

Health Warning Labels

BACKGROUND

Information about beverage alcohol is shared with consumers in a number of different ways, including on containers and packaging.

One of the approaches used is through health warning labels (HWLs), which appear on containers of beverage alcohol and provide directional information or recommendations about drinking patterns. They focus on four main themes:

- general health risks associated with alcohol consumption;
- health risks of drinking during pregnancy;
- drinking while driving or operating machinery; and
- legal purchase age for alcohol beverages.

Labels may include additional information, such as reference to national drinking guidelines, standard units, and percentage alcohol content by volume, as well as other standard packaging requirements.

Some governments mandate the inclusion of HWLs on some or all of these themes on beverage alcohol packaging.

- These include France, Germany, the United States, Mexico, Guatemala, Honduras, El Salvador, Costa Rica, Argentina, Brazil, Colombia, Ecuador, South Korea, China, Taiwan, Thailand, Russia, Uzbekistan, and South Africa.

Where warning labels are not mandatory, producers may voluntarily include them on their products.

- Under the 2011 United Kingdom Public Health Responsibility Deal, signatories pledged to ensure that over 80% of on-shelf products include national consumption guidelines and a warning about drinking during pregnancy. An assessment in 2014 found that 86% of signatory products and 54% of non-signatory products complied [2].
- For example, a self-regulatory code requires the inclusion of HWLs for various types of beverages in Japan. Please see IARD Policy Table: [Health Warning Labeling Requirements](#) for other examples.

In some instances, producers voluntarily include HWLs on packaging in all of the markets in which they are active.

- This effort is included in the Beer, Wine and Spirits Producers' Commitments made by some of the world's leading producers of beverage alcohol [3].
- According the Producers' Commitments 2014 Progress Report to Reduce Harmful Drinking, "58% of signatories' brands carry both symbol(s) and / or equivalent word(s), and the address of a dedicated website" that contains additional information, including alcohol product strength, and reminders about the health dangers of excessive drinking [4].

For a comprehensive overview of mandatory and voluntary warning label policies around the world, please see IARD Policy Table: [Health Warning Labeling Requirements](#).

This *IARD Policy Review* discusses the usage of HWLs on beverage alcohol packaging and findings on their effectiveness. It does not cover health warning messages included in beverage alcohol advertising or other potential labeling requirements for beverage alcohol, such as nutrition content.

SUMMARY OF THE EVIDENCE

The rationale underlying the application of HWLs is that they serve to provide information and remind consumers about potential risks associated with certain drinking patterns.

HWLs, awareness, and behavior change

The evidence around HWLs suggests that while they may increase consumer awareness of health advice, they have limited impact on drinking behaviors [5-10].

- A review of country-level studies suggests that while consumers are generally aware of the existence of HWLs, few are likely to recall their messages [11].
 - Data gathered in North America following the introduction of HWLs showed a steady increase in awareness among those exposed to them over the subsequent five years, followed by a leveling-off [12-16].
 - In Australia, only 16% of consumers reportedly recalled HWLs [17].
 - However, a majority of respondents to an internet-based survey in Japan reported awareness of HWLs. Of those who reported awareness, the most common medium was container-based HWLs (66%) as opposed to warnings seen on television or other media [18].

Assessment of potential factors involved in the level of awareness have shown:

- No observed association between how health-conscious individuals are and the attention they pay to HWLs and their content [19]; and
- A potential effect of educational level on the recall of HWLs, which was found to be higher among consumers with education beyond high school than among others [14].

However, there is some evidence that the level of HWL recall may depend on both message content and audience.

- In early U.S. studies, recall was highest for messages about birth defects (81%), followed by drinking and driving messages (46%), and lowest for messages about operating machinery (39%) [20].
- Women of childbearing age were found to have higher recall of messaging about birth defects than other consumers [21].
- Later studies have shown that recall of messages about birth defects continued to grow, while there was no change in recall about the drink-driving message [14].
- Pregnant women and women of childbearing age show varying levels of HWL recall depending on personal relevance, age, and drinking patterns [11].

The available evidence shows that HWLs have little impact on improving knowledge about potential risks or on changing drinking behavior.

- HWLs do not appear to affect consumers' perceptions of risks associated with drinking [22, 23].
- HWLs do little to change overall levels of alcohol consumption [24].
- The influence of HWLs on awareness and message recall may decrease as their novelty wears off over time [13].
- However, most studies evaluate the impact of warning labels on drinking behavior in the short-term which may be insufficient to detect behavior change [5].

While the evidence on HWLs is limited and strong conclusions may not be made about its impact on changing drinking behavior, some researchers support warning labels as a means of shifting social norms around the risks associated with drinking [11], especially when incorporated in a more comprehensive strategy to reduce harmful drinking [5, 11].

Impact on harmful drinking

Labeling on alcohol beverages has not shown an impact on harmful drinking, including heavy drinking, drinking during pregnancy, and young people's drinking. Some key findings are described below.

Heavy drinking

Warning label awareness has been reported to be higher among heavier drinkers than among other groups, possibly due to greater exposure [12, 14, 17, 19, 25].

However, there is a dearth of evidence demonstrating that warning label awareness has an influence on harmful drinking behaviors.

Drinking during pregnancy

HWLs have been found to raise awareness of the risks of drinking during pregnancy, but as a stand-alone prevention measure they have not demonstrated a meaningful impact on the drinking behavior of pregnant women [11, 21, 26].

- Data from the U.S. indicate that recall of HWL messages among pregnant women is high, particularly about birth defects [14, 20, 21].
- One U.S. study of pregnant women found an impact of warning labels on drinking behavior, but there were differential effects for two groups:
 - Women in their first pregnancy were found to be more likely to reduce drinking and heed HWLs than women who had been pregnant before;
 - Lighter drinkers were found to decrease their alcohol consumption, but at-risk drinkers (at least 4 grams or 0.5 ounces ethanol per day) did not [27].

There is evidence that the presence of HWLs may encourage discussion about the effects of drinking by pregnant women [21, 26, 28].

- However, much of this discussion occurs with family and friends, with little dialogue with healthcare providers [29].
- Concerns about the potential of HWLs to cause undue stress [11] or enable others to curtail pregnant women's personal autonomy [30] have also been articulated.

The impact of HWLs on perceptions of risk and drinking behavior among pregnant, binge, and heavy drinkers has not been shown to be significant [11, 31].

The impact of HWLs on the perceptions and behavior of pregnant women may be influenced by culture, education, or social status.

- A survey of Hispanic women in the U.S. showed that cultural beliefs, language skills, and level of education were closely linked to knowledge about HWLs [32, 33].
- Cultural beliefs about drinking, as well as the degree of acculturation among immigrant populations, for example, also play a role in the degree of awareness and behavior change [34].

Young people's drinking

The evidence surrounding the ability of HWLs to affect young people's perceptions and drinking behaviors is mixed.

- A review of evidence from U.S. studies that focused on adolescents showed that awareness among this group rose following the introduction of warning labels, but was not accompanied by changes in beliefs about negative drinking outcomes [35].
- A limited qualitative study among Australian college students found that they did not perceive HWLs to be effective in changing their beliefs about risks [36].
- HWLs' impact on perceptions of risk was greater among those U.S. and Australian college students who reported consuming more beer on average and lower among those who binge drink more frequently [37].

Alcohol-impaired driving

Research on the impact of HWLs on the prevention of alcohol-impaired driving is limited, and what research findings are available are inconclusive or inconsistent.

- A study of 16- to 17-year-olds, five years after the introduction of HWLs in the U.S., found a lack of clear reductions in self-reported alcohol consumption and impaired driving attributable to the warnings [13].
- Other research indicates that, after seeing HWLs, current drinkers who had previously driven while intoxicated were significantly more likely to deliberately avoid doing so after seeing HWLs [20, 25].
- It has also been suggested that HWLs in the U.S. have increased the likelihood that adult consumers will intervene to deter others from drinking and driving [38].

Despite lack of robust evidence about the effectiveness of HWLs, public support for their use has remained consistently high over the years among the general public and select groups in the U.S. [13], Canada [39], Australia [40, 41], New Zealand [42], and countries in the European Union [43].

Improving HWLs

Some research has suggested that the design and placement of HWLs may be responsible for their lack of impact [5].

- An evaluation of voluntary HWLs under the United Kingdom Public Health Responsibility Deal found that many of these did not meet best-practice requirements for font size and placement [2].
- A 2013 assessment of the use of pictograms on HWLs about pregnancy in France highlighted placement and color contrast as constraints on their effectiveness [44].

Various strategies to improve HWLs, some of which are based on experience in health communications in other fields, have been proposed to increase awareness, change risk perception, and decrease high-risk drinking behaviors.

- A study among 40 German students indicated that HWLs framed positively would be more effective in reducing intention to drink than ones framed negatively [45].
- The use of pictograms or color has been recommended to help raise awareness and recall of messages [46-48].
- Researchers have also proposed that use of warning labels should involve regular rotation or change of messages [5].

METHODOLOGICAL CONSIDERATIONS

There is little cross-cultural research on the impact of HWLs.

Most of the available data are derived from studies conducted in English-speaking countries, and little research has been done on the impact of HWLs on awareness, knowledge, and behavior in other contexts.

It may be difficult to separate the impact of HWLs from other measures that may be implemented at the same time.

For example, the introduction of HWLs in the U.S. coincided with various other measures targeted at reducing drinking and driving, possibly confounding the effects of the drink-drive HWL message [8, 13, 25].

There have been few recent efforts to assess the impact of HWLs and their utility as policy measures, despite increased calls for their broader application at the national and regional (e.g., EU) level.

- A lack of evidence, particularly on the impact of HWLs on harmful drinking and those particularly at risk, means that this type of measure cannot be considered “evidence-based.”
- Further research is needed to evaluate the impact on awareness, and, over longer periods of time, on behavior.
- Such research is needed not only in high-income countries where HWLs have been applied, but in those countries where they do not exist and where they could be a vehicle for providing information and reminders about harmful drinking behaviors.

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