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Written Submission to

The Standing Committee on General Government

on

Bill126, Road Safety Act, 2008

February, 2009

Thank you for the opportunity to provide input to the Standing Committee on General Government on Bill 126, Road Safety Act, 2008.

CAMH's comments on Bill 126 are specific to section 13 of the bill and the requirement that new drivers up to the age of 21 maintain a Breath Alcohol Content of 0 mg% when driving (hereafter referred to as the '0 BAC to 21' requirement). The '0 BAC to 21' condition on a young driver's license is in place in many other jurisdictions, and has been a proven and effective policy to control and prevent alcohol-related harms. Below we provide the rationale for this support as well as recommendations for its implementation, which will assist the amendment in achieving the desired outcomes.

CAMH, in addition to being a hospital, is an organization with a provincial mandate to conduct research, engage in public education and participate in the development of healthy public policy in the area of addictions and mental health. Our organization has many years of health promotion, treatment and research experience in issues related to the use of recreational and illicit drugs like alcohol, cannabis, cocaine and opiates. We have access to the most current evidence about, for example, alcohol and other drug effects on health, the epidemiology of substance use in Canada, and the effects of measures designed to reduce health and social problems created by substance use.

Motor vehicle collisions are the leading cause of death and injury in young people between the age of 16 and 21. In Ontario in 2005, 57 drivers of automobiles and motorcycles between the ages of 16 and 20 were killed and 4,190 were injured, many seriously and permanently[1]. These numbers don't include those killed or injured in these collisions who are passengers, in other vehicles, and pedestrians. Substantial evidence has shown that alcohol is the leading contributor to driver fatalities and a leading contributor to serious injuries for all age groups, but especially among young people.

Juergen Rehm and colleagues, in their report on the costs of alcohol, tobacco and other drugs, estimated the number of Canadians killed in alcohol-related collisions in 2002 to be 909[2], a number which for several reasons is acknowledged to be an underestimate. Of these, an estimated 28 were children 14 and under. An additional 374 of those killed in alcohol-related collisions in 2002 were teenagers and young adults. It is therefore very appropriate and commendable for the Government of Ontario to consider ways to reduce these needless deaths and injuries. In this submission, we summarize four lines of evidence relevant to the proposed initiative: 1) driving skills among young drivers and the effects of alcohol 2) the effects of legal limits on rates of drinking driving and associated fatalities; 3) the effects of Graduated Licensing programs, which are related initiatives; and 4) evaluations of the effects of '0 BAC to 21' requirements in other jurisdictions.

1) Driving skills among young drivers and the effects of alcohol

Driving is a very complex task, and may be the most complex physical task that most of us engage in on a routine basis. Safe driving requires a range of skills and abilities, from the 'simple' ability to respond quickly to a situation to the ability to make very complex judgments. Learning to drive in itself is a challenging task, and it can take years for a person to reach

[1] Ontario Road Safety Annual Report 2005. < http://www.mto.gov.on.ca/english/safety/orsar/orsar05/>

[2] Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W., Patra, J., Popova, S., Sarnocinska,-Hart, A. and Taylor, B. 2006. The Costs of Substance Abuse in Canada 2002. Ottawa: Canadian Centre on Substance Abuse.

optimal driving performance. Among young people learning to drive, acquiring these skills is further complicated by developmental processes that are naturally occurring at the same time[3].

There has been substantial research assessing the effects of varying amounts of alcohol on driving ability and associated skills. With increased ability to measure these effects in the laboratory, it has become clear that the deleterious effects of alcohol on performance can begin with the first drink and are measurable at BACs of 20 mg % and lower. Thus, the effects of alcohol on young drivers who are still learning safe driving skills may be particularly hazardous, and may account for the markedly high levels of collision risk seen among young drivers after even low BAC levels[4], further supporting 'O BAC to 21'. An additional factor that may contribute to young drivers' elevated collision risk at lower BACs is their inexperience with the powerful effects of alcohol on behaviour.

2) The effects of legal limits

Legislation limiting the permitted blood alcohol content of drivers has received extensive evaluation, in many countries. It is now very clear, based on evidence from Canada and elsewhere, that these laws can exert a very strong and beneficial effect on rates of impaired driving. In 1969 the Parliament of Canada introduced legislation that made it a criminal offense to drive with a blood alcohol content over 80 mg%. Recent evaluation of the impact of this law in Ontario by CAMH scientists has shown an ongoing reduction of 18% in the rate of drinking drivers killed in collisions[5].

In many jurisdictions around the world, legal limits have been lowered from previous levels. Reductions to legal limits have occurred in all the states of Australia and the United States and many European states. A consistent conclusion of recent reviews of this literature is that, in most or all jurisdictions in which BAC limits have been lowered, substantial reductions in various measures of the drinking driving problem (drunk drivers on the road, alcohol-related collisions, injuries and fatalities, total fatalities) have been observed. In 1998 a report by CAMH scientists estimated that if the same effects in Canada were found that have been reported in scientifically rigorous studies from Australia and Europe, lowering the legal limit in Canada from 80 mg% to 50 mg% could prevent between 185 and 555 deaths per year on our highways[6]. Rigorous scientific research appearing since that time strengthens this conclusion[7].

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[3] Mayhew, D.R., Simpson, H.M., Singal, D. & Desmond, K. (2006). Reducing the crash risk of young drivers. Washington, D.C.: AAA Foundation for Traffic Safety.

[4] Zador, P.L. 1991. Alcohol-related relative risk of fatal driving injuries in relation to driver age and sex. Journal of Studies on Alcohol, 52, 301-310; Chamberlain, E. and Solomon, R. 2008. Zero blood alcohol concentration limits for drives under 21: Lessons from Canada. Injury Prevention, 14, 123-128.

[5] Asbridge, M., Mann, R.E., Stoduto, G. and Flam-Zalcman, R. 2004. The criminalization of impaired driving in Canada: Assessing the deterrent impact of Canada's first per se law. Journal of Studies on Alcohol, 65, 450-459.

[6] Mann, R.E., Macdonald, S., Stoduto, G., Shaikh, A. and Bondy, S. 1998. 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.

[7] Shults RA, Elder RW, Sleet DA, et al. Reviews of evidence regarding interventions to reduce alcohol-impaired driving. Am J Prev Med 2001;21(4 Suppl 1):66–88.

3) The effects of Graduated Licensing Systems

Evidence showing a beneficial impact of Graduated Licensing Systems (GLS) provides additional support for '0 BAC to 21' restrictions. GLS have been introduced in many jurisdictions in the past several years in efforts to prevent collisions and fatalities among young and new drivers. Ontario's GLS program introduced in 1994 included a 0 BAC restriction for level G1 and G2 drivers, along with other restrictions. An early evaluation by CAMH of Ontario's program found that young drivers reported significant reductions in rates of driving after drinking[8]. Subsequently, several evaluations of the effects of GLS have shown reductions in driver fatality rates in those affected by these programs[9]. These results provide further support for the value of license restrictions as a means for reducing collision and fatality rates among young drivers, and specifically of the value of 0 BAC restrictions in this population.

4) Evaluations of '0 BAC to 21' and similar restrictions in the United States

The most direct evidence on what might be expected from a '0 BAC to 21' restriction in Ontario is obtained from evaluations of similar programs in the United States. The state of Maine introduced the first '0 BAC to 21' restriction in 1983. The American government encouraged all states in the 1980's and 1990's to introduce these restrictions, and all of them eventually did so by 1998.

Many evaluations of these restrictions have appeared in recent years providing a consistent picture of beneficial impact[10]. Hingson and colleagues evaluated some of the early '0 BAC to 21' states, and based on their findings estimated that if all states introduced these restrictions 375 single vehicle nighttime fatal collisions among affected drivers would be prevented per year. Voas and colleagues showed that the proportion of fatally injured drivers aged 16-20 who had been drinking declined substantially when these restrictions were introduced. A meta-analysis of four studies evaluating the effects of '0 BAC to 21' restrictions in the United States and Australia estimated that these restrictions reduced fatality rates among affected drivers by a range of 9% to 24%. If similar effects were observed in Ontario, introduction of a '0 BAC to 21' restriction could prevent between approximately 5 and 14 driver fatalities per year. If a similar impact is seen with injuries, this restriction could prevent between approximately 377 and 1006 drivers from being injured per year. It is important to note that these are underestimates of prevention effects for at least two reasons. First, these estimates do not include drivers who are 21 years of age, because this group is not presented separately in the Ontario Road Safety Annual Report, and second, these estimates do not include passengers, people in other affected vehicles, and pedestrians who might be killed and injured in the prevented collisions.

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8 Mann, R.E., Stoduto, G., Anglin, L., Pavic, B., Fallon, F., Lauzon, R. and Amitay, O. 1997. Graduated Licensing in Ontario: Impact of the 0 BAL provision on adolescents' drinking-driving.In C. Mercier-Guyon (ed.) Alcohol, Drugs and Traffic Safety - T97, Annecy, France, Centre d'Etudes et de Recherche en Medicin du Traffic, pp. 1055-1060.

9 Chen, L.-H., Baker, S.P., and Li G. 2006. Graduated driver licensing programs and fatal crashes of 16-year-old drivers: A National evaluation. Pediatrics, 118, 56–62.; Zhao, J., Mann, R.E., Chipman, M., Adlaf, E., Stoduto, G., & Smart, R.G. 2006. The impact of driver education on self-reported collisions among young drivers with a graduated license. Accident Analysis and Prevention, 38, 35-42.

10 Hingson R, Heeren T, Winter M. 1994. Lower legal blood alcohol limits for young drivers. Public Health Rep 109, 738–44; Voas RB, Tippetts AS, Fell J. 2003. Assessing the effectiveness of minimum legal drinking age and zero tolerance laws in the United States. Accid Anal Prev, 35, 579–87; Shults RA, Elder RW, Sleet DA, et al. 2001. Reviews of evidence regarding interventions to reduce alcohol-impaired driving. Am J Prev Med, 21(4 Suppl 1),66–88.

Concluding comments.
Taken together, the evidence provided above regarding young people's driving skills, effects of legal limits, and evaluations of GLS and '0 BAC to 21' restrictions indicates that introducing a '0 BAC to 21' requirement in Ontario will have a substantial beneficial impact in the prevention of alcohol-related harm. The '0 BAC to 21' license restriction is consistent with CAMH's position in support of the use of proven effective policies to control and prevent alcohol-related harms, and in the past CAMH has supported similar policy initiatives, including GLS. If '0 BAC to 21' is introduced, CAMH recommends that the Government of Ontario support this restriction by educating the public and, particularly, affected drivers, providing police with the necessary resources to enforce it, and monitoring its implementation and impact. Research shows that laws can be unsuccessful in achieving reductions in collisions and fatalities if they are not enforced, or if resources are not available to support implementation through public education and enforcement.[11]

The Government of Ontario is proposing to take very positive steps in addressing collision-related deaths and injuries among young drivers. '0 BAC to 21' license restrictions are in place in every American state, some parts of Australia, and have been implemented or are being considered in other Canadian provinces. Collisions are the largest cause of fatalities and serious injuries among those in the 16-21 age group, and consistent research provides a clear indication that a '0 BAC to 21' restriction in Ontario will prevent deaths and injuries among young people in this province.

CAMH welcome opportunities to share further information should the committee wish to follow up on any the recommendations we have made. For further information specific to the evidence presented please contact Dr. Robert Mann, Senior Scientist.

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[11] Mann, R.E., Macdonald, S., Stoduto, G., Shaikh, A. and Bondy, S. 1998. 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.