











Reducing Alcohol-Related Harms and Costs in Quebec:

A Provincial Summary Report

Reducing Alcohol-Related Harms and Costs in Quebec: A Provincial Summary Report

Norman Giesbrecht and Ashley Wettlaufer, Center on Addiction and Mental Health; Nicole April and Laurie Plamondon, Institut national de santé publique du Québec

April, 2014

This report summarizes the results for Quebec of a more comprehensive study funded by the Canadian Institutes of Health Research (grant #234859) about alcohol policies in the Canadian provinces.

Suggested citation:

Giesbrecht, N., Wettlaufer, A., April, N., & Plamondon, L. (2014). Reducing Alcohol-Related Harms and Costs in Quebec: A Provincial Summary Report. Toronto: Centre for Addiction and Mental Health.

Introduction

Alcohol is consumed in many cultures and societies around the world, and Quebec is no exception. Alcohol is associated with approximately 60 different health and social problems and is one of the leading factors of death and disability in North America (Lim et al., 2012; WHO, 2009). Research shows that there may be some protective effects when alcohol is consumed at low levels (Corrao et al., 2004). However, alcohol consumption causes more problems than it prevents (WHO, 2011). There is a strong evidence base that identifies several effective interventions that prevent alcohol related harms at the population level and these interventions are the focus of this report.

The overall objective of this research project is to encourage greater uptake of evidence-informed prevention and policy initiatives that reduce alcohol-related harms in Canada. This project documents current alcohol policy initiatives across the ten Canadian provinces and draws comparisons across the provinces. The project serves to highlight policy strengths across each of these jurisdictions and provides recommendations on how to strengthen alcohol policies. The findings and recommendations of the project have been and continue to be disseminated to stakeholders and knowledge users in order to stimulate alcohol policy change. The project also hopes to inform provincial liquor boards and alcohol regulators on the additional roles that they can play in helping to reduce alcohol related harm and costs across the Canadian provinces.

In March of 2013, the main report entitled: *Strategies to Reduce Alcohol-Related Harms and Costs in Canada: A Comparison of Provincial Policies* (Giesbrecht et al., 2013), which documents the findings of this project, was released at an event hosted by the Centre for Addiction and Mental Health. The full report is available at: http://www.camh.ca/en/research/news_and_publications/reports_and_books/Pages/default.aspx

This provincial summary report serves to provide more detailed results and tailored recommendations for Quebec.

Methods

This project builds on the model implemented by MADD Canada, which compares provinces on drinking and driving policies (Solomon et al., 2009). It also draws from other international studies which take a comparative approach to assessing alcohol policies (Brand et al., 2007; Karlsson & Österberg, 2001). Well established and rigorous systematic reviews on the effectiveness of alcohol prevention measures helped in identifying ten effective policy dimensions that were the focus of this project. Drawing on several resources, including Anderson et al. (2009), Babor et al. (2010), Giesbrecht et al. (2011) and the Canadian Public Health Association (CPHA, 2011), these ten policy

dimensions, discussed below, overlap with those identified by the World Health Organization (WHO, 2010) and the Canadian Centre on Substance Abuse in the National Alcohol Strategy (CCSA, 2007).

A scoring rubric was set to estimate the level of implementation of alcohol policies. This scoring rubric was peer reviewed by three international alcohol policy experts. The scoring rubric consists of 10 weighted policy dimensions which are each comprised of several scaled indicator measures. First, each province was scored against the indicator measures. In order to calculate the provincial scores for each policy dimension, the indicator scores were tabulated to obtain a raw score out of 10. Second, to calculate the global score for each province across all 10 policy dimensions, the raw scores for each policy dimension were weighted and summed. All of the scores are expressed as a percentage of the ideal score.

Data for this project was collected from official sources. Representatives from the relevant ministries provided the missing information when necessary and verified the final data set. Finally, following a pilot test of the scoring rubric and process using blinded data, the final scores were independently tabulated and weighted by two team members in order to produce the final provincial rankings.

The Situation in Quebec

Context

Alcohol consumption and related-harms

In Quebec, recent trends show that alcohol consumption is increasing, including risky alcohol consumption. From 1997-2011, the annual *per capita* alcohol consumption in Quebec increased from 6.9 to 8.6 litres of pure alcohol (see Figure 1) (Statistics Canada, 2013a). This represents an increase of 26.5% in alcohol consumption in Quebec, which puts Quebec above the national average. Over the same time period, the national average alcohol consumption increased by 11%. Up until the early 2000s the *per capita* alcohol consumption in Quebec was lower compared to the national average. However, in the second part of the decade (2008/09) *per capita* alcohol consumption in Quebec began to surpass the national average. This increase is largely due to the rise in consumption of wine in Quebec (see Figure 1) (Statistics Canada, 2013a).

Similarly, between 2000 and 2010, the prevalence of consuming 5 or more drinks on a single occasion at least once a month increased amongst all adults ages 18 years and older and across both genders (Statistics Canada, 2010).

Furthermore, according to the 2012 Canadian Community Health Survey–Mental Health, the lifetime rate of alcohol abuse or dependence was significantly lower in Quebec (13.3%) than in Canada (18.1%) (Statistics Canada, 2013b). However, trend analysis

using the two surveys from 2002 and 2012 is not possible due to changes in the survey items (Pearson et al., 2013).

Alcohol also plays a role in driving fatalities. In Quebec, 37.4% of the drivers who were fatally injured in a road crash in 2011 had a blood alcohol concentration (BAC) over the legal limit of 0.08% (SAAQ, 2013a). Finally, according to a Canadian study, 48,307 hospitalisations were attributable to alcohol in Quebec in 2002 (Rehm et al., 2006).

10,0 9,0 8,0 7,0 Litres of pure alcohol 6,0 Can total QC total 5,0 QC beer 4,0 QC wine QC spirits 3,0 2,0 1,0 0,0 66/8661 00/6661 2000/01 001/02 2002/03 003/04 2004/05 90/5007 20/900 2007/08 60/800

Figure 1: Per capita alcohol consumption in litres of pure alcohol, per person age 15 years and older, Quebec and Canada, 1990 to 2012

(Statistics Canada, 2013a)

Recent Developments in Alcohol Policy in Quebec

The following is a summary of some of the developments in alcohol policy and practices that have taken place or that have been announced in Quebec since the end of the data collection period of the main report in Fall 2012. Please note that these developments are not reflected in the provincial scores as the changes came into effect after the data collection and scoring period.

• Pricing: On November 20, 2012, the Quebec government announced an increase in alcohol taxes (Revenu Québec, 2012). This increase was 3 cents per bottle of beer, 17 cents per bottle of wine and 26 cents per bottle of spirits.

- Drinking and Driving: As of April 15, 2013, regulations which require drivers to have a BAC of 0.00% ("zero tolerance") apply not only to drivers with a learner's permit or probationary license holders but also to all driver's licence holders who are 21 years of age or younger (SAAQ, 2013b). In the event of an offence, the sanctions are an immediate licence suspension for 90 days, the registration of four demerit points and a fine between \$300 and \$600.
- Screening, Brief Intervention and Referral (SBIR): At the end of 2012, the Collège des médecins du Quebec and Educ'alcool disseminated the low-risk drinking guidelines to physicians and health professionals (Collège des médecins du Québec and Educ'alcool, 2012). Clinicians can use these guidelines in their counselling activities with patients. These guidelines can also be useful in supporting the Alcochoix+ program, a brief intervention to reduce alcohol drinking of at risk drinkers which is offered in the Quebec's Centres de santé et de services sociaux (CSSS) (MSSS, 2013).

Results for Quebec

Overall, Quebec was found to have an alcohol control system that is less restrictive than the other provinces. As a result, Quebec received the lowest total weighted score among the provinces. However, an important finding of the project was that there was a narrow range of scores across the provinces, with all provinces scoring within 20% of each other. The final provincial scores varied from 36% to 56% of the ideal score and the national average was 47%, indicating overall that there is much potential for improvement in each province.

The following sections present a detailed review of the results of each policy dimension for Quebec. The results include the ranking of Quebec, its score in comparison to the national average, promising practices that are in place and areas for improvement along with specific policy recommendations for Quebec. It should be noted that the policy dimensions are presented in the order in which they are likely to have the most impact on reducing alcohol related harms and costs. The results for each dimension are presented in Figure 2.

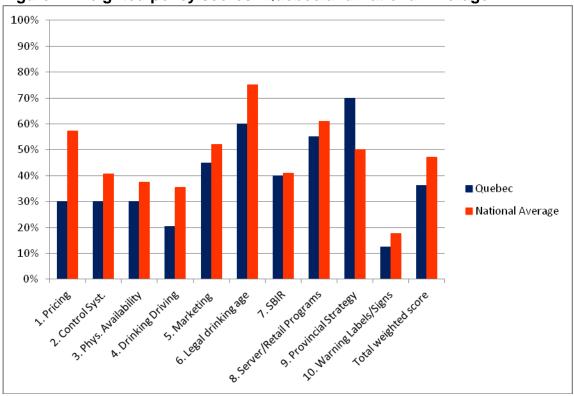


Figure 2: Weighted policy scores: Quebec and National Average

1. Pricing

Systematic reviews have identified alcohol pricing as a highly effective measure in reducing alcohol consumption and related harms at the population level (Anderson et al., 2009; Babor et al., 2010). Strong pricing policies include: 1) setting minimum prices on alcoholic beverages to reduce economic availability of inexpensive alcohol, a measure which particularly targets younger and heavy drinkers. The recommended minimum price is \$1.50 per standard drink¹ for alcohol sold from off-premise outlets (e.g. retail stores) and \$3.00 per standard drink for alcohol sold from on-premise outlets (e.g. bars, restaurants); 2) regularly adjusting alcohol prices to keep pace with the cost of living so that alcohol does not become cheaper relative to other goods over time; 3) setting prices according to alcohol content to encourage consumption of lower alcohol content beverages (Thomas, 2012). These three indicators were the basis of the pricing scores. In order to compare the prices of different alcoholic beverages, the price is calculated per standard drink. Quebec obtained a score of 30% (provincial scores ranged from 30% to 76%) and ranked 10th among the provinces on this policy dimension.

Promising practices: Quebec has a minimum price for beer sold in off-premise outlets. The minimum price varies according to alcohol content with higher prices set for higher

-

¹ In Canada, a standard drink contains 13.45g or 17.05ml of pure alcohol (Butt et al., 2011).

alcohol content beers. For example, four different categories of minimum prices are set according to alcohol strength of beer. Furthermore, these minimum beer prices are indexed to inflation annually.

Areas for improvement: In 2012, the minimum price of beer sold from off-premise outlets was lower than the recommended benchmark of \$1.50 per standard drink. The minimum price per standard drink of bottled beer with a typical alcohol content of 5% sold from off-premise outlets was \$1.21. Quebec does not set minimum prices for alcoholic beverages categories other than beer sold in off-premise outlets. Most other provinces have minimum prices for wine and spirits sold in off-premise outlets and separate minimum prices for alcoholic beverages sold in on-premise outlets. In Quebec, only the minimum price of beer is set according to the alcohol concentration. Finally, the average price of alcohol, for all major beverage types in Quebec, has lagged behind the consumer price index (CPI) since 2006.

Recommendations: Adjusting the prices of alcohol annually to the consumer price index (CPI) would keep alcohol prices proportional to the prices of other goods over time. The minimum price policy that currently applies to beer sold from off-premise outlets should also be applied across all types of alcoholic beverages. As is the case now for the minimum price of beer, all minimum prices should be adjusted to CPI. Also, it is important to ensure that minimum prices are set at a level that will be effective in reducing alcohol related harms. The project team recommends setting minimum prices of \$1.50 per standard drink for off-premise outlets and \$3.00 per standard drink for onpremise outlets. Finally, adjusting prices according to alcohol content would make higher strength products more expensive and, thus encourage the consumption of alcoholic products of lower strength.

2. Alcohol control system

A government run alcohol monopoly is an effective way to control alcohol consumption and curtail its harms. The beneficial effects are increased when the control system adopts public health and safety oriented goals (Babor et al., 2010). Maintaining a government-controlled alcohol monopoly is important for regulating access to alcohol by way of maintaining many of the other policies which are examined in his report. The indicators for this policy dimension focused on: 1) the type of off-premise retailing system (government run stores vs. privately run stores); 2) alcohol sales beyond onpremise and off-premise outlets (e.g. online sales and delivery); 3) emphasis on product promotion relative to social responsibility initiatives; and, 4) the Ministry overseeing alcohol control. With a score of 30% (provincial scores ranged from 15% to 63%), Quebec was ranked eighth of the provinces on this policy dimension.

Promising practices: Quebec has a mixed system of alcohol retail outlets, with alcohol being sold in Société des alcools du Québec (SAQ) outlets as well as in private outlets

(corner stores and grocery stores). The alcohol regulatory agency, the Régie des alcools des courses et des jeux (RACJ), is positioned under the Ministry of Public Safety. Positioning the regulation of alcohol under this ministry can help to ensure that the health risks associated with alcohol consumption are considered when decisions around the regulation of alcohol are made. Furthermore, the SAQ helps fund Educ'Alcool a not-for-profit organization dedicated to educating the public on low-risk alcohol use. Éduc'alcool informs the public through various mediums such as online content (web sites), electronic media, print documents, and social media.

Areas for improvement: Using the number of alcohol access points as a measure, approximately 5% of off-premise retail outlets in Quebec were owned and run by the government (SAQ), in 2011. Nova Scotia and PEI are the only two provinces to have maintained over 50% of the outlets within a government monopoly retail system. Furthermore, in Quebec, alcohol is also sold beyond on-premise and off-premise outlets such as by delivery service, online sales and ferment at home kits. These practices can increase the accessibility of alcohol. Despite the fact that the RACJ is within the Ministry of Public Security, the management of the public retail system, the SAQ, is under the authority of the Ministry of Finance and Economy.

Recommendations: It is important for Quebec to maintain its partial government run monopoly as well as the powers of the regulation agency, the RACJ. A government run monopoly plays a key role in implementing and maintaining control strategies such as minimum legal drinking age, pricing, hours and days of sale, and in upholding a socially responsible mandate (Babor et al, 2010). However, the government carries a dual mandate to: protect public health by limiting alcohol consumption and increase the revenue to government from the sale of alcohol. From a public health perspective, this dual mandate requires a balanced approach in order to reduce the social costs of alcohol. In other respects, non traditional systems of distribution of alcohol, such as delivery services and online shopping, should be strictly monitored with adequate control measures to limit selling of alcohol to those under the legal age or to intoxicated customers.

3. Physical availability

Physical availability is determined primarily by the number of outlets and licensed establishments as well as the hours and days of sale. Restricting the density of outlets is associated with a reduction of alcohol consumption and related harms in the population (Babor et al., 2010; Popova et al., 2009). Restrictions on hours and days of sale are effective where these changes reduce alcohol availability or where problems are specifically related to hours of sale (Babor et al., 2010). The indicators for this policy dimension focused on: 1) the number of outlets per capita ages 15 years and older, and 2) hours of operation: having regulated hours of operation, and the actual hours of operation. Quebec obtained a score of 30% (provincial scores ranged from 5% to 55%)

and was ranked eighth out of the 10 provinces, tied with Prince-Edward-Island, on the dimension of physical availability.

Promising practices: Regulations in Quebec provide opportunity for citizen input with regards to the placement of off-premise and on-premise outlets. Each new licence application is announced in a newspaper. A citizen can oppose an alcohol permit within 30 days of the newspaper publication announcing the licence application. However, it is the RACJ who makes the final decision as to whether the licence is granted.

The hours of operation of all alcohol outlets are limited by regulation and by restrictions placed upon each permit. This allows for some control over the extent to which alcohol is made available to the public.

Areas for improvement: There are no regulations in Quebec that limit the density of on- or off-premise alcohol outlets. The off-premise density of alcohol outlets in Quebec is the second highest among all the provinces with approximately 12 off-premise outlets per 10,000 capita ages 15 years and older. The on-premise outlet density is moderately high relative to the other provinces with 36 on-premise outlets per 10,000 capita ages 15 years and older.

Moreover, through all alcohol sales channels, it is possible to buy alcohol most of the day (19 hours per day, 7 days a week). The hours of sale are from 8:00 am until 11:00 pm for off-premise outlets and until 3:00 am the next day for on-premise outlets. Also, extending the hours of operation of on-premise outlets may be authorised for special events of municipal, provincial, national or international scope.

In brief, the high density of retail outlets and the long hours of operation of alcohol outlets in Quebec make alcohol readily available for the greater part of the day.

Recommendations: The density of alcohol outlets should ideally be limited according to the size of the population. This could be done within provincial or municipal jurisdictions. Municipal zoning and urban planning rules could also be used to influence the placement and limit the concentration of alcohol outlets. The availability of alcohol could be reduced by restricting the hours of operation of alcohol outlets early in the morning and late at night. This could help prevent high-risk use and related harms.

4. Drinking and driving

Note: The following is based on information provided by MADD Canada in their recent review of drinking and driving legislation in Canada. For a comprehensive review and comparative analysis of drinking and driving countermeasures in each province please refer to the MADD Canada 2012 Provincial and Territorial Legislative Review (Solomon et al., 2013).

The selected indicators represent three types of policy measures that effectively reduce deaths and injuries caused by drinking and driving: 1) restrictions on licensing such as a graduated licensing program for new drivers which adopts a zero tolerance policy for all drivers under 21 years of age or with less than 5 years experience which is accompanied by regulation to ensure enforcement of these requirements; 2) licensing suspensions and revocations as well as a minimum of seven days vehicle impoundment for drivers with a BAC of 0.05% or more; 3) a mandatory alcohol ignition interlock program for federal impaired driving offenders associated with escalating administrative sanctions as well as remedial programs for repeat offenders.

Based on the data collected by MADD Canada, in support of the 2012 report, Quebec had the lowest score among the provinces for this policy dimension with a score of 20%. However, changes in regulation adopted in 2013 in Quebec, specifically the implementation of the zero tolerance rule for drivers under the age of 21, would contribute significantly to an improved score in this area.

Promising practices: Like most of the provinces, Quebec has a mandatory alcohol ignition interlock program and a remedial program for drivers with repeat federal impaired driving violations. Since June 2012, administrative sanctions have been added for drivers with a BAC of 0.08% or more and 0.16% or more with more severe sanctions for repeat offenders.

Areas for improvement: Quebec has not implemented sanctions for drivers with a BAC between 0.05% and 0.08%, while all other provinces do.

Recommendations: Implement administrative sanctions, such as a fine, license suspension or the registration of demerit points, for drivers with a BAC between 0.05% and 0.08%.

5. Marketing and Advertising

The Canadian Radio-television Telecommunications Commission (CRTC) is the federal body responsible for setting alcohol advertising regulations in the Code for Broadcast Advertising of Alcoholic Beverages. The current media climate has changed dramatically since 1996 when the CRTC's regulations were last amended. It is therefore incumbent upon provincial regulators to consider more relevant provincial regulations for alcohol advertising that go above and beyond those specified by the CRTC.

In the present study, the policy dimension of marketing and advertising is comprised of the following indicators: 1) provincial alcohol marketing regulations which include the content, the placement and the quantity of advertising; 2) having a formalized system for reporting and addressing complaints as well as strong penalties for violations; 3) the focus of the provincial liquor board's website; and 4) restrictions on sponsorships which allow the display of names and logos of the alcohol manufacturers.

Quebec ranked 8th among the provinces on this policy dimension, with a score of 45% (provincial scores ranged from 35% to 65%).

Promising practices: Quebec restricts the content of alcohol advertising beyond that which is required by the Code for Broadcast Advertising of Alcoholic Beverages. For example, advertising cannot directly or indirectly imply that an alcoholic beverage has qualities or properties that are favourable to health, nutritive, curative, sedative or stimulating. The regulations also restrict the promotion of price. Providing free drinks, "open bars" and "3 for 1" deals are prohibited. The practice of "2 for 1" discounts, as well as happy hour, also known as "5 à 7", are tolerated, but it is prohibited to promote these specials.

Areas for improvement: In Quebec, regulations do not restrict the quantity or placement of advertisings. Sponsorship of sport teams, events or infrastructure which display the names or logos of alcohol manufacturers are authorised without restriction. There is no formal and clear system to report marketing violations to the RACJ. Penalties for violations are minor and unlikely to have impact: violators are subject to fines from \$325 to \$700, which can go up \$2,800 in the case of subsequent violations. The SAQ website is mainly focused on product promotion and there is little space dedicated to prevention messages or to references to Educ'alcool initiatives.

Recommendations: It is recommended that exposure to alcohol marketing be limited, particularly among younger populations. This can be accomplished by restricting the placement, quantity or frequency of advertising of alcohol. Also, policies restricting the sponsorship of events or infrastructure that display the names and logos of manufacturers would help balance health interests and product promotion. Implementing a formal, user friendly system to report violations of marketing practices is also encouraged. Finally, the SAQ should ensure that both social responsibility messages and those oriented to product promotion are, at minimum, equally represented and accessible on their website. For example, the SAQ could provide a link to Educ'alcool resources as a prominent part of their website landing page.

6. Minimum legal drinking age

Many studies indicate that the minimum legal drinking age plays an important role in reducing alcohol consumption and related harms in young people (Wagenaar and Toomey, 2002; Babor et al., 2010; Vaos & Tippetts, 1999). The indicators for this dimension are: 1) the level of the minimum legal drinking age, with the ideal being 21 years of age based on evidence from the US; 2) regulations prohibiting not only the purchase of alcohol by young people but also regulations prohibiting the sale of alcohol to young people and efforts to enforce these regulations.

All provinces scored above 50% on this dimension, including Quebec with a score of 60%, (provincial scores ranged from 60% to 80%).

Promising practices: In Quebec, the minimum legal drinking age is supported by regulations not only prohibiting minors to purchase alcohol but also the sale of alcohol to minors. This practice shares the responsibility between the consumer and the retailer. Furthermore, the SAQ has a mystery shopper program to support the enforcement of the minimum legal drinking age in its stores.

Areas for improvement: The minimum legal drinking age is 18 years of age in Quebec, as well as in Manitoba and Alberta. The minimum legal drinking age is 19 years of age in the seven other provinces. Quebec does not have a government run inspection program for private off-premise outlets (i.e. grocery and convenience stores that sell alcohol) or on-premise outlets.

Recommendations: The implementation of a governmental program such as a mystery shopper program in off and on-premise outlets would support the minimum legal drinking age regulations. Having a higher minimum legal drinking age could also reduce alcohol consumption among young people and the related harms. It is recommended that Quebec increases its minimum drinking age to at least 19 years of age to match the other seven provinces.

7. Screening, Brief intervention and Referral (SBIR)

This dimension concerns the clinical practices that screen for high-risk drinking, offer brief interventions to people who wish to reduce their alcohol consumption and refer individuals who need help reducing their alcohol consumption or are dependent on alcohol to specialized services. These practices reduce high-risk drinking and related harms and costs (Rehm et al., 2008). The indicators for this policy dimension focused on: 1) the inclusion of SBIR in a provincial strategy or action plan, in order to mobilize action in this area; 2) a position paper or guidelines on SBIR, issued by a credible provincial association, in order to integrate SBIR into practices, and 3) having a fee for

service code for physicians to conduct SBIR. Quebec is ranked 5th on this dimension, with a score of 40% (provincial scores ranged from 0% to 100%).

Promising practices: Screening and brief intervention practices amongst the whole population are included in the public health program in Quebec (*Programme national de santé publique*). Encouraging the use of these interventions, not only to the whole population but also to at-risk groups (e.g. pregnant women), can help increase the scope and potential efficacy of SBIR activities by reaching at-risk individuals who would not be otherwise be reached.

Areas for improvement: Quebec does not have an SBIR fee for service code that is specifically for SBIR activities.

Recommendations: Creating a fee for service code specific to SBIR or offering other financial and organizational incentives would improve the implementation of these clinical practices. The Canadian Centre on Substance Abuse (CCSA) and the College of Family Physicians of Canada (CFPC) have produced an online guide for use by health professionals ("A 3-step clinical web resource for managing patient alcohol consumption") (CCSA, 2012). Quebec is encouraged to make use of this SBIR webbased resource which was released in November 2012.

8. Server Training and Challenge and Refusal

Server and management training programs can help reduce service to minors and overservice to patrons in on-premise establishments (Anderson et al., 2009; Babor et al., 2010). Similarly, challenge and refusal programs in off-premise outlets can have an impact on dissuading sales to minors and intoxicated persons. In both cases, interventions are more effective when actively enforced. Quebec ranked 8th among the provinces on this policy dimension, with a score of 55% (provincial scores ranged from 40% to 78%).

Promising practices: In Quebec, the law prohibits the sale of alcohol to an inebriated person and carries a fine for anyone caught violating this law. The SAQ offers a challenge and refusal training program to the employees of its outlets. The efficacy of the program is evaluated by quarterly visits of mystery shopper in each one of its outlets. The compliance rate was 92.2% in 2009-2010.

Éduc'alcool and the Institut de tourisme et d'hôtellerie du Québec offer a training program ("Action service") for the owners and managers of licensed establishments as well as their employees. This program offers information about legal liability, and helps people recognize and deal with patrons who may be intoxicated. This training is based on programs that have been evaluated as to their effectiveness.

Areas for improvement: There is no mandatory staff training program in private off-premise outlets or in on-premise outlets in Quebec. Such programs are mandatory for staff of all public on-premise establishments in five provinces. In Quebec and many other provinces, there is no systematic tracking of the challenge and refusal activities.

Recommendations: Quebec is encouraged to make mandatory the training of persons who serve or sell alcohol. This training should include strategies for preventing the sale of alcohol to minors, inebriated patrons and to people suspected of buying alcohol for either of these groups. Tracking of challenge and refusal amongst retail outlets and on-premise establishments should also be done. The scope and efficacy of these activities should be evaluated.

9. Provincial alcohol strategy

For the purposes of this study, a provincial alcohol strategy is one approved by the provincial government or a ministry that focuses on alcohol, and has goals of alcohol-related harms prevention. The determination of this policy dimension is based, in part, by the fact that tobacco strategies have played an important role in reducing smoking rates (de Beyer et al., 2003). Furthermore, an alcohol strategy recognizes that alcohol is an important issue that warrants government attention. It also helps shape a coordinated response to improve a population's health. A provincial strategy should include key elements of the WHO "Global strategy to reduce harmful use of alcohol" (2010). Quebec ranked 3rd among the provinces on this policy dimension, tied with British Columbia (score of 70%; provincial scores ranged from 0% to 80%).

Promising practices: The public health program (*Programme national de santé publique 2003-2012*) and the addiction action plan (*Plan d'action interministériel en toxicomanie 2006-2011*) have objectives that address alcohol consumption and related harms. Many of the priorities in these documents overlap with the priorities, initiatives, and policies identified in the WHO Global Strategy such as, leadership, awareness and commitment, health service response, mobilizing community action, monitoring and surveillance.

Areas for improvement: Quebec does not have an alcohol specific provincial strategy.

Recommendation: It is recommended that Quebec considers the adoption of an alcohol specific strategy consistent with the evidence base and recommendations of the WHO Global Strategy. This would identify alcohol as an important health and social issue and help define a more comprehensive and coordinated approach to reduce alcohol-related harms in Quebec.

10. Warning Labels and Signs

There is little to no evidence demonstrating the impact of warning labels and signs on drinking behaviours when implemented alone (Babor et al., 2010). As a result, this policy dimension was weighted the lowest amongst all policies considered in this study. However, warning labels and signs were included because of their potential reach and the complementary role they play to other policies aimed at reducing alcohol related harms. Warning labels and signs serve as a tool to raise awareness about the harms from alcohol and can contribute to creating a climate of opinion in which more effective alcohol policies could be implemented (Giesbrecht, 2007). The quality, the visibility and the content of the messages may influence their impact. Quebec, tied with three other provinces, ranked 5th on this policy dimension with a score of 13% (provincial scores ranged from 8% to 38%).

Promising practices: The warning messages that are implemented in Quebec were cited as examples of good quality messages that carry a clear and direct health oriented message about alcohol consumption. Quebec was the only province to have incorporated Canada's low-risk drinking guidelines into their messaging.

Areas for improvement: Quebec, as well as the other provinces, has not implemented mandatory warning labels on alcohol containers or packaging. Quebec had no specific rules concerning warning signs on alcohol-related health effects in either on-premise or off-premise outlets. As in all other provinces, the warning messages in Quebec did not make reference to the risk of chronic diseases related to alcohol.

Recommendations: It is recommended that Quebec continues to implement a variety of clear and direct health oriented warning messages and makes this messaging mandatory at all points of sale. Implementing mandatory alcohol warning labels on alcohol beverage packaging would be a useful complement to other policies in a comprehensive alcohol strategy.

Discussion and conclusion

This report presents a summary of the status of alcohol policies in Quebec based on the results of a multicentre Canadian research project (Giesbrecht et al., 2013). The study has analysed and compared the Canadian provinces on the adoption of evidence based public policies shown to reduce alcohol-related harms and costs. The results show that there is a gap between the ideal public policy options and what has been adopted across the provinces. It is in Quebec that this gap is the largest, and it ranked last in the comparison of the provinces. However, it should be noted that all provinces scored within a 20% range and the mean national score fell below 50% indicating that there is room for improvement across all Canadian provinces.

It is possible that, when compared to some other provinces, the cultural context of alcohol consumption has distinctive features in Quebec. According to the analysis by Paradis et al. (2010), drinkers from Quebec, as well as those from British Columbia and Ontario, consume alcoholic beverages more frequently, drink more wine, drink less spirits, and drink alcohol during a meal more often than drinkers from the other provinces (Paradis et al., 2010). Furthermore, according to the 2012 Canadian Community Health Survey–Mental Health, the lifetime prevalence of alcohol abuse or dependence among drinkers was lower in Quebec than in Canada as a whole (Statistics Canada, 2013b). There are no other comparative studies on the other possible consequences of alcohol consumption.

Despite these differences, the fact remains that *per capita* alcohol consumption in Quebec was the third highest among the provinces in 2011/12 and that it has increased significantly since the late1990's (Statistics Canada, 2013a). This increase in alcohol consumption, coupled with an increase of high-risk drinking, is concerning since an increase of related-harms is anticipated. Adopting a combination of alcohol policies that are complementary and coherent is the most effective way to reduce alcohol related-harms and social costs (Anderson, 2009; Babor et al., 2010; CPHA, 2011). The policies included in this study were chosen based on their efficacy and scope, are recommended across several countries in which alcohol consumption is a public health issue, and are relevant to all Canadian provinces, including Quebec.

This report highlights current policy strengths as well as areas for improvement and points to several opportunities to strengthen the policy context in Quebec. The followings policy recommendations deserve special attention:

- Implement minimum prices of at least \$1.50 per standard drink for alcohol sold in off-premise outlets and \$3.00 per standard drink for alcohol sold in on-premise outlets in order to reduce the availability of inexpensive alcoholic beverages.
- Index all alcohol prices to inflation (i.e. province specific CPI) so that alcohol
 products do not become less expensive relative to other goods over time.
- Create price incentives that favour the choice of low strength alcoholic beverages.
- Maintain a state monopoly and enhance its social responsibility and control mandate.
- Restrict or at least maintain the limits on the physical availability of alcohol.
- Maintain recent efforts to reduce drinking and driving. The drinking and driving countermeasures recently adopted in Quebec effectively reduce injuries and deaths due to alcohol related traffic incidents. These policies should be supported by sanctions for drivers with blood alcohol between 0.05% to 0.08%.

Implementing these recommended policy measures to reduce alcohol-related harms and costs requires a true commitment to reducing alcohol-related harms, the support of

the public, and the collaboration between the various concerned ministries and governmental and non-governmental organisations.

References

Anderson, P., Chisholm, D., & Fuhr, D. (2009). Alcohol and Global Health 2: Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. Lancet, 373, 2234–46.

Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Grube, J., Hill, L., Holder, H., Homel, R., Livingston, M., Österberg, E., Rehm, J., Room, R. & Rossow, I. (2010). Alcohol: No ordinary commodity – research and public policy – Revised edition. Oxford: Oxford University Press.

Brand, D. A., Saisana, M., Rynn, L. A., Pennoni, F., & Lowenfels, A. B. (2007). Comparative analysis of alcohol control policies in 30 Countries. PLoS Medicine, 4(4), e151.

Butt, P., Beirness, D., Gliksman, L., Paradis, C., & Stockwell, T. (2011). Alcohol and health in Canada: A summary of evidence and guidelines for low risk drinking. Ottawa, ON: Canadian Centre on Substance Abuse.

Canadian Centre on Substance Abuse (CCSA) (2007). Reducing Alcohol-Related Harm in Canada: Toward a Culture of Moderation. Recommendations for a National Alcohol Strategy. Alberta Alcohol and Drug Abuse Commission, Canadian Centre on Substance Abuse & Health Canada.

Canadian Centre on Substance Abuse (CCSA) (2012). Alcohol Screening, Brief Intervention and Referral (SBIR) Resource. Available at: http://www.ccsa.ca/Eng/Priorities/Alcohol/Alcohol-Screening-Brief-Intervention-and-Referral/Pages/default.aspx (Accessed December 10th, 2013).

Canadian Public Health Association (CPHA) (December, 2011). Too High a Cost - A public health approach to alcohol policy in Canada. Ottawa, ON: Canadian Public Health Association.

Collège des médecins du Québec and Éduc'alcool (2012). Low-Risk Drinking Guidelines. A guide for physicians and health care professionals.

Corrao, G., Bagnardi, V., Zambon, A., La Vecchia, C. (2004). A meta-analysis of alcohol consumption and the risk of 15 diseases. Preventive Medicine, 38(5), 613-619.

de Beyer, J., & Waverly Brigden, L. (2003). Overview. In de Beyer, J., & Waverly Brigden, L. (Eds.), Tobacco control policy: Strategies, successes & setbacks (2-11). Washington: the World Bank.

Giesbrecht, N. (2007). Reducing alcohol-related damage in populations: rethinking the roles of education and persuasion interventions. Addiction, 102, 1345-1349.

Giesbrecht, N., Stockwell, T., Kendall, P., Strang, R. and Thomas, G. (2011). Alcohol in Canada: Reducing the toll through focused interventions and public health policies. Canadian Medical Association Journal 183(4): 450–455.

Giesbrecht, N., Wettlaufer, A., April, N., Asbridge, M., Cukier, S., Mann, R., McAllister, J., Murie, A., Plamondon, L., Stockwell, T., Thomas, G., Thompson, K., & Vallance, K. (2013). Strategies to Reduce Alcohol-Related Harms and Costs in Canada: A Comparison of Provincial Policies. Toronto: Centre for Addiction and Mental Health.

Karlsson, T., & Osterberg, E. (2001). A scale of formal alcohol control policy in 15 European countries. Nordisk Alkoho I & Narkotikatidskrift, 18 (English Supplement): 117-131.

Lim, S., Vos, T., Flaxman, A., Danaei, G., et al., (2012). A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: A systematic analysis for the Global Burden of Disease Study 2010. Lancet, 380, 2224-2260.

Ministère de la Santé et des Services sociaux (MSSS) (2013). Programme Alcochoix+ Available at: http://www.dependances.gouv.qc.ca/index.php?alcochoix_accueil (Accessed December 10th, 2013).

Paradis, C., Demers, A., & Picard, E. (2010). Alcohol consumption: a different kind of Canadian mosaic. Can J Public Health, 101, 275-280.

Pearson, C., Janz T., Ali J. (2013). Mental and substance use disorders in Canada. Statistics Canada, catalogue no 82-624-X.

Popova, S., Giesbrecht, N., Bekmuradov, D. and Patra, J. (2009). Hours and days of sale and density of alcohol outlets: Impacts of alcohol consumption and damage: A systematic review. Alcohol and Alcoholism, 44 (5), 500-516.

Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W., Patra, J., Popova, S., Sarnocinska-Hart, A., & Taylor, B. (2006). The costs of substance abuse in Canada 2002. Ottawa: Canadian Centre on Substance Abuse.

Rehm, J., Gnam, W. H., Popova, S., Patra, J., & Sarnocinska-Hart, A. (2008). Avoidable Costs of Alcohol Abuse in Canada 2002 – Highlights. Centre for Addiction and Mental Health.

Revenu Québec (2012). Tableau des taux de la taxe spécifique sur les boissons alcooliques. Lois sur la taxe de vente du Québec. Available at: http://www.revenuquebec.ca/documents/fr/formulaires/vd/VD-487.BA(2012-11).pdf (Accessed November 18th, 2013).

Société de l'assurance automobile du Québec (2013a). Sécurité routière, alcool au volant Available at:

http://www.saaq.gouv.qc.ca/securite_routiere/comportements/alcool/index.php (Accessed November 18th, 2013).

Société de l'assurance automobile du Québec (SAAQ) (2013b). Sécurité routière, zéro alcool. Available at:

http://www.saaq.gouv.qc.ca/securite_routiere/comportements/alcool/lois_sanctions_couts/zero_alcool.php (Accessed November 18th, 2013).

Solomon, R., Chamberlain, E., Abdoullaeva, M., Gwyer, L., & Organ, J. (2009). Rating the provinces and territories: The 2009 Report. The University of Western Ontario. Available at: http://www.madd.ca/english/research/rtp2009.pdf

Solomon, R., Cardy, J., Noble I., & Wulkan, J.D. (2013). The 2012 Provincial and Territorial Legislative Review. The University of Western Ontario and MADD. Disponible sur le site:

http://www.madd.ca/media/docs/MADD_Canada_2012_Provincial_and_Territorial_Legislative_Review_FINAL.pdf

Statistics Canada (2010). Canadian Community Health Survey (CCHS) 2000-2001, 2003, 2005, 2007, 2009, 2010. Public use microdata file (PUMF).

Statistics Canada (2013a). Volume of sales of alcoholic beverages in litres of absolute alcohol and per capita 15 years and over, fiscal years ended March 31, annual (Litres). CANSIM Table 183-0019. Available at: http://www5.statcan.gc.ca/cansim (Accessed April 22nd, 2013).

Statistics Canada (2013b). Canadian Community Health Survey (CCHS) – Mental Health. CANSIM table 105-1101. Available at: http://www5.statcan.gc.ca/cansim. (Accessed December 18th, 2013).

Thomas, G. (2012). Price policies to reduce alcohol-related harm in Canada. (Alcohol Price Policy Series: Report 3) Ottawa, ON: Canadian Centre on Substance Abuse.

Vaos, R. B., & Tippetts, A. S. (1999). Relationship of alcohol safety laws and drinking and drivers in fatal crashes. Washington, DC: National Highway Traffic safety Administration.

Wagenaar, A. C., & Toomey, T. L. (2002). Effects of minimum drinking age laws. Review and analysis of the literature from 1960-2000. Journal of Studies on Alcohol, 63, S206-25.

World Health Organization (WHO) (2009). Global Health Risks: Mortality and Burden of Disease Attributable to Selected Risk Factors. Geneva: World Health Organization.

World Health Organization (WHO) (2010). Global Strategy to Reduce the Harmful Use of Alcohol.

World Health Organization (WHO) (2011). Global status report on alcohol and health. Geneva: World Heath Organization.