

# Cancer Warning Labels on Alcohol Containers: A Consumer's Right to Know, a Government's Responsibility to Inform, and an Industry's Power to Thwart

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**ABSTRACT. Objective:** Although the World Health Organization (WHO) declared alcohol a Class 1 carcinogen 30 years ago, few governments have communicated this fact to the public. We illustrate how alcohol industry groups seek to keep their customers in the dark about alcohol-related cancer risks. In Canada, a federally funded scientific study examining the introduction of cancer warning labels on containers was shut down following industry interference. We show that the industry complaints about the study had no legal merit. Of 47 WHO member countries with alcohol warning labels, only South Korea requires cancer warnings on alcohol containers. However, industry complaints,

supported by sympathetic governments, helped weaken the warning labels' implementation. Ireland has legislated for cancer warnings but faces continuing legal opposition expressed through regional and global bodies. Cancer societies and the public health community have failed to counter industry pressures to minimize consumer awareness of alcohol's cancer risks. Placing cancer warnings on alcohol containers could make a pivotal difference in motivating both drinkers to consume less and regulators to introduce more effective policies to reduce the serious harms of alcohol consumption. (*J. Stud. Alcohol Drugs*, 81, 284–292, 2020)

IT IS ESTIMATED THAT worldwide alcohol is responsible annually for 3 million deaths (Global Burden of Disease 2016 Alcohol Collaborators, 2018), being causally associated with at least 43 major categories of disease or injury identified by more than 400 specific ICD-10 codes (Sherk et al., 2017). The World Health Organization's (WHO) International Agency for Research on Cancer (2010) has recognized since 1987 that alcohol-related cancers contribute significantly to this toll. It is now firmly established that alcohol consumption increases cancer risk in a dose-response fashion with no risk-free level and with causal associations established for breast cancer and various cancers of the digestive tract (e.g., mouth, throat, larynx, esophagus, colon; International Agency for Research on Cancer, 2010). In Canada, it was estimated recently that almost one third of the 15,000 alcohol-attributable deaths in 2014 were related to such cancers (Canadian Substance Use Costs and Harms Scientific Working Group, 2018). The U.S. Centers for Dis-

ease Control and Prevention also cites evidence that alcohol causes cancer of the prostate (Zhao et al., 2016). Bagnardi et al. (2015) have found dose-response associations between alcohol use and risk of some 20 cancer types, with many more yet to be formally recognized by WHO's International Agency for Research on Cancer. In this article, we provide examples of how the global alcohol industry works to ensure that the well-established cancer risks posed by its product continue to be overlooked, by both regulators and the public.

In 2017, the American Society of Clinical Oncology (LoConte et al., 2018) published a statement marking 30 years since the WHO first classified ethanol as a Class 1 carcinogen. The American Society of Clinical Oncology highlighted a lack of government action to advise the world's two billion alcohol consumers of this risk or to limit their exposure. Many cancer societies have also been remiss in drawing this risk to the public's attention (Amin et al., 2018). Indeed, U.S. public surveys show that a substantial majority of adults have no knowledge or awareness of alcohol's carcinogenicity (LoConte et al., 2018). In a recent household survey in England, only 13% of respondents indicated unprompted knowledge that alcohol increases cancer risk, rising to 32% when prompted (Bates et al., 2018). A survey of liquor store customers in two northern Canadian capital cities found that even prompted awareness of alcohol's cancer risk was present in only one quarter of respondents (Hobin et al., 2020; Vallance et al., 2020b).

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TABLE 1. Types of warning label requirements in World Health Organization (WHO) member countries

Country	WHO member countries <i>n</i>	Health warnings <i>n</i> (%)	Health warning types		
			Pregnancy <i>n</i> (%)	Underage drinking <i>n</i> (%)	Drink driving <i>n</i> (%)
Americas	35	13 (37.1)	5 (14.3)	6 (17.1)	5 (14.3)
Africa	46	11 (23.9)	6 (13.0)	14 (30.4)	9 (19.6)
Eastern Mediterranean	21	2 (9.5)	1 (4.8)	1 (4.8)	0 (0.0)
Europe	53	13 (24.5)	13 (24.5)	12 (22.6)	11 (20.8)
Southeast Asia	11	2 (18.2)	0 (0.0)	1 (9.1)	1 (9.1)
Western Pacific	28	6 (21.4)	2 (7.1)	7 (25.0)	5 (17.9)
Total	194	47 (24.2)	27 (13.9)	41 (21.1)	31 (16.0)

Source: WHO Global Information System on Alcohol and Health.

At the time of writing, we are aware of three jurisdictions where cancer warnings on alcohol containers have been or will be introduced: South Korea, the Republic of Ireland (pending), and Yukon (which briefly trialed a cancer warning). At least 47 WHO member countries have some kind of requirements for warning labels (WHO, 2019), although only South Korea currently requires these to mention cancer (Table 1). The U.S. warning label introduced in 1989 refers only to an increased risk of general health problems (Greenfield, 1997). Canada has no requirements for alcohol warning or ingredient labeling, in sharp contrast to both tobacco and cannabis packaging (Figure 1).

In South Korea, Ireland, and Yukon, there were, or continue to be, legal maneuvers by alcohol industry groups to

prevent, delay, or water down implementation of the warning messages. The industry's legal arguments have been made using both domestic and international law, with the latter involving concerns being raised in the World Trade Organization by members such as the European Union and the United States. In the present article, we address the nature and merits of the industry arguments raised and the impact they have had on government labeling policies.

#### Case study: Yukon alcohol labeling study

In December 2017, the Yukon government in Canada yielded to alcohol industry pressure to halt a Health Canada-funded study of cancer warning labels placed on

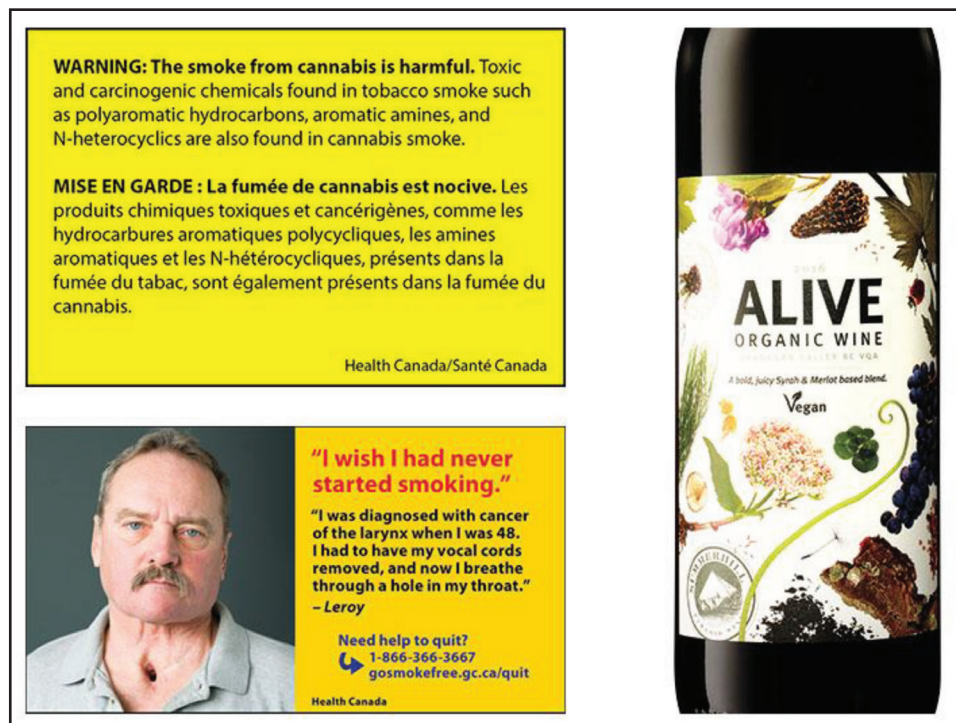


FIGURE 1. A comparison of Canadian labels for tobacco, cannabis, and alcohol products

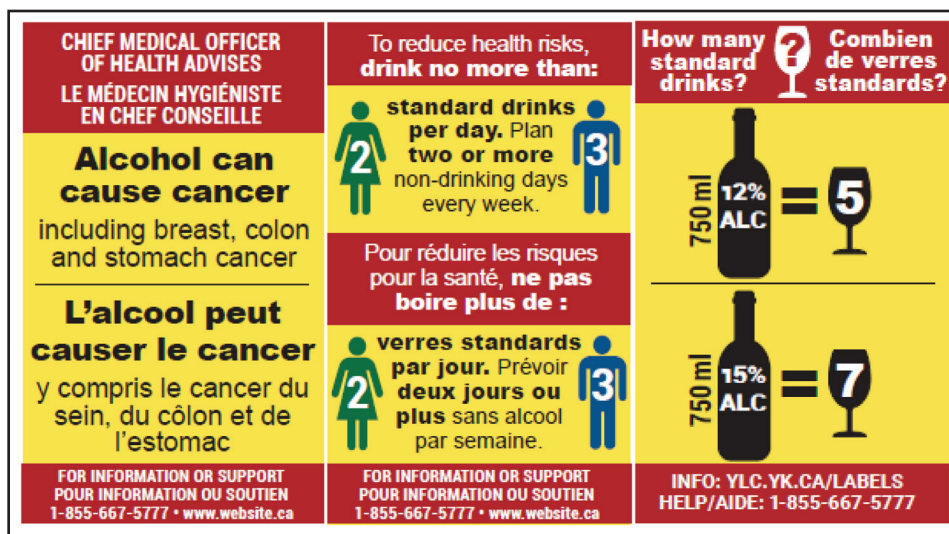


FIGURE 2. Warning labels trialed in Whitehorse, Yukon (5.0 cm × 3.2 cm)

alcohol containers sold in the territory's capital, Whitehorse (*Whitehorse Star*, 2018). *The Globe and Mail* decried the industry action as “Shameful” (Picard, 2018). The study involved an 8-month intervention introducing three types of messages (Figure 2): (a) a warning that alcohol can cause cancer, with specific mention of two prevalent and often fatal cancers in Canada (breast and colon); (b) Canada's national low-risk drinking guidelines (Stockwell et al., 2012); and (c) information about standard drink contents of beverages to support consumers following the national guidelines. The evidence-informed labels were designed according to best practices for effective product warnings, including messages developed after testing prototypes on a panel of 2,000 Canadians (Hobin et al., 2018) and also focus groups of Yukon residents and stakeholders (Vallance et al., 2018). Approximately 47,000 containers were labeled with cancer warnings and 53,000 with national drinking guidelines between November 20, 2017, until the study was quietly halted on December 19, 2017. The three messages were to have been evaluated through analysis of alcohol sales data and surveys of liquor store customers in Whitehorse (intervention site) and Yellowknife, Northwest Territories (comparison site) (Vallance et al., 2020a). Both Yukon and Northwest Territories have placed post-manufacturer warning labels on containers regarding pregnancy risks. The Northwest Territories' labels included additional messages cautioning about impaired driving and general health problems. The labels have been required under a local directive since 1991 with no legal challenges to date (Figure 3). These territories also have the highest per capita alcohol consumption in Canada (Statistics Canada, 2018).

Subsequent to the industry intervention, the Yukon Minister responsible for Liquor publicly announced in February 2018 that the study could proceed provided that the cancer

warning label was dropped (*Whitehorse Star*, 2018). He stated that although the evidence for the causal link between drinking and cancer was not in dispute, his government had limited resources and he was concerned about potential legal action by the Canadian alcohol producers. He undertook to raise the matter with Canada's federal health minister and subsequently wrote accordingly. The study restarted without the cancer labels and for a reduced overall intervention period of 4 instead of 8 months (Vallance et al., 2020a). However, even this abbreviated labeling intervention was associated with a significant increase in awareness of alcohol's cancer risk among surveyed liquor store patrons, with increased intentions to reduce consumption, greater support for pricing policies to reduce alcohol harm, and reduced alcohol sales (Hobin et al., 2020; Zhao et al., 2020).

The research team subsequently received copies of email correspondence between Canadian alcohol industry lobbyists and the Yukon Liquor Corporation that led to the cessation of the cancer warnings. The email correspondence was originally obtained by the *Globe and Mail* through a Freedom of Information request. (Copies of all the original emails so obtained that were sent from alcohol industry representatives to the Yukon government can be viewed at: <https://www.uvic.ca/research/centres/cisur/assets/docs/industry-emails.pdf>). These emails, along with media statements by alcohol industry representatives, a letter of complaint to the University of Victoria from a beer industry lobby group, and communications between the research team and the Yukon Liquor Corporation, revealed several industry claims about the legality of the labeling intervention. We selected three of the claims that were most prominent in our discussions with the Yukon Liquor Corporation and provide analyses below to show that these legal claims were groundless. Instead, our analysis suggests

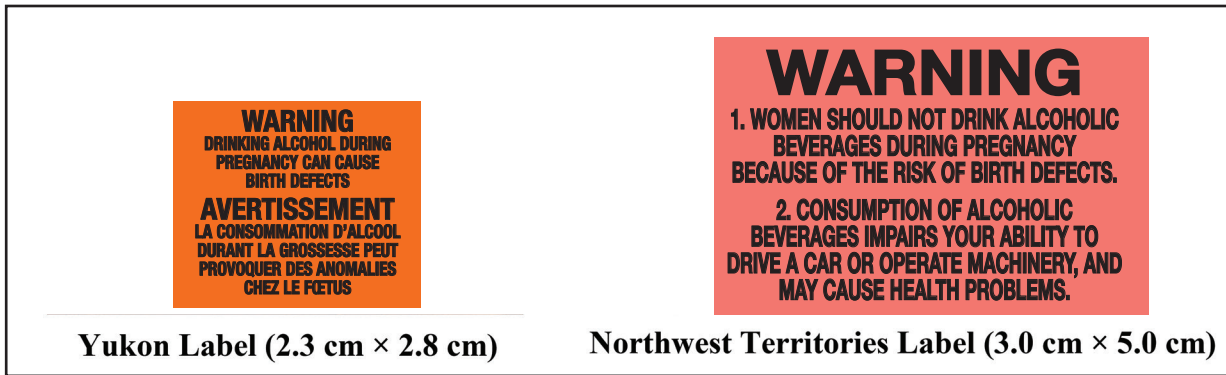


FIGURE 3. Warning labels implemented in Yukon and Northwest Territories since 1991

that Canadian governments that sell and/or distribute alcohol are legally obliged to inform consumers of potential health risks.

*Claim 1: Yukon had no legislative authority to place health warnings on the alcohol products it sells*

Under the 2002 *Yukon Act*, Canada's federal Parliament transferred authority to the Yukon Legislative Assembly to enact laws in a broad range of fields that largely duplicate the provinces' legislative powers. Canadian provinces have ample legislative authority to undertake a warning label project or enact warning label legislation pursuant to their powers over property and civil rights, public health, and matters of a merely local or private nature (United Kingdom, *Constitution Act, 1867*, (U.K.), ss. 92(13), (7) and (16)). Based on these powers alone, Yukon had legislative authority to implement the warning label project or indeed require all alcohol products to include detailed health and safety warnings.

Moreover, the *Yukon Act* expressly gives the Territory additional authority to enact laws regarding "intoxicants" and to control their importation (s. 18(1)(r) and (3)). It is ironic that the industry would raise this issue, considering that Yukon has broader and more direct authority over alcohol than any of Canada's 10 provinces. The industry's claim simply has no merit.

*Claim 2: The warning label study violated the alcohol manufacturers' freedom of expression under Section 2(b) of the Canadian Charter of Rights and Freedoms (Charter). (United Kingdom, Part I of the Constitution Act, 1982, being Schedule B to the Canada Act 1982 (U.K.))*

The *Charter* has enshrined freedom of expression and many other rights in Canadian constitutional law. The Constitution "is the supreme law of Canada" and any federal, provincial, or territorial law that is inconsistent with "the Constitution is, to the extent of the inconsistency, of no force or effect" (s. 52). Consequently, the alcohol manufacturers could challenge the warning label study if they could prove

that it violated their freedom of expression. However, the rights and freedoms in the *Charter* are not absolute, but rather may be justifiably limited under Section 1 of the *Charter*.

The Territorial Liquor Authority is attaching its own labels to alcohol products that it has purchased from the alcohol manufacturers. This is not a case of compelled speech. The cancer warning is expressly attributed to the Chief Medical Officer of Health. It may be inferred that the low-risk drinking guidelines also reflect the government's views. In these circumstances, there is no infringement of the manufacturers' freedom of expression.

The legal analysis would differ if Yukon required alcohol manufacturers to attach warning labels to their products. The Supreme Court of Canada has indicated that such legislation would likely limit the alcohol manufacturers' freedom of expression. (*RJR-MacDonald Inc. v. Canada (Attorney General)*, 1995). However, the manufacturers would have no remedy under the *Charter* if the government could establish, pursuant to Section 1, that this infringement was a reasonable limit "prescribed by law as can be demonstrably justified in a free and democratic society."

Although commercial speech is protected by Section 2(b), it is not considered to be as important as political and other categories of expression. For example, the Supreme Court of Canada held that federal legislation banning almost all tobacco advertising and sponsorship and requiring prominent health warnings and graphic images of tobacco-related diseases on all tobacco products constituted a justifiable limit on Section 2(b). Among other things, the Court stated that the commercial expression infringed was of "low value." It is worth noting that the required rotating, full color, graphic images had to occupy at least 50% of the principal display surfaces (this was subsequently increased to 75%).

*Claim 3: The Yukon government can be held liable in defamation for claiming that alcohol use can cause cancer*

The common law tort action of defamation protects the reputation of individuals, corporations, and businesses

from untrue and unjustifiable attacks, but it does not apply to products. Rather, such claims must be brought pursuant to a tort action in “injurious falsehood” (“slander of goods”). To succeed in injurious falsehood, the manufacturers must prove that the statement was factually untrue and that the government made the statement maliciously (i.e., knowing it to be untrue or for an improper purpose).

It is extremely unlikely that the industry could establish either element of this claim. For example, the fact that the industry does not believe that alcohol can cause cancer or believes that there are more effective ways of educating the public is irrelevant. Rather, the manufacturers must prove, on the balance of probabilities, that alcohol cannot cause cancer. Since the scientific literature has been interpreted by international cancer experts as providing definitive proof of alcohol’s causal role, such a case could not be proven. There is nothing in the scientific literature suggesting that this could be proven.

The second element of the action would be equally difficult to prove. The cancer warning labels and low-risk guidelines are framed as health cautions or advisories. It is difficult to see how the manufacturers would be able to prove that the health officials responsible for these statements were knowingly lying or were secretly motivated by ill will or spite toward the industry (Klar, 2012).

#### *Conclusions on the legality of alcohol cancer warnings in Yukon and Canada generally*

Given that individuals are generally permitted to sue anyone for anything, the industry could sue the Yukon government. Although none of the industry’s claims had any merit, the attempt to derail the warning label study raises a fourth legal issue that the Yukon government should seriously consider—namely, its potential civil liability for failing to adequately inform consumers of the risks posed by the alcohol products that it sells.

Canadian manufacturers and suppliers have long had a common law duty to inform consumers of the risks inherent in using their products. They must warn of risks of which they know or ought to know (*Allard v. Manahan*, 1974; *Lambert v. Lastoplex Chemicals Co.*, 1971; *O’Fallon v. Inecto Rapid (Canada) Ltd.*, 1940) and of risks in both the use and foreseeable misuse of their products (*Lem v. Barotto Sports Ltd.*, 1976; *Walford v. Jacuzzi Canada Ltd.*, 2007). Manufacturers are required to be experts in their field and to undertake research, or at least keep current with the existing scientific and industry literature (*Buchan v. Ortho Pharmaceutical (Can.) Ltd.*, 1986). They cannot gloss over or otherwise obscure the risks; nor will a vague, generalized warning be sufficient (*Buchan v. Ortho Pharmaceutical (Can.) Ltd.*, 1986; *Lambert v. Lastoplex Chemicals Co.*, 1971).

Several factors will contribute to the high standard of disclosure expected regarding alcohol. First, the Canadian courts have held that the disclosure standards are particularly onerous for products intended for human consumption (*Arendale v. Canada Bread Co.*, 1941; *Heimler v. Calvert Caterers Ltd.*, 1975; *Rae and Rae v. T. Eaton Co. (Maritimes) Ltd.*, 1961; *Zeppa v. Coca-Cola Ltd.*, 1955). Second, the required warning or disclosure must be commensurate with the probability and severity of the risks. If either the probability or severity of the risks is high, the manufacturer and supplier will be held to a stringent standard. Third, a higher standard of disclosure is required if the specific risk is not generally known to the public and the product is mass marketed to potentially vulnerable consumers (*Buchan v. Ortho Pharmaceutical (Can.) Ltd.*, 1986; *Lambert v. Lastoplex Chemicals Co.*, 1971).

As a supplier of alcohol, the Yukon Liquor Corporation has a common law duty to adequately inform its customers, and the standard of disclosure is likely to be rigorous, given the probability and severity of the risks associated with binge drinking and heavy habitual consumption. The successful \$15 billion Québec class-action suit against three tobacco manufacturers provides ample reason for alcohol manufacturers and suppliers to reassess their potential liability very carefully (*Létourneau c. JTI-MacDonald Corp.*, 2015). Although this tobacco case is currently being appealed, it is only a matter of time before similar suits are brought against alcohol manufacturers and the provincial and territorial liquor authorities that sell their products.

By challenging Yukon’s relatively modest alcohol warning study, the alcohol industry has inadvertently raised legal issues that should galvanize Canada’s other provinces and territories to immediately enact comprehensive alcohol warning label legislation.

#### *International trade law, Korea, Ireland and cancer warning labels for alcohol*

International trade law has also been used to place pressure on countries wanting to introduce alcohol warning labels about cancer. In the World Trade Organization’s Committee on Technical Barriers to Trade, two cancer warning label proposals have been subject to forceful opposition from major alcohol-producing nations, including the United States, the European Union, Australia, New Zealand, Mexico, Argentina, and Chile.

In 2016, South Korea proposed to enhance its container warnings cautioning about alcohol use and cancer risk. Korea already had warnings in place that stated that “Excessive consumption of alcohol may cause liver cirrhosis or liver cancer.” Korea proposed three new labels, two of which mentioned cancer in sites other than the liver. One label read, “. . . Alcohol is [a] carcinogen, so excessive drinking

causes liver cancer, gastric adenocarcinoma and so on . . . .” The other read, “. . . excessive drinking cause[s] cancer . . . .” (International Alliance for Responsible Drinking, 2019). The risks of cancer were mentioned in addition to other risks from alcohol, including those relating to drinking during pregnancy (International Alliance for Responsible Drinking, 2019). In 2018, the Republic of Ireland amended its Public Health (Alcohol) Bill with a proposal for alcohol labels to warn of “the direct link between alcohol and fatal cancers” (Public Health [Alcohol] Act 2018 [Ireland], 2018).

Both countries have now enacted their proposals, but not before heavy argument against the warnings in the Technical Barriers to Trade Committee. To be clear, the World Trade Organization’s Technical Barriers to Trade Committee is not a formal legal forum but provides a place for robust dialogue and debate between World Trade Organization member states about policy proposals, including those relating to labeling. Member states may choose to modify or maintain their policy proposals after the Technical Barriers to Trade Committee deliberations, but policies that are not subject to appropriate amendments face the possibility of a formal challenge through the World Trade Organization’s dispute resolution system.

The legal issue being raised in the Technical Barriers to Trade Committee is that the South Korean and Irish warnings about cancer are “more trade restrictive than is necessary to fulfil a legitimate objective” (Marrakesh Agreement Establishing the World Trade Organization, 1995). The labels are said to constitute an unnecessary interference with international trade because there is no scientific evidence to support such warnings as an effective public health measure that will make a contribution to addressing alcohol-related harm. Mexico argued against South Korea that the warnings did not provide clear information to the consumer, asserting there is “no scientific evidence establishing such a causal link [between alcohol and cancer], since epidemiological studies pointed to a wide range of cancer risk factors, including family history, genetics, lifestyle and environmental factors” (“Committee on Technical Barriers to Trade. Minutes of the Meeting of 10-11 November 2016,” February 17, 2017). Mexico further challenged the South Korean label on the basis that “moderate consumption of alcohol was also regarded as an important part of a healthy lifestyle” in scientific studies (“Committee on Technical Barriers to Trade. Minutes of the Meeting of 10-11 November 2016,” February 17, 2017). Australia has just spent 5 years in the World Trade Organization defending its support of tobacco plain packaging, another measure that seeks to control the industry’s use of the product package for marketing purposes. However, presumably in protection of its strong wine and beer sectors, Australia has expressed concern that translations of the Korean warnings suggested a “direct link” between cancer and drinking alcohol. They “suggested that the label [should] be drafted in a way that

would reflect scientific consensus on the issue” (“Committee on Technical Barriers to Trade. Minutes of the Meeting of 10-11 November 2016,” February 17, 2017).

No formal challenge against the South Korean cancer warning labels was initiated. Although the actual wording of the labels did not change, there were several aspects to the initiative that might have been designed to appease alcohol-producing states and their industries. First, South Korea only required producers to use one of the three new warnings on their products and allowed producers to choose the one they preferred. One of the warnings does not mention cancer at all. Presumably, the industry would choose the label that it considers least influential on consumers’ drinking behaviors (“Committee on Technical Barriers to Trade. Minutes of the Meeting of 29–30 March 2017,” June 2, 2017). Second, South Korea provided a significant transition period. No product that was in the country by February 2018 need bear the new warnings (“Committee on Technical Barriers to Trade. Minutes of the Meeting of 21–22 March 2018,” May 22, 2018). Third, South Korea has not included graphics or images with its cancer warnings and has set no presentation or rotation requirements for the warnings. This may have placated the industry (O’Brien, 2018), because, in the absence of such rules, the industry is free to bury the warnings among other label information as is the case with the mandatory U.S. warning label. But it should be noted that South Korea has recently announced graphic tobacco-style warning labels about the risks of drinking and driving (Yonhap, 2018). This may be a first step toward graphics accompanying all of its alcohol warnings.

There is more chance of a World Trade Organization challenge to Ireland’s measures. Although the exact content and design of its cancer warnings are still to be determined, there is a requirement for a warning “to inform the public of the direct link between alcohol and fatal cancers.” The responsible Minister has the power to prescribe the form of the warnings, including their size, color, and font (Public Health [Alcohol] Act 2018 [Ireland], 2018). The Food Safety Authority of Ireland recently conducted a public consultation in which it called for evidence about the effectiveness of putting cancer warnings on alcoholic beverage containers (Food Safety Authority of Ireland, 2019). There is so far no report from the public consultation. If industry is unhappy with the features prescribed by the Minister for the cancer labels, a challenge is not unlikely, either through the World Trade Organization or at the EU level as happened with Scotland’s alcohol minimum unit price law (MacCulloch, 2017). At the last minute, Ireland ditched a proposal requiring that the warning labels constitute one third of the label space (European Commission, 2018). To protect its cancer labeling regime from formal legal challenge, it will be important that Ireland draw on the evidence about effective warning label design and implementation when establishing its alcohol labeling rules.

## Discussion

Initially, it may seem surprising that, 30 years after the world's leading authority on cancer declared ethanol to be a Class 1 carcinogen, so few governments have acted to ensure that consumers are aware of this important fact. In this essay, we have provided some concrete examples of the ways in which powerful alcohol industry groups work hard at the regional, national, and international level to keep their customers in the dark about the cancer risk from alcohol. In Yukon, Canada, a government-funded scientific study to evaluate the potential impact of cancer and other warning labels was shut down following industry complaints and implied legal action. Analyses presented here show that not only did industry's complaints have no legal merit, but that Canadian governments actually expose themselves to potential civil liability by failing to inform consumers of such serious health risks. This is likely to be an issue in any jurisdiction where the government is involved in the sale and/or distribution of alcohol. On the international stage, only South Korea has successfully implemented some form of cancer warning on alcohol containers. However, industry complaints supported by sympathetic World Trade Organization governments appear to have watered these down by allowing producers to choose which of three labels to post. The Republic of Ireland has plans to introduce the most comprehensive and effective set of health messages, including cancer warnings, but faces continuing legal opposition again from industry groups supported by the governments of alcohol-producing countries.

There are clear and obvious reasons why commercial groups with a vested interest in maintaining high levels of alcohol consumption should strive to prevent consumers from being fully aware of serious health risks from their product. Visible, impactful, and evidence-informed health labels designed according to best practices for effective product warnings can be seen as a pivotal public health intervention when it comes to reducing the considerable harms from alcohol consumption. Although evidence for the direct effectiveness of warning labels in reducing consumption has, until recently, been underwhelming (Stockwell, 2006), there are multiple reasons to reevaluate their potential importance. First, until recently, the most studied real-world policy experiment was that of the U.S. warning labels, which can be faulted on multiple grounds: These labels have not been changed in 30 years, they are text only and in small font, the wording is stilted and technical, and they do not have to be prominently placed on containers (Alcoholic Beverage Health Warning Statement, 2008). Second, even if labels alone have no direct impact on consumption, there is new evidence that media awareness campaigns on alcohol's cancer risk can contribute to increased public support for more directly effective policies such as raising prices and limiting availability (Buykx

et al., 2016). Third, the emerging evidence from the Yukon study is that even though placing cancer warnings on alcohol containers had to be stopped, after just 47,000 containers were labeled over 30 days, both the survey and sales data indicate significant reductions in alcohol consumption during the intervention relative to comparison sites (Hobin et al., 2020; Zhao et al., 2020). Furthermore, there was evidence that consumers whose awareness of the cancer risk was raised by the intervention were then almost twice as likely to support minimum unit alcohol pricing (Weerasinghe, 2020). These positive outcomes point to the importance of effective label design in terms of visibility, impact, and message salience, all of which were superior to the present U.S. warning labels. All of this said, the consumer's right to know about the content of the products they are consuming does not depend on the evidence of the effectiveness of the label on behavior or intermediary variables.

There is clearly much at stake for the alcohol industry, which motivates them to oppose placing accurate health warning information on their products. To date the industry has clearly been effective in persuading governments to protect its commercial interests over the interests of health and safety. This is especially true in North America, where it was recently reported that, contrary to other cancer societies, only the American and Canadian Cancer Societies fail to state on their websites that alcohol is a Class 1 carcinogen (Amin et al., 2018).

Petticrew et al. (2018) and Pettigrew et al. (2018) have recently documented how the alcohol industry has adopted many of the same tactics that the tobacco industry used a generation ago to deny and distort the evidence of cancer risk associated with its products. Specifically, the following general types of industry tactics were identified, the first two of which were clearly used in the Yukon case: (a) denial/omission: denying, omitting or disputing the evidence that alcohol consumption increases cancer risk; (b) distortion: mentioning cancer, but misrepresenting the risk; and (c) distraction: focusing discussion away from the independent effects of alcohol on common cancers. Each of these tactics was also used throughout the media coverage of the cancer warning issue in both Yukon and Ireland (Vallance et al., 2020c). One consequence of a further 30 years of inaction could be the prospect of similar multibillion-dollar lawsuits brought against not only alcohol producers but also governments that have been involved in the distribution and retail sale of alcohol.

The evidence on alcohol warning labels clearly needs to be strengthened by conducting more real-world alcohol policy experiments. Ireland in particular has the opportunity to lead the way with evaluations of mandated health warnings that provide clear and impactful information to consumers. Combined with strengthening causal associations between alcohol use and a growing number of cancers, such evidence may be used by public health advocates nationally

and internationally to persuade both regional and national governments to better serve their citizens by providing them with essential information to protect their health.

## References

- Alcoholic Beverage Health Warning Statement, 27 C.F.R. § 16(2008). Retrieved from <https://www.govinfo.gov/app/details/CFR-2008-title27-vol1/CFR-2008-title27-vol1-part16/summary>
- Allard v. Manahan*. (1974). 46 D.L.R. (3d) 614 (B.C.C.A.).
- Amin, G., Siegel, M., & Naimi, T. (2018). National Cancer Societies and their public statements on alcohol consumption and cancer risk. *Addiction*, 113, 1802–1808. doi:10.1111/add.14254
- Arendale v. Canada Bread Co.* (1941). 2 D.L.R. 41 (Ont. C.A.).
- Bagnardi, V., Rota, M., Botteri, E., Tramacere, I., Islami, F., Fedirko, V., . . . La Vecchia, C. (2015). Alcohol consumption and site-specific cancer risk: A comprehensive dose-response meta-analysis. *British Journal of Cancer*, 112, 580–593. doi:10.1038/bjc.2014.579
- Bates, S., Holmes, J., Gavens, L., Gomes de Matos, E., Li, J., Ward, B., . . . Buykx, P. (2018). Awareness of alcohol as a risk factor for cancer is associated with public support for alcohol policies. *BMC Public Health*, 18, 688. doi:10.1186/s12889-018-5581-8
- Buchan v. Ortho Pharmaceutical (Can.) Ltd.* (1986). 35 C.C.L.T. 1 (Ont. C.A.) [Buchan].
- Buykx, P., Li, J., Gavens, L., Hooper, L., Lovatt, M., Gomes de Matos, E., . . . Holmes, J. (2016). Public awareness of the link between alcohol and cancer in England in 2015: A population-based survey. *BMC Public Health*, 16, 1194. doi:10.1186/s12889-016-3855-6
- Canadian Substance Use Costs and Harms Scientific Working Group. (2018). *Canadian substance use costs and harms (2007–2014)*. Ottawa, Ontario, Canada: Canadian Institute for Substance Use Research and the Canadian Centre on Substance Use and Addiction.
- Committee on Technical Barriers to Trade. (February 17, 2017). Minutes of the Meeting of 10-11 November 2016. WTO Doc G/TBT/M/70. Retrieved from [https://docs.wto.org/dol2fe/Pages/FE\\_Search/FE\\_S\\_S009-DP.aspx?language=E&CatalogueIdList=248082,245264,243629,243577,238944,236707,234546,231304,230729,228723&CurrentCatalogueIdIndex=6&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=248082,245264,243629,243577,238944,236707,234546,231304,230729,228723&CurrentCatalogueIdIndex=6&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True)
- Committee on Technical Barriers to Trade. (June 2, 2017). Minutes of the Meeting of 29-30 March 2017. WTO Doc G/TBT/M/71. [2.257]. Retrieved from [https://docs.wto.org/dol2fe/Pages/FE\\_Search/FE\\_S\\_S006.aspx?FullTextHash=1&MetaCollection=WTO&SymbolList=%22G/TBT/M/71%22+OR+%22G/TBT/M/71%22](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?FullTextHash=1&MetaCollection=WTO&SymbolList=%22G/TBT/M/71%22+OR+%22G/TBT/M/71%22)
- Committee on Technical Barriers to Trade. (May 22, 2018). Minutes of the Meeting of 21-22 March 2018. WTO Doc G/TBT/M/74. [2.176] (Korea). Retrieved from [https://docs.wto.org/dol2fe/Pages/FE\\_Search/FE\\_S\\_S009-DP.aspx?language=E&CatalogueIdList=248082,245264,243629,243577,238944,236707,234546,231304,230729,228723&CurrentCatalogueIdIndex=1&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=False&HasSpanishRecord=True](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=248082,245264,243629,243577,238944,236707,234546,231304,230729,228723&CurrentCatalogueIdIndex=1&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=False&HasSpanishRecord=True)
- European Commission. (2018). Notification Detail—Public Health (Alcohol) Bill 2015 (in so far as it relates to the 3 additional specifications to labelling, advertising and broadcast watershed). Retrieved from <https://ec.europa.eu/growth/tools-databases/tris/en/search/?trisation=search.detail&year=2018&num=22>
- Food Safety Authority of Ireland. (2019). *Public Consultation in respect of regulations to be made under sections 12 and 13 of the Public Health (Alcohol) Act 2018*. Retrieved from [https://www.fsai.ie/uploadedFiles/Legislation/Consultations/info\\_note\\_Public\\_Health\\_Alcohol\\_Act.pdf](https://www.fsai.ie/uploadedFiles/Legislation/Consultations/info_note_Public_Health_Alcohol_Act.pdf)
- Global Burden of Disease 2016 Alcohol Collaborators. (2018). Alcohol use and burden for 195 countries and territories, 1990–2016: A systematic analysis for the global burden of disease study 2016. *The Lancet*, 392, 1015–1035. doi:10.1016/S0140-6736(18)31310-2
- Greenfield, T. (1997). Warning labels: Evidence on harm reduction from long-term American surveys. In M. Plant, E. Single, & T. Stockwell (Eds.), *Alcohol: Minimizing the harm* (pp. 105–125). London, England: Free Association Books.
- Heimler v. Calvert Caterers Ltd.* (1975). 8 O.R. (2d) 1 (C.A.).
- Hobin, E., Vallance, K., Zuo, F., Stockwell, T., Rosella, L., Simniceanu, A., . . . Hammond, D. (2018). Testing the efficacy of alcohol labels with standard drink information and national drinking guidelines on consumers' ability to estimate alcohol consumption. *Alcohol and Alcoholism*, 53, 3–11. doi:10.1093/alcal/agx052
- Hobin, E., Weerasinghe, A., Vallance, K., Hammond, D., McGavock, J., Greenfield, T. K., . . . Stockwell, T. (2020). Testing alcohol labels as a tool to communicate cancer risk to drinkers: A real-world quasi-experimental study. *Journal of Studies on Alcohol and Drugs*, 81, 249–261. doi:10.15288/jsad.2020.81.249
- International Agency for Research on Cancer. (2010). *Personal habits and indoor combustions. Volume 100 E: A review of human carcinogens. IARC monographs on the evaluation of carcinogenic risks to humans*. Lyon, France: Author. Retrieved from <https://monographs.iarc.fr/wp-content/uploads/2018/06/mono100E.pdf>
- International Alliance for Responsible Drinking. (2019). *Health warning labeling requirements*. Retrieved from <https://iard.org/science-resources/detail/Health-Warning-Labeling-Requirements>
- Klar, L., Cameron, J. (2012). *Tort law* (5th ed.). Toronto, Ontario, Canada: Carswell.
- Lambert v. Lastoplex Chemicals Co.* (1971), 25 D.L.R. (3d) 121 (S.C.C.) [Lambert].
- Lem v. Barotto Sports Ltd.* (1976). 69 D.L.R. (3d) 276 (Alta. C.A.).
- Létourneau c. JTI-MacDonald Corp.* (2015). QCCS 2382.
- LoConte, N. K., Brewster, A. M., Kaur, J. S., Merrill, J. K., & Alberg, A. J. (2018). Alcohol and cancer: A statement of the American Society of Clinical Oncology. *Journal of Clinical Oncology*, 36, 83–93. doi:10.1200/jco.2017.76.1155
- MacCulloch, A. (2017). Minimum Unit Pricing in Scotch Whisky Association v Lord Advocate. *Edinburgh Law Review*, 21(2), 217–222. doi:10.3366/elr.2017.0411
- Marrakesh Agreement Establishing the World Trade Organization. (1995). Adopted 15 April 1994, entered into force 1 January 1995. 1867 UNTS 3, annex 1A (*Agreement on Technical Barriers to Trade*).
- O'Brien, P., Mitchell, A. D. (2018). On the bottle: Health information, alcohol labelling and the WTO Technical Barriers to Trade Agreement. *QUT Law Review*, 18, 1–32.
- O'Fallon v. Inecto Rapid (Canada) Ltd.* (1940). 4 D.L.R. 276 (B.C.C.A.).
- Petticrew, M., Maani Hessari, N., Knai, C., & Weiderpass, E. (2018). How alcohol industry organisations mislead the public about alcohol and cancer. *Drug and Alcohol Review*, 37, 293–303. doi:10.1111/dar.12596
- Pettigrew, S., Hafekost, C., Jongenelis, M., Pierce, H., Chikritzhs, T., & Stafford, J. (2018). Behind closed doors: The priorities of the alcohol industry as communicated in a trade magazine. *Frontiers in Public Health*, 6, 217. doi:10.3389/fpubh.2018.00217
- Picard, A. (2018, January 2). Removing warning labels from Yukon liquor is shameful. *The Globe and Mail*. Retrieved from <https://www.theglobeandmail.com/opinion/removing-warning-labels-on-yukon-liquor-is-shameful/article37459759>
- Public Health (Alcohol) Act 2018 (Ireland). <http://www.irishstatutebook.ie/eli/2018/act/24/enacted/en/html>
- Rae and Rae v. T. Eaton Co. (Maritimes) Ltd.* (1961). 28 D.L.R. (2d) 522 (N.S.S.C.).
- RJR-MacDonald Inc. v. Canada (Attorney General)*. (1995). 3 S.C.R. 199 (Supreme Court of Canada).



- Sherk, A., Stockwell, T., Rehm, J., Dorocicz, J., & Shield, K. D. (2017). *The International Model of Alcohol Harms and Policies (InterMAHP): A comprehensive guide to the estimation of alcohol-attributable morbidity and mortality*. Victoria, BC, Canada: Canadian Institute for Substance Use Research. Retrieved from <https://www.uvic.ca/research/centres/cisur/projects/intermahp/index.php>
- Statistics Canada. (2018). *Control and sale of alcoholic beverages, year ending March 31, 2017*. Retrieved from <https://www150.statcan.gc.ca/n1/daily-quotidien/180510/dq180510a-eng.htm>
- Stockwell, T. (2006). *A review of research into the impacts of alcohol warning labels on attitudes and behaviour*. Victoria, British Columbia, Canada: Centre for Addictions Research of BC, University of Victoria. Retrieved from <https://www.uvic.ca/research/centres/cisur/assets/docs/report-impacts-alcohol-warning-labels.pdf>
- Stockwell, T., Butt, P., Beirness, D., Gliksman, L., & Paradis, C. (2012). The basis for Canada's new low-risk drinking guidelines: A relative risk approach to estimating hazardous levels and patterns of alcohol use. *Drug and Alcohol Review, 31*, 126–134. doi:10.1111/j.1465-3362.2011.00342.x
- United Kingdom, *Constitution Act, 1867, (U.K.)*. 30 & 31 Vict., c. 3.
- United Kingdom, *Part I of the Constitution Act, 1982, being Schedule B to the Canada Act 1982 (UK), 1982*, c. 11.
- Vallance, K., Romanovska, I., Stockwell, T., Hammond, D., Rosella, L., & Hobin, E. (2018). "We have a right to know": Exploring consumer opinions on content, design and acceptability of enhanced alcohol labels. *Alcohol and Alcoholism, 53*, 20–25. doi:10.1093/alcalc/agx068
- Vallance, K., Stockwell, T., Hammond, D., Shokar, S., Schoueri-Mychasiw, N., Greenfield, T., . . . Hobin, E. (2020a). Testing the effectiveness of enhanced alcohol warning labels and modifications resulting from alcohol industry interference in Yukon, Canada: Protocol for a quasi-experimental study. *JMIR Research Protocols, 9*(1), e16320. doi:10.2196/16320
- Vallance, K., Stockwell, T., Zhao, J., Shokar, S., Schoueri-Mychasiw, N., Hammond, D., . . . Hobin, E. (2020b). Baseline assessment of alcohol-related knowledge of and support for alcohol warning labels among alcohol consumers in northern Canada and associations with key sociodemographic characteristics. *Journal of Studies on Alcohol and Drugs, 81*, 238–248. doi:10.15288/jsad.2020.81.238
- Vallance, K., Vincent, A., Schoueri-Mychasiw, N., Stockwell, T., Hammond, D., Greenfield, T. K., . . . Hobin, E. (2020c). News media and the influence of the alcohol industry: An analysis of news media coverage of alcohol warning labels with a cancer message in Canada and Ireland. *Journal of Studies on Alcohol and Drugs, 81*, 273–283. doi:10.15288/jsad.2020.81.273
- Walford v. Jacuzzi Canada Ltd.* (2007). 87 O.R. (3d) 281 (C.A.).
- Weerasinghe, A., Schoueri-Mychasiw, N., Vallance, K., Stockwell, T., Hammond, D., McGavock, J., . . . Hobin, E. (2020). Improving knowledge that alcohol can cause cancer is associated with consumer support for alcohol policies: Findings from a real-world alcohol labelling study. *International Journal of Environmental Research and Public Health, 17*, 398. doi:10.3390/ijerph17020398
- Whitehorse Star*. (2018). Yukon alcohol label study will no longer include warnings of cancer link. Canadian Press, February 16, 2018. <https://www.nationalnewswatch.com/2018/02/16/yukon-alcohol-label-study-will-no-longer-include-warnings-of-cancer-link/#.XnFGny2ZM0o>
- World Health Organization. (2019). Global Information System on Alcohol and Health (GISAH). Retrieved from [https://www.who.int/substance\\_abuse/activities/gisah/en](https://www.who.int/substance_abuse/activities/gisah/en)
- Yonhap. (2018, December 12). Health law revision proposes graphic warnings on alcoholic beverages. *The Korea Herald*. Retrieved from <http://www.koreaherald.com/view.php?ud=20181212000122>
- Yukon Act, S. C.* (2002). c. 7, at s. 18.
- Zeppa v. Coca-Cola Ltd.* (1955). 5 D.L.R. 187 (Ont. C.A.).
- Zhao, J., Stockwell, T., Roemer, A., & Chikritzhs, T. (2016). Is alcohol consumption a risk factor for prostate cancer? A systematic review and meta-analysis. *BMC Cancer, 16*, 845. doi:10.1186/s12885-016-2891-z
- Zhao, J. H., Stockwell, T., Vallance, K., & Hobin, E. (2020). The effects of alcohol warning labels on population alcohol consumption: An interrupted time-series analysis of alcohol sales in Yukon, Canada. *Journal of Studies on Alcohol and Drugs, 81*, 225–237. doi:10.15288/jsad.2020.81.228