

Random Breath Testing: A Canadian Perspective

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***Objective:** The purpose of this article is to examine the case for and challenges to implementing random breath testing (RBT) in Canada, with a particular focus on the persistence of impaired driving under the current method of law enforcement. It seeks to place RBT within Canada's existing legal and social framework.*

***Methods:** This article reviews Canada's impaired driving record, charge and conviction rates, and law enforcement challenges. It then summarizes the impact that RBT programs have had in comparable countries. Finally, it examines whether the enactment of RBT would be upheld under Canada's Charter of Rights and Freedoms.*

***Results:** Canada has made little progress in reducing impaired driving since the late 1990s. Current enforcement methods fail to detect the majority of impaired drivers, even when stopped at sobriety checkpoints. This has reduced the perceived risk of apprehension and helps to explain the persistence of impaired driving in Canada.*

Faced with similar challenges, Australia, New Zealand, Ireland, and most EU countries have introduced comprehensive RBT programs. Comprehensive RBT has been shown to significantly reduce impaired driving deaths and injuries.

Proposals to enact RBT in Canada will inevitably generate claims that it violates drivers' Charter rights. Similar arguments have been raised in opposition to RBT in other countries. This article demonstrates that RBT is compatible with the existing Charter case law involving traffic legislation and border, airline, and courtroom security.

***Conclusion:** Experience in other countries indicates that RBT is a minimally intrusive, cost-effective, and publicly accepted impaired driving countermeasure and that it would significantly improve the detection and deterrence of impaired drivers. Moreover, RBT is compatible with the Charter.*

Keywords DUI; Police; Alcohol; BAC; Countermeasures

INTRODUCTION

Despite numerous federal, provincial, and territorial legislative amendments, awareness programs, and other initiatives, impairment-related crashes remain Canada's leading criminal cause of death. In response to similar problems, most developed and developing countries have enacted comprehensive random breath testing (RBT) programs. It is widely accepted that well-publicized, intensive RBT programs increase the perceived and actual risks of apprehension and thereby achieve sharp and sustained reductions in impaired driving deaths and injuries. The purpose of the present article is to analyze the current state of impaired driving enforcement in Canada, the international experience with RBT, and whether federal RBT legislation would violate the Canadian *Charter of Rights and Freedoms* (1982).

THE NEED FOR RBT IN CANADA

Canada's Impaired Driving Record

Impaired driving deaths in Canada peaked in the early 1980s, prompting an unparalleled flurry of federal and provincial legislative amendments (*Criminal Law Amendment Act*, 1985; Mayhew et al. 2000). These and other measures led to significant declines in impaired driving deaths and injuries. However, the rate of decline slowed in the mid-1990s and, by 2000, had stopped (Mayhew et al. 2004; Pitel and Solomon 2011). The number and percentage of impaired driving deaths in 2008, the latest year for which there are national data, are comparable to the 2000 levels. It was conservatively estimated that there were 196,845 impairment-related crashes in 2008, which resulted in 1,162 deaths, 68,538 injuries, and 226,522 vehicles damaged in non-injury crashes. The total financial and social costs of these losses were estimated to be \$21.62 billion (Pitel and Solomon 2011).

Moreover, impaired driving takes a disproportionate toll among young Canadians. In 2007, 16- to 25-year-olds constituted 13.7 percent of the population but made up almost 35 percent of the alcohol-related traffic deaths (Statistics Canada 2009b; Traffic Injury Research Foundation 2010). From a public health perspective, these youth crash deaths represent a major

Received 21 July 2010; accepted 15 October 2010.

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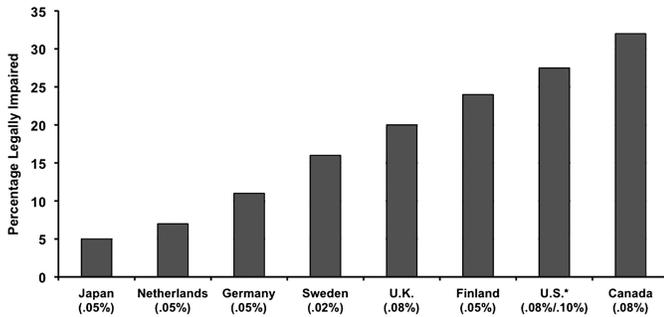


Figure 1 Legal impairment among fatally injured drivers: selected OECD countries, 1997–1998. *At the time, the criminal BAC limit was 0.08 percent in 15 American states and 0.10 percent in 33 states. *Source:* Transport Canada (2001).

cause of preventable years of life lost, because these victims typically die 50 to 60 years prematurely.

Although comparative data must be used with caution, it would appear that Canada's impaired driving record is poor relative to that of other developed democracies. An international review of 15 countries published in 2000 reported that Canada had the second-highest rate of alcohol involvement in fatal crashes (Stewart et al. 2000). As Figure 1 illustrates, a 2001 Transport Canada study found that Canada had the highest rate of impairment among fatally-injured drivers of 8 OECD countries, even though most of these countries had far higher rates of per capita alcohol consumption (Transport Canada 2001). For example, whereas Germans consumed 64 percent more alcohol per capita than Canadians in 1998, Transport Canada reported that only 11 percent of Germany's fatally-injured drivers were legally impaired, as defined by having a blood-alcohol concentration (BAC) of 0.05 percent or higher. In contrast, 32 percent of Canada's fatally-injured drivers were legally impaired, as defined by having a BAC in excess of 0.08 percent (Transport Canada 2001; World Health Organization 1998).

Canada's Existing System of Impaired-Driving Enforcement

The enactment of RBT legislation would change only one aspect of Canada's impaired driving enforcement process: the grounds on which preliminary breath screening tests could be demanded. Canadian police currently have a common law power and, in most jurisdictions, express statutory authority to stop vehicles at random; inspect the licence, ownership, and insurance documents of drivers; and question them about their vehicle, driving, and sobriety (*R. v Dedman* 1985; *R. v Orbanski*; *R. v Elias* 2005). Section 254(2) of the *Criminal Code* authorizes the police to demand a breath sample for analysis on an approved screening device (ASD) from a driver who they reasonably suspect has any alcohol in his or her body (*Criminal Code* 1985). ASDs are small handheld breath-testing machines that are typically carried in police patrol cars. The results of ASD tests are not admissible as evidence of the driver's impairment or BAC in criminal proceedings. Rather, ASDs are used as a preliminary screening tool that may provide the police with grounds for de-

manding breath tests on an approved instrument under section 254(3).

Approved instruments are larger, more sophisticated machines that are kept at the police station or in specially equipped vans. The police can only demand breath tests on an approved instrument if they have reasonable grounds to believe that a driver has committed an impaired driving offense within the last 3 h. Because ASDs are usually calibrated to register a fail starting at a BAC of 0.10 percent, a driver's failed ASD test provides the police with reasonable grounds to believe that the driver has committed the federal impaired driving offense of driving with a BAC in excess of 0.08 percent (*Criminal Code*, s. 253(1)(b)). If the *Criminal Code's* complex and stringent procedures are followed, readings from the approved instrument are admissible in evidence as proof of the driver's BAC at the time of the offense, in the absence of evidence to the contrary (*Criminal Code*, s. 258(1)(c)). Consistent with their function, approved instruments are frequently referred to as *evidentiary breath-testing machines*.

The current law establishes what is referred to as a *selective breath testing* (SBT) program, because only drivers reasonably suspected of drinking can be tested. There are 2 main problems with SBT as it operates in Canada. First, police must form their reasonable suspicion about a driver's alcohol consumption using their unaided senses. Unlike the situation in some American states, police in Canada do not use passive alcohol sensors or similar technology at sobriety checkpoints. Although the grounds for demanding an ASD test in Canada are not particularly onerous, the police often have difficulty making the necessary assessments during the brief interaction that they have with drivers at sobriety checkpoints (Vingilis and Vingilis 1987). Police are most likely to miss experienced drinkers because they exhibit fewer signs of consumption, as well as drivers who do not fit the impaired driving stereotype (Vingilis et al. 1982).

Various researchers have questioned the effectiveness of SBT checkpoints that rely exclusively on an officer's subjective judgment as to whether preliminary breath testing is warranted. For example, Professor Ross Homel, Australia's most prolific RBT researcher, stated in a 1990 article that "[t]he deterrent effects of roadblock [SBT] programs . . . almost certainly are undermined by the level of police discretion involved in determining which drivers are administered breath tests" (Homel 1990a, p. 72). He noted that, even during a period of intensified enforcement in Queensland, less than 1 percent of the drivers who were stopped were tested (Homel 1990a). American researchers have found that even drivers with very high BACs were not detected at checkpoints where the officers relied on their unaided senses (Jones and Lund 1986; Wells et al. 1997). Police missed at least half of drivers with BACs of 0.10 percent or higher and three quarters of those with BACs of 0.05 to 0.099 percent (Ferguson et al. 1995; Jones and Lund 1986). Similarly, a Canadian study published in 1982 concluded that approximately 95 percent of drivers with BACs above 0.08 percent were not detected during an Etobicoke sobriety checkpoint program (Vingilis et al. 1982).

Though these studies are dated, little appears to have changed. In 2009, the House of Commons Standing Committee on Justice and Human Rights reached a similar conclusion on detection rates at sobriety checkpoints (Canada, House of Commons Standing Committee on Justice and Human Rights 2009). Indeed, the available data, albeit limited, suggest that approximately 4 million drivers are processed at organized SBT checkpoints each year in Canada (Kelly et al. 2010). Millions of others are subject to SBT processing during routine police patrol activities. Nevertheless, as discussed below, relatively few drinking drivers are detected by police during these brief interactions. Further, even if detected, a substantial percentage are not charged with a criminal offense.

These patterns are linked to the second main problem with current SBT enforcement in Canada. Even if the police conclude that a driver has been drinking, they must convince a court that they had a reasonable factual basis for reaching this conclusion. It is common for defense counsel to aggressively challenge the officer's basis for demanding an ASD test. Moreover, some judges have applied an overly rigorous standard for making the demand (*R. v Thompson* 2003). Unless the driver admits to drinking, the police in Canada generally require clear visible signs that the driver has consumed alcohol or was driving in an impaired manner in order to demand a roadside screening test. If the court finds that there were insufficient grounds to demand the ASD test, the results of the subsequent evidentiary breath test will be excluded from evidence, and the driver will most likely be acquitted (Robertson et al. 2009).

This situation has contributed to the de facto decriminalization of impaired driving in Canada. In a national survey, Canadian police expressed concerns about the weight given to their testimony and about legal technicalities that allowed impaired drivers to escape criminal liability. These frustrations and the time-consuming nature of impaired driving enforcement have led to an increased police reluctance to lay criminal charges. Thirty percent of the officers reported that they sometimes or frequently let impaired drivers off with a provincial suspension rather than laying criminal charges (Jonah et al. 1999). Similarly, a British Columbia police survey reported that almost half of the officers refused to lay *Criminal Code* impaired driving charges, even if they concluded that the driver was legally impaired (Police Services Division 2000). This helps to explain why Canada's 2007 charge rate for impaired driving offenses, per 100 000 licensed drivers, was only 40 percent of the American rate (National Highway Traffic Safety Administration 2008; Statistics Canada 2009a; Transport Canada 2010).

The inability to effectively detect and prosecute impaired drivers in Canada reduces the perceived risk of apprehension and, in turn, the deterrent effect of the law. Millions of Canadians continue to drink and drive, with little fear of being stopped, let alone charged and convicted. Survey data and statistics indicate that, on average, a person can drive impaired once a week for more than 3 years before being charged with an impaired driving offense and for more than 6 years before being convicted (Statistics Canada 2008, 2009; Vanlaar et al. 2006). Other sur-

vey data indicate that charge and conviction rates may be even lower (Beirness and Davis 2007).

RBT would significantly reduce these existing enforcement problems. RBT legislation would authorize the police to demand a breath sample for ASD testing from any driver and would remove the current requirement of reasonable suspicion. If every driver stopped were subject to ASD testing, the problem of missed impaired drivers would be effectively eliminated. Further, police would not be required to prove in court that they had reasonable grounds to demand the test, so the accused would not be able to contest the admission of evidentiary breath test results on this basis. Thus, by simply changing the grounds on which ASD testing can be conducted, 2 major enforcement issues would disappear. RBT would increase the perceived and actual risk of apprehension and conviction, leading to improved general deterrence.

As in Australia, New Zealand, and other countries, most RBT in Canada would be conducted at what are called organized, fixed or stationary sobriety checkpoints, where every passing driver is stopped for testing, unless it is necessary to wave drivers through to prevent undue delays. However, the legislation should also authorize police to conduct RBT during routine patrol activities, often referred to as *mobile* RBT. This is particularly important in rural areas, late at night, or in other circumstances in which low traffic volumes would not merit establishing an organized RBT checkpoint.

Recent Trends

As indicated, the number and percentage of total alcohol-related crash deaths in 2008 were comparable to the 2000 levels (Pitel and Solomon 2011). The results of Canada's federal transportation strategy, Road Safety Vision 2010 (RSV), have been equally disappointing. The RSV sought to reduce alcohol-related deaths and injuries among drivers by 40 percent by 2010 compared to the 1996–2001 baseline period. However, an external mid-term review of the RSV reported that only the Yukon was on track to meet its targeted reductions in alcohol-related deaths and that none of Canada's 13 jurisdictions was on track in terms of injuries (Johnson and Howard 2007). A contemporaneous Transport Canada review reported that RSV had failed to achieve 81 percent of its target reductions in alcohol-related crash deaths (Gutoskie 2008).

Moreover, upward trends in alcohol availability, per capita consumption, and binge drinking, particularly among 15- to 24-year-olds, do not augur well for future rates of impaired driving in Canada (Adlaf et al. 2005). The number and types of licensed venues and events have increased, and the restrictions on alcohol advertising, promotions, and other marketing activities have been eased. Per capita sales of alcoholic beverages in liters of absolute alcohol have increased by about 14 percent from 7.2 in 1997 to 8.2 in 2009 (Statistics Canada 2010). The percentage of Canadians who reported driving after drinking in the past 30 days rose from 16.7 percent in 2001 to 24.7 percent (representing over 5 million drivers) in 2009 (Vanlaar et al. 2010).

Table I Reported use of random breath testing in selected countries

With RBT		Without RBT	
Argentina	Germany	New Zealand	Canada
Austria	Greece	Norway	Dominican Republic
Australia	Guatemala	Peru	Ecuador
Belgium	Honduras	Poland	El Salvador
Brazil	Hungary	Portugal	Panama
Bulgaria	Iceland	South Korea	Russia ^a
Chile	Ireland	Romania	South Africa
China	Italy	Slovakia	United Kingdom
Columbia	Japan	Slovenia	United States
Costa Rica	Latvia	Spain	Venezuela
Cyprus	Lithuania	Sweden	
Czech Republic	Luxembourg	Switzerland	
Denmark	Malta ^a	Turkey	
Estonia	Mexico	Ukraine	
Finland	Moldova		
France	The Netherlands		

^aThe sources differ regarding RBT in these countries.

These trends provide little cause for optimism. Though the provinces and territories have enacted progressive countermeasures in recent years, such as graduated driver licensing, 0.00 percent BAC limits for drivers under 21, and increased lengthier roadside suspensions for drivers with BACs above 0.05 percent, major strides cannot be made in the absence of effective federal amendments. In light of international experience, outlined below, RBT holds substantial promise as a means of reducing impaired driving in Canada.

THE INTERNATIONAL EXPERIENCE WITH RBT

Introduction

As noted, most developed and developing countries have responded to the impaired driving problem by implementing RBT programs (Table I). A 2008 study and earlier international reviews indicated that 46 of 56 countries (82%) had an RBT program established under national or, in a few cases, state/territorial legislation (Stewart 2000; Townsend et al. 2006; Worldwide Brewing Alliance 2009). Ireland, the most recent country to do so, initiated its RBT program in 2006 (Janitzek and Townsend 2006).

The International Experience

RBT in Australia. The Australian RBT programs are the best documented and most widely studied, with RBT having first been introduced in Victoria in 1976 (Homel 1990b). By the end of the 1980s, RBT was in use throughout Australia and had become the country's "central countermeasure against drinking and driving" (Dunbar 1990 cited in Zaal 1994, p. 38). The early research provided compelling evidence that RBT programs could have a dramatic impact on road crashes. For example, the introduction of RBT in New South Wales was reported to have caused "an immediate 90 percent decline in road deaths, which soon stabilized at a rate approximately 22 percent lower than the average for the previous six years" (Homel 1990a, p. 70). A 1997 review of the early data concluded that the number of fatal

road crashes fell by 48 percent during the first year (Henstridge et al. 1997).

RBT generated significant, albeit less spectacular, declines in crashes in other Australian states and territories. For example, Tasmania's RBT program was credited with reducing all serious crashes by 24 percent in its first year (Henstridge et al. 1997). Substantial reductions were also achieved in jurisdictions where RBT replaced existing SBT programs, as would be the case in Canada. For example, Queensland's RBT program resulted in a 35 percent reduction in fatal crashes, whereas the introduction of the previous SBT program had generated only a 15 percent reduction (Henstridge et al. 1997). Similarly, in a 3-month period shortly after RBT replaced the existing SBT program in Western Australia, it achieved a 23 percent decrease in nighttime traffic deaths and injuries compared to the same period the previous year (Homel 1990b).

Some of the RBT programs were less effective than others, and the impact of even the initially strong programs tended to wane over time (Homel 1990b; Zaal 1994). Several jurisdictions increased enforcement levels and publicity in an attempt to replicate the successes of New South Wales and Tasmania (Henstridge et al. 1997). For example, Victoria dramatically intensified its RBT program, conducting almost 1.8 million RBT tests between July 1989 and June 1991 (Sullivan et al. 1992). This initiative was credited with reducing fatal crashes in Melbourne during high-alcohol hours by 19 to 24 percent in 1990 (Cavallo and Cameron 1992). A leading expert attributed these reductions to increased enforcement, greater publicity, the use of mobile RBT alongside stationary RBT, and sustaining the program year-round (Homel 1990a).

The most comprehensive review of the Australian RBT programs was a time series analysis of the long-term effects of RBT in 4 jurisdictions published in 1997 (Henstridge et al. 1997). In conducting the study, the authors controlled for various confounding factors, including other impaired driving countermeasures, such as lowering the legal BAC limit to 0.05 percent. Consistent with earlier research, the 1997 study identified 4 essential elements of successful RBT programs. First, maximizing RBT's deterrent impact requires high levels of testing. The equivalent of at least one-third of licensed drivers must be tested each year, but even higher testing levels are preferable (Henstridge et al. 1997; Homel 1990b). Second, the program should be extensively publicized, focusing specifically on the high risk of apprehension. Third, enforcement should include both mobile RBT and high-visibility stationary RBT checkpoints. Fourth, in order to sustain the ongoing deterrent impact of an RBT program, enforcement and publicity levels must be maintained (Henstridge et al. 1997). The RBT program in New South Wales included these elements from the outset and was regarded as the most successful program and a model for effective RBT implementation (Casey 2006; Henstridge et al. 1997).

In summary, the Australian experience, especially in New South Wales, provides compelling evidence of RBT's benefits and insights on how to maximize the effectiveness of RBT programs. The research also establishes that enacting RBT

legislation, in the absence of a comprehensive and intensive program to enforce it, will most likely have only a modest and transitory impact on impaired driving rates (Homel 1990a).

RBT in other jurisdictions. New Zealand replaced its SBT program with RBT, known as *compulsory breath testing* (CBT), in April 1993. The RBT program has been described as having had “dramatic, sustained effects” that are “unusually high for highway safety measures” (Miller et al. 2004, 793). A 2009 meta-analysis found that the introduction of RBT in New Zealand led to a 14 percent reduction in total crashes (Erke et al. 2009).

Similarly, positive results have been reported by European countries. RBT was largely credited with reducing the percentage of Dutch drivers with BACs over 0.05 percent from 15 percent in 1970 to 4.5 percent in 2000 (Mathijssen 2005). The Finnish RBT program was found to have reduced the number of drinking drivers on the road by 58 percent between 1979 and 1985 (Dunbar et al. 1987). Moreover, a 2008 study involving the capital cities of European Union member states reported that all of the cities with above-average decreases in traffic fatalities had RBT programs in place (European Transport Safety Council 2008).

In Ireland, RBT was credited with reducing total road fatalities by 19 percent from the preceding 12 months (Road Safety Authority 2007). There was also a reported 10 percent decrease in traffic-related hospital admissions in the 6 months following the introduction of RBT (Bedford 2008). Moreover, the deterrent impact of Ireland’s RBT program appears to have risen sharply in the last 4 years. A 2010 report indicated that total traffic fatalities in Ireland had fallen 42 percent since 2005 (O’Brien 2010).

RBT vs. SBT. The evidence indicates that RBT is more effective in reducing impaired driving deaths and injuries than SBT, particularly SBT programs, like Canada’s, that rely solely on an officer’s unaided assessment of a driver’s sobriety. As noted, Queensland’s RBT program resulted in a 35 percent reduction in fatal crashes, whereas the previous SBT program, which operated similarly to Canada’s current SBT programs, had resulted in only a 15 percent reduction (Henstridge et al. 1997). Thus, RBT was more than twice as effective as SBT in reducing crashes. In Western Australia, during a 3-month period shortly after RBT replaced SBT, nighttime traffic deaths and injuries fell 23 percent compared to the same period the previous year (Homel 1990b). The comparative data from New Zealand and Ireland, both of which operated SBT prior to introducing RBT, are equally compelling.

Admittedly, some researchers have reported that there were only slight or no significant differences in the efficacy of RBT and SBT programs (Erke et al. 2009; Peek-Asa 1998). However, as the authors of 2 systematic reviews noted, their results must be viewed with caution because the underlying studies assessed single programs and did not directly compare RBT and SBT checkpoints (Elder et al. 2002; Shults et al. 2001). Moreover, the reviews did not examine the additional traffic safety benefits that Queensland, Western Australia, New Zealand, and

Ireland achieved when they replaced their SBT programs with RBT.

Care is also warranted in interpreting these results because the authors do not consistently distinguish between the different types of SBT programs. SBT programs can be divided into 2 major categories. The first, like the existing SBT system in Canada, relies solely on the officer’s unaided assessment of the driver. The second, which operates in some American states, involves the use of passive alcohol sensors or similar technology to assist the officers in identifying drinking drivers. Passive alcohol sensors are small, handheld devices that are used to detect alcohol in the ambient air around a driver’s mouth. A positive result provides the police with grounds to demand further testing.

Not surprisingly, the effectiveness of these 2 types of SBT checkpoints varies substantially. As indicated, the vast majority of drinking drivers with BACs below 0.08 percent and more than half of drivers with BACs above 0.08 percent go undetected at SBT checkpoints that rely on the officer’s unaided assessment (Vingilis et al. 1982; Wells et al. 1997). The use of passive alcohol sensors greatly increases the effectiveness of SBT. For example, one study has found that passive alcohol sensors increase the detection rate of drinking drivers at sobriety checkpoints by about 50 percent (Jones and Lund 1986; Shults et al. 2001). In Virginia, the introduction of passive alcohol sensors at SBT checkpoints resulted in a nearly threefold increase in arrests (Voas 2008).

Because passive alcohol sensors are not used in Canadian SBT programs, reference to the effectiveness of the American SBT programs involving sensors can be misleading. For instance, the above-mentioned systematic reviews included several studies involving SBT checkpoints that used passive alcohol sensors (Elder et al. 2002; Peek-Asa 1998; Shults et al. 2001). Perhaps the most successful and best-known study involved Checkpoint Tennessee, which was credited with a 20.4 percent reduction in alcohol-related crashes (Lacey et al. 1999). By comparison, a recent American study showed that a 3-year SBT program in Maryland that did not use passive alcohol sensors had no impact whatsoever on alcohol-related crashes and injuries (Beck 2009). A further study of that program found that going through that type of SBT checkpoint decreased drivers’ fear of apprehension relative to drivers who merely knew someone who had been stopped (Beck and Moser 2006).

Related Issues

Public support. International experience indicates that RBT enjoys broad public support. In 2002, 98.2 percent of Queensland drivers supported RBT (Watson and Freeman 2007). Similarly, in a 2006 Irish survey, 87 percent of the participants strongly endorsed RBT (Alcohol Action Ireland 2006). Moreover, public support appears to increase significantly after RBT is enacted. Prior to the introduction of RBT in New South Wales, public support stood at 63.8 percent. By mid-1983, 6 months after RBT was introduced, support had increased to 85.3 percent, and by 1987, it stood at 97 percent (Homel 1990b; Kearns et al. 1987). In 1974, two years before RBT was introduced, less

than 50 percent of those surveyed in Victoria approved of it. By 1985, support had grown to 75 percent (Harrison et al. 2003).

There is already broad public support for RBT in Canada and it appears to be rising. In a 2007 survey, 66 percent of Canadians supported legislation authorizing the police to conduct RBT (Ekos Research Associates Inc. 2007). A survey the following year reported virtually identical levels of support among Canadians (Vanlaar et al. 2008). However, an Ipsos Reid survey conducted in 2010 found that 77 percent of Canadians either “strongly” (46%) or “somewhat” (31%) supported the introduction of RBT. When informed of RBT’s potential to reduce impaired driving deaths, 79 percent agreed that RBT is a “reasonable intrusion on drivers.” These high levels of support for RBT reflect the public’s concerns about impaired driving. Ninety-eight percent of respondents considered impaired driving to be a “very important” (81%) or “somewhat important” (17%) public safety issue, and 87 percent thought that more could be done to address the problem (Ipsos Reid 2010).

The cost-effectiveness of RBT. RBT is generally acknowledged to be one of the most cost-effective road safety measures. In 1990, the estimated annual cost of the New South Wales RBT program, including media, was \$3.5 million. At that time, the program was conservatively estimated to save 200 lives per year, with attendant savings of at least \$140 million (Homel 1990a). Based on these figures, the program had a cost–benefit ratio of 1:40. Most of these savings were in the area of health care and resulted from the reduction in fatalities and serious injuries (Zaal 1994). A 2003 European Union study concluded that increasing RBT testing levels to 1 test per 16 inhabitants would save between 2000 and 2500 lives and result in a cost–benefit ratio of 1:36 or 1:55, depending on the model used (European Transport Safety Council 2003). A 2004 World Health Organization study reported that each dollar spent on RBT results in an overall cost savings of \$19 (Peden 2004).

Similarly, a 2004 New Zealand study reported a cost–benefit ratio of 1:14 for RBT alone, 1:19 for RBT coupled with a media campaign, and 1:26 for RBT in conjunction with both a media campaign and “booze buses” (large, specially equipped vehicles used for onsite evidentiary breath testing, which are typically brightly colored or otherwise distinctive to attract the attention of all nearby road users; Miller et al. 2004). The study indicated that the additional costs of publicizing and increasing the visibility of RBT programs is greatly outweighed by savings in health care and other expenses.

SECTION III: POTENTIAL CHARTER CHALLENGES

RBT would invariably be subject to various *Charter* challenges, the most compelling of which would be brought under sections 8 (unreasonable search and seizure), 9 (arbitrary detention), and 10(b) (right to counsel). Though a complete *Charter* analysis cannot be undertaken here, RBT should withstand *Charter* scrutiny. Canadians are routinely subject to random detention and search in their daily lives at airports, when crossing the border, or entering courtrooms and many other government buildings. For example, over 109 million passengers were sub-

ject to random screening and search procedures at Canada’s airports in 2008 (Transport Canada 2009), and an additional 67 million travelers were subject to screening and search at Canada’s borders (Canada Border Services Agency 2009).

The Canadian courts have uniformly upheld these broad and ubiquitous screening and search procedures. For example, in *R. v Simmons* (1988), the Supreme Court of Canada held that random screening and even warrantless strip searching of those entering the country did not violate section 8. Similarly, in *R. v Campanella* (2005), the Ontario Court of Appeal found that the random physical searching of those entering a Hamilton courthouse and the X-ray screening of their belongings did not violate the right to be free from unreasonable search and seizure. The Court stated that the objective of public safety, as well as the need for efficient processing of the roughly 1000 people who pass through the courthouse daily, made it reasonable to conduct warrantless searches of entrants. Given that random searching has been found warranted and justifiable in these circumstances, RBT should be similarly upheld. RBT addresses a far greater safety risk and has proven effective in sharply reducing alcohol-related crash deaths and injuries.

In addition, the Canadian courts have acknowledged that driving is a licensed and heavily regulated activity occurring on public roads (*R. v Pontes* 1995). Drivers expect to be stopped, asked for documentation, and questioned about their licences, vehicles, seat belt use, and sobriety (*R. v Smith* 1996). As the Supreme Court of Canada stated in *R. v Wise* (1992):

For the safety of all, it is essential that drivers be tested before receiving their licence; that RIDE [ie, SBT] programs be instituted to discourage the drinking driver; that the speed of vehicles be supervised and that the mechanical fitness of vehicles be inspected. These inspections and tests and this supervision do not constitute unreasonable breaches of basic civil liberties. Rather, they are common sense rules that exist for the protection of society as a whole. . . .

Society then requires and expects protection from drunken drivers, speeding drivers and dangerous drivers. . . . All this is set out to emphasize that, although there remains an expectation of privacy in automobile travel, it is markedly decreased relative to the expectation of privacy in one’s home or office. (para. 6)

Finally, the Supreme Court of Canada has already upheld the constitutionality of sobriety checkpoints, whether established pursuant to common law or statute. While drivers are stopped at random, arbitrarily detained, and denied the right to counsel at sobriety checkpoints, these infringements of sections 9 and 10(b) have been upheld under section 1 of the *Charter* because of the state interest in promoting highway safety (*R. v Hufsky* 1988). Impaired driving has repeatedly been found to be a “pressing and substantial” concern, and the Supreme Court has recognized the need to process a maximum number of drivers in a minimum amount of time (*R. v Ladouceur* 1990; *R. v Orban-ski*, *R. v Elias* 2005). The introduction of RBT would merely be an extension of these routine and accepted traffic enforcement procedures. As long as RBT is conducted with minimum

inconvenience and delays and is used solely for the roadside screening of drivers, it should be upheld under section 1 of the *Charter* as being demonstrably justified in a free and democratic society.

In summary, given the Canadian courts' acceptance of other random screening and search procedures, drivers' diminished expectation of privacy, RBT's minimal intrusiveness, and its substantial benefits, RBT will likely be upheld under the *Charter*.

CONCLUSION

Canada, which has a relatively modest rate of per capita alcohol consumption, continues to have a poor impaired driving record by international standards. The international experience indicates that the introduction of RBT could have considerable traffic safety benefits. Individual studies, research reviews, and meta-analyses have found that highly visible, intensive RBT programs achieve significant and sustained reductions in impaired driving deaths and injuries, are cost-effective, and enjoy widespread public support. Though they involve some infringement on personal liberty, they cause minor delay and minimum inconvenience. In addition, RBT is compatible with the *Charter of Rights and Freedoms* as interpreted and applied by the Canadian courts.

WACKNOWLEDGMENTS

The authors acknowledge the assistance of Dr. B. Watson, the Centre for Accident Research and Road Safety—Queensland; Dr. R. Homel, Griffith University; the Queensland Police Service; and P. Hogg, Blake, Cassels & Graydon LLP. The authors also thank MADD Canada and the Law Foundation of Ontario for their financial assistance.

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