

Minimizing Impairment-related Youth Traffic Deaths

The Need for Comprehensive Provincial Action

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ABSTRACT

Despite the progress made between the early 1980s and the mid-1990s, traffic crashes remain the single largest cause of death among 15-24 year old Canadians. In recent years, approximately 45% of these deaths have been alcohol-related and, no doubt, additional youth crash deaths are drug-related. While young people are significantly overrepresented in impairment-related deaths as drivers, their overrepresentation is even greater as passengers, pedestrians, bicyclists, and users of recreational vehicles. These crashes are not simply a function of young people's immaturity and lack of driving experience; they also reflect young people's hazardous patterns of alcohol and drug use.

Under the Canadian constitution, the provinces have extensive legislative authority over driver and vehicle licensing, traffic enforcement, liquor licensing, and off-premise alcohol sales. Moreover, research in Canada and abroad has identified legislative initiatives that can significantly reduce impairment-related youth traffic deaths. Consequently, the provinces are well positioned to protect Canadian youth from such preventable harm. The provinces need to adopt a broad approach, including a comprehensive graduated licensing program, a zero blood-alcohol restriction on drivers under 21, enhanced police powers, and more rigorous enforcement of the existing licensing legislation.

Key words: Alcohol consumption; motor vehicles; traffic accidents; youth

RÉSUMÉ

Malgré une amélioration du bilan routier entre le début des années 1980 et le milieu des années 1990, les accidents de la route demeurent la principale cause de décès chez les Canadiens de 16 à 24 ans. Ces dernières années, environ 45 % des décès de la route dans cette population étaient liés à l'alcool, et d'autres étaient certainement liés à la drogue. Les jeunes sont considérablement surreprésentés dans les décès de la route où l'affaiblissement des facultés est en cause, non seulement en tant que conducteurs, mais plus encore en tant que passagers, piétons, cyclistes et utilisateurs de véhicules récréatifs. Ces accidents ne s'expliquent pas simplement par le manque de maturité et d'expérience de conduite des jeunes; ils traduisent aussi leurs habitudes dangereuses en matière de consommation d'alcool et de drogue.

En vertu de la Constitution canadienne, l'immatriculation des conducteurs et des véhicules, les règlements de la circulation, la réglementation des alcools et les ventes d'alcool à l'extérieur relèvent largement de la compétence des provinces. Or, des études au Canada et à l'étranger ont répertorié des mesures législatives qui peuvent réduire de façon importante les décès de la route liés à l'affaiblissement des facultés chez les jeunes. Par conséquent, les provinces sont bien placées pour protéger les jeunes Canadiens contre ces méfaits évitables. Elles doivent adopter une approche élargie, y compris un programme intégré d'immatriculation par étapes progressives, un taux d'alcoolémie nul pour les conducteurs de moins de 21 ans, des pouvoirs policiers renforcés et une exécution plus rigoureuse des lois existantes sur l'octroi de permis.

Mots clés : consommation d'alcool; véhicules automobiles; accidents de la route; jeunes

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The world was horrified by the events that unfolded at Virginia Tech in April 2007. In a few hours, 27 students and 5 faculty were killed, and another 25 were injured, before the gunman committed suicide. In the following days, fingers were pointed at those who might have prevented the shootings. Some blamed the university for its inadequate response;¹ some blamed a system that allowed the shooter to purchase semi-automatic pistols within two years of being declared mentally unsound;² and some blamed the university's "gun free" policy, which prevented others from carrying guns that might have been used to stop the shooter earlier.³ Following the tragedy, both state and federal politicians took steps to prevent a recurrence.

The reaction to the Virginia Tech shootings is understandable: no one likes to see young lives cut short, especially where the events were apparently preventable. Yet, each year about 700 young Canadians die and 54,000 are injured in traffic crashes.⁴ Despite the progress in traffic safety between the early 1980s and mid-1990s, traffic crashes remain the single largest cause of death among 15-24 year olds. Approximately 45% of these deaths are alcohol-related.⁵ Unfortunately, these preventable tragedies fail to garner sustained public attention or generate comprehensive legislative reforms. The provinces, which have broad legislative authority over driver and vehicle licensing, traffic enforcement, liquor licensing, and alcohol sales,⁶ could prevent many of these casualties.⁷ Indeed, given the projected increase in Canada's youth population, immediate provincial action is required to prevent such impairment-related crashes from increasing.

Almost three quarters of 15-24 year old Canadians are licensed to drive,⁴ and they have the highest rates of death per kilometre driven of any age group under 75. For example, 16-19 year olds are approximately nine times more likely to die per kilometre driven than their parents.^{8,9} As outlined below, 15-24 year olds also have the highest per capita rates of motor vehicle deaths (Figure 1) and injuries.^{8,9}

These elevated rates of death and injury are due to numerous factors. First, young people obviously lack driving experience.^{10,11} Research has shown that perceptual, cognitive and vehicle-handling skills

are less developed in beginning drivers than in experienced drivers.¹² In addition, beginning drivers have less ability to detect and recognize imminent hazards, and their inexperience makes them more likely to respond inappropriately.¹³

Second, young drivers also tend to be risk takers and are less cautious than their older counterparts.^{14,15} They are more likely to speed, follow too closely, allow less time to merge, cross traffic lanes, pass other vehicles, and overestimate their driving abilities.^{16,17} In a recent Canadian survey, 38.2% of 16-19 year old drivers and 33% of 20-24 year old drivers reported that they occasionally take a risk “just for the fun of it.”¹⁸ In comparison, only 18% of 35-44 year olds and 12.3% of 45-54 year olds reported such behaviour. Canadian surveys indicate that drivers aged 16-24 also have the highest self-reported rates of speeding¹⁸ and the lowest rates of seatbelt use¹⁹ of all age groups.

Third, 15-24 year olds had the highest reported rates of both heavy and hazardous drinking among current drinkers in the 2003 Canadian Addiction Survey (CAS)²⁰ (Table I and Figure 2). These statistics are similar to other data on binge drinking among Canadian youth.^{21,22} For example, Statistics Canada found that 62.4% of 15-19 year old current drinkers acknowledged binge drinking at least once in the past year, and almost 49% of these reported doing so at least 12 times. Among 20-24 year old drinkers, 73.5% acknowledged binge drinking at least once in the past year, and 56% of these reported doing so 12 or more times.²³ As disconcerting as these statistics are, they may actually underestimate binge and hazardous drinking. For example, a 2005 British Columbia study noted that the reported consumption in the CAS accounted for only 32-35% of known alcohol sales in Canada.²⁴

These consumption patterns and the high blood-alcohol concentration (BAC) levels they generate are associated with dramatically increased risks of traffic and other trauma deaths. The risks are exacerbated because these high rates of binge drinking typically coincide with young Canadians’ first years of unsupervised driving. While 16-25 year olds constituted only 13.7% of the Canadian population in 2003, they accounted for 32.1% of the alcohol-related traffic deaths.^{5,25} Moreover,

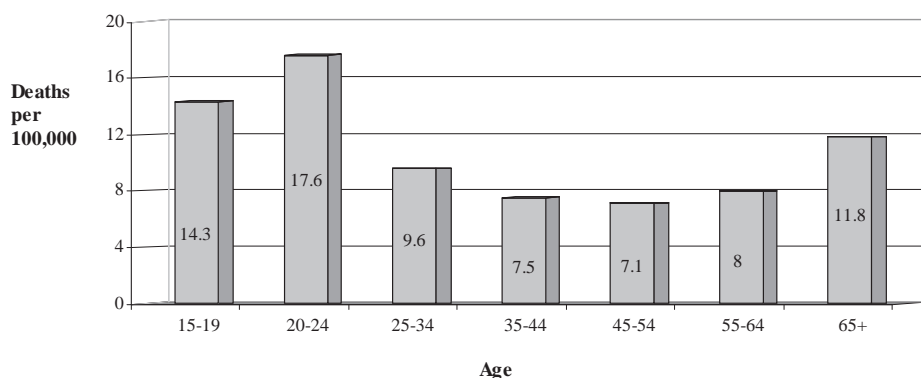


Figure 1. Motor vehicle deaths by age group, per 100,000: Canada, 2004
 Statistics Canada. Annual Demographic Statistics 2004 (Catalogue No. 91-213).
 Ottawa: Statistics Canada, 2005.
 Transport Canada. Canadian Motor Vehicle Traffic Collision Statistics 2004.
 Ottawa: Transport Canada, 2005.

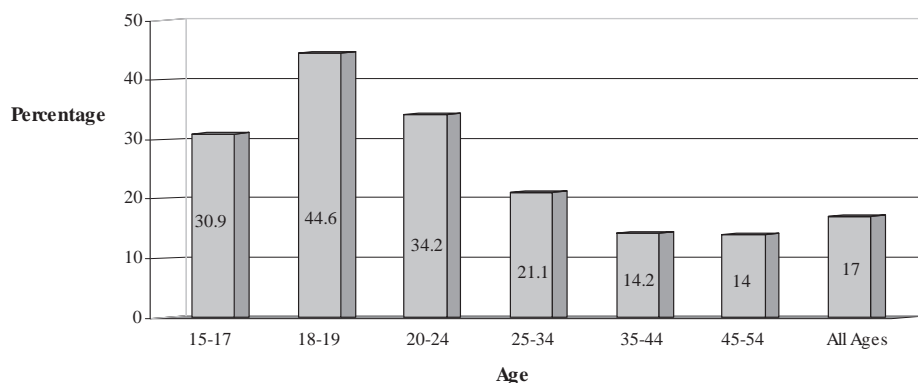


Figure 2. Percentage of current drinkers who drank hazardously in the past year: Canada, 2004
 Adlaf E, Begin P, Sawka E, editors. Canadian Addiction Survey (CAS): Detailed Report.
 Ottawa: Canadian Centre on Substance Abuse, 2005.

16-19 and 20-24 year olds had higher reported rates of driving when they thought they were over the legal blood-alcohol limit (10.3% and 14.9%, respectively) than all other age groups.²⁶ As outlined below, these behaviours have tragic results not just for automobile drivers, but also for young passengers, pedestrians, and users of recreational vehicles.

- Fifteen to nineteen year olds are over-represented as fatally- and seriously-injured vehicle passengers,^{4,7} and nearly 80% of fatally-injured teenage passengers are killed when travelling with a teenage driver.²⁷ Survey data from Nova Scotia²⁸ and Ontario,¹⁶ respectively, indicate that 22.8% and 29% of grade 7-12 students reported being a passenger in the last 12 months with a driver who had been drinking. Moreover, the CAS indicated that young people’s rates of riding with drunk drivers have increased sharply in the last decade.¹⁴

- Although 16-19 year olds made up 5.4% of the population in 2003, they accounted for 23% of alcohol-positive pedestrian fatalities.⁴ Among fatally-injured pedestrians tested for alcohol that year, over 82% of 16-19 year olds and 41% of 20-25 year olds had been drinking. Almost all alcohol-positive pedestrians had BACs above 0.08% (the Criminal Code limit for driving), and many had BACs double or more this limit. It is not surprising that young, relatively inexperienced drinkers with high BACs dominate the pedestrian fatality statistics. Alcohol affects vision, depth perception, balance, reaction time, hazard recognition, and judgement,²⁹ making impaired pedestrians much more likely to be killed than their sober counterparts.
- Although the largest percentage of alcohol-related crash deaths involve automobiles, the highest rates of alcohol involvement occurred in other vehicle types. For exam-

TABLE I
Weekly and Monthly Heavy Drinking* Among Current Drinkers: Canada, 2004†

Age Group	Weekly	Monthly
15-17	7.6%	35.7%
18-19	16.1%	51.8%
20-24	14.9%	47.0%
25-34	6.5%	30.4%
35-44	5.3%	24.2%
45-54	6.0%	22.0%
All (15-75+)	6.2%	25.5%

* Males consuming 5 or more drinks and females consuming 4 or more drinks on a single occasion.

† Source: Adlaf E, Begun P, Sawka E, editors. Canadian Addiction Survey (CAS): Detailed Report. Ottawa: Canadian Centre on Substance Abuse, 2005.

ple, in 2003, while only 38% of fatally-injured automobile drivers had been drinking, the comparable figures for drivers of light trucks/vans, ATVs, and snowmobiles were 46.2%, 56.6%, and 65.2%, respectively.⁴ Snowmobile and ATV crash deaths are of particular concern, because youth are particularly overrepresented and alcohol is typically involved.³⁰

These statistics indicate that any approach to the youth crash problem must be broadly focused. While Graduated Licensing Programs (GLPs) are vitally important in improving traffic safety for young drivers, other measures are required to address the hazardous alcohol consumption patterns that lead to passenger, pedestrian, and recreational vehicle fatalities.³¹

Outlined below are initiatives that hold great promise for significantly reducing impairment-related deaths among Canadian youth. Moreover, these measures appear to have considerable public and political support, a critical factor in terms of their likely enactment.

- The introduction of a comprehensive GLP is a priority, because it allows new drivers to gain driving experience and skills in low-risk circumstances. Such programs should include nighttime, high-speed road and passenger restrictions, and require beginning drivers to be supervised by a fully-licensed adult driver with a zero BAC.³² The GLP should last at least two years, during which the supervision and restrictions would be gradually decreased. There is extensive Canadian^{33,34} and international^{35,36} research documenting the effectiveness of comprehensive GLPs. Indeed, a recent literature review concluded that “every evaluation [of GLPs] conducted to date has reported positive benefits with crash reductions ranging from 4% to over 60%.”³⁷
- The provinces should enact a zero BAC restriction for all drivers under 21 to minimize the risks posed by their lack of experience with both driving and drinking. This will help to ensure that inexperienced drivers will not have their judgement further impaired by alcohol. A recent meta-analysis found that all evaluations of zero BAC laws for young drivers to date have reported a reduction in crashes.³⁸ Manitoba, Nova Scotia and New Brunswick have recently enacted a zero BAC restriction that essentially applies during the first five years of licensure. While the law in Nova Scotia and New Brunswick has not yet been proclaimed in force, other provinces have expressed an intention to enact similar provisions.
- The police should be given explicit statutory authority to stop vehicles at random to inspect the driver’s documentation, and to demand breath samples from those who are subject to a GLP or zero BAC restriction. Without such legislation, key elements of the GLP are largely unenforceable, with the result that the perceived risk of apprehension for breaching GLP provisions, and the deterrent effect of the law, will diminish. Studies have shown that both random³⁹ and selective³⁸ breath-testing increase the perceived rate of apprehension, thereby deterring impaired driving and significantly decreasing alcohol-related crashes across the general population. There is no reason to suggest that such breath-testing would be any less effective among new drivers.
- Provincial authorities need to more rigorously enforce the liquor licence prohibitions against selling, serving or giving alcohol to minors or to intoxicated individuals, particularly in establishments catering to young people. Older teens

and young adults do a large proportion of their drinking at licensed establishments. In a national survey of Canadian undergraduates, respondents reported that 35.5% of their drinking occasions occurred in licensed establishments, with an average of 5.1 drinks per occasion.⁴⁰ These establishments are often concentrated in areas close to university or college campuses, and are typically well known to police and licensing authorities. As long as large numbers of highly intoxicated youth leave bars every weekend night, they will continue to be dramatically overrepresented in alcohol-related driver, passenger and pedestrian traffic deaths.

Given the devastating toll that impaired driving takes among Canadian youth, addressing this problem should be a priority. Existing research has identified measures that can minimize these deaths and injuries. Moreover, the provinces have sufficient legislative authority to enact the necessary initiatives. The provinces should be encouraged to take immediate action.

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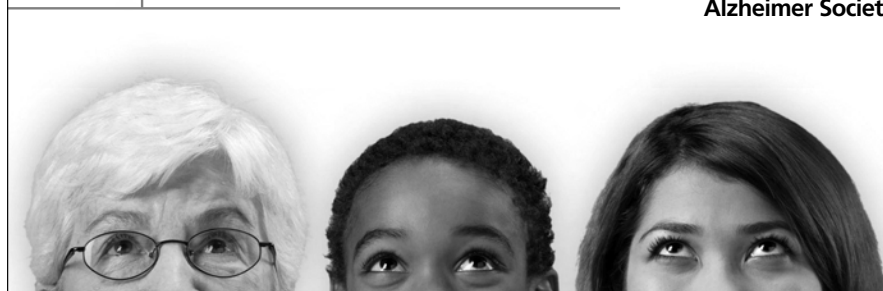
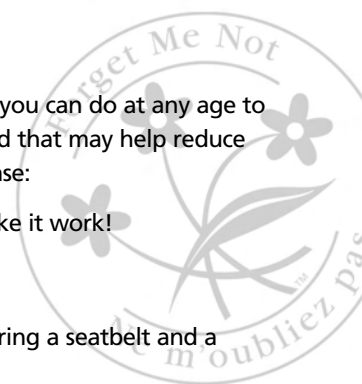
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