



University
of Victoria

Centre for
**ADDICTIONS
RESEARCH^{OF BC}**

**Operator and Regulatory Best Practices in the
Reduction of Violence in and Around Licensed
Premises: A Review of Australian and Canadian
Research**

Tim Stockwell, PhD
Professor, Department of Psychology
Director, Centre for Addictions Research of BC
University of Victoria, BC

April 2010

Acknowledgements

The author gratefully acknowledges the advice and assistance given by the following people in the preparation of this report:

Dr Kate Graham, Centre for Addiction and Mental Health, London, Ontario

Dr Louis Gliksman, Centre for Addiction and Mental Health, London, Ontario

Dr Irwin Cohen, Centre for Social Responsibility, University College of the Fraser Valley, British Columbia

Dr Neil Donnelly - formerly Manager of Research, New South Wales Bureau of Crime Statistics and Research

Professor Ross Homel, University of Queensland

Dr Tanya Chikritzhs, National Drug Research Institute, Perth, Western Australia

Dr Katherine Mann, Queensland Police Service

Professor Ann Roche, Director, National Centre for Education and Training on Addictions, South Australia

Dr Peter d'Abbs, consultant sociologist, Northern Territory

Professor Robin Room, Turning Point Alcohol and Drug Services, Melbourne

Dr Don Weatherburn, Director, New South Wales Bureau of Crime Statistics and Research

Grateful thanks also to Paula Coleman who made useful comments on an earlier draft of this report, to Jen Theil and Angelle Brown who helped with formatting and presentation and to Victoria Emberley for proofreading the final text.

The opinions expressed in this report are those of the author and are not necessarily shared by the persons listed above.

Tim Stockwell

Director, Centre for Addictions Research of BC

April 2010

Table of Contents

Executive Summary.....	1
The context	1
The present report	1
Methods	1
Guiding principles.....	2
Operator Best practices	2
Regulatory best practices	3
Community mobilization best practices	4
A sustainable and effective regulatory system to prevent and reduce violence in and around licensed premises	5
1.0 Introduction	6
1.1 The national alcohol policy context.....	7
2.0 Methodology.....	10
3.0 Results.....	13
3.1 Guiding principles	13
Influencing the retail price of alcoholic beverages	13
Alcohol intoxication increases the risk of violence in some situations.....	13
Conflict and stress as triggers of violence in drinking settings	15
Poorly managed and overly permissive drinking environments.....	15
Creating effective deterrence for irresponsible management practices	16
3.2 Operator best practices	17
3.2.1 <i>Responsible beverage service (RBS)</i>	17
RBS programs in general	17
Provision of food.....	19
3.2.2 <i>Programs to train managers and security staff to prevent violent incidents</i>	19
3.2.3 <i>Strategies for operators to manage the flow of customers entering and leaving licensed venues</i>	22
3.2.4 <i>Safer beverage containers and glassware</i>	24
3.3 Regulatory best practices.....	27
3.3.1 <i>Restricting days and hours of service</i>	27
3.3.2 <i>Controlling the prices of alcoholic beverages</i>	28
3.3.3 <i>Raising the minimum age for drinking</i>	32
3.3.4 <i>Reducing the density of liquor outlets</i>	32
3.3.5 <i>Mandatory third-party liability insurance</i>	34
3.3.6 <i>Enforcement of liquor laws</i>	35
3.3.7 <i>Establishment and enforcement of other relevant laws</i>	39
3.4 Community mobilization best practices.....	41
3.4.1 <i>Community collaborations involving licensees, police and civic authorities</i>	41
3.4.2 <i>Public alcohol education campaigns</i>	44
3.4.3 <i>Alcohol education in schools</i>	45
3.4.4 <i>Early intervention with high risk youth</i>	47
4.0 Conclusions	49
Many documented interventions have been crisis-driven	49
Alcohol related violence as a response to deregulation in wealthy countries	49
Addressing the causes of violence in and around licensed premises	50
Evidence for operator best practices	50
Evidence for regulatory best practices	51
Evidence for community mobilization best practice	53
Putting it all together - designing an effective and sustainable regulatory system	53

5.0 References	58
-----------------------------	-----------

Appendix

<i>Appendix: Current and proposed approaches identified by the Alberta Roundtable on Violence in and around Licensed Premises*</i>	69
--	----

Executive Summary

The context

The social, health and economic costs of alcohol related problems are conservatively estimated to cost the people of Canada \$14.6 billion per annum (Rehm et al, 2006). The problems of violence in and around licensed premises make a significant though often hidden contribution to these health, social and economic costs. Responding to alcohol related incidents utilizes a great deal of police and other emergency services resources, especially late at night when provision for these services is often stretched. This report was prepared to support efforts to respond to growing community concerns about alcohol related violence in recent years. While violence in and around licensed premises is commonplace among economically developed nations, especially in areas with large clusters of licensed venues, there are some special circumstances contributing to these problems in some regions of Canada, notably British Columbia and Alberta. These include a relatively healthy economy, an influx of young male fly-in and fly-out workers in some areas and the increasingly deregulated liquor markets.

The present report

The purpose of this report is to summarize the evidence for "what works" in communitywide efforts to prevent the problem of violence in and around licensed premises based mostly on Australian and Canadian research. Special reference is made throughout to 92 strategies recommended as a result of the Alberta Roundtables on violence in and around licensed premises (Alberta Gaming and Liquor Commission, 2006). These strategies are grouped into larger categories in the present report under the general headings of operator, regulatory and community mobilization strategies. Each category was given a rating based upon the level of available evidence. In order to aid local efforts to implement evidence-based strategies, a set of basic principles are recommended for successful violence prevention in this particular arena.

Methods

Systematic literature searches were conducted using scholarly databases, key informants in Australia and Canada, government publications and the author's personal collection of materials on the subject area collated over 20 years of alcohol prevention research in these two countries. The aim of the searches was to identify (i) systematic reviews including Australian and Canadian research of policies and practices relevant to the prevention of violence in and around licensed premises; (ii) well-documented case studies and controlled evaluations of the impact of interventions. On the basis of the material identified, five Guiding Principles are recommended as underpinning in differing degrees the more successful interventions and a six point rating scale previously used in systematic reviews (Toumbourou et al, 2007; Loxley et al, 2004) was applied to 18 major categories of intervention (6 operator, 8 regulatory and 4 community mobilization strategies).

The rating scale comprised the following ratings:

- O** Absent, inconsistent or contradictory evidence.
- ☒** Not recommended: consistent null or negative results in outcome studies.
- Ⓜ** Warrants further research: a strong rationale and promising evidence but further studies required before implementation attempted on a wider scale.
- ★** Sufficient evidence to recommend implementation: requires a sound theoretical rationale, well defined and feasible method of delivery. Maybe recommended where there are few costs and obvious benefits.
- ★★** Strong evidence of effectiveness: requires consistent evidence of positive outcomes in evaluation studies.
- ★★★** Highest level of evidence: requires positive outcomes in several studies and examples of well-developed community-wide implementation.

This rating scale was also applied informally by the author as closely as possible for each of the 92 Alberta roundtable recommendations as shown in the Appendix.

Guiding principles

The following basic principles were identified as capable of being applied to almost any setting in which the prevention of alcohol related violence is attempted. Each is broad in scope and should be capable of being flexibly applied to a variety of settings and contexts:

1. Managing the retail price of alcohol. Any attempt to reduce violent incidents in and around licensed premises is likely to be undermined if the prices of locally available alcoholic beverages are low, especially for higher alcohol content drinks.
2. Managing intoxication from alcohol. Factors which increase levels of intoxication from alcohol will also usually increase the likelihood of violent events in contexts where there is already the potential for violence.
3. Creating harmonious social environments. Drinking settings where conflict, frustration and stress are created by their social or physical characteristics will have an increased likelihood of violence.
4. Setting clear house rules. Drinking environments with permissive management standards regarding excessive drinking and antisocial behaviour will have higher levels of violence.
5. Creating credible deterrence. Licensed operators and their staff need to believe that sanctions against irresponsible management and serving practices are highly likely to be applied and to be applied swiftly if these sanctions are to be effective. The size of penalties that can be applied are less important.

Operator Best practices

★★ Responsible Beverage Service (RBS) training programs for managers and bar staff can be effective if part of a comprehensive strategy including liquor law enforcement. Significant reductions have been demonstrated in patron intoxication levels and improvements in bar serving practices. However, effectiveness can be highly diluted if introduced as an isolated strategy unless there is very strong management support.

★★ Training programs for managers and security staff to prevent and manage violent incidents. These are designed to help operators design the physical and social environment of their bars to reduce triggers for violence such as bumping, jostling, stress and frustration and which train security staff ("bouncers") to anticipate, prevent and manage violent incidents. Screening of security staff for criminal records is usually a part of such programs. The Canadian *Safer Bars* is the standout example of a successful violence prevention program (Graham et al, 2004).

★ Strategies for operators to prevent underage drinking. These are potentially effective but usually suffer from low compliance and in general there is easy access to alcohol by underage drinkers in the absence of credible law enforcement strategies.

★ Strategies to manage the flow of customers entering and leaving licensed premises to prevent there being many intoxicated people on the streets at the same time. This strategy includes charging admission on high risk nights, not allowing re-entry and restricting admission after a particular time. This has a strong rationale and has been employed as part of larger programs which have been evaluated with positive outcomes. Staggering closing times is not recommended if this leads to an increase in late-night trading hours.

★ Serving alcohol in plastic or shatterproof glasses and avoiding the serving of alcohol in glass containers to prevent their being broken and used as weapons in barroom brawls. This has a strong rationale and is recommended for implementation though evaluation studies are required.

★ Provision of food on licensed venues. Has a strong rationale in terms of reducing intoxication levels with some additional indirect evidence of possible benefits. Drinking alcohol after eating a meal can reduce blood alcohol level by up to 60%.

☒ Self breath testing machines in bars for patrons to test whether they are over the legal limit for driving. Evidence to suggest they are ineffective and anyway unlikely to contribute to the prevention of violent incidents.

Regulatory best practices

★★★ Raising or maintaining drink prices. The general principle of raising drink prices or at least preventing them from declining by various means available to government has been endorsed by comprehensive international and Australian reviews as having the strongest evidence of any available strategy for the prevention of alcohol-related harm. An Australian study reported 129 fewer alcohol related deaths, 1300 fewer hospital admissions and an economic benefit of \$123 million from a five cent per alcoholic drink harm reduction levy (Stockwell et al, 2001).

★★★ Raise the minimum legal drinking age. Australian reviews and international evidence find high levels of support for raising the legal drinking age above 18 years. It was recently recommended by the national Canadian working group that Alberta consider raising its drinking age to 19 years in line with most other Canadian provinces.

★★ Restrictions on happy hours. This is consistent with the general principle of maintaining retail prices. Where there can be certainty that the restrictions will apply and influence sales at high risk premises then this rating is warranted.

★★ Restricting days and hours of service. Evidence from several Australian studies indicate that both introducing Sunday trading and extending late trading hours (after

midnight) is associated with increases in violent incidents. Even one to two hours of extra trading after midnight may lead to a doubling of violent incidents on licensed premises.

★★ Mandatory third-party liability insurance. A strong rationale and evidence of deterrent effects plus case law in Canada renders third-party liability lawsuits against licensees who served drunk customers a realistic possibility and hence an effective deterrent.

★★ Enforcement of liquor laws. Strong evidence for effectiveness in well-designed evaluation studies in the UK, Australia and North America. Consistent rankings of the evidence from comprehensive Australian and international reviews including outcome measures of violent incidents. Important to maximize perception that enforcement will occur to maximize deterrence. A US study estimated that for every dollar spent on such liquor law enforcement, over US\$200 was saved in preventing alcohol-related crashes (McKnight and Streff, 1994).

★ Enforcement of other relevant laws and regulations (e.g. crowding limits). Strong rationale derived both from Deterrence Theory and studies evaluating the situational determinants of violence on licensed premises. This has been used as a component of more comprehensive programs involving both law enforcement and self-regulation which have had positive outcomes, but otherwise few studies available.

★ Limits on outlet density. Australian reviews and international evidence find strong associations between outlet density and local levels of alcohol-related harms with some studies specifically linking outlet density to violence around bars but no intervention studies. One Australian study found a "tipping point" when there were more than two premises per 1,000 residents in an inner-city area.

Community mobilization best practices

★ Public alcohol education campaigns. In combination with community mobilization and law enforcement, well-designed media campaigns can increase awareness of consequences and may deter some high risk behaviours. The promotion of national low risk drinking guidelines has a strong theoretical rationale as a basis for a multitude of other community-based interventions of established efficacy.

★ Alcohol education in schools. Although most evaluated alcohol education programs delivered in schools have been found to be ineffective (Babor et al, 2003), recent Australian research has shown significant effects of an innovative classroom-based program based on low risk drinking guidelines, harm reduction and modern educational principles. The latter costs approximately CAN\$25 per student.

○ to ★★ Early intervention with youth. There is such a broad range of interventions to prevent high risk behaviour from preconception through pregnancy, infancy, early childhood and adolescence that a single rating is impossible. A number of effective interventions have been developed appropriate at various early stages of life that may prevent later problem behaviours.

⌘ Collaborations between licensees, police and civic authorities. Provided these are conducted in combination with effective law enforcement strategies such forums provide an opportunity to encourage responsible beverage service, effective violence prevention and compliance with liquor laws. The Surfers Paradise Safety Action Project from Queensland, Australia (Homel et al, 1997) is a standout example in which violence was reduced by over 50% six months post intervention. The benefits were not sustained in

the longer term and mixed or negative results have been obtained in other studies. Further research is needed to determine the potentially effective ingredients and optimal modes of delivery.

A sustainable and effective regulatory system to prevent and reduce violence in and around licensed premises

It is concluded that implementation of combinations of the above strategies may achieve significant short-term reductions in violence around drinking venues. However, for more sustained benefits, a modern regulatory system is required supported by liquor legislation which encourages the input of local communities, supports preventative policing methods and fosters responsible retail industry initiatives. Such a system would require significant investment in data collection systems, training and in human resources. It is recommended that key elements of a sustainable and cost-effective system would be:

- (i) The introduction of accurate and well publicized monitoring of violence on licensed premises to keep the nature and extent of the problem in the public view and to direct prevention strategies towards the 10% of venues which usually contribute over 50% of the problems.
- (ii) Create a credible level of deterrence to increase compliance with relevant laws based on accurate monitoring with a graded set of warnings, fines and license suspensions.
- (iii) Create opportunities and incentives for licensees and staff to participate in violence prevention programs and to maintain venues with low levels of violence.
- (iv) Create opportunities for local communities to make input into licensing issues.
- (v) Increase controls on the physical availability of alcohol in keeping with public opinion including managing outlet density to optimal levels, raising the legal drinking age in other Canadian provinces with a drinking age of 18 and restricting late trading hours.
- (vi) Ensure retail prices reflect alcohol content, are maintained with the cost of living and that minimum prices create incentives for the consumption of lower strength beverages in each beverage class (beer, wine and liquor). Consideration should also be given to the introduction of an alcohol harm reduction levy on higher strength alcoholic drinks to fund a variety of community mobilization strategies to prevent alcohol-related harm including violence.

Finally, the Canadian jurisdictions may wish to consider following the example of the New South Wales Government in Australia which in 2003 held a parliamentary Alcohol Summit to develop the political momentum for the introduction of evidence-based strategies to reduce the problems of alcohol misuse, including violence in and around licensed premises.

1.0 Introduction

Canadian jurisdictions are not alone in recognizing the need to address problems associated with violence in and around licensed premises. While the problem is particularly well researched in the USA, Canada and Australia, reports from a number of countries show that: violence and crime has a higher probability of occurring in areas with a high density of bars (Stockwell and Gruenewald, 2003), it peaks during late-night trading periods and around closing time especially on Fridays and Saturdays (Briscoe and Donnelly, 2001), and it is usually concentrated among a small number of high risk premises with quite predictable characteristics (Stockwell, 1997a; Briscoe and Donnelly, 2003; Haines and Graham, 2005). There is a growing literature showing that this predictable pattern can be modified quite substantially by focusing on measures to modify the drinking context and to discourage excessive alcohol consumption (Homel et al, 1997; Felson et al, 1997; Haines and Graham, 2005). It will be recommended in this report, however, that simple implementation of a number of evidence-based strategies will be insufficient to do more than create a short-term solution. Rather a modern and well-resourced regulatory system needs to be established in Canadian jurisdictions incorporating a blend of self-regulation, community monitoring and enforcement of liquor laws if benefits are to be sustained.

At the outset it may be useful to note that violent incidents at bars and nightclubs will contribute only 15% of all alcohol related injuries (Teece and Williams, 2000; McLeod et al, 1999; Langley and Chalmers, 1996) and that most alcohol consumed in Canada will be purchased from liquor stores where it is considerably cheaper. Furthermore, on the majority of drinking occasions in bars no harm will occur and the atmosphere will be pleasant and convivial with alcohol contributing positively to social interactions and enjoyment (Haines and Graham, 2005). However, there is a special opportunity and also responsibility to respond to problems on licensed premises as part of an overall response to alcohol-related violence which is suggested by the following evidence from Australian and Canadian studies:

- a) consumption of alcohol on licensed premises, especially by young people, is especially likely to be at a hazardous level (Donnelly and Briscoe, 2003; Stockwell, Lang and Rydon, 1993; Single and Wortley, 1993);
- b) there is a much higher risk of harmful outcomes including aggression and violent incidents following drinking on some types of licensed premises than at private settings (Stockwell et al, 1993; Briscoe and Donnelly, 2001; Graham et al, 2002);
- c) the types of bars, their characteristics and physical distribution strongly predict the likelihood of violence so that available interventions can be effectively and efficiently targeted;
- d) bars and nightclubs are places where large numbers of young men with disposable income meet, drink and compete with each other for social dominance, space and the attention of women (Felson et al, 1997; Haines and Graham, 2005), all of which create a special risk of violence if the venues are not well managed or regulated;
- e) a relatively small proportion of bars and nightclubs contributed the majority of incidents of alcohol-related violence and other problems (Doherty and Roche, 2003).

It is evident from the Alberta Roundtable report (Alberta Gaming and Liquor Commission, 2006) that the economic boom until recently enjoyed by that province has led to a set of social circumstances which exacerbates problems of drinking and violence in and around licensed premises, particularly in entertainment "hotspots". It is well documented that alcohol behaves like other commodities and that its consumption rises when incomes rise relative to retail prices (e.g. Babor et al, 2003). The recent commodities boom in Alberta and British Columbia has led to an influx of workers, many of whom are single young males who are the highest risk group both for excessive alcohol consumption and involvement in violence and correlated injury (e.g. Young et al, 2004; Graham and Wells, 2003). Furthermore, it appears that a number of entertainment districts with a high concentration of bars and clubs have sprung up to cater to this lucrative market predictably creating hotspots for violent incidents (Felson et al, 1997; Gorman et al, 2001). It would appear to be a time for both informal and formal regulatory systems to catch up with this rapid social and economic development, to learn from experiences in Canadian and other jurisdictions such as Australia and develop a world-class set of evidence-based responses to the problem of alcohol and violence.

1.1 The national alcohol policy context

A recent major study into the costs of substance abuse in Canada (Rehm et al, 2006) estimated the total social and economic costs of alcohol related problems to the people of Canada in 2002 to be \$14.6 billion, slightly lower than the estimate for tobacco and higher than for illicit drugs. Recognizing the size of alcohol's contribution to the nation's drug problem, Canada recently embarked on a process of outlining a National Alcohol Strategy with a report from a multi-sectoral National Alcohol Strategy Working Group which recently tabled a document (2007) with 41 specific recommendations covering variously (i) health promotion, prevention and education; (ii) health impacts and treatment; (iii) availability of alcohol, and (iv) safer communities. This Working Group was struck under the auspices of Health Canada, the Canadian Centre on Substance Abuse and the Alberta Alcohol and Drug Abuse Commission. Nearly all of these recommendations are relevant directly or indirectly to the prevention of violence in and around licensed premises. Of special relevance is the following abbreviated list (numbers refer to recommendations in that report where they are provided in full):

- 1, 2 and 3. Develop and promote consistent national alcohol drinking guidelines to encourage a culture of moderation.
5. Develop programs and policies to promote abstinence in underage youth.
15. a) Develop a national data collection and reporting system of common indicators of alcohol-related harm across Canadian jurisdictions.
16. a) Maintain current government controls over alcohol sales; b) enhance staff training and licensed outlets and implement law enforcement programs, c) re-evaluate the hours and days of alcohol sales and levels of outlet density recognizing increased availability often leads to increased levels of harm.
18. Liquor licensing authorities to make public data regarding provincial liquor outlet densities.
21. Implement server training as a condition for holding a liquor license.
22. Investigate mandatory liability insurance for all licensed establishments in Canada.

23. Research and implement programs to prevent underage access to alcohol.
24. Alberta, Quebec and Manitoba to consider increasing the legal purchase age of alcohol to 19 years.
25. Strengthen enforcement against the production of fake identification.
26. Adopt a minimum social reference price indexed at least annually to the Consumer Price index.
28. Create price incentives for the production and marketing of low alcohol content beers and coolers.
29. Move towards pricing policies based on the alcohol content of alcohol products.
33. Promote the development of municipal alcohol policies.
34. Implement the use of proven violence prevention programs on licensed establishments.
35. Develop a public awareness campaign to raise awareness about alcohol liability.

The above list is a shorthand version of the original list and readers are referred to the original report (National Alcohol Strategy Working Group, 2007). The directions indicated in relation to low risk drinking guidelines, responsible beverage service, municipal alcohol policies, liquor law enforcement and pricing strategies are highly consistent with the conclusions of the present report as will become clear. The only major deviation is the greater emphasis in the national strategy on abstinence strategies for underage youth than will be given here noting Australian research (McBride et al, 2004) based on a harm reduction approach to youth alcohol consumption.

Australia has had a longer tradition of developing national alcohol strategies within the context of its National Drug Strategy, formerly the National Campaign against Drug Abuse, which has its origins in the Hawke Labor government of 1985. Excerpts will be provided here of the National Alcohol Strategy developed by the National Alcohol Strategy Committee for the period 2001 to 2003 (National Drug Strategy, 2001). What both the Australian and Canadian committees working on these strategies (the present author was a member of both) had in common was representation from both the alcohol manufacturing and retail sectors. While the Canadian strategy identified levels of government responsible for implementation of recommended strategies, the Australian strategy did not do this and nor was there a specific budget for implementing the strategy. One of the main achievements of the Australian strategy, however, was the implementation of the National Alcohol Indicators Project, a nationwide data collection system which reported on levels of alcohol consumption and serious related harms (mortality, morbidity, road trauma and alcohol-related violence) for each jurisdiction with special analyses conducted on high risk population groups such as underage youth and aboriginal peoples (e.g. see Chikritzhs et al, 2004). Several other studies discussed in this report utilized data collected from this national resource.

The Australian National Alcohol Strategy 2001-2003/4 identified 11 key strategic areas, the following being the most relevant to the issue of violence in and around licensed premises:

- informing the community
- preventing alcohol-related harm among young people
- improving the effectiveness of legislation and regulatory initiatives
- responsible marketing and provision of alcohol
- pricing and taxation
- promoting safer drinking environments.

Under each of these headings, a rationale and list of major strategies is provided many of which are consistent with the Canadian recommended strategies and also the directions recommended in the present report. Of special note are the following specific recommended strategies:

1. campaigns to promote a) public national awareness of the Australian low risk drinking guidelines b) the responsible alcohol service provisions of relevant state liquor legislation;
2. restrict liquor outlet density to be consistent with harm minimization;
3. further development of regulatory and legislative frameworks and voluntary codes of practice;
4. monitor and enforce underage drinking laws;
5. create incentives for consumers to choose low alcohol content products;
6. further development of licensed drinking venues as safe environments (specific mention of safety audits, responsible beverage service, liquor law enforcement, codes of practice for security staff and support for local Accords).

2.0 Methodology

Two main methods were used to identify reports documenting outcomes from interventions designed to address problems with violence in and around licensed premises. A search of scholarly databases (Medline, PsychInfo and Social Science Citations) was conducted to identify Canadian and Australian research concerned with alcohol and violence. Secondly, a number of key informants in both countries were approached seeking references and copies of reports published either in peer-reviewed journals or in the "grey" literature of government and online reports. I also have my own personal collection of reports on this subject area as a result of being actively involved in alcohol prevention research in Australia between 1988 and 2004 (including leading a review of alcohol related violence in and around licensed premises). In addition to reports of individual studies, comprehensive reviews were also identified and used as a resource for the present report. (e.g., Babor et al, 2003; Loxley et al, 2004; Toumbourou et al, 2007). Attempts were made to contact the following individuals:

Canada:

Dr Kate Graham, Centre for Addiction and Mental Health, London, Ontario
(face-to-face meeting)

Dr Louis Gliksman, Centre for Addiction and Mental Health, London, Ontario (face-to-face meeting and e-mail correspondence)

Dr Norman Giesbrecht, Centre for Addiction and Mental Health, Toronto, Ontario (e-mail correspondence)

Dr Irwin Cohen, Centre for Social Responsibility, University College of the Fraser Valley, British Columbia (face-to-face meeting and e-mail correspondence)

Professor Robert Solomon, Faculty of Law, University of Western Ontario (e-mail correspondence)

Australia:

Dr Neil Donnelly - formerly Manager of Research, New South Wales Bureau of Crime Statistics and Research (e-mail correspondence)

Professor Ross Homel, University of Queensland (e-mail correspondence)

Dr Tanya Chikritzhs, National Drug Research Institute (face-to-face meeting and e-mail correspondence)

Dr John Wiggers, University of New South Wales (did not respond to e-mails)

Dr Katherine Mann, Queensland Police Service (e-mail correspondence)

Professor Ann Roche, Director, National Centre for Education and Training on Addictions, South Australia (e-mail correspondence)

Dr Peter d'Abbs, consultant sociologist, Northern Territory (face-to-face meeting)

Professor Robin Room, Turning Point Alcohol and Drug Services, Melbourne (face-to-face meeting)

Dr Don Weatherburn, Director, New South Wales Bureau of Crime Statistics and Research (e-mail correspondence)

These sources contributed to the compilation of over 100 relevant reports which are summarized in the results section. In some instances US or UK research is referred to so as to help the analysis of a specific issue but the main emphasis is on Australian and Canadian reports.

On the basis of all this material reviewed ratings were made of the strength of the evidence for effectiveness of broad categories of intervention to address alcohol related violence in and around licensed premises, including 6 operator practices, 8 regulatory practices and 4 community mobilization approaches. The 92 strategies identified by the Alberta Roundtable are grouped within these broad categories and, where possible, discussions of individual recommendations from the Roundtable are included. It became apparent that in many cases there was not a one-to-one match between a published research literature and a recommended strategy. It was therefore decided to try and identify a set of fundamental principles relating to the relationship between alcohol consumption and violence and the regulation of drinking environments to identify factors that might reduce risk of violent incidents. The first section of the report describes this set of principles and the second section attempts to summarize the evidence base in relation to the identified categories of intervention. In relation to the second task, a rating system first developed by Patton and Toumbourou (Toumbourou et al, 2000) and applied systematically by Loxley et al (2004) was applied. The system was designed to give clear advice for investment in prevention programs and policies. A set of more updated ratings was provided by Stockwell et al (2006b) in light of more recently published research evidence and which are now further added to and amended here. The rating system is explained below.

- O** Limited investigation. No relevant effectiveness studies identified and absent or conflicting evidence and theoretical rationale.
- ☒** Evidence is negative for the use of this strategy to prevent the targeted outcome. This rating required consistent null or negative findings in well-controlled evaluation studies.
- ⌘** Warrants further research. Strategies with a strong rationale and promising evidence for their implementation or outcome, but key elements not clearly resolved or evaluated only in small scale or inadequately controlled studies. Policies and programs utilizing these strategies should be priority targets for future research funding.
- ★** Evidence for implementation. Published studies provide a sound theoretical rationale, a clearly specified service delivery format, acceptance within service delivery organizations, target population recruitment on a scale sufficient to usefully contribute to population health impacts, and adequate consumer approval measured using indicators such as program retention. Policies and programs utilizing these strategies might be supported for implementation where there are few costs and obvious benefits.
- ★★** Evidence of positive outcomes. This rating is applied where positive outcomes were consistently published in well-controlled interventions. Interventions were required to be of sufficient scale to ensure outcomes within the constraints imposed by large-scale population health frameworks. Policies and programs utilizing these strategies should be carefully monitored for their impacts while being supported for jurisdiction-wide dissemination.
- ★★★** Evidence for broad implementation and dissemination. This rating requires published reports of impacts where programs were delivered on a large scale, not by research teams, but rather by government auspiced bodies or other service delivery agents. Evidence for dissemination was only sought for strategies demonstrating evidence for outcomes. Monitoring for effective delivery recommended.

This rating scale was also applied informally by the author as closely as possible for each of the 92 Alberta Roundtable recommendations as shown in the Appendix. As far as possible the ratings in the Appendix were based on the assessment of the evidence reviewed in this report. There were several instances in which a ★ rating was provided based only on an assessment of consistency with the guiding principles outlined in the report in the absence of specific available evidence. In other instances this rating was applied to a single element that was known to have been applied in a more comprehensive approach which had itself received a higher rating. The 92 Alberta Roundtable recommendations were all originally categorized into whether they were operator, regulatory or community mobilization strategies. In many instances these are artificial distinctions and, though this categorization system is followed in this report, it is noted in many places that supportive or complementary contributions can be made from other categories. The table in the Appendix indicates where this applies using a + sign.

3.1 Results

3.2 Guiding principles

Translating research findings from complex drinking environments in one part of the world to another, or even from one drinking venue to another, is clearly not an entirely straightforward matter. Intervention strategies designed to tackle alcohol-related violence tend to be multifaceted and based on a series of theoretical assumptions about the nature of the relationship between drinking, context and the probability of violent outcomes. Scanning this diverse literature suggests that it will rarely be the case that one package of strategies described and evaluated in one jurisdiction at one point in time can be applied in an identical fashion someplace else some years later. Interventions need to take account of local conditions, local problems and prevailing cultures. When applying learning from other places and times it can therefore be useful to be aware of a set of fundamental principles likely to be relevant to the prevention of alcohol-related violence across many types of drinking setting. Indeed, some strategies described in the literature are in themselves extremely broad and capable of being applied in a multitude of ways – such as attempts to adjust the prices of alcoholic drinks.

Influencing the retail price of alcoholic beverages

One alcohol prevention strategy which invariably attains the highest ranking in reviews of the evidence involves raising or at least maintaining the retail price of alcohol (Österberg, 2003; Babor et al, 2003; Loxley et al, 2004). There are a multitude of ways in which retail prices can be influenced to reduce consumption and hence alcohol-related harm. Particularly relevant examples include the banning of happy hours, setting minimum drink prices, taxing drinks according to their alcohol content, maintaining taxes with the cost of living and raising special additional taxes on alcohol to fund prevention programs (Stockwell et al, 2006a). Because the price of alcohol can impact in a universal way to influence the drinking of an entire population, whether in terms of overall volume or typical amounts consumed per occasion (Godfrey, 1997), and because the evidence around the relationships between retail price, consumption and related harm is so strong, the first recommended principle here incorporates this knowledge.

Guiding Principle 1: Any attempt to reduce violent incidents in and around licensed premises is likely to be undermined if the prices of locally available alcoholic beverages are low, especially for higher alcohol content drinks. Ensuring that there is no or limited availability of cheap alcoholic drinks, maintaining and even increasing retail drink prices on licensed premises will contribute to low levels of alcohol-related violence.

Alcohol intoxication increases the risk of violence in some situations

Another guiding principle can be developed from the rich literature governing the relationship between alcohol consumption and violent events (e.g. Graham and West, 2001). Many academic disciplines and many research methodologies have been applied to try and untangle the nature of the observed association between alcohol consumption and violence. It would be fair to say that different academic disciplines interpret this relationship in different ways, placing more or less causal attribution on the effects of

alcohol itself as opposed to various situational, biological or cultural determinants. Comprehensive reviews of controlled experimental studies into the links between alcohol consumption and aggression in humans (Bushman, 1997) confirm that alcohol intoxication does increase the likelihood of aggressive behaviour under certain conditions of provocation. In-depth studies of the relationship between intoxication and the probability of violence in licensed drinking environments suggest that intoxication is not only associated with violent events but significantly predicts these (Homel et al, 1991; Homel and Clark, 1994). A more recent Canadian study (Graham et al, 2006) based on hundreds of hours of observation of drinking venues and events leading to violent incidents found that the relationship between degree of intoxication and probability of violence was not linear but rather tailed off at higher levels of intoxication. Ratings were done by observers of the degree of intoxication of individuals involved in violent incidents as well as the general levels of intoxication of patrons present at the drinking venue. Low to moderate increases in intoxication were associated with significant increases in risk of violence but the most highly intoxicated drinkers were no more likely to engage in or experience violence than those who were moderately intoxicated. In the earlier Australian research (Homel et al, 1991) it was observed that the victims of bar violence were more likely to be in smaller sized groups and more drunk than were perpetrators. The indirect evidence of a powerful relationship between alcohol consumption and the risk of violence at the population level is suggested by studies demonstrating links between density of liquor outlets and levels of violence (Livingston, 2007), associations between adult per capita consumption of alcohol and levels of night- time violence (Stockwell et al, 1998) and between bar sales of alcohol and local levels of violence (Stevenson et al, 1999). The observed association is obviously influenced by the fact that licensed venues are often frequented by young, single males who are themselves at high risk of being involved in violent incidents especially in bars where they meet as groups of strangers and can be in competition with each other (Homel et al, 1991; Marsh and Kibby, 1992). However, the in-depth situational and observational studies conducted by Ross Homel and Kate Graham and their respective colleagues as well as the reviews of well-designed experimental studies all point to the existence of a causal relationship between alcohol intoxication and the likelihood of violence – within certain social and situational contexts in which there is already the potential for violence to occur.

Guiding Principle 2: Factors which increase levels of intoxication from alcohol will also usually increase the likelihood of violent events in contexts where there is already the potential for violence.

As is the case with the price of alcohol discussed above, there is a multitude of ways to influence the probability of intoxication in patrons of drinking venues. The price of alcohol itself is of course one of those factors as is the extent of responsible beverage service and the availability of food. Venues that provide food have a reduced risk of violence (Graham, 1985; Homel and Clark, 1994), and venues failing to serve food have been linked to increased violence (Homel et al, 1991).

Conflict and stress as triggers of violence in drinking settings

The powerful role of social and physical characteristics of drinking environments on the link between alcohol and aggression has been demonstrated in both laboratory and observational studies (Chermack and Giancola, 1997; Graham and Homel, 1997; Ito, Miller and Pollock, 1996). Important factors which can modify the relationship include the extent of rewards for aggression (Hoaken et al, 1998), permissive attitudes toward violence (Graham and Homel, 1997), and the presence of threat, conflict or other provocation (Graham and Wells, 2003). Other models of violence in drinking settings stress factors such as frustration, conflict and competition for the opposite sex or even just physical space to stand or sit in, long lineups for drinks, for washrooms or just to enter the premises (Homel and Clark, 1994; Homel et al, 1997). Based on hundreds of hours of key informant interviews and observations of licensed premises, Marsh and Kibby (1992) propose that if induced in sufficient quantities alcohol can reduce a person's ability to cope with frustration and anger. Certain deficits of perceptual and cognitive functioning induced by intoxication contribute to this outcome. These serve to decrease comprehension and communication skills, which in turn increase the likelihood of interpersonal conflicts while simultaneously reducing the ability to resolve these peacefully. Clearly many physical and social characteristics of bars can contribute to the experience of frustration, conflict, anger and irritation among patrons who will be susceptible in differing degrees to acting out violent impulses in response to these triggers. Such characteristics include overcrowding and bumping (Macintyre and Homel, 1997), smokiness (Homel and Clark, 1994; Homel et al, 1991), bad and/or loud music (Homel and Clark, 1994) and competitive games such as pool (Graham, 1985).

Guiding Principle 3: Drinking environments where conflict, frustration and stress are created by their social or physical characteristics have an increased likelihood of violence.

Poorly managed and overly permissive drinking environments

A permissive social atmosphere in which the usual constraints on behaviour are lowered or absent appears has been frequently reported in observational studies to be one of the more significant factors associated with an increased risk of aggression and violence (Graham, 1985; Homel and Clark, 1994). Characteristics of such environments include swearing, overt sexual activity, open drug dealing and general rowdiness. Poor standards of décor and venue appearance have also been identified in these studies, which may create expectations amongst patrons about the types of behaviour that are likely or acceptable in that bar. Many other local instances can be readily identified that are indicative of an "anything goes" drinking environment in which several instances can be found from the Alberta Roundtable recommendations e.g. whether graffiti or gang colors are permitted. The following principle relating to the provisions of Deterrence Theory is also relevant in the context of how credible a deterrence is management sanction of excessive drinking or poor behaviour (e.g. cutting of service or asking customers to leave the premises).

Guiding Principle 4: Drinking environments with permissive management standards regarding excessive drinking and antisocial behaviour will have higher levels of violence.

Creating effective deterrence for irresponsible management practices

The enforcement of sanctions whether by police, liquor inspectors, security staff or managers relating to excessive drinking and aggressive behaviour is a critical component of effective prevention. The criminological literature contains a large number of studies which have addressed the core tenets of what has become known as Deterrence Theory. An influential paper by Becker (1968) drew upon economic theory to categorize ways in which potential offenders calculate the costs and benefits when considering whether or not to commit a crime. Becker described the dimensions of this evaluation as involving consideration of (1) anticipated gains, (2) the probability of obtaining these gains, (3) the severity of punishment if caught and (4) the certainty of punishment. More contemporary versions of Deterrence Theory stress the importance of the perceived likelihood of apprehension and conviction and the speed with which sanctions are applied over and above their actual or perceived severity (e.g. Nagin and Pogarsky, 2001). A number of studies have shown that the increasing awareness of the threat is an important component of General Deterrence i.e. deterrence impacting on all members of the population who could conceivably commit an offence. Homel (1986) has, for example, documented the impact of increasing public awareness of penalties against drinking and driving as a means of increasing deterrence against this offence. The empirical evidence has strengthened over the last two decades to suggest that in general terms certainty and celerity (speed) of punishment provides more effective deterrence than severity of penalties alone. In the words of Sherman et al (1998) the enforcement of drink-driving laws has been "one of the great success stories of world policing". This success has not been achieved so much by increasing the actual probability of arrest as by the perceived risk of detection and apprehension. Contemporary deterrence theorists stress how such risk perceptions are continuously updated on the basis of new experiences (direct and vicarious) such as encountering enforcement activity or learning about it from others (e.g. Pogarsky et al, 2004). This report will discuss the importance of effective law enforcement in relation to laws prohibiting service to drunken customers, to underage customers and also a multitude of regulations and bylaws which influence the safety of the drinking environment such as level of permitted crowding. In a smaller sphere, managers and staff of drinking venues need to regulate the environment in which they operate and effectively deter behaviours which could lead to aggression and violence. Hence the tenets of Deterrence Theory have great relevance to the issue of preventing violence in and around licensed premises.

Guiding Principle 5: Licensed operators and their staff need to believe that sanctions against irresponsible management and serving practices are highly likely to be applied and to be applied swiftly if these sanctions are to be effective. In comparison, the size of penalties that can be applied are less important.

3.3 Operator best practices

3.2.1 Responsible beverage service (RBS)

Relevant Roundtable recommendations:

1. Responsible beverage service (reducing consumption)
40. Post signs regarding refusal of service to intoxicated customers
66. Responsible liquor service (pricing and service practices)
73. Promote food service (pricing and service practices)
88. Server training (security)
91. Develop codes of conduct for staff (staffing issues)

Definition:

RBS programs involve a variety of different strategies most of which aim to reduce customers' intoxication levels. These strategies include 'house policies' such as promoting food and non- or low-alcohol alternatives, training staff to identify early signs of intoxication as well as to delay or stop service as appropriate.

Ratings:

- ★ RBS as an isolated strategy can be effective in reducing patron intoxication levels under ideal circumstances but loses effectiveness when implemented across many establishments with varying degrees of management support.
- ★★ RBS programs are more effective when part of a comprehensive strategy including liquor law enforcement.

The Thunder Bay study

Early Canadian study showed RBS programs can change server behaviour

Gliksmann and colleagues (1993) from the Addiction Research Foundation, Ontario evaluated a program of server training employing eight commercial establishments in Thunder Bay, four as intervention sites and four as control sites. The program was directed at training both managers and bar staff to detect early signs of intoxication and to slow or refuse service. A small but significant change in server behaviour occurred in the intervention sites that were observed to be more likely to offer non-alcoholic alternatives and delay service to "pseudo-patrons". The intervention sites volunteered to take part in the study.

Overview:

RBS programs in general

RBS programs are relevant to the prevention of violence because they focus on the prevention and management of customer intoxication levels. They are also important because, as noted by some participants in the Alberta Roundtable as well as in qualitative studies of violence on license premises (e.g. Homel et al, 1997; Felson et al, 1986), refusal of entry to licensed premises as well as refusal of service to intoxicated customers can both be flashpoints for violence – though research on bars frequented by young people by Graham and Wells (2001) found that these accounted for a tiny proportion of

all violence incidents at these premises. Managing these interactions well is an important part of reducing violence in and around licensed premises.

Responsible beverage service programs began in North America in the late 1980s as a response largely to an increasing awareness of the dangers of drinking and driving and, no doubt, specifically encouraged also by the advent of third-party liability lawsuits where alcohol servers in commercial establishments were held liable for the actions of customers they had served to intoxication (Solomon and Prout, 1996). Early studies in the USA and Canada showed that in ideal circumstances with fully co-operating management RBS could result both in changed server behaviours and reduced patron intoxication levels (e.g. Saltz, 1987; Gliksman et al, 1993). Later studies in the USA and Australia which attempted to implement RBS on a larger scale across communities found its effectiveness to be very much diluted outside of optimal conditions (Saltz, 1997; Lang et al, 1998). More recent comprehensive reviews of the literature from Australia have suggested RBS can only be effective when conducted as part of a broader response to problems around licensed premises which include a significant emphasis on effective enforcement of liquor laws (Loxley et al, 2004; Stockwell et al, 2001). However it is achieved, whether by the threat of third-party liability lawsuits, by pressure from law enforcement agencies or from an instinct to provide a safe environment for customers, it is clear that the voluntary and full cooperation of managers and clear communication of RBS policies to staff is essential if RBS is to work.

The “Freo Respects You” Project

A cautionary tale from Fremantle, Western Australia

Lang et al (1998) evaluated a community wide intervention study in the port city of Fremantle, Western Australia. Seven large bars with a track record of violent incidents were given an RBS intervention for serving staff, door staff and managers. Seven matched bars from a nearby entertainment district in the city of Perth were used as controls. Managers and staff were advised that actors would be hired as pseudo-patrons (mystery shoppers) who would visit the premises and display obvious signs of intoxication while attempting to purchase alcohol. Managers were encouraged to develop responsible house policies covering such issues as serving underage and intoxicated, safe transport home, preventing violence and providing non-alcoholic alternatives. Knowledge of responsible service issues among bar staff who attended the course improved and there was a significant reduction in patron BAC levels. However, there was no increase in service refusals to ‘drunk’ pseudo-patrons, no improvement in age-ID checking and only slight improvements in house policies at intervention sites. One notable exception was one popular bar which enthusiastically introduced a range of new house policies, refused service to drunken pseudo-patrons, had no customers exiting with high blood alcohol levels and even reported increased profits. The authors concluded RBS was relatively ineffective in the absence of such management support.

There are no studies that have specifically evaluated the placing of signs indicating that service to intoxicated customers will be refused, but this is a common component of RBS programs (e.g. Lang et al, 1998) and is of course consistent with its objectives. An Australian survey found that knowledge of liquor laws regarding service to intoxicated

customers in the wider community in the 1990s was quite low and also the public support was mixed (Hawks et al, 1993). Australia's Northern Territory introduced an innovative and effective program in the 1990s called *Living with Alcohol* (Chikritzhs et al, 2005) funded by the new alcohol tax. One component of this program was a public education campaign informing the public of the existence of laws regarding not serving intoxicated customers in bars in order to support management and serving staff in compliance with the law.

Provision of food

Rating: ★ Provision of food on licensed venues has a strong rationale in terms of reducing intoxication levels with some additional indirect evidence of possible benefits.

It is well established that drinking alcohol with a full meal can reduce alcohol levels substantially—by up to 60% (National Health and Medical Research Council, 2001). In some Australian jurisdictions it is a requirement that restaurant licenses restrict alcohol sales to people who are eating. There is Australian data showing that these are low-risk licensed premises, both for violence and subsequent drinking and driving (Stockwell, 1997a). However, the precise contribution to food service, as opposed to type of clientele and other environmental factors, cannot be determined. There is also the contrary and commonly used practice of serving salty snacks, which increase alcohol consumption by increasing thirst.

3.2.2 Programs to train managers and security staff to prevent violent incidents

Relevant Roundtable recommendations:

10. Keep incident logs
27. Enforcement-related strategies such as walk-throughs by police officers and bar staff
- 28 & 46. Uniformed security staff
43. Good lighting
44. Appropriate furniture layout and "traffic" flow patterns
47. No gang colors
48. No graffiti
49. Zero tolerance approach to violence and inappropriate behaviour
52. Choose appropriate music
53. Know your employees and your customers
50. Staff dress code
74. Promote entertainment
78. Safety audits
79. Surveillance technology (including surveillance cameras, facial recognition, closed circuit TV, video systems and staff videographers)
80. Hire uniformed, part-time police officers for surveillance work
81. Involve the police in dealing with violent incidents
82. Washroom attendants
83. Two-way radios of the staff

- 84. Monetary incentives for staff initiatives in violence prevention
- 85. Employ female bouncers as well as males
- 86. In-house security plans
- 91. Develop codes of conduct for staff

Definition:

Programs that advise and support managers in designing the physical and social environment of their bars in order to reduce triggers for violence such as bumping, jostling, stress and frustration and that also train security staff ("bouncers") to anticipate, prevent and manage violent incidents. Screening of security staff for criminal records is usually a part of such programs.

Rating:

★★ Well-documented Canadian and Australian violence prevention programs focusing on the drinking environment and conduct of security staff have been shown to reduce violence, with sustained effects in a well-controlled Canadian study. The programs have been developed on the basis of extensive observational studies of violent premises in Australia and Canada.

Overview:

Over more than two decades, the work of both Dr Kate Graham from the Centre for Addiction and Mental Health in Ontario and Professor Ross Homel from the University of Queensland, Australia stand out as examples of excellence in the international literature. Both initiated their work on the prevention of alcohol and violence with extensive observational and qualitative studies to gain an understanding of risk factors and triggers for violent incidents and also the characteristics of violent licensed premises.

Graham's first study (Graham, 1980) involved a team of researchers spending 700 hours observing 185 bars in Vancouver and recording levels of intoxication and aggressive behaviour and rating venues in terms of decor, seating arrangements, size, style of entertainment, noise levels, crowding and staff behaviours. Significant associations were found between levels of intoxication, aggression and each of these environmental variables.

Subsequently Wells and Graham, beginning in the mid-1990s, conducted observations and subsequent in-depth interviews with participants in over 100 violent offences occurring in Toronto nightspots, with a particular focus on the roles of security staff in responding or even causing the incidence (Wells et al, 1998).

In Australia starting in the early 1990s, Ross Homel and colleagues conducted a series of observational studies to establish the relationship between situational and environmental characteristics of parts, levels of intoxication and aggression (Homel and Clark, 1994). One such study involved 300 hours of observations and social behaviours, serving practices of the characteristics of licensed premises including direct observation of 32 violent incidents (Homel et al, 1991). They concluded that a combination of crowding, a

young male crowd, poor entertainment, aggressive bouncers, cheap drinks and high levels of intoxication were potent predictors of violence events.

The Safer Bars project

Internationally acclaimed Canadian study shows how to reduce violence in bars

Safer Bars, developed by Dr Kate Graham of the Centre for Addiction and Mental Health, has received international acclaim. It is based on years of observational and analytic study into the causes of barroom aggression. The program includes a risk assessment workbook to help management identify and reduce environmental risks for aggression. A 3-hour training program for security staff, bar staff and managers aims to prevent and manage potentially violent incidents. The risk assessment covers: managing the flow of people in and out of the bar; creating a positive social and physical atmosphere that reduces conflict, frustration and irritation; establishing appropriate house policies; screening, hiring and supervising appropriate staff; peaceful management of closing time. The training sessions use group discussions and role play to build skills in: managing the escalation of aggression; how to intervene early; working as team; developing plans and policies; controlling anger; nonverbal and verbal communication skills; managing intoxicated customers; and legal liability.

Safer Bars was evaluated using a sophisticated design with large capacity bars and clubs in Toronto randomly assigned to 18 intervention and 12 control sites. At 12 month follow-up there was a significant reduction in moderate to severe physical aggression in the intervention compared with control sites. This positive effect was more limited in bars where there was a high turnover of managers and door staff. These results strongly support the conclusion that training of managers and staff can reduce physical aggression in Canadian bars and clubs (Graham et al, 2004).

The shared experiences across these studies and their analyses led to the design of effective community-based interventions for the prevention of violent incidents in high risk venues. Graham and colleagues painstakingly developed, implemented and evaluated the program *Safer Bars* described above (Graham et al, 2004). Homel and colleagues first designed an intervention study in the popular Gold Coast tourist destination of Surfers Paradise which was then replicated in several other towns in Queensland (Homel et al, 1997; Hauritz et al, 1998). These latter Australian studies are described in more detail later under Community Mobilization strategies since, in addition to environmental design and training of security staff, these programs had a strong focus on the creation of consensus between groups of licensees, police and civic authorities.

Most of the strategies listed under the section from the Alberta Roundtable report are consistent with the kinds of programs designed by Graham and Homel. For example, the importance of clear communication of rules and policies both to patrons and staff is a feature of *Safer Bars* and the Surfers Safety Action Project. These projects emphasized the importance of the cues given out by staff and management that bad behaviour will not be tolerated, both directly through their responses and through maintaining clean and attractive décor. Removing graffiti, banning gang regalia and stressing staff uniforms

and dress codes are clearly consistent. An element of both programs was the involvement of staff and management in creative problem solving so that day-to-day experience and knowledge of customers and particular drinking venue could be harnessed. Clearly some of the recommendations from the Alberta Roundtable are of this kind, such as having washroom attendants, two-way radios for staff and television in washrooms. Such micro-strategies are best supported in terms of such guiding principles outlined in Section 3 in terms of whether they might variously reduce intoxication, reduce frustration and conflict among customers, reduce unnecessary bumping and jostling and communicate a lack of tolerance for antisocial behaviour. While studies examining such detailed characteristics of licensed venues have found associations with violence, only packages of many such strategies rolled into a whole program have been evaluated. Clearly there is much room for creative local problem solving and tailoring of such interventions to local conditions.

Another group of strategies identified by the Alberta Roundtable comes under the general category of surveillance: know your employees and your customers; surveillance technology (including surveillance cameras, facial recognition, closed circuit TV etc.); hire uniformed, part-time police officers for surveillance work; washroom attendants. These as a group are relevant to both Deterrence Theory and Routine Activity Theory. Managers and staff can cut off the service, ask patrons to leave and call the police if need be. But for the sanctions to be credible and effective against aggressive or violent behaviour, they have to be visible and credible to those who might be sanctioned. In relation to Routine Activity Theory, one aspect of situations and contexts which can deter criminal or antisocial behaviour is the degree of "guardianship" i.e. the extent to which the behaviour in question will be visible to potentially concerned bystanders. An example given by Felson is that houses that are well screened from the road by hedges and fences are far more likely to be burgled than are those which are in full view of neighboring properties (Felson, 1983).

Finally, it is common practice in a number of potentially violent environments such as emergency departments and bars to employ female staff with strong social skills as a means of reducing male on male aggression. In reflecting on the benefits of the Surfers Paradise Safety Action Project, Homel et al (1997) note how in Australia at least both the drinking culture in bars and clubs as well as the management is predominantly masculine with "an emphasis on control and dominance" and that the female project officer was not perceived as posing a challenge or a threat. Similarly, a study of patron blood alcohol levels on exiting Australian bars at closing time deliberately used two female interviewers for the same purpose along with two male research assistants who kept in the background until required to administer a breathalyzer test (Stockwell et al, 1992a).

3.2.3 Strategies for operators to manage the flow of customers entering and leaving licensed venues

Relevant Roundtable recommendations:

- 29. Requisition more cabs and improve transportation options at bar closing times
- 51. Softer music near closing time

- 54. Use music and lighting cues to signal patrons that closing time is near
- 58. Cover charges
- 62. Restrict admission after a certain time
- 75. Stagger closing times to avoid a mass exodus of patrons onto the street

Definition:

Policies designed to reduce large numbers of patrons on the streets, whether moving between drinking venues or attempting to get transport home.

Rating:

★ A strong rationale and some of these strategies have been employed as part of larger programs which have been evaluated with positive outcomes.

Overview:

Research in Australia, the UK and North America has noted the problem of large numbers of patrons moving between bars or waiting for rare non-existent public transport home (Felson et al, 1997; Plant and Plant, 2007; Hawks et al, 1999). A number of strategies have been developed to reduce the increased risk of violent incidents associated with influxes of large numbers of intoxicated or semi-intoxicated young people onto the streets late at night, often encountering each other crossing in opposite directions. Some of these have been employed in Australia in the context of police-licensee Accords, including cover charges with no pass outs and no readmission after 9 or 10 p.m. (Felson et al, 1997). A number of jurisdictions have at times introduced special pub transport schemes, sometimes a coach owned by an operator or group of operators to give free transport to all, or just arrangements with taxi companies to come promptly when called (Stockwell et al, 1988). Taxis are often hard to find in the early hours of the morning in big cities and may be reluctant to pick up drunken customers for fear variously of damage to their vehicles, violence, theft or non-payment of fares. In Perth, Western Australia an evaluation of the impact of extended trading hours beyond night noted the irony that public transport stopped at midnight and that this posed significant problems for public safety (Chikritzhs et al, 1997). These problems are another example of Routine Activity Theory principles (Felson, 1983), with the predictable flow of people around their day-to-day activities, in this case young people, mainly young males, moving between or from entertainment venues, encountering each other more frequently and hence being more likely to come into conflict with each other. Levels of intoxication combined with frustration at the lack of transport replicates the kind of circumstances that have been identified above as situational determinants of alcohol related violence. The provision of realistic transport options for patrons to move quickly out of the area is consistent with these principles but the author is unaware of evaluations having been conducted to investigate whether such strategies actually reduce violence.

There may be additional frustrations associated with closing time, especially if patrons are not ready to leave or if they find it difficult to leave having had too much to drink. Warning patrons by turning up the lights and turning down the music to create a calm atmosphere both seem practical and sensible strategies; though again no specific evaluation data are available. The idea of staggered closing times is often proposed as a

means of reducing the problems of large numbers of people on the street at the same time. In the extensive Australian review by Loxley et al (2004), it is noted that all-night opening is one-way of achieving staggered closing times as people simply leave when they wish and caution that the experience with this both in Australia (Chikritzhs and Stockwell, 2002; d'Abbs, 1994) and in Scandinavia (Ragnarsdóttir et al, 2002) is that the overall extension of hours all but wipe out any benefit of their being staggered due to a substantial increase overall in violent incidents. It is cautioned, therefore, that staggered closing times may result in an overall increase in trading hours which in itself will usually contribute to an increase in violent incidents in and around licensed premises. To the extent that choosing to close early is an option available to operators, if that achieves staggered hours in an entertainment district then that is likely to reduce the risk of violent incidents on the streets.

3.2.4 Safer beverage containers and glassware

Relevant Roundtable recommendations:

42. "No glass" policy

70. No glassware or glass beverage containers

Definition:

A policy of only serving alcohol in plastic or shatterproof glasses and avoiding the serving of alcohol bottles to prevent them being broken and used as weapons in barroom brawls.

Rating:

★ A strong rationale but evaluation studies required

It has been noted by commentators that injuries caused by broken glasses and bottles are common in licensed premises (Shepherd, 1998; Plant and Plant, 2007). Although a controlled trial comparing conventional glassware with toughened glassware (Warburton and Shepherd, 2000) reported a small increase in injuries to staff from accidental breakage of tempered glassware, the application of the principle of using other kinds of shatterproof bottles and glasses remains a logical strategy though it awaits a field trial. It is the author's personal experience that a number of Australian police districts have restricted the sale of alcohol bottles as a means of reducing alcohol-related injuries, often using the medium of a local licensee-police Accord to affect this.

3.2.5 The provision of in-house breath sampling for patrons

Definition:

The provision of coin-operated self breath testing machines in bars for patrons to test whether they are over the legal limit for driving.

Rating:

☒ Evidence to suggest they are ineffective and anyway unlikely to contribute to the prevention of violent incidents.

This particular proposed operator strategy has in this author's opinion only a very weak rationale - namely that patrons of their own accord might wish to test their intoxication level and keep this at a lower level thus reducing the likelihood of their involvement in violent incidents. The experience of the implementation of coin-operated breath testing machines in bars in Western Australia was quite negative (Hay and Cercarelli et al, 2004). Some operators objected on the basis that they might be held legally responsible in the event of incorrect readings and customers subsequently being charged for drinking and driving after being involved in a road crash. All breath testing machines require regular calibration to ensure their continued accuracy. A survey of the accuracy of machines available in a sample of 36 Perth bars found that only nine were within acceptable limits of accuracy (Hay and Cercarelli et al, 2004). Anecdotally, fieldworkers conducting research in Australian bars have reported to the author witnessing young men competing to get the highest reading on the machines despite the dollar charge of each test. It can be concluded that these machines have dubious benefits in the prevention of drinking and driving and probably none at all in relation to the prevention of alcohol related violence.

3.2.6 Operator strategies to reduce underage drinking

Definition:

Strategies employed by managers and staff of licensed premises to improve compliance with laws regarding not admitting or serving alcohol to persons aged under the legal drinking age (18 years in Alberta, Quebec and Manitoba).

Relevant Roundtable strategies:

- 56. Identification checks – generally or randomly
- 57. Computer-based identification scanning

Rating: ★ Potentially effective but low compliance and generally easy access to alcohol by minors in the absence of law enforcement strategies.

The experience with enforcing drinking age laws, and for that matter laws regarding the legal age for purchasing tobacco, is that a range of strategies work best in combination with regular compliance checks supported by law enforcement and media campaigns (Loxley et al, 2004; Rice and Taylor, 2005). The relevance of this to violence prevention in and around licensed premises is that, when effective, restricting admission to persons of legal drinking age will remove a potentially vulnerable group from these settings and may contribute to a reduction in crowding. A recent literature review and key informant survey by the BC-based Centre for Social Responsibility concerning the prevention of underage drinking and purchases reported that the BC Liquor Distribution Branch had established over the years that biannual compliance checks using underage decoys attempting to purchase liquor were highly effective (Rice and Taylor, 2005). This is consistent with controlled studies in other countries (Loxley et al, 2004). The report also noted that computer-based identification scanning coupled with in-house camera surveillance protected establishments from the threat of fines for failing to check ID on youthful customers. The conclusion of this review along with reviews of Australian work

is that voluntary compliance with legal drinking age laws is low. Loxley et al (2004) concluded that "compliance with these laws is at best patchy in Australia, rendering youth access to alcohol comparatively easy". Similarly, Rice and Taylor (2005) state that "Despite establishing minimum legal drinking ages, minors routinely gain access to alcohol".

It is worth noting that licensed operators can also contribute to numerous other Alberta Roundtable recommended strategies that are listed under either regulatory or community mobilization strategies. These are discussed later in this report and include:

- Restricting happy hours*
- Establishing minimum drink prices*
- Reducing underage drinking*
- Supporting community mobilization strategies*
- Crowd controller training*
- Sharing best practices*
- Improved communication between law enforcement, regulators and industry*
- Transportation-related strategies such as a free shuttle service for bar patrons*
- Improving urban planning and coordination between stakeholders*
- CPTED-based environmental design*
- Limits on patron numbers (to control overcrowding)*
- Teamwork and community-based approaches*
- Improving industry–media relationships and using the media as a positive force for public education about alcohol-related violence*
- Enforcement of the “Under 25” policy*
- Defining rules and best practices with regard to acceptable use of scanning technology*
- Limits on drink specials*
- Limits on happy hours*
- Limits on hours of service*
- Responsible liquor service*
- Legislating minimum drink prices*
- Limiting the number of drinks patrons can order at last call*
- Allowing bars to remain open without liquor service*
- Providing a longer transition period between last call and the time when patrons must leave*
- Using surveillance techniques and mystery shoppers to monitor staff performance*
- Server training*
- Implementing mandatory criminal record checks for staff*
- Implementing certificated training programs for security staff and door staff*

3.3 Regulatory best practices

3.3.1 Restricting days and hours of service

Relevant Roundtable recommendations:

- 2. Restricting service hours
- 65. Limits on hours of service

Definition:

A restriction on the days of week that licensed premises may be open for service (e.g. no Sunday sales) or restrictions on the hours at which they are allowed to remain open on trading days (e.g. no service after 11 p.m. on week nights and 1 a.m. at weekends). Any reduction in hours of potential service beyond the seven days and 24 hours a day is considered a restriction here.

Rating:

★★ Evidence from several Australian studies that introducing Sunday trading and also extending late trading hours (after midnight) is associated with increases in violent incidents. Even one to two hours of extra trading after midnight may lead to a doubling of violent incidents on licensed premises. Also agreement on this rating from comprehensive international reviews (Babor et al, 2003; Loxley et al, 2004; Stockwell, 2006).

The impact of extended trading for bars in Perth, Western Australia

An extra hour after midnight doubled rates of assault

In keeping with international as well as Canadian and other Australian trends towards longer opening hours, a system of Extended Trading Permits was introduced in Western Australia in the early 1990s which allowed bars to trade for an extra hour or sometimes two after the general closing time of midnight (Chikritzhs and Stockwell, 2002). A trickle of such permits soon turned into a flood and by mid-1997 a quarter of all such premises in the Perth metropolitan area were permitted to trade into the early hours of the morning. This allowed a "natural experiment" in which premises granted extended trading could be compared in similar locations to those which had not. A peer-reviewed evaluation found that, compared with normally trading premises, those with extended hours significantly increased their alcohol sales, experienced a doubling of violent incidents, had more customers involved in alcohol-related road crashes and had more customers who had high blood alcohol levels when later tested at the roadside by the police (Chikritzhs and Stockwell, 2002; Chikritzhs and Stockwell, 2006). That such a small change can have such a marked effect may be attributed to the strong commercial advantage of being able to trade late especially on weekends when there is a high volume of customers, a number of whom may already be intoxicated.

Overview:

When whole days for the service of alcohol are added or taken away both Australian (Smith, 1988) and international research (Babor et al, 2003) demonstrates significant changes in overall levels of harm including violent incidents and admissions to emergency departments. There is recent Australian evidence that even small changes (e.g., later hours) can be associated with a significant local-level impact on alcohol-related violence (Chikritzhs and Stockwell, 2002) and also blood alcohol levels of patrons tested as they drove home (Chikritzhs and Stockwell, 2006). A study by the New South Wales Bureau of Crime Statistics and Research found that licensed premises with the highest rates of violent incidents were almost invariably those that were open between midnight and 3 a.m. (Briscoe and Donnelly, 2001). An earlier study in Darwin in the 1990s examined the impact of an extension of nightclub closing time from 2 a.m. to 6 a.m. (d'Abbs et al, 1994). This experiment was ended due to concerns about public drunkenness and violence in the early hours of the morning associated with the change.

A major Australian review of the evidence for what works in the area of prevention (Loxley et al, 2004) concluded that: "Some Australian licensing commissions treat extended trading hours as a privilege that is granted or withdrawn according to whether licensees are thought to be operating responsibly. This approach assumes adequate monitoring of a large number of individual premises to be in place, whereas in reality information systems are ill-equipped for such demands and rarely include data on alcohol harm incidents."

3.3.2 Controlling the prices of alcoholic beverages

Relevant Roundtable recommendations:

3. Restricting happy hours
4. Establishing minimum drink prices
63. Limits on drink specials
64. Limits on happy hours
67. Legislate minimum drink prices

Additional recommended strategies:

- Adjust alcohol tax rates to precise alcohol content of beverages to create markets for low alcohol content products;
- Maintain all taxes and minimum prices with cost of living;
- Create a "nickel a drink" levy to fund prevention and treatment programs.

Definition:

Strategies which influence the final retail price of alcoholic beverages whether by fixing minimum prices, limiting discounted prices, raising tax levels, maintaining taxes or prices with inflation or redistributing taxes across different beverages to better reflect alcohol content.

Ratings:

★★★ *Raising or maintaining drink prices:* The general principle of raising drink prices or at least preventing them from declining by various means available to government has been endorsed by comprehensive international and Australian reviews as having the strongest evidence of any available strategy for the prevention of alcohol-related harm (Babor et al, 2003; Loxley et al, 2004; Stockwell et al, 2006b). A recent Swedish study estimated that a 5% decrease in the price of alcohol would increase consumption by 1.35% (Holder et al, 2007).

★★ *Restrictions on happy hours.* While consistent with the general principle of maintaining retail prices, restricting happy hours or discounted alcohol as an isolated strategy is likely to have more limited impacts on levels of harm such as violence. Where there can be certainty that the restrictions will apply and influence sales at high risk premises then this rating is warranted.

The Northern Territory's *Living With Alcohol* program saved lives

Another cautionary tale from Australia

In the early 1990s Australia's Northern Territory government introduced a new levy of five cents per standard drink on all drinks with alcohol content greater than 3% alcohol by volume, proceeds of which were used to fund additional treatment and prevention programs. An evaluation by the National Drug Research Institute estimated there were 129 fewer alcohol related deaths and 1300 fewer hospital admissions in just the first four years of the program (Stockwell et al, 2001). Most of the benefits were in relation to "acute" alcohol-related harms such as violent incidents. Overall the program netted the Northern Territory an economic benefit of AU\$123 million. A large increase occurred in the consumption of low alcohol products and a substantial decrease in per capita alcohol consumption and hazardous consumption by men. Despite the higher prices there was strong community support for the program. Australian jurisdictions lost the right to raise tobacco, petrol and liquor taxes following a High Court decision in 1997. A re-evaluation following the removal of the special tax found that the program's effectiveness was at best heavily diluted despite continued funding from other sources of treatment and prevention programs. This second report also confirmed that the earlier benefits were significant in comparison with adjoining, northern areas of Queensland and Western Australia where there had been no harm reduction tax on alcohol during the study period (Chikritzhs et al, 2005). These natural experiments illustrated how changes in alcohol taxes have a major effect the health and well-being of a population – but are highly vulnerable to unrelated national developments.

Overview:

The general principle of raising alcohol taxes. It is well established that alcohol behaves like an ordinary commodity in the sense that increases in its price usually lead to an overall reduction in consumption, and decreases in the price usually lead to an overall increase in consumption (Österberg, 2003; Babor et al, 2003). Whilst the strength of this relationship varies somewhat for different countries, for different jurisdictions and for different products, the *direction* of the effect hardly varies. Overall it has been found that

spirits are usually more responsive to price changes than are wine and beer (Edwards et al, 1994). There are many studies reporting that price increases result in reduced levels of harm as well as reduced frequency of heavy drinking among young people (Österberg, 2003).

Encouraging the consumption of low alcohol content beverages. Not all evidence-based tax strategies need to be at the expense of alcohol industry profits. A case in point is the development over three decades of a vibrant market for low alcohol content beers in Australia where beers with an alcohol content of between 2.5% and 3.8% by volume now constitute up to 40% of the beer market by value following a number of federal and state tax reductions for these beverages (Stockwell and Crosbie, 2001). In contrast, beers of this strength comprise less than 0.5% of the Canadian beer market due to the fact that beer taxes in many Canadian provinces are calculated on the volume of beverage not on the volume of ethyl alcohol (Stockwell et al, 2006a). A study of US college drinking compared drinking behaviour at fraternity parties where beer was provided but under two conditions: in one the beer was only 3% alcohol by volume and in the other it was 7%. In both cases the strength of the beverages was not marked and the drinks were provided free. There were only minor differences in the quantities of high and low strength beer consumed but party goers indicated similar levels of enjoyment. Most significantly, consumers of the 3% beer had very much lower BAC readings than those who consumed the stronger beer (Geller et al, 1991). A similar study has recently been conducted in a campus study of male beer drinkers at the University of Victoria in British Columbia (Segal et al, 2007) in which the subjects mostly could not detect differences between a 3.8% and a 5.3% strength beer.

Australian research has also shown that lower levels of alcohol-related violence and hospitalization are found in areas with higher consumption of low- and mid-strength beer as a proportion of all beer consumed (Stockwell et al, 1998). Australian beer taxes are tiered to get maximum benefit from the strategy with the lowest rate being for beers up to 2.5% alcohol by volume, an intermediate rate for beers up to 3.8%, and a higher rate for stronger beers (see www.ato.gov.au). A more worrisome Australian story, however, concerns the very low rates of taxation on cheap packaged wine which is popular among some heavy drinking aboriginal populations, being available in packages holding as much as 20 litres of wine though 4 litres is more usual (Gray et al, 1999). Communities with high rates of consumption of such wine were found to have significantly higher rates of alcohol related violence and hospitalization (Stockwell et al, 1998). This evidence is recognized in the report of the Canadian National Alcohol Strategy Working Group (2007, p. 29) in which recommendation 28 calls for "incentives, whether through tax or price adjustments, to promote the production and marketing of low alcohol content beers and coolers, with the overall goal of reducing the volume of absolute alcohol consumed per capita in Canada". Recommendation 29 of the same report also calls for a "move towards alcohol volumetric pricing (based on the volume of ethyl alcohol and alcohol products) within each beverage class".

Special levies on alcohol to fund treatment and prevention programs.

Levies or "hypothecated taxes" have been used in many jurisdictions to collect revenue for specific purposes. New Zealand currently collects such a tax to fund an Alcohol Advisory Council. Quebec has a small levy on all drinks to contribute to public education programs. In the early to mid-1990s Australia's Northern Territory collected a 'harm reduction levy' to fund public education, treatment and prevention program. A number of published evaluations have been conducted of the latter, which indicated substantial health, safety and economic benefits (Stockwell et al, 2001; Chikritzhs et al, 2005). In Canada, Senator Michael Kirby's report on mental health recommended that new mental health and addiction intervention programs should be created with funding from a "nickel or drink" levy on alcoholic drinks with the strength of 4% alcohol or more by volume (Kirby, 2006). Such a levy in Canada would raise close to \$500 million per annum. An interesting feature of such a program is that even if alcohol consumption was to fall and therefore cause a reduction in revenues, demand for health care should also fall because alcohol contributes causally to mental health and other health problems (Rehm et al, 2004). However, because planning and establishment of services needs to occur over a number of years such funds need to be managed so that annual fluctuations in income do not impact adversely on health service delivery. In point of fact, per capita consumption of alcohol in Canada varies little year by year (Statistics Canada, 2006) so this small problem should be easy to manage.

Maintaining alcohol taxes with the cost of living

A review of the many types and levels of taxation on alcohol in Canada prepared for the National Alcohol Strategy Working Group (Stockwell et al, 2006a) concluded that many jurisdictions failed to maintain minimum drink prices relative to the cost of living. While having abandoned a government alcohol retail monopoly, even Alberta still has the capacity to stipulate minimum prices of different beverages. The aforementioned review also noted that the application of pricing across Canada was far from optimal for public health and safety in that it hardly ever reflected the alcohol content of drinks (Stockwell et al, 2006a). Sales taxes such as the GST and PST automatically adjust prices upward with the cost of living because they are applied after all the costs of manufacture, distributing, marketing and retailing drinks have been factored. However, one component of the wholesale price of all alcoholic drinks in Canada has remained unchanged for two decades - the rate of alcohol excise (Stockwell et al, 2006a). Only in the budget of 2006/2007 did the federal government adjust alcohol excise rates to compensate for a drop in GST. Over the previous 15 years the cost of living had increased by 30.4% and there was no compensatory adjustment of excise tax rate. Excise taxes are important for alcohol policy because, when optimally applied, they precisely reflect alcohol content of beverages and are also multiplied by sales taxes (Stockwell et al, 2006a). In keeping with this evidence the recently published report from the National Alcohol Strategy Working Group (2007) included the recommendation of adopting "minimum retail social reference prices for alcohol" indexed at least annually to the Consumer Price Index.

3.3.3 Raising the minimum age for drinking

Relevant Roundtable recommendations:

- 5. Raising the minimum age for drinking
- 7. Reduce underage drinking

Additional recommended strategies:

Raise the minimum drinking age in Alberta, Quebec and Manitoba to 19.

Definition:

The legal drinking age refers to the minimum age at which individuals are permitted to purchase liquor at liquor stores and on premises licensed to sell alcohol for consumption on site. Currently the legal drinking age in Alberta, Manitoba and Quebec is 18 years while in the rest of Canada it is 19 years. In Australia there is a uniform minimum drinking age of 18 years across all jurisdictions.

Rating:

★★★ Australian reviews and international evidence find high levels of support for raising the legal drinking age above 18 years (Babor et al, 2003; Loxley et al, 2004; Stockwell et al, 2006b).

Overview:

The legal drinking age in countries around the world varies from as low as 16 to as high as 21 years (International Center for Alcohol Policies, 1998). There is compelling evidence that when a number of US states at first reduced and then raised drinking age limits over recent decades, both hazardous alcohol consumption and alcohol-related harms increased and then decreased correspondingly (Babor et al, 2003; Loxley et al, 2004). In Australia there has been significant public opinion against raising the drinking age (Australian Institute of Health and Welfare, 2005; Hawks et al, 1993). However, Alberta, Manitoba and Quebec are out of step with the rest of Canada in having a drinking age lower than 19 years, and recommendation for a national standard 19 years has been recently made by the National Alcohol Strategy Working Group (recommendation 24, 2007). As previously noted, there is evidence in Australia and Canada that enforcement of current drinking age laws is at best patchy so that, in theory, much could be achieved through improved enforcement of existing drinking age laws (Loxley et al, 2004; Rice and Taylor, 2005).

3.3.4 Reducing the density of liquor outlets

Relevant Roundtable recommendations:

- 14. Impose a moratorium on liquor licensing in a specific neighborhood
- 16. Redefine licensing classifications to differentiate between types of establishments
- 32. Legislation and bylaws to reduce bar concentrations and maintain community standards

33. Legislate pre-licensing planning and developing approvals as a condition of licensing
34. Require a business plan, a security plan, a noise management plan and a community impact study before a license is issued
35. Restrict the size of licensed premises
36. Reduce bar clusters

Additional recommended strategies:

Monitor problem incidents at bars and clubs, impose sanctions up to and including license suspensions, especially targeting bar clusters in entertainment districts;
Develop guidelines for permitted densities and patron numbers for high risk bars and clubs according to type of area (e.g. inner-city, suburban, industrial, town centre, rural).

Definition:

Legislative and regulatory strategies that have the effect of reducing outlet densities either directly in a planned way against specific criteria or indirectly by reducing the ease with which new licenses can be granted and increasing the speed with which existing licenses can be suspended or lost.

Rating:

★ Australian reviews and international evidence find strong associations between outlet density and local levels of alcohol-related harms with some studies specifically linking outlet density to violence around bars (Babor et al, 2003; Loxley et al, 2004; Stockwell et al, 2006b; Freisthler and Gruenewald, 2005). There have been no intervention studies.

Overview:

At the local level, the level of outlet density is highly associated with local levels of alcohol-related harm, and changes in density over time have predicted later corresponding changes in harms (Stockwell and Gruenewald, 2003). Stevenson et al (1999) examined whether outlet density was significantly related to assault rates in local government areas of New South Wales. While controlling for alcohol sales they found a significant effect for urban areas in that State. Another Australian study (Donnelly et al, 2006) found a strong positive between alcohol outlet density and neighborhood problems of drunkenness. However, much work remains to be done to untangle causal relationships and to convert this knowledge into practical local guidelines for restricting outlet densities appropriate to particular kinds of area (e.g. commercial versus residential, inner-city versus suburban, town centre versus small village) let alone evaluate the impact of such restrictions. There is some evidence that local impacts on one problem (e.g., violence) may be different than the impact on another problem (e.g., car crashes) in relation to the areas where the reduction in problems will occur (Stockwell and Gruenewald, 2003). For example, enforcing greater distances between licensed venues may increase drink-driving problems while reducing consumption and alcohol-related violence. There are, however, a small number of longitudinal studies that have provided strong evidence that changes in outlet density are associated over time with rates of violence (Norström, 2000; Gruenewald et al, 2006), providing stronger support for a causal role of outlet density in rates of violence.

The effects of modifying outlet density may vary according to the type of outlet. For example, Australian studies have identified nightclubs and taverns/bars as high risk venues for problems, especially when they are large. By comparison, restaurants and social clubs are low risk for both violent incidents and drink-driving problems per unit of liquor sales (Stockwell et al, 1992b). In addition, it has been reported that substantial increases in small bistro type licensed premises serving alcohol with food (often at expensive prices) and reductions in large "drinking barns" (hotels) in the Australian state of Victoria were accompanied by a reduction in sales of alcohol (Boots, 1993). Recently, Livingston (2007) demonstrated strong linear relationships between on-premise outlet density and local rates of assault using a sophisticated modeling technique that explained a large proportion of the variance in violence in Melbourne, Australia. One analysis also included premises which combined off sales and on premise sales – an Australian tradition whereby large bars often have on-site liquor stores. For this larger group of bars there appeared to be a "tipping point" of two premises per 1000 residents at which rates of violence increased more sharply (Livingston, 2007). The measure of violence used (violent incidents reported to the police at night-time on weekends) was more likely to be linked to on-premise rather than off-premise consumption. The overall evidence base remains clear that outlet density is a powerful driver of levels of consumption and harm (Stockwell and Gruenewald, 2003). There is a need to develop and evaluate a practical model for approving liquor licenses so as to maintain a balance between meeting consumer demand on the one hand and addressing public health and safety issues on the other.

3.3.5 Mandatory third-party liability insurance

Relevant Roundtable recommendations:

15. Legislate a requirement for liability insurance

Additional recommended strategies:

Requiring owners and licensees to implement a range of proven prevention programs as a condition of eligibility for liability insurance.

Definition:

Insurance schemes for licensees and owners that require responsible beverage service and violence prevention practices and policies to be eligible for protection against third-party law suits involving customers served to intoxication. There is an established body of law and precedent in North America allowing people harmed by intoxicated persons, under certain circumstances, the right to sue the licensee where they served the alcohol to the intoxicated person concerned. Laws written to allow such protection for licensees are usually known as Dram Shop laws.

Rating:

★★ Strong rationale; evidence of deterrent effect in US and Canada plus case law in Canada renders third-party liability lawsuits against licensees who served drunk customers a credible possibility and hence a potentially effective deterrent.

Overview:

Dram Shop laws were pioneered in California in association with the responsible beverage service movement. While the evaluation literature is limited and is mostly from North America, evidence has accumulated to suggest that the prospect of third-party liability lawsuits can have a definite deterrent effect on serving customers to intoxication (McKnight and Voas, 2001; Babor et al, 2003). The underlying rationale of deterring service to intoxicated customers is sound and there is no likelihood of adverse consequences.

Uptake is limited in Australia by the widespread use of public liability insurance, and the low probability of litigation being successful. A review of Australian liquor laws determined that, whilst by 1996 there had been no successful civil cases based on liability for serving customers to intoxication, some out-of-court settlements had been made involving licensees of premises where customers were harmed by other drunken patrons (Solomon and Prout, 1996). The review noted that Australian attitudes about individual responsibility and the use of alcohol may limit the scope of alcohol-related civil liability.

There is substantial case law in Canada for successful action against licensees who continued service to intoxicated customers who subsequently harmed a third-party (Solomon and Proust, 1996), and hence there is the potential for the prospect of such action to deter irresponsible service. Given the patchy record of responsible beverage service programs in the absence of mandatory requirements and the strength of case law in Canada, the further application of Dram Shop type laws and their expansion to incorporate new knowledge of effective violence prevention programs is recommended. The potential effectiveness of mandatory programs was shown in a classic study by Holder and Wagenaar (1994) demonstrating an 80 % reduction in alcohol-related crashes in Oregon, USA after the introduction of mandatory RBS training for bar staff. The requirements to have liability insurance without such mandatory conditions would be counter-productive as it would remove the deterrent effect of the prospect of a third-party lawsuit being brought.

3.3.6 Enforcement of liquor laws

Relevant Roundtable recommendations:

18. Impose stricter fines and sanctions
23. Prosecution of offenders
24. Hire 500 new officers to (engage in) community-based violence prevention
25. Establish mobile command posts near trouble spots
26. Police undercover operations
27. Enforcement-related strategies such as walk-throughs by police officers

- 55. Enforcement of the "under 25s" policy
- 87. Use surveillance techniques and mystery shoppers to monitor staff performance

Additional recommended strategies:

Uniformed officers for community policing initiatives including walk-throughs and checking for age ID and patron intoxication levels at high-risk times;
Plainclothes liquor inspectors or police officers to observe admission and serving practices;
Use of harm indicator data to identify and respond to trouble spots using graded responses from warnings to fines to license suspensions;
Use of pseudo-patrons or mystery shoppers to monitor compliance with liquor laws;
Develop capability for small fines for civil offences in first instance but routinely and quickly applied to maximize deterrent value.

Definition:

Enforcement of relevant liquor laws to the prevention of violence whether by uniformed police, plainclothes police or licensing inspectors. Most studies to date have focused on the enforcement of laws regarding serving intoxicated and/or underage customers. Some principles however may be applicable to other relevant laws regarding crowding levels, responses of security staff to violent incidents and any general requirements for complying with liquor laws.

Rating:

★ ★ Strong evidence for effectiveness in well-designed evaluation studies in the UK, Australia and North America. Consistent rankings of the evidence from comprehensive Australian and international reviews including outcome measures of violent incidents (Babor et al, 2003; Loxley et al, 2004; Stockwell et al, 2006b).

Overview:

There is evidence from the international literature of positive effects from the use of uniformed police in the UK to patrol high-risk bars as a means of reducing violence (Jeffs and Saunders, 1983), from well-advertised plainclothes surveillance by police in the USA (McKnight and Streff, 1994), from the use of decoy operations with undercover police working in liquor stores to prevent underage drinking (Grube, 1997) and from law enforcement targeted at high risk bars identified from harm indicators in controlled Australian research (Wiggers et al, 2004). An element in some of these effective interventions has been the use of apparently drunk or underage "pseudo-patrons", a successful strategy that has also been used in the tobacco control field (Loxley et al, 2004). As can be seen from the number of years between each of these reports, well conducted evaluation trials of liquor law enforcement are few and far between, though international reviews consistently rank this type of intervention strongly (see e.g. Babor et al, 2003; Loxley et al, 2004; Stockwell et al, 2006b). The McKnight and Streff (1994) study estimated that for every dollar spent on such liquor law enforcement there was over US\$200 saved in preventing alcohol related road crashes. As illustrated in the example below, it is important to realize that using data on violent incidents reported to the police

can be directly influenced by enforcement practices and so such items are not necessarily good research quality indicators of the success or otherwise of enforcement initiatives.

Liquor law enforcement as violence prevention in Australia and USA

Contradictory findings or consistent replications of positive effects?

Following the success of uniformed police liquor law enforcement in the UK (Jeffs and Saunders, 1983) a replication study was reported by Burns et al (1995) in Sydney, Australia. Uniformed police patrols visited licensed premises at high risk times on over 800 occasions in a popular entertainment area. The officers were instructed to have a visible presence and to deal with violent incidents they observed, but specifically to check for underage or intoxicated customers. A significant increase in violent incidents reported to the police but a slight decrease in local emergency department admissions for assaults in the intervention area was found. No measures of server behaviour or patron intoxication were employed. The intervention was described as a failure. By contrast, an intervention in Rhode Island, USA involving a broad-spectrum community intervention project to reduce alcohol-related injuries that included plainclothes enforcement of liquor laws was described as a success (Putnam et al, 1993). It was also reported that arrests for assaults increased (by 20%) in the intervention site but that presentations of assault injuries to the local emergency room decreased (by 25%). To reconcile these apparently discrepant results and conclusions it is important to remember that only a small proportion of assaults in public places are reported to the police. An increased police presence inevitably creates more opportunities for such assaults to be observed and reported in official statistics. This need not be inconsistent in any way with an actual decline in alcohol-related violence as a consequence of the policing intervention. It is likely that both interventions were effective on the evidence of reductions in assault-related presentations to emergency departments in both intervention sites. One important take-home message is the importance of appropriate outcome measures in the evaluation of such policing initiatives, such as attendances at emergency departments in the area affected – particularly night time attendances involving young males (Young et al, 2004).

As mentioned earlier, a relatively small number of large bars in a given city will account for the great majority of violent incidents occurring in and around licensed premises (Doherty and Roche, 2003). In Fremantle, Western Australia just seven bars out of the 80 or so licensed premises in the town accounted for 75% of such assaults (Stockwell et al, 1993). In New South Wales, Briscoe and Donnelly (2001) found that 12% of licensed premises contributed 60% of assaults reported to the police in Sydney and 8% of premises contributed to 80% of assaults in and around licensed premises in Newcastle. The idea of identifying high-risk premises for special attention by police has been a common theme in Australian research on liquor licensing and violence. A related strategy has involved the police in Western Australia and Victoria collecting systematic data on the place of last drinking reported by persons charged with drinking and driving (Stockwell, 1997a). The strategy has also been used in California and New Zealand. Early Western Australian research found strong correlations between citations by drink-driving offenders for the licensed premises with a last drinking and numbers of assaults on those premises (Stockwell et al, 1992b) and noted that there was a higher volume of

data from the drink-driving cases than from the assaults. The possibility of restricting these data to those collected from persons who fail a breath test at the scene of a road crash has been recommended as an indicator that is least susceptible to bias from police enforcement practices which can vary in their priority and resourcing overtime (Brinkman et al, 2001). This tradition of targeting high risk premises has been best developed and evaluated by Wiggers et al (2004) in a collaborative exercise between health and police authorities known as the Alcohol Linking Program involving all 400 licensed bars (hotels and registered clubs) in the Hunter Valley and Central Coast regions of New South Wales. During a six-month period all uniformed officers used a report card to identify alcohol-related crime incidents and the location of last drinking where a licensed premises was involved. All licensed premises so identified at least once were given a comprehensive safety audit by an officer with feedback to the licensee and recommendations for preventing future problems occurring. Compared with control premises which had normal law enforcement attention, over the following three months post intervention there was a 15% reduction in violent incidents at the intervention sites (Wiggers et al, 2004). While such law enforcement strategies are considered labor-intensive and expensive (Babor et al, 2003), the approach used by the Alcohol Linking Program suggests that evidence-based enforcement strategies can be delivered cost effectively where they are most needed by targeting high risk premises.

An Australian review of liquor licensing legislation and the prevention of alcohol-related violence (Stockwell, 1995) highlighted the low rates of enforcement of laws relating to service to intoxication. This was partly attributed to poor definitions of "intoxication", low priority given to this issue by police departments, difficulties of obtaining convincing evidence and, on occasion, collusion between police and licensed operators. One recommendation from the report was to ensure that penalties for this commonplace offence were not so high as to deter their enforcement. Respondents to structured interviews advised that criminal penalties and high fines deterred police officers from charging young bar staff as well as the owners of premises where service to intoxication was observed to happen. This recommendation was later proposed to the State government review of the West Australian liquor licensing act (Mattingly, 1994) and subsequently adopted in the form of a civil penalty with a maximum fine 10% of that for a criminal charge (at the time a maximum of \$1000 instead of \$10,000 but in practice usually lower still). Advice from West Australian police is that charges laid against licensees for this offence increased from zero in 1990 to between 30 and 50 per year from 2000 onwards. In another example of successful enforcement of this offence under liquor licensing legislation, New South Wales police introduced a controversial and innovative undercover surveillance program to detect service to intoxication by bar staff on licensed premises (McKenzie, 1996). Known as Operation Chamberlain, the intervention involved the use of hidden cameras in the lapels of plainclothes police used to film incidents of over service to already intoxicated customers. The film was used as a potential evidence to be used in court in the event that charges were contested. There was no formal evaluation but significantly for the first time in the history of the jurisdiction successful charges were laid for serving a customer who was already intoxicated. In fact over 30 such charges were laid in a short period of time only four of which were contested in court because the nature of the evidence had been witnessed by the licensees involved.

The aforementioned comprehensive review of liquor licensing legislation in the context of violence prevention in Australia also included a chapter devoted to the role of law in force as a prevention tool (Rydon, 1995). This recommended that best practice involved a combination of uniformed street patrols, uniformed patrols inside licensed premises and also undercover monitoring. It also noted that "each of the policing methods discussed requires a framework of liquor licensing legislation and involves creating the belief among the hospitality and entertainment industry that the legislation will be enforced if standards of service fall" (Rydon, 1995, page 247).

3.3.7 Establishment and enforcement of other relevant laws

Relevant Roundtable recommendations:

12. Improve bylaw requirements and fines addressing noise, nuisance, unsightly premises and graffiti related to licensed premises
18. Impose stricter fines and sanctions
23. Prosecution of offenders
24. Hire of 500 new officers to (engage in) community-based violence prevention
25. Establish mobile command posts near trouble spots
26. Police undercover operations
27. Enforcement-related strategies such as walk-throughs by police officers
37. Limits on patron numbers (to control overcrowding)
38. Teamwork and community-based approaches
89. Implement mandatory criminal record checks for staff
92. Identify and legislate the requirements for security staff

Additional recommended strategies:

Ensure purpose of Liquor Act clearly states public health, safety and order objectives of the legislation are paramount;
Develop a system of on the spot fines for first-time offenders with graded penalties leading to temporary license suspension and ultimately license revocation for chronic repeat offenders;
Circulate a newsletter to licensees and the general public with as local circulation as is financially viable, providing updates on new requirements of liquor licensing regulations and legislation along with details of offenders and penalties given out.

Definition:

Enforcement of relevant laws and bylaws whether by civilian licensing inspectors or police officers that have the potential to positively influence the drinking environment in order to reduce risk of violent incidents.

Rating:

★ Strong rationale based both on Deterrence Theory and studies evaluating the situational determinants of violence on licensed premises. This has been used as a

component of the more comprehensive programs involving both law enforcement and self-regulation which have had positive outcomes, but otherwise few studies available.

Overview:

Earlier discussions on this report have touched on a number of situational determinants of violent behaviour with special reference to drinking environments. Many of these relate to issues which are legislated variously in laws and bylaws, mostly those concerned with health and safety but also the prevention of criminal conduct. Crowding levels, hygiene, criminal records of staff and management and criminal behaviour by staff (drug dealing, physical and/or sexual assault) all come into this category. In each case, the same issues of utilizing Deterrence Theory within the context of community policing and enforcement arise. Most descriptions of community-based policing reach for the ideal that all criminal behaviour is deterred and not a single charge needs to be laid (e.g. Homel et al, 1997). This starts with developing strong relationships with local people, local businesses and local licensed operators which facilitate communication of their rights and responsibilities under the liquor act - and advise them that legal requirements will be monitored and enforced if necessary (Doherty and Roche, 2003). Within the context of such a relationship, positive changes in drinking environments are envisioned over and above those that might be expressly stipulated in legislation. As described in the previous section, with limited resources it is also valuable to identify high risk venues worthy of special attention on the basis of documenting complaints and problem incidents (Wiggers et al, 2004). In the context of police-licensee Liquor Accords, police in Melbourne have described the practice of selectively enforcing minor laws such as whether signs are correctly placed at bar entrances for licensed operators who break codes of practice agreed with other licensed operators (e.g. not to have happy hours, to charge admission after 10 p.m. – see Rumbold et al, 1998). It would seem that as with enforcement of the liquor act, a combination of plainclothes and undercover surveillance should also be used to maximize compliance with legal requirements relevant to violence prevention – again within the context of a graded system of penalties from warnings, through small fines, through license suspension and ultimately to license revocation.

A strategy employed by the New South Wales Department of Gaming, Liquor and Racing is the regular production and dissemination of "Liquor and Gaming Legislation Bulletins" to all licensees providing information and advice on how to comply with existing and forthcoming legislation and regulations (e.g. New South Wales Department of Gaming and Racing, 2000). In addition a newsletter was regularly circulated to all New South Wales licensees advertising responsible service training courses, forthcoming legislation and also, in keeping with Deterrence Theory, information about fines meted out to licensees for different offences against the liquor act.

The Australian review of liquor licensing laws conducted in the mid-1990s (Stockwell, 1995) concluded that there was limited reform necessary of existing laws beyond stating clearly the purpose of the liquor act to minimize harm and promote public health, safety and good order. Following a national symposium on alcohol misuse and violence at which these and other recommendations were discussed with key stakeholders from across Australian jurisdictions, a number of liquor acts were amended to better specify

such objectives as being primary whereas promoting tourism and the liquor industry was subsidiary.

3.4 Community mobilization best practices

3.4.1 Community collaborations involving licensees, police and civic authorities

Relevant Roundtable recommendations:

8. Expand community mobilization programs (such as Grande Prairie's Safe City Nights) in which liquor licensees, community associations, local governments, regulatory agencies and the police join forces to prevent violence
9. Provide incentives and mechanisms for licensees to share information about violence prevention
10. Keep incident logs and share with Alberta Gaming and Liquor Commission and police
11. Document, monitor and share strategies and best practices that have been proven to be effective in preventing or dealing with violence
20. Improve co-operation and communication between law enforcement agencies, regulators and the business community
29. Requisition more cabs and improve transportation options at bar closing times
30. Transportation-related strategies such as Operation Red Nose, #Taxi and free shuttle service for bar patrons
31. Improve urban planning and coordination between stakeholders
38. Teamwork and community-based approaches
58. Cover charges (i.e. entrance fees for patrons on certain nights)
62. Restrict admission after a certain time
63. Limits on drink specials
64. Limits on happy hours
91. Develop codes of conduct for staff

Definition:

The creation of forums in which licensees, police and other interested parties meet regularly to develop shared strategies and codes of conduct usually in designated entertainment districts of towns or cities with a view to the prevention of violence and other alcohol related problems. Different examples of this basic structure occur within different enforcement and legislative frameworks, the common elements being a community policing model and a degree of encouraged self-regulation.

Ratings:

- O** As a purely voluntary intervention, available evidence in the published research from Australia has produced mixed, at best weak and short term results;
- P** In combination with effective law enforcement strategies such forums provide an opportunity to encourage responsible beverage service, effective violence prevention and compliance with liquor laws (Homel et al, 1997; Loxley et al, 2004; Stockwell et al, 2006b).

Implementation in Australia and Canada:

Widely implemented across most states in Australia, especially in Queensland, Western Australia and Victoria. The Accord model is readily transportable and taken up by local police and civic authorities. A corresponding Canadian model is the Municipal Alcohol Policy which has been introduced through the work of the Centre for Addiction and Mental Health in many towns in Ontario.

Overview:

In the 1990s a new model of managing problems on licensed premises was developed in Australia that came to be known as "Accords". The idea and sets of related strategies can be traced back to the pioneering work of Ross Homel and colleagues (Homel et al, 1997) in the tourist destination of Surfers Paradise on the Queensland coast, the earlier work of the West End Forum in Melbourne (Victorian Community Council against Violence, 1990) and an initiative in the state of Victoria called the Geelong Accord (Vaughan, 2001). As described below, a well-designed evaluation illustrated the potential effectiveness of self-regulation in combination with active monitoring of compliance with a licensee code of conduct. Hauritz et al (1998) report on a replication and extension of the Surfers Paradise project to the three other Queensland cities – Cairns, Mackay and Townsville. Police data at two years follow-up showed significant reductions in violent incidents in two of the cities and the researchers found corresponding evidence of reduced drunkenness among patrons, improved house policies and behaviour of security and bar staff. Interestingly, patronage increased and the researchers noted that profits of participating establishments were also likely to have increased during the period of the project. Unfortunately, subsequent studies in New South Wales and Western Australia found mixed and some negative results (Hawks et al, 1999; McCarthy, 2007).

The Accord approach has been applied in innumerable local areas in Australia under the name of alcohol or licensing Accords. Two other evaluations have been conducted which have shown variously mixed (Rumbold et al, 1998) and weak outcomes (Hawks et al, 1999). It is evident that these Accords have taken different forms in different places according to local priorities as has the preparedness of police to take on key issues such as service to intoxication (McCarthy, 2007). The evaluation of the Fremantle Accord found an increase in assault offences occurring in public places which is likely to reflect the greater probability of detection afforded by a greater police presence as well as police sometimes being involved in assaults themselves (Hawks et al, 1999). The evaluation of the Geelong Accord in Victoria reported a halving of the rate of all assault offences but no control area was utilized and nor was any differentiation presented between assaults in public and private places, at day-time and night-time, in and around licensed premises or elsewhere and it is difficult to assess the claimed outcome (Rumbold et al, 1998). An interesting feature of the Geelong Accord was the reported preparedness of the police to get tough on any non-compliant licensee by more regular visits and the issuing of fines for any observed minor infringement, e.g. not displaying name of licensee clearly at entrance. The King's Cross Accord introduced in downtown Sydney also failed to produce hard evidence of a reduction in violence, if anything finding a slight increase despite strong stakeholder support favoring the intervention (McCarthy, 2007).

The Surfer's Safety Action Project, Queensland, Australia (Homel et al, 1997)

A case study in effective self-regulation supported by an active community monitoring

This was established in response to negative media attention to public drunkenness and violence concentrated in a downtown area with over 20 nightclubs clustered close together. The project involved a collaboration established between licensees, police, council officers and community representatives to create a safer environment and a less tarnished reputation for the area. Participating licensees were required to sign an agreement to a Code of Practice which included such conditions as limiting certain promotional and sales practices (heavy discounts, inducements for fast or excessive intake, undertakings not to serve underage and/or intoxicated customers). Training programs were provided to help security staff manage potentially violent situations and for bar staff in the conduct of responsible service practices. Owners and licensees were encouraged to develop management policies to discourage intoxication and disorderly behaviour. Venues that contravened the Code were reported to a Best Practices committee overseeing the project though no other sanctions were available. An energetic evaluation team also closely monitored the program, organized the Best Practices committee meetings and gave ongoing feedback on individual compliance. There were significant improvements at six months follow-up as measured by a House Policy Checklist (Stockwell et al, 1993) and also the number of violent incidents observed by the research team which went down from 9.8 to 4.7 per 100 hours of observation. At two year follow-up, however, both these measures had returned to baseline levels. Informal advice from the research team was that the Best Practices committee became less effective after the research team attempted to hand over its management to local agencies. One conclusion is that active community monitoring and feedback is necessary to maintain the momentum of such initiatives.

In Canada, the Centre for Addiction and Mental Health has developed a similar approach to local action on alcohol issues at the city level with its successful development and evaluation of Municipal Alcohol Policies (MAPs). These have been introduced into over 100 Ontario towns and cities over the last 10 years and incorporate many of the elements described in the Australian Accords and safety action projects (Gliksman et al, 1995). As with Accords, MAPs can be tailored to local needs. A common element has been the encouragement of responsible beverage service training, for example linked to the provision of occasional permits for selling liquor, and policies designed to respond to drunk and rowdy behaviour in public places.

In summary, the Accord approach has the potential to be an effective harm reduction strategy, at least in the short-term and when there is an energetic monitoring presence (whether this is provided by law enforcement or by other forms of community monitoring). Calling community collaboration an "Accord" does not, however, guarantee its effectiveness. This partly hinges on the extent to which the strategies developed encourage or discourage police and licensing authorities to focus on the difficult matters of service to intoxicated or underage drinkers or whether in practice the alliance becomes a 'gentlemen's agreement' to turn a blind eye. But concern has been expressed in

Australia, however, that the Accord model has gained unquestioning acceptance and has been applied in communities across the whole country in ways which may not guarantee any effectiveness. Further evaluations are warranted with stronger research designs in order to determine the ingredients of success.

3.4.2 Public alcohol education campaigns

Relevant Roundtable recommendations:

6. Preventing alcohol abuse by providing public education about the hazards of over consumption
17. Establish social responsibility programs for the staff of licensed establishments, the general public and for high risk populations

Definition:

Use of the mass media to promote a health message relevant to the prevention of hazardous alcohol use.

Rating:

★ In combination with community mobilization and law enforcement, well-designed media campaigns can increase awareness of consequences and may deter some high risk behaviours (Loxley et al, 2004; Stockwell et al, 2006b). The promotion of national low risk drinking guidelines has a strong theoretical rationale as a basis for a multitude of other community-based interventions of established efficacy (Loxley et al, 2004; Stockwell et al, 2006b).

Implementation in Australia and Canada:

Federal and State Australian governments have invested substantially in media campaigns to promote low risk alcohol consumption. One focus of this activity over the past two decades has been the promotion of low risk drinking guidelines (NHMRC, 2001). These specify recommended levels to drink within in order to reduce the probability of problems caused by intoxication or long term excessive consumption of alcohol. Australian state governments have used media campaigns to raise awareness of the effort that is directed towards enforcement of drinking and driving and other liquor-related law. The recent *Recommendations for a National Alcohol Strategy* published by Health Canada (National Alcohol Strategy Working Group, 2007) include recommendations for social marketing efforts to promote a "culture of moderation" and for the development of national low risk drinking guidelines.

Overview:

Experience from the evaluation of alcohol and tobacco public education campaigns suggest that mass media strategies can convey a health promotional message to a good proportion of the population (Loxley et al, 2004; Stockwell et al, 2006b). Radio appears as effective as more expensive media. More research is needed regarding the use of media such as the internet and teenage magazines. Media campaigns isolated from on the

ground activities such as community mobilization and law enforcement are less likely to be effective.

Other systematic reviews, notably Babor et al (2003), conclude there is no evidence of effectiveness for public education campaigns, having reviewed the literature from many countries. Loxley et al (2004) and Stockwell et al (2006b) note some evidence that media campaigns can support on the ground law enforcement efforts. A classic example was the study of liquor law enforcement in the United States by McKnight and Streff (1994) in which pseudo-patrons feigning intoxication attempted to make multiple purchases of drinks in bars in intervention and control sites. Refusal jumped from approximately 10% to 60% of purchase attempts in intervention sites when local media outlets were used to announce an imminent liquor law enforcement campaign. When the law enforcement effort actually started there was no extra benefit detected in terms of measures of responsible alcohol service. Professor Ross Homel's work on the use of media campaigns to raise awareness of drink-driving law enforcement efforts and thereby create deterrents against alcohol impaired driving was also influential in the Australian reviews. As mentioned earlier, the successful *Living with Alcohol* program introduced in Australia's Northern Territory included a media campaign informing the public about the penalties bar staff can receive for serving intoxicated and underage customers (Stockwell et al, 2001).

The Australian systematic review (Loxley et al, 2004) also rated the promotion of national low risk drinking guidelines as having a strong theoretical rationale. They noted the extensive review of the evidence underlying the advice given on low risk drinking in different situations and the links between such guidelines and other evidence-based approaches such as brief assessment and advice given by general practitioners for early-stage problem drinkers (e.g. Heather, 2003). A feature of the current Australian low risk drinking guidelines (NHMRC, 2001) is that an equal emphasis is given to acute problems caused by drinking to intoxication as with the medical complications of long-term alcohol use. Alcohol-related violence is identified along with road trauma as a primary example of acute alcohol-related harm. The provision of advice on the upper limits to be consumed in social settings when it is medically safe to do so and when the drinker will not be driving afterwards has clear relevance to campaigns to prevent alcohol related violence.

3.4.3 Alcohol education in schools

Relevant Roundtable recommendations:

21. Develop new education and intervention programs for elementary school students

Definition:

Prevention programs delivered in school settings to educate schoolchildren about the dangers of alcohol misuse and about low risk drinking guidelines.

Ratings:

O Most alcohol education programs delivered in schools that have been systematically evaluated have been found to be ineffective (Babor et al, 2003);

★ More recent Australian research has shown significant effects of an innovative classroom-based program based on low risk drinking guidelines, harm reduction and modern educational principles (McBride et al, 2004; Loxley et al, 2004; Stockwell et al, 2006b).

Implementation in Australia and Canada:

The Australian School Health and Alcohol Harm Reduction Project (SHAHRP) has been disseminated and implemented in South Australia, the ACT and Victoria. There is resistance to its implementation in Canada which favors a more abstinence orientated approach to alcohol school education as indicated by the new *Recommendations for a National Alcohol Strategy* (National Alcohol Strategy Working Group, 2007). In both Australia and Canada there is also widespread (and expensive) implementation of school-based programs shown to have no or little effectiveness.

The School Health Alcohol Harm Reduction Project (McBride et al, 2004)

Well-designed classroom-based interventions can work

The SHAHRP program used evidence based principles derived from a systematic literature review and also the creative input of the target group to create an effective classroom-based intervention for Australian secondary school children (aged 12 to 16 years). The program used sound educational principles, interactive material and six hours of teacher training to deliver a series of 13 classroom sessions over two school years.

The program included information about standard drink sizes, low risk drinking guidelines, refusal skills, managing high-risk situations involving their own or other people's drinking and strategies for preventing high risk situations from occurring (e.g. refusing to be driven by someone who had had too much to drink). A controlled trial was conducted contrasting intervention and control schools over 32 months follow-up.

Significant improvements in knowledge about the effects of alcohol occurred and, more importantly, a 20% reduction in risky alcohol consumption and a 33% reduction in other risky behaviours while drinking. The cost of the program was approximately CAN\$25 per student for the full program. (McBride et al, 2004).

Overview:

There is a substantial body of opinion (and evidence) in the alcohol research literature suggesting that school education programs are doomed to be ineffective (Babor et al, 2003). Until recently, many reviews discounted school-based approaches given their poor track record in well-controlled evaluation research. More recent research and reviews (Stockwell et al, 2006b; Toumbourou et al, 2007) suggest that certain types of school-based programs can be effective; in particular a controlled trial of a classroom-based approach using harm reduction and evidence-based educational principles was found to reduce not only alcohol intake but also risk-taking behaviour at a 32 month follow up (McBride et al, 2004).

3.4.4 Early intervention with high risk youth

Relevant Roundtable recommendations:

22. Establish programs to identify and assist children at risk of violent behaviour

Definition:

Prevention programs designed to identify children and young people who are at high risk for substance use problems and antisocial behaviour.

Ratings:

0 to ★★ This area encompasses such a broad range of interventions to prevent high risk behaviour from preconception through pregnancy, infancy, early childhood and adolescence that a single rating is impossible (Loxley et al, 2004; Toumbourou et al, 2007).

Overview:

There is a broad range of early life stage interventions that have been described and evaluated which have the potential to reduce risk of later problem behaviours such as substance use, conduct disorders and mental health problems (Loxley et al, 2004; Toumbourou et al, 2007). Such interventions can be considered as starting even before conception through the prevention of unwanted pregnancies as illustrated by a US study finding associations between the introduction of abortion clinics in some US localities followed by reductions in crime events some 15 years later (Donohue and Levitt, 2001). There is a strong theoretical and empirical literature suggesting that common risk and protection factors among children and adolescents predispose or protect respectively against a range of problem behaviours (Toumbourou et al, 2007). Risk factors have been identified from international research involving characteristics of the home, school and local community and the extent to which opportunities for positive social relationships and opportunities are provided within those settings (Toumbourou and Catalano, 2005). Many types of interventions have been evaluated with effective examples including supportive care to high risk mothers during and after birth, preparation of high risk children for school, as well as behaviour modification programs to improve behaviour and reduce bullying in schools (Toumbourou et al, 2007). In British Columbia, much acclaim has been accorded to an anti-bullying program delivered to elementary schools (see below – Leadbeater et al, 2003).

One take-home message from this broad area of research is that building safer communities is everyone's responsibility. There is hardly any sphere or stage of life in which there is not an opportunity to reduce risk and increase protection in terms of developmental health and social well-being. These broad social and developmental factors have been described as "distal" (distant) causes of such social problems as alcohol-related violence (Loxley et al, 2004; Toumbourou et al, 2007). Effective "proximal" (close) interventions have been described earlier in this report which will have more immediate effects on violence in and around licensed premises – such as training programs for security staff and bar staff and policies governing the physical and

economic availability of alcohol. A comprehensive alcohol harm reduction strategy needs to recognize longer term contributions to be made through a range of broad social programs that support the health and well-being of parents, families, children, schools and entire communities.

W.I.T.S. - An effective anti-violence program in BC elementary schools

The W.I.T.S. program (Walk away, Ignore, Talk, Seek help) has been designed to communicate simple behavioural strategies for children in a developmentally appropriate manner to cultivate a culture of zero tolerance towards bullying in primary schools. The simple and memorable acronym helps the program have school-wide visibility, and its easily understood but effective principles command both parent and teacher support. This program, as developed by the Centre for Youth and Society at the University of Victoria, provides an example of an early life stage intervention that directly impacts on experience of violence by children. The program is supported by a manual containing a curriculum for classroom teachers who are directed to a wealth of early childhood literature and activities that can be used both to reinforce WITS messages and to teach the learning outcomes required by elementary school curriculums in personal planning, language and visual arts, and drama. The manual also recommends commonly available children's books used to support the program. It is theoretically possible that such programs by supporting young children's education and social well-being as well as training them in non-violent methods of resolving conflict reduce the likelihood of them engaging in violent behaviour in later life, though this remains to be proven. (See: www.youth.society.uvic.ca/resources/wits).

However attractive intuitively, there is a powerful line of argument against investing all available prevention dollars in targeted interventions aimed at high risk children and adolescents. In relation to alcohol risk behaviours and related harms, there is evidence that even if one could identify all the high risk children in one community and effectively "treat" all their tendencies to problem behaviours this would only deal with about one third of high risk drinking behaviour (Stockwell et al, 2004). In an analysis of risk and protection factors measured by means of a standardized instrument among approximately 2,500 Australian high schoolchildren it was found that low or average risk children contributed approximately two thirds of all those students who reported having engaged in "binge drinking". This was described as an example of the Prevention Paradox which describes a situation in which a large number of low to moderate risk individuals can contribute a greater burden of illness or risk than a relatively small number of high risk individuals. A balanced prevention strategy, it can be concluded, needs to address both distal and proximal causes of alcohol-related problems using a combination of both universal and targeted prevention strategies.

4.0 Conclusions

Clearly the problem of violence in and around licensed premises is a common problem in contemporary economically developed countries like Canada. It will be suggested here that above and beyond the implementation of a range of individual evidence-based interventions, a modern regulatory system is required to sustain best practice in the minimization of harm. To be fully effective, this needs to be supported by modern liquor legislation which encourages the input of local communities, supports preventative policing methods and fosters responsible retail industry initiatives. In the remaining sections of this report some general conclusions will be offered regarding the evidence presented in relation to various types of individual interventions (operator, regulatory and community mobilization) and then some recommendations will be provided for a modern and sustainable approach to maintain the visibility of the problem as well as the impetus for continued best practice policies and programs.

Many documented interventions have been crisis-driven

Effective management of the late-night drinking environment to minimize problems of violence in particular is a headache for many modern communities. This headache can be particularly intense for large cities with downtown entertainment districts that succeed in attracting tens of thousands late-night visitors to enjoy a range of eating, drinking, dancing and other entertainment venues and in the process placing a strain on local emergency, policing and transport services not to mention local residents and businesses. Reviewing the Canadian, Australian and international literature on responses to this problem, it appears that broad community responses are more likely to occur when things get really bad. Examples include (i) tourism hotspots such as Surfers Paradise in Queensland where at one time 22 nightclubs in close proximity to each other competed fiercely for the business of young drinkers with offers of cheap alcohol, lax admission and serving policies and aggressive alcohol marketing which began to give the area a bad reputation (Homel et al, 1997); (ii) economic boom towns and cities such as Fremantle in Western Australia (Lang et al, 1998) and, for that matter, Calgary and Edmonton at the present time; (iii) militant community action in response to unacceptable levels of alcohol-related violence in both private and public places associated with the ready availability of cheap alcohol as evidenced by the "Grog March" by aboriginal women in Alice Springs of Australia's Northern Territory in the early 1990s which led to a government enquiry and ultimately the *Living with Alcohol* program (d'Abbs et al, 1994; Chikritzhs et al, 2005); (iv) adverse media attention to violence in and around bars in Sydney, Australia in association with the series of well-advertised studies into this problem and the lack of effective responses by the New South Wales Bureau of Crime Statistics and Research (e.g. Briscoe and Donnelly, 2001; Donnelly and Briscoe, 2003) which, according to local commentators, contributed to an Alcohol Summit held at the New South Wales Parliament for a week in August 2003.

Alcohol related violence as a response to deregulation in wealthy countries

It is also evident that there have been periods over the last 25 years when certain kinds of interventions became fashionable. In the late 1980s and early 1990s there was a flurry of US, Canadian and, a little later, Australian studies into the effectiveness of training bar

staff and managers to intervene with intoxicated customers. In the mid to late 1990s, especially in Australia, a number of interventions were developed and evaluated to respond broadly to range of alcohol-related problems including violence in and around licensed premises. In Canada, municipal alcohol policies were widely implemented in Ontario during the 1990s and more recently the late 1990s and early 2000s the internationally acclaimed *Safer Bars* program came into prominence. While Responsible Beverage Service programs can be understood as a response to the upsurge of third-party lawsuits against licensees (Saltz, 1997), both these and the later antiviolence programs can also be understood as responses to drinking environments shaped by progressive deregulation of liquor laws combined with increased economic prosperity (Stockwell, 1997b). One Australian study suggested that the intensely profitable hours late at night and in the early hours of the morning at weekends are particularly associated with increased violence with just one or two extra hours after midnight doubling rates of violence (Chikritzhs and Stockwell, 2006).

Addressing the causes of violence in and around licensed premises

There are multiple factors influencing the likelihood of violence occurring at drinking venues and it is important to understand the nature of these and how they interact when designing intervention strategies and policies. Risk factors include individual characteristics (e.g. the young, male, gang members), alcohol and other drug use, management practices (e.g. whether or not clear house policies have been developed, drink prices, criminal record checks on staff), serving practices (e.g. serving intoxicated/underage) and the extent to which the social and physical environments create stress or frustration in customers. Within this multiplicity of factors, the direct causal contribution of alcohol intoxication to an increased probability of violence must not be underestimated. While in isolation and away from social interactions which might lead to interpersonal disputes, alcohol is unlikely except in the most high risk individual to lead directly to violence. In a context which already contains many young males crowded together in competition for available facilities, the attentions of the opposite sex and even space to stand or sit, the extent of intoxication from alcohol and other drugs needs to be taken into account. This means that any strategies which act upon intoxication levels as well as those which create more stress-free and harmonious environments will likely contribute to a reduction in the likelihood that interpersonal difficulties are resolved by violent means.

Evidence for operator best practices

A number of carefully developed training programs for managers bar staff and security staff have been shown to be potentially effective strategies to make drinking environments safer places. Of most direct relevance both to the problem of violence specifically and to the Canadian context is the *Safer Bars* program developed by Dr Kate Graham of the Centre for Addiction and Mental Health in London, Ontario. Responsible beverage service programs have been more geared to the prevention of drinking and driving than violence but have some relevance given the demonstrated contribution of intoxication levels to increased risk of violence. These are essentially voluntary programs which require participation in quite intense training sessions and strong management support for effectiveness. It is clear that results are most positive with a smaller group of staff from

premises with highly motivated and supportive management but results become strongly diluted when implemented on a complete community wide scale. If the success of these interventions is to be sustained even within supportive venues and also to have more general effectiveness in the wider community, the evidence suggests that a number of external incentives are required. Examples include making responsible beverage service training mandatory, publicizing the results of third-party liability lawsuits and using highly visible liquor law enforcement.

A small number of other operator strategies were identified which can be supported in principle and/or on the basis of some limited positive evidence. These include the provision of food with alcohol, the service of alcohol in shatterproof containers at high risk venues for violence, attention to the physical design of bars to minimize jostling and bumping as well as general attention to crowding limits particularly at high risk times and places.

Evidence for regulatory best practices

The placement of effective controls on both the economic and physical availability of alcohol enjoy the highest levels of evidence and have the clear advantage of potentially impacting on virtually all drinking decisions and drinking occasions in the jurisdictions concerned. As previously mentioned, the currents of policy and public opinion over recent decades have been flowing towards deregulation of the hours and days of sale, reductions in the legal drinking age and increases in the permitted density of liquor outlets. This issue is particularly evident in the three provinces of Canada with the drinking age of 18 years as opposed to 19 years and in Alberta as the only province with a fully privatized liquor distribution system. However, this is also true of many Canadian jurisdictions such as British Columbia which currently enjoys the most lax late-night trading hours in the country. In addition a recent review of opportunities for implementing price taxation policies to reduce alcohol-related harm identified Alberta as being one of several provinces which failed to provide incentives for the consumption of lower strength alcohol products (Stockwell et al, 2006a). The evidence base nonetheless strongly supports regulatory controls restricting late trading especially at weekends, maintaining one-day a week when alcohol sales are prohibited, having well defined limits on outlet density and a range of pricing and tax strategies that maintain the price of alcoholic beverages while providing incentives for the consumption of low alcohol content products. The problem of selling such policies to a sometimes skeptical public has been addressed in more detail elsewhere (Stockwell, 2005) but it would appear from the evidence of the new recommendations for a Canadian alcohol strategy (National Alcohol Strategy Working Group, 2007) and the majority practice in other Canadian provinces that there would be at least some community support for raising the minimum legal drinking age to 19 years. There is also evidence that even the most unpopular alcohol prevention strategy of them all, raising the price of alcohol, can be made palatable to the voting public if presented in terms of a "harm reduction levy" such as has recently been proposed in Canada by Senator Michael Kirby and the recent Senate inquiry into mental health in Canada (Kirby, 2006). Policies such as providing incentives for the manufacture, marketing and consumption of lower strength beverages can even be "Win-Win" with benefits not only to public health and safety but also to the alcohol industry

(Stockwell et al, 2006a). There are certainly realistic opportunities for strengthening controls in Canadian jurisdictions on the physical and economic availability of alcohol in a way that would reduce baseline rates of all alcohol-related problems including violence in and around licensed premises and which would also support more community-based interventions.

The other broad category of approach reviewed here under the heading of regulatory practices is that of law enforcement - both specifically of liquor laws such as those prohibiting service to intoxicated and/or underage customers as well as those relating to the situational determinants of violence such as environmental design and crowding levels. The evidence reviewed here strongly indicates that police and civilian licensing inspectors along with other relevant regulatory bodies can have a markedly positive impact on licensed drinking environments. The principles of Deterrence Theory are important to observe, in particular the importance of maximizing the perception that relevant laws will be enforced. U.S.-based studies have suggested that enforcement of laws regarding service to intoxicated customers as well as to those underage can have significant benefits way beyond anything achieved by voluntary training methods. A comprehensive Australian review of liquor licensing and violence issues (Stockwell, 1995) concluded that there was a tacit understanding among all involved in managing and policing licensed drinking environments that certain laws would not be enforced. In particular, clauses prohibiting service to the intoxicated were not enforced for a combination of reasons including lack of certainty that charges would be supported when challenged, lack of enforcement resources, higher priority accorded to "real crime" and a preference for charging individual drinkers for being drunk rather than proprietors or staff who serve them. A number of reforms enacted in subsequent years appear to have been helpful including those requiring that public health, safety and order objectives are clearly stated as the primary purposes of state liquor laws, improving the definition of what constituted "drunkenness" and the introduction of smaller penalties that could be issued on the spot for serving underage or intoxicated customers. There is evidence for important roles both for plainclothes and uniformed policing of drinking environments. Walk-throughs by uniformed police officers at high risk times if managed well and in a non-confrontational manner can deter potential violence and support security staff in managing difficult incidents. They can also, to a limited degree, deter service to intoxicated and underage customers though unannounced plainclothes inspections can be more effective in this regard. It was also noted that a relatively small number of large licensed venues operating late at night and in the early hours of the morning contribute a great bulk of violent incidents in a given locality, suggesting that intelligence led inspections and policing can contribute to a reduction in problems in a cost-effective manner.

While much of the literature has focused on enforcement of specific liquor laws, it is clearly the case that it is not only very intoxicated and/or underage customers who are generating problems with violence in and around licensed premises. Analyses of the situational determinants of violent incidents at these venues indicates a range of other important matters to police ranging from criminal record checks for security staff to monitoring crowding levels at high risk times and locations and even to ensuring the

good physical layout of licensed premises at the design stage. Requirements for regular safety audits and business plans incorporating measures to reduce risk of harm can be made for the provision and re-issue of liquor licenses.

Evidence for community mobilization best practice

The Australian experience with community action projects and voluntary codes of conduct for licensees crafted in association with civic authorities and police suggests these might sometimes be effective under optimal conditions in reducing rates of violence in and around licensed premises by addressing a range of important situational risk factors. However the research support is mixed and further studies are needed to identify effective ingredients. As an isolated strategy, and especially in the absence of supportive law enforcement, effectiveness is compromised and there is also a difficulty of sustaining these interventions over the long term. Nonetheless, the achievement of an organized community-based response that successfully engages licensees in the prevention of alcohol-related violence for a period of six months in one study is highly encouraging (Homel et al, 1997). Anyone planning to introduce such an intervention is strongly encouraged to carefully study the papers describing these experiences (see Homel et al, 1997; Hauritz et al, 1998; Vaughn, 2001) in particular to get ideas for managing the delicate relationship between licensed operators and regulatory authorities, especially police. The major recommendation coming through is that for maximal effectiveness there needs to be a credible level of deterrence and the prospect of liquor laws being enforced in order to both keep rogue operators in line and encourage licensees to devote the necessary time to attending the planning forums.

In regard to much broader community mobilization initiatives discussed above, they may best be described as having a supporting role as contributing to the pressing business of preventing violence occurring in and around licensed premises. The benefits from school-based interventions and early interventions to reduce risk factors among high risk youth will take many years to be realized. It would be shortsighted, though, in offering any comprehensive plan to address violence in public places to ignore some of the social and developmental determinants of problem behaviour. Addressing these early causes of problem behaviour is a massive undertaking involving the entire health, welfare and education systems. It is also important to note that alcohol can rightly be described as still Canada's favorite recreational drug and that drinking to intoxication in late-night drinking settings is not a behaviour limited to a few high risk individuals. A number of well-designed early intervention and also educational strategies can contribute to a "culture of moderation" (National Alcohol Strategy Working Group, 2007) including some varieties of school-based program and also public education campaigns, especially those that support on the ground law enforcement and community action projects.

Putting it all together - designing an effective and sustainable regulatory system

Finally, some suggestions follow for addressing the difficult task of creating a sustainable system which encourages best practice in all of the different areas discussed above. There are a number of basic challenges to overcome, which are outlined below.

- (i) Alcohol-related violence at late night venues is largely a hidden problem from mainstream decision-making (Stockwell, 1997b) and there is a tendency to regard bar violence as not serious, as just horseplay, and to ignore the very serious injuries that may result (Homel et al, 1991). This usually means things have to get very bad and publicly so before much happens.
- (ii) Expecting self-regulation and voluntary efforts by licensees and staff to fix the problem is unrealistic. Managers and owners will give priority to having their staff take money for drinks and for admission to their premises over checking the demeanor and behaviour of patrons while on the premises or as they leave. Furthermore, the evidence suggests such efforts will only work with highly motivated and cooperative managers.
- (iii) In an earlier review of the potential in Australian liquor laws for measures to reduce violence in and around licensed premises (Stockwell, 1995) which had involved extensive consultation with all stakeholders, it was concluded that there was a tendency for no one group to take responsibility for addressing the problem: "The police tend to feel it's the licensees responsibility, the licensee that it's the drinker's responsibility, but the police's if the trouble occurs outside their premises. The general duties police say it is the specialist liquor squad's responsibility and the liquor squad police say they wish they got more support from the rest of the force." (An examination of the appropriateness and efficacy of liquor licensing laws across Australia, 1995, Australian Government Publishing Service, Canberra, p. 302).
- (iv) Tightening regulatory controls on alcohol's physical and economic availability is undoubtedly harder to achieve than is relaxing them. Concerted efforts over extended periods of time are required if the necessary legislative reforms are to be realized (e.g. reduced trading hours, controls on outlet densities).

It is entirely feasible, though still a massive undertaking, to apply evidence-based principles as well as what can be learned from success stories in other jurisdictions to design a modern, effective and sustainable regulatory system capable of greatly reducing the modern day problem of late-night violence in and around licensed premises. Some stepping stones along this path are suggested below.

Introduce accurate and well publicized monitoring

As noted above, most violent incidents predictably occur at certain high risk times (10 p.m. to 6 a.m.) in and around a relatively small proportion of large licensed venues with late trading hours. For a relatively small expense it is possible to use official police statistics to analyze when and where violent incidents occur (e.g. Briscoe and Donnelly, 2001). Other indicators of problem drinking venues are also available some of which are highly correlated with problems of violence, e.g. the last place of drinking of drink-driving offenders. Releasing these data into the public domain including the media as well as to stakeholders and policy makers is one way of maintaining an appropriate level of community concern for what can sometimes be a hidden and underestimated problem. As well, such monitoring can provide useful intelligence to make the most cost-effective use of available police and inspection resources.

Create a credible level of deterrence to increase compliance with relevant laws

It is almost invariably the case that police and civilian inspectorates have ample powers to enforce relevant laws in this area. What is needed are not stronger penalties but strategies that increase the perception among licensees, managers, security staff, bar staff and their customers that relevant liquor and other laws will be enforced. Small penalties swiftly and certainly applied are far more effective than large penalties which are rarely applied and anyway take a long time to have their effect. Monitoring of licensed establishments with a track record of violent incidents coupled with a system of warnings, small fines for first or second offences leading to license suspension or revocation only following repeat offences would greatly reduce such contributing factors as intoxication, underage drinking and excessive crowding. One alternative to outright suspension might be temporary restrictions of trading hours to curb problems with late night drinking. Such an approach would also encourage active compliance with staff training programs and local Accords.

Create opportunities and incentives for licensees and staff to participate in violence prevention programs

The potential and local knowledge among licensees and their staff to prevent and manage violent incidents effectively can be tapped through incentives as well as disincentives. Just as third party liability insurance can protect licensees while requiring them to comply with certain house policies and training programs, so can conditions applied to the provision of new licenses and also the renewal of existing licenses. These can be made contingent upon training all levels of staff in responsible beverage service, in violence prevention techniques, conducting criminal record checks on all staff and maintaining environments with low levels of violence. Special levies on alcoholic beverages above certain strength could be used to pay for training programs and to provide support for licensee-community forums that encourage self-regulation of this difficult environment.

Create opportunities for local communities to make input into licensing issues

While it should never be expected that the licensing system will only operate providing that enough local residents are sufficiently angry, inconvenienced and able to express their views, many Australian jurisdictions encourage input as one mechanism to address newly emerging problems. For example the West Australian liquor legislation has for a number of years required that the Director of Liquor Licensing responds to petitions from local citizens who have complaints about noise or problem behaviour associated with particular premises.

Increase controls on the physical availability of alcohol in keeping with public opinion

An effective liquor distribution system needs to balance reasonable access to alcohol for consumers with controls to reduce some of the worst excesses that arise from its consumption. Priority restrictions should include limiting trading after midnight for the majority of venues and allowing it as a privilege for a small number contingent on outcomes of community and police monitoring. Outlet density needs to be managed and reduced where there is evidence that clusters of bars and clubs are associated with an unacceptable number of problems. Models for defining upper limits for particular kinds of urban and other areas need to be developed using empirical evidence and

considerations such as balancing risk of overcrowding if there are too few premises against competitive practices if there are too many. Serious consideration should be given to raising the drinking age in Canadian jurisdictions with the drinking age of 18 years. Broad public opinion on these issues should be canvassed while raising awareness regarding the evidence for the effectiveness of these various regulatory approaches.

Ensure retail prices reflect alcohol content and are maintained with the cost of living
Influencing the retail price of alcohol is the single most effective prevention strategy for the reduction of a whole range of problems associated with its use. At the very least, efforts should be made to ensure that all minimum prices for drinks set are regularly updated in light of increases in the Consumer Price Index. Beyond that, all provincial taxes and the minimum prices should be calculated at differential rates to create incentives for the consumption of low to mid-strength beverages in each beverage class. There is ample opportunity in Canada to create viable markets for beers and coolers with a strength below 4% by the removal of the current "flat taxes" based only on the amount of beverage rather than alcohol content. Consideration should also be given to the introduction of an alcohol harm reduction levy on higher strength alcoholic drinks to fund a variety of community mobilization strategies to prevent alcohol-related harm including violence.

Support a wide range of community mobilization, early intervention and public education strategies

While there are immediate and pressing concerns to address the problems of violence in and around licensed premises, a number of community mobilization and public education strategies could be implemented to contribute towards "a culture of moderation" that would support the development of more effective operator and regulatory strategies. These could easily be funded through a small tax on alcoholic drinks above certain percentage alcohol content. Senator Kirby's "nickel a drink" proposal would raise \$500 million a year across the whole of Canada – even a one or two cent levy would contribute substantial revenue to support community mobilization, early intervention and public education initiatives. Public education campaigns to raise awareness about liquor laws, about positive measures to reduce violence, and to raise awareness about low risk drinking guidelines would provide a highly supportive environment for the development of sound policy and effective practice. Improvements could be made to alcohol and drug education curricula in order to apply what has been learned from international research on what is effective practice in this area.

Ultimately, Canadian jurisdictions need modern regulatory systems that empower and encourage local participation in licensing issues, provide incentives for licensees and staff for positive contributions and provide a series of graded penalties for non-compliance with liquor laws of relevance to the prevention of a serious problem of violence in and around licensed premises. This needs to be well resourced with funds for monitoring as well as enforcement and training so that efforts can be well targeted towards the relatively small number of premises which contribute the bulk of the problems. In order to develop public support and the political will needed to create such a system, Canadian governments might consider following the example of the New South Wales Government

which in 2003 held a parliamentary Alcohol Summit to mobilize community opinion and develop evidence-based strategies to reduce the problems of alcohol-related violence. This carefully planned and historic event in alcohol policy and prevention took place over one week when parliamentarians and invited community representatives made presentations, participated in working groups, debated recommendations and finally voted to recommend a substantial number of policies and programs. Such a process does not guarantee long term success from implementing agreed actions but it certainly can create an opportunity and some political will to consider evidence-based interventions to tackle systemic causes of alcohol related violence in modern societies.

5.0 References

Alberta Gaming and Liquor Commission (2006). Alberta Roundtable on violence in and around licensed premises: exploring the issues. St Albert, Alberta: Government of Alberta. See: www.gaming.gov.ab.ca.

Australian Institute of Health and Welfare (2005). 2004 National Drug Strategy Household Survey - First Results *DRUG STATISTICS SERIES Number 13*. Canberra: Australian Institute of Health and Welfare.

Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Hill, L., Holder, H., Homel, R., Österberg, E., Rehm, J., Room, R. and Rossow, I. (2003). *Alcohol: No ordinary commodity – research and public policy*. Oxford: Oxford University Press.

Becker, G. (1968). Crime and punishment: an economic approach. *Journal of Political Economy*, 76(2), 169-217.

Boots, K. (1993). An odious and loathsome sin. *Substance*, 4, 6-9.

Brinkman, S., Chikritzhs, T., Stockwell, T.R. and Mathewson, P. (2001). An indicator approach to the measurement of alcohol related violence. In Williams, P. (Ed.), *Alcohol, young persons and violence*, pp. 61-83. Canberra: Australian Institute of Criminology.

Briscoe, S. and Donnelly, N. (2001). Temporal and regional aspects of alcohol-related violence and disorder. *Alcohol Bulletin* 1. NSW Bureau of Crime Statistics and Research.

Briscoe, S. and Donnelly, N. (2003). Problematic licensed premises for assault in inner Sydney, Newcastle and Wollongong. *Australian and New Zealand Journal of Criminology*, 36(1), 18-33.

Burns, L., Flaherty, B., Ireland, S. and Frances, M. (1995). Policing pubs: what happens to crime? *Drug and Alcohol Review*, 14(4), 369-376.

Bushman, B.J. (1997). Effects of alcohol on human aggression: validity of proposed mechanisms. In: Galanter, M. (Ed.), *Recent Developments in Alcoholism. Volume 13, Alcohol and Violence*, pp. 227-243. New York: Plenum.

Chermack, S.T. and Giancola, P.R. (1997). The relation between alcohol and aggression: an integrated biopsychosocial conceptualization. *Clinical Psychology Review*, 17(6), 621-649.

Chikritzhs, T., Stockwell, T. and Masters, L. (1997). Evaluation of the public health and safety impact of extended trading permits for Perth hotels. Technical Report, National Centre for Research into the Prevention of Drug Abuse, Division of Health Sciences, Curtin University of Technology.

Chikritzhs, T. and Stockwell, T.R. (2002). The impact of later trading hours for Australian public houses (hotels) on levels of violence. *Journal of Studies on Alcohol*, 63(5), 591-599.

Chikritzhs, T., Pascal, R. and Jones, P. (2004). *Under-aged drinking among 14-17 year olds and related harms in Australia*. National Alcohol Indicators Bulletin No. 7, National Drug Research Institute, Curtin University, WA. See: www.ndri@curtin.edu.au.

Chikritzhs, T., Stockwell, T. and Pascal, R. (2005). The impact of the Northern Territory's Living with Alcohol program, 1992-2002: revisiting the evaluation. *Addiction*, 100(11), 1625-1636.

Chikritzhs, T. and Stockwell, T. (2006). The impact of later trading hours for hotels on levels of impaired driver road crashes and driver breath alcohol levels. *Addiction*, 101(9), 1254-1264.

d'Abbs, P., Forner, J. and Thomsen, P. (1994). *Darwin nightclubs: A review of trading hours and related issues*. Darwin: Menzies School of Health Research.

Doherty, S. and Roche, A. (2003). *Alcohol and licensed premises: Best practices in policing*. Canberra: National Drug Law Enforcement Research Fund, National Drug Strategy, Commonwealth Department of Health and Ageing.

Donnelly, N. and Briscoe, S. (2003). Signs of intoxication and server intervention among 18–39-year-olds drinking at licensed premises in New South Wales, Australia. *Addiction*, 98(9), 1287–1295.

Donnelly, N., Poynton, S., Weatherburn, D., Bamford, E. and Nottage, J. (2006). *Liquor outlet concentrations and alcohol-related neighbourhood problems*. Bureau of Crime Statistics and Research: Alcohol Studies Bulletin 8.

Donohue, J. and Levitt, S. (2001). The impact of legalized abortion on crime. *Quarterly Journal of Economics*, 116(2), 379-420.

Edwards, G.A.P., Babor, T.F., Casswell, S., Ferrence, R., Giesbrecht, N., Godfrey, C., Holder, H.D., Lemmens, P., Mäkelä, K., Midanik, L.T., Norström, T., Österberg, E., Romelsjö, A., Room, R., Simpura, J. and Skog, O.-J. (1994). *Alcohol policy and the public good*. New York: Oxford University Press.

Felson, M. (1983). The ecology of crime. In Kadish, S.H. (Ed.), *Encyclopedia of crime and justice*, vol. 2, pp. 665-670. New York, NY: Macmillan.

Felson, R.B., Baccaglini, W. and Gmelch, G. (1986). Bar-room brawls: aggression and violence in Irish and American bars. In Campbell, A. and Gibbs, J.J. (Eds.), *Violent transactions. The limits of personality*, pp. 153-166. New York: Basil Blackwell.

Felson, M., Berends, R., Richardson, B. and Veno, A. (1997). Reducing pub hopping and related crime. In Homel, R. (Ed.), *Policing for prevention: Reducing crime, public intoxication, and injury*. *Crime Prevention Studies*, 7, 115-132. Monsey, NY: Criminal Justice Press.

Freisthler, B. and Gruenewald, P. (2005). Social ecology and the invention of new regulatory strategies for preventing drug and alcohol problems. In: Stockwell, Gruenewald, Toumbourou and Loxley (Eds.), *Preventing harmful substance use: the evidence base for policy and practice*, pp. 291-306. Chichester, UK: Wiley & Sons, Ltd.

- Geller, E.S., Kalsher, M.J. and Clarke, S.W. (1991). Beer versus mixed drink consumption at fraternity parties: A time and a place for low-alcohol alternatives. *Journal of Studies on Alcohol*, 52(3), 197–203.
- Gliksman, L., Douglas, R., Rylett, M. and Narbonne-Fortin, C. (1995). Reducing problems through municipal alcohol policies: the Canadian experiment in Ontario. *Drugs: Education, Prevention and Policy*, 2(2), 105-118.
- Gliksman, L., McKenzie, D., Single, E., Douglas, M., Brunet, S. and Moffatt, K. (1993). The role of alcohol providers in prevention: an evaluation of a server intervention program. *Addiction*, 88(9), 1195-1203.
- Godfrey, C. (1997). Can tax be used to minimise harm? A health economist's perspective. In Plant, M., Single, E. and Stockwell, T. (Eds.), *Alcohol: Minimising the harm. What works?* pp. 29-42. Bristol, UK: Free Association Books.
- Gorman, D.M., Speer, P.W., Gruenewald, P.J., and Labouvie, E.W. (2001). Spatial dynamics of alcohol availability, neighborhood structure and violent crime. *Journal of Studies on Alcohol*, 62(5), 628-636.
- Graham, K., LaRocque, L., Yetman, R., Ross, T. and Guistra, E. (1980). Aggression and bar-room environments. *Journal of Studies on Alcohol*, 41(3), 277-292.
- Graham, K. (1985). Determinants of heavy drinking and drinking problems: The contribution of the bar environment. In Single, E. and Storm, T. (Eds.), *Public drinking and public policy*, pp. 71-84. Toronto, Canada: Addiction Research Foundation.
- Graham, K. and Homel, R. (1997). Creating safer bars. In Plant, M., Single, E. and Stockwell, T. (Eds.), *Alcohol: Minimising the harm. What works?* pp. 171-192. Bristol, UK: Free Association Books.
- Graham, K. and Wells, S. (2001). Aggression among young adults in the social context of the bar. *Addiction Research*, 9(3), 193-219.
- Graham, K. and West, P. (2001). Alcohol and crime: examining the link. In Heather, N., Peters, T. and Stockwell, T. (Eds.), *International handbook of alcohol dependence and problems*, pp. 439-470. Chichester, UK: John Wiley & Sons, Ltd.
- Graham, K., Wells, S. and Jelley, J. (2002). The social context of physical aggression among adults. *Journal of Interpersonal Violence*, 17(1), 64-83.
- Graham, K. and Wells, S. (2003). "Somebody's gonna get their head kicked in tonight!" Aggression among young males in bars – A question of values? *British Journal of Criminology*, 43(3), 546-566.
- Graham, K., Osgood, D.W., Wells, S. and Stockwell, T. (2006). To what extent is intoxication associated with aggression in bars? A multilevel analysis. *Journal of Studies on Alcohol*, 67(3), 382-390.

Graham, K., Osgood, D.W., Zibrowski, E., Purcell, J., Gliksman, L., Leonard, K., Pernanen, K., Saltz, R.F. and Toomey, T.L. (2004). The effect of the *Safer Bars* program on physical aggression in bars: Results of a randomized control trial. *Drug and Alcohol Review*, 23(1), 31-41.

Gray, D., Chikritzhs, T. and Stockwell, T.R. (1999). The Northern Territory's cask wine levy: health and taxation policy implications. *Australian and New Zealand Journal of Public Health*, 23(6), 87-89.

Grube, J.W. (1997). Preventing sales of alcohol to minors: results from a community trial. *Addiction*, 92(S2), 251-260.

Gruenewald, P.J., Freisthler, B., Remer, L., LaScala, A. and Treno, A. (2006). Ecological models of alcohol outlets and violent assaults: crime potentials and geospatial analysis. *Addiction*, 101(5), 666-677.

Haines, B. and Graham, K. (2005). Violence prevention in licensed premises. In Stockwell, Gruenewald, Toumbourou and Loxley (Eds.), *Preventing harmful substance use: The evidence base for policy and practice*, pp. 163-176. Chichester, UK: John Wiley & Sons, Ltd.

Hauritz, M., Homel, R., McIlwain, G., Burrows, T. and Townsley, M. (1998). Reducing violence in licensed venues through community safety action projects: the Queensland experience. *Contemporary Drug Problems*, 25(3), 511-551. See also: <http://www.aic.gov.au/publications/tandi/ti101.pdf>

Hawks, D., Lang, E., Stockwell, T., Rydon, P. and Lockwood, A. (1993). Public support for the prevention of alcohol related problems. *Drug and Alcohol Review*, 12(3), 243-250.

Hawks, D.V., Rydon, P., Stockwell, T.R., White, M., Chikritzhs, T. and Heale, P. (1999). *The evaluation of the Fremantle Police–Licensee Accord: impact on serving practices, harm and the wider community*. Perth, Western Australia: National Drug Research Institute, Curtin University of Technology.

Hay, G. and Cercarelli, L.R. (2004). The accuracy of coin-operated breath analysers installed in licensed premises in the Perth metropolitan area. *Australian and New Zealand Journal of Public Health*, 28(2), 140-143.

Heather, N. (2003). Brief Interventions. In Heather, N. and Stockwell, T. (Eds.), *The essential handbook of treatment and prevention of alcohol problems*, pp. 117-138. Chichester, UK: John Wiley & Sons, Ltd.

Hoaken, P.N.S., Assaad, J.M. and Pihl, R.O. (1998). Cognitive functioning and the inhibition of alcohol-induced aggression. *Journal of Studies on Alcohol*, 59(5), 599-607.

Holder, H. and Wagenaar, A. (1994). Mandated server training and reduced alcohol-involved traffic crashes: a time series analysis of the Oregon experience. *Accident Analysis and Prevention*, 26(1), 89-97.

- Holder, H., Agardh, E., Högberg, P., Miller, T., Norström, T., Österberg, E., Ramstedt, M., Rossow, I. and Stockwell, T. (2007). *If retail alcohol sales in Sweden were privatized, what would be the potential consequences?* Stockholm, Sweden: Report of the Swedish National Institute of Public Health.
- Homel, R. (1986). *Policing the drinking driver: Random breath testing and the process of deterrence*. Canberra, ACT: Federal Office of Road Safety.
- Homel, R. and Clark, J. (1994). The prediction and prevention of violence in pubs and clubs. *Crime Prevention Studies*, 3, 1-46.
- Homel, R., Hauritz, M., Wortley, R., McIlwain, G. and Carvolth, R. (1997). Preventing alcohol related crime through community action: the Surfers Paradise Safety Action Project. In Homel, R. (Ed.), *Policing for prevention: Reducing crime, public intoxication, and injury*. *Crime Prevention Studies*, 7, 35-90. Monsey, NY: Criminal Justice Press.
- Homel, R., Tomsen, S. and Thommeny, J. (1991). The problem of violence on licensed premises: The Sydney Study. In Stockwell, T., Rydon, P. and Lang, E. (Eds.), *The licensed drinking environment: current research in Australia and New Zealand*, pp. 33-40. Melbourne: National Centre for Research into Prevention of Drug Abuse.
- Indermaur, D. (1999). Situational prevention of violent crime: Theory and practice in Australia. *Studies on Crime and Crime Prevention*, 8(1), 71-87.
- International Center for Alcohol Policies (1998). *Drinking Age Limits*. Washington, DC: ICAP Reports 4.
- Ito, T.A., Miller, N. and Pollock, V.E. (1996). Alcohol and aggression: a meta-analysis on the moderating effects of inhibitory cues, triggering events, and self-focused attention. *Psychological Bulletin*, 120(1), 60-82.
- Jeffs, B. and Saunders, B. (1983). Minimising alcohol related offences by enforcement of the existing licensing legislation. *British Journal of Addiction*, 78(1), 67-78.
- Kirby, M. (2006). *Out of the shadows at last: transforming mental health, mental illness and addiction services in Canada*. Ottawa, Canada: Senate report.
- Lang, E. (1991). Server intervention training: what chance in Australia? *Drug and Alcohol Review*, 10(4), 381-393.
- Lang, E., Stockwell, T.R., Rydon, P. and Beel, A. (1998). Can training bar staff in responsible serving practices reduce alcohol-related harm? *Drug and Alcohol Review*, 17(1), 39-50.
- Langley, J. and Chalmers, D. (1996). Incidence of death and hospitalization from assault occurring in and around licensed premises: A comparative analysis. *Addiction*, 91(7), 985-993.

Leadbeater, B.J., Hoglund, W.L. and Woods, T. (2003). Changing contexts? The effects of a primary prevention program on classroom levels of peer relational and physical victimization. *Journal of Community Psychology*, 31(4), 397-418.

Livingston, M. (2007). Outlet density and assault: a spatial analysis. *Addiction*, 103(4), 619-628. Paper presented at the 33rd annual symposium of the Kettil Bruun Society for Social and Epidemiological Research on Alcohol, 4-8 June 2007, Budapest, Hungary.

Loxley, W., Toumbourou, J., Stockwell, T.R., Haines, B., Scott, K., Godfrey, C., Waters, E. and Patton, G. (2004). *The prevention of substance use, risk and harm in Australia: A review of the evidence*. Canberra: Australian Government Department of Health and Ageing.

Macintyre, S. and Homel, R. (1997). Danger on the dance floor: a study of interior design, crowding and aggression in nightclubs. In Homel, R. (Ed.), *Policing for prevention: Reducing crime, public intoxication, and injury*. *Crime Prevention Studies*, 7, 91-113. Monsey, NY: Criminal Justice Press.

Marsh, P. and Kibby, K.F. (1992). *Drinking and public disorder*. Oxford: Alden Press.

Mattingly, K. (1994). *Liquor licensing in Western Australia: report of the independent committee appointed by the Government of Western Australia*. Perth, WA: Western Australia Government.

McBride, N., Farrington, F., Midford, R., Meuleners, L. and Phillips, M. (2004). Harm minimization in schools: Final results of the School Health and Alcohol Harm Reduction Project (SHAHRP). *Addiction*, 99(3), 278-291.

McCarthy, P. (2007). *Accords: are they an effective means of mitigating alcohol-related harm?* Sydney, Australia: DrinkWise Australia.

McKenzie, D. (1996). Special Agencies Command – New South Wales Police Service. *CentreLines No. 23*, pp. 11-12. Perth, Western Australia: National Centre for Research into the Prevention of Drug Abuse.

McKnight, A.J. and Streff, F.M. (1994). The effect of enforcement upon service of alcohol to intoxicated patrons of bars and restaurants. *Accident Analysis and Prevention*, 26(1), 79-88.

McKnight, A.J. and Voas, R.B. (2001). Prevention of alcohol-related road crashes. In Heather, N., Peters, T.J. and Stockwell, T. (Eds.), *International handbook of alcohol dependence and problems*, pp. 741-770. Chichester, UK: John Wiley & Sons, Ltd.

McLeod, R., Stockwell, T.R., Stevens, M. and Phillips, M. (1999). The relationship between alcohol consumption patterns and injury. *Addiction*, 94(11), 1719-1734.

- Nagin, D. and Pogarsky, G. (2001). Integrating celerity, impulsivity and extralegal sanction threats into a model of general deterrence: theory and evidence. *Criminology*, 39(4), 865-891.
- National Alcohol Strategy Working Group (2007). *Reducing alcohol-related harm in Canada: toward a culture of moderation. Recommendations for a National Alcohol Strategy*. Ottawa: Health Canada and Canadian Centre on Substance Abuse.
- National Drug Strategy (2001). *National Alcohol Strategy: A plan for action*. Canberra, ACT: Australian Government Department of Health and Ageing.
- National Health and Medical Research Council (2001). *Australian Alcohol Guidelines: Health Risks and Benefits*. Canberra: NHMRC.
- New South Wales Department of Gaming and Racing (2000). Liquor Amendment (Responsible Gambling) Regulation. *Liquor and Gaming*, New South Wales Government, Department of Gaming and Racing, Legislation Bulletin April 2000.
- Norström, T. (2000). Outlet density and criminal violence in Norway, 1960-1995. *Journal of Studies on Alcohol*, 61(6), 907-911.
- Österberg, E. (2003). Effects of price and taxation. In Heather, N. and Stockwell, T.R. (Eds.), *The essential handbook of treatment and prevention of alcohol problems*, pp. 199-212. Chichester, UK: John Wiley & Sons, Ltd.
- Plant, M. and Plant, M. (2007). *Binge Britain: Alcohol and the national response*. Oxford, UK: Oxford University Press.
- Pogarsky, G., Piquero, A. and Paternoster, R. (2004). Modelling change in perceptions about sanction threats: the neglected linkage in deterrence theory. *Journal of Quantitative Criminology*, 20(4), 343-369.
- Putnam, S.L., Rockett, I.R and Campbell, M.K. (1993). Methodological issues in community-based alcohol-related injury prevention projects: attribution of program effects. In Greenfield, T.K. and Zimmerman, R. (Eds.), *Experiences with community action projects: research in the prevention of alcohol and other drug problems*, pp. 31-39. Rockville, Maryland, US: Department of Health and Human Services.
- Ragnarsdóttir, T., Kjartansdóttir, A. and Davíðsdóttir, S. (2002). Effect of extended alcohol serving hours in Reykjavík. In Room, R. (Ed.), *The effects of Nordic alcohol policies*, pp. 145-154. Helsinki: Nordic Council for Alcohol and Drug Research.
- Rehm, J., Room, R., Monteiro, R., Gmel, G., Graham, K. and Rehn, T. (2004). Alcohol. In *Comparative quantification of health risks: Global and regional burden of disease attributable to selected major risk factors, Vol. 1*, pp. 959-1108. World Health Organization.

- Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W. et al. (2006). *The costs of substance abuse in Canada 2002*. Ottawa: Canadian Centre on Substance Abuse.
- Rice, C. and Taylor, W. (2005). *Enforcing and preventing underage drinking: a literature review*. Centre for Social Responsibility of BC, University College of the Fraser Valley, British Columbia.
- Rumbold, G., Maples, A., Lang, E., Cvetkovski, S. and Kelly, W. (1998). *An evaluation of the Geelong local industry accord: final report*. Fitzroy, Victoria, Australia: Turning Point Alcohol & Drug Centre Inc.
- Rydon, P. (1995). Alternative policing strategies. In Stockwell, T. (Ed.), *An examination of the appropriateness and efficacy of liquor licensing laws across Australia*, pp. 233-249. Alcohol Misuse and Violence Series, Number 5. Canberra: Australian Government Publishing Service.
- Saltz, R. (1987). The roles of bars and restaurants in preventing alcohol impaired driving: an evaluation of server intervention. *Evaluation and Health Professions*, 10(1), 5-27.
- Segal, D., Stockwell, T. and Prince, M. (2007). *Low alcohol alternatives: A promising strategy for reducing alcohol related harm*. Technical report, Centre for Addictions Research of BC, University of Victoria, British Columbia, Canada.
- Shepherd, J. (1998). Editorial: The circumstances and prevention of bar-glass injury. *Addiction*, 93(1), 5-7.
- Sherman, L. Gottfredson, D., McKenzie, D., Eck, J., Reuter, P. and Bushway, S. (1998). *Preventing crime: what works, what doesn't, what is promising?* Washington, DC: National Institute of Justice.
- Single, E. and Wortley, S. (1993). Drinking in various settings as it relates to socio-demographic variables and level of consumption; findings from a national survey in Canada. *Journal of Studies on Alcohol*, 54(5), 590-599.
- Smith, I. (1988). The effectiveness of restrictions on availability as a means of preventing alcohol related problems. *Contemporary Drug Problems*, 15(4), 627-684.
- Solomon, R. and Prout, L. (1996). *Alcohol liability in Canada and Australia: sell, serve and be sued*. Perth: National Centre for Research into the Prevention of Drug Abuse, Curtin University of Technology.
- Statistics Canada (2006). *Sale and control of alcoholic beverages in Canada, 2005*. Ottawa: Statistics Canada.
- Stevenson, R.J., Lind, B. and Weatherburn, D. (1999). The relationship between alcohol sales and assault in New South Wales, Australia. *Addiction*, 94(3), 397-410.

Stockwell, T., Vallis, R., Phillips, A., Hollins, P., Gimber, P., Farley, P. and Robson, A. (1988). Attitudes to health promotion in licensed premises. *Journal of the Royal Society of Health*, 108(6), 209-210.

Stockwell, T. (1993). A night on the town with Eric Single and the Liquor License Board of Ontario. *News Action Nouvelles*, CCSA-CCLAT, IV, 1, 1-3.

Stockwell, T., Lang, E. and Rydon, P. (1993). High risk drinking settings: the association of serving and promotional practices with harmful drinking. *Addiction*, 88(11), 1519-1526.

Stockwell, T., Rydon, P., Gianatti, S., Jenkins, E., Ovenden, C. and Syed, D. (1992a). Levels of drunkenness of customers leaving licensed premises in Perth, Western Australia: A comparison of high and low 'risk' premises. *British Journal of Addiction*, 87(6), 873-881.

Stockwell, T., Somerford, P. and Lang, E. (1992b). The relationship between license type and alcohol-related problems attributed to licensed premises in Perth, Western Australia. *Journal of Studies on Alcohol*, 53(5), 495-498.

Stockwell, T., Rydon, P., Lang, E. and Beel, A. (1993). *An evaluation of the "Freo Respects You" responsible alcohol service project*. Perth: National Centre for Research into the Prevention of Drug Abuse, Curtin University of Technology.

Stockwell, T. (1997a). Regulation of the licensed drinking environment: a major opportunity for crime prevention. In Homel, R. (Ed.), *Policing for prevention: Reducing crime, public intoxication, and injury*. *Crime Prevention Studies*, 7, 7-34. Monsey, NY: Criminal Justice Press.

Stockwell, T. (1997b). Liquor outlets and prevention policy: the need for light in dark corners. (Editorial). *Addiction*, 92(8), 925-930.

Stockwell, T., Masters, L., Philips, M., Daly, A., Gahegan, M., Midford, R. et al. (1998). Consumption of different alcoholic beverages as predictors of local rates of night-time assault and acute alcohol-related morbidity. *Australian and New Zealand Journal of Public Health*, 22(2), 237-242.

Stockwell, T.R. (2001). Responsible alcohol service: lessons from evaluations of server training and policing initiatives. *Drug and Alcohol Review*, 20(3), 257-265.

Stockwell, T.R. and Crosbie, D. (2001). Supply and demand for alcohol in Australia: Relationships between industry structures, regulation and the marketplace. *International Journal of Drug Policy*, 12(2), 139-152.

Stockwell, T.R. and Gruenewald, P. (2003). Controls on the physical availability of alcohol. In Heather, N. and Stockwell, T.R. (Eds.), *The essential handbook of treatment and prevention of alcohol problems*, pp. 213-234. Chichester, UK: Wiley & Sons, Ltd.

Stockwell, T.R., Toumbourou, J., Letcher, P., Smart, D., Sanson, A. and Bond, L. (2004). Risk and protection factors for different intensities of adolescent substance use: When does the prevention paradox apply? *Drug and Alcohol Review*, 23(1), 67-77.

Stockwell, T. (2006). Alcohol supply, demand and harm reduction: What is the strongest cocktail? *International Journal of Drug Policy*, 17(4), 269-277.

Stockwell, T., Leng, J. and Sturge, J. (2006a). *Alcohol pricing and public health in Canada: issues and opportunities*. CARBC Technical report, University of Victoria, BC.

Stockwell, T., Gruenewald, P.J., Toumbourou, J.W. and Loxley, W. (2006b). Recommendations for new directions in the prevention of risky substance use and related harms. In Stockwell, Gruenewald, Toumbourou and Loxley (Eds.), *Preventing harmful substance use: The evidence base for policy and practice*, pp. 443-464. Chichester, UK: John Wiley & Sons, Ltd.

Teece, M. and Williams, P. (2000). Alcohol-related assault: time and place. *Trends and Issues in Criminal Justice*, No.169. Canberra: Australian Institute of Criminology.

Toumbourou, J., Patton, G., Sawyer, S., Olsson, C., Webb-Pullman, J., Catalano, R. et al. (2000). *Evidence-based health promotion: Resources for planning. No. 2—adolescent health*. Melbourne, Australia: Department of Human Services.

Toumbourou, J.W. and Catalano, R.F. (2005). Predicting developmentally harmful substance use. In Stockwell, T., Gruenewald, P. Toumbourou, J. and Loxley, W. (Eds.), *Preventing harmful substance use: The evidence base for policy and practice*, pp. 53-65. Chichester, UK: John Wiley & Sons, Ltd.

Toumbourou, J.W, Stockwell, T., Neighbors, C., Marlatt, G.A., Sturge, J. and Rehm, J. (2007). Interventions to reduce harm associated with adolescent substance use: an international review. *The Lancet*, Adolescent Health Series No.4, March 27, pp. 41-51.

Vaughan, S. (2001). Reducing alcohol related harm in and around licensed premises: industry accords - a successful intervention. In Williams, P. (Ed.) *Alcohol, young persons and violence*, pp. 203-216. Canberra: Australian Institute of Criminology.

Victorian Community Council Against Violence (1990). *Violence in and around licensed premises*. Melbourne: Victorian Community Council Against Violence.

Warburton, A.L. and Shepherd, J. (2000). Effectiveness of toughened glassware in terms of reducing injury in bars: a randomised controlled trial. *Injury Prevention*, 6(1), 36-40.

Wells, S., Graham, K. and West, P. (1998). "The good, the bad, and the ugly": Responses by security staff to aggressive incidents in public drinking settings. *Journal of Drug Issues*, 28(4), 817-836.

Wiggers, J., Jauncey, M., Considine, R., Daly, J., Kingsland, M., Purss, K., Burrows, S., Nicholas, C. and Waites, R. (2004). Strategies and outcomes in translating alcohol harm reduction research into practice: the Alcohol Linking Program. *Drug and Alcohol Review*, 23(3), 355-364.

Young, D.J., Stockwell, T.R., Cherpitel, C.J., Ye, Y., Macdonald, S., Borges, G. and Giesbrecht, N. (2004). Emergency room injury presentation as an indicator of alcohol-related problems in the community: A multi-level analysis of an international study. *Journal of Studies on Alcohol*, 65(6), 605-612.

Appendix: Current and proposed approaches identified by the Alberta Roundtable on Violence in and around Licensed Premises*

Current and Proposed New Approaches	Best Practices Review		Community Mobilization	Author's Recommendation (see Methods section for key)**
	Operational	Regulatory		
Reducing Consumption				
1. Responsible beverage service	√			★★
2. Restricting service hours		√		★★
3. Restricting happy hours	+	√		★★
4. Establishing minimum drink prices	+	√		★★★
5. Raising the minimum age for drinking		√		★★★
6. Preventing alcohol abuse by providing public education about the hazards of over consumption		√	+	★
7. Reduce underage drinking	+		√	★
Managing the External Environment				
Community Mobilization				
8. Expand community mobilization programs (such as Grande Prairie's Safe City Nights) in which liquor licensees, community associations, local governments, regulatory agencies and the police join forces to prevent violence	+		√	Ⓟ
9. Provide incentives and mechanisms for licensees to share information about violence prevention			√	Ⓟ
10. Keep incident logs and share with AGLC and police	√	+		Ⓟ
11. Document, monitor and share strategies and best practices that have been proven to be effective in preventing or dealing with violence	+		√	Ⓟ
Legislation and Bylaws				
12. Improve bylaw requirements and fines to maintain a prescribed number of trained security personnel, to install and maintain video surveillance, and/or metal-detecting security gate		√	+	★
13. Improve bylaw requirements and fines addressing noise, nuisance, unsightly premises and graffiti related to licensed premises		√	+	★
14. Impose a moratorium on liquor licensing in a specific neighborhood		√		★
15. Legislate a requirement for liability insurance		√		★★
16. Redefine licensing classifications to differentiate between types of establishments		√		★

Current and Proposed New Approaches	Best Practices Review		Community Mobilization	Recommendation
	Operational	Regulatory		
17. Establish social responsibility programs for the staff of licensed establishments, the general public and for high risk populations		√	+	★
18. Impose stricter fines and sanctions		√		☒
19. Increase and coordinate inspections by multidisciplinary teams of regulators (AGLC, fire, health and safety inspectors and bylaw officers and police)		√		★
20. Improve cooperation and communication between law enforcement agencies, regulators and the business community	+	√	+	★
21. Develop new education and intervention programs for elementary school students			√	★
22. Establish programs to identify and assist children at risk of violent behaviour			√	★★
23. Prosecution of offenders		√		★
24. Hire 500 new officers to fight organized crime, gangs and the drug trade and community based violence prevention		√		★
25. Establish mobile command posts near trouble spots		√		★
26. Police undercover operations		√		★★
27. Enforcement-related strategies such as walk-throughs by police officers and bar staff	√			★★
28. Off-duty police officers and uniformed security staff	√			★
29. Requisition more cabs and improve transportation options at bar closing times	√			★
30. Transportation-related strategies such as Operation Red Nose, #TAXI and free shuttle service for bar patrons	+		√	★
31. Improve urban planning and coordination between stakeholders	+	√	+	★
32. Legislation and bylaws to reduce bar concentrations and maintain community standards		√		★
33. Legislate pre-licensing planning and development approvals as a condition of licensing		√		★
34. Require a business plan, a security plan, a noise management plan and a community impact study before a license is issued		√		★
35. Restrict the size of licensed premises		√		☒
36. Reduce bar clusters		√	+	★

Current and Proposed New Approaches	Best Practices Review		Community Mobilization	Recommendation
	Operational	Regulatory		
37. Limits on patron numbers (to control overcrowding)	+	√		★
38. Teamwork and community-based approaches	+		√	⌘
39. Improve industry–media relationships and use the media as a positive force for public education about alcohol-related violence	+		√	O
Factors related to the licensed establishment itself				
The Physical Environment				
40. Post “refusal of service signage” so that patrons and the public are clear about the rules	√			★
41. CPTED-based environmental design	+	√		★
42. “No glass” policy	√			★
43. Good lighting	√		+	★
44. Appropriate furniture layout and traffic flow patterns	√			★
45. Provide televisions in washrooms (to keep patrons entertained and reduce aggression)	√			O
The Social Environment				
46. Uniformed security staff	√			★
47. No gang colors	√			★
48. No graffiti	√			★
49. Zero-tolerance approach to violence and inappropriate behaviour	√			★
50. Staff dress code	√			★
51. Softer music near closing time	√			O
52. Choose appropriate music	√			O
53. Know your employees and your customers	√			★
54. Use music and lighting cues to signal patrons that closing time is near	√			O
55. Enforcement of the “Under 25” policy	+	√		★★
56. Identification checks – generally or randomly	√		+	★
57. Computer-based identification scanning	√			★
58. Cover charges	√			★
59. Metal detectors (wands or security gates) and pat downs	√			★
60. Define rules and best practices with regard to the acceptable use of scanning technology	+	√		O

Current and Proposed New Approaches	Best Practices Review		Community Mobilization	Recommendation
	Operational	Regulatory		
61. Provide incentives to encourage the use of security cameras, laser counters and other surveillance technology		√		★
62. Restrict admission after a certain time	√			★
Pricing and Service Practices				
63. Limits on drink specials	+	√		★★
64. Limits on happy hours	+	√		★★
65. Limits on hours of service	+	√		★★
66. Responsible liquor service	+	√		★★
67. Legislate minimum drink prices		√		★★★★
68. Limit the number of drinks patrons can order at last call	+	√		★
69. Allow bars to remain open without liquor service		√		O
70. No glassware or glass beverage containers	√			★
71. Provide in-house breath sampling for patrons	√			☒
72. Provide a longer transition period between last call and the time when patrons must leave		√		O
73. Promote food service	√			★
74. Promote entertainment	√			★
75. Stagger closing times to avoid a mass exodus of patrons onto the street	√			★ (N.B. but no later trading)
76. Ban street vendors to reduce congestion on the streets and reduce the potential for violence		√		★
Security				
77. Appropriate staff-to-patron ratios	+	√		★
78. Safety audits	+	√		★
79. Surveillance technology (including surveillance cameras, facial recognition, closed circuit TV, video systems and staff videographers)	√			
80. Hire uniformed, part-time police officers for surveillance work	√			★
81. Involve the police in dealing with violent incidents	√			O
82. Washroom attendants	√			O
83. Two-way radios for staff	√			O
84. Monetary incentives to encourage staff initiative in preventing violence	√			O
85. Employ female bouncers as well as males	√			★
86. In-house security plans	√			★

	Best Practices Review		Community Mobilization	Recommendation
	Operational	Regulatory		
87. Use surveillance techniques and mystery shoppers to monitor staff performance		√		★★
88. Server training	+	√		★★
Staffing issues				
89. Implemented mandatory criminal record checks for staff	+	√		★
90. Implement certificated training programs for security and door staff	+	√		★★
91. Develop codes of conduct for staff	√			★
92. Identify and legislate the requirements for security staff		√		★

* NB: √ indicates the primary category (operational, regulatory or community mobilization) identified by the Roundtable; + indicates where supportive or complementary contributions can be made from other categories.

** These ratings are based mainly on the assessment of the evidence reviewed in this report. There are many instances, though, in which a ★ rating is provided based only on an assessment of consistency with the guiding principles outlined in the report rather than specific evidence. In other instances the same rating is applied to a single element that was known to have been applied within a more comprehensive approach which received a higher rating.

Centre for
**ADDICTIONS
RESEARCH**^{OF BC}

Head Office

University of Victoria
PO Box 1700 STN CSC
Victoria, BC V8W 2Y2
Phone: (250) 472-5445
Email: carbc.ca
Web: www.carbc.ca

Communication & Resource Unit

#909 - 510 Burrard Street
Vancouver, BC V6C 3A8
Phone: (604) 408-7753
Fax: (604) 408-7731
Web: www.silink.ca



**University
of Victoria**

PO Box 1700 STN CSC
Victoria, BC V8W 2Y2