Worldwide Trends in Drinking and Driving: Has the Progress Continued?

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Abstract
This paper will summarize the trends in drinking and driving in a number of countries around the world and the nature of the trends. The countries include: Germany, France, The Netherlands, Canada and the United States. The trend appears to be following recent history. Nothing dramatic seems to be occurring. In some countries, such as the United States and The Netherlands there were increases. In France and Germany there were decreases.

Introduction

In the decade of the 1980s, there were impressive declines in drinking and driving in much of the industrialized world. The declines included about 50% in the U.K., 28% in Canada and The Netherlands, 32% in Australia, 37% in Germany and 26% in the U.S. These declines did not continue in the early part of the 1990s. In some countries, there were actually increases. Toward the middle and latter part of the decade the increases stabilized and we again began to see some decreases. However, these decreases have been at a slower rate than the dramatic decreases in the 1980s. At the end of the decade, some countries began to again see small increases. The information and data in this paper comes from papers prepared by researchers from Canada, France, The Netherlands, Germany, and the United States for presentation at T2002, the 16th International Conference on Alcohol, Drugs and Traffic Safety in Montréal, Québec, Canada in August 2002. For additional detail about each country, you are encouraged to review each of the referenced papers. This is the fifth occasion where experts from around the world met to continue discussions began in 1993. The reasons for the changes that occurred were discussed and were published in a special report (1). The results of the continued discussions in 1995, 1997 and 2000 were also published (2,3 and 4).

Methods

Crash and survey data was analyzed by researchers in the countries listed. Because of different methods used to collect, record and analyze this data in the participating countries, it is not possible to draw comparison between countries. However, the results in each country were
compared to historical data in that country to develop trends in drinking and driving. The results of these analyses is summarized. Where it was possible, a number of the researchers also discussed the reasons for what was occurring. The programs in place to combat drinking and driving and their effectiveness is reviewed, where applicable.

Results

Canada
In 1981, 62% of the drivers killed in Canada had been drinking. By 1989, this figure had reached a low of 44%. This represents a 29% reduction in the magnitude of the alcohol-fatal crash problem. Importantly, from 1981 to 1989, the relative change in the number of fatally injured drinking drivers and the change in the percent of fatally injured drivers who had been drinking were similar – 31% and 29% decreases, respectively. The downward trend was clearly interrupted in 1991 and 1992 when the percentage of fatally injured drinking drivers increased to 46% and 48%, respectively. But this increase occurred because the number of fatally injured non-drinking drivers declined but the number of fatally injured drinking drivers remained relatively stable. Since 1992, there has been an annual decline in the percentage of fatally injured drivers who tested positive for alcohol – i.e., a decrease from 48% in 1992 to 34% in 1999. The level achieved in 1999 was the lowest point reached in the past three decades and this downward trend strongly suggests a resurgence of the declines in the magnitude of the alcohol-fatal crash problem characteristic of the 1980s. It is, however, important to note that the decline in the percent of fatally injured drinking drivers that began in 1993 was again a function of two things – a decline in the actual number of drinking-driver fatalities, combined with an increase in the number of non-drinking driver fatalities. This divergence was particularly marked after 1996 and had a salutary effect on the percentage. Nonetheless, from 1992 to 1999, the absolute number of drinking drivers did decrease by 29%, an amount identical the decrease in the percentage of fatally injured drivers who tested positive for alcohol – i.e., a 29% reduction. However, it is important to recognize that when progress is measured in terms of changes in the percent of fatally injured drivers who had been drinking, this index can produce spurious effects, if the number of non-drinking driver fatalities increased at the same time. If the number of non-drinking driver fatalities had remained unchanged during the latter part of the 1990s, or had decreased, the decline in the percentage of drinking driver fatalities would have been less. Apart from the caution this demands in reporting and interpreting such data, they reveal as well another important finding that has yet to be explored adequately. At issue is the divergence in trends between the number of fatally injured non-drinking drivers and drinking drivers. Why is the number of alcohol-related driver deaths declining while the number of non-alcohol related driver deaths is increasing? Several alternative explanations are discussed in the paper (5).

France
In France, alcohol tests are compulsory in cases of injury accidents or when an offence has been committed. Random tests are also conducted. The number of compulsory tests has been fairly static over the past 10 years at about 1,500,000 per year. However, the number of random tests has risen sharply. The number of random tests increased from about 2,881,000 in 1990 to about 7,925,000 in 1999. The number of tests in 2000 declined slightly. The positive rate (over the legal limit) for the random tests was 1.1% in 1990 and 1.3% in 2000. But the numbers since 1996 reflect the lowering of the legal limit from .08 to .05%. The positive rate for those tested after an offence declined slowly from 3.6% in 1990 to 2.9% in 1996. In 2000, that rate was 3.6%, but
again reflects the lower limit. More importantly, the number of fatal and injury accidents has declined steadily from 1990 to 2000. The percentages of injury and fatal accidents involving drivers over the legal limit have also declined in that period. In 2000, in 5.5% of injury accidents and 16.2% of fatal accidents the driver was over the legal limit. This progress is attributable to the massive alcohol screening enforcement on the roads.

Records show that more than one out of three drivers convicted of DWI with a BAC over .14% need medical care for an alcohol problem. The challenge for the future is to develop more effective interventions for alcohol impaired drivers. Analysis by age stresses the fact that it is important to recognize the road risk problem of the younger driver and the probable health risk problem of the older driver. Since alcohol has been classified by experts as a hard drug, it is probably a priority to use traffic enforcement as a means of educating drivers about alcohol risks (6).

**Germany**

In the years after unification up to 1993 in Germany (East) the road accidents in general and especially alcohol related accidents worsened. But the figures from 1994 to 2000 show a stabilisation and improvement in the number of road accidents in Germany (East) especially with respect to related injuries and fatalities. Up to 2000 a favourable and continuous drop of alcohol related road accidents in all of Germany can be seen. Alcohol-related fatalities and percentage of total fatalities dropped from 1,828 (18.6%) in 1994 to 1,022 (13.6%) in 2000. The BAC limit was reduced from .08 to .05% in 1998, but because of the short time frame, its effects could not be assessed. Most drivers (up to 95 percent) remained below the legal BAC limit of 0.08 % and tend also to remain below the new legal BAC limit of 0.05 % as recent police records since 1998 demonstrate.

The frequency distribution of the BAC level of involved car drivers influenced by alcohol indicates that the problem will not be solved only by lowering the legal BAC-limit. From this point of view, it is not only the problem of the ‘low-level-driver’, but also of driving alcoholics, especially within the age-group of 25 years and older. In view of the complicated structure of social control, a solution to the problem may be found by concentrating on primary prevention. A denser network of police controls would probably not increase the "yield" of undetected offenders much beyond the present level - according to surveys not higher than 2 percent. However, the establishment of breath tests gives the possibility of a less costly and more efficient policing of drink driving. In further years it has to be determined in which way a more efficient policing policy together with more severe sanctioning of drink driving (fine and suspension of licence for at least one month upwards 0.05 % BAC) could contribute to reduce alcohol-related accidents and thereby improve traffic safety (7).

**The Netherlands**

Between the mid-1980s and the early 1990s, DUI in the Netherlands decreased strongly: in weekend nights, the proportion of drivers with an illegal BAC (> 0.5 g/L) dropped from 12% in 1983 to 3.9% in 1991. This favourable development followed the introduction and extension of random breath testing, facilitated by the introduction of electronic screening devices and evidential breath testing. In recent years, however, DUI has not decreased any further, and even tended to increase. This may have been caused by an indecisive government policy towards
drink-driving. After a reorganisation of the Dutch police forces in the first half of the 1990s, traffic law enforcement was given a lower priority than before. The introduction, in 1996, of a mandatory rehabilitation program for severe DUI-offenders was not accompanied by a large-scale publicity campaign. The introduction of a 0.2 g/L BAC limit for novice drivers, originally intended to become effective in 2001, was postponed by approx. 3 years. Furthermore, the formation of special traffic enforcement units in all 25 Dutch police regions, which started in 1999 and should have been completed in 2001, did not in the short term result in a higher enforcement level throughout the country. In weekend nights of 2000, 4.6% of Dutch motorists had an illegal BAC. Finally, results of a case-control study, conducted in 2000/2001, raised questions on the effectiveness of police enforcement and rehabilitation programmes in substantially reducing the number of hardcore drinking drivers and the resulting road trauma (8).

United States
For more than a decade, rates of alcohol-related crashes had declined in the United States. In 2000, however, 40 percent of all fatalities involved alcohol, up from the historic low of 38 percent in 1999. It was the first increase in alcohol-related deaths since 1995. In 2000, 16,653 fatalities were alcohol-related, compared to 15,976 in 1999. In 2001, the rate and number of alcohol-related fatalities remained essentially the same as in 2000. This was very discouraging news, especially in light of the bold new national goal that was established in 1995 to reduce alcohol-related traffic fatalities in America to no more than 11,000 by the year 2005. At that time, 125 recommendations were made to meet the ambitious goal. Despite all this activity, progress in achieving this national public health goal has been slow and for the past two years movement has been in the wrong direction. In addition, the prevalence of drinking drivers on the roadways on Friday and Saturday nights did not change much in the U.S. between 1986 and 1996. An update of a model used to analyze the effectiveness of various impaired driving laws in the U.S. projects that alcohol-related fatalities will still be at about 16,600 in 2005 if present trends continue.

This slowness in progress is particularly discouraging because the tools to make significant progress are available. Many effective strategies are well known, but not implemented as widely or as vigorously as possible. Because of the significant progress that has been made in the past, complacency may have set in among policy makers. The level of public awareness and concern seems to have waned, with attention deflected to other issues. Several well established strategies exist that can significantly reduce impaired driving in the United States if they are implemented more broadly and more vigorously. Action should be taken at the national, state, and local level to ensure that we continue to make progress in reducing alcohol-related traffic crashes. These strategies include: administrative license revocation (ALR), lowering the illegal per se blood alcohol concentration (BAC) limit to .08 g/dl, graduated driver licensing, strengthened occupant protection laws, vehicle sanctions, sobriety checkpoints, enforcement of minimum drinking age and zero tolerance laws, improved public information and awareness, and alternatives to drinking and driving (9).

Discussion
As the new decade began, in The Netherlands, roadside surveys in 2000, showed an increase in drivers with an illegal BAC. In the United States, alcohol-related fatalities increased for the first time in 2000, since 1995. In 2001, the numbers were the same as 2000. On the other hand, in the
Federal Republic of Germany, the share of accident-involved persons influenced by alcohol has continued to decrease from 1994 to 2000. In Canada, the downward trend continued. In France, the drinking and driving prevention system appears to have reduced the number of accidents attributed to alcohol. In a number of countries were progress has continued, the results can be traced to the effectiveness of the prevention programs and the degree of attention placed on the issue. In those countries were progress has stopped or even reversed, the reasons can be traced to a lack of action, commitment or shifting priorities.

References


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