AIM Alcohol in Moderation DIGEST ONLINE

INTERNATIONAL DIGEST PROMOTING THE RESPONSIBLE PROMOTION OF ALCOHOL

Contents

Vol. 50 No. 2 September 2018

(Click on an item/ page no. to be taken directly to your choice of article)

AIM Digest
Frampton House
Frampton, Dorchester
Dorset DT2 9NH
T: +44 (0)1300 320 869
E: info@aim-digest.com

Websites:
www.alcoholinmoderation.com
www.drinkingandyou.com
www.alcoholresearchforum.org

AIM Subscription Levels:

Individual: GBP 900-
USD 1,250-
Euro 1000-

Silver: GBP 1,500-
USD 2,500-
Euro 2,000-

Gold: GBP £3,000-
USD 5,000-
Euro 4,000-

Platinum: available on request.

Please contact Sherry.Webster@aim-digest.com for information about AIM's subscription levels.

Please make cheques/drafts in British pounds sterling, dollars or Euros payable to AIM Digest at the above address

Helena Conibear – **Executive Director**
T: +44 (0)1300 320 869
E: helena.conibear@aim-digest.com

Alison Rees - **Editor**
E: alison.rees@aim-digest.com

Sherry Webster – **Finance and Subscriptions**
E: sherry.webster@aim-digest.com

US

Most US and Canadian fraternities will limit consumption of vodka, tequila and other spirits under a rule adopted during the annual meeting of their trade association.

In "a near-unanimous vote" on Aug. 27, the 66 international and national men's fraternities of the North-American Interfraternity Conference adopted the rule prohibiting hard alcohol with more than 15% ABV from fraternity chapters and events unless served by licensed third-party vendors. The member fraternities have until Sept. 1, 2019, to implement the rule across their more than 6,100 chapters on 800 campuses.

The rule adoption follows the alcohol-related deaths last year of fraternity pledges at Louisiana State University and Penn State University.

Iceland

In Iceland, the legal limit of blood alcohol concentration for drivers will be reduced from 0.05%, or 0.5 g/litre, to 0.02%, or 0.2 g/litre, if a proposed bill is passed into law by Alþingi, the Icelandic parliament. The bill also includes a provision which would make it illegal to deliver or sell fuel to a driver who is under the influence of alcohol or drugs.

Australia

According to the Australia Bureau of Statistics, the apparent level of alcohol consumption in Australia has dropped to levels not seen since the 1960s. There were 9.4 litres of pure alcohol available for consumption per person in 2016-17, down from 9.7 litres in 2015-16 and the lowest level since 1961-62.

Russia

The Ministry of Finance in Russia has announced plans to standardise the minimum retail price (MRP) for all vodka from August 2018. The new MRP will replace the current variable MRP for vodka based on alcohol by volume (ABV), introduced in 2009. The new MRP for vodkas with an ABV between 37% and 40% will be RUB 205 rubles per half litre. This represents a price increase for most vodka.

Rosalkogolregulirovanie, the federal beverage alcohol regulator recently announced that it has developed a new, single formula to calculate the different MRPs of all alcohol beverages, based on the same criteria. The finance ministry is expected to revise the MRPs for cognac and sparkling wine later in the year, and could potentially also introduce MRPs for still wine and wine-based beverages.

Balearic Islands

Unlimited alcohol is to be banned in all-inclusive resorts in Majorca and Ibiza in a crackdown on 'uncivic tourism'.

The Balearic government is to write to travel agents and tour operators in Britain and Germany to give advance notice of the changes which are designed to reduce drunken behaviour from tourists in the leading party resorts.

The new rules won't come into force until at least 2020, but following their implementation, free alcohol will be served to guests during mealtimes only and then solely through waiter service.

There are at least 270 all-inclusive establishments in the Balearics.

A global overview of alcohol consumption and health

GBD 2016 Alcohol Collaborators. Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. www.thelancet.com Published online August 23, 2018 dx.doi.org/10.1016/S0140-6736(18)31310-2

Authors' Summary

Background Alcohol use is a leading risk factor for death and disability, but its overall association with health remains complex given the possible protective effects of moderate alcohol consumption on some conditions. With our comprehensive approach to health accounting within the Global Burden of Diseases, Injuries, and Risk Factors Study 2016, we generated improved estimates of alcohol use and alcohol-attributable deaths and disability-adjusted lifeyears (DALYs) for 195 locations from 1990 to 2016, for both sexes and for 5-year age groups between the ages of 15 years and 95 years and older.

Methods Using 694 data sources of individual and population-level alcohol consumption, along with 592 prospective and retrospective studies on the risk of alcohol use, we produced estimates of the prevalence of current drinking, abstention, the distribution of alcohol consumption among current drinkers in standard drinks daily (defined as 10 g of pure ethyl alcohol), and alcohol-attributable deaths and DALYs. We made several methodological improvements compared with previous estimates: first, we adjusted alcohol sales estimates to take into account tourist and unrecorded consumption; second, we did a new meta-analysis of relative risks for 23 health outcomes associated with alcohol use; and third, we developed a new method to quantify the level of alcohol consumption that minimises the overall risk to individual health.

Findings Globally, alcohol use was the seventh leading risk factor for both deaths and DALYs in 2016, accounting for 2·2% (95% uncertainty interval [UI] 1·5–3·0) of age-standardised female deaths and 6·8% (5·8–8·0) of age-standardised male deaths. Among the population aged 15–49 years, alcohol use was the leading risk factor globally in 2016, with 3·8% (95% UI 3·2–4·3) of female deaths and 12·2% (10·8–13·6) of male deaths attributable to alcohol use. For the population aged 15–49 years, female attributable DALYs were 2·3% (95% UI 2·0–2·6) and male attributable DALYs were 8·9% (7·8–9·9). The three leading causes of attributable deaths in this age group were tuberculosis (1·4% [95% UI 1·0–1·7] of total deaths), road injuries (1·2% [0·7–1·9]), and self-harm (1·1% [0·6–1·5]). For populations aged 50 years and older, cancers accounted for a large proportion of total alcohol-attributable deaths in 2016, constituting 27·1% (95% UI 21·2–33·3) of total alcohol-attributable female deaths and 18·9% (15·3–22·6) of male deaths. The level of alcohol consumption that minimised harm across health outcomes was zero (95% UI 0·0–0·8) standard drinks per week.

Interpretation Alcohol use is a leading risk factor for global disease burden and causes substantial health loss. We found that the risk of all-cause mortality, and of cancers specifically, rises with increasing levels of consumption, and the level of consumption that minimises health loss is zero. These results suggest that alcohol control policies might need to be revised worldwide, refocusing on efforts to lower overall population-level consumption.

Forum Comments

Problems in combing data from very divergent cultures: From the title alone, Forum members realized that the data presented in this paper would be of limited value in setting drinking guidelines, and would not provide important data relating alcohol consumption to health that could be applied to individual cultures or people. The key problem in that by combining data from widely divergent populations into one analysis, the investigators make it impossible to consider the strong effects that social and cultural factors of individual populations have in modifying the effects on alcohol on health. For example, by combining data from countries where ischemic heart disease and stroke are minor causes of death (where there may be a 10% increase in total death rates from alcohol) with data from western industrialized countries where such ischemic diseases are the leading causes of death (where there may be a 10% decrease in total death rates from alcohol intake), you will end up with zero effect of alcohol on death rates. Such an estimate does not provide information relevant to either population: in fact, it applies to no one.

As Rehm & Room recently pointed out: "There are strong cultural norms guiding heavy drinking occasions and loss of control. These norms not only indicate what drinking behaviour is acceptable, but also whether certain behaviours can be reported or not. . . . This explains the multifold differences in incidence and prevalence of alcohol-use disorders, even between countries where the average drinking levels are similar." These authors conclude: "Current practice to measure alcohol-use disorders based on a list of culture-specific

diagnostic criteria results in incomparability in the incidence, prevalence or disease burden between countries. For epidemiological purposes, a more grounded definition of diagnostic criteria seems necessary, which could probably be given by using heavy drinking over time."

In our Forum critique of the paper referred to above by Rehm and Room, we noted: "We know that the net effect of alcohol consumption relates to the amount of alcohol, the type of beverage, the rapidity of consumption, whether drinking with or without food, and surely a number of other cultural and genetic factors. What we are often unsure about is what the cultural context of drinking is for an individual subject or subjects in a certain population: different cultures seem to help control, or not control, the risk of drinking excessively. . . . these factors complicate the comparison of results of epidemiologic studies from different cultures" (the Forum critique is available at alcoholresearchforum.org/critique-206).

Reviewer Van Velden stated: "Alcohol consumption is part of a healthy lifestyle, hence the adverse effect of low socio-economic groups with inadequate diet and social norms of responsible alcohol consumption. The effect of moderate exercise on cardiovascular disease also has to be taken into consideration. There are just too many variables in different cultural societies to group all of them together to come to a rational conclusion." Added Forum member Goldfinger: "Again, looking at alcohol as a single across-the-globe entity fails to take into account the large difference of responsible moderate consumption versus abusive, excessive, periodic binge drinking, etc., which may be associated with cultural and socioeconomic differences of populations studied. The net effect of pooled data is irrelevant and uncontrolled for confounders."

Importance of socio-economic status in modifying effects of alcohol: Even within the more industrialized countries, data increasingly point out how lower socio-economic strata (SES) subjects show many more adverse effects from alcohol intake than do higher SES subjects, even when the reported amount consumed is similar. An excellent example of the modification of health effects from alcohol that are related to SES factors is based on data from more than 50,000 subjects, representative of the population, in the Scottish Health Surveys by Katikireddi et al. These authors stated: "Low socioeconomic status was associated consistently with strikingly raised alcohol-attributable harms, including after adjustment for weekly consumption, binge drinking, BMI, and smoking. Evidence was noted of effect modification; for example, relative to light drinkers living in advantaged areas, the risk of alcohol-attributable admission or death for excessive drinkers was increased (hazard ratio 6.12, 95% CI 4.45–8.41 in advantaged areas; and 10.22, 7.73–13.53 in deprived areas)." These authors concluded: "Disadvantaged social groups have greater alcohol-attributable harms compared with individuals from advantaged areas for given levels of alcohol consumption, even after accounting for different drinking patterns, obesity, and smoking status at the individual level." Unfortunately, in the presents paper data were compared only between countries with higher levels of income and lower levels of income, with no adjustments for SES differences within countries.

In our Forum critique of the Scottish paper (alcoholresearchforum.org/critique-199), Forum member de Gaetano noted: "The Scottish findings appear to be in line with evidence from the "Moli-sani" study, an Italian cohort of 25,000 men and women aged >35 y randomized from the general population, showing a similar interaction between Mediterranean diet (MD) and SES factors in relation to risk of developing cardiovascular disease (Bonaccio et al). Basically, we found that adherence to a MD was significantly associated with lower CVD risk in higher but not in lower SES groups, with SES acting as an effect modifier of such association." Very similar findings, of SES factors strongly modifying the health effects of drinking, has been reported in many other studies (Leyland et al, Mäkelä et al, McDonald et al, Probst et al, Mackenbach et al, Towers et al). Compared with differences in such factors within populations, the differences across the wide variety of cultures represented in the present paper are far greater." As Forum member Ellison stated: "Unfortunately, the very large number of analyses presented in the current paper provide combined data from many diverse populations, but the results may apply to no one group of people."

Forum member Skovenborg emphasized the importance of other lifestyle factors: "I find that the meta-analysis methods in this study have a high degree of complexity, and sometimes it is difficult to evaluate the assumptions of the authors. I just want to note that in a prospective study of English and Scottish cohorts (Perreault et al) the association between alcohol intake and cancer mortality was nearly nullified among individuals who met the physical activity recommendations, which (along with most other lifestyle habits) was not included in the present analyses. Further, in the PLCO Cancer Screening Trial (Kunzmann et al), the association of lifetime alcohol use with cancer risk in older adults was modified by beverage choice, with the lowest risk in wine drinkers and the highest risk in spirits drinkers; again, the present study did not report findings by type of beverage." Forum member Teissedre was also concerned that "The analyses failed to account for many other factors related to health, including the intake of fruits and vegetables, salt, meat, fish, sugar, etc. Further, there were no adjustments according to type of beverage or whether the alcohol was consumed with or without food. A lot of possible biases are ignored in this study. To take only one component separately (alcohol) in this study without considering many other important factors makes no sense."

How do you interpret disability-adjusted lifeyears (DALYs)? It is unfortunate that the authors of this paper do not present date on the effect of alcohol on total mortality for the two age groups; instead, they only give data on alcohol-related mortality and disability-adjusted years. The thrust of this paper is the strong adverse effects of heavy drinking among young people, which is associated with many "lost" years of productivity, hence changes in their DALYs. It is obvious that if a teenager dies from alcohol use, he or she will have a very large number of years missing, in comparison with a teenager surviving without disability, for being a productive citizen. Hence, the argument goes that if one takes the large amount of money this person would have made from working for so many years, this would result in a large figure for loss of income to the economy. When such calculations are done, however, they rarely include the costs to society of living: how much it costs the government, businesses, and the public in general to support years of life, especially when the person becomes aged and perhaps infirm. Some scientists argue that prolonging life of some subjects with terminal cancers, dementia, or certain other diseases greatly increases health care costs. The goal of many aging people is to live well as long as possible, but then have a short period of severe disability, thus have a very low number of DALYs.

How do you estimate the exposure to alcohol? Ellison noted further: "The only exposure variable considered in the present study was the average intake of alcohol, in grams/day of ethanol, with no data on the type of beverage, the pattern of drinking, or many unmeasured cultural differences among the countries that were included in their analyses. Also, the reported intake was altered by adjustments for unrecorded alcohol intake (as from home brewing, illicit production, local beverages, or alcohol sold as a non-alcohol product, as well as from sales data from each country) and estimates of the proportion of the total intake consumed by tourists in each country. Their individual estimates were thus based both on the reported intake and some way of combining such data with values from the population in general. The result was that, as the authors state, 'For a given location, individually reported data on consumption were rescaled so that they aggregated to the estimates of population –level consumption.' While this may be well-intentioned, it causes problems in comparing the exposure to alcohol in this study with previously reported studies."

Combining data from young and older people when evaluating alcohol's effects on mortality: In this paper, for some analyses the authors separate effects of alcohol among subjects less than and greater than the age of 50 years. But, they often compare all results, seeking to get a specific singular risk estimation in the population overall, by combining results for all ages. Given that many of the adverse effects in the young relate to binge drinking, drinking outside of meals, etc., it is especially important to know the pattern of drinking when relating alcohol to health. As an example, in a report of deaths in Canada related to alcohol, Rehm et al in 2007 reported a large number of deaths in the young among "moderate drinkers," when all drinkers reporting up to a certain amount of alcohol, but not considering the

pattern of drinking, were included. However, when he defined truly "moderate drinkers" by excluding those reporting binge drinking, the vast majority of deaths in the young attributed to moderate drinking were no longer present. As discussed below, guidelines for alcohol consumption must be directed at specific age-groups if they are to be effective in reducing abuse while not reducing light-to-moderate drinking that has been shown to improve health among older adults.

Need for specific data among typical drinkers, not heavy drinkers: While the very large number of figures in this paper are impressive, they all show a single curve summarizing results extending from 0 to 12.5 drinks per day (!), even though in no populations are there a large number of people consuming at this upper limit. (Further, in some instances there are no data available in their studies for subjects drinking above around 5 drinks/day or more.) We already know that high levels of drinking lead to severe health problems: what would be preferred is presenting the risk at the levels of intake usually seen in different populations, say, from none up to an average of two or three drinks per day; these are the levels of consumption for which data would be useful. Detailed information on this level of drinking (say, differences in outcome going from none to 1 drink/day) cannot be evaluated from data presented from these analyses. And, in the present paper, the authors include consumption up to 0.8 standard drinks per day in their "zero" intake category; Forum members contend that 0.8 drinks/day is close to the level considered "moderate" in many guidelines – e.g. a recommended level of "a drink a day" — and this causes a problem in using their data to look for any potential benefits of light drinking. No one advises people to "drink more," and if the advice of these authors to abstain completely from alcohol was followed, it is likely that many light drinkers (who have been shown to have better health than abstainers) would stop their drinking.

Are there implications for setting policy from theses analyses? The authors spend much of their paper focusing on their contention that these analyses have large implications for setting policy around the world. However, their failure to consider specifics of the culture for which the policy is being formulated, such as other lifestyle factors, the pattern of drinking, underreporting of alcohol intake, etc., greatly limits their ability to do so. As pointed out so clearly by Harding and Stockley, "A comparison of world-wide recommendations on alcohol consumption reveals wide disparity among countries. This could imply that many of the recommendations do not adequately accommodate the science, given that the science is equally valid world-wide. Such a view, however, would be an over-simplification of the problem that those who formulate such guidelines face. The objective of guidelines is to influence and change behavior among target populations. It follows, therefore, that several factors then become relevant: behavior that is thought to be in need of change, the culture and mindset of the target populations, and the kind of message that is likely to be effective. There are some tensions between advice intended only to reduce the prevalence of misuse and that which also seeks to reflect evidence on the beneficial health effects of moderate consumption."

As stated by reviewer MeEvoy, "The issues raised, including problems with equating measures of drinking across diverse cultures, failure to take into account patterns of drinking (regular intake versus binge drinking similar amounts), lack of control for critical covariates, such as smoking, exercise, and diet, and failure to take into account differences in disease risk across subpopulations, invalidate the study's conclusions that any amount of drinking is bad. There is no question that heavy drinking is harmful to health, and that alcohol misuse contributes to an excess of deaths and disability globally."

McEvoy continued: "I think that Aaron Carroll's commentary on this paper in the New York Times (published on August 28, 2018), nicely summarizes many of limitations of this study and puts the results into perspective." (While not a peer-reviewed scientific publication, the Op-Ed was by Aaron E. Carroll, MD; Professor of Pediatrics at Indiana School of Medicine.) Many Forum members considered that he succinctly summarized some of the problems of the present paper, when he wrote: "Observational data can be very confounded, meaning that unmeasured factors might be the actual cause of the harm. Perhaps people who drink also smoke tobacco. Perhaps people who drink are also poorer. Perhaps

there are genetic differences, health differences or other factors that might be the real cause. There are techniques to analyze observational data in a more causal fashion, but none of them could be used here, because this analysis aggregated past studies — and those studies didn't use them." Adds reviewer Ellison: "When a doctor is advising a high- (or low-) SES patient in New England of a certain age and associated health conditions about the risks and benefits of moderate alcohol consumption, the physician needs to utilize data appropriate to that subject in his or her environment, not data that may be appropriate for a subject in a third-world country with a very different culture and lifestyle."

Forum member Finkel provided a good overview of this paper: "Emerging from an avalanche of questionably relevant 'supportive' material and what might be a new record number of authors and their affiliations, I can easily say in brief that the overall impressions of other Forum members are well presented. There are a whole lot of assumptions and flaccid associations that try and fail to hold the center of this 'study.' Once again, the health benefits of moderate drinking are suppressed. It is too bad that so much busy work went to accomplish so little, and worse that the public and the public interest might be erroneously influenced by this publication."

References from Forum critique:

Bonaccio M, Di Castelnuovo A, Pounis G, Costanzo S, Persichillo M, Donati MB, de Gaetano G, Iacoviello L. Cardiovascular Protection by the Mediterranean Diet Differs Across Socioeconomic Groups: Prospective Findings From The MOLISANI Study. Abstract, American Heart Association. Circulation 2016;133:AMP20

Carroll AE. Study Causes Splash, but Here's Why You Should Stay Calm on Alcohol's Risks:

Harms increase with each additional drink per day, yet they are much smaller than many other risks in our lives. Op-Ed Comment in New York Times, published August 28, 2018 (nytimes.com/2018/08/28/upshot/alcohol-health-risks-study-worry.html)

Harding R, Stockley CS. Communicating Through Government Agencies. Annals Epidemiol 2007;17, Supplement 5S:S98-S102.

Katikireddi SV, Whitley E, Lewsey J, Gray L, Leyland AH. Socioeconomic status as an effect modifier of alcohol consumption and harm: analysis of linked cohort data. Lancet Public Health 2017. Online publication May 10, 2017. dx.doi.org/10.1016/S2468-2667(17)30078-6

Kunzmann AT, Coleman HG, Huang W-Y, Berndt SI. The association of lifetime alcohol use with mortality and cancer risk in older adults: A cohort study. PLoSMed 2018;15:e1002585.doi.org/10.1371/journal.pmed.1002585.

Leyland A, Dundas R, McLoone P, Boddy FA. Cause-specific inequalities in mortality in Scotland: two decades of change—a population-based study. BMC Public Health 2007; 7: 172.

Mackenbach JP, Kulhánová I, Bopp M, et al. Inequalities in alcohol-related mortality in 17 European countries: a retrospective analysis of mortality registers. PLoS Med 2015; 12: e1001909.

Mäkelä P, Paljärvi T. Do consequences of a given pattern of drinking vary by socioeconomic status? A mortality and hospitalisation follow-up for alcohol-related causes of the Finnish

Drinking Habits Surveys. J Epidemiol Community Health 2008; 62: 728–733.

McDonald SA, Hutchinson SJ, Bird SM, et al. Association of self-reported alcohol use and hospitalization for an alcohol-related cause in Scotland: a record-linkage study of 23 183 individuals. Addiction 2009;104:593–602.

Perreault K, Bauman A, Johnson N, et al. Does physical activity moderate the association between alcohol drinking and all-cause, cancer and cardiovascular diseases mortality? A pooled analysis of eight British population cohorts. Br J Sports Med 2017;51:651-657.

Probst C, Roerecke M, Behrendt S, Rehm J. Socioeconomic differences in alcohol-attributable mortality compared with all-cause mortality: a systematic review and meta-analysis. Int J Epidemiol 2014; 43: 1314–27.

Rehm J, Patra J, Taylor B. Harm, Benefits, and Net Effects on Mortality of Moderate Drinking of Alcohol Among Adults in Canada in 2002. Ann Epidemiol 2007;17, Supplement 5S:S81-S86.

Rehm J, Room R. The cultural aspect: How to measure and interpret epidemiological data on alcohol-use disorders across cultures. Nordic Studies on Alcohol and Drugs 2017;34:330–341. DOI: 10.1177/1455072517704795.

Towers A, Philipp M, Dulin P, Allen J. The "Health Benefits" of Moderate Drinking in Older Adults may be Better Explained by Socioeconomic Status. J Gerontol B Psychol Sci Soc Sci 2018;73:649-654. doi: 10.1093/geronb/gbw152.

Forum Summary

Investigators working with data from the Global Burden of Diseases, Injuries, and Risk Factors Study 2016 have combined data from 195 locations around the world, from 1990 to 2016, for both sexes and for 5-year age groups between the ages of 15 years and 95 years and older. Their purpose was to determine how estimates of the prevalence

of current drinking, abstention, the distribution of alcohol consumption among current drinkers in standard drinks daily (defined as 10 g of pure ethyl alcohol) relate to alcohol-attributable deaths and disability-adjusted lifeyears (DALYs). The paper does not present estimates of the effects of alcohol on a key outcome, total mortality.

The paper presents a huge number of analyses with data specific for each contributing center. However, the Forum considers that real problems emerge when they attempt to combine data from many divergent cultures to determine a single association between alcohol consumption and health. Many lifestyle and cultural factors strongly modify the relation of a given amount of alcohol to health and diseases. Such modifying factors include especially the socio-economic status of the individual, circumstances such as drinking with or without food, the pattern of drinking (regular moderate versus binge drinking), the type of beverage (e.g., wine versus spirits), the intention of the individual (drinking to get drunk versus drinking to enhance meals), level of physical activity, etc. When such modifying factors are not taken into consideration, the estimated intake of a given amount of alcohol (even if accurate), provides an incomplete assessment of the effects of alcohol on health.

The authors spend much of their paper focusing on their contention that these analyses have large implications for setting alcohol policy around the world. They then expand primarily on ways of decreasing alcohol intake world-wide through changes in guidelines. However, their failure to consider specifics of the culture for which the policy is being formulated, such as evaluating other lifestyle factors, the pattern of drinking, underreporting of alcohol intake, cultural factors, etc., negates their ability to provide useful information that is applicable to any single population: their guidelines end up applying to no one. And, their specific statement that zero consumption would be preferable everywhere is sharply contradicted by consistent reports from very large, well-done cohort studies (where individual data are available) which indicate that non-drinkers have higher risks of cardiovascular disease and total mortality than regular moderate drinkers who do not binge drink.

Setting guidelines for the public regarding alcohol consumption requires information not only on the reported intake but on other health conditions, as well as genetic, lifestyle, and cultural factors that may modify the effects of alcohol. Further, advice differs by age and the key problems within a country that the guidelines are directed toward improving. In the opinion of the Forum, despite the massive amount of work done by the investigators in the preparation of this paper, the overall combined results from such divergent populations have little applicability in setting guidelines that would lead to avoidance of alcohol abuse in any specific group of people around the world — they apply to no specific population.

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

Yuqing Zhang, MD, DSc, Clinical Epidemiology, Boston University School of Medicine; Massachusetts General Hospital, Harvard Medical School, Boston, MA, USA.

David Van Velden, MD, Dept. of Pathology, Stellenbosch University, Stellenbosch, South Africa

Fulvio Ursini, MD, Dept. of Biological Chemistry, University of Padova, Padova, Italy

Pierre-Louis Teissedre, PhD, Faculty of Oenology–ISVV, University Victor Segalen Bordeaux, Bordeaux, France

Creina Stockley, PhD, MSc Clinical Pharmacology, MBA; Health and Regulatory Information Manager, Australian Wine Research Institute, Glen Osmond, South Australia, Australia

Erik Skovenborg, MD, specialized in family medicine, member of the Scandinavian Medical Alcohol Board, Aarhus, Denmark

Linda McEvoy, PhD, Department of Radiology, University of California at San Diego (UCSD), La Jolla, CA, USA

Ulrich Keil, MD, PhD, Professor Emeritus, Institute of Epidemiology & Social Medicine, University of Muenster, Germany

Tedd Goldfinger, DO, FACC, Desert Cardiology of Tucson Heart Center, University of Arizona School of Medicine, Tucson, AZ, USA

Harvey Finkel, MD, Hematology/Oncology, Retired (Formerly, Clinical Professor of Medicine, Boston University Medical Center, Boston, MA, USA)

R. Curtis Ellison, MD, Professor of Medicine, Section of Preventive Medicine & Epidemiology, Boston University School of Medicine, Boston, MA, USA

Giovanni de Gaetano, MD, PhD, Department of Epidemiology and Prevention, IRCCS Istituto Neurologico Mediterraneo NEUROMED, Pozzilli, Italy.

Long-term study of alcohol intake and the risk of Alzheimer Disease or other types of dementia

Sabia S, Fayosse A, Dumurgier J, Dugravot A, Akbaraly T, Britton A, Kivimäki M, Singh-Manoux A. Alcohol consumption and risk of dementia: 23 year follow-up of Whitehall II cohort study. BMJ 2018;362:k2927. dx.doi.org/10.1136/bmj.k2927

Authors' Abstract

Objective: To examine the association between alcohol consumption and risk of dementia.

Design: Prospective cohort study.

Setting: Civil service departments in London (Whitehall II study).Participants 9087 participants aged 35-55 years at study inception (1985/88).

Main outcome measures: Incident dementia, identified through linkage to hospital, mental health services, and mortality registers until 2017. Measures of alcohol consumption were the mean from three assessments between 1985/88 and 1991/93 (midlife), categorised as abstinence, 1-14 units/week, and >14 units/week; 17 year trajectories of alcohol consumption based on five assessments of alcohol consumption between 1985/88 and 2002/04; CAGE questionnaire for alcohol dependence assessed in 1991/93; and hospital admission for alcohol related chronic diseases between 1991 and 2017.

Results: 397 cases of dementia were recorded over a mean follow-up of 23 years. Abstinence in midlife was associated with a higher risk of dementia (hazard ratio 1.47, 95% confidence interval 1.15 to 1.89) compared with consumption of 1-14 units/week. Among those drinking >14 units/week, a 7 unit increase in alcohol consumption was associated with a 17% (95% confidence interval 4% to 32%) increase in risk of dementia. CAGE score >2 (hazard ratio 2.19, 1.29 to 3.71) and alcohol related hospital admission (4.28, 2.72 to 6.73) were also associated with an increased risk of dementia. Alcohol consumption trajectories from midlife to early old age showed long term abstinence (1.74, 1.31 to 2.30), decrease in consumption (1.55, 1.08 to 2.22), and long term consumption >14 units/week (1.40, 1.02 to 1.93) to be associated with a higher risk of dementia compared with long term consumption of 1-14 units/week. Analysis using multistate models suggested that the excess risk of dementia associated with abstinence in midlife was partly explained by cardiometabolic disease over the follow-up as the hazard ratio of dementia in abstainers without cardiometabolic disease was 1.33 (0.88 to 2.02) compared with 1.47 (1.15 to 1.89) in the entire population.

Conclusions: The risk of dementia was increased in people who abstained from alcohol in midlife or consumed >14 units/week. In several countries, guidelines define thresholds for harmful alcohol consumption much higher than 14 units/week. The present findings encourage the downward revision of such guidelines to promote cognitive health at older ages.

Forum Comments

The vast majority of well-done prospective studies indicate that, in comparison with non-drinkers, moderate, non-binge-drinking older adults have a lower risk of cardiovascular disease and total mortality. Most studies also suggest that moderate drinkers tend to have a lower risk of developing dementia, including Alzheimer disease.

The present study provides important information on the association of alcohol and dementia by following a large cohort of British civil servants over a mean period of 23 years, with repeated assessments of alcohol consumption. The main results indicate that abstinence in middle life is associated with a significantly higher risk of dementia than the risk among moderate drinkers, while subjects reporting the intake of larger amounts of alcohol or evidence of an alcohol use disorder are at increased risk of dementia. However, the data presented do not allow for a firm determination of a possible cut-point for increased risk from alcohol intake.

Overview of paper: All Forum members considered that this was a well-done analysis, as important strengths included a database consisting of a large, well-described cohort of British civil subjects followed by many years; assessments of alcohol consumption throughout midlife, as well as evidence of alcohol dependence and hospital admission for alcohol related disease; and with repeated assessments of alcohol intake (on 8 occasions during follow up) having the ability to construct trajectories of alcohol consumption over 17 years. Further, the authors were able to classify current non-drinkers into long-term abstainers versus ex-drinkers; finding similar associations with dementia for all current non-drinkers (including "ex-drinkers" and "occasional drinkers"), they combined all into one category, "abstinence". Regarding long-term patterns of alcohol intake over "middle age" (the pattern between assessments at a median age of about 45 years to that at about 61 years), the authors used their repeated assessments of consumption to construct trajectories of intake. The identified

trajectories were long-term abstinence, decreased alcohol consumption, long term consumption of 1-14 units/week, increased consumption, and long term consumption of >14 units/week.

Finally, data from electronic health records of three public databases were used to ascertain the diagnosis of dementia, using well-constructed and valid algorithms. In addition, the investigators examined whether cardiometabolic disease modifies the association between alcohol consumption and dementia, using appropriate measurements to determine cardiovascular risk factors and disease during the follow-up period.

The authors report: "Among the 10 231 participants alive in 1991/93, 9087 had at least two measurements of alcohol consumption between 1985/88 and 1991/93 and complete data on covariates. Among these participants, a total of 397 cases of dementia were recorded over a mean follow-up of 23.2 (SD 4.4, range 0.08-25.6) years. Mean age at dementia diagnosis was 75.6 (SD 5.8) years." There were five trajectories of alcohol consumption: long term abstinence (9% of subjects), decreased consumption (6%), long-term consumption of 1-14 units/week group (59%), increased consumption (11%), and long-term consumption >14 units/week (14%). With a referent group of participants in the long-term consumption of 1-14 units/week group ("moderate drinkers"), those with long-term abstinence showed a relative risk of dementia of 1.74, CI 1.31 to 2.30; those who decreased consumption also showed an increase in risk, 1.55, CI 1.08 to 2.22. For subjects with-long-term consumption >14 units/week, there was also an increased risk of dementia (1.40, CI 1.02 to 1.93). These associations remained after adjustment for behavioural and health related factors.

The data suggest that some of the adverse effects of abstinence and greater amounts of alcohol related to effects of alcohol on cardiovascular disease. The authors report that among those without cardiometabolic disease, the risk of dementia for the abstinence category was less, HR 1.33 (CI 0.88 to 2.02), and with consumption >14 units/week it was 1.28 (CI 0.85 to 1.92). The investigators state: "Results for dementia from the modified Fine and Gray model that accounts for competing risks of mortality were similar to those in the main analysis."

Specific comments by Forum members: Reviewer McEvoy noted: "I think this is a very well done study that provides further support to the growing literature that moderate alcohol consumption is associated with a reduced risk of dementia. Particular strengths of the study are the use of multiple assessments of reported alcohol use to determine mid-life drinking habits, with five subsequent assessments to characterize trajectories of alcohol use from midlife to early older age. They also had repeated assessment of health behaviors, and were able to adjust for socioeconomic status based on occupational position. The results are compelling in showing the protective association of moderate drinking at midlife and at later ages with reduced risk of dementia, and that continued moderate drinking with aging is associated with reduced dementia risk, while long term abstinence is associated with the highest risk. The longitudinal data and use of repeated assessments to characterize midlife drinking rules out the 'sick quitter' hypothesis to explain increased risk in the non-drinking group."

Forum member Stockley stated: "This is a well done study which builds on the previous papers published by Sabia et al in 2010 and 2014 on different facets of cognitive decline, dementia, and alcohol. Although there is variation in methodology between observational studies, analyses consistently suggest that, on balance, there is a J- or U-shaped relationship between alcohol consumption and the risk of cognitive decline or dysfunction and the development of dementias such as Alzheimer's disease. Consumption of approximately >14 units/week being associated with an increase in risk of dementia has also been observed to increase the risk of certain CVDs which gives credence to observations supporting similar or related biological mechanisms (lipids, blood clotting, blood flow) reducing risk between cognitive decline and cardiovascular disease."

Forum member Lanzmann-Petithory had a number of comments: "In addition to the effects of underreporting of intake, which has been well described by Klatsky et al (2006, 2014) and others to relate to risk of disease, the drinking pattern seems to me an important factor among the >14 units/week group. This group probably consists of a mix of steady drinkers of 2-3 units/day and binge

drinkers of >14 units during week-ends; this could represent a confounding factor and explain the non-significant increased risk in those reporting >14 units/week in the present study.

"Further, since a big component of dementia relates to cerebral atherosclerosis and stroke, it is not surprising that cardiovascular risk factors play a role in dementia. Also, binge drinking is an independent risk factor for all strokes and ischemic stroke (Sundell et al, Renaud). The type of alcohol plays a role as shown in the Framingham Heart Study for ischaemic stroke and wine (Djoussé et al), and to some extent in the present study as the J curve seems to me more pronounced for wine in the supplement material, with the most significant p-value (<0.001) by far for wine consumption, being lower in the dementia group than in the non-dementia group. In the text, the authors do not hide this fact, stating that in beverage-specific analyses, 'The study also found a reduced risk of dementia for moderate wine consumption and a linear increased risk of dementia in those consuming spirits.'

"Finally, as mentioned by Van Velden, genetics play an important role for dementia. In some studies, risk of dementia increases with increasing alcohol consumption only in those individuals carrying the apolipoprotein E4 allele (Anttila et al). For all these reasons, the present study does not represent at all for me a solid support to a decrease of quantities in the new alcohol guidelines in the UK, except perhaps for subjects with the e4 allele."

At what level of drinking does alcohol consumption increase the risk of dementia? The authors state: "Alcohol consumption >14 units/week increased the risk of dementia in a linear fashion; an excess risk that was evident when alcohol consumption was assessed at ages 50, 60, and 70 years. Data using hospital admission for chronic disease caused by high alcohol consumption showed a four times higher risk of dementia, supporting findings on the neurotoxic effects of alcohol consumption >14 units/week." Forum members suggest that these findings are in line with earlier research indicating that heavy alcohol consumption (especially abuse) increases not only mortality but the risk of dementia, but the present data do not allow a determination of a firm cut-point for an increase in risk.

The authors state in the text, "Regardless of type of alcohol consumed, the risk of dementia increased linearly, starting around 14 units/week." However, the figures in the text show that the lower 95% confidence level for wine and spirits remain below 1.0 (consistent even with perhaps a decrease in risk) regardless of the level of alcohol, and only beer shows that the lower 95% CI goes above 1.0 (statistically significant probably because of larger numbers). Also, there are very few subjects with greater consumption of alcohol-containing beverages. And, as stated, they do find healthier effects for wine consumers.

Forum members Ellison and Zhang state: "We question the authors' interpretation of the linear increase shown in their data as indicating that >14 units/week leads to increased dementia. With only linear analyses and no spline analyses above 14 drinks/week, it is difficult to estimate any specific cut-point when the risk of dementia increases. Based on the data presented, it could be that only the true alcohol abusers (who had hospital admissions for abuse), who were included in the risk of heavier drinkers, increased their risk; we cannot determine from what is here what a reasonable cut-point for adverse effect might be."

Also, Forum member McEvoy noted: "I disagree with the authors' conclusion that this paper suggests that upper limits for drinking recommendations in other countries should be reduced to no more than 14 units per week. Not only is there the concern of under-reporting, which may be exaggerated in an occupational cohort, the graphs in the publication show that hazard ratios do not begin to exceed 1.0 until about 20 units of intake, and do not become statistically significant (with lower confidence limit above 1) until at least 30 units. Further, I agree with other forum members about the problem with reporting alcohol intake as 'units'. The paper does not seem to provide the translation of units into grams, or into typical drinks, and this makes it hard for the general reader to understand what amount of drinking may be beneficial and what may be harmful." (This concern is discussed below.)

Forum member Keil notes that in the Lancet paper by Ruitenberg et al, the largest protection against all types of dementia in the Rotterdam Study was 1-3 drinks/day. In the Keil et al study from Germany, the increase in CVD and mortality

was between the 20-39 g/day and the 40 g/day categories of alcohol intake, and in some analyses only for the more than 80 g/day groups."

The authors also state: "Multistate models showed that part of the excess risk of dementia in abstainers was attributable to the greater risk of cardiometabolic disease in this group. Taken together, these results suggest that abstention and excessive alcohol consumption are associated with an increased risk of dementia, although the underlying mechanisms are likely to be different in the two groups. Overall, no evidence was found that alcohol consumption between 1 unit/week and 14 units/week increases the risk of dementia." Forum members agree that while risk factors for dementia are not well known, cardiovascular risk factors have previously been found to play some role in the risk of cognitive impairment.

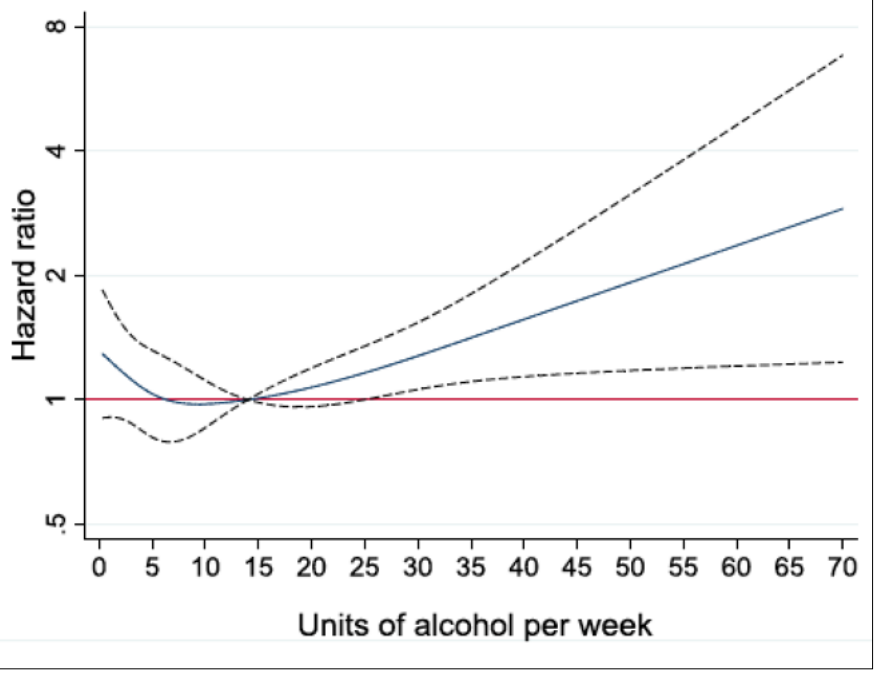
What are reasonable measures of alcohol intake? Reviewer Finkel noted: "On a personal note, I take this opportunity to express my continuing annoyance with the use, chiefly in Britain, of units (defined as 8 grams of alcohol) as a quantitation of alcohol consumption. We already have a perfectly good near universal system of measurement: grams of alcohol. Remember that the metric system and, for some, the so-called English system (called in modern times the imperial system, except in break-away colonies) works well. To add another layer makes no sense to me, just requires more mental gyrations inserted between observation and understanding. It is beyond silly to seek increased precision by inventing new measuring standards when the basic data are by their nature imprecise. Who orders a 1.5-unit glass of Pinot Noir? Who can with straight face report alcohol consumption as, say, '15 units per week'"?

Forum member Keil stated: "I couldn`t agree more with Finkel concerning the paper and the unit system. The main findings reflect those in the paper by Ruitenberg et al from the Rotterdam group (which, surprisingly, is not cited by the authors). Perhaps the statement in the Ruitenberg et al paper is too clear for the authors of the present paper: 'These findings suggest that light to moderate alcohol consumption is associated with a reduced risk of dementia in individuals aged 55 years or older. The effect seems to be unchanged by the source of alcohol.'"

Keil continued: "A 'unit' of alcohol in the UK is 8 grams. This is a really small amount of alcohol, as a 0.1 liter glass of wine amounts to about 10 grams of alcohol and the often consumed 0.2 liter glass of wine to 20 grams of alcohol. The smallest amount of beer you can regularly consume in Germany is from a 0.25 liter glass of beer which amounts to 10 grams of alcohol. Much more often you find the following glass sizes: 0.3, 0.4, 0.5, 1.0 liter corresponding to 12, 16, 20 and 40 grams of alcohol, respectively. This shows to me that the 8 grams of alcohol unit in the UK is purely theoretical. Any practitioner should laugh about this value for a unit. Why scientists do not accept the metric system counting alcohol consumption in grams per day or week is an enigma to me. Anyhow, the English will soon break away from the EU with a harsh or hard BREXIT. They can then also still keep their old fashioned and unscientific measures.

"In a paper from Augsburg in 1997 we counted alcohol in grams. A 0.3 liter glass of beer means 12 grams of alcohol and a one liter mug (eine Maß!!) at the Oktoberfest means 40 grams of alcohol (Keil

Association between midlife alcohol consumption and incidence of dementia among drinkers



et al). However, we should keep in mind that the Whitehall project is an occupational cohort study; it is well known that occupational studies are prone to underreporting of alcohol consumption. I have seen this for example in the well known PROCAM study in the region of Münster, which has also recruited civil servants and collected 'peculiar' data on alcohol consumption."

Reviewer Skovenborg wrote: "I agree with the comments about using units of alcohol. In addition there is the general problem of underreporting and the specific British problem of underreporting the small British unit of 8 grams, as drinks usually have an alcohol content of more than 8 grams." Others noted that the finding that females have more dementia than males is confirmed by many other studies. It can be partially explained by lower levels of enzymes metabolizing alcohol among women, but also it is known that females tend to have on average a lower socio-economic status and a lower level of education, which may make them more vulnerable to adverse effects of alcohol consumption (as shown most recently by Colpani et al).

Implications of the present study results on drinking guidelines: Forum member Keil noted: "Projections on the increase of dementia should be interpreted with caution because recent studies clearly show that dementia is on the decline when you look at age-specific rates of dementia. With increasing educational status, especially in women, age-specific rates of dementia will probably decline. (More educated women also drink more alcohol). Is it true that 'What is good for the heart is good for the brain?' The Mediterranean diet is obviously good for the heart and general well being and it is usually combined with a glass of wine, preferably a 0.2 liter glass = approximately 20 grams of alcohol."

Forum member Van Velden wrote: "All that I can add is the fact that the authors did not take into consideration genetic risk factors for CVD. People with Apo-E4 polymorphisms are more at risk for CVD, and alcohol may increase their risk for cardio-metabolic disease. Diet-health implications cannot be simplified and generalized for all people with different genetic backgrounds."

In their Discussion, the authors state: "First, the risk of dementia was higher in those abstaining from alcohol in midlife. Alcohol consumption trajectories from midlife to early old age supported these findings – both long term abstainers and those reporting decreased alcohol consumption had an increased risk of dementia." Forum members conclude that the implication from these findings strongly support previous findings of a lower risk of dementia for moderate drinkers. Further, these results suggest that truly moderate drinkers in middle age should not be advised to stop their alcohol consumption.

References from Forum critique

Anttila T, Helkala EL, Viitanen M, Kåreholt I, Fratiglioni L, Winblad B, et al. Alcohol drinking in middle age and subsequent risk of mild cognitive impairment and dementia in old age: a prospective population based study. BMJ 2004;329(7465):539. doi:10.1136/bmj.38181.418958.BE www.ncbi.nlm.nih.gov/pmc/articles/PMC516103/pdf/bmj32900539.pdf

Colpani V, Baena CP, Jaspers L, van Dijk GM, Farajzadegan Z, Dhana K, Tielemans MJ, Voortman T, Freak-Poli R, Veloso GGV, Chowdhury R, Kavousi M, Muka T. Franco OH. Lifestyle factors, cardiovascular disease and all-cause mortality in middle-aged and elderly women: a systematic review and metaanalysis. Eur J Epidemiol 2018; doi: 0.1007/s10654-018-0374-z. [Epub ahead of print]

Djoussé L, Ellison RC, Beiser A, Scaramucci A, D'Agostino RB, Wolf PA. Alcohol consumption and risk of ischemic stroke: The Framingham Study. Stroke 2002;33:907-912. www.ncbi.nlm.nih.gov/pubmed/11935035

Keil U, Chambless LE, Döring A, Filipiak B, Stieber J. The relation of alcohol intake to coronary heart disease and all-cause mortality in a beer-drinking population. Epidemiology 1997;8:150-156.

Klatsky AL, Gunderson E, D G, Kipp H, Udaltsova N, Friedman GD. Higher prevalence of systemic HTN among moderate alcohol drinkers: exploring the role of under-reporting. J Stud Alcohol 2006;67:421–428.

Klatsky AL, Udaltsova N, Li Y, Baer D, Tran HN, Friedman GD. Moderate alcohol intake and cancer: the role of underreporting. Cancer Causes Control 2014;25:693. doi.org/10.1007/s10552-014-0372-8.

Renaud SC. Diet and stroke. J Nutr Health Aging 2001;5:167-172. www.ncbi.nlm.nih.gov/pubmed/11458287

Ruitenberg A, van Swieten JC, Witteman JC, Mehta KM, van Duijn CM, Hofman A, Breteler MM. Alcohol consumption and risk of dementia: the Rotterdam Study. Lancet 2002;359(9303):281-286.

Sabia S, Elbaz A, Britton A, Bell S, Dugravot A, Shipley M, Kivimaki M, Singh-Manoux A. Alcohol consumption and cognitive decline in early old age. Neurology 2014;82:332-339.

Sabia S, Kivimaki M, Kumari M, Shipley MJ, Singh-Manoux A. Effect of Apolipoprotein E epsilon 4 on the association between health behaviors and cognitive function in late midlife. Mol Neurodegener 2010;5:23.

Sundell L, Salomaa V, Vartiainen E, Poikolainen K, Laatikainen T. Increased stroke risk is related to a binge-drinking habit. Stroke 2008;39:3179-3184. doi: 10.1161/STROKEAHA.108.520817. Epub 2008 Oct 2. www.ncbi.nlm.nih.gov/pubmed/18832741

Forum Summary

While there is general agreement that the moderate intake of alcohol is associated with a significantly lower risk of cardiovascular disease, there are less data on the relation of moderate alcohol consumption to dementia. However, the vast majority of well-done prospective studies indicate that, in comparison with non-drinkers, moderate, non-binge-drinking older adults have lower risk of Alzheimer Disease and other types of dementia. The present study provides important information on this association by monitoring for the development of dementia among subjects in a large cohort of British civil servants (the Whitehall Study) over more than two decades; there were repeated assessments of alcohol consumption.

The main results indicate that abstinence in middle life is associated with a significantly higher risk of dementia than the risk among moderate drinkers, while subjects reporting the intake of larger amounts of alcohol or evidence of an alcohol use disorder are at increased risk of dementia. Specifically, the study shows that among the 397 cases of dementia that were recorded over a mean follow up of 23 years, abstinence in midlife was associated with a 47% higher risk of dementia compared with consumption of 1-14 units/week (a British unit is the equivalent of 8 grams of alcohol). There was a 17% increase in risk of dementia for those reporting more than 14 units/week. With repeated assessments of alcohol the authors also calculated trajectories of alcohol consumption from midlife to early old age, with continued abstinence being associated with an increase in dementia of 74% and a decrease in consumption with an increase of 55% in comparison with subjects reporting continued moderate consumption. In several analyses, wine consumption was associated with more favorable effects than those of other beverages.

Forum members thought that this was a well-done analysis, but considered that the data presented do not allow for a firm determination of a cut-point for increased risk of dementia from alcohol intake. While the authors provide estimates of a linear increase in dementia risk for subjects reporting more than 14 units/week or reporting evidence of alcohol abuse, they do not give data that permits an estimate of the level of intake where the risk of dementia exceeds that of non-drinkers.

Overall, the results showing a decreased risk of dementia for moderate drinkers support the findings from most well-done prospective cohort studies. As for implications for policy, the study further shows that, in terms of the risk of dementia as well as cardiovascular disease, middle-aged and older individuals who are consuming alcohol moderately and without binge drinking should not be advised to stop drinking.

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

Giovanni de Gaetano, MD, PhD, Department of Epidemiology and Prevention, IRCCS Istituto Neurologico Mediterraneo NEUROMED, Pozzilli, Italy

R. Curtis Ellison, MD, Professor of Medicine, Section of Preventive Medicine & Epidemiology, Boston University School of Medicine, Boston, MA, USA

Ramon Estruch, MD, PhD, Hospital Clinic, IDIBAPS, Associate Professor of Medicine, University of Barcelona, Spain

Harvey Finkel, MD, Hematology/Oncology, Retired (Formerly, Clinical Professor of Medicine, Boston University Medical Center, Boston, MA, USA)

Ulrich Keil, MD, PhD, Professor Emeritus, Institute of Epidemiology & Social Medicine, University of Muenster, Germany

Dominique Lanzmann-Petithory, MD, PhD, Nutrition Geriatrics, Hôpital Emile Roux, APHP Paris, Limeil-Brévannes, France

Linda McEvoy, PhD, Department of Radiology, University of California at San Diego (UCSD), La Jolla, CA, USA

Erik Skovenborg, MD, specialized in family medicine, member of the Scandinavian Medical Alcohol Board, Aarhus, Denmark

Creina Stockley, PhD, MSc Clinical Pharmacology, MBA; Health and Regulatory Information Manager, Australian Wine Research Institute, Glen Osmond, South Australia, Australia

Yuqing Zhang, MD, DSc, Clinical Epidemiology, Boston University School of Medicine; Massachusetts General Hospital, Harvard Medical School, Boston, MA, USA.

Alcohol consumption and risk of heart failure in older patients with hypertension

Although a high level of alcohol consumption is associated with cardiomyopathy, the benefit or risk of moderate alcohol consumption on incident heart failure (is unclear. A study examined the association between alcohol consumption and risk for HF in older adults with hypertension.

6,083 participants aged 65 to 84 years at baseline (1995 to 2001)were included in the study. Two were followed for an average of 10.8 years during and after the Second Australian National Blood Pressure Study. Participants self reported frequency and amount of alcohol consumption at baseline and during the clinical trial. The percentages of current drinkers, former drinkers, and never-drinkers at baseline were 72%, 6%, and 21%, respectively. Incident HF was diagnosed in 183 men and 136 women.

The study found that alcohol consumption was not significantly associated with heart failure. Compared with never-drinkers, the adjusted hazard ratios (95% confidence interval) for those who consume 1 to 7, 8 to 14, and >14 drinks/week at baseline were 0.87, 0.96 and 0.71, respectively in women, and 0.81, 0.77 and 1.04 respectively in men.

The lack of an association between alcohol consumption and risk of heart failure persisted in the analyses comparing the risk of heart failure across each level of drinking at baseline or at follow-up with never-drinkers.

In the present study, there was no evidence for benefit or risk of alcohol consumption, reported at baseline or at follow-up, in relation to incident heart failure in both men and women.

Source: Relation of Alcohol Consumption to Risk of Heart Failure in Patients Aged 65 to 84 Years With Hypertension. Sahle BW, Owen AJ, Wing LMH, Beilin LJ, Nelson MR, Jennings GLR, Reid CM. Am J Cardiol. 2018 Aug 11. pii: S0002-9149(18)31410-3. doi:10.1016/j.amjcard.2018.06.046.

Relationship of cigarette smoking and alcohol consumption to incidence of systemic lupus erythematosus in the Black Women's Health Study

Systemic lupus erythematosus (SLE) affects Black women more frequently than other racial-gender groups. In past studies, largely of Whites and Asians, cigarette smoking was associated with increased SLE risk and moderate alcohol consumption with decreased SLE risk. A research project used data from a long-term, prospective follow-up study to assess associations of smoking and alcohol consumption with risk of incident SLE among Black women.

The Black Women's Health Study enrolled 59,000 Black women in 1995 and collected data on demographics, health status, and medical and lifestyle variables. Follow-up questionnaires every two years identified incident disease and updated risk factors. Cox regression models were employed to estimate hazard ratios (HRs) and 95% confidence intervals (CI) for associations of cigarette smoking and alcohol intake with incidence of SLE.

127 incident SLE cases during 1995-2015 were identified (mean age 43 at diagnosis). Compared to never smokers, the risk of SLE among ever smokers was elevated but not significantly (HR = 1.45, 95% CI 0.97-2.18). Risk was similar for current and past smoking and increased non-significantly with increasing pack-years. The HR was 0.71 (95% CI 0.45-1.12), for current drinking relative to never drinking, with a HR of 0.43 (95% CI 0.19-0.96) for ≥4 drinks/week.

Findings from this first large study among Black women are consistent with previous findings in other populations of increased risk of SLE associated with cigarette smoking and decreased risk with moderate alcohol consumption.

Source: Relationship of cigarette smoking and alcohol consumption to incidence of systemic lupus erythematosus in the Black Women's Health Study. Cozier YC, Barbhaiya M, Castro-Webb N, Conte C, Tedeschi SK, Leatherwood C, Costenbader KH, Rosenberg L. Arthritis Care Res (Hoboken). 2018 Aug 9. doi: 10.1002/acr.23703.

Association of longitudinal alcohol consumption trajectories with coronary heart disease

A group of researchers evaluated the association between long-term alcohol consumption trajectories and coronary heart disease in a study reported in the journal, BMC Medicine. The investigation found that moderate drinking may be linked to a lower risk of heart disease, and this reduced risk was most pronounced among people who drank moderately in a consistent way. Those who had unstable drinking patterns had a higher risk of coronary heart disease (CHD).

The research used data drawn from six cohorts. The combined analytic sample comprised 35,132 individuals of whom 4.9% experienced an incident (fatal or non-fatal) CHD event. Alcohol intake across three assessment periods was used to determine participants' intake trajectories over approximately 10 years. A meta-analysis of individual participant data was used to estimate the intake trajectories' association with CHD onset, adjusting for demographic and clinical characteristics.

Compared to consistently moderate drinkers (males: 1–168 g ethanol/week; females: 1–112 g ethanol/week), inconsistently moderate drinkers had a significantly greater risk of incident CHD [hazard ratio (HR) = 1.18, 95% confidence interval (CI) = 1.02–1.37]. An elevated risk of incident CHD was also found for former drinkers (HR = 1.31, 95% CI = 1.13–1.52) and consistent non-drinkers (HR = 1.47, 95% CI = 1.21–1.78), although, after sex stratification, the latter effect was only evident for females. When examining fatal CHD outcomes alone, only former drinkers had a significantly elevated risk, though hazard ratios for consistent non-drinkers were near identical. No evidence of elevated CHD risk was found for consistently heavy drinkers, and a weak association with fatal CHD for inconsistently heavy drinkers was attenuated following adjustment for confounding factors.

Using prospectively recorded alcohol data, this study has shown how instability in drinking behaviours over time is associated with risk of CHD. As well as individuals who abstain from drinking (long term or more recently), those who are inconsistently moderate in their alcohol intake have a higher risk of experiencing CHD. This finding suggests that policies and interventions specifically encouraging consistency in adherence to lower-risk drinking guidelines could have public health benefits in reducing the population burden of CHD. The authors state that the absence of an effect amongst heavy drinkers should be interpreted with caution given the known wider health risks associated with such intake.

Source: Association of longitudinal alcohol consumption trajectories with coronary heart disease: a meta-analysis of six cohort studies using individual participant data. D O'Neill, A Britton, MK Hannah, M Goldberg, D Kuh, K Tee Khaw and S Bell. BMC Medicine 201816:124 doi.org/10.1186/s12916-018-1123-6.

Patterns of beverage consumption and risk of CHD among Mexican adults

A study published in the British Journal of Nutrition found that moderate alcohol intake is associated with a reduced risk of coronary heart disease.

The study evaluated the association between beverage consumption patterns and the risk of CHD among Mexican adult population. A cross-sectional analysis was performed using data from 6,640 adults participating in the Health Workers' Cohort Study. Four major beverage consumption patterns were identified, which were categorised as alcohol, coffee/tea, soft drinks and low-fat milk.

A lower risk of CHD (OR=0.61 and OR=0.58 respectively) was observed among participants in the upper quintile of alcohol or low-fat milk consumption compared with those in the bottom quintile. In contrast, a higher consumption of soft drinks was positively associated with CHD risk (OR=1.64; 95 % CI 1.21, 2.20) when compared with other extreme quintiles. Finally, coffee/tea consumption was not significantly associated with CHD risk.

The findings suggest that a beverage pattern characterised by a higher intake of sugar sweetened beverages may be associated with an increased risk of CHD among the Mexican adult population, whereas patterns of moderate alcohol intake and low-fat milk may be associated with a reduced risk.

Source: Patterns of beverage consumption and risk of CHD among Mexican adults. Rivera Paredez B; Munoz Aguirre P; Torres Ibarra L; Ramirez P; Hernandez Lopez R; Barrios E; Leon Maldonado L; et al, British Journal of Nutrition, Vol 120, No 2, 2018, pp210-219. doi.org/10.1017/S0007114518001411.

Cognitive decline and alcohol consumption adjusting for functional status in community living older adults

A recent study examined association between alcohol consumption and cognitive functioning controlling for functional heath status in French-speaking community living older adults.

A total of 1610 older adults with a score >/= 26 on the Mini-Mental State Examination (MMSE) were followed to assess the change in scores at the 3-year follow-up. Information on alcohol consumption as well as socio-demographic, lifestyle, psychosocial and clinical factors and health service use were assessed at baseline and 3-year follow-up interviews.

Close to 73% reported consuming alcohol in the past 6 months, of which 11% were heavy drinkers (>/= 11 and >/= 16 drinks per week for women and men). A significant decrease in MMSE scores was observed in low functioning non-drinkers (-1.48; 95% CI: -2.06, -0.89) and light to moderate drinkers (-0.99; 95% CI: -1.54, -0.44) and high functioning non-drinkers (-0.51; 95% CI: -0.91, -0.10).

The authors conclude that alcohol consumption did not contribute to cognitive decline. Cognitive decline was greater in individuals reporting low functional status. Research should focus on the interaction between changing patterns of alcohol consumption and social participation in individuals with low and high functioning status.

Source: Cognitive decline and alcohol consumption adjusting for functional status over a 3-year period in French speaking community living older adults. Helen-Maria Vasiliadis, Marie-Christine Payette, Djamal Berbiche, Sébastien Grenier, Carol Hudon. Journal of Public Health, published early online 19 July 2018.

Wine: An aspiring agent in promoting longevity and preventing chronic diseases

Moderate wine consumption is a characteristic of the Mediterranean diet. Studies around the world have shown a beneficial effect of moderate alcohol intake, especially wine, on health. A review published in the journal 'Diseases' critically summarises the most recent studies that investigate the beneficial effects of moderate wine intake on human health.

The PubMed database was comprehensively searched to identify trials published from 2013 to 2018 that investigated the association between moderate wine consumption and health.

The review finds that most recent studies confirm the valuable role of moderate wine consumption, especially red wine, in the prevention and treatment of chronic diseases such as cardiovascular disease, metabolic syndrome, cognitive decline, depression, and cancer. In the meantime, recent studies also highlight the beneficial role of red wine against oxidative stress and in favour of desirable gut bacteria. The beneficial role of red wine has been attributed to its phytochemical compounds, as highlighted by clinical trials, where the effect of red wine has been compared to white wine, non-alcoholic wine, other alcoholic drinks, and water.

The review concludes that moderate wine intake, at 1-2 glasses per day as part of the Mediterranean diet, has been positively associated with human health promotion, disease prevention, and disease prognosis.

Source: Wine: An Aspiring Agent in Promoting Longevity and Preventing Chronic Diseases. Pavlidou E, Mantzorou M, Fasoulas A, Tryfonos C, Petridis D, Giaginis C. Diseases. 2018 Aug 8;6(3). pii: E73. doi: 10.3390/diseases6030073.

Alcohol consumption and future hospital usage: the EPIC-Norfolk prospective population study

Heavy drinkers of alcohol are reported to use hospitals more than non-drinkers, but it is unclear whether light-to-moderate drinkers use hospitals more than non-drinkers.

A study examined the relationship between alcohol consumption in 10,883 men and 12,857 women aged 40–79 years in the general population and subsequent admissions to hospital and time spent in hospital.

The participants, who were drawn from the EPIC-Norfolk prospective population-based study were followed for ten years (1999-2009).

Compared to current non-drinkers, men who reported any alcohol drinking had a lower risk of spending more than twenty days in hospital multivariable adjusted OR 0.80 after adjusting for age, smoking status, education, social class, body mass index and prevalent diseases. Women who were current drinkers were less likely to have any hospital admissions multivariable adjusted OR 0.84, seven or more admissions OR 0.77 or more than twenty hospital days OR 0.70. Compared to lifelong abstainers, men who were former drinkers had higher risk of any hospital admissions multivariable adjusted OR 2.22 and women former drinkers had higher risk of seven or more admissions OR 1.30.

The study concludes that current alcohol consumption was associated with lower risk of future hospital usage compared with non-drinkers in this middle aged and older population. In men, this association may in part be due to whether former drinkers are included in the non-drinker reference group but in women, the association was consistent irrespective of the choice of reference group. In addition, there were few participants in this cohort with very high current alcohol intake. The authors add that the measurement of past drinking, the separation of non-drinkers into former drinkers and lifelong abstainers and the choice of reference group are all influential in interpreting the risk of alcohol consumption on future hospitalisation.

Source: Alcohol consumption and future hospital usage: the EPIC-Norfolk prospective population study. Luben R; Hayat S; Mulligan A; Lentjes M; Wareham N; Pharoah P; Khaw KT, PLoS One, Vol 13, No 7, 2018, Art No e0200747, 18pp.

Children's propensity to consume sugar and fat predicts regular alcohol consumption in adolescence

A study investigated the association between sugar and fat intake in childhood in relation to alcohol use in adolescence. The authors hypothesised that early exposure to diets high in fat and sugar may affect ingestive behaviours later in life, including alcohol use.

2263 Children from the European IDEFICS/I.Family cohort study were examined at age 5-9 years and were followed up at ages 11-16 years. Food frequency questionnaires were completed by parents on behalf of children initially, and later by adolescents themselves. Children's propensities to consume foods high in fat and sugar were calculated and for adolescents, their use of alcohol was classified as at least weekly v. less frequent use.

The study found that children with high propensity to consume sugar and fat were at greater risk of later alcohol use, compared with children with low fat and low sugar propensity (relative risk=2·46; 95 % CI 1·47, 4·12), independent of age, sex and survey country. The association was not explained by parental income and education, strict parenting style or child's health-related quality of life and was only partly mediated by sustained consumption of sugar and fat into adolescence.

The authors conclude that frequent consumption of foods high in fat and sugar in childhood predicted regular use of alcohol in adolescence.

Source: Children's propensity to consume sugar and fat predicts regular alcohol consumption in adolescence. Mehlig K, Bogl LH, Hunsberger M, Ahrens W, De Henauw S, Iguacel I, Jilani H, Molnár D, Pala V, Russo P, Tornaritis M, Veidebaum T, Kaprio J, Lissner L. Public Health Nutr. 2018 Aug 24:1-8. doi.org/10.1017/S1368980018001829.

Mixing energy drinks with alcohol could worsen the negative effects of binge-drinking

Scientists have found that the combination of alcohol and taurine, a key ingredient of many energy drinks, could be responsible for making drinkers less able to engage in social communication and reduce their ability to feel fear.

In a study, published in the Journal of Psychiatric Research, scientists from the University of Portsmouth and the Federal University of Santa Maria in Brazil tested the effects of taurine and alcohol on social and fear responses in zebrafish, at volumes reflecting levels that would induce moderate human intoxication. They found that taurine appeared to increase the fear-reducing properties of alcohol, but also affected social communication.

The fish that were exposed to both alcohol and taurine had fewer interactions with other fish in the shoal compared with those exposed to water alone or just alcohol. These fish also showed more "risky" behaviour, spending more time in an area close to a predator than other groups.

Co-author of the study Dr Matt Parker, senior lecturer in behavioural pharmacology and molecular neuroscience at the University of Portsmouth, said "This study is the first to show that the two together may be exacerbating some of the negative effects of binge-drinking – that is, reduction of fear and problems in social communication while intoxicated, which collectively increase the risk of fighting, violence and participation in risky behaviours."

Source: Taurine modulates acute ethanol-induced social behavioral deficits and fear responses in adult zebrafish. Barbara D. Fontana, Flavia V. Stefanello, Nathana J. Mezzomo, Talise E. Müller, Vanessa A. Quadros, Matthew O. Parker, Eduardo P. Rico, Denis B. Rosemberg. Journal of Psychiatric Research, 2018; 104: 176 doi.org/10.1016/j.jpsychires.2018.08.008

Debate on how consumption thresholds for low risk drinking guidelines should be set

An article in the journal Addiction explains that most high-income nations issue guidelines on low-risk drinking to inform individuals' decisions about alcohol consumption. However, the processes for setting the consumption thresholds within these guidelines have been criticized for a lack of objectivity and transparency.

The paper examines how those developing guidelines should respond to such criticisms and focuses particularly on the balance between epidemiological evidence, expert judgement and pragmatic considerations.

The authors make eight recommendations across three areas. First, recommendations on the use of epidemiological evidence: (1) guideline developers should assess whether the available epidemiological evidence is communicated most appropriately as population-level messages (e.g. suggesting reduced drinking benefits populations rather than individuals); (2) research funders should prioritize commissioning studies on the acceptability of different alcohol-related risks (e.g. mortality, morbidity, harms to others) to the public and other stakeholders; and (3) guideline developers should request and consider statistical analyses of epidemiological uncertainty. Secondly, recommendations to improve objectivity and transparency when translating epidemiological evidence into guidelines: (4) guideline developers should specify and publish their analytical framework to promote clear, consistent and coherent judgements; and (5) guideline developers' decision-making should be supported by numerical and visual techniques which also increase the transparency of judgements to stakeholders. Thirdly, recommendations relating to the diverse use of guidelines: (6) guideline developers and their commissioners should give meaningful attention to how guidelines are used in settings such as advocacy, health promotion, clinical practice and wider health debates, as well as in risk communication; (7) guideline developers should make evidence-based judgements that balance epidemiological and pragmatic concerns to maximize the communicability, credibility and general effectiveness of guidelines; and (8) as with scientific judgements, pragmatic judgements should be reported transparently.

Source: How should we set consumption thresholds for low risk drinking guidelines? Achieving objectivity and transparency using evidence, expert judgement and pragmatism. J Holmes C Angus PS Meier, P Buykx, A Brennan. Addiction, first published: 21 August 2018 doi.org/10.1111/add.14381

After how many drinks does someone experience acute consequences?

Authors of a Swiss study state that although the threshold of 4+/5+ drinks per occasion has been used for decades in alcohol research to distinguish between non-risky versus risky episodic drinking, no study has assessed the validity of this threshold using event-level data. Their research aimed to determine the optimal thresholds for the detection of five acute alcohol-related consequences (hangover, blackout, risky sex, fights and injury) using data from two event-level studies.

Three hundred and sixty-nine participants aged 16–25 years from Lausanne and Zurich, Switzerland took part in the study. On 3,554 weekend nights, participants reported total number of alcoholic drinks consumed the previous night and acute consequences (hangover, blackout, risky sex, fights and injury)

Hangover was the most frequently reported consequence and injury the least for both genders. Throughout age groups and studies, optimal thresholds for any consequence, and for hangover only, were equal to 4+/5+ (40+/50+ g alcohol) while those for blackouts, risky sex, fights and injuries were up to three drinks higher. Adolescents tended to experience consequences more often and at slightly lower drinking levels than did adults. For all consequences but injuries, the optimal thresholds were one to two drinks lower for women than for men.

The study concludes that event-level data collection techniques appear particularly suitable to estimate thresholds at which acute alcohol-related consequences occur. Binge drinking thresholds of 4+/5+ (women/men) drinks, equivalent to 40+/50+ g pure alcohol, predict the occurrence of consequences accurately in general but are too low to predict severe acute alcohol-related consequences.

Source: After how many drinks does someone experience acute consequences? Determining thresholds for binge drinking based on two event-level studies. Florian Labhart, Michael Livingston, Rutger Engels, Emmanuel Kuntsche. Addiction, first published: 19 June 2018. doi.org/10.1111/add.14370

Women's role in the rise in drinking in Australia

In Australia, as in many countries, alcohol consumption increased dramatically during the second half of the 20th century, with increased availability of alcohol, relaxation of attitudes towards drinking and shifting roles and opportunities for women as facilitating factors. Researchers sought to investigate drinking trends by gender and birth cohort in Australia during this period.

The research compared trends in alcohol consumption by sex in Australia. 40,789 participants aged 40–69 years (born 1920–49) recruited to the Melbourne Collaborative Cohort Study in 1990–94 retrospectively reported their usual frequency and quantity of beverage-specific alcohol intake for 10-year periods from age 20 between 1950 and 1990. Participants' average daily consumption for age decades were transformed to estimated intakes for 1950, 1960, 1970, 1980 and 1990.

The study found that alcohol consumption was higher for men than women during each decade. Alcohol consumption increased for both sexes in the 1950s, 1960s and 1970s, and fell after 1980. The rise before 1980 was roughly equal in absolute terms for both sexes, but much greater relative to 1950 for women. Women born during 1930–39 and 1940–49 drank more alcohol during early–middle adulthood (ages 20–40) than women born during 1920–29. In the 1980s, the fall was greater in absolute terms for men, but roughly equal relative to 1950 for both sexes. In both sexes, the decline in drinking in the 1980s for birth-decade cohorts was roughly in parallel.

The authors conclude that specific birth cohorts were influential in the rise in alcohol consumption by Australian women born in 1920–49 after World War II. Much of the convergence with men's drinking after 1980 reflects large reductions in drinking among men.

Source: Women's role in the rise in drinking in Australia 1950–80: an age–period–cohort analysis of data from the Melbourne Collaborative Cohort Study. O Stanesby, H Jayasekara, S Callinan, Robin Room, D English GG Giles, RG MacInnis, RL Milne, M Livingston. Addiction 2018 July 5.

Drinking patterns among older couples: longitudinal associations with negative marital quality

Research with younger couples indicates that alcohol use has powerful effects on marital quality, but less work has examined the effects of drinking among older couples. A study examined whether dyadic patterns of drinking status among older couples are associated with negative marital quality over time.

4,864 married participants from the Health and Retirement Study reported on alcohol consumption (whether they drink alcohol and average amount consumed per week) and negative marital quality (e.g., criticism and demands) across two waves (Wave 1 2006/2008 and Wave 2 2010/2012).

Concordant drinking couples reported decreased negative marital quality over time, and these links were significantly greater among wives. Wives who reported drinking alcohol reported decreased negative marital quality over time when husbands also reported drinking and increased negative marital quality over time when husbands reported not drinking.

The researchers say that their findings stress the importance of considering the drinking status rather than the amount of alcohol consumed of both members of the couple when attempting to understand drinking and marital quality among older couples. These findings are particularly salient given the increased drinking among baby boomers and the importance of marital quality for health among older couples, the researchers comment.

Source: Drinking Patterns Among Older Couples: Longitudinal Associations With Negative Marital Quality. Kira S Birditt, James A Cranford, Jasmine A Manalel, Toni C Antonucci. The Journals of Gerontology: Series B, Volume 73, Issue 4, 16 April 2018, Pages 655–665. doi.org/10.1093/geronb/gbw073

Understanding drinking among midlife men in the United Kingdom

In the UK, average weekly alcohol consumption is highest among midlife men, and they are disproportionately affected by alcohol harm. There is increasing recognition that public health messages to support behaviour change must be based on an in-depth understanding of drinking motivations and experiences.

A study reviewed qualitative research into the sociocultural meanings and subjective experiences that midlife men in the United Kingdom (UK) associate with their drinking. Systematic literature review of studies exploring motivations for and experiences of drinking among UK men aged 45-60 was conducted. Thematic synthesis was used to combine and analyse the data.

From 5,172 titles and abstracts (1995-2018), 11 publications were included, representing 6 unique studies. Five themes were identified: 'Drinking Motivations', 'Drinking Justifications', 'Drinking Strategies and Control', 'Social Norms and Identity' and 'Harm'. Motivations for drinking among midlife men were associated with relaxation, socialising and maintenance of male friendships. They justified drinking as a choice and emphasised their ability to meet responsibilities, which they contrasted with 'problem drinkers'. Social norms governed drinking behaviours as an expression of masculinity.

The review highlights the significance of the meanings and social importance of alcohol consumption among midlife men. Interventions using information and guidance should consider these when aiming to effectively influence the way this group drinks.

Source: Understanding drinking among midlife men in the United Kingdom: A systematic review of qualitative studies. Parke H, Michalska M, Russell A, Moss AC, Holdsworth C, Ling J, Larsen J. Addict Behav Rep. 2018 Aug 4;8:85-94. doi.org/10.1016/j.abrep.2018.08.001. eCollection 2018 Dec.

UK Alcohol Awareness Week 2019

Alcohol Concern have announced this year's Alcohol Awareness Week (AAW) in the UK will take place from 19-25 of November on the theme of 'change'. The charity, which has merged with Alcohol Research UK, is promoting the Twitter hashtag #AAW18 and says this year's AAW is a chance to:

- Drive a conversation about alcohol
- Signpost those who need help to the support they need
- Call for change at every level - individuals, communities and policy-makers

Positive heavy drinking attitude mediates the association between college alcohol beliefs and alcohol-related outcomes

College alcohol beliefs and personal attitudes about alcohol use are important predictors of alcohol use and related problems. However, little work has examined these constructs together and how they may influence one another in predicting various alcohol related outcomes over time. A study aimed to evaluate one's attitude toward heavy drinking as a mediator of the association between college alcohol beliefs and drinking related outcomes over a 12-month period of time.

Participants were 568 mandated students who had violated campus alcohol policy and received a Brief Motivational Intervention. Overall, the results indicate that one's attitude toward heavy drinking significantly mediates the association between college alcohol beliefs and drinks per week, binge frequency, as well as alcohol-related problems over 12 months. These findings provide a compelling rationale for incorporating both college alcohol beliefs and attitudes in the development and refinement of intervention strategies, the researchers argue.

Source: Positive heavy drinking attitude mediates the association between college alcohol beliefs and alcohol-related outcomes. DiBello AM, Miller MB, Carey KB. Addict Behav. 2018 Aug 6;88:29-35. doi: 10.1016/j.addbeh.2018.08.005.

Parent characteristics associated with approval of their children drinking alcohol

A team of researchers investigated parent sociodemographic and drinking characteristics in relation to whether they approved of their children drinking at ages 13, 14, 15 and 16 years.

Data was collected annually from 2010–2014, in which 1,927 parent–child dyads, comprising school students (mean age 12.9 years at baseline) and one of their parents, participated. The study's operational definition of parental approval of children drinking was based on the behaviour of parents in pre-specified contexts, reported by children.

Parents' approval of their children's drinking increased from 4.6% at age 13 years to 13% at age 16 years and was more common in parents of daughters than parents of sons (OR 1.62; 95%CI: 1.23 to 2.12). Parents in low-income families (OR 2.67; 1.73 to 4.12), single parents (OR 1.62; 1.17 to 2.25), parents with less than a higher school certificate (OR 1.54; 1.07 to 2.22), and parents who drank more heavily (OR 1.17; 1.09 to 1.25) were more likely to approve of their child drinking. Socially disadvantaged parents were more likely to approve of their children drinking alcohol.

The findings identify high-risk groups in the population and may help explain the socioeconomic gradients in alcohol-related morbidity and mortality seen in many countries.

Source: Parent characteristics associated with approval of their children drinking alcohol from ages 13 to 16 years: prospective cohort study. S Sharmin, K Kypri, M Wadolowski, R Bruno et al. Journal of Public Health. Volume 42, Issue 4. August 2018. Pages 347-353. doi.org/10.1111/1753-6405.12811

Parent-based interventions on adolescent alcohol use outcomes

The effects of parent-based interventions on adolescent alcohol use are unclear, including what factors moderate intervention effects. A study examined the effects of parent-based interventions on adolescent alcohol use and whether these treatment effects varied by participants' characteristics and intervention characteristics.

Twenty studies were included in the meta-analysis. The average treatment effect size across all drinking outcomes, with 44 effect sizes from 20 studies, was g = -0.23 with a 95% confidence interval [-0.35, -0.10] which is statistically significant. Parent-based interventions appeared to have larger mean effect sizes on adolescent drinking intention than binge drinking. Interventions targeting both general and alcohol-specific parenting strategies had larger average effect sizes than interventions targeting alcohol-specific parenting only.

This meta-analysis found evidence of parent-based interventions' efficacy in preventing or reducing adolescent alcohol use.

Source: Parent-based interventions on adolescent alcohol use outcomes: A systematic review and meta-analysis. Bo A, Hai AH, Jaccard J. Drug Alcohol Depend. 2018 Jul 17;191:98-109. doi.org10.1016/j.drugalcdep.2018.05.031.

One too many campaign at UK airports

A government-backed campaign to curb excess pre-flight alcohol consumption and reduce incidents on flights was launched by the aviation minister, Baroness Sugg in July. The campaign reminds passengers of the costs of drinking to excess when travelling by air, such as being denied boarding, having a plane diverted and the associated costs which include heavy fines, up to two years' prison, an airline ban and a diversion fee up to £80,000 for the most serious in-flight incidents.

The campaign will be rolled out via a national Facebook and Instagram social media campaign and in the ten pilot airports across the UK - Gatwick, Stansted, Birmingham, East Midlands, Manchester, Glasgow, Aberdeen, Southampton, Bristol and Newcastle. As part of the initiative, passengers will see warnings about alcohol consumption posted on digital display screens in duty-free shops and the police will hand out information leaflets.

In August, Ryanair renewed their call for airports to stop serving alcoholic drinks before 10am. Kenny Jacobs, Ryanair's chief marketing officer has previously commented that "Given that all our flights are short-haul, very little alcohol is sold on board, so it's incumbent on the airports to introduce these preventative measures... It's completely unfair that airports can profit from the unlimited sale of alcohol to passengers and leave the airlines to deal with the safety consequences," he added.

onetoomany.co.uk

Fall in alcohol consumption contributes to fewer UK teenage pregnancies

New research from the Portman Group and the British Pregnancy Advisory Service (BPAS) has shown that a decline in high levels of alcohol consumption amongst 16 to 18-year-olds has contributed to a fall in the teenage pregnancy rate.

The report analysed the reasons behind the dramatic fall in the number of UK teens conceiving, which has decreased by over half since 2007. The report examined alcohol consumption trends as evidence suggests that excessive drinking can lower inhibitions, leading to lower use of contraception.

24% of respondents reported never drinking alcohol. 55% cited health and risk-related reasons for not drinking. The majority of those who did consume alcohol drank at low levels. 28% reported drinking 1-2 units on a typical occasion when drinking, and 50% drinking between 1 and 4 units. Only 27% reported drinking 7 or more units.

The most common setting for alcohol consumption among 16 to 18-year-olds is at home or at other people's houses. Only 21% reported consuming alcohol purchased by someone aged under 18.

The research concluded that lower levels of drinking, concerns over future financial stability and more socialising virtually rather than face-to-face are the key drivers behind the fall in pregnancy rates amongst young people.

John Timothy, Chief Executive of the Portman Group, commented: "The fact that the majority of teenagers are drinking responsibly in a home setting and not obtaining alcohol through underage purchasing is testament to the success of industry initiatives such as Challenge 21, Challenge 25 and the Proof of Age Standards Scheme."

bpas.org/media/3037/bpas-teenage-pregnancy-report.pdf.

USSR Wages War on Alcohol - BBC Podcast

The BBC have produced a radio programme on Russia's campaign to tackle drunkeness in the 1980s. Sales of alcohol in the USSR were severely limited in 1985 by Mikhail Gorbachev in a bid to fight drunkenness. But the anti-alcohol campaign was abandoned three years later when the Soviet economy was in trouble, and the government need more taxes. Dina Newman discussed the reasons for the campaign's failure with the former advisor to the Central Committee of the Communist Party, Alexander Tsipko.

bbc.co.uk/programmes/w3cswsqv

Most purchasers don't read health information on alcohol labelling

The results of research released by Alcohol Concern indicate that despite the majority of alcohol shoppers being in favour of labelling, most don't actually look at labels when they buy alcohol.

The University of South Wales was commissioned to undertake research using eye tracker technology and interviews to investigate what alcohol shoppers actually look at on alcoholic products' labelling, packaging and on-shelf presentation.

Despite the majority of participants being in favour of health messages on bottles and cans, they don't look at them in any great detail. Shoppers often don't look at the areas of a product where health information is most usually presented. Even when they do, it is usually only very briefly.

It is possible that shoppers do not look at current on-product health information as they are already very familiar with the information these messages contain, however, further research would be necessary to evaluate whether new material on product messages would receive attention.

There may be some merit in designing more prominent on-shelf health-related signage, but further research is also required in this respect.

alcoholconcern.org.uk/investigating-the-potential-impact-of-changing-alcohol-product-labels

Minimum price for alcohol becomes law in Wales

A new law introducing a minimum price for alcohol in Wales has been granted Royal Assent by the Queen.

The Public Health (Minimum Price for Alcohol) (Wales) Act 2018 is part of the Welsh Government's wider efforts to reduce excessive drinking.

The level of the minimum unit price will be specified in regulations made by the Welsh Ministers, following a consultation which will be launched this autumn. The new minimum pricing regime is currently expected to come into force during the summer of 2019.

"The legislation will target and aim to reduce the amount of alcohol being consumed by hazardous and harmful drinkers, whilst minimising impacts on moderate drinkers." A Welsh Government spokesperson said.

Welsh retailers have begun engaging with Welsh Assembly Ministers to ensure a streamlined introduction of MUP on alcohol across the country. NFRN Welsh district president Mark Dudden said the creation of a sub-committee to liaise with the Welsh Assembly directly, was a valuable step in preparation for the incoming legislation.

More than seven in 10 GPs think that most of their patients lie about how much alcohol they drink

A poll by London-based Direct Line Life Insurance of 191 doctors, including 183 GPs, found that GPs multiply the amount of alcohol a patient says they drink by an average of 1.6.

Doctors think a quarter of patients have a mild drink problem and a fifth are "highly dependent". 32% of GPs said that they thought patients actually drink 1.5 times more than the amount they report. Another 46% estimated that patients drink twice the amount they admit to.

The survey found that 14% of 2,000 British adults admitted lying about how much alcohol they consume. The reasons given were because they thought the answer was irrelevant and because they were worried their doctor would judge them. Women under 30 are the most likely to give an inaccurate estimate. Others said they simply did not keep track of the amount that they drink.

Jane Morgan, business manager at Direct Line Life Insurance, said: "Most of us enjoy a drink from time to time, but no matter how much alcohol you consume it's important to be honest with your doctor about it.

"Without all the correct information about your lifestyle, you may not get the right diagnosis or treatment."

Alcohol-related liver disease and mortality from liver disease in England

In June, NHS digital published the CCG Outcomes Indicator Set, which include the latest figures for Emergency admissions for alcohol-related liver disease and Under 75 mortality from liver disease in England.

The rate of emergency admissions for alcohol-related liver disease for 2016/7 is 26.7 deaths per 100,000 which is slightly lower than 2014 and 2015, but remains higher than in 2012 and 2013.

The Under 75 mortality from liver disease continues to increase. There has been a gradual climb since 2009 when there were 14.1 deaths per 100,000 overall (18.1 for men and 10.1 for women). The latest figures for 2016 are 16.5 deaths per 100,000 for the population overall (20.9 for men and 12.1 for women).

digital.nhs.uk/data-and-information/publications/clinical-indicators/ccg-outcomes-indicator-set/current

Alcohol interlock pilot in Durham

For the first time in the UK, the police are to offer drink-drivers alcohol interlock devices which will breath-test them before their car starts. The devices are already commonplace in the US and Denmark, and are being offered to drink drive offenders on a voluntary basis.

Durham Police will pilot the scheme to fit alcohol "interlocks for offenders, but will also offer the device free of charge to anyone in the force area who wants one in a bid by police to cut the number of road accidents. The pilot is part of the force's Checkpoint programme, which aims to cut crime by focusing on offenders' behaviour.

Detective Inspector Andy Crowe, leading the initiative, said: "This really is an innovative project which is a first for the UK and will hopefully help us identify and deal with potential drink drivers before they even get behind the wheel... A number of offenders in our area have a problematic relationship with alcohol and we hope, as part of a wider programme, this will help them address their issues."

Elsewhere in the world these devices can be fitted as part of a drink-driver's sentence by the courts. Durham Police and Crime Commissioner Ron Hogg said: "The UK Government has assessed the evidence from other countries and concluded that alcohol interlocks are effective and cost-effective in reducing re-offending... Yet there is no legislation which would allow police forces in the UK to pilot these devices through the courts... Until there is a change in national policy, Durham Constabulary will use these on a voluntary basis for repeat offenders, those who have a history of problems with alcohol or anyone who thinks could benefit from the system to sign up through the Checkpoint programme."

The Forward Trust's alcohol treatment programme reduces re-offending

In the UK, Around 2 million people (1 in 30 adults) struggle with addiction to drugs or alcohol. Amongst marginalised groups, such as homeless people, the proportion can be as high as 1 in 3 and amongst prisoners, it is higher than 1 in 2. The Forward Trust manages a diverse range of drug and alcohol recovery services that aim to provide individuals with the care and support to stabilise their lives and think about the future, the strength and motivation to believe in change, and the support and connection to stay the course. Their accredited 12 step programmes have independently proven success rates in achieving these transformations.

The Forward Trust is working closely with the Justice Data Lab, a unique service from the Ministry of Justice that helps organisations to assess the impact of their work on reducing re-offending. The Forward Trustt's RAPt Alcohol Dependency Treatment Programme for prisoners has reported a 1-year re-offending rate of 37%, significantly lower than predicted re-offending rates for alcohol dependent offenders who do not get access to treatment. By way of broader comparison, the most recent re-offending statistics released by the Ministry of Justice show a 64% re-offending rate for these sentenced to less than a year in prison.

forwardtrust.org.uk

Alcohol - an ancient social ritual

'Alcohol and Humans: A Long and Social Affair', a conference at the British Academy on 13 September, will present evidence that our love of alcohol is deep-rooted and that although harmful in excess, it still has a role to play in generating happiness and wellbeing.

Evolutionary biologist Professor Robin Dunbar of Oxford University, a fellow of the British Academy and one of the conference's organisers suggests that hunter-gatherers began to hold feasts at least 400,000 years ago after they learned how to use and control fire. Dinners round firesides would help to cement relationships as fellow tribesfolk exchanged food, stories and gossip. Alcohol may not have been present at first but could have become a key factor of feasts fairly quickly, and certainly long before the Neolithic arrived

"Studies clearly show that there are social and wellbeing benefits to be derived directly from drinking alcohol, especially in relaxed social environments.. That is why the practice has persisted for so long," Dunbar commented.

eventbrite.co.uk/e/alcohol-and-humans-a-long-and-social-affair-tickets-40884353201?_ebga=1209279229.1534243176&_ga=2.178802145.43603156.1535718766-1209279229.1534243176

Alcoholics in Ireland put off treatment until addiction is severe

In Ireland, the latest alcohol treatment figures from the Health Research Board (HRB) show that in 2016 there were 7,643 treated cases for alcohol, 4,341 cases for opiates and 2,439 cases for cannabis.

Dr Suzi Lyons, Senior Researcher at the HRB said "The number of cases seeking treatment for alcohol as their main problem drug has plateaued in the last four years. This could be the result of a real decrease in numbers seeking treatment, a move to new online reporting system, availability of services, or a combination of these factors."

"The proportion of cases returning to treatment has increased from 46% to 50% of cases treated, pointing to the chronic nature of addiction. The proportion of new cases presenting for treatment has stabilised since 2012 at 48%."

'There has been an increase in the number of new cases who were already dependent on alcohol when they present to treatment for the first time, from 56% in 2010 to 60% in 2016. This means that more people are presenting when the problem is already severe and being alcohol dependent can make recovery more difficult', concluded Dr Lyons.

GAA and HSE announce 'Drink Less and Gain More' campaign

In Ireland, The Gaelic Athletic Association (GAA) and Health Service Executive (HSE) announced a partnership to promote an important health message at this year's All-Ireland Football Semi-Final on August 11th. This year, Croke Park partnered with the HSE's Ask About Alcohol Campaign to encourage fans to "Drink Less and Gain More – On and Off the Pitch".

For the first time, fans attending the All Ireland semi-final were able to enjoy an alcohol-free family fun zone at the Cusack Stand both before the games and at breaks in play. Each year since 2014, the GAA has nominated one of its All-Ireland semi-finals to promote a significant health message. This year's "Drink Less, Gain More" initiative follows the success of the "Little Things can improve your game" mental health initiative in 2016, and last year's #HurlTheHabit quit smoking campaign.

The GAA has a long-standing ASAP Programme run in collaboration with the HSE, which is designed to reduce the harm caused by the misuse of alcohol and other substances. Since 2014, there has been no sponsorship of any GAA competition by an alcohol company, and no senior inter-county team has an alcohol sponsor. At Croke Park specifically, the consumption of alcohol is highly regulated and not permitted inside the bowl (the seating area of the stadium) at GAA matches.

UK alcohol-related road casualties

The office of National Statistics has published a final report for 2016 that indicates an estimated 9,040 people were killed or injured in drink-drive accidents in Great Britain. This represents a rise of 7% from 8,470 in 2015, and is the highest number since 2012.

The total number of accidents where at least one driver or rider was over the alcohol limit rose by 6% to 6,070 in 2016. Between 220 and 250 people were killed in accidents in Great Britain where at least one driver or rider was over the drink-drive limit, with a central estimate of 230 deaths. The final estimate of drink-drive fatalities for 2016 is higher than in 2015, but the rise is not statistically significant. This estimate continues a period of stability recorded since 2010.

gov.uk/government/statistical-data-sets/ras51-reported-drinking-and-driving#table-ras51001

Health warning labels in Europe

Portuguese and Italian officials have registered disapproval at Ireland's plans to include health warnings on alcohol products which link drinking to a higher risk of developing cancer, with Portugal suggesting they should "show the benefits too."

In December 2017, Simon Harris — Ireland's minister for Health accepted amendments to the country's alcohol labelling laws. Health warnings about alcohol, its ingredients, calories and links to cancer were to take up a third of the space on alcohol labels. Ireland notified the European Commission of the intended change in January 2018.

The submission to the Commission said that warning consumers about the negative impact of drinking without highlighting its potential positives could "distort reality", while Italian officials warned that more severe warnings would raise the cost of exporting wine to the country. It argued that including a link to cancer on warning labels creates an inherently biased viewpoint for the consumer, making it more difficult to make an informed choice. The submission also said that a number of other everyday products and lifestyles raise the risk of cancer, including red meat, processed meat, and "long shift work."

Study sheds light on peer pressure and alcohol consumption

A pilot study involving the University of Stirling has found that more than four in five people in the UK have experienced pressure from friends to consume alcohol. A survey conducted in conjunction with the One Year No Beer (OYNB) campaign revealed that 85% of men and women had been encouraged by peers to take a drink – making it the number one influencing factor when it comes to drinking alcohol. Half of the 1,697 people polled admitted to being pressured into drinking alcohol by colleagues and family, with two in five reported being encouraged by their partner.

The research found that, generally, men felt coerced into drinking more often than women, with men 20% more likely to be encouraged into drinking by their colleagues and 37% more by their bosses. Women reported feeling more pressure to drink from their partners – 22% more than men. Adults aged between 18 and 45 felt more pressure to drink with friends than an older demographic, whereas, men aged 55 and older were 58% more likely to drink on their own. In Scotland, nearly nine in ten adults said that they had heard the, "Go on, just have the one", line in their social lives and, if they chose to abstain, seven in 10 would be asked for an explanation for their lack of drinking. However, compared to other regions in the UK, Scotland scored lower than any other area when questioned about peer pressure in relation to alcohol consumption.

OYNB co-founder Ruari Fairbairns said: "I know from personal experience how difficult it is to say 'no' when you are being badgered into having a drink. It's easy to cave in under peer pressure when everyone around you is having a great time, getting stuck in.

"It's expected of you to drink; it goes against the grain if you don't. Why is it that it's the people we call our friends who find it hardest of any of our relationships to accept when we say 'no'?"

oneyearnobeer.com

Health and relationships aspects of PSHE education to become compulsory in schools in England and Wales

The UK Government has committed to making health and relationships aspects of PSHE compulsory from September 2020. 85% of schools already teach PSHE that covers learning about health and relationships, but these new requirements support a levelling up of PSHE standards across all schools so that every child, in every school, will be guaranteed a PSHE education that covers mental health and wellbeing, physical health (including healthy lifestyles and first aid) and learning about safe, healthy relationships, including understanding consent and negotiating life online. The government has launched a consultation on the accompanying draft regulations and guidance, which is open until November.

consult.education.gov.uk/pshe/relationships-education-rse-health-education/

Legislation and other measures in New York State

Anti-Hazing Legislation

In New York state Governor Andrew Cuomo signed anti-hazing legislation in August that aims to help keep students safe as they return to school. The law (S.2755/A.5200) prohibits certain physical contact or requiring physical activity in any organization's initiating ceremony to prevent the deaths or serious injuries of students during fraternity pledging ceremonies. Those who violate the law will be guilty of hazing in the first degree. The punishment is imprisonment of up to one year. The new legislation was prompted by the death of a 19 year-old New York City college student fatally injured while pledging a fraternity.

Governor Cuomo commented "These hazing rituals are dangerous and reckless with potentially fatal consequences… As we prepare for the beginning of another school year, parents and students alike deserve to have peace of mind that we take hazing seriously and will have zero tolerance for these abuses in New York."

Prevention measures to discourage school bus drivers driving when impaired

New York State is strengthening its law requiring school bus drivers to submit to random drug and alcohol screening.

Under previous law and federal rules, drivers operating mini-buses carrying fewer than 16 passengers were not required to submit to drug and alcohol testing, but the new law includes Class C bus drivers who drive smaller school buses in New York State and represent roughly a third of the 51,000 bus drivers. The new law requires all bus drivers throughout the state to be eligible for random drug and alcohol screenings. It also prohibits school bus drivers from drinking alcohol eight hours prior to their shift, an increase from the previous rule of six hours. New York state legislature started working on changes to the law four years ago when several drivers were apprehended for impaired driving.

Crackdown on underage drinking

New York state agencies will work together to crack down on alcohol sales to minors and the use of fake IDs in college towns, Governor Andrew Cuomo announced in August.

The New York State Liquor Authority and the New York State Department of Motor Vehicles will perform statewide searches of locations holding liquor licenses to look for fake IDs and alcohol sales to minors. The state's combined enforcement efforts start as college students across the state begin the fall semester.

Previously, Cuomo announced a new Department of Motor Vehicles programme that allows law enforcement officers to scan a license or ID using a smartphone app to see if the license matches driving records from any state. New York is the first state in the country to pilot the app. People under 21 who are caught using fake IDs to purchase alcohol can be arrested and have their licenses revoked for a minimum of 90 days. If a business is charged with selling alcohol to someone under 21, it can be fined up to $10,000 per violation. Repeat offenders' licenses can be suspended or revoked.

Cuomo has pledged to increase enforcement of state liquor laws as part of Operation Prevent, a statewide initiative aimed at reducing underage drinking and the use of fake IDs.

New Zealand Legend campaign

New Zealand Transport Agency has launched the latest installation in its award-winning 'Legend' drink driving campaign.

The long-running campaign has been credited with changing attitudes towards drinking and driving in New Zealand. The current campaign aims to connect with young men, aged between 20 – 29 years predominantly living in rural areas of NZ, who have not previously been as exposed to its messages. This demographic are more likely to believe driving under the influence of alcohol is low risk, but in New Zealand, three crashes a week, on average, are caused by young adult drivers who have been drinking.

New Zealand Transport Agency is urging people to stop their mates from drunk driving via its latest campaign.

The campaign titled 'Dilemmas' features two friends hilariously discussing who will take them for surfing if they allowed their drunk friend to drive, who they think in all probability will die due to an accident. They think about lot of other people but realize that none of them would be as good as their friend and ultimately stop him from driving.

Northern Territory in Australia first to introduce minimum floor price for alcohol

In Australia, The Northern Territory has become the first jurisdiction to put a floor price on alcohol.

The NT Government has passed laws to set a floor price on alcohol from October all alcohol will cost at least $1.30 per standard drink. The law is designed to curb problem drinking and will impact the price of cheap wine most significantly, while spirits and beer will mostly be unaffected. Earlier this year, it was reported that the cheapest alcohol available in Darwin was 30 cents per standard drink.

Alcohol, tobacco & other drugs in Australia

The Australian government has published a report that consolidates recently available information on alcohol, tobacco and other drug use in Australia, including key trends in the availability, consumption, harms and treatment for vulnerable populations. Information on a range of health, social and economic impacts of alcohol, tobacco and other drug use are highlighted.

For alcohol the key findings include

- The majority of Australians aged 14 years and over consume alcohol, however the proportion of people drinking in excess of lifetime and single occasion risk guidelines has been declining since 2010 and continues to decline.
- The apparent consumption of alcohol per capita remained stable between 2014–15 (9.5 litres) and 2015–16 (9.7 litres).
- In 2016, 17.4% Australians aged 14 and over put themselves or others at risk of harm while under the influence of alcohol in the last 12 months.
- Over the past 50 years the proportion of apparent consumption of different alcoholic beverages have changed substantially with decreases in the consumption of beer (from 75% to 40%) and increases in the consumption of wine (from 13% to 38%).
- The proportion of people aged 14 and over who exceed the lifetime risk guideline by consuming on average more than two standard drinks per day, decreased from 18.2% in 2013 to 17.1% in 2016.
- 36% of Australians aged 14 and over exceeded the single occasion risk guidelines by consuming more than four standard drinks on one sitting.
- The proportion of Indigenous Australians aged 15 years and over who exceeded lifetime risk guidelines for alcohol consumption decreased between 2008 and 2014–15
- Aboriginal and Torres Strait Islander people (50%), young people (42%) and people with mental illness (18.9%) are more likely to exceed the lifetime risk guidelines.

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

IWSR forecast on global alcohol consumption

Global alcohol consumption is forecast to grow by 147.1m nine-liter cases by 2022 to reach 28 bn cases, and grow $78.7bn in value, according to the IWSR 2018-2022 Forecast: Volume and Value Data.

Total wine will see the largest growth (+37.8m cases), followed by spirits (+36.5m cases). The global beer market is expected to return to growth in 2018 following a poor 2017 in many markets, but then lose volumes year on year to 2022. Despite declining beer volumes, global beer market value is expected to grow year on year. China, US and Russia, where domestic beers are all in decline, are the main contributors to the drop in beer volumes. Vietnam, Mexico and Brazil are forecast to increase the most for beer, while Germany will lead growth for low-alcohol beer.

Within the wine category, still and sparkling wine are leading the growth, while fortified, light aperitifs and other wines are all expected to decline. The US, Russia and Brazil are predicted to be the largest-growing markets for still and sparkling wine between 2017 and 2022.

Spirits have a mixed outlook with the strongest global growth for whisky followed by gin and agave-based spirits such as mezcal and tequila. Vodka is forecast to have the largest drop, due to declining consumption in Russia. Rum and brandy are also forecast to decline due to drops in low-priced brandy and value rum.

The US will continue to be a key market with top growth for wine and spirits, including US whiskey, Irish whiskey, Canadian whisky, tequila, mezcal, Cognac/Armagnac and vodka. The leading growth market for gin is still expected to be the UK and it is expected that France will lead growth for rum.

theiwsr.com

Brewers develop new products with cannabis

A team of scientists in Canada are developing a beer brewed from cannabis, as drinks makers across the country compete to capitalise on the country's legal cannabis industry.

Cannabis beers found in the USA and Canada are brewed with hops and barley, the alcoholic content is then removed and the drink is infused with cannabis oil which contains tetrahydrocannabinol (THC), the psychoactive component of the plant.

But the brewers, Province, filed a patent to brew with cannabis plants directly instead of traditional grain in July 2017. Now, the company is competing with other drinks companies to launch its new product when Canada officially legalises regulated use of the drug later this year.

Molson Coors Canada announced in July that it was joining with The Hydropothecary Corporation to produce non-alcoholic, cannabis-infused beverages. The venture will be structured as a standalone company, with an independent board of directors and management team.

"Canada is breaking new ground in the cannabis sector and, as one of the country's leading beverage companies, Molson Coors Canada has a unique opportunity to participate in this exciting and rapidly expanding consumer segment," Frederic Landtmeters, President and CEO of Molson Coors Canada said.

"While we remain a beer business at our core, we are excited to create a separate new venture with a trusted partner that will be a market leader in offering Canadian consumers new experiences with quality, reliable and consistent non-alcoholic, cannabis-infused beverages," he added.

Heineken acquired a 50% stake in the brewer, Lagunitas in 2015, and has since worked to expand Lagunitas' global presence. In July, Lagunitas launched a "IPA-inspired, THC-infused sparkling water, making Heineken the first big beer brand to enter the US psychoactive drinks market.

Last October, Constellation Brands bought a stake in Canadian marijuana company Canopy Growth Corp, one of only 84 licensed cannabis producers in Canada, to research the possibilities in the market.

The new market has the potential to threaten the drinks industry, particularly craft beer producers, as analysts in the US have already warned that drinkers are moving away from wine and beer to no-ABV alternatives infused with THC.

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, charities, companies and associations to create programmes, materials and policies built around the responsible consumption of alcohol.

AIM Social, Scientific And Medical Council