

Response from the Royal Statistical Society (RSS) to the Department of Health's consultation on proposed new alcohol guidelines

The Royal Statistical Society (RSS) is a learned society and professional body for statisticians and data analysts, with almost 8,000 members in the UK and across the world. As a charity, we advocate the key role of statistics and data in society, and have done so since we were founded in 1834. One of our six key strategic goals is for society to be more statistically literate, so that people's understanding of data, risk and probability can inform their daily decision-making.

Summary points and recommendations

1. *Communications should genuinely reflect the principle of informed choice. There should be no unqualified prescriptive phrases such as 'men should only drink less than 14 units a week'.*
2. *Communications should acknowledge the minimal risks of the recommended low levels of alcohol consumption.*
3. *Focus should also be given to higher-risk levels of consumption, for example at a weekly consumption of 35 units for women and 50 for men.*
4. *More detailed information should be provided for those who want it, for example by using info-graphics.*
5. *The low-risk threshold could be set as an 'aspirational' target, and people encouraged towards this, while acknowledging there is a trade-off against the perceived benefits of moderate levels of alcohol consumption. The table below shows a possible message.*

<i>Risk level</i>	<i>Weekly consumption Women</i>	<i>Weekly consumption Men</i>	<i>Guidance</i>
	35 units or above	50 units or above	Unacceptable, high risk – must reduce from this level
	14 to 35 units	14 to 50 units	Try to reduce to 14 units, or as low as you can
	14 units or below	14 units or below	Broadly acceptable, low risk

1. The 'low-risk' threshold

- 1.1. We recognise that this is a contested area of science with considerable uncertainties, and that the Government has a complex task in communicating complex statistical information to the public.
- 1.2. We support the basic idea of a 'low-risk' threshold. When communicating the draft guidance, the Guidelines Development Group (1) identified 14 units a week as a 'low-risk' level, equivalent to less than a 1% chance of dying from an alcohol-related condition. They correctly avoided the term 'safe', since this could give the misleading impression that consumption above this level was 'unsafe'.
- 1.3. Given that low-levels of alcohol consumption can provide both pleasure and relaxation, and is an integral part of our culture, we also strongly support the principle of 'informed choice' clearly articulated in the Guidelines Development Group report (1): "*People have a right to accurate information and clear advice about alcohol and its health risks. There is a responsibility on Government to ensure this information is provided for citizens in an open way, so they can make informed choices*".
- 1.4. However, the current communications by Department of Health do not seem to make any attempt at this balance – the tone is peremptory and prescriptive. For example the Department of Health website states that men "*Men should not drink more than 14 units of alcohol each week, the same level as for women*" (2). Categorical statements such as this run counter to the proclaimed aim of 'informed choice'.
- 1.5. In spite of the risks at the revised guidelines being acknowledged as minimal, the communications have also strongly emphasised potential harms of low-level consumption, particularly cancer. This appears to have been built into the commissioned analysis from the start, and it could be argued that the main change from the previous guidelines has been due to a statistically-unjustified assumption imposed by Public Health England¹. There has been a continued emphasis on inducing fear through mentions of cancer, and consistent downplaying and even denial of any health benefit - the Press release says that "*the protective effect of alcohol against heart disease has now been shown not to apply to men*", which directly contradicts the estimates published in Table 10 of the Guidelines Development Group report (1).

¹ In previous analyses there had been a threshold under which no increased risk of acute harm was assumed, but the Sheffield Report (3) states that "*At the request of the commissioners (Public Health England), this threshold effect was removed for the base case analysis meaning there is no threshold mean weekly or peak daily alcohol consumption level below which risks of acute alcohol-related mortality or morbidity are equivalent to that of abstainers.*" Table 13, p49 of the Sheffield Report shows that, without this enforced assumption, the threshold for males to reach a 1% lifetime risk would have been 21 rather than 14 units, exactly the previous Guideline. We also note the statistically implausible assumption of a linear relationship between relative risk of acute harm and alcohol-consumption, instead of the standard log-linear relationship. This again serves to increase the apparent harm of low levels of consumption by forcing the statistically unjustified assumption that the number of acute deaths arising from a change in peak daily consumption from, say, 0 to 2 units would be the same as a change from, say, 20 to 22 units.

1.6. We can understand the thinking behind this communication strategy. The ‘Rose’ idea is that making small improvements to the mass of lower-risk people will improve the overall public health more than focusing on the far fewer high-risk individuals. But we would question the ethics of trying to do this by giving an exaggerated impression of the harms of low-levels of alcohol.

1.7. There has been substantial negative comment in the media about the guidelines failing to live up to the stated aim of providing information for adults to make their own choices, including considered editorials in the Guardian and the Times. Our concern is that scepticism about public health advice might apply to future pronouncements concerning arguably much greater health risks associated with inactivity, poor diet and obesity that, unlike alcohol consumption, are increasing problems. Once public trust has been lost, it is extremely difficult to win back.

1.8. Specific recommendations.

- *Communications should genuinely reflect the principle of informed choice. There should be no unqualified prescriptive phrases such as ‘men should only drink less than 14 units a week’.*

- *Communications should acknowledge the minimal risks of the recommended low levels of alcohol consumption.*

2. Higher thresholds

2.1. The matching Guideline of 14 units a week for men and women gives the misleading impression that men and women have the same resilience to alcohol.

2.2. The Guideline Development Group recommended examining higher risk thresholds. Figure 1 below is taken from Tables 10 and 11 of the Guideline Development Group report, and illustrates the risk of higher levels of consumption. We have added horizontal lines indicating the level of ‘acceptable risk’ used by the Guideline Development Group (1% lifetime), and added a possible line for an ‘unacceptable’ level of risk, at 12.5%, or the level at which 1 in 8 people die from their drinking. From this picture we can conclude:

- At one unit a day (half a standard glass of wine), they estimate a very small overall benefit for men and a larger overall benefit for women.
- The ‘broadly acceptable’ 1% risk is at around 14 units a week for both men and women
- There is a dramatically increased risk for higher consumption, with women having a steeper gradient than men.
- An ‘unacceptable’ 12.5% risk would be at around 35 units a week for women, and 50 units a week for men. These are precisely the current definition of ‘higher-risk drinking’, and also the level of ‘harmful drinking’ as defined by the World Health Organisation.

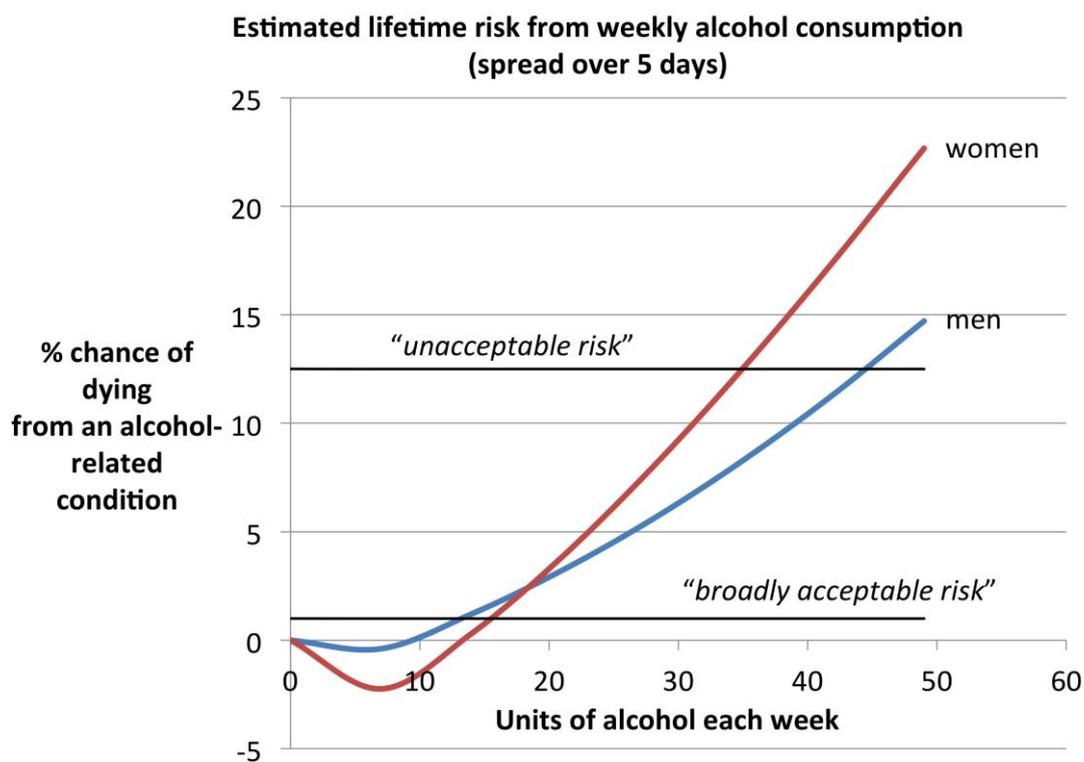


Figure 1 Risks from Tables 10 and 11 of Guideline Development Group report, with superimposed 'broadly acceptable' and 'unacceptable' risks

2.3. This approach fits within the extraordinarily successful 'tolerability of risk' framework developed and used very effectively by the Health and Safety Executive for many years. This avoids any idea of 'safe' or 'unsafe', and keeps in mind at all times the benefits that may be generated by undertaking the hazardous activity in the first place. 'Broadly acceptable' and 'unacceptable' regions are assessed, and between them lies a 'tolerable' region. In this region every effort should be made to reduce the risks *As Far As Reasonably Practicable (ALARP)* (4).

Figure 1: HSE framework for the tolerability of risk

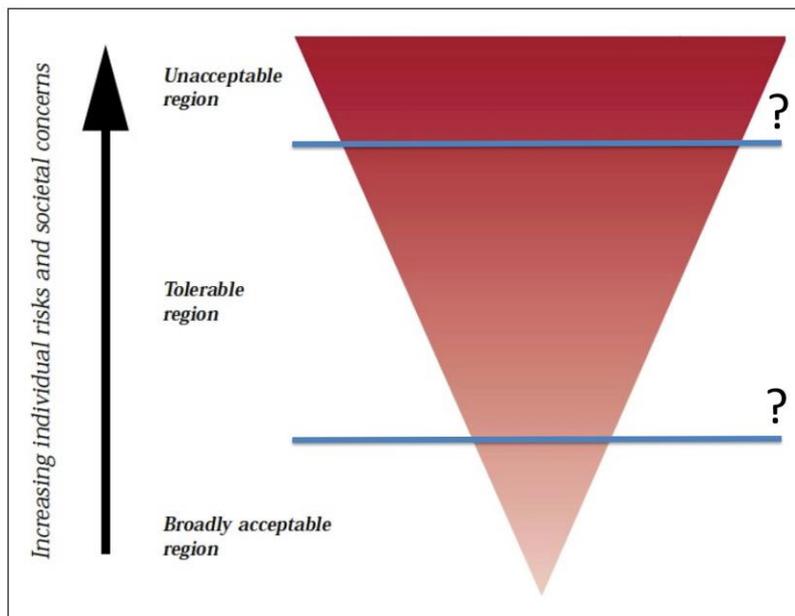


Figure 2. HSE Framework for the tolerability of risk (4)

2.4. We are not necessarily suggesting the use of this precise terminology. It may be better to set the low-risk level as an 'aspirational' target, and encourage people to make their drinking 'As Low As Reasonably Achievable' (ALARA) – another HSE term. This treats people with respect, acknowledging that we all make risk trade-offs every day. A possible message could be as follows:

<i>Risk level</i>	<i>Weekly consumption Women</i>	<i>Weekly consumption Men</i>	<i>Guidance</i>
	35 units or above	50 units or above	Unacceptable, high risk – must reduce from this level
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2.5. Specific recommendations

- *Focus should also be given to higher-risk levels of consumption, for example at a weekly consumption of 35 units for women and 50 for men.*
- *More detailed information should be provided for those who want it, for example by using info-graphics.*
- *The low-risk threshold could be set as an ‘aspirational’ target, and people encouraged towards this, while acknowledging there is a trade-off against the perceived benefits of moderate levels of alcohol consumption.*

References

1. Department of Health. Alcohol Guidelines Review – Report from the Guidelines development group to the UK Chief Medical Officers - CMO_Alcohol_Report.pdf [Internet]. [cited 2016 Mar 20]. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/489797/CMO_Alcohol_Report.pdf

2. Department of Health. New alcohol guidelines show increased risk of cancer [Internet]. [cited 2016 Mar 20]. Available from: <https://www.gov.uk/government/news/new-alcohol-guidelines-show-increased-risk-of-cancer>
3. University of Sheffield. Drinking Guidelines (Draft 4) - Final Report.pdf [Internet]. [cited 2016 Mar 20]. Available from: <https://app.box.com/s/wlludrmim3gd83r28c4oqb3upj68cqia/1/5748700525/48901446881/1>
4. Health Safety Executive R. Reducing risks, protecting people. HSE's decision-making process [Internet]. 2001 [cited 2011 Dec 19]. Available from: <http://www.hse.gov.uk/risk/theory/r2p2.htm>

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