

Research report no. 2019-R-02-SEN

## **Alcohol behind the wheel: the state of affairs in Belgium**

National behavioural measurement "Driving under the influence of alcohol"  
2019



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The complete report is available in Dutch and French:

Brion, M., Meunier, J-C. & Silverans, P. (2019). Alcohol achter het stuur: de stand van zaken in België. Nationale gedragsmeting 'Rijden onder invloed van alcohol' 2019. Brussel, België: Vias institute – Kenniscentrum.

Brion, M., Meunier, J-C. & Silverans, P. (2019). Alcool au volant : l'état de la situation en Belgique – Mesure nationale de comportement « Conduite sous influence d'alcool » 2019. Bruxelles, Belgique: Institut Vias – Centre de Connaissance.

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# Summary

## Context and objectives

Driving under the influence of alcohol is a major source of road crashes. Various studies indicate that this behaviour is relatively common on Belgian roads. In order to monitor this problem, since 2003, the Vias Institute has regularly carried out national measures of the prevalence of driving under the influence of alcohol based on random checks by the police. The objective of these behavioural measures is to determine the characteristics of drivers who drive while drunk and to monitor the evolution of these characteristics over time. This report presents the results of the 7<sup>th</sup> edition of this measure, carried out in 2018.

## Methodology

The approach adopted is to randomly subject drivers to a blood alcohol test in order to obtain a representative picture of driving under the influence of alcohol in traffic. Behavioural measurements are carried out in collaboration with the local and federal police services, who are asked to carry out a number of alcohol tests, following certain specific instructions (the place and time of the tests were randomly selected by the Vias Institute). The controls as such are carried out in an aselective manner (i.e. no objective or subjective criteria prevail to determine which drivers are subjected to the breath test).

The study focuses specifically on car drivers. Drivers stopped by the police are in most cases subjected to a sampling check followed by a traditional blood alcohol level check. All stopped drivers, whether under the influence of alcohol or not, are also subject to an individual (anonymous) questionnaire prepared by the Vias Institute to collect different information (age, destination, travel time, etc.).

The field work took place from September 10 to October 10, 2018. During this period, 538 testing sessions were implemented and 8499 drivers (car and van) were tested for alcohol. For methodological reasons, some controls and drivers were excluded from the analysis. In addition, due to their low proportion (about 10%), pickup truck drivers were not considered in this study. This covers 366 control sessions and 6121 drivers.

The main indicator used in the analyses is the percentage of drivers under the influence of alcohol (DUI) (or "driving under the influence rate"). Are considered "under the influence" all drivers whose blood alcohol level is greater than or equal to the legal limit of 0,22 mg per litre of exhaled alveolar air (EAA). The threshold of 0,35 mg/l EAA is used to identify the most impregnated conductors. Two sub-categories were therefore considered in addition to the total percentage of ICS: 'slightly' intoxicated drivers ("Alarm" level, according to the breathalyzer test:  $0.22 \text{ mg/l} \leq \text{Exhaled breath alcohol concentration (EBAC)} < 0,35 \text{ mg/l}$  or  $0,5 \text{ g/l} \leq \text{Blood alcohol concentration (BAC)} < 0,8 \text{ g/l}$ ) and heavily intoxicated drivers ("Positive" level, according to the breathalyzer test:  $\text{EBAC} \geq 0.35 \text{ mg/l}$  or  $\text{BAC} \geq 0,8 \text{ g/l}$ ).

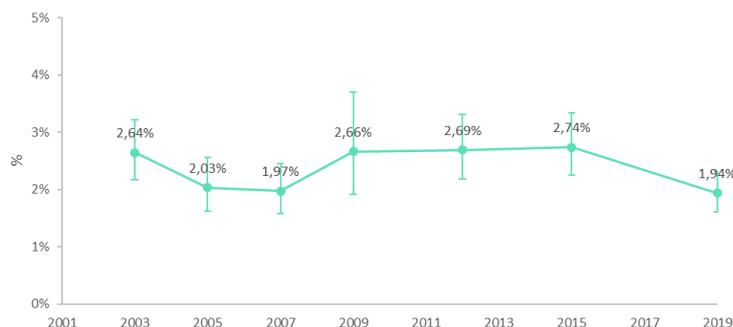
	<i>Exhaled breath alcohol concentration (EBAC)</i>	<i>Blood alcohol concentration (BAC)</i>	
<i>S - Safe</i>	EBAC < 0,22 mg/l	BAC < 0,5 g/l	} Drivers under the influence of alcohol (DUI)
<i>A - Alarm</i>	$0,22 \text{ mg/l} \leq \text{EBAC} < 0,35 \text{ mg/l}$	$0,5 \text{ g/l} \leq \text{BAC} < 0,8 \text{ g/l}$	
<i>P - Positive</i>	EBAC $\geq 0,35 \text{ mg/l}$	BAC $\geq 0,8 \text{ g/l}$	

In order to ensure that the results are representative of the whole of Belgium and comparable from one edition to another, the data have been weighted to take into account the length of the network in each Region, the time and duration of the monitoring and the volume of traffic.

## Key results

### DUI prevalence

The 2018 edition of the "Driving under the influence of alcohol" behavioural measure states that 1.94% of intercepted motorists had a blood alcohol level above the legal limit (0,22 mg of alcohol per litre of exhaled alveolar air, equivalent to 0,5 g of alcohol per litre of blood). This prevalence is substantially lower than the previous 3 editions (which were around 2,65%) although it is difficult to identify a clear trend in the longer term - for example, the 2007 edition of the measure reported a prevalence very similar to the current edition, at 1,97%.



### Region

The prevalence of DUI by region has mainly evolved in Wallonia, where there has been a clear decrease since the previous edition, from 3,9% in 2015 to 2,1 in 2018. For the Flemish Region, the figures are, like most previous editions, lower than for Wallonia (1,7% for Flanders in 2018) and remain fairly stable over the years - with the exception of the 2009 edition, which reported a prevalence of 2,8% in Flanders.

### Period of the week

The prevalence of DUI by period of the week has, however, changed over time as the behavioural measurement has been published. Weekend nights remain a period associated with the highest frequency of DUI and this trend tends to increase with each edition (for 2018, 12,6%). This is well above the values observed in the Netherlands, Canada or the USA (less than 5%). Concerning weekday nights, the prevalence of DUI, which had already increased significantly in recent editions, rose sharply from 3,6% of DUI in 2007 to 8,8% in 2015 and reached 10,7% in 2018. It can no longer be concluded that many more motorists drive under the influence of alcohol on weekend nights than on weekday nights. It is therefore all nights, both weekdays and weekends, that must now be the subject of special measures. Daytime, weekdays and weekends, has a much lower DUI rate (less than 1,5%). In 2018, the prevalence of DUI on weekdays and weekends was the lowest since the first edition of the measure in 2003, but these periods still represent 87% of one-week traffic and still require special attention in terms of prevention.

### Gender

With regard to gender, the prevalence of DUI has not fundamentally changed over the years and remains very different for men and women. In 2018, 2,8% of men exceeded the legal blood alcohol limit while driving, compared to "only" 0,6% of women. The higher propensity of men to drive under the influence of alcohol is a constant in the various international studies on driving under the influence. In addition, high DUI rates among men are very detrimental to road safety because they drive more often than women. Men therefore undeniably remain a key target group if we want to reduce drinking and driving.

### Age

In terms of age, with the exception of age category 26-39, which has been negatively affected by a significant increase in DUI rates since 2003 - from 2,1% to 3,1% for this 2018 edition, the prevalence of DUI in all other age categories has decreased since the previous edition - and is around 1.5%. For the 18-25 and 55+ categories, there is no clear trend in the longer term (since the first edition). On the other hand, the 40-54 age group has almost systematically decreased over the years - from 4% in 2003 to 1,7% in 2018.

While young motorists (18-25 years old) remain a relevant target because of the high accident risk associated with alcohol consumption, it should also be borne in mind that the intermediate age group (26-39 years old) represents a significant proportion of drivers under the influence. In addition, international studies confirm a trend we are seeing here: on weekend nights, contrary to popular belief, younger drivers are less likely to be influenced than other age groups. The highest DUI rate is for motorists in the next ten (25-35). Actions targeting all age groups are justified, but the results of this report call for a particular focus on the youngest age groups (40 years and under).

## Recommendations

The recommendations to tackle driving under the influence of alcohol are summarized in 8 key points:

1. Efficient use and increase of the enforcement capacity for DUI
2. Reduce the legal alcohol limit for novice drivers
3. Systematic registration of police alcohol controls and continuous monitoring of DUI
4. Communication about alcohol controls
5. Driver Improvement courses as an alternative or additional measure
6. Continuous sensitization and education with regard to DUI
7. Tackling problematic alcohol consumption in society
8. Availability and promotion of alternatives to DUI

The best results are achieved with an integrated approach where different measures are combined and different sectors and policy areas work together.

