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Belgium

The Federal Parliament in Belgium has approved a bill that tightens the rules regarding the sale of tobacco and alcohol. Part of the inter-federal (federal, regional, language community) strategy regarding alcohol and tobacco, the new bill also includes additional measures regarding the sale of alcoholic beverages. Young people aged between 16 and 18 years will only be allowed to buy beer, and the sale of alcoholic beverages will be banned in hospitals and at motorway service stations during the night. The new rules will come into force from 1 April 2025.

Denmark

The Danish government has consulted on the first part of a prevention package that includes a requirement for age verification for online sales of alcohol, as well as the use of so-called mystery shopping in the control of the sales age limits for alcohol. For those who sell alcohol products directly to consumers online, the proposal is that an "effective" age verification system, such as MitID, must be implemented by October (it will therefore no longer be sufficient to ask the customer to confirm that they are over 18 years old when selling alcohol online). The second half of the prevention package is expected to be sent out for consultation in October, and will include, among other things, a lowering of the ABV percentage limit for the sale of alcohol to 16-17-year-olds and a working group on age verification on payment cards.

UK

Under the new Sheffield City Council Advertising and Sponsorship Policy, adverts for a wide range of polluting products and brands, including airlines, airports, fossil fuel-powered cars and fossil fuel companies, will not be permitted on council-owned advertising billboards. The policy will also restrict the promotion of gambling, alcohol, vaping and unhealthy food, and explicitly aims to protect against the disproportionate impact of unhealthy advertising on lower income communities and young people.

Canada

A pilot project in Toronto that allowed residents to drink alcohol in certain parks should become permanent and be expanded to ensure there is one park in every ward where residents can imbibe, Toronto city staff say. The pilot ran in 27 parks from Aug. 2 to Oct. 9, 2023 and was well received. A report is to be considered by the city's economic and community development committee.

India

According to the Household Consumption Expenditure Survey 2022-23 in India, the consumption of tobacco and alcohol has increased in both urban and rural areas of India. The survey, conducted by the National Sample Survey Office (NSSO) in August 2022, also found that spending on tobacco and alcohol in rural areas increased to 3.79% in 2022-23 from 3.21% in 2011-2012. In urban areas spending also increased from 1.6% in 2011-2012 to 3.43% in 2022-2023.

Recovery of neuropsychological function following abstinence from alcohol in adults diagnosed with an alcohol use disorder: Systematic review of longitudinal studies

Authors

Powell A; Sumnall H; Smith J; Kuiper R; Montgomery C

Citation

PLoS ONE (2023) doi.org/10.1371/journal.pone.0296043

Author's Abstract

Background Alcohol use disorders (AUD) associate with structural and functional brain differences, including impairments in neuropsychological function; however, reviews (mostly cross-sectional) are inconsistent with regards to recovery of such functions following abstinence. Recovery is important, as these impairments associate with treatment outcomes and quality of life.

Objective(s) To assess neuropsychological function recovery following abstinence in individuals with a clinical AUD diagnosis. The secondary objective was to assess predictors of neuropsychological recovery in AUD.

Methods Following the preregistered protocol (PROSPERO: CRD42022308686), APA PsycInfo, EBSCO MEDLINE, CINAHL, and Web of Science Core Collection were searched between 1999–2022. Study reporting follows the Joanna Briggs Institute (JBI) Manual for Evidence Synthesis, study quality was assessed using the JBI Checklist for Cohort Studies. Eligible studies were those with a longitudinal design that assessed neuropsychological recovery following abstinence from alcohol in adults with a clinical diagnosis of AUD. Studies were excluded if participant group was defined by another or comorbid condition/injury, or by relapse. Recovery was defined as function reaching 'normal' performance.

Results Sixteen studies (AUD $n = 783$, controls $n = 390$) were selected for narrative synthesis. Most functions demonstrated recovery within 6–12 months, including sub-domains within attention, executive function, perception, and memory, though basic processing speed and working memory updating/tracking recovered earlier. Additionally, verbal fluency was not impaired at baseline (while verbal function was not assessed compared to normal levels), and concept formation and reasoning recovery was inconsistent.

Conclusions These results provide evidence that recovery of most functions is possible. While overall robustness of results was good, methodological limitations included lack of control groups,

additional methods to self-report to confirm abstinence, description/control for attrition, statistical control of confounds, and of long enough study durations to capture change.

Forum comments

Alcohol use disorder (AUD) is a medical condition characterized by an impaired ability to stop or control alcohol consumption despite adverse social, occupational, or health consequences. It encompasses the conditions that some people refer to as alcohol abuse, alcohol dependence, alcohol addiction, and the colloquial term, alcoholism. Considered a brain disorder, AUD can be mild, moderate, or severe. It results from the neurotoxicity of alcohol in a chronic high consumption pattern and represents a significant public health challenge globally from an increasingly large burden of disability and mortality (Rehm & Shield, 2013, Grant et al. 2015, Rehm et al., 2015). Indeed, AUD is among the most prevalent of all substance use disorders worldwide (Holt, 2024), duly emphasizing the need for comprehensive understanding and effective interventions.

In individuals with AUD, common visible brain changes occur across structure and function, including within neurotransmitter and metabolic systems (Bühler & Mann, 2011), grey and white matter, and event-related potential markers of attentional capacity (Hamidovic & Wang, 2019). Associated with these brain changes is the impairment of neuropsychological functions which adversely affect quality of life. These functions include inhibition, set-shifting, working memory, problem solving, planning, attention, reasoning/abstraction, processing speed, visuospatial abilities, verbal memory, verbal learning, verbal fluency, visual memory, visual learning and intelligence (Stephan et al., 2017, Bora & Zorlu, 2017). These functional impairments translate into problems at work (e.g., not meeting job requirements), elevated risk of injuries (e.g., endangerment or traffic accidents) and negative consequences in social and family contexts (e.g., neglect of social relationships, aggression toward family members) (Rehm, 2011).

Therefore, the recent systematic review published in PLoS ONE (Powell et al., 2024) which aims to understand whether these with multiple neuropsychological impairments can recover with abstinence is considered important. The paper describes an extensive review of longitudinal studies performed between 2007 and 2023 on recovery of neuropsychological functions during one of possible interventions, namely abstinence following AUD. A similar review (Schulte et al., 2014) was published ten years ago and another smaller review in 2020 (Nixon & Lewis 2020), both of which suggest a reduction in impairment following the initiation of abstinence especially in early weeks of abstinence, with some continuing recovery in later months. Therefore, an updated version with the most recent literature has been needed.

Recovery from AUD is a complex and multifaceted process that involves addressing various physical, psychological, and social aspects of the disorder. Key points regarding recovery from AUD include acknowledging the presence of the disorder and accepting the need for change. Treatment options may include medical interventions, psychotherapy, support groups such as Alcoholics Anonymous (AA), and residential rehabilitation programs. Overall, recovery from AUD is a journey that requires determination, support, and perseverance. Individuals can achieve and maintain sobriety, leading to improved health, relationships, and overall well-being.

The authors of this important systematic review chose to use longitudinal studies because cross-sectional studies provided contradictory results. In their introduction the authors refer two such papers. Although methodologically similar, both reviews of primarily cross-sectional literature, were contradictory: the one study concluding that all assessed domains recovered by a year of abstinence (Stavro et al., 2013), and the other that there was a wide range of continued impairment at this stage (Crowe et al., 2019). Cross-sectional studies and their design flaws may confound other relationships in alcohol research such as the associations between alcohol consumption, abuse and health outcomes in adolescents (Hendriks & Schrieke, 2015, Yaogo et al., 2015).

The Forum specifically supports the authors' choice to use longitudinal studies only. A cross-

sectional approach has the advantage of being able to conclude within a reasonably short study period, but a cross-sectional design has numerous flaws. These flaws include the improbability to enable for all pre-existing differences in the populations of study, e.g., other traits associated with the abuse, genetic factors, family history, etcetera. In the longitudinal design each person is his/her own control. Also, causality of the factor abstinence after long-term alcohol abuse may be more likely to be involved in the outcome parameters studied, because it is monitored for a longer time, excluding those that relapse and excluding those that start abusing alcohol after being abstinent for some time.

The conclusion of this impressive systematic review is surprising, namely that recovery of most functions in AUD is possible. Overall, subdomains within attention, executive functions, perception, and memory, generally demonstrate recovery between six to 12 months, though basic processing speed recovers within a month, and working memory updating/tracking as early as 18 days, while verbal function demonstrated improvement within a month, but was likely unimpaired to start with. Of course, the brain and human behaviour is extremely flexible, but it still is essential to substantiate that notion with high quality scientific research. It is not only relevant for those treating individuals with AUD. Those seeking treatment should also be reassured that most neuropsychological functions will be restored, although it may take time.

Unfortunately, this review concerns a narrative systematic review. A meta-analytic approach may have offered the opportunity to quantify the recovery of these neuropsychological functions over time. Such a quantification would have been helpful as well. The authors, however, mention that such an approach is currently not possible due to the large numbers of domains and subdomains studied and the vast number of different tests applied in this research area.

Yet, another strength of this study is that the authors have worked following a previously published peer-reviewed protocol (Powell et al., 2022) allowing external independent reviewers to evaluate and improve the protocol proposed. Also, for all studies included a comparator (a control group) was required, in the form of adults aged 18–64 without AUD, adults with a different

severity of AUD, or abstinence duration assessed using regression techniques. The control group of adults aged 18-64 without AUD was the control group used in the majority of studies included.

The role of smoking is interesting. Although research on smokers recovering from AUD were included in this systematic review smoking appeared to be a risk factor for full recovery. Studies on smokers were included only when alcohol use disorder was the primary substance use disorder and smoking was not or at best secondary. Several studies have shown that smoking is associated with poorer recovery in multiple neurocognitive domains following treatment for AUD (Durazzo & Meyerhoff, 2020). In those studies, chronic smoking was associated with multiple neurobiological abnormalities in otherwise healthy controls. So, non-smoking AUD recoverees may possess greater neurobiological and neurocognitive resiliency to the adverse consequences of AUD.

We agree with the authors that future research should consider the impacts of identified predictors, like smoking and age, as these may explain some of the variance across the literature. Large scale prospective studies will be needed, because only these studies will develop our understanding of function recovery after abstinence and elucidate what functional differences between individuals with and without AUD may be pre-existing or cyclical.

Specific Comments from Forum Members

Forum member Skovenborg considers that “the findings of two Danish studies, examining brains of alcoholics and controls with stereological techniques, do not support the belief that alcohol dementia results from neocortical nerve-cell death since there was no difference in total neocortical neuron number in the alcoholic and control groups. The study by Jensen & Pakkenberg (1993) found significant reductions in alcoholics compared with controls of the volume/weight ratios of white matter (11%). The coating of myelin around axons, the myelin sheath, protects the axons and helps speed nerve transmissions. If the myelin sheath is damaged, these nerve signals will travel more slowly or be blocked completely. The selective loss of white matter may cause impaired function due to malfunctioning axons.

The study by Korbo (1999) found a statistically significant loss of 37% of the glial cells globally in the hippocampus of the alcoholics compared with controls while no loss of neurons was found in the hippocampus from alcoholics. The results suggest that the observed brain damage in the alcoholic group is potentially reversible since preserved nerve-cell bodies might allow lost or malfunctioning axons to re-established and lost glial cells in the hippocampus replaced with a restored cognitive function as a result after prolonged abstinence.

Several imaging studies found evidence for partial brain recovery with abstinence. Ron et al. (1982) examined one hundred male alcoholics from an inpatient treatment unit by computerized axial tomography. All were without clinically overt signs of brain damage. Fifty age-matched normal volunteers were used for comparison. Radiological indices differed markedly between the two groups, reflecting a high incidence of cortical shrinkage and ventricular dilatation among the alcoholics. The results of follow-up with rescanning indicated that abstinence was strongly related to slow partial resolution of the computerized tomographic (CT) scan changes.

In an assessment of alcoholic brain damage by CT scanning Carlen et al. (1986) found greater cerebral atrophy in alcoholics than aged-matched neurological controls. The cerebral atrophy reversed in some subjects with maintained abstinence: Computerized assessment of cerebral spinal fluid volume (cerebral atrophy) and mean cerebral density showed decreased cerebral spinal fluid volume and increased cerebral density with maintained abstinence over four weeks in a group of 20 alcoholics

Bartsch et al. (2007) investigated global and local brain volume changes in a longitudinal two-timepoint study with T1-weighted MRI at admission and after short-term (6–7 weeks) sobriety follow-up in 15 uncomplicated, recently detoxified alcoholics. Their findings emphasize metabolic as well as regionally distinct morphological capacities for partial brain recovery from toxic insults of chronic alcoholism and substantiate early measurable benefits of therapeutic sobriety suggesting that even the adult human brain and particularly its white matter seems to possess genuine capabilities for regrowth.

Forum member Ellison states that “this is a very important topic but one that is especially difficult to study. The baseline values of cognitive functions are obviously the key measurements for such analyses, and I am not able to judge whether evaluations performed immediately after stopping alcohol intake (such as baseline studies obtained after 0-2 days) can be compared with those recorded several days or weeks after the beginning of abstinence. And it is difficult to judge how well each study confirmed no alcohol use during follow up.”

Concluding comments

As suggested by Forum member Ellison, this well-executed systematic review of longitudinal studies undertaken by Powell et al. (2023) indicates improvement in a number of key cognitive functions and support many previous studies. Together, these studies provide data that should strengthen efforts by physicians treating patients with alcohol use disorders to encourage their attempts to stop abusive drinking. Furthermore, this promising information should provide clinicians with a message that should encourage more people with AUD to accept treatment.

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Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. 2022 National Survey on Drug Use and Health: Table 5.9B – Alcohol Use Disorder in Past Year: Among People Aged 12 or Older; by Age Group and Demographic Characteristics, Percentages, 2021 and 2022. <https://www.samhsa.gov/data/report/2022-nsduh-detailed-tables>

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Forum Summary

Alcohol use disorder (AUD) commonly is associated with compromise in neurobiological and/or neurobehavioral processes. The severity of this compromise varies across individuals and outcomes, as does the degree to which recovery of function is achieved. Clinicians have commented that some of the greatest recoveries are in AUD, where a potentially life-threatening situation has been turned around by clinical intervention coupled with an individual's determination and peer support. This paper provides clear evidence that alcohol's compromising effects on neuropsychological function can be improved with abstinence.

Comments on this critique by the International Scientific Forum on Alcohol Research were provided by the following members:

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Alcohol use and mortality among older couples in the United States: Evidence of individual and partner effects

Spouses with concordant (i.e., similar) drinking behaviours often report better quality marriages and are married longer compared with those who report discordant drinking behaviours. Less is known regarding whether concordant or discordant patterns have implications for health, as couples grow older. A study examined whether drinking patterns among older couples are associated with mortality over time.

The Health and Retirement Study (HRS) is a nationally representative sample of individuals and their partners (married/cohabiting) over age 50 in the USA, in which participants completed surveys every two years. Participants included 4,656 married/cohabiting different-sex couples (9,312 individuals) who completed at least three waves of the HRS from 1996 to 2016. Participants reported whether they drank alcohol at all in the last three months, and if so, the average amount they drank per week. Mortality data were from 2016.

Concordant drinking spouses (both drank in the last three months) survived longer than discordant drinking spouses (one partner drank and the other did not) and concordant nondrinking spouses. Analysis of average drinks per week showed a quadratic association with mortality, such that light drinking predicted better survival rates among individuals and their partners compared with abstaining and heavy drinking. Further, similar levels of drinking in terms of the amount of drinking were associated with greater survival, particularly among wives.

The authors comment that study moves the field forward by showing that survival varies as a function of one's own and one's partner's drinking.

Source: Kira S Birditt, Angela Turkelson, Courtney A Polenick, James A Cranford, Jennifer A Smith, Erin B Ware, Frederic C Blow, Alcohol Use and Mortality Among Older Couples in the United States: Evidence of Individual and Partner Effects, *The Gerontologist*, Volume 64, Issue 2, February 2024, gnad101, doi.org/10.1093/geront/gnad101

The risk relationships between alcohol consumption, alcohol use disorder and alcohol use disorder mortality

Increasing levels of alcohol use are associated with a risk of developing an alcohol use disorder (AUD), which, in turn, is associated with considerable burden. A study estimated the risk relationships between alcohol consumption and AUD incidence and mortality.

A systematic literature search was conducted, using Medline, Embase, PsycINFO and Web of Science for case-control or cohort studies published between 1 January 2000 and 8 July 2022. These were required to report alcohol consumption, AUD incidence and/or AUD mortality (including 100% alcohol-attributable deaths). Dose-response and random-effects meta-analyses were used to determine the risk relationships between alcohol consumption and AUD incidence and mortality and mortality rates in AUD patients, respectively.

Of the 5,904 reports identified, seven and three studies from high-income countries and Brazil met the inclusion criteria for quantitative and qualitative syntheses, respectively. In addition, two primary US data sources were analysed.

Higher levels of alcohol consumption increased the risk of developing or dying from an AUD exponentially. At an average consumption of four standard drinks (assuming 10 g of pure alcohol/standard drink) per day, the risk of developing an AUD was increased sevenfold [relative risk (RR)=7.14, 95% confidence interval (CI)=5.13–9.93] and the risk of dying fourfold (RR=3.94, 95% CI=3.53–4.40) compared with current non-drinkers. The mortality rate in AUD patients was 3.13 (95% CI=1.07–9.13) per 1000 person-years.

There are exponential positive risk relationships between alcohol use and both AUD incidence and mortality. Even at an average consumption of 20g/day (about one large beer), the risk of developing an AUD is nearly threefold that of current non-drinkers and the risk of dying from an AUD is approximately double that of current non-drinkers, the researchers found.

Source: Carr T, Kilian C, Llamosas-Falcón L, Zhu Y, Lasserre AM, Puka K, et al. The risk relationships between alcohol consumption, alcohol use disorder and alcohol use disorder mortality: A systematic review and meta-analysis. *Addiction*. 2024. doi.org/10.1111/add.16456

Association between drinking status and risk of kidney stones among United States adults: NHANES 2007-2018

A study by researchers in China investigated the relationship between drinking status and kidney stone occurrence among United States (US) adults who consume alcohol.

A cross-sectional analysis was conducted using data from the National Health and Nutrition Examination Survey (NHANES 2007-2018). Questionnaires yielded information on alcohol consumption and kidney health. Drinking status was categorised into four groups-former, mild, moderate, and heavy-based on alcohol consumption patterns. The researchers explored the relationship between drinking status and the prevalence of kidney stones occurrence. For this analysis, a group of individuals diagnosed with kidney stones was analysed. With survey weights applied, the total weight of the group was 185,690,415.

Former drinkers were less likely to have previously experienced kidney stones (OR 0.762, 95% CI 0.595-0.977). In subgroup analysis, heavy alcohol consumption was associated with a significantly reduced likelihood of kidney stones occurrence in various populations. The adjusted odds ratios

(with 95% confidence intervals) of kidney stones risk for heavy alcohol consumption were 0.745 (0.566-0.981) for young individuals, 0.566 (0.342-0.939) for older individuals, 0.708 (0.510-0.981) for individuals of white race, 0.468 (0.269-0.817) for individuals with underweight/normal BMI, 0.192 (0.066-0.560) for widowed people, 0.538 (0.343-0.843) for smoking individuals, 0.749 (0.595-0.941) for individuals without a cancer history, and 0.724 (0.566-0.925) for individuals without a stroke history.

In US adults who consume alcohol, a negative linear relationship is apparent between drinking status and the prevalence of kidney stones, with heavy drinking showing a lower prevalence compared to former drinkers. However, the causal relationship between drinking status and kidney stones requires further investigation in future research endeavours, the authors say.

Source: Wei B, Tan W, He S, Yang S, Gu C, Wang S. Association between drinking status and risk of kidney stones among United States adults: NHANES 2007-2018. *BMC Public Health*. 2024 Mar 15;24(1):820. doi.org/10.1186/s12889-024-18307-1.

Association between smoking and alcohol drinking and benign adrenal tumours: a Mendelian randomization study

In recent years, the detection rate of adrenal tumours has increased, but it is unclear whether smoking and alcohol drinking are risk factors for benign adrenal tumours. A study employed Mendelian randomization (MR) analysis to explore the causal relationship between smoking, alcohol drinking and susceptibility to benign adrenal tumours.

Researchers acquired large-scale data from publicly accessible databases on genome-wide association studies (GWAS) pertaining to smoking, alcohol drinking and benign adrenal tumours. A total of 11 sets of instrumental variables (IVs) and 281 associated single nucleotide polymorphic (SNP) loci were identified.

There is no causal relationship between smoking status, alcohol drinking status, alcohol intake frequency, alcohol taken with meals, alcohol consumption and benign adrenal tumours,

while pack years of smoking and cigarettes per day are risk factors for benign adrenal tumours. The analysis revealed that both the pack years of smoking and cigarettes per day were positively associated with an increased risk of benign adrenal tumours (OR = 2.853, 95%CI = 1.384-5.878; OR = 1.543, 95%CI = 1.147-2.076). Two SNPs (rs8042849 in the analysis of pack years of smoking and rs8034191 in the analysis of cigarettes per day) significantly drove the observed causal effects.

Two-sample Mendelian randomization analysis showed a causal effect between smoking but not alcohol consumption and benign adrenal tumours.

Source: Peng K, Liu Q, Wang N, Wang L, Duan X, Ding D. Association between smoking and alcohol drinking and benign adrenal tumours: a Mendelian randomization study. *Endocrine*. 2024 Feb 26. doi.org/10.1007/s12020-024-03714-6.

Behaviour-related risk factors and time to death among persons with alcohol consumption versus persons without

Evidence shows that low to moderate alcohol consumers live longer than abstainers. Insufficient consideration of subgroups among abstainers and of further behaviour-related risk factors for death might be reasons. A study compared alcohol lifetime abstainers, former drinkers, and current consumers with regard to mortality considering tobacco smoking, body overweight, and physical inactivity.

A general adult population sample of residents aged 18 to 64 had been drawn at random in northern Germany. Among eligible persons, 4,093 (70.2%) participated. Assessments included alcohol consumption by the Alcohol Use Disorders Identification Test Consumption in addition to lifetime alcohol abstinence and former drinking. A score of behaviour-related risk factors was built from tobacco smoking, body overweight, and physical inactivity. Twenty years later, a mortality follow-up was conducted.

At baseline, former alcohol consumers but not current low to moderate alcohol drinkers had more behaviour-related risk factors than lifetime abstainers. At follow-up, former alcohol

drinkers with two or more behaviour-related risk factors had a shorter time to death than lifetime abstainers with no or one behaviour-related risk factor (hazard ratio 3.43, 95% confidence interval: 1.63-7.20). Low to moderate alcohol drinkers did not survive longer than lifetime alcohol abstainers with no or one behaviour-related risk factor.

In this adult general population sample, the consideration of behaviour-related risk factors for early death in addition to alcohol lifetime abstinence and former drinking provided evidence that low to moderate alcohol consumers did not have a longer survival than lifetime abstainers with one or no behaviour-related health risk factors. The findings speak against the assumption that alcohol might have a beneficial effect on health and long life, the researchers conclude.

Source: John U, Rumpf HJ, Hanke M, Meyer C. Behaviour-related risk factors and time to death among persons with alcohol consumption versus persons without: A general population study with mortality follow-up after 20 years. *Alcohol*. 2024 May;116:47-52. doi.org/10.1016/j.alcohol.2023.10.003.

Resveratrol and vascular health

Diets rich in bioactive compounds, such as (poly) phenols, have been shown to potentially exert positive effects on vascular health. Among them, resveratrol has gained particular attention due to its potential antioxidant and anti-inflammatory action. Nevertheless, the results in humans are conflicting possibly due to interindividual different responses. The gut microbiota has been identified as potentially responsible for modulating the biological activities of phenolic metabolites in humans.

A review summarises the main findings from clinical trials on the effects of resveratrol interventions on endothelial and vascular outcomes and reviews potential mechanisms in the role of gut microbiota on the metabolism of this molecule and its cardioprotective metabolites. The findings show contrasting results on the effects of resveratrol supplementation and vascular biomarkers without dose-dependent effect. In particular, studies in which resveratrol was integrated using food sources, i.e., red wine, reported significant effects although the resveratrol content was, on average, much lower compared to tablet supplementation, while

other studies with often extreme resveratrol supplementation resulted in null findings. The results from experimental studies suggest that resveratrol exerts cardioprotective effects through the modulation of various antioxidant, anti-inflammatory, and anti-hypertensive pathways, and microbiota composition. Recent studies on resveratrol-derived metabolites, such as piceatannol, have demonstrated its effects on biomarkers of vascular health. Moreover, resveratrol itself has been shown to improve the gut microbiota composition toward an anti-inflammatory profile.

Considering the contrasting findings from clinical studies, the review authors say that future research exploring the bidirectional link between resveratrol metabolism and gut microbiota as well as the mediating effect of gut microbiota in resveratrol effect on cardiovascular health is warranted.

Source: Godos J, Romano GL, Gozzo L, et al. Resveratrol and vascular health: evidence from clinical studies and mechanisms of actions related to its metabolites produced by gut microbiota. *Front Pharmacol*. 2024 Mar 18;15:1368949. doi.org/10.3389/fphar.2024.1368949.

Moderate wine consumption measured using the biomarker urinary tartaric acid concentration decreases inflammatory mediators related to atherosclerosis

Several studies suggest that moderate wine consumption, particularly red wine, may have benefits for cardiovascular health. Red wine contains a variety of bioactive compounds, including polyphenols like phenolic acids, which have demonstrated anti-inflammatory effects in experimental models. A study assessed the anti-inflammatory properties of wine, measured as urinary tartaric acid, a new biomarker of wine consumption.

The one-year longitudinal study included 217 participants from the PREDIMED trial. Plasma inflammatory biomarkers and urinary tartaric acid were analysed using xMAP technology and high-performance liquid chromatography, respectively. The relationship between variations over 1-year in urinary tartaric acid concentrations and 1-year changes in serum inflammatory molecules, including adhesion cell molecules, interleukine-6, tumour necrosis factor alpha, and monocyte chemotactic protein 1 were assessed. Three categories were built according to tertiles of 1-y changes in urinary tartaric acid.

Urinary tartaric acid was corroborated as a reliable biomarker of wine consumption. In the continuous analysis, participants with higher increases in tartaric acid significantly reduced their concentrations in soluble vascular adhesion molecule (sVCAM-1) after 1-year of follow-up. Moreover, tertiles 2 and 3 of 1-year changes in tartaric acid presented a significant reduction in soluble intercellular cell adhesion molecule (sICAM-1) as compared to tertile 1. Participants in the third tertile also exhibited a reduced concentration of sVCAM-1 compared to those in the first tertile.

The researchers comment that their findings suggest that wine consumption is associated with lower levels of inflammation due to the anti-inflammatory properties of wine compounds.

Source: Domínguez López I, Arancibia-Riveros C, Casas R, Galkina P, Pérez M, Martínez-González MÁ, Fitó M, Ros E, Estruch R, Lamuela-Raventós RM. Moderate wine consumption measured using the biomarker urinary tartaric acid concentration decreases inflammatory mediators related to atherosclerosis. *J Nutr Health Aging*. 2024 Feb;28(2):100003. doi.org/10.1016/j.jnha.2023.100003.

Reduced alcohol consumption and major adverse cardiovascular events among individuals with previously high alcohol consumption

Researchers in Korea investigated the association between reduced alcohol consumption and risk of major adverse cardiovascular events (MACEs) in individuals who drink heavily across different CVD subtypes. Heavy drinking was defined as more than 4 drinks (56 g) per day or more than 14 drinks (196 g) per week for males and more than 3 drinks (42 g) per day or more than 7 drinks (98 g) per week for females.

Of the 21,011 participants with heavy alcohol consumption at baseline included in the study, 14,220 (67.7%) sustained heavy drinking, whereas 6,791 (32.2%) shifted to mild to moderate drinking. During the follow-up of 162,378 person-years, the sustained heavy drinking group experienced a significantly higher incidence of MACEs than the reduced drinking group (817 vs 675 per 100 000 person-years). Reduced alcohol consumption

was associated with a 23% reduction in the risk of major adverse cardiovascular events compared with sustained heavy drinking. These benefits were mostly accounted for by a significant reduction in the incidence of angina and ischemic stroke. The preventive attributes of reduced alcohol intake were consistently observed across various subgroups of participants.

The findings of this study provide crucial evidence of the cardiovascular benefits of reducing alcohol consumption in people who drink heavily, the authors state.

Source: Kang DO, Lee D, Roh S, et al. Reduced Alcohol Consumption and Major Adverse Cardiovascular Events Among Individuals With Previously High Alcohol Consumption. *JAMA Netw Open*. 2024;7(3):e244013. doi.org/10.1001/jamanetworkopen.2024.4013

Visual memory and alcohol use in a middle-aged birth cohort

Light and moderate alcohol use has been reported to be associated with both impaired and enhanced cognition. A study explored whether there was a linear relationship between visual memory and alcohol consumption in males and females in a large middle-aged birth cohort population in cross-sectional and longitudinal settings.

The participants were originally from 12,231 study population of the Northern Finland Birth Cohort 1966 (NFBC1966). Data were collected from 5,585 participants completing 31-year (1997-1998) and 46-year (2012-2014) follow-ups including Paired Associate Learning (PAL) test at 46-years follow-up. The PAL test was conducted to assess visual memory. Reported alcohol use was measured as total daily use of alcohol, beer, wine, and spirits converted into grams and as frequency and amount of use of beer, wine, and spirits.

The total daily alcohol use was not associated with reduced visual memory. The frequency of use of beer and wine in males was associated with better visual memory in cross-sectional and longitudinal settings. Using six or more servings of spirits was associated with worse visual memory in males in cross-sectional and longitudinal settings.

Using six or more servings of spirits was associated with worse visual memory in males in cross-sectional and longitudinal setting. The study suggested a lack of a linear association between drinking and visual memory in the middle-aged population.

Source: Mazumder AH, Barnett JH, Halt AH, Taivalantti M, Kerkelä M, Järvelin MR, Veijola J. Visual memory and alcohol use in a middle-aged birth cohort. *BMC Public Health*. 2024 Mar 13;24(1):788. [Doi.org/10.1186/s12889-024-18153-1](https://doi.org/10.1186/s12889-024-18153-1).

Association of combined healthy lifestyle with risk of adverse outcomes in patients with prediabetes

Prediabetes and lifestyle factors have been associated with the risks of multiple adverse outcomes, but the effect of a healthy lifestyle on prediabetes-related complications remains unknown. A group of researchers investigated whether the risks of multiple adverse outcomes including incident type 2 diabetes mellitus (T2DM), cardiovascular disease (CVD), and chronic kidney disease (CKD) among individuals with prediabetes can be offset by a broad combination of healthy lifestyle factors.

The prospective study used data from the UK Biobank cohort. An overall lifestyle score ranging from 0 to 6 was created with 1 point for each of the 6 healthy lifestyle factors: no current smoking, moderate alcohol consumption, regular physical activity, healthy diet, no overweight or obese, and adequate sleep duration. T2DM, CVD, and CKD were ascertained during a median follow-up of 14 years. Cox proportional hazard regression models were used to estimate the associations. Sensitivity analyses were performed to test the robustness of the results.

202,993 participants without T2DM, CVD, and CKD at baseline were included in the study. Among these participants, 6,745, 16,961, and 6,260 participants eventually developed T2DM,

CVD, and CKD, respectively. Compared with the participants with normoglycaemia, those with prediabetes showed a higher risk of these adverse outcomes. In addition, those prediabetic participants with a lifestyle score of 0-1 had a significantly higher risk of T2DM (hazard ratio [HR] 16.73, 95% CI 14.24, 19.65), CVD (HR 1.96, 95% CI 1.74, 2.21), and CKD (HR 1.92, 95% CI 1.58, 2.34) compared with those with no prediabetes and a score of 5-6. Moreover, among the participants with prediabetes, the HRs for T2DM, CVD, and CKD comparing a lifestyle score of 5-6 versus 0-1 decreased to 0.43 (95% CI 0.36, 0.51), 0.52 (95% CI 0.44, 0.62), and 0.60 (95% CI 0.46, 0.79), respectively.

Combined healthy lifestyle factors were associated with a significantly lower risk of multiple adverse outcomes, including T2DM, CVD, and CKD. This indicates that prioritising multifactorial approaches to behavioural lifestyle modification is crucial for preventing and postponing the development of complications related to prediabetes.

Source: Xu X, Li J, Yu Y, Tan X, Xu F, Wang B, Wang N, Lu Y. Association of combined healthy lifestyle with risk of adverse outcomes in patients with prediabetes. *Diabetes Metab Res Rev*. 2024 May;40(4):e3795. doi.org/10.1002/dmrr.3795

Medical research listed by publication date

- Alcohol use and mortality among older couples in the United States: Evidence of individual and partner effects 23/7/2023 Gerontologist Feb 2024
- Behavior-related risk factors and time to death among persons with alcohol consumption versus persons without: A general population study with mortality follow-up after 20 year 17/10/2023 Version of Record 6/03/2024
- Moderate wine consumption measured using the biomarker urinary tartaric acid concentration decreases inflammatory mediators related to atherosclerosis. Available online 6/12/2023, Version of Record 22/02/2024
- Recovery of neuropsychological function following abstinence from alcohol in adults diagnosed with an alcohol use disorder: Systematic review of longitudinal studies 2/01/2024
- Association between smoking and alcohol drinking and benign adrenal tumors: a Mendelian randomization study 26/02/2024
- The risk relationships between alcohol consumption, alcohol use disorder and alcohol use disorder mortality: A systematic review and meta-analysis 7/03/2024
- Visual memory and alcohol use in a middle-aged birth cohort 13/03/2024
- Association between drinking status and risk of kidney stones among United States adults: NHANES 2007–2018 15/03/2024
- Resveratrol and vascular health: evidence from clinical studies and mechanisms of actions related to its metabolites produced by gut microbiota. 18/03/2024
- Alcohol Consumption and Major Adverse Cardiovascular Events Among Individuals With Previously High Alcohol Consumption 28/03/2024
- Recovery of neuropsychological function following abstinence from alcohol in adults diagnosed with an alcohol use disorder: Systematic review of longitudinal studies 4/04/2024

Declining youth drinking – Drug and Alcohol Review

A special issue of Drug and Alcohol Review compiles key papers presented at the Kettill Bruun Society Thematic Meeting that focussed on declining youth drinking, held in Stockholm in October 2022. The meeting's aim was to progress work in the field using both qualitative and quantitative approaches, helping to better understand the causes and implications of the decline in youth drinking.

In the editorial to the special issue, authors Michael Livingston, Nic Taylor, Jonas Raninen, Amy Pennay say that no definitive answers have been provided so far as to why the decline has happened.

Source: Livingston, M., Taylor, N., Raninen, J. and Pennay, A. (2024), Youth drinking in decline: Recent developments and future priorities. *Drug Alcohol Rev.*, 43: 593-595. doi.org/10.1111/dar.13820

Geographies of alcohol and generation: Examining the decline in youth drinking in England through a spatial lens

While international literature addresses the links between youth culture and the decline in youth drinking, little research has engaged with scholarship on youth geographies to further disentangle these links. Researchers from the University of Sheffield investigated how the decline is connected to shifts in where young people access and drink alcohol.

Qualitative interviews were conducted with 96 young people aged 12-19 years and 17 adults aged 29-35 years in England. The interviews explored the place of alcohol in everyday life, with younger participants discussing the present and older participants discussing their youth in the late 1990s to early 2000s. Data were analysed thematically.

Buying alcohol in shops and licensed premises was a common experience for older participants when they were teenagers but few younger participants discussed buying alcohol from commercial settings. Older participants also

reflected positively on drinking in outdoor public spaces whereas younger participants, particularly those from working-class backgrounds, regarded this as morally suspect. Young participants instead accessed alcohol from parents and siblings, and often consumed it in their or others' homes in supervised or moderated ways, seeing this as positive and normative.

Spatial shifts in young people's drinking away from public spaces and toward the home appear an important part of a wider trend that renders youth drinking as increasingly moderate, risk-averse, incidental and mediated by parents, rather than excessive, transgressive and integral to youth culture.

Source: Fenton L, Fairbrother H, Whitaker V, Henney M, Stevely AK, Holmes J. Geographies of alcohol and generation: Examining the decline in youth drinking in England through a spatial lens. *Drug Alcohol Rev.* 2024 Mar;43(3):675-684. [Doi.org/10.1111/dar.13710](https://doi.org/10.1111/dar.13710).

Effectiveness of a smartphone app (Drink Less) versus usual digital care for reducing alcohol consumption among increasing-and-higher-risk adult drinkers in the UK

Digital interventions, including apps and websites, can be effective for reducing alcohol consumption. However, many are not evidence- or theory-informed and have not been evaluated. Researchers tested the effectiveness of the Drink Less app for reducing alcohol consumption compared with usual digital care in the UK.

The study enrolled increasing-and-higher-risk drinkers (AUDIT \geq 8) in the UK, who were motivated to reduce their alcohol consumption and willing to use a digital intervention to do so, via online methods.

Participants were randomly assigned (1:1) to receive a web link to download the Drink Less app (intervention) or to the NHS alcohol advice webpage (usual digital care). Researchers were masked to group allocation. Participants were followed up at one, three and six months. The primary outcome was self-reported weekly alcohol consumption at six months, adjusting for baseline consumption

Between July 2020 and March 2022, 5,602 people were randomly assigned to the Drink Less app or comparator groups. Six-month follow-up rates were 79% and 80%, respectively. The Drink Less app resulted in a 2.00-unit greater weekly reduction at 6-month follow-up compared with the NHS alcohol advice webpage (95% CI -3.76 to -0.24).

The researchers conclude, therefore that the Drink Less app may be effective in reducing the alcohol consumption in increasing-and-higher-risk drinkers motivated to reduce their consumption.

Source: Effectiveness of a smartphone app (Drink Less) versus usual digital care for reducing alcohol consumption among increasing-and-higher-risk adult drinkers in the UK: a two-arm, parallel-group, double-blind, randomised controlled trial. Melissa Oldham, Emma Beard, Gemma Loebenberg, Larisa Dinu, Colin Angus, Robyn Burton et al. *eClinicalMedicine* 2024. doi.org/10.1016/j.eclinm.2024.102534

Quantifying alcohol-attributable disability-adjusted life years to others than the drinker in Aotearoa/New Zealand

The authors of a paper published in *Addiction* say that quantifying the health burden of alcohol has largely focused upon harm to drinkers, which is an underestimate. There is a growing literature on alcohol's harm to others (HTO), but it lacks the systematic transfer of HTO into a comparative risk assessment framework. Their study was a disease burden analysis that calculated disability-adjusted life years (DALYs) for fetal alcohol spectrum disorder (FASD), interpersonal violence and traffic injury due to another's drinking among the Aotearoa/New Zealand population in 2018.

In 2018, 78277 healthy life years were lost in Aotearoa/New Zealand due to alcohol's harm to others. The main contributor (90.3%) was FASD, then traffic crashes (6.3%) and interpersonal violence (3.4%). The indigenous population, Māori, was impacted at a higher rate (DALYs among Māori were 25 per 1000 population; among non-Māori 15 per 1000 population).

The burden of harm to others was greater than that to drinkers (DALYs harm to others = 78,277; DALYs drinkers = 60,174).

Disability from fetal alcohol spectrum disorder (FASD) appears to be a major contributor to alcohol's harm to others in Aotearoa/New Zealand. Taking FASD into account, the health burden of harm to others is larger than harm to the drinker in Aotearoa/New Zealand, and ethnicity differences show inequity in harm to others. Quantification of the burden of harm informs the value of implementing effective alcohol policies and should include the full range of harms, the authors conclude.

Source: Casswell S, Huckle T, Romeo JS, Moewaka Barnes H, Connor J, Rehm J. Quantifying alcohol-attributable disability-adjusted life years to others than the drinker in Aotearoa/New Zealand: A modelling study based on administrative data. *Addiction*. 2024. doi.org/10.1111/add.16435

The absence of mandatory pregnancy warning labels in online alcohol purchasing contexts

The authors of research published in *Drug and Alcohol Review* state that, "As people increasingly migrate to online shopping platforms, hard-won improvements in requirements for consumer information provision at the point of sale are being eroded. An example is the alcohol pregnancy warning label for packaged alcoholic beverages that has been recently introduced in Australia and New Zealand". Their study assessed the extent to which the pregnancy warning was visible at the online point of sale when the requirement became mandatory in August 2023. Data for 8,343 alcohol products sold on the websites of the two largest alcohol retailers in Australia from 1 to 3 August 2023 were inspected to determine whether the pregnancy warning was visible. Virtually no products (0.1%) had the mandatory warning visible on the main sales page, and only 7% enabled visibility of the warning via optional product image rotation functionality.

The almost complete absence of the mandatory pregnancy warnings on the main product pages of major alcohol retailers' websites highlights the regulatory problems posed by the emerging shift to online shopping. The very low prevalence of visible pregnancy warnings is likely to be an overestimate of the extent to which consumers would be exposed to warnings due to images being counted as being present regardless of their quality or readability. The authors conclude that new regulation is needed to ensure that mandatory information requirements for harmful products are applied to online shopping contexts.

Source: Pettigrew S, Davies T, O'Brien P, Sträuli B, Petticrew M, Bowden J. The absence of mandatory pregnancy warning labels in online alcohol purchasing contexts. *Drug Alcohol Rev.* 2024. doi.org/10.1111/dar.13836

Distributions of alcohol use and alcohol-caused death and disability in Canada: Defining alcohol harm density functions and new perspectives on the prevention paradox

A study examined the distribution of alcohol use in Canada and sought to define 'harm density functions' representing distributions of alcohol-caused health harm by sex, to identify which groups of drinkers experience the highest aggregate harms.

The study used survey and administrative data on alcohol exposure, death and disability and risk relationships from epidemiological meta-analyses. The participants were aged 15 and older and measures included modelled life-time mean daily alcohol use in grams of pure alcohol (ethanol) per day, alcohol-caused deaths and alcohol-caused disability-adjusted life-years.

As a life-time average 62.8% of females and 46.9% of males use fewer than 10 g of pure alcohol per day (g/day). By volume, the top 10% of the population consume 45.9% of the total ethanol among males and 47.1% of the total ethanol among females. The remaining 90% of the population experience a slim majority of alcohol-caused deaths (males 55.3%, females 46.9%). Alcohol harm density functions compose

the size of the using population and the risk experienced at each volume level to show that the population-level harm experienced is highest for males at 25 g/day and females at 13 g/day.

Almost 50% of alcohol use in Canada is concentrated among the highest 10% of drinkers, but more than half of the alcohol-caused deaths in Canada in 2019 were experienced by the bottom 90% of the population by average volume, providing evidence for the prevention paradox. New alcohol harm density functions provide insight into the aggregate health harm experienced across the mean alcohol use spectrum and may therefore be used to help determine where alcohol policies should be targeted for highest efficacy.

Source: Sherk A, Churchill S, Cukier S, Grant SC, Shield K, Stockwell T. Distributions of alcohol use and alcohol-caused death and disability in Canada: Defining alcohol harm density functions and new perspectives on the prevention paradox. *Addiction.* 2024 Apr;119(4):696-705. Doi.org/10.1111/add.16414.

Early drinking onset and subsequent alcohol use in late adolescence

The age of drinking onset is a central concept for both policy and prevention of alcohol-related harm, yet evidence on the predictive value of the age of onset is lacking. A study compared alcohol outcomes of adolescents who started to drink early with those who started later, and tested if associations are moderated by other explanatory factors.

Data from a two-wave longitudinal prospective cohort survey with a Swedish nationwide sample of 4,018 adolescents aged 15/16 years at baseline (T1) and 17/18 years at follow-up (T2) were used. Outcome variables at T2 were Alcohol Use Disorders Identification Test (AUDIT)-C, risky drinking, and binge drinking monthly or more often. A number of explanatory factors at T1 were controlled for.

Early drinking onset predicted later higher AUDIT-C scores ($\beta = 0.57$), and higher probability of risky drinking (odds ratio = 1.95, 95% confidence interval = 1.56-2.44), and binge

drinking (odds ratio = 1.38, confidence interval = 1.06-1.81), controlled for other explanatory factors. If binge drinking frequency at T1 was included, the associations remained for AUDIT-C and risky drinking, but not for binge drinking at T2. No significant interactions between early drinking onset and the explanatory factors were found.

Early drinking onset predicts subsequent higher alcohol consumption in late adolescence. Adolescents who had an early drinking onset drank more after two years than their peers who started later. The age of drinking onset is an independent predictor of alcohol use outcomes, beyond the effect of age of binge drinking onset, the researchers conclude.

Source: Sjödin L, Raninen J, Larm P. Early Drinking Onset and Subsequent Alcohol Use in Late Adolescence: a Longitudinal Study of Drinking Patterns. *J Adolesc Health*. 2024 Mar 14;S1054-139X(24)00104-6. [Doi.org/10.1016/j.jadohealth.2024.02.014](https://doi.org/10.1016/j.jadohealth.2024.02.014).

Perceived parental alcohol problems and drinking patterns among adolescents in Sweden

Much research into the links between parental problematic alcohol use and adolescent substance use has focused on clinically diagnosed parental alcohol disorders. A study examined the associations between the severity of perceived parental alcohol problems and adolescents' drinking patterns in a Swedish national sample.

The study used survey data from 2021 for 9,227 grade 9 and 11 students (15-18 years). Perceived parental alcohol problems were measured by the short version of The Children of Alcoholics Screening Test (CAST-6). The outcomes were: alcohol consumption during the past 12 months, frequent heavy episodic drinking (HED), and early alcohol debut (before age 14). Sociodemographic characteristics were adjusted for.

Results showed that the severity of perceived parental alcohol problems was associated with

alcohol consumption during the past 12 months (low severity OR 1.53; moderate severity OR 1.85; high severity OR 2.52), HED (low severity OR 1.16; moderate severity OR 1.31; high severity OR 1.64), and early alcohol debut (low severity OR 1.57; moderate severity OR 1.65; high severity OR 2.20).

Adolescents with perceived parental alcohol problems are more likely to have risky drinking patterns themselves, and the likelihood becomes higher with increased severity. Effective interventions for children whose parents have drinking problems are important, and should also take the severity of the parents' drinking problem into account.

Source: Workie HM, Wahlström J, Svensson J, Låftman SB. Perceived parental alcohol problems and drinking patterns among adolescents in Sweden. *Addict Behav Rep*. 2024 Feb 18;19:100535. [Doi.org/10.1016/j.abrep.2024.100535](https://doi.org/10.1016/j.abrep.2024.100535).

The impact of introducing alcohol-free beer options in bars and public houses on alcohol sales and revenue

Making alcohol-free beer more widely available on draught in pubs and bars may help people switch from alcoholic to alcohol-free beer, a study published in *Addiction*, has found. Pubs and bars taking part in the University of Bristol-led trial saw an increase in sales of healthier non-alcoholic draught beer.

In partnership with Bristol City Council (BCC), researchers from the University's Tobacco and Alcohol Research Group (TARG) recruited 14 pubs and bars across the city that were willing to change the drinks that they offered on draught for a limited period. Previous research by the same group, using an online experiment as a proxy for real-world behaviour, showed that increasing the proportion of alcohol-free options make people more likely to select an alcohol-free drink over an alcoholic drink.

The study estimated how the introduction of a draught alcohol-free beer in bars and public houses, thereby increasing the relative availability of these products, would affect alcohol sales and monetary takings in bars and pubs in England.

In the study, the participating pubs and bars offered only alcoholic beer on draught for two weeks, and an alcohol-free option on draught for two weeks, and did this twice (over eight weeks in total). The order in which this happened was randomised. The researchers measured the amount of alcoholic and alcohol-free beer sold,

as well as the total monetary takings, across the different periods.

When an alcohol-free option was available the pubs and bars sold, on average, 29 litres less of alcoholic beer per week, equivalent to 51 pints and a 5% reduction in sales. However, this was replaced by an equivalent increase in sales of alcohol-free beer, suggesting customers were simply selecting a different option. There was no net impact on overall monetary takings, suggesting that the change wasn't hurting the financial bottom line of the participating pubs and bars.

Even small changes in drinking behaviour could have an important public health benefit. A 5% reduction in consumption, if scaled up over a larger number of pubs and bars, could substantially reduce the harms associated with alcohol. Introducing a draught alcohol-free beer in bars and pubs in England reduced the volume of draught alcoholic beer sold by 4% to 5%, with no evidence of the intervention impacting net revenue, the research concludes.

Source: De-Loyde K, Ferrar J, Pilling MA, Hollands GJ, Clarke N, Matthews JA, Maynard OM, Wood T, Heath C, Munafò MR, Attwood AS. The impact of introducing alcohol-free beer options in bars and public houses on alcohol sales and revenue: A randomised crossover field trial. *Addiction*. 2024 Mar 20. [Doi.org/10.1111/add.16449](https://doi.org/10.1111/add.16449).

Europeans' knowledge about the link between alcohol use and cancer

A report published in *BMC Research Notes* presents original data from a cross-sectional survey conducted in 14 European countries, which among other things assessed baseline knowledge of the alcohol-NCD link, particularly cancer.

Baseline knowledge assessment showed that 90% indicated a causal role of alcohol for liver disease, 68% for heart diseases, and only 53% for cancer. Knowledge of specific alcohol-attributable cancer types was lower, with 39% aware of the link between alcohol use and colon cancer, 28% regarding oral cancer, and only 15% regarding female breast cancer. Knowledge levels varied across different countries and population groups, with those completing tertiary education showing a greater awareness than those completing secondary

education or less. Awareness of an alcohol-cancer link was generally higher among the youngest participants (18-34 years) compared with awareness in the 55+ years group being the lowest, except for female breast cancer and colon cancer.

The researchers conclude that most Europeans do not know which cancers can be caused by alcohol use and knowledge is low specifically for female breast cancer. More awareness raising and prevention efforts are needed, such as the placement of cancer-specific health warnings on alcohol container labels.

Source: Neufeld, M., Kokole, D., Correia, D. et al. How much do Europeans know about the link between alcohol use and cancer? Results from an online survey in 14 countries. *BMC Res Notes* 17, 56 (2024). doi.org/10.1186/s13104-024-06707-w

Exploring the relationship between solitary drinking and living without other adults on alcohol consumption during the COVID-19 pandemic

The COVID-19 pandemic presents the opportunity to learn about solitary drinking as many people were forced to spend time at home. A study examined the relationship between solitary drinking and living without other adults on alcohol consumption.

A longitudinal study with four survey waves (between May and November 2020) obtained seven-day drinking diary data from Australian adults living in New South Wales. In May, a convenience sample of 586 participants completed the first wave. Participants then completed a survey in June July/August, and November. Information about alcohol consumption including risky drinking (more than four drinks on one occasion), household structure, solitary drinking, and demographics were collected.

Participants with solitary drinking occasions consumed more and had more risky drinking

occasions than participants with no solitary drinking occasions, which was also found to be the case during lockdown. Living without other adults was associated with less consumption and less risky drinking than living with other adults. However, participants who lived without other adults and had frequent solitary drinking occasions (solitary drinking in >50% drinking occasions) reported more consumption than participants without a solitary drinking occasion. The research concludes that individuals who consume alcohol alone and live without other adults or spend long periods of time at home may be more at risk of alcohol-related harm.

Source: Mojica-Perez Y, Willoughby B, Anderson-Luxford D, Wilkinson C, Kuntsche E, Callinan S, Ritter A. Exploring the relationship between solitary drinking and living without other adults on alcohol consumption during the COVID-19 pandemic. *Alcohol*. 2024 Mar 16;59(3):agae013. doi.org/10.1093/alcalc/agae013.

Non-alcoholic beverage consumption among US adults who consume alcohol

Non-alcoholic beverages (NABs) are increasing in popularity, but it is unknown whether they help to mitigate or stimulate alcohol use. A study published in *Addiction* described NAB consumption practices among US adults consuming alcohol, characterised who is likely to consume NABs and examined whether NAB use influences desire for and perceived consumption of alcohol.

The survey study used data collected June–July 2023 from an on-line convenience sample. The first survey assessed frequency of NAB consumption among 1,906 US adults who consume alcohol. A second more detailed survey on use patterns was conducted with 466 respondents who reported past-year NAB consumption, of whom 153 (32.83%) screened positive on the CAGE questionnaire for alcohol use disorder (AUD).

Past-year NAB use was endorsed by 28.44% of respondents (61.70% ever used). Non-alcoholic

liquor/'mocktails' were the most common NAB type consumed (83.69%). Compared with respondents without AUD, those who screened positive for AUD were significantly more likely to consume NABs in an effort to decrease or abstain from drinking alcohol [adjusted odds ratio (AOR) = 3.54, 95% confidence interval (CI) = 2.24–5.58] and 67.97% endorsed less alcohol consumption (3.23% endorsed more) due to their NAB use. NAB consumption frequency and quantity were significantly positively predicted by alcohol consumption frequency (AOR = 1.46, 95% CI = 1.17–1.83) and quantity ($\beta = 0.25$, 95% CI = 0.15–0.35), respectively.

Adults who consume alcohol and screen positive for alcohol use disorder report drinking non-alcoholic beverages as a harm reduction strategy.

Source: Bowdring MA, McCarthy DM, Fairbairn CE, Prochaska JJ. Non-alcoholic beverage consumption among US adults who consume alcohol. *Addiction*. 2024. doi.org/10.1111/add.16452

Heavy drinking by occupation in Spain: Differences between weekdays and the weekend

Estimating occupational disparity in heavy drinking jointly for weekdays and the weekend may be misleading for prevention purposes, because reasons for disparity in both periods may differ. Researchers assessed occupational disparity in heavy average drinking by week period and sex.

Forty two thousand, one hundred and eight employees aged 16-64 years were recruited from national surveys in Spain between 2011 and 2020. The outcome was heavy average drinking (HAD), defined as daily alcohol intake over 20 g (men) or 10 g (women). Occupation was classified in 15 categories. HAD adjusted prevalence ratios taking all occupations as reference, and relative adjusted excess prevalences comparing the weekend to weekdays in each occupation, were estimated adjusting for sociodemographic and health covariates.

The HAD adjusted prevalence ratios, comparing each occupation with all occupations, ranged 0.63-1.92 on weekdays and 0.65-1.45 on the weekend, with the highest aPRs on weekdays in construction, hospitality and primary-sector

workers (1.92-1.62). The weekend-weekdays HAD adjusted excess prevalences by occupation ranged 2.60-8.33, with the highest values in technicians/administrators, other professionals, teachers and health professionals (8.33-6.44). The global adjusted excess prevalences were higher in women (6.04) than in men (3.92), especially in occupations just mentioned (8.70-11.73 in women vs. 3.64-6.32 in men). There was a considerable relative disparity in HAD risk between occupations on weekdays, with the highest risks in certain low-skilled occupations. Such disparity decreased on the weekend. The relative weekend increase in HAD risk was greater in women and in certain high-skilled occupations. This should be considered when designing prevention interventions on harmful drinking, the researchers comment.

Source: Pérez-Romero C, Barrio G, Donat M, Moreno A, Guerras JM, Pulido J, Belza MJ, Regidor E. Heavy Drinking by Occupation in Spain: Differences Between Weekdays and the Weekend. *J Community Health*. 2024 Apr;49(2):235-247. doi/org/10.1007/s10900-023-01288-4

Social research listed by publication date

- Geographies of alcohol and generation: Examining the decline in youth drinking in England through a spatial lens 04/07/2023
- Heavy Drinking by Occupation in Spain: Differences Between Weekdays and the Weekend 15/10/2023
- Distributions of alcohol use and alcohol-caused death and disability in Canada: Defining alcohol harm density functions and new perspectives on the prevention parado 18/01/2024
- Perceived parental alcohol problems and drinking patterns among adolescents in Sweden 18/02/2024
- How much do Europeans know about the link between alcohol use and cancer? Results from an online survey in 14 countries. 20/02/2024
- Non-alcoholic beverage consumption among US adults who consume alcohol. 15/02/2024
- Youth drinking in decline: Recent developments and future priorities 26/02/2024
- Quantifying alcohol-attributable disability-adjusted life years to others than the drinker in Aotearoa/New Zealand: A modelling study based on administrative data 26/02/2024
- Early Drinking Onset and Subsequent Alcohol Use in Late Adolescence: a Longitudinal Study of Drinking Patterns 14/03/2024
- Exploring the relationship between solitary drinking and living without other adults on alcohol consumption during the COVID-19 pandemic. 16/03/2024
- The absence of mandatory pregnancy warning labels in online alcohol purchasing contexts. 19/03/2024
- The impact of introducing alcohol-free beer options in bars and public houses on alcohol sales and revenue: A randomised crossover field trial 20/03/2024
- Effectiveness of a smartphone app (Drink Less) versus usual digital care for reducing alcohol consumption among increasing-and-higher-risk adult drinkers in the UK: a two-arm, parallel-group, double-blind, randomised controlled trial 24/03/2024

New Drinkaware research shows that LGBTQ+ adults are more likely to experience harm from drinking

In a poll of attitudes to drinking in the UK, the charity Drinkaware surveyed more than 3,000 lesbian, gay, bisexual, transgender, and queer/questioning adults across the UK.

The survey asked individuals about their alcohol use, mental health, and experiences of alcohol-related harm. This data was weighted to reflect the demographics of all UK lesbian, gay and bisexual adults and compared to the rest of the population from Drinkaware's annual Monitor survey to highlight alcohol use and harm specific to LGBTQ+ communities.

The report found that LGBTQ+ individuals are more likely to experience harm from others' drinking, and that this heightened vulnerability persists across every age group of LGBTQ+ adults. This may stem from experiences of discrimination and stigma. LGBTQ+ adults, on average, skew younger compared to the broader UK adult population, and as such, any differences may be influenced, in part, by age. LGBTQ+ drinkers are more likely to drink in nightlife settings compared to other drinkers, which may amplify their risk of harm from others' drinking, whether due to sheer proximity or the direct result of stigma and abuse.

The report also found that:

- 54% of LGBTQ+ adults reported encountering at least one negative impact from someone else's drinking in the past year, in comparison to 40% of other adults.
- This gap widens when considering multiple negative impacts from someone else's drinking, rising to 38% compared to 25% of other adults. They not only face alcohol-related harm from someone else's drinking more frequently but also experience more severe negative effects, including sexual harm (7 vs 3%) physical threats (14 vs 7%), and other serious consequences.

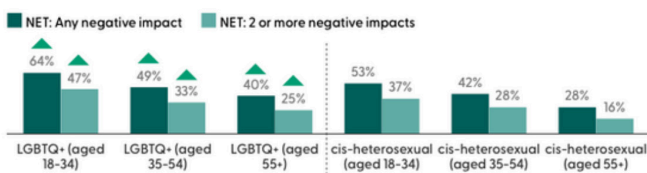
- 70% of LGBTQ+ drinkers engage in binge drinking, compared to 62% of non-LGBTQ+ adult drinkers.
- LGBTQ+ drinkers are more likely to report drinking alone at home in the last 12 months than non-LGBTQ+ drinkers (63 vs 57%).
- LGBTQ+ drinkers showed a higher likelihood of consuming alcohol in the night-time economy compared to non-LGBTQ+ adult drinkers, including 'Evenings or nights out with friends, excluding drinking at home' (67 vs 65%), and 'Mixed settings of home drinking and nights out with friends' (52 vs 46%).
- LGBTQ+ adults face higher rates of depression (33%), anxiety (37%), and overall life dissatisfaction (18%) when compared to non-LGBTQ+ adults (20%, 20% and 12% respectively) – and these challenges are also often linked to hazardous alcohol use.
- 19% of LGBTQ+ drinkers recognised their drinking habits could lead to health problems in the future if they continue at their current levels. This is statistically significantly higher than non-LGBTQ+ adult drinkers (17%).
- 35% of LGBTQ+ adults expressed concerns about someone else's drinking within the past 12 months, a higher figure than the 29% reported non-LGBTQ+ adults.
- LGBTQ+ individuals demonstrated a proactive approach to seeking support. While only 3% of non-LGBTQ+ adults sought assistance for themselves for their drinking, twice as many LGBTQ+ adults reached out for support (6%).

Karen Tyrell, the charity Drinkaware's Chief Executive, said: "This research lifts the lid on alcohol consumption and its associated harms within the LGBTQ+ community. By understanding people's experience and moving beyond blame and stereotypes, we can work together to reduce alcohol-related harm."

drinkaware.co.uk/research/research-and-evaluation-reports/out-in-the-open-alcohol-use-and-harm-in-lgbtq-communities

LGBTQ+ adults (of any age) are more likely to experience 'any' harm (and multiple harms) from others' drinking than cis-heterosexual adults

% harm experienced because of SOMEONE ELSE'S drinking in the last 12 months



IWSR analyses the demographics behind the moderation trend

A recent analysis by IWSR finds that, 'moderation is now firmly embedded in the beverage alcohol marketplace, and no- and low-alcohol volumes are forecast to grow by +6% CAGR, 2023 to 2027 across the top 10 markets.' IWSR argues that this trend is driven mainly by health and lifestyle choices, with consumers opting to drink less alcohol overall, and/or choosing to moderate their frequency/ intensity of alcohol consumption.

Gen Z and Millennial adult consumers are largely driving the moderation trend, but people are also drinking less across older generations as well, with the current squeeze on disposable incomes playing a key role. 64% of consumers across the top 10 markets are now claiming to be moderating their alcohol consumption. (75% among legal drinking age (LDA) Gen Z consumers and 70% among Millennials – both statistically significant increases in 2022 - compared to 60% of Gen X consumers and 54% of Boomers –both significantly down in 2022.

Approaches to moderation also differ amongst consumers – impacting overall volumes, intensity,

and/or frequency of alcohol consumption. For younger LDA no/low-alcohol consumers, the choice to moderate does not necessarily translate to an 'all or nothing' approach and they are more likely than older cohorts to switch between alcohol and no-alcohol products either in the same occasion ('blenders') or across different occasions ('substituters'). More Millennials are becoming 'substituters', with an increase from 41% to 45% in 2023 in the proportion of Millennials drinking no/low on some occasions and full-strength on others. Millennials are also more likely to choose low-alcohol alternatives when moderating, while Gen Z's show a higher preference for soft drinks as their alternative. Opting for water is the most popular moderation strategy amongst Boomers.

The IWSR report finds that while LDA Gen Z and Millennial consumers are largely driving the trend for moderation as a lifestyle choice, the high costs of living and lower disposable incomes are prompting consumers of all ages to re-examine their alcohol spend and consumption as a result.

theiwsr.com/moderation-is-it-generational-or-universal/

Alcohol related hospital statistics in Scotland 2022 / 2023

In March, Public Health Scotland released the latest statistics on alcohol-related inpatient and day case activity within general acute and psychiatric hospitals in Scotland.

In 2022/23 there were 31,206 alcohol-related hospital admissions (stays) in Scotland. The majority of these admissions (92%) were treated in general acute hospitals (28,800) with the remaining 8% of admissions (2,406) occurring in psychiatric hospitals.

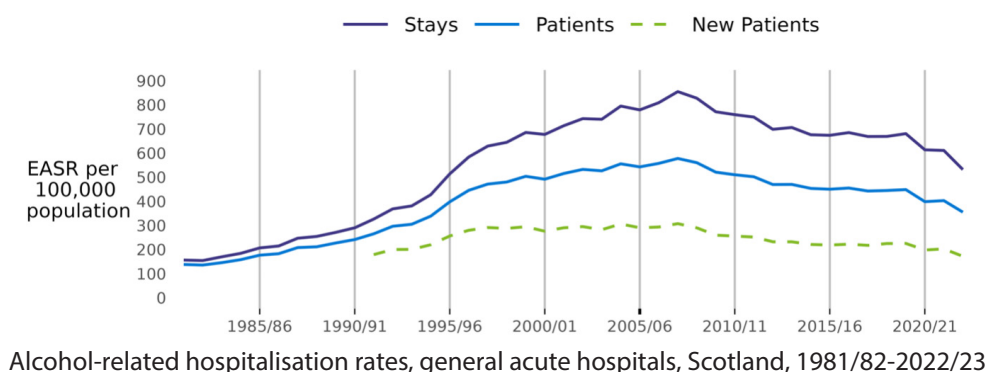
Alcohol-related hospitalisation rates, general acute hospitals, Scotland, 1981/82-2022/23

- In 2022/23, the European Age-sex standardised rate of alcohol-related hospital admissions to general acute hospitals (stays) was 577 per 100,000 population, 11% lower than the rate in 2021/22 (652 per 100,000).
- In 2022/23, men were 2.4 times more likely than

women to be admitted to general acute hospitals for alcohol-related conditions (749 stays per 100,000 compared to 315 stays per 100,000). This pattern is seen across the last ten years.

- In 2022/23, people in the most deprived areas were seven times more likely to be admitted to general acute hospitals for an alcohol-related condition than those in the least deprived areas (849 patients per 100,000 compared to 127 patients per 100,000). This pattern is also seen across the last ten years.

publichealthscotland.scot/publications/alcohol-related-hospital-statistics/alcohol-related-hospital-statistics-scotland-financial-year-202223/



New insights into adolescent substance use in France

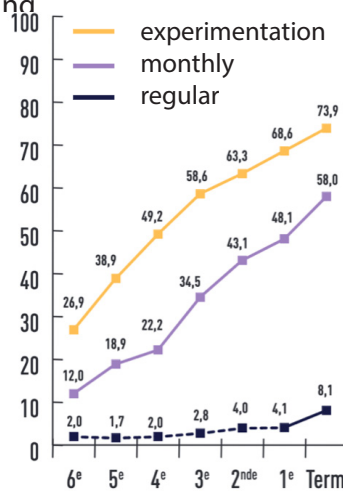
The EnCLASS survey, a joint initiative by the Health Behaviour in School-aged Children (HBSC) study in France and the European School Survey Project on Alcohol and Other Drugs (ESPAD), offers a comprehensive analysis of substance use among French adolescents. Conducted between March and June of 2022, the survey included over 9,500 students from middle and high schools, providing insights into the evolving patterns of alcohol, tobacco, and cannabis use. Key findings include:

- Delayed initiation of substance use: A notable shift is seen in the age of initial substance experimentation. Adolescents are starting to use substances like alcohol, tobacco, and cannabis at a later age compared to previous years.
- Increased perceived accessibility: Despite the delay in initiation, by the end of high school, about half of the students believe it is very easy to obtain alcohol and cigarettes.
- Alcohol consumption: Alcohol remains the most tried substance among adolescents. There's a slight decline in experimentation rates, but the prevalence is still significant.
- Binge drinking: There are high levels of binge drinking (defined as consuming

five or more drinks on a single occasion) especially in high school students.

- Gender differences in substance use: Boys are more likely to experiment with alcohol and cannabis in middle school.
- Decrease in tobacco and cannabis use: There is a noticeable decrease in the use of tobacco and cannabis among adolescents, signalling the effectiveness of prevention measures in these areas.

hbsc.org/new-insights-into-adolescent-substance-use-in-france-enclass-survey-results-unveiled/



Use of alcohol according to school level in 2022 (in %)



Use of alcohol in college between 2010 and 2022 (in %)

WHO urges governments to consider gender when developing alcohol policies

The World Health Organization (WHO) has urged governments to consider gender when developing their alcohol policies. The WHO report warns that industry marketing increasingly targets women who face greater health risks than men from lower levels of drinking. Despite this, alcohol control policies remain largely gender blind, it said.

In the report, the authors point to studies that have found the alcohol industry targets women through everything from packaging to adverts, which emphasise aspects of feminism or female friendship. Women in Africa and India, for example, were targeted with sweetened beverages marketed as representing freedom and empowerment. Men were also specifically targeted with alcohol marketing linked to traditional notions of masculinity and are at

greater risk of drinking in high quantities, developing alcohol problems and aggressive or risky behaviour. The report states that women, however, suffer greater harms at lower levels of alcohol consumption, citing studies that found alcohol use disorders progress more quickly for women and that women endure more second-hand harm from alcohol use by partners, family members or others.

The LGBTQ+ community also faces different harms, often consuming more alcohol and having more substance use problems than cisgender and heterosexual people. The authors say that a legacy of colonialism and economic marginalisation have also left indigenous peoples at increased risk.

reuters.com/business/healthcare-pharmaceuticals/alcohol-policies-need-sharper-focus-gender-who-says-2024-03-08/

Are Canadians swapping alcohol for cannabis?

Canadians are cutting back on alcohol purchases, a new report from Statistics Canada based on Control and sale of alcoholic beverages and cannabis, April 1, 2022, to March 31, 2023 suggests. Over the same period, there has been a boost in cannabis sales, with recreational cannabis sales by provincial authorities increased by 15.8% year-over-year. Canadians spent a total of \$4.7 billion on cannabis in the 2022 to 2023 fiscal year, a \$0.6 billion jump from the previous year. Meanwhile, the volume of alcohol sales has declined for the second consecutive year.

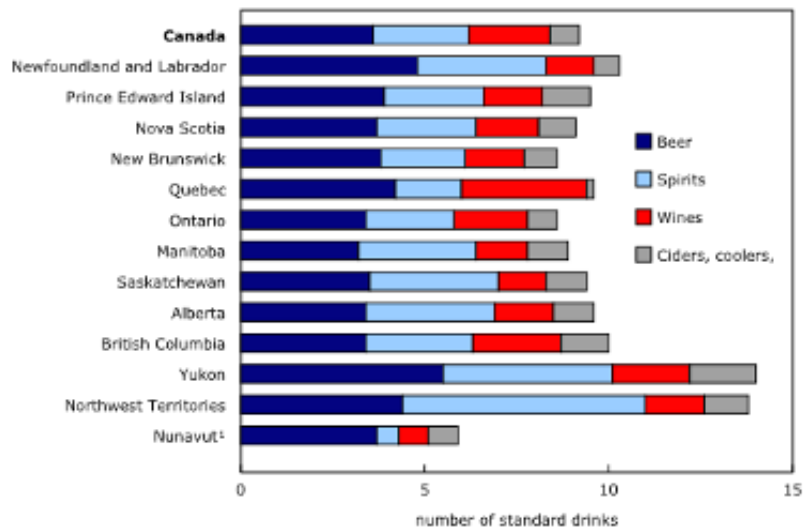
Overall, liquor authorities and other retail outlets sold \$26.3 billion of alcoholic beverages in the fiscal year ending March 31, 2023, up 2.8% from 2021/2022. The increase in alcohol sales was, however, driven by increased prices. From March 2022 to March 2023, the prices of alcoholic beverages purchased from stores rose 5.9%. On a volume basis, sales of alcohol declined by 1.1% to 3,106 million litres in 2022/2023. On average, Canadians of legal drinking age consumed 9.2 standard alcoholic beverages per week, down from 9.5 the previous year.

By volume, beer sales declined to 65.1 litres of beer per year per person of legal drinking age in 2022/2023, an all-time low since Statistics Canada began tracking alcohol sales in 1949. By volume, in 2022/2023, wine sales decreased 3.0% to 500

million litres. This was the second consecutive year that sales of wine by volume have declined. Wine was the only beverage category that lost market share compared with 2021/2022, falling from 30.6% to 29.9% of total sales in Canada, its lowest level since 2010/2011. The volume of ciders and coolers sold increased by 0.6% to 372 million litres in 2022/2023. Ciders and coolers was the lone beverage category with an increase in sales by volume; however, this increase was much smaller than the average annual increase of 13.0% observed over the past decade. By volume, spirits sold decreased 0.6% to 192 million litres.

Sales of recreational cannabis by provincial cannabis authorities and other retail outlets increased 15.8% and inhaled extract sales rose 59.0% in 2022/2023.

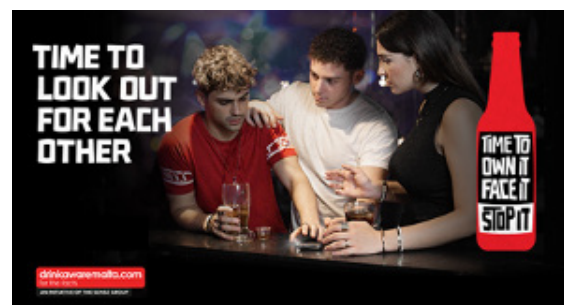
150.statcan.gc.ca/n1/daily-quotidien/240306/cg-a002-eng.htm



Time to own it, Face it, Stop it - Malta

In Malta, a reported trend seen in 2022 of increased mental health problems among the population and impatience on the roads leading to accidents carried on through 2023. In addition, these behaviours are occasionally exacerbated by drug and alcohol consumption. It was decided, therefore, to create a campaign that could be directed at several audiences at once. The idea was to play with the idea of “time” and to remind people that they should make time to calmly look at their lifestyle and keep moderation at the core of what they do. A series of hard-hitting messages targeted different aspects of time-loss and underlined personal responsibility, speaking

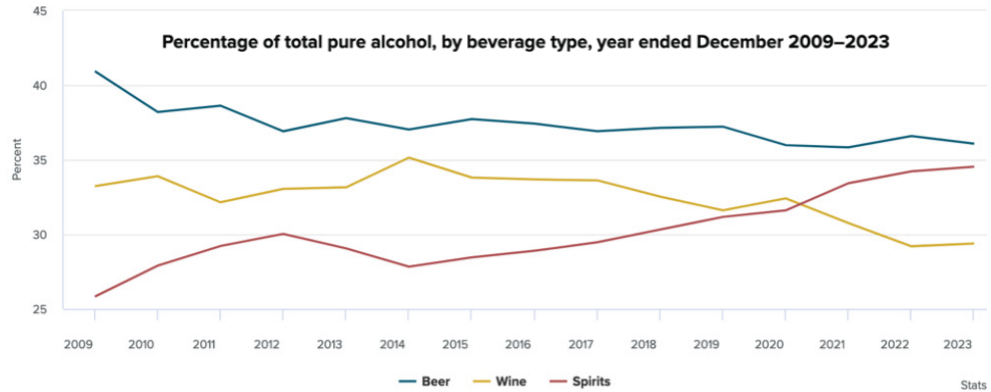
up and looking out for others. The campaign focusses on drink driving, excessive drinking, alcohol abuse, and hangover. The messages were shared on social media (Facebook and Instagram), the drinkawaremalta website and outdoor billboards.



Stats NZ data confirms – ‘different’ drinking patterns

Stats NZ data on beer, wine and spirits consumption shows that alcohol consumption in New Zealand has declined in the past year over all categories by 4.3% to 477 million litres. The report ‘Alcohol available for consumption: Year ended December 2023’, shows that the volume of beer fell 4.4% to 281 million litres, the volume of wine fell 2.45% to 99 million litres, and the volume of spirits (including spirit-based drinks) fell 5.7% to 97 million litres. The equivalent total volume of pure alcohol in all alcoholic beverages for consumption fell 3.0%. The volume of available alcohol, expressed in terms of the number of equivalent standard drinks per person aged 18 years and over, was down 5.3% to 1.86 per person per day.

The total volume of alcoholic beverages available for consumption was down 4.3% to 477 million litres. This follows a fall of 0.3% in 2022, and a rise of 0.9% in 2021. As a proportion of the total volume of alcoholic beverages available for consumption, between 2009 and 2023 beer decreased from 65% to 59%, wine was unchanged at 20% and spirits and spirit-based drinks increased from 15% to 20%.



The way in which New Zealanders drink appears to be undergoing a cultural shift. Alcohol consumption has declined more than 25% since the late 1970s early 80s. In the past 16 years the number of standard drinks available for consumption has declined by 12.3%.

“NZABC executive director Virginia Nicholls commented, “Some of this cultural change reflects that we are drinking differently including sipping and savouring a beverage and turning to low and no-alcohol beverages... We are encouraged by this continuing cultural change, including a reduction in hazardous drinking, however we still have a way to go.”

stats.govt.nz/information-releases/alcohol-available-for-consumption-year-ended-december-2023/

Estimates of alcohol dependent adults in England

The UK government has published estimates of alcohol dependence in England, produced by academics at the University of Sheffield. The report includes estimates of the number of adults that were dependent on alcohol in 2019 to 2020 in each local authority and region in England, with previously published estimates back to 2015 to 2016 also included.

There were an estimated 608,416 adults (18 and over) with alcohol dependence in England in 2019 to 2020. This is 2% more (12,560) than in 2015 to 2016 and 1% (6,025) more than in 2018 to 2019.

There were approximately 14 alcohol dependent adults for every 1,000 adults in England between March 2019 and April 2020. This rate has been

stable since 2015 to 2016. These estimates for alcohol dependence varied regionally and at local authority level in England. This is likely because of several factors, including differences in the socio-economic make-up of populations around England and also regional hospital admission rates

The highest rates of alcohol dependence were in the northern parts of England, with the North-West (17.47 per 1,000) and North-East (17.73 per 1,000) having the highest rates of alcohol dependent adults in England. The lowest rates were in the East of England (11.2 per 1,000) and the South-East (11.6 per 1,000).

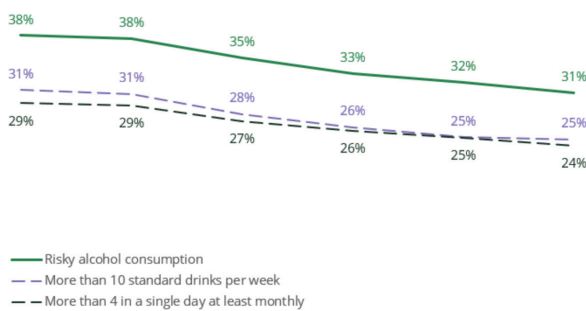
gov.uk/government/publications/alcohol-dependence-prevalence-in-england

Australian National Drug Strategy Household Survey 2022–2023

The National Drug Strategy Household Survey 2022–2023 includes information on more than 21,000 people in Australia aged 14 and over and their use of, and attitudes toward, tobacco, e-cigarettes, alcohol, and illicit drugs. Alcohol remains the most commonly used drug in Australia, with 77% of Australians reporting they consumed alcohol in the previous 12 months.

Despite updated guidelines to reduce alcohol-related harms, the proportion of people in Australia who drink alcohol at risky levels has not changed since 2019. In 2022–2023, 31% of adults drank alcohol in ways that put their health at risk, which is around 6.6 million people. 25% reported consuming more than 10 standard drinks per week on average, with a similar proportion consuming more than 4 standard drinks in a single day at least once a month (24%). While this was not a large difference to 2019, the proportion of people drinking alcohol at risky levels continued a gradual, long-term decline that began in 2013.

Risky drinking behaviours, people aged 14 and over, 2007 to 2022–2023



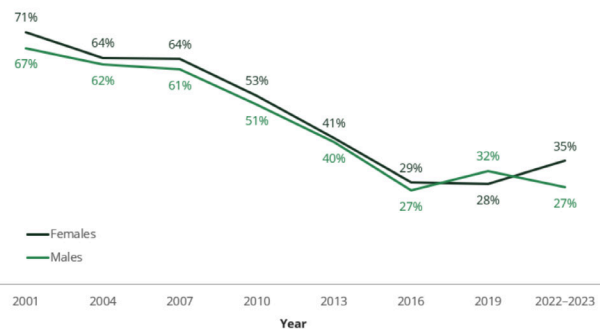
Risky drinking behaviours, people aged 14 and over, 2007 to 2022–2023

- Males were more likely to drink at risky levels than females in 2022–2023 (39% compared to 23%).
- The proportion of males drinking at risky levels has been on a long-term decline, from 50% in 2007 to 39% in 2022–2023. A similar trend occurred among females, but the change was much more gradual (from 27% in 2007 to 23% in 2022–2023).
- Among young adults, risky alcohol consumption increased among females, narrowing the gap between young males and females. Males aged 18–24 were much more likely to consume alcohol at risky levels (47%)

than females of the same age (35%) in 2019. In 2022–2023, 45% of males consumed alcohol at risky levels compared to 40% of females, the smallest gap seen since 2001.

- While there was a substantial reduction in the proportion of people aged 14–17 who consumed alcohol in Australia between 2001 and 2016, the proportion has remained stable since then.

Consumption of alcohol in the previous 12 months by gender, people aged 14–17, 2001 to 2022–2023



Consumption of alcohol in the previous 12 months, people aged 14–17, 2001 to 2022–2023

28% of women aged 14–49 who were pregnant at some point in the previous 12 months consumed alcohol while they were pregnant. This represents a long-term decline from 2013, when 42% of pregnant women had consumed alcohol while pregnant. For women who had a period of time when they were pregnant but did not know that they were pregnant, they were much less likely to drink alcohol while pregnant (14.9%).

For the first time in 2022–2023, people were asked what they believe about alcohol consumption among 16- and 17-year-olds:

- Over 1 in 3 people (32%) aged 14 and over agreed that a 16- or 17-year-old can occasionally drink 1 or 2 standard drinks without putting their health at risk.
- Around 1 in 4 people (24%) agreed that it is beneficial to provide a 16- or 17-year-old with a little bit of alcohol in preparation for drinking as an adult.

aihw.gov.au/reports/illicit-use-of-drugs/national-drug-strategy-household-survey/contents/alcohol-consumption

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

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