European Commission

Alcohol 2015
Summary

European Road Safety Observatory
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Transport

Alcohol - Summary

What is the problem?

Alcohol consumption has a detrimental effect on driver capabilities at all levels of the driving task. As a result, drinking drivers are clearly over-represented in road accidents. Furthermore, alcohol-related accidents tend to be more severe. With a Blood Alcohol Concentration (BAC) in the driver of 1,5 g/l the relative risk of a fatal accident is about 200 times larger than for sober drivers.

How big is the problem?

Risk exposure: Compared to other global regions, Europe is by far the heaviest drinking region of the world. The drinking patterns and the preferred type of drink (wine, beer or spirits) vary from country to country, but in all EU Member States alcohol consumption is substantial. In 10 EU countries, mostly from Southern Europe, the percentage of self-reported alcohol use when driving, at least once in the last month, exceeds 30%.

Risk of accident involvement: As BAC in the driver increases, the relative accident risk also increases. The increase in risk accompanying increasing BAC is progressive. Compared to a sober driver, the relative accident risk of a driver with a BAC of 0,8 g/l (still below the legal limit in 2 of the EU Member States) is 2,7 times that of sober drivers. A driver with a BAC of 1,5 g/l has a relative accident risk 22 times that of a sober driver. Unfortunately, systematic testing all road users involved in accidents for alcohol is rare in EU countries. Therefore, alcohol-related accidents are underreported in official statistics.

Size of accident injury problem: About 25% of all road fatalities in Europe are alcohol-related whereas about only 1,6% of all kilometres driven in Europe are driven by drivers with 0,5 g/l alcohol or more in their blood.

What does science say?

Why is drinking and driving so dangerous?

The driving task can be divided into three different levels and alcohol diminishes driving skills at all three:

At the lowest level (control level) are tasks dealing with keeping a proper speed and maintaining the correct course. Most of the skills related to this level (e.g. tracking performance, reaction times, visual detection) already begin to deteriorate at a BAC below 0,5 g/l.

At the intermediate level (tactical level) are decisions dealing with manoeuvring a vehicle in traffic. Skills related to this level are dividing attention, scanning capabilities, and information processing in general. These skills also begin to deteriorate at very low BAC levels. Also, alcohol-impaired drivers have more difficulty maintaining a proper course for the vehicle (lowest level) and therefore focus more on the driving task than on the environment, often overlooking information on coming events such as sharp bends and oncoming traffic.

At the highest level (strategical level) comes the decision as to whether one should drive or not. After having consumed alcohol, self-control becomes less stringent and, when only slightly inebriated, people are more inclined to think that they are able to drive safely.

What are the typical characteristics of drinking and driving offenders?

- young males with a lower social-economic status,
- persons who have problems with alcohol use or who drink more often,
- persons with insufficient knowledge and deviating attitudes towards drink driving, and
- persons with an extensive background of criminal behaviour or who commit a lot of traffic offences.

The majority of drunk drivers are males; however the rate of conviction for female drunk drivers is increasing in many countries.

Legal BAC limit

The legal BAC limit for the general driving population in the 25 EU Member Countries ranges from 0g/l to 0,8g/l. The lowest limit (0g/l) is applied in: Bulgaria, Czech Republic, Hungary, Romania and Slovakia, the highest limit (0,8g/l) in Malta and the United Kingdom.

What are the solutions?

The measures to reduce drink driving can be categorized in four separate groups. These groups are:

Reducing the availability of alcohol

- Limiting points of sale.
- Increasing prices.
- Raising the minimum drinking age.

Separating drinking from driving

- Installation of alcohol ignition interlocks, especially in rehabilitation programs.
- Designated driver programmes, i.e. not offering alcohol to drivers in restaurants, discos, pubs, bars etc.
- Public transport, efficient and cheap, to get people from places where alcohol is consumed without having to drive.

Legislation and enforcement

- Low legal BAC limits.
- Increased number of (random) roadside breath tests.
- Sanctions: fines, driver license suspension, driver license withdrawal, penalty point system, alcohol anklets or bracelets that samples an offender's perspiration every e.g. 30 minutes, to ensure compliance to sobriety.

Education and information (which support proven interventions)

- Education programmes on alcohol in schools and in driver training.
- Driver improvement courses (rehabilitation courses).
- Public campaigns.
- Promotion of traffic safety culture.

Notes

1. Country abbreviations

Belgium	BE	Italy	IT	Romania	RO
Bulgaria	BG	Cyprus	CY	Slovenia	SI
Czech Republic	CZ	Latvia	LV	Slovakia	SK
Denmark	DK	Lithuania	LT	Finland	FI
Germany	DE	Luxembourg	LU	Sweden	SE
Estonia	EE	Hungary	HU	United Kingdom	UK
Ireland	IE	Malta	MT		
Greece	EL	Netherlands	NL	Iceland	IS
Spain	ES	Austria	AT	Liechtenstein	LI
France	FR	Poland	PL	Norway	NO
Croatia	HR	Portugal	PT	Switzerland	CH

2. This 2015 edition of Traffic Safety Synthesis on Alcohol updates the previous versions produced within the EU co-funded research projects SafetyNet (2008) and DaCoTA (2012). This Synthesis on Alcohol was originally written in 2008 by Willem Vlakveld, SWOV and then updated in 2012 by Sjoerd Houwing, SWOV and in 2015 by Dan Mayhew and Leanna Ireland, TIRF.

3. All Traffic Safety Syntheses of the European Road Safety Observatory have been peer reviewed by the Scientific Editorial Board composed by: George Yannis, NTUA (chair), Robert Bauer, KFV, Christophe Nicodème, ERF, Klaus Machata, KFV, Eleonora Papadimitriou, NTUA, Pete Thomas, Un.Loughborough.

4. Disclaimer

5. Please refer to this Report as follows:

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