



University
of Victoria

Centre for Addictions
Research of BC



UNIVERSITY OF TORONTO
DALLA LANA SCHOOL OF PUBLIC HEALTH



JOHNS HOPKINS
BLOOMBERG
SCHOOL OF PUBLIC HEALTH



DALHOUSIE
UNIVERSITY
Inspiring Minds



Reducing Alcohol-Related Harms and Costs in Manitoba:

A Provincial Summary Report

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

Norman Giesbrecht and Ashley Wettlaufer
Social and Epidemiological Research Department
Centre for Addiction and Mental Health

July, 2013

Suggested citation:

Giesbrecht, N. & Wettlaufer, A. (2013). Reducing Alcohol-Related Harms and Costs in Manitoba: A Provincial Summary Report. Toronto: Centre for Addiction and Mental Health.

Overview

The overall objective of this 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 Canada and draws comparisons across the provinces. The project serves to highlight policy strengths across each of these jurisdictions, provide recommendations on how to improve weaker policy areas and disseminate this up-to-date information to major stakeholders and policymakers in each jurisdiction.

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 the province of Manitoba. This project seeks to disseminate this information to policy-makers, decision-makers and knowledge users in order to stimulate 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 harms and costs.

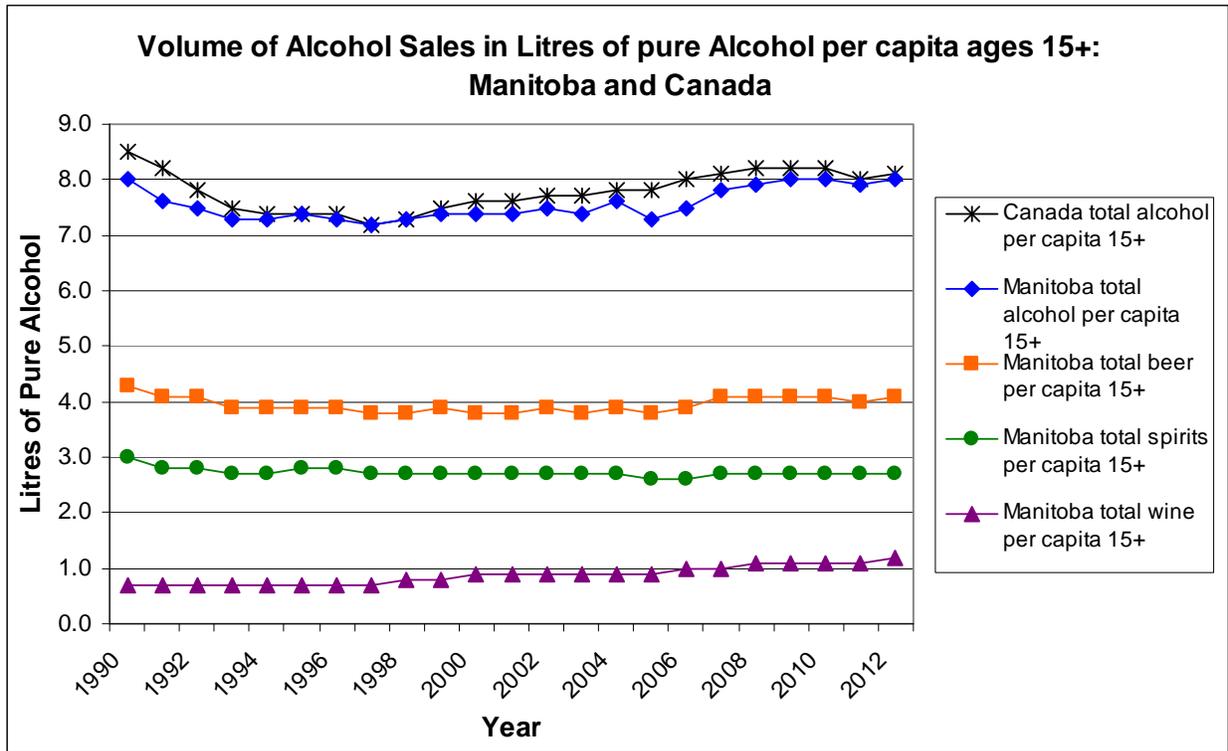
Methods

This project builds on the model implemented by MADD Canada and is based on well established and rigorous systematic reviews on the effectiveness of alcohol prevention measures as well as other studies which take a comparative approach to assessing alcohol policies (Anderson et al., 2009; Babor et al., 2010; Brand et al., 2007; Karlsson & Österberg, 2011). The policy dimensions central to this project were selected based on a review of the literature and best practices and overlap with those identified by the World Health Organization (2010) and the Canadian Centre on Substance Abuse in the National Alcohol Strategy (2007). The scoring rubric consists of 10 weighted policy dimensions which are each comprised of several scaled indicator measures and was peer reviewed by three international alcohol policy experts. Data for this project was collected systematically from official sources and verified by representatives from the relevant ministries. Finally, following a pilot test of the scoring system, the final scores were tabulated and weighted to produce the final provincial rankings.

The Current Status of Alcohol Use in Manitoba

While the total per capita alcohol consumption for Canada increased by 12.5% between 1997 and 2012 the per capita alcohol consumption for Manitoba has been following a similar trend, showing an increase of 11.1% over the same 15 year period, see Figure 1 (Statistics Canada, 2012). Manitoba survey data indicate that 77.8 % of Manitoba residents ages 15 years and older have consumed alcohol in the last 12 months and approximately 19% of Manitoba drinkers drink above the Canadian low-risk drinking guidelines (Health Canada, 2012).

Figure 1



Recent Developments in Alcohol Policy in Manitoba (since Nov, 2012).

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 Manitoba since the end of the data collection period of the main report in Fall 2012.

In April 2012 the Manitoba government announced the amalgamation of the Manitoba Liquor Control Commission and Manitoba Lotteries. Following this announcement, in early 2013 the Manitoba government announced new legislation that will produce a new act for the newly formed Manitoba Liquor and Lotteries Corporation. In April 2013 the Manitoba government announced the introduction of legislation that would direct two per cent of the new Manitoba Liquor and Lotteries Corporation’s net income each year to responsible gaming and alcohol consumption initiatives. These initiatives include dedicated funding to help Manitoba families coping with addictions. Specifically, almost \$1 million in new funding will be directed to the Addictions Foundation of Manitoba (AFM). This legislation enables long-term, stable funding for these initiatives to be secured.

Manitoba has also strengthened their efforts to curtail drinking and driving. Legislation passed in 2012 under the highway traffic act made ignition interlocks mandatory for all individuals convicted of an impaired driving offence. In April 2013, the province proposed further legislative changes that would ensure that convicted impaired drivers participating in the interlock program could have their vehicles impounded if they do not follow the rules of the ignition interlock program. The proposed changes would also allow a restricted driver to seek permission to use an employer's vehicle — even if the vehicle does not have an ignition interlock

system installed — for the sole purpose of maintaining employment. Ignition interlock programs are an important component of effective anti-drunk driving legislation and these tools help support law enforcement in an effort to reduce drinking and driving.

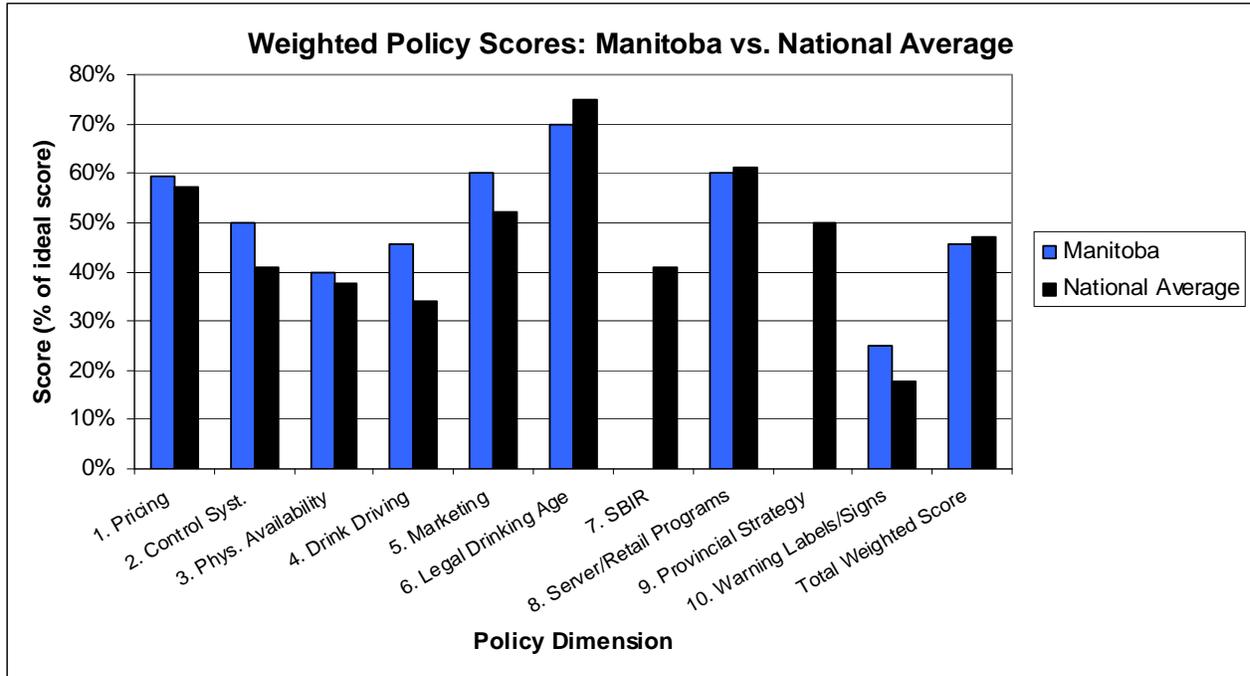
In May 2013, the province of Manitoba announced a number of proposed changes to their existing liquor licensing laws in order to increase flexibility for liquor licensing that will take effect in late 2013. The proposed changes included amendments that would allow service based businesses such as salons and spas to serve alcohol and for sports and entertainment districts to apply for special licenses that would permit flexibility in the current regulations such as extending hours of operation to 24 hours during significant community events. Furthermore, the changes would no longer require separate designations for bars and restaurants and restaurants will no longer be required to serve food with alcohol. The potential negative public health impact of these regulatory changes should be considered and assessed before they are implemented.

The proposed changes would also include strengthening some of the current alcohol controls and policies. For example, the proposed changes would include making public notices for liquor applications more clear and visible, by posting them online and in plain language and creating more opportunities for citizen and municipal input into the liquor licensing process. Enforcement of the legal drinking age will also be strengthened by implementing swifter penalties for violations of the act pertaining to underage drinking. Finally, advertising standards would be modernized and require social responsibility messaging.

Manitoba Specific Results:

Based on data collected up until November 2012, Manitoba ranked seventh overall. In comparison to the other provinces, Manitoba demonstrated areas of strength around drinking and driving counter measures, the marketing and advertising of alcohol as well as placing an emphasis on social responsibility initiatives and disseminating alcohol warning messages. Figure 2 shows a comparison between Manitoba's score on each of the policy dimensions compared to the national average score (across the 10 provinces) for each policy dimension.

Figure 2



The following is a detailed review of the results for Manitoba and includes Manitoba specific policy recommendations. It should be noted that the policy dimensions listed below are listed in order of their level of effectiveness and population reach i.e. the policies are listed in the order in which they are likely to have the most impact on reducing alcohol related harms and costs.

1. Pricing

Promising Practices: Manitoba has minimum prices for all beverage categories sold in on-premise establishments and for single serve beer containers less than 1L in volume sold in off-premise alcohol retail outlets. Furthermore, Manitoba’s pricing structure takes into consideration the alcohol content of some beverages by adjusting some prices by bands of alcohol strength. Finally, the average price of alcohol sold from off-premise outlets in Manitoba has been keeping pace with inflation over recent years. These practices help ensure that there are not deeply discounted or inexpensive products available on the market and that the price of alcohol is not getting cheaper, relative to other goods, over time.

Areas for improvement: Manitoba does not have minimum prices for spirits and wine in off-premise retail outlets and off-premise minimum prices for beer only apply to products in single serve containers of 1L or less. The average minimum price per standard drink for products of typical strength and volume sold from on-premise licensed establishments in Manitoba was \$2.26 and presented a wide range of average minimum prices across beverage types from \$1.54 for spirits to \$3.24 for coolers. The average minimum prices for beer, wine and coolers sold from on-premise licensed establishments fall below the minimum price point of \$3.00 per standard drink that has been recommended by the project team.

Recommendations: Manitoba's alcohol pricing policies can be strengthened significantly by implementing minimum prices for all beverage types sold from off-premise retail outlets. The research team recommends that off-premise minimum prices be set at a minimum of \$1.50 per standard drink. As well, Manitoba should consider increasing the minimum price per standard drink for coolers, wine and beer sold from on-premise establishments to \$3.00 per standard drink. Finally, Manitoba's off-premise alcohol prices have been keeping pace with inflation. To help ensure this trend continues it is recommended that alcohol prices be automatically indexed to the Canadian Price Index (CPI).

2. Alcohol Control System

Promising Practices: Manitoba has a mixed system of private and publicly owned off-premise retail outlets. Manitoba is unique in that the province does not allow privately run ferment on premise (FOP) outlets but has one government run FOP outlet. The government run retail outlets in Manitoba have a strong commitment to upholding their social responsibility mandate. Manitoba's legislation directs a portion of alcohol revenue to support alcohol and drug programs and the provincial liquor board disseminates social responsibility messages across several mediums including: posters, pamphlets, online content, print advertising, bus ads and an alcohol and youth summit.

Areas for Improvement: Approximately 10% of off-premise retail outlets in Manitoba are publicly owned. In addition to on-premise and off-premise outlets, alcohol is also sold through liquor delivery services and made available by ferment at home kits. Manitoba also has licensed beer vendors which are hotels that are authorized to sell beer and coolers for off-premise consumption.

Recommendations: It is important for Manitoba to maintain a government run retail system. Government run monopolies play a key role in regulating access to alcohol by maintaining effective alcohol control strategies such as legal drinking age and enforcement, the regulation of alcohol pricing, hours and days of sale and upholding a socially responsible mandate (Babor et al., 2010). Manitoba is urged to place a moratorium on the expansion of private outlets including beer vendors and expanding alcohol licenses to other types of businesses such as spas and salons.

3. Physical Availability

Promising Practices: Regulations in Manitoba provide opportunity for citizen input with regards to the placement of new licensed establishments and retail outlets, as well local by-laws may limit the number and or location of certain types of liquor outlets such as specialty wine stores. The hours of availability are also regulated in Manitoba for all types of outlets.

Areas for Improvement: Current regulations allow off-premise retail outlets, including beer vendors, to sell alcohol from as early as 9:00 am and as late as 2:30 am the next day. Government run stores have an internal policy to not stay open later than 11 pm. However, across all alcohol sales channels, alcohol is available for the greater part of the day in Manitoba.

Recommendations: Manitoba has several types of private alcohol retailers such as beer vendors, private wine stores and liquor vendors. It is recommended that Manitoba place a moratorium on the further expansion of their private alcohol retail network. Manitoba is also encouraged to reduce the availability of alcohol by restricting the hours of operation for all types of alcohol outlets but particularly for establishments that allow for the off-sale of alcohol. In the wake of recent announcements made by the Manitoba government about proposed changes to the liquor licence laws, in order to promote health and safety, Manitoba is strongly urged not to consider extending hours of availability to 24 hours, even on a temporary basis. Currently, alcohol is available for the greater part of the day with beer vendors being permitted to operate until 2:30 am. Manitoba is encouraged to reduce the availability of alcohol by, at minimum, reducing the hours of operation of beer vendors and not allowing further expansion of alcohol licenses to service based businesses.

4. Drinking and Driving

Note: The following is based on information provided by MADD Canada in their most 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, Cardy, Noble et al., 2012).

Promising Practices: Manitoba ranked third for their drinking and driving counter measures and is amongst the strongest provinces in terms of law enforcement powers that support the Graduated Licensing Program (GLP). Manitoba is one of the few provinces to implement additional 0.00% BAC limits that extend beyond the GLP. Manitoba also has escalating administrative license suspensions for repeat offenders with a look back period of 10 years and extends both the short term and long term ALS to those who drink and drive, operate a watercraft, plane or railway equipment. Drivers with 2 or more suspensions within a period of 3 years must undergo an impaired driver's assessment and may be required to complete an education or treatment program. Also, there is now a mandatory interlock program for all individuals convicted of impaired driving.

Areas for Improvement: Manitoba's graduated licensing program is currently a maximum of two years with a minimum driving age of 15.5 for those who complete a driver's education course. The GLP also does not include 0.00% BAC restrictions that extend until the age of 21 or that apply to supervising passengers nor does it include restrictions on nighttime driving and high-speed roadways. Administrative licence suspensions are not currently paralleled by vehicle impoundment and there is a nominal licence re-instatement fee of \$50 dollars.

Recommendations: The graduated licensing program in Manitoba could be strengthened by increasing the minimum driving age to 16 years of age, lengthening each stage of the program, requiring that supervising drivers have a 0.00% BAC and adding restrictions on night time driving and high-speed road ways. The short-term administrative licence suspension program could be strengthened by lengthening the licence suspension period for first time offenders from 24 hours to 7 days as well as implementing a parallel vehicle impoundment program for the

duration of the administrative licence suspension, and increasing the licence reinstatement fee to a minimum of \$150.

5. Marketing and Advertising

Promising Practices: Manitoba's provincial marketing regulations extend beyond those required by the CRTC and include restrictions on the placement of advertisements such as forbidding advertisements on the outside of a vehicle or inflatables to be displayed on or adjacent to school property. The provincial liquor commission and inspection services are responsible for the enforcement of the provincial advertising regulations and corporations can be fined up to \$50,000 for advertisements that do not meet the required standards.

Areas for Improvement: There are currently no restrictions on the quantity of alcohol advertising in Manitoba; the frequency and duration of the advertisement is at the discretion of the advertiser. There are also few restrictions placed on sponsorship. Alcohol manufacturers may sponsor charitable events, contests and events involving motorised vehicles.

Recommendations: It is recommended that Manitoba limit the quantity of the alcohol advertisements (see CPHA, 2011; Giesbrecht et al., 2011) and the province is urged to tighten restrictions on sponsorship specifically, banning sponsorship of events involving motorized vehicles or other events that portray skilled activities that are made more dangerous when combined with the use of alcohol.

6. Legal Drinking Age

Promising Practices: The minimum legal drinking age in Manitoba, which is 18 years of age, is supported by legislation prohibiting the sale of alcohol to a minor and the purchase of alcohol by a minor. Enforcement of the minimum legal drinking age in Manitoba is strong. The minimum legal drinking age is enforced by way of a liquor inspection program and collaboration with law enforcement in on-premise licensed establishments and by the implementation of a mystery shopper program in off-premise retail outlets.

Areas for Improvement: The minimum legal drinking age in Manitoba is 18 years of age. Regulations pertaining to social hosting laws in Manitoba permit a parent, guardian, spouse or common-law partner who is of legal drinking age to serve alcohol to their underage child, spouse or partner. Social hosting laws permit alcohol to be served to a minor within a private residence as well as in certain licensed establishments such as licensed dining rooms, sports facilities and private clubs. The alcohol must be purchased and provided by the parent, guardian, spouse or common-law partner of the individual who is below the legal drinking age and be consumed with a meal.

Recommendations: The legal drinking age is 18 in Manitoba. There is some evidence from Canada for a higher minimum legal drinking age (Whitehead et al., 1975; 1977) however, the more robust evidence comes from the United States (Wagenaar & Toomey, 2002). Research findings from the United States support implementing a higher minimum legal drinking age, such as 21 years of age, to help reduce drinking and driving incidents and delay the onset of

drinking (Babor et al., 2010). Manitoba is encouraged, at minimum, to increase their legal drinking age to 19 years of age and consider increasing the minimum legal drinking age to 21 years of age. Manitoba is also encouraged to revise their social hosting laws to prohibit the provision of alcohol to any individual below the legal drinking age.

7. Screening, Brief Intervention and Referral (SBIR)

Areas for improvement: Manitoba has not yet identified screening, brief intervention and referral activities as a priority area for action in their province. SBIR activities are not included in a provincial public health or alcohol action plan and there have not yet been any guidelines or position papers issued by a credible professional association on this topic. Finally, Manitoba does not have a fee for service code that can be used by primary care providers to conduct screening, brief intervention and referral activities.

Recommendations: Manitoba is encouraged to identify SBIR activities as a priority area in a provincial action plan on alcohol. It is recommended that SBIR activities be implemented for the general population with special attention to high-risk groups. In doing so, Manitoba is encouraged to make use of the SBIR web-based resource released in November 2012 by the Canadian Centre on Substance Abuse (CCSA) and the College of Family Physicians of Canada (CFPC). Finally, in order to support consistency in SBIR protocol across physicians, Manitoba is encouraged to implement a fee for service code that is specific to SBIR activities.

8. Server Training and Challenge and Refusal

Promising Practices: Manitoba has implemented a server training program, ServingItSafe, which is mandatory province wide. Similarly, Manitoba also has an off-premise challenge and refusal program which is based on a comprehensive set of challenge criteria and updated on a regular basis. Manitoba received top marks for the quality and enforcement of their challenge and refusal program in government owned and run retail outlets. The challenge and refusal program implemented in government owned and run retail outlets also tracks the number and types of challenge and refusals and is evaluated using a mystery shopper program. In the case where a retail outlet scores less than 100%, the staff undergo retraining.

Areas for improvement: The ServingItSafe program has not yet been evaluated for effectiveness in reducing over-service and service to minors and does not require recertification.

Recommendations: The ServingItSafe program is encouraged to offer interactive or face to face scenario based training activities and to require periodic retraining e.g. every 5 years, to help reinforce training and also give trainees the opportunity to learn of any changes in alcohol policy and regulation. Several of the Canadian provinces have server training programs with their own areas of strength. It is recommended that there be increased collaboration between provinces with regards to these initiatives and that these programs undergo evaluation, e.g. with before and after measures and a comparison site, in order to better understand their impact on rates of over-service and underage drinking. Furthermore, challenge and refusals are not consistently tracked amongst private retailers or on-premise establishments. It is recommended that private retail

outlets and on-premise licensed establishments track challenge and refusals and make this information available for monitoring and evaluation activities.

9. Provincial Alcohol Strategy

Areas for Improvement: Manitoba does not have a provincial alcohol strategy nor does it have a provincial strategy that encompasses alcohol or includes interventions or policies highlighted by the WHO Global Strategy to Reduce Harmful use of Alcohol (2010) that specifically target alcohol.

Recommendations: A provincial alcohol strategy is needed in Manitoba. Recent reports that focus on alcohol as a public health issue such as the National Alcohol Strategy (2007), the WHO Global Strategy on Alcohol (2010), and the CPHA position paper on alcohol Too High a Cost (2011) could serve as resource tools in moving toward the development of an alcohol strategy for Manitoba. A provincial alcohol strategy identifies alcohol issues as a provincial priority and helps to guide change with regard to the implementation of effective alcohol policies.

10. Warning Labels and Signs

Promising Practices: Manitoba Liquor Marts disseminate social responsibility messages on the topics of drinking and driving, talking to your kids about the risks associated with alcohol use, the dangers of binge drinking and alcohol use during pregnancy. The materials are made available for display in both on-premise licensed establishments and off-premise retail outlets.

Areas for Improvement: Manitoba does not have mandatory warning labels on beverage containers or packaging and does not have mandatory warning signs in on-premise licensed establishments or off-premise retail outlets.

Recommendations: It is recommended that Manitoba implement mandatory alcohol warning labels on alcohol beverage packaging. In addition, it is recommended that Manitoba implement a variety of mandatory clear and direct health oriented warning messages at all points of sale, including at both on-premise licensed establishments and off-premise retail outlets. Currently Manitoba Liquor Marts disseminate social responsibility messages on a wide variety of health topics however, Liquor Marts are encouraged to provide clear and direct health messages. For example, rather than use the slogan “Drink responsibly- Moderation tastes so much better”, which is vague and open to a wide range of interpretations, messaging can be strengthened by making direct reference to Canada’s low-risk drinking guidelines (Butt et al., 2011). Messaging on other health topics such as alcohol as a modifiable risk factor for chronic diseases should also be considered.

Recommendations for Manitoba

The following is a summary of the recommendations that have been outlined in detail in the above sections. The potential impact of these policies was assessed based on their scope (population reach) as well as the evidence of effectiveness. It should be noted that the policy recommendations are listed in the order in which they are most likely to have an impact on

reducing alcohol related harms and costs. All of these policies are central to a comprehensive approach.

- Implement minimum prices that apply to all beverage types across all alcohol sales channels including: on-premise establishments, off-premise retail outlets, alcohol delivery services, online sales and ferment on premise outlets.
- Stop further expansion of the privatized alcohol sales network including beer vendors and new licence types.
- Reduce the availability of alcohol by reducing the hours of operation, specifically by limiting the sale of alcohol early in the morning and late at night and prohibiting the extension of alcohol sale hours for special events.
- Involve citizens in decisions regarding the placement of all retail outlets and licensed establishments.
- Implement the drinking and driving countermeasures recommended by MADD Canada.
- Tighten restrictions on sponsorship, specifically begin by banning alcohol sponsorship of events involving motorized vehicles.
- Increase the minimum legal drinking age to 21, or at minimum, 19 years of age.
- Identify screening, brief intervention and referral activities as a priority area for action in Manitoba.
- Implement a fee for service code for physicians that can be used specifically for screening, brief intervention and referral activities.
- Conduct an outcome evaluation of the server training program and make the results available for on-going monitoring and as a resource for other provinces.
- Collaborate with administrators of server training programs in other provinces in order to share resources and strengthen the server training initiative.
- Track challenge and refusals in on-premise establishments as well as private retail outlets and make this data available readily for monitoring and surveillance activities.
- Develop a provincial alcohol strategy that emphasises alcohol specific policies and interventions that have been recommended by the World Health Organization.
- Implement mandatory warning labels on beverage containers with clear and direct health messages.
- Strengthen the current repertoire of warning signs in on-premise and off-premise outlets to include clear and direct messages on health topics such as moderate consumption, underage drinking, and alcohol as modifiable risk factor for chronic disease.

Alcohol is no ordinary commodity (Babor et al., 2010; CPHA, 2011). It is imperative that Manitoba continue to implement precautionary alcohol policies in order to reduce the harm and costs associated with alcohol use and to enhance the health and safety of residents of Manitoba. Refining and implementing the recommendations listed above will require an evidence-based perspective, leadership, commitment to reducing alcohol-related harm and a spirit of collaboration among key stakeholders including various ministries and sectors of government, NGOs working on health issues, public health advocates and representatives from the private sector. In light of the recent proposed changes in order to modernize the alcohol licensing system in Manitoba, the province is urged to consider the public health implications associated with the loosening of these controls. In implementing the proposed changes or future changes, the Manitoba government is urged to gather input from key stakeholders committed to reducing the

harm from alcohol and conduct pilot evaluations of these initiatives prior to implementing them on a province wide basis.

Acknowledgements

The authors would like to acknowledge funding from the [Canadian Institutes of Health Research](#) in support of the project “Reducing Alcohol-Related Problems by Implementing Evidence-based Tools that Translate Research Knowledge into Prevention Practice”, (Principal Investigator: Norman Giesbrecht). We would also like to gratefully acknowledge receipt of data and feedback from the Manitoba Liquor and Lotteries Corporation (MLLC), as well as from the Ministry of Health. Finally, we thank Mothers Against Drunk Driving (MADD) Canada for permission to use materials collected for their 2012 Provincial and Territorial Review. The in-kind support provided by our organization is gratefully acknowledged. As well, the project team members are thanked for their contributions to this project. The views and opinions expressed in this report are those of the authors and do not necessarily reflect the perspectives or policies of the organizations acknowledged.

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., Cesa, F., 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.
- Canada Health and Drug Use Monitoring Survey. Ottawa (ON): Health Canada; Available: www.hc-sc.gc.ca/hc-ps/drugs-drogues/stat/_2011/tables-tableaux-eng.php#t7 (accessed May, 2013).
- Canadian Centre on Substance Abuse [CCSA]. (April, 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, 2007.
- Canadian Public Health Association (December, 2011). *Too High a Cost - A public health approach to alcohol policy in Canada*. Ottawa, ON: Canadian Public Health Association.

- 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* Feb. 7. 2011
- Giesbrecht, N., Wettlaufer, A., April, N., Asbridge, M., Cukier, S., Mann, R., McAllister, J., Murie, A., Pauley, C., 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 Alkohol & Narkotikatidskrift*, 18 (English Supplement): 117-131.
- Solomon, R., Cardy, J., Noble, I., & Wulkan, R. (2012). *Mapping our progress to safer roads: The 2012 provincial and territorial legislative review*. The University of Western Ontario. Available at:
http://www.madd.ca/media/docs/MADD_Canada_2012_Provincial_and_Territorial_Legislative_Review_FINAL.pdf
- Statistics Canada (2012). Table 183-0019 - 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). Accessed May, 2013.
- 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.
- Whitehead PC. (1977). Alcohol and Young Drivers: Impact and Implications of Lowering the Drinking Age. Ottawa: Department of National Health and Welfare, Health Protection Branch, Non-medical use of Drugs Directorate, Research Bureau.
- Whitehead PC, Craig J, Langford N, MacArthur C, Stanton B, Ferrence RG. (1977). Collision behavior of young drivers: Impact of the change in the age of majority. *J Stud Alcohol*; 36: 1208-1223.
- World Health Organization [WHO] (2010). *Global Strategy to Reduce the Harmful Use of Alcohol*. Geneva: World Health Organization. Available at:
http://www.who.int/substance_abuse/alcstratenglishfinal.pdf

