Alcohol-related road accidents in the Federal Republic of Germany - Status till 1995 -

Kroj, G. and Friedel, B.

1. Data from the Federal Republic of Germany (West)

In the period from 1975 to 1990 in the Federal Republic of Germany (West) alcohol related injuries and fatalities in road traffic decreased continuously:

- The alcohol related accidents with injuries decreased obviously (32 %) [see table 1]. On the contrary the non alcohol-related accidents with injuries increased between 1975 and 1990 (6 %) [see table 1].

- The alcohol related injuries decreased also dramatically in this period (37 %), meanwhile the non alcohol-related injuries only slow down slightly (4 %) [see table 2].

- The alcohol-related fatalities in road accidents decreased from 1975 to 1990 more (57 %) than the total amount of fatalities in road accidents (44 %) [see table 3].

In the period from 1991 to 1995 after the unification of both Germanies there was first to the year 1991 an increase concerning alcohol related injuries and fatalities in road traffic and then the figures decreased continuously to the year 1995:

- The share of alcohol related accidents with injuries decreased from 1991 to 1995 from 11 to 9,5 per cent in the unified Germany [see table 1].

- The share of alcohol related injuries decreased from 1991 to 1995 from 11 to 9,8 per cent in the unified Germany [see table 2].

- In the years 1991 to 1995 the share of alcohol related fatalities decreased from 20 to 18,2 per cent in the unified Germany [see table 3].
In 1973, the critical BAC-limit of 0.8 per mille was introduced as an offence which by statutory definition carries a fine (§ 24a Road Traffic Act, StVG). In this year 83 of 1,000 injured vehicle drivers and 60 of 1,000 injured pedestrians were intoxicated by alcohol [Statistisches Bundesamt, 1992]. Since this time the figure decreased until 1995 to 49 intoxicated of 1,000 injured drivers and increased on the other hand to 66 per 1,000 injured pedestrians [Statistisches Bundesamt, 1996].

2. Comparison with data of the former German Democratic Republic

In the German Democratic Republic up to 1989, the trend of the development of alcohol-related accidents was similarly favourable: compared with 1980, 14% less alcohol-related accidents were counted in 1989 and 25% less fatalities in alcohol-related accidents, where as the number of casualty accidents not involving alcohol even rose by 3% in that time. The number of fatalities also decreased, but, with 8%, the decrease was clearly lower than in the alcohol-related accidents1) [Kretschmer-Bäumel].

The relation between alcohol related accidents with injuries and non-alcohol related accidents with injuries was three years before the unification (1986 to 1989) nearly the same as in West Germany (10%). The relation between alcohol related fatalities and fatalities in road accidents also was similar (FRG 18%; GDR 17%).

These figures are very surprising considering the different legal BAC limits in both former German states (FRG: 80 mg/100 ml; GDR: 0 mg/100 ml) and the different police enforcement strategies. Since January 1993 in all parts of Germany the same BAC-limit of 80 mg/100 ml is legal.

But the road accidents increased dramatically in the New Länder (former GDR) after the unification. Especially the alcohol related road accidents with injuries increased 72 percent from 1989 to 1990, and in comparison the road accidents with injuries 44 percent.

In the New Länder and in Berlin-East the number of alcohol related accidents increased from 1990 to 1993 dramatically as well as the alcohol related injuries. This increase was greater than the increase in the accident figures in general. The share of alcohol related accidents increased from 9% in 1975 to 16% in 1993 and the share of injured persons in these accidents raised from 8% to 17%.

1) The year of 1990, in which the number of alcohol-related accidents and accident fatalities rose considerably in the GDR, cannot be used for comparison purposes because of the opening up of the borders and the atypical traffic conditions associated therewith.

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3. Conclusion

In the period from 1975 to 1990 there can be seen a favourable and continuous drop of alcohol related road accidents in Germany. This relatively favourable development among alcohol-related accidents is accompanied by a slight drop in alcohol consumption: 11.8 l pure alcohol per capita was consumed in 1990-compared to 1980, a decrease of 10%. In addition, a steady increase in soft drinks was found: from 405.2 l in 1980 to 513.0 l in 1990, i.e. an increase by 26.6% [Kretschmer-Bäumel, 1993].

In the years after the unification from 1991 to 1993 in the New Länder the road accident development in general and especially concerning alcohol related accidents impaired. The recent figures for 1994 an 1995 show a stabilisation and slight improvement of the road accident development in the New Länder and especially with respect to alcohol related injuries (-7 per cent) and fatalities (-6 per cent) [Pöppel-Decker].

But still to the year 1995 the share of alcohol related injuries (15 versus 10 per cent) and fatalities (20 versus 18 per cent) is higher in the New Länder than in the former FRG.

4. Perspectives

In this situation once more the effectiveness of police controls, legislative and educational measures and above all their interaction should be considered. Alcohol as a drug has been known for thousands of years and intensively consumed for centuries. The motor vehicle has been in use for about one hundred years, and on a wider-spread basis only about forty years. In Germany it has seriously affected the lifestyles of not more than two generations. The process of social reorientation to change dominant attitudes and to practise new behaviour modes of drinking-driving control will presumably be long and difficult.

In view of the complicated structure of social control, a solution to the problem may be found by concentrating on primary prevention. Most drivers (up to 95 per cent) today probably remain below the legal BAC limit of 80 mg/100 ml [Stephan, 1989; Krüger et al, 1995]. 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 to 2 per cent [Kerner, 1985].

Present efforts in the Federal Republic of Germany towards a more systematic integration of driver improvement programs especially for recidivists about 100 000 per year out of 45 Mio. driver licence holders into the existing legal and administrative framework seem to provide a more promising route to traffic safety in the medium term than do demands for radical changes.
in sanctions [Stephan, 1988, Winkler et al, 1991, Kroj, 1993 and 1995]. Driver improvement programs can already be considered as making an important and irreplaceable contribution to road safety in the Federal Republic of Germany. However, they cannot be seen as a substitute for legal sanctions and measures.

References


Table 1: Time series of alcohol-related road accidents with injuries versus road accident with injuries in the period from 1975 - 1995 in West Germany, and since 1991 in West and East Germany\textsuperscript{1}.

<table>
<thead>
<tr>
<th>accident category with injuries</th>
<th>1975</th>
<th>1980</th>
<th>1985</th>
<th>1990</th>
<th>1991\textsuperscript{1}</th>
<th>1992\textsuperscript{1}</th>
<th>1993\textsuperscript{1}</th>
<th>1994\textsuperscript{1}</th>
<th>1995\textsuperscript{1}</th>
</tr>
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<tbody>
<tr>
<td>road accidents with injuries</td>
<td>337,732</td>
<td>379,235</td>
<td>327,745</td>
<td>340,043</td>
<td>385,147</td>
<td>395,462</td>
<td>385,384</td>
<td>392,754</td>
<td>388,003</td>
</tr>
<tr>
<td>alcohol-related road accidents</td>
<td>48,346</td>
<td>49,210</td>
<td>35,775</td>
<td>32,814</td>
<td>41,603</td>
<td>40,823</td>
<td>40,998</td>
<td>39,892</td>
<td>36,966</td>
</tr>
<tr>
<td>share of alcohol-related road accidents with injuries</td>
<td>14 %</td>
<td>13 %</td>
<td>11 %</td>
<td>10 %</td>
<td>11 %</td>
<td>10.3 %</td>
<td>10.6 %</td>
<td>10.2 %</td>
<td>9.5 %</td>
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</table>
Table 2: Time series of alcohol-related injuries in road accidents versus injuries in road accidents in the period from 1975 - 1990 in West Germany, and since 1991 in West and East Germany

<table>
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<tbody>
<tr>
<td>injuries in road accidents</td>
<td>472 667</td>
<td>513 504</td>
<td>430 495</td>
<td>456 064</td>
<td>516 835</td>
<td>527 428</td>
<td>515 540</td>
<td>526 229</td>
<td>521 595</td>
</tr>
<tr>
<td>alcohol-related injuries in road accidents</td>
<td>72 444</td>
<td>71 353</td>
<td>49 764</td>
<td>45 936</td>
<td>58 609</td>
<td>57 132</td>
<td>57 112</td>
<td>55 093</td>
<td>51 346</td>
</tr>
<tr>
<td>share of alcohol-related road accidents</td>
<td>15 %</td>
<td>14 %</td>
<td>11 %</td>
<td>10 %</td>
<td>11 %</td>
<td>10,8 %</td>
<td>11 %</td>
<td>10,5 %</td>
<td>9,8 %</td>
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</tbody>
</table>
Table 3: Time series of alcohol-related injuries in road accidents versus injuries in road accidents in the period from 1975 - 1990 in West Germany, and since 1991 in West and East Germany

<table>
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<tbody>
<tr>
<td>Fatalities in road accidents</td>
<td>14,870</td>
<td>13,041</td>
<td>8,400</td>
<td>7,906</td>
<td>11,300</td>
<td>10,631</td>
<td>9,949</td>
<td>9,814</td>
<td>9,454</td>
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<tr>
<td>Fatalities in alcohol-related road accidents</td>
<td>3,318</td>
<td>2,919</td>
<td>1,719</td>
<td>1,414</td>
<td>2,229</td>
<td>2,102</td>
<td>2,048</td>
<td>1,828</td>
<td>1,716</td>
</tr>
<tr>
<td>Share of alkohol-related road accidents</td>
<td>22%</td>
<td>22%</td>
<td>20%</td>
<td>18%</td>
<td>20%</td>
<td>19.8%</td>
<td>20.5%</td>
<td>18.6%</td>
<td>18.2%</td>
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