Effect of Dutch Police Reorganisation on Drink Driving

M.P.M. Mathijssen

Institute for Road Safety Research SWOV, PO Box 170, 2260 AD Leidschendam, The Netherlands

ABSTRACT
Drinking-driving in The Netherlands has dropped significantly since the mid-eighties. In 1983, 12% of car drivers during weekend-nights were over the legal BAC-limit of 0.05%. In 1987, just before the introduction of evidential breath testing, this proportion had dropped to 8%. Important influencing factors were the introduction of electronic screening devices replacing the highly inaccurate chemical test tubes, and of improved enforcement strategies, i.e. random breath testing. In the following years, a further decrease to 3.9% in 1991 was noted.

However, from 1992 on, drinking-driving started to increase gradually: 4.0% in 1992 and 4.4% in 1993. Preliminary results of the 1994 measurements show an even further increase. The recent increase of drinking-driving coincides with a thorough reorganisation of Dutch police, in which state and municipal police forces have been integrated. As a result of this reorganisation, the majority of former traffic police units have been disbanded. In 1993, police officers coordinating SWOV’s drinking and driving measurements have been interviewed on the subject of alcohol law enforcement. Half of them stated police enforcement activities had dropped by an estimated 20-60%, 30% reported a slight increase of 10-20%, and 20% reported no change whatsoever. Preliminary results of repeated interviews in 1994 show a further decline of police enforcement, resulting in a level of random breath testing which comes close to zero in several police districts.

INTRODUCTION
In the Netherlands, police registration of alcohol-involved accidents is not very reliable. Therefore, since 1970, SWOV has carried out periodic roadside surveys into the alcohol consumption of motorists during autumn weekend nights, with the intention of obtaining an insight into the patterns of drink driving. SWOV has conducted this research at the request of the Ministry of Transport and Public Works.

During these surveys, motorists are taken at random from moving traffic by police control teams and subjected to a breath test. The result of each test and the sex and age of the motorist is entered on a registration form. For those motorists who exceed the legal limit, it is also noted where they come from (bar, work, home, party, etc.).

In the course of time, the sample of motorists tested increased from approx. 3,000 during the 1970s and 1980s, to over 16,000 in 1994. By increasing the sample, it became possible to measure developments not only on a nationwide basis, but also at provincial level. This is an important distinction to make, due to the decentralisation of road safety policy, where
provinces have been given greater responsibility for their own region. In 1994, 65 police teams participated in the survey, spread over all twelve provinces of the Netherlands.

Each control team is visiting six different locations on a Friday or Saturday night, between 10 p.m. and 4 a.m. The frequent change of location is intended to minimise the predictability of the controls with respect to time and place. The sample of motorists is stratified as accurately as possible per province, based on the degree of urbanisation. Because the number of observations per province differ much less from each other than the number of inhabitants, the BAC distributions resulting from the study are subsequently weighted on the basis of population.

**Figure 1**
BAC Distribution of Dutch Motorists

**DEVELOPMENT OF DRINK DRIVING**

In the early 1970s, the Netherlands had not yet imposed a legal limit on the alcohol consumption of road users. At that time, the alcohol consumption of motorists was still at a very high level. A SWOV survey conducted in the autumn of 1973 showed that 15% of motorists had a BAC $\geq 0.05\%$. On October 1, 1974, a legal BAC limit of 0.05% came into force, the police were given chemical test tubes for the selection of suspects and the blood test was introduced as legal evidence. The short term effect of this measure was huge: shortly after introduction of the new law only 1% of motorists had offended against the new law during weekend nights. But in 1975, the proportion of offenders had again risen to 11% and in 1977 to 12%. SWOV surveys conducted in 1981 and 1983, indicated a stabilisation at this level. Although the effect of the amendment in the long term therefore compared very unfavourably with the short term effect, there was still question of a substantial and statistically significant effect. In the years 1984 to 1986, the time series of roadside surveys was interrupted, because no significant legal measures were introduced during this period. The surveys only recommenced in 1987, due to the gradual introduction of breath testing for legal evidence purposes after October 1, 1987. A survey conducted in the months of August to September inclusive, showed the proportion of motorists driving...
under the influence to have in the meantime dropped to 8%. The exact moment when the drop in the 1980s commenced is difficult to ascertain, but the development in the number of registered alcohol-involved accidents indicates that 1985 represented the turning point. In the following years, the proportion of motorists driving under the influence had dropped further, reaching 3.9% in 1991 (Mathijssen & Noordzij, 1993). From 1993 on, however, there seemed to be a slight rise in drink driving, as Figure 1 shows. In that year, 4.2% of motorists exceeded the legal limit, when finally in 1994, the share of offenders had again risen to 4.9% (Mathijssen, 1995).

FOCAL POINTS OF ALCOHOL CONSUMPTION

The SWOV studies held over the years have confirmed each time that there are great variations in alcohol consumption, depending on, for example: geographic location in relation to the degree of urbanisation, sex and age of the driver, and time of night.

Figure 2 shows that in 1994, in the strongly urbanised western part of the Netherlands the proportion of offenders was over twice the proportion in the much less urbanised northern part of the Netherlands: 6.2% versus 2.9%.

![Figure 2](image)

**Figure 2**

BAC Distribution of Dutch Motorists by Region
Weekend Nights 1994

Figure 3 shows that in 1994, male drivers offended over three times more often than female drivers: 6.1% versus 1.8%.

The 35-50 year old age group clearly has the dubious honour of topping the list in both the male and the female category: 8.6% and 2.4% respectively.

Finally, Figure 4 shows that the proportion of offenders on Friday nights is greater than on Saturday nights, and that there is question of a marked rise as the night progresses.
Because of the drop in traffic volume, however, the increase in the absolute number of offenders is much smaller than the proportional increase. Between 10 p.m. and midnight, there are over two and a half times as many motorists on the road as between 2.00 a.m. and 4.00 a.m.

Of those drivers who had exceeded the legal limit in 1994, half had come from a public facility such as a bar, restaurant or, disco and almost one quarter had come from a private visit or a party.
FACTORS OF INFLUENCE

Which factors influenced the development in driving under the influence since the mid-1980s, and to what degree, is difficult to pinpoint with certainty. Most likely it concerns a combination of factors that reinforce each other’s effects:

- 1984: gradual introduction of electronic screeners to replace the chemical test tubes;
- 1985: gradual transition from selective to random breath testing by the police;
- 1987: introduction of evidential breath testing;
- 1988: introduction of a ‘tit for tat’ policy for relatively light offenders: fines were imposed immediately following evidential breath testing at the police station;
- 1989: growing popularity of alcohol-free and low alcohol beers.

The extent to which each of these possible factors of influence contributed to the positive reduction in driving under the influence in the 1980s is difficult to determine, due to the many possible interactions. Several Dutch experiments involving an enhanced risk of detection, however, have shown that police enforcement plays an essential role in combating driving under the influence. In the course of these experiments, it was shown that the proportion of drivers under the influence had already dropped by 25-35% after 3 to 4 months. These reductions were also sustained in the longer term (Mathijssen & Noordzij, 1993).

Policy aimed at countering alcohol consumption in traffic in the 1990s is mainly characterised by heavier punishments for driving under the influence. The fines have been raised and the authority of police to suspend the driving licences of heavy offenders (BAC > 0.13%) has been extended. But at the same time, the police seems to have less opportunities to conduct random alcohol controls. It is interesting to note that, as the probability of detection became less, the popularity of alcohol-free beer also fell. The market share of alcohol-free beer in 1992 was 8.1%, in 1993 6.3% and in 1994 5.5%.

EFFECTS OF POLICE REORGANISATION

After 1992, the reorganisation of the Dutch police came into effect, with the purpose of “making Holland safer for its inhabitants” (Van Gils et al., 1992). This reorganisation consisted particularly of amalgamating state and municipal police forces. Formerly, municipalities with over 30,000 inhabitants had their own municipal police force, while smaller municipalities relied on state police who were organised into 17 districts nationwide. Both the municipal police forces and the state police districts had fairly large traffic departments at their disposal. A special division of the state police was responsible for traffic control on the motorways. As a result of the reorganisation, which was virtually completed in 1994, 25 regional police forces were created, while the distinction between state and municipal police had disappeared. Each regional force is again subdivided into a number of districts, and each district is made up of a number of basic units.

An associated effect of the reorganisation is that all special traffic departments of the state police have been discontinued, with the exception of the division responsible for traffic enforcement on the motorways. Also, the former traffic departments of the municipal police forces were largely disbanded or strongly reduced in size and scope. One exception to this
is the Department of Traffic Police for the Amsterdam region. This department, specialised in traffic enforcement, remained fully intact even after the reorganisation. The random alcohol controls which the Amsterdam traffic police co-ordinated and/or conducted in 1994, involved the random breath testing of approx. 90,000 motorists. That is estimated to be 20% of the total number of motorists tested at random throughout the Netherlands, while the Amsterdam region has almost 900,000 inhabitants, equivalent to 5.9% of the Dutch population.

As a result of the reorganisation, traffic enforcement in large parts of the Netherlands changed from a separate specialism into an integral part of so-called basic police duties. The priority which was given to traffic enforcement in the past had largely shifted to focus on combating minor and organised crime. The discontinuation of the special traffic divisions has made frequent random breath testing by teams of 8-10 policemen difficult, also from a financial perspective. Such controls are in general impossible to carry out on the basis of the normal police capacity that is available at any given time. This means that extra personnel must be brought in who receive overtime pay. Particularly during weekend nights, where the problem of driving under the influence is greatest, this becomes an expensive matter. One alternative is very frequent, small scale random breath testing by surveillance teams. Particularly in the rural areas, however, the problem which then presents itself is that at night, only one surveillance team is active per basic unit. If such a team apprehends a drunk driver, the processing of this suspect soon takes up an hour. During this time, the surveillance team is not available for requests for assistance, unless they decide to discontinue processing of the suspect. This discourages surveillance teams from conducting random alcohol controls.

**OPPORTUNITIES TO IMPROVE POLICE ENFORCEMENT**

In order to gain an impression of the development in random breath testing, SWOV in 1993 and 1994 asked the co-ordinators of the police teams who co-operated in the study what changes they felt had occurred in the previous year. In 1993, 52 co-ordinators were interviewed; in 1994, 67 were interviewed. In both years, half of them reported that the enforcement level had reduced markedly, while 15-20% reported an increase. The remaining 30-35% reported no significant change. It would seem obvious to assume that the current increase in driving under the influence as seen in the Netherlands, is also a result of the drop in enforcement. In order to end this unfavourable development, SWOV has recommended the formation of regional ‘flying alcohol squads’, to which each basic unit in that region contributes one man-day of police capacity at an average frequency of once a week. Several advantages of such a flying squad can be noted:

a. The squad can spread the controls throughout the police region by controlling at three-quarters of an hour intervals at one location and then moving on to the next location. As a result, the controls can be carried out very conspicuously, without making it easy for drivers under the influence to avoid apprehension. The high prominence of supervision exerts a preventative effect on road users who pass a control point without actually being stopped themselves.

b. The materials needed for alcohol controls can be used very efficiently.
c. If the squad retains a more or less permanent composition for a sustained period of time, e.g. half a year, the members of the squad become very proficient in detecting and processing drivers under the influence. This can also help to improve the efficiency of enforcement.

If such squads are established throughout the Netherlands, an estimated 600,000 to 700,000 motorists can be checked at random for alcohol consumption on an annual basis. That represents an increase of at least 50% in comparison with the number tested at random in 1994. Based on experiences gained in the past, it may be expected that such a level of supervision will lead to a 25% drop in the number of motorists exceeding the legal limit.

REFERENCES

