Original Research

Exploring the national low-risk levels for alcohol consumption: a narrative review

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Abstract

Introduction: Drinking guidelines are considered to help in minimizing the harms of alcohol use.

Objectives: To review the current national guidelines on low-risk alcohol consumption (LRAC) and compare them to the latest evidence on risk thresholds for alcohol consumption

Methods: We searched for, and then scrutinized, the national guidelines on LRAC issued by individual countries in the world through online database search and additional search via personal communication. The latest evidence of this scale on risk thresholds of alcohol consumption as presented in a major combined analysis authored by Wood et al. (2018) was used to analyse the appropriateness of the national LRAC guidelines found. We investigated the validity of this combined analysis communicating with the corresponding author when needed.

Results: Forty-one countries have issued LRAC levels with a variation of 390%, from 10 g up to 39 g/day for men. The definition of a standard drink has a variation of 250%, from 8 g to 20 g. The combined analysis by Wood et al. (2018), which showed features of a rigorous methodology combines data from 83 studies, revealing the positive relationship with the level of alcohol consumption and increased mortality even at levels of 100 g/week.

Conclusions & Recommendations: The process of development of National LRAC Guidelines needs to be protected from the possibility of interference of the alcohol industry. In most cases, these national guidelines need to reduce the level recommended as per the Wood et al. (2018) findings, which were found to be highly valid and accurate. Also, these LRAC guidelines should be specific and appropriately named.

Keywords: alcohol consumption, low risk level, harms of alcohol, drinking guidelines, recommendations on alcohol consumption, benefits of alcohol use

Introduction

Publishing evidence-based national recommendations on low-risk levels of alcohol consumption by individual countries may be seen as an attempt to reduce the extent of harm caused by alcohol use, similar to mandating vehicle speed limits reducing risks associated with motor vehicle use. However, the effectiveness of low-risk alcohol consumption guidelines, which is an example of a targeted prevention strategy, is not well supported by evidence, in contrast to the established effectiveness of non-targeted interventions such as tax hikes on alcohol (1-3).

Harm due to alcohol use includes harm occurring as a result of acute alcohol consumption, (intoxication), harm occurring as a result of long-term alcohol use, (alcohol-induced chronic diseases) and harm occurring as a result of combination of the above two (harm over a lifetime) (4). Harm due to alcohol use can be calculated using an appropriate methodology. In Sri Lanka in the year 2015, the total cost of harm due to alcohol was estimated to be USD 885.86 million, 1.07% of the GDP of the country that year. The major portion of that (66%) was indirect costs of alcohol use among which road traffic accidents and injuries came on top. Alcohol related diseases cost USD 388.35 million, which was the balance 44%(5). Harm due to alcohol use correlates with the prevalence and the magnitude of alcohol use. Alcohol use is widely prevalent in certain communities, especially in Western cultures, as shown in Table 1 (6). The harm related to alcohol use is therefore most prevalent, as shown in Figure 1 in those countries (6).

Health benefits from moderate alcohol consumption appear to have been exaggerated and applicable only to certain individuals, while the overall level of health protection is currently a subject of uncertainty (7). The dispute regarding possible alcohol related reduction in mortality from myocardial infarction is yet to be fully settled (8). Drawing a line between the low- and high-risk consumption is a complex task, the methodology of which is not universally agreed upon (1). A recent major meta-analysis published by Angela Wood & colleagues (2018) in The Lancet titled 'Risk thresholds for alcohol consumption:

combined analysis of individual-participant data for 599 912 current drinkers in 83 prospective studies' (9), is considered to have "substantially improve[d] on previous meta-analyses to define low-risk drinking thresholds" (8), while receiving many accolades in non-scientific circles too(10). Our paper attempts to summarize all of the currently available national guidelines on LRAC, and then to review the potential impact of the results and recommendations of the above-mentioned large-combined analysis by Wood et al. (2018) on the LRAC guidelines. We also scrutinized the methodology of the combined analysis by Wood et al. (2018) to determine the validity of their recommendations.

Methods

This narrative review included a search of the scientific literature via PubMed/Medline and Cochrane Database to evaluate the major current guidelines on LRAC. Aligned with the research question, broad search terms were used. These included 'low risk / alcohol drinking / consumption /guidelines/ food based dietary guidelines'. The search filtered the articles published in peer-reviewed journals between 1 January 2000 to 20 November 2020. Searches were limited to papers in English language. All articles were screened for relevance to the research question. To capture any missed articles, including those in non-medical databases or in languages other than English, a Google Scholar search was initiated that fitted the research question, while additional search was made using other search engines, country specific searches and personal communication. The titles and abstracts were reviewed using predetermined screening criteria. Inclusion and exclusion criteria are listed in Table 2.

Following the identification of the relevant documents, the two authors reviewed the full text of each one to confirm the relevance and to review overall themes. After applying the screening criteria, 91 related articles were retained for the review. Once the duplicates were removed, the search identified 45 articles for the final review. Agreement was obtained on overall patterns and gaps. Whenever the source of a national guideline showed questionable credibility,

the first author's personal contacts in alcohol research field in that country were contacted to verify the source. Compatibility of the recommendations in these national guidelines were assessed against the latest evidence as reflected in the major combined analysis by Wood et al. (2018). Prior to this, the validity of the methodology of this combined analysis was scrutinized by the authors, including communicating with them when doubts needed to be clarified.

Results & Discussion

We found 41 countries, 21 high income, six upper middle income and one from each middle income and lower-middle income countries from all over the world with clear guidelines on low- risk alcohol consumption. Countries were categorized according to the World Bank Classification based on gross national income (11). There were four countries with national guidelines from America, one from Africa, 28 from Europe, five from Asia and three from Australasia Pacific Region. All these guidelines are issued by the government ministries or institutes. All guidelines issued by non-governmental agencies or not clearly acceptable to government authorities were excluded from this search. Guidelines issued by non-governmental organizations were not included since the aim of the review was to explore national guidelines. Table 3 summarises the national guidelines on LRAC from these 41 countries (4, 12-54).

The most comprehensive review published before ours, which was by Kalinowsky and Humphreys (2016) had identified 37 countries that have published national guidelines on recommendations on low-risk alcohol consumption levels (55). In order to minimise the possibility of including guidelines influenced by the alcohol industry, they examined the guidelines issued by governments only (55). They point out that ambiguous definition or lack of a definition of the term 'standard drink' has a negative impact on alcohol control research and policy work. According to them, guidelines from certain countries use the term 'standard drink' in recommending low-risk alcohol consumption levels

without a clear definition. Such recommendations can potentially be interpreted in varying ways (55).

The paper by Wood and colleagues (2018) published in The Lancet in 2018 named 'Risk thresholds for alcohol consumption: combined analysis of individual-participant data for 599 912 current drinkers in 83 prospective studies', shows a positive and curvilinear association for all-cause mortality with the level of alcohol consumption, with the minimum mortality risk around or below 100 g of alcohol per week (9). They further concluded that there were no clear risk thresholds below which lower alcohol consumption stopped being associated with lower disease risk for cardiovascular disease subtypes other than myocardial infarction. However, several potential methodological flaws were identified such as inclusion of studies with cohort designs without proper justification and enabling a common analytical approach despite variation in the methods used (e.g., self-administered vs. interviewer-led questionnaires; food frequency questionnaires vs. dietary recall surveys; consumption scales over different periods of ascertainment). We found their conclusions to be valid as they have performed random effect meta-analysis justifying combined analysis, demonstrating non-violation of the proportional hazard assumption.

Definition of a standard drink in national LRAC guidelines

The national guidelines of the United Kingdom and Malta adopt the smallest standard drink, 8 g of pure alcohol, out of all the national guidelines (7,39). This is compatible with the definition of a unit of alcohol, as given in the Shorter Oxford Textbook of Psychiatry (56), which is the smallest standard drink found in literature. The largest standard drink is 20 g of pure alcohol as defined in the Austrian guideline (12), which reflects a 250% variation from the smallest. The United States defines a unit of alcohol as 14 g (54).

We also checked the recommendations of the World Health Organization (WHO), despite the fact that such recommendations fail to be called a national

guideline. It appears that the WHO avoids adopting a definition for a standard drink, but certain WHO documents, namely Brief Intervention For Hazardous and Harmful Drinking and The alcohol Use Disorders Identification Test (AUDIT), refer to 10 g of alcohol as a unit (57-58).

Low-risk levels of alcohol consumption recommended in the national guidelines

Some national guidelines were ambiguous and non-specific in stating the low-risk levels. South Africa recommends a specific number of daily wine/ beer/ spirits glasses without specifying what exactly a wine/ beer/ spirit glass is, while Belgium, Bulgaria, Chile, China, Cyprus, Germany and Norway do not make an attempt to specify a unit of alcohol (13, 15, 17-18, 21, 30, 42, 48). In contrast, the United States have uniform definitions for binge drinking and low-risk drinking, despite the use of varying terms to indicate low-risk drinking, such as 'moderate drinking' and 'non-heavy drinking', by different authorities (59-61).

Lowest level of recommendation, i.e., 10 g of alcohol per day for women and men, is found in the Netherlands while the highest level is found in Chile, which is 273 g per week (39 g/day) for men and 182 g per week (26 g/day) for women (17, 40). There is a 390% variation in the levels recommended for men. The UK Chief Medical Officer (7) and the National Health Service, England (53) recommend not to drink more than 112 g of alcohol per week for both men and women, which is 16 g of alcohol per day on the average. Guidelines from the US recommend 14 g of alcohol per day for women and 28 g for men as the low-risk level (59-61).

The guideline issued in the Netherlands for both women and men is based on the theme "Don't drink alcohol, or no more than one glass daily", with the justification of drinking more does not deliver any additional health gains and is undesirable due to its increased risk of stroke and certain cancers (40). Further, UK has taken steps to lower the low risk consumptions levels in their recommendations published in 2016 (62). South Africa's Food Based

Dietary Guidelines, revised in 2012, no longer include recommendations on alcohol use implying no level of alcohol use can be recommended (63).

Important observations can be made when the results of this review are compared against other well-respected non-national guidelines. The WHO does not provide clear guidance on a low-risk level for alcohol consumption, but mentions that drinking more than 20 g of alcohol per day is detrimental to health (57-58). The British Heart Foundation (64) and American Heart Association (65) have guidance similar to their national guidelines.

The amount of alcohol recognized by each government as compatible with an acceptable risk to health of the individual and the community shows a remarkable divergence (390%). This beckons us to suspect what factors, in addition to scientific data on harm associated with alcohol use, may have influenced these recommendations. If LRAC guidelines are similar to the motor vehicle speed limit guidelines, they are expected to be adhered to most of the times. However, such adherence will result in a considerable dent in the income of the alcohol industry. Hence, restrictive alcohol drinking guidelines are not expected to be favoured by the alcohol industry with their competing and conflicting business interests. Alcohol industry is well known to interfere in public health policy development all over the world in a pervasive and aggressive manner (66). It is naive to believe that they do not interfere in the development of low-risk alcohol consumption guidelines by the governments, especially after the pejorative revelation that two-thirds of the funding for a massive clinical trial by the National Institutes of Health in the US to investigate possible cardiovascular benefits of alcohol with an overall budget of USD 100 million, have been provided by five multinational alcohol companies (67). Furthermore, the alcohol industry is determined to portray alcohol as a beneficial commodity and the users of this product drawing significant advantages, mainly pleasure, by using the product; and it is only a minority of pathological users that cause problems, who thus have to be dealt with differently (68). On the other hand, our practical experience tells us that, people frequently drink above the recommended

levels, even if the highest levels of recommendations are considered (Table 1).

It is interesting to note that the very notion of having a defined and/or a recommended low risk level can potentially be used to denote that alcohol is safe to consume. The MedlinePlus Website, maintained by the National Library of Medicine in the US, claiming to be “the world's largest medical library”, uses the term “alcohol use and safe drinking” (69) providing evidence to the above. Though there is an indication of the harmful effects of alcohol, inclusion of the term “safe drinking” inadvertently recommends, and thus promotes alcohol use. In certain guideline documents, many false and misleading terms have been used, such as “safe lower level of drinking”, inadvertently promoting alcohol use (4). Since, the guidance of these national recommendations is on the lowest risk levels, such recommendations should not be named, or viewed, as recommended safe levels of alcohol consumption.

Changes expected in low-risk drinking guidelines following the publication of the combined analysis by Wood et al. (2018)

Authors of the Wood et al. (2018) paper conclude that their findings favour lowering the allowable limits of alcohol consumption in current national guidelines as most of them tolerate a higher limit (9). The low-risk limit recognized by them is 100g of alcohol per week, which translates into five (assuming standard drink=20 g of alcohol) or seven (assuming standard drink=14 g of alcohol) or 12-13 (assuming standard drink=8 g of alcohol) standard drinks in a week. The adoption of the recommendations of this landmark combined analysis would affect significant changes in some of the national guidelines, especially on risk thresholds for men, as shown in Table 4.

Table 1: Alcohol per capita consumption (APC) in litres of pure alcohol and in grams per day by WHO region and the world in 2016 (6)

WHO Region	All		Drinkers only			
	APC (L/year)	Alcohol use per person (g/day)	APC calculated for drinkers (L/year)	Alcohol use per drinker (g/day)	Current drinkers (%)	Proportionate alcohol use in drinkers compared to average use in the population
Africa (AFR)	6.3	13.6	18.4	40.0	32.2	2.9
Americas (AMR)	8.0	17.4	15.1	32.8	54.1	1.9
Eastern Mediterranean Region (EMR)	0.6	1.2	21.2	46.1	2.9	38.3
Europe (EUR)	9.8	21.3	17.2	37.4	59.9	1.8
South-East Asia Region (SEAR)	4.5	9.8	12.1	26.3	33.1	2.7
Western Pacific Region (WPR)	7.3	15.8	13.8	30.0	53.8	1.9
WORLD	6.4	13.9	15.1	32.8	43.0	2.4

Source: Global status report on alcohol and health 2018 published by World Health Organization (WHO)

Table 2: Eligibility criteria for selecting studies

Inclusion criteria	Guidelines relevant to adult population more than 18 years of age All national guidelines on alcohol consumption Guidelines in all countries as per world bank list
Exclusion criteria	Guidelines published by bodies without authority to publish national guidelines

Conclusions & Recommendations

The large variation in the LRAC levels and the standard drink given in the national guidelines and the business interests and the past behaviour of the alcohol industry raise the potential possibility of the interference of the alcohol industry in development of national LRAC guidelines. Hence, taking steps to protect the process of developing such guidelines from interference of the alcohol industry is important.

Renaming these LRAC guidelines appropriately, for example as 'recommendations on risk thresholds for alcohol consumption for persons who wish to use alcohol' will minimise the promotion of the false notion that moderate drinking is either non-harmful, or is, advisable. Furthermore, introducing such guidelines to countries that do not currently have them (e.g., Sri Lanka) is of questionable public health validity, which needs further discussion.

The findings of the landmark study by Wood et al. (2018), which are found to be highly valid and accurate, arguably resolve the debate on health benefits from moderate alcohol consumption including reduction in mortality from myocardial infarction. The existing guidelines in most countries should be immediately revised to reflect the latest knowledge on alcohol related harms. Instead of using the 'standard drink' concept, prescribing the specific amount of alcohol in grams per time duration is clearer and more meaningful. Such revisions are possible and practical as shown by the Netherlands and the UK.

Public Health Implications

- LRAC guidelines are not as effective as perceived widely in reducing alcohol related harm in a country; if not properly done, they may actually promote alcohol use.
- Any amount of alcohol use reduces life span significantly despite having a protective effect against myocardial infarctions.
- Existing guidelines on LRAC in most countries need to be revised urgently to reflect the currently accepted low-risk level of 100 g of alcohol per week. Since this level still carries a significant risk of premature death, the guideline should clearly state that.
- Protecting the process of development of policies such as LRAC guidelines related to alcohol use from the interference of the competing business interests of the alcohol industry is of critical importance.
- The low-risk alcohol drinking guidelines should be renamed as 'recommendations on risk thresholds for alcohol consumption for persons who wish to use alcohol'.

Authors Declarations

Competing interests: MR is a member of the Expert Committee on Tobacco, Alcohol and Illicit Drugs of the Sri Lanka Medical Association, the founding director of the Centre for Combating Tobacco at the Faculty of Medicine, University of Colombo, and the Chairman of the Alcohol and Drug Information Centre (ADIC) Sri Lanka. YS has no competing interests to declare.

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Table 3: Alcohol drinking guidelines on LRAC from different countries

Country	Source of the guideline	Men	Women	Standard drink in grams
1. Australia	Australian Guidelines to reduce health risks from drinking alcohol published by National Health and Medical Research Council, Australia (4)	20 g/day	20 g/day	10 g of pure alcohol
2. Austria	Factsheet for the Austrian Dialogue Week on Alcohol "How much is too much?" published by Austrian ARGE Addiction Prevention in collaboration with Federal Ministry of Social Affairs, Health, Care and Consumer Protection (12)	24 g/day	16 g/day	20 g of pure alcohol
3. Belgium	Guideline for alcohol consumption published by Flemish expertise center for alcohol and other drugs (13)	10 drinks/week	10 drinks/week	Not defined
4. Bosnia and Herzegovina	Bosnia and Herzegovina dietary guidelines published by the Institute for Public Health (14)	Up to 20 g/day	Up to 10 g/day	10 g
5. Bulgaria	Ministry of Health- National Centre of Public Health Protection (15)	16 g/day	8 g/day	Not defined
6. Canada	Canada's low-risk alcohol drinking guidelines published by Canadian Centre on Substance Use and Addiction (16)	15 drinks/week	10 drinks/week	13.6 g
7. Chile	Know more about alcohol published by Ministry of the Interior and Public Security (17)	39 g/day	26 g/day	Not defined in clear terms
8. China	Chinese dietary guidelines Published by National Health and Family Planning Commission (18)	25 g/day	15 g/day	Not defined
9. Croatia	Dietary guidelines for adults published by Ministry of Health (19) Croatian Institute of Public Health (20)	20 g/day	10 g/day	10 g
10. Cyprus	National guidelines for nutrition and exercise published by Ministry of Health (21)	2 drinks	1 drink	Not defined

11. Czechia	Overview of national guidelines for moderate alcohol consumption: low-risk ethanol levels published by Ministry of Health of the Czech Republic in collaboration with RVO (State Institute of Public Health), State Health Institute in Prague and Health, Nutrition And Food Center In Brno (22)	24 g/day	16 g/day	10 g
12. Denmark	Prevention package: Alcohol published by The National Board of Health (23)	14 standard drinks/week	7 standard drinks/week	12 g
13. Estonia	Published by The Institute for Health Development (24)	20 g/day	10 g/day	10 g
14. Fiji	Webpage on Alcohol compiled by the National Substance Abuse Advisory Council (NSAAC) hosted on the official website of the Ministry Of Health & Medical Services (25)	30 g/day and 150 g/week	20 g/day or 100 g/week	10 g
15. Finland	Finnish Food Authority –(26)Finnish Road Safety Council Drinking and Driving (27)	24-28 g/day	12-14 g/day	12g-14 g
16. France	Alcohol info Service- France Know the risks for lower risk consumption (28)	Up to20 g/day, maximum 100 g/week	Up to20 g/day, maximum 100 g/week	10 g
17. Georgia	Healthy eating-The main key to health- Public Health Department, Ministry ofLabor, Health and Social Affairs, WHO, 2005 (29)	20 g/day	10 g/day	Beer (5%) 250 ml alcohol 9.8 gwine (11%) 120 ml alcohol 10.4 gHigh alcoholic drinks (40%) alcohol 9.4 g
18. Germany	German Nutrition Society(30)	20 g/day	10 g/day	-
19. Greece	Ministry of Health- National Nutrition Guideline for people aged 65 and over (31)	2 drinks/day	1 drink/day	1 small (330 ml) beer, 4-5 % vol; 1 glass (125 ml) wine, 11% vol; 1 glass (40-45 ml) ouzo or other drink (i.e., whisky, gin, vodka, tequila), 40% vol.
20. Grenada	Government of Grenada, Food-based Dietary Guidelines-2006 (32)	1 drink/day	1 drink/day	5 ounces of wine or 12 ounces beer or 10 ounces of wine cooler or 1 ½ ounces of distilled liquor (rum, vodka, whiskey etc.)

21. Iceland	Island Directorate of Health- Always negative for your health to feel (33)	20-24 g/day	10-12 g/day	10-12 g pure alcohol
22. Ireland	Health Service, Health Promotion Unit (34)Health Service Executive- Weekly low-risk alcohol guidelines (35)	Up to 170 g/week	Up to 110 g/week	10 g pure alcohol
23. Italy	Food and Nutrition Research Centre- Guidelines for a healthy diet- Revision 2018 (36)	Up to 24 g/day	Up to 12 g/day	12 g
24. Japan	Ministry of Health, Labor & Welfare- Drinking guidelines (37)	20 g/day	Less than 20 g/day	10 g recently, 20 g in the past
25. Luxembourg	National Centre for the Prevention of Addictions (38)	20-24 g/day	10-12 g/day	10-12 g
26. Malta	Dietary Guidelines for Maltese Adults- Information for professional involved in nutrition education (39)	2 units/day	2 units/day	8 g
27. Netherlands	Health Council of the Netherlands. Dutch dietary guidelines 2015. The Hague: Health Council of the Netherlands, 2015; publication no. 2015/24E (40)	10 g/day	10 g/day	10 g
28. New Zealand	Ministry of Health, Health Promotion Agency- Low risk alcohol drinking advice (41)	Up to 30 g/day or 150 g/week	Up to 20 g/day or 100 g/week	10 g
29. Norway	The Norwegian Directorate of Health-Dietary recommendations, nutrition and physical activity (42)	20 g/day	10 g/day	Not defined
30. Philippines	Republic of Philippines, Department of science and Technology- Food and Nutrition Research Institute (43)	2 standard drinks/day	1 standard drink/day	1.5-ounce distilled beverage such as gin or 12 ounces or a bottle of beer or four ounces wine or half glass wine or an ounce of 100 proof whiskey
31. Poland	State Agency for solving alcohol related problems (44)	Up to 40 g/day or 280 g/week	Up to 20 g/day or 140 g/week	10 g
32. Russia	Ministry of Health- Russia, Prevention of alcohol and drug use (45)	30 g/day	20 g/day	10 g of pure alcohol
33. Singapore	Ministry of Health, Dietary Guidelines for Adult Singaporeans aged 18 to 69 (2003) (46)	20 g/day	10 g/day	10 g
34. Slovenia	National Institute of Public Health- Risky Drinking of Alcohol (47)	20 g/day	10 g/day	10 g

35. South Africa	Department of Health, Republic of South Africa –Guidelines for Healthy Eating (48)	2 drinks/day	1 drink/ day	Not clearly defined: One drink is equivalent to one glass of wine, one dumptie of beer or one tot of spirits
36. South Korea	Korean Journal of Family Medicine (49)	≤8 drinks/week up to 65 years and ≤4 drinks/week for men over 65 years	≤4 drinks/week up to 65 years and ≤2 drinks/week for women over 65 years	14 g
37. Spain	Ministry of Health, Social Services and Equality- Alcohol and primary health care basic clinical information for identification and management of risks and problems (50)	280 g/week	140 g/week	10 g
38. Sweden	The National Board for Health and Welfare- Support for conversations about alcohol (51)	Up to 14 drinks/week	Up to 9 drinks/week	33 cl strong beer, 12-15 cl wine or just under 4 cl spirits
39. Switzerland	Federal Office of Public Health- Alcohol prevention campaign “How much is too much?” (52)	Up to 2 standard drinks/day	Up to 1 standard drink/day	One stick of beer (4.5% 3 dl, 10.8 g pure alcohol)/ one glass of schnapps (40%, 0.3 dl, 9.6 g pure alcohol)/one glass of wine (12%, 1 dl, 9.6 g pure alcohol)
40. United Kingdom	Department of Health, UK Chief medical Officers' Alcohol Guidelines Review: Summary of the proposed new guidelines (2016) (7) National Health Service (53)	≤14 Units/week	≤14 Units/week	8 g
41. United States	Department of Agriculture and Department of Health and Human Services, Dietary Guidelines for Americans 2015-2020 (54)	Up to 28 g/day	Up to 14 g/day	14 g

Table 4: Suggested proportional reduction in current risk thresholds for men in national guidelines to be compatible with the new findings

Country	Suggested proportional reduction
Netherlands, France	0%
South Korea, United Kingdom, Bulgaria, Malta	11%
Bosnia and Herzegovina, Croatia, Georgia, Germany, Norway, Singapore, Slovenia, Australia, Japan	29%
Iceland, Luxemburg	29-40%
Fiji, New Zealand	33%
Denmark, Italy, Austria, Czechia	40%
Finland	40-49%
Ireland	41%
China	43%
United States	49%
Canada	51%
Russia	52%
Chile	63%
Poland, Spain	64%

Figure 1: Percentage of deaths attributable to alcohol use by WHO region and the world in 2016

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