The Worldwide Decline in Drinking and Driving

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ABSTRACT

At a session conducted at the Traffic Safety on Two Continents conference held at The Hague, The Netherlands in 1993, the following participants took part in a discussion of the worldwide decline in drinking and driving and why the decline occurred: Dr. A.J. McLean-Australia, Dr. Herbert M. Simpson-Canada, Dr. Bernd Friedel and Dr. Günter Krej-Germany, Dr. Andrew Clayton and Julian T. Everest-Great Britain, Dr. Piet Noordzij-The Netherlands, Kathryn Stewart and Dr. Robert B Voas-United States, Hans Laurell-Sweden and M.B. Biecheler and M.Ch. Jayet-France.

The Transportation Board subsequently issued a report of the presentations and the discussion that followed. The magnitude and reasons for the worldwide decline varied from country. The declines during the last decade included about 50% in the UK, 28% in The Netherlands, 28% in Canada, 32% in Australia, 37% in Germany, and 26% in the US. Suggested reasons included improved laws, enhanced enforcement, and public awareness brought about by citizens’ concern. Other possible explanations included lifestyle changes, demographic shifts, and economic conditions.

Many of the same experts will convene again and reflect on the reaction to the discussions and the report and, based on current data, report on whether or not the decline has continued and why or why not.

INTRODUCTION

A special session was held at the Traffic Safety on Two Continents conference in The Hague, The Netherlands on September 23, 1993, at which experts from around the world met to discuss the dramatic decrease in drinking and driving that has occurred over the last decade in many industrialized countries. In addition to describing the magnitude of the decline, the experts discussed the reasons for the decline. A report of the papers presented and the general discussion that took place was prepared by the US Transportation Research Board. The report, The Nature of and the Reasons for the Worldwide Decline in Drinking Driving, Circular No. 422, covers the experiences in Australia, Canada, France, Germany, The Netherlands, Sweden, the United States and the United Kingdom.

DECLINES IN DRINKING AND DRIVING REPORTED IN 1993

The following declines were reported:
Great Britain

In Great Britain the proportion of car drivers over the legal limit (.08%) when killed fell from 38.2 percent in 1982 to 19 percent in 1992. A similar reduction was observed among those over .20% BAC, the proportion fell from 15.4 percent in 1980 to 6.8 percent in 1992. The reasons for the decline include the introduction of a series of government measures that were designed to improve the enforcement of the laws and to revise the penalties on conviction. These include the introduction of evidentiary breath testing devices, resulting in increased police enforcement levels; clarification of anomalies in the drink/driving laws; the introduction of the “High Risk Offender” scheme, which requires offenders to pass a medical test before driving licenses are recovered; and increased penalties, including imprisonment, for drinking drivers who caused death by careless driving. This recent evidence indicating a reduction in fatality rates among heavy drinkers can probably be attributed to a combination of legislative measures, including the introduction of the new High Risk Offender Scheme in 1990, together with sustained publicity. Unlike the decline for drivers, there appears to be an increasing alcohol involvement amongst adult pedestrian casualties. In 1982, 28 percent of adult pedestrians killed had a BAC at or above .080%. That proportion rose to 32 percent in 1990. The same trend occurred for fatally-injured pedestrians at or above a BAC of .15% (Clayton and Everest 1994).

The Netherlands

In The Netherlands, car drivers involved in serious crashes on weekend nights with alcohol as a percentage of all drivers fell abruptly from between 35 to 40 percent in the early eighties to between 25 and 30 percent since the middle eighties. The legal limit of .05% was introduced in 1974, followed by a drastic short term effect, followed by a modest long term decrease on positive BAC’s. For about 10 years, the level of drinking and driving remained stable with about 24 percent of weekend night drivers with a BAC over .02% and 12 percent over the legal limit. The decline began sometime between 1983-1987 and by the 1991-1992 survey results, only 10 percent of the drivers were over .02% and 4 percent over .05%. While the reasons for the decline are not totally clear, some possible factors include; decrease in drinking in response to a nationwide campaign against excessive drinking; replacement of blood testing by evidentiary breath testing; transition from selective enforcement to random breath testing; and publicity campaigns against drinking and driving (Noordzij 1994).

Canada

In Canada, fatally injured drivers who tested positive for alcohol ranged from 57 to 62 percent from 1973 through 1980. Since 1981, this percentage dropped steadily, reaching its lowest point, at 43 percent in 1990. Overall, the evidence suggests that there has been a significant decrease in the magnitude of the drinking and driving problem in Canada over the 10 year period ending in 1991. Numerous activities, such as new legislation, increased enforcement of impaired driving laws, greater numbers of awareness and education campaigns and community-based programs all occurred simultaneously during the 1980's
making it difficult to determine which factors were responsible for the observed decrease (Simpson et al. 1994).

**Australia**

In Australia, the percentage of fatally injured drivers and motorcycle riders who had a BAC above the legal limit (.05% in populous states and .08% in the rest) decreased from 44 percent in 1981 to 30 percent in 1992. There is also a general corresponding decrease in the percentage of drivers found in roadside breath alcohol surveys above the .08% from 1979 to 1992. The observed decline in drink driving has been accompanied by a decline in alcohol consumption. The decrease of absolute alcohol consumption per person aged 15 years and over decreased by 26 percent from 1981-1983 to 1991. There has been a marked change in beer drinking, with low alcohol beer assuming an increasing proportion of beer sales. The reductions in drinking and driving resulted from a combination of the widespread use of random breath testing and formal and informal publicity about drink driving and its possible consequences. Other factors include the increased use in seat belts (now close to 100 percent), and other vehicle safety measures (McLean 1994).

**Germany**

In western Germany, the alcohol-related injuries decreased 37 percent from 1975 to 1990, while non alcohol-related injuries dropped only 4 percent. In that same period, alcohol-related fatalities in road accidents decreased 57 percent, while total fatalities in road accidents decreased 44 percent. This drop is accompanied by a slight drop in alcohol consumption. The reasons for the decline include the introduction of the .08% BAC in 1973; the effectiveness of police controls, legislative and educational measures and above all the interaction. In eastern Germany, up to 1989, the trend was similar compared with 1980 – 25 percent fewer fatalities in alcohol-related accidents, whereas the number of casualty accidents not involving alcohol rose by 3 percent. The relation between alcohol-related fatalities and fatalities in road accidents was similar in the three years before unification (1986-1989) in both sectors of Germany. This is surprising considering that the BAC limit in the east was 0.0%. All parts of Germany now have a BAC of .08%. But after the unification, alcohol-related road accidents with injuries increased 72 percent from 1989 to 1990, compared with the overall road accidents with injuries increased 44 percent (Friedel and Kroj 1994).

**United States**

In the U.S., drivers involved in fatal crashes positive for alcohol dropped from 38.9 to 28.6 percent from 1982 to 1992. In that same time period, alcohol related fatalities in highway crashes dropped from 25,165 to 17,859. The total number of drivers involved in fatal crashes increased for the most part through the 1980’s until 1989 when a steady decline began. By contrast, the proportion of drivers in fatal crashes with any measurable BAC has declined fairly steadily throughout the period. the proportion of fatally injured pedestrians who are impaired by alcohol has also decreased, though not to the same extent as that of drivers. In 1982, 45 percent of fatally injured pedestrians over 16 years of age had BACs of
.10% and above. That proportion fell to 38 percent in 1992, the difference between the trend for non-alcohol-related as compared to alcohol-related fatalities suggests that it is alcohol programs rather than highway or motor vehicle improvements that are responsible for the decrease in fatalities. Four types of factors that may have played a role in the reduction include: deterrence strategies, primarily related to traffic safety polices and legislation; the raising of the drinking age to 21; changes in alcohol consumption; and increased public awareness and citizen activism.

SUMMARY

The nature of and the reasons for the declines varied from country to country. However, the changes were not uniform from country to country. In some countries, declines included alcohol-involved pedestrians, in other countries it did not. The declines also varied on the age groups that were effected in different countries. Suggested reasons included improved laws, enhanced enforcement, and public awareness brought about by citizens’ concern. Other possible explanations included lifestyle changes, reduced alcohol consumption, demographic shifts and economic conditions.

WHAT HAS HAPPENED SINCE -- AN UPDATE

The session that follows, brings together many of the same experts to review what has occurred in the two years since the conference at The Hague. In some countries the decline in drinking and driving has continued, and in others the downward trend has been reversed. The session will examine the current state of drinking and driving in the countries represented, and discuss what additional steps are being taken to maintain the decline or to regain the momentum. The individual presentations follow.

REFERENCES


