

Preventing impaired driving around the world: lessons learned

The last two decades have brought dramatic progress in reducing alcohol related crashes in most of the developed world. Declines have occurred in Canada, Australia, New Zealand, most Western European countries and in the United States. The United States has seen declines both in the number of alcohol related traffic fatalities and in the proportion of traffic fatalities that are alcohol related. Many different factors have contributed to the progress we have seen and certainly different factors have been predominant in different countries. Articles in this issue of the journal provide information on some of the activities in the United States and Canada.

In the United States, we tend to assume that we are the center of the universe and that almost anything of significance is invented here. Prevention of impaired driving, however, is one area where we acknowledge our debt to other countries that have pioneered many of the most effective prevention strategies. For example, the United States drew valuable lessons regarding deterrence from analyzing the results of the British Road Safety Act of 1967. Similarly, we have learned about alcohol policy and serious enforcement and penalties from some of the Scandinavian countries. The Australian experience with random breath testing has influenced some of our own enforcement efforts.

The US National Highway Traffic Safety Administration recently sponsored a systematic effort to gather information about impaired driving laws from countries around the world. The intent of this effort is to contribute to our understanding of impaired driving countermeasures and of how the current situation in the United States compares to other countries. The project also includes an analysis of alcohol involvement in fatal traffic crashes in countries around the world and the relevant regulations, definitions, and procedures used to measure and report alcohol involvement.

The primary purpose of this project is to provide comparisons with the United States, and therefore possible guidance in the development and implementation of impaired driving policies in this country. Therefore, the main focus of data collection is on countries that would be considered most directly comparable to the United States economically and demographically. The key comparison countries include members of the European Union, other Western European countries, Canada, Australia, and New Zealand.

The results of this study, which is still ongoing, indicate how much we have shared from country to country in improving the laws, policies, and practices related to impaired driving. The study also indicates some of the major differences in approach that remain. Some highlights of the findings thus far are summarized below.

Illegal blood alcohol content

All countries included in the study have established a blood alcohol content (BAC) that is considered either per se or pre-emptive evidence of impairment. All of the countries studied had a BAC level lower than that established in most of the United States (0.10%). As indicated in the article in

this issue by Hingson *et al* (p 109), a lower BAC in all states in the United States could save hundreds of lives each year.

The lowest illegal BAC level is in Sweden (0.02%). The majority of countries have established 0.05% as the illegal BAC, with the remaining countries maintaining an illegal level of 0.08%. The trend has been downward in recent years, with several countries having reduced the illegal BAC level within the past five years or with new lower limits about to be implemented. The results of lowering the BAC appear to be positive. For example, Belgium lowered its limit to 0.05% in December of 1994, reporting a 14% reduction in fatalities in the following year. The legal limit in France was lowered to 0.05% in December of 1995. Fatal crashes in 1996 were reduced by 4%.¹ Despite consistent evidence of the safety impact of a lower BAC, most states in the United States still resist lowering the limit from its currently high level.

Sanctions

Most countries have established fines and licensing sanctions for impaired driving offenses. Jail sentences are also possible in most countries. Fines in some countries (for example, Finland and Sweden) are based in part on the offender's income. License sanctions vary widely. For example, in the United Kingdom, first offenders rarely receive license penalties. In Italy, the suspension is for 15 days for a first offense and one month for a repeat offense. License suspensions more typically run three months or more.

A key difference among countries is the basis upon which more severe penalties apply. In the United States, most states establish penalties based on whether the offender had one or more previous offenses. Penalties may also depend on whether the impaired driving incident resulted in a crash and whether the crash resulted in an injury or death. In the majority of other countries, by contrast, the arrest BAC is of primary importance in determining the penalty.

Rehabilitation programs are available in many countries, but required in fewer. Often, they are subject to the judge's discretion. Here again, the arrest BAC is often the deciding factor in whether a rehabilitation program will be required and what the nature of that program will be. This is in contrast with the United States, in which most if not all states require a rehabilitation program, usually of a standard nature depending on the number of offenses. Most states do not base the nature of the program on arrest BAC, although some states require an assessment and assign offenders to a program based on the findings of the assessment.

Licenses in many countries are not regranted automatically upon completion of the suspension or revocation period. Several countries require some sort of judicial or medical certification under some circumstances before the offender may receive the driving license. Some countries require that the offender retake the driving test. The requirements for relicensing are often determined by the BAC at arrest.

Drivers' licensing laws

The laws and rules regarding the licensing of drivers can be important as they relate to the type of person permitted to drive as well as possible sanctions that can be imposed against the driving license. In particular, because of the special vulnerability of young and novice drivers, the minimum age of licensure is important. This age ranges from a low of 15 in New Zealand to the much more common 18 in Australia and most European countries.

Of particular importance in this regard is the application of a system of provisional or graduated licensing in which the driving privileges of young and novice drivers are granted gradually. This system provides the opportunity for the new driver to practice skills in relatively safe conditions before moving on to more challenging situations (for example, driving at night or with several passengers). These graduated licensing schemes often provide a simple administrative system of penalties that can be applied to the novice driver if violations occur before the full license is granted. Graduated licensing systems have been found to be effective in reducing crashes among novice drivers.²

Several of the countries studied report having some form of provisional or graduated licensing system. Most of these systems have fairly limited provisions, with Austria and New Zealand having more extensive and elaborate systems.

Enforcement

Enforcement practices, especially random breath testing or sobriety checkpoints, have been found to have a significant influence on impaired driving. The experience of the Australian states of New South Wales and Victoria provide dramatic examples of the effectiveness of random breath testing.^{3,4} Sobriety checkpoints have also been shown to reduce alcohol related traffic crashes.⁵

Most countries use some form of random breath testing or sobriety checkpoints. The intensity of these enforcement campaigns varies. The countries in which random breath testing is reportedly most intensively used include France, the Netherlands, New Zealand, Sweden, and some states in Australia. Countries vary in their laws regarding testing of drivers for the presence of alcohol under various circumstances.

Unlike the United States, many countries do not require a suspicion of intoxication before testing can be done. Many countries require testing of all drivers involved in a traffic crash. Most countries require a driver to submit to testing under prescribed circumstances and impose significant penalties for refusal to submit to testing. In Sweden, if the driver refuses to be tested, a test can be done by force.

Minimum purchase and consumption age for alcohol

Many countries set a different age for consumption of alcohol than for purchase. The minimum consumption or purchase age varies from as low as 14 to a high of 21. Some countries report having no minimum age. Even in countries that have a legally established minimum purchase age, reports of informants in some countries indicate that this law is widely ignored and that many people are unaware that any such limit exists. The United States is very unusual in having a minimum purchase age of 21. Interestingly, in most countries the minimum age for driving licensure is older than or equal to the drinking age, unlike the United States, in which all states allow licensure well before drinking is permitted.

Impact of international trade agreements

Many countries are currently involved in international trade agreements. The North American Free Trade Agreement and the European Union have the potential to have an impact on alcohol policy and laws related to impaired driving.⁶ For example, policies that restrict the availability of alcohol and impose high taxes in some Scandinavian countries are threatened by free trade agreements. The elimination of alcohol monopolies in Sweden, Norway, and Finland is projected to increase consumption by nearly 100%, with a dramatic increase in alcohol related traffic fatalities. BAC laws are also subject to change by trade agreements. In 1989, the European Commission proposed harmonizing the maximum BAC to 0.05%. This would require lowering the limit in some countries and raising it in others. In any study of current laws, the potential impact of free trade agreements must be considered.

Alcohol involvement in fatal crashes

Having more complete and current information regarding the range of impaired driving laws in countries around the world is interesting in itself. It would be very useful to compare the alcohol related crash rates in these same countries and examine possible relationships between existing laws and crash rates. Unfortunately, this task is complicated by the fact that officially reported alcohol related crash rates are subject to major differences in measurement and reporting methodology, which make comparisons inaccurate. The crash rates are also subject to systematic errors in reporting. Ideally, countries will begin to harmonize measurement and reporting to allow for comparisons and enhance our ability to evaluate and monitor the role of laws and policies in reducing impaired driving.

Conclusions

In the United States, we have benefited greatly from the experience of other countries in reducing impaired driving. We would probably benefit further from broader adoption of countermeasures shown to be effective in other countries, especially lowered illegal BAC and more intensive use of sobriety checkpoints. Much can be learned from comparing impaired driving laws and policies in countries around the world. Our ability to draw conclusions about the impact of these laws and policies on fatal crashes is handicapped by differences in reporting and measurement processes.

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- 2 National Transportation Safety Board. *Special report to the states on reducing the incidence of youth involvement in highway crashes*. Washington, DC: NTSB, 1993.
- 3 Homel R, McKay P, Henstridge J. The impact on accidents of random breath testing in New South Wales: 1982-1992. In: Kloeden C, McLean A, eds. *Alcohol, drugs and traffic safety. Vol 2*. Australia: NHMRC Road Accident Research Unit, 1995: 849-55.
- 4 Moloney M. Random breath testing in the state of Victoria, Australia. In: Kloeden C, McLean A, eds. *Alcohol, drugs and traffic safety. Vol 2*. Australia: NHMRC Road Accident Research Unit, 1995: 823-7.
- 5 Lacey J. *Checkpoint Tennessee: Tennessee's statewide sobriety checkpoint program*. Washington, DC: National Highway Traffic Safety Administration (in press).
- 6 Vingilis E, Lote R, Seeley J. Are trade agreements and economic cooperatives compatible with alcohol control policies and injury prevention? *Contemporary Drug Problems* 1998;25:579-620.