

# Alcohol, Binge Drinking, and Cancer Risk: Accelerating Public Health Messaging Through Countermarketing

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A number of public health groups, including the American Public Health Association (APHA), have recently called for warning labels on alcoholic beverages to inform the public of the increased risk of cancer.<sup>1,2</sup> The International Agency for Research on Cancer classifies alcohol as a group I carcinogen, in the same league as tobacco, human papilloma virus, and hepatitis.<sup>3</sup> Epidemiologists have reported a link between cancer and alcohol consumption for decades (e.g., Flamant et al.<sup>4</sup>; Williams and Horn<sup>5</sup>), with consistent associations with cancers of the (1) oral cavity and pharynx, (2) esophagus, (3) larynx, (4) liver, (5) breast, and (6) colorectum (ranked by strength of association). The American Society of Clinical Oncology's (ASCO) Committee on Alcohol and Cancer also calls for (1) promoting public education, (2) supporting policy efforts through the use of evidence-based

strategies, (3) providing education to oncology providers, and (4) identifying research gaps between alcohol and cancer risk and outcomes.<sup>6</sup>

Together the APHA and ASCO statements are timely, as warning labels have the clear advantage of ensuring messaging directly to the consumers of a product, but such messages are less effective when health providers do not reinforce them. ASCO's influence is critical because there is a documented lack of physician, as well as general public, awareness of the association between alcohol and cancer risk (for a recent systematic review, see Scheideler and Klein<sup>7</sup>). The lack of awareness of cancer risk, and reinforcement if risk is known, may be because the relative risk between alcohol and common cancers, like breast and colorectal cancers, is much more modest than the relative risk for alcohol and oral cavity and liver cancers. There

has been some consistent evidence supporting a cardioprotective effect of moderate alcohol consumption that only recently has been debunked.<sup>8</sup> Thus, now is the time to push for broader awareness of the alcohol and cancer connection. In addition to the strategies put forth in the APHA and ASCO statements, we believe that the strategic use of countermarketing, a marketing strategy successfully used to change risk perceptions and behavior toward smoking, may hold the key to helping create awareness of alcohol as a carcinogen.<sup>9</sup>

## COUNTERMARKETING

Although the use of warning labels is one component of many product-based public health campaigns, it is likely to have only a limited impact without structural changes, as we have seen with cigarette smoking.<sup>10</sup> The recent APHA policy statement on reducing population-level health effects from alcohol outlines some of these structural approaches.<sup>11</sup> For reducing population-level effects of alcohol on different cancers, given the long latency between exposure and cancer diagnoses as well as the recognition that alcohol habits start in adolescence and early adulthood, structural changes that can augment the use of warning labels and other public health measures specifically to younger adults is needed. Aggressive public policy changes, such as restrictions on alcohol advertising and economic disincentives, may work to reduce alcohol use in young adults; however, we believe an approach that focuses on the success of the anti-smoking advertising campaign "truth" using countermarketing may be an effective first step.

Beyond the medical community, the commonly held belief that moderate alcohol consumption is physically

beneficial is mainly owing to the alcohol industry's strategic focus on maintaining its "health halo."<sup>12</sup> For instance, using public relations to support breast cancer charities with "pink-washed" products.<sup>13</sup> Efforts to communicate the risks of alcohol consumption at any level are challenged by both a media landscape of widespread unrestricted alcohol marketing and the cultural view that drinking is a social norm.

Lessons learned from more than 50 years of antismoking messaging and other public health interventions may be useful for successfully cutting through the bombardment of positive messaging on alcohol consumption from advertising, product placement, and portrayals of drinking in the mass media. For example, even with the full support of the health care community and government policies—such as warning labels, tobacco taxation, a ban on TV and radio advertising, and antismoking public service announcements—youth smoking in the United States (12th graders) was reduced by only 0.07% from 1980 to 2000.<sup>14</sup> By contrast, the next 19 years show a striking difference, with a decline of 18.9%.<sup>14</sup> There are numerous contributing factors at play that can, in part, explain this decline; however, the most notable from a marketing perspective was the implementation of a countermarketing strategy.

Countermarketing focuses on discrediting an opponent's message and has been a powerful strategy in public health campaigns when corporations are depicted as bad actors.<sup>15</sup> The Truth Initiative's countermarketing "truth" campaign, which rolled out nationally in 2000, became one of the most successful antismoking campaigns to date.<sup>16</sup> This campaign successfully changed adolescents' risk perception of smoking not through fear appeals or

loss-framed messages but through countermarketing that discredited the message presented by the tobacco industry. For example, the "truth" TV commercial "Squadron" shows a number of small planes flying over a crowded beach pulling an airplane banner with the question "What's in cigarette smoke?" followed by dozens of planes with banners listing toxic chemicals. The commercial ends with the tagline "Knowledge is contagious."<sup>17</sup>

Countermarketing campaigns are often particularly successful among adolescents, as the industry, not the consumer, is depicted as the bad actor. In addition to the successful anti-smoking "truth" campaign, countermarketing techniques have been employed to raise awareness about unhealthy foods and beverages.<sup>9</sup> We propose that by using the alcohol industry's focus on maintaining their health halo and their practice of pink washing, countermarketing may provide the necessary impact to produce attitudinal change.

## CAMPAIGNS AGAINST BINGE DRINKING?

Important recent epidemiological<sup>18</sup> and laboratory evidence<sup>19</sup> on the independent role (on cancer risks) of binge drinking and the biological effect of alcohol on stem cells, respectively, provides a promising path for public health action on binge drinking over more general campaigns about alcohol avoidance. There is the practical reality that alcohol consumption is woven into the fabric of many cultures, but binge drinking is not. Countermarketing campaigns that inform the public that cancer risk can be reduced by eliminating binge drinking may be more palatable than complete abstinence. However, recent

data from the Centers for Disease Control and Prevention demonstrated that most adults are not asked specifically about binge drinking by their health care professional even if they are asked about alcohol use.<sup>20</sup> Even more sobering, of those who reported to their health care provider that they did engage in binge-level drinking, less than half of the admitted binge-drinking individuals (41.7%) were provided with information about the harms of heavy drinking, and only a fifth (20.1%) were specifically told by their health care provider to reduce their level of drinking.

The first step in creating awareness regarding the link between cancer and alcohol can be best accomplished by focusing on a multifaceted communication approach, including the use of warning labels, community provider education, and countermarketing campaigns. The similarities between the alcohol industry's and the tobacco industry's misuse of health data set the stage for another "truth"-like countermarketing campaign focused on exposing the alcohol industry's creation of a health halo while delivering the message that binge drinking, in addition to overall alcohol consumption, is linked to cancer risk. Although COVID-19 may have increased alcohol use,<sup>21</sup> the pandemic disrupted behavioral routines that may provide a more receptive audience to marketing interventions to change attitudes and behavior toward alcohol.<sup>22</sup> Using public health communication tools such as warning labels and community provider education is critical for creating public awareness of alcohol as a carcinogen, but to change attitudes and ultimately behavior toward alcohol use will entail creating persuasive health communication focused on truth telling and individual well-being. [AJPH](#)

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J. Strebel wrote the section on marketing. M. B. Terry wrote the sections on cancer risk.

**CONFLICTS OF INTEREST**

The authors have no conflicts of interest to declare.

**REFERENCES**

- American Institute for Cancer Research; American Public Health Association; Breast Cancer Action, et al. Modernization of the labeling and advertising regulations for wine, distilled spirits, and malt beverages. *Fed Regist*. 2020;85(64):18704–18726.
- Cerullo M. Alcoholic beverages should carry cancer warnings, health groups say. *CBS News*. May 7, 2020. Available at: <https://www.cbsnews.com/news/cancer-warning-labels-proposed-for-alcohol>. Accessed February 23, 2021.
- International Agency for Research on Cancer. Agents classified by the IARC monographs, volumes 1–125. March 3, 2020. Available at: <https://monographs.iarc.who.int/agents-classified-by-the-iarc>. Accessed February 23, 2021.
- Flamant R, Lasserre O, Lazar P, Leguerinais J, Denoix P, Schwartz D. Differences in sex ratio according to cancer site and possible relationship with use of tobacco and alcohol. review of 65,000 cases. *J Natl Cancer Inst*. 1964;32(6):1309–1316. <https://doi.org/10.1093/jnci/32.6.1309>
- Williams RR, Horm JW. Association of cancer sites with tobacco and alcohol consumption and socioeconomic status of patients: interview study from the Third National Cancer Survey. *J Natl Cancer Inst*. 1977;58(3):525–547. <https://doi.org/10.1093/jnci/58.3.525>
- LoConte NK, Brewster AM, Kaur JS, Merrill JK, Alberg AJ. Alcohol and cancer: a statement of the American Society of Clinical Oncology. *J Clin Oncol*. 2018;36(1):83–93. <https://doi.org/10.1200/JCO.2017.76.1155>
- Scheidel JK, Klein WMP. Awareness of the link between alcohol consumption and cancer across the world: a review. *Cancer Epidemiol Biomarkers Prev*. 2018;27(4):429–437. <https://doi.org/10.1158/1055-9965.EPI-17-0645>
- Wood AM, Kaptoge S, Butterworth AS, et al. Risk thresholds for alcohol consumption: combined analysis of individual-participant data for 599,912 current drinkers in 83 prospective studies. *Lancet*. 2018;391(10129):1513–1523. [https://doi.org/10.1016/S0140-6736\(18\)30134-X](https://doi.org/10.1016/S0140-6736(18)30134-X)
- Palmedo PC, Dorfman L, Garza S, Murphy E, Freudenberg N. Countermarketing alcohol and unhealthy food: an effective strategy for preventing noncommunicable diseases? Lessons from tobacco. *Annu Rev Public Health*. 2017;38:119–144. <https://doi.org/10.1146/annurev-publhealth-031816-044303>
- Vallance K, Vincent A, Schoueri-Mychasiw N, et al. News media and the influence of the alcohol industry: an analysis of media coverage of alcohol warning labels with a cancer message in Canada and Ireland. *J Stud Alcohol Drugs*. 2020;81(2):273–283. <https://doi.org/10.15288/jsad.2020.81.273>
- American Public Health Association. Addressing alcohol-related harms: a population level response. November 5, 2019. Available at: <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2020/01/14/addressing-alcohol-related-harms-a-population-level-response>. Accessed February 23, 2021.
- Savell E, Fooks G, Gilmore AB. How does the alcohol industry attempt to influence marketing regulations? A systematic review. *Addiction*. 2016; 111(1):18–32. <https://doi.org/10.1111/add.13048>
- Mart S, Giesbrecht N. Red flags on pinkwashed drinks: contradictions and dangers in marketing alcohol to prevent cancer. *Addiction*. 2015;110(10):1541–1548. <https://doi.org/10.1111/add.13035>
- Miech RA, Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE, Patrick ME. *Monitoring the Future National Survey Results on Drug Use, 1975–2019. Vol 1: Secondary School Students*. Ann Arbor, MI: University of Michigan Institute for Social Research; 2018.
- Apollonio DE, Malone RE. Turning negative into positive: public health mass media campaigns and negative advertising. *Health Educ Res*. 2009;24(3):483–495. <https://doi.org/10.1093/her/cyn046>
- Farrelly MC, Heaton CG, Davis KC, Messeri P, Hersey JC, Haviland ML. Getting to the truth: evaluating national tobacco countermarketing campaigns. *Am J Public Health*. 2002;92(6):901–907. <https://doi.org/10.2105/AJPH.92.6.901>
- AdAge. Truth-squadron. February 3, 2002. Available at: <https://adage.com/videos/truth-squadron/792>. Accessed February 4, 2021.
- White AJ, DeRoo LA, Weinberg CR, Sandler DP. Lifetime alcohol intake, binge drinking behaviors, and breast cancer risk. *Am J Epidemiol*. 2017;186(5):541–549. <https://doi.org/10.1093/aje/kwx118>
- Garaycoechea JL, Crossan GP, Langevin F, et al. Alcohol and endogenous aldehydes damage chromosomes and mutate stem cells. *Nature*. 2018;553(7687):171–177. <https://doi.org/10.1038/nature25154>
- Centers for Disease Control and Prevention. Screening for alcohol use and brief counseling of adults—13 states and the District of Columbia, 2017. *MMWR Morb Mortal Wkly Rep*. 2020;69(10):265–270. <https://doi.org/10.15585/mmwr.mm6910a3>
- Pollard MS, Tucker JS, Green HD Jr. Changes in adult alcohol use and consequences during the COVID-19 pandemic in the US. *JAMA Netw Open*. 2020;3(9):e2022942. <https://doi.org/10.1001/jamanetworkopen.2020.22942>
- Andreasen AR. Life status changes and changes in consumer preferences and satisfaction. *J Consum Res*. 1984;11(3):784–794. <https://doi.org/10.1086/209014>