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Cambodia

In Cambodia, Alcohol experts and victims of excessive drinking came together in December at the launch of Young People and Alcohol, a World Health Organization report detailing the impact of the free availability of drink on youngsters. The participants urged the government to adopt a law controlling the consumption and sale of alcohol that was first drafted in 2008. There are currently no restrictions on the sale or purchase of alcohol in Cambodia. A Ministry of Education official, Kim Sethany, said the alcohol law had been forwarded to the Council of Ministers for approval before going to the National Assembly. “Once the draft is officially passed into law, restrictions will come into place on advertising, distribution and the age of alcohol consumers” she added.

US

In the US a recent report identifies the highest and lowest consuming States for alcohol. America’s Health Ranking report comes from the combined efforts of the United Health Foundation and the American Public Health Association. Excessive drinking was measured as the percentage of adults who binge drink or are chronic drinkers. The driest states were West Virginia (10.3%), Tennessee (11.6%) and Utah (12.1%). The wettest states were North Dakota (25%), Wisconsin (23.3%) and Iowa (22.3%).

Malaysia

Malaysia plans to raise the minimum age for alcohol consumption from 18 to 21 as part of a government strategy to prevent under age drinking and to limit access to alcohol for high risk groups. The plans were set out in a filing to the World Trade Organization. There are also plans to introduce health warnings as additional labeling requirements for alcohol. The filing to the WTO invites other members of the global trading body to comment on its plans within the next 60 days.

India

In the state of Maharashtra, which includes Mumbai, Chief Minister Devendra Fadnavis has approved a proposal to reduce the legal drinking age from 25 to 21 years. The proposal is part of a report prepared by consultancy firm Accenture. To revive Mumbai’s vibrant nightlife it has also been recommended to keep bars open 24x7 and the abolition of permit rooms. The Congress-NCP government raised the legal drinking age to 25 in 2011 in a highly unpopular move. The alcohol laws in the country vary from state to state. While most states have 18 or 21 years as legal drinking age, Chandigarh, Punjab, Haryana, Meghalaya and Delhi have set it at 25. A few states like Gujarat have a complete ban on alcohol.
A new report on alcohol consumption and total mortality risk


Author's Abstract

Background: A large body of research suggests that light or moderate alcohol consumption is associated with reduced all-cause mortality. However, concerns remain that the observed relationship is due to selection bias, misclassification of ex-drinkers, or residual confounding.

Methods: The association between alcohol consumption and all-cause mortality was analysed using Cox regression. The analysis was performed using data from the Health and Retirement Study, a longitudinal cohort of 24,029 individuals from a nationally representative sample of US adults aged more than 50 years. Drinking level was based on alcohol consumption measured at 3 points over the 4 years before the start of follow-up. Occasional drinkers—those who reported drinking on at least 1 occasion, but always less than once per week—served as the reference category. There was extensive adjustment for sociodemographic variables, health status, and functional status.

Results: During 206,966 person-years of follow up 7,902 individuals died. No level of regular alcohol consumption was associated with reduced all-cause mortality. The hazard ratio and 95% confidence interval in fully adjusted analyses was 1.02 (0.94-1.11) for <7 drinks/week, 1.14 (1.02-1.28) for 7 to <14 drinks/week, 1.13 (0.96-1.35) for 14 to <21 drinks/week, and 1.45 (1.16-1.81) for ≥21 drinks/week.

Conclusions: Moderate alcohol consumption is not associated with reduced all-cause mortality in older adults. The previously observed association may have been due to residual confounding.

Forum Comments

The large majority of observational epidemiologic studies, including recent ones with excellent control of confounding, have shown that moderate consumers of alcohol have lower risk of total mortality. Much of such protection has been thought to relate to the inverse association between moderate alcohol intake and cardiovascular disease, an association supported by thousands of experiments in animals and limited randomized clinical trials in humans.

The present analysis does not support most previous studies, which led Forum members to seek to determine why the results of this study are different. The two main concerns about the paper and its interpretation were the author’s failure to consider the effects of under-reporting of alcohol intake when choosing the referent group, and including in the analyses adjustments for factors that have been shown to be mechanisms by which alcohol affects the risk of disease and mortality.

Specific comments by Forum members on the paper: Forum member Zhang stated: “I found that the approach that author took to adjust for confounders difficult to understand. From the description of the subjects, one can see that alcohol drinkers, especially light to moderate drinkers, had better risk profiles except for smoking. The majority of people do not begin to drink at or after age 60; thus, even though comorbidities were assessed at baseline, this does not mean adjusting for these comorbidities is correct, i.e., it does not adjust for mediators. Further, age- and sex-adjusted hazard ratios were confounded by smoking, whereas no model appropriately adjusted for smoking effect because it is always added into a regression model with other comorbidities. It would be very interesting to see the effect of alcohol consumption on all-cause mortality if the model only adjusted for real confounders, i.e., age, sex, smoking, education, ethnicity, and perhaps exercise.”

Imputing missing data for alcohol consumption among subjects: Forum member De Gaetano and associate Augusto Castelnuovo had a major concern that the author inputted missing values for alcohol. “In our opinion a method for imputing missing data may only be acceptable for covariates, not for the exposure of interest. Subjects with missing values for alcohol should have been removed from analysis. In our meta-analyses on alcohol and health, we excluded abstainers who were former drinkers (Di Castelnuovo 2002, 2006)(Costanzo).” Other reviewers stated that as long as the percentage of subjects missing data on alcohol consumption was low, imputing their data would probably not change results very much. Zhang stated: “As far as the imputation of data for alcohol among subjects not providing data, it is also okay to input the exposure as well for a defined cohort. If missing is more than 20% we might worry about why the percentage is so high. So I think that the imputation approach is fine.” Forum members Djoussé and Barrett-Connor agreed that the imputation procedure used in this study was satisfactory. The latter commented: “I do
believe the statistics are correct. Multiple imputation is ok, although not perfect. Perhaps the author could improve the analyses by repeating the analyses with and without multiple imputation and see how the results differ. He could still do this.”

Under-reporting of alcohol intake; using “occasional drinkers” as the referent group: Reviewer Ellison wondered “Is there a problem with ‘under-reporting,’ so that the ‘occasional drinkers’ are really the ‘light-to-moderate’ drinkers? As data on lifetime abstainers were also available, they could serve as alternate referent group. (The results provided by the author in the Appendix show that the relative risk of mortality for moderate drinkers, when compared with lifetime abstainers, are very similar to those of most previous studies: nondrinkers, even lifetime abstainers, show higher risk of mortality than what are referred to in this study as ‘occasional drinkers.’

Reviewer Djoussé commented: “Under-reporting of alcohol could lead to major misclassification where <1 drink/week is used for ‘occasional drinkers.’ The use of average intake from 3 time points is naive, as the author assigned equal weights to reports over the three occasions of 0-0-1 vs. 1-0-0 (0=no alcohol, 1=<1/week); in both scenarios, the average will be the same, but the author is not certain that a 0-0-1 is a person who is beginning to drink alcohol and may be consuming up to 1 or 2 drinks/day in the next few years. For cardiovascular disease, recent consumption is most important.”

Reviewer Skovenborg commented: “In general, comparison studies in the alcohol literature have shown that self-reported alcohol consumption accounts for only 40-60% of alcoholic beverages sold as measured by sales and tax data (Midanik); thus, in this as in all observational studies, there may well be considerable under-reporting of alcohol intake. Of more importance, there may also be selective under-reporting. Stockwell et al found alcohol consumption to be underestimated significantly more by low-risk more than by high-risk drinkers (76.25 ± 0.34% versus 49.22 ± 3.01%). Spirits consumption was underestimated by 65.94% compared with sales data, wine by 38.35%, and beer by 49.02%.”

Skovenborg continued: “No valid arguments have been published against the use of lifetime abstainers as the referent group with state-of-the-art control for possible confounders; however, you need a reasonable number of lifetime abstainers to form a referent group. For example, among the 1536 men in the Italian rural cohorts of the Seven Countries Study, there was only 38 nondrinkers (Farchi et al). In the present analysis, however, there were 8,427 nondrinkers, making up 38.9% of the cohort. Included in the Appendix is a table indicating that when nondrinkers made up the referent group, the “occasional drinkers” had a RR of 0.74 (CI 0.69-0.80) and subjects reporting < 7 drinks/week had a RR of 0.78 (CI 0.72-0.86). These risk ratios are almost exactly the same as those shown in most previous well-done cohort studies.

“A reported level of ≥0.5 – <6.0 g alcohol/day is a level for which a physiological effect of alcohol is not deemed plausible, but this level was associated with a significant increased risk of breast cancer-specific death in a German study (Vreiling et al). This finding suggests that underreporting of intake (and/or the effects of drinking pattern) could be playing a role in the results of the present study.”

Forum member Keil also commented on the choice of the referent group: “I think that one of the first investigators to use persons with minor alcohol intake (0.1-5.0 g/day) as a control group was Eric Rimm. He published a paper with data from the Health Professionals Study in 1991 in the Lancet, where he also used abstainers as a control group and compared the two analyses. When the alcohol consumption groups 5.1-10.0 g and higher up to > 50.0 g were compared with the abstainer group and separately with the minimal alcohol intake group, the results were practically identical. It is understandable that journals like to publish controversial results, but when a paper is at odds with more than thirty years of research findings, the editors of the journal should request better data quality and better reasoning.”

Adjusting for factors in the pathway of alcohol’s effects: There was particular concern that the author may have “thrown out the baby with the bath water” by adjusting for diabetes and coronary disease when relating alcohol intake to mortality. In other words, there is the possibility that the author “over-corrected” for confounding, and adjusted for factors that are in the pathway of alcohol’s effects on mortality. This would attenuate (or even completely erase) an inverse association between alcohol consumption and death from coronary heart disease, which is the leading cause of total mortality in the USA. Skovenborg cites an example: “In a German study
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(Holahan et al), moderate wine consumption was inversely related to the risk of coronary heart disease (CHD) after adjustment for multiple potential confounders; however, the inclusion of risk factors of CHD that might be affected by alcohol consumption [HDL cholesterol, apolipoproteins A-I and A-II, lipoprotein(a), and fibrinogen] in the multivariable models markedly attenuated the inverse association between alcohol consumption and CHD risk.” Studies by Keil et al and by Brenner et al also showed how inclusion of factors that are mechanisms for alcohol's effect attenuates the estimated overall effect of alcohol.

Added Forum member Djoussé: “An inverse association between alcohol and CVD mortality is well justified by biologic mechanisms; further, I think that the author should have access to deaths from CVD. If this is true, I am not sure why he chose not to present such data. One could argue that accidents and natural disaster can cause deaths that are not related to alcohol or any other exposure, but including all deaths in one bag limits the interpretation of the data.”

Limitations to author’s Discussion: Forum member Barrett-Connor stated: “I was confused about the review of the world literature, which used different definitions of alcohol intake, amount and type of alcohol (very different in different countries and cultures and economies, and even religions). I believe we could criticise this paper/review based on differing definitions of alcohol and its use—the way people drink in the UK is different than the way people drink in the United States. Until about 10 years ago, people in the UK drank in the pub and not at home. This has almost completely changed in the last 10 -15 years.”

Barrett-Connor concluded: “Given the amazingly large sample and remarkably complete follow up, I cannot completely refute the findings from this study, even though they are not what I expected to see based on most previous research. We need to figure out how to distinguish between alcohol use and alcoholism, and this paper does not do it. That may be where all these disagreements are manifest.”

Reviewer Lanzmann-Petithory added: “I agree with the remarks of others regarding misclassification due to likely underreporting, subjects with missing data on alcohol and those with binge drinking not being excluded, lack of consideration of type of beverage or pattern of drinking, unjustified choice of referent group, over-adjustment that annuls the correlation, very biased discussion and conclusions, etc. However, as the author shows in the Appendix, he has observed the same as everybody else when using nondrinkers as the referent group: a ‘J-shaped’ association between light-to-moderate drinking and mortality.”

References from Forum review
Vrielings A, Buck K, Heinz J, Obi N, Benner A, Flesch-Janys D, Chang-Claude J. Pre-diagnostic alcohol consumption

Forum Summary

Most observational studies have found that moderate drinkers, in comparison with nondrinkers, tend to have lower risk of all-cause (total) mortality; this is probably related primarily to a reduction in the risk of cardiovascular disease, the leading cause of death among the elderly. This large study has conflicting findings, as the author claims that the present analyses do not demonstrate protection against mortality from light-to-moderate drinking. In this study, what were termed “occasional drinkers,” rather than nondrinkers, were used as the comparison group.

Forum members had two main concerns about this study that warrant an investigation of the author’s conclusions: there was no consideration of under-reporting of alcohol intake when declaring “occasional drinkers” as the referent group, and (2) the inclusion, and adjusting for as “confounders,” several factors that are actually mechanisms by which alcohol has been shown to reduce mortality.

The first concern could have led to many light drinkers being included in the referent group, and thus not evaluated for a potential protective effect of light drinking on mortality. In fact, presented only in the Appendix to the paper are data showing that when nondrinkers make up the referent group, consumers of 1-7 as well as 7-14 drinks per week show significant 20-30% reductions in the risk of mortality; these findings are very similar to those of most previous epidemiologic studies.

The second, and perhaps more important concern, is that some of the mechanisms by which moderate alcohol intake may lead to lower mortality, such as reducing the risk of diabetes and coronary heart disease, were “adjusted” for in the analyses. This would attenuate or even erase any true reduction in risk of mortality from moderate drinking.

Some Forum members also were concerned that some subjects were missing data on alcohol consumption but, rather than excluding them, an estimated value was imputed for them. Further, data on the pattern of drinking (regular moderate versus binge drinking) or on the type of beverage consumed were not included in the evaluation.

Forum members conclude that the results of this study will obviously be considered in conjunction with other scientific data when seeking to judge the relation of alcohol intake to mortality. However, concerns about the analysis raise questions about the conclusion of the author of no protective effect of alcohol on mortality, a finding that conflicts with the results of most previous studies.

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

Elizabeth Barrett-Connor, MD, Distinguished Professor, Division of Epidemiology, Department of Family Medicine and Public Health and Department of Medicine, University of California, San Diego, La Jolla, CA USA

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

Luc Djoussé, MD, DSc, Dept. of Medicine, Division of Aging, Brigham & Women’s Hospital and Harvard Medical School, Boston, MA, USA

R. Curtis Ellison, MD, Professor of Medicine & Public Health, Boston University School of Medicine, Boston, MA, USA

Harvey Finkel, MD, Hematology/Oncology, 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/Cardiology, Praticien Hospitalier Hôpital Emile Roux, Paris, France

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

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

Yuqing Zhang, MD, DSc, Clinical Epidemiology, Boston University School of Medicine, Boston, MA, USA

In addition, a comment was invited from Professor Augusto Di Castelnuovo, Department of Epidemiology and Prevention, IRCCS Istituto Neurologico Mediterraneo NEUROMED, Italy.
An update on the association of alcohol consumption with breast cancer: Effects of BMI


Authors’ Abstract

Background: We aimed to estimate the effect of alcohol consumption on breast cancer risk and to test whether overweight and obesity modifies this association.

Methods: We included in the analysis 45,233 women enrolled in the Swedish Women’s Lifestyle and Health study between 1991 and 1992. Participants were followed for occurrence of breast cancer and death until December 2009. Poisson regression models were used, and analyses were done for overall breast cancer and for estrogen receptor positive or negative (ER+, ER-) and progesterone receptor positive and negative (PR+, PR-) tumors separately.

Results: A total of 1,385 breast cancer cases were ascertained during the follow-up period. Overall, we found no statistically significant association between alcohol intake and breast cancer risk after adjustment for confounding, with an estimated relative risk (RR) of 1.01 (95% CI: 0.98–1.04) for an increment in alcohol consumption of 5 g/day. A statistically significant elevated breast cancer risk associated with higher alcohol consumption was found only among women with BMI ≤25 (RR 1.03, 95% CI 1.0–1.05 per 5 g/day increase).

Conclusion: An increase in breast cancer risk with higher alcohol consumption was found for breast cancers in women with a BMI ≤25 kg/m2.

Forum Comments

Most observational epidemiologic studies have shown a slight increase in the risk of breast cancer for women who consume alcohol. Taking the type of study, the pattern of drinking, and known confounders into consideration, the risk among women who report up to one typical drink per day has been estimated to be about 10% (Ellison et al), although a number of studies have shown higher risk. Having adequate intake of folate, not binge drinking, and not taking hormone replacement therapy have often been found to ameliorate, or even abolish, the risk attributed to alcohol. As summarised in a meta-analysis by Larsson et al, a number of studies (e.g., Zhang S et al, Rohan et al) have found a statistically significant reduction in breast cancer risk for high versus low folate intake among women who consumed moderate or high amounts of alcohol (summary estimate = 0.51, 95% CI = 0.41 to 0.63). Other studies have supported such a finding (Tjønneland et al, Stolzenberg-Solomon et al). However, some studies (e.g., Feigelson et al) do not support an inverse association for folate and breast cancer among alcohol consumers. It has also been shown that the risk of breast cancer among obese women tends to be higher than among non-obese women (Morimoto et al), but there are limited data on how obesity interacts with alcohol in affecting the risk of breast cancer.

The present study is based on a large cohort of Swedish women who were examined as part of the Women’s Lifestyle and Health Study in 1991 – 1992, then followed through 2009 for the development of breast cancer: 1,385 cases were ascertained among the more than 45,000 women in the study. Alcohol was assessed at baseline and again at the follow-up examination. Almost all of the women were pre-menopausal at baseline.

Specific comments by Forum members on study:

Forum members considered this to be a very well-done study, with almost complete ascertainment of cancer cases. Forum member Ellison had some concerns that the authors state at the beginning of their abstract that there was “no statistically significant association between alcohol intake and breast cancer risk after adjustment for confounders.” While this is indeed supported by their data, some casual readers may stop reading at this point and not notice that the authors also state that there was an increase in risk among non-obese women.

For total breast cancer, the RR for women who had a BMI of ≤ 25 kg/m2 showed a step-wise increase in the risk ratio (from 1.0, to 1.05, to 1.19, to 1.32) with increasing category of alcohol intake. A similar relation was seen in two of the three sub-categories of breast cancer. This association was not seen in the more obese women for total cancer or sub-categories. Hence, while the overall results may not show an increase in risk from alcohol intake, the results among non-obese women are similar to those seen in many other studies, and suggest a slight increase in the risk of breast cancer associated with alcohol for at least some women. The differences according to BMI reported by the investigators are interesting, and are supported by the data. Thus, this study adds to...
our understanding of the association of alcohol with breast cancer which, however, remains unclear. Reviewer Barrett-Connor agreed that it was a good study, but warned about “missing data bias and failure to consider season of blood samples, sunlight and vitamin D, Swedish use of fish oil in youth, and other striking diet differences with other populations; the importance of such effects on health have been described by Khaw et al.” Forum member Lanzmann-Petithory had other objections to the study: “I have concern about the way by which the authors calculated alcohol consumption: ‘One 1 glass (of wine) = 1 dl; alcohol by volume = 10 %.’ In this condition, 1 glass of wine would = 8 g of alcohol. We know that a glass of 12 cl of wine at 13% contains 12.5 g of alcohol, 13.5 g if 14%, and 14.5 g if it is a 125 ml glass (6 glasses/bottle) of a wine at 14.5% alcohol. Such calculations could lead to a 36% to 45% underestimate of alcohol intake. Further, women consuming >15 g/d of alcohol appeared to be older at enrollment, and more frequently had a positive family history of breast cancer. Despite attempts at controlling for some of these factors in the analyses, I am afraid that there is a large chance of residual confounding.”

Forum member Keil stated that there may be a number of reasons why the authors did not find an overall meaningful association between alcohol consumption and breast cancer:

1. The Swedish women of this cohort hardly drank any alcohol; 72% of the cohort drank either zero alcohol or below 5 g per day. Perhaps there is major underreporting?

2. The observation period of the cohort is rather long, namely 19 years; the age groups covered are mainly between 40-59 years. Thus a large group of women are premenopausal. Breast cancer risk starts increasing at age 50 and, if I remember correctly, the peak of breast cancer incidence is around age 62. A-ten year longer follow up might provide a different picture.

3. Height and weight were reported on a questionnaire and not actually measured. This is a real drawback of the study (which puts an emphasis on BMI as a confounder or effect modifier), because we know that women tend to underestimate their weight (while men tend to overestimate their height). BMI values seem to be underestimated in this study.”

Keil continued: “Most cohort studies on this topic have found slight increases of the RR for breast cancer with alcohol consumption. Pathophysiologically, this seems plausible to me, because we know that alcohol intake increases oestrogen levels and elevated oestrogen levels are associated with increased risk of breast cancer, but with a decreased risk of osteoporosis”.

Reviewer Van Velden agreed with Keil’s comments: “I agree that we are not sure about the BMI values in this study, and these results must be interpreted cautiously. Alcohol increases oestrogen, and oestrogen stored in the fat cells will increase the risk of hormone-dependant cancers in obese woman. It would be interesting to see whether the investigators did genetic analysis on these woman; the presence of the BRCA 1&2 genes might affect the risk of cancer in the lean women.”

Forum member Finkel states that he has “always been somewhat dismayed with the blanket indictment of alcohol as an inciter of breast cancer, and refusal to view breast cancer and those afflicted therewith as monoliths. Here we have one facet of the heterogeneous realities of the disease, its hosts, and, perhaps, one of its inciters. By some means, likely sexual endocrine levels, alcohol, at least in its manifestation among this population, and obesity may work their evil ways to promote breast cancer in some women via shared pathways.”

Forum member Skovenborg had a number of comments on alcohol and breast cancer, and on this study:

1. The association between obesity and breast cancer risk was explored in the WHI Observational study where a five-unit increase in BMI was associated with 50 extra cases of breast cancer per 100,000 women at-risk per year. Of these 23.8%, could be attributed to estradiol and 65.8% through insulin pathways. Consuming 7+ drinks/wk compared with abstinence was associated with 164.9 breast cancer cases per 100,000, but no significant contribution from estradiol was found. The effect of alcohol on breast cancer was restricted to ER+ breast cancers (Hvidtveldt et al).

2. The finding of an increased risk in leaner women may be due to confounding by socioeconomic status (Nordahl et al).

3. The suggestion of a step-wise increase in breast cancer risk associated with higher alcohol consumption for estrogen-receptor negative cancers
(in women with BMI ≤25) is very unusual and flies in the face of previous findings and also the proposed mechanistic hypothesis of increased estrogen levels in alcohol users.

4. Reports of an overall null-association between alcohol intake and breast cancer risk is not that uncommon. The first example appeared in 1983 (Webster et al) following 3 reports of a positive alcohol-breast cancer association from 1974, 1977 and 1982. With a brief look at the literature, I found 19 such papers consisting mostly of case-control studies but also including the Framingham original cohort and Offspring cohort studies [Zhang Y (1), et al].

5. Firm conclusions about the risk of breast cancer at low intake levels of alcohol cannot be drawn because of the likelihood of measurement errors, particularly the tendency for underestimation. The report from the Swedish MDC cohort study (Mattisson et al) supported a threshold effect with no indication of elevated risk for reported total alcohol consumption <30 g/day. 'High wine consumption' was the only category with a median total alcohol intake >30 g/day. However, information on alcohol habits is sensitive in Sweden and prone to reporting bias: it is possible that the Swedish women report wine more accurately than beer and spirits. Thus, because wine is the major source of alcohol in this population, it is difficult to separate the effect of wine from that of total alcohol.

6. A population-based cohort study of 36,856 women diagnosed with alcoholism in Sweden between 1965-95 (Kuper et al) found that alcoholic women had a surprisingly small 15% increase in breast-cancer incidence compared to the general female population.

Skovenborg concluded: “The alcohol-breast cancer hypothesis remains intriguing, but causality has not yet been definitively established. As for what advice should be given to women, the conclusion of the Framingham investigators from 1999 is still valid today: ‘The best approach seems to be to provide women with scientifically sound, balanced information on the effects of light drinking so that they can make informed decisions regarding their own lifestyle habits’ [Zhang Y (2) et al].”

References from Forum critique


Forum Summary

Most observational epidemiologic studies have shown a slight increase in the risk of breast cancer for women who consume alcohol; the degree of increase is usually small for light-to-moderate drinkers (between 5% and 15% increase for consumers of no more than one drink/day), but the risk may be higher for women consuming greater amounts of alcohol. However, there are a number of factors that affect this relationship, including the type of study (cohort or case-control), the pattern of drinking (regular versus binge), the type of beverage consumed, folate intake, use of hormone replacement therapy, as well as genetic factors. It has also been shown that the risk of breast cancer among obese women tends to be higher than among non-obese women, but there are limited data on how obesity interacts with alcohol in affecting the risk of breast cancer. It is clear that alcohol consumption cannot be evaluated in isolation, without considering other factors that relate to the development of breast cancer.

The present study is based on a large cohort of Swedish women who were examined as part of the Women’s Lifestyle and Health Study in 1991 – 1992, then followed through 2009 for the development of breast cancer: 1,385 cases were ascertained among the more than 45,000 women in the study. Alcohol was assessed at baseline and again at the follow-up examination, and the diagnosis of breast cancer was gleaned through linkage to the nationwide health registries in Sweden. Almost all of the women were pre-menopausal at baseline.

Forum members considered this to be a very well-done study, with almost complete ascertainment of cancer cases. There were some concerns, however, including the fact that the height and weight of subjects was not measured but self-reported, perhaps resulting in less accurate estimates of BMI. Further there may have been residual confounding from other factors related to breast cancer that were not assessed. Finally, the reported levels of alcohol consumption among the women in this study were very low (72% of the cohort drank either zero alcohol or below 5 g per day), but it cannot be determined if these are indeed the levels in this population or whether there may have been under-reporting of consumption.

The key findings as reported by the authors were that, overall, there was “no statistically significant association between alcohol intake and breast cancer risk after adjustment for confounders.” While this is indeed supported by their data, Forum members warned that readers should also note that there was an increase in risk found in less-obese women (BMI ≤ 25 kg/m²), among whom there was a step-wise increase in the risk ratio for cancer from 1.0, to 1.05, to 1.19, to 1.32 with increasing category of alcohol intake. This association was not seen in the more obese women for total cancer or for any of the sub-categories of cancer.

While the overall results did not show an increase in risk from alcohol intake, the results among non-obese women are similar to those seen in many other studies, and suggest a slight increase in the risk of breast cancer associated with alcohol for at least some women. The differences in effect according to BMI reported by the investigators are interesting and add to our understanding of the association of alcohol with breast cancer which, however, remains unclear.

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

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Alcohol consumption and venous thromboembolism: friend or foe?

Authors of a study published in the journal Internal and Emergency Medicine state that ‘A light to moderate consumption of certain types of alcoholic beverages may exert a favorable effect on cardiovascular risk, but no conclusive information is available on the putative relationship between alcohol intake and the risk of venous thromboembolism (VTE)’.

The study group performed an electronic search on Medline and Scopus to identify clinical studies linking alcohol intake and VTE risk. The literature search generated 16 studies, 4 of which are case-control, 1 cross-sectional and 11 prospective.

Significant reduction of VTE associated with alcohol intake was observed in only 4/16 studies, and in all these the association is only meaningful for a moderate amount of alcohol (i.e., 2-4 glasses). Two other studies observed that alcohol intake was associated with an increased risk of VTE, and the association was insignificant in the remainder. Binge drinking increased the VTE risk in one study but not in another. The consumption of beer was associated with a decreased VTE risk in one study but not in two others.

The authors conclude that the relationship between intake of alcoholic beverages and increased or decreased risk of VTE is largely elusive.


Association between blood alcohol concentration and mortality in critical illness

In animal models of renal, intestinal, liver, cardiac, and cerebral ischemia, alcohol exposure is shown to reduce ischemia-reperfusion injury. Inpatient mortality of trauma patients is shown to be decreased in a dose-dependent fashion relative to blood alcohol concentration (BAC) at hospital admission. A study from Boston Massachusetts examined the association between BAC at hospital admission and risk of 30-day mortality in critically ill patients.

The study performed a 2-center observational study of patients treated in medical and surgical intensive care units in 2 teaching hospitals Boston, Massachusetts. The researchers studied 11,850 patients, 18 years or older, who received critical care between 1997 and 2007. The BAC determined in the first 24 hours of hospital admission was categorised as less than 10 mg/dL (below level of detection), 10 to 80 mg/dL, 80 to 160 mg/dL, and greater than 160 mg/dL. The primary outcome was all-cause mortality in the 30 days after critical care initiation. Secondary outcomes included 90- and 365-day mortality after critical care initiation.

Thirty-day mortality of the cohort was 13.7%. Compared to patients with BAC levels less than 10 mg/dL, patients with levels greater than or equal to 10 mg/dL had lower odds of 30-day mortality; for BAC levels 10 to 79.9 mg/dL, the OR was 0.53 (95% confidence interval [CI], 0.40-0.70); for BAC levels 80 to 159.9 mg/dL, it was 0.36 (95% CI, 0.26-0.49); and for BAC levels greater than or equal to 160 mg/dL, it was 0.35 (95% CI, 0.27-0.44). After multivariable adjustment, the OR of 30-day mortality was 0.97 (0.72-1.31), 0.79 (0.57-1.10), and 0.69 (0.54-0.90), respectively. When the cohort was analysed with sepsis as the outcome of interest, the multivariable adjusted odds of sepsis in patients with BAC 80 to 160 mg/dL or greater than 160 mg/dL were 0.72 (0.50-1.04) or 0.68 (0.51-0.90), respectively, compared to those with BAC less than 10 mg/dL. In a subset of patients with blood cultures drawn (n = 4065), the multivariable adjusted odds of bloodstream infection in patients with BAC 80 to 160 mg/dL or greater than 160 mg/dL were 0.53 (0.27-1.01) or 0.49 (0.29-0.83), respectively, compared to those with BAC less than 10 mg/dL.

The study results showed that having a detectable BAC at hospitalization was associated with significantly decreased odds of 30-day mortality after critical care. Furthermore, BAC greater than 160 mg/dL is associated with significantly decreased odds of developing sepsis and bloodstream infection.

Alcohol and mortality after moderate to severe traumatic brain injury: a meta-analysis of observational studies

Experimental studies have shown numerous neuroprotective properties of alcohol ("ethanol") after traumatic brain injury, but clinical studies have provided conflicting results. The authors of a recent study assessed the relationship between positive blood alcohol concentration (BAC) on hospital admission and mortality after moderate to severe traumatic brain injury (TBI).

The authors searched 8 databases for observational studies reported between January 1, 1990, and October 7, 2013, and investigated the effect of BAC on mortality after moderate to severe TBI. Reviews of each study were conducted, and data were extracted according to the MOOSE and PRISMA guidelines.

Eleven studies with a total of 95,941 patients (42% BAC positive and 58% BAC negative) were identified for the primary analysis (overall mortality 12%). Primary analysis showed a significantly lower risk of death for BAC-positive patients compared with BAC-negative patients (crude mortality 11.0% vs 12.3%, pooled OR 0.84 [95% CI 0.81-0.88]), although flawed by heterogeneity (I² = 68%). Multiple sensitivity analyses, including 55,949 and 51,772 patients, yielded similar results to the primary analysis (crude mortality 12.2% vs 14.0%, pooled OR 0.87 [95% CI 0.83-0.92] and crude mortality 8.7% vs 10.7%, pooled OR 0.78 [95% CI 0.74-0.83]) but with good study homogeneity (I² = 36% and 14%).

Positive BAC was significantly associated with lower mortality rates in moderate to severe TBI, the authors conclude. Whether this observation is due to selection bias or neuroprotective effects of alcohol remains unknown. Future prospective studies adjusting for TBI heterogeneity are advocated to establish the potential favourable effects of alcohol on outcome after TBI.


Alcohol consumption and rates of cancer screening: Is cancer risk overestimated?

Alcohol consumption in moderation has been associated with incident breast and colorectal cancer. Whether these associations may be overestimated by more intensive screening among moderate consumers is unknown. A study by Kenneth Mukamal and L Mu examined the associations of alcohol consumption with cancer screening.

In six iterations (2002-2012) of the Behavioral Risk Factor Surveillance System, a telephone survey of US adults conducted by the Centers for Disease Control and Prevention, participants reported their alcohol use and recent screening for several cancers. The researchers assessed whether alcohol use was associated with breast, cervical, and colorectal cancer screening after sample-weighted adjustment for sociodemographic and healthcare utilization factors.

Among 2,191,483 survey respondents, 80.5% (weighted prevalence) of eligible individuals reported having an up-to-date mammogram, 87.7% having a Pap test, and 56.8% having a colonoscopy/sigmoidoscopy. For all breast, cervical, and colorectal cancers, moderate consumers were more likely to report screening (84.7, 91.2, 61.1%) than non-consumers, even after multivariate adjustment (adjusted prevalence ratios 1.04, 1.04, 1.07; p < 0.001 for all). Among binge consumers, the weighted prevalence was lower than that in non-binge consumers (binge vs non-binge moderate consumers 80.5 vs 85.5%, 89.9 vs 91.8%, 52.8 vs 63.3%) but still higher than non-consumers for breast and cervical cancer screening.

In the USA, moderate consumers consistently report a greater likelihood of breast, cervical, and colorectal cancer screening than do non-consumers. The authors suggest that, given the likelihood of over diagnosis, further study of alcohol consumption and cancer should include cancer-specific mortality, which is less sensitive to differences in screening and detection.

Alcohol and Cancer: A discussion between Dr Jürgen Rehm and Dr Arthur Klatsky

An article published on Medscape by Laura A Stokowski reviews current thinking on alcohol and cancer with comments from Jürgen Rehm, PhD, Director of the Social and Epidemiological Research Department at the Centre for Addiction and Mental Health in Toronto, Ontario, Canada and Dr Arthur Klatsky, from the Division of Research and Department of Cardiology at Northern California Kaiser Permanente. (www.medscape.com/viewarticle/854786#vp_2). Below are excerpts of the article with comments from ISFAR members.

Jürgen Rehm, describes how our knowledge about the role of alcohol in cancer has advanced during the past year. "Very simply, the cancers that have been determined previously to be caused by alcohol have been confirmed. There is no discussion about whether alcohol causes these cancers. The fact that alcohol is a carcinogen has been clearly confirmed."

The cancers that Dr Rehm refers to include those of the oral cavity, pharynx, larynx, esophagus, breast, colon, rectum, gallbladder, and liver. [1] The article states that ‘it is also considered probable that alcohol increases the risk for pancreas cancer, although the evidence is inconclusive.’ [1]

Recent evidence suggests that melanoma, as well as cancers of the stomach, lung, and prostate, may be associated with alcohol consumption, although only with high levels of consumption and to a moderate excess risk. [2] There are also differences of opinion on whether liver cancer should be considered an alcohol-related cancer and whether the risk for colorectal cancer is increased in both sexes or only in men. [3]

Alcohol-Cancer Link: New Evidence

The article continues, ‘the increased risk for cancer appears to be significant at lower levels of alcohol consumption in women than in men. In August of 2015, data were published from two large, prospective, ongoing cohort studies—the Nurses’ Health Study and the Health Professionals Follow-up Study. [4] Alcohol consumption was significantly associated with increased risk for cancer, in both women (P trend<.001) and men (P trend=.006), with linear dose-response relations. The increased risk for cancer appears to be significant at lower levels of alcohol consumption in women than in men, and total alcohol consumption, rather than regularity of drinking or heavy episodic drinking, drove the association between alcohol consumption and risk for cancer. For cancers with an established link to alcohol consumption (colorectum, female breast, oral cavity, pharynx, larynx, liver, and esophagus), the respective relative risks were 1.13 for women and 1.26 for men. The leading alcohol-related cancer in women was breast cancer, whereas it was colorectal cancer in men. The risk for cancer, including alcohol-related cancers, was not elevated in men who had never smoked. In women, however, even in never smokers, the risk for alcohol-related cancers was increased because of the association of alcohol with breast cancer. Compared with lifelong abstinence, heavy drinking (≥3 drinks per day) was associated with increased risk for five cancer types: upper airway/digestive tract, lung, female breast, colorectal, and melanoma, with light-to-moderate drinking related to all but lung cancer.’

Dr Arthur Klatsky counters these statements by referring to his and colleagues[5] cohort study of incident cancer risk relative to light-to-moderate and heavy drinking in a large, multiethnic population (n=124,193) of adults with no history of cancer. No significantly increased risk was seen for 12 cancer sites: stomach, pancreas, liver, brain, thyroid, kidney, bladder, prostate, ovary, uterine body, cervix, and hematologic system. These associations were largely independent of smoking, but among light-to-moderate drinkers, there was evidence of confounding by inferred underreporting. These investigators concluded that heavy alcohol drinking is related to increased risk for some cancer types but not others and that because of probable confounding, the role of light-to-moderate drinking remains unclear.

A meta-analysis of 572 studies (486,538 cancer cases) to investigate the effect of alcohol on 23 cancer types by Bagnardi and colleagues[6] found the relative risks (RRs) for heavy drinkers compared with nondrinkers and occasional drinkers were 5.13 for oral and pharyngeal cancer, 4.95 for esophageal squamous cell carcinoma, 1.44 for colorectal cancer, 2.65 for laryngeal cancer, and 1.61 for breast cancer. Compared with lifelong abstention, increased because of the association of alcohol with smoking, the risk for alcohol-related cancers was not elevated in men who had never smoked. In women, however, even in never smokers, the risk for alcohol-related cancers, was not elevated in men who had never smoked. In women, however, even in never smokers, the risk for alcohol-related cancers was increased because of the association of alcohol with breast cancer. Compared with lifelong abstinence, heavy drinking (≥3 drinks per day) was associated with increased risk for five cancer types: upper airway/digestive tract, lung, female breast, colorectal, and melanoma, with light-to-moderate drinking related to all but lung cancer. A recent study in a large, multiethnic population (n=124,193) of adults with no history of cancer. No significantly increased risk was seen for 12 cancer sites: stomach, pancreas, liver, brain, thyroid, kidney, bladder, prostate, ovary, uterine body, cervix, and hematologic system. These associations were largely independent of smoking, but among light-to-moderate drinkers, there was evidence of confounding by inferred underreporting. These investigators concluded that heavy alcohol drinking is related to increased risk for some cancer types but not others and that because of probable confounding, the role of light-to-moderate drinking remains unclear.

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How Much Alcohol Raises Cancer Risk?
The article suggests that, given our current state of knowledge, a "safe zone"—if it exists—cannot be defined. Heavy alcohol consumption has been consistently linked with cancer, but less is known about the impact of light or moderate drinking on cancer risk.

‘One difficulty in establishing guidelines about "safe alcohol intake" and cancer risk is that many studies have defined light, moderate, and heavy alcohol intake differently. Moreover, the alcohol content of a typical drink can vary from country to country.

Typically, the ingestion of three (two for women) or more standard-sized drinks per day is termed "heavy" and fewer than three (two for women) standard-sized drinks daily is "light-to-moderate" drinking. It has been consistently found that heavy drinking elevates the risk for certain cancers substantially, but there is still the question as to whether small quantities of alcohol (e.g., a daily glass of wine, or even less) increase risk for cancer.

Dr Rehm has no doubt that for breast cancer, the answer is "yes." A dose-response relationship exists between alcohol and breast cancer in both pre- and postmenopausal women. Each additional 10 g of pure alcohol ingested per day raises the risk by 2%-12%. "All of the major studies published recently show, clearly and consistently, that the more a woman drinks, the higher the risk for breast cancer. There is no lower threshold."

For other cancers, adds Dr Rehm, the relative risks associated with light-to-moderate intake are not as definitive. "Although it is clear that alcohol causes esophagus cancer, for example, there is some discussion about whether drinking a single glass of wine daily is linked to a statistically significant increase in risk for esophagus cancer."

Light-to-moderate drinking
Dr Klatsky questions the role of light or moderate drinking in the development of cancer because of the potential role of underreporting of alcohol intake in alcohol research. In their study, Klatsky and colleagues inferred underreporting of drinking habits by determining whether participants were likely to be underreporters on the basis of other health records indicating heavier alcohol intake. Among persons reporting one to two drinks per day on the index examination but considered likely underreporters, the hazard ratio for any cancer was 1.4 (CI, 1.3-1.7, P<.001), whereas among those considered unlikely to be underreporters, it was 1.1 (CI, 0.9-1.2).

Dr Rehm argues that the effect of underreporting, if valid, applies only to cohort studies but not to the many case-control studies that also show relationships between alcohol and cancer. "In a cohort study, like the Nurses' Health Study, if you are a good, health-conscious nurse, you might indeed underreport your alcohol intake. But in a case-control study, when you are studying people who have just been diagnosed with breast cancer, for example, these women really scrutinize their lives, thinking back and trying to figure out why they got cancer. They are unlikely at that time to underreport their alcohol intake. We find the association between breast cancer and alcohol in both case-control and cohort studies, so it is unlikely that it is just an effect of underreporting."

Beverage type
According to the article, ‘recent studies have not provided strong evidence of an association between alcoholic beverage type and cancer. Cao and colleagues found the same risk with all beverage types, concluding that ethanol, but not other components of alcoholic beverages, was the culprit. The Kaiser Permanente study found some small associations with different beverage types, but Dr Klatsky did not find them very convincing, believing that these differences were more likely related to the type of person who chooses a certain beverage than to the beverage itself. The effect of beverage choice is confounded by a healthier drinking pattern and more favorable risk traits in wine drinkers."

Drinking patterns and duration
Dr Rehm argues that both duration of drinking (in terms of years) and the age at which drinking started are important determinants of cancer risk. ‘Most people drink alcohol regularly throughout their adult lives. The more alcohol that is consumed, the higher the risk. With respect to patterns of drinking, most studies are not able to assess binge drinking behaviours, so the relationship between heavy, episodic alcohol consumption and cancer is not clear. However, it is believed that, with few exceptions, alcohol-related cancer is primarily caused by long-term heavy drinking rather than by only binge drinking."
The role of smoking

According to the article ‘An interaction exists between alcohol consumption, tobacco, and cancer. In fact, evidence suggests that the combined effect of alcohol and smoking on the incidence of head and neck cancer (oral cavity, pharynx, and larynx) is greater than multiplicative.[10] This interaction is biologically plausible. Alcohol can act as a solvent for carcinogens in cigarette smoke and render the mucosa more permeable to these carcinogens.[11] Data pooled from 17 European and American case-control studies (11,221 cases and 16,168 controls) participating in the International Head and Neck Cancer Epidemiology consortium showed that the population-attributable risk for alcohol on cancer was 72% (95% CI, 61%-79%) for head and neck cancers, of which 4% was due to alcohol alone, 33% was due to tobacco alone, and 35% was due to tobacco and alcohol combined. The risk was higher for men. An effect of smoking on alcohol-related cancers has been confirmed by recent studies. Concurrent smoking and moderate-to-heavy drinking substantially raises the overall population-attributable risk for upper aerodigestive tract cancers compared with nonsmoking drinkers[12].

Do Cardiovascular Benefits Outweigh Cancer Risk?

‘Alcohol is associated with both benefits and harms to cardiovascular health, although not all of the relevant mechanisms are fully understood. In his paper on Alcohol and cardiovascular disease[13], Klatsky demonstrates that heavy drinking can lead to alcoholic cardiomyopathy, systemic hypertension, atrial arrhythmias, and hemorrhagic stroke.[13] At the same time, light-to-moderate alcohol intake is associated with reduced risks for coronary artery disease, myocardial infarction, ischemic stroke, and heart failure.’

Dr Klatsky maintains that "there is very little doubt that light-to-moderate drinking reduces the risk for heart attack and death from coronary disease. This benefit is pretty well-established for light-to-moderate drinking in a healthy pattern; for example, sipping wine with meals." Light-to-moderate drinkers aged 50 years and older, with no significant risk factors for either cancer or heart disease, have the lowest overall mortality, comments Dr Klatsky. "If an older adult wants to lower his or her risk for myocardial infarction, many factors are important—avoidance of smoking, maintaining ideal body weight, exercising, and controlling such risk factors as hypertension and hypercholesterolemia. Does alcohol drinking have a place in that list? It might, but it’s not the most important factor."

The article highlights that a light-to-moderate drinker may enjoy the cardiovascular benefit, but this does not negate the cancer risk.

Younger women with a family history or risk factors for breast cancer, and no major risk factors for heart disease, should not drink for the cardiovascular benefits, reports Dr Klatsky. "Light-to-moderate drinkers who are younger than age 50 will not experience any net benefit from drinking alcohol—they are more likely to experience adverse effects from alcohol."

Dr Rehm’s view is that "the negative effects of alcohol consumption, overall, are more than 10-fold its beneficial effects." ‘Indeed, no net benefit of alcohol consumption on a composite of health outcomes was found in a recent study[14] of an international cohort drawn from low-, middle-, and high-income countries. High alcohol consumption (defined as more than 14 drinks per week for women or more than 21 drinks per week for men) was associated with increased risk for mortality, cancer, and injury and a nonsignificantly reduced risk for myocardial infarction.’

Answering the Question: How Much Can I Drink?

The report suggest that ‘No simple message about alcohol consumption can simultaneously address cancer risk, cardiovascular outcomes, and mortality for the entire population. As starting points, however, most experts can agree on a couple of broad recommendations:

Heavy drinking should be avoided to reduce the cancer risk; and Smoking plus drinking increases the risk for cancer, especially of the upper aerodigestive tract.

"Alcohol and smoking are related," explains Dr Klatsky. "It’s been difficult to tease out the separate effects of smoking and drinking because very few people smoke heavily without drinking at least some alcohol."

For advice that goes beyond avoidance of heavy, regular drinking, binge drinking, and smoking, both Dr Klatsky and Dr Rehm advocate individual decision-making on whether drinking (and how much) is likely to be beneficial or harmful. Dr Klatsky believes that, “Advice should combine objectivity with common sense. Each individual needs to consider his or her own risks, potential benefits, and priorities.”
Dr. Rehm provides an example. "For those who consume just one alcoholic drink daily and no more, the risk will depend on whether they have a medical or family history that is more in the cardiovascular area or in the cancer (especially the alcohol-related cancers) area. If family history is strong for cancer, then even with one drink daily, the benefit is negative for alcohol. If they have a strong family history of myocardial infarction, then the benefit of daily alcohol may outweigh the risk. Once you get to two or more drinks daily, however, the balance is always negative."

Commenting on the discussion paper
Ulrich Keil, MD, PhD, Professor Emeritus, Institute of Epidemiology & Social Medicine, University of Muenster, Germany commented that this is ‘An interesting article with Arthur (Klatsky) doing a good job. But how can Rehm make a statement like "the negative effects of alcohol consumption, overall, are more than 10-fold its beneficial effects", when cohort study after cohort study and meta-analysis after meta-analysis show that light to moderate drinkers have a lower all-cause mortality compared to non-drinkers? (He relates the total burden from heavy drinking and alcoholism to the beneficial effects).

Rehm, whom I have met at a WHO meeting in Oslo and at meetings in Brussels is a fundamentalist. We will never be able to convince him that light to moderate drinking is most likely beneficial to health. What we should do is the propagation and promotion of the mediterranean diet, which comprises light to moderate wine consumption, which according to the paper by the late Dimitri Trichopoulos (The anatomy of the mediterranean diet) contributes by about 25% to the beneficial effect of the mediterranean diet.

The mediterranean diet is all the more important to be promoted, because we live in a world in which for the first time overweight is more prevalent than underweight (although underweight is still a very severe problem). The English speaking countries plus Mexico and Polynesia are those countries with the highest burden of obesity. What we need is a clear focus on the main pillars of prevention and health promotion, namely a good diet, physical activity and non smoking and social conditions conducive to public health.

Erik Skovenborg, MD, member of the Scandinavian Medical Alcohol Board, Aarhus, Denmark and specialist in Family medicine added: ‘I agree with Ulrich’s comments. It is strange to see a director of epidemiological research present such biased views on the results of epidemiological research on alcohol:

- Rehm disregards the inconsistencies of the alcohol-cancer association, e.g. the finding of Cao et al that the risk of cancer, including alcohol-related cancers, was not elevated in men who never smoked.
- Rehm used the results from case-control studies as an argument against Klatsky’s studies of underreporting and disregards the 17 case-control studies that found no association between alcohol and breast cancer risk.
- Rehm has chosen not to mention that the association between alcohol and breast cancer was not found in women with a high intake of folate in most cohort studies.
- In view of the massive negative effects of heavy drinking and alcoholism Rehm is prepared and willing to sacrifice the interest of people with a light to moderate alcohol consumption as a collateral damage well worth the proposed beneficial effects of a reduced world-wide alcohol consumption’.

References from the article


Moderate consumption of white and fortified wine is associated with reduced odds of diabetic retinopathy

A recent study explored the association between alcohol consumption and the severity of diabetic retinopathy (DR).

In a cross-sectional study, patients with type 2 diabetes answered questions on consumption of low and full-strength beer, white wine/champagne, red wine, fortified wines, and spirits. Never, moderate and high consumption of each alcoholic beverage, and overall alcoholic beverage consumption, were defined as <1, 1-14 and >14 standard drinks/week, respectively. DR was categorised into none; non-vision-threatening DR (VTDR) and VTDR. Multivariable logistic regression determined the associations between alcohol consumption and DR.

Of the 395 participants 188 (47.6%) consumed alcohol and 235 had any DR. Compared to no alcohol consumption, moderate alcohol consumption (overall) was significantly associated with reduced odds of any DR (OR=0.47, 95% CI [confidence interval] 0.26-0.85). Moderate consumption of white wine/champagne or fortified wine was also associated with reduced odds of any DR (OR=0.48, 95% CI 0.25-0.91, and OR=0.15, 95% CI 0.04-0.62, respectively). Similar results were observed for non-VTDR and VTDR.

The amount and type of alcohol are associated with risk of DR in patients with type 2 diabetes. A longitudinal study is needed to assess the protective effect of alcohol consumption and DR, the authors argue.


Breast cancer 1 (BRCA1)-deficient embryos develop normally but are more susceptible to ethanol-initiated DNA damage and embryopathies

The breast cancer 1 (brca1) gene is associated with breast and ovarian cancers, and heterozygous (+/−) brca1 knockout progeny develop normally, suggesting a negligible developmental impact. However, a study has shown that BRCA1 plays a broader biological role in protecting the embryo from oxidative stress.

Sox2-promoted Cre-expressing hemizygous males were mated with floxed brca1 females, and gestational day 8 +/− brca1 conditional knockout embryos with a 28% reduction in protein expression were exposed in culture to the reactive oxygen species (ROS)-initiating drug ethanol (EtOH). Untreated +/− brca1-deficient embryos developed normally, but when exposed to EtOH exhibited increased levels of oxidatively damaged DNA, measured as 8-oxo-2′-deoxyguanosine, γH2AX, which is a marker of DNA double strand breaks that can result from 8-oxo-2′-deoxyguanosine, formation, and embryopathies at EtOH concentrations that did not affect their brca1-normal littermates.

These results reveal that even modest BRCA1 deficiencies render the embryo more susceptible to drug-enhanced ROS formation, and corroborate a role for DNA oxidation in the mechanism of EtOH teratogenesis.

Source: Breast cancer 1 (BRCA1)-deficient embryos develop normally but are more susceptible to ethanol-initiated DNA damage and embryopathies Aaron M. Shapiro, Lutfiya Miller-Pinsler Peter G. Wells Redox Biol. 2015 Nov 18
What About YOUth? is a new study that aims to make improvements to the health of young people across England. As part of the study, 120,000 fifteen year olds in England answered questions about important subjects such as their health, diet, exercise, bullying, alcohol, drugs and smoking. WAY 2014 is the first survey to be conducted of its kind and it is hoped that the survey will be repeated in order to form a time series of comparable data on a range of indicators for 15 year-olds across England.

The survey found that 62% reported that they had previously had a whole alcoholic drink 6% of all young people were classed as regular drinkers (drinking alcohol at least once a week). 8% of young people drink alcohol about once a fortnight, 11% drink about once a month, and 32% drink only a few times a year. 15% of participants said they had been drunk at least once within the last 4 weeks, (23% for those who had ever had an alcoholic drink).

10% of the 15 year olds had their first alcoholic drink under the age of 12. An association between age of first drinking and frequency of drinking was also identified; among those who had first had a drink at less than 10 years, 28% were regular drinkers, versus just 3% of those who had their first drink at 15 being regular drinkers.

Girls were more likely than boys to report having had an alcoholic drink (65% and 60% respectively) and to report having been drunk in the last four weeks (27% of girls and 19% of boys among those who had ever had an alcoholic drink). 6% of fifteen year old girls were regular drinkers compared with 7% of boys.

Ethnicity was a strong predictor of drinking behaviours; those from a White background were more likely to have ever had an alcoholic drink (72%) than those from a BME background (27%), and were more likely to be regular drinkers (7% White compared with 1% BME).

24% of young people had ever smoked. 8% of young people were current smokers, which comprised 5% who were regular smokers and 3% who smoked occasionally.

26% of young people said they had ever been offered cannabis. 11% of young people said they had ever tried cannabis, including trying cannabis once. Looking at young people overall, 5% had taken cannabis in the last month, 9% had taken it in the last year, and 2% had taken it more than a year ago. 'In the last year' includes 'in the last month'.

The majority (87%) had never been offered any other drugs. 98% young people had not tried other drugs. 6% of young people did not engage in any risky behaviour, 16% of young people engaged in three or more risky behaviours while 5% engaged in four or more risky behaviours.

The report also identified that drinking levels were higher amongst young people from more affluent areas; 25% more fifteen year olds in the most affluent areas (70% and 50% respectively).

Following the finding that children from more affluent areas were considerably more likely to have drunk alcohol than those from the most deprived areas (70% and 50% respectively).

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Following the finding that children from more affluent areas were considerably more likely to have drunk alcohol than those from the most deprived areas and further findings from an HSCIC study, some charities reacted in the UK press that saying that despite it being legal for parents to allow a glass
of wine with dinner in the home, and some parents believing it protects their children from becoming problem drinkers, the opposite effect is more likely. Helena Conibear, Director of The Alcohol Education Trust who work across Britain to train teachers, reach out to parents and keep children safe around alcohol commented on BBC radio Oxford “what is for certain is that parents are key - as the main supplier of alcohol to those underage and in being good role models. We are looking for parents and carers to be ‘tough love’ parents, that is setting clear rules and boundaries, knowing where their kids are and who they are with - and having consequences if their teenagers are not home on time or ‘break the agreed rules’. We must remember however, that underage drinking has halved in the UK over the last decade - and for the first time the majority of 11-1 5 year olds haven’t even tried alcohol (62%) and the number of 15 year olds who have been drunk by the age of 15 has fallen from nearly half to a third since the last HBSC study.

In terms of middle class parents being more permissive, we talk to parents from every background and community setting across the UK and find the worries and concerns around teenagers are the same - private parties, friendship groups, secretive behaviour and peer pressure. We also know that sadly, health inequalities around long term health are far worse among disadvantaged families, although they drink less, than among the more affluent, what has become known as the health harm paradox”.

www.hscic.gov.uk/catalogue/PUB19244

A Concise guide to the UK changing drinking patterns

The Portman Goup has created a booklet that gives an overview of the patterns of alcohol consumption in the UK with a view to providing a foundation from which to tackle the harms related to alcohol misuse and promote responsible drinking.

Using the latest official government statistics, the series of infographics gives insight into the key trends and behaviours around alcohol in Britain. These resources show the national trends and the regional variations and highlight the public’s views on the driving forces behind Britain’s changing relationship with alcohol.

This booklet also illustrates how the UK drinks industry is supporting local communities to tackle alcohol-related harms and create safer and more vibrant local high streets.


Small wine measures to tackle Scotland's alcohol problem

Wine drinkers in Scotland will be offered small measures as part of a new pilot scheme to reduce alcohol consumption. Customers who ask for a glass of wine in participating pubs, restaurants and hotels will be offered the additional choice of a 125ml serve, alongside the usual 175ml and 250ml measures.

The pilot scheme will initially run in some 100 licensed premises in East Dunbartonshire. It has been set up by the Scottish Government Alcohol Industry Partnership, which hopes to extend the initiative if it proves successful.

Maureen Watt, Scotland’s public health minister, welcomed the scheme as a simple and effective way to promote responsible drinking. Speaking at the scheme’s launch in Milngavie, she said: “The Scottish Government is committed to changing Scotland’s unhealthy relationship with alcohol.”

A recent YouGov survey revealed that 70% of adults do not know how much wine is in a small, medium or large glass. Some 50% of respondents habitually chose a large glass, unaware that a 250ml serve can contain more than three units of alcohol.
Pernod Ricard joins with the AA for Christmas drink drive campaign

According to an AA-Populus survey 54% of drivers avoid drink driving by agreeing a designated driver before a night out, but 19% of drivers have driven the morning after a night of heavy drinking, even when they think they could have been over the limit.

Women are more likely than men to agree a designated driver beforehand (58% vs. 52%). The likelihood increases with age; 43% of 18-24 year olds increasing to 58% of those aged 65 and over. Members living in London are the least likely to agree a designated driver beforehand (40%), and are the most likely to plan to use public transport or taxis (39%). Drivers in the East of England (61%) and the South West (60%) are most likely to agree a designated driver beforehand.

49% of people would alert the authorities if they spotted someone who had drunk too much getting ready to drive, the survey of 29,568 motorists found.

This figure plummets when the situation involves a friend (3%) or relative (2%), although 78% said they would take away the car keys and call a cab if it arose when they were meant to be getting a lift home from a Christmas party.

This year’s Christmas anti-drink driving campaign from the AA and Pernod Ricard UK will be fronted by a brand from the spirit company’s portfolio; Jameson Irish Whiskey. The decision was made in order to target the Jameson brand’s young adult audience. The campaign is digitally-focused and exclusively aimed towards 18-34 year old men. Digital ads will run over the festive season into January 2015 on websites such as: Time Out, Metro and Transport for London and will feature straplines including, ‘Driving? Enjoy a Jameson some other time’ and ‘The key to a great night. No car key’.

Cap celebrates 88 partnerships in 8 years

To mark eight years of progress, in which 88 Community Alcohol Partnership (CAP) schemes have been launched across the UK, CAP published a report, Progress through Partnerships: Creating Safer Communities. It shows positive impacts on crime, anti-social behaviour, litter, residents’ feelings of safety and underage/proxy purchasing – changes that improve the quality of life for the public and reduce harm to young people:

- a 30% reduction in alcohol related anti-social behaviour in the CAP area compared with a 7.4% drop in matched control areas in Barnsley
- a 39.5% reduction in alcohol-related youth anti-social behaviour in Brecon
- an 18% reduction in alcohol-related crime and an estimated 12.5%-25% reduction in alcohol seizures from young people in East Edinburgh
- an 83% decrease in police letters to parents of under 18s caught with alcohol and a 61% decrease in crime and disorder reports linked to street drinking in Great Yarmouth CAP area compared to a 25% decrease across the rest of Norfolk
- a 41% decrease in anti-social behaviour in Hayling Island, Hampshire
- a 46% decrease in anti-social behaviour, 87% decrease in alcohol seizures from young people and an 80% decrease in youth disorder in the London Borough of Tower Hamlets

Mike Penning, Minister of State for Policing, Criminal Justice and Victims, welcomed the report, saying:

“I welcome the reduction in alcohol-related youth anti-social behaviour. The CAP model has promoted effective and innovative partnership work between enforcement agencies, businesses and local community groups and has clearly played an important part in this. I would encourage every area with evidence of alcohol-related youth crime to give serious consideration to setting up a CAP to reduce crime and build safer neighbourhoods.”

Derek Lewis, CAP Chairman said:

“The rapid growth in the number of local CAPs launched in 2014 and 2015, is a welcome recognition of the need to achieve further reductions in underage drinking, a strong vote of confidence in the CAP model and a powerful demonstration of the effectiveness of local partnerships... This report shows unequivocally that CAPs do the job they set out to do.”
Online retailers lag behind in battle against underage drinking

Supermarkets passed 87% of its age-verification check tests, according to Serve Legal, which provides retailers with an independent audit of compliance with age-restrictive sales legislation. The company conducted some 40,000 test visits in 2015.

Petrol stations (84%) and convenience stores (83%) showed similar levels of diligence.

Scotland has the most compliant retailers in the UK with a 90% pass rate. However, compliance among online retailers lags far behind. Only 44% of age check tests were passed by the over 1,000 internet retailers tested by Serve Legal in the last three years.

It said: “An area of major concern is home shopping where ID checks at the point of delivery are rare... Delivery companies must remember that failure to ask for ID on the doorstep when delivering age-restricted products to young-looking people is against the law.”

Christmas campaign to educate shoppers

Drinkaware and drinks company Diageo GB have joined forces with Tesco to educate shoppers on drinking responsibly. In 100 stores across the UK, Tesco staff will give shoppers the chance to test their knowledge on the number of units and calories in their favourite drinks when they take ‘The Drinkaware Unit Challenge’.

Stalls are set up in stores, with staff on hand to teach customers about the alcohol and calorie content in some of the most popular drinks. They will also be handing out 30,000 free measuring cups and calorie wheels to shoppers throughout the day. A leaflet will also be distributed with useful tips for customers on keeping track of how much they are drinking both at home and when out and about over the festive season.

Shoppers will be challenged to match the number of units and calories to four common drinks; a can of beer, a glass of wine, a cocktail and a spirit.

The partnership with Tesco and Drinkaware follows Diageo’s commitment earlier this year to provide consumers with alcohol content and nutrition information per typical serve on labels – a first for any alcohol company – in order to help the public understand how much they are consuming.

Drinking and driving in Wales

An annual report presents information about the association between drink driving and accidents, results of breath tests of drivers involved in accidents and enforcement action relating to drink driving in Wales.

The available sources of information about drink driving and accidents suggest that drivers with blood alcohol levels above the legal limit for driving (currently 80mg of alcohol per 100ml of blood) were involved in a significant minority of accidents in Wales. They also suggest that these drivers were more likely to be involved in the more serious accidents that result in death or serious casualties.

Key points
- In 2013, around 12% of motor vehicle drivers killed in traffic collisions were over the drink-drive limit and, of those motorcycle riders who were killed, 6 per cent were over the drink drive limit.
- In 2014, there were 90 accidents where the reporting police officer considered that a pedestrian(s) being ‘impaired by alcohol’ was a contributory factor to that accident.
- In 2014, for every 4 accidents where the driver was impaired by alcohol, there was around 1 accident where he/she was ‘impaired by drugs’, both illegal and medicinal.
- In 2014 there were no marked seasonal pattern in casualties over a year arising from accidents where one or more of the drivers involved tested positive.
- More drivers in accidents test positive on the weekend than a weekday, and that they are more likely to test positive outside traditional working hours, between 16:00 to 04:00.

[Gov.wales link]
Get home safe campaign at UK universities

Budweiser has announced that it is expanding its ‘Get Home Safe’ campaign for Christmas with presence at nine UK university cities and campuses as part of its ongoing responsible drinking commitments. By the end of Christmas, Budweiser will have distributed over 20,000 bottles of water with local taxi numbers printed on labels, at universities, student nights and music events this year as part of the campaign.

Budweiser representatives will also be on hand at 27 club nights – three at each university – to hand out water bottles and promote drinking responsibly this Christmas; armed with ‘swooper’ flags and branded sampling bins full of water bottles, Budweiser will distribute a total of 1,200 water bottles per university.

Budweiser is also bringing back its Christmas jumper this festive season, the brand’s long-standing emblem for responsible drinking campaigns at Christmas. The jumper will be used across social media activity using the hash tag #BudWiseMen – helping to demonstrate all the perks that come with celebrating responsibly.

The Budweiser Christmas jumper will be a key element of the ‘Get Home Safe’ campaign, worn by staff and handed out to guests at key festive events at the nine chosen universities, helping to communicate Budweiser’s responsible drinking message in unexpected spaces.

Think! UK Christmas campaign

The Department for Transport has launched a new Think! advertising campaign aiming to highlight the risks of drink driving after research showed one in 10 people said they would drive after having had more than one drink. The survey of 781 drivers in England and Wales found that this figure increases to almost one in five among men aged 18-34. 51% of motorists claimed they would not consider consuming any alcohol before driving.

Sarah Sillars, chief operating officer of the Institute of Advanced Motorists, commented: "Many of the people we work with on our drink-drive rehabilitation courses aren’t repeat offenders… Many are drivers who thought that a second one couldn’t hurt."

"Know your limits and know the legal limit. Getting that second drink calculation wrong is easily avoided just by remembering that if you drive, don’t drink."

think.direct.gov.uk/drink-driving.html

Free transport for Londoners at New Year

In the UK, Londoners will again be able to travel home free of charge on New Year’s Eve thanks to a new sponsor, Kayak, the travel search engine. They failed to find a supporter for the scheme last year. Transport for London will put on free Tubes, Overground, DLR, TfL Rail, trams and buses between 11.45pm on December 31 and 4.30am on January 1.

Long-term sponsors Diageo ended its three-year sponsorship deal in 2013, leaving TfL to fund it themselves last year.

The expansion of the Overground network and the incorporation of the old Metro line into TfL Rail mean this year’s free travel offer will apply to more routes than it has at any time since 2001, when it launched.
Report finds fewer young people smoking and drinking in Ireland

Ireland’s Minister for Health Leo Varadkar launched a national survey of school children’s health behaviour, the first of its kind for four years.

The Health Behaviours in School Children (HBSC) survey 2014 shows that overall health levels are good. There are encouraging findings on consumption of fruit and vegetables, teeth cleaning, and a drop in smoking levels and alcohol consumption.

Overall, 58% of boys reported never drinking alcohol compared to 62% of girls. A higher proportion of younger children report never drinking compared to older children and the biggest improvements since 2010 were seen in the 12-14 and 15-17 age groups.

19% of boys and 18% of girls reporting having had an alcoholic drink in the last 30 days. There are statistically significant differences by age group with fewer younger children reporting having had an alcoholic drink in the last 30 days compared to older children.

21% of boys report having ever been ‘really drunk’ compared to 19% of girls. A reduction was seen in all age groups compared to 2010, with the number of 10-11 year old boys who reported being really drunk decreasing from 5% to 2% and the number of 15-17 year old girls decreasing from 53% to 39%. Fewer younger children report having ever been ‘really drunk’ compared to older children.

9% of boys and 9% of girls report having been drunk in the last 30 days. There are statistically significant differences by age group with fewer younger children reporting having been drunk in the last 30 days than older children. Compared to the 2010 survey, the level has decreased from an average of 38% of 15-16 year old girls to 21% in 2014 and for 15-16 year old boys, a drop from 37% to 21%.

Alcohol advertisements will be banned from bus shelters, trains stations, playgrounds and areas near schools under new laws to be unveiled by Health Minister Leo Varadkar.

The Public Health (Alcohol) Bill also aims to eliminate cheap alcohol with pricing measures, crack down on drink promotions and impose a broadcasting watershed.

The bill will also ensure advertisers can only give specific information about their product, and will be prohibited from making it appealing to children. Breaches will be subject to criminal prosecutions for the first time. Warnings in relation to the harmful effects of alcohol consumption in general and during pregnancy must be included in any advertisement.
Alcohol treatment figures for England

Public Health England (PHE) have released alcohol treatment figures in England for 2014-2015, now in a combined report of drug and alcohol treatment data. The number of people presenting for alcohol problems in 2014-15 was 150,640. Of these, 89,107 were treated for problematic drinking alone, and 61,533 for alcohol alongside other substances. 68% of the ‘alcohol only’ were aged 40 or over.

While the overall numbers accessing treatment for alcohol have increased by 3% since 2009-10 (86,385 to 88,904), the number aged 40 and over accessing services has risen by 21% and the number aged 50 and over by 44% Many of these people will have been drinking at high-risk levels for some time and are likely to be experiencing health harm such as liver disease and hypertension.

www.nta.nhs.uk/statistics.aspx

Avec moderation! publishes the results of the pilot operation ESPACE

In November, the Association ‘Avec Moderation’, formerly Entreprise & Prevention, published a summary balance sheet and report on the ESPACE pilot programme conducted for three years in fifteen colleges in Limoges. The pilot focused on the prevention of risk behaviours by developing life skills, and showed promising results. The initiative was supported by Avec Moderation and implemented by educational teams of the colleges with the support of national and regional experts. Following a thorough assessment conducted by the Regional Health Observatory of the Limousin, the report provides a summary of actions and their results.

"We wanted to facilitate access to the teachings of this programme by producing a document that details the actions implemented and results with students, educational staff and parents. Conclusions are proposed following the final evaluation of the operation, both of which were very successful, such as increased self-esteem of students and mobilising parents" said Alexis Capitant, CEO of Avec Moderation!

The final evaluation showed significant differences between the "action" and "control" groups and a positive impact of the ESPACE programme on life skills of students in the “action: group including in terms of self-confidence and assertiveness against the group. These results are important because, according to scientific studies conducted in several countries, these skills provide protection against the adoption of risky behaviours in subsequent years.

www.preventionalcool.com

Campaign in French 6,000 stores reinforce ban on alcohol sales to minors

The association Avec Moderation! and the Federation of Groceries and Proximity of Commerce worked together to develop an information campaign reminding shoppers of the ban on selling alcohol to minors. The campaign is being rolled out in 5755 food convenience stores in mainland France. The group Carrefour, Casino and Francap Diapar took part in the operation.

Depending on its size, each participating store has installed 15-50 posters in liquor isles, about one every metre for the maximum visual impact. Personal awareness is a key aspect of the campaign. A fact sheet has also been distributed to each store participating in the campaign to recall the law and give practical advice

"For minors, respect of the sales ban is one of the ways to reduce the risks associated with alcohol. For professionals, it is an essential field of action since it is their responsibility to impose. We are therefore very pleased to work with the Federation of the Grocery and Proximity of Commerce for this campaign," commented Alexis Capitant, CEO, Avec Moderation!
European facts and the Global status report on road safety 2015

The WHO report on European Road safety finds that all countries in the European Region have national laws to regulate drink–driving but in only 22 countries are in line with best practice.

Current best practice requires national legislation with a drink–driving law, based on a maximum BAC of 0.05 g/dl for the general population and ≤0.02 g/dl for novice drivers. Since 2011, three countries (Ireland, Switzerland and Portugal) have changed their drink–driving laws to be in line with these criteria for best practice. Eleven countries do not have a lower limit for novice drivers, six countries do not base their law on objective measures such as BAC, and four countries (Armenia, Malta, Romania and United Kingdom) allow a maximum BAC of 0.08g/dl.

In order to be effective, the enforcement of drink–driving laws needs to be supported by BAC testing as well as by strict penalties and social marketing campaigns. In the WHO European Region, 94% of countries use all year-round random breath testing to enforce the laws, and 77% of countries use breath testing in specific locations (e.g. pubs) or at specific times.

National estimates of the proportion of road traffic deaths that are attributable to alcohol use are collected in 46 countries and range from less than 1% to 31%, with a median of 14%. Only 39 countries give police the authority to test BAC in drivers involved in fatal injury crashes, though this may not be routinely practiced. Better and more complete data on BAC testing are needed in countries to estimate the potential of preventing drink–driving and reduce alcohol-related harm the report suggests.

FEBE and the City Council of Grenada have signed an agreement to train future bar staff for responsible serving of alcohol.

There is a long standing cooperation between the City Council of Grenada and FEBE (Spanish spirits producers association) to promote responsible drinking through training of bar staff and students in hospitality schools. The first agreement was signed in 2006 and has since been renewed six times. The last agreement signed on 23 November will engage FEBE to deliver training sessions with 50 students in the final grade of the Hospitality and Tourism School of Grenada (IES Hurtado de Mendoza).

The training consists of sharing general information about alcohol; the law and rules governing advertising and promotion; guidance on how to set-up premises to reduce alcohol-related harm; and how to promote responsible drinking. Role plays are used to develop skills for verbal and non verbal communication with clients in difficult environment where sound, music and low lighting prevail.

This training in Grenada forms part of the “Tú sirves, Tú decides” programme which is delivered in 11 out 18 regions of Spain through agreements between municipalities and FEBE. Between 2004 and 2015, 8,150 trainees and professionals were trained by FEBE and a further 2,000 were trained by partners. 55 hospitality schools and more than 400 hospitality businesses took part (especially night businesses).

Regular evaluations of the impact of the training are made with positive results so far. On those premises where the programme is applied, house rules about binge drinking are more likely to be enforced, resulting in lower levels of alcohol abuse by clients. The programme is able to reduce alcohol consumption of barmen working on the premises and has equal effect on both workers and owners. Last but not least, there is a positive impact on income - which should work as an incentive for bar owners to engage in such training!
Male and female drinking patterns becoming more alike in the US

In the United States, and throughout the world, historically, men drink more alcohol than women. But a recent analysis by scientists at the National Institute on Alcohol Abuse and Alcoholism (NIAAA), part of the National Institutes of Health, indicates that longstanding differences between men and women in alcohol consumption and alcohol-related harms might be narrowing in the United States.

Researchers led by Aaron White, NIAAA’s senior scientific advisor to the director, examined data from yearly national surveys conducted between 2002 and 2012.

“We found that over that period of time, differences in measures such as current drinking, number of drinking days per month, reaching criteria for an alcohol use disorder, and driving under the influence of alcohol in the past year, all narrowed for females and males,” says Dr. White. “Males still consume more alcohol, but the differences between men and women are diminishing.” A report of the study by Dr White and his colleagues is online in the journal Alcoholism: Clinical and Experimental Research.

Dr White and his colleagues found that the percentage of people who drank alcohol in the previous 30 days increased for females from 44.9% to 48.3%, but decreased for males from 57.4% to 56.1% between 2002 and 2012. Over that time, the average number of drinking days in the past month also increased for females, from 6.8 to 7.3 days, but decreased slightly for males, from 9.9 to 9.5 days.

Binge drinking by 18 to 25 year olds in college did not change during the decade under study. But among 18 to 25 year olds not in college, there was a significant increase in binge drinking among females and a significant decrease among males, effectively narrowing the gender gap in binge drinking in this age group.

There was only one measure, for any age group, for which the male-female drinking difference actually became greater during the study period; The prevalence of combining alcohol with marijuana during the last drinking occasion among 18 to 25 year old male drinkers increased from 15% to 19 percent, while the equivalent measure for female drinkers remained steady at about 10%.

The authors say reasons for the converging patterns of alcohol use are unclear and do not appear to be easily explained by recent trends in employment, pregnancy, or marital status, as their analyses controlled for these variables.

Dr. White and his colleagues suggest that additional studies are needed to identify the psychosocial and environmental contributors to these changes and to assess their implications for prevention and treatment efforts.

Source: Converging Patterns of Alcohol Use and Related Outcomes Among Females and Males in the United States, 2002 to 2012. Aaron White, I-Jen P. Castle, Chiung M. Chen, Mariela Shirley, Deidra Roach and Ralph Hingson

Health Education becomes a core subject in US elementary and secondary education

A Senate vote on the Every Student Succeeds Act (ESSA, S. 1177), reauthorised the Elementary and Secondary Education Act (ESEA), which includes health as a well-rounded education subject. This is the first time health education has been explicitly included as a “core subject” in an ESEA reauthorisation.

Providing Health Education in the school curriculum helps to prevent tobacco use, prevent alcohol use, reduce obesity, prevent dating aggression and violence, and reduce other risky behaviours. Teaching social and emotional skills improves academic behaviours of students, increases motivation to do well in school, improves performance on achievement tests and grades, and improves high school graduation rates.

“Health and education are the bookends to student success. We look forward to working with state and local education agencies, superintendents, principals, and other education leaders to use these federal resources to fully integrate health education into K-12 curriculum.”

The legislation also specifies physical education as a well-rounded subject and provides strengthened support to physical education programmes enumerated in the previous ESEA reauthorization.

The House previously passed the legislation on December 3, 2015. The bill will now head to the White House where President Obama is expected to sign it.
Alcohol and Ontario students: CAMH survey

A Centre for Addiction and Mental Health study of substance use among Ontario Grade 7 to 12 students has conducted the biennial Ontario Student Drug Use and Health Survey began in 1977 and is Canada’s longest-running systematic study of drug use among youth.

45.8% of all students reported drinking alcohol (a whole drink) during the 12 months before the survey. Drinking has been on a significant downward trend – with the exception of a temporary increase in 2003 – since 1999 when the estimate was at 66.0%.

The current level is significantly lower than the peaks seen in the late 1970s and late 1990s/early 2000s. In fact, the prevalence of drinking reached a historical low in 2013 – dropping lower than the levels seen in the early 1990s – and has since remained stable.

The prevalence of drinking does not significantly differ between males (46.6%) and females (44.9%). Although both sexes show a slight drop in drinking between 2013 and 2015, these were not statistically significant. Both sexes do show a significant downward trend since 1999.

Drinking significantly increases with grade, from a low of 8.6% among 7th graders to a high of 72.4% among 12th graders. Rates of drinking significantly differ by region. Toronto students (38.9%) are least likely to drink alcohol, whereas students in the North (52.1%) are most likely.

The 2015 survey found that 29% of 12th-graders reported engaging in hazardous drinking, and more than a quarter of adolescents said they were allowed to drink at home with friends. 18% of the 10,426 students surveyed reported binge drinking, defined as having five or more drinks on one occasion, at least once during the month prior to the survey.

Most Americans don’t know the legal limit for drunk driving

In the US, a national survey commissioned by the Foundation for Advancing Alcohol Responsibility shows that 63% of Americans do not know the legal limit of 0.08 blood alcohol concentration for drunk driving, which is the law in all 50 states and the District of Columbia.

63% of Americans reported they rarely or never use alternative transportation options, like ride-share services, taxi services or public transportation, when they go out socially.

“Educating the public on the law and how to make informed decisions is especially critical during the holidays due to the spikes in drunk driving,” said Ralph Blackman, president and CEO of Responsibility.org. “And while it is certainly everyone’s own responsibility to make sure they get home safely and responsibly, it takes all of us. So if you think a friend might have had too much to drink, step up and step in to make sure they don’t drive drunk.”

66% of respondents said they believe it is everyone’s own personal responsibility to address impaired driving, according to the survey and 82% said they felt confident enough in social settings to help a friend or guest, who may have over-consumed, get home safely. 54% say they have actually stopped someone from driving or getting in the car with someone who has over-consumed. Among adults who are confident to intervene, most rely on visual and auditory signs, including slurred speech (71%), impaired coordination (71%) and aggressive behaviour (64%). Additionally, (67%) say they rely on the number of drinks consumed to know when to stop someone from driving after drinking.

In light of the survey’s findings, the organisation launched this week a national awareness campaign online and across social media platforms, called “#HolidayResponsibly,” to help educate Americans about how alcohol impacts individuals differently and provide tips to empower adults to intervene before someone gets behind the wheel drunk.

The survey also includes specific data for 11 cities across the country: Atlanta, Boston, Chicago, Dallas, Denver, the District of Columbia, Houston, Los Angeles, Minneapolis/St. Paul, San Francisco and Seattle.

responsibility.org
**Australia: National Health Survey: First results**

In Australia, the National Health Survey: First Results, 2014-15 were released on December 8. In 2014-15, 80.6% of Australians aged 18 years and over had consumed alcohol in the past year. A further 8.2% had consumed alcohol 12 or more months ago, and 10.7% had never consumed alcohol. More males had consumed alcohol in the past year (85.6%) than females (75.7%). 66.2% of all 15-17 year olds had never consumed alcohol, an increase from 2011-12 (49.1%).

The 2009 National Health and Medical Research Council (NHMRC) guidelines for reducing health risks associated with the consumption of alcohol state that, for healthy men and women, ‘drinking no more than four standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion. A single occasion of drinking refers to a person consuming a sequence of drinks without their blood alcohol concentration reaching zero in between.

In 2014-15, 44.0% of Australians aged 18 years and over exceeded the single occasion risk threshold of consuming more than 4 standard drinks at least once in the past year, similar to 2011-12 (44.7%). More males exceeded the guideline than women in 2014-15 (56.8% and 31.7% respectively).

Young adults were more likely to exceed the single occasion risk guideline than other ages. In 2014-15, over two-thirds (69.4%) of males aged 18-24 years consumed more than 4 standard drinks at least once in the past year, while 60.6% of females of the same age exceeded the guideline.

The Northern Territory had the highest proportion (47.8%) of adults exceeding the guideline followed by Western Australia (47.0%), while New South Wales and Victoria had the lowest rates (both 42.5%).


**Bill on low-alcohol beer in supermarkets welcomed in New Zealand**

A bill that will allow zero-alcohol and very low alcohol beers to be sold alongside full-strength beer in supermarkets is welcomed by the grocery sector, says the New Zealand Food & Grocery Council.

The Sale and Supply of Alcohol (Display of Low-alcohol Beverages and Other Remedial Matters) Amendment Bill 2015 will change the Sale and Supply of Alcohol Act 2012. It was introduced to Parliament by Justice Minister Amy Adams and will receive its first reading in 2016.

Food & Grocery Council Chief Executive Katherine Rich said she was pleased the Government had moved to address what was an anomalous situation, where to comply with the law retailers have to put zero-alcohol beer in the soft drinks aisle.

“I'm glad to see common sense has prevailed and this unintended consequence can be corrected in the law.

“It doesn't make sense that these products can’t be put next to other beer when everyone wants to provide options and promote responsible drinking” she added.
Anheuser-Busch InBev launches Global Smart Drinking Goals

Anheuser-Busch InBev has announced the launch of four Global Smart Drinking Goals, adding to its commitment to implement effective and collaborative solutions to reduce the harmful use of alcohol. The new goals, to be achieved by the end of 2025, demonstrate an evolution in the company’s approach to responsible drinking, from helping to raise awareness of alcohol responsibility to positively changing behaviour by investing in longer-term, evidenced-based approaches to reduce harmful drinking, including underage drinking, binge drinking and drink driving. The Goals are to introduce multi-year city pilots to reduce the harmful use of alcohol by 10%; invest 1 billion USD in social marketing campaigns & related programmes; ensure at least 20% of the company’s global volume is No- or Lower-Alcohol; and place a guidance label on all products to increase alcohol health literacy.

“As the leading global brewer, we believe we have a unique role to play in championing a culture of smart drinking globally” said Carlos Brito, CEO of Anheuser-Busch InBev. “For more that 30 years, we have invested in initiatives to promote responsible drinking and discourage harmful drinking. Now, we are taking our efforts to the next level, moving beyond awareness raising to driving real impact for the communities in which we live and work.”

In 2014, AB InBev successfully met or exceeded all six of its original Global Responsible Drinking Goals, as confirmed by an independent auditor. The first set of goals included partnerships, public education initiatives, retailer training and other activities that reinforced responsible drinking. The new Global Smart Drinking Goals build on that legacy by focusing on two key areas: changing behaviours by investing in evidence-based programmes that measurably decrease the harmful use of alcohol and empowering consumers to make smart drinking choices.

Road safety campaign launch in Western Australia

The Western Australia state Government has launched its latest road safety campaigns, urging motorists to eliminate drink driving and ‘grow up’. Safety Minister Liza Harvey said the drink driving adverts, ‘Only A Little Bit Over’ and ‘Grow Up’, primarily target young men and reinforce that drink driving is juvenile behaviour.

“More than 80 per cent of people killed or seriously injured in alcohol-related crashes were men and they need to understand that it’s not just a matter of losing your licence - you could lose your life or kill someone else” she added.

For over 20 years, the State Government has focused on community education campaigns to raise awareness on the danger of drinking and driving. In the last five years, the number killed or seriously injured on WA roads where alcohol was a factor has reduced from 313 in 2008 to 185 in 2013. In WA in 2011/12, more than 15,000 people were booked for drink driving and in 2012 alcohol was a factor in 19% of fatal crashes attended by WA Police. Of police-attended fatal crashes in 2012, the highest proportions of drivers/riders with illegal BACs were males in the 40 to 49 and 30 to 39 year age group followed by younger men aged 25 to 29. The highest proportion of drivers in serious or fatal alcohol-related crashes are men aged between 17 and 24.
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.

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