

Recommendations for reducing alcohol harms in Canada



Canadian Institute
for Substance
Use Research

Institut canadien
de recherche sur
l'usage de substances

Inquiry into high alcohol, high sugar pre-mixed alcoholic beverages

A brief prepared for the Standing Committee on Health by:

Tim Stockwell, PhD
Director, Canadian Institute for Substance Use Research
Professor, Department of Psychology
University of Victoria, BC

Adam Sherk
Research Associate, Canadian Institute for Substance Use Research
Doctoral Candidate, Social Dimensions of Health Program
University of Victoria, BC

About the Canadian Institute for Substance Use Research (CISUR)

CISUR was first established as the Centre for Addictions Research of BC with an endowment from the BC government in 2003. It now comprises over 75 University faculty, graduate students and research specialists with two main offices in BC (Vancouver and Victoria) and a presence in diverse centres across Canada. Recognising the increasing national focus of its research programs, the Senate of the University of Victoria approved the new name in November 2017. The mission of CISUR is “to be an internationally recognized Institute dedicated to the study of psychoactive substance use and addiction in order to support community-wide efforts to promote health and reduce harm.” Main foci of our current research programs include:

- Estimating the burden of disease and injury associated with all types of substance use in Canadian jurisdictions, including (but not limited to) alcohol, nicotine, cannabis, opioids, cocaine and other psychostimulants.
- Identifying and evaluating both targeted and population-wide strategies to reduce harms associated with substance use.
- Studies of special and vulnerable populations at high risk of substance-related harms.

Our research and knowledge translation activities are funded by a combination of peer-reviewed grants (e.g. CIHR, SSHRC, SUAP) and government contracts. We do not accept funding from agencies with a direct commercial vested interest in the production or sale of alcohol, cannabis, tobacco or pharmaceutical products. For more information please visit:

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Facebook: www.facebook.com/UVic.CISUR

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Address for Victoria Office:

Canadian Institute for Substance Use Research
PO Box 1700 STN CSC
University of Victoria
Victoria, BC V8P 5C2

250-472-5445

cisur@uvic.ca

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Summary and Recommendations

We present new research findings pertinent to the specific issue of risks associated with pre-mixed alcoholic drinks and the wider context of harms related to alcohol use in Canada.

We recommend the federal government takes the following steps to reduce the risks specifically related to consumption of high alcohol content, high sugar content single serve drinks:

1. Limit the number of standard drinks (=17.05 mL ethanol) to 1.5 per container. It is insufficient to only limit container size or alcohol strength.
2. Limit sugar content to no more than 15g of added sugar per single-serve container and consider limiting the use of artificial flavourings.
3. Restrict the caffeine content of such drinks to 30mg per standard drink.
4. Require clear labelling of sugar, calories, caffeine, other stimulants and ethanol content, the latter in terms of standard drinks per container.
5. Require rotated labelling of all alcohol products with various health risks (including cancer) and the Canadian low risk drinking guidelines.
6. Prohibit branding or naming of products that make reference to product strength, excessive consumption or make light of alcohol dependence (e.g. Four Loko, FCKDUP, Rehab, Delirium etc.)
7. Update the Canadian Radio-Television and Telecommunication Commission alcohol advertising guidelines to include coverage of modern digital media.
8. Set excise taxes for all alcoholic drinks at 25 cents per standard drink, to provide manufacturers, retailers and consumers incentives for favouring low strength products.
9. Classify malt-based beverages with a sugar content of 5% or greater as spirits so as to both increase prices and restrict places of sale.
10. Set a national minimum price for alcohol per standard drink as has been introduced in Scotland from May 1, 2018. A rate of \$1.65 is recommended for liquor store sales.

In support of these recommendations, we note the latest estimates of the extent of alcohol attributable harm in Canada, which has been rising over the last decade. In 2014, applying international best practice methods to Statistics Canada data (Sherk et al, 2018a), we estimate there were 14,800 deaths, 87,900 hospital admissions and 139,000 years of productive life lost attributable to alcohol. We also provide evidence that:

- Alcohol poisonings have been rising in Canada
- Risk of injury increases with alcohol use, especially when combined with caffeine
- Many young people choose premixed drinks because of taste and to drink longer
- Alcohol provides Canadians more than 11% of their daily recommended caloric intake
- The content of Facebook and Instagram accounts of bars popular with students include many violations of CRTC advertising regulations
- A 10% increase in minimum alcohol prices in BC was associated with an 8% drop in alcohol-related hospital admissions and also reductions in alcohol-related crime

While deaths and illnesses caused by tobacco continue to decline in Canada, reflecting successful public health policies, those from alcohol continue to rise as markets are increasingly privatised and alcohol policies loosened.

The harm from alcohol in Canada is substantial and increasing

In Table 1, we present estimates of deaths, productive years of life lost and hospital admissions attributable to alcohol, tobacco and other psychoactive drugs for the whole of Canada in 2015 (the latest year for which Statistics Canada provide these data). These estimates are the result of a two-

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year collaboration between CISUR and the Canadian Centre of Substance use and Addictions (CCSA) and are key inputs for forthcoming estimates of the economic burden of substance use in Canada (for release in June 2018). Using updated versions of World Health Organization-approved methods (Sherk et al, 2018a) we estimate 14,800 deaths attributable to alcohol in 2015, 3 times higher than from all other substances combined (excluding tobacco). Because many more alcohol related deaths involve young people than those from tobacco, the impact on productive years of life lost is greater than that for tobacco. It also exceeds the toll for all other substances combined, including cannabis, opioids, amphetamines and cocaine. This includes years of productive life lost from both disability and premature mortality.

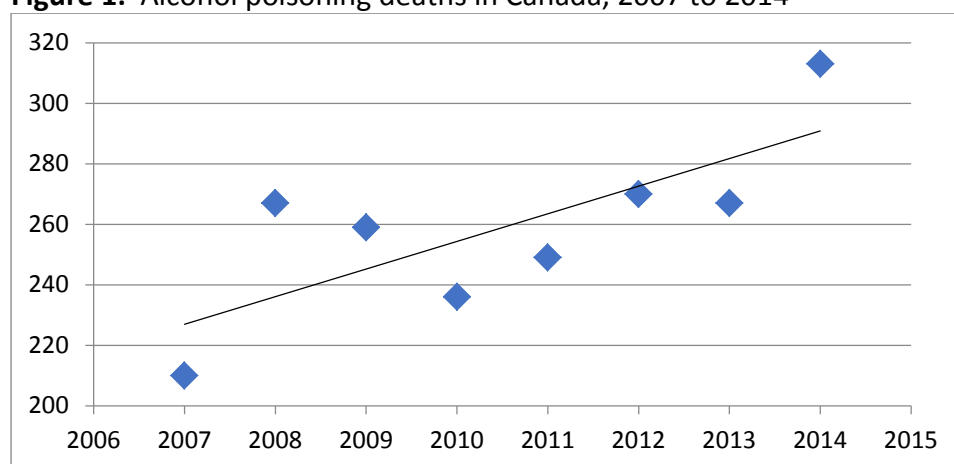
Table 1: A comparison of harms attributable to alcohol, tobacco and other psychoactive substances for Canada in 2015 (rounded to nearest 100)

Substance	Deaths	Productive Years of Life Lost	Hospitalizations
Alcohol	14,800	139,000	87,900
Tobacco	47,600	105,000	136,000
Other substances	5,100	108,000	21,900

Source: Estimates prepared for the Canadian Substance Use Costs and Harms (CSUCH) project, administered by the Canadian Centre on Substance use and Addictions, funded by Health Canada.

While the present inquiry was triggered by the recent tragic death of one young girl in Quebec due to the overconsumption of a high-strength, premixed alcoholic beverage, sadly there are hundreds of deaths from alcohol poisoning in Canada each year and these numbers have been rising as shown in Figure 1 below, from 210 in 2007 to 313 in 2014. Taking account of the rising population, the rate of this increase is 37%.

Figure 1: Alcohol poisoning deaths in Canada, 2007 to 2014

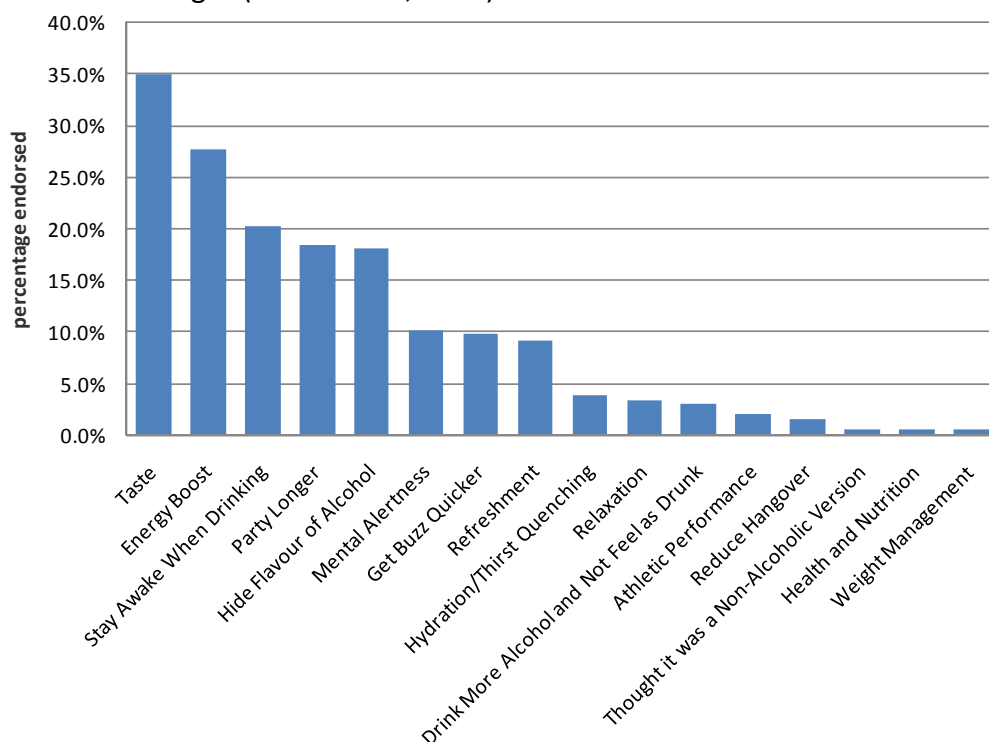


*Data from Statistics Canada, provided to the Canadian Substance Use Costs and Harms (CSUCH) project.

Alcohol causes the harm, sugar and caffeine encourage its consumption

We note that while the sugar content and hence the taste of some premixed alcoholic drinks makes them more attractive and palatable to younger people (see Figure 2 below), it is the alcohol that causes harm and not the sugar. Students in the BC study shown below also confirm that they sought out caffeinated drinks for the energy boost and to drink alcohol for longer periods.

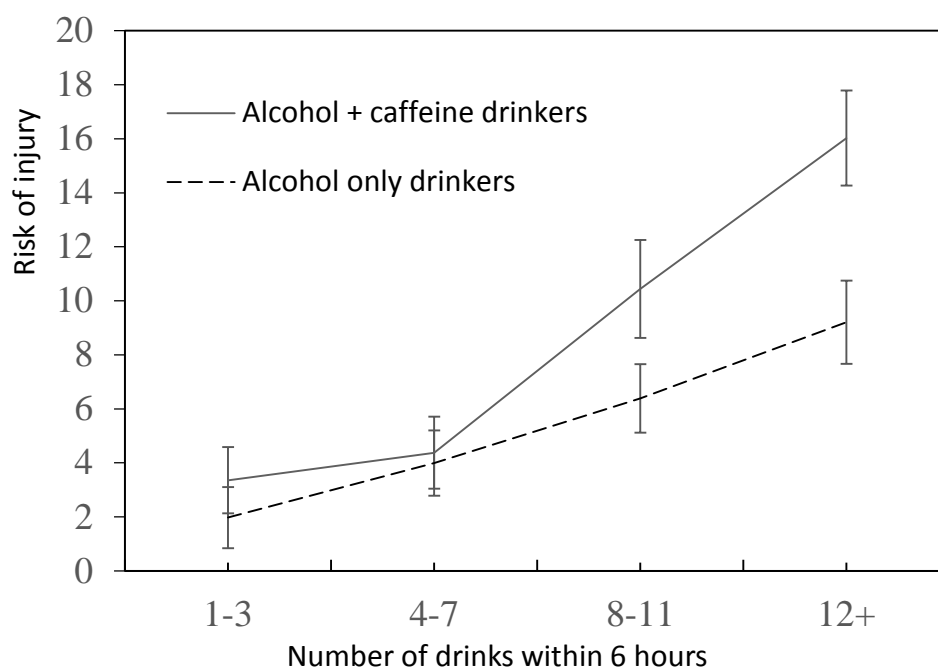
Figure 2: Reasons given by university students for choosing pre-mixed caffeinated alcoholic beverages (Brache et al, 2012)



Alcohol increases injury risk – especially if caffeinated

We present in Figure 3 a summary of new evidence from a large emergency room case-control study conducted across several hospitals in British Columbia over three years, sampling 2,809 ER attendees and enquiring about their substance use in the six hours prior to their presenting injury or illness. Compared with those who had no prior alcohol consumption in this period, risk of injury increased with every drink consumed in the 6-hour period, from 2-fold for 1-3 drinks to 8-fold for 12+ drinks. When caffeine is added to the mix, we find evidence of significantly elevated risks at each level of consumption. This is likely due to a combination of factors, including this being a pattern of substance use to combat tiredness and caffeine masking the true degree of impairment from alcohol. Stimulant additives encourage people to stay awake and consume alcohol for longer periods – again, it is the amount of alcohol consumed that creates the major risk for injury.

Figure 3: Increase in risk of injury with alcohol consumption in 6 hours before ER admission, for alcohol only and alcohol plus caffeine drinkers (N=2,804 ER attendees)



Source: Roemer, A., Stockwell, T., Zhao, J. and Cherpitel, C. (forthcoming), Canadian Institute for Substance Use Research

These findings confirm the need to restrict the stimulant content of premixed alcoholic beverages (as well as the alcohol content). A detailed analysis of this issue published by the Canadian Centre on Substance use and Addictions (Brache et al, 2012) recommended a maximum level of 30 mg caffeine per standard drink of alcohol (=13.45 g or 17.05 millilitres of ethanol). Such restrictions should include naturally occurring forms of caffeine like guarana.

The need to restrict ethanol, caffeine and sugar content of alcoholic drinks

In the case of a single serve pre-mixed beverage like FCKDUP, with a 568mL container size and 11.9% alcohol/volume, it is insufficient to only regulate either the size or strength. The most direct and effective restriction is on the volume not the percentage alcohol. In the case of FCKDUP, there are 4 standard drinks in one single serve container, double the recommended daily limit for women in Canada's Low Risk Drinking Guidelines (Butt et al, 2010). Restricting only the size of these products would allow still higher strength alcohol; restricting only the strength permits larger single serve containers to be made. It is essential, therefore, to restrict the number of standard drinks in a single serve, non-resealable container.

Along with the Centre for Addictions and Mental Health, and other agencies concerned with public health, we offer the following specific recommendations to restrict harms from these particular products:

Recommendation 1: Limit the number of standard drinks (=17.05 mL ethanol) to 1.5 per container. It is insufficient to only limit container size or alcohol strength.

Recommendation 2: Limit sugar content to no more than 15g of added sugar per single-serve container and consider limiting the use of artificial flavourings.

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Recommendation 3: Restrict the caffeine content of such drinks to 30mg per standard drink.

The need to inform Canadians what is in their alcoholic drinks through labelling

We have recently prepared an analysis of the calorie intake of the average Canadian drinker obtained from alcohol. In a forthcoming publication (Sherk et al, in press), we show that the average man who drinks alcohol obtains 13.3% of his recommended daily caloric intake from this source and the average woman 8.2% (11.2% for men and women combined). Even if consumers wish to select their alcoholic drinks to minimise calorie, sugar, ethanol, caffeine or any other content, there is no useful guiding information on containers. Similarly, no warnings of health risks are presented on alcohol containers, even for serious risks such as cancer for which awareness of the risk in the community is extremely low. A trial of the impacts of a series of warning labels on containers sold in the Yukon territory was recently halted as a result of legal threats from the Canadian alcohol industry. It is essential for consumer protection that the federal government requires such information to be clearly labelled on all alcohol containers. The three types of labels to be trialled are illustrated below:

Figure 4: Warning labels trialled in the Yukon



In each case, baseline survey research confirmed that levels of awareness were low for the information in each type of label (around 25%) i.e. there was low awareness of a) serious health risks like cancer b) the Canadian low-risk drinking guidelines c) how to count standard drinks in order to follow the guidelines.

We recommend that consumers be provided with essential information to manage their intake of alcohol, sugar and caloric intake. Specifically, we recommend that the federal government:

Recommendation 4: Require clear labelling of sugar, calories, caffeine, other stimulants and ethanol contents, the latter in terms of standard drinks per container.

The Yukon labelling study has just recommenced, though without the cancer warning. The Yukon Minister responsible for liquor wrote to the Federal Health Minister recommending that appropriate health warnings are mandated nationally. Given the legal duty to inform consumers of serious health risks of products, the federal government should:

Recommendation 5: Require rotated labelling of all alcohol products with various health risks (including cancer) and the Canadian low risk drinking guidelines.

The need to restrict promotions encouraging over-consumption of alcohol

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We also note that even the brand names of many alcoholic drinks contravene sections of the CRTC advertising code for alcohol e.g. not to encourage drunkenness. We support the recommendation from the Centre for Mental Health and Addiction and other public health agencies to:

Recommendation 6: Prohibit branding or naming of products that make reference to product strength, excessive consumption or make light of alcohol dependence (e.g. Four Loko, FCKDUP, Rehab, Delirium etc.)

The CRTC advertising code for alcohol was developed over 25 years ago. There is a particular need to pay attention to alcohol promotions by bars and nightclubs that are appealing to young people through social media platforms such as Facebook and Instagram. Recent student led research at the University of Victoria involved assessing compliance of Facebook and Instagram accounts of the 16 local bars most popular with CRTC codes. In the average bar, more than seven of the 17 CRTC codes were rated as being probably or definitely contravened by panels of students. Further, the more code violations the more popular the bar and the more students reported drinking there (Goatley et al, 2017).

We therefore suggest there is an urgent need to:

Recommendation 7: Update the Canadian Radio-Television and Telecommunication Commission alcohol advertising guidelines to include coverage of modern digital media.

The need to tax and price alcohol to favour lower alcohol content beverages

A wide international literature demonstrates that a) reducing the general level of consumption in a population reduces most forms of alcohol-related harm (Knott et al, 2012) and b) restrictions on price, physical availability and advertising in its many forms most effectively alcohol reduce consumption and harm (e.g. Sherk et al, 2018b; Babor et al, 2010). We wish to draw attention here in particular to an especially powerful policy over which the federal government has control, namely alcohol excise taxes. We also recommend consideration of a national minimum price for alcohol given strong evidence of public health and safety benefits.

Opportunities to use alcohol excise taxes to improve health and safety outcomes

Excise taxes are applied to the wholesale price of alcohol before mark-ups or sales taxes and hence have a major impact on the final retail price of alcohol. There is clear evidence from analysis of time series data from over 200 years and more than 35 countries, that the level of consumption of alcohol in a population is influenced by its price i.e. it behaves like any other commodity. All else being equal, comprehensive reviews show that a 10% increase in the price of an alcoholic drink results in a 5% reduction in its consumption (Wagenaar et al, 2009; Gallet, 2007). In Canada, however, excise taxes in their present form create a series of perverse incentives for both manufacturers and consumers to favour the manufacture and consumption of cheap high strength alcoholic drinks.

Figure 5: Excise taxes per standard drink (SD) in Canada, by beverage and alcohol content

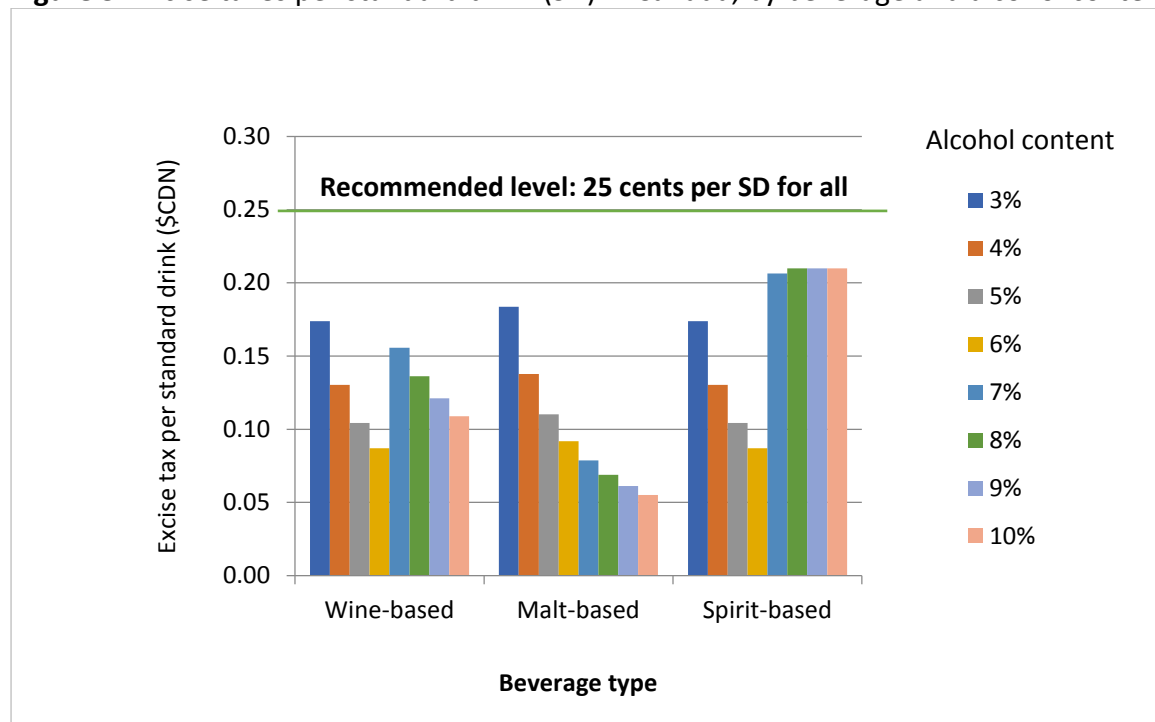


Figure 5 shows clearly the rate of excise tax per standard drink for all pre-mixed products below 7% alcohol/volume decreases as the alcoholic strength of the product increases i.e. stronger alcohol is cheaper. For beer and wine above 7%, taxes per standard drink continue to decrease. This encourages manufacturers to create products like FCKD-UP and consumers to seek them out to get drunk cheaply. This is because the excise taxes on beer and wine (and spirits of no more than 7% strength) are set at a rate per litre of liquid in the beverage, not litres of alcohol. By contrast, excise tax rates on spirits above 7% alcohol/volume are calculated at a rate *per litre of absolute alcohol*. The 7% cut-point has encouraged a market for cheap 7% strength spirit-based beverages. We recommend therefore recommend that the federal government:

Recommendation 8: Sets excise taxes for all alcoholic drinks at a fixed rate per standard drink (=17.05 mL absolute alcohol) indexed to inflation to provide manufacturers, retailers and consumers incentives for favouring low strength products. A rate of 25 cents per standard drink is suggested across all beverage varieties.

It is well-established both in Canada and the international literature that government run liquor stores are superior to privately run businesses at preventing the sale of alcohol to underage customers, with staff lacking a financial incentive to do so (e.g. Stockwell et al, 2017). In Quebec and Ontario, malt-based but not spirit-based beverages can be sold in privately owned stores. In order to restrict sales of high sugar-content beverages to young people, we support the recommendation from the Canadian Centre on Substance use and Addiction to:

Recommendation 9: Classify malt-based beverages with a sugar content of 5% or greater as spirits to both increase prices and restrict places of sale.

There is increasing evidence that minimum or floor prices are important measures to reduce alcohol-related harm. After a 6-year legal battle through the Scottish, British and European courts, the Scottish government finally introduced a minimum price of 50 pence per “unit” of alcohol (=8g

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or 10mL of absolute alcohol) on May 1st, 2018. This proposal and eventual decision was influenced by the publication of several studies (e.g. Stockwell et al, 2012, 2013, 2015) on the effects of minimum prices of health and crime outcomes in Canada, a policy unevenly applied across Canadian provinces (Thompson et al, 2017). Our research has shown that a 10% increase in minimum alcohol prices is associated with an 8% decrease in alcohol-related hospital admissions as well as reductions in crime. While minimum pricing has been an instrument used by provincial liquor authorities in Canada, primarily to protect revenues and stabilise markets, there is no reason why Canada could not also follow Scotland's example and set a national minimum price to protect the health and safety of Canadians. We recommend, therefore, that the federal government:

Recommendation 10: Sets a national minimum price for alcohol per standard drink at a rate of \$1.65 for liquor store sales.

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