on sleep quantity and sleep quality, respectively–potentially explaining their interdependent use in this cohort (i.e., "self-medication" of evening sedation with alcohol to combat the prior daytime ingestion of caffeine and vice versa). More generally, these results contribute to a unique understanding of the singular and combinatory impacts of two of the most commonly used substances for augmenting human consciousness under free-living, real-world conditions, the performance-impairing (and thus economic-cost) consequences of which may be important to the business sector and the society, the researchers say.

Source: Song F, Walker MP (2023) Sleep, alcohol, and caffeine in financial traders. PLOS ONE 18(11): e0291675. doi.org/10.1371/journal.pone.0291675

Should red wine be removed from the Mediterranean diet?

Miguel Martínez-González discussed contradictory findings on alcohol and health during the Department of Nutrition's 18th annual Stare-Hegsted lecture.

There's a large body of research pointing to a link between alcohol consumption and reduced risk of cardiovascular disease. But studies in recent years have contradicted these findings, suggesting that no amount of alcohol is safe for health. Physician and researcher Miguel Martínez-González recently outlined the controversy for a Harvard T.H. Chan School of Public Health audience, exploring whether alcohol—particularly red wine—still has a place in healthy eating plans such as the Mediterranean diet.

Martínez-González is the principal investigator on PREDIMED-PLUS, a Mediterranean diet and lifestyle clinical trial focused on prevention of cardiovascular disease. He is an adjunct professor of nutrition at Harvard Chan School and a professor of preventive medicine and public health at the University of Navarra in Spain.

According to the University's website, research by Martínez-González and colleagues has found that a Mediterranean diet including alcohol reduced risk of cardiovascular disease by 30% compared to a low-fat diet which did not specifically include alcohol.

In another study, they found that people who followed what the researchers defined as a moderate Mediterranean drinking plan—choosing red wine, drinking with meals, and spreading consumption over the course of the week—had a lower risk of mortality than people who abstained from alcohol. Martínez-González noted that additional recent studies have found that light to moderate alcohol consumption lowered the relative risks for premature mortality, and mortality from cancer and cardiovascular disease.

However, Martínez-González noted that alcohol's potential harms must be considered, particularly for young people. One out of every four deaths of Americans ages 20 to 34 can be attributed to alcohol, he said, noting that in addition to increasing the risk of accidental deaths, alcohol may also increase the risk of breast cancer. Some imaging studies of the brain suggest that alcohol may be toxic to neurons, Martínez-González said, adding that it is more broadly toxic to the body if consumed in large amounts.

"So, should we remove wine from the Mediterranean diet?" he asked. "Yes, definitely for those under 35 years." But for older adults, it's more complicated. He and his colleagues, and other researchers, have found that the Mediterranean diet loses up to 23.5% of its protective effect if wine is removed.

Randomized controlled trials are needed to ensure that potential benefits or harms from alcohol consumption are adequately assessed, Martínez-González said. He and his colleagues at the University of Navarra received funding for such a study earlier this year. The study is recruiting physicians ages 50 to 75, who will be randomized to moderate drinking or abstention groups. Both groups will receive free beverages—red wine or an alcohol-free alternative—during the five-year study.

Martínez-González hopes that this trial will help clarify whether red wine should be part of the Mediterranean diet for adults over 35.

Source: News release T.H. Chan School of Public Health hsph.harvard.edu/news/features/red-wine-mediterranean-diet/

Smoking and alcohol consumption with the risk of 11 common otolaryngological diseases

Researchers applied used mendelian randomization to evaluate the association of smoking and alcohol consumption with 11 otolaryngological diseases.

A total of 85,22,34 and 7 single nucleotide polymorphisms were used as instrumental variables for smoking initiation, cigarettes per day, alcoholic drinks per week and alcohol consumption, respectively. Genetic associations with 11 common otolaryngological diseases were obtained from the UK Biobank and FinnGen dataset.

Smoking initiation increased the risk of vocal cord and larynx diseases (OR 1.002; 95% CI 1.001-1.004;), head and neck cancer (OR 1.001; 95% CI 0.999-1.003), thyroid cancer (OR 1.538; 95% CI 1.006-2.351) and sleep apnoea (OR 1.286; 95% CI 1.099-1.506). Cigarettes per day was associated with chronic sinusitis (OR 1.152; 95% CI 1.002-1.324), chronic rhinitis and pharyngitis (OR 1.200; 95% CI 1.033-1.393), vocal cord and larynx diseases (OR 1.001; 95% CI 0.999-1.002) and head and neck cancer (OR 1.001; 95% CI 0.999-1.003). Alcoholic drinks per week only was significantly associated with the risk of head and neck cancer (OR 1.003; 95% CI 1.001-1.006). However, there was no evidence to support that genetically predicted alcohol consumption increased the risk of otolaryngological diseases. Reverse MR also did not find outcomes effect on exposures.

The study shows that smoking and heavy alcohol consumption promote the occurrence of some otolaryngological diseases indicating that lifestyle modification might be beneficial in preventing otolaryngological diseases.

Source: Wang X, Bi Y, Liu G, Wang W, Cui H. Smoking and alcohol consumption with the risk of 11 common otolaryngological diseases: a bidirectional Mendelian randomization. Eur Arch Otorhinolaryngol. 2023 Dec;280(12):5615-5623. Doi.org/10.1007/s00405-023-08246-9.

Medical research listed by publication date

- Regional cortical thickness recovery with extended abstinence after treatment in those with alcohol use disorder 30/08/2023
- Association between wine consumption and cancer: a systematic review and meta-analysis 04/09/2023
- Moderate alcohol consumption, types of beverages and drinking pattern with cardiometabolic biomarkers in three cohorts of US men and women 25/09/2023
- Smoking and alcohol consumption with the risk of 11 common otolaryngological diseases: a bidirectional Mendelian randomization. 27/09/2023
- Association of a healthy lifestyle with mortality in older people 11/102023
- Cancer risk based on alcohol consumption levels: a comprehensive systematic review and meta-analysis. 15/10/2023
- The association between alcohol intake and obesity in a sample of the Irish adult populationpopulation, a cross-sectional study 24/10/2023
- Alcohol consumption and health-related quality of life in regional, rural and metropolitan Australia: analysis of cross-sectional data from the Community Health and Rural/Regional Medicine (CHARM) study 25/10/2023
- Alcohol consumption and epigenetic age acceleration across human adulthood. 26/10/2023
- The relationship between alcohol consumption, BMI, and Type 2 Diabetes: A Systematic Review and Dose-Response Metaanalysis.27/10/2023
- Mast cell-specific receptor mediates alcohol withdrawal-associated headache in male mice, 30/10/2023
- Alcohol consumption and the diversity of the oral microbiome in postmenopausal women 31/10/2023 available online
- The interaction of diet, alcohol, genetic predisposition, and the risk of breast cancer: a cohort study from the UK Biobank. 01/11/2023
- The gut microbiome modulates associations between adherence to a Mediterranean-style Diet, abdominal adiposity and C-reactive protein in population-level analysis 04/11/2023
- Sleep, alcohol, and caffeine in financial traders 08/11/2023

Dose-response relationship between alcohol consumption and workplace absenteeism in Australia

Workplace absenteeism is a burden in Australia. The estimated productivity losses due to alcohol were around $4.0 billion in 2017, with absenteeism driving 90% of these costs. Researchers explored the dose-response relationship between average daily alcohol consumption and heavy episodic drinking (HED) frequency and workplace absenteeism amongst Australian workers.

The study was based on data from the 2019 National Drug Strategy Household Survey of Australian employed workers aged ≥20 years to 69 years old. Respondents' average daily alcohol consumption was categorised into four: abstainers, light to moderate (1-20 g of alcohol/day), risky (>20-40 g of alcohol/day) and high-risk (>40 g of alcohol/day). HED was classified into four frequency measures (never, less than monthly, monthly, weekly). The outcome variables came from dichotomised measures of: (i) absence due to alcohol consumption; and (ii) broader sickness absence-absence due to illness or injury in the previous 3 months.

Risky (adjusted odds ratio 4.74 [95% CI 2.93-7.64]) and high-risk drinking (adjusted odds ratio 6.61 [95% CI 4.10-10.68]) were linked to increased odds of alcohol-related absence. Higher HED frequency was significantly associated with alcohol-related and broader sickness absenteeism. No significant associations exist between regular alcohol consumption and broader sickness absence in fully adjusted models.

Findings suggest that only HED is linked to broader sickness absence. However, there is a strong dose-response association between alcohol consumption and alcohol-related absences for both consumption measures amongst Australian workers. Population-level policies that reduce alcohol consumption to moderate level and less frequent HED might address workplace absenteeism.

Source: Marzan MB, Callinan S, Livingston M, Jiang H. Dose-response relationship between alcohol consumption and workplace absenteeism in Australia. Drug Alcohol Rev. 2023 Nov;42(7):1773-1784. doi.org/10.1111/dar.13726.

Is binge drinking associated with specific types of exercise and free time sports?

A study sought to verify the association between exercise and free time sport types and binge drinking in a large sample of adults.

A pooled analysis with 718,147 adults from the "Surveillance of Risk and Protection Factors for Chronic Diseases by Telephone Survey" was conducted. Researchers analysed the association between exercise and free time sport types and binge drinking adjusted by demographics variables, body mass index status, and television time.

Outdoor walking/running was the most common exercise reported (20.0%) followed by team sports (8.1%) and strengthening (8.0%). The prevalence of binge drinking for each exercise and free time sport type ranged from 6.9% (water aerobics) to 31.9% (team sports). Participants engaging in strengthening (prevalence ratio = 1.12; 95% CI, 1.04-1.21and team sports (prevalence ratio = 1.11; 95% CI, 1.07-1.17) were more likely to binge drink more frequently in the past 30 days than inactive participants.

The researchers say it appears that the participants' profile plays an important role in the underlying social context of this association. Participants with more frequent strengthening and less frequent team sports practice, who were primarily younger and single, were more likely to binge drink frequently.

Source: da Silva MP, Guimarães RF, Bozza R, Matias T, Piola TS, Corrêa LQ, Ramires V, Alexandrino E, Dumith SC. Is Binge Drinking Associated With Specific Types of Exercise and Free Time Sports? A Pooled Analysis With 718,147 Adults. J Phys Act Health. 2023 Jul 27;20(11):1001-1007. doi.org/10.1123/jpah.2022-0550.

Alcohol initiation before age 15 predicts earlier hazardous drinking in Australian adolescents

Early alcohol use may predict later alcohol problems, but the magnitude of this effect and impact of delayed onset remain uncertain. A study measured age-based differences in progression from first full alcoholic drink to hazardous drinking in one of the largest and most recent prospective cohorts of Australian adolescents.

A 7-year (2012–19) prospective longitudinal cohort of 2,082 Australian adolescents was established from the Climate and Preventure (cohort 1) and Climate Schools Combined (cohort 2) studies. Participants completed surveys annually from ages 13 to 20 years. Interval censored survival analyses were conducted with first episode of hazardous drinking as the survival end-point, controlling for age, sex and mental health symptomatology. Onset of hazardous drinking was expressed as hazard ratios (HRs), and median survival time (years) was used to model first onset of hazardous alcohol use in survival curves.

Compared with those aged 15 or older, those who had their first full drink at 12 or younger had significantly elevated risk of hazardous drinking onset during the study period [log (HR): 9.3; 95% confidence interval (CI) = 7.0–12.0]. Compared with those who had their first full drink at ages 13–14, those who delayed until 15 or older had significantly later onset of hazardous drinking; 1.63 years for males (95% CI = 1.31–1.92) and 1.50 for females (95% CI = 1.15–1.81), resulting in a median age of onset of hazardous drinking of > 19 for both sexes (male: 19.05 years, 95% CI = 18.74–19.38; female: 19.47 years, 95% CI = 19.19–19.75). First drink at ages 13–14 was associated with the earliest onset of hazardous drinking (males: 17.43 years; females: 17.98 years).

In Australia, alcohol initiation prior to age 15 appears to be associated with an earlier onset of hazardous drinking than initiation after age 15, the researchers find.

Source: Gardner, LA, Stockings, E, Champion, KE, Mather, M, Newton, NC. Alcohol initiation before age 15 predicts earlier hazardous drinking: A survival analysis of a 7-year prospective longitudinal cohort of Australian adolescents. Addiction. 2023. doi.org/10.1111/add.16376

How do people drink alcohol at a low-risk level?

Reducing the risks associated with drinking is an ongoing public health goal. Approximately two-fifths of Australian adults consume alcohol within low-risk guidelines, yet little is known about their drinking patterns or practices.

A group of researchers used social practice theory to consider low-risk drinking at home as a routinised social practice with material, meaning and competence dimensions. They analysed open-text survey responses from 252 Australian adults (30-65, 89% female) who were considered low-risk drinkers.

A low-risk drinking occasion was typically closely linked to other practices such as eating dinner or connecting with family or friends. Drinking alcohol, even in small amounts, was associated with enjoyment. Being attuned to bodily sensations and applying some self-imposed rules were competencies that allowed low-risk drinkers to avoid intoxication. Low-risk drinking practices entail some elements that can inform health promotion, including encouraging efforts to limit drinking to times of the day (e.g., during meals) and to attend to bodily feelings of sufficiency.

The study also shows how low-risk drinking is entangled with gendered and age-related norms about drinking, and facilitated by rarely being in 'intoxigenic' environments. These factors overlap with individual decisions in a respondents' capacity to consume alcohol moderately.

Source: Mugavin J, Room R, Callinan S, MacLean S. How do people drink alcohol at a low-risk level? Health Sociol Rev. 2023 Nov;32(3):311-326. doi.org/10.1080/14461242.2023.2209090.

Beverage- and context-specific alcohol consumption during Covid-19 in the United States

Alcohol delivery and to-go sales may contribute to changes in drinking patterns, including where and what people drink. A study tested whether home delivery and to-go alcohol purchases were associated with context- and beverage-specific consumption volumes during the first year of the COVID-19 pandemic after adjusting for pre-pandemic consumption volumes.

Data from a pre-pandemic panel were compared to a during-pandemic panel of the National Alcohol Survey (n = 1,150 adult drinkers, 52.7% female). Outcomes were past-year alcohol consumption volumes in standard drinks (overall, by beverage type, and by location). Independent variables included past-year alcohol delivery and to-go purchases (separately). Covariates comprised baseline beverage- or context-specific volume, demographics, COVID-19 impacts, and drinking motivations. The associations between alcohol purchases and change in overall, beverage-, and context-specific consumption were tested.

On average, respondents who had alcohol delivered (vs. not) consumed larger volumes overall (incidence rate ratio [IRR] = 1.58, 95% CI [1.07, 2.32]) of wine (IRR = 2.90, 95% CI [1.50, 5.63) of spirits (IRR = 1.59, 95% CI [1.03, 2.44]), and at home (IRR = 1.59, 95% CI [1.10, 2.31]). People who bought alcohol to go (vs. not) reported larger volumes of wine (IRR = 1.41, 95% CI [1.02, 1.96]), at home (IRR = 1.60, 95% CI [1.10, 2.32]), and in bars (IRR = 4.55, 95% CI [2.55, 8.11]). Finally, people who had alcohol delivered reported drinking smaller volumes in bars (IRR = 0.49, 95% CI [0.24, 0.98]).

During the first year of the pandemic, adults who had alcohol delivered or bought it to go reported larger volumes for several locations and beverage types, the research concludes.

Source: Trangenstein PJ, Greenfield TK, Karriker-Jaffe KJ, Kerr WC. Beverage- and Context-Specific Alcohol Consumption During COVID-19 in the United States: The Role of Alcohol To-Go and Delivery Purchases. J Stud Alcohol Drugs. 2023 Nov;84(6):842-851. doi.org/10.15288/jsad.22-00408.

Gender-specific differences in at-risk alcohol consumption among older German adults

The authors of a study published in the European Journal of Public Health state that 'At-risk alcohol consumption can lead to serious health effects among older adults for several reasons. Older adults generally tolerate alcohol less well due to a slower metabolism, and interactions with medications are more common (as the likelihood of being dependent on medication increases with age)'. Their analysis examined alcohol consumption among older German adults as well as gender differences in alcohol consumption and at-risk consumption.

Cross-sectional data of 1,687 adults aged 65 and older were collected through a community-based full-population postal survey in Puchheim, Germany. The validated AUDIT-C screening instrument was used to assess at-risk alcohol consumption. Gender-specific analyses of average alcohol consumption and at-risk alcohol consumption were performed and the likelihood of at-risk alcohol consumption depending on socioeconomic status was estimated.

Older men had a higher average alcohol consumption than older women. However, for at-risk alcohol consumption, older women (26%) were more often affected than older men (21.4%). Higher socioeconomic status increased the likelihood of at-risk alcohol consumption among older women, OR = 1.08 (95%–CI [1.011, 1.153) but not among older men.

The authors conclude that at-risk alcohol consumption among older German adults affected one in four women and one in five men. Surprisingly, more older women reported at-risk alcohol consumption than older men, and it was associated with a higher socioeconomic status only in older women. This information is important for developing targeted interventions, especially for older women.

Source: C Geigl, L Spagert, C Janssen, Gender-specific differences in at-risk alcohol consumption among older German adults, European Journal of Public Health, Volume 33, Issue Supplement_2, October 2023, ckad160.399, doi.org/10.1093/eurpub/ckad160.399

Alcohol and morality

A study explored whether alcohol intoxication affects the willingness to violate moral foundations (care, fairness, authority, loyalty, and purity).

Researchers from Poland conducted a laboratory study based on the responses of 387 participants with three randomised groups: alcohol intoxication, placebo, and control, measuring the sacralization of moral foundations via the Moral Foundations Sacredness Scale.

The study showed intoxicated participants sacralized moral foundations of care and purity more often than participants from control and placebo groups. Intoxicated participants declared more willing to physically harm other people and animals and behave impurely, e.g., doing deviant sexual behaviours or selling their souls. No differences related to fairness, authority, and loyalty were found.

The authors say that their study helps to understand the decision processes underlying immoral behaviours, including crimes. The study demonstrated that even one drink makes people change their judgments about what is right and wrong (in the cases of harmful and impure behaviours), and because this kind of judgment precedes immoral behaviours, the results may help explain why some people under the influence of alcohol break the rules by doing things which they would never do when sober.

Source: Paruzel-Czachura, M., Pypno, K. & Sorokowski, P. Alcohol and morality: one alcoholic drink is enough to make people declare to harm others and behave impurely. Psychopharmacology 240, 2163–2172 (2023). doi.org/10.1007/s00213-023-06438-z

Navigating no- and low-alcohol drinks as potential harm reduction tools and relapse triggers by women in recovery in the UK

Concerns have been raised that consumption of no- and low-alcohol drinks by those who are in recovery could lead to a relapse to past drinking behaviours. However, little is known regarding how individuals use these products to substitute alcohol and support their sobriety.

An article published in the Drug and Alcohol Review draws on an ethnographic study of women's experiences of recovery within online sobriety communities in which semi-structured interviews were conducted with 25 UK-based women. The dataset was analysed and coded from a pragmatist feminist standpoint using a grounded theoretical approach to specifically address the research question: 'How do women in recovery navigate the protective and risk factors associated with no- and low-alcohol drinks through practices of consumption?'

The study finds that women in recovery navigate no- and low-alcohol drinks as potential harm-reduction tools and relapse triggers by engaging in nuanced practices of substitution. Contrasting examples include direct substitution and temporary avoidance in early recovery.

Substitution practices are informed by the temporality of participants' recovery journeys, the social situation, and the products. Participants selectively mirror and eradicate their former drinking practices to balance their perceived harm-reduction benefits and relapse triggers of no- and low-alcohol drinks. Important considerations are raised for those in recovery who may want to use no- and low-alcohol drinks as a harm reduction tool, and for recovery modalities that promote them.

The study authors calls for more clarity regarding the definition and labelling of no- and low-alcohol drinks, and for a greater understanding of their use across different recovery cultures.

Source: Davey, C. 'It's kind of like weaning. I had to wean myself off of wine': Navigating no- and low-alcohol drinks as potential harm reduction tools and relapse triggers by women in recovery in the UK. Drug Alcohol Rev. 2023. doi.org/10.1111/dar.13766

A review of factors influencing drinking behaviours in young Australian adults using a behavioural framework approach

Young adults (aged 18–24 years) are more likely to binge drink than any other age group in Australia. These behaviours expose young adults to possible adverse events, with potential for acute harms.

A behavioural framework (capability, opportunity, motivation—behaviour [COM-B model]) was used to explore factors that influence the drinking behaviours of young Australian adults. Potential studies were identified by searching four online data bases. Content pertaining to factors moderating young adults' alcohol consumption behaviours (either increasing or decreasing alcohol consumption) in an Australian population was extracted. Factors were then categorised/mapped into the six sub-components of the COM-B model and a narrative synthesis/discussion was subsequently undertaken.

Factors increasing or reducing alcohol consumption behaviours were identified across all components of the COM-B model. Overall, alcohol consumption behaviours appear strongly influenced by physical and social opportunities, and young adults have reflective and automatic motivations (i.e., habitual processes, emotional responding and analytical decisional making that directs behaviour) to consume alcohol with purpose and/or reason.

The use of a behavioural framework (e.g., the COM-B model) facilitates an integrated understanding of factors influencing alcohol consumption behaviours. Future harm minimisation strategies need to consider the interrelated, contemporary factors underpinning a young adult's decision to consume alcohol within the context of modern Australian society.

Source: Palmer, B, Irwin, C, Desbrow, B. A review of factors influencing drinking behaviours in young Australian adults using a behavioural framework approach. Drug Alcohol Rev. 2023. doi.org/10.1111/dar.13760

Parent alcohol use and problems in children's alcohol-related learning and subsequent alcohol use

Alcohol cognitions can emerge early in life and have lasting associations with alcohol use behaviour. Observational learning theories suggest that witnessing alcohol use and its consequences may be an important mechanism underlying early development of alcohol cognitions. Parents are among the earliest contributors to children's alcohol-related learning, although findings regarding the association of parental alcohol use and problems with children's alcohol-related beliefs and attitudes are considerably mixed.

A study tested associations of parent alcohol use and problems with adolescent alcohol expectancies, motives, and subsequent alcohol use to help clarify this literature. Over 200 families comprising family alcohol use disorder cases and demographically matched controls were recruited as part of a longitudinal investigation on child development. Parents reported on their alcohol use and problems at seven assessments throughout the index adolescents' childhood, and adolescents reported on their own alcohol expectancies in 6th grade, alcohol motives in 8th grade, and alcohol use in 12th grade.

Father alcohol problems and mother alcohol use were linked to more positive and less negative child alcohol expectancies, respectively. However, these cognitions did not contribute unique variance in adolescent alcohol use after accounting for additional risks included in the model.

The findings highlight the need for future research aimed at modelling broader and potentially indirect sources of parent influences on adolescent alcohol-related learning and subsequent drinking behaviour, the authors say.

Source: Zaso MJ, Eiden RD, Leonard KE, Colder CR, Livingston JA. Parent Alcohol Use and Problems in Children's Alcohol-Related Learning and Subsequent Alcohol Use. Subst Use Misuse. 2023;58(14):1829-1838. doi.org/10.1080/10826084.2023.2256837.

A latent class analysis of change and continuity in adolescent health and wellbeing in England during the decline in youth alcohol consumption

In England, the proportion of 13 to 15-year-olds who have ever drunk alcohol fell from 71% in 1999 to 35% in 2019. Despite substantial research literature studying this decline, little is known about connections with concurrent shifts in wider aspects of health and wellbeing. A paper published in Preventative Medicine Reports, aims to identify how indicators of health and wellbeing cluster within 15-year-olds in England, identify changes in clustering over time, and explore associations with sex and family affluence.

Cross-sectional data from the Health Behaviours in School-aged Children study (n = 5,942; four waves 2001/02–2013/14) were analysed and classes were defined by indicators of substance use, sexual activity, diet, exercise, school-related measures, e-media use, parental relationships, and wellbeing. Three classes were identified: Overall unhealthy, Substance abstainers with behavioural risk indicators, and Overall healthy.

The probability of being in the Overall unhealthy class fell (2001/02: 0.39; 2013/14: 0.18) while the probability of being in the Overall healthy class increased (0.21 to 0.41). The probability of weekly alcohol use fell in all classes (e.g., Overall unhealthy: 0.71 to 0.28). Females (female vs male OR: 1.74 95%CI: 1.30 – 2.34) and those with low family affluence (high vs low family affluence OR: 0.18 95%CI: 0.08 – 0.44) had significantly higher odds of being in the Overall unhealthy class.

Overall, adolescents became more likely to have co-occurring indicators of good health and wellbeing, including reduced alcohol consumption, sexual activity and cigarette smoking. However, girls and those from poorer families remained more likely to have poor health and wellbeing.

Source: Stevely AK, Gray LA, Fairbrother H, Fenton L, Henney M, Holmes J. A latent class analysis of change and continuity in adolescent health and wellbeing in England during the decline in youth alcohol consumption: A repeat cross-sectional study. Prev Med Rep. 2023 Oct 15;36:102481. doi.org/10.1016/j.pmedr.2023.102481.

How do policies for alcohol marketing apply to zero alcohol products in Australia?

Researchers in Australia argue that although there has been a decline in youth drinking, there is also a causal link between alcohol marketing and drinking among young people. Therefore, novel alcohol marketing strategies should be scrutinised, particularly where children are exposed. This includes marketing for zero-alcohol products (ZAP) (containing 0.00% to 1.15% alcohol by volume), which has expanded considerably in recent times. A review examined how the current industry-managed regulatory approach to alcohol marketing applies to ZAPs in Western Australia.

The marketing mix (four Ps of marketing: product, promotion, place, price) was used as a framework to examine federal and state government policies and industry managed codes. Policies were included if they applied to marketing of alcohol products, for example, product labelling, promotion and advertising across various media, the place of purchase and pricing measures (taxation).

ZAPs were inconsistently defined, meaning that products between 0.05% and 1.15% alcohol by volume were covered under some but not all alcohol policy measures, and application to products under 0.5% alcohol by volume was limited.

The researchers conclude that government policy should more clearly define alcohol marketing and whether ZAPs and other alcohol brand extensions should be treated in the same way as alcoholic products. In Western Australia, the ways in which alcohol policy measures apply to ZAPs are limited and close attention must be paid to how ZAPs may provide additional marketing opportunities for the alcohol industry.

Source: Bury, K, Keric, D, Riesenberg, D, Wellard-Cole, L, Pettigrew, S. Falling through the cracks: How do policies for alcohol marketing apply to zero alcohol products in Australia? Drug Alcohol Rev. 2023. doi.org/10.1111/dar.13757

Change and stability in British drinking practices and culture between 2009 and 2019

Theories of practice can support understanding of health-related behaviours, but few studies use quantitative methods to understand time-trends in practices. A paper by academics and the University of Sheffield and the University of Manchester in the UK describe changes in the prevalence and performance of alcohol drinking practices in Great Britain between 2009 and 2019.

The research includes analyses of annual cross-sectional data collected between 2009 and 2019. The data was based on a one-week retrospective diary survey of adults resident in Great Britain and included 604,578 drinking occasions reported by 213,470 adults (18+) who consumed alcohol in the diary-week. The measures describe occasion characteristics including companions, location, motivation, timings, accompanying activities and alcohol consumed. The researchers estimated separate latent class models for each year and for off-trade only (e.g., home), on-trade only (e.g., bar) and mixed-trade occasions.

Fifteen practices were identified: four off-trade only, eight on-trade only and three mixed-trade. The prevalence of practices was largely stable over time except for shifts away from drinking with a partner and towards drinking alone in the off-trade and shifts away from Big nights out and towards other forms of heavy drinking in the on-trade. Five key trends were identified in the performance of practices: (i) spirits increasingly replaced wine as the main beverage consumed in occasions; (ii) home-drinking moved away from routinised wine-drinking with meals on weekdays and towards spirits-drinking on weekends; (iii) the male friends at the pub practice changed less than other pub-drinking practices; (iv) big nights out started later, often in nightclubs, and involved less pub-drinking or heavy drinking and (v) the meal-based and going out with partner practice formats showed few changes over time.

Key recent trends in British drinking practices include a decline in routinised wine-drinking at home, a transformation of big nights out and a mixture of stability and change in pub- and meal-based practices.

Source: John Holmes, Alessandro Sasso, Mónica Hernández Alava, Abigail K. Stevely, Alan Warde, Colin Angus, Petra S. Meier, Change and stability in British drinking practices and culture between 2009 and 2019: A longitudinal latent class analysis of drinking occasions. SSM - Population Health, 2023, 101548, ISSN 2352-8273 doi.org/10.1016/j.ssmph.2023.101548.

Risk and protective factors for health behaviour in adolescence in Europe

An analysis by researchers in Hungary examined the risk and protective factors for health behaviour in European adolescents from population health status and expenditure, mental health status, sexual life, social life and education indices and the existence of national strategies, programmes.

National and international databases providing information on the presumed health behaviour predictors were used in the analysis. The existence of national health strategies, the level of health expenditure, the socioeconomic conditions, the level of education and literacy had significant influence on the health-risk behaviour of adolescents in the European societies. Six clusters of European countries were extracted by considering the health behaviour risks and health protection strategies.

National health strategies combined with governmental support for health prevention and action plans have the most effective impact on the health-risk behaviour of adolescents the study concludes.

Source: L Zsakai, A., Ratz-Sulyok, F.Z., Koronczai, B. et al. Risk and protective factors for health behaviour in adolescence in Europe. Sci Rep 13, 18638 (2023). doi.org/10.1038/s41598-023-45800-1

Social research listed by publication date

Is binge drinking associated with specific types of exercise and free time sports? 23/07/2023, available online

Alcohol and morality: one alcoholic drink is enough to make people declare to harm others and behave impurely 09/08/2023

How do people drink alcohol at a low-risk level? 22/09/20230

A latent class analysis of change and continuity in adolescent health and wellbeing in England during the decline in youth alcohol consumption 15/10/2023, available online. Version of Record 19/10/2023

Falling through the cracks: How do policies for alcohol marketing apply to zero alcohol products in Australia? 15/10/2023

Gender-specific differences in at-risk alcohol consumption among older German adults 24/10/2023

It's kind of like weaning. I had to wean myself off of wine': Navigating no- and low-alcohol drinks as potential harm reduction tools and relapse triggers by women in recovery in the UK 25/10/2023

Risk and protective factors for health behaviour in adolescence in Europe 30/10/2023

A review of factors influencing drinking behaviours in young Australian adults using a behavioural framework approach 31/10/2023

Parent alcohol use and problems in children's alcohol-related learning and subsequent alcohol use 31/10/2023, available online

Change and stability in British drinking practices and culture between 2009 and 2019: A longitudinal latent class analysis of drinking occasions 04/11/2023, available online

Alcohol initiation before age 15 predicts earlier hazardous drinking: A survival analysis of a 7-year prospective longitudinal cohort of Australian adolescents 05/11/2023, available online

Beverage- and Context-Specific Alcohol Consumption During COVID-19 in the United States: The Role of Alcohol To-Go and Delivery Purchases 08/11/2023

Dose-response relationship between alcohol consumption and workplace absenteeism in Australia 10/11/2023, available online

Major prevention inquiry turns to harms caused by alcohol, drugs, gambling and tobacco in the UK

The UK parliament reports that MPs will consider harms, including addictive behaviours, in the next stage of their major inquiry into preventing ill-health. On the agenda, the effectiveness of regulation and messaging around harms caused by alcohol, drugs, gambling and smoking – factors that contribute to poor health.

Steve Brine MP, Chair of the Health and Social Care Committee, said: "We are all too aware of the harms, including addiction, that can be caused by alcohol, drugs, gambling and smoking. The government's plans announced in the King's Speech to introduce legislation to create a 'smoke-free generation' are welcome news. However, that won't safeguard the current generation of children who will continue to be affected by parents who smoke, for example.

"If you drink alcohol regularly, are you aware of the risks to your health? If you smoke, gamble or use drugs? We'll be considering what responsibilities those industries share, and where the government needs to step in to encourage change across the population and prevent ill-health caused by alcohol, drugs, gambling and smoking.

"We'll question the impact of public health messaging on avoiding harmful behaviour that contributes to poor health and consider the effectiveness of existing regulation."

committees.parliament.uk/committee/81/health-and-social-care-committee/news/198344/major-prevention-inquiry-turns-to-harms-caused-by-alcohol-drugs-gambling-and-tobacco/

Almost half of Brits are impacted by addiction, yet stigma stops them talking about it

New research by The Forward Trust published on 30th October reveals that 45% of UK adults aged 18-75 have either directly experienced addiction themselves with a dependency to alcohol, drugs, medication, gambling or sex themselves, or know someone close to them that has. Despite this being equivalent to 22 million UK adults aged 18-75, the stigma that surrounds the condition is stopping or making it difficult for half of those experiencing their own or other people's addictions from speaking out, with negative judgement (46%) and shame (39%) ruled as top concerns.

The research commissioned on the eve of Addiction Awareness Week 2023, which ran from 28th Oct – 4th Nov, found that 53% of those experiencing addiction or dependency, either directly or through someone close they know, feel unable to talk freely about it. Of those with a family member currently experiencing or who have experienced addiction 49% of those surveyed felt it was difficult or found themselves unable to talk about the issue. When it comes to speaking about their own addiction, 38% find it difficult or impossible to talk to others about it. This points to a deep-rooted sense of shame when in the throes of addiction, at a time when talking is the first important step in the road to recovery.

The report authors state that Taking Action on Addiction aims to bring addiction into the light to break down the stigma and provide stories of hope to encourage those suffering from addiction to seek help.

The research is part of the Taking Action on Addiction campaign, launched in 2021 by the Forward Trust with the overall goal to increase access to treatment, support and care to those impacted by addiction, including family and friends.

Mike Trace (Forward Trust Chief Executive) commented: "Addiction is widespread, yet as a nation we still feel uncomfortable to talk openly about it. This is a big barrier to people getting the help that they need. At a time when addictions are rising in scale and complexity we have to end the shame that's holding people back from talking and asking for help… The impact of this silence ripples across our healthcare system, across individual and family lives. No other serious health condition would suffer such levels of shame."

This year's theme for Addiction Awareness Week was Everybody Knows. The importance of talking, and it being the first step to recovery, is highlighted in a powerful film in which people who have been impacted by addiction, either themselves or in their families, explore the stigma that still surrounds it.

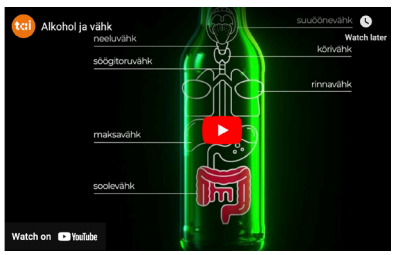
youtube.com/watch?v=Go3PsMsH3HI

actiononaddiction.org.uk/news-release-almost-half-of-brits-impacted-by-addiction-yet-stigma-continues-to-silence-the-nation

Campaign in Estonia on alcohol and cancer

The Estonian National Institute for Health Development (TAI) began an awareness campaign on October 2nd, alerting the public to the fact that alcohol consumption increases the risk of at least seven different cancers. Raising public awareness of preventable cancer risks is one of the activities planned within the national cancer control strategy to reduce lifestyle and health behaviour-related cancer incidence in Estonia.

In 2022 a survey "Residents' Attitudes and Opinions on Alcohol Consumption" (EHAAT. revealed that people are unaware of alcohol as a cancer risk factor. 64% of respondents associated alcohol consumption with liver cancer, but only 11% considered themselves at risk due to their alcohol consumption. 27% linked alcohol to mouth, pharynx, and oesophagus cancers, with only 5% seeing themselves at risk. For colorectal cancer, the figures were 27% and 5%, respectively. The lowest awareness was about the link between alcohol and breast cancer - 89% of women were unaware of the connection.



alcoholandcancer.eu/post/majority-unaware-of-alcohol-s-cancer-risks-estonian-study-reveals

Finnish regular alcohol use has decreased – risky drinking still common

The Drinking Habits Study conducted by the Finnish Institute for Health and Welfare finds that regular alcohol consumption in Finland has decreased. The study is conducted roughly every eight years. In the most recent study, the proportion of those consuming alcohol at least weekly fell from 52% to 48% among men and from 29% to 22% among women since 2016. The proportion of teetotallers in the population remained at the same level between 2016 and 2023, around 10% for men and 14% for women.

6% of men and 2% of women consumed alcohol at least four times a week in 2023. Alcohol was most frequently consumed by men aged 55–69. Of them, 62% consumed alcohol at least weekly, and 11% four times a week or more often.

Although alcohol consumption has generally decreased, regular binge drinking was nearly as common at the population level in 2023 as in 2016. In 2023, 21% of respondents drank at least six alcohol units at a time monthly or more often, compared to 22% in 2016. In the past, binge drinking has been most common among 20–34-year-olds, but the differences between age groups in drinking six alcohol units at a time have almost disappeared for men and narrowed for women. Heavy binge drinking, defined as drinking at least 13 units at a time, also decreased across different age groups, but it was still most common among 20–34-year-olds in 2023. 41% of men in this age group had drunk at least 13 units at a time on at least one day in the previous year.

The Current Care Guidelines in Finland set the moderate risk limit for alcohol consumption at over 14 units per week for men and over 7 units per week for women. In 2023, 15% of men and 9% of women exceeded the moderate risk limit for alcohol consumption, a decrease from 2016 (18% of men and 11% of women).

Men's heavier drinking is also reflected in the harms caused by alcohol use, with men experiencing more harm in different areas of life than women. The most commonly encountered harms were health problems and problems at home or in relationships.

Pia Mäkelä, Research Professor at THL commented "The decrease in alcohol consumption is a good thing for the health and well-being of the population. It is necessary to support the continuation of this positive development with alcohol policy measures that reduce harm which curb the availability and consumption of alcoholic beverages – that is, by maintaining the current percentage limits for alcoholic beverages sold in stores and the high taxation on alcoholic beverages,".

"In the prevention and reduction of harms caused by alcohol use, it is necessary to pay more attention to the differences between different population groups in long-term risk drinking and binge drinking," states Katariina Warpenius, a special researcher from THL.

julkari.fi/handle/10024/147677

'Seeing drinking, makes you drink' campaign advises parents not to drink in the presence of their children

The Dutch Alcohol Policy Alliance (AAN) is once again launching its national and regional campaign 'Zien drinken doet drinken (Seeing drinking, makes you drink). The campaign financed by the Ministry of Health, Welfare and Sport is aimed at parents of children aged 2 to 12 years and advises parents not to drink in the presence of their children.

Research shows that the more often children see their parents drinking, the younger they want to start drinking themselves. The behaviour of parents appears to have the potential to influence children's expectations about alcohol from a very young age (2 years). New research shows that more than 56% of parents say they know that their children copy their drinking behaviour. Half of them indicate that they adjust their drinking behaviour based on this knowledge.

ziendrinkendoetdrinken.nl

IARD's new report: Actions to Prevent Underage Drinking

The IARD released a report in October that brings together actions from around the world. The report aims to inspire and accelerate further activities to help prevent underage drinking.

According to the report, underage drinking has fallen or stayed the same in three-quarters of the 65 countries where national data are available. It has fallen in half of these countries (since 2010), including decreases of 40% or more in the United States, Australia, and Columbia. However, increases have been seen in countries including Germany, the Philippines, and Uruguay.

The report highlights initiatives such as partnerships with retailers, licensees, and regulators to prevent sales and service to those underage; training, tools, and education to stop underage drinking; preventing marketing to those underage and forming partnerships to help change social norms; and make underage drinking socially unacceptable.

Henry Ashworth, CEO of the International Alliance for Responsible Drinking, said: "Children and those underage should not drink alcohol, or have access to it. In the last ten years, our actions, alongside our partners, have played a positive role in contributing to declines in underage drinking in many countries. We are determined to accelerate these trends by broadening and amplifying the scale, scope, and speed of our activities and partnerships, demonstrating the highest standards of responsible business practices.

"Although it is positive to see downward trends in many countries, there is still much work to be done. Effective partnerships between our sector, the public sector, and communities play a crucial part in promoting awareness of the risks and continuing the progress that's already underway. Together, we can ensure that the positive decline in underage drinking seen in many areas continues to spread, creating long-lasting changes in our societies across the world."

iard.org/getmedia/22ec2ef9-f7bd-41cf-8896-1a4f4f6ec015/04102023-Actions-to-prevent-underage-drinking-brochure.pdf

British Beer and Pub Association celebrates 20 years of the iconic Challenge 21 campaign

20 years on from the launch of the Challenge 21 campaign, the BBPA celebrated the positive impact of the campaign and restates the sector's commitment to champion responsible drinking.

The Challenge 21 campaign was launched in 2003 and has had a significant impact. Underage drinking has fallen almost two thirds in England in the same period. The campaign, with a two-pronged approach across England and Wales, and Scotland, adhering to the requirements of the respective Licensing Objectives, ensures a consistent approach when it comes to the avoidance of underage sales and drinking. It also provides important clarity to customers on the acceptable forms of age verification ID.

Emma McClarkin, CEO of the British Beer and Pub Association said: "The Challenge 21 and

Challenge 25 campaigns have allowed pubs across the entirety of the UK to serve the public safely and confidently, ensuring the pub remains a welcoming, wholesome place for everyone to enjoy safely whilst providing clarity to customers on acceptable forms of age-verification identification.

Health at a Glance 2023

The OECD have published the 2023 edition of their Health at a Glance report, which provides a comprehensive set of indicators on population health and health system performance across OECD members and key emerging economies. These cover health status, risk factors for health, access to and quality of healthcare, and health system resources and the analysis draws from the latest comparable official national statistics and other sources.

The report states that 'Alcohol-related diseases and injuries incur a high cost to society. An average of 2.4% of health expenditure is spent on dealing with the harm caused by alcohol consumption, and the figure reaches as high as 4% in some countries'.

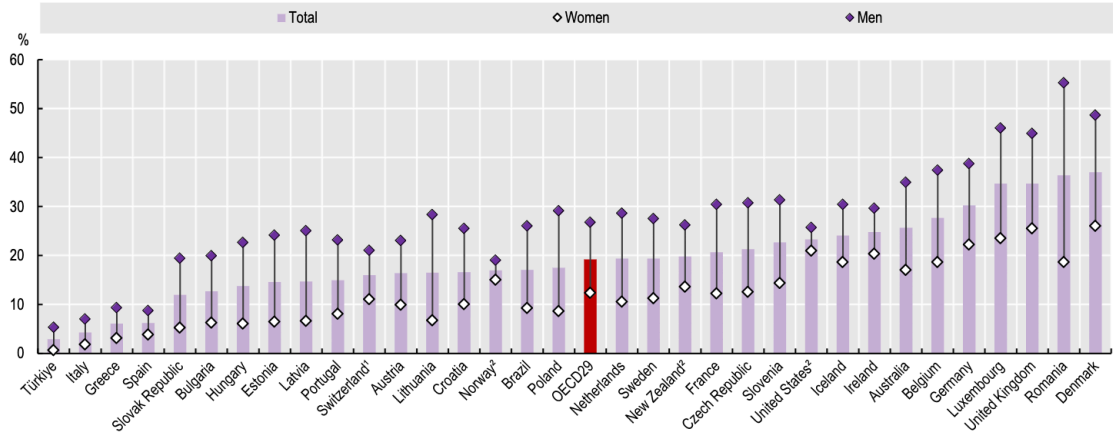
Measured through sales data, overall alcohol consumption averaged 8.6 litres per person across OECD countries in 2021, down from 8.9 litres in 2011. Latvia and Lithuania reported the highest consumption in 2021 (over 12 litres per person), followed by the Czech Republic, Estonia and Austria – all with over 11 litres per person. Turkey, Costa Rica, Israel and Colombia had under 5 litres per person). Among accession and partner countries, consumption was relatively high in Bulgaria and Romania (11 litres and over per person) and low in Indonesia, India and China (under 5 litres). Average consumption fell in 23 OECD countries between 2011 and 2021, with the largest reductions in Lithuania and Ireland (by more than 2 litres). However, alcohol consumption increased by more than 2 litres per person in Latvia, and by about 1 litre per person in Mexico and Norway, as well as in accession countries Bulgaria and Romania.

While national data on overall consumption per capita facilitate the assessment of long-term trends, they do not identify harmful drinking patterns, such as heavy episodic drinking (also called binge drinking). 19% of adults reported heavy episodic drinking at least once a month, on average across 29 OECD countries in 2019. This proportion varies from less than 3% in Turkey and Italy to more than 30% in Germany, Luxembourg, the United Kingdom and Denmark, as well as Romania. In all countries, men were more likely than women to report heavy episodic drinking. On average across OECD countries, 26% of men reported heavy episodic drinking at least once a month compared to 12% of women.

Policies to tackle harmful alcohol use include broad-based strategies and those that target heavy drinkers. The report highlights two recent innovative changes are emerging in the alcohol policy landscape. One is the use of minimum unit pricing (MUP), which sets a floor price beneath which alcohol cannot be sold legally. MUP targets cheap alcohol that is consumed by heavy drinkers. MUP was introduced in Ireland in 2022, and is already in place in two of the United Kingdom nations (Scotland and Wales), and in some regions in Australia and Canada. The second innovation is legislation mandating the labelling of alcohol products. While warning labels about the dangers of drinking while pregnant already exist in some countries, Ireland became the first country globally to mandate labels with population-wide health warnings on alcohol products (such as alcohol-associated risk of cancers and liver diseases).

oecd.org/health/health-at-a-glance/

Figure 4.5. Proportion of adults who reported heavy episodic drinking, by sex, 2019 (or nearest year)



Source: Eurostat, EHIS, complemented with national data sources for non-EU/EEA countries.

ENVI committee European Parliament agrees to weakening alcohol texts in NCD report

In Europe on 7 November, members of the Committee on the Environment, Public Health and Food Safety (ENVI) voted on the initiative report on Non-Communicable Diseases by the Subcommittee on Public Health (SANT) and the approximately 500 proposed amendments to that report. For alcohol, this mainly concerned amendments that weakened the link between NCDs and alcohol consumption.

In the run-up to the vote, the World Health Organization (WHO), the International Agency for Research on Cancer (IARC) and the European Association for the Study of the Liver (EASL) sent a letter to Members of the European Parliament (MEPs) arguing that the contribution of alcohol consumption to cancer incidence and mortality should be clearly recognized without the use of any qualifiers or misleading adjectives such as "harmful" or "heavy" consumption of alcohol or "responsible drinking". Also, that measures should be taken to clearly inform the public of this risk, which is not well known among the general population, including enforcement of the dissemination of the European Code Against Cancer recommendations. WHO/Europe's European Framework for Action on Alcohol 2022¬–2025 and WHO's Global Alcohol Action Plan 2022–2030 both recommend the use of health warning labels on alcoholic beverage containers to inform the public about the health consequences of alcohol use'.

Attempts to block amendments to the report failed, however. A compromise text could not be found. A text about introducing health warnings on labels was dropped and the word 'alcohol use' was also changed to 'harmful alcohol use' in several places.

Eurocare, the European alliance of NGOs in the field of alcohol prevention and policy, said it strongly condemns the new texts "as they undermine science-based public health policies aimed at protecting and protecting the lives of our fellow Europeans."

MEP Heléne Fritzon also commented, "The message from us, European socialists, was clear: European alcohol policy must focus on public health and research. It is about the right of every child to a safe childhood … I deeply regret that a right-wing majority in the European Parliament is once again prioritizing the profit interests of one sector over public health and research."

The full European Parliament will vote on the NCD note in December.

Wine in moderation establishes international day to encourage moderate & responsible drinking

Wine in Moderation have established an international Wine in Moderation Day. The initiative took the form of a campaign: "The greatest wine? the one that you will remember" and was active in three countries during the second week of November.

The campaign aimed to raise awareness of the responsible consumption of wine across multiple touchpoints and multiple targets. It highlighted the importance of engaging consumers about the culture, the history of wine and in-turn, encourage and empower consumers to make responsible choices and enjoy wine in moderation. The campaign consisted of a range of PR and promotional activities underpinned by a series of events organised at national level by National Coordinators and Supporters in Italy, Spain, and Portugal.

Sandro Sartor, President of Wine in Moderation said, "As the social responsibility movement of the wine sector, we are fully committed to our mission of empowering wine professionals and consumers to make responsible choices when it comes to drinking wine. And in addition to all the actions we have been developing during the last 15 years of existence of the Programme, we wanted to take an additional step and organise our very own Wine in Moderation Day. The campaign we have put together is built around the culture of wine and its appreciation".

wineinmoderation.eu/culture/wim-day

New Canadian Drugs and Substances Strategy

On October 30, The Honourable Ya'ara Saks, Minister of Mental Health and Addictions and Associate Minister of Health, announced funding under the Substance Use and Addictions Program for several projects across Canada and released a renewed Canadian Drugs and Substances Strategy (CDSS).

The renewed CDSS is an all-substances, public health and public safety strategy and is an initiative in collaboration with over 15 federal government departments and agencies, with the goal to minimise substance-related harms for individuals, families, and communities.

The renewed CDSS is focused on four key integrated priority areas for action, called foundational elements: prevention and education, substance use services and supports (treatment, harm reduction and recovery), evidence, and substance controls.

The goal of prevention and education initiatives is to increase awareness and knowledge about the effects and risks of substances, and to prevent, reduce or delay substance use harms. This includes addressing known risk factors that increase the likelihood of a harm due to substance use, and increasing protective factors that promote health and reduce the likelihood of harm. To support this the government are investing in community-led programs to prevent substance use harms among youth, at risk and other marginalised populations and disproportionately impacted populations. They are also raising awareness of substance use harms and ways to reduce them, and the importance of reducing stigma, through public education, outreach activities and awareness campaigns. Finally, they will work with partners to address the root causes of substance use harms, including housing, employment, and economic development.

Gen Z – different relationship with alcohol

Younger, legal-drinking aged Gen Z consumers increasingly enjoy a very different relationship with alcohol versus older age cohorts, exhibiting rising levels of abstention, moderation, experimenting with new categories, and turning away from traditional, high-volume categories, according to a recent report from IWSR.

The company's ongoing consumer tracking data suggests that, in some key markets, a significant proportion of younger LDA (legal drinking age) consumers are now avoiding alcohol altogether, although there are wide variations between individual countries.

Among 15 key markets (Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Mexico, South Africa, Spain, Taiwan, UK, US), Japan shows the highest level of abstention among Gen Z (aged 18-26) consumers, with 63% claiming not to have drunk alcohol in the past six months – followed by the US at 54% and Canada at 44%.

In all three cases, levels of abstention are higher than among the total adult population in their overall markets, although Gen Z consumers are underrepresented in the US and Canada because of the higher legal drinking age thresholds.

"A surprisingly large proportion of younger LDA+ communities are now claiming that they abstain from alcohol altogether," says Richard Halstead, COO Consumer Research, IWSR. "This is particularly true in Japan and North America, but the moderation trend is also prevalent in other markets across Europe, Asia and Australasia."

Meanwhile, the Gen Z consumers who do participate in the beverage alcohol category are increasingly changing the way in which they interact with alcohol. In particular, they are underrepresented in traditional, high-volume categories such as beer and wine, and over-represented in RTDs (especially in the US and Canada), white spirit-based cocktails, liqueurs (particularly in Spain) and aperitifs.

IWSR's consumer tracking also shows that younger adult drinkers are now the key drivers of cocktail culture in markets with the highest penetration of cocktail consumption, such as India, Mexico, South Africa, Brazil, the US and Italy.

theiwsr.com/how-is-gen-z-approaching-beverage-alcohol/

Apparent consumption of alcohol in Australia

The Apparent consumption of alcohol in Australia report uses data from a range of sources, including excise data, import clearance records and financial information, to estimate the total amount of alcohol made available to people living in Australia each financial year. Annual data is presented for total volumes and volumes per capita at the National level.

In 2019–20, 208.8 million litres of pure alcohol were made available in Australia, down 0.7% from 210.3 million litres in 2018–19. Before 2019–20, apparent consumption of pure alcohol had consistently increased since 2014–15 (186.9 million litres). The trends in the total amount of alcohol made available were not reflected in per capita consumption. Apparent consumption has remained relatively stable at around 10 litres per capita from 2010–11 through to 2019–20. This indicates that as the total amount of alcohol in Australia increased between 2014–15 and 2018–19, the Australian population also increased, resulting in stable levels of consumption per capita.

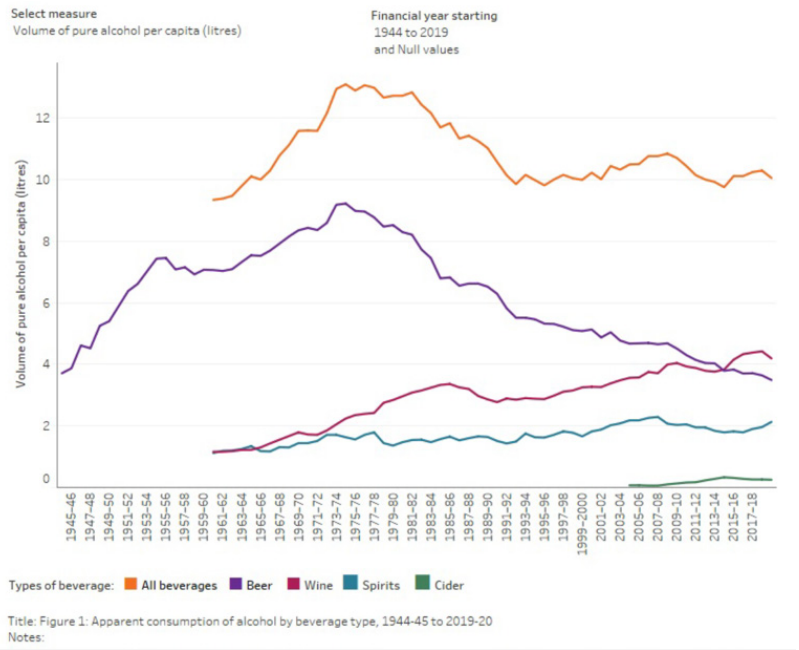
Between 2018–19 and 2019–20 there was a 10% increase in the apparent consumption of spirits, up to 44.2 million litres of pure alcohol. This compares to a decrease of 2.8% for beer to 72.4 million litres of pure alcohol, a decrease of 3.8% for wine to 87.0 million litres of pure alcohol in 2019–20 and cider consumption remaining stable at 5.2 million litres of pure alcohol.

In 2019-20, per capita beer consumption was 82 litres, equating to an average of 3.5 litres of pure alcohol. This is the lowest amount seen since the late 1940s and continues the long-standing trend of decreasing beer consumption since the peak in 1974–75 (per capita consumption - 190 litres of beer (or 9.2 litres of pure alcohol)). In 2019–20, 23% of all beer consumed was mid-strength, the highest amount seen since the categories were created in 2000–01. 73% of beer was full-strength, a slight decrease from 76% in 2000–01 and 4.4% of beer was low-strength, a substantial drop since 2001–02 (13%).

In 2019–20, 87.0 million litres of pure alcohol in the form of wine were made available in Australia, a decrease from 90.4 million litres in 2018–19. Despite this reduction, per capita consumption of wine is still at one of the highest levels in the past 60 years. Wine made up the largest proportion of apparent alcohol consumption at 42% of all available alcohol in 2019–20. Apparent consumption of alcohol from wine decreased in 2019-20 to 4.1 litres per capita. Prior to then, apparent consumption of alcohol from wine had consistently increased from 3.8 litres per capita in 2013–14 up to 4.42 litres in 2018-19.

Spirits saw a 19% increase in availability from 1.8 litres of alcohol per capita in 2016–17 to 2.1 litres in 2019–20. This is the highest level seen since the peak of spirits consumption in 2007–08 (2.3 litres per capita). The types of spirits being consumed have changed over the past decade. Ready-to-drink beverages made up 48% of spirits consumption in 2007–08, but just 28% in 2019–20. This decrease follows a change in tax to ready-to-drink beverages in 2008. Unmixed spirits such as vodka, whiskey, and liqueurs are now at their highest level of consumption since the category was reported separately in 2002–03, with people consuming an average of 1.5 litres of pure alcohol from unmixed spirits in 2019–20.

aihw.gov.au/reports/alcohol/apparent-consumption-of-alcohol-in-australia/contents/apparent-consumption-of-alcohol-in-australia-1944



Title: Figure 1: Apparent consumption of alcohol by beverage type, 1944-45 to 2019-20
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Alcohol, tobacco & other drugs report

The web report, Alcohol, tobacco & other drugs in Australia was updated in November 2023. The report consolidates recent information on the availability and consumption of alcohol, tobacco and other drugs in Australia, and related impacts, harms and treatment.

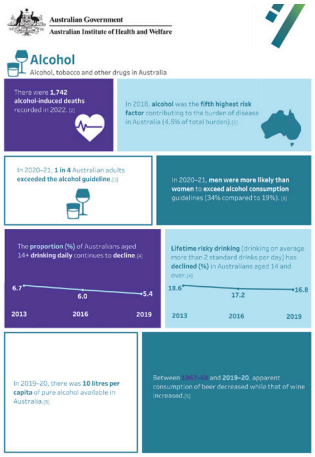
The report has been updated with information from the Apparent consumption of alcohol in Australia, (Australian Institute of Health and Welfare), the National Wastewater Drug Monitoring Program Report 19 (Australian Criminal Intelligence Commission) and the Causes of Death, Australia report.

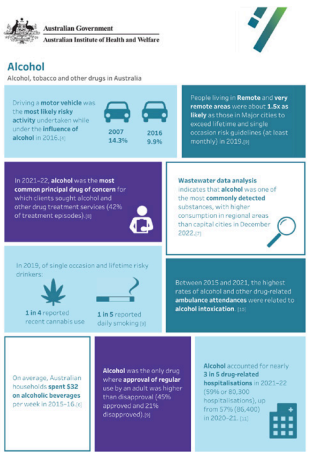
An updated infographic highlights key information about alcohol consumption and its effects.

The National Drug Monitoring Program reported that while average consumption of nicotine and alcohol increased in capital city sites, it decreased in regional sites, to record low levels in December 2022. Alcohol consumption in capital cities also decreased to record low levels in February 2023. Alcohol consumption in regional areas was higher than consumption in the capital. There were very large differences between days of the week in many parts of the country. In most cases this is due to higher consumption of alcohol on weekends. The regional site in the Northern Territory and a capital city site in Tasmania had the highest alcohol consumption.

In 2022 there were 1,742 alcohol-induced deaths (1,245 males and 497 females) and 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 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).

aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/summary





Canadian Clinical Guideline for high risk drinking and alcohol use disorder

The first-ever Canadian guideline for treating high-risk drinking and alcohol use disorder (AUD) has been published by the BC Centre on Substance Use (BCCSU), a UBC Faculty of Medicine research centre housed within Providence Health Care and Providence Research.

Developed in partnership with the Canadian Research Initiative on Substance Misuse (CRISM), the guideline provides 15 evidence-based recommendations to reduce harms associated with high-risk drinking and to support people's treatment and recovery from AUD.

Along with the new clinical guidelines, a website has been developed, called helpwithdrinking.ca, to raise awareness of resources and treatments available to Canadians.

The guidelines were written by a 36-member committee co-chaired by Dr Evan Wood, a professor in UBC's department of medicine and Canada Research Chair in addiction medicine, and Dr Jürgen Rehm, senior scientist at the Centre for Addiction and Mental Health (CAMH) and a professor in the Dalla Lana School of Public Health at the University of Toronto.

The guideline is based on the latest evidence, expert consensus, and lived and living experience, as well as clinical experience from across Canada.

bccsu.ca/wp-content/uploads/2023/10/Canadian-AUD-guidelines_ENG.pdf

Strong public support for alcohol policy action in New Zealand

Research from the University of Otago suggests that there is considerable support from New Zealanders for government to take policy action to reduce people's exposure to alcohol and dietary cancer risk factors in their environment.

A study, Public awareness of cancer risk factors & support for prevention policies in Aotearoa New Zealand: A focus on alcohol and diet, has been published by a team from the University's Te Rōpū Rangahau ō Te Kāhui Matepukupuku: Cancer Society Research Collaboration.

The study sought to determine New Zealanders' awareness of ways to prevent cancer – with a particular focus on alcohol and dietary factors – and support for evidence-based alcohol and food interventions and legislation.

More than 1,400 New Zealanders aged 18+ were surveyed with a combination of recall (unprompted) and recognition (prompted) questions to gauge their awareness of cancer risk factors and their level of support for policies to reduce the risk of cancer for New Zealanders.

The results show that 'work still needs to be done' to increase awareness of alcohol and food-related risk factors. Despite this the majority of participants support most alcohol and food-related policies, with increased support evident among people who were aware of the risks.

80% of study participants either supported or felt neutral towards a ban of alcohol sponsorship at sporting or community events that under 18-year-olds go to. 80% also supported or felt neutral towards the statement that the alcohol industry should not be involved in developing government policies (local and national) to reduce alcohol harm.

Report lead author Dr Rana Peniamina, of the University of Otago's Department of Preventive and Social Medicine, stated that despite repeated calls from health advocacy groups to reform New Zealand's alcohol laws, little action has been taken by successive governments.

National Advisor for Cancer Prevention and Policy at the Cancer Society of New Zealand, Emma Shields, commented that the policy results of the survey are compelling and action is urgently needed, arguing that the Alcohol Levy is currently being reviewed and this provides an early opportunity for the new government to take alcohol reform action in its first 100 days in office. "Removing alcohol sponsorship from events that young people attend, shown to have considerable public support in the survey, is a great place to start," she added.

Reforming alcohol laws to address alcohol-related harm is one of 12 key asks in the Cancer Society's Manifesto to political decision-makers to address in their first term in government.

Health warnings labels for alcohol containers in Australia

The federal government in Australia is seeking advice on options to raise public awareness about alcohol harm after doctors' groups called for cancer and other health warnings to be placed on all alcoholic beverages.

The Australian Medical Association (AMA), the Royal Australian College of General Practitioners (RACGP), and the Foundation for Alcohol Research and Education (FARE) are calling for mandatory labels on alcohol containers warning of the risk of liver disease, cancer, heart disease, poor mental health, injury and alcohol poisoning.

The federal minister responsible for food and beverage labelling, Ged Kearney, said that she had sought advice from her department on options for raising consumer awareness about the harms associated with alcohol. It is expected the advice will canvass new warning labels.

"The Australian government recognises the importance of labelling to raise consumer awareness of, and seek to prevent, alcohol-related harms," said Kearney.

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.

AIM Social, Scientific and Medical Council