Research letter

Changing drinking-and-driving behaviour: the effects of Ontario's administrative driver's licence suspension law

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In response to calls from many groups, including the Canadian Medical Association¹ and the Ontario Medical Association,² for legislative action to curb drunk driving, the Ontario government introduced an administrative driver's licence suspension law,³ which came into effect on Nov. 29, 1996. Before the implementation of this law, a driver in Ontario who was charged with driving a motor vehicle when his or her blood alcohol level was above the legal limit could have had his or her licence suspended for 12 hours at the time the charge was laid. Under the new law, if a driver is charged with refusing to provide a breath sample or driving with a blood alcohol level over 80 mg%, his or her driver's licence is suspended by the Registrar of Motor Vehicles, for a period of 90 days, at the time the charge is laid.

Administrative suspension laws such as this one have

been introduced in 7 Canadian provinces and territories and are being considered in several others. They can have important specific and general deterrent effects in reducing alcohol-related collisions, these effects depending on public awareness of the laws.⁴⁻⁹ Information about the new Ontario law was spread through a series of press releases and media events. Anecdotal evidence suggests that excellent media coverage was achieved throughout the month of December 1996 and later, although media attention appeared to drop off in January 1997 and afterward.

We report here on public awareness of Ontario's administrative suspension law and its impact on self-reported drinking-and-driving behaviour. The data were obtained from the 1996 and 1997 cycles of the *Ontario Drug Monitor* survey of Ontario adults. ^{10,11} The total unweighted sample of adults 18 years of age and over was 2721 in 1996 and

Table 1: Self-reported drinking-and-driving behaviour and knowledge of sanctions before and after implementation of the administrative driver's licence suspension (ADLS) law

| Question† | % of respondents (and total sample size)* | | | |
|---|---|--------|------------|--------|
| | Before ADLS | | After ADLS | |
| Self-reported drinking-and-driving behaviour | | | | |
| Within the past 12 months, drove after drinking 2 or more drinks in the previous hour (among drivers who were drinkers) | 15.8 | (1657) | 12.7‡ | (2151) |
| Within the past 30 days, drove after drinking 2 or more drinks in the previous hour (among drivers who were drinkers) | 8.5 | (1656) | 5.5§ | (2150) |
| Knowledge of sanctions for driving with blood alcohol level > 80 mg% | | | | |
| Agree that nothing would happen | 18.2 | (1098) | 16.6 | (1347) |
| Agree that driver's licence would be suspended for 12 hours¶ | 75.7 | (1109) | 64.6§ | (1399) |
| Agree that driver would be fined \$100 | 37.0 | (964) | 38.0 | (1228) |
| Agree that driver's licence would be suspended for 90 days** | 51.8 | (1014) | 76.0§ | (1322) |
| Agree that driver would spend 48 hours in jail | 27.7 | (1048) | 32.1‡ | (1235) |

^{*}The sample size indicates the number of people who provided a response for the given question.

**The sanction in effect after implementation of the ADLS law.

[†]The drinking-and-driving questions were administered throughout 1996 and 1997. The knowledge questions were administered between April and July 1996 (before implementation of the new legislation) and between December 1996 and June 1997 (after implementation). For the knowledge questions, respondents were asked to agree or disagree with each of the five options. ‡Significantly different (p < 0.05) from the measure obtained before implementation of the ADLS law, according to logistic regressions

 $[\]pm$ Significantly different (p < 0.05) from the measure obtained before implementation of the ADLS law, according to logistic regressions controlling for drinking level (top 25% v. bottom 75%), age, sex and region.

SSignificantly different (*p* < 0.001) from the measure obtained before implementation of the ADLS law, according to logistic regressions controlling for drinking level (top 25% v. bottom 75%), age, sex and region.

The sanction in effect before implementation of the ADLS law, and which remained in effect after the law was introduced.

2776 in 1997, and the response rates were 64% and 67% for the 2 years respectively. The responses were weighted to account for nonresponse and sampling probability related to stratification to reflect a representative sample of Ontario adults. The survey contained 2 questions assessing self-reported driving after drinking and 5 questions assessing knowledge of potential consequences for a driver charged with driving with a blood alcohol level over the legal limit of 80 mg% (Table 1).

A comparison of the responses before and after the introduction of the administrative suspension law (Table 1) indicates that public awareness improved. Before implementation, 51.8% of the respondents mistakenly thought that the sanction for driving with a blood alcohol level of more than 80 mg% was a 90-day suspension of the driver's licence. After implementation, 76.0% correctly identified this sanction, which suggested an increased level of awareness. The fact that after the implementation of the administrative suspension law 32.1% of the respondents mistakenly believed that the driver would spend 48 hours in jail indicates a further need for public education.

It is encouraging that the proportion of drinkers who reported driving after drinking decreased significantly after implementation of the administrative suspension law. The prevalence of self-reported driving after drinking 2 or more drinks in the previous hour (for the preceding 30 days) dropped by about 35% after the introduction of the administrative suspension law. These reductions remained significant after we controlled for demographic and background variables.

These are important early indications of the impact of Ontario's administrative driver's licence suspension law in reducing drinking and driving. A reduction in drinking-and-driving behaviour of the magnitude suggested here would be predicted to have a significant impact on alcohol-related crashes, and it will thus be important to examine data concerning such crashes when they become available.

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References

- Canadian Medical Association. Substance abuse and driving: a CMA review. Ottawa: The Association; 1989.
- Ontario Medical Association. An OMA position paper on drinking and driving. Toronto: The Association; 1994.
- 3. Highway Traffic Act RSO 1990, c H.8, s 48.3, as amended by SO 1996, c 20.
- Mann RE, Vingilis ER, Gavin D, Adlaf E, Anglin L. Sentence severity and the drinking driver: relationships with traffic safety outcome. *Accid Anal Prev* 1991;23:483-91.
- Homel R. Random breath testing and random stopping programs in Australia. In: Wilson RJ, Mann RE, editors. Drinking and driving: advances in research and prevention. New York: Guilford Press; 1990. p. 159-202.
- Vingilis ER. A new look at deterrence. In: Wilson RJ, Mann RE, editors. *Drinking and driving: advances in research and prevention*. New York: Guilford Press; 1990. p. 99-115.
- Vingilis E, Blefgen H, Lei H, Sykora K, Mann RE. An evaluation of the deterrent impact of Ontario's 12-hour licence suspension law. Accid Anal Prev 1988:20:9-17.
- Mann RE, Macdonald S, Stoduto G, Shaikh A, Bondy S. Assessing the potential impact of lowering the legal blood alcohol limit to 50 mg% in Canada. Ottawa: Transport Canada; 1998. Publ no. TR 13321 E.
- Beirness DJ, Simpson HM, Mayhew DR, Jonah B. The impact of administrative licence suspension and vehicle impoundment for DWI in Manitoba. In: Mercier-Guyon C, editor. Alcohol, drugs and traffic safety T'97. Annecy, France: Centre d'études et de recherche en médicin du traffic; 1997. p. 919-25.
- Adlaf E, Ivis F, Bondy S, Rehm J, Room R, Walsh G. Ontario drug monitor, 1996: technical guide. No. 132 of Addiction Research Foundation research document series. Toronto: Addiction Research Foundation; 1997.
- Adlaf E, Ivis F, Ialomiteanu A, Bondy S, Rehm J, Room R, et al. Ontario drug monitor, 1997: technical guide. No. 140 of Addiction Research Foundation research document series. Toronto: Addiction Research Foundation; 1998.

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