



## SHORT REPORT

### **An examination of the diversity of beer and cider products sold in Irish supermarkets in the context of health promotion advice**

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## Abstract

**Aim:** Current health promotion advice relating to the consumption of beer and cider in Ireland is very firmly based on nominal pints and half pints of beer. This study sought to determine if the assumed alcohol strength of beer and cider available in a sample of mainstream supermarkets was appropriate. This study also sought to examine if the assumed size of containers of beer and cider was accurate.

**Methods:** All beer and cider products in a purposive sample of Irish mainstream supermarkets was examined. Data was input into SPSS and examined.

**Results:** There is a substantial level of variation in the container size and alcohol content of beer available in mainstream supermarkets in Ireland.

**Discussion:** Current health promotion advice in Ireland is out of date and does not enable people to easily monitor their drinking and follow healthy drinking guidelines. The obvious answer is the enactment of the Public Health (Alcohol) Act, 2018, that has already been passed requiring alcohol containers to display the number of grams of alcohol contained. However, this element of the legislation, despite being passed into law, has yet to be either enacted, or even given a date for enactment.

**Keywords:** Alcohol, Ireland, size, strength, warnings, standards, health promotion

**Authors' contributions:** All authors contributed equally.

**Conflict of interest:** None declared.

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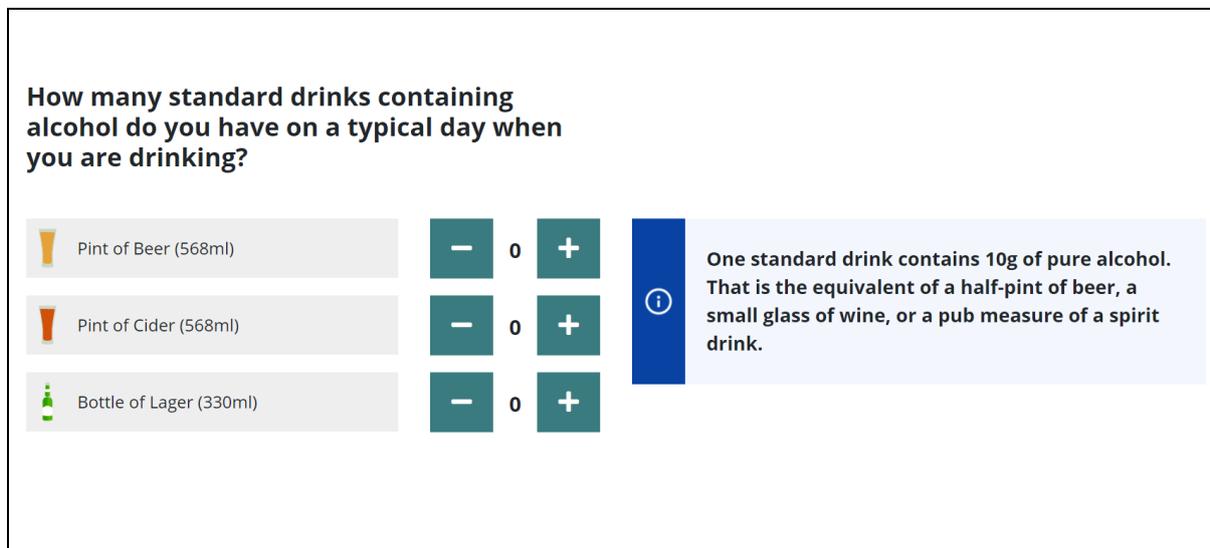
**Compliance with Ethical Standards:** Ethical approval was not required for this study.

### An examination of the diversity of beer and cider products sold in Irish supermarkets in the context of health promotion advice

Ireland has a substantial alcohol problem. Although there has been a significant decline in average alcohol consumption in Ireland since the height of the Celtic Tiger boom, it remains an intensely problematic issue. Ample evidence exists of its negative impact on both the mental and physical health of drinkers, as well as on their families and communities. The negative impacts on already stretched health services are also considerable (1-5). Evidence clearly demonstrates that a substantial proportion of the population are not heeding either weekly or daily low risk drinking guidelines. The National Alcohol Diary Study indicates that over 1.33 million people in Ireland are harmful drinkers, with heavy episodic ('binge') drinking being a particular issue (2).

The mainstay of alcohol health promotion advice and guidelines in Ireland is currently focused around detailing and limiting the consumption of units of alcohol (6-8). A unit of alcohol is usually considered half a pint of beer or cider, one glass of wine, or a shot of spirits. In Ireland a unit of alcohol is equal to 10 grams of alcohol (9). In recent years the advised level of safe alcohol consumption in Ireland has decreased from 21 units a week for men and 14 units a week for women to 17 and 11 units respectively. Current Irish health advice suggests that no more than 6 units of alcohol should be consumed in a day, this is also a reduction from previous advice. In relation to units of alcohol Mongan & Long suggest that 'Beer is the easiest for drinkers to estimate as beer is the most standardised and most beer is sold in single serve containers' (10).

**Figure One: Screenshot Example of a Health Services Executive's (HSE) Online Self-Assessment Tool for Alcohol Utilising the Standard Drink Concept (8)**



How many standard drinks containing alcohol do you have on a typical day when you are drinking?

 Pint of Beer (568ml)	-	0	+
 Pint of Cider (568ml)	-	0	+
 Bottle of Lager (330ml)	-	0	+

**One standard drink contains 10g of pure alcohol. That is the equivalent of a half-pint of beer, a small glass of wine, or a pub measure of a spirit drink.**

However, the concept of a unit of alcohol is highly problematic. It must be noted that there is considerable variation internationally on what constitutes a standard drink. This variation exists both

within Europe and outside of it. In the UK for example a unit of alcohol is 8g of ethanol. In Ireland, as in many other European countries including Poland, Estonia, France & Spain, a unit of alcohol

is 10g of ethanol. However, in some other European countries, particularly the Nordic states, a unit of alcohol is 12g of ethanol. This includes Norway, Sweden, Denmark and Finland (10). It is even higher in some countries, such as Canada and the USA, where a unit of alcohol is 13.6g and 14g of ethanol respectively.

The potential causes of confusion for people attempting to adhere to safe drinking guidelines for alcohol in Ireland are many. The reduction in the safe drinking guidelines mentioned above is an important factor, and the geographical variation in definitions also seems likely to foster confusion. It must be remembered that as well as the considerable number of UK citizens living in Ireland, many more Irish citizens have lived and worked in countries such as the USA and UK, where definitions of a unit of alcohol are different. Further complexity may arise from the widespread use of both imperial and metric systems of measurement, which is reflected in the variation of alcohol container sizes.

Further confusion is also possible as alcohol containers may contain information on both the alcohol by volume (ABV) percentage, and the more historical proof measurement of alcohol. Although phased out by many countries in the 1970s and 80s, alcohol proof also measures alcohol content. The measure was originally developed in England in the sixteenth Century and was the equivalent about 1.8 times the percentage of alcohol by volume. It only serves to confuse matters further that alcohol proof is defined differently in the US, it being double the percentage of alcohol by volume there. In evaluating people's ability to calculate and understand healthy drinking advice it is also vital to appreciate the significant proportion of the population that routinely struggle with even relatively basic mathematics. Evidence suggests that in Ireland approximately 25% of the population have less than or equal to

the most basic, Level 1 numeracy skills, as measured on the Programme for the International Assessment of Adult Competencies (PIAAC) (11). This puts Ireland 19th out of 24 participating countries. These results suggest that '754,000 Irish people struggle with everyday maths, and may be unable to do a simple maths calculation such as subtraction' (12). These factors may, in part, explain why evidence suggests that just 2% of adults know the low-risk healthy drinking guidelines (13).

At present alcohol warning labels are not required by law in Ireland. However, Section 12 of Ireland's Public Health (Alcohol) Act, 2018 includes provision for the introduction of alcohol warning labels, including a specific requirement regarding the warning detail 'the quantity in grams of alcohol contained in the container concerned'. However, there is currently no date of enactment for this section of the legislation.

In the absence of mandatory alcohol warning labels in Ireland it is important to examine how relevant the standard health promotion advice on alcoholic beverages actually is. Specifically, around a half pint of beer or cider being equivalent to one (Irish) unit of alcohol. Health Service Executive (HSE) Reports discussing alcohol content routinely describe beer as a nominal 4.3% alcohol, with strong beers being rated at either 5% or 5.6% (9). Speciality and micro-breweries have a long history of creating extra potent beers and ciders. However, adopting a more public health-oriented approach, this research aimed to explore the strength of beer and cider available in mainstream Irish supermarkets, and their associated container sizes.

## Method

All beers and ciders on sale in a purposive sample of 8 mainstream supermarkets in the

Munster region of Ireland were examined, in total 359 beers and 80 ciders. The name, volume and alcohol content of each was recorded. Non-alcoholic beers and ciders were excluded from this analysis. Data was input into SPSS and descriptive statistics calculated.

### Results

Three of the supermarkets examined (Centra, Londis and Costcutter) only sold non-alcoholic beer or cider, and as such are excluded from this study. As can be seen

from Table 1, the beer examined across the remaining five supermarkets

ranged in strength from 3.0% to 8.5%. All five supermarkets sold also beers with an alcohol content of 7.5% or more. The alcohol content of the cider was narrower, ranging from 4.0% to 6.0%. The mean strength of beer on sale ranged from 4.7% to 5.1%, while the mean for cider across the five supermarkets ranged from 4.5% to 4.9%.

**Table One: Alcohol Content & Container Size of Beer & Cider for Sale in Irish Supermarkets**

Supermarket	SuperValu	Aldi	Lidl	Tesco	Dunnes Stores
<b>Beer Alcohol Contact %</b>					
<b>N</b>	114	51	30	92	72
<b>Mean (SD)</b>	4.7 (0.74)	5.1 (1.)	5.0 (0.87)	5.0 (0.94)	4.9 (0.89)
<b>Median</b>	4.55	4.8	4.85	4.8	4.8
<b>Min- Max</b>	3.0 - 7.5	3.8 - 7.9	4.0 - 8.0	3.0 - 8.5	3.0 - 8.0
<b>Beer Size ml</b>					
<b>Mean (SD)</b>	473.2 (72.2)	483.5 (59.2)	483 (51.9)	456.0 (79.3)	539.8 (538.3)
<b>Median</b>	500	500	500	500	500
<b>Min - Max</b>	330 - 660	250 - 660	330 - 500	330 - 660	250 - 5000
<b>Cider Alcohol Content %</b>					
<b>N</b>	22	5	8	20	25
<b>Mean (SD)</b>	4.9 (0.78)	4.4 (0.22)	4.6 (0.5)	4.5 (0.64)	4.7 (0.76)
<b>Median</b>	4.5	4.5	4.5	4.5	4.5
<b>Min - Max</b>	4 - 6	4 - 4.5	4 - 5.3	4 - 6	4.5 - 6
<b>Cider Size ml</b>					
<b>Mean (SD)</b>	639 (458.6)	500 (0)	687.5 (530.3)	575 (335.4)	493.2 (34)

<b>Median</b>	500	500	500	500	500
<b>Min - Max</b>	330 - 2000	500 - 500	500 - 2000	500 - 2000	330 - 500

Substantial variation exists in the alcohol content of both the beer and cider available. 35 different strengths of alcoholic beer were noted and 9 different strengths of alcoholic cider. Similarly, there was considerable variation in the container volumes of beer and cider available. Beer was sold in 12 different size containers (250 ml; 284 ml; 300 ml; 330 ml; 350 ml; 355 ml; 440 ml; 500 ml; 620 ml; 650 ml; 660 ml; 5 litres), while cider was sold in 5 different size containers (330ml, 500 ml, 568 ml, 1litre & 2 litres).

## Discussion

Given the need for clear and easy to interpret health advice it is understandable that Ireland has adopted the simple metric of a half pint of beer or cider equalling a unit of alcohol. However, it is very clear from this examination that mainstream Irish supermarkets are routinely selling both beer and cider that is considerably more potent than the nominal 4.3% assumed in HSE advice. Beer of 7.5% alcohol or more was available in all five supermarkets, while cider of 6% strength was available in 3 supermarkets. The mean strength of beer and cider available in each was also marginally above the HSE's nominal 4.3%. It is clear therefore that the HSE's standard health promotion guidance may substantially under-estimate the volume of alcohol, and hence the danger, in beer and cider that is routinely for sale in Ireland. The variety in strengths of alcoholic beer (35 different strengths) and cider (9 different strengths) on sale in just five supermarkets is also highly problematic. When combined with the substantial diversity in container size of the alcohol available (12 for beer and 5 for cider), even

the most mathematically adept individuals might struggle to calculate an accurate measure of their unit alcohol consumption. Mongan & Long's assertion that beer is the easiest for drinkers to calculate may be misplaced (10).

There is therefore an urgent need for the Irish Government to demonstrate stronger leadership (14), and enact the remaining sections of the Public Health (Alcohol) Act, 2018, including Section 12 which deals with alcohol warning labels, including provision for the introduction of information on the grams of pure alcohol contained in drinks. It must be acknowledged that the current warnings in the Public Health (Alcohol) Act, include significant gaps, and revisions are required (15). However, as an interim measure they should be enacted immediately. The extensive delays in enactment to date may well be the result of pressure exerted by the alcohol industry, which has long had a strong influence on governmental law-making in Ireland. It is known, that in the year in which the Public Health (Alcohol) Bill was evolving, Drinks Industry lobbyists met Government members and officials 361 times (16). Drawing parallels between the Alcohol industry and the Tobacco industry, it is worth noting that a recent examination of industry tactics towards the European Commission identified seven main lobbying tactics, the second of which was postponing legislation (17). Ideally, in introducing alcohol warning labels in anticipation of industry opposition, a European Union wide or preferably a global World Health Organisation (WHO) approach should be adopted, similar to that of the influential Framework Convention on Tobacco Control (FCTC).

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