

Canadian Alcohol Policy Evaluation (CAPE) Community of Practice

The basics of alcohol pricing and taxation mechanisms: minimum unit pricing, excise tax, sales tax, and markups

Event #10: November 30, 2022





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We acknowledge and respect the ləkwəŋən peoples on whose traditional territory the University of Victoria stands and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.



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Housekeeping

- Today's webinar includes three presentations followed by Q&R = 90mins
- The presentations will be recorded, Q&R will not be recorded
- Link to the recording and webinar materials will be circulated and posted on CAPE CoP website
- The feedback form will be shared at the end and via email.
- Technical difficulties? please message us in the chat
- For persons with lived/living experience stipends: email <u>capecopcoord@uvic.ca</u>

The views and opinions expressed as part of this event are those of the presenters alone and do not necessarily represent those of our funders or other organizations acknowledged



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Zoom tools

 Simultaneous French interpretation is available except for the Q&R portion / interprétation simultanée en français est disponible sauf pour la section Q&R (see Chat box for instructions)





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Q&R format

- Use the chat box to submit a question at any time and/or the 'raise hand' during Q&R segment
- When called upon, unmute then name the presenter list to whom you are asking the question
- The moderator may read aloud questions typed in the chat
- Questions can be submitted anonymously by direct message to Amanda F-L



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	👌 Who can see your messa						
То:	Everyone 🗸						
Туре	✓ Everyone in Meeting						
Amanda F-L (she (Co-host)							
	Nicole Vishnevsky (Co-host)						





Today's Presenters







Ashley Wettlaufer, MA Research Methods Specialist Institute for Mental Health Policy Research (IMHPR) at the Centre for Addiction and Mental Health (CAMH) **Tim Stockwell, PhD** Scientist Canadian Institute for Substance Use Research (CISUR) Adam Sherk, PhD Scientist Canadian Institute for Substance Use Research (CISUR)





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CAPE: Pricing 101 Ashley Wettlaufer

Nov 30th, 2022





Why is pricing and taxation important?

- Revenue generation: In HIC alcohol taxes account for 1-2% of state revenues
- Help to cover costs of alcohol's harms
- Highly effective policies (WHO, CAPE, ANOC)
- Policy mechanisms to control consumption and related harms
 - Higher prices encourages less drinking by people who drink (similar to tobacco)
 - Price/tax increases discourages/delays drinking initiation (long-term prevention policy)
 - Alcohol prices also impact harms (violence, traffic injuries, suicide, STI, robberies/crime, lost productivity, alcohol-related and all-cause mortality, life expectancy)
 *Fogarty (2006); Gallet (2007), Wagenaar et al., (2009), Elder et al., (2010), Fogarty (2010), Collis et al., (2010),

Sornpaisarn et al., (2013), Nelson (2013a)

Some key terminology

- Basic economic theory- as price goes up, demand (consumption) goes down But what does this look like?
- Price elasticity of demand: how a change in price impacts consumption

1% increase in price \rightarrow X% change in consumption

Price elasticity for alcohol of -0.5: a 1% increase in price \rightarrow a 0.5% decrease in consumption

Price inelastic: 0 to -1.0 (change in price → relatively <u>small change in</u> consumption)

Price elastic: < -1.0 (change in price → proportionally <u>greater change in</u> consumption)

Cross price elasticity: 1% increase in price of one product \rightarrow X% change in consumption of another product. E.g. what happens to spirits consumption when beer prices increase?

Price/taxation and consumption

- With a 1% increase in alcohol price we see that...
 - overall the short term price elasticity for total alcohol is \sim -0.5
 - Beer -0.4
 - Wine and Spirits -0.7
- Price elasticity tends to be lower for the alcoholic beverage used most in a country
- Consumers reduce their drinking more in the longer term than in the shorter term after a tax increase
- Elasticities vary for particular groups: youth (slightly less elastic), heavy drinkers (smaller proportional decrease in consumption but larger absolute decrease)

5 drinks \rightarrow 3 drinks (40% dec) vs 2 drinks \rightarrow 1 drink (50% dec)

• Other factors impact the effectiveness of price (e.g. other alcohol control measures, affordability of alcohol, income, inflation)

Take away messages

- Alcohol prices impact consumption and harms
- This relationship can be complex
 - Impacts consumption levels and initiation
 - Impacts different priority groups in different ways
 - Other factors influence the effectiveness of alcohol pricing

The anatomy of alcohol pricing



Understanding Alcohol Markups

Markups (i.e. retailer margins, profits):

- Operating expenses and profits
- Wholesale markups
- Retail markups
- Understanding how they are set:
 - % of landed cost
 - \$/L beverage
 - Combination

Are markups a tax?



RETAIL STORE

Alcohol Pricing and Taxation for Public Health Pros and cons of different approaches

Tim Stockwell Scientist, CISUR **Emeritus Professor, Psychology**



University Canadian Institute for of Victoria Substance Use Research

Components of alcohol prices in Canada



Pros and cons of different taxes

- 1. Excise taxes are multiplied by mark ups and sales taxes BUT need to be indexed to inflation and charged per unit of ethanol
- 2. Sales taxes are usually calculated as a % of shelf price in Canada they keep pace with inflation but keep cheap drinks cheap
- 3. Ideal: high excise taxes charged per unit of ethanol and indexed to the cost of living



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Excise Taxes

- 1. Charged per litre of wine or beer with little regard to % alcohol content
- 2. Spirits charged per litre of ethanol (>=7%)
- 3. Between 1991 and 2017 rates were not adjusted to inflation, lost 58% of value
- 4. Despite intense industry lobbying, indexation reintroduced in 2017



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The importance of "indexing" alcohol prices and tax rates to cost of living

Example from the UK, courtesy of Dr Colin Angus, University of Sheffield

Beware of industry arguments to the contrary!



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Alcohol duty rates are as high as they've ever been

Mean alcohol duty payable per unit of alcohol in the UK before adjusting for inflation



In real terms alcohol duty is at historically low rates

Mean alcohol duty payable per unit of alcohol in the UK, adjusted to September 2022 prices



Data from HMRC, IFS, BBPA & HMT | Plot by @VictimOfMaths



NEWS

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SPIRITS CANADA LAUNCHES NOT ON MY TAB CAMPAIGN IN TORONTO



Urgent Call to Repeal Automatic Escalator Tax on Beer, Wine & Spirits Hurting Canadians and Canada

TORONTO, ON – September 12, 2018 – Spirits Canada, the sole national association representing Canadian distillers, launched the NOT ON MY TAB campaign this morning in Toronto's historic Distillery District. The campaign seeks to repeal automatic annual increases in excise taxes on spirits, beer and wine imposed by the federal Liberal government.

Spirits Canada is calling on help to stand up for hard working Canadians, Canadian whisky makers, Canadian farmers and jobs here in Canada.

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RECENT POSTS

- Distillers cheer the AGLC for providing critical support for Alberta hospitality sector
- Spirits Canada Stands With Ontario Restaurants and Bars
- Spirits Canada welcomes progress on Canada - United Kingdom trade
- * Restaurant & Bar Liquor Delive



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REPORT: Canada's beer taxes 5 times higher (and rising) than U.S. beer taxes



Send a Release

NEWS PROVIDED BY Beer Canada → May 07, 2018, 09:00 ET



OTTAWA, May 7, 2018 /CNW/ - A new report, *Beer Taxes: A Canadian – U.S. Comparison*, shows that U.S. state and federal taxes on beer average just over \$4 per case of 24, while comparable provincial and federal taxes in Canada are five times higher and average more than \$20 per case.

With almost half (47 per cent) the price of the typical case of beer purchased in this country being tax, Canadian beer drinkers are already amongst the highest taxed beer drinkers in the world and that tax burden is rising at a dramatic and unsustainable rate.





TABLE 1Percent contributions of taxes to the final retail price of "typical" alcoholic
beverages in Canada, 2017/2018, aggregated

Boyorado	Percent contribution (%)					
Beverage	Wholesale	Excise tax	Profit	Sales tax	Excise + sales tax	
Beer	41.35	8.90	36.93	12.81	21.71	
Wine	42.26	6.91	37.74	13.09	20.00	
Spirits	36.67	19.22	32.75	11.36	30.58	
Coolers/cider	41.21	9.22	36.80	12.77	21.99	

Data source: Statistics Canada. Tables 10-10-0011-01, 10-10-0010-01 et 10-10-0012-01. Ottawa, (ON): Statistics Canada; 2018.⁸⁻¹⁰



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Misleading Industry Claims

- 1. 80% of spirit prices due to taxation, actually only about 30% (all combined)
- 2. Almost 50% of beer prices due to taxation, actually only about 20% (all combined)
- 3. Private distributors and retailers typically charge larger profits than government equivalents – inappropriate to call these 'taxes' and compare to low US alcohol taxes



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Why charging excise taxes per litre of beverage is a really bad idea: Cooler example



Beverage Type



Canadian Institute for Substance Use Research Institut canadien de recherche sur l'usage de substances **Source:** Stockwell et al (2018) CISUR submission to federal consultation re national drugs and substances strategy

Common misgivings about pricing and taxation policies

- 1. They punish moderate drinkers and don't effect 'alcoholics'
- 2. They lead to people substituting with nonbeverage alcohol and/or illegal drugs
- **3.** They increase cross-border trade
- 4. They increase profits of alcohol industry (MP)
- 5. They have adverse effects on poor people



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Evidence for unintended consequences

- 1. Impacts of price and tax policies on alcoholrelated deaths and hospitalizations
- 2. How these impacts vary for people in different income groups
- 3. Self-reports from heavy drinkers and people with alcohol use disorders



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Immediate impacts of tax increases on alcohol-related deaths: 1. Alaska



University of Victoria

Canadian Institute for Substance Use Research Institut canadien de recherche sur l'usage de substances

Source: Wagenaar et al, AJPH 2009



The majority of alcohol-specific deaths involve people with severe alcohol use disorders

These deaths would not be reduced after price/tax increases if:

- a) there was complete substitution from non-beverage alcohol and/or from cross-border sources
- b) or if heavy drinkers did not reduce their drinking



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Unintended consequences of higher prices?

A series of studies was undertaken with >300 people with severe alcohol dependence and homelessness to gauge coping strategies when alcohol is unaffordable

- Most coping responses involved consuming less alcohol (e.g. waiting for welfare cheque, seeking treatment, collecting containers for recycling, using more cannabis)
- Few reported increases in stealing or consumption of nonbeverage alcohol

This is consistent with findings from other countries including <u>recent Scottish study</u> finding minimal impact of MUP on people attending treatment services



Minimum pricing most effective in low income communities

Zhao et al (2017) analysed how increased minimum prices in British Columbia over a period of 12 years were associated with changes in rates of alcohol-related hospitalisations.

The largest effects by far were observed in regions with low average household income.

Source: Zhao, J. & Stockwell (2017) Addiction



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Some conclusions

- Enormous untapped potential in Canada for use pricing and taxation strategies to improve public health outcomes
- Excise taxes have lost nearly 60% of their value since 1991
- Present excise tax rates encourage the production and sale of cheap high strength products
- Pricing strategies have a disproportionately positive effect on low-income groups – a powerful tool to reduce health inequalities
- Unintended consequences are feared but rarely realised





Minimum (unit) pricing: Definitions, evidence and impact

Adam Sherk, PhD

Scientist, Canadian Institute for Substance Use Research

Researcher, WHO/PAHO Collaborating Centre on Alcohol and Public Health Policy



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Presentation Terminologies

- Pure alcohol = <u>ethanol</u>
- Drinker = ethanol/alcohol user
- Standard drink = An ethanol/alcohol unit





Minimum (unit) prices: Switching gears to prices



We now discuss prices (final price paid by a buyer), <u>not</u> taxes (components of the final price paid)



We mean: the "price paid" for ethanol products (including sales tax, but not bottle deposit)



This "price paid" is shared by ethanol retailers (profit margin), ethanol producers (supplier cost) and government (tax components)



Minimum (unit) prices: What's does the minimum mean?

For some <u>amount</u> (or either beverage or ethanol), a minimum price defines a floor price, <u>below which the product cannot be</u> <u>sold</u>

Different minimum prices for:

- on-premise establishments (bars, restaurants), and
- off-premise establishments (alcohol/liquor stores)


Minimum (unit) prices: What is a "unit"?

Minimum prices are set on either:

1) An amount of beverage (e.g. a bottle of beer or a litre)

Example throughout: a bottle of beer



Bottle of beer: 341 mL



Minimum (unit) prices: What is a "unit"?

Minimum prices are set on either:

2) An amount of ethanol (aka a "standard drink")

In Canada, an ethanol <u>unit</u> is defined as:



Bottle of beer: 341 mL Typical strength: 5%

Unit aka SD = 341mL * 0.05 = 17.05 mL ethanol = 13.45 grams ethanol





Minimum (unit) pricing: Terminologies



 A floor price set on an amount of beverage (per litre, or per bottle) or an ethanol unit



Minimum <u>unit</u> price:

A floor price set on an ethanol unit (aka standard drink)

A minimum unit price is a particular type of minimum price

All of Canada's 10 provinces <u>have some type</u> of minimum price for alcohol in liquor stores and/or bars





<u>Types</u> of minimum prices

- 1. Minimum prices, per litre of beverage
 - Not differentiated by ethanol strength (%ABV)
 - EXAMPLE: British Columbia
- 2. Banded minimum prices, per litre of beverage
 - Prices are per litre, but these are organized into strength <u>bands</u>
 - EXAMPLE: Saskatchewan
- 3. Minimum price, per unit of ethanol (standard drink)
 - True minimum <u>unit</u> price
 - EXAMPLES: Scotland, Wales, Australia Northern Territory



STRENGTH OF THE PUBLIC HEALTH INTERVENTION



Type 1: Minimum prices, per litre of beverage

 If minimum prices are not set <u>per</u> <u>ethanol unit</u>, then the price of ethanol differs dramatically by Alcohol by Volume

Original Article

Minimum alcohol pricing policies in practice: A critical examination of implementation in Canada

Kara Thompson^{a,b,*}, Tim Stockwell^b, Ashley Wettlaufer^c, Norman Giesbrecht^d, and Gerald Thomas^{b,e}



Figure 2: 2014: Minimum prices per standard drink in each jurisdiction for low, regular and high strength beer for (A) on-premise sales (bars, restaurants and clubs), *notes* QC, YK, NWT, and NU do not have minimum prices for on-premises sales and (B) off-premise sales (liquor stores), *notes* AB, YK, NWT, NU do not have minimum prices for off-premise sales.



Type 1: Minimum prices, per litre of beverage





Liquor Control and Licensing Branch POLICY DIRECTIVE No: 16 - 04

Date: February 23, 2016

- To: All LCLB Staff All LRS and Wine Stores All Manufacturer Associations Liquor Distribution Branch All Local Government, First Nations, and Police Agencies
- Re: Minimum Liquor Pricing in Liquor Stores

Introduction

Effective May 1, 2016 a new policy will come into effect imposing new minimum liquor prices in Licensee Retail Stores (LRS), Wine Stores and manufacturer on-site stores. The same policies will apply to BC Liquor Stores (i.e. LDB stores) and Rural Agency Stores.

New Policy

The following policy has been introduced to set the following minimum retail prices in LRSs, Wine Stores and manufacturer on-site stores. A licensee may not sell liquor for less than either of the following prices:

1) The price that the licensee paid for the liquor; or

2) The price set out in the table below.

Liquor Category	Minimum Price Per Litre (not including all sales taxes)	
Wine	\$6.44	
Spirits	\$27.88	
Liqueurs	\$20.39	
Packaged Beer (bottles and tins)	\$3.19	
Draught Beer (kegs 18 litres or greater)	\$1.97	
Cider and Coolers	\$3.75	

COLUMERA



Type 1: Minimum prices, <u>per litre</u> of beverage

Liquor Category	Minimum Price Per Litre (not including all sales taxes)	
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Cider and Coolers	\$3.75	



EXAMPLE: Per bottle of beer

BC minimum price = \$3.19 * 0.341L = \$1.09 per bottle



Type 1: Potential consequences

Ethanol units in a bottle of beer, by ABV





Type 2: Minimum prices, per litre beverage in strength bands



Product Ordering Guide For Retail Store Permittees



Saskatchewan Liquor and Gaming Authority

Version 12.11.2018





Type 2: Banded minimum prices, per litre beverage, in strength bands



On page 30:

d) Beer Products:

SELLING UNIT SIZE	ALCOHOL CONTENT				
(mL)	<=6.5%	>6.5% to <=7.5%	>7.5% to <=8.5%	>8.5%	
10650 (30 cans)	\$45.00	\$57.35	\$65.40	\$70.60	
8520 (24 cans)	\$36.00	\$45.90	\$52.30	\$56.45	
8184 (24 bottles)	\$34.60	\$44.10	\$50.25	\$54.25	
6390 (18 cans)	\$28.40	\$36.25	\$41.30	\$44.60	
6138 (18 bottles)	\$27.30	\$34.80	\$39.70	\$42.80	
5325 (15 cans)	\$23.70	\$30.20	\$34.40	\$37.15	
4260 (12 cans)	\$18.95	\$24.15	\$27.55	\$29.70	
4092 (12 bottles)	\$18.20	\$23.20	\$26.45	\$28.55	
2130 (6 cans)	\$10.05	\$12.80	\$14.60	\$15.75	
2046 (6 bottles)	\$9.65	\$12.30	\$14.00	\$15.15	

Prices shown include GST, LCT and Refundable Deposit.



Type 1 vs. Type 2: Minimum prices per <u>bottle</u> of beer





Type 1 vs. Type 2: Minimum <u>unit</u> price





Type 3: Minimum price, per <u>unit</u> of ethanol

















May 1st, 2018 £0.50 / 8 g ethanol CAD\$1.36 / 13.45g ethanol

March 2nd, 2020 £0.50 / 8 g ethanol

October 1st, 2018 A\$1.30 / 10 g ethanol CAD\$1.57 / 13.45g eth

January 4th, 2022 €\$1.00 / 10 g ethanol CAD\$1.88 / 13.45 g eth



Type 1 vs. Type 2 vs. Type 3: Minimum price per bottle





Type 1 vs. Type 2 vs. Type 3: Minimum <u>unit</u> price





RESEARCH: Impact of minimum prices in Canadian context

Two important minimum price implementations in:

- Saskatchewan (April 1st, 2010)
- British Columbia (time series of changes over time)

The Raising of Minimum Alcohol Prices in Saskatchewan, Canada: Impacts on Consumption and Implications for Public Health

Tim Stockwell, PhD, Jinhui Zhao, PhD, Norman Giesbrecht, PhD, Scott Macdonald, PhD, Gerald Thomas, PhD, and Ashley Wettlaufer, MPH





RESEARCH: Impact of minimum prices in Canadian context

Findings, impact on alcohol use

A **10%** increase in minimum prices significantly reduced the use of:

- beer by 10.1%
- spirits by 5.9%
- wine by 4.6%
- total ethanol by 8.4%



There was a significant shift from high to low strength beers and wines



RESEARCH: Informal reports of benefits

- *"Higher prices for cheap booze cuts binge drinking, Sask. Finds"* Saskatoon Star Phoenix July 5, 2010
- "The concept is to discourage excess consumption through binge drinking," - Saskatchewan Liquor and Gaming Authority
- Late night violence and vandalism in public places
 dramatically reduced Saskatoon Police Chief



RESEARCH: Impact of minimum prices in Canadian context

Findings, impact on alcohol-caused harms



A 10% increase in minimum prices was estimated to reduce:

- Alcohol-specific deaths by 9.3%
- Alcohol-caused chronic deaths by 19.9%
- Acute hospital admissions by 9.0%
- Chronic hospital admissions by 5.3%



RESEARCH: Impact of minimum <u>unit</u> prices in Global context

Minimum unit price implementation was associated with:

Scotland:

- a 7.6% increase in mean price per unit
- a 7.7% decrease in ethanol use

Wales:

- a 8.2% increase in mean price per unit
- a 8.6% decrease in ethanol use

Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: controlled interrupted time series analyses

Peter Anderson, Amy O'Donnell, Eileen Kaner, Eva Jané Llopis, Jakob Manthey, Jürgen Rehm



Indexing minimum prices to CPI

Real vs nominal values

Nominal values are not adjusted for inflation. They are quantities of money.

Real values are adjusted for inflation. They represent relative value against other goods and services.



Indexing minimum prices to CPI

Effect of setting a nominal price is the erosion of minimum prices over time







Indexing minimum prices to CPI

Prices (and wages) are <u>always</u> defined in real terms

Otherwise the product will become cheaper in relation to other goods/services (i.e. cheaper in real terms) over time

Indexed minimum unit price (iMUP) is the default

Otherwise, a non-indexed (nomimal) minimum unit price will erode over time

Definition: A eroding minimum unit price (eMUP)



Reasons to price ethanol instead of a beverage amount

- 1. Pricing ethanol removes ultra cheap ethanol from the marketplace
- 2. Ethanol is an addictive psychoactive
- 3. Ethanol is a Group 1 carcinogen





Question & Response



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Connect with us







Ashley Wettlaufer ashley.wettlaufer@camh.ca Tim Stockwell timstock@uvic.ca

Adam Sherk asherk@uvic.ca



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Thank you! CAPE Community of Practice





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