# Alcohol: The Forgotten Problem

## Policy Background Paper

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**ALBERTA ALCOHOL AND DRUG ABUSE COMMISSION**
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## CONTEXT

The use and misuse of alcohol affects individuals, families and communities, and results in considerable social and economic costs. Epidemiologic studies have clearly demonstrated that alcohol consumption is directly and indirectly linked to physical and mental health problems, accidents and injury, violence and crime.[1] At the same time, there are benefits that accrue from alcohol use in terms of reduced risk of cardiovascular disease (for some sub-groups of the population) as well as the economic gains to both private industry and governments from the regulated production and sale of beverage alcohol.

Recent articles published in addiction journals have commented that alcohol appears to have fallen off the public and political agenda—despite its impact on the global burden of disease.[2] The context for this may reflect changing social norms concerning the use of alcohol, and perhaps a certain level of complacency given that alcohol is a legal product used by a majority of the population, most of whom experience few problems as a result of their drinking.

### *Purpose*

The purpose of this paper is to present current evidence on the prevalence of alcohol use and misuse, and to identify those strategies and policy options that are effective in reducing alcohol-related harm. It is not intended as a comprehensive review of the research literature on alcohol or policy, although it does draw on sources of information that summarize systematic reviews and evaluations of effectiveness. In addition, this paper does not discuss the use of non-beverage alcohol (e.g., methanol, mouthwash, household cleaners such as Lysol™) although it is acknowledged that regulations concerning beverage alcohol can influence the use of these products.

### *Definitions*

The addictions literature contains a large number of terms used to describe alcohol use that is considered harmful or unacceptable. For example, alcohol abuse, alcohol misuse, alcohol dependence, alcoholism, hazardous drinking, risky drinking, binge drinking, problem drinking, etc. These definitions vary and can cause confusion. This paper includes the following terms when discussing alcohol consumption.

> *Heavy Drinking*: Surveys in Canada and in other countries classify heavy drinkers as those individuals who consume five or more drinks per occasion, one or more times per week.

*Binge Drinking*: A pattern of heavy, episodic drinking, or drinking to intoxication where large quantities of alcohol are consumed on a single drinking occasion. There is no universal definition of binge drinking in the research literature, and this lack of consensus is especially pronounced in relation to patterns of drinking among teens and young adults.[3]

*Hazardous or High-Risk Drinking*: An established pattern of drinking that increases the likelihood of future physical or psychosocial problems.

*Harmful Drinking or Problem Drinking*: A pattern of drinking that is currently causing damage to one's health or psychosocial functioning.

*Alcohol Dependence (Alcohol Abuse)*: A clinical syndrome recognized by the American Psychiatric Association with criteria specified in the Diagnostic and Statistical Manual (DSM-IV). A cluster of cognitive, behavioural and physiological symptoms characterizes alcohol dependence, and (1) dependent individuals continue to drink despite significant alcohol-related problems, and (2) their pattern of alcohol consumption results in tolerance, withdrawal and compulsive use. Dependence captures only a small and very specific aspect of alcohol-related problems.

## TRENDS IN ALCOHOL CONSUMPTION

### *Prevalence*

Similar to other Canadian jurisdictions, alcohol is the drug most frequently used in Alberta, and it is the drug most commonly associated with acute and chronic health and social problems.

As shown in Table 1, the prevalence of alcohol consumption in Alberta and in Canada has fluctuated over the past 15 years. From the late 1980s to the mid 1990s consumption declined, but since then has increased. In contrast to previous surveys, the most current estimate of alcohol use by Albertans 15 and older shows that prevalence is very similar to the national average. When provinces are compared, Alberta is second only to Quebec (82%) in terms of self-reported alcohol consumption.[i]

[i] The Canadian Addiction Survey (2004) did not collect information from residents of the Yukon, Northwest Territories or Nunavut.

**Table 1**
**Current Drinkers; Alberta and Canada (aged 15 and older)***

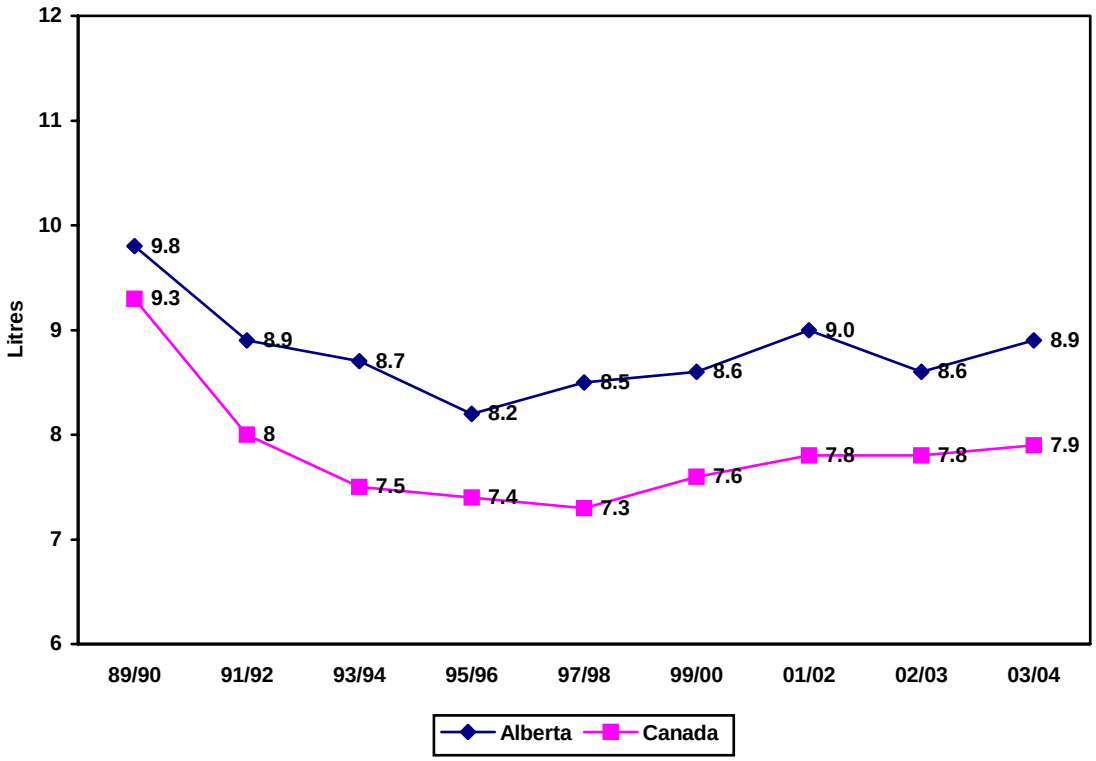
| | National Alcohol and Other Drugs Survey (NADS) 1989 | Canada's Alcohol and other Drug Survey (CADS) 1994 | Canadian Addiction Survey (CAS) 2004 |
|---|---|---|---|
| **Alberta** | 82% | 77% | 80% |
| **Canada** | 78% | 72% | 79% |
| *Consumption of at least one alcoholic drink in the year prior to the survey. | | | |

Drinking rates are highest among young adults, aged 18 to24. In Alberta, 87% of young adults reported drinking and in Canada 90% of those in this age group reported consuming alcohol in the past year.[4,5]

Based on annual sales data, per capita alcohol consumption in Alberta and in Canada shows a similar pattern (i.e., declines until the mid 1990s, with a steady increase since that time; see Figure 1).[ii] In 2003/04, per capita consumption in Alberta was 8.9 litres of absolute alcohol. Albertans continue to drink more per capita than the Canadian average (7.9 litres) and rank second behind the Yukon when provinces and territories are compared. Approximately 50% of the alcohol sold in Canada and in Alberta is in the form of beer, although wine and spirits have gained in popularity in recent years.[6]

[ii] Per capita consumption is based on volume sales data and it is a very crude measure of alcohol consumption. As noted by Statistics Canada, sales volume does not equate to total consumption since total alcohol consumption would also include homemade wine and beer, sales in duty-free shops, and any other unrecorded transactions.

**Figure 1**
**Per Capita Alcohol Consumption (population 15 and older)**
**1989/90 – 2003/04**




***Heavy Drinking and Alcohol Dependence***

Research has shown that certain patterns of drinking are associated with increased risk of both health and social problems. In particular, drinking to the point of intoxication and long-term consumption of higher quantities of alcohol both increase the likelihood of harm.[7]

Results from national surveys conducted since 1994/95 show an increase in heavy drinking in Alberta and in Canada. These surveys also show that the prevalence of heavy alcohol consumption in Alberta is higher than the national average.[8]

Data from the Canadian Addiction Survey (CAS) indicates that in 2004, 7.9% of Albertans were heavy, frequent drinkers.[iii] This compares to 7.1% of Canadians who reported heavy drinking, and is lower than reported heavy drinking in Newfoundland and

[iii] Individuals who consumed five or more drinks (men)/four or more drinks (women) at least once per week in the previous year.

Labrador (11.1%) but higher than the proportion of heavy drinkers in Quebec (5.7%). Men, people under 25 years of age, persons who are single, and those with less than university education are more likely to be heavy drinkers. Among young adults (18 to 24) in particular, the proportion of heavy, frequent drinkers is more than double that in the population as a whole; 18.3% in Alberta and 17.2% in Canada.[,5]

As part of the administration of the CAS, respondents completed the Alcohol Use Disorders Identification Test (AUDIT). The AUDIT is intended to identify hazardous or harmful drinking, and specific consequences from such drinking. Survey results showed that 15.3% of Albertans drank at hazardous levels compared to 13.6% of Canadians overall. As with heavy drinking (see above), Albertans are less likely to report hazardous alcohol consumption when compared to persons from Newfoundland and Labrador (16.9%), and more likely than their counterparts in Quebec (11.9%). Hazardous drinking is more common among men and people under age 25.[4]

Results from the 2002 Canadian Community Health Survey indicate that approximately 3.5% of Albertans (15 and older) and 2.6% of Canadians are alcohol dependent. The rate of alcohol dependence was higher for young adults, persons who are single (never married, divorced, separated), those living in low-income households, and individuals who have relatively little formal education. In addition, persons born in Canada were three times more likely than immigrants to be dependent on alcohol.[9] Alcohol dependence in the population 15 and older has increased both in Alberta and in Canada since 1996/97 (estimates at that time were 2.1% and 1.9% respectively).[10]

***Alcohol Consumption and High-Risk Drinking by Alberta Youth***

Alcohol is also the drug most commonly used by Alberta youth. Among students in grades 7 to 12 surveyed in 2002, 56.3% reported drinking in the previous year. The prevalence of alcohol consumption among youth increases with age (i.e., 17.6% of students in grade 7 reported using alcohol compared to 81.2% in grade 12).[11] Prevalence of alcohol consumption among Alberta youth has remained relatively unchanged since the mid 1990s and is similar to prevalence reported for Canadian youth as a whole.[12]

In 2002, 13.7% of Alberta students reported heavy drinking and 13.0% drank at hazardous or harmful levels as assessed by the AUDIT. Harmful use of alcohol was more common among males than females, among older students when compared to younger students, and among students living in cities than among those living in rural areas.

## ALCOHOL COSTS AND CONSEQUENCES

According to the *World Health Report 2002*, alcohol causes an estimated 3.2% of deaths and 4.0% of disability adjusted life years around the world. There is a causal relationship between alcohol consumption and more than 60 types of disease and injury. Besides chronic and acute health effects, alcohol consumption is also associated with numerous mental health, interpersonal, social and economic consequences.

At the population level, alcohol-related harm is not limited to the relatively small number of persons who drink heavily or who have been diagnosed with alcohol dependence. Abstainers, former drinkers and individuals who drink moderately and/or infrequently can be affected by their own or by someone else's alcohol use. This is because they make up the majority of the population (i.e., individually they may be responsible for less harm, but collectively their numbers are greater).'[13]

Results from the Canadian Addiction Survey readily demonstrate this. In 2004, 9.5% of Albertans and 8.8% of Canadians who were current drinkers reported harm to themselves from drinking. For example: physical health problems, adverse effects on friendships and social life, financial difficulties, and harm to their marriage or employment/education opportunities. A much larger percentage of survey respondents reported experiencing harm from someone else's drinking (38.0% of Albertans and 32.7% of Canadians). For example: being insulted or humiliated, experiencing verbal abuse, having family or marriage problems and being physically assaulted.[4]

### *Health*

The health problems related to alcohol use and misuse can be acute or chronic. Acute effects include alcohol poisoning, pancreatitis, cardiac arrhythmia, and injuries. Chronic effects include cirrhosis of the liver, increased risk for some types of cancer, certain forms of dementia, and alcohol dependence syndrome.

The leading causes of alcohol-related morbidity in Canada are alcohol dependence followed by non-dependent alcohol abuse, alcoholic psychosis and liver cirrhosis.[14] In 2001/02 there were 7,353 alcohol-related hospital separations from acute care and psychiatric facilities in Alberta. This included separations for patients diagnosed with alcoholic psychosis, alcohol dependence and abuse, toxic effects, cirrhosis and other liver damage.[15] While the absolute number of alcohol-related hospital separations has increased in Alberta, the rate (per 100,000 population) has remained essentially unchanged since 1996/97.[16]

Patterns of alcohol-related morbidity and mortality in Canada differ significantly by age and sex. Canada is similar to many other westernized countries where alcohol is a major contributing cause of death and hospitalization for young people (up to age 24). Most of the alcohol-related harm experienced by youth is the result of binge drinking or

drinking to intoxication, and the consequences include traffic injuries and fatalities, assault and suicide.[17] Adolescent use of alcohol has also been associated with an increased risk of problem drinking and alcohol dependence in later life.

### *Pregnancy*

Alcohol use during pregnancy is associated with health problems that adversely affect the mother and fetus. There is no level of alcohol consumption during pregnancy that has been determined safe. Women who drink during pregnancy place themselves at risk for having a child with fetal alcohol spectrum disorder (FASD). FASD has enormous implications in terms of illness and disability. A comprehensive study of the incidence of FASD has yet to be completed, but the rate of FASD in Canada is estimated at nine in 1,000 births, with higher rates among Aboriginal populations.[18]

Available information on drinking during pregnancy comes from the Canadian Community Health Survey (CCHS) and the Notice of a Live or Stillbirth and Newborn Record, which is an administrative dataset maintained by Alberta Vital Statistics. Both sources have limitations for estimating alcohol consumption during pregnancy. In particular, these data cannot distinguish between alcohol use and abuse. Therefore, estimates will include reported consumption by women who may have had a single drink during their pregnancy.

According to the CCHS, 14.2% of Canadian women and 9.4% of Alberta women (18 to 44 years) reported consuming alcohol during their last pregnancy. Alberta women were as likely as their Canadian counterparts to report binge drinking during pregnancy (10.3% vs. 9.9%), but more likely to report regular heavy drinking (12.1% vs. 6.9%).[19]

According to the data maintained by Alberta Vital Statistics, the proportion of women who reported drinking alcohol while pregnant has decreased slightly since 1997 (5.2%), and remained relatively stable at about 4.0%.[20]

### *Mental Illness*

Alcohol use and misuse often occurs in conjunction with mental health problems. However, it is not always clear whether alcohol abuse precedes or follows a mental health disorder.

Alcohol consumption is strongly linked with anxiety and depression, particularly among those who are alcohol dependent. A recent study estimated that 15% of Canadians who were alcohol dependent had at least one major episode of depression in the previous year. In contrast, 4% of the population who were abstainers, infrequent drinkers, or non-dependent drinkers had experienced a major depressive episode.

Alcohol intoxication and alcohol dependence are also risk factors for suicide and suicide ideation, especially in young people.[21] In 2000/01, the rate of alcohol-involved attempted suicide was highest for Canadians between the ages of 20 and 24 (3.5 per 100,000 population).

***Accidents/Injury***

In Alberta and across Canada, motor vehicle accidents are the leading cause of alcohol-related mortality. In 2003, 4.8% of Alberta drivers involved in injury collisions and 19.1% of drivers involved in fatal collisions had been drinking or were impaired. The proportion of drinking drivers involved in injury accidents in Alberta has steadily declined since 1990, whereas the proportion involved in fatal accidents has remained relatively stable. The majority of drinking drivers are males under age 35. In terms of involvement per 1,000 licensed drivers, males 18 to 24 are more likely to have consumed alcohol prior to the collision than drivers in any other age category.[22]

Reports show that as accident severity increases, so does alcohol involvement. Large-scale studies in Australia, the United States and Canada have demonstrated that as Blood Alcohol Content (BAC) increases above .05% (50 mg/100 ml), the relative probability of a motor vehicle collision increases exponentially.[23]

Alcohol is also a significant factor in traffic collisions involving motorcyclists, pedestrians and bicyclists. In 2004, 7.7% of motorcycle drivers involved in injury or fatality collisions had consumed alcohol prior to the crash. Among pedestrians involved in injury collisions in 2004, 13.7% had consumed alcohol and among those involved in fatal collisions, almost half (48.6%) had consumed alcohol. Pedestrians aged 20 to 24 had the highest rate of involvement (per 10,000 population) in alcohol-related injury or fatality collisions. Among bicyclists in Alberta involved casualty collisions, 4.6% had consumed alcohol prior to the crash.

Rates of alcohol involvement in snowmobile crashes are also of concern. Alcohol is a factor in an estimated 80% of snowmobile fatalities in Canada. In Alberta from 1991 to 2002, 23% of the snowmobile operators involved in injury or fatality collisions had been drinking or were alcohol impaired.[24]

A number of studies have implicated alcohol in injuries and deaths due to falls and fire. A review of the literature showed that alcohol was associated with between 15 and 53 percent of injuries from falls and 21 to 77 percent of fatal falls. Studies suggest that the strongest risk factor for death after the outbreak of fire is impairment from alcohol. Intoxication may make it difficult for a victim to escape the fire, and it also increases the likelihood of a fire starting if, when drinking, a person forgets that the stove is on or they fall asleep while smoking.

### *Violence*

Research has shown that heavy drinking and alcohol abuse contribute to spousal violence. Specifically, Statistics Canada reported that rates of spousal abuse were three times higher for people whose partners drank heavily (6%) than those whose partners drank moderately (2%).[25] Women who reported that their partner was drinking at the time of the assault were more likely than those whose partner was not drinking to be seriously injured, require medical attention, present to a hospital for treatment, and fear for their lives. Similar differences were found for men assaulted by their partners.[26]

In Alberta over the past 10 years, the proportion of spousal abuse incidents where alcohol was a factor has fluctuated from a low of 40% (1994) to a high of 61% (2000). In 2003, 48% of reported incidents of spousal abuse involved alcohol, and in 24% of incidents, both parties were drinking.[27]

### *Crime*

Alcohol use and abuse has a complex relationship with crime, although drinking is not uncommon among those involved in the criminal justice system. A recent Canadian study showed that 24% of offenders were under the influence of alcohol while committing their crimes, and inmates were more likely to be alcohol dependent when compared to the general population. Using the Alcohol Dependence Scale (ADS), study findings showed 15% of provincial inmates and 16% of federal inmates were alcohol dependent. Inmates who were intoxicated by alcohol at the time of their offence and/or those who were alcohol-dependent were more likely to have committed violent crimes than their counterparts who used drugs; 39% of inmates sentenced for assault, 34% convicted for homicide, and 30% sentenced for attempted murder. The study estimated that the proportion of crimes (violent, gainful and other crimes) attributed to the use of alcohol is between 11 and 35 percent.[28]

The crime most directly related to alcohol use is impaired driving. Impaired driving remains a serious problem despite gains made in Canada over the past 20 years, and it is a significant cause of mortality and morbidity.[29] Except for a slight increase in 2001 in Alberta, trends show a consistent decline in impaired driving rates.[26] Among provinces and territories, however, Alberta continues to have one of the highest rates of impaired driving. In 2002, 10,186 Albertans were charged with impaired driving; a rate of 417 per 100,000 population, compared to the Canadian rate of 265. The rate of impaired driving offences in Canada is highest among young adults aged 19 to 24.[30]

Trends also show that the reported prevalence of drinking and driving has declined. A recent survey by the Traffic Injury Research Foundation found that 17.8% of Canadians reported driving within two hours of consuming alcohol, and 5.6% reported driving when they were over the legal limit. Compared to other age groups, teenage drivers (16 to 19) are less likely to consume alcohol and drive. Results suggest a small minority of drivers (4%) in Canada account for the vast majority of impaired driving trips.[31]

Results from the Canadian Addiction Survey differ slightly, with fewer people reporting drinking and driving. Among those with a valid driver's license, 11.0% of Canadians and 10.3% of Albertans said they had driven a motor vehicle within two hours of having consumed two or more alcoholic drinks. A slightly larger proportion (17.8% and 18.2% respectively) reported being a passenger in a vehicle driven by someone who had been drinking.[5]

***Economic Costs***

The social and economic costs of alcohol abuse in Alberta were estimated at $749 million in 1992, an amount equal to $285 per person. Productivity losses ($445 million), health care ($124 million) and law enforcement ($111 million) accounted for the majority of total cost.[32]

Without taking into account lost potential and opportunity, it is estimated that more than $1.5 million in direct service costs (e.g., health care, special education, child and family services, income support programs, and criminal justice system) is spent on each person affected by fetal alcohol spectrum disorder (FASD).

In the workplace, alcohol problems are manifest in increased absenteeism and health claims, accidents, illness and injuries. In 2002, approximately one in ten (11%) Alberta workers reported using alcohol while at work.[33]

***Substance Abuse Treatment***

Alcohol is used by a majority of clients seeking AADAC treatment. However, the proportion of clients reporting alcohol as their drug of concern has declined over the past decade with poly-drug use being more apparent.

In 2004/05, 60% of adult clients (18 and older) who received treatment came to AADAC for problems related to their alcohol use. Most adults (86%) reported drinking in the previous year, and 49% indicated alcohol was the drug of most concern. Slightly fewer youth clients (12 to 17 years) accessed AADAC treatment services for alcohol problems (42%). However, the majority of youth clients (89%) reported using alcohol during the previous year. A much smaller proportion (15%) reported they were concerned about their alcohol use.[34]

Among Albertans (15 and older) surveyed in 2004, 3.6% reported receiving professional help for an alcohol or other drug (excluding tobacco) problem.

## BENEFITS OF ALCOHOL CONSUMPTION

There are significant health benefits from moderate alcohol consumption that have been well documented in the research literature. There are also economic gains to both private industry and to governments that result from the production and sale of beverage alcohol.

### *Moderate Drinking*

Moderate alcohol consumption can be broadly defined as the level of drinking that has a low risk of harm for both the drinker and others. In Canada the recommended maximum is two standard drinks on any day, with a weekly maximum of 14 drinks for men and nine drinks for women. These guidelines do not apply to all individuals, and further recommend that individuals should abstain or limit their alcohol consumption when pregnant, when taking medications or if they have certain health problems, when operating vehicles or otherwise need to be alert, or if they are or were alcohol dependent. In addition, the guidelines are not recommended for youth.[35]

In recent decades, the health benefits of moderate alcohol consumption have been confirmed in multiple studies. The benefits of moderate consumption derive mostly from the reduced risk of coronary heart disease in men over 45 living in developed countries. Moderate alcohol consumption has also been associated with decreased risk of arterial disease, ischemic stroke and Type 2 diabetes. The potential benefits of moderate drinking are generally offset at higher drinking levels, and also by the risk for alcohol-related injuries, breast cancer, colon cancer, liver disease and in some people, nutritional deficiencies.[36]

Research from Australia, Canada and New Zealand suggests that moderate alcohol consumption may prevent more deaths than it causes. However, there are more hospitalizations caused by alcohol misuse than saved by moderate consumption, and overall, more years of life lost to alcohol than years saved.

### *Economic*

The economic benefits of beverage alcohol production and distribution are widespread. In 2003/04, sales of alcoholic beverages (beer, wine and spirits) in Canada totalled $16.1 billion. In Alberta, sales totalled $1.6 million. Since 1993/94, the total value of liquor products sold in Canada has grown 56.4%. Per capita spending on alcohol in Alberta was $615 in 2003/04, fifth highest among province and territories, and similar to the Canadian average of $623 (per person 15 and older).[6]

Federal, provincial and territorial governments benefit from the control and sale of alcohol through tax revenues. In Canada in 2003/04, government revenue (excluding provincial sales tax) was $4.3 billion and revenue in Alberta was $5.5 million. [6]

## ALCOHOL POLICY

Alcohol policy can be defined as measures that control the supply and affect the demand for alcoholic beverages. Control measures encompass a wide range of strategies and actions that affect consumption levels and drinking patterns, which in turn affect alcohol-related health and social harms. In North America, Europe, Australia and other westernized countries, the development of alcohol control policy over the past century has been deliberate, incremental and generally accepting of moderate drinking in a social context. [2]

Alcohol control policies are most often viewed as those measures initiated and maintained by government to regulate industry while protecting public interest (i.e., health and safety). However, actions taken by non-government organizations as well as other factors also influence consumption and alcohol-related harm (e.g., industry practices, consumer and public expectations, marketing and demographics).

Alcohol control policy cannot be limited to those who are heavy drinkers or alcohol dependent, but must take into account all drinkers. Considerations must entail both the acute and chronic consequences of drinking including physical, social and psychological problems. To be effective, alcohol control policy needs to address small and large problems, as well as common and uncommon consequences.[37]

A general distinction can be made between population-based and targeted approaches to controlling alcohol use and preventing alcohol-related harm. As outlined below, the distinction between these approaches is not always firm, and they should be viewed as complementary rather than contradictory. Their impacts can overlap, and both approaches have advantages and disadvantages. What is evident is that achieving a balance between population-based and targeted approaches is likely to be most effective in addressing alcohol problems.[38]

### *Population-Based Approaches*

Population-based measures generally refer to strategies intended to reduce levels of alcohol consumption in the entire population; that is, a reduction in per capita consumption is the expected outcome. Examples include taxation, controls over the physical availability of alcohol, legal drinking age legislation, public awareness and health promotion campaigns.[38] These approaches are justified on the basis that alcohol problems are highly correlated with per capita consumption.'

The advantages of population-based strategies are that they are easy to implement, they can be cost effective, and there is reasonably good evidence that many of the measures are effective in reducing alcohol consumption and related problems. They also produce secondary benefits such as revenue generation (i.e., from taxation, licensing) and overt demonstration of government concern (a symbolic effect which can translate into funding for alcohol treatment, prevention and research). The disadvantages of these measures is that they fail to address the situational

determinants of drinking and alcohol misuse, can produce unintended impacts for non-problem drinkers (e.g., undermine the health benefits of moderate consumption), and in some cases, despite a lack of empirical evidence showing effectiveness, they are maintained at a cost to taxpayers. Furthermore, there is declining political support for population-based measures because of concerns about the profitability of the alcohol industry and international trade agreements that favour less control.[38]

***Targeted Approaches or Harm Reduction Strategies***

Targeted measures are intended to reduce alcohol use or alcohol-related harm in certain situations or for certain groups of people. As is the case with drug use, the focus is on decreasing the risk and severity of adverse consequences, without necessarily decreasing the level of alcohol consumption. Examples include brief interventions by a health professional, server training, impaired driving countermeasures and alcohol treatment.

The primary advantage of these strategies is that they address the context in which drinking and heavy drinking occurs and they target those persons most prone to alcohol problems. In addition, they may generate less resistance from the public and private sector (at least in western countries) because they acknowledge that in contemporary society, there are both harms and benefits from alcohol consumption. The disadvantages of targeted approaches are that they are more difficult to implement, are not necessarily well understood by the public or by politicians, can improve individual circumstances but do not affect a large proportion of the population, are revenue neutral, and in many cases have limited evidence of effectiveness.

***Effectiveness***

In terms of effectiveness, population-based approaches have a greater impact on chronic alcohol-related problems like liver cirrhosis, whereas harm reduction strategies are more appropriate for acute consequences. In Canada, a higher proportion of alcohol-related mortality and morbidity is accounted for by acute causes such as accidents and suicide. Growing empirical support for targeted alcohol policy approaches comes from studies showing that drinking patterns and age are powerful variables influencing alcohol problems (e.g., impaired driving, workplace absenteeism, family dysfunction). Furthermore, there are health benefits from moderate alcohol consumption that cannot be ignored, and population-based approaches may undermine the net benefit that can accrue. [38]

Babor and his colleagues (2003) have identified best practices in alcohol control policy that include population-based and targeted approaches.[39] These policy options were rated on (1) effectiveness in reducing harm, (2) strength of research support, (3) extent of testing across diverse cultures and (4) relative costs of implementation. The list produced by Babor et al. is not necessarily exhaustive, and the following discussion

builds on this list in order to summarize the relative merits of these as well as other alcohol control options.[iv]

**Alcohol Taxes**

In the context of public health, alcohol taxes are justified by the harmful effects of these products and the costs borne by individuals and to society as a result of drinking. Alcohol taxes are a cost effective way of reducing harm because they impact both heavier drinkers and younger consumers. It has been suggested that alcohol taxes are an ideal public policy option because their impact is twofold; reducing alcohol use and related social harm and raising government revenue.[40]

The greatest amount of evidence with regard to control policy has been accumulated on the price-sensitivity of alcoholic beverages. This research suggests that the demand for alcoholic beverages is responsive to price movements, such that as price increases, demand declines and vice-versa. As a control measure, taxing alcohol beverages has proven effective in reducing consumption. However, taxes do have a disproportionate impact. Individuals who drink but experience no problems must pay the same for these products as those who consume alcohol and experience adverse consequences.

**Controls over Physical Availability**

There are a number of existing policy options for controlling the physical availability of alcohol. The maintenance of provincial alcohol monopolies is one option that continues in all provinces except Alberta.[41]

- **Hours and Days of Sale**: There is evidence that restricting when alcohol can be purchased (on and off premise) influences consumption and alcohol problems, since some of the consequences of drinking are associated with the timing of consumption (e.g., drinking late into the night).

- **Outlet Density:** The clustering of retail alcohol outlets has generally been associated with level of consumption and health and social indicators of harm. This is particularly true for off-premise outlets. Restrictions on outlet density, which are usually set by municipal governments, have been shown to reduce alcohol-related problems.'

**Legal Drinking Age Legislation**

Most countries restrict the sale of beverage alcohol to minors. For those with minimum purchase age laws, the range varies from 14 in Switzerland to 21 in the United States. Studies show that increasing the legal drinking age (LDA) results in a decrease in alcohol consumption and alcohol-related motor vehicle accidents and injuries among youth.[42] Less compelling evidence is available to show that that raising the LDA

[iv] A summary table rating the effectiveness of alcohol policies is provided on pages 264-266. See Babor et al., *Alcohol: No ordinary commodity* (2003).

results in a decrease in harmful drinking or other alcohol-related problems (e.g., suicide) among youth.[43]

Alberta, Manitoba and Quebec have a legal drinking age of 18. All other Canadian provinces maintain an LDA of 19 years. Because the legal drinking age is considered a blunt policy instrument, there is little justification for setting the age at 21; the same arguments used for raising the LDA to 21 could also be used to increase the age to 25 or higher.

**Public Awareness/Health Promotion**

Governments, industry and non-government agencies are all involved in putting out messages to inform the public about alcohol. They range from messages that are abstinence-oriented to those advocating social responsibility when drinking. Research suggests that these messages can increase awareness and factual knowledge about alcohol as well as public support for alcohol control policies. However, the weight of the evidence does not show any independent effect on consumption over the short or medium term.'

One suggestion for improving the overall effectiveness of public awareness and health promotion is to use messages that promote "a culture of moderation" as opposed to a culture of intoxication or risk avoidance. This is the approach being taken in Quebec (a long-term strategy), and whereas prevalence of alcohol use is higher in that province, problem indicators (e.g., heavy drinking, dependence, reported harm) are lower than in other Canadian jurisdictions.[44]

- **Alcohol Warning Labels**: Warning labels represent a population-based strategy. They are directed to all drinkers, not just those with alcohol problems or those who should not be drinking. In Canada, only the Yukon and Northwest Territories require warning labels on alcoholic beverages.[v]

  There is no evidence to support the effectiveness of warning labels in reducing alcohol consumption or alcohol-related harm. However, research in this area is limited and warning labels may reinforce other forms of education. Studies show that warning labels have the greatest effect on changing attitudes of non-drinkers and low-risk drinkers but no discernable effect in changing the attitudes or behaviours of heavy drinkers (despite their frequent exposure to the labels).[45]

[v] On February 1/05, amendments to the Ontario Liquor Act came into force. The Act now requires that all licensed established that serve or sell alcohol must post government approved signs warning of the dangers of drinking while pregnant. In October 2004 proposed federal legislation (Bill C-206) was introduced requiring warning labels on all alcoholic beverages sold in Canada. In April 2005 the Standing Committee on Health recommended that the House of Commons proceed no further with this legislation based on considerations of cost and the availability of more effective interventions.

- **Restrictions on Alcohol Advertising**: Alcohol advertising is regulated at both the provincial and national levels in Canada. In recent years, controls on alcohol advertising are moving toward industry self-regulation, and the enforcement of guidelines on alcohol advertising is largely driven by consumer complaints. The provinces regulate inducements and promotions by the alcohol industry and provide enforcement of licensing restrictions.

  While some public health advocates believe alcohol advertising should not glamorize the use of alcohol and should not target underage drinkers, others suggest industry advertising can be effectively counter-balanced with public service announcements and widespread publicity of help-lines for those individuals experiencing problems related to alcohol use.[vi] There are also those who think advertising and promotion should be banned altogether.

  The weight of the evidence indicates that alcohol advertising does not have a strong impact on consumption rates or problem indicators, over the short or medium term. Whether or not there is an effect over the long term cannot be determined, as studies of this type are lacking and would be complicated to conduct.[41]

  Research confirms that industry self-regulation of alcohol advertising is largely ineffective and fails to serve the interests of public health.

**Education**

Most alcohol education is abstinence-oriented although this emphasis is changing. Education encompasses a broad array of strategies—some of these are population-based and others that are targeted; some are formal and some informal. In general, alcohol education is intended to increase knowledge about alcohol and the risks associated with drinking. A secondary and more specific aim is to change drinking patterns and behaviours. The end goal is to encourage responsible and positive choices about alcohol consumption and to discourage irresponsible and negative choices. Research shows that targeted education strategies are more effective than population-based strategies, but overall, the impact of alcohol education is small and does not persist.[39,46]

- **School-Based Prevention**: Curriculum-based programs are among the most popular and most studied forms of alcohol education. These programs stress the risks of consumption and attempt to delay the onset of drinking among youth.

  There is no systematic review evidence for the effectiveness of traditional school-based alcohol prevention programs. They may increase awareness but do not necessarily affect behaviour, and most studies in this area lack the methodological

[vi] Research does not confirm any positive effect from PSAs in changing behaviour. However, PSAs may increase awareness and understanding of issues related to alcohol.

rigour needed to make such claims.'[41] At the same time, certain aspects of school-based prevention are considered more effective than others in reducing alcohol consumption and heavy drinking among teens and young adults. Specifically, peer-led versus teacher-led programs, interactive strategies that develop interpersonal skills, and life skills training for post-secondary students.[1]

- **Youth at Risk**: Unlike traditional school-based prevention, education programs targeting youth who already drink have shown promising results in reducing alcohol problems. In particular, educational approaches that rely on life skills training may be effective where factors like poverty or family dysfunction predominate in influencing consumption or alcohol-related problems.

- **Social Norming**: This strategy has most often been used with post-secondary students. It targets those individuals who do not drink or who drink moderately, and involves providing information that supports this behaviour as well as educating students about how much (or how little) their peers actually drink. The intent is to correct misperceptions about behaviour using media, didactic and interactive presentations.

  There is very limited research on social norming, although some studies from the US suggest it is successful in reducing heavy drinking.[41]

- **Drinking Guidelines**: Governments and quasi-government organizations around the world have issued formal guidelines intended to provide the public with information about levels of alcohol consumption that are more or less harmful. There is little if any evidence to suggest drinking guidelines alter behaviour or reduce alcohol-related harm. In many instances they are supported solely by a moral imperative (i.e., individuals should become better informed about their drinking and the risks inherent in this behaviour).

**Brief Interventions**

Brief interventions for high-risk drinkers are characterized by low intensity and short duration. They usually involve one to three sessions of screening, assessment or counselling. Most are not abstinence-oriented and while some involve addiction treatment specialists, many more involve health practitioners working in a variety of settings.

There is no conclusive evidence to support the effectiveness of life-style counselling by physicians in reducing alcohol consumption. However, results are more encouraging for brief interventions with adults and youth, offered by healthcare professionals in other clinical and non-clinical settings.[1] For example:

- Research shows that alcohol screening and brief interventions in hospital emergency departments are effective in reducing heavy drinking. Heavy drinkers receiving brief intervention are twice as likely to moderate their consumption--for up to one year but particularly in the first three to six months--compared to those who received no intervention. There is also good evidence that brief interventions, offered over several visits to a primary care facility, are effective in reducing alcohol intake by women.

- Education and/or counselling by a health professional can be effective in changing drinking behaviours among pregnant women at high risk (e.g., those who have a child with FASD or have used/abused alcohol during a previous pregnancy).[46]

**Impaired Driving Countermeasures**

Long-term declines in the rate of impaired driving have been influenced by a number of factors, including legislative changes, stricter enforcement, and shifts in social norms regarding drinking and driving. Impaired driving rates started to decrease in the early 1980s, at about the same time that public and government interest in this issue prompted action to deal with the problem. For example, the introduction of provincial and territorial legislation related to impaired driving with such provisions as ignition interlock, administrative suspension and vehicle forfeiture. Changes were also made to the *Criminal Code* that allowed for harsher penalties, local police forces initiated or increased roadside sobriety checks, advocacy organizations like MADD became more prominent, and federal/provincial/municipal governments introduced public awareness campaigns with the message that alcohol and driving do not mix.[26]

Impaired driving countermeasures represent a targeted policy approach that includes a combination of legislative, regulatory, enforcement and education strategies. Not all countermeasures have been adequately evaluated, yet there is accumulating research that individually and together, these strategies are effective in reducing alcohol-related traffic accidents and impaired driving.

- **Blood Alcohol Content (BAC) Laws**: There is strong evidence that .08 BAC laws are effective in reducing alcohol-related traffic fatalities, including research supporting lower BAC limits to prevent traffic fatalities among young and inexperienced drivers.

- **Roadside Sobriety Checks**: Research supports increased enforcement and in particular, the effectiveness of police roadside sobriety checks in preventing impaired driving and alcohol-related injury and fatality collisions.

  Australia, New Zealand and some European countries have taken this concept further and introduced random breath testing for drivers. Unlike the Alberta Checkstop or similar campaigns mounted by police during holiday weekends, drivers

are routinely and randomly stopped, and must provide a breath test even if they are not suspected of impaired driving. Refusal to submit to the test is equivalent to failing. There is strong support in the research for the effectiveness of random testing to prevent drinking and driving.

- **Administrative License Suspensions**: Provincial laws relevant to license suspension have a general deterrent effect because the punishment immediately follows the crime. For example, most provinces and territories enforce a BAC limit lower than .08 and police can issue an immediate 12 to 24 hour license suspension for drivers exceeding the lower limit (.05 or .04). Evidence supports administrative license suspension as cost-effective and complementary to federal BAC laws in reducing impaired driving and alcohol-related traffic fatalities.

- **Graduated Licensing**: Graduated licensing is a system for phasing in driving privileges. Twelve Canadian jurisdictions, including Alberta, have enacted graduated licensing systems. Most of these programs incorporate lower BAC limits and/or zero alcohol tolerance for new drivers along with driving curfews and other incremental restrictions. Reports suggest graduated licensing is well accepted where implemented. Although there are only a small number of sound evaluations to date, they show positive results in terms of driver safety and reduced involvement in motor vehicle collisions.[,47]

- **Designated Driver Programs**: Both formal and informal programs exist to ensure safe transport for individuals who have been drinking. Designated driver programs encourage one person in a group to abstain and to assume responsibility for driving others. Ride service programs are voluntary, commercial or seasonal (e.g., Operation Red Nose) and provide transportation to intoxicated persons who might otherwise drive. Designated driver programs are popular but there is almost no research that examines their effectiveness in reducing impaired driving. Some studies show they are able to reach high-risk groups (e.g., young males) but that even with intensive promotion, only modest increases in use occur. At the same time, these programs play a role in educating the public about the risks of drinking and driving and they can reinforce social norms against impaired driving. [39]

- **Ignition Interlock:** The alcohol ignition interlock is a breath test device attached to a vehicle's ignition system to prevent it from being started by someone who has been drinking. To start the vehicle, the driver must provide a breath sample that shows they have a BAC below a set level (normally .04 or less). A number of Canadian provinces, including Alberta, require alcohol ignition interlock devices for persons convicted of an impaired driving offence. Studies to date suggest these devices are effective in reducing impaired driving. Until the devices are more widely adopted however, their true potential cannot be adequately evaluated.[48]

- **Remedial Treatment**: Most Canadian provinces have programs in place that require assessment and/or treatment for individuals convicted of impaired driving. There is reasonably good research evidence supporting the effectiveness of remedial treatment programs for impaired drivers. Study recommendations suggest these programs should be part of a comprehensive set of countermeasures.[49]

**Drinking Context/Environment**

A number of strategies have been introduced to alter the drinking context or environment to reduce intoxication, injury and violence in licensed premises. For example, pubs in Scotland and other areas of the UK have introduced special glassware to reduce the likelihood of alcohol-related injuries. These glasses crystallise when broken rather than creating shards that could be used as a weapon. While the glassware does not prevent a fight from occurring, it has reduced the number and severity of injuries resulting from pub brawls.

- **Server Training and Intervention**: Server intervention or responsible beverage programs operate in many jurisdictions. Some programs are voluntary and some are mandatory. Server intervention programs aim to reduce alcohol problems without restricting consumption for the majority of patrons in drinking establishments. These programs include training for management and serving staff to (1) assist them in recognizing and refusing service to underage or intoxicated patrons, (2) develop house policies that promote moderation (e.g., considering drink discounts and promotions, offering free non-beverage alcohol), (3) support and encourage safe transportation strategies, and (4) modify the physical environment to reduce injury and violence.[50]

  The research literature supports the effectiveness of server intervention training to reduce heavy drinking and related problems, and suggests this training should be mandatory, offered face-to-face, accompanied by strong management support, and combined with enforcement.

**Workplace Programs**

The rationale for workplace alcohol policies and employee assistance programs is to improve productivity and workplace safety. Developing workplace policies and programs is relatively complex and requires consideration of health consequences, ethical and legal obligations. Although the workplace presents a prime opportunity for intervention, there is no evidence that workplace prevention programs are effective in reducing alcohol consumption, and there is very limited evidence to support the effectiveness of workplace employee assistance programs in reducing alcohol-related problems.

**Community-Based Intervention**

Community-based programs generally rely on public awareness and health promotion messages to reduce the consumption of alcohol or they focus on policy changes (e.g.,

creation of municipal bylaws) to influence physical availability and address health and safety issues. Research suggests community control strategies should be multi-faceted in order to influence health-risk behaviours (including heavy drinking). However, the strongest evidence for their effectiveness is in the area of regulatory control (e.g., providing business incentives for responsible alcohol service, zoning on and off-premise outlets, ensuring liquor laws are enforced).

**Alcohol Treatment**

Providing early intervention and treatment for alcohol problems is a targeted approach with demonstrated effectiveness. There is good evidence that individuals exposed to some type of treatment subsequently reduce their use of alcohol and show improvements in other life areas.[51]

In considering treatment options, there is an ongoing (and sometimes acrimonious) debate over whether controlled drinking[vii] or abstinence is the most appropriate treatment goal. This debate parallels the conflict between harm reduction and zero tolerance in addressing drug use. Research demonstrates that relapse is common among those treated for alcohol-related problems whether their goal is complete abstinence or moderation of alcohol consumption. In evaluating controlled drinking as an effective treatment option, however, research is lacking.

Although treatment is primarily designed to meet the needs of individual clients, it has secondary benefits to the community; by raising awareness of alcohol problems and reducing the stigma associated with these, influencing local policy agendas, and involving health and social service professionals in advocacy.

## PUBLIC OPINION

Findings from recent surveys suggest the public is concerned about alcohol problems. These surveys also confirm relatively widespread public support for some alcohol control measures.

Results from the 2004 Canadian Addiction Survey (CAS) show that the vast majority of Albertans (15 and older) perceive alcohol abuse as a serious problem in Canada (89.3%), in this province (85.5%) and in their community (77.8%).

In 2003, 38% of adult Albertans surveyed said they felt problems associated with alcohol had increased. The proportion of the population who perceive an increase in alcohol-related problems has risen since 1999.[52]

[vii] Controlled drinking may be considered a harm reduction approach. It refers to a non-abstinent treatment outcome, whereby moderation and/or decreased alcohol consumption and changes in drinking behaviour/patterns occur. Controlled drinking is not usually considered an appropriate goal for individuals who are alcohol dependent.

Specific to impaired driving, a recent national survey found the majority of Canadians (85%) perceived drinking and driving as a serious social problem. This survey suggests the public is particularly concerned about drinking and driving by teens, even though research shows that young drivers are less likely than older drivers to engage in this behaviour. Findings also indicate that most Canadians (65% or higher) support impaired driving countermeasures such as roadside sobriety checks, alcohol ignition interlocks, administrative suspension and vehicle impoundment. Survey findings specific to Alberta show that 97.1% support the use of random police checks to catch impaired drivers.

Relative to other alcohol control measures, CAS results indicate that:[53]

- the majority of Albertans (61.1%) believe taxes on alcoholic beverages should remain the same.
- Albertans are almost equally divided in their support for maintaining (48.7%) or increasing (45.7%) the legal drinking age.
- most Albertans (75.4%) favour an increase in efforts to prevent intoxicated customers from being served.
- a minority of Albertans (43.3%) agree that government should prohibit wine, liquor and beer advertising on television.

## POLICY CONSIDERATIONS

Over the past two to three decades, scientific understanding of the relationship between alcohol policies, alcohol consumption and alcohol-related harm has increased considerably. There has also been a noticeable shift away from population-based control measures intended to reduce alcohol consumption towards targeted approaches that address harmful drinking in certain groups or in certain settings.

Evidence indicates that policies of both types are effective in reducing the health and social harm that can result from alcohol use and misuse. Research also demonstrates that it is possible to implement comprehensive and effective control policies. Ideally it is this growing research base that will continue to inform public debate, government action and industry decisions.[2]

### *Research Gaps*

There are a number of research gaps that need to be filled to move the alcohol policy agenda forward. In reporting on the strength of the evidence for effectiveness in this area, the Health Development Agency in the UK has identified the following gaps, and it is reasonable to say that these apply equally in a Canadian context.'

- methodologically sound evaluations of school-based education and other prevention programs targeted to youth. At present there is no compelling

evidence that these programs are effective in reducing alcohol consumption or harmful drinking, yet they continue to be funded.
- long-term research on the effects of server intervention training
- evaluation of policies and programs targeted to street youth and other vulnerable populations like the homeless
- research on alcohol consumption and pregnancy generally, as well as randomized trials of interventions to reduce drinking during pregnancy
- research on the differential effects of policy and program strategies for different age, income and ethnic groups. In terms of alcohol-related harm, age is one of the most influential variables.
- evaluation of community-based education and harm reduction efforts. To date there is no conclusive evidence for community-level approaches aside from municipal policies that restrict access to alcohol (e.g., zoning for bars and retail outlets to control density).
- studies of workplace alcohol policies and programs
- long-term research that looks at the effects of public awareness/health promotion campaigns on alcohol consumption.

According to the World Health Organization, all alcohol policies should be subject to scientific scrutiny. "It is only by doing so that one can determine where policies are successful in attaining a desired outcome and deserving of replication, where modifications may be needed to improve the success of a policy, or where policies should be discarded."

### *Cost Effectiveness*

When selecting among alcohol policy alternatives, it is important to know the cost effectiveness of different options. For example, research by the World Health Organization suggests that an increase in alcohol taxes is the most cost-effective option per year of ill health or premature death prevented. Unfortunately, many control policies that demonstrate effectiveness in reducing alcohol-related morbidity and mortality have not been looked at in terms of their cost-effectiveness (e.g., brief interventions in primary health care settings). Without question, decision-makers need information on cost-effectiveness to select from policy alternatives.

### *Conflict of Interest*

An obvious challenge in the area of alcohol policy is conflict of interest. On one hand, the same governments that rely on revenue from alcohol sales also regulate the industry. On the other hand, industry actively markets their products while acknowledging the need to promote responsible alcohol use and funding prevention and education programs. Advertising, public awareness and marketing practices on both fronts represent a vested interest in sales. Neither the research community nor the public is ignorant about this fact.[54]

It bodes well that conclusions from an Alberta Liquor Industry roundtable (June 2002) on responsible retailing indicated that in order to maintain the viability of the industry, alcohol retailers need to continue to promote responsible alcohol use and to support and participate in programs to minimize alcohol abuse.[55] However, industry investment in social responsibility may be short-lived unless there are incentives that allow the maintenance of profit margins.

Similarly, government should question whether all forms of alcohol should be taxed in the same manner, and how to better use taxation to benefit public health. For example:

- What is the rationale for favouring one tax rate for spirits and a different rate for beer? The health consequences and benefits of drinking do not differ by product but because of amount and pattern of consumption.
- There are good arguments for taxing consumer-produced alcohol, made either at home or in a U-Brew/U-Vint, since alcohol content is as high or higher than commercially produced products.
- A number of organizations in the UK have suggested that a disproportionate tax should be applied to beverages that are popular among young people (e.g., cider, fruit-flavoured pre-mixed drinks or alcopops).
- A valid case can be made for applying a differential tax rate to low-alcohol content products (as implemented in Australia) since the volume of beverages consumed will not change but level of impairment will.[41]
- A set proportion of alcohol taxes could be levied to fund prevention, treatment and research (as happened in 1991 in the Northern Territory of Australia, currently exists in Switzerland and France, and is the case for gambling in some Canadian and international jurisdictions).'

Finally, the health benefits of moderate consumption cannot be ignored, despite the fact that health agencies (including government departments) and advocacy groups choose not to highlight this fact. At the same time, the alcohol industry has readily embraced this concept and is actively marketing the merits of drinking. A recent report by CBC Marketplace states that the Brewers of Canada want to ensure "…Canadians, as they age, understand that beer is part of a healthy lifestyle…[and]…consumers have the facts so they can make informed decisions about what types of beverages they drink." Rarely is this type of promotional messaging balanced by objective information on how alcohol and health are linked, for whom any benefits accrue, and what risks are inherent in drinking, even moderate amounts. The alcohol industry funds research in this area (e.g., by the Wine Institute, Alcoholic Beverage Medical Research Foundation, International Center for Alcohol Policy) and makes no secret of their research agenda.[56]

***Liberalization of Alcohol Controls for Availability and Access***

Historically Canada has taken a strong stance on the regulation and control of alcoholic beverages. All provinces and territories have liquor-licensing authorities that restrict conditions of sale (e.g., on/off premise, hours, access to minors, promotions), and with the exception of Alberta, all provinces and territories have government monopolies to control distribution and retail alcohol sales.

This situation is changing, and some would argue that alcohol controls are eroding. Policies regulating the physical availability of alcohol have changed the most in recent years with privatization of retail sales in Alberta and liberalization of liquor licensing in other provinces that is meant to encourage profitability, convenience and customer satisfaction (e.g., the creation of agency or speciality stores, increased product selection, extension of hours including Sunday sales).[viii] While it is impossible to isolate the individual effects of incremental policy shifts over time, indicators of alcohol consumption, heavy drinking and alcohol problems show an increase that may be the by-product of more relaxed controls over availability.

It is interesting to note that across the country there is relatively little support for the privatization of retail alcohol sales. Findings from the Canadian Addiction Survey show that most Albertans (62.7%) agree with the decision to close government run liquor stores. However, support for this idea in other provinces was considerably lower ranging from 20.8% in Quebec to 42.7% in Newfoundland. Overall, 32.6% of Canadians are in favour of closing government run liquor stores.

***Balance in Responsibility and Approach***

For most policy options, responsibility for implementation, maintenance and evaluation of outcome is shared between different levels of government (primarily federal and provincial) as well as between government and private industry, and/or health professionals, community agencies and advocacy groups.

Long-term trends in impaired driving show that while alcohol consumption has been increasing impaired driving offences continue to decline. It is widely acknowledged that the success achieved in reducing drinking and driving in Canada and elsewhere is the result of a sustained mix and broad range of intervention strategies by governments and non-government organizations (e.g., beverage alcohol industry, civic and advocacy groups, retailers, health professions) combined with public awareness and public support for impaired driving countermeasures. In a policy context, the issue of impaired driving offers a positive example of a long-term approach that disconnects drinking from alcohol-related harm.

[viii] Quebec has allowed the sale of wine in grocery stores since 1987. Ontario and British Columbia have seriously considered but failed to a move to a privatized model similar to Alberta.

Keeping shared responsibility and longevity in mind, decisions concerning alcohol policy must take into account both aggregate level information on consumption and problems as well as more specific information on drinking patterns and their relationship to harm.[57] In doing so, it quickly becomes apparent that population-based and targeted approaches are complementary and both are important. While many population-based policy approaches have demonstrated effectiveness, accumulating evidence indicates that targeting drinkers most prone to problems and targeting drinking situations where problems are most likely to occur, offer a viable, practical, and expanded set of policy options.

As noted by Professor Eric Single during his presentation at the National Thematic Roundtable on Alcohol Policy,

> *…the key research findings in alcohol epidemiology over the past two decades all indicate that the most efficient approach to the prevention of alcohol problems would be to maintain reasonable controls over alcohol availability while increasing targeted interventions to reduce the adverse consequences of excessive drinking in particular situations. Reasonable controls over the availability of alcohol can still be supported on the basis of preventing problems and the maintenance of alcohol taxation can be justified on the grounds of cost recovery. Nonetheless, with the emergence of new evidence concerning the epidemiological significance of drinking patterns, acute consequences of drinking and the cardiovascular benefits of drinking, it is likely that policies aimed at the prevention of alcohol problems will increasingly focus on targeted interventions to reduce the harmful consequences of alcohol use rather than population-based strategies aimed at controlling aggregate levels of consumption.*

## CONCLUSION

There is a need for strong leadership to create awareness and understanding of the complexities of alcohol use and abuse in society, and to rally political will to address the myriad of harms related to alcohol consumption. With renewal of Canada's Drug Strategy (announced May 2003), several consultations have taken place and a series of thematic roundtables have or will occur in coming months to further development of the strategy. Discussions to date have identified alcohol as an issue of professional and public concern, providing local and provincial stakeholders with an opportunity to influence the design and implementation of a national framework for action, and signalling that it is time to put alcohol back on the public policy agenda.[44]

Despite the obvious differences in goals between the addiction research community, governments and the alcohol industry, common ground can be established in a concern for protecting the most vulnerable in society and improving population health. The important questions for each of these stakeholders to consider are (1) how best to stimulate a fruitful and ongoing policy dialogue, (2) how to coordinate and sustain effective actions to address alcohol-related harm, and (3) how to ensure that research and evaluation are used to formulate and implement policy within and outside government.[58]

In working to address alcohol problems, Alberta presents a unique Canadian example. It is the only province with a privatized system of alcohol retailing and is one of only three jurisdictions with a government-funded agency mandated to deliver alcohol prevention and treatment services. AADAC is clearly in a position to provide sound advice to government on policies and strategies that are effective in reducing death, injury and other harm resulting from alcohol use. As with illicit drugs, there is no single solution. A combination of measures is required along with a strong commitment to invest adequate resources in evidence-based alcohol policies that will benefit Albertans now and into the future.

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