Drinking and Driving in Canada

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1.0 Introduction

Questionnaire-based surveys provide critical information concerning the drinking and driving behaviour of the general population of road users. These surveys also provide useful information regarding differences between drinking and non-drinking motorists. This paper describes key findings from a National Survey on Drinking and Driving, sponsored by Health and Welfare Canada, and conducted on its behalf by Statistics Canada in March 1988. The major report on which this paper is based provides more detailed information on survey results (Simpson, Mayhew and Beirness 1992).

2.0 Study Method

The National Survey on Drinking and Driving was a telephone survey of almost 10,000 Canadians between 16 and 69 years of age, making it the largest and most comprehensive ever conducted on Canadians' attitudes towards drinking and driving, and their practices and prevention tactics.

The survey used random-digit dialing techniques to contact households across the country -- the sample included about 1,000 respondents in each of the 10 provinces.

3.0 Results

Findings from the survey showed that both the operation of a motor vehicle and the consumption of alcohol are common practices -- the majority of Canadians (85%) reported having driven a motor vehicle at some time in the past three years and the majority (79%) reported that they had a drink sometime in the past year. Given the prevalence of these two behaviours, it should not be surprising to find that the practices overlap -- the survey showed that 17.2% of all respondents indicated that in the past 12 months they had driven a motor vehicle after consuming two or more drinks in the previous hour. When this statistic is applied to the absolute number of individuals in Canada, it means that an estimated three million adult Canadians were drinking drivers during the past year.

1056
If the analyses are limited only to those who are theoretically at risk -- namely, those who both consume alcohol and operate a vehicle -- the extent of the problem is shown to be even greater. The Survey revealed that in the past year 24.6% of respondents had driven after consuming two or more drinks in the previous hour. This finding indicates that drinking and driving is decidedly common. Nearly one-quarter of those Canadians who operate a motor vehicle and consume alcohol have been a drinking driver in the past year.

3.1 How Often Do Canadians Drive after Drinking?

To provide some indication of recent behaviour, respondents who reported driving after drinking on some occasion during the past year were also asked how many times they had driven after drinking in the past 30 days. Sixty-five percent said they had been a drinking driver in the past month; 54.3% reported they had done so on one to three occasions in the past month; and 11.3% reported driving after drinking four or more times in the month prior to the survey.

On the basis of the reported frequency of driving after drinking, it can be estimated that some 4.5 million impaired-driving trips occurred in the month prior to the survey. While the frequency of the behaviour is considerable, a substantial proportion of it is accounted for by a small proportion of the population. Fifty-five percent of the impaired-driving trips were accounted for by about 11% of the drinking drivers.

Such findings underscore the importance of identifying the characteristics of this particular group and of focussed prevention programs that target the small segment of the population that engages in the behaviour most often.

3.2 Who Drives after Drinking?

Among those most at risk (i.e., those who both consume alcohol and operate a vehicle), men are 2.5 times more likely than women to be a drinking driver -- 33.6% of men reported driving after having two or more drinks in the previous hour, compared to only 13.4% of women. Men also tend to drink and drive more frequently than women -- for example, 12.6% of males who drove after drinking reported having done so four or more times in the past month, compared to only 6.6% of female drinking drivers. Of those who reported driving after drinking, 75.5% were men; among those who do not drink and drive, about half (48.6%) were men.

The age distribution of those who drink and drive is also different from that of non-drinking drivers. Figure 1 shows the percentage of drinking and non-drinking drivers separated for seven different age categories. As can be seen, non-drinking drivers are more common among the older age categories, particularly from age 45 onward. By
contrast, over one-third (35%) of all self-reported drinking drivers are between the ages of 25 and 34; a further 21% are 35 to 44 years old; and 20% are between the ages of 20 and 24. In total, some 76% of all drinking drivers are between the ages of 20 and 44.

Figure 1
Age of Drinking and Non-drinking Drivers

Other findings from the survey show drinking drivers are more likely than non-drinking drivers to be single (37.2% compared to 23.7%) and less likely to be married (55.6% compared to 67.4%). Eighty-one percent of drinking drivers are currently working; 10% are students. By contrast, only 67.5% of non-drinking drivers are currently employed.

Seventy-three percent of drinking drivers report having completed at least high school; 23% completed college or university. Forty-six percent have a family income of more than $40,000 per year. There are no apparent differences between drinking and non-drinking drivers in education levels or income.

3.3 Driving Patterns

The results of the survey suggest that those who drive after drinking tend to be at risk of collision more often than non-drinking drivers because of their greater exposure. For example, more than three-quarters (77%) of drinking drivers reported driving every day, compared to 66% of non-drinking drivers. Given that drinking drivers report driving more frequently, it is perhaps not surprising that they also report driving more
kilometers per year than non-drinking drivers (Figure 2). Twenty-two percent of drinking drivers reported travelling more than 32,000 km in the past 12 months, compared to only 14% of non-drinking drivers. Non-drinking drivers were twice as likely as drinking drivers to drive 8,000 km per year or less (37% compared to 18%).

Thus, in terms of both the frequency of travel and the total distance travelled each year, drinking drivers have an exposure pattern that is different from non-drinking drivers. Drinking drivers may, therefore, be at greater risk of collision -- whether or not they are drinking -- because they drive more.

Drinking drivers also have a comparatively high incidence of traffic tickets, licence suspensions, and crashes. Almost half (48%) of drinking drivers have received a traffic citation in the past three years, compared to only 24% of non-drinking drivers. Licence suspensions were reported infrequently -- five percent of drinking drivers had their driver's licence suspended, while only two percent of non-drinking drivers lost their licence. Drinking drivers were also more likely than non-drinking drivers to have been involved in a traffic crash in the past three years (29% compared to 21%).

Non-drinking drivers are considerably more likely than drinking drivers to wear their seat belt all the time (77% compared to 57%). Drinking drivers tend to be irregular in their use of seat belts and 10% report never using them. Less than 5% of non-drinking drivers never use seat belts.
3.4 Drinking Patterns

Not surprisingly, one of the most prominent characteristics that distinguishes drinking from non-drinking drivers is their pattern of alcohol consumption. For example, drinking drivers consume alcohol more often than non-drinking drivers (Figure 3). About three-quarters of drinking drivers drink once per week or more, compared to less than half of non-drinking drivers. It is interesting to note as well that daily drinkers do not comprise a large proportion of either the drinking or non-drinking drivers. Only 6.3% of the drinking drivers consume alcohol on a daily basis; 4.4% of non-drinking drivers consume alcohol every day. The greatest proportion of drinking drivers report consuming alcohol one to three times weekly. Non-drinking drivers were most likely to report drinking once or twice per month or less.

![Figure 3
Drinking Frequency of Drinking and Non-drinking Drivers](image)

Not only do drinking drivers consume alcohol more often than non-drinking drivers, they also drink greater quantities. In the week preceding the survey, drinking drivers reported having an average of 8.9 drinks, compared to the 3.8 consumed by non-drinking drivers. Of the 68% of drinking drivers who reported drinking on the Saturday prior to the survey, the average number of drinks consumed was 4.8, compared to an average of 2.9 drinks for non-drinking drivers who were also drinking that day.

Drinking drivers and non-drinking drivers can also be differentiated in terms of self-reported drinking problems. Thirty percent of drinking drivers reported that they had...
sometimes or often thought that they should cut down on their drinking -- 28% stated that they actually tried to do so. In contrast, only 11% of non-drinking drivers thought they should cut down and the same proportion had actually tried to do so. Drinking drivers were about three times as likely as non-drinking drivers to "feel bad or guilty" about their drinking (13% compared to 4%). These findings suggest that there are opportunities for intervention, given that a substantial proportion of the drinking drivers indicated concern about their drinking and that they had already attempted to control it.

4.0 Discussion

The National Survey on Drinking and Driving contains timely and useful information on the drinking and driving behaviour of Canadians. The results indicate that many Canadians engage in this behaviour -- among those at risk (people who operate a motor vehicle and consume alcohol), a substantial proportion (24%) drive after drinking.

The survey results also show that drinking drivers differ from non-drinking drivers with respect to both driving and drinking practices. For example, there is evidence that drinking drivers take more risks not only because they drive after consuming alcohol, but because of their driving practices. Drinking drivers drive more than non-drinking drivers, are more likely to receive traffic tickets, become involved in collisions more often, and are less likely to use their safety belts. Drinking drivers also appear to have more problems with alcohol -- they drink more often, consume greater quantities of alcohol, and report that they should cut down on their drinking.

Such findings suggest that prevention programs should not focus exclusively on driving after drinking, but must also consider separate means for changing driving behaviour and drinking behaviour.

5.0 References