

How to increase the effect of alcohol checks on road safety?

An analysis of the distribution of violations for driving under the influence of alcohol and of alcohol-related traffic accidents with regard to a more efficient distribution of alcohol checks



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Research report no. 2018-R-05-SEN

D/2018/0779/22

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Responsible publisher: Karin Genoe

Publisher: Vias institute – Knowledge Centre Road Safety

Date of publication: 02/05/2019

The complete report is available in Dutch and French:

Pelssers, B. (2019). Hoe het effect van alcoholcontroles op de verkeersveiligheid verhogen? Een analyse van de verdeling van overtredingen voor rijden onder invloed van alcohol en van alcoholgerelateerde verkeersongevallen met het oog op een efficiëntere verdeling van alcoholcontroles. Brussel, België: Vias institute – Kenniscentrum Verkeersveiligheid

Pelssers, B. (2019). Comment accroître l'impact des contrôles d'alcoolémie sur la sécurité routière ? Analyse des accidents et infractions liés à la consommation d'alcool et du risque relatif en vue d'assurer une meilleure répartition des contrôles d'alcoolémie. Bruxelles, Belgique : l'institut Vias – Centre Connaissance de Sécurité Routière

This research was made possible by the financial support of the Federal Public Service Mobility and Transport.

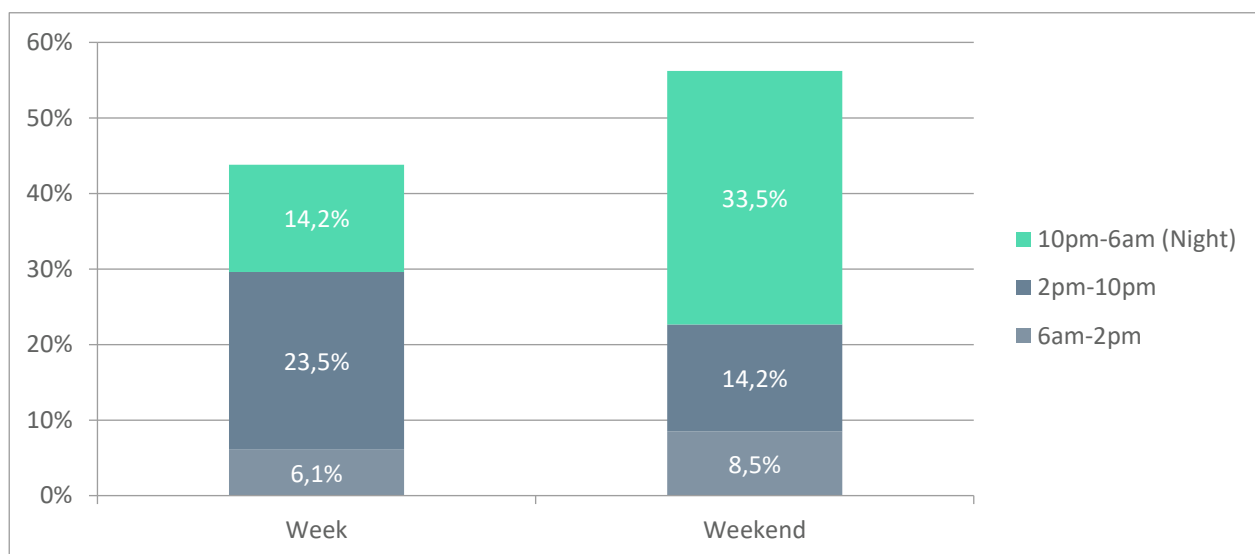
Summary

Driving under the influence of alcohol is a major cause of danger on the road. Alcohol adversely affects driving skills, even when the person has only consumed a relatively small amount. The higher the driver’s level of alcohol, the greater the likelihood of a road accident. Yet despite the increased risk, many Belgians are still guilty of driving when they have been drinking. This can be seen clearly from the accident, behavioural and attitude indicators collated by Vias institute. For this reason, there continues to be a need to continue making an effort to reduce the level of drink-driving still further. One of the possible measures for doing this is to improve/increase the level of enforcement. A recent study by Silverans, Nieuwkamp and Van den Berghe (2018) shows that doubling the number of drink-driving checks can result in a reduction of the percentage of drivers testing positive to alcohol by 30 to 40%.

This particular study examined how alcohol checks could in theory be spread more effectively. The distribution of drink-driving checks needs to be considered as a separate measure and not as a way of strengthening controls in addition to doubling alcohol checks. Indeed, if it is not possible to double the number of roadside breath-tests, then the better distribution of the tests should ensure that the number of alcohol-related road accidents and offences is reduced.

The analyses show that the theoretically ideal distribution for alcohol controls is to organise them proportionally to the distribution of alcohol-related serious road accidents. The results (Figure A) show that if the alcohol controls were divided on the basis of alcohol-related traffic accidents, they would have to be carried out in the first place during the weekend and more specifically during the weekend nights (10pm-6am). Alcohol controls should then mainly be carried out inside and outside built-up areas, and to a lesser extent on motorways.

Figure A: Theoretically recommended distribution of alcohol checks based on alcohol-related road accidents by week/weekend and by time (10 pm-6 am; 6 am-2 pm; 2 pm-10 pm)



Source: Statbel (Directorate-general Statistics - Statistics Belgium)- Processing by Vias institute

The theoretical model developed in this survey provides, for the first time, a framework for taking qualitative criteria into account in the operational planning of alcohol controls, in addition to quantitative objectives on the number of alcohol controls to be carried out each year. However, on the basis of a detailed cost-benefit analysis, this first step needs to be further refined so that the additional costs of alcohol controls at night and at weekends can be weighed up against the relative benefits that can be expected from alcohol controls at those times.

