council on health promotion

Alcohol-related traffic fatalities declining

British Columbia's evidenced-based approach to addressing the problem of impaired driving produced impressive results after only 12 months.

lcohol-related crashes are the leading criminal cause of death in Canada.1 It was estimated that in 2009, 976 people died in alcohol-related crashes in Canada.2 Canada lags far behind comparable democracies in reducing the number of alcohol-related traffic deaths, even though most of these countries have far higher rates of per capita alcohol consumption.3 For example, in 1997-1998 Canada had the highest rate of alcohol-impairment among fatally injured drivers of eight OECD countries.4 In 2008, there were 395 road fatalities in BC. Of these, 152 (38.5%) were alcohol related.2 The BC road fatality rate in 2009 (8.1 per 100 000 people), was above the national average (7.3) and far higher than in countries with the safest roads (e.g., Netherlands—4.3).5,6

Public policy decisions should be based on the best available evidence.^{7,8} The Vancouver Sun recently published an editorial entitled "Our New Year's wish: Public policy that is based on evidence." The editors stated, "At the top of our wish list for the next year is the wish that all elected officials, and all political parties, commit to a program of evidence-based policy."9 Clearly alcohol-impaired driving is a major public health problem that warrants an effective evidence-based policy approach.

There is extensive evidence that legislation targeting unsafe driver behavior is one of the most effective ways to prevent crashes, reduce injuries, and save lives.10 The deterrent

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impact of a law increases with the certainty and severity of the sanctions. However, research indicates that the certainty of a sanction acts as a far greater deterrent than increasing its severity. 11,12 It has also been found that immediate consequences have a greater deterrent effect than those imposed long after the violation.¹³ Effective laws should have both specific and general deterrent effects. When applied to drinking and driving, specific deterrence means that the sanctioned drivers are less likely to drink and drive again, and general deterrence refers to the fact that people who might otherwise drink and drive are deterred from doing so by threat of legal sanctions. General deterrence requires public awareness of the laws. Mass media campaigns in conjunction with high-visibility enforcement increase both the specific and general deterrent effects of impaired driving legislation.14

The BC government recently amended the Motor Vehicle Act to target impaired driving.15 Introduced in September 2010, these amendments give police the authority to impose immediate roadside prohibitions and, perhaps more importantly, immediate vehicle impoundments. The suspensions for driving with a blood alcohol content between 0.05% and 0.08% increase from 3 days for a first violation to 7 and 30 days on second and subsequent infractions. Driving with a blood alcohol content in excess of 0.08% results in a 90-day driving prohibition and vehicle impoundment. The amendments also expanded the circumstances in which drivers would be required to complete the responsible driver program, an alcohol counseling program, and install an ignition interlock on their vehicle. These amendments are all supported by evidence. Roadside driving prohibitions and vehicle impoundments that are applied immediately greatly increase their deterrent impact. An administrative licence suspension law in Ontario was associated with a 14.5% reduction in the number of fatally injured drivers. 16 The use of vehicle impoundments for durations of time equal to the duration of licence suspensions is a very important feature of the program. Vehicle impoundment has both specific and general deterrent effects. Numerous studies have demonstrated the effectiveness of vehicle impoundments in preventing impaired driving recidivism and crashes.¹⁷ Furthermore, without vehicle impoundment, some drivers will continue to drive despite licence suspension. Suspended drivers are overrepresented in fatal crashes. Vehicle impoundment dramatically reduces the numbers of suspended drivers on the road and therefore effectively addresses this problem.¹⁸ Alcohol counseling and installation of alcohol interlock devices are also proven to be effective. A meta-analysis found that alcohol counseling programs reduce impaired driving recidivism by 8% to 9%.19 There is ample evidence that alcohol interlocks are effective in reducing impaired driving recidivism.20

The laws were introduced with a highly visible enforcement and media campaign that increased their general deterrent effect.21 Police put considerable resources into enforcement. During the first year, police issued 23 366 immediate roadside prohibitions and 20020 vehicles were im-

pounded. There was also considerable media coverage of the new legislation. Although the bulk of coverage was positive there was negative press as well. The government showed considerable resolve in supporting the legislative program, and the minister of public safety and solicitor general, and the attorney general gave numerous speeches promoting the new legislation.

The BC government's new approach to impaired driving contains numerous features that are proven to reduce crashes and fatalities. Programs with multiple interventions are more successful than those with a single intervention, and are most effective if the level of police enforcement is high and the programs are well publicized.^{22,23} With the introduction of this legislation the BC government has done exactly what the editors of the Vancouver Sun have asked all leaders to do: they introduced evidence-based public policy.

So, did the amendments to the Motor Vehicle Act produce the expected improvements in the alcohol crash problem? In the 5 years prior to 20 September 2010, an average of 113 British Columbians died annually in alcohol-related motor vehicle crashes. From 1 October 2010 to 30 September 2011, there were 68 alcoholrelated motor vehicle deaths across BC. This equates to a 40% reduction in alcohol-related road fatalities. This strongly suggests that BC's new approach to impaired driving resulted in exactly the positive changes that would be expected.

In May 2011, opponents of the new laws launched a legal challenge in the Supreme Court of British Columbia (Sivia v. British Columbia).24 This class action suit challenged the validity of the immediate roadside prohibition program. At issue was whether the immediate roadside prohibition program constituted criminal law, which comes within the exclusive constitutional authority of the federal

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government. Also at issue was whether the immediate roadside prohibition program violates the Charter of Rights and Freedoms by violating the presumption of innocence (Section 11) in creating an "offence" that presumes the guilt of drivers and fails to provide a fair hearing; authorizing unreasonable search and seizure (thereby violating Section 8); and denying the right to counsel upon detention (thereby violating Section 10(b)).

On 30 November 2011, the Honourable Mr Justice Sigurdson held that the new laws were not criminal law but rather came within BC's constitutional authority over licensing. However, he also ruled that the immediate roadside prohibition provisions pertaining to drivers with BAC > 0.08%violated Section 8 of the Charter because "they authorize a search by a screening device on the basis of reasonable suspicion and impose lengthy prohibitions and significant costs and penalties on motorists, without providing motorists with any meaningful basis to challenge the validity of the search results." The immediate roadside prohibition provisions pertaining to drivers with BACs between 0.05% and 0.08% were held not to violate the Charter because the associated penalties were deemed to be "a reasonable limit, prescribed by law and demonstrably justified in a free and democratic society."

What are the consequences of this ruling? The sanctions in the "warn" range (0.05% to 0.08% blood alcohol content) were upheld as constitutional. The police have said that they will not change their practice for processing charges in this range. However, the police will not be able to use the immediate roadside prohibition sanctions for drivers who register in the "fail" range (> 0.08%). Police will now have to take these drivers to a police station for an evidentiary breath testing and to undertake much of the processing entailed in laying formal Criminal Code charges. It is likely that the swiftness and certainty of sanctions under the immediate roadside prohibition program were important reasons for its success. Ms Shirley Bond, the minister of public safety and solicitor general, has said that legislation will be introduced in the next sitting of the legislature to address the Supreme Court ruling. We hope that the amendments will retain the components that made the original immediate roadside prohibition program so effective in saving the lives of British Columbians.

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References

Available at www.bcmj.org.