



Improving Knowledge that Alcohol Can Cause Cancer is Associated with Consumer

BACKGROUND

- Review evidence across 16 countries shows as few as 13% in some jurisdictions are aware of the link between alcohol and cancer¹
- Restricting availability, marketing and price of alcohol are the most cost-effective and easy-to-implement measures for reducing alcohol consumption and harms across the population, but these measures are often resisted by the public²
- \succ Alcohol labels are one strategy for communicating alcohol-related harms, including cancer, to consumers

OBJECTIVE

 \succ To examine if improving knowledge that alcohol can cause cancer following an alcohol labelling intervention was associated with support for alcohol policies

METHODS

Design:

- \succ Alcohol warning labels were applied to alcohol containers at the intervention site (Whitehorse, Yukon), and the comparison site (Yellowknife, Northwest Territories) did not apply these labels (Figure 1)
- > Pre-post surveys were conducted among participants at both sites before (Wave 1) and two- and six-months (Wave 2, Wave 3, respectively) after the cancer warning labels stopped being applied due to alcohol industry interference

Figure 1. Intervention alcohol warning labels (actual size 5.0cm x 3.2cm)



Label 1 – Cancer Warning





Label 2 – Canada's National **Drinking Guidelines**

Label 3 – Standard Drink Information (example for wine)

Study Population:

 \succ At the time of recruitment, current drinkers (>1 drink in past 30 days) of legal drinking age (19+), residing in intervention and comparison sites, purchased alcohol at the liquor store, and did not report being pregnant or breastfeeding

Measures:

- \succ Knowledge of alcohol as a carcinogen measured by asking: "Based on what you know or believe, can drinking alcohol cause...?" for each of breast cancer, liver disease, the flu, and [when pregnant cause] harm to unborn babies. (Yes vs. No/Don't know)
- \succ Increases in knowledge that alcohol can cause cancer defined as participants who responded No/Don't know in Wave 1 and Yes in Wave 2 for breast cancer
- \succ Support for alcohol policies measured on a 5-point scale (Figure 2)

Analyses:

- > Using responses from last wave completed, logistic regression examined the association between knowledge of alcohol as a carcinogen and support for alcohol polices
- \succ Limiting data to participants that completed Waves 1 and 2 (n=433), logistic regression examined the association between increases in knowledge and support for alcohol policies

Thomas K. Greenfield⁵, Jinhui Zhao², Catherine Paradis⁶, Erin Hobin^{1,7} RESULTS Table 2. Adjusted odds ratios and 95% confidence intervals of support for policy by knowledge of alcohol as a carcinogen Icohol as a Carcinogen Caused by Alcohol (n=553) n(%) Knowledge of alcohol as a carcinogen 359 (64.9) No/Don't Know 194 (35.1) Yes *Adjusted for age, sex, ethnicity, education level, alcohol use, site and wave 45 (8.1) Table 3. Adjusted odds ratios and 95% confidence intervals of support 228 (41.2) for policy by increase in knowledge of alcohol as a carcinogen 280 (50.6) 255 (46.1) 298 (53.9) Increase in Knowledge 386 (69.8) No Change in Knowledge 1.00 (ref) 1.00 (ref) 1.00 (ref) 104 (18.8) Increase in Knowledge 63 (11.4) *Adjusted for age, sex, ethnicity, education level, alcohol use, and site CONCLUSIONS > Knowing that alcohol can cause cancer was positively associated with support for policies affecting alcohol availability, marketing, and pricing (Table 2) Marketing > After the alcohol labelling intervention, an increase in knowledge that alcohol can 3% 3% 9% 11% cause cancer was observed among 20% of participants \succ Consumers who became aware that alcohol can cause cancer were 1.86 times 2%3%6% 5% more likely to support alcohol minimum unit pricing policy relative to those not Pricing aware (Table 3) REFERENCES Scheideler, J. K., & Klein, W. M. P. (2018). Awareness of the link between alcohol consumption and cancer across the world: A review. Cancer Epidemiology, Availabil Biomarkers & Prevention, 27(4), 429-437. doi:10.1158/1055-9965.EPI-17-0645 Chisholm, D., Moro, D., Bertram, M., Pretorius, C., Gmel, G., Shield, K., & Rehm, J. (2018). Are the "Best buys" for alcohol control still valid? an update on the comparative cost-effectiveness of alcohol control strategies at the global level. Journal of Studies on Alcohol and Drugs, 79(4), 514-522. doi:10.15288/jsad.2018.79.514 PNS, Missing Strongly support Support pport nor oppose Health Canada Icohol ca

Characteristic	Knowledge of Al Not Caused by Alcoho (n=1,177) n(%)
Site*	
Intervention	697 (59.2)
Comparison	480 (40.8)
Age	
19-24	92 (7.8)
25-44	480 (40.8)
45+	605 (51.4)
Sex**	
Male	622 (52.8)
Female	555 (47.2)
Ethnicity	
White	799 (67.9)
Aboriginal	225 (19.1)
Other	153 (13.0)

Support for Alcohol Policies: Findings from a Real-World Alcohol Labelling Study Ashini Weerasinghe¹, Nour Schoueri-Mychasiw¹, Kate Vallance², Tim Stockwell², David Hammond³, Jonathan McGavock⁴, 1) Public Health Ontario, Toronto, 2) Canadian Institute for Substance Use Research, University of Victoria, 3) School of Public Health and Health Systems, University of Waterloo, Waterloo, 4) Children's Hospital Research Institute of Manitoba, University of Manitoba, Winnipeg, 5) Alcohol Research Group, Public Health Institute, Emeryville, USA, 6) Canadian Centre for Substance Use and Addiction, Ottawa, 7) Dalla Lana School of Public Health, University of Toronto, Toronto. Table 1. Sample characteristics by knowledge of alcohol-cancer link at time of initial recruitment (n=1,730) * Chi-square p<0.05; ** Chi-square p<0.01 Figure 2. Level of support for alcohol policies (at last wave completed, n=1,730) Restrictions on how bars and pubs can use social media (e.g. 3%4% people Reducing the hours alcohol can be sold outlets Reducing the hours alcohol can be sold liquor retail outlets Note: PNS=Prefer Not to Say, DK=Don't Know Funding provided through a Health Canada Substance Use and Addiction Program Grant, grant # 1718-HQ-000003. The views expressed herein do not necessarily represent the views of Health Canada.

Banning outdoor advertising of alcohol such as on billboards and bus stops

Facebook, Instagram) to promote drinking on their premises Strict controls on alcohol advertisements targeting young

Government minimum prices of at least \$1 per standard drink of alcohol Setting a minimum unit price below which a standard drink of alcohol cannot be sold

lity			
d at off-sales liquor	2%4%	20%	17%
d at government	2%4%	24%	
0	%	20%	
OK ■ Strongly op	pose	Oppose	Neither su



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Availability	Pricing	Marketing
Adjusted OR	Adjusted OR	Adjusted OR
(95%CI)	(95%CI)	(95%CI)

1.00 (ref)	1.00 (ref)	1.00 (ref)
1.62 (1.30, 2.01)	1.87 (1.51, 2.32)	1.44 (1.12, 1.99)

Availability	Pricing	Marketing
Adjusted OR	Adjusted OR	Adjusted OR
(95%CI)	(95%CI)	(95%CI)

1.15 (0.66, 1.99) **1.86 (1.11, 3.12)** 1.40 (0.73, 2.71)

