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Barry M. Sweedler
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The worldwide decline in drinking and driving: has it continued?

Abstract

There were dramatic decreases in drinking and driving in the industrialized world in the decade of the 1980s. That decline did not continue in the early 1990s. In fact, in most countries the declines reversed in the early 1990s and drinking and driving began to increase. By the middle of the decade the increases stabilized and the rates began to decrease. These current decreases, which appear to be continuing, are much less dramatic than the decreases of the 1980s. This paper summarizes the nature of and the trends in drinking and driving in Canada, France, The Netherlands, Germany, Great Britain and the United States and the planned initiatives for combating the problem in each of the countries.

Introduction

This paper summarizes the nature of and trends in drinking and driving in a number of industrialized countries for the later part of the 1990s. The information and data in this paper comes from papers prepared by researchers from Canada, France, The Netherlands, Germany, the Great Britain and the United States for presentation at T2000, the 15th International Conference on Alcohol, Drugs and Traffic Safety in Stockholm, Sweden in May 2000. It is the fourth occasion where experts from around the world met to continue discussions begun in 1993. At that first meeting, dramatic reductions in drinking and driving in all industrialized countries during the decade of the 1980s was reported. 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. In the first half of the 1990s the dramatic reductions that occurred in the 1980s did not continue. In most countries the declines reversed in the early 1990s and began to increase, but toward the middle of the decade the increases stabilized and even began to decrease. The reasons for the changes that occurred were discussed and were published in a special report (Sweedler, 1994). The continued discussions in 1995 and 1997 were also published (Sweedler, 1995 and 1997).

Results

Canada

The scope and intensity of activity directed at the problem of drinking and driving was unprecedented in Canada during the 1980s. Public and political concern engendered a wide range of initiatives and, consistent with this activity, corresponding declines in the magnitude of the problem itself occurred. Between 1981 and 1989, the percent of fatally injured drivers with blood alcohol concentrations (BACs) in excess of the legal limit dropped by 31%. The decline observed in the 1980s was interrupted rather abruptly and significantly beginning in the 1990s when the percent of fatally injured drivers who were drinking increased. Since 1993, however, there has been a further decline in the incidence of fatally injured impaired drivers that has continued through 1997. This suggests that consistent and significant declines have occurred in the fatal-alcohol crash problem over the past five years. For example, there has been a decrease of 24% in the percent of fatally injured drivers from 1992 to 1997. The level

achieved in 1997 (31% of fatally injured drivers with BACs over the legal limit) was the lowest point reached in the past three decades. Recent changes in the magnitude of the alcohol-fatal crash problem, however, have not been uniform across different groups of fatally injured drivers. All groups showed a decline in the proportion who were impaired with one exception. The percent of fatally injured impaired drivers age 20-25 increased by 5% -- in 1992, 44% had BACs over 80 mg% compared to 46% in 1997. Although all other groups showed declines over this six-year period, the magnitude of the reductions varied considerably. The greatest reductions were found among fatally injured female drivers (37%), drivers age 36-55 (26%), operators of motorcycles (33%), and drivers involved in multiple-vehicle crashes (26%). The smallest reductions were found among fatally injured male drivers (18%), drivers age 16-19 (17%), snowmobile drivers (17%), and drivers in single-vehicle crashes (15%) (Mayhew, Beirness and Simpson, 2000).

Great Britain

A examination of the data up to 1995 concluded that the reduction in the percentage of fatally-injured drivers with BACs > 0.8g/L achieved during the 1980s finally ceased in the early 1990s and had been replaced by an increasing trend. For serious casualties, the shape of the trend line suggested that the rate of decline had slowed markedly. It was concluded that one possible reason for the changes was the absence of new government initiatives may lead to a perception that drink driving, as a social problem, has gone away, leading to a level of complacency amongst drivers.

More recent data suggests that there are some indications of a further decline in the late 1990s, amongst both fatally-injured drivers with illegal BACs and the estimated number of fatal and serious casualties resulting from accidents involving illegal BACs. The data also suggests that the trends in alcohol-related casualties mirror, to a large extent, trends in all fatal and serious casualties. Existing police powers in Great Britain allow an officer to stop any vehicle and case law has established that, if after having stopped a vehicle, the police officer forms the suspicion that the driver has been drinking, then the police officer may require the driver to submit to a breath test. 1996 saw an 11% increase over the previous year in the number of breath tests administered. This increase may have contributed to the observed decline in alcohol-related casualties since 1996.

A Government Consultation Paper issued in 1998 proposed a package of measures included a lowering of the legal limit to 0.5g/L. The report of a Select Committee of the House of Lords in the same year reached similar conclusions but placed somewhat more emphasis on the treatment of convicted drivers with high BACs. New Government proposals on drink driving are expected in early 2000 (Clayton and Tunbridge, 2000).

Germany

In the period from 1975 to 1990 in the Federal Republic of Germany (West) alcohol related injuries and fatalities in road traffic accidents decreased continuously. Alcohol related accidents with injuries decreased by 32 %, while non alcohol-related accidents with injuries increased 6%. Alcohol related injuries also decreased dramatically in this period by 37 %, while the non alcohol-related injuries decreased only 4%. Alcohol-related fatalities decreased 57% from 1975 to 1990 compared with a 44% decrease for non alcohol-related fatalities. This decrease was accompanied by 10% decrease in per capita alcohol consumption from 1980 to 1990 and an increase of 26.6% in the consumption of soft drinks.

From 1991 to 1998, after the unification of both Germanys there was initially an increase in alcohol-related injuries and fatalities and then the figures decreased continuously to the year 1998. From 1991

to 1998 the share of alcohol related fatalities decreased from 20 to 14.3% in the unified Germany. In the years after the unification from 1991 to 1993 in the New Länder (east) road accidents in general increased, especially those involving alcohol. The figures for 1994 and 1995 show a stabilization and slight improvement in the New Länder and especially with respect to injury accidents (- 7%) and fatality (- 5%). But up to the year 1995 the share of alcohol related injuries (14 versus 9%) and fatalities (20 versus 17%) is higher in the New Länder than in the former FRG. The figures for 1998 and 1997 show a further decrease of alcohol-related accidents and injuries especially in East Germany. This may be the result of the reduced legal BAC-limit of 50 mg/100 ml since May 1998. Still the share of alcohol-related accidents and injuries in East Germany is higher than in West Germany (9 per cent versus 7 per cent) (Kroj and Friedel, 2000).

United States

For more than a decade, rates of alcohol-related crashes have been declining in the United States. Alcohol-related fatalities dropped from 23,626 in 1988 to 15,935 in 1998, a 33 percent reduction. While there have been slight fluctuations in the number of alcohol-related fatalities since 1982, the ratio of alcohol-related fatalities to non-alcohol-related fatalities has steadily decreased from 1.34 in 1982 to 1.00 in 1988 to 0.62 in 1998. In 1995, for the first time in nine years, the number of alcohol-related fatalities increased and the proportion of alcohol-related fatalities plateaued. Fortunately, in 1997 and 1998 the decline has resumed, fueling hope that further progress continues.

Looking at the long-range trends, there is reason for some satisfaction. In 1982, over 57 percent of traffic crashes were alcohol related. In 1998, this proportion had declined to 38 percent. Despite increases in the number of drivers and vehicle miles traveled, the number of fatalities has also declined – from 25,165 in 1982 to 15,935 in 1998. The US National Highway Traffic Safety Administration (NHTSA) estimates that more than 18,000 lives were saved in 1998 because of the decline in the alcohol-related crash rate. Examining the nature of the trends, it is apparent that reductions have occurred across populations. The proportion of drivers legally intoxicated and at very high blood alcohol levels has declined by about one third since 1982, similar to the declines in alcohol-related crashes at all levels.

This progress has been attributed to stronger laws, tougher enforcement and adjudication, and changes in social norms, among other factors. All drivers – even those who drive at very high blood alcohol levels – appear to have been affected by these social and policy changes. Unfortunately, the same cannot be said for pedestrians. Intoxication rates among fatally injured pedestrians have not declined significantly, hovering around 36-39 percent from 1982 to 1998 for pedestrians aged 14 and older. Clearly, the social changes and policy strategies that have reduced impaired driving have not had a similar impact on intoxicated pedestrians (Stewart and Fell, 2000).

The Netherlands

Based on random roadside testing of drivers conducted by the Institute for Road Safety Research (SWOV), drink-driving has decreased since the mid 1980's, mainly due to improved police enforcement. After the introduction of the legal BAC-limit in 1974, the share of motorists with a BAC over 0.5 g/l dropped from 15%, in the beginning of the 1970s, to 12%, in the first half of the 1980s. From 1985 on, this share started to decrease rapidly, probably due to expanding possibilities for random breath testing (RBT) by the police. RBT was facilitated by the introduction of electronic screening devices and the subsequent introduction of evidential breath testing. The share of motorists with an illegal BAC dropped to 3.9% in 1991, raising high expectations for a further decrease in the years to come. This was prevented, however, by a reorganization of Dutch police forces, which came into effect in 1992. As a result of this reorganization, nearly all former traffic police departments were dismantled,

changing traffic law enforcement from a separate specialty into an integral part of so-called basic police duties. This led to a drop in RBT. Subsequently, the share of drivers with an illegal BAC initially increased to 4.9% in 1994, more or less stabilizing at about 4.5% in the second half of the 1990s.

In perspective of their relative risk, the development of drink-driving by young male motorists is rather disturbing. In the period 1991-1993, an average of 3.1% exceeded the legal BAC-limit; in the period 1994-1996, 3.5%; and in 1997-1998, 4.0%. In order to stop this unfavourable development, the Dutch government in 1999 has decided to lower the legal BAC-limit for novice drivers to 0.2 g/l. The new limit is intended to become effective in 2001. Positive experiences in Austria (5) and Australia (6) have played a role in the government's decision.

In 1999, a start was made with the introduction of special traffic police squads in 7 out of 25 Dutch police regions. Within three years such squads should have been realized in all police regions.

While drink-driving decreased substantially, the problem of drug-driving seemed to be growing, especially among young males. In 1997/1998, 6.4% of all drivers were positive for one or more impairing drugs; 1% for medicinal drugs like codeine and benodiazepines, and 5.4% for illegal drugs. Three quarters of the illegal drugs involved cannabis, the rest mainly of cocaine (often in combination with cannabis). Among the drivers who were positive for drugs, 12% had an illegal BAC.

The following measures are being taken to address the problem of impaired driving: a lower BAC limit for novice drivers, the formation of special traffic law enforcement teams, and training of drug recognition experts (Mathijssen, 2000).

France

Beginning in the early 1970s per capita consumption of alcohol has steadily declined, drink driving enforcement and convictions greatly increased and at the same time injury and fatal accidents steadily decreased. INRETS has estimated alcohol involvement in injury accidents beginning in 1988. The involvement varied quite a bit, reaching a high in 1991. From 1991 to 1994 a downward trend occurred. Since then there has been a general decrease in accidents, especially in alcohol-related accidents, and young men under age 25. The decrease among men aged 25 to 39 was much less. There was no decrease noticed among women over age 40.

In 1999, the French government decided to integrate its prevention program for the addiction to drugs and excessive alcohol consumption and set a goal of reducing by half, the number of road deaths within the next five years (Biecheler-Fretel and Filou, 2000).

Discussion

As noted above, the dramatic decreases in drinking and driving that occurred worldwide in the 1980s did not continue in the early 1990s. In most countries the declines reversed in the early 1990s and rates of drinking and driving began to increase. Toward the middle of the decade the increases stabilized and in some countries began to experience declines once again. These current decreases in the second half of the 1990s are much less dramatic than those experienced in the 1980s. The reasons for the changes vary among in the countries discussed, however there are some similarities. Levels of enforcement seem to stand out as a variable that directly effects the level of drinking and driving in most of the countries. Reducing per capita consumption of alcohol also seems to be correlated to reduced drinking and driving. Another factor that appears to relate to drinking and driving is the amount of attention paid to the problem by political leaders. When progress has been steady, leaders tend to shift priorities to other

public concerns believing that the problem has been solved. This results in less public attention and less enforcement. For example, a number of countries have begun to place greater emphasis on drug impaired driving. Time will tell whether this shift in resources will effect the levels of enforcement for drinking and driving.

In order to continue and even accelerate progress each country should carefully review what worked in the past and look at what research shows is effective in other countries. We have a long history of learning from each other and this should continue and even be expanded. Some examples of transferring countermeasures include the use of random breath testing, lowering the legal BAC and the recent move by The Netherlands to reduce the legal BAC for young drivers based on the effectiveness of this measure in other countries. Hopefully, there will be many more examples in the future.

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