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**title** Alcohol warning labels: are they effective?

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**policy issue** Australia does not currently require warning labels on alcohol products, putting Australia out of step with many other countries.

Given the potential persuasive power of labels, as well as the rising social costs of alcoholism in the United States (US), government-mandated warning labels were enforced and have appeared on all alcoholic beverage containers manufactured in the US since 1989.[1] The commencement of this warning label system reportedly brought about increased awareness of the risks of excessive alcohol use among consumers in the US.[2] As a result, other countries have followed this lead with at least 20 other countries introducing some kind of mandated warning label, including Brazil, France, India, Portugal, South Africa, Korea, Thailand, and Zimbabwe. There are several other countries considering their introduction (e.g. United Kingdom), or with voluntary labeling in place (e.g. Japan).

While Australia does not currently require warning labels on alcohol products, both public health advocates and the alcohol industry are pushing for labels, although it is likely they have different motivations.

Medical and advocacy organisations have been campaigning for mandatory (and government regulated) warning labels on alcohol for over a decade. Key advocacy groups include the Foundation for Alcohol Research and Education (FARE), Australian Medical Association (AMA), Salvation Army, and national and state Cancer Councils. These groups are consistent in their calls for strong, specific and mandatory messages on warning labels such as 'Alcohol can cause brain damage' (Salvation Army).

The alcohol industry has instead proposed, and is increasingly advocating for, a self-regulated system of warning labels, with views differing on whether these should be mandatory or voluntary. There are currently moves from the alcohol industry to introduce warning labels on alcohol products, including the recent introduction of voluntary labeling by the industry-funded group DrinkWise. These proposed labels have been criticised by public health advocates both for their visual appearance (size, images, position) and their vague wording (such as ‘Kids and alcohol don’t mix’ and ‘Is your drinking harming yourself or others?’). Problems with the format and visibility of warning messages have also been highlighted.[3, 4] Past research has shown that the use of pictorials, colour, and signal icons make it much easier to recognise alcohol warning labels.[5] And evidence from the tobacco control field has also demonstrated that labels that are larger, graphic, and comprehensive in content are more effective.[6]

#### Why are warning labels used?

The use of labels to persuade consumers to use or not use a certain product or service is a powerful and commonly used tool in advertising and health promotion. Labels may influence behaviour because they tend to become cognitively incorporated into the overall image of the product or service.[7]

In health promotion, labels have been used to confront and warn consumers about the dangers of certain products, with the most notable example being the introduction of warning labels on all cigarette packaging in the US in the 1960s.[8] Providing consumers with full information about a product enables them to make informed purchase and consumption decisions, and including a warning provides them with an important symbolic message about the nature of the product.[9] Health warning labels such as these usually have two related but distinct aims. They increase consumer awareness and educate consumers and, as a result of this education, prevent harmful consequences (this second aim can be stated more generally as modifying potentially harmful behaviours).[1]

## what does the evidence say?

Two comprehensive reviews have summarised the available evidence on the effectiveness of alcohol warning labels. A number of smaller studies have also been conducted and show some inconsistent findings.

The first comprehensive review was conducted by Professor Tim Stockwell, an academic at the University of Victoria and the Director of the Centre for Addictions Research of British Columbia.[10] Professor Stockwell has published over 200 papers on prevention and treatment issues and is a past President of the Kettil Bruun Society (an international organisation dedicated to researching the social aspects of alcohol use and alcohol problems).

The second review was conducted by Claire Wilkinson, a researcher from the Centre for Alcohol Policy Research at Monash University and Professor Robin Room, a sociologist who has directed alcohol and drug research centres in the United States, Canada, Sweden and Australia and been a long-time advisor to the World Health Organization.[9]

## what does the evidence say?

### Community awareness and alcohol labeling

Stockwell's review concluded that awareness of alcohol labels in the US has increased over time, is highest among young people and heavy drinkers (two primary target groups for harm reduction) and highest for the 'birth defects' warning.[10]

### Impact on behaviours

Stockwell's review concluded that warning labels have not had a significant impact on drinking behaviours; he does note however that warning labels have been associated with increased discussion of the harmful effects of alcohol consumption and that no studies have reported any negative consequences from the inclusion of warning labels.

One possible reason for the lack of demonstrated effect of alcohol warning labels on drinking behaviour in the US in Stockwell's review is that the labels themselves are sub-optimal. Researchers have suggested that the impact of warning labels might be greater if labels were better designed and implemented in conjunction with other policy and communication interventions.[11]

Despite the limited evidence on alcohol warning labels, there is a strong evidence base to draw on from tobacco research to indicate what constitutes an effective warning label. For alcohol warning labels to have any effect they need to be highly visible, of large size and attention grabbing just like tobacco warning labels, which are graphic, pictorial and cover 50 per cent of the front and rear panels of cigarette packets.[12]

Research also suggests that to be most effective, warning labels should:

- be large enough to be easily noticed and read[13]
- appear on the front rather than the side of packaging, as tobacco research suggests that smokers report greater recall for labels on the front of cigarette packs[13]
- be varied frequently to avoid overexposure[13]
- contain a clear, simple, direct and accurate message about the specific health effects of alcohol.[11]

Colour pictorial labels have also been found to be more effective than text only messages and increase the accessibility of messages by people with low levels of literacy, and help people visualise the health effects of alcohol.[13] Labels that include graphic images illicit the strongest emotional response from consumers and are associated with increased effectiveness of the warning.[14] Labels should include information on treatment or advice services for consumers who wish to deal with a drinking problem.[13]

The majority of research conducted in this field has been done in the US where warning labels have been in place since 1989. The Stockwell review focused predominantly on a series of National Institute on Alcohol Abuse and Alcoholism-funded surveys conducted before and after the introduction of the US alcohol warning labels.

The US warning label legislation passed by Congress in 1989 necessitated that a series of before and after surveys were conducted to evaluate the effects of the

## what does the evidence say?

legislation. A baseline, cross-sectional, random digit dialing telephone survey on drinking behaviours, beliefs about alcohol, and awareness of warning labels among the adult US population was carried out in 1989 with 2,000 individuals. It was followed up with cross-sectional surveys with 2,000 respondents in 1990 and 1991 and again in 1993 and 1994, with surveys of with 1,000 respondents. In a quasi-experimental design, parallel surveys were undertaken in Ontario, Canada, where warning labels were not introduced; they were done in 1990, 1991, 1993 and 1994. These parallel surveys acted as a control group. In the US sample, 43 per cent of lifetime drinkers reported awareness of alcohol warning labels in 1993-1994, with label exposure around 20 per cent for respondents in the Canadian sample. The study suggested modest effects on conversations and several precautionary behaviours related to the risks of drinking, including limiting drinking because of driving and deliberately not driving because of having drunk alcohol.[15]

This is the most rigorous research that has been conducted on alcohol warning labels as it includes a baseline measure in the US sample and the use of large random samples. However a better study design, for example a cohort longitudinal study, would have enabled the researchers to directly track and identify causal relationships between individual changes in knowledge, attitudes, beliefs and behaviours, and use of alcohol warning labels.

### Australian research

There has been very little published Australian research in this field, other than studies of community support (reported below) and review papers. A small scale exploratory qualitative study with university students (44 participants across six focus groups) found that the young people surveyed did not think that labels focusing on long-term health consequences would influence their drinking behaviour.[16] However the study concluded that warning messages could potentially be an effective intervention for young adults if they were more noticeable, varied and provided specific messages relevant to this age group.

Another small scale qualitative study (six focus groups with adults) has been undertaken in Australia to test the suitability of 12 prototype labels.[17] It found that labels should be integrated with other alcohol-related health messages, such as government social advertising campaigns, and that labels should be matched appropriately to specific consumer groups and beverage types.

While not published in the academic literature, the Foundation for Alcohol Research and Education (FARE) developed and tested proposed warning labels (including 'drinking alcohol increases your risk of developing cancers', 'drinking alcohol damages the young developing brain' and 'drinking any alcohol can harm your unborn baby'). The majority of people surveyed believed that the proposed labels would raise awareness of the risks (ranging from 61% to 86% for the different messages, 61% to 78% excluding the pregnancy warning label) but less were convinced that it would change behaviour (ranging from 28% to 66%, 45% excluding the warning pregnancy label).[18]

### Community support for reform/labels

Two researchers from the Centre for Alcohol Policy Research in Melbourne, Claire Wilkinson and Robin Room, have pointed out there is broad community support for the introduction of alcohol warning labels both in Australia and overseas.[9] For example, a 2007 survey across 29 European countries found that more than three-

quarters of respondents 'totally agreed' or 'tended to agree' that alcohol warnings should be used to warn pregnant women and drivers of the risks of drinking alcohol.[19]

In Australia, the National Drug Strategy Household Survey found that there was strong support for labeling alcohol products with the National Health and Medical Research Council Guidelines (71.0% of survey respondents were in favour in 2001, and 69.9% in 2004).[20] A survey of Victorians conducted by Roy Morgan in 2007 found that 68 per cent of respondents supported the introduction of mandatory warning labels.[21]

A more recent survey of 1500 Victorians conducted in 2009 found that 80 to 90 per cent supported the inclusion of a range of information that could potentially be mandated by government authorities (nutritional information, alcohol content, health warning, images).[17]

The 2011 FARE study testing potential labels (described above) found that 58 per cent supported the use of health warning labels (11% were unsure). People were more likely to believe that the responsibility for developing labels should lie with government (52%) not industry (24%). Most people also thought government not industry should be responsible for regulating labels (72% versus 12%).[18]

## what is the quality of the evidence available?

The main gaps in knowledge stem from the fact that there is little research conducted outside the US. There is also a need for longitudinal studies (such as those in the US) that collect data both prior to and following the introduction of warning labels; ideally such studies should include a control or comparison site (a country with similar drinking patterns that does not introduce labels).

There is also a need for research that is conducted using optimal warning labels (i.e., those developed based on best practice in the presentation of warning labels, drawing on experiences in other countries and from other products). For high quality longitudinal research of this nature to be conducted in Australia, it would require a policy change – the introduction of optimal alcohol warning labels – before evaluation research could be carried out. The alternatives are to rely on the extensive evidence base from tobacco control regarding warning labels, or to rely on the existing, but limited, international evidence on alcohol warning labels.

## what does this mean for policymakers?

The limitations in the evidence base (particularly outside of the US) come not only from the lack of rigorous evaluations but, more importantly, from the sub-optimal nature of the labels themselves. To improve the quality of research in this field: warning labels themselves need to be carefully designed and evaluated; they need to be used as part of a broader strategy to reduce the harmful effects of alcohol; and the effectiveness of labels needs to be evaluated by looking at the long-term impacts on social understandings of alcohol, not just their short-term impact on drinking behaviours.[9]

However, based on the evidence from tobacco labelling we suggest that policymakers consider introducing large labels on the front of packaging that contains clear, simple, direct and accurate pictorial messages about specific alcohol related harms. The messages should be varied frequently and also contain information on alcohol treatment and advice services.

## key readings

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