



TAKE WARNING

New Alcohol Labeling Strategies for Educating California Residents About the Alcohol–Cancer Link

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THE ISSUE In early 2025, the Office of the United States Surgeon General issued an advisory document warning of the alcohol-cancer link. This link is not widely recognized by U.S. consumers, and this knowledge gap may be contributing to excessive rates of preventable morbidity and mortality. Following the lessons from tobacco control, many nations are addressing this knowledge gap through adoption of point-of-sale education and health warning labels on alcoholic beverages. California residents' longevity, quality of life, and health literacy could be improved through pursuing similar strategies.



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Labeling Strategies for Educating California About Alcohol-Cancer Risk

BACKGROUND

Alcohol is one of the leading preventable causes of mortality in the United States. Annually, there are 178,000 alcohol-attributable deaths nationally,¹ including 19,335 in California.² The mortality seems to be on the rise, increasing 70% between 2016 and 2022.³ Approximately 117,000 yearly deaths are due to chronic diseases, including cancers.¹

To address these rising death rates, the United States Office of the Surgeon General (OSG) issued an advisory in January 2025, highlighting the impact of alcohol-related cancer.⁴ The report highlighted the body of knowledge around alcohol and cancer, starting with the fact that alcohol is recognized as a group 1 carcinogen by the International Agency for Research Cancer (IARC). The burden of alcohol-related cancer is substantial, taking 20,000 lives and incurring \$249 million in costs each year.⁵ The risk is not spread equally, with women being 28% more likely to receive an alcohol-related cancer diagnosis.⁵ These inequities are driven by an estimated 44,180 annual diagnoses of alcohol-related breast cancer, nearly all in women.⁶ While men still experience the majority of liver cancer burden,⁷ the gap has been closing.⁸ Mitigating these outcomes, according to the OSG report, requires ensuring U.S. residents are made aware of the risk.

As it stands, public awareness of the alcohol-cancer link remains low. In a national survey, fewer than one-third of national respondents were aware of alcohol's connection to cancer, with awareness changing by type of alcoholic product (distilled spirits

31.2%, beer 24.9%, wine 20.3%).⁹ Surveys isolating on breast cancer risk knowledge found only 24.4% of women knew that drinking can cause breast cancer.¹⁰ Even in California, which mandates point-of-sale warnings around alcohol and cancer, public awareness seems to have plateau'd between 40% and 44%.¹¹

Lowering the burden of mortality associated with alcohol and cancer requires effective health promotion strategies. Although various targeted educational campaigns are underway (e.g. <https://drinklessforyourbreasts.org/>),¹² the OSG advisory leads with a push to revise health labels on alcoholic beverages. Within California, this impact may be augmented further through the existing health messaging opportunities created by mandatory point-of-sale cancer warnings.

RESEARCH ON WARNING LABELS

Warning labels have long been in use to educate consumers. Studies on tobacco warning labels have shown them to be effective in both discouraging youth from using tobacco¹³ and in educating adults who smoke about the risks of continuing to do so.¹⁴ In a survey of smokers across four countries, respondents in the countries whose tobacco warning labels specified certain conditions could be as much as 2.5 times more likely to understand those risks.¹⁴

Although many countries including the U.S. require health warnings on alcohol packaging, the impact has lagged behind that of tobacco. The warning requirements

imposed by Congress in 1988 have had, at best, a small effect on risk awareness¹⁵ and drinking among pregnant women.¹⁶ Concerns quickly emerged over the poor visibility and therefore salience of the U.S. labels.¹⁷ Possibly due to the imprecision in the U.S. warning, the most at-risk drinkers were also the most prone to discount the potential consequences.¹⁸

Since then, a growing body of research has measured the potential impacts of enhanced warning labels on various populations.¹⁹ A recent review of 40 different studies concluded with moderate certainty that alcoholic beverage warnings make consumers slower to purchase alcoholic beverages and more likely to reduce consumption when driving, and with low certainty that labels slow the rate which people drink, and reduce drinking while pregnant. Experiments that rotated the messaging on the labels were much more impactful, as the researchers found with high certainty that they reduced overall alcohol sales.²⁰ In terms of messaging content, a very large survey found that cancer messages had the greatest perceived impact and relevance, followed by more general health risk messaging, especially when viewed by women.²¹

The most compelling data come from a Canadian team, using geographic treatment and control areas, which placed 300,000 brightly colored, pictorial alcohol health

warning labels on products in state liquor stores in Yukon, using three different messages in rotation. Analyses showed that overall alcohol sales dropped 6.31% while the labels were in place.²² Awareness of Canadian drinking guidelines nearly tripled in the area where the labels were in place, compared to nearby jurisdictions without them, including unprompted recall by residents asked to participate in a post-exposure survey.²³ The cancer warning was also highly impactful, and was associated with a greater intention not just to drink less, but to think about and discuss cancer risk.²⁴



Alcohol warning labels piloted in the Yukon study

That same trial, however, illuminated a persistent barrier to labeling: industry opposition. Mid-experiment, the alcohol industry sued to remove the alcohol labels. The complaints included a defamation threat leveled at the government of the province of Yukon over the cancer warnings, as well as challenges to the government's authority to place the labels on alcoholic beverage containers, and a complaint that the labels impinged on producers' freedom of expression.²⁵ As a compromise, the Canadian

government agreed to remove the cancer warnings from the rotation while leaving labels with other health-related content, and the suits never went to trial. This industry interference in Canada echoes legal challenges posed to regulators at the U.S. Food and Drug Administration in 2012, when proposed graphic tobacco labels were enjoined under First Amendment grounds.²⁶ Yet there is an ironic footnote: in Canada, public outrage over the industry's litigative overreach may have amplified awareness of health risks and the impact of the Yukon trial.²⁵

Nonetheless, efforts to advance effective warning labels should be solidly based in existing scientific consensus and evidence-based best practices to head off allegations of ideology trumping health. As countries throughout the developed world adopt enhanced alcohol health warnings,²⁷ the best practices that have emerged include:

- ▲ Clear and salient connection to health risks, including cancer.²⁸
- ▲ Rotating the set of health messages to help reduce “warning fatigue”.²⁹
- ▲ Substantial space occupied on bottle, can, or other package, and use of bright

colors and large, readable typefaces.³⁰

- ▲ Prominent graphical and/or pictorial elements.³¹
- ▲ Elimination of hedging language in favor of explicit causal framing, e.g. “increases risk of” instead of “could lead to”.¹⁹

EXISTING WARNING LABELS

Under Congressional order, the Alcoholic Beverage Labeling Act of 1988 (ABLA) mandated that specified health warning language be put directly on the label of alcoholic beverage containers.³² The language

warned of iatrogenic risk, risk when driving or operating heavy machinery, and “health problems.” Oversight was assigned to the Bureau of Alcohol, Tobacco and Firearms (ATF), then transferred to the newly created Tax and Trade Bureau (TTB)

in 2002 when the former was moved into Department of Homeland Security.



ABLA specifies that the required language, and all federal regulatory oversight, pre-empts any state mechanisms, meaning no state can impose requirements for warning language or warning label format that are stricter than TTB's. However, the act does

not require that the current TTB language be frozen in amber, and a mechanism was defined within ABLA for the label to be revisited in light of emerging understanding of alcohol harm. To date, the process of revising the label has never been initiated.

The preemption of health labeling has caused some chaos in California, specifically. In 1986, California voters passed Proposition 65 into law, requiring consumers be made aware of cancer risk for any given product.³³ The remit is very broad, but IARC is considered one of the authoritative bodies for making a good subject to labeling, and already recognized alcohol as a carcinogen. Enforcement is under the Office of Environmental Health Hazard Assessment (OEHHA).

While many products received a warning label directly on the packaging, ATF and TTB preemption meant that alcohol's Prop 65 warnings had to be conveyed via signage at point-of-sale (POS). This is further complicated by the fact that the alcohol industry's three tier structure would have created complicated webs of liability between producers, wholesalers, and retailers. Although there is some evidence of Prop 65's overall effectiveness in educating California consumers on carcinogen exposure³⁴—including alcohol—in a series of surveys conducted with

California residents between 2017-2020, the number of respondents recognizing the alcohol-cancer link never exceeded 44%.¹¹

The preemption and legal exposure has been sidestepped by a compromise agreement between OEHHA and industry trade groups to standardize POS warnings. Those trade groups design and distribute the warning signage to retailers under Prop 65 Sign Management, Inc. OEHHA has established "safe harbor" language that protects retailers from liability when provided to

customers, and the POS signs remain in compliance using this warning: "WARNING: Drinking distilled spirits, beer, coolers, wine and other alcoholic beverages may increase cancer risk, and, during pregnancy, can cause birth defects." Further information on health risks, including cancer, is available via a URL specified on the sign,

www.P65Warning.ca.gov/alcohol. No analytic data have been made available showing the volume of traffic to this site, retention of its contents, or resulting behavior change.



Industry-provided Prop 65 POS sign

NEW VENUES FOR LABELING

The Consumer Federation of America (CFA) has long been at the spearpoint of efforts to revisit the alcohol warning labels.³⁵ In

May of 2025, they introduced a new initiative based on the Surgeon General's Advisory from January of that year.⁴ Although business interests complicit in noncommunicable disease, such as the tobacco and sugar-sweetened beverage industries, regularly rely on First Amendment claims to block health warnings,^{26,36} CFA maintains that the advisory provides sufficient factual underpinning to legally withstand those complaints.³⁵ Although beverage labels would remain preempted, an appeal to factual basis could greatly expand the venues in which cancer warnings could appear, including alcohol commercials, billboards, and print advertisements.



RECOMMENDATIONS

Based on the current burden of alcohol and cancer-related mortality, the OSG advisory, and the existing national and state labeling schema, the California legislature should pursue the following legislative and regulatory remedies:

- ▲ Pass a resolution affirming the state's support for the national remedies, including a revision of the Alcoholic Beverage Labeling Act and modernization of mandated labels
- ▲ On the basis of the Surgeon General's Advisory, enact state legislation mandating alcohol-cancer warnings in contexts not otherwise mandated through Prop 65, including print, radio, and television advertisements, websites, and branded merchandise
- ▲ Direct OEHHA to issue enhanced Prop 65 rulemaking, requiring warning signs to more closely hew to health warning labeling best practices
- ▲ Direct OEHHA, if TTB continues to preempt on-package labeling, to explore on-shelf labels or other avenues for maximizing consumer exposure to warnings pertaining to the alcoholic products they are purchasing
- ▲ Direct California DPH and/or OEHHA discretionary budget allocations to research and evaluation of signage, web-based information, and labelling with the aim to maximize legibility and impact within existing state powers

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ABOUT ALCOHOL JUSTICE

Formed in 1987 and originally known as the Marin Institute, Alcohol Justice is a nonprofit based in San Rafael, CA dedicated to promoting evidence-based policies that protect public health and safety.

MISSION

Alcohol Justice is working to mitigate the societal harms of alcohol and the alcohol industry, particularly impacting youth, through advocacy, policy, community action and education.

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