

The Road Safety Monitor 2003

Drinking and Driving ●



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The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries.

TIRF is a national, independent, charitable road safety institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in a wide range of subject areas related to identifying the causes of road crashes and developing programs and policies to address them effectively.

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The Road Safety Monitor 2003

Drinking and Driving

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Table of Contents —●

Executive Summary	iii
The Road Safety Monitor	1
Rationale	1
Structure	1
Method	3
Drinking and Driving	5
Background	5
Survey Results	7
PUBLIC CONCERN	7
Does the public view drinking and driving as a major social issue?	7
Does the public view drinking and driving as a major road safety issue?	7
Demographic differences	8
Regional differences	8
DRINKING AND DRIVING PRACTICES	9
How many Canadians drive after drinking?	9
Trends: Is the problem getting better or worse?	10
How often do Canadians drive after drinking?	11
Who drives after drinking?	12
Gender	12
Age	13
Other factors	14
Regional differences	14
TAKING ACTION AGAINST DRINKING AND DRIVING	15
Demographic differences	17
Regional differences	18
The BAC limit for drivers	18
Provincial BAC limits	18
Bibliography	21



Executive Summary —●

- ◆ The Road Safety Monitor is an annual public opinion survey by the Traffic Injury Research Foundation (TIRF) that takes the pulse of the nation on key road safety issues by means of a comprehensive telephone survey of a random, representative sample of Canadian drivers.
- ◆ The results from this third edition of the Road Safety Monitor are being released in a series of reports that cover several key issues – the present report focuses on drinking and driving.
- ◆ Results show that drinking and driving is a priority social issue for Canadians and the most important road safety issue they face – 84% believe it is a serious problem.
- ◆ 15.8% of drivers report driving a vehicle within two hours of consuming alcohol in the past 30 days. This represents a slight decrease from the 16.7% and 16.1% who reported doing so in the 2001 and 2002 Road Safety Monitor, respectively.
- ◆ However, this means that an estimated 3.5 million Canadian drivers admit to driving after drinking at some time during the past 30 days.
- ◆ 6.3% of drivers say that they have driven at some time during the past year when they thought they were over the legal limit – a slight but not statistically significant decrease from the 7.9% who reported doing so last year and the 7.3% the year before.
- ◆ This means that in the past year, an estimated 1.4 million Canadians drove when they thought they were impaired.
- ◆ It is estimated that there were over 5.5 million impaired driving trips in the past year. However, 86% of all impaired driving trips are accounted for by just 3% of drivers.
- ◆ Young drivers (age 16 to 18) and older drivers (age 65 and over) are least likely to drive after drinking. Drivers between 25 and 34 are most likely to report driving after drinking.
- ◆ Drivers in Atlantic Canada are least likely to report driving after drinking. Drivers in British Columbia are most likely to report doing so.
- ◆ Canadian drivers support initiatives to deal effectively with drinking and driving including: requiring drivers suspected of drinking to perform sobriety tests, mandatory breath testing of drivers involved in collisions, alcohol ignition interlocks, immediate impoundment of vehicles driven by impaired drivers, a zero blood alcohol concentration (BAC) restriction for convicted offenders, and greater use of police spot checks.
- ◆ Only 6% of drivers could correctly identify the lower alcohol limit which can result in a 12- or 24-hour suspension in their province.



The Road Safety Monitor —●

The Road Safety Monitor is an annual public opinion survey developed by the Traffic Injury Research Foundation (TIRF) to take the pulse of the nation on key road safety issues.

The survey examines:

- ◆ what Canadians see as priority road safety issues and how concerned they are about them;
- ◆ their views about how to deal with these problems;
- ◆ how they behave on the highways; and
- ◆ what they know and don't know about safe driving practices.

Rationale

Information on public knowledge about road safety issues is valuable for determining the specific areas where awareness needs to be heightened and knowledge improved. Information on public attitudes toward road safety and information about driving habits and safety practices is valuable for guiding program development and policy decisions.

Annual monitoring in these areas permits an assessment of changes in knowledge and awareness as well as changes in safety practices and in the level of concern about persisting problems; it also helps identify new and emerging issues.

Structure

The TIRF Road Safety Monitor is designed to assess public opinion, awareness, knowledge, and practices on a broad range of important traffic safety issues. It includes a core set of questions that are asked each year to provide information on trends in



attitudes, opinions and behaviours. This is supplemented by a set of questions that probe more deeply into special, topical, and emerging issues.

Reports from the 2001 and 2002 editions of the Road Safety Monitor can be accessed at: www.trafficinjuryresearch.com/publications. This, the third edition of the TIRF Road Safety Monitor, is being released in a series of reports. A previous one dealt with *Highway/Railway Crossing Safety*. The present report, entitled *Drinking and Driving*, examines attitudes, perceptions, and practices related to driving after the consumption of alcohol.

A forthcoming report will deal with *Commercial Operators and Vehicles*.



Method

This third edition of the TIRF Road Safety Monitor contained 109 items designed to probe the knowledge, attitudes, and concerns of Canadians with respect to a range of road safety issues and to obtain information on their driving practices. The use of a branching format and the procedure of randomly asking a selected number of alternative items allowed the entire survey to be completed in approximately 20 minutes.

The survey was administered by telephone to a random sample of Canadian drivers. Opinion Search Inc. conducted the interviews in May, 2003. Among the 5,642 households contacted in which a person was asked to participate, 3,668 (65%) refused, 70 (1.2%) terminated early, 695 (12.3%) were not qualified, and 1,209 (21.4%) completed the interview.

The data were weighted to ensure the results were representative of the national population. Based on a sample of this size, the results can be considered accurate within 2.8%, 19 times out of 20 (most conservative estimate).

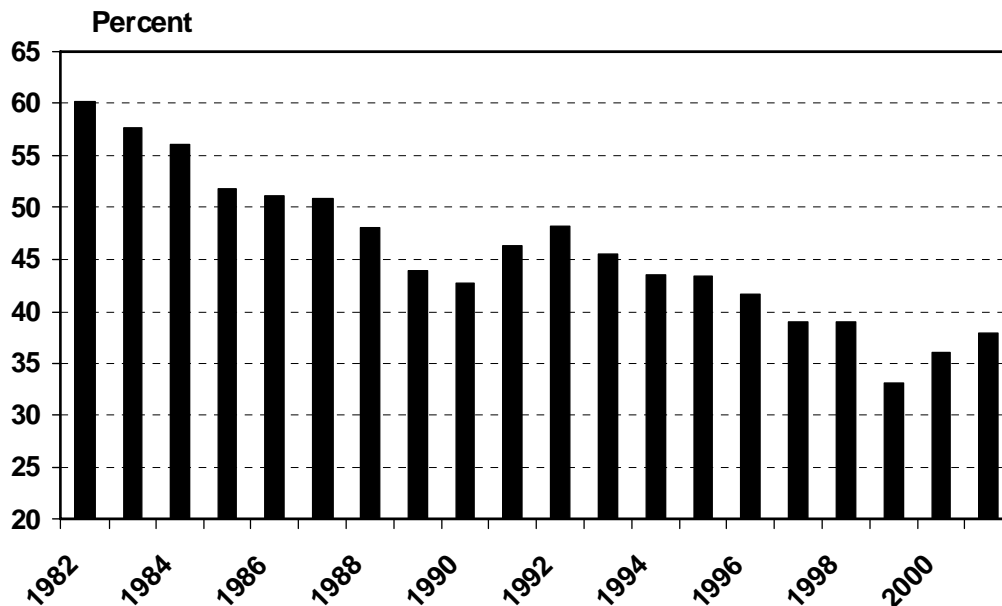


Drinking and Driving

Background

During the 1980s, there was an unprecedented reduction in the magnitude of the alcohol fatal-crash problem in Canada. As illustrated in Figure 1¹, between 1982 and 1990 the percent of fatally injured drivers who had been drinking (i.e., had a positive Blood Alcohol Concentration – BAC) at the time of the crash fell from 60% to 43% -- a 28% decrease! This positive trend was reversed in the early part of the 1990s and it was not until 1993 that the downward trend was re-established, reaching a low of 33% in 1999. However, in the two most recent years for which data are available, the percent of fatally injured drivers who had been drinking rose to 36% in 2000, and 38% in 2001 (Mayhew et al. 2003).

**Figure 1: Fatally Injured Drivers with Positive BACs
Canada: 1982 - 2001**



¹ Data are from the TIRF Fatality Database, which is supported by Transport Canada and the Canadian Council of Motor Transport Administrators.



It is evident that, at least as measured by the data in Figure 1, since 1990, continued reductions in the magnitude of the alcohol crash problem have not been achieved.

Various explanations have been offered for the lack of continued progress and the Road Safety Monitor affords insights into potentially relevant public attitudes, concerns and practices that relate to drinking and driving. Its purpose is to assess:

- the level of public concern about drinking and driving;
- the drinking and driving practices of Canadians; and
- the level of public support for various countermeasure options.



Survey Results —●

PUBLIC CONCERN

Does the public view drinking and driving as a major social issue?

Canadians continue to be very concerned about drinking and driving. In fact, they see it as a major social issue, expressing greater concern about drinking and driving than they do about a variety of other social issues, such as school violence, the state of the health care system, the amount of taxes they pay, SARS, or the threat of a terrorist attack. When asked to rate their level of concern about drinking and driving on a scale from 1 (not at all concerned) to 6 (extremely concerned), 80% of Canadians said they were very concerned or extremely concerned – a relatively small decrease from the 85% who expressed a similar level of concern in last year's Road Safety Monitor. *Drinking and driving remains a priority social issue for Canadians.*

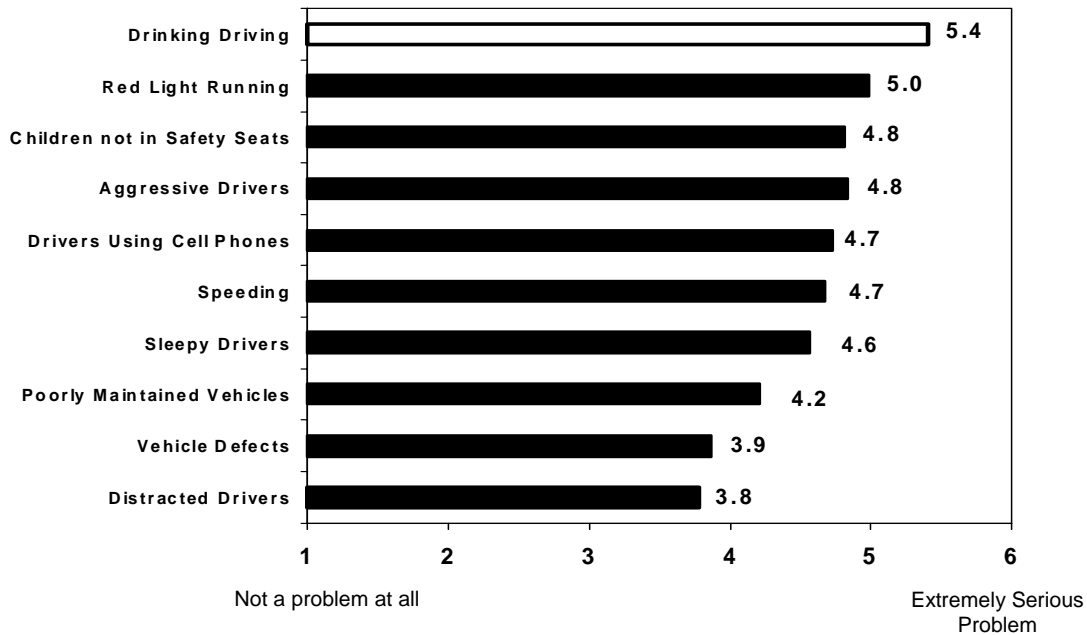
Drinking and driving is still a priority social issue for Canadians.

Does the public view drinking and driving as a major road safety issue?

Canadians believe drinking and driving is the most serious road safety issue facing them today. Figure 2 shows the average ratings of the perceived seriousness of a number of road safety issues – 1 represents “not a problem at all” and 6 represents “an extremely serious problem”. As can be seen, Canadians feel that drinking and driving is the most serious problem, topping the list of a variety of other road safety issues, such as running red lights, aggressive drivers, sleepy drivers, drivers using cell phones, and vehicle defects. Of considerable interest, there has been no change in the ratings between the 2001, 2002, and 2003 Road Safety Monitor – concern over drinking and driving has not diminished.



Figure 2: Perceived Seriousness of Traffic Safety Issues



Demographic differences. Women are more inclined to see drinking and driving as a serious problem – 88% of women, compared to 79% of men, rate drinking and driving as a serious or extremely serious problem². Despite these differences, the vast majority of both men and women believe drinking and driving is an extremely serious problem and this has not changed over the past three years.

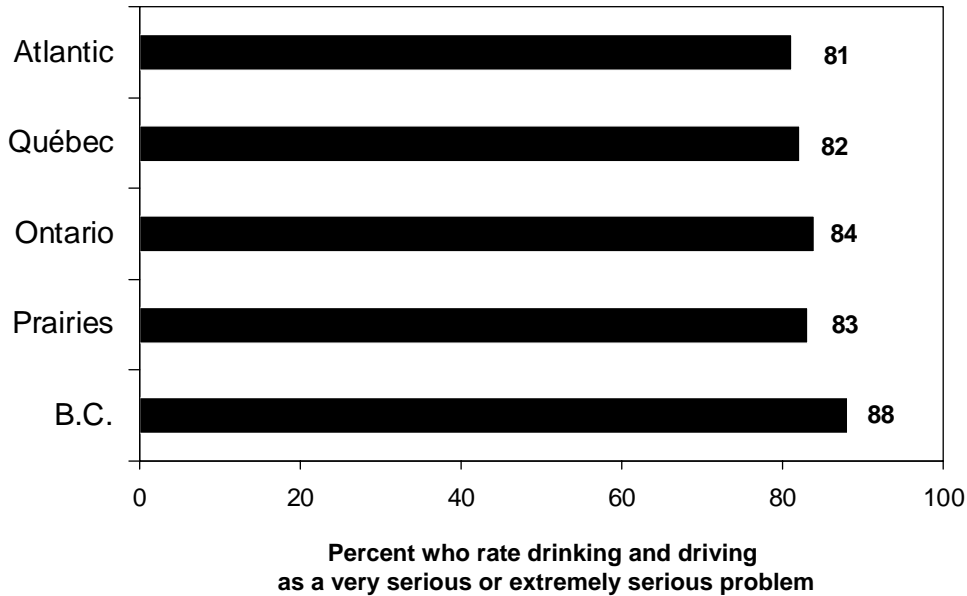
And, over 80% of drivers in all age groups see drinking and driving as an extremely serious problem, so this is not an issue that is relevant to only certain ages.

Regional differences. There is a general consensus in Canada that drinking and driving is a serious problem. Figure 3 shows the percent of drivers in each of five major regions of Canada who rate drinking and driving as a very serious or extremely serious problem. As can be seen, drivers in British Columbia are most likely to view drinking and driving as a very serious or extremely serious problem (88%) and drivers in the Atlantic region are least likely to rate the problem as very or extremely serious (81%). However, Canadians from all parts of the country continue to view drinking and

²In reporting the findings of the survey, unless stated otherwise, only those differences found to be statistically significant ($p < .05$) are presented.

driving as a very serious problem and their views have not changed significantly over the past three years.

Figure 3: Perceived Seriousness of Driving After Drinking According to Region



DRINKING AND DRIVING PRACTICES

How many Canadians drive after drinking?

Most Canadians are extremely concerned about driving after drinking, but some still do it. When asked about their own personal practices, 15.8% of all drivers indicated that they had driven a vehicle within two hours of consuming alcohol sometime during the past 30 days. This is a relatively small proportion of the driving population and certainly can be viewed positively but when applied to the entire population of licensed drivers, it indicates that an estimated *3.5 million Canadians have driven after drinking in the past month*. In these terms, the behaviour continues to be anything but uncommon.

*3.5 million
Canadians drive
after drinking.*



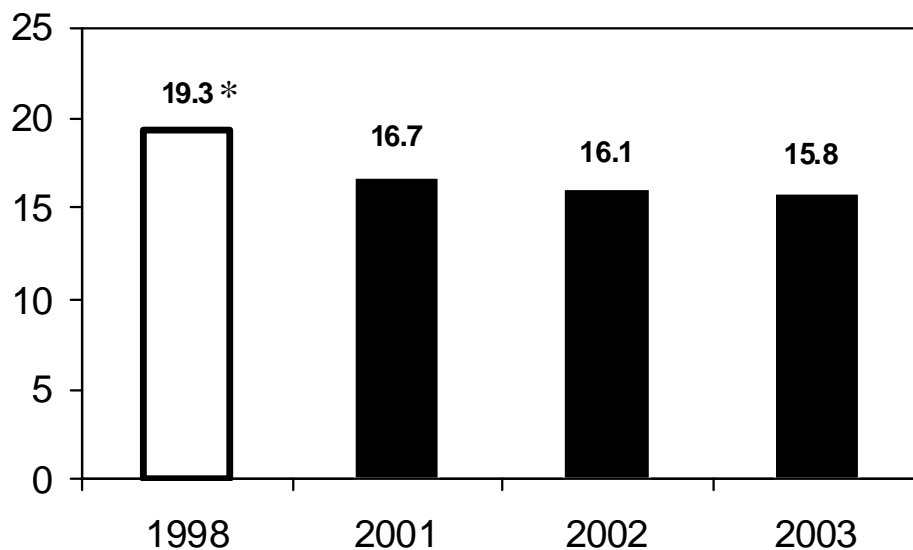
More disconcerting is the fact that 6.3% of all drivers say they have driven at some time during the past year when they were probably over the legal limit. When applied to the population of licensed drivers in Canada, it means that *approximately 1.4 million Canadians drove in the past year when they thought they were over the legal limit!*

1.4 million Canadians drove in the past year when they thought they were over the legal limit.

Trends: Is the problem getting better or worse?

This is the third consecutive year in which the Road Safety Monitor has examined drinking and driving and impaired driving behaviour among Canadians. Figure 4 shows the percent of Canadians who reported driving within two hours of consuming alcohol in the past 30 days in each year from 2001 to 2003. Also included is the percent of drinking drivers identified in the National Opinion Poll on Drinking and Driving – a precursor to the Road Safety Monitor -- conducted in 1998 (Simpson et al. 1999). As can be seen, the percent of respondents who reported driving within two hours of consuming alcohol in the past 30 days has declined over the five-year period.

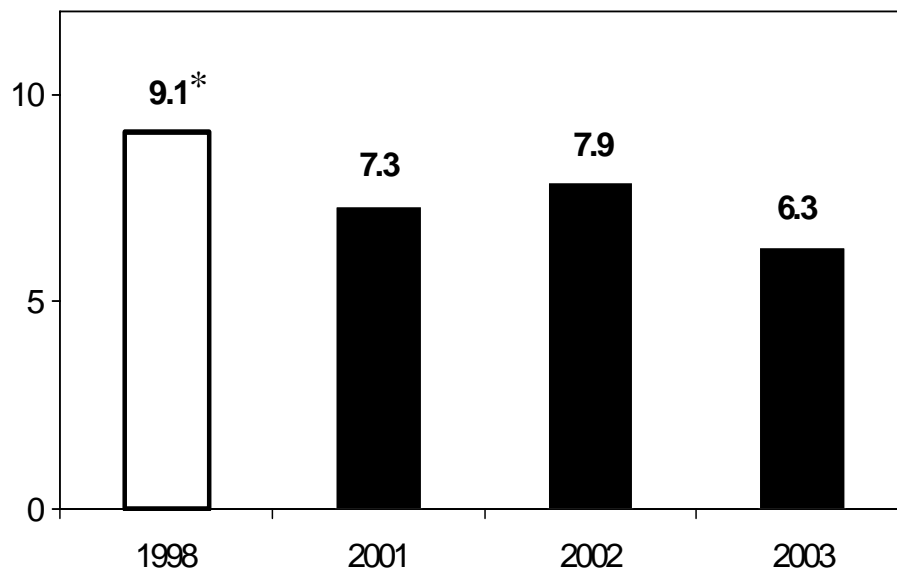
Figure 4: Percent Who Report Driving Within Two Hours of Drinking



* Includes only drivers 18 years and over

The percent of Canadians who reported driving when they thought they were over the legal limit in the previous 12 months is shown for each year of the Road Safety Monitor in Figure 5. As in the previous figure, data from the National Opinion Poll on Drinking and Driving are also included. Although there is some variability from year to year, the overall pattern also suggests a downward trend.

Figure 5: Percent Who Report Driving While Impaired



* Includes only drivers 18 years and over

How often do Canadians drive after drinking?

Although 16% of Canadians admit to driving after drinking, most do so infrequently. Among those respondents who say they have driven within two hours of drinking, three quarters said they had done so only once or twice in the previous month. Less than 15% said they had done so more than four times.

Among those respondents who admit that during the past year they drove when they thought they were over the legal limit, 50% said they had done it only once; 21% said they had done it four or more times. Using the reported frequency of the behaviour, it can be estimated that in the

There were over 5.5 million "impaired" driving trips in the past year.

past year *there were over 5.5 million trips during which people drove when they thought they had too much to drink.*

Despite the considerable prevalence of the behaviour, a small minority of drivers accounts for most of the “impaired driving”. Indeed, *86% of all the “impaired” driving trips are accounted for by only 3% of licensed drivers.*

86% of all “impaired” driving trips are accounted for by only 3% of drivers.

This latter finding is consistent with a large body of research which has consistently shown that a small minority of individuals accounts for most of the impaired driving and most of the resultant damage on the road (Beirness et al. 1997; Simpson and Mayhew 1991; Simpson et al. 1996; Sweedler 1995).

In summary:

- 1.4 million Canadians drove when they thought they were over the legal limit.
- there were more than 5.5 million such trips in the past year.
- 86% of impaired driving trips are accounted for by only 3% of licensed drivers.

Who drives after drinking?

Gender. Men continue to be considerably more likely than women to drive after drinking and to drive when they thought they were over the legal limit. The percent of men who report driving after drinking in 2003 (23.6%) was virtually unchanged from that reported in previous editions of the Road Safety Monitor. The percent of women who report driving after drinking (8.8%) in 2003 represents a small (but not statistically significant) increase from the 7.4% who reported doing so last year but was lower than the 9.9% reported in 2001.

The prevalence of driving when over the limit among men has decreased steadily (although not significantly so) since 2001. In 2003, 9.4% of men reported driving while impaired. This compares with 10.9% in 2002 and 12.2% in 2001. Impaired driving among women, however, has been somewhat more variable. Last year, the percent of women who reported driving when they thought they were over the legal limit increased

Men remain more than twice as likely as women to drive while impaired.



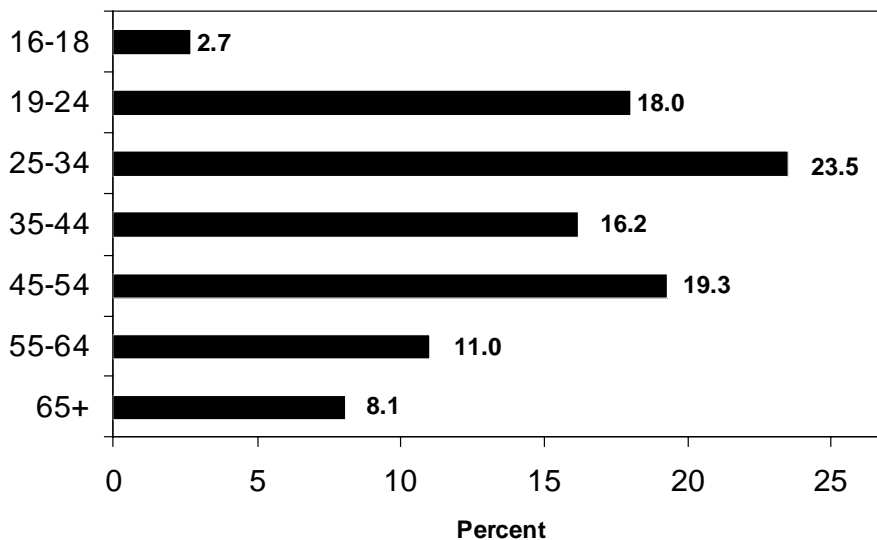
significantly to 5.2% from 2.8% in 2001. In 2003, this decreased slightly to 3.5%. Nevertheless, men continue to be more than twice as likely as women to drive while impaired.

Age. Figure 6 shows the percent of drivers in seven age groups who report driving within two hours of consuming alcohol. Despite the perception that driving after drinking is a common behaviour among young drivers, less than 3% of drivers between 16 and 18 years of age report driving after drinking. However, this is not to suggest that drinking and driving by young people should not be a concern; research has shown that those young people who do drink and drive are at elevated risk of collision, even at low BACs (Mayhew et al. 1986; Zador 1991).

Drivers age 25 to 34 are most likely to report driving after drinking (23.5%) followed by those age 45 to 54 (19.3%) and those age 19 to 24 (18.0%). These data indicate that drinking and driving spans all age groups but is least frequent among the oldest and youngest age groups of drivers.

Drivers age 25 to 34 are most likely to drive after drinking

Figure 6: Driving After Drinking According to Age Group

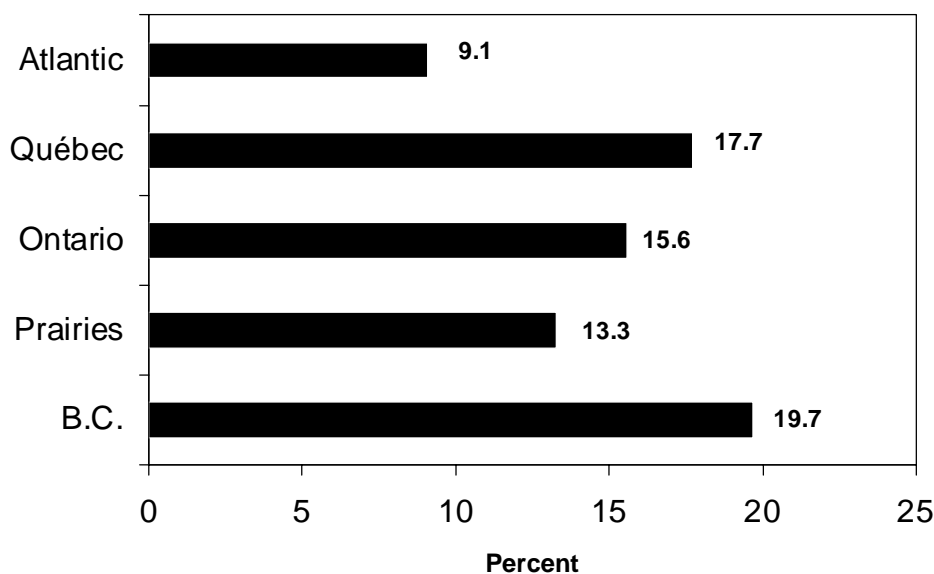


Other factors. Drivers in urban areas are no more likely than rural drivers to report driving after drinking (15.9% and 15.3%, respectively) or driving when they are over the legal BAC limit (6.0% and 7.0%, respectively).

As might be expected, those who report driving after drinking report drinking more frequently and consuming larger quantities of alcohol when they do drink. In addition, drinking drivers are more likely to have received a traffic ticket, to be single, separated or divorced, and to have driven more kilometres in the past month.

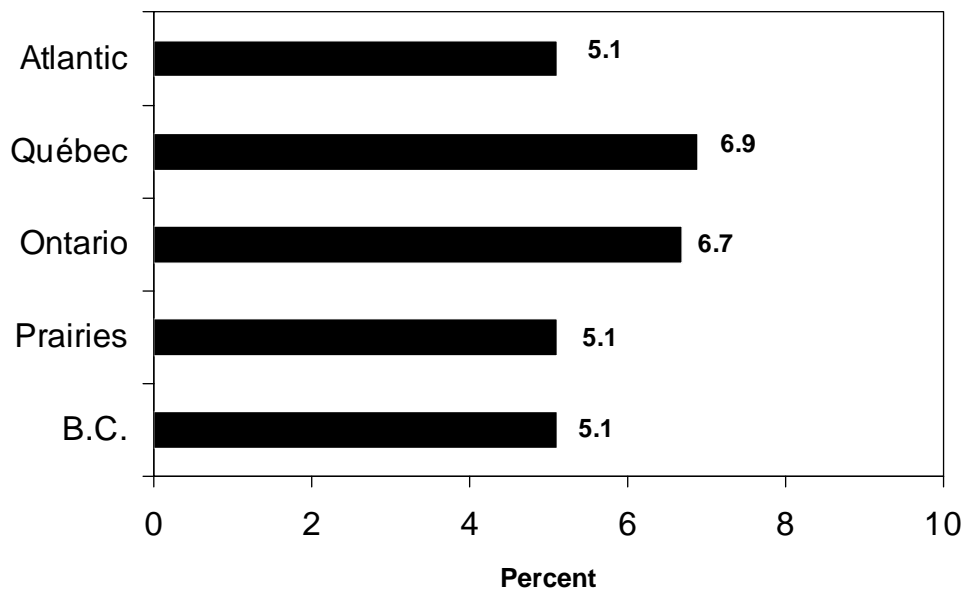
Regional differences. Although drinking and driving is a nation-wide problem, the prevalence of the behaviour varies somewhat according to region. Figure 7 shows the percent of drivers, in five major regions of Canada, who report driving within two hours of consuming alcohol in the past 30 days. Drivers in the Atlantic region are least likely to report driving after drinking (9.1%). The highest rate of drinking and driving is reported by drivers in British Columbia (19.7%). The overall regional prevalence of drinking and driving, however, has not changed significantly over the three years of the Road Safety Monitor.

Figure 7: Self-reported Driving After Drinking According to Region



The prevalence of “impaired driving” varies less across the country. Figure 8 displays the percent of drivers, in the five major regions of Canada, who report having driven when they thought they were over the legal limit at some point in the past 12 months. Although the behaviour is most often reported by drivers in Quebec (6.9%) and Ontario (6.7%), the differences are not statistically significant. No region showed a significant change in the percent of impaired drivers over the three years of the survey.

Figure 8: Self-reported Impaired Driving According to Region

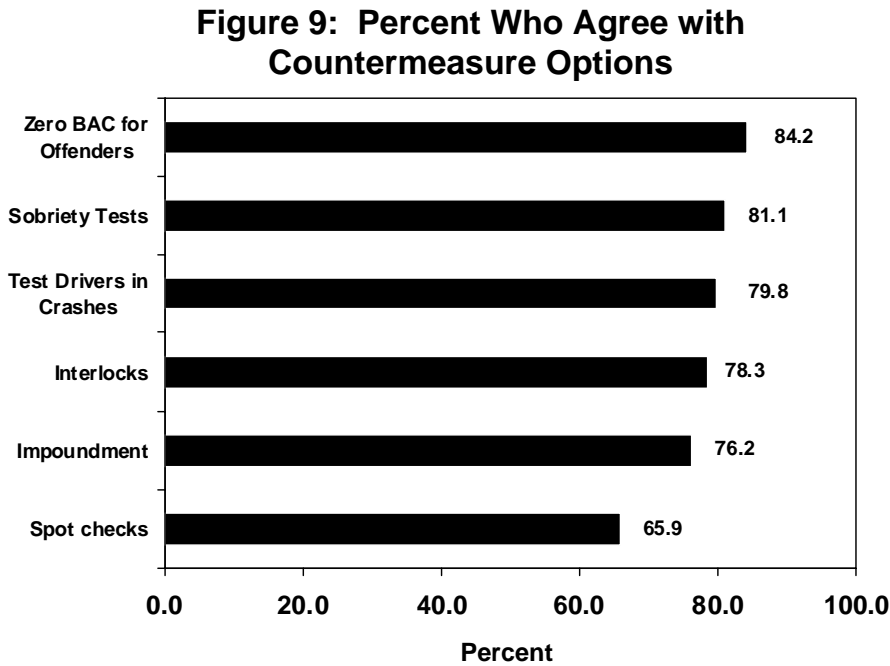


TAKING ACTION AGAINST DRINKING AND DRIVING

Survey respondents were asked to indicate, on a scale of 1 (strongly disagree) to 6 (strongly agree), the extent to which they support a number of approaches to deal with drinking and driving. They were asked to indicate their level of support for six different tactics for dealing with drinking and driving – more police spot checks, immediate impoundment of the vehicles of drivers who fail a breath test, alcohol ignition interlocks for those convicted of a drinking and driving offence, mandatory breath alcohol tests for all drivers involved in serious collisions, requiring drivers suspected of being under the influence of alcohol to perform tests of physical coordination (i.e., sobriety tests), and



restricting convicted offenders to a zero BAC limit when they get their licences back. The results are shown in Figure 9.



Police spot checks have become a stable feature of enforcement efforts to deal with the drinking and driving problem. Interestingly, although most Canadians are familiar with police spot checks, and two-thirds of drivers agree that the police should conduct more spot checks for drinking drivers, this option received the lowest level of support among the six countermeasures considered.

Two measures – restricting convicted drinking drivers to a zero BAC after they have completed their licence suspension, and requiring sobriety tests of drivers suspected of drinking – both received the support of at least 80% of drivers. Alcohol ignition interlocks for convicted drinking drivers, mandatory blood or breath test for drivers involved in collisions, and immediate impoundment of drinking drivers’ vehicles were supported by over 75% of drivers.

The pattern of results suggests that Canadian drivers express greater support for countermeasure options intended to have an impact on those who are suspected of, arrested for, or convicted of an impaired driving offence, rather than measures that could affect all drivers. Measures such as zero BAC for convicted offenders, interlocks,

immediate vehicle impoundment, and sobriety tests apply directly to those who are at least suspected of impaired driving but have no impact at all on other road users. More frequent spot checks, however, increase the probability of even non-drinking drivers being stopped and questioned by the police.

There has been no change in the overall level of support for any of the various countermeasure options over the three years the Road Safety Monitor has been conducted.

Demographic differences. Support for the various countermeasure options differs according to the characteristics of drivers. In particular, support for all six measures is strongest among women and drivers 55 years of age and over. Canadians who report driving less are also more supportive of the various countermeasures. Not surprisingly, drinking drivers and those who have been issued a traffic ticket in the past twelve months are somewhat less supportive of the various countermeasure options.

Regional differences. Canadians from different regions of the country vary in their level of support for different tactics to deal with the drinking-driving problem. For example, drivers in the Atlantic provinces and Quebec are most supportive of the police doing more spot checks for drinking drivers – 77% and 74%, respectively, agree or strongly agree with more spot checks. Drivers in British Columbia and the Atlantic provinces were most supportive of requiring drivers suspected of being under the influence of alcohol to submit to tests of physical coordination -- 87% and 84% agree or strongly agree, respectively.

Drivers in British Columbia express the lowest level of support for alcohol ignition interlock programs (69% agree or strongly agree) whereas those in the Atlantic region express the highest level of support (85% agree or strongly agree). Interestingly, these are the only two regions of Canada without an interlock program³.

³ Newfoundland and Labrador implemented an ignition interlock program on August 1, 2003, after the survey was completed.



The BAC limit for drivers

In Canada, the maximum allowable BAC for drivers specified in the *Criminal Code* is 80 mg of alcohol per 100 ml of blood (80 mg/dl or .08%). Most provinces also have a lower limit (between 40 mg/dl and 50 mg/dl) that is used by police officers to issue immediate short-term suspensions (12 or 24 hours) at the side of the road. Periodically over the past two decades, the issue of lowering the BAC limit for drivers in the *Criminal Code* from its current level of 80 mg/dl to 50 mg/dl has been raised as a countermeasure option. The discussion has focussed on the limit stipulated in the *Criminal Code*, because lower limits already exist in most regions of Canada.

Respondents to the Road Safety Monitor were asked whether the current blood alcohol limit of 80 mg/dl was appropriate. Just over two-thirds (68%) of drivers agree with this limit. Of the one-third who think it is not appropriate, 80% believe it should be lower; 20% believe it should be higher. In total, this means that *only about one-quarter (i.e., 80% of 32%) of Canadian drivers believe the current BAC limit of 80 mg/dl in the Criminal Code should be lower.*

In this context, the National Opinion Poll on Drinking and Driving conducted in 1998 asked the same question and found that 63% of Canadians thought the current criminal BAC limit was appropriate. Of the 37% who disagreed, 73% thought it should be lower - - about 27% overall (73% of 37%). This is virtually identical to the result from the national survey on drinking and driving conducted ten years earlier by Health and Welfare Canada and Transport Canada (1992). At that time, 63% of respondents thought 80 mg/dl was an appropriate legal BAC limit. Of those who disagreed, 72% thought it should be lower; 26% thought it should be higher.

Provincial BAC limits. As stated previously, all provinces and territories in Canada (with the exception of Quebec) enforce a BAC limit for drivers that is lower than the 80 mg/dl in the *Criminal Code* (i.e., 50 or 40 mg/dl). The police can issue an immediate 12- or 24-hour licence suspension for drivers who exceed this lower limit. Some jurisdictions require drivers who have received multiple such suspensions to attend an alcohol screening/rehabilitation program.



Unfortunately, public awareness of these lower provincial BAC limits is not widespread. In provinces that enforce a lower BAC limit (i.e., all but Quebec), just under half of all respondents indicated there was a lower alcohol limit in their province at which drivers could receive a 12 or 24-hour suspension. Of these, only 12% could correctly identify what the lower limit was. Overall, this indicates that only 6% of drivers in provinces with lower BAC limits knew what the limit was. Clearly, if these laws are to have an impact on drinking and driving, there is a need to ensure that drivers have a level of awareness and knowledge about the law that will influence their behaviour.



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