On the Rocks:
Addressing Risky Alcohol Consumption Among Young Women in Canada

by

Kat Gallant

B.A., University of British Columbia, 2018

Project Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Public Policy

in the
School of Public Policy
Faculty of Arts and Social Sciences

SIMON FRASER UNIVERSITY
Spring 2020

Approval

Name:	**Kat Gallant**
Degree:	**Master of Public Policy**
Title:	**On the Rocks: Addressing Risky Alcohol Consumption among Young Women in Canada**
Examining Committee:	**Chair:** Dominique Gross Professor
	Doug McArthur Supervisor Professor
	Maureen Maloney Internal Examiner Professor
Date Defended/Approved:	March 5, 2020

Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

a. human research ethics approval from the Simon Fraser University Office of Research Ethics

or

b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University

or has conducted the research

c. as a co-investigator, collaborator, or research assistant in a research project approved in advance.

A copy of the approval letter has been filed with the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library
Burnaby, British Columbia, Canada

Update Spring 2016

Abstract

A growing and concerning trend happening in Canada, and internationally, is the increasing proportion of young women who are heavy drinkers. Using a review of the literature, expert interviews and survey data collected from 800 young women, ages 18 to 34, across Canada, the study reviews women's motivations for drinking, their level of alcohol-related risk awareness, as well as issues facing existing alcohol policies and various barriers to change. After a detailed analysis of potential policy options, the study recommends a national legal framework in the form of an *Alcohol Act* that addresses three areas of policy: marketing and advertising restrictions; national minimum unit pricing; and comprehensive education. By providing additional powers to the federal government, the framework will deter the negative consequences of self-regulation, and improve health outcomes among young women across the country.

Keywords: alcohol policy; young women; Canada; low-risk drinking; alcohol-related harm; substance use

Dedication

To everyone who has been impacted by alcohol-related harms, and for those who struggle with their relationship to alcohol: this research is for you.

Acknowledgements

I would like to acknowledge the many people who have supported me throughout this research. First, thank you to my supervisor, Doug McArthur, for your guidance, encouragement, and enthusiasm while undergoing this project. Second, thank you to my external examiner, Maureen Maloney, for her thoughtful feedback and insights for the completion of this Capstone.

I would like to thank the survey respondents who took the time to share their thoughts and personal experiences, without which this study would not be possible. I would also like to thank my interview participants who provided the expertise and feedback needed to accomplish the goals of this study.

Finally, thank you to my friends and family for your endless support and supply of coffee throughout this degree.

Preface

(1) A note on intention:

Persons consuming alcohol do so for a variety of reasons and while women have agency over their decisions, this does not preclude them from societal influences and the effects of an addictive substance. This paper is not intended to shame or place responsibility on women for the individual and societal consequences of alcohol misuse, dependence or addiction. Rather, this paper aims to identify alcohol-related harm reduction strategies that curb consumption – especially those that empower individuals – rather than overtly penalizing individuals for their current consumption levels.

(2) A note on survey methodology:

A primary objective of this study is to improve young women's health by determining policy options that reduce alcohol consumption to "low risk" levels. Standardized risk levels for alcohol are set by Canada's National Low Risk Alcohol Drinking Guidelines and are based on the physiological impacts of alcohol use on cisgender women and men (CCSA, 2012). While this study's purpose is to improve physiological health outcomes, the primary methodology seeks to identify policies that impact consumption behaviour.

It is well documented that societal expectations, including misogyny, can greatly influence a person's decision to consume alcohol. As a key assumption of intersectional feminism is that *all* woman-identified persons experience misogyny and other societal expectations that impact alcohol consumption levels (i.e. transgender women are also influenced by gender-based marketing, etc.). As such, this study does not exclude transgender women from the survey.

Nonetheless, the physiological impacts of alcohol consumption on transgender women may differ from cisgender women, and is thus beyond the scope of this research project. As such, when referring to women or females in regards to physical health, this study is specifically referring to cisgender women.

Table of Contents

Approval ii
Ethics Statement iii
Abstract iv
Dedication v
Acknowledgements vi
Preface vii
Table of Contents viii
List of Tables xi
List of Figures xii
List of Acronyms xiii
Glossary xiv
Executive Summary xv

Chapter 1. Introduction 1

Chapter 2. Gender Bias in Health Research: an argument for feminism in epidemiological research 5

Chapter 3. "Low-Risk" Alcohol Consumption 7
3.1. Canada's Low-Risk Alcohol Drinking Guidelines 7
3.2. Alcohol-Related Risk Awareness 8
3.3. External Factors Influencing Risky Alcohol Consumption 9
3.3.1. Peer and Social Acceptance 9
3.3.2. Pleasure 10
3.3.3. Targeted Advertising and Marketing 10

Chapter 4. Regulating Alcohol Policy: Jurisdiction 12
4.1. Federal Government 12
4.2. Provincial Governments 12
4.3. Provincial Liquor Authorities 13

Chapter 5. Methodology 16
5.1. Primary Methodology: Original Survey 16
5.2. Secondary Methodology: Review of Existing Canadian Policies 17
5.2.1. Literature Review 17
5.2.2. Expert Interviews 17

Chapter 6. Survey Results 19
6.1. General Demographics of Survey Respondents 19
6.2. Respondent Drinking Behaviour 21
6.2.1. Binge Drinking 21
6.2.2. Weekly Low Risk Drinking 22

6.2.3. Other Indicators of Risk....22
6.3. External Factors Influencing Alcohol Consumption....22
6.3.1. Social Acceptance....23
6.3.2. Pleasure....24
6.3.3. Stress....25
6.3.4. Targeted Advertising and Marketing....26
6.3.5. Reasons for Not Drinking....26
6.4. Alcohol-Related Risk Awareness....27

Chapter 7. Review of Existing Canadian Policies....30
7.1. Increasing the Price of Alcohol....31
7.2. Individual Legal Ramifications....32
7.3. Restricting Physical Availability....33
7.4. Marketing and Advertising Restrictions....34
7.5. Labeling Requirements....36
7.6. Public Education Campaigns....37
7.7. Screening, Brief Intervention and Referral (SBIR)....38
7.8. Moving Forward....38

Chapter 8. Policy Options....39
8.1. Option 1: Marketing and Advertising Restrictions....39
8.2. Option 2: National Minimum Unit Pricing....41
8.3. Option 3: Comprehensive Education....42

Chapter 9. Evaluation Criteria....46
9.1. Key Objectives....46
9.2. Considerations....47

Chapter 10. Policy Analysis....51
10.1. Option 1: Marketing and Advertising Regulations....51
10.2. Option 2: National Minimum Unit Pricing....53
10.3. Option 3: Comprehensive Education....55
10.4. Summary of Analysis....57

Chapter 11. Implementation Challenges....59
11.1. The Importance of Political Will....59
11.1.1. Low Salience....59
11.1.2. High Opposition....60
11.1.3. Perverse Incentives....61
11.2. Overcoming Barriers to Change: Federal government leadership....62

Chapter 12. Implementation: the *Alcohol Act*....65
12.1. Alcohol Act: the framework....65
12.1.1. Step 1: Alcohol is a Drug....65
12.1.2. Step 2: Ceding Responsibilities....66
12.2. Evaluation of the *Alcohol Act*....67

Chapter 13. Conclusion and Recommendation 69
Recommendation 69

References 71

Appendix A. Revenue from Alcohol Sales and Costs of Alcohol-related Harms by Province/Territory, thousands $CAD 84

Appendix B. Canada Code for Broadcast Advertising of Alcoholic Beverages 85

Appendix C. Complete List of Survey Questions 87

Appendix D. Demographics of total survey sample 93

Appendix E. Interview Guide 95

List of Tables

Table 1. Alcohol Retail Sales System by Province and Territory, 2019 14
Table 2. Alcohol Experts Interviewed 18
Table 3. Summary of Survey Results 19
Table 4. Survey Sample Compared to Canadian Population Sample 20
Table 5. Summary of Policies and Effectiveness 30

List of Figures

Figure 1. Substance use-attributable overall costs, Canada, 2014 1
Figure 2. Rates of binge drinking among women in Canada, age group, 2018 2
Figure 4. Low Risk Drinking Guidelines' classification of a "drink" 7
Figure 4. Frequency of binge drinking among binge drinkers (N=395) 21
Figure 6. Having drunk alcohol in order to "relax" or "unwind" in the last month 25
Figure 6. Reasons for non-drinking for constant abstainers and former drinkers 27
Figure 8. Perceived risk level of developing cancer 28
Figure 8. Alcohol warning labels designed for CISUR study in Yukon and Northwest Territories, 2017 45

List of Acronyms

ABV	Alcohol by Volume
BAC	Blood Alcohol Content
CALJ	Canadian Association of Liquor Jurisdictions
CCSA	Canadian Centre on Substance Use and Addiction
CFIA	Canadian Food Inspection Agency
CIHI	Canadian Institute for Health Information
CISUR	Canadian Institute for Substance Use Research
CPHA	Canadian Public Health Association
CRTC	Canadian Radio-television and Telecommunications Commission
CSUCH	Canadian Substance Use Costs and Harms
FASD	Fetal Alcohol Spectrum Disorder
MLDA	Minimum Legal Drinking Age
NIAAA	National Institute on Alcohol Abuse and Alcoholism
PAL	Percentage Alcohol Labelling
POS	Point-of-sale
SBIR	Screening, Brief Intervention and Referral
SDL	Standard Drink Labelling

Glossary

“Binge” or “heavy drinking”	“Binge” or “heavy” drinking for women is equivalent to having 4 standard drinks on any one occasion at least once a month for the past 12 months.
Canada’s Low-risk Alcohol Drinking Guidelines (LRDG)	A set of daily and weekly alcohol consumption limits to reduce individuals’ long-term health risks: women should have no more than 2 drinks on any single occasion (3 for men) and a maximum of 10 drinks per week (15 for men).
Capstone	An extended research project that is part of the final exam process for a graduate degree.
Private off-premise retail outlets	Privately-owned retail locations that sell alcohol beverage products supplied directly by the manufacturers
Provincial Liquor Board	Provincial governments establish liquor boards, commissions or corporations that are responsible for establishing rules regarding alcohol products sold within its jurisdiction and the distribution of alcohol.
Public off-premise retail outlet	Privately-owned retail locations that are supplied by the provincial liquor authority for consumption off- premises; includes duty free outlets (sales reported in the financial statements of the liquor authority)
Standard drink	The classification of a standard drink varies across jurisdictions, but has been defined in Canada according to the LRDG. It varies based on alcohol content and volume. See Figure 3 for further details.
Stores operated by liquor authority	Retail locations that are wholly owned, operated, and supplied through the provincial/territorial liquor authority (sales reported in the financial statements of the liquor authority).

Executive Summary

Policy Problem:
Too many young women in Canada are drinking above "low-risk" levels, which has serious short- and long-term health consequences.

This study has two primary objectives:

Improve young women's health in Canada by reducing alcohol-related harms

Empower women to make informed decisions about their health through transmission of knowledge regarding alcohol-related harms

Methodology:

- Survey of 800 women, ages 18-34, from across Canada
- Scan of effective policies to reduce alcohol consumption
- Five expert interviews with Canadian alcohol policy analysts, researchers and medical professionals

This study identified three areas in need of addressing:

- **Motivations for moderate- and high-risk drinking:** survey respondents and a review of the literature point to social acceptance, pleasure, stress, and targeted marketing and advertising as significant motivators for drinking
- **The level of alcohol-related risk awareness among young women:** low awareness of the link between alcohol and cancer, but high awareness of the impact of alcohol on pregnancies
- **Issues with existing policies and barriers to change:** alcohol industry's lobbying efforts greatly influence alcohol policy in their favour; lack of coordination and inconsistent policies between governments; self-regulation leading to poor outcomes; and low public salience of alcohol-related harms decreases political will

Recommendation:
This study recommends providing additional powers to the federal government to set alcohol policies through a national, coordinated legal framework: the *Alcohol Act*.

The *Alcohol Act* will legally reclassify alcohol as a "drug" under the *Food and Drugs Act*, and address three areas of policy: (1) marketing and advertising restrictions; (2) national minimum unit pricing; and (3) comprehensive education. The framework will deter the negative consequences of self-regulation, and create more consistency in health and social outcomes across the country.

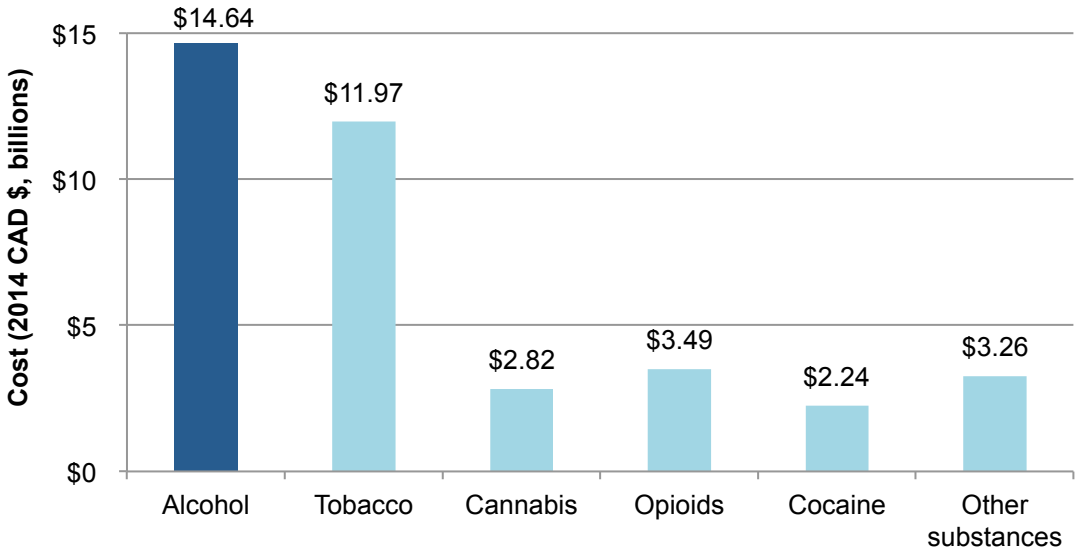
This approach is a highly effective way to implement measures to improve outcomes, particularly in regards to women's health, by addressing significant areas impacting women's lives: their right to know the harms and the societal pressures and individual motivations that influence drinking behaviours.

Chapter 1. Introduction

Alcohol is, first and foremost, a psychoactive drug with serious psychological, physiological, economic and social costs for individuals, families and all of society (Collins and Kirouac, 2013). However, compared to other addictive substances, drinking is seen as socially acceptable and is even encouraged as a way to relax, celebrate and network (Chief Public Health Officer, 2015). Alcohol consumption is pervasive across Canada and so to is the trivialization of its excessive use and its impacts. In fact, the Government of Canada's *Food and Drug Act* defines alcohol as a "food," adding to the public indifference toward its effects (Government of Canada, R.S.C., 1985, c. F-27).

Alcohol is the most commonly consumed drug in Canada and is the most costly drug in terms of healthcare, lost productivity, criminal justice, and other societal harms (Canadian Institute of Substance Use Research [CISUR], 2018a). In 2014, a total of $14.64 billion was spent annually on alcohol-related harms (see Figure 1), which, when broken down is $412 in annual per capita costs for alcohol (Canadian Substance Use Costs and Harms [CSUCH], 2019). Despite the revenue coming from alcohol sales, it has been estimated that only 75% of all economic costs attributable to alcohol-related harms are covered by alcohol sales revenue (CISUR, 2019a).

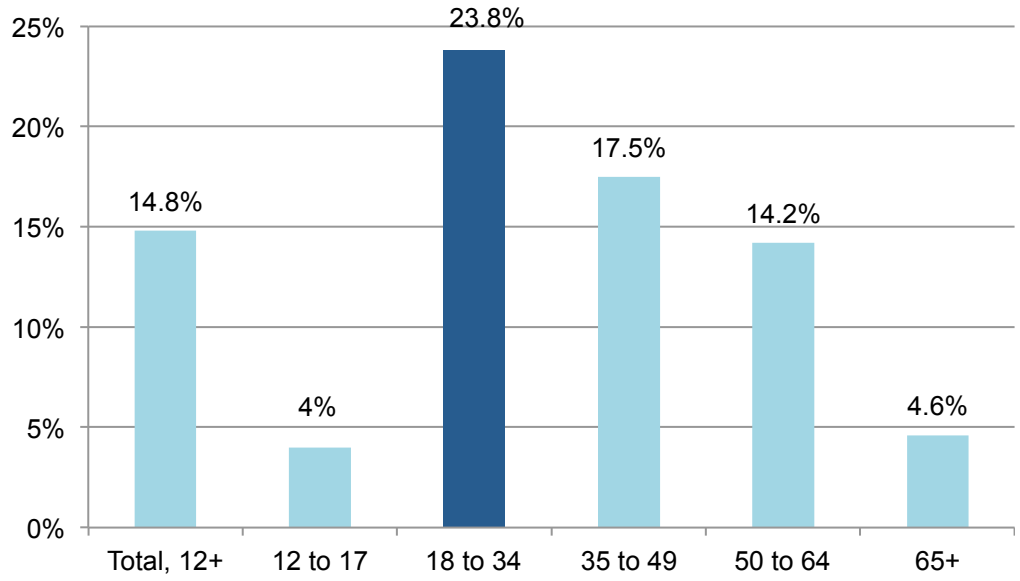
Figure 1. Substance use-attributable overall costs, Canada, 2014



Source: CSUCH, 2019

In 2017, approximately 80% of Canadians 15 years and older have drunk alcohol in the last year, and of these, 50% of women and 65% of men reported regular "binge[1]" drinking (Canadian Centre on Substance Use and Addiction [CCSA], 2017a). While women have lower rates of heavy drinking on average compared to men, "risky[2]" drinking for women – more than 2 drinks on one occasion and more than 10 drinks per week – has been steadily increasing over time, particularly for young women (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2019). In the last decade, this problem has been escalating; from 2011-2017, the death rate attributed to alcohol increased by 26% for Canadian women, compared to 5% for men (Tunney, 2018). This is particularly an issue for young women. In 2018, Statistics Canada found that nearly 15% of women and girls ages 12 and older reported "binge[3]" drinking behaviour. The data show that roughly one quarter of young women ages 18-34 reporting heavy drinking in this period, with consumption decreasing significantly with subsequent age cohorts (See Figure 2 below).

Figure 2. Rates of binge drinking among women in Canada, age group, 2018



Source: Statistics Canada (2018a)

[1] Binge drinking is also commonly referred to as "heavy" drinking. This paper uses the term binge drinking because it is a term more commonly used by young adults in Canada.

[2] I use the term "risky" when referring to a level of consumption that is than predetermined low risk levels. This definition also includes alcohol dependency and addiction.

[3] Where "binge" or "heavy" drinking for women is equivalent to having 4 standard drinks (See Figure 2) on any one occasion at least once a month for the past 12 months.

Drinking at risky levels does not necessarily make someone alcohol dependent or an "alcoholic."[4] This does not mean, however, that other patterns of alcohol consumption are any less risky, especially for women. For instance, it has been found that having just one drink per day increases a woman's chance of developing breast cancer by 5-9% compared to a woman who does not drink at all (Hydes et al., 2019).

We also know that women experience a more rapid progression to addiction or dependence on alcohol than men (Cecchini, Devaux, and Sassi, 2015), which is amplified by risky drinking. The 2018 Canadian Community Health Survey finds that "binge" drinking – having more than 4 drinks on any one occasion – is most common among women ages 18 to 34 in Canada (Statistics Canada, 2018a), and has recently been identified as a risk factor for alcohol dependence later in adulthood, particularly those who binge drink between ages 18 and 25 years old (Tavolacci et al, 2019).

This brings us to the problem at hand: **Too many young women in Canada are drinking above "low-risk" levels, which has serious short- and long-term health consequences**. This is fundamentally a human capital and development issue, one that requires increased intervention through evidence-based public policies.

This study aims to shift alcohol consumption among young women in Canada to "low-risk" levels, and attempts to address three research questions:

1. What motivates young Canadian women's moderate- and high-risk alcohol consumption?
2. What is the level of alcohol-related risk awareness among young Canadian women?
3. What alcohol-related harm reduction policies effectively reduce these levels of consumption?

[4] There are many definitions of alcohol dependence. *WHO's IDC-10 Classification of Mental and Behavioural Disorders* defines substance dependence as an individual who has at least three of the following conditions present together at some time during the past year: (1) a strong desire or sense of compulsion to take the substance; (2) difficulty controlling level of consumption; (3) experiencing physiological symptoms of withdrawal when not consuming or reducing consumption of the substance; (4) having an increased tolerance to the effects of the substance; (5) losing interest or avoiding other activities previously enjoyed due to consumption, and (6) continuing consumption despite evidence of substance-related harms (WHO, 1992, p.5).

The following Chapters attempt to answer these questions through various methods. First, Chapter 2 explores the motivation for studying women's alcohol consumption, and a discussion of gender bias in health research. The next couple chapters provide necessary context including definitions of low-risk alcohol consumption, existing literature on alcohol risk awareness and women's motivations for drinking, as well as how alcohol is regulated at various levels of government (Chapter 3 and 4). The next Chapter explains the methodologies used: an original survey of 800 young women in Canada, and a review of existing Canadian policies and assessment of effectiveness using a review of the literature and insights from expert interviews (Chapter 5). Chapters 6 and 7 review the key findings from the survey and the policy review, respectively. These results inform three policy options outlined in Chapter 8, and evaluation criteria and an analysis of each policy (Chapters 9 and 10). The final chapters explore further implementation challenges and ways to overcome these barriers, and a final recommendation (Chapter 11 and 12).

Chapter 2. Gender Bias in Health Research: an argument for feminism in epidemiological research

"When we fail to routinely consider the impact of sex and gender in research, we are leaving women's health to chance. The evidence on sex differences in major causes of disease and disability in women is mounting, as are the gaps in research."

– Johnson et al, 2014, p.5

"[Feminists] employ the full range of methods, insights, and creative sparks available to them as scientists and as feminists. Finding evidence in the laboratory or field may be done with well-worn research methods—but put to new ends. New questions about old assumptions often lead to the development of new techniques and improve the overall design of research."

– Schiebinger, 1999, p.862

Health science has historically focused on males both in terms of the standard research study participants being male (Pinn, 2003; Schiebinger, 2000), and the researchers approach to inquiry "adopting a male perspective and habit of thought" (Pinn, 2003, p.397). Feminists critical of traditional health science research have long argued that women are "routinely marginalized as subjects of scientific inquiry, or are treated in ways that reproduce gender-normative stereotypes" (Crasnow et al, 2018, p.1). These stereotypes often lead epidemiological research to construct a "narrow and limiting view of women as reproducers – controlled by their sex chromosomes, female hormones, and reproductive organs" (Inhorn and Whittle, 2001, p.561). As such, most studies that include women focus on research regarding reproduction and other uniquely female health concerns, as opposed to diseases that affect both women and men.

It is well known that women and men have significant variations in health outcomes due not only to biological factors between women and men, but also due to sociopolitical, cultural, and economic factors that may exacerbate health disparities (Pinn, 2003). Ignoring or failing to account for these differences in health research has damaging and dangerous consequences for women's health, and there has been a push since the 1980s to include feminist principles in scientific research to acknowledge these sex and gender differences (Schiebinger, 2000). While significant progress has been

made[5] and many more articles published regarding sex and gender after 1990 (Lee, 2018), there is still significant room for improvement (Liu and Mager, 2016).

Gender bias is pervasive throughout all medical research, including alcohol research. While long-term physiological and psychological effects of alcohol consumption are well documented, the results are often focused on men with any analyses of women positioned as a comparison using men as the default. Literature on this subject suggests that using comparisons of women and men consistently shows that men drink more than women, which leads researchers to focus on addressing men's consumption and neglect the harms and growing consumption trends among women (Jarvinen, 1983; Ortman, 2019).

Research that does focus exclusively on the impact of alcohol consumption in women tends to focus on pregnancy and Fetal Alcohol Spectrum Disorders (FASD) (Hayes, 2012; Osterman, 2011; Singal et al., 2017), risky sexual behaviour including feelings of regret and non-condom use (Brown et al., 2016; Bryan et al, 2017; Ehlke 2017), and physical and sexual victimization (Bandese 2017; Luca et al., 2015; Waller et al., 2012). These important impacts are heavily communicated to the public, while other pressing issues – particularly the carcinogenic effect – are largely ignored.

To address some of these shortcomings, this study employs gender-based analyses in its evaluation. As previously stated, applying feminist principles to epidemiological research acknowledges that there are not only biological, but also social determinants of health. This recognizes that populations are not homogenous (i.e., not all women have the same experiences and face the same barriers), which is essential to recognize when evaluating population level strategies for addressing health risks. Ultimately, this study emphasizes the importance of including women's voices in the analyses – as opposed to simply using second-hand data that may not have done so – in order to inform the creation of more effective public policy that reduces alcohol consumption and empowers women.

[5] Of note is the adoption of policies by the National Institutes of Health Revitalization Act of 1993 that required all government-funded health research include women and minority groups as subjects (NIH, 1993).

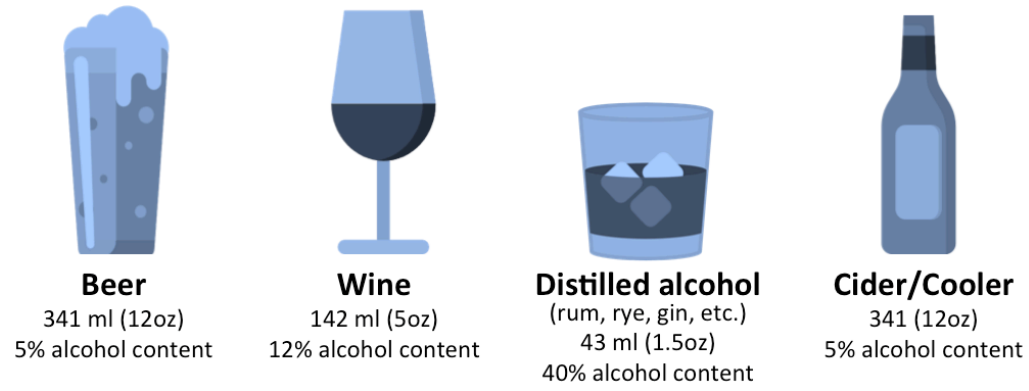
Chapter 3. “Low-Risk” Alcohol Consumption

This Chapter explains the definition of “low-risk” alcohol consumption, using Canada’s Low-Risk Alcohol Drinking Guidelines, which the policy problem and analysis is framed around. This Chapter also highlights the lack of awareness of these definitions, and some external factors leading to high-risk drinking behaviours.

3.1. Canada’s Low-Risk Alcohol Drinking Guidelines

In 2011, the Government of Canada launched Canada’s Low-Risk Alcohol Drinking Guidelines (LRDG) - a set of daily and weekly alcohol consumption limits to reduce individuals’ long-term health risks (CCSA, 2012). The Guidelines outline that women should have no more than 2 drinks on any single occasion (3 for men) and a maximum of 10 drinks per week (15 for men). On any single occasion, consumption of 4 or more drinks (5 or more for men) is considered “heavy” or “binge” drinking. A standard drink is measured based on alcohol content and the size of the beverage (Figure 3. shows examples of what constitutes a “drink” according to the LRDG).

Figure 3. Low Risk Drinking Guidelines’ classification of a “drink”



Adapted from CCSA (2012)

The difference in definitions of “low-risk” for men and women is due to biological differences between male and female bodies. Generally, women metabolize alcohol at a slower rate than men, meaning that alcohol remains in women’s system for longer than men. For example, a woman and a man of the same weight can drink the same volume

of alcohol, but the woman will ultimately have a higher blood alcohol concentration (NIAAA, 2019).

The Guidelines also provide exceptions to these rules; for instance, women may have 3 drinks (and men may have 4) on infrequent “special occasions.” A list of circumstances is provided for when “zero’s the limit” (i.e. zero alcohol is recommended) including: driving and/or operating machinery or tools; taking medication/drugs that interact with alcohol; and when pregnant or planning to become pregnant, among others situations. Finally, the Guidelines recommend persons to “delay your drinking,” particularly for teens as well as youth up to age 24 years, as alcohol can “harm the way the body and brain develop.”

3.2. Alcohol-Related Risk Awareness

Despite the mounting evidence of alcohol-related risks and the associated action taken to outline these risks (such as in the LRDG), there remains a substantial lack of awareness among the general public, and “even in public health circles” (Canadian Public Health Association [CPHA], 2019). This presents significant limitations for educating the public on what constitutes “risky” consumption. In particular, researchers have found that there is a low understanding of “standard drinks,” (Hobin et al, 2018, p.3) which contributes to continued misuse.

In 2014, Public Health Ontario (2017a) conducted a study that surveyed 2,000 drinkers in Ontario over the age of 19. The results show a severe gap in the knowledge among Ontarians. For instance, only 54% of respondents had ever heard of a standard drink, and only 19% correctly reported the daily limit of standards drinks considered “low-risk” for their gender. Furthermore, less than 1% of participants knew the number of standard drinks in a regular container of wine, or spirits, or “tallboy” can of beer.

We know that this can be addressed given the success of public education campaigns and serious health policy focus on another commonly used drug: tobacco. In 1964, the Canadian Department of National Health and Welfare launched a public awareness campaign about the carcinogenic effects of cigarette smoking, and Canada has since been a world leader in regulating smoking, particularly in health warning requirements for packaging (Canadian Cancer Society, 2013). Through years of targeted

public policy, the health of Canadians has shifted dramatically; the number of smokers (daily or occasional) aged 12 years and older has dropped from nearly 26% in 2001 (Statistics Canada, 2015) to nearly 16% in 2018 (Statistics Canada, 2019a).

3.3. External Factors Influencing Risky Alcohol Consumption

Motivations for alcohol consumption are an important piece of the harm-reduction and prevention conversation, which is at its core about changing consumer behaviour (Tunney, 2018). When policy makers ignore or misidentify the motivations for alcohol consumption, deterrents to high-risk consumption may be less effective. The following is a list of some motivations discussed in the literature, however it is by no means exhaustive.

3.3.1. Peer and Social Acceptance

Peer and social acceptance is a highly reviewed motivation factor within alcohol consumption literature, particularly among youth and young adults, and university and college students. With the rise of feminism and notions of female empowerment, social pressures to exhibit behaviours that are contrary to traditional feminine norms (such as sobriety) have become lauded. Mackiewicz (2015) frames this concept has "obligatory freedom," which leads women to feel that alcohol is necessary for socialising and acceptance.

This is of particular concern for women who binge drink and those who drink frequently. Haydon et al. (2018) explores women's underlying motivations to drink using the "Theory of Planned Behavior". The authors find that participants who perceived greater approval of drinking from "important others" (i.e., their friends, coworkers, bosses, etc.) have a lower perception of control over drinking behaviour and have higher intention to drink.

This is not to say that peers are solely a source of pressure in the presence of alcohol. Gunter et al. (2010) finds that, for young people, heavy alcohol consumption is seen as an "important feature of making new friends and for strengthening bonds with existing friends" (p.26). This is important to remember for policymakers because, while

drinking has negative health impacts, it is also a cultural experience that many people enjoy and see as part of a tradition of community building.

3.3.2. Pleasure

The importance of pleasure has been understated and sometimes overlooked within alcohol policy literature. Mansson and Borren (2014) argue that pleasure has a central importance to women's alcohol consumption. Alcohol is, after all, tied to activities of relaxation, self-indulgence, celebration, and sensuality and eroticism (Mansson, 2012; Moore and Valverde, 2001). According to Moore and Valverde (2001), people "go to parties, drink, and take drugs… not to monitor or minimize risks but to enjoy themselves" (p.528).

3.3.3. Targeted Advertising and Marketing

Alcohol advertising has been shown to increase alcohol consumption, particularly for new drinkers and young people (Smith and Foxcroft, 2009). A U.S. study found that youth aged 15-26 increased the number of drinks they consume by 3% with each additional dollar spent per capita on alcohol advertising (Snyder et al, 2006). However, most literature on the impact of advertising on consumption has focused on underage drinkers, and there is a recognized lack of research on the impact of alcohol advertising on women (Public Health Ontario, 2016).

Beginning in the 1960s, when traditional gender roles began to change, the alcohol industry began targeted advertisements toward women – the previously forgotten consumers. Advertisements have increasingly displayed women in various situations: the busy housewife and, more recently, the working mom deserving of a beverage for all her hard work; the "not-like-other-girls" stereotype where a woman can keep drinking pace with men; the cosmopolitan woman on a girls' night out, among others. These alcohol advertisements have pervaded magazines, television and product placement within television shows and movies, and now into social media sites and various apps. This is sometimes referred to as "pinking the drink", and has come under more criticism in recent years (CBC News, 2018).

The newest “pinking the drink” trends include using words known to attract women, such as “organic” and “natural,” and/or emphasizing beverages with low-calorie content (Jernigan, 2013). Additionally, brands have created more sweet-flavoured products, such as flavoured beers and coolers, to attract women, and created packaging that targets women. Most recently, some alcohol companies have taken to using themes of women’s empowerment (Tunney, 2018; Emslie, 2019) and social responsibility to market to women (Mart and Giesbrecht, 2015). For example, in 2018, Smirnoff partnered with the digital music service, Spotify, to create the “Smirnoff Equalizer” playlist that has an equal proportion of male and female artists (n.a., *Diageo*, 2018). Smirnoff Equalizer aims to increase the representation of women in music by using an algorithm to suggest songs by women artists that match the listener’s music preferences. The association of Smirnoff with women’s equality presents them as socially aware company that tackles issues directly impacting women, while simultaneously promoting products that negative impact women’s health.

Chapter 4. Regulating Alcohol Policy: Jurisdiction

This Chapter reviews the basics of how alcohol policies are regulated at different levels of government, who are significant stakeholders associated with regulation.

4.1. Federal Government

Federal government responsibilities in regulating alcohol policy lie in the criminal realm. For instance, Impaired Driving Laws are set at the federal level in the Canadian *Criminal Code.* Additionally, the base standards of alcohol advertising are established in the *Code for Broadcast Advertising of Alcoholic Beverages* and are enforced by the Canadian Radio-television and Telecommunications Commission (CRTC) - an administrative tribunal that operates at arm's length from the federal government (Government of Canada, 2014). The federal government is also responsible for manufacturing, such as labeling requirements established by the Canadian Food Inspection Agency (CFIA, 2019), and any rules established by Health Canada under the *Food and Drugs Act* and the *Food and Drug Regulations* regarding product safety (Health Canada, 2019).

The Government of Canada also collects revenue from excise taxes (which are adjusted annually by indexing to the Consumer Price Index) and other special duties on spirits and wine (Canadian Revenue Agency, 2017). The duties vary by ethanol content (for all alcohol products) and also by production volume for beer. The Government of Canada received a total profit of over $1.7 billion from excise taxes on alcohol alone in the 2017-2018 fiscal year (Statistics Canada, 2017).

4.2. Provincial Governments

Provinces and territories are responsible for many aspects of alcohol regulation, such as taxation and other pricing policies, setting the minimum legal drinking age, regulating on- and off-premise outlets' sale of alcohol (e.g. Liquor Sales Licenses and Special Occasion Permits Permissible hours of sale), and determining the level of privatization of off-premise outlets, among other things.

Each province and territory establishes a liquor board, commission or corporation that is responsible for establishing rules regarding alcohol products sold within its jurisdiction (i.e. alcohol availability)[6]. While these bodies are independent of one another, they all work together through the Canadian Association of Liquor Jurisdictions (CALJ) on common interests (CALJ, 2019). All provinces and territories have a monopoly over the distribution of alcohol, meaning that all retailers must purchase alcohol from the liquor boards, and these significant sales and the substantial revenue made by government-run retail stores (existent in all provinces and territories apart from Alberta) goes directly to the provincial treasuries. In the 2017-2018 fiscal year, the net income of all liquor authorities in Canada totaled nearly $6.5 billion, with net income including all taxes and other revenue exceeding $12 billion (Statistics Canada, 2020). Much of the revenue from taxes goes to the government, including revenue from harmonized sales tax, goods and services tax, and provincial/territorial sales tax.

Another significant area of provincial/territorial government control lies in their ability to regulate advertising of alcohol and distribute information regarding alcohol-related harms. For instance, governments may mandate that all on- and off-premise outlets contain warning signs regarding drinking and driving and the effects of drinking while pregnant. Additionally, they may ban the advertising of alcohol within a certain radius of public spaces frequented by children and youth, such as elementary and secondary schools, and public parks.

4.3. Provincial Liquor Authorities

While all provinces and territories have such a governing body, their relative monopoly varies by jurisdiction. Liquor authorities are responsible for the wholesale distribution of alcohol to on- and off-premise outlets. Additionally, all liquor authorities, except for in Alberta and the Northwest Territories, sell alcohol through their own retail stores however all provinces/territories with government retail stores also have privately owned retail stores (see Table 1 for proportions). They use these roles in the distribution

[6] It should be noted that all liquor boards (except Alberta) have a large presence in sales through their own network of retail stores (Giesbrecht et al, 2016) and thus, they cannot be considered unbiased in creating and regulating policies due to inherent vested interests in sales promotion (Stockwell et al, 2019).

and sales systems to manage and control pricing at either or both the wholesale and retail levels.

Table 1. Alcohol Retail Sales System by Province and Territory, 2019

Province/Territory	Retail Sales System	
Newfoundland and Labrador	Mixed System:	**96.9% private** retail stores **3.1% government** retail stores
Prince Edward Island	Mixed System:	**71.2% private** retail stores **28.8% government** retail stores
Nova Scotia	Mixed System:	**65.3% private** retail stores **34.7% government** retail stores
New Brunswick	Mixed System:	**77.7% private** retail stores **22.3% government** retail stores
Quebec	Mixed System:	**95.1% private** retail stores **4.9% government** retail stores
Ontario	Mixed System:	**77.1% private** retail stores **22.9% government** retail stores
Manitoba	Mixed System:	**87.4% private** retail stores **12.6% government** retail stores
Saskatchewan	Mixed System:	**94.8% private** retail stores **5.2% government** retail stores
Alberta	Privatized:	Retail: 100% private Wholesale: government run
British Columbia	Mixed System:	**92.4% private** retail stores **7.6% government** retail stores
Yukon	Mixed System:	**93.9% private** retail stores **6.1% government** retail stores
Northwest Territories	Privatized	Retail: 100% private consignment Wholesale: government run
Nunavut	Public System:	**100% government** retail stores

Sources: 2019 Provincial and Territorial Canadian Alcohol Policy Evaluation (CAPE) Reports and Summaries https://www.uvic.ca/research/centres/cisur/assets/docs/report-cape-pt-en.pdf (p. 19)

Most liquor authorities are provincial crown corporations, meaning that their net profit goes to their shareholder: the provincial government. So while the authorities operate at arms' length to the Governments, they are not disconnected from provincial

priorities. This is particularly important when looking at revenue[7] from government owned off-premise outlets; when the government has more or total control of the retail system, while still motivated by profit, they are also motivated by reducing the costs of alcohol-related harms and thus must balance sales with maintaining or improving public health. As such, privatization of alcohol retail systems has been associated with increased alcohol-related harms (Hahn et al, 2012; Kerr and Barnett, 2017), and this can largely be attributed to the lack of social accountability private retailers have to the public.

[7] See Appendix A for a complete accounting of revenue, cost, and net benefits of alcohol sales in each province.

Chapter 5. Methodology

5.1. Primary Methodology: Original Survey

Throughout December 2019, an original survey was used to collect responses from 800 young women across Canada. Eligible participants were screened based on four criteria that they had to meet: (1) identify as a woman; (2) currently live in Canada; (3) be between the ages of 18 to 34; and (4) be of legal drinking age in their province of residence[8]. Recruitment posters were posted on various Facebook groups as well as the principal researcher's personal Facebook Page. People had the option to "share" the posts as well (utilizing the snowball method of recruitment). After completing the survey, all participants were provided the option to enter into a draw to win a $100 VISA card.

The survey sought to identify participants' drinking behaviours, such as their motivations for drinking as well as their level of alcohol-related risk awareness. The questionnaire also collected information on participants' responsiveness to potential policies. Participants who identified that they are not currently abstaining from alcohol were able to take the entire survey, whereas those who identify as abstainers were only asked a question about why they do not consume alcohol, as well as the standard risk-awareness and socio-demographic questions.[9]

The survey is central to this study, as policymaking cannot be done without learning from the target population. Many studies looking at alcohol consumption simply speak *about* drinkers, positioning them as subjects in the study rather than participants with valuable insights. Instead, this survey attempts to include women's voices and lived experiences with alcohol in order to better inform policy development.

The key limitation of this survey is that responses of alcohol consumption are not adjusted for underreporting, which occurs when persons either intentionally or unknowingly reporting less than they actually consume. This study does not adjust for underreporting due to two issues with the survey design and the resulting data: (1) the

[8] For an overview of the basic demographics of the survey participants compared to the total Canadian population, see Table 4. For a detailed description, see Appendix E.

[9] See Appendix C for the full questionnaire.

methodology used did not control for equal proportions of people responding on each day of the week, and (2) the relatively small sample size limits the ability to compare reported consumption to alcohol sales data across provinces and territories.

Recent literature has shown that, given the risk of underreporting, the best practice for ascertaining more accurate responses is to ask consumption from the previous day as the margin of human error is likely lower (Stockwell, Zhao, and Macdonald, 2014). As such, a question regarding "yesterday" consumption is included.

5.2. Secondary Methodology: Review of Existing Canadian Policies

Data collected from the literature and interviews with experts in the field of alcohol policy and intervention are used to gain a well-rounded understanding into the various policy areas and effectiveness of various specific policies in addressing the issue of young women drinking above "low-risk" levels.

5.2.1. Literature Review

An extensive review of government and provincial liquor board websites on current regulations, as well as existing academic literature testing the effectiveness of existing policies within Canada and internationally is used to inform the policy review.

5.2.2. Expert Interviews

Throughout January 2020, five in-depth semi-structured phone interviews were conducted with experts, including academics, medical professionals, and policy analysts involved in researching and/or implementing alcohol-related harm reduction policies and strategies.[10] Table 2 lists the interviewees and their academic and/or professional experience relevant to this study.

[10] See Appendix E for the interview guide that informed more detailed questions that were typically adjusted to reflect the expertise and specializations of each participant.

Table 2. Alcohol Experts Interviewed

Interviewee	Areas of Expertise
Catherine Paradis, PhD Senior Researcher and Policy Analyst, Canadian Center on Substance Abuse	• Alcohol and its relation to women, youth and students • Low Risk Alcohol Drinking Guidelines • National Alcohol Strategy
Tim Stockwell, PhD Director, Canadian Institute for Substance Use Research Professor, Psychology, University of Victoria	• Pricing and density policies; • Measuring the costs of alcohol-related harms
Perry Kendall, PhD Former BC Provincial Health Officer; Former Chief Medical Officer of Toronto; Former President of Ontario Addiction; Research Foundation; Co-Executive Director of BC Centre on Substance Use	• Communicating public health measures to the public • Indigenous health • Public health approaches to substance use • Harm reduction policies
Ashley Wettlaufer, MA Policy Officer, Centre for Addiction and Mental Health	• Alcohol programs • Pricing policies • Harm and cost reduction policies
Norman Giesbrecht, PhD Scientist Emeritus, Institute for Mental Health Policy Research; Senior Scientist, Centre for Addiction and Mental Health; Adjunct Professor, Dalla Lana School of Public Health	• Community-based prevention • Roles of research, public opinion and special interests in alcohol policy development

The omission of industry-associated stakeholders is an explicit decision made by the principle researcher for two reasons. First, the industry is extremely vocal about their positions on various policies, making it easy to determine their level of acceptance for certain policies. Second, it has been shown that the alcohol industry actively works to influence public opinion and policy itself out of self-interest (Savell, Fooks and Gilmore, 2015), and as such, their inclusion may be detrimental to this study as their perspectives are generally not in the interest of public health. For these reasons, interviewees consist entirely of public health experts who are typically interested in promoting stricter alcohol regulations. While their responses vary on effectiveness and priority areas, this may nonetheless bias the research by not including stakeholders associated with the alcohol industry.

Chapter 6. Survey Results

Table 3. Summary of Survey Results

Topic	Key Findings
Respondent drinking behaviour	• Over 50% of the sample is classified as a binge drinker (having had 4 or more drinks on one occasion at least once a month for the past 12 months) • Additionally, 12% of the sample identified binge drinking the day before taking the survey
External factors influencing alcohol consumption	• Stress and peer pressure are identified as key motivators for drinking, and both are greatly influenced by marketing and through social media
Alcohol-related risk awareness	• Awareness of alcohol as a carcinogen is low, especially compared to that of cigarettes and sun exposure. This suggests that there has been effective public education on these factors, while the risks of alcohol may not be communicated effectively

6.1. General Demographics of Survey Respondents

The survey contained 37 questions: 5 required screening questions, 4 required questions regarding safety, 8 required demographic questions, and 16 questions answered only by current drinkers. There are 800 respondents in total, 734 "current drinkers" i.e. those who consume alcohol on a somewhat regular basis, 45 who identify as "former drinkers" i.e. those that used to drink alcohol but are now sober, and 21 who are "constant abstainers" i.e. those who have never drank.

Table 4 contains the general demographics of the survey respondents compared to the Canadian population sample of women ages 18-34 (unless otherwise stated). Overall, the sample is fairly representative of Canadian demographics, with the most significant deviation being the proportion of respondents from three of the ten provinces – overrepresentation from British Columbia and Nova Scotia, and underrepresentation from Ontario – as well as the overrepresentation of women ages 25-29 and underrepresentation of women ages 30-34.[11]

[11] For a more detailed summary of the sample's descriptive statistics, see Appendix D.

Table 4. Survey Sample Compared to Canadian Population Sample[12]

Demographics	Survey Sample	Population Sample
Age (years)[δ]	20-24: 33% 25-29: 48% 30-34: 19%	20-24: 32% 25-29: 34% 30-34: 34%
Geography[δ]	BC: 42% NS: 13% ON: 30%	BC: 14% NS: 2.4% ON: 40%
Highest level of education obtained[†]	Undergraduate degree or higher: 75% Post-secondary non-tertiary education, high school or less: 25%	Undergraduate degree or higher: 70% Post-secondary non-tertiary education, high school or less: 30%
Student status[δ]	Current students: 37%	Current students: 19%
Marital status[δ]	Single, never married: 56% Living common law: 25% Married: 18%	Single, never married: 52% Living common law: 20% Married: 26%
Employment Status[δ] (2018)	Employed, full-time: 58% Employed, part-time: 26% Unemployed: 16%	Employed: 75% Unemployed: 25%
Ethnicity/Culture[^]	White: 80% South Asian: 4% Indigenous: 4% Chinese: 4% Black: 2%	*White: 77.7% South Asian: 5.5% Indigenous: 6.3% Chinese: 5.3% Black: 3.0%

Sources: Statistics Canada (2019c; 2019d; 2019e)

[12] *Totals may not add due to rounding.
[δ]Data regarding the survey sample age range (18 to 24) is not publicly available through Statistics Canada, however the age range 20 to 24 is available and is thus the range used in these calculations for more accurate comparisons.
[†]Data regarding the survey sample age range (18 to 34) is not publicly available through Statistics Canada, however the age range 25 to 34 is available and is thus the range used in these calculations for more accurate comparisons.
[^]Ethnicity/cultural identities are not mutually exclusive (i.e. respondents may have selected more than one identification).

6.2. Respondent Drinking Behaviour

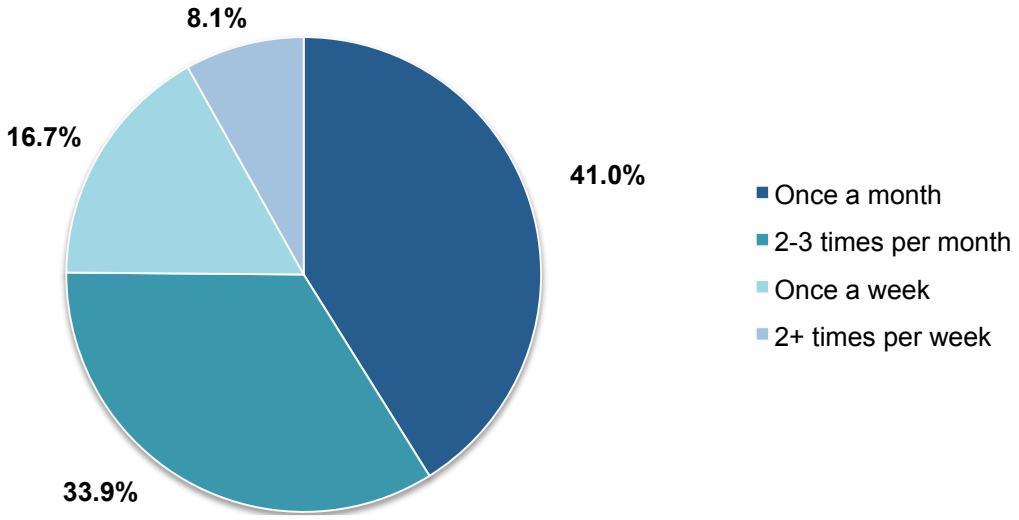
The survey included multiple questions regarding respondents' level and frequency of alcohol consumption commonly used in the Canadian Community Health Surveys including the following:

- During the past 12 months, how often did you drink alcoholic beverages?
- How often in the past 12 months have you had 4 or more drinks on one occasion?
- Approximately how many drinks do you consume on average per week?
- How many drinks did you have yesterday?

6.2.1. Binge Drinking

The most significant finding in this survey is the overwhelming number of participants that are classified as a "binge drinker," which for a woman is anyone who consumes four or more drinks on one occasion at least once a month over the past 12 months. Over half (53.8%) of participants are considered binge drinkers, and nearly one in four binge drinkers in the sample binge drink at least once a week. Additionally, over 12% of respondents report binge drinking the day before taking the survey.

Figure 4. Frequency of binge drinking among binge drinkers (N=395)



Note: respondents who binge drink "less than once a month" (N=339) are not *classified* as "binge drinkers," and as such are not included in Figure 4.

Binge drinkers, on average, had lower levels of education – 70% have an undergraduate degree or higher compared to 75% of the entire sample. Binge drinkers were more likely to identify as White (85%) and single (59%). The age distribution is also interesting, as 50% of binge drinkers are between the ages of 25-29 years old, which differs from the literature that suggests that the younger cohort (18-24) are more likely to be heavy drinkers.

6.2.2. Weekly Low Risk Drinking

The majority of respondents report drinking within the weekly limit of ten drinks total (set by the LRDG). In fact, only 5.2% of respondents indicate that they consume more than 10 drinks per week on average. However, when asked about their drinking the previous day, over 17% of respondents report consuming above the 2-drink limit. Of those who drink above the LRDG weekly limit, 63% have undergraduate degree or higher, 90% are White, and 68% are single. Additionally, 95% of those who drink above the weekly limit are also classified as binge drinkers according to LRDG.

6.2.3. Other Indicators of Risk

One risk factor for alcohol dependency is the inability to quit or reduce alcohol consumption for an extended period of time. Of the 370 people who reported ever having tried to reduce their alcohol consumption, nearly 23% were able to reduce “for a short time” and over a quarter were able to reduce “for a long time.” Encouragingly, only 10 people were unable to reduce their consumption at all. However, those who reported reductions for a short time may have intended for this to be a short-term experiment (i.e. did not plan or hope for long-term reduced consumption). For instance, some participants indicated that reducing consumption or quitting altogether was intended as a “cleanse” or a “challenge.”

6.3. External Factors Influencing Alcohol Consumption

The following subsections describe the motivations for alcohol consumption among survey participants. Most responses are consistent with the literature detailed in Chapter 3. However, when given the option to include a qualitative answer, many participants provided additional insights that contribute greatly to the analysis. It is

important to note that many of the following factors are not mutually exclusive. For instance, the impact of marketing and advertising may influence changing gender norms as well as the social acceptance of drinking.

6.3.1. Social Acceptance

Participants were asked if, over the last five years, they have observed young women's weekly alcohol consumption increase, and 40% indicate that it either "increased some" or "increased a lot." These respondents were asked a follow-up question that asked what they "believe is the main cause of this increase," and 50% note that the increase is mainly because "peer behaviour and peer pressure now makes it harder not to join the drinking culture." Respondents were also provided with an "Other" option, which they could provide a qualitative answer if they chose. Six respondents make a direct link between social acceptance and social media in their responses, commenting on how social media has dispersed peer pressure to wider audiences and shaped the ways in which people view others' drinking behaviours. For instance, one response notes that:

> "*Instagram, tiktok, and snapchat make it so there's a platform to share how you party and who you do it with and I think it's created a different form of peer pressure*"

Qualitative answers identify another interesting theme that suggests that women's drinking is influenced by changing social norms that are emphasized through peers with new perceptions and expectations of women and their drinking behaviours. Two insightful responses discuss how public perceptions of women's drinking has changed, such that it has become both normalized and a source of scrutiny if women do not partake in drinking:

> "*It's more normative. It's just expected that young women drink and it's strange if you don't."*

A few respondents also speak to this notion of changing norms, asserting that this change in drinking culture is a signal of gender "equality" (i.e., women and men are now able to consume alcohol at similar levels without having gendered expectations set on them):

> "*Increased promotion of non-orthodox female behaviour therefore less stigma about drunk females being considered tacky/slutty/not ladylike.*"

> "*I believe women are trying to keep up with men. It has also become less taboo for women to drink heavily. Women are okay to drink as heavily as men. Less gender based discrimination.*"

6.3.2. Pleasure

Drinking for fun, to celebrate occasions, and simply for the pleasure of the taste or effects was identified in the literature as an important motivating factor for drinking. Nearly two in three women indicate that they find social situations "more enjoyable" after drinking, compared to just 16% who do not find situations more enjoyable[13].

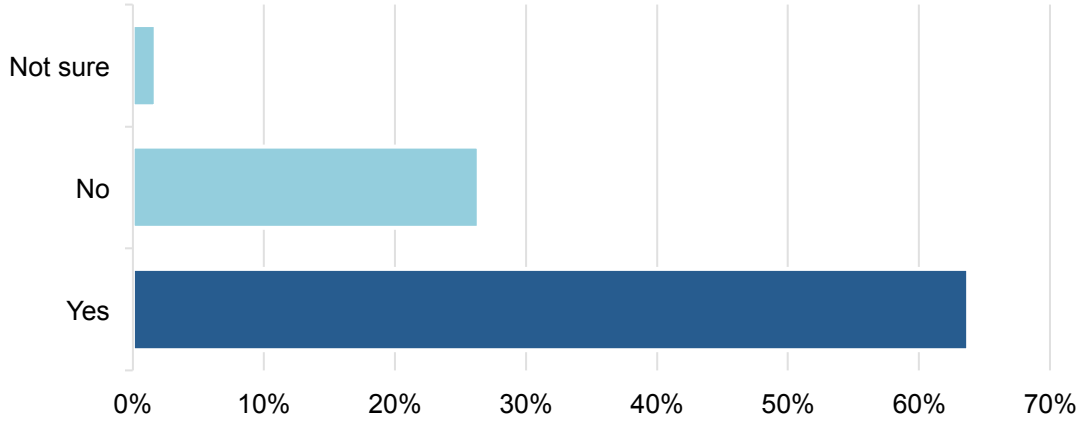
One popular activity that youth and young adults partake in with peers is "pre-drinking" – the activity of having drinks before going out somewhere else, such as a bar or party. Pre-drinking is an activity that increases alcohol consumption throughout the night, generally in order to celebrate an occasion beforehand and/or to save money by drinking at home before spending more on alcohol before going out. To test if this is a common experience among women in this age cohort, respondents were asked how often, if at all, they engage in pre-drinking before going out socially. Forty percent of respondents indicate "Often" "Very Often" or "Always," which suggests that pre-drinking in groups is popular and a potential source of increased drinking on one occasion. Of those who are considered binge drinkers, less than 5% say they never engage in pre-drinking, which could indicate an association between pre-drinking and excessive drinking.

[13] The remaining respondents, said that they were "not sure" if alcohol made social situations more enjoyable.

6.3.3. Stress

Asking respondents if they have drunk alcohol in the last month in order to “relax” or “unwind” tests the impact of stress and desire for relaxation as a motivation for alcohol consumption. Of the 734 current drinkers, 510 respondents (69%) indicate that they had drunk alcohol for this purpose (See Figure 5).

Figure 5. Having drunk alcohol in order to “relax” or “unwind” in the last month



Interestingly, drinking as a form of dealing with stress was identified in 26 qualitative responses regarding the main reason respondents believe women’s alcohol consumption has increased in the past five years. Most of these responses include reference to increased stress and life responsibilities with age. This was especially apparent by describing how alcohol is used as a way to cope with the burden of maintaining a “work-life balance” – a concept that disproportionately impacts women, as mentioned by participants who cite managing childcare and household labour on top of working in the labour market as a significant source of stress. Another respondent directly addresses how simply being a woman is a source of stress that influences alcohol consumption, stating, “the world is an increasingly difficult place to exist in as a young woman!”

Other qualitative responses discussed the ways in which alcohol use has become normalized in drinking culture as a way to relax and “self-soothe,” and some citing social media as having influenced this perception:

> "*I think there is this aspect of self-care and taking care of your mental health that has been co-opted by [alcohol] advertising*"

> "*Alcohol is normalized in Canadian urban society as a relaxant*"

> "*Wine mom culture is really prevalent online. It treats alcohol consumption as self-care and I think it has a big impact on young women*"

6.3.4. Targeted Advertising and Marketing

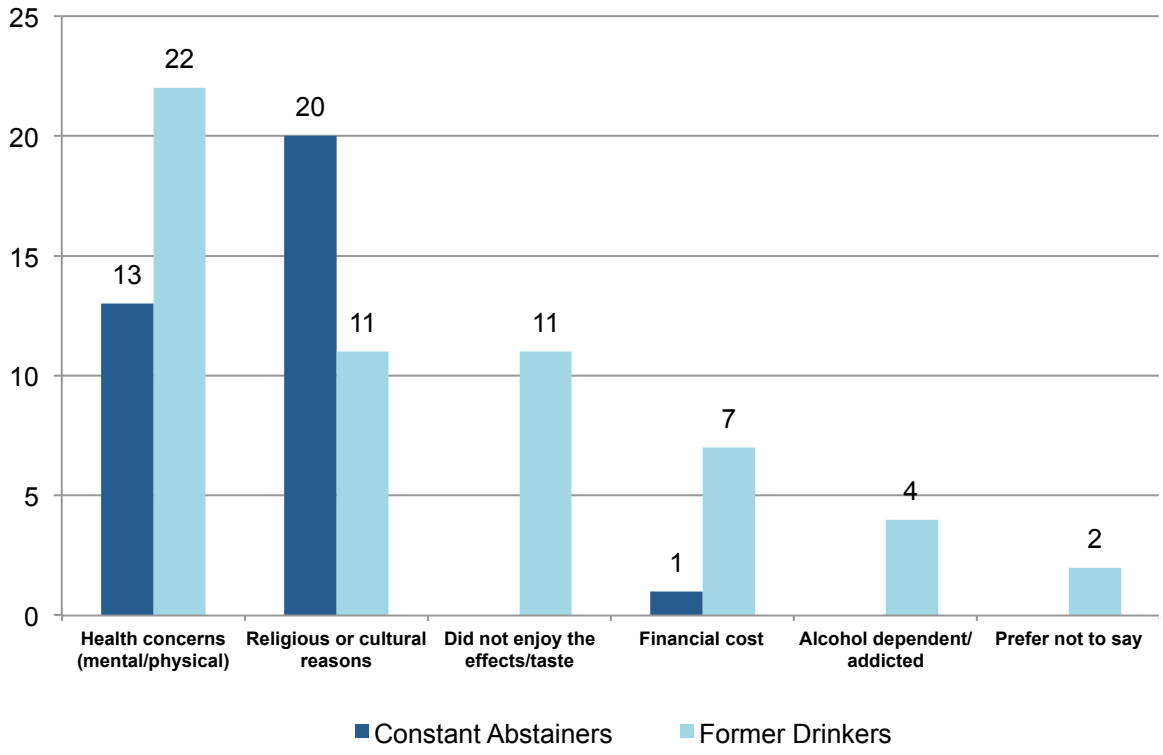
Of the 290 respondents who indicate that women's alcohol consumption has increased in the past five years, over 8% notes that this is primarily due to advertising and promotion and its increased focus on young women, and 20% report that the primary influence is "Happy Hours" and other promotions have encouraged a drinking culture among young women. Multiple respondents reflect on the impact of marketing toward women in qualitative answers, particularly the feminization of drinking, such as "girls' night movies" that always include drinking wine, and the media's projection of wine as making women "refined" and "sophisticated." Other respondents remark on the availability of "low calorie" drinks that are of primary interest to women drinkers. One respondent notes that these types of drinks remove previous barriers or concerns about drinking such as weight gain, bloating, and sugar content that causes acne.

6.3.5. Reasons for Not Drinking

The 66 respondents who are not current drinkers were asked a question regarding the reason(s) they do not drink (See Figure 6). "Health concerns" including both physical and mental health is the main reason for not drinking amongst both former drinkers and constant abstainers, followed by "religious or cultural reasons." Health concerns was a greater motivating factor for sobriety among former drinkers, while religious or cultural reasons is greater among constant abstainers. While difficult to make any conclusions from such a small subsample, it is interesting to note that the financial

cost of alcohol was a motivating factor for only 15% of former drinkers. Other reasons for not drinking include pregnancy and breastfeeding, and abstaining as a “challenge.”

Figure 6. Reasons for non-drinking for constant abstainers and former drinkers



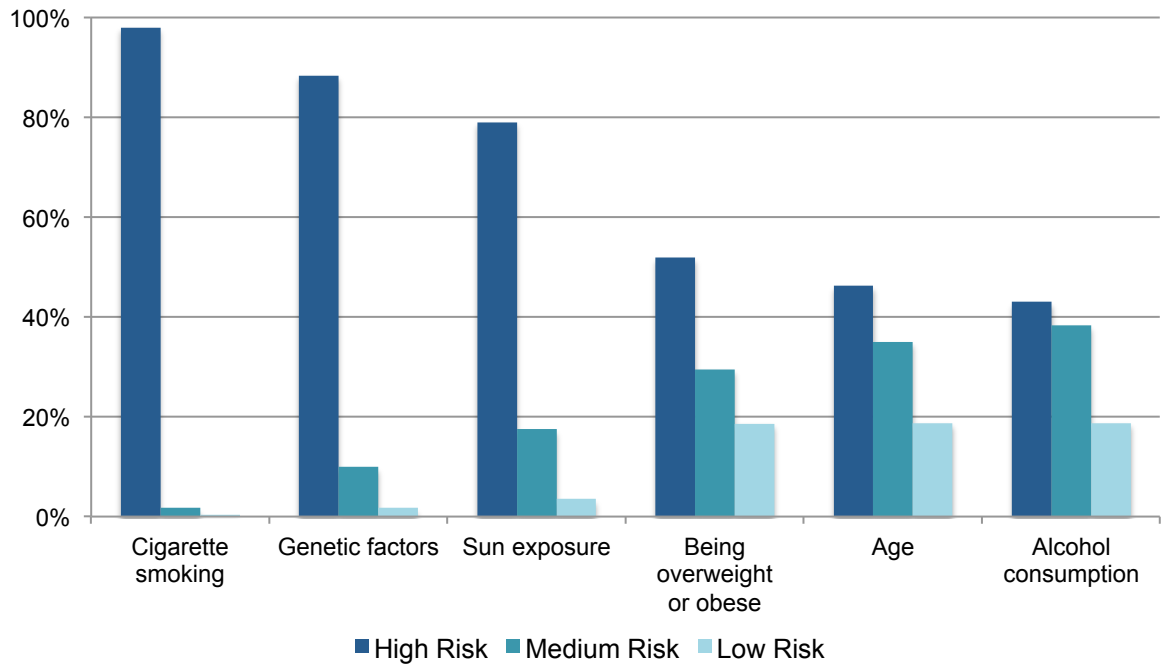
6.4. Alcohol-Related Risk Awareness

They survey also evaluated the level of risk awareness regarding alcohol and its impact on physical health. Overall, awareness of what is considered “safe” in terms of weekly alcohol consumption is high. Over 90% (731 of 800) respondents identified a “safe level of weekly alcohol consumption for women” as being 10 drinks or fewer, which is consistent with the LRDG. In fact, over 50% of the sample considered “safe” to be 5 or less drinks per week. However, the LRDG still implies an element of potential “risk,” whereas those surveyed believed these levels to be “safe,” likely meaning little to no risk. This is interesting, as experts have determined that no level of alcohol consumption is considered safe (Griswold, 2018; CISUR, 2017c). Respondents also had less certainty regarding safe daily alcohol consumption: Over 10% incorrectly identified a “safe” level of daily alcohol consumption for women as being 3 or more drinks (which is above the

LRDG). This is of concern as 4 or more drinks on one occasion is considered “binge” drinking, and if people believe that 3 drinks is “safe,” than their perception of more than 3 may be skewed toward assumptions of “low risk.”

A question in the survey asked participants to rank six factors that contribute to an increased risk of developing cancer (sun exposure, being overweight or obese, alcohol consumption, genetic factors, cigarette smoking and age) from 1 to 5 based on their perceived risk of the factor to developing cancer (1 being “not at all” and 5 being “a lot”). Participants overwhelmingly identified cigarette smoking, genetics and sun exposure as having a significant impact on an individual’s risk of developing cancer with an average rating of 4.79, 4.38 and 4.15 respectively. In fact, only 3 participants ranked cigarette smoking as a “2” or less, and just 14 participants ranked smoking as a “3”. Alcohol consumption is viewed as having the least influence of all 6 risk factors on developing cancer, however, it is still ranked as having a moderate impact, with an average of 3.33 (See Figure 7).

Figure 7. Perceived risk level of developing cancer



Note: For the purposes of this figure, the levels of impact originally measured on a 1 to 5 scale are coded as follows: responses of 5 or 4 are coded as “high risk,” responses of 3 are coded as and “medium risk,” and responses of 2 or 1 are coded as “low risk”

When asked about the level of alcohol consumption that is deemed safe for pregnant women (where “0” indicates that no level is safe, and “10” indicates that any level is safe), nearly all respondents answered with a “0” or “1”. These results suggest that previous educational campaigns and warning signs regarding cigarette smoking, sun exposure and FASD were effective at reaching this audience, and that there is room to expand women’s alcohol-related risk awareness.

Chapter 7. Review of Existing Canadian Policies

This Chapter reviews the basics of seven policy areas using evidence from the literature, as well as insights from survey and interviews to determine which of the policy areas have the greatest potential to address the policy problem: too many young women in Canada are drinking above "low-risk" levels. There are seven main policy areas used to address alcohol-related harms: (1) pricing mechanisms; (2) legal ramifications; (3) restricting physical access; (4) marketing and advertising restrictions, (5) labelling and packaging regulations; (6) public education and counter-advertising campaigns; and (7) screening, brief interventions and referrals.

Table 5. Summary of Policies and Effectiveness

Policy Area	Policy Examples	Projected Effectiveness
Pricing Mechanisms	Pricing to inflation	Effective at increasing price, however it does not address regional price variation (Giesbrecht et al, 2016). Extremely effective at reducing consumption among heavy drinkers (CIHI, 2017), and best practice would be to implement uniform minimums across the country (Stockwell interview)
	Minimum unit pricing	
Individual Legal Ramifications	Minimum legal drinking age (MLDA)	MLDA is effective at reducing harm among youth, however immediately after these harms are significant (Callaghan, Sanches, and Gatley, 2013; CCSA, 2017b). Impaired driving laws are effective at decreasing harms as a result of motor vehicle accidents (Statistics Canada, 2016)
	Impaired driving laws	
Restricting Physical Access	Density of outlets & hours of operation	Restricting access is one of "most effective" ways to reduce overall harms (Giesbrecht interview). Typically impacts are seen for acute (short-run) harms (Wilkinson, Livingston and Room, 2016; Giesbrecht et al, 2015)
	Hours of operation	
Marketing and Advertising Restrictions	Partial versus total bans	A total ban on sponsorship, promotion and advertising is cited as the most effective way to protect vulnerable populations (Babor et al, 2017). Canada currently has partial restrictions through the 1996 CRTC that are out-of-date and self regulated, which is ineffective (PHO, 2016; Stockwell interview; Paradis interview)
	Regulatory body: independent or self-regulation	
Labelling and Packaging	SDL, PAL and LRDG	The current percentage alcohol labelling (PAL) is not sufficient to inform consumers. There is a need for standard drink labels (SDL), however this only works when LRDG are included on the labels (Stockwell interview; Wettlaufer interview). Warning labels help increase awareness of harms, and are seen by those who need them most (Wettlaufer interview; Stockwell interview)
	Warning labels	
Public Education	Risk awareness	Public education of alcohol-related health risks increases policy acceptance, particularly for stricter/more restrictive policies (Pechey et al., 2014; Bates et al., 2018). Counter-advertising increases critical analysis of marketing (Wettlaufer interview). However, neither measure is sufficient in isolation, and should be combined with other policies to reduce consumption.
	Counter-advertisements	

7.1. Increasing the Price of Alcohol

Canadian alcohol price policies are diverse and vary in effectiveness of alcohol-related harm-reduction. There are two best practices for pricing interventions: taxes indexed to inflation, and minimum unit pricing. Pricing to inflation ensures that taxes keep pace or exceed overall inflation (Consumer Price Index for all products year-to-year) of the prices of a representative basket of alcohol products assessed determined by Statistics Canada (Giesbrecht et al, 2016). The difficulty with this policy is that some provinces have low tax rates to begin with (e.g. Quebec), thus, even when indexing to inflation, the prices in some provinces will still be well below the national average.

Effectiveness: Increasing the Price of Alcohol

- Stockwell et al. (2013) find that increasing minimum prices from an average of CAD $1.15 to CAD $1.35 per standard drink would result in "an immediate reduction of 726 acute admissions over 1 year (8.47%) and a further reduction of 997 chronic admissions over 1 year (10.77%) 2 years later"
- "A marked increase in the minimum prices charged for higher strength beers in Saskatchewan was shown to trigger a shift from high to low strength wines and beers and an overall reduction in per capita consumption." (CIHI, 2017, p.13)
- Minimum unit pricing is the most effective pricing mechanism (Wettlaufer interview; Stockwell interview)
- The issue arises when prices are not consistent across provinces and territories, as this causes imperfect competition and leads to the "race to the bottom" where retailers keep decreasing provinces to compete with other regions, particularly areas close to borders (e.g. Ontario and Quebec) (Wettlaufer interview). Even with standardized pricing across the country, Canadians living close to the US-Canada border may have an incentive to cross the border and purchase less expensive alcohol there (Kendall interview)
- There is evidence to suggest that young adults actively choose alcohol based on cost-impact calculations and may purchase beverages with the highest alcohol content at the lowest price possible. Pricing policies help to address this cost-saving incentive (Paradis interview).

The second method of pricing is setting price floors (i.e. minimum pricing). Governments may use minimum unit pricing, which typically places a flat rate per litre (to discourage purchases of large quantities of alcohol), or by pricing by ethanol content (making hard liquor, such as vodka, more expensive than, say, beer). A "public health ideal" is to combine minimum pricing with indexing to inflation (Canadian Institute for Health Information [CIHI], 2017, p.13).

7.2. Individual Legal Ramifications

There are two main individual-level legal ramifications explicitly targeted at alcohol consumption: the Minimum Legal Drinking Age (MLDA) and Impaired Driving Laws. First, the MLDA is set by the province or territory, and is currently 18 years of age in Alberta, Manitoba, and Québec, and 19 years in the rest of the country. The penalties vary for both the individual and those who aid a minor's purchase and/or consumption of alcohol (including persons producing fake I.Ds, purchasing alcohol and serving alcohol).

Second, Impaired Driving Laws are set at the federal level in the Canadian *Criminal Code* and prohibit "driving while impaired to any degree by drugs, alcohol, or a combination of both. Penalties for this offence range from a mandatory minimum fine to life imprisonment, depending on the severity of the offence" (Department of Justice, 2018). The current prohibited level of alcohol, known as blood-alcohol concentration, is 80 milligrams or more of alcohol per 100 milliliters of blood. Penalties for violations range from fines up to $2000 to life imprisonment (if impaired driving causes death). Provincial governments also have constitutional authority over highways and licensing of drivers in their jurisdiction, and can legislate impaired driving laws and sanctions, such as short-term license suspension programs and zero blood alcohol concentration (BAC) restrictions for young and novice drivers.

Effectiveness: Individual Legal Ramifications

The minimum legal drinking age (MLDA) and impaired driving laws decrease short-run harms, as seen by the drastic rise in harms associated with 'coming of age':

MLDA:

- Immediately after becoming of legal drinking age, mortality, particularly from motor vehicle collisions and injuries increased significantly for young men, while the effect for women is statistically insignificant (CCSA, 2017b).
- Immediately after becoming of legal drinking age, alcohol-use disorders and poisoning increased 21.1% for women across Canadian provinces (excluding Québec) (Callaghan, Sanches, and Gatley, 2013).

Impaired Driving Laws and Sanctions:

- Impaired driving has decreased significantly since the introduction of stronger BAC rules: impaired driving rate in 2015 was 60% lower than the rate in 1986 (Statistics Canada, 2016).

7.3. Restricting Physical Availability

Arguably, the simplest form of regulating access to alcohol is through restricting: (1) the density of liquor outlets and (2) the hours of operation for both public and private off- and on-premise outlets. Outlet density restrictions are typically measured as outlet per 100,000 residents, however it can also be regulated through other means at the municipal level, such as restricting the total number of licenses and placing restrictions on permitted locations of outlets, such as proximity to elementary/secondary schools or to other liquor outlets.

Another way to restrict availability of alcohol beverages is to reduce the allowable single container size (McKee et al, 2017). This policy is particularly prevalent for high-alcohol content beverages and for beverages that appeal to youth (e.g. coolers or "alco-pops"). A 2017 study found that from January 1 to November 26, 2017, 21 individuals ages 12 years and older were admitted to emergency rooms every day in Quebec with acute alcohol poisoning (Institut national de santé publique du Québec, 2018). Of these admissions, 18-24 year olds' admission rates were 2.5 times that of all other age groups. In 2018, following the tragic death of a 14-year-old girl after consuming a flavoured purified alcohol drink with high alcohol content, Canada's *Food and Drug Regulations* were amended to introduce the following rule (Government of Canada, 2019a):

> The sale of flavoured purified alcohol in 1000mL containers or less is permitted unless the beverage contains less than or equal to 25.6mL of alcohol, with the exception of flavoured purified alcohol sold in glass containers with a minimum size of 750mL.

Effectiveness: Restricting Physical Availability

Restricting physical availability of alcohol, particularly by limiting density of outlets has been shown to be highly effective at reducing both consumption and the frequency of alcohol-related harms:

- A 10% increase in private liquor store density is associated with a small but significant increase in acute (1%), chronic (1.61%), and overall (1.26%) alcohol-attributable hospital admissions (Stockwell et al, 2013).
- Density policies have also been found to reduce acute harms, such as violence (Wilkinson, Livingston and Room, 2016) and suicide (Giesbrecht et al, 2015).
- Restricting access is one of "most effective" ways to reduce overall harms (Giesbrecht interview). However, it must take regional variation into account, (e.g. the territories' alcohol availability is very different than in urban areas) so there needs to be flexibility by provincial jurisdiction (Wettlaufer interview).

7.4. Marketing and Advertising Restrictions

There are two general ways in which marketing is restricted: (1) marketing content (i.e. protecting consumers against misleading information and advertisements that make alcohol look attractive), and (2) volume of marketing (i.e. the quantity and location of advertisements). As stated in Chapter 4, the CRTC regulates the basic standards that all alcohol advertisements displayed within Canada must follow. These standards[14] include rules such as:

- Advertisements may not attempt to influence non-drinkers of any age to drink or to purchase alcoholic beverages, and
- Advertisements may not be directed at persons under the legal drinking age.

Provincial and territorial governments, as well as municipal governments, have the option to prescribe additional restrictions to advertising in their jurisdiction. While some provinces and territories have implemented policies that go beyond the CRTC guidelines, the majority still only abide by the federal rules (Stockwell et al, 2019). Other researchers have found that liquor board websites are predominantly used for promotional purposes.

Regulated advertisements are not just those on television and radio, but also in a form that people see in-person. For instance, point-of-sale (POS) advertising is a widely used practice, including banners, displays, shelf and wall signs, and window displays within and on the exterior of retail outlets. These advertisements are present in both on- and off-premise outlets. Advertisements of this kind may be attached to advertising campaigns. For instance, retailers may be provided incentives (e.g. discounts on future purchases, and guaranteed buy-back of alcohol left unsold) by alcohol brands (manufacturers) to display promotions (or promote it to their customers).

[14] See Appendix B for a full list of the 1996 *Code for Broadcasting Advertising of Alcohol Beverages*

Effectiveness: Marketing and Advertising Restrictions

Marketing and advertising restrictions are effective at reducing consumption (Anderson et al, 2009), however this largely depends on the level of the restriction. As more and more companies utilize social media and other methods of widespread communication, effective regulations become difficult to enact and keep up-to-date.

- Self-regulation: Self-regulation of marketing and advertisements by the alcohol industry is ineffective at protecting vulnerable populations from exposure to alcohol marketing, due to industry incentives to maintain their volume of and content within existing advertisements (Public Health Ontario, 2016; Stockwell interview).
- Canada currently has partial restrictions, which are ineffective due to being out-of-date and self regulated (Stockwell interview; Paradis interview; Wettlaufer interview), and leads to significant violations particularly by on-premise outlets (e.g. bars) (Paradis interview).
- Partial Restrictions: There is less evaluation of the effectiveness of partial restrictions. However, one US study found that a partial ban would decrease alcohol-related life-years lost by 4% among 20 year olds (Hollingworth et al, 2006).
- Complete Bans: Total bans on sponsorship, promotion and advertising is cited as the most effective way to protect vulnerable populations (Babor et al, 2017).
- Wettlaufer et al. (2017) find that many provinces let alcohol manufacturers sponsor community events, including festivals and arenas, and allow manufacturers to donate money for corporate or brand identified scholarships, bursaries and scholastic prizes.

7.5. Labeling Requirements

Alcohol containers currently require a variety of information on their labels, regulated by the Canadian Food Inspection Agency (CFIA, 2013), including:

- Percentage alcohol labelling (PAL): the percentage of alcohol content by volume (e.g. 12% for a bottle of wine)
- Alcohol by volume (ABV): any beverage containing 1.1% or higher alcohol by volume must declare the amount
- Ingredient list: this requirement varies by the type of alcohol (e.g. standardized alcoholic beverages (e.g. whiskey, rum, vodka, beer) are exempt from including ingredients (unless it contains certain allergens), whereas unstandardized beverages (e.g. cream liquors, coolers) require a complete ingredient list

An underutilized alcohol policy is the requirement of health warnings, standard drink labelling (SDL) – providing the number of standard drinks within a beverage – and the LRDG on alcohol containers, despite there being evidence to suggest their effectiveness. The intention behind these policies is to provide information to the consumers to help them make more educated purchasing decisions.

Effectiveness: Labelling Requirements

The efficacy of warnings and standard drink content on labels is contested, however there is significant support for its inclusion, particularly if the labels are of good quality:

- Warning labels on containers help to increase awareness of the health hazards associated with alcohol. Heavy and/or frequent drinkers also typically see them most often (Wettlaufer, Cukier and Giesbrecht, 2017)
- Effectiveness of reducing consumption and/or increasing on knowledge of alcohol-related harms depends on the quality of the content (Wettlaufer, Cukier and Giesbrecht, 2017):
    - Vagueness “please drink responsibly” versus providing LRDG;
    - Variety of the messaging (e.g. focusing on multiple harms of alcohol);
    - Visibility and prominence of content; and
    - The use of graphics and colours to draw attention
- Tim Stockwell (interview) argues that any research that suggests that warning labels and standard drink labels are ineffective for influencing consumption may just be studying poorly designed labels/warnings.
- You need to have SDL, PAL *and* LRDG on alcohol labels and/or packaging as well as on menus. You can’t expect the public to “do the math,” so simply providing the LRDG without providing information on how many drinks are within a beverage reduces the effectiveness significantly (Wettlaufer interview).

7.6. Public Education Campaigns

Public education campaigns are a widely used policy option for communicating health information including alcohol. Campaigns reach the public through multiple avenues: signs, flyers, brochures, advertisements, emails, health-related and official government websites and, more recently, through social media. These campaigns may be targeted at the mass public or for a more specific audience. Common targeted public education regarding alcohol consumption in Canada occurs in various situations, including: School-based interventions; College/university-based programming; Family-based interventions; Community-based interventions; and Workplace-based interventions (Kelly-Weeder, Phillips and Rounseville, 2012). Public education may go beyond raising awareness of health risks. For instance, in an attempt to address misleading and/or false information presented by the alcohol industry regarding health risks as well as advertisements that present drinking as a necessary product for certain activities (e.g. celebrations, watching sports games, etc.), counter-advertising may be used to encourage critical thinking and shift cultural norms.

Effectiveness: Public Education Campaigns

Public education campaigns are not generally seen as a method of directly decreasing consumption (Public Health Ontario, 2013), rather it is seen as a complementary measure, mostly used to create awareness of the problem, which helps to:

- Increase policy acceptance: The public is generally more accepting of policies when they are aware of the reasons behind the implementation and the effectiveness of the policy in addressing the harm(s) (Pechey et al, 2014), and when aware of the link between alcohol and cancer (Bates et al, 2018).
- Counter-advertising: Balance the messages from the industry (Tricus-Sauras and Garnes, 2014) by teaching media literacy and providing facts to counter misleading information and false claims. Education also increases people's critical analysis of alcohol marketing and tactics utilized by the alcohol industry (Wettlaufer interview)
- "The general public tends to better absorb information that's more palatable even if it's false. For example, it's easier or more enticing to believe that I can have a glass of alcohol at every meal and it's good for me, as opposed to learning that alcohol has carcinogenic effects." There is a need to counter this information with counter-advertising and public education in general (Wettlaufer interview).
- Public education in not sufficient on its own. Rather, they are most effective as a complementary measure to other policies (i.e. if you don't know *why* you should be drinking within these LRDG, you would be less likely to follow the guidelines) (Wettlaufer interview; Paradis interview)

7.7. Screening, Brief Intervention and Referral (SBIR)

The final policy area is the individual, in-person interventions that include screening, brief intervention and referral, commonly referred to as SBIR. Screening occurs at the primary care level (i.e. during general doctor appointments) and emergency care settings. Medical professionals identify individuals' risky and/or dependent consumption behavior and decide on a course of action with the patient. Brief interventions (BIs) typically take the form of short counseling sessions aimed at empowering patients in the low- to moderate-risk category to shift their consumption behaviours. Dependent drinkers are typically, referred to a "level of care beyond the scope of brief interventions" (CIHI, 2017a).

Effectiveness: Screening, Brief Intervention and Referral

- SBIR is effective at identifying risky use of alcohol in its early stages in order to refer consumers to services that can help them reduce consumption or abstain entirely (Babor, Del Boca, and Bray, 2017).
- SBIR is effective at decreasing risky behaviours related to alcohol consumption such as drinking and driving (Public Health Ontario, 2017b).
- SBIR has been found to be more effective at addressing adult, particularly young adult drinking compared to underage drinkers (Yuma-Guerrero et al, 2012).
- In 2016, less than 25% of Canadians reported having spoken to health care providers about their alcohol consumption in the past two years (22% of women, and 25% of men) (CIHI, 2017b). Furthermore, in 2017, men and women aged 18 to 34 were more likely than any other age group to be without a regular health care provider (Statistics Canada, 2019b), making screening and brief interventions potentially difficult to implement for younger Canadians.

7.8. Moving Forward

Given the analysis conducted on the effectiveness of the seven policy areas above as well as insights from the survey findings, the following Chapter identifies three proposed policy options, which were deemed most effective in regards to addressing the specific objectives of this study: improving women's health through decreasing alcohol-related harms, and increase women's empowerment through increased awareness of said harms.

Chapter 8. Policy Options

The insights and policy implications discerned from the existing literature, as well as this study's survey and expert interviews, have identified three options to address risky alcohol consumption among young women: (1) Marketing and advertising restrictions; (2) National minimum prices; and (3) Comprehensive education.

8.1. Option 1: Marketing and Advertising Restrictions

> *"Canada regulates restrictions on alcohol marketing at both federal and provincial levels and is governed by a system of self-regulation. This means that the same body that creates the rules for marketing is the body that regulates its enforcement, its violations as well as the sales of the product itself"*
>
> (Wettlaufer, Cukier, and Giesbrecht, 2017, p.1370-

Currently, alcohol advertising is regulated under the 1996 CRTC, however they do not actively surveil all forms of alcohol marketing to ensure compliance. Rather, there is a complaint based monitoring system, where complaints can be submitted for review and penalties applied if rules are violated, which puts the onus on citizens to call attention to advertisements in violation. Further, the existing regulations are out of date, especially considering the introduction of social media. Given these considerations, the marketing and advertising code in the 1996 CRTC should be modified as follows:

- An independent body made up of public health experts and policy analysts should be formed by the CRTC in collaboration with Health Canada to review and reformulate the regulations.
- The regulations would be enforced using a **pre-clearance model** (e.g. an advertisement must be submitted for review before use) **via a third party** (independent from the alcohol industry).
- The new list of regulations created by this independent body would build off the existing 1996 CRTC regulations, with significant updates to reflect the current political and digital climate. Provisions in the *Tobacco and Vaping Act* and the newly implemented *Cannabis Act* will also be incorporated, such as placement restrictions (i.e. banning promotional advertisements of price discounts in retail outlets, as well as exterior and window displays).
- There should be restrictions on discounted prices of alcohol, particularly those that attract younger persons, such as "Happy Hour" drinks specials.

- An important emphasis must be placed on restricting gendered advertising and marketing including representations of drinking alcohol as a reward or celebratory activity, a method of reducing stress, being potentially healthy, a source of gender equality, and an inherently feminine (or masculine) activity.

- The regulations should apply to all alcohol marketers, as well as all advertising media (See Table 6). In particular, restrictions must address the use of social media to market and advertise alcohol, as this is an area of concern expressed by other survey participants and experts interviewed, particularly for young women who are predominantly targeted through these means. Additionally, branding of products (e.g. the name of products) should be classified as a form of marketing and regulated, as it currently is not.

Table 6. Alcohol Marketing in Canada

Alcohol Marketing in Canada	
Alcohol Marketers	Alcohol manufacturers
	Provincial alcohol retailers
	Licensed establishments (restaurants, bars, and night clubs)
	Other licensees (liquor delivery services, online sales, ferment on-premise outlets)
Advertising Media	In-store displays
	Radio content and advertisements
	Print advertising including magazines and newspaper inserts
	Billboards and posters
	Event and venue sponsorship
	Alcohol trade shows and festivals
	Social media and online content
	Free promotional items and ancillary items
	Contests and coupons
	Celebrity endorsements
Adapted from Wettlaufer et al., 2017, p.1365	

8.2. Option 2: National Minimum Unit Pricing

Women (particularly young women) are typically more price-responsive and more accepting of pricing policies such as taxes. However, interview insights suggest that young adults actively choose alcohol based on cost-impact calculations and, generally, purchase beverages with the highest alcohol content at the lowest price possible. Standardized minimum pricing set at the standard-drink level, which takes into account both the volume and the percentage of ethanol, effectively reducing this cost-saving incentive.

As such, Option 2 recommends a nationally standardized minimum unit pricing scheming set by the federal government (Health Canada and Finance). The minimum prices would apply to all provinces and territories, however the provincial governments may set higher minimum prices if they choose.

Minimum unit pricing, annually indexing prices to inflation

An important piece of this policy is the difference in price given the type of retail outlet. Prices are higher at on-premise stores (e.g. bars), where alcohol consumption is often encouraged through price discounts (e.g. Happy Hours). The following standard drink price equation is taken from the 2008 Public Health Approaches to Alcohol Policy report from the Office of the Provincial Health Officer in British Columbia. These prices have been identified as “effective and achievable benchmark prices” for off-premise and on-premise outlets (Giesbrecht et al, 2016, p.291). However, this calculation

- Minimum unit price: CAD $1.50/standard drink at off-premise stores and CAD $3.00/standard drink at on-premise stores. Where a standard drink is measured using LRDG classification of a “drink” (See Figure 3)

8.3. Option 3: Comprehensive Education

> "*The whole approach to addressing certain policies is not informed by epidemiology, it's informed by perceptions and public opinion, and biases and myths*"
>
> – N. Giesbrecht

A theme discussed in depth by every interviewee was the lack of awareness of alcohol-related harms, particularly in regards to its effect on cancer and other diseases, which Tim Stockwell described as "blanket ignorance." This, many argue, is concerning not only at a general population level, but is especially worrisome for young women who are most vulnerable to developing breast cancer – a disease that alcohol significantly increases the risk of. As seen from the survey results, young women have lower awareness of the effects of alcohol on cancer compared to tobacco and sun exposure, and had high awareness of the negative impacts of drinking while pregnant.

Interviewees identified three reasons why public awareness of alcohol-related harms is necessary:

(1) **Consumer Protection**: consumers have the "right to know" the potential risks associated with a product, and it is the government's job to ensure this knowledge is transferred to consumers;
(2) **Informed Decision Making**: if given all of the information regarding risks, consumers' decisions to consume alcohol may shift (i.e. increasing compliance with LRDG); and
(3) **Public Acceptance of Policies**: the public is generally more accepting of policies when they are aware of the reasons behind the implementation and the effectiveness of the policy in addressing the harm(s) (Pechey et al, 2014), and are more accepting when aware of the link between alcohol and cancer (Bates et al, 2018).

The spread of misinformation is another significant concern prompting the need for increased public education. For instance, despite the debunking of myths surrounding the "health benefits" of alcohol, such as the myth that wine is good for heart health (Udell, 2018), the alcohol industry still promotes the idea drinking can be associated with good health through product marketing and advertising. For instance, many wines are now labeled as "organic" and other beverages advertised as "low calorie" or "zero sugar," not to mention the branding of alcohol that associates its effects

with relaxation and health, such as "Skinnygirl Cocktails" (Skinnygirl Cocktails, 2015). Interviewees also discussed the tendency of young women to access health information from social media and health blogs – both of which may be sponsored by alcohol manufacturers or other industry members. As interviewees pointed out, education of harms increases peoples' critical analysis of marketing tactics utilized by the alcohol industry – all of which prompts Option 3: Comprehensive Education. The option includes two methods of education: (A) comprehensive public education campaigns designed and implemented by an independent agency, and (B) mandated health warnings on alcohol labels, and standard drink labels and LRDG on both alcohol labels and off-premise consumption menus. These two methods are complementary, as identified by interviewee, Tim Stockwell:

> "*Why do people need to be concerned about alcohol as a health and safety issue? Well they lack some information, and we try to correct that through cancer warnings and other health issues… Well then [consumers] have some anxiety. What advice do you give people to cope and reduce their risk – you give them LRDG and conveying the simple message of daily limits, which is accomplished through labeling requirements.*"

(A) Public education campaigns

In Québec, the provincial liquor board, Société des alcools du Québec (SAQ), imposes a tax on the sales of its institutional member's[15] alcohol products sold in SAQ retail outlets, which is given to the organization Éduc'alcool. This is a required action through the *Regulation respecting promotion, advertising and educational programs,* and the SAQ is unable to operate if it does not fulfill this obligation. Éduc'alcool produces and promotes educational materials and advertisements with over $1 million in funding annually. Members who do not sell within the SAQ stores pay an equal proportion directly to Éduc'alcool, meaning that the organization receives a percentage of the value of the sale of alcohol from *all* sales in Québec.

However, there is one glaring issue with this program: Éduc'alcool is not a third-party organization. Its members come from the "five main industries" (wine; cider; spirits; import, distribution and retail sales; and promotion and representation), represented by

[15] SAQ members are manufacturers that are registered with the association in order to sell alcohol in Québec.

their respective provincial organizations (Éduc'alcool, 2019a). This bias has lead to questionable educational materials that distort health information, producing articles such as "*The 8 benefits of moderate drinking*" (Éduc'alcool, 2019b).

That being said, the concept behind this partnership is easily replicable: Each provincial government would establish an agency headed by public health experts, and funded through the sale of alcohol, to develop and distribute educational materials to the public. Emphasis must be placed on the independence of these agencies; there should not be any connection between the alcohol industry and the agencies aside from the collection of funds from the provincial liquor boards and other retailers.

Campaigns from said agencies should focus on two educational methods:

- **Increasing awareness of chronic harms** related or attributable to alcohol use (i.e. diseases) using a variety of media to communicate to broad audiences.
- **Countering false and misleading advertising**, including:
    - Debunking myths (e.g. wine is good for heart health); and
    - Tips on evaluating sources of information

(B) Labelling

The Canadian Food Inspection Agency (CFIA) currently regulates the required content on alcohol labels. Given the findings from the interviews, literature, as well as the lack of awareness of "low-risk drinking" from survey respondents, the regulations would be updated to include the following messages on all alcohol containers (bottle, cans, etc.):

- **Standard Drink Labels** (SDL) as well as the current PAL
- **Potential health impacts** including cancers, liver conditions, FASD, etc.
- **Low Risk Drinking Guidelines** (LRDG)

Manufacturers would be responsible for including SDL on all product labels, and will be given a 1-year phase out period to sell off product with existing labels, however they must end production of labels without SDLs immediately. Off-premise and on-premise that sell bottled/canned drinks must put stickers on drink itself that include the potential

health impacts as well as the LRDG. See Figure 8 below for an example taken from a trial study conducted in the Northwest Territories.

Figure 8. Alcohol warning labels designed for CISUR study in Yukon and Northwest Territories, 2017

Source: Weerasinghe et al (2020)

Additionally, all **on-premise retail outlet menus must include the LRDG, as well as the number of standard drinks listed next to every beverage**. If the retail outlet does not have menus, the information must be provided on signs visible throughout the establishment. Municipalities through liquor license requirements will implement this initiative.

Chapter 9. Evaluation Criteria

Each policy discussed in Chapter 8 is evaluated and scored in order to determine a recommended course of action for the government(s) to take. First, policies are evaluated on their ability to address the two key objectives: (1) improving young women's health, and (2) empowering women through knowledge. Then, the policies are scored based on various considerations that could complicate their implementation.

9.1. Key Objectives

Given the findings from this study, the key objective that the recommended policy should achieve is to improve women's human capital development. This is broken down into two aspects of human capital: (A) health, and (B) knowledge, both of which are weighted more than the considerations described in section 9.2. While knowledge of risks is empowering and important in its own right, it is typically a vehicle for reducing consumption as opposed to directly influencing health. As such, while it is weighted more heavily than the considerations, it is not weighted as much as the objective of improving women's health.

OBJECTIVE	CRITERIA	MEASURE	SCORING		
Development: Improving young women's health	Drinking within LRDG	Decreased percentage of women classified as binge drinkers	**Desirable (6)** [substantial decrease]	**Sufficient (3)** [decreases somewhat]	**Insufficient (0)** [no decrease or increase]
Development: Empowerment through knowledge	Awareness of alcohol as a carcinogen	Increased percentage of women who are aware that alcohol is a carcinogen	**Desirable (4)** [substantial increase]	**Sufficient (2)** [increases somewhat]	**Insufficient (0)** [no increase or decrease]

(A) Improving young women's health (3x weighting)

Improving young women's health is the motivator and ultimate objective of this study's recommended course of action. Since the policy problem is framed around women drinking above the LRDG recommendations, and this study's survey shows the

concerning number of binge drinkers, the measure used to evaluate each policy is the percentage of women classified as binge drinkers after the policy is implemented.

(B) Empowering women through knowledge (2x weighting)

As seen by the survey results, women are well aware of the impact of alcohol on pregnancy, and the literature points to awareness of other second-hand harmful impacts of alcohol, such as sexual and physical violence toward women. However, the intention of this study is to broaden awareness outside the traditional depictions of women's health (where women's health is prioritized for their reproductive capacity and their susceptibility to violence) to include greater awareness of the other health-related harms that directly impact their bodies and long-term healthcare costs. As such, each policy is evaluated on the basis of increasing women's awareness of these harms.

9.2. Considerations

CONSIDERATION	CRITERIA	MEASURE	SCORING		
Administrative Complexity	Level of complexity to implement the policy	Number of agencies/departments/etc. it would take to implement the policy	**Desirable (2)** [< 4]	**Sufficient (1)** [4 ≤ # >14]	**Insufficient (0)** [≥ 14]
Cost to Regulators	Monetary cost to regulators stemming from the policy	Projected magnitude of cost to regulators	**Desirable (2)** [Low short- and long-term costs]	**Sufficient (1)** [High short-term costs; Low long-term costs]	**Insufficient (0)** [High short- and long-term costs]
Compliance Costs	Costs to regulatees of complying with the policies	Projected magnitude of cost to regulatees	**Desirable (2)** [Low cost]	**Sufficient (1)** [High short-term cost; Low long-term cost]	**Insufficient (0)** [High cost]
Stakeholder Acceptance	Level of acceptance for policy by the public	Level of support by the public described by interviewees and academic articles	**Desirable (2)** [High support]	**Sufficient (1)** [Some support]	**Insufficient (0)** [No support]
	Level of acceptance for policy by manufacturers	Level of support by manufacturers described by interviewees	**Desirable (4)** [High support]	**Sufficient (2)** [Some support]	**Insufficient (0)** [No support]
	Level of acceptance for policy by retailers	Level of support by retailers described by interviewees	**Desirable (3)** [High support]	**Sufficient (1.5)** [Some support]	**Insufficient (0)** [No support]

Administrative Complexity

As discussed throughout, alcohol policies fall under many jurisdictions (see Section 4.2), and as such, it can be complicated to implement a policy without significant consultation and coordination between various ministries, departments and agencies. Each policy will be evaluated by looking at the number of actors involved in the policy formation and implementation process. Fewer actors is considered to be a better outcome, with fewer than four being “desirable,” while four to thirteen actors are “sufficient.” Thirteen actors is seen as sufficient as this could be cooperation between all provinces and territories, which may be complex, but a reasonable request given that it has been accomplished many times.

Cost to Regulators

A true cost accounting includes both the financial costs, as well as the social costs of alcohol-related harms. This consideration also evaluates policies based on their capacity to reduce these costs in the short- and long-run. The consideration may be given a “sufficient” score if the potential for long-term benefits may outweigh the short-term costs.

Compliance Costs

Regulations often place a heavy burden on the regulatees in terms of removing and/or modifying product, adjusting business practices, and so forth. This can impede the growth of businesses, particularly smaller retailer outlets and breweries. For these reasons, policies are evaluated in terms of the level of compliance cost to regulatees, both in the short- and long-run.

Stakeholder Acceptance

After a scan of the socio-political environment, key stakeholders in the realm of alcohol policy with the largest influence on the potential implementation and effectiveness of such policies are identified as: (1) the general public in Canada (with an emphasis on young women); (2) alcohol industry: manufacturers and (3) alcohol industry: retailers (on- and off-premise). Engagement in alcohol policy is low amongst public, whereas the other stakeholders are much more active in their lobbying and vocal opposition. In 2015,

it was estimated that Canada had the 10th largest alcoholic drinks market in the world, worth nearly USD $32 billion (Easton, 2016). This is larger than the Canadian pharmaceutical industry, which in 2016 was worth CAD $25 billion (Pharmaceutical Executive Editors, 2017). Alcohol industry resources provide them with significant clout, and as such, they have been identified as a strong lobbying front against restrictive alcohol policies (Savell, Fooks and Gilmore, 2015), and are thus given greater weight than the public acceptance.

(1) Public

Public acceptability is important for the successful implementation of any policy, particularly as public attitudes influence politicians in positions of power to enact change. In fact, it has been argued that positivistic and rational policy analysis is insufficient for creating effective policy, as it does not take public opinion into account, making it an ill-informed and less democratic process (Gen and Wright, 2015). As such, each policy will be evaluated given the level of acceptance by the general public, as well as the target population (young women).

(2) Alcohol Industry: Manufacturers (2x weighting)

In 2019 alone, 27 alcohol beverage-related lobbying activities were reported to the Officer of the Commissioner of Lobbying of Canada. Of these 27 submissions, 24 were submitted by industry organizations that benefit from less restrictive alcohol policies including Beer Canada, Association of Canadian Distillers, Frontier Duty Free Association, Sleeman Breweries Ltd. Given this example, and other depictions of their significant power according to interviewees, each policy will be evaluated according to acceptance by manufacturers. Manufacturers are the most vocal opponents to stricter alcohol regulations, and as such as weighted more heavily than other stakeholders and other considerations.

(3) Alcohol Industry: Retailers (1.5x weighting)

Similar to alcohol manufacturers, alcohol retailers (operating on- or off-premise outlets) also have stake in the outcomes of alcohol policies and, when coordinated, these retailers have significant impact on the outcomes of alcohol policy. These collectives include CALJ (the voluntary organization which each provincial liquor authority belongs

to) and various other organizations representing retailers, such as Restaurant Canada and Liquor Retailer. Each policy is evaluated according to the acceptance of retailers. Recognizing that on- and off-premise retailers may have conflicting acceptance of a particularly policy, neither type of retailer will be weighted more than the other within this consideration. These stakeholders are weighted more than the public, however, they are not often as active in lobbying as manufactures, given the significant coordination it would take to pool resources. As such, their acceptance is given a weighting less than manufacturers'.

Chapter 10. Policy Analysis

The evaluation of each policy option includes a brief analysis for each objective and consideration using the literature, as well as survey and interview findings. Each option includes a brief summary of findings, as well as a final score, measured out of 25. Finally, section 9.4 reviews the findings from the analyses, as well as any common strengths and barriers faced by each policy.

10.1. Option 1: Marketing and Advertising Regulations

OBJECTIVE	RESULTS	SCORE
Improving young women's health: *Decreased % of women classified as binge drinkers*	• Increased targeted marketing is the "largest influence" on the increase in women's risky drinking (Wettlaufer interview) • 56% of this study's survey respondents indicated that drink "special" promotions such as "Happy Hours" increase their consumption	**Desirable (6)**
Empowerment through knowledge: *Increased % women aware of alcohol-cancer link*	• Restricting promotional advertising does not directly increase knowledge of the link between cancer and alcohol, without the use of other counter-advertising interventions [no change]	**Insufficient (0)**
CONSIDERATION	**RESULTS**	**SCORE**
Administrative Complexity: *# of coordinating bodies*	• Establishing an independent review of the CRTC would require coordination between just Health Canada and the CRTC [2 coordinating bodies]	**Desirable (2)**
Cost to Regulators: *Predicted level of cost in short- and long-run*	• Short-run costs: Significant upfront implementation costs for setting up an independent review and a regulatory body [high cost] • Long-run costs: high cost of supporting the regulatory body, however the savings from the reduction in alcohol-related harms in the longer term reduce this cost [low cost]	**Sufficient (1)**
Compliance Costs: *Predicted level of cost in short- and long-run*	• Short-run costs: Immediate removal of ads [low cost] • Long-run costs: time waited for advertisements submission approval [low cost], and lost sales revenue from marketing and advertising [high cost]	**Sufficient (1)**

Stakeholder Acceptance: *Acceptance by public*	• General population: documented support for restrictive marketing and advertising policies (Giescrecht et al, 2007), particularly those that address youth (Diepeveen et al, 2013) [high support] • Target population: this study's survey data suggests that social media and advertising are areas of concern for women [high support]	**Desirable (2)**
Stakeholder Acceptance: *Acceptance by manufacturers*	• Significant opposition to restrictive policies due to loss of profits and global competitiveness (Savell, Fooks and Gilmore, 2015; Giesbrecht interview; Kendall interview) [no support]	**Insufficient (0)**
Stakeholder Acceptance: *Acceptance by retailers*	• All retailers: neither on- or off-premise retailers will not support this policy given the restrictions it places on a profit increasing strategy and that can distort competition (Martino et al, 2017)	**Insufficient (0)**
Final Score: 12 / 25		

Option 1: Summary

Alcohol advertisements induce consumption and recruit new drinkers, and spread misleading information that should be addressed (Public Health Ontario, 2016). As such, marketing and advertising restrictions are highly effective at reducing consumption, particularly among young women who are heavily targeted by the alcohol industry. Over time, these restriction may shift our cultures away from the focus on drinking as an inherent aspect of social gatherings and as a method of reducing stress that currently pressure women into drinking. While a complete ban is the most effective at reducing consumption, a partial ban can still have positive impacts on young adults (Hollingworth et al, 2006). However, unless combined with educational campaigns that push counter-advertising, simply removing misleading and false information produced by the industry does not increase awareness of alcohol-related harms among the public.

Compliance costs are low in terms of implementation, however, in the long-run, the alcohol industry (both manufacturers and retailers) may suffer due to reduced sales from lost advertising opportunities. This is the largest motivator for the significant opposition from the alcohol industry, who are concerned with profit losses from reduced sales, as well as loss of competitiveness in the global market for large manufacturers particularly. Alternatively, support for these restrictions is high amongst the public, and particularly among women as determined by the level of concern marketing has on alcohol consumption expressed by respondents in the survey.

10.2. Option 2: National Minimum Unit Pricing

OBJECTIVE	RESULTS	SCORE
Improving young women's health: *Decreased % of women classified as binge drinkers*	• 33% of this study's survey respondents would purchase less alcohol if the price were to increase • Price is a "strong lever for young people, vulnerable and heavy drinkers" and so pricing policies are *necessary* for reducing harms (Stockwell interview) • Minimum unit pricing is associated with reduced consumption (CIHI, 2017), particularly for heavy drinkers (Sharma, Vandenberg and Hollingsworth, 2014)	**Desirable (6)**
Empowerment through knowledge: *Increased % women aware of alcohol-cancer link*	• Setting minimum prices does not directly increase knowledge of the link between cancer and alcohol	**Insufficient (0)**
CONSIDERATION	**RESULTS**	**SCORE**
Administrative Complexity: *# of coordinating bodies*	• Establishing a minimum unit pricing scheme would require coordination between Health Canada and the federal Department of Finance [2 coordinating bodies]	**Desirable (2)**
Cost to Regulators: *Predicted level of cost in short- and long-run*	• Short-run costs: as indicated by interviewees, implementing a minimum unit pricing scheme would be a low cost option in the short-run as it would require just one legislative change • Long-run costs: as indicated by interviewees, there would be little to no long-run costs to regulators	**Desirable (2)**
Compliance Costs: *Predicted level of cost in short- and long-run*	• Short-run costs: Immediate change of in-store prices [low cost] • Long-run costs: little to no cost	**Desirable (2)**
Stakeholder Acceptance: *Acceptance by public*	• General public: high opposition to pricing (Diepeveen et al, 2013; Giesbrecht et al, 2007; Li et al, 2017) • Target population: women are more likely to support "intrusive" policies, including price increases (Giesbrecht et al, 2007; Li et al, 2017)	**Sufficient (1)**
Stakeholder Acceptance: *Acceptance by manufacturers*	• Setting minimum prices may decrease sales and thus decrease the quantity of alcohol purchased from manufacturers [no support]	**Insufficient (0)**
Stakeholder Acceptance: *Acceptance by retailers*	• Strong opposition at the outset due to potential for lost sales, however interviewees indicated that support could be garnered *as long as*: (1) *All* outlets must comply, and (2) It can still maximize revenue (Stockwell interview)	**Desirable (3)**
Final Score: 16 / 25		

Option 2: Summary

Price is identified in the literature, and additionally by interviewees and survey respondents, as a factor in consumption decisions. As such, this policy option is highly effective at addressing heavy drinking, as well as overall consumption levels. This is particularly the case for young people and women, who typically have elastic demand for alcohol, where an increase in price influences how much they purchase (supported by survey findings). In this sense, it can discourage heavy drinking, and in particularly, binge drinking, by reducing the capacity for discounts such as Happy Hours. However, this policy does not address awareness of alcohol as a carcinogen, or other areas of alcohol-related harms, and thus receives an insufficient score for this objective.

This policy option scores well for all considerations except for acceptance by alcohol manufacturers. The model proposed is not too complex to establish, and poses only small costs to regulators. Support from the public is moderate: people in general dislike pricing policies as they are seen as restricting consumer rights, but women are generally more supportive, giving this consideration a sufficient score, given that the target population is accepting. Retailers may actually be supportive of minimum unit pricing if presented in a desirable way. For instance, if all outlets must comply with these rules it may actually help smaller retailers to be more competitive, and the minimum prices can still be set to maximize revenue. However, there is the significant barrier of manufacturer opposition, which would be high given if the price of alcohol increased it may reduce the amount purchased by retailers.

10.3. Option 3: Comprehensive Education

OBJECTIVE	RESULTS	SCORE
Improving young women's health: *Decreased % of women classified as binge drinkers*	• Standard drink labelling (SDL) may increase compliance with LRDG (Osiowy et al, 2015) [some decrease] • 35% of this study's survey respondents indicated that knowing the number of 'standard drinks' in a beverage would influence their level of consumption	**Sufficient (3)**
Empowerment through knowledge: *Increased % of women aware of alcohol-cancer link*	• Labels directly impact the understanding of heavy drinkers, because the more you drink the more likely you are to read these labels (Paradis interview; Stockwell interview; Wettlaufer interview) • Many young women get health information from social media, so utilizing counter-advertising and social media campaigns may be effective at raising awareness (Wettlaufer interview)	**Desirable (4)**
CONSIDERATION	**RESULTS**	**SCORE**
Administrative Complexity: *Number of coordinating bodies*	• Establishing agencies to create and distribute educational material requires the coordination between 13 provincial liquor authorities and the provincial government health ministry in their jurisdiction: meaning there would be only two coordinating bodies within each jurisdiction	**Desirable (2)**
Cost to Regulators: *Predicted level of cost in short- and long-run*	• Short-run costs: establishing the agencies responsible for education poses high up-front costs • Long-run costs: funding comes entirely from the sale of alcohol, which would mean low long-term costs to the regulators	**Sufficient (1)**
Compliance Costs: *Predicted level of cost in short- and long-run*	• Short-run costs: high short-run costs for manufacturers due to the required label changes. However, this would be mitigated by the 1-year phase out period. • Long-run costs: low long-run costs once labels have been changed	**Desirable (2)**
Stakeholder Acceptance: *Acceptance by public*	• General public: high support for warning labels and the "right to know" (Li et al, 2017; Vallance et al, 2017)	**Desirable (2)**
Stakeholder Acceptance: *Acceptance by manufacturers*	• While public education is generally seen as 'the only measure supported by the alcohol industry' this typically applies solely to social responsibility messaging (Giesbrecht interview) • The strong opposition occurs in regards to warnings, particularly on the bottle itself (Stockwell interview; Giesbrecht interview)	**Insufficient (0)**
Stakeholder Acceptance: *Acceptance by retailers*	• On-premise retailers: will not support this because of the high up-front costs of changing menus • Off-premise retailers: will not support warning labels because it may reduce sales • All retailers: The added cost of donating to the agency responsible for education will also reduce support	**Insufficient (0)**
Final Score: 14 / 25		

Option 3: Summary

Overall, this policy option is highly effective at addressing the public's level of risk-awareness regarding alcohol-related harms. By reaching current drinkers through warning labels and SDLs, as well as non-drinkers through public educational campaigns, this policy has the potential to greatly inform the public, particularly in the areas where awareness is low (i.e. the carcinogenic effects of alcohol). However, comprehensive education does not necessarily reduce consumption. There is some evidence that it does in the literature and from this study's survey, however it would likely not be a dramatic decrease in consumption. Nonetheless, it gives young women the opportunity to make informed decisions and understand the impacts on their bodies (particularly as they are at a high risk for developing breast cancer), as well as providing ways to reduce the risk. Furthermore, the policy option works to counteract the effects of misinformation that often target women (e.g. wine is good your heart).

In terms of the considerations, the model proposed would not be burdensome to implement in terms of administrative complexity, compliance and regulatory costs, especially since many costs posed by regulators would be offset by the required transfer payments from the sale of alcohol within each jurisdiction. Complications arise regarding stakeholder acceptability, which varies significantly. There exists strong support from the public, and it has been argued that they have "the right to know." However, this support is juxtaposed by the significant opposition from the alcohol industry, who are concerned about warning labels reducing the appeal of the product.

10.4. Summary of Analysis

OBJECTIVES & CONSIDERATIONS	Option 1: Marketing & Ads	Option 2: Minimum Prices	Option 3: Education
Development: Improving young women's health	**6**	**6**	**3**
Development: Empowerment through knowledge	**0**	**0**	**4**
Administrative Complexity	**2**	**2**	**2**
Cost to Regulators	**1**	**2**	**1**
Compliance Costs	**1**	**2**	**2**
Public Acceptance	**2**	**1**	**2**
Manufacturer Acceptance	**0**	**0**	**0**
Retailer Acceptance	**0**	**1.5**	**0**
Total Score	**12**	**14.5**	**14**

Policy options 1 and 2 have the potential to significantly improve young women's health, as measured by rates of binge drinking, and option 3 has moderate potential however it is typically viewed as a more complementary measure for shifting behaviour. Option 3, however, is the only policy to address the second objective of this study, which is to increase women's empowerment through knowledge of alcohol-related harms, particularly the link between alcohol consumption and risk of developing cancer. All options, while somewhat complex in the implementation stages, only involve few coordinating bodies within each jurisdiction, and are thus considered highly feasible. Marketing and advertising restrictions scores the lowest of all three options, however the

difference is minimal. National minimum unit pricing scores the highest, however it would be most complicated implementation process given the jurisdictional considerations.

Every option suffers significantly in its evaluation due to stakeholder acceptance, especially from the alcohol industry; none of the options received above an “insufficient” score in regards to manufacturers’ support for the policy. Given that manufacturers have significant power in regards to influencing public policy through lobbying, this significantly complicates the feasibility of each policy. If each policy were re-evaluated excluding alcohol manufacturers, they would all score significantly higher: Option 1 with 12/21, Option 2 with 14.5/21, and Option 3 with 14/21. Given this significant pushback, the following Chapter looks more closely at the various implementation challenges identified by interviewees, and the ways in which the government can overcome these challenges.

While all of these policies may effectively reduce consumption among the general public, there are pieces to each that specifically target external influences on women’s alcohol consumption, such as gendered advertising and pricing mechanisms that directly influence this group with fairly elastic demand for alcohol. As such, it would be short sighted to create narrow policies, when instead there are larger strategies that can address the problem occurring among young women while simultaneously addressing risky drinking among broader society.

Chapter 11. Implementation Challenges

A key takeaway from the existing literature and the findings from this study is that the level of harm of the substance should inform the policy approach, and there is no question that alcohol causes major harm. Interviewees argue that all alcohol policies (some arguably more effective than others) are connected and the process of changing behaviour cannot occur through a single policy change; rather it's an "interconnected process." Given the similar scores of the options in Chapter 10 and their ability to achieve different but critically important objectives, Chapter 11 looks more holistically at the alcohol policy realm to identify the systemic barriers to change, and current licit drug policies that have taken more coordinated approaches to addressing harms.

11.1. The Importance of Political Will

The interviews highlight a number of barriers repressing the political will to reform alcohol policy and implement new regulation. Political will was taken into account in the evaluation of each policy option within the stakeholder acceptance criterion. However, as the evaluations in Chapter 9 show, the level of support from various stakeholders can greatly impact the feasibility of a policy in terms of its success of implementation. This section reviews the importance of political will in greater detail to understand in what ways it can be altered or challenges addressed.

> *"What we need to be saying is not 'why are we strict on cannabis?' but 'why are we so lax on alcohol, especially when it causes more harm?"*
>
> – A. Wettlaufer

11.1.1. Low Salience

Interviewees were asked to describe, in their opinion, why alcohol is not given the same attention in regards to policies and actions as other drugs, particularly tobacco and cannabis which both have comprehensive *Acts* regulating various aspects of their sale at the federal level. First and foremost, interviewees emphasized that people enjoy drinking and perceive alcohol as having many social benefits as it is entrenched in many social activities, which decreases the salience of its effects in the public eye. This is

reflected in the survey results, where both pleasure and social acceptance were identified as major motivations for drinking. Another main reason cited for the trivialization of alcohol is that the harms associated with alcohol are not as visible as other drugs, especially the second-hand harms (e.g. domestic violence) and long-term harms (e.g. cancer), and is thus seen as relatively harmless unless one drinks in excess. This not only feeds into the lack of media coverage (which quite often sensationalizes the effects of cannabis), but also causes the general public to underestimate the fatality of alcohol, which often goes "under the radar."

Health policy in general, one interviewee argued, is low on the Cabinet agenda, and alcohol is especially so. However, alcohol policy can become salient if a major event occurs that received significant media attention. For instance, when a teenage girl in Quebec died from consuming the flavoured purified alcohol beverage, named "FCKDUP," the event spurred the regulation of that category of beverages. Unfortunately, the window for change closes quickly, and the focus on one or two high-risk products typically detracts from the push to address larger issues and policies.

11.1.2. High Opposition

> "*[At government consultations], researchers' voices and epidemiological evidence and evidence-based policy work is overshadowed and drowned out by anecdotal evidence from industry leaders."*
>
> – A. Wettlaufer

During every interview, the power of the alcohol industry was highlighted as a major deterrent to enacting positive public health policy change. In particular, Perry Kendall, co-executive director of the BC Centre on Substance Use, referred to the lobbying and other efforts of the alcohol industry (particularly the major manufacturers and brewery organizations) as a form of "regulatory capture."[16] In this case, the powerful lobbying on behalf of the alcohol industry often causes delays or halts to new regulations, and removes or dilutes existing ones. As Ashley Wettlaufer, Policy Officer at the Centre for Addiction and Mental Health (CAMH), explained, "alcohol policies keep getting watered down and lost [due to lobbying], and it's very hard to go back in the other

[16] Where "regulatory capture" refers to the systematic directing of benefits from regulation to private interests at the expense of the public interest.

direction," which has made it particularly difficult to enact marketing and pricing regulations. Tim Stockwell, Director of the Canadian Institute for Substance Use Research (CISUR), echoed this thought, arguing that it shouldn't be down to researchers to lobby for public health, particularly as they are outnumbered and inexperienced in these positions: "What we lack in Canada is actually a proper national lobbying agency to raise the issue of alcohol and public health, and people to do it properly and professionals who are experts in communication."

Case Study on Industry Influence:
Northern Territories Alcohol Study (2017)

Study details: Led by Public Health Ontario (PHO) and CISUR, the study compares the impacts of introducing alcohol warning labels, LRDG and standard drink labeling through implementing regulation in Whitehorse, Yukon, and comparing to the control site, Yellowknife, Northwest Territories (CISUR 2018b).

Goal of the study: test if labels increase awareness of alcohol-related harms and if it influences consumer behaviour (CISUR, 2018c).

December 2017: The project was suspended due to objections by national alcohol brand owners who argued that the government did not have legislative authority, and that they were liable due to label placement, trademark infringement and defamation.

February 2018: Yukon Government approves the continuation of the study, with the concession that cancer warning labels be removed, and other small regulation adjustments. The government's actions have been criticized for its submission to the alcohol industry's lobbying, despite knowing that warning labels are in the best interest of the public.

"The sad thing is a sovereign government felt that they couldn't act in the best interest of their citizens and that they were bullied essentially into taking a position which they didn't think was the best one." – Tim Stockwell, project researcher, quoted in 2018 *Yukon News* article.

11.1.3. Perverse Incentives

As discussed earlier, because the provincial governments have established provincial liquor authorities, each government has a stake in the distribution of alcohol, and all except Alberta earn significant revenue from the sale of alcohol (not just from taxation). This is a built-in incentive in the regulatory environment for the provincial governments to increase sales – or to at least keep them at current levels. While it has been shown that government control of the sale of liquor is effective at reducing alcohol

consumption, their connection to the industry profit creates inherent bias in the regulation of alcohol policies.

One area of policy that is greatly impacted by these perverse incentives is minimum pricing. Every province and territory *can* set minimum pricing policies, however, the majority do not and that is largely due to profit maximization and competition between provinces. Interviewees discussed the ease of buying alcohol in other provinces (particularly between Ontario and Quebec), which discourages stronger alcohol policies in Ontario because they end up losing business to Quebec who (at present) has less strict rules.

On the other hand, the concentrated power of the provincial liquor authorities has, in the past, been used to support policies that are in the interest of public health. While the bodies usually support and lobby for more self-serving measures, there was an instance described by an interviewee when the boards' interests aligned with the public regarding the creation of uniform tolerance levels.[17] Previously, the provincial governments set the tolerance levels, and the inconsistency across regions made it difficult for manufacturers to ensure their products met the standards everywhere. CALJ coordinated the liquor boards to establish consistent tolerance levels across the country, which is in the best interest of the consumer, the liquor boards, retailers and the manufacturers. In this sense, we can see some efficiency of self-regulation, however this is complicated when the regulations do not align with the regulatees' best interests.

11.2. Overcoming Barriers to Change: Federal government leadership

The big question, posed in the literature and the interviews, is how to best address these systemic barriers in order to implement evidence-based policies that address the uncoordinated, inconsistent, and often ineffective approaches to tackling alcohol-related harms. Using the broader considerations discussed in Section 11.1, the options presented in Chapter 8, this section explores the recommendations of experts for overcoming these barriers.

[17] The percentage of alcohol content varies over time due to fermentation, and to accommodate these variations, provinces set a "tolerance level" (e.g. the ethanol content can be up to 0.5% different from the content printed on the label).

First and foremost, *every* interviewee argued for increased presence in the alcohol policy field by the federal government, and Health Canada in particular. Of course, Health Canada's involvement is limited due to the jurisdiction of the provincial governments, and any "interference" at the federal level may look like overstepping. However, federal government agencies do have power over many significant areas of policy, such as marketing through the CRTC, and labelling requirements through Health Canada. Setting policies at the federal level is optimal because, as one interviewee described, "you only have to fight that battle once" to achieve countrywide consistency.

Some interviewees advocated for less intrusive approaches (due to the political realities of changing alcohol policy jurisdiction), through national guidelines, such as the proposed National Alcohol Strategy (National Alcohol Strategy Working Group, 2007), which includes best practices provincial governments should enact. However, the most convincing argument is to treat alcohol like other licit drugs and give it the national attention it deserves by enacting policy that matches the severity of the harm. As such, the following section explores the creation of an *Alcohol Act* – something that not only has precedence, but also has the potential to radically change Canadian alcohol policy for the better. Precedence comes from another legal drug that has significant negative impacts on health, especially as it also a carcinogen: tobacco.

Enacted in May 2018, the *Tobacco and Vaping Products Act* (TVPA) – an amended version of the former 1997 Tobacco Act – regulates the sale, labelling and manufacturing of tobacco and vaping products sold in Canada. In addition, the TVPA has also created regulatory powers of the government of Canada to support "plain and standardized packaging" of tobacco products. The purpose of the Act is to "provide a legal framework to respond to a national public health problem…and in particular to:

(1) protect the health of Canadians in light of conclusive evidence implicating tobacco use in the incidence of numerous debilitating and fatal diseases;
(2) protect young persons and others from inducements to use tobacco products and the consequent dependence on them;
(3) protect the health of young persons by restricting access to tobacco products;
(4) prevent the public from being deceived or misled with respect to the health hazards of using tobacco products; and
(5) enhance public awareness of the health hazards of using tobacco products"

(Health Canada, 2018)

The TVPA, its former versions, as well as added comprehensive public education tools have had tremendous success in reducing tobacco-related harms across the country. Alcohol policy experts have identified the five priorities listed above as important steps for reducing alcohol-related harms. If building a legal framework at the national level successfully reduced tobacco product use, it can be argued to have similar results when applied to alcohol. As such, the next Chapter will introduce an implementation plan with the potential to enact all three policies discussed above: an *Alcohol Act*.

Chapter 12. Implementation: the *Alcohol Act*

> *"National action is ideal. In the absence of an Alcohol Act, the only legislation around alcohol federally just cedes responsibility of alcohol…to the provinces. If we change this, it needs to be with serious consideration of the needs and jurisdiction of the provinces. Any national coordination would be impossible unless there's an Act."*
>
> – T. Stockwell

The *Alcohol Act* would provide a comprehensive list of restrictions and exemptions for three areas of alcohol policy: marketing and advertising restrictions, national minimum prices, and comprehensive education. These policies are outlined in Chapter 7, with minor adjustments to the minimum prices, due to recognitions of provincial government jurisdiction over prices.

The *Act* would be modeled similarly to the *Tobacco and Vaping Act,* which has many policies that could be directly applied to alcohol, such as marketing restrictions and required health warning labels. Of course those would need to be adjusted according to expert advice and evidence-based reasoning, however the *Act* itself would not have to be built entirely from scratch as a model already exists. Additionally, many alcohol policies already exist and are simply: in need of updating according to current evidence, and in need of consolidation into one area of government for better coordination (i.e. reducing number of departments involved and confusion on whose area it is to regulate).

12.1. Alcohol Act: the framework

12.1.1. Step 1: Alcohol is a Drug

Alcohol consumption is becoming increasingly risky, and is no longer just an issue among men. As women's alcohol consumption continues to escalate and men's remains high, there is a need to address the significant short- and long-term alcohol-related harms; this is a national public health crisis.

In order to properly address this crisis, we first have to acknowledge the severity of alcohol itself, which leads to a core piece of the *Act*: Reclassifying alcohol as a "drug" in the Government of Canada's *Food and Drug Act* (Government of Canada, R.S.C., 1985, c. F-27). By legislatively recognizing alcohol as a drug, it signals to the public and legal authorities that it has great significance to public health, and can provide a platform for Health Canada and other federal government departments to support future policies they may impose on the provinces and territories.

12.1.2. Step 2: Ceding Responsibilities

Pricing:

The *Alcohol Act* would cede some responsibility over pricing from the provincial governments to the federal government. In order to ensure greater cooperation with the provinces and territories, the *Act* would only spell out the basic requirements for pricing of alcohol on both on- and off-premise outlets, with thresholds which the provincial governments at least has to meet. They are also permitted to set higher minimum prices within their jurisdiction. This would likely be the most complicated piece of legislation to implement, given that it takes away some power to set the price of alcohol at the provincial-level, and may well be challenged legally. This does not mean, however, that it should not be made a priority and moved forward with.

Labeling:

The Canadian Food Inspection Agency (CFIA) currently regulates the required content on alcohol labels, however once alcohol is classified as a "drug," labelling requirements and restrictions will be legislated under the *Alcohol Act,* transferring the responsibilities to Health Canada's Controlled Substances and Cannabis Branch.

Marketing and Advertising & Public Education:

Create a team under Health Canada's Controlled Substances and Cannabis Branch whose mandate is to oversee the implementation and regulation of the new alcohol policies proposed under the *Alcohol Act*. First the team will establish a working-group with public health experts on addiction and alcohol marketing, to review and reformulate the 1996 CRTC alcohol marketing regulations.

Once the regulations are established and implemented, the Health Canada team will form and oversee regional agencies at arm's length to the government – one for each province and territory. The agencies should include public health experts, medical professionals and policy analysts, as well as educators on addiction and substance use. Apart from receiving funding from the sale of alcohol, the agencies should be completely independent from the alcohol industry. The agencies are responsible for: (1) regulating marketing restrictions, including screening and approving proposed alcohol advertisements as well as judging any violations to the new Code, and (2) providing comprehensive education to the public.[18]

12.2. Evaluation of the *Alcohol Act*

This section evaluates the *Alcohol Act* using the same evaluative measures as were described in Chapter 9. This evaluation is not simply an aggregate score of the options evaluated in Chapter 10. Rather, it re-evaluates the *Alcohol Act* as a single option containing multiple policies that interact with each other to produce different, and more effective results. For instance, the effect of education alone (Option 3, Chapters 8 and 10) does not significantly address alcohol consumption. However, it does empower consumers with knowledge previously overlooked in "social responsibility" campaigns, which in itself is valuable. Furthermore, public education helps to increase public support for other, more restrictive policies such as the national minimum unit pricing and marketing restrictions, which increases both the ease of implementation, and potentially the compliance and effectiveness of these policies.

While the Act may be costly in the short-term, in the long-run the *Act* would produce a net benefit to society, given the reduced administrative burden through the consolidation of policies into one legal framework, as well as the reduced costs of alcohol-related harms, which we know costs Canadian society over CAD $14 billion annually.

[18] See Sections 8.1 and 8.3 for details regarding marketing and advertising restrictions, and comprehensive public education, respectively.

OBJECTIVE	ANALYSIS	SCORE
Improving young women's health: *Decreased % of women classified as binge drinkers*	• Marketing and advertising restrictions and minimum unit pricing have been shown to effectively reduce consumption • Less evidence to support the effect of education, however warning labels and standard drink labels may shift behaviour, particularly when in combination with other policies	**Desirable (6)**
Empowerment through knowledge: *Increased % of women aware of alcohol-cancer link*	• The comprehensive education piece to the Act including the health warning labels, and utilizing multiple medias to provide information, counter misleading and false information, as well as provoke critical thinking	**Desirable (4)**
CONSIDERATION	**ANALYSIS**	**SCORE**
Administrative Complexity: *Number of coordinating bodies*	• Short-run: Implementation will be complex in terms of organizing a number of bodies that are losing or gaining responsibilities, as well as the actual creation of new agencies • Long-run: The long-run administrative complexity should not be more significant than most other government operations, with significant federal oversight and some coordination between liquor boards and regional regulatory agencies	**Sufficient (1)**
Cost to Regulators: *Predicted level of cost in short- and long-run*	• Short-term: high implementation costs (e.g. forming agencies and working groups) • Long-term: low costs in the long-run, particularly given the savings to provincial governments in terms of healthcare, social services and criminal justice costs	**Sufficient (1)**
Compliance Costs: *Predicted level of cost in short- and long-run*	• Short-term: some small short-run compliance costs (such as changing the labels) • Long-term: loss of revenue to the alcohol industry due to advertising restrictions	**Sufficient (1)**
Stakeholder Acceptance: *Acceptance by public*	• Higher support from the public for stricter regulations (such as pricing and marketing restrictions) when they are aware of the link between alcohol and cancer (Bates et al, 2018; Weerasinghe, 2020), which they will obtain from the warning labels and public education campaigns	**Desirable (2)**
Stakeholder Acceptance: *Acceptance by manufacturers*	• Strong opposition to all aspects of the Alcohol Act, particularly the cancer warnings, and marketing/advertising restrictions. • High potential for legal challenges complicating implementation	**Insufficient (0)**
Stakeholder Acceptance: *Acceptance by retailers*	• Some opposition to marketing and advertising restrictions, as well as cancer warning labels • Potential for strong support for minimum unit pricing if presented as being in their businesses' best interest	**Sufficient (1.5)**
Total Score: 16.5 /25	**Excluding manufacturers, total score: 16.5 /21**	

Chapter 13. Conclusion and Recommendation

The aim of this study was to address the concerning trend in Canada, that shows an increasing proportion of young women (18 to 34) who are heavy drinkers, and binge drinkers in particular. Risky alcohol consumption poses significant health problems, particularly for women as they experience a more rapid progression to addiction or dependence on alcohol than men and face a significantly greater risk of developing certain cancers. Through an extensive review of the existing literature, effectiveness and feasibility assessments with alcohol experts, as well as incorporating the voices of young women themselves through an original survey, the study identified three areas in need of addressing:

(1) Motivations for moderate- and high-risk drinking: survey respondents and a review of the literature point to social acceptance, pleasure, stress, and targeted marketing and advertising as significant motivators for drinking
(2) The level of alcohol-related risk awareness among young women: low awareness of the link between alcohol and cancer, but high awareness of the impact of alcohol on pregnancy
(3) Issues with existing policies and barriers to change: alcohol industry lobbying efforts greatly influence alcohol policy in their favour; lack of coordination between federal government departments and across provinces; self-regulation leading to poor outcomes; and low public salience of alcohol-related harms decreasing political will.

Recommendation

Given the findings presented, the study recommends providing additional powers to the federal government to set alcohol policies through a national, coordinated legal framework: the *Alcohol Act.* The *Alcohol Act* will legally reclassify alcohol as a “drug” under the *Food and Drugs Act*, and address three areas of policy: marketing and advertising restrictions; national minimum unit pricing; and comprehensive education including risk awareness and low-risk drinking guides, as well as education that supports individuals’ critical thinking around alcohol marketing and advertising. The framework will deter the negative consequences of self-regulation, and create more consistency in

health and social outcomes across the country. This approach, while potentially complex with significant barriers to implementation, is a highly effective way to improve outcomes, particularly in regards to women's health. This *Act* would address significant areas impacting young women's health including their right to know the harms and decreasing external influences on motivations for drinking, particularly those encouraged by the alcohol industry.

References

American Psychological Association. (2010). Gender and Stress. Retrieved December 11, 2019, from https://www.apa.org/news/press/releases/stress/2010/gender-stress

Anderson, P., de Bruijn, A., Angus, K., Gordon, R., and Hastings, G. (2009). Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. Alcohol Alcohol. 44(3), 229-43.

Arriagada, P. (2016, February 23). First Nations, Métis and Inuit Women. Retrieved December 11, 2019, from Statistics Canada website: https://www150.statcan.gc.ca/n1/pub/89-503-x/2015001/article/14313-eng.htm

Babor, T.F., Jernigan, D., Brookes, C., and Brown, K. (2017). Toward a public health approach to the protection of vulnerable populations from the harmful effects of alcohol marketing. Addiction 112(1), 125–27

Bandese, N. (2017). Alcohol Dependency Resulting Women Trauma: Violence Against Women. *Forensic Science International*, *277*(1), 178–178.

Bates, S., et al. (2018). Awareness of Alcohol as a Risk Factor for Cancer Is Associatedwith Public Support for Alcohol Policies, *BMC Public Health,* 18(1): 688. https://doi.org/10.1186/s12889-018-5581-8.

BC Attorney General. (2019, April 9) "BC Liquor Stores Raise More than $280,000 for Dry Grad," Accessed from: https://news.gov.bc.ca/releases/2019AG0032-000602.

British Columbia, Officer of the Provincial Health Officer. (2008). Public Health Approach to Alcohol Policy. Accessed February 2, 2020, from: http://www.health.gov.bc.ca/library/publications/year/2008/alcoholpolicyreview.pdf

Brown, J., Talley, A., Littlefield, A., & Gause, N. (2016). Young women's alcohol expectancies for sexual risk-taking mediate the link between sexual enhancement motives and condomless sex when drinking. *Journal of Behavioral Medicine*, *39*(5), 925–930. https://doi.org/10.1007/s10865-016-9760-8

Bryan, A. E. B., Norris, J., Abdallah, D. A., Zawacki, T., Morrison, D. M., George, W. H., … Stappenbeck, C. A. (2017). Condom-Insistence Conflict in Women's Alcohol-Involved Sexual Encounters With a New Male Partner. *Psychology of Women Quarterly*, *41*(1), 100–113. https://doi.org/10.1177/0361684316668301

Callaghan, R.C., Sanches, M., & Gatley, J.M. (2013). Impacts of the minimum legal drinking age legislation on in-patient morbidity in Canada, 1997–2007: a regression-discontinuity approach. *Addiction*, 108(9), 1590–1600.

Callaghan, R., Sanches, M., Gatley, J.M., & Stockwell, T. (2014). Impacts of drinking-age laws on mortality in Canada, 1980–2009. *Drug and Alcohol Dependence*, 138, 137–145.

Canadian Association of Liquor Jurisdictions (CALJ). (2019, December). About Us. Retrieved December 7, 2019, from https://calj.org/About-Us

Canadian Cancer Society. (2013). Canada's war on tobacco turns 50. Retrieved November 8, 2019, from https://www.cancer.ca/en/about-us/for-media/media-releases/national/2013/war-on-tobacco-turns-50/?region=on

Canadian Centre on Substance Use and Addiction (CCSA). (2017b). *The Impact and Effectiveness of Minimum Legal Drinking Age Legislation in Canada.* Retrieved from https://www.ccsa.ca/impact-and-effectiveness-minimum-legal-drinking-age-legislation-canada

Canadian Centre on Substance Use and Addiction (CCSA). (2017a). *Alcohol (Canadian Drug Summary)* | *Canadian Centre on Substance Use and Addiction*. Retrieved from https://www.ccsa.ca/alcohol-canadian-drug-summary

Canadian Centre on Substance Use and Addiction (CCSA). (2012). *Levels and patterns of alcohol use in Canada*. Retrieved from https://www.ccsa.ca/sites/default/files/2019-05/CCSA-Patterns-Alcohol-Use-Policy-Canada-2012-en.pdf

Canadian Centre on Substance Use and Addiction (CCSA). (2013). *Communicating Alcohol-Related Health Risks: Canada's Low-Risk Alcohol Drinking Guidelines* | *Canadian Centre on Substance Use and Addiction*. Retrieved from https://www.ccsa.ca/communicating-alcohol-related-health-risks-canadas-low-risk-alcohol-drinking-guidelines

Canadian Community Health Survey [2008], Statistics Canada, Public Use Microdata File, Statistics Canada

Canadian Community Health Survey [2018], Statistics Canada, Public Use Microdata File, Statistics Canada

Canadian Food Inspection Agency (CFIA). (2013, November 4). List of ingredients and allergens [Reference material]. Retrieved December 10, 2019, from https://www.inspection.gc.ca/food/requirements-and-guidance/labelling/industry/list-of-ingredients-and-allergens/eng/1383612857522/1383612932341?chap=0#s2c1

Canadian Food Inspection Agency (CFIA). (2014, January 8). Exemptions: Foods Usually Exempt from Carrying a Nutrition Facts Table [Reference material]. Retrieved December 10, 2019, from https://www.inspection.gc.ca/food/requirements-and-guidance/labelling/industry/nutrition-labelling/exemptions/eng/1389198015395/1389198098450?chap=2

Canadian Food Inspection Agency (CFIA). (2019). Labelling requirements for alcoholic beverages. *Government of Canada. https://www.inspection.gc.ca/food-label-requirements/labelling/industry/alcohol/eng/1392909001375/1392909133296*

Canadian Institute for Health Information. (2017a). *How Canada Compares: Results From The Commonwealth Fund's 2016 International Health Policy Survey of Adults in 11 Countries.* Retrieved from http://www.deslibris.ca/ID/10091396

Canadian Institute for Health Information. (2017b). *Alcohol Harm in Canada: Examining Hospitalizations Entirely Caused by Alcohol and Strategies to Reduce Alcohol Harm* [Text]. Retrieved from https://secure.cihi.ca/estore/productFamily.htm?pf=PFC3445&lang=fr&media=0

Canadian Institute for Substance Use Research. (2018a, June 26). Cost of substance use in Canada: $38.4B - University of Victoria. Retrieved October 30, 2019, from https://www.uvic.ca/news/topics/2018+substance-use-cost-canada-cisur+media-release

Canadian Institute for Substance Use Research. (2018b, December). Northern Territories Alcohol Label Study: Baseline Report Executive Summary. Accessed February 17, 2020. Retrieved from https://www.uvic.ca/research/centres/cisur/assets/docs/report-northern-territories-alcohol-label-study-executive-summary.pdf

Canadian Institute for Substance Use Research. (2018c, February 15). Alcohol warning labels about cancer risk a Canadian first. Accessed February 17, 2020. Retrieved from https://www.uvic.ca/research/centres/cisur/about/news/current/alcohol-warning-labels-about-cancer-risk-a-canadian-first.php

Canadian Institute for Substance Use Research. (2019a). The good, the bad and the ugly: New report cards on policies to reduce alcohol harms in Canada's 10 provinces and 3 territories - University of Victoria. Accessed October 27, 2019 from https://www.uvic.ca/research/centres/cisur/about/news/current/new-report-cards-on-policies-to-reduce-alcohol-harms.php

Canadian Institute for Substance Use Research. (2019b). Northern Territories Alcohol Labels Study. Accessed February 3, 2020, from https://www.uvic.ca/research/centres/cisur/projects/active/projects/northern-territories-alcohol-study.php

Canadian Public Health Association (CPHA). (2019). Call for actions to reduce the burden of harms and costs associated with alcohol in Canada. Accessed November 7, 2019, from https://www.cpha.ca/call-actions-reduce-burden-harms-and-costs-associated-alcohol-canada

Canadian Revenue Agency. (2017). Excise Duty Rates. Accessed January 18, 2020, from https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/edrates/excise-duty-rates.html#_Toc527013623

Canadian Substance Use Costs and Harms (CSUCH). (2019). Explore the data: Total costs, Canada, 2014. Retrieved September 29, 2019, from https://csuch.ca/explore-the-data/

CBC News. (2018). “Pinking” of alcohol marketing spurs culture of “wine moms,” says author Ann Dowsett Johnston | CBC News. Retrieved December 10, 2019, from CBC News website: https://www.cbc.ca/news/canada/manitoba/ann-johnston-women-wine-moms-1.4517510

Cecchini, M., Devaux, M., & Sassi, F. (2015). *Assessing the impacts of alcohol policies: A microsimulation approach*. https://doi.org/10.1787/5js1qwkvx36d-en

Chaplin, T. M., Hong, K., Bergquist, K., & Sinha, R. (2008). Gender differences in response to emotional stress: An assessment across subjective, behavioral, and physiological domains and relations to alcohol craving. *Alcoholism, Clinical and Experimental Research*, *32*(7), 1242–1250. https://doi.org/10.1111/j.1530-0277.2008.00679.x

Chartier, K., & Caetano, R. (2010). Ethnicity and health disparities in alcohol research. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, *33*(1–2), 152–160.

Chief Public Health Officer. (2016). *The Chief Public Health Officer’s Report on the State of Public Health in Canada 2015: Alcohol Consumption in Canada* (No. 150097). Retrieved from Public Health Agency of Canada website: http://healthycanadians.gc.ca/publications/department-ministere/state-public-health-alcohol-2015-etat-sante-publique-alcool/alt/state-phac-alcohol-2015-etat-aspc-alcool-eng.pdf

Cho, Y., Johnson, T., and Fendrich, M. “Monthly Variations in Self-Reports of Alcohol Consumption.” *Journal of Studies on Alcohol* 62(2), 268–272. https://doi.org/10.15288/jsa.2001.62.268.

Collins, S. E. (2016). Associations Between Socioeconomic Factors and Alcohol Outcomes. *Alcohol Research : Current Reviews*, *38*(1), 83–94. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872618/

Collins, S. E., & Kirouac, M. (2013). Alcohol Consumption. In M. D. Gellman & J. R. Turner (Eds.), *Encyclopedia of Behavioral Medicine* (pp. 61–65). https://doi.org/10.1007/978-1-4419-1005-9_626

Crasnow, W.K., et al. (2018). “Feminist Perspectives on Science” In *The Stanford Encyclopedia of Psychology,* Edward N. Zalta (ed.)

Dean, L.T., Moss, S.L., McCarthy, A.M., and Armstrong, K. (2017). “Healthcare System Distrust, Physician Trust, and Patient Discordance with Adjuvant Breast Cancer Treatment Recommendations.” *Cancer Epidemiology and Prevention Biomarkers* 26(12), 1745–52. https://doi.org/10.1158/1055-9965.EPI-17-0479.

Department of Justice. (2018). Impaired Driving Laws. Retrieved October 14, 2019, from https://www.justice.gc.ca/eng/cj-jp/sidl-rlcfa/

Diepeveen, S., Ling, T., Suhrcke, M., Roland, M., & Marteau, T. M. (2013). Public acceptability of government intervention to change health-related behaviours: A systematic review and narrative synthesis. *BMC Public Health*, *13*(1), 756. https://doi.org/10.1186/1471-2458-13-756

Dowsett Johnston, A. (2013). *Drink: The Intimate Relationship between Women and Alcohol*. Toronto, ON: HarperCollins Canada Ltd.

Easton, S. (2016). *Global Alcoholic Drinks Consumption* (pp. 1–18). Retrieved from Wine & Spirit Education Trust website: https://www.wsetglobal.com/media/4714/1047-wset-consumption-report-final.pdf

Éduc'alcool. (2019a). Members. Accessed February 2, 2020, from https://educalcool.qc.ca/en/about-educalcool/membership/

Éduc'alcool. (2019b).The 8 benefits of moderate drinking. Accessed February 2, 2020, from https://educalcool.qc.ca/en/facts-and-consequences/alcohol-and-health/8-benefits-of-moderate-drinking/

Ehlke, S. J., Hollis, B., Stevens, L., & Noel, N. (2017). Unwanted Sexual Interactions, Alcohol Use, and Alcohol-Sex Expectancies among College Women: A Moderated-Mediation Model. *Alcoholism-Clinical And Experimental Research*, *41*(s1), 244A–244A.

Emslie, C. (2019). How alcohol companies are using International Women's Day to sell more drinks to women. Retrieved December 10, 2019, from The Conversation website: http://theconversation.com/how-alcohol-companies-are-using-international-womens-day-to-sell-more-drinks-to-women-113081

Esper, L. H., & Furtado, E. F. (2013). Gender Differences and Association between Psychological Stress and Alcohol Consumption: A Systematic Review. *Journal of Alcoholism & Drug Dependence*, *1*(3).

Gen, S., & Wright, A. C. (2015). Policy Capacity Is Necessary but Not Sufficient. *International Journal of Health Policy and Management*, *4*(12), 837–839. https://doi.org/10.15171/ijhpm.2015.145

Giesbrecht, N., Huguet, N., Ogden, L., Kaplan, M., McFarland, B., Caetano, R., … Nolte, K. (2015). Acute alcohol use among suicide decedents in 14 US states: Impacts of off-premise and on-premise alcohol outlet density—Simon Fraser University. *Addiction*, *110*(2), 300–307. https://doi.org/10.1111/add.12762

Giesbrecht, N., Ialomiteanu, A., Anglin, L., & Adlaf, E. (2007). Alcohol marketing and retailing: Public opinion and recent policy developments in Canada. *Journal of Substance Use*, *12*(6), 389–404. https://doi.org/10.1080/14659890701262189

Giesbrecht, N., Wettlaufer, A., Thomas, G., Stockwell, T., Thompson, K., April, N., … Vallance, K. (2016). Pricing of alcohol in Canada: A comparison of provincial policies and harm-reduction opportunities: Alcohol pricing: Canadian provinces. *Drug and Alcohol Review*, *35*(3), 289–297. https://doi.org/10.1111/dar.12338

Government of Canada. (2019a). Canada Gazette, Part 2, Volume 153, Number 11: Regulations Amending the Food and Drug Regulations (Flavoured Purified Alcohol). Retrieved December 10, 2019, from http://www.gazette.gc.ca/rp-pr/p2/2019/2019-05-29/html/sor-dors147-eng.html

Government of Canada. *Food and Drugs Act (R.S.C., 1985, c.F-27)*. , (1985).

Government of Canada. (2014). Canadian Radio-television and Telecommunications Commission. Retrieved October 17, 2019, from https://crtc.gc.ca/eng/home-accueil.htm

Government of Canada, S. C. (2019b). The Daily—Canadian Community Health Survey, 2018. Retrieved December 10, 2019, from https://www150.statcan.gc.ca/n1/daily-quotidien/190625/dq190625b-eng.htm

Griswold, M.G., et al. (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(10152),1015–35. https://doi.org/10.1016/S0140-6736(18)31310-2.

Grittner, U., Kuntsche, S., Graham, K., & Bloomfield, K. (2012). Social Inequalities and Gender Differences in the Experience of Alcohol-Related Problems. *Alcohol and Alcoholism*, *47*(5), 597–605. https://doi.org/10.1093/alcalc/ags040

Gunter, B., Hansen, A., & Touri, M. (2010). *Alcohol Advertising and Young People's Drinking: Representation, Reception and Regulation*. Palgrave Macmillan.

Hahn, R.A., et al. (2012). Effects of alcohol retail privatization on excessive alcohol consumption and related harms: a community guide systematic review. *American Journal of Preventative Medicine*, 42(4), 418-27.

Haydon, H. M., Obst, P. L., & Lewis, I. (2018). Examining Women's Alcohol Consumption: The Theory of Planned Behavior and Self-Identity. *Substance Use & Misuse*, *53*(1), 128–136. https://doi.org/10.1080/10826084.2017.1327972

Hayes, L. (2012). Aboriginal women, alcohol and the road to fetal alcohol spectrum disorder. *Medical Journal of Australia*, 197(1), 21–23. https://doi.org/10.5694/mja11.10390

Health Canada. (2018). Tobacco and Vaping Products Act. *Government of Canada*. Accessed February 18, 2020. Retrieved from https://www.canada.ca/en/health-canada/services/health-concerns/tobacco/legislation/federal-laws/tobacco-act.html

Health Canada. (2019). Guidance on the regulations respecting flavoured purified alcohol. *Government of Canada.* Accessed: January 5, 2020. https://www.canada.ca/en/health-canada/services/food-nutrition/legislation-guidelines/guidance-documents/flavoured-purified-alcohol.html#a2

Hill, K. M., Foxcroft, D. R., & Pilling, M. (2018). "Everything is telling you to drink": Understanding the functional significance of alcogenic environments for young adult drinkers. *Addiction Research & Theory*, 26(6), 457–464. https://doi.org/10.1080/16066359.2017.1395022

Hobin, E., et al. (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*(1), 3–11. https://doi.org/10.1093/alcalc/agx052

Hollingworth, W., et al. (2006). Prevention of deaths from harmful drinking in the United States: the potential effects of tax increases and advertising bans on young drinkers, *Journal of Studies on Alcohol*, 67(2), 300–308.

Inhorn, M.S., Whittle, K.L. (2001). Feminism meets the ''new'' epidemiologies: toward an appraisal of antifeminist biases in epidemiological research on women's health. *Social Science & Medicine*, 53(5), 553-567. https://doi.org/10.1016/S0277-9536(00)00360-9

Institut national de santé publique du Québec. (2018). Acute Alcohol Poisoning and Sweetened Alcoholic Beverages. *Government of Quebec*. Accessed December 4, 2019. Retrieved from https://www.inspq.qc.ca/sites/default/files/publications/2388_acute_alcohol_poisoning_sweetened_alcoholic_bevrages.pdf

Ja¨rvinen, M. (n.d.). *Kvinnan i alkoholforskningen: Det ma¨nskliga a¨r manligt om ej annat anges.* (NAD-Report No. 8). Helsinki.

Jackson, C. L., Hu, F. B., Kawachi, I., Williams, D. R., Mukamal, K. J., & Rimm, E. B. (2015). Black-White differences in the relationship between alcohol drinking patterns and mortality among US men and women. *American Journal of Public Health*, *105 Suppl 3*(S3), S534–S543. https://doi.org/10.2105/AJPH.2015.302615

Johnson, P.A, et al. (2014). Sex-Specific Medical Research Why Women's Health Can't Wait. *Mary Horrigan Connors Center for Women's Health & Gender Biology*. https://www.brighamandwomens.org/assets/bwh/womens-health/pdfs/connorsreportfinal.pdf

Kelly-Weeder, S., Phillips, K., & Rounseville, S. (2011). Effectiveness of public health programs for decreasing alcohol consumption. *Patient Intelligence*, *2011*(3), 29–38. https://doi.org/10.2147/PI.S12431

Kerr, W.C., Barnett, S.B.L. (2017) Alcohol retailing systems: private versus government control, in Preventing Alcohol-Related Problems: Evidence and community-based initiatives, Giesbrecht N, Bosma LM eds, pp 137-150. APHA Press, Washington, DC

Lee, S.K. (2018). Sex as an important biological variable in biomedical research. *BMB repor*ts, 51(4), 167–173. doi:10.5483/bmbrep.2018.51.4.034

Li, J., Lovatt, M., Eadie, D., Dobbie, F., Meier, P., Holmes, J., … MacKintosh, A. M. (2017). Public attitudes towards alcohol control policies in Scotland and England: Results from a mixed-methods study. *Social Science & Medicine*, *177*, 177–189. https://doi.org/10.1016/j.socscimed.2017.01.037

Liu, K. A., & Mager, N. A. (2016). Women's involvement in clinical trials: historical perspective and future implications. *Pharmacy practice*, 14(1), 708. doi:10.18549/PharmPract.2016.01.708

Luca, D. L., Owens, E., & Sharma, G. (2015). Can Alcohol Prohibition Reduce Violence Against Women? †. *American Economic Review*, *105*(5), 625–629. https://doi.org/10.1257/aer.p20151120

Mackiewicz, A. (chapter author), & Staddon, P. (editor). (2015). Alcohol, young women's culture and gender hierarchies. In *Women and alcohol: Social perspectives.* Retrieved from https://www.universitypressscholarship.com/view/10.1332/policypress/9781447318880.001.0001/upso-9781447318880-chapter-4.

Mansson, E., & Bogren, A. (2014). Health, risk, and pleasure: The formation of gendered discourses on women's alcohol consumption. *Addiction Research & Theory*, *22*(1), 27–36. https://doi.org/10.3109/16066359.2012.737874

Mart, S., & Giesbrecht, N. (2015). Red flags on pinkwashed drinks: Contradictions and dangers in marketing alcohol to prevent cancer. *Addiction (Abingdon, England)*, *110*(10), 1541–1548. https://doi.org/10.1111/add.13035

McKee, P., Erickson, D., Toomey, T., Nelson, T., Less, E., Joshi, S., & Jones-Webb, R. (2017). The Impact of Single-Container Malt Liquor Sales Restrictions on Urban Crime. *Journal of Urban Health*, *94*(2), 289–300. https://doi.org/10.1007/s11524-016-0124-z

Moore, D., & Valverde, M. (2010). Maidens at risk: "date rape drugs" and the formation of hybrid risk knowledges. *Economy and Society*, *29*(4), 514–531. https://doi.org/10.1080/03085140050174769

N.a. (2018). Smirnoff and Spotify team up to promote equality for women musicians around the world. *Diageo.* Accessed February 2, 2020. Retrieved from https://www.diageo.com/en/news-and-media/features/smirnoff-and-spotify-team-up-to-promote-equality-for-women-musicians-around-the-world/

National Alcohol Strategy Working Group. (2007). Reducing alcohol-related harm in Canada: Toward a culture of moderation. *Canadian Centre on Substance Abuse*. Accessed January 15, 2020, from http://www.ccsa.ca/Resource%20Library/ccsa-023876-2007.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2019). Fact Sheet: Women and Alcohol. Retrieved July 17, 2019, from https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/women-and-alcohol

National Institutes of Health (NIH). (1993). S.1 - National Institutes of Health Revitalization Act of 1993. *National Institutes of Health*, 1-6. https://orwh.od.nih.gov/sites/orwh/files/docs/NIH-Revitalization-Act-1993.pdf

Office of the Commissioner of Lobbying of Canada. (2019). 12-Month Lobbying Activity Search Results. Retrieved December 10, 2019, from https://lobbycanada.gc.ca/app/secure/ocl/lrs/do/clntSmmrySrch

Ontario Science Centre. (2017). "Public Trust in Science News Is Dangerously Low, New Ontario Science Centre Study Reveals" *Ontario Science Centre.* Accessed December 31, 2019: https://www.ontariosciencecentre.ca/Media/Details/457/.

Ortman, E. (2019, September 12). Are NIH Policies Unintentionally Impeding Women's Health Research? Retrieved October 16, 2019, from Society for Women's Health Research website: https://swhr.org/are-nih-policies-unintentionally-impeding-womens-health-research/

Osterman, R. L. (2011). Decreasing Women's Alcohol Use During Pregnancy. *Alcoholism Treatment Quarterly*, *29*(4), 436–452. https://doi.org/10.1080/07347324.2011.608589

Osiowy, M. et al. (2015). How much did you actually drink last night? An evaluation of standard drink labels as an aid to monitoring personal consumption. *Addiction Research & Theory*, 23(2), 163-169.

Pechey, R., Burge, P., Mentzakis, E., Suhrcke, M., & Marteau, T. M. (2014). Public acceptability of population-level interventions to reduce alcohol consumption: A discrete choice experiment. *Social Science & Medicine, 113*(100), 104–109. https://doi.org/10.1016/j.socscimed.2014.05.010

Pharmaceutical Executive Editors. (2017). Canadian Pharma Market Set for Steady Growth to $25 Billion by 2021. Retrieved November 17, 2019, from http://www.pharmexec.com/canadian-pharma-market-set-steady-growth-25-billion-2021

Pinn, V.W. (2003). Sex and Gender Factors in Medical Studies. *JAMA*, 289(4), 397-400. doi:10.1001/jama.289.4.397

Power, C., Rodgers, B., & Hope, S. (1999). Heavy alcohol consumption and marital status: Disentangling the relationship in a national study of young adults. *Addiction*, *94*(10), 1477–1487. https://doi.org/10.1046/j.1360-0443.1999.941014774.x

Probst, C., Roerecke, M., Behrendt, S., & Rehm, J. (2014). Socioeconomic differences in alcohol-attributable mortality compared with all-cause mortality: A systematic review and meta-analysis. *International Journal of Epidemiology*, *43*(4), 1314–1327. https://doi.org/10.1093/ije/dyu043

Public Health Ontario. (2013). *Effectiveness of Approaches to Communicate Alcohol-related Health Messaging: Review and implications for Ontario's public health practitioners.* Retrieved from https://www.publichealthontario.ca/-/media/documents/alcohol-health-messaging.pdf?la=en

Public Health Ontario. (2016). *Focus On: Alcohol Marketing*. Retrieved from https://www.publichealthontario.ca/-/media/documents/focus-on-alcohol-marketing.pdf?la=en

Public Health Ontario. (2017a). *Awareness and knowledge of Canada's Low Risk Drinking Guidelines (LRDG)*. Retrieved from https://www.publichealthontario.ca/-/media/documents/alcohol-lrdg.pdf?la=en

Public Health Ontario. (2017b). Evidence Brief: Alcohol screening, brief intervention and referral (SBIR) services in health settings. Retrieved from https://www.publichealthontario.ca/-/media/documents/eb-sbir.pdf?la=en

Savell, E., Fooks, G., & Gilmore, A. B. (2016). How does the alcohol industry attempt to influence marketing regulations? A systematic review. *Addiction*, *111*(1), 18–32. https://doi.org/10.1111/add.13048

Schiebinger, L. (1999). *Has Feminism Changed Science?* Cambridge, Mass.: Harvard University Press.

Schiebinger, L. (2000). Has Feminism Changed Science? *Signs: Journal of Women in Culture and Society*, 25(4), 1171-1175.

Sharma, A., Vandenberg, B., and Hollingsworth, B. (2014). Minimum Pricing of Alcohol versus Volumetric Taxation: which policy will reduce heavy consumption without adversely affecting light and moderate consumers? *PLoS ONE* 9(1): e80936. doi:10.1371/journal.pone.0080936

Singal, D., Brownell, M., Chateau, D., Hanlon-Dearman, A., Longstaffe, S., & Roos, L. L. (2017). The Psychiatric Morbidity of Women Who Give Birth to Children with Fetal Alcohol Spectrum Disorder (FASD): Results of the Manitoba Mothers and FASD Study. *The Canadian Journal of Psychiatry*, *62*(8), 531–542. https://doi.org/10.1177/0706743717703646

Skinnygirl Cocktails. (2015). Low Calorie Mixed Drinks: Low Cal Cocktails. Accessed January 28, 2020, from: https://www.skinnygirlcocktails.com/the-cocktails/ready-to-serve-cocktails

Smith, L. A., & Foxcroft, D. R. (2009). The effect of alcohol advertising, marketing and portrayal on drinking behaviour in young people: Systematic review of prospective cohort studies. *BMC Public Health*, *9*(1), 51. https://doi.org/10.1186/1471-2458-9-51

Snyder, L. B., Milici, F. F., Slater, M., Sun, H., & Strizhakova, Y. (2006). Effects of alcohol advertising exposure on drinking among youth. *Archives of Pediatrics & Adolescent Medicine*, *160*(1), 18–24. https://doi.org/10.1001/archpedi.160.1.18

Statistics Canada. (2015). Current smoking trends: Statistics Canada Catalogue no. 82-624-X. Retrieved November 8, 2019, from https://www150.statcan.gc.ca/n1/pub/82-624-x/2012001/article/11676-eng.htm

Statistics Canada. (2016). Impaired driving in Canada, 2015. Accessed February 2, 2020, from https://www150.statcan.gc.ca/n1/daily-quotidien/161214/dq161214b-eng.htm

Statistics Canada. (2018a). Heavy Drinking, 2018. Accessed October 30, 2019, from https://www150.statcan.gc.ca/n1/pub/82-625-x/2019001/article/00007-eng.htm

Statistics Canada. (2018b). Perceived life stress, by age group. Accessed December 10, 2019, from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310009604

Statistics Canada. (2019b). Primary health care providers, 2017. Accessed October 14, 2019, from https://www150.statcan.gc.ca/n1/pub/82-625-x/2019001/article/00001-eng.htm

Statistics Canada. (2019a). Table 13-10-0096-10 Smokers, by age group. Accessed November 8, 2019, from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310009610

Statistics Canada. (2019c). Table 37-10-0130-01 Educational attainment of the population aged 25 to 64, by age group and sex, Organisation for Economic Co-operation and Development (OECD), Canada, provinces and territories. Accessed December 31, 2019, from https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=3710013001

Statistics Canada. (2019d). Population Estimates on July 1st, by Age and Sex. Accessed January 12, 2020, from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501

Statistics Canada. (2019e) Estimates of Population as of July 1st, by Marital Status or Legal Marital Status, Age and Sex. Accessed January 12, 2020, from https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1710006001.

Statistics Canada. (2020). Net income of liquor authorities and government revenue from sale of alcoholic beverages. Accessed January 18, 2020, from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1010001201

Stockwell, T., Wettlaufer, A., Vallance, K., Chow, C., Giesbrecht, N., & April, N. (2019). *Strategies to Reduce Alcohol-Related Harms and Costs in Canada: A Review of Provincial and Territorial Policies*. Victoria, BC: Canadian Institute for Substance Use Research.

Stockwell, T., Zhao, J., and Macdonald, S. (2014). "Who Under-Reports Their Alcohol Consumption in Telephone Surveys and by How Much? An Application of the 'Yesterday Method' in a National Canadian Substance Use Survey." *Addiction* 109(10), 1657–66. https://doi.org/10.1111/add.12609.

Stockwell, T., Zhao, J., Martin, G., Macdonald, S., Vallance, K., Treno, A., … Buxton, J. (2013). Minimum alcohol prices and outlet densities in British Columbia, Canada: Estimated impacts on alcohol-attributable hospital admissions. *American Journal of Public Health*, *103*(11), 2014–2020. https://doi.org/10.2105/AJPH.2013.301289

Tavolacci, M.-P., Berthon, Q., Cerasuolo, D., Dechelotte, P., Ladner, J., & Baguet, A. (2019). Does binge drinking between the age of 18 and 25 years predict alcohol dependence in adulthood? A retrospective case–control study in France. *BMJ Open*, *9*(5), e026375. https://doi.org/10.1136/bmjopen-2018-026375

Tricus-Saurus, S., and Garnes, N. (2014). Alcohol marketing and social media-Eurocare reflections 2014. Brussels, Belgium: Suropean Alcohol Policy Alliance (EUROCARE). Accessed February 17, 2020. Retrieved from https://www.eurocare.org/media/GENERAL/docs/reports/2014alcoholmarketingandsocialmedia.pdf

Tunney, C. (2018, December 4). We're ignoring Canada's alcohol problem, chief public health officer warns. *CBC News*. Retrieved from https://www.cbc.ca/news/politics/alcohol-drinking-women-1.4890268

U.S. Government Publishing Office. (2011). U.S.C. Title 27 – Intoxication Liquors S 215. Labeling Requirement. Accessed January 18, 2020. https://www.govinfo.gov/content/pkg/USCODE-2011-title27/html/USCODE-2011-title27-chap8.htm

Udell, J. (2018). Ask a cardiologist: Alcohol and heart health. *Heart and Stroke Foundation of Canada.* Accessed January 28, 2020, from: https://www.heartandstroke.ca/articles/ask-a-cardiologist-alcohol-and-heart-health

Vallance, K., et al. (2017). "We have a right to know": Exploring consumer opinions on content, design and acceptability of enhanced alcohol labels. *Alcohol and Alcoholism* 53(1), 20-25.

Waldron, I., Hughes, M. E., & Brooks, T. L. (1996). Marriage protection and marriage selection—Prospective evidence for reciprocal effects of marital status and health. *Social Science & Medicine (1982)*, *43*(1), 113–123. https://doi.org/10.1016/0277-9536(95)00347-9

Weerasinghe, A., Schoueri-Mychasiw, N., Vallance, K., Stockwell, T., Hammond, D., McGavock, J., Greenfield, T.K., Paradis, C., & 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(2), 1-16. https://doi.org/10.3390/ijerph17020398

Waller, M. W., Iritani, B. J., Christ, S. L., Clark, H. K., Moracco, K. E., Halpern, C. T., & Flewelling, R. L. (2012). Relationships Among Alcohol Outlet Density, Alcohol use, and Intimate Partner Violence Victimization Among Young Women in the United States. *Journal of Interpersonal Violence*, *27*(10), 2062–2086. https://doi.org/10.1177/0886260511431435

Wettlaufer, A., Cukier, S. N., & Giesbrecht, N. (2017). Comparing Alcohol Marketing and Alcohol Warning Message Policies Across Canada. *Substance Use & Misuse*, *52*(10), 1364–1374. https://doi.org/10.1080/10826084.2017.1281308

Wilkinson, C., Livingston, M., & Room, R. (2016). Impacts of changes to trading hours of liquor licences on alcohol-related harm: A systematic review 2005-2015. *Public Health Research & Practice*, *26*(4). https://doi.org/10.17061/phrp2641644

Yuma-Guerrero, P.J., et al. (2012). Screening, brief intervention, and referral for alcohol use in adolescents: a systematic review. *Pediatrics*, 130(1), 115-22.

3M. (2018). “State of Science Index Survey | 2018 Summary of Findings” *3M*. Accessed December 31, 2019. https://www.3m.com/3M/en_US/state-of-science-index-survey/2018-summary/#explorer

Appendix A. Revenue from Alcohol Sales and Costs of Alcohol-related Harms by Province/Territory, thousands $CAD

Province/ Territory	Net revenue from alcohol* (2014)	Total costs of alcohol-related harms (2014)	Net Benefit (revenue – costs)
Newfoundland and Labrador	$248M	$276M	- $28M
Prince Edward Island	$56M	$67M	- $11M
Nova Scotia	$372M	$427M	- $55M
New Brunswick	$247M	$326M	- $79M
Ontario	$3,918M	$5,344M	- $1,426M
Manitoba	$431M	$577M	- $146M
Saskatchewan	$391M	$563M	- $172M
Alberta	$1,111M	$2,396M	- $1,285M
British Columbia	$1,621M	$1,936M	- $315M
Yukon	$17M	$41M	- $24M
Northwest Territories	$30M	$56M	- $26M
Nunavut	$1.75M	$43M	- $41.25M
* Income from liquor authorities, total taxes, and other revenue ** Quebec not included due to inaccessible information Source:			

Appendix B. Canada Code for Broadcast Advertising of Alcoholic Beverages

Code for Broadcast Advertising of Alcoholic Beverages, August 1, 1996. "Commercial messages for alcoholic beverages shall not…
(a) attempt to influence non-drinkers of any age to drink or to purchase alcoholic beverages;
(b) be directed at persons under the legal drinking age, associate any such product with youth or youth symbols, or portray persons under the legal drinking age or persons who could reasonably be mistaken for such persons in a context where any such product is being shown or promoted;
(c) portray the product in the context of, or in relation to, an activity attractive primarily to people under the legal drinking age;
(d) contain an endorsement of the product, personally or by implication, either directly or indirectly, by any person, character or group who is or is likely to be a role model for minors because of a past or present position of public trust, special achievement in any field of endeavour, association with charities and/or advocacy activities benefiting children, reputation or exposure in the mass media;
(e) attempt to establish the product as a status symbol, a necessity for the enjoyment of life or an escape from life's problems, or attempt to establish that consumption of the product should take precedence over other activities;
(f) Imply directly or indirectly that social acceptance, social status, personal success, or business or athletic achievement may be acquired, enhanced or reinforced through consumption of the product;
(g) imply directly or indirectly that the presence or consumption of alcohol is, in any way, essential to the enjoyment of an activity or an event;
(h) portray any such product, or its consumption, in an immoderate way;
(i) exaggerate the importance or effect of any aspect of the product or its packaging;
(j) show or use language that suggests, in any way, product misuse or product dependency, compulsive behaviour, urgency of need or urgency of use;
(k) use imperative language to urge people to purchase or consume the product
(l) introduce the product in such a way or at such a time that it may be associated with the operation of any vehicle or conveyance requiring skill

(m) introduce the product in such a way or at such a time as may associate the product with any activity requiring a significant degree of skill, care or mental alertness or involving an obvious element of danger
(n) contain inducements to prefer an alcoholic beverage because of its higher alcohol content
(o) refer to the feeling and effect caused by alcohol consumption or show or convey the impression, by behaviour or comportment, that the people depicted in the message are under the influence of alcohol
(p) portray persons with any such product in situations in which the consumption of alcohol is prohibited
(q) contain scenes in which any such product is consumed, or that give the impression, visually or in sound, that it is being or has been consumed

Appendix C. Complete List of Survey Questions

Notes:
All respondents that were not screened out in Section I answered all questions in Sections III, and IV.
Only "current drinkers" (responded "Yes" to Question 5) answered questions in Section I.
Additional questions that could only be answered by certain respondents are written in red with a description of who was eligible to respond.

Section I: Screening Questions

Question 1. Do you identify as a woman?
- Yes
- No [screened out]

Question 2. Are you currently living in Canada?
- Yes
- No [screened out]

Question 3. What is your age in years? [screened out if under 18 or over 34 years old]
- [Manual input]

Question 4. Are you of legal drinking age in your province of residence?
- Yes
- No [screened out]

Question 5. Have you ever consumed alcohol?
- Yes
- Yes, but I no longer consume alcohol
- No

Only answered if response Question 5 was not "Yes": [i.e. abstainers and former drinkers]
Question 6. Please indicate the reason(s) you do not drink (select all that apply):
- Religious or cultural reasons
- Financial cost of alcohol is too high
- Health concerns
- I was alcohol dependent/addicted
- Prefer not to say
- Other (please specify) [Manual input]

Section II: Drinking Behaviour

Question 7. Approximately how many drinks do you consume on average per week?

- [Manual input]

Question 8. During the past 12 months, how often did you drink alcoholic beverages?

- Less than once a month
- Once a month
- 2 to 3 times a month
- Once a week
- 2 to 3 times a week
- 4 to 6 times a week
- Every day

Question 9. How often in the past 12 months have you had 4 or more drinks on one occasion?

- Less than once a month
- Once a month
- 2 to 3 times a month
- Once a week
- 2 to 3 times a week
- 4 to 6 times a week
- Every day

Question 10. How many drinks did you have yesterday?

- [Manual input]

Question 11. What type of alcoholic beverage do you consume most frequently?

- Beer
- Coolers/ciders
- Liquors/Spirits (vodka, gin, brandy, whiskey, run, tequila, and absinthe)
- Wine

Question 12. How often, if at all, do you engage in "pre-drinking" (the activity of having drinks before going out somewhere else, such as a bar or party) before going out socially?

- Always
- Very often
- Often
- Not very often
- Never

Question 13. Do you find social situations more enjoyable after drinking?

- Yes
- No
- Not sure

Question 14. Have you drunk alcohol in the last month in order to "relax" or "unwind"?

- Yes

- No
- Not sure

Question 15. Have you ever tried to reduce your alcohol consumption?
- Yes
- No
- Not sure

Only answered if response to Question 15 was "Yes": [i.e. they tried to reduce alcohol consumption]

Question 16. Were you successful in reducing your alcohol consumption?
- Yes, for a short time
- Yes, for a long time
- No
- Not sure

Question 17. If the price of alcohol were to increase, would you choose to purchase less?
- Yes
- No
- Not sure

Question 18. Does labeling and/or packaging (i.e. the container) of alcoholic beverages ever influence your decision to purchase it?
- Always
- Very often
- Often
- Not very often
- Never
- Not sure

Question 19. Do alcohol drink "specials" (such as "Happy Hour" and "50% off") ever increase the amount of alcohol you drink?
- Yes
- No
- Not sure
- Not applicable

Question 20. Have you ever chosen not to consume a type of alcoholic beverage due to sugar or caloric content?
- Yes
- No
- Not sure

Question 21. Would knowing how many 'standard drinks' are in a bottle/can of alcohol influence how much you drink?
- Yes
- No
- Not sure

Question 22. Thinking back over the last five years, have you observed young women's weekly alcohol consumption to have:

- Increased a lot
- Increased some
- Not changed a lot
- Decreased over time
- Not sure

Only answered if response to Question 22 was "Increased a lot" or "Increased some":

Question 23. What do you believe is the main cause of this increase in alcohol consumption?

- Advertising and promotion has focused more on young women
- "Happy Hour" and other promotions have encouraged a drinking culture among young women
- Peer behaviour and peer pressure now makes it harder not to join the drinking culture
- Other (please specify) [Manual input]

Section III: Safety Awareness

Question 24. How many drinks do you think is a safe number for women to consume per day?

- [Manual input]

Question 25. How many drinks do you think is a safe number for women to consume per week?

- [Manual input]

Question 26. On a scale of 1 to 5, how much do you think each of the following contributes to developing cancer? 1 = Not at all. 5 = A lot.

	1	2	3	4	5
Sun exposure					
Being overweight or obese					
Alcohol consumption					
Genetic factors (e.g. family history of cancer)					
Cigarette smoking					
Age					

Question 27. What do you personally consider to be a safe level of alcohol consumption while pregnant? 0 = No level of consumption is safe. 10 = Any level of consumption is safe.

- [Manual input]

Section IV: Demographic Questions

Question 28. What is your personal annual income?

- $0 - $25,000
- $25,001 - $50,000
- $50,001 - $75,000
- $75,001 - $100,000
- Over $100,000

Question 29. What is the highest level of education you have completed?

- High school or less
- College or trade diploma or certificate
- Undergraduate degree
- Masters degree
- Doctorate degree

Question 30. Are you currently enrolled in a post-secondary program?

- Yes
- No

Question 31. If you answered "yes," what program are you currently enrolled in?

- College or trade school
- Undergraduate
- Masters
- Doctorate

Question 32. You may belong to one or more racial or cultural groups on the following list. Select all that apply:

- Arab
- Black
- Chinese
- Filipino
- Indigenous (First Nations, Métis or Inuit)
- Japanese
- Korean
- Latin American
- South Asian
- Southeast Asian
- West Asian
- White
- Other (please specify)

Question 33. What province or territory do you currently live in?

- Alberta
- British Columbia
- Manitoba
- New Brunswick
- Newfoundland and Labrador
- Northwest Territories
- Nova Scotia
- Nunavut
- Ontario
- Prince Edward Island
- Quebec
- Saskatchewan
- Yukon

Question 34. Are you currently employed?

- Yes, part-time (less than 30 hours per week)
- Yes, full-time (30 or more hours per week)
- No

Question 35. What is your marital status?

- Married
- Living common-law
- Single, never married
- Separated
- Divorced
- Widowed
- Don't know

Appendix D. Demographics of total survey sample

	Observations	Proportion of Total Sample
Drinking Status		
Current drinker	734	91.75%
Former drinker	45	5.63%
Never consumed alcohol	21	2.63%
Age		
18-24 years old	264	33.00%
25-29 years old	383	47.88%
30-34 years old	153	19.13%
Province/Territory		
NL	5	0.63%
PEI	2	0.25%
NS	104	13.00%
NB	28	3.50%
QC	24	3.00%
ON	244	30.50%
MB	16	2.00%
SK	3	0.38%
AB	35	4.38%
BC	336	42.00%
YT	2	0.25%
NT	0	0
NU	0	0
Personal Income		
$0-25000	261	32.63%
$25001-50000	237	29.63%
$50001-75000	237	29.63%
$75001-100000	54	6.75%
Over $100000	11	1.38%
Work Status		
Full-time	467	58.38%
Part-time	208	26.00%
Unemployed	125	15.63%
Highest Education Completed		
High school or less	100	12.50%
College or trade diploma or certificate	143	17.88%
Undergrad	399	49.88%

	Observations	Proportion of Total Sample
Master	147	18.38%
Doctorate	11	1.38%
Student Status		
Current student	299	37.38%
Not student	501	62.63%
Marital Status		
Married	141	17.63%
Living common-law	197	24.63%
Single, never married	451	56.38%
Divorced	2	0.25%
Separated	6	0.75%
Not sure	3	0.38%
Ethnic/ Cultural Belonging		
White	640	80.00%
South Asian	48	6.00%
Chinese	35	4.38%
Indigenous	34	4.25%
Black	19	2.38%
Southeast Asian	15	1.88%
Latin American	14	1.75%
Arab	13	1.63%
West Asian	9	1.13%
Filipino	6	0.75%
Japanese	4	0.50%
Korean	4	0.50%
Middle Eastern	3	0.38%
Persian	3	0.38%
Other/Refusal	22	2.75%

Appendix E. Interview Guide

Interview Guide – Capstone – Kat Gallant

On the Rocks: Addressing alcohol-related harms among young women in Canada

Interviewee:

Date and Time:

1. Please describe your professional and/or academic background regarding alcohol-related harm reduction policies.

2. In your research and/or work experience, have you noticed any consistent or evolving trends regarding the following:

   a. Young women's general levels of consumption?
   b. Demographics of young women who are "risky" drinkers?
   c. Young women's motivations for drinking?
   d. Alcohol-related harms associated with young women's alcohol consumption? What about their awareness of these harms?

3. A few of the policy options I will be evaluating include:

   a. Marketing and advertising restrictions
   b. Warning labels and signs
   c. Public education campaigns
   d. Physical availability, which includes: restricting liquor outlet density, and reducing on- and off-premise liquor retail outlets' hours of operation
   e. Pricing policies, which includes taxes and minimum unit pricing

   In your experience, do any of the policies above reduce or have the potential to reduce young adults' alcohol consumption and associated alcohol-related harms? How could any of these policies be designed to specifically target young women's alcohol consumption?

4. Are there any other policies you believe would be equally or more effective?

5. Are there certain Canadian provinces or municipalities that are excelling or lagging behind in terms of innovation and implementation of these types of policies?

6. Are there certain international states, nations or municipalities that are excelling in terms of innovation and implementation of these types of policies?

7. Do you have any further comments or insights to provide on this subject?