A framework of alcohol indicators describing the consumption of use, patterns of use, and alcohol-related harms in Nova Scotia

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Foreword

Alcohol is without doubt still Canadians’ favourite recreational drug. As shown in this excellent report, three-quarters of Nova Scotians are current drinkers of alcohol. Sadly, however, there is also a nasty hangover with as many as 1149 deaths and several thousand hospital admissions in Nova Scotia between 1999 and 2003 being estimated to have been caused by excess alcohol use.

I recommend this report to anyone wishing to be informed about alcohol, public health, and public safety in Nova Scotia as well as to anyone wishing to see an example of a careful and thoughtful synthesis of available data on this important topic.

The methods used draw heavily from international recommendations promoted by the World Health Organization. A set of well-thought thorough recommendations for future monitoring of this problem in Nova Scotia is also provided, which I hope will be complemented by similar efforts on the west side of Canada! Too often social and health policy is made without any commitment to accountability and evaluation. This report lays out a blueprint for not only identifying the seriousness of alcohol-related problems, but for monitoring progress in future community responses to these. Much of what works in the way of effective prevention policy in this area has to be implemented locally and regionally. I therefore commend this report to the policy makers of Nova Scotia whether they be from health, policing, road safety, finance, child and welfare, education, or any other sectors impacted in some way by alcohol-related problems and hope that it will help to lay the foundations for effective policies in the years ahead.

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Alcohol Indicator Report: Executive Summary

The Alcohol Indicators Report for Nova Scotia provides a framework for a provincial monitoring system comprised of alcohol indicators that are direct and/or proxy measures of alcohol use and related harms. A major goal in the dissemination of the alcohol indicators report is to inform key stakeholders, at the provincial, regional, municipal, and community levels, of the significant health, economic, and social costs of alcohol-related harms in Nova Scotia and the pressing need to recognize this issue as a priority for action. The report is intended to provide current information to decision-makers in the health, enforcement, education, and alcohol industry sectors, to help target future policies and programs that effectively prevent and/or reduce the harms and consequences associated with alcohol use. The report focuses on the adverse harms of medium to high-risk drinking rather than any potential beneficial effects of low-risk drinking.

The report is framed around the World Health Organization’s (WHO) recommendations for alcohol indicators best practices. It includes a brief look at the status of alcohol use in Canada and a comprehensive synopsis of alcohol use in Nova Scotia, largely based on findings from a number of prevalence studies. Using the most recent data sources available, this report includes: estimates for per capita consumption among Nova Scotians aged 15 years and older; patterns of use (never used, former, and current users), high-risk drinking, non-compliance with low-risk drinking guidelines; and alcohol-related harms, including alcohol-related incidents of traffic offences, treatment, morbidity, mortality, and self-reported harm from one’s own use and from others’ use of alcohol.

Key findings for Nova Scotia

ALCOHOL CONSUMPTION

- For the fiscal period 1999-2004, Nova Scotians consumed, on average, 7.57 litres of pure alcohol per year.

- The Nova Scotian overall consumption of pure alcohol (7.57l) for the fiscal period 1999-2004 was slightly lower than the overall Canadian rate of 7.76 litres for the years 2000-2004.

PATTERNS OF USE

- 74.0 - 80.7% of Nova Scotians are current drinkers, 5.4 - 10.4% have never drank and 13.8 - 16.9% are former drinkers.

- Men (80.5 - 82.9%) are more likely to be current drinkers than women (71.5 - 78.8%).
Nova Scotians aged 60 years and older (55.5 - 64.7%) were least likely to be current drinkers.

Adults (25-29 years) had the highest current drinking rates at 90.9 - 91.1% followed by young adults (19-24 years) at 89.2 - 92.3%.

The average number of drinks consumed for all drinkers at a sitting was 3.2 drinks. Seniors consumed the least at a sitting (1.9 drinks) and young adults the most at 5.5 drinks per sitting.

51.7% of students (male and female) in grades 7, 9, 10, and 12 consumed alcohol in 2002.

**HEAVY DRINKING**

- 3 - 5.8% of Nova Scotians drink heavily every week.
- 17.5 - 20% of Nova Scotians drink heavily at least once a month.
- The rates for heavy drinking are particularly high for underage drinkers, young adults, men, and those who have never been married.

**HIGH-RISK DRINKING**

- 1 in 5 current drinkers or about 117,144 Nova Scotians are high-risk drinkers, meaning they attained a score of 8 or higher on the AUDIT.
- Underage drinkers, young adults aged 19-24, men, and those who have never been married are more likely to be high-risk drinkers as defined by the AUDIT.

**LOW-RISK DRINKING GUIDELINES**

- In studies conducted in 2003-2004, 3.0 - 17.7% of Nova Scotians exceeded the daily and weekly gender specific low-risk drinking guidelines.
- Among current drinkers in the 2004 Canadian Addiction Survey, young adults had the highest rate of non-compliance with the low-risk drinking guidelines at 49.1%, followed by adolescents 15-18 years old at 26.8%. Noncompliance in the 2003 Nova Scotia Gambling Prevalence Study was reported at 8.1% among young adults aged 19-24 years.

The majority of Nova Scotians drink alcohol. Males and those aged 19 to 29 years have the highest drinking rates, while Nova Scotians aged 60 years and older the lowest. A high percentage of Nova Scotians drink heavily weekly (3 - 5.8%) and monthly (17.5 - 20%). One in 5 current drinkers in Nova Scotia were identified as high-risk for hazardous alcohol consumption, harmful alcohol use patterns and/or alcohol dependence. Underage drinkers, young adults, men, and those who have never been married were most likely to be identified as heavy and/or high-risk drinkers. In addition, 3 - 17.7% of Nova Scotians exceeded the low-risk drinking guidelines for avoidance of acute and chronic alcohol-related harm.

The following alcohol consumption statistics were based on survey estimates. Using survey data, per capita consumption was calculated at 32.1% of the actual rate (2.5 litres of pure alcohol). Therefore when interpreting the following sections it is important to remember that if consumption is severely underestimated using survey data, perhaps patterns of use and harms are also underestimated.

Depending on the data source used, heavy drinking is usually defined as consumption of 5 or more drinks for either sex, or, 5 or more drinks for men and 4 or more drinks for women at a sitting.

The Alcohol Use Disorders Identification Test (AUDIT) is a tool used to identify hazardous consumption, harmful alcohol use patterns, and alcohol dependence.

To avoid acute and chronic alcohol-related harms, low-risk drinking guidelines developed in Ontario recommend that individuals consume no more than two standard drinks per day with weekly limits of 14 standard drinks for men and 9 for women.

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[A] A drink in this document refers to a standard drink in Canada which is a beverage containing 13.6 g of pure alcohol. Each of the following is representative of a standard drink containing 13.6 g of alcohol: one bottle or can of beer (12 oz/341 ml of regular strength beer - 5% alcohol), one glass of wine (5 oz/142 ml of wine - 12% alcohol), one drink or cocktail with one and a half ounces of liquor (1.5 oz/43 ml of spirits - 40% alcohol).
Alcohol-related harms

MORBIDITY AND MORTALITY:
• From 1999-2003, approximately 3000 admissions (3 - 3.4% of all admissions) to hospitals in Nova Scotia each year can be attributed to alcohol.
• Alcohol-related male to female admissions were 2:1.
• From 1999-2003, 1149 deaths in Nova Scotia can be attributed to alcohol use.
• Liver disease accounted for 348 alcohol-related deaths (30% of all alcohol-related deaths).
• Alcohol-attributable cancer deaths accounted for 232 deaths (20% of all alcohol-related deaths).
• Deaths from alcohol-related motor vehicle crashes, suicide, and falls accounted for a further 33% of all alcohol-related deaths (382 deaths).
• Alcohol was a factor in 163 motor vehicle fatalities in Nova Scotia between 1999 and 2003.
• In 1999, the ratio of alcohol-related mortality to all-cause mortality was 3.3%. Since then, it has remained stable at 2.8 - 2.9% of all-cause mortality in Nova Scotia.
• An estimated 403 babies born in Nova Scotia between 1999 and 2003 were affected by prenatal exposure to alcohol.

For the five-year period 1999-2003, about 3000 hospital admissions a year can be attributed to alcohol use in Nova Scotia, with men twice as likely as women to be admitted for alcohol use. During the same time period, 1149 deaths can be attributed to alcohol use in Nova Scotia with liver disease, alcohol-related cancers, motor vehicle crashes, suicide, and falls accounting for 83% of all alcohol-related deaths in Nova Scotia.

ALCOHOL-RELATED OFFENCES
• The Nova Scotia (235) and Canadian rates (242) per 100,000 population for impaired operation of a motor vehicle over 80mg were similar over the five year period 1999-2003.
• During the same period, the incidents of impaired operation of a boat, vessel, or aircraft causing bodily harm of 2.2/100,000 in Nova Scotia were almost double the overall Canadian rate of 1.2/100,000 a year.
• There has been a substantial reduction in incidents of failing or refusing to provide a breath sample over the past 5 years. The
number of actual incidents has decreased from 454 in 1999, to 197 in 2003. This may be due to changes in enforcement practices rather than dramatic changes in behaviour.

- In 2003-2004, 7.5% of Nova Scotians drove a motor vehicle after consuming two or more drinks in the previous hour and 11.5% of Nova Scotians reported being a passenger in a motor vehicle driven by someone under the influence of alcohol.

- Among licensed students, 14.8% reported driving within an hour of consuming two or more drinks and 6.6% of all students regardless of licensing status reported the same behaviour. In addition, 22.8% of students reported being a passenger in a vehicle driven by someone under the influence of alcohol in the prior year.

- There were 366 charges laid pertaining to Section 89 of the Nova Scotia Liquor Control Act, dealing with the sale or serving of alcohol to minors, from 1999-2003.

- In that same period, there were a total of 14,410 offences throughout Nova Scotia under Section 87 of the Nova Scotia Liquor Control Act, pertaining to public intoxication.

The Nova Scotia rate for impaired operation of a motor vehicle over 80mg was 235 per 100,000 population over the five year period 1999-2003. During that same period, the number of incidents of failing or refusing to provide a breath sample decreased from 454 in 1999, to 197 in 2003.

In 2003-2004, 7.5% of Nova Scotians reported driving a motor vehicle after consuming two or more drinks in the previous hour and 11.5% of Nova Scotians reported being a passenger in a motor vehicle driven by someone under the influence of alcohol. In 2002, 6.6% of all students reported driving within an hour of consuming two or more drinks and 22.8% of students reported being a passenger in a vehicle driven by someone under the influence of alcohol.

**SELF-REPORTED HARMS**

- In 2003-2004, 8.6% (47,871) of current drinkers (15 years of age and older) reported one or more harms from their own use of alcohol.

- Harm from their own drinking impacted most on their physical health, friendships, and social life.

- Nova Scotians who drank heavily once a month or more (consumption of 5 or more drinks for men and 4 or more drinks for women at a sitting) were 7 times more likely than non-heavy drinkers to report one
or more harms from their own use of alcohol, and those who drank heavily every week were 8.5 times more likely to report harms.

- Almost twice as many men (11.4%) than women (5.8%) reported harm from their own use of alcohol.

- In 2003, an estimated 9,378 Nova Scotians aged 19 and older reported they had a problem with the amount of alcohol they consumed or what happens when they drink.

- An estimated 237,270 Nova Scotians 18 years and older have been harmed by another’s use of alcohol. The most frequently reported harms were: being insulted or humiliated, being verbally abused, and being involved in a serious argument with a drinker.

- Among students in grades 7, 9, 10 and 12 in Nova Scotia, 30.5% reported experiencing at least one alcohol-related problem (56.0% among current drinkers), with 11% reporting three or more problems.

Many Nova Scotians experience harm from their own use of alcohol (47,871) or from someone else’s use of alcohol (237,270). Men and those who drink heavily are much more likely to report harm from their own use of alcohol. Among students in grades 7, 9, 10, and 12 in Nova Scotia, 30.5% reported experiencing at least one alcohol-related problem.

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**TREATMENT**

- Nova Scotians reporting alcohol use at treatment program intake has increased by 14.7% from 5,883 in 2000 to 6,749 in 2004.

- The ratio of males to females accessing treatment programs is about 3:1.

- The majority of Nova Scotians who seek treatment report multiple substance use (77.1% of women and 71.1% of men).

- One year after receiving treatment, 83.4% report no use or less use of alcohol.


- During that period, the ratio of male to female attendance for adolescents has maintained at approximately 2:1.

- Most adolescents also use other substances, about 23% reported use of one other substance and 71% reported use of two or more drugs.

- One year after treatment, 77.8% of adolescents reported no use or less use of alcohol.
AUDIT scale scores indicate that among current drinkers 15 years and older in Nova Scotia, 105,880 Nova Scotians may require brief interventions of advice or education and 7,885 may require brief interventions of advice, education, counselling, and follow-up to reduce risks associated with their use of alcohol. A further 3,379 Nova Scotians may require treatment for alcohol dependence.

From 2000 to 2004, Nova Scotia adults reporting alcohol use at treatment program intake increased by 14.7%. Over the same five-year period, the number of adolescents who sought treatment for alcohol use increased steadily. Most Nova Scotians, adults and adolescents, who seek treatment report multiple substance use. After treatment, most attendees reported no or less alcohol use.

**Recommendations**

**Recommendation 1**

*The findings from Alcohol Indicators Report should be communicated to key decision-makers throughout Nova Scotia.*

The Alcohol Indicators Report is a comprehensive synopsis of current alcohol use and related harms in Nova Scotia. The findings from this report should be communicated to key decision-makers at the provincial, regional, municipal, and community levels, in health, enforcement, education, alcohol industry, and other sectors impacted by alcohol-related harms. The information from the report will help inform future policy initiatives and activities targeted at preventing and/or reducing alcohol-related harms.

**Recommendation 2**

*A comprehensive alcohol strategy for Nova Scotia aimed at reducing harmful alcohol use and associated harms should be initiated.*

This report should serve as the framework upon which Nova Scotia Health Promotion initiates a comprehensive strategy designed to reduce alcohol-related harms in collaboration with provincial and regional partners and stakeholders. Such a strategy should attend to best practices and incorporate both population health approaches and harm reduction interventions targeted at the most harmful patterns and contexts of alcohol consumption. A population health approach encompasses such policies as alcohol pricing, taxation, and modifying access to alcohol. The strategy should identify harm reduction interventions targeting individuals involved with high-risk drinking patterns (e.g. 5 or more drinks per
drinking occasion) and include recommendations for the prevention of acute harms (e.g. unintentional injuries) while not impacting on any potential health benefits of moderate alcohol consumption.

**Recommendation 3**

*The Alcohol Indicators Report should be repeated in Nova Scotia on a three-to-four year cycle.*

The Alcohol Indicators Report should serve as the framework for a provincial monitoring system comprised of alcohol indicators that are direct and/or proxy measures of alcohol use and related harms in Nova Scotia, making it possible to observe trends over time, make comparisons, and measure the impact of policies and strategies. It is recommended that the report be prepared on a three-to-four year cycle.

**Recommendation 4**

*Further research should address the full impact of alcohol-related harms, including the context of high-risk drinking and the cost impact of alcohol on Nova Scotians.*

The Alcohol Indictors Report is a significant step towards improving the state of knowledge and understanding about the scope of harms associated with alcohol use in Nova Scotia. The full report identifies a number of opportunities to improve that knowledge, which should be considered in future reports, for example using physician billing to further explore alcohol-related morbidity. Ongoing research could address such gaps as exploring the types of beverages most related to acute and chronic harms in Nova Scotia and exploring the context of alcohol use among those experiencing alcohol-related harms. Finally, the cost impact of alcohol use on Nova Scotians needs to be updated to more accurately reflect the direct and indirect costs associated with harmful use.

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