

Health information on alcoholic beverage containers: has the alcohol industry's voluntary agreement in England to improve labelling been met?

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ABSTRACT

Background and aims: In the UK, alcohol warning labels are the subject of a voluntary agreement between industry and Government. The industry pledged in 2011 to ensure that 80% of products would have clear, legible health warning labelling as part of the Public Health Responsibility Deal, though an analysis commissioned by Portman found that only 57% met best practice. We assessed what proportion of alcohol products now contain the required health warning information, and its clarity and placement.

Design: Survey of alcohol labelling data.

Setting: UK.

Participants/cases: Analysis of UK's 100 top-selling alcohol brands (n=156 individual products).

Measurements: We assessed the product labels in relation to the presence of five labelling elements: information on alcohol units, government consumption guidelines, pregnancy warnings, reference to the Drinkaware website and a responsibility statement. We also assessed the size, colour, and placement of text, and the size and colouring of the pregnancy warning logo.

Results: The first three (required) elements were present on 77.6% of products examined. The mean font size of the CMOs' unit guidelines (usually on the back of the product) was 8.17 point. The mean size of pregnancy logos was 5.95mm. The pregnancy logo was on average smaller on wine containers.

Conclusions: The alcohol labelling pledge has not been met in full. Labelling information falls frequently short of best practice, with fonts and logos smaller than would be accepted on other products with health effects.

Keywords: Alcohol; labelling; evaluation; Public Health Responsibility Deal; public health policy; marketing

[word count: 234 words]

Introduction

Providing better labelling information on alcohol containers may increase awareness of the risks and content of products, though may not reduce harmful consumption [2-6]. Such labelling has public support [7, 8]. The Public Health Responsibility Deal (RD), involving voluntary agreements with the alcohol industry since 2011 [9], included a commitment on labelling: "*We will ensure that over 80% of products on shelf (by December 2013) will have labels with clear unit content, NHS guidelines and a warning about drinking when pregnant.*" (Box 1) [9].

This pledge consists of three required elements (Figures 1 and 2): (1) The number of units in the drink, with an appropriate icon; (2) the Chief Medical Officers' daily guidelines for lower-risk consumption, and (3) a warning about the risks of drinking while pregnant, either in the form of text or as a logo showing the silhouette of a pregnant woman holding a wine glass with a line struck across it. Two further optional elements are: (4) a reference to the Drinkaware website (drinkaware.co.uk) and (5) A "Responsibility statement" (e.g. "please drink responsibly").

Guidance from the Portman Group, a not-for-profit organisation funded by alcohol companies, states that labelling information should be "*clear, legible, displayed on the primary packaging and not be difficult for consumers to find*" and encourages companies "*to use a font size no smaller than the main body of information on the label and to include the information also on onshelf secondary packaging...*" [1, 10].

A Portman Group-commissioned market survey in 2014 [11] found that while 79.3% of products by stock-keeping unit (SKU) provided all three elements, only 57.1% by SKU met best practice in terms of grouping and clarity. The labelling pledge has therefore not been met, though the Portman Group has stated that it has [12].

As part of an wider evaluation of the RD [13, 14, 15, 2] we analysed how this pledge has been implemented. At the time of analysis (August 2014), 99 partners had signed up to the pledge, including all the major UK supermarkets, alcoholic drinks companies and producers.

The main study aims were to assess: what percentage of products included (i) the required and (ii) optional labelling elements (iii) the size and colouring of health-related text and logos, and (iv) the size and colouring of the pregnancy warning text and logo.

Methods

Sample

Labelling data were collected during February-July 2014 on the 100 top-selling UK alcohol brands (16), irrespective of whether they were RD signatories or not, because the pledge wording and Portman Group guidance suggest that the pledge is aimed at all products. 156 individual products were located, with 74% (n=115) produced by pledge signatories.

Data extraction

We included the main 70cl product from each spirit-based drink; for beers, one canned product and, if available, one bottled product; for wines, one red and one white wine; and for sparkling wines, the main 70cl product. The data were obtained directly from the labels of products. The final sample comprised 23.7% beer, 5.1% cider or perry, 16.7% spirits, 51.3% wine and 3.2% ready-to-drink products. For analysis, wine, sparkling wine and sherry were grouped as one category ('wine'); beers, stout and ciders as a second ('beer'); and spirits and spirit-based drinks as a third ('spirits').

Data were also collected on the font size in which guidelines were printed (a font size of 10 or 11 point is optimal for legibility [17]); the colour of the text and background; the colour and size of the pregnancy logo (see Figure 2); and the location of the information on the container.

Statistical analysis

We calculated proportions and 95% C.I.s, and used χ^2 or z tests to compare means or proportions. The main outcome measures were the proportion of products including health warning text and logos, and their mean size.

Results

(i) Inclusion of the three required elements: unit content, CMOs' guidelines, and pregnancy warning

The three required labelling elements (unit content, CMOs' guidelines, and pregnancy warning) were present on 77.6% of products (Table 1). A significantly higher percentage of products from RD signatories displayed all three elements, compared with non-RD signatories (86.1% vs 53.7%; $\chi^2 = 18.3$; $p < 0.001$).

(ii) Inclusion of the two optional elements: Drinkaware website and responsibility statement

About three-quarters of product labels (72.4%, Table 1) included all five elements. RD signatories were more likely than non RD participants to include all five (83.3% vs 43.9%; $\chi^2 = 23.7$; $p < 0.001$). Most products (73.7%; n=115) included a responsibility statement, usually "Please drink responsibly" or variations; these included the product name in 13 cases. The phrase "Know your limits" appeared on 14.7% (n=23) of product labels.

(iii) Size, colouring and placement of health-related text on labels

The mean font size for those products which included the CMOs' unit guidelines was 8.17 point (s.d.=1.95). A font size of 10 or 11 point is optimal for legibility [17] (Table 1). The average font size of signatories and non-signatories was similar (8.3 vs 7.45, 95%CI of difference in means: 0-1.6; $p=0.07$).

Most products (77.6%) displayed the CMOs' warning text. There were 27 different colour combinations used, the most common being black on white (49.6%; 95% CI: 40.7, 58.6). Other less readable combinations were noted including dark green on light green, and dark

purple on light purple. In most cases (79%), the health warning appeared on the back label of the product.

The Portman Group guidance encourages companies “*to use a font size no smaller than the main body of information on the label*” (Section 2.1.1). The relevant information was available for two-thirds of products, over half (60.3%) of which used a smaller font than the main label text, contrary to the guidance.

(iv) *Pregnancy warning text and logo: size and colouring (see Figure 2).*

All pregnancy logos were 1cm or smaller in diameter (Figure 2). The mean size of the pregnancy logos was 5.95mm (95% CI: 2.0, 9.9) and the most common colour was grey (45% of cases). A red stripe was used in 10.3% of cases.

Finally, we compared the size of the pregnancy logo on wine, and beer, lager or cider containers, because of the clear gender differences in consumption; in the UK, men are much more likely to drink beer than women, and women are much more likely to drink wine than men [18]. The pregnancy logo was significantly smaller on wine bottles than on beer/lager/cider containers (5.1mm vs 7.1mm; 95% CI: 1.0, 2.8; p<0.001).

Discussion

Main findings of this study

Our analysis finds that RD signatories were more likely than non-signatories to include labelling components, which is a positive finding at face value, though a related paper [14] reports that this may be due to the impact of the 2007 voluntary alcohol labelling agreement, which was largely implemented by the start of the RD [19].

Our assessment is that the labelling pledge has not been met in full, given that only 57.1% of products meet best practice in terms of grouping and clarity. Clarity is difficult to assess, but existing guidelines on packaging inserts for medicines may provide an appropriate reference point, suggesting a minimum font size of 9-12 point [17, 20]. By comparison over half of products in this sample used a font size <6 mm, with a mean font size of 8.17 point.

Similarly, the pregnancy logos were on average about 5mm in diameter, with comparable guidelines suggesting that precautionary statements should be no smaller than 10mm x 10mm [21].

What is already known on this topic and what this study adds

It is known that labelling is not particularly effective in reducing consumption [6] but it can raise awareness among consumers [2]. It is therefore important that it is clearly presented. Our findings suggest that the aspect of the labelling pledge relating to clarity has not been met. Also, the smallest pregnancy logos appear on wine, which is more likely to be consumed by women, which is anomalous and requires further investigation.

Existing evidence on clarity and legibility [6] could be used to improve labelling guidance. Size, colour and placement of message and warnings are important moderators of the effectiveness of warning messages [6]. However warnings are not usually in a prominent position on alcohol containers [23] and in the current sample the health warning usually appeared on the back of the product.

Limitations and strengths of the study

The main limitation is that we used a non-random sample; but although findings may not generalise to a wider population, the sample appropriately reflects current labelling practice among the most frequently sold products. This is also its strength.

Conclusions

The Public Health Responsibility Deal alcohol labelling pledge has not been met in full. New labelling guidance could be derived from existing guidance on consumer products, such as that used on medicines, tobacco packaging and other products which, like alcohol, carry known health risks. Further research with consumers to explore the legibility and comprehensibility of text and logos is also warranted. Compliance with any labelling guidance also needs to be monitored and reported on, entirely independently of alcohol industry bodies [24].

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References

1. Portman alcohol labelling compliance and monitoring process document. Available at: <http://www.portmangroup.org.uk/codes/alcohol-marketing/alcohol-labelling>. Accessed 23rd August 2014.
2. Knai C, Petticrew M, Durand M, Eastmure E, Mays N. Are the Public Health Responsibility Deal alcohol pledges likely to improve public health? An evidence synthesis. *Addiction*. 2015;DOI: 10.1111/add.12855.
3. Scholes-Balog KE, Heerde JA, Hemphill SA. Alcohol warning labels: Unlikely to affect alcohol-related beliefs and behaviours in adolescents. *Australian and New Zealand journal of public health*. 2012;36(6):524-9.
4. Thomson LM, Vandenberg B, Fitzgerald JL. An exploratory study of drinkers views of health information and warning labels on alcohol containers. *Drug and alcohol review*. 2012;31(2):240-7.
5. Farke W. Health warnings and responsibility messages on alcoholic beverages—a review of practices in Europe. Mainz, Germany: German Catholic University of Applied Sciences, 2011.
6. Wilkinson C, Allsop S, Cail D, Chikritzhs T, Daube M, Kirby G, et al. Report 2 Alcohol Warning Labels. 2009.

7. Wilkinson C, Room R. Warnings on alcohol containers and advertisements: International experience and evidence on effects. *Drug and Alcohol Review*. 2009;28:426-35.
8. Parackal SM, Parackal MK, Harraway JA. Warning labels on alcohol containers as a source of information on alcohol consumption in pregnancy among New Zealand women. *International Journal of Drug Policy*. 2010;21(4):302-5.
9. Responsibility Deal Alcohol Network: <https://responsibilitydeal.dh.gov.uk/category/alcohol-network/>. Accessed 12th June 2015.
10. Portman Group Alcohol labelling guidance.
<http://www.portmangroup.org.uk/codes/alcohol-marketing/alcohol-labelling> Accessed 12th June 2015.
11. Final report on: Audit of compliance of alcoholic beverage labels available from the off-trade with the Public Health Responsibility Deal Labelling Pledge. Work performed by Campden BRI (Chipping Campden) Limited, 17 October 2014.
12. Portman Group Responsibility Deal pledges
http://www.portmangroup.org.uk/responsibility-programmes/landing_page/responsibility-deal. Accessed 12th June 2015.
13. Knai C, Petticrew M, Durand M, Eastmure E, James L, Mehrotra A, et al. Has a public–private partnership resulted in action on healthier diets in England? An analysis of the Public Health Responsibility Deal food pledges. *Food Policy*. 2015; 54: 1–10.
14. Knai C, Petticrew M, Eastmure E, James L, Mehrotra A, Scott C, et al. The Public Health Responsibility deal: has a public–private partnership brought about action on alcohol reduction? *Addiction*. 2015;DOI: 10.1111/add.12892.
15. Petticrew M, Eastmure E, Mays N, Knai C, Durand M, Nolte E. The Public Health Responsibility Deal: how should such a complex public health policy be evaluated? *J Public Health*. 2013;35(4):495-501.
16. Britain's 100 Biggest Alcohol Brands 2013. *The Grocer* 20 July 2013.
17. Fuchs J, Heyer T, Langenhan D, Hippius M. Influence of font sizes on the readability and comprehensibility of package inserts. *Pharm Ind*. 2008;70(5):584-92.
18. Alcohol consumption Factsheet, August 2013. Institute for Alcohol Studies. Available at: <http://www.ias.org.uk/uploads/pdf/Consumption%20docs/Alcohol%20consumption%20factsheet%20August%202013.pdf>. Accessed 18th August 2014.
19. Farke W, Veillard P. Factsheet—Health warning labels on alcoholic beverages. (PROTECT project). URL: [www.factsheet - health warning labels on alcoholic beverages.pdf](http://www.factsheet-healthwarninglabels-on-alcoholicbeverages.pdf) Archived at <http://www.webcitation.org/6WpKbSqtB>, 2011. Accessed 12th June 2015.
20. EU Guideline on the readability of labelling and package leaflet of medicinal products for human use, Revision 1, 12 January 2009. Available at: http://ec.europa.eu/health/files/eudralex/vol-2/c/2009_01_12_readability_guideline_final_en.pdf. Accessed 22nd August 2014.
21. European Chemicals Agency, 2011. Guidance on Labelling and Packaging in accordance with Regulation (EC) No 1272/2008.
22. Laughery K, Kent P, Young SL, Brelsford J, Rowe A. Explicitness of Consequence Information in Warnings. *Safety Science*. 1993;16(5):597-613.
23. Martin-Moreno J, Harris M, Breda J, Møller L, Alfonso-Sanchez J, Gorgojo L. Enhanced labelling on alcoholic drinks: reviewing the evidence to guide alcohol policy. *Eur J Public Health*. 2013;23(6):1082-7.
24. Bryden A, Petticrew M, Mays N, Eastmure E. Voluntary agreements between government and business—A scoping review of the literature with specific reference to the Public Health Responsibility Deal. *Health Policy*. 2013;110(2-3):186-97.

Figure 1: Example of acceptable layout of health risk information, from the Portman Group guidance(1)

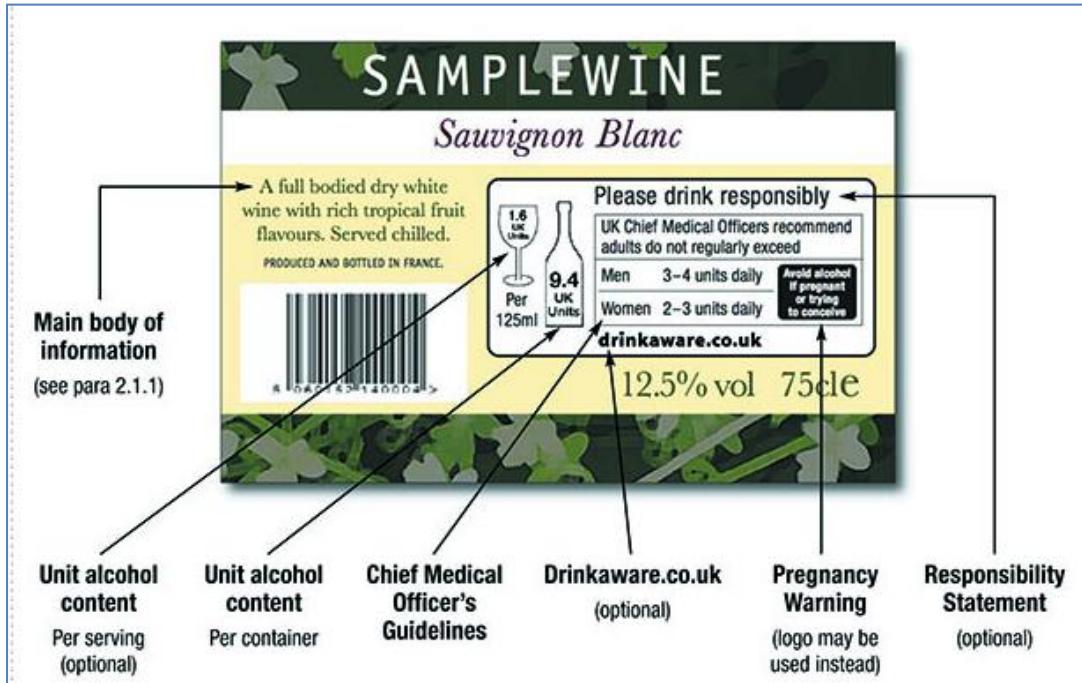


Figure 2: Example of typical presentation of health information using pregnancy logo, from Portman guidance(1)



**Box 1: Objectives of the A1. Alcohol Labelling pledge: Description on DH Responsibility Deal website on 13th August 2014
(<https://responsibilitydeal.dh.gov.uk/a1-ambition/>)**

A1. Alcohol Labelling: Ambition. What this pledge sets out to achieve, and why it is important.

"This pledge will increase people's awareness and understanding of units, the lower-risk drinking guidelines and the Chief Medical Officer's advice on drinking during pregnancy. This pledge commits alcohol producers to label their products with unit and health information. Improving consumer awareness of alcohol content and units in drinks can help people make informed choices about when and how much they drink. It enables people to better measure their alcohol consumption and understand whether this is in line with the lower-risk guidelines. In 2009, 90 per cent of respondents to an annual ONS survey said that they had heard of alcohol units, but only 63 per cent correctly identified that one unit was equivalent to half a pint of beer and only 27 per cent correctly said that an average 125ml glass of wine contained more than one unit. Additionally, many people are unaware of the full extent of the health harms associated with drinking above the lower-risk guidelines. If advice on alcohol is going to be meaningful, people must be able to put it into the context of their own drinking habits. This means being able to more easily measure their intake and compare that against medical advice."

Wording of the A1 pledge in the guidance provided by Portman: "*Under the Responsibility Deal, the industry has pledged to implement the scheme on 80% of alcoholic drinks' containers measured, by volume, in the UK off-trade by December 2013*". (1)

Table 1 Key aspects of alcohol pledge A1, and whether it was likely to have been met

Key pledge components	Whether it was met
"80% of products on shelf will have labels with clear unit content NHS guidelines and a warning about drinking when pregnant...the information should be clear, legible, displayed on the primary packaging and not be difficult for consumers to find"	77.6% (95% CI: 71.1,84.1) of products in our survey contained the three elements, though unlikely to be clear or legible; In a separate market survey commissioned by Portman Group, 79.3% provided all 3 elements, but only 57.1% met best practice re: grouping and clarity. Health warning information usually (79%; 95% CI: 72.6, 85.4) appeared on back of the product.
"Companies are encouraged, though not required...to use a font size no smaller than the main body of information on the label..."	For those which included the relevant text, the font was smaller than the main text in 60.3% (n=94) of cases. The mean font size for those products which included the CMOs' unit guidelines was 8.17 point (95% CI: 4.4,12). Over half (53% used a font size of under 6 mm).
Additional optional elements (not a key part of the pledge) were to include the Drinkaware website, and responsibility statement on labels	72.4% (95% CI: 65.4, 79.4) of product labels included all five elements (i.e. three 'compulsory' elements, plus 2 optional elements)
As above: "80% will have... a warning about drinking when pregnant... the information should be clear, legible, displayed on the primary packaging and not be difficult for consumers to find""	95% of products have this, usually as a logo without accompanying text (84.5%, 95% CI: 78.9, 90.3); mean size=5.95mm; warning logo is usually grey (45%; 95% C.I.: 36.6, 53.4). A red warning logo was used in 10.3% of cases (95% CI: 9.8, 22.2).