



# TORONTO STAFF REPORT

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January 6, 2003

To: Board of Health

From: Dr. Sheela V. Basrur, Medical Officer of Health

Subject: Reducing the Harms Of Alcohol Related Collisions - Lowering the Legal Blood Alcohol Content Limit.

Purpose:

To seek Board of Health adoption of a policy position on reducing the harms of alcohol related collisions.

Financial Implications:

There are no financial implications resulting from the adoption of this report.

Recommendations:

It is recommended that:

- (1) the Board of Health endorse the position paper entitled 'CAMH Position on Reducing the Harms of Alcohol Related Collisions' (July 2002) (see Appendices 1 and 2) which proposes the following:
  - (a) amending the Criminal Code of Canada to lower the current legal blood alcohol content (BAC) level from 80 mg% to 50 mg%;
  - (b) commend the Ontario Ministry of Transportation's recent legislation related to the installation of ignition interlock devices in vehicles of those charged and convicted of drinking and driving;
  - (c) recommend to the Ontario Ministry of Consumer and Business Services that effective server training become mandatory for all alcohol servers in licensed establishments, with a particular emphasis on preventing the sale of alcohol to minors and intoxicated persons; and

- (2) this report and the attached position paper be forwarded to the Ontario Ministers of Transportation, Consumer and Business Services, Health and Long-Term Care, and Public Safety and Security, and to the Attorney General of Ontario, the Premier of Ontario, the Solicitor General of Canada, and the Minister of Justice and Attorney-General of Canada;
- (3) this report and the attached position paper be forwarded to local boards of health in Ontario, as well as to the Association of Local Public Health Agencies (alPHa), the Ontario Public Health Association (OPHA), the Association of Municipalities of Ontario (AMO), and the Toronto Police Services Board, that they be encouraged to endorse the attached position paper;
- (4) this report and the Board of Health's position on this be forwarded to the Centre for Addiction and Mental Health (CAMH) for information; and
- (5) the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

Background:

Over the past year, a public debate has taken place in Ontario on whether or not the legal Blood Alcohol Content (BAC) level should be reduced from the current limit of 80 mg% to a lower limit of 50 mg%. This debate, although not new, has increased over the past year led by several groups in the fields of injury prevention and substance abuse prevention. Groups supporting the lowering of the current 80 mg% BAC limit include Mothers Against Drug Driving Canada (MADD Canada), the Centre for Addiction and Mental Health (CAMH), and the Canadian Medical Association (CMA).

TPH staff have examined the literature and have developed this report with the purpose of outlining TPH's recommended position on the issue. In brief, the report recommends the endorsement of the attached CAMH position which calls for: i) the lowering of the current legal BAC limit to 50 mg%; ii) support for mandatory server training programs; and iii) the use of ignition interlock devices in the vehicles of convicted drinking drivers.

Comments:

As part of its provincial mandate to reduce mortality, morbidity, and disability due to injuries and substance abuse (Appendix 3), TPH currently plans and delivers numerous programs and activities related to injury prevention and substance abuse prevention. A number of these initiatives specifically address the prevention and reduction of the harms related to alcohol use, particularly impaired driving among youth. Examples include programs such as Party in The Right Spirit, In the Driver's Seat, Substance Free Means A Responsible Tomorrow (SMART), and the curriculum-based drug prevention resource Alcohol Cannabis Tobacco Health Promotion (ACTION). TPH is also involved in carrying out broader policy and advocacy work related to alcohol use including promotion of the provincial Low Risk Drinking Guidelines and the

development and implementation of Municipal Alcohol Policies in partnership with the City's Department of Economic Development, Culture and Tourism.

Complementing TPH's various efforts are a large number of groups both in Toronto and across Ontario that are working at reducing the harms related to alcohol use. Many of these groups specifically address the issue of impaired driving. Despite all of these efforts, however, research shows that impaired driving is still the leading criminal cause of injury and death across Canada.(1,2) According to the Road Safety Monitor survey, the majority of Canadians (85%) believe drinking and driving to be a serious problem. This survey also shows that many Canadians still continue to drink and drive; in fact, more than 16% (14.3% in Ontario) of those surveyed reported that within the last 30 days they drove a vehicle within two hours of drinking. An additional 7.3% reported that within the past year they had driven a vehicle after drinking.(3)

Another recent survey carried out by CAMH in 2001 showed that 80% of adults (18 years and older) in Ontario reported drinking alcohol in the 12 months preceding the survey. Among drinkers surveyed in that same year, the proportion who drink daily was reported at 5%, and about 6% of drinkers were reported to drink at hazardous or harmful levels. Furthermore, 11% of Ontario drinkers surveyed reported driving after having drunk alcohol in the 12 months preceding the survey.(4)

Research shows that alcohol still remains a factor in a large majority of motor vehicle collisions, injuries and fatalities. An examination of 1999 data on Ontario drivers in serious injury crashes showed that 316 of 919 deaths (34%) involved alcohol (where it was possible to determine if alcohol was a factor). The incidence of alcohol involvement in crashes was found to be highest in the adult population (highest in the 36-45 age group) and almost 20% of the 5,692 drivers involved in serious injury crashes were alcohol related. Furthermore, of the 83% of fatally injured drivers who were tested for alcohol use, 29% were found to have been drinking.(5)

The costs of these and other alcohol-related problems have been shown to be substantial.(6) Furthermore, most of these costs are considered to be preventable and/or avoidable and there are interventions that have been demonstrated to be effective in reducing many of the harms related to alcohol use. Deterrence, monitoring and enforcement policies and strategies, for example, can be used together to effectively address these problems. One such strategy known to reduce impaired driving is lowering the legal BAC limit. Currently, this limit across Canada is set at 80 mg% (i.e. before sanctions ranging from fines, to license suspensions, to jail sentences are imposed). However, there is a large body of scientific evidence to support the lowering of BAC limits as an effective strategy to further reduce injuries and death due to impaired driving. Research has shown that a reduction of the BAC to 50 mg% or lower has substantial beneficial impacts including a reduction in the number of alcohol-related collisions, fatalities, and injury collisions.(1,2,7)

Internationally, there is strong support for a lower BAC limit. Many European countries as well as other countries such as Japan, Turkey, and Australia currently have a 50 mg% or lower limit in place. The lower 50 mg% limit has also been endorsed by the British Medical Association, the World Medical Association, the International Transportation Safety Association, and the World Health Organization.(1,2,7) In Canada, many groups support lowering the BAC limit

including MADD Canada, CAMH, the Canadian Medical Association, and the Ontario Community Council on Impaired Driving. In addition, the Ontario Public Health Association (OPHA) has recently released its position in support of a reduced BAC limit and it will soon be calling for all health units in Ontario to endorse this position.

In Canada, extensive research to support the lowering of the BAC limit has been carried out by many groups including CAMH, which is one of the most credible and longest serving bodies addressing substance abuse and mental health issues in the province. According to CAMH, addressing four key factors that influence alcohol consumption can be effective, when used appropriately, in reducing injuries and deaths caused by drunk driving. These include factors that influence: i) the consumption of alcohol by individuals in a population; ii) the legal environment and enforcement practices; iii) rehabilitative and treatment measures; and iv) education and public awareness measures. In order to maximize these efforts, however, CAMH also highlights two contributing factors that strengthen efforts to reduce drinking and driving. In particular, it is essential that various anti-drinking and driving measures be implemented that reinforce one another, and that a commitment to address the problem be sustained over the long term. Based on these four components and the two contributing factors, CAMH has highlighted the following three areas of priority for action:(8)

- (a) Reducing the legal BAC level from 80 mg% to 50 mg%. As mentioned above, there is a large body of evidence to show that lowering the BAC can lead to significant reductions in alcohol-related injuries, crashes, deaths, as well as reductions in the numbers of impaired drivers. This research demonstrates that alcohol impairs driving skills by affecting psychomotor, information processing, and attention skills. Alcohol also causes drowsiness and reduced vigilance in motor vehicle drivers. It has been shown that impairment begins at very low levels which are much lower than the current 80 mg% legal limit (i.e. at any departure from zero BAC). In addition, the relative risk of crashes, fatalities and injuries has been found to be directly related to BAC levels with the risks rising exponentially at levels well below the current legal limit of 80 mg%. By lowering the BAC, therefore, significant reductions in these risks and subsequent reductions in collisions, injuries and fatalities can be achieved.(1,2,8)
- (b) Installation of ignition interlock devices in vehicles of convicted drunk drivers. TPH supports the Ontario Government's ongoing efforts targeted at toughening anti-drinking and driving legislation. The most recent of these initiatives, Ontario's Ignition Interlock Program (see Appendix 4), should contribute significantly to improving overall road safety for all Ontarians. Research has shown that ignition interlock devices, when installed in vehicles of persons convicted of drunk driving, can reduce recidivism. These measures, when combined together with other prevention, education, and harm reduction measures should contribute to a more comprehensive and effective approach to anticipating and addressing the drinking and driving problem.
- (c) Completion of mandatory server training for all alcohol servers. Research has shown that educational efforts should not focus solely on drivers. The providers of alcohol (e.g. bartenders, waiters) should know the signs of intoxication and employ responsible serving practices. All alcohol servers should be required to successfully complete a well-

designed alcohol server training program. These programs can be effective in reducing drunk driving. However, in order for them to be effective, programs should have specific characteristics and they should be evaluated for effectiveness. The Ministry of Consumer and Business Services, in collaboration with groups such as CAMH and SmartServe Ontario, should ensure that this is carried out. Characteristics of effective programs, for example, include those that incorporate adult education principles and are delivered by well-trained instructors.

Conclusions:

Impaired driving continues to pose a significant problem to Canadian society. This problem is largely preventable and there are proven prevention, education, and harm reduction programs to address it. In particular, lowering the legal BAC limit, requiring mandatory server training programs, and installing ignition interlock devices in the cars of convicted drunk drivers have all been shown to have positive impacts on reducing not only impaired driving, but also on reducing the number of collisions, injuries, and fatalities. From a public health perspective, Canadians cannot afford to continue to ignore the significant societal costs posed by the problems of alcohol abuse and impaired driving. It is recommended that the Board of Health endorse lowering BAC to 50 mg% and support mandatory server training programs and ignition interlock devices as measures to address the drinking and driving problem in Ontario.

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List of Attachments:

- Appendix 1: CAMH Position on Reducing the Harms of Alcohol Related Collisions
- Appendix 2: CAMH Best Advice -- Reducing The Harms Of Alcohol Related Collisions
- Appendix 3: Ontario Mandatory Health Programs and Services Guidelines
- Appendix 4: Ministry of Transportation Correspondence on Ontario's Ignition Interlock Program (Oct. 31, 2002)

References:

1. Mann, Robert E., Macdonald, A., Stoduto, G., Shaikh, A., Bondy, S. (1998). Assessing The Potential Impact Of Lowering The Legal Blood Alcohol Limit To 50 Mg% In Canada. Addiction Research Foundation
2. Chamberlain, Erika, Solomon, Robert. (2001) The Case For A 0.05% Criminal Code BAC Limit.
3. Beirness, D., Simpson, H.M., Mayhew, D., A. Pak. (2001). The Road Safety Monitor: Drinking & Driving. Traffic Injury Research Foundation.
4. CAMH. (2002). Population Studies E-Bulletin. Highlights Form The 2001 CAMH Monitor E-Report Addiction And Mental Health Indicators Among Ontario Adults, 1977-2001.
5. Mayhew, D.R., Brown, S.W., Simpson, H.M. (2002). The Alcohol-Crash Problem In Canada: 1999. Traffic Injury Research Foundation.
6. Canadian Centre On Substance Abuse (1996). The Cost Of Substance Abuse In Canada
7. MADD Canada. (2002) MADD Press Release. Lowering The Criminal BAC Limit To 0.05% Will Contribute To Saving Lives And Making Canadian Roads Safer.
8. CAMH.(2002). CAMH Best Advice – Reducing The Harms Of Alcohol Related Collisions.

**CAMH POSITION:**

**REDUCING THE HARMS  
OF ALCOHOL RELATED COLLISIONS**

**JULY, 2002**



Centre  
for Addiction and  
Mental Health  
Centre de  
toxicomanie et  
de santé mentale

## **CAMH Position on Reducing the Harms of Alcohol Related Collisions**

The **Centre for Addiction and Mental Health (CAMH)** believes that the reduction of deaths and injuries from drunk driving is a public health priority. Achieving this goal involves both societal action and personal responsibility. Because alcohol and driving continue to coexist in our society, proven measures to reduce the harms associated with drinking and driving are required. Based on the weight of the scientific evidence, CAMH supports a number of measures to address the problem of drinking and driving, including:

- lowering of the legal blood alcohol content (BAC) from 80 mg% to 50 mg%;
- mandating server training programs; and
- using ignition interlock devices for the vehicles of convicted drinking drivers among other proven interventions that are currently used.

### ***Lowering the Legal Limit to 50 mg%***

Drinking-driving fatalities are still the largest cause of alcohol-related deaths in Canada. Evidence shows that driving skills are significantly impaired at levels of 50 mg% and below, and that collision risks are significantly elevated at BAC levels of 50 mg%. Over 35,000 people died in alcohol-related collisions between 1977 and 1996, and the number injured may have been over 1,000,000. It has been estimated that a 50 mg% legal limit would have prevented between 185 and 555 deaths on Canadian roads in 1996 alone. Reducing the legal limit in the Criminal Code to 50 mg% would be a very reasonable next step in the effort to educate the public about the hazards of driving or operating motorized vehicles of any kind after excessive alcohol consumption.

### ***Server Training Programs***

Server training programs were developed to assist those who serve alcohol in identifying situations in which patrons may be served to intoxication, and in taking action to prevent excessive alcohol consumption. Well-designed programs have demonstrated their effectiveness in reaching those goals. Therefore, the Centre for Addiction and Mental Health recommends that all individuals who serve alcohol be required to successfully complete a program of server training, taught by highly qualified instructors and demonstrated to be effective.

### ***Ignition Interlock for Return of Suspended Licenses***

The Province of Ontario recently passed legislation that will require convicted drinking drivers to use an ignition interlock as a condition of getting their licence back after a period of suspension. These devices appear to have the ability to reduce recidivism during the period when they are installed on the vehicle of a convicted offender. Therefore, CAMH recommends that the ignition interlock requirement for convicted offenders complement, but not replace, existing measures of proven effectiveness, such as license suspensions and other remedial requirements.

**BEST ADVICE:**  
**REDUCING THE HARMS OF ALCOHOL RELATED COLLISIONS**

**JULY, 2002**



Centre  
for Addiction and  
Mental Health  
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toxicomanie et  
de santé mentale

## **Best Advice - Reducing The Harms Of Alcohol Related Collisions**

Drinking-driving collisions are one of the largest sources of alcohol-involved deaths and injuries. In the 20 - year period between 1977 and 1996, the estimated numbers of deaths involving a drinking driver is in excess of 35,000 (Evans, 1990; Transport Canada, 2002). The problem is particularly tragic among the young, but it is by no means restricted to them. Alcohol is the leading contributor to deaths on our highways, and in recent years it has been detected in about 40% of all drivers killed. The societal impact of injuries is much larger than that of deaths. The number of people seriously and often permanently injured is conservatively estimated to be at least 10 times the number of people killed. Research indicates that the more serious the collision, the more likely it is that alcohol is involved. Impaired driving is one of the largest contributors to the social and economic costs of alcohol abuse in Ontario and Canada (Single, Robson, Xie and Rehm, 1996; Xie, Rehm, Single and Robson, 1996). It is clear that there are unacceptable numbers of alcohol-related deaths and injuries on our roads.

The collisions, injuries and deaths resulting from drunk driving can be reduced by societal action. For example, over the past 20 years very important reductions in the rates of death and injuries resulting from impaired driving occurred. In 1981, 61% of all Ontario drivers killed had alcohol in their system; by the early 90's this figure had declined to around 40% (Wilson and Mann, 1990). These changes tell us that efforts to reduce this problem can be successful on a scale that can mean the avoidance of premature death and serious injury for thousands of people each year.

Prevention of these injuries and deaths remains an important priority for public health, the general public, and governments and there is substantial research evidence to guide our efforts. It is possible to reduce alcohol and traffic safety problems with a variety of measures. Research demonstrates four key components that, if used properly, can reduce deaths and injuries caused by drunk driving. It is also important to note that the principles and programs described here also apply to operation of all motorized vehicles, including boats and snowmobiles.

First, factors that influence the consumption of alcohol by individuals and populations will also influence rates of driving after drinking and resulting problems. Measures that determine the economic, legal and social availability of alcohol will also influence drinking-driving rates. Thus, for example, alcohol taxes play an important health role in reducing drunk-driving fatalities. In general, any measure that will tend to increase alcohol consumption or make alcohol more accessible will also tend to increase rates of drinking-driving. Conversely, measures that tend to reduce alcohol consumption will tend to decrease rates of drinking-driving (Edwards et al, 1994; Mann and Anglin, 1990). For example, mandatory server training programs have been demonstrated to reduce excessive drinking and associated collisions (Gliksman, McKenzie, Single, Douglas, Brunet and Moffatt, 1993; Holder and Wagenaar, 1994).

Second, the legal environment and enforcement practices will influence drinking-driving by individuals and groups. Drinking-driving rates and problems have been shown to be subject to substantial general deterrent effects under appropriate circumstances. These general deterrent effects can reduce collisions, deaths and injuries by large amounts, and may be sustained over long periods of time under the proper circumstances (Homel, 1990; Mann, Macdonald, Stoduto, Shaikh and Bondy, 1998). Effective measures here have included the introduction and lowering of legal limits and the use of high-visibility, high-intensity enforcement campaign such as Ontario's RIDE programme and Random Breath Testing in Australia. Additionally, several sanctions have important specific deterrent effects, in that they appear to reduce drunk driving and collisions in the individuals to whom they are applied. License suspensions are very effective and inexpensive specific deterrent measures, and vehicle impoundment also appears promising. Ignition interlock devices, which are devices installed on the vehicles of convicted offenders which require that persons starting and operating the vehicles have a Blood Alcohol Content (BAC) of 0 or below some specified level, appear to reduce recidivism for the period when they are installed on the vehicle (Beck, Rauch, Baker and Williams, 1999). Imprisonment is costly and has not been found to be effective in reducing recidivism and collisions (Mann, Vingilis, Gavin, Adlaf and Anglin, 1991).

Third, rehabilitative and treatment measures are effective in improving traffic safety when they are combined with other effective sanctions like license suspensions. Convicted drinking drivers, as a group, are more likely to demonstrate heavy or abusive drinking patterns that can be addressed with rehabilitative or treatment measures (Macdonald and Mann, 1996). In the past, it has been the practice to reduce or waive license suspensions as an incentive for offenders to enter rehabilitation programs. This practice fails to take optimum advantage of the collision-reducing potential of combining rehabilitation with appropriate sanctions. Rehabilitative measures, appropriately applied, reduce recidivism and collisions (Wells-Parker, Bangert-Drowns, McMillen and Williams, 1996). Examples of Canadian programs that are consistent with these principles include Ontario's Back on Track program and Manitoba's Impaired Driver's Program.

Fourth, education and public awareness are important components of any successful attack on drunk-driving injuries and fatalities. Education and awareness involve informing the public about new legislative initiatives, consequences of drunk driving, and how to avoid drunk driving. While the specific effects of many educational activities can be difficult to assess, the example of deterrence initiatives serves to underline their importance. As noted above, deterrence initiatives have been demonstrated, under appropriate conditions, to reduce significantly alcohol-related collisions. However, for this effect to occur, public education is essential; without that education, benefits are greatly reduced (Vingilis and Salutin, 1980). Thus, education and public awareness initiatives are key components in coordinated efforts to reduce drunk driving collisions, and are most effect when they serve to draw the public's attention to the risks and penalties involved in drunk driving.

In addition to these four components that have been demonstrated to influence significantly rates of drunk driving, two other components are generally accepted by researchers as crucial for achieving the maximum effects of countermeasure efforts. First, in order to be successful and to achieve maximum benefits, drinking driving countermeasures should work together and be mutually supportive. For example, the introduction of a new legal initiative to prevent drunk driving may hold substantial promise for reducing deaths and injuries. However, if it is not accompanied by any public education measures, those effects will be reduced. Similarly, if a major effort to reduce drinking driving problems occurs at the same time that the availability of alcohol is substantially increased, for example by a marked reduction in price, beneficial effects may be completely masked, and collisions and injuries may be unaffected or even increase. Second, it is essential to maintain a long-term commitment to reducing this problem. Previous experience demonstrates that short-term efforts do not have long-term benefits. Governments, educators, and the public must remain committed over the long term for sustained reductions in collisions, injuries and deaths to occur.

These principles identify specific effective measures and provide a general context within which effective public policy to prevent drunk driving can be created. With these principles in mind, current opportunities for reducing deaths and injuries due to drunk driving can be considered. It is also important to keep in mind that most initiatives to reduce the harm caused by drunk driving involve a consideration of the balance between public health and civil liberties concerns. Keeping this balance in mind, the following recommendations are made with the goal of reducing the aggregate or population levels of deaths and injuries caused by drunk driving. These recommendations address three areas of current interest:

- 1) lowering the legal limit in the Criminal Code of Canada to 50 mg%;
- 2) mandatory server training programs; and
- 3) ignition interlock devices for the vehicles of convicted drinking drivers.

1) There has been recent interest in lowering the legal limit set in the Criminal Code of Canada at which a drinking-driving offence occurs, and groups such as Mothers Against Drunk Driving, the Canadian Medical Association, the Addictions Foundation of Manitoba and the Ontario Community Council on Impaired Driving have recommended a 50 mg% limit. The question of what the legal limit should be is not an easy one to answer. However, there is substantial research that is available on this issue that is summarised in a recent report to Transport Canada (Mann et al, 1998). Currently, legal limits in developed countries vary from low levels such as 0 or 20 mg% (e.g., Sweden) to levels as high as 100 mg% (in some American states). The Canadian limit was set initially at 80 mg% in 1969, in part based on

the experience in Great Britain where an 80 mg% limit was introduced in 1967. Many countries have introduced or lowered the legal limit to 50 mg% including Australian states and many European states. The research evidence clearly demonstrates that impaired driving behaviour and collision risks are increased significantly at BACs of 50 mg%. As well, in the majority of instances where legal limits have been reduced, including those instances where they have been reduced to 50 mg%, significant reductions in aggregate measures of driving fatalities have been observed. Based on experiences in Australia and Sweden, it has been estimated that a 50 mg% legal limit could have prevented between 185 and 555 deaths in 1996 alone (Mann et al, 1998). The reductions observed when legal limits are lowered are due to general deterrence, and are not restricted to drivers at lower BAC levels (Mann et al, 1998 and 2001). The Centre for Addiction and Mental Health therefore recommends that the legal limit for driving as defined in the Criminal Code of Canada be reduced to 50 mg%. However, it is important to note that additional factors can influence the success of this measure in reducing alcohol-related deaths and injuries, including the availability of resources to implement and enforce the reduced limit. These resource issues need to be addressed in any process to revise the legal limit.

2) Server training programs were developed to assist those who serve alcohol in identifying situations in which patrons may be served to intoxication, and in taking action to prevent excessive alcohol consumption. Well-designed programs have demonstrated their effectiveness in reaching those goals (Gliksman et al, 1993; Sloan et al, 2000). One of the major consequences of serving to intoxication is drunk driving, and server training programs have demonstrated their ability to reduce the incidence of drunk driving, or driving over the legal limit, among patrons of licensed establishments. The implementation of mandatory server training programs, that is, programs where every individual who serves alcohol is mandated to receive high quality server training, has been shown to reduce aggregate measures of alcohol-related collisions (Holder and Wagenaar, 1994). Server training programs which are not mandatory, or which do not involve high quality instruction, have not been shown to influence aggregate collision rates. Effective programs also involve training for owners and managers, as well as for servers. Therefore, the Centre for Addiction and Mental Health recommends that all individuals who serve alcohol be required to complete successfully a programme of server training, taught by highly qualified instructors and demonstrated by evaluation research to be effective.

3) The Province of Ontario has recently passed legislation which will require convicted drinking drivers to complete an ignition interlock requirement in the process of getting their license back after a period of suspension. As noted, these devices appear to have the ability to reduce recidivism during the period when they are installed on the vehicle of a convicted offender (Beck et al, 1999) and thus the Centre for Addiction and Mental Health supports their use as part of a period of restricted licensing. However, there are at present several measures of proven effectiveness that are applied to convicted offenders in Ontario, including license suspensions and remedial requirements if they chose to obtain a license following the period of suspension. It is important to remember that interlocks cannot simply replace these programs of proven effectiveness. A key goal in the process of introducing the ignition interlock requirement must therefore be that the beneficial effects of license suspensions and remedial requirements not be interfered with or reduced. Thus, the Centre for Addiction and Mental Health recommends that the Province of Ontario introduce an ignition interlock requirement for convicted offenders that complements, and does not interfere with, existing measures of proven effectiveness.

Additionally, the reduction of the deaths and injuries resulting from drunk driving requires personal and social action. Because both alcohol and driving are imbedded within our society, it can be easy to combine the two. Thus each of us must also look on preventing drunk driving as a personal responsibility.

## References

- Beck, K.H., Rauch, W.J., Baker, E.A. and Williams, A.F. (1999). Effects of ignition interlock licence restrictions on drivers with multiple alcohol offenses: A randomized trial in Maryland. *American Journal of Public Health*, 89, 1696-1700.
- Edwards, G., Anderson, P., Babor, T., Casswell, S., Ferrence, R., Giesbrecht, N., Godfrey, C., Holder, H., Lemmens, P., Makela, K., Midanik, L., Norstrom, T., Osterberg, E., Romelsjo, A., Room, R., Simpura, J. and Skog, O.-J. (1994). *Alcohol Policy and the Public Good*. New York: Oxford University Press.
- Evans, L. (1990). The fraction of traffic fatalities attributable to alcohol. *Accident Analysis and Prevention*, 22, 587-602.
- Gliksman, L., McKenzie, D., Single, E., Douglas, R., Brunet, S. and Moffatt, K. (1993). The role of alcohol providers in prevention: An evaluation of a server intervention programme. *Addiction*, 88, 1195-1203.
- Holder, H.O. and Wagenaar, A.C. (1994). Mandated server training and reduced alcohol-involved traffic crashes: A time series analysis of the Oregon experience. *Accident Analysis and Prevention*, 26, 89-97.
- Hemel, R. (1990) Random breath testing and random stopping programmes in Australia. In Wilson, R.J. and Mann, R.E. (Eds.), *Drinking and Driving: Advances in Research and Prevention*. New York: Guilford Press, pp. 159-202.
- Macdonald, S. and Mann, R.E. (1996). Distinguishing causes and correlates of drinking and driving. *Contemporary Drug Problems*, 23, 259-290.
- Mann, R. E. and Anglin, L. (1990). Alcohol availability per capita consumption, and the alcohol-crash problem. In: Wilson, R. J. and Mann, R.E. (Ed.) *Drinking and Driving: Advances in Research and Prevention*, New York: Guilford, pp. 205-225.
- Mann, R.E., Macdonald, S., Stoduto, G., Shaikh, A. and Bondy, S. Assessing the Potential Impact of Lowering the Legal Blood Alcohol Limit to 50 mg% in Canada. Transport Canada Publication No. TR 13321 E. Transport Canada, Ottawa, 1998.
- Mann, R.E., Stoduto, G., Macdonald, S., Shaikh, A., Bondy, S. and Jonah, B. (2001). The effects of introducing or lowering legal per se blood alcohol limits for driving: An international review. *Accident Analysis and Prevention*, 33, 569-583.
- Mann, R.E., Vingilis, E.R., Gavin, D., Adlaf, E. and Anglin, L. (1991). Sentence severity and the drinking driver: Relationships with traffic safety outcome. *Accident Analysis and Prevention*, 23, 483-491.
- Single, E., Robson, L., Xie, X., & Rehm, J. (1996). *The Costs of Substance Abuse in Canada: Highlights of a Major Study of the Health, Social and Economic Costs Associated with the Use of Alcohol, Tobacco and Illicit Drugs*. Ottawa: Canadian Centre on Substance Abuse.
- Sloan, F.A., Stout, E.M., Whetten-Goldstein, K. and Liang, L. (2000). *Drinkers, Drivers and Bartenders: Balancing Private Choices and Public Accountability*. Chicago: University of Chicago Press.
- Transport Canada. (2002). Collisions and casualties.  
<http://www.tc.gc.ca/pol/en/ExcelSpreadsheets2/main.asp>
- Vingilis, E. and Salutin, L. (1980) A prevention programme for drinking driving. *Accident Analysis and Prevention*, 12, 267-274.

Wells-Parker, E., Bangert-Drowns, R., McMillen, R., & Williams, M. (1995). Final results from a meta-analysis of remedial interventions with drink-drive offenders. *Addiction*, 90, 907-926.

Wilson, R.J. and Mann, R.E. (1990). Introduction. In Wilson, R.J. and Mann, R.E. (Eds.), *Drinking and Driving: Advances in Research and Prevention*. New York: Guilford Press, pp. 1-7.

Xie, X., Rehm, J., Single, E., & Robson, L. (1996). *The Economic Costs of Alcohol, Tobacco and Illicit Drug Abuse in Ontario: 1992*. Toronto: Addiction Research Foundation.

## **Attachment 3**

# **Injury Prevention Including Substance Abuse Prevention**

### **Goal:**

To reduce disability, morbidity and mortality caused by motorized vehicles, bicycle crashes, alcohol and other substances, falls in the elderly and to prevent drowning in specific recreational water facilities.

### **Objectives:**

1. To reduce the rate of injuries caused by cycling crashes and motorized vehicle crashes including, boats, snowmobiles and all terrain vehicles that lead to hospitalization or death by 20 per cent by the year 2010.
2. To reduce the rate of alcohol and other substance-related injuries or deaths by 20 per cent by the year 2010.
3. To reduce the percentage of the adult population who drink more than two drinks per day by 20 per cent by the year 2010.
4. To reduce the rate of illicit substance use and the non-medical use of drugs and of other psychoactive substances by 20 per cent by the year 2010.
5. To reduce the rate of fall-related injuries in the elderly (aged 65+ years) that lead to hospitalization or death by 20 per cent by the year 2010.
6. To eliminate drowning in waters used for specified recreational purposes.

### **Requirements and Standards:**

1. The board of health shall work with municipal police, the Ontario Provincial Police, other traffic enforcement agencies and community groups to prevent injuries caused by motorized vehicles and bicycles by supporting policies and educating the public and targeted groups. As a minimum, the following topics are to be addressed:
  - a. road and motorized vehicle safety;
  - b. the correct use of car restraints and airbags;
  - c. bicycling injury prevention and bicycle helmet use;
  - d. impaired driving and riding with an impaired driver.
2. The board of health shall use the following means to address the topics listed in 1. above. This shall include as a minimum:
  - a. develop, maintain membership on and actively participate in a community injury prevention coalition and a substance abuse prevention coalition; and

- b. promote and provide, on an annual basis, educational information and activities on three of the topics identified in 1. above. This shall include as a minimum:
  - i. provide at least one community-wide education campaign annually. The campaign must include the use of three of the following: television, radio, newspapers, posters/pamphlets and the Internet; and
  - ii. provide one community event (community or board of health led), per 100,000 population or two community events per year, whichever is greater. Community events are open to the general public and/or specifically-targeted groups. They must involve public interaction and participation, and provide information and/or skill building.
3. The board of health shall work with community agencies and groups to support policies and educate the public and targeted groups about low-risk drinking, illicit substance use and the non-medical use of drugs and of other psychoactive substances. As a minimum, the following topics are to be addressed:
  - a. alcohol use and health status;
  - b. drinking levels associated with a low risk of alcohol-related problems;
  - c. circumstances and populations where a person should limit use;
  - d. countermeasure initiatives; and
  - e. the risks associated with illicit substance use and the non-medical use of drugs and of other psychoactive substances.
4. The board of health shall use the following means to address the topics identified in 3. above. This shall include as a minimum:
  - a. develop and maintain an annual membership on and actively participate in a substance-abuse prevention coalition;
  - b. ensure to the best of the board of health's ability that a functioning alcohol risk management policy is in place in every municipality, university, college, and recreation centre within the board of health's jurisdiction;
  - c. ensure that there is annual provision of server intervention training to the public, staff and volunteers at recreational and other targeted facilities; and
  - d. on an annual basis, promote and provide educational information and activities on three of the topics listed in 3. above. This shall include as a minimum:
    - i. provide at least one community-wide education campaign annually. The campaign must include the use of three of the following: television, radio, newspapers, posters/pamphlets and the Internet, and
    - ii. one community event (community or board of health-led), per 100,000 population or two community events per year, whichever is greater. Community events may be open to the general public and/or specifically targeted groups. They must involve public interaction and

participation, and provide information and/or skill building.

5. The board of health shall work with school boards, school advisory councils, principals/teachers and parents to promote and provide information and skill development programs on the topics listed in requirements 1. and 3. above. This shall include at a minimum:
  - a. one annual student education event on at least two of the topics listed in each of requirements 1. and 3. above, with the consent of the school (student or teacher or board of health led), in 50 per cent of the schools in the jurisdiction of the board of health. Of these schools, a minimum of 25 per cent of students must be reached. An equivalent option may be delivered with the approval of the Ministry;
  - b. promote and provide teachers from all schools an opportunity to attend two hours of continuing education annually on one or more of the topics in each of requirements 1. and 3. above;
  - c. provide ongoing consultation and development and review of learning materials; and
  - d. support the development of injury prevention and substance abuse prevention policies, as appropriate.
6. The board of health, in partnership with other health care providers and community groups shall support policies and educate the elderly and other targeted groups to prevent fall-related injuries in the elderly. Topics addressed must include the risk factors associated with fall-related injuries and strategies to prevent these injuries.

As a minimum, the following should be utilized to address the risk factors:

- a. develop, maintain membership on and actively participate in a fall-related injury prevention coalition; and
  - b. promote and provide, on an annual basis, educational information and activities regarding the risk factors. This shall include as a minimum:
    - i. provide at least one community-wide education campaign annually. The campaign must include the use of three of the following: television, radio, newspapers, posters/pamphlets and the Internet, and
    - ii. provide at least one community event (community or board of health led), per 200,000 population or two community events per year, whichever is greater. Community events may be open to the general public and/or specifically targeted groups. They must involve public interaction and participation, and provide information and/or skill building.
7. The board of health shall work with workplace personnel and local trade and business associations to improve awareness, skills development and the work environment to prevent alcohol and other substance abuse. This shall include as a minimum:
    - a. provide consultation, assistance and health promotion resources to workplaces; and
    - b. promote and provide a two-hour educational event once a year to occupational practitioners and others who may influence employee health.

8. The board of health shall work with health professionals to enhance their knowledge and skills about injury prevention and substance abuse prevention. This shall include one or more of the following:
  - a. promote use of in-office reminders for health professionals for preventive interventions;
  - b. provide patient educational materials;
  - c. perform outreach visits to health professionals' offices to encourage preventive interventions;
  - d. use health opinion leaders to encourage and model preventive interventions; and
  - e. participate in skill building workshops.
  
9. The board of health shall:
  - a. inspect public pools at least two times per year and no less than once every three months while operating to ensure compliance with Ontario Regulation, Public Pools;
  - b. inspect public wading pools, at least two times per year and no less than once every three months while operating to ensure compliance with the Ministry of Health *Standards for Public Wading Pools Protocol (January 1, 1998)*;
  - c. inspect public spas once per year while operating to ensure compliance with the Ministry of Health *Operation of Public Spas Protocol (January 1, 1998)*;
  - d. make additional inspections of public pools, public wading pools and public spas as necessary to ensure correction of non-compliance with Ontario Regulation, Public Pools, or the appropriate Ministry of Health *Standards for Public Wading Pools Protocol (January 1, 1998)* and Ministry of Health *Operation of Public Spas Protocol (January 1, 1998)* observed during previous inspection(s), and to investigate bather complaints; and
  - e. ensure the availability of information regarding the health and safety-related operational procedures applicable to public pools, public wading pools and public spas.