



# ESRA

www.esranet.eu

## E-Survey of Road users' Attitudes



### Enforcement and traffic violations

ESRA2 Thematic report Nr. 6



Publications Date of this report: 23/09/2020

Main responsible organization for this report: SWOV – Institute for Road Safety Research SWOV, Netherlands

D/2020/0779/28 - Report number: 2020-T-02-EN

**Authors:** Charles Goldenbeld<sup>1</sup>, Ilona Buttler<sup>2</sup>

<sup>1</sup> Institute for Road Safety Research SWOV, Netherlands

<sup>2</sup> Motor Transport Institute ITS, Poland

Please refer to this document as follows: Goldenbeld, C., & Buttler, I. (2020) Enforcement and traffic violations. ESRA2 Thematic report Nr. 6. ESRA project (E-Survey of Road users' Attitudes). The Hague, Netherlands: SWOV Institute for Road Safety Research.



## Enforcement and traffic violations

### ESRA2 Thematic report Nr. 6

#### Partners in the ESRA2\_2018 survey

##### ESRA coordination

- Vias institute, Belgium: *Uta Meesmann, Katrien Torfs, Huong Nguyen, Wouter Van den Berghe*

##### ESRA2 core group partners

- BAST - Federal Highway Research Institute, Germany: *Susanne Holocher, Hardy Holte*
- BFU - Swiss Council for Accident Prevention, Switzerland: *Yvonne Achermann Stürmer, Hysen Berbatovci*
- CTL – Research Centre for Transport and Logistics, Italy: *Davide Shingo Usami, Veronica Sgarra,*
- IATSS - International Association of Traffic and Safety Sciences, Japan: *Toru Kakinuma, Hideki Nakamura*
- ITS - Motor Transport Institute, Poland: *Ilona Buttler*
- IFSTTAR - The French Institute of Science and Technology for transports, development and networks, France: *Marie-Axelle Granié*
- KFV - Austrian Road Safety Board, Austria: *Gerald Furian, Susanne Kaiser*
- NTUA - National Technical University of Athens, Greece: *George Yanniss, Alexandra Laiou, Dimitrios Nikolaou*
- PRP - Portuguese Road Safety Association, Portugal: *Alain Areal, José Trigos, Carlos Pires*
- SWOV - Institute for Road Safety Research, Netherlands: *Charles Goldenbeld*
- TIRF - Traffic Injury Research Foundation, Canada: *Ward Vanlaar, Steve Brown, Heather Woods-Fry, Craig Lyon*

##### ESRA2 supporting partners

- AAAFTS - AAA Foundation for Traffic Safety, USA: *Woon Kim, Tara Kelley-Baker*
- Australian Government - Department of Infrastructure, Regional Development and Cities, Australia: *Cynthia Wallace, Christopher Karas, Olivia Sherwood, Debra Brodie-Reed, Nikolina Rajchinoska*
- AVP - Slovenian Traffic Safety Agency, Slovenia: *Vesna Marinko, Tina Bizjak*
- CDV - Transport Research Centre, Czech Republic: *Pavlina Skladana*
- Department for Transport, United Kingdom: *Catherine Mottram*
- DGT - Traffic General Directorate, Ministry of Interior, Spain: *Sheila Ferrer, Paula Marquéz*
- Group Renault, France: *Bruno Hernandez, Thierry Hermitte*
- IIT Kharagpur - Indian Institute of Technology Kharagpur; Civil Engineering Department, India: *Sudeshna Mitra*



- KOTI - The Korea Transport Institute, Republic of Korea: *Sangjin Han, Hyejin Lee*
- KTI - KTI Institute for Transport Sciences Non-Profit Ltd., Hungary: *Péter Holló, Miklós Gábor, Gábor Pauer*
- Liikenneturva - Finnish Road Safety Council, Finland: *Juha Valtonen, Leena Pöysti*
- NRSA - Israel National Road Safety Authority, Israel: *Yiftach Gordoni*
- RSA - Road Safety Authority, Ireland: *Sharon Heffernan, Velma Burns, Ben Breen*
- RTSA - Road Traffic Safety Agency, Serbia: *Lidija Stanojević, Andrijana Pešić, Jelena Milošević*
- DRSC - Danish Road Safety Council, Denmark: *Pernille Ehlers, Bjørn Olsson, Lise Heiner Schmidt*
- VTI - Swedish National Road and Transport Research Institute, Sweden: *Anna Vadeby, Astrid Linder*



## Acknowledgement

The authors of this report would like to thank the following persons and organizations for their much-appreciated contribution to this report:

- PRP (Carlos Pires) + CTL (Davide Shingo Usami, Isabella Corazziari) for providing the descriptive figures;
- NTUA (Alexandra Laiou) + bfu (Yvonne Achermann) for providing contextual information on the topic;
- KFV (Susanne Kaiser) for reviewing this report and SWOV (Charles Goldenbeld) for coordinating the review procedure;
- Vias institute (Uta Meesmann, Katrien Torfs, Huong Nguyen, Wouter Van den Berghe) for coordinating ESRA, conducting the fieldwork and developing the ESRA2 survey and database;
- PRP (Carlos Pires) for supervising the quality of the ESRA2 database;
- all ESRA2 core group organizations for helping to develop the ESRA2 survey and the common ESRA2 output;
- all ESRA2 partners for supporting and financing the national ESRA2 surveys in 32 countries.

ESRA is funded through the contributions of the partner organisations, either from their own resources or from sponsoring. Part of the funding for Vias institute is provided by the Belgian Federal Public Service Mobility & Transport.

## Table of contents

Acknowledgement .....	5
Table of contents .....	6
List of Abbreviations .....	7
Executive summary .....	8
1 Introduction.....	13
2 Methodology .....	15
3 Results .....	17
3.1 Descriptive analysis.....	17
3.1.1 Self-declared risky behaviour of drivers.....	17
3.1.2 Self-declared risky behaviour of moped driver or motorcyclist .....	25
3.1.3 Self-declared risky behaviour of cyclists .....	29
3.1.4 Self-declared risky behaviour of pedestrians.....	31
3.1.5 Experiences of being checked by the police in traffic .....	32
3.1.6 The subjective likelihood of being checked by the police .....	34
3.1.7 Preferences for stricter rules and sanctions .....	36
3.1.8 Comparison over time.....	41
3.2 Advanced analyses .....	43
3.3 Limitations of the data .....	49
4 Summary and discussion .....	50
4.1 Summary .....	50
4.2 Discussion and recommendations .....	53
List of tables .....	57
List of figures.....	57
Overview appendix .....	58
References.....	59
Appendix 1: ESRA2_2018 Questionnaire .....	64
Appendix 2: ESRA2 weights and sample sizes .....	71
Appendix 3: Age and gender results risky behaviour drivers.....	73
Appendix 4: Age and gender results risky behaviour moped riders and motorcyclists.....	83
Appendix 5: Age and gender results risky behaviour cyclists and pedestrians .....	86
Appendix 6: Age and gender results experiences being checked .....	92
Appendix 7: Age and gender results opinions strictness .....	93

## List of Abbreviations

### Country codes

AT	Austria
AU	Australia
BE	Belgium
CA	Canada
CH	Switzerland
CZ	Czech Republic
DE	Germany
DK	Denmark
EG	Egypt
EL	Greece
ES	Spain
FI	Finland
FR	France
HU	Hungary
IE	Ireland
IL	Israel
IN	India
IT	Italy
JP	Japan
KE	Kenya
KR	Republic of Korea
MA	Morocco
NG	Nigeria
NL	Netherlands
PL	Poland
PT	Portugal
RS	Serbia
SE	Sweden
SI	Slovenia
UK	United Kingdom
US	United States
ZA	South Africa

### Other abbreviations

DUI	Driving under the influence
DUID	Driving under the influence of drugs
ESRA	E-Survey of Road Users' Attitudes
EU	European Union
ICW	Individual country weight used in ESRA2

## Executive summary

### Objective and methodology

ESRA (E-Survey of Road users' Attitudes) is a joint initiative of road safety institutes, research centres, public services, and private sponsors from all over the world. The aim is to collect and analyse comparable data on road safety performance, in particular road safety culture and behaviour of road users. The ESRA data are used as a basis for a large set of road safety indicators. These provide scientific evidence for policy making at national and international levels.

Vias institute in Brussels (Belgium) initiated and coordinates ESRA, in cooperation with eleven core group partners (BAST, BFU, CTL, IATSS, IFSTTAR, ITS, KfV, NTUA, PRP, SWOV, TIRF). At the heart of ESRA is a jointly developed questionnaire survey, which is translated into national language versions. The themes covered include self-declared behaviour, attitudes and opinions on unsafe traffic behaviour, enforcement experiences and support for policy measures. The survey addresses different road safety topics (e.g. driving under the influence of alcohol, drugs and medicines, speeding, distraction) and targets car occupants, motorcycle and moped drivers, cyclists and pedestrians.

The present report is based on the second edition of this global survey, which was conducted in 2018 (ESRA2\_2018). In total this survey collected data from more than 35.000 road users across 32 countries. An overview of the ESRA initiative and the project-results is available on: [www.esranet.eu](http://www.esranet.eu).

This thematic ESRA report on traffic enforcement describes the involvement in traffic violations by different road user groups, the experience with traffic checks, the perceived likelihood of enforcement checks on alcohol and drugs, and the opinions on strictness of enforcement and sanctions. It includes comparisons amongst the 32 participating countries as well as results in relation to age and gender. Changes over time - between 2015 (ESRA1) and 2018 (ESRA2) - were looked at for self-reported experience with alcohol and drug checks and for involvement in drinking and driving, speeding and reading text or emailing while driving. More advanced analysis was undertaken to understand the variables that are associated with driving under the influence of alcohol and driving under the influence of drugs.

### Key results

Below we provide a summary of main results without pretence at complete coverage of results. The summary is mostly limited to results at world-wide regional level. The complete results per question, continent and country are reported in Chapter 3 and the Appendices 3 to 7.

#### *Prevalence of the risky self-declared traffic behaviour*

- In all four continents the most frequently reported traffic violations are talking on hand held phone and speeding inside urban areas, speeding on main roads outside urban areas and speeding on motorways with between 40% and 75% of road users admitting to these traffic violations.
- Driving after drinking alcohol is being reported by one in five drivers in Europe, USA and Africa and by one in seven drivers in AsiaOceania.
- Concerning drinking and driving, it seems that this risky behaviour has been reduced over time; the EU average has decreased from 31% to 18% and in a number of countries such as Denmark, Finland, France, Germany, Netherlands, Spain and United Kingdom substantial reductions in self-declared drinking and driving have occurred.
- The use of a smartphone while driving for calling, reading email or texting has become common behaviour in many countries. The most distracting variant of phone use while driving is reading an email or texting a message which requires that sight is averted from the roadway. In African countries percentages for this risky behaviour range between 37% and 52%. In Europe this behaviour is somewhat less frequent with percentages varying between 14% and 37%, with Austrian, Finnish, Serbian, and Portuguese drivers having percentages near 36%.

- The unsafe transport of children is frequent in AsiaOceania and Africa (> 40%), and less frequent in Europe and USA (< 15%).
- The age differences in risky behaviour were nearly all significant in all four regions with younger drivers reporting to engage more in risky driving behaviour than older drivers with effect sizes mostly varying between small to medium.
- In three regions - Europe, North America and Africa - for nearly all risky behaviours males reported to engage more frequently in the behaviour than females; most often the gender differences were quite small.

#### *Reported traffic violations by other road user groups*

##### *Moped riders and motorcyclists:*

- In all four regions, nearly half of all moped riders and motorcyclists report to drive faster than the speed limits on roads outside of built-up areas.
- Riding without a helmet - which is not a violation in many ESRA2 countries - is reported by nearly a half of riders in Africa and AsiaOceania, by two in five riders in North America and by one in four riders in Europe.
- Younger moped riders and motorcycle riders report more frequently to engage in each of the four risky behaviours (drinking and riding, speeding outside built-up areas, riding without helmet and reading text/email or checking social media during riding). Nearly all effect sizes are medium to large.

##### *Cyclists:*

- In all four regions, cycling after having drunk perhaps too much alcohol is reported by one in six cyclists.
- Cyclists in AsiaOceania and Africa more frequently report to read a text message or check social media while cycling (about one in three), to cycle wearing head phones (two in five to about half), and to cycle on road next to the cycle lane (slightly over half) than cyclists in Europe and North America.
- Younger cyclists reported more frequent risky cycling behaviour than older cyclists in three regions with effect sizes mostly between medium to large.

##### *Pedestrians:*

- The behaviours that may increase risk for pedestrians, phone use, head phone use, red light running, crossing road at other place than pedestrian crossing, are frequently reported by pedestrians in all four regions (percentages mostly ranging between 40% and 75%).
- In all regions younger pedestrians report more frequently to engage in risky pedestrian behaviour (listening to music; reading text/checking social media; red light running; crossing nearby pedestrian crossing) than older pedestrians, with effect sizes mostly ranging from medium to large.
- In all regions younger pedestrians report more frequently to engage in risky pedestrian behaviour.

#### *Drivers' experience of being checked for alcohol or drugs in traffic*

- In all regions being checked in traffic for alcohol occurs more frequently than being checked for drugs, with the highest percentages of alcohol checks being reported in AsiaOceania (32%) and the lowest in North America (3%), and Europe (18%) and Africa (16%) falling in between.
- For checks on drugged driving the highest percentages are being reported in AsiaOceania and Africa (both 10%), and low percentages in Europe (4%) and North America (2%).

- In all four regions male drivers tend to report more experience with being checked for using alcohol than female drivers, but statistical effect sizes were consistently small. With the exception of drivers in AsiaOceania, male drivers also tended to report more experience with being checked for the use of drugs than female drivers. The effect sizes were again small.
- In all regions younger drivers tended to report higher likelihood of being checked than older drivers, with effect sizes ranging from small to medium.

#### *Perceived likelihood of being checked*

- In all four regions, the reported likelihood of being checked is most frequent for speeding violations (29% to 45% of drivers reporting this to be likely) and for seat belt violations (24% to 44% of drivers reporting this likely).
- Drivers in African countries report most often that they consider it likely to be checked in traffic (percentages ranging from 23% to 45%) and drivers in North America report this the least often (percentages ranging from 10% to 29%).
- Male drivers tend to report a higher likelihood of being checked for traffic violations than female drivers, but statistical effect sizes are consistently small.
- Age differences were consistent. In all regions younger drivers tended to report higher likelihood of being checked than older drivers, with effect sizes ranging from small to medium.

#### *Opinions on strictness of enforcement*

- Worldwide, in nearly all surveyed countries there is a majority support among road users (> 60%) for a stricter approach to drinking and driving in the sense of stricter penalties and more traffic checks.
- In nearly all surveyed countries there is a clear majority support for stricter approach to phone use while driving (65%-95%).
- On the questions on strictness of sanctions and enforcement female road users tend to report a somewhat stronger preference for strict sanctions and more enforcement than male road users, but the statistical effect sizes are small.
- Older road users were more in favour of strict sanctions for drinking and driving, speeding and use of handheld mobile phone than younger road users with effect sizes ranging from small to medium.

#### *Changes over time*

Answers on violation behaviour of car drivers were compared between ESRA1 and ESRA2. The operational definition of car drivers slightly changed between ESRA1 and ESRA2. In view of this it cannot be excluded that the differences reported below may be partly due to slightly differing samples of ESRA1 and ESRA2.

- Concerning drinking and driving, it seems that this risky behaviour has been reduced over time; the EU average has decreased from 31% to 18% and in a number of countries such as Denmark, Finland, France, Germany, Netherlands, Spain and the United Kingdom substantial reductions in self-declared drinking and driving have occurred.

- Concerning speeding outside built-up areas, it seems that this may have increased somewhat over time.

- Reading a text or email while driving seems to have slightly reduced overall, with large reductions in some countries (Italy, Finland, Greece, Netherlands, Sweden). However, these data should not be taken at face value since there is evidence that at least for one of these countries (the Netherlands) the ESRA2

reports of less email reading and/or texting seems not be supported by actual observations of phone use in traffic.

#### *Variables associated with driving under influence of alcohol or drugs*

- The odds of engaging in driving when one may have been drinking more than the legal alcohol limit in the past thirty days significantly *increase* when people are getting older, when they find this behaviour to be more socially and personally acceptable, when they have beliefs that their friends would drive with alcohol, that one can safely drink and drive for short trips, when they trust their own ability to drive with alcohol, when they often drive after drinking alcohol, when they find penalties too severe, when they perceive a higher likelihood of alcohol checks in traffic and when they have actually been checked for drinking and driving.
- On the other hand, the odds of engaging in drinking and driving in the past thirty days significantly are significantly lower when riders are female, when they believe that alcohol is a more frequent cause of accidents, when they believe more that alcohol rules are insufficiently checked and when they are more supportive of interlock measures for alcohol offenders and zero tolerance policy for drinking and driving.
- The odds of engaging in driving under the influence of drugs are lower for older drivers, for female drivers (versus male) and for drivers who perceive driving under influence as frequent accident cause (versus those who perceive this less so). The odds of engaging in driving under the influence of drugs were increased when drugged driving is more socially and personally acceptable, and when the perceived likelihood of a drug check is higher and there is more experience with drug enforcement.
- The positive relationship between odds of engaging in driving under the influence of alcohol or drugs and higher perceived likelihood of a control and being checked for driving under the influence (DUI) can be explained by various processes. It can be assumed that, first, drivers who use drugs do so at times and near locations where police may focus enforcement efforts, that, second, these drivers are more motivated to look for and notice police checks, and third, that these drivers may show driving behaviour that alerts the police to their vehicle.

#### **Key recommendations**

- Drinking and driving and speeding should remain the top priorities for traffic enforcement on four continents.
- The enforcement of seat belt use and safe transport of children is especially important in African and AsiaOceanic countries.
- A new challenge for traffic enforcement worldwide is the frequent use of (handheld) smartphone by drivers, cyclists and pedestrians.
- New legislation on distraction in traffic and on drugs in traffic, or the possible revision of current legislation should take into account traffic policing practices in order to facilitate as much as possible traffic enforcement operations in these areas.
- In particular countries driving under the influence of drugs is a widespread and rising problem that needs focused attention in terms of health prevention, communication and traffic enforcement.
- The fairly high reported violation rates of road users other than drivers - moped riders, motorcyclists, cyclists and pedestrians - indicates that these groups should not be ignored in road infrastructure (planning), traffic education, or in traffic enforcement planning. Being both vulnerable and engaging in risky behaviour may make motorcyclists, moped riders and cyclists, ideal target groups for special road safety campaigns or enforcement actions. Even though pedestrians are likely not a high risk group they should not be completely ignored when thinking about campaigns and enforcement.



*Closing remark*

The ESRA initiative has demonstrated the feasibility and the added value of joint data collection on road safety performance by partner organizations all over the world. The intention is to repeat this initiative on a triennial basis, retaining a core set of questions in every wave. In this way, ESRA produces consistent and comparable road safety performance indicators that can serve as an input for national road safety policies and for international monitoring systems on road safety performance.

# 1 Introduction

Countries that have successfully reduced road traffic risk have embraced a 'systems approach' to road safety (Peden et al., 2004; SWOV, 2018). A systems approach looks at the traffic system as a whole and at the interaction between road, vehicle, and road user in order to identify where there is potential for intervention (Peden et al., 2004; SWOV, 2018).

Within a safe systems approach, traffic law enforcement is one of the instruments to secure or improve traffic law compliance. In the literature the concepts of 'traffic law enforcement' and 'police enforcement' are often used interchangeably (European Commission, 2018). However, the concepts differ in width. Traffic law enforcement is wider and covers the entire enforcement chain, from detection of a violation through to the penalty. Police enforcement refers to the actual work of detecting a traffic law violation, apprehending the offender, and securing the evidence needed for his prosecution. Police enforcement can only be effective if it operates in a supportive environment of laws, regulations, and a sensitive penal system. Consequently, the effectiveness of police enforcement cannot be seen in isolation from how the police collaborates with the other parties in the traffic law enforcement chain.

Traffic law enforcement influences driving behaviour through two processes: general deterrence and specific deterrence (Zaal, 1994; Mäkinen et al., 2003). General deterrence can be defined as the impact of the threat of legal punishment on the public at large. Specific deterrence can be seen as the impact of the actual legal punishment on those who are apprehended. Thus, general deterrence results from the public's perception that traffic laws are enforced and that there is a risk of detection and punishment when traffic laws are violated. Specific deterrence results from the actual experience of detection, prosecution, and punishment of offenders.

Traffic enforcement should be targeted at violations that are associated with increased crash risk. There is good evidence that the crash risk is increased by violations such as speeding (e.g. OECD, 2018), drinking and driving (Peck et al., 2009), drug use and driving (Hels et al., 2011), red light violations (Goldenbeld & Schagen, 2017) and handheld smartphone use while driving (Dingus et al., 2016).

The effectiveness of enforcement is better if police controls are accompanied by sufficient publicity; takes place regularly over a long period; are unpredictable and difficult to avoid; combine highly visible and less visible activities; focus on traffic offences that have a direct, proven relationship with collisions or their severity (e.g. speeding, drink and drug driving, failure to wear a seat belt, red-light running, mobile phone use) (Mäkinen et al., 2003; ETSC, 2016). According to recent reviews of speed cameras, speed camera programmes will reduce total crashes by 19%, injury crashes by 18% and severe/fatal crashes by 21% (Steinbach et al, 2016, p.45), speed cameras that implement average speed control will reduce total crashes by 30% (Høye, 2015), and red light cameras will reduce total crashes at red light camera equipped intersections by 12% (Goldenbeld et al., 2019). For a number of violations such as driving under the influence of alcohol or drugs, use of smartphone for texting while driving, aggressive driving, enforcement cannot be done with automatic cameras and enforcement needs to take the form of manual (man-based) traffic checks. There is evidence that enforcement of drinking and driving may reduce total crashes by 14% (Erke et al., 2009).

Studies on the effects of police enforcement operations on drugs and driving and smartphone use are almost non-existent. Indeed, there are studies on effects of Driving under the Influence (DUI) laws and cell phone laws (including enforcement), but there is to our knowledge no evaluation of the effectiveness of policing operations. Thus, mostly laws (including (unknown) enforcement levels) are evaluated rather than police operations. In USA, Lacey et al. (2010) attempted to investigate the effectiveness of drug per se laws but they were unable to draw conclusions due to the paucity of objective data and the inability of databases to distinguish between DUI-drug-arrests and DUI-alcohol arrests and convictions (Lacey et al., 2010). GAO research (2015) found that in three of seven selected states there appeared to be a lack of knowledge among law enforcement about drug impairment in drivers. There are studies on effects of DUI laws and cell phone laws. There is evidence in the United States that implementing an explicit ban on handheld phone calls in traffic may result in a decrease of 10% of the number of road fatalities, and a texting prohibition to a 3% decrease (Rocco & Sampaio, 2016). Less is known about the actual enforcement levels that are needed to support these safety

effects. In the USA enforcement of cell phone usage seems sparse (Rudisill et al., 2018). Based on interviews with police officers, Rudisill et al. (2018) identified several barriers for effective enforcement of cell phone laws. More clear and encompassing cell phone legislation could help police enforcement. Besides police enforcement a more general cultural change and technological advancements implemented by cell phone manufacturers are probably part of the solution (Rudisill et al., 2018).

In recent years, there has been some concern in European countries that a cutdown/decrease in traffic enforcement may be related to a decrease in road safety performance (ETSC, 2016b). Police organization in various countries seem to have shifted priorities from traffic enforcement to other problem areas such as terrorism prevention, cybercrime, youth gangs etc. Although there can be good arguments for some shift in policing priorities, it is relevant to point out that reducing traffic enforcement seems to have a downside. Studies outside the European Union have shown that, indeed, strongly reducing the level of traffic enforcement (over a longer time period) may go together with an increase in violation behaviour and traffic crashes. In Canada, Blais & Gagné (2010) found that a 21-month period of sharply reduced police enforcement (61% reduction of stopping offenders in traffic) was associated with an increase in injury crashes (+4%) and damage only crashes (+7%). In the USA, the evidence shows that stopping red light camera programs (for political and/or financial reasons) was associated with both an increase in red light running and an increase in serious intersection crashes (Ko et al., 2017; Hu & Cicchino, 2017). Again, in the USA, researchers found evidence that long term structural cutbacks on the number of highway patrol officers were statistically associated with more crashes on highways (Rezapour et al., 2018).

This report addresses the following research questions on enforcement-related issues:

- What is the prevalence of the risky self-declared violation behaviour among drivers, pedestrians, motorcyclists and cyclists, and how does this differ for region, country, age and gender?
- What proportion of drivers are being checked by the police and how does this differ per region, country, age and gender?
- How do road users rate the likelihood of being checked and how does this differ per region, country, age and gender?
- What do road users think about strictness of enforcement, and how does this differ per region, country, age and gender?

The report is organised as follows. The methodology is further explained in Chapter 2. The results are presented in Chapter 3. The results on self-declared violation behaviour (question 1), on self-reported experience with enforcement checks on alcohol and drugs (question 2), on the perceived likelihood of being checked for alcohol and drugs (question 3), on opinions on strictness of sanctions are reported in section 3.1 of Chapter 3. Advanced analysis of results is presented in Section 3.2. Section 3.3 and closes of Chapter 3 with pointing out some limitations of the data. In Chapter 4 a summary of findings is presented and a further discussion of some of the results is presented. In various appendices the questionnaire itself and further results are presented (Appendix 1: ESRA2 questionnaire; Appendix 2: ESRA weights and sample sizes; Appendix 3 to 7: statistical significance tests).

## 2 Methodology

ESRA (E-Survey of Road users' Attitudes) is a joint initiative of road safety institutes, research centres, public services, and private sponsors from all over the world. The aim is to collect and analyse comparable data on road safety performance, in particular road safety culture and behaviour of road users. The ESRA data are used as a basis for a large set of road safety indicators. These provide scientific evidence for policy making at national and international levels.

ESRA data is collected through online panel surveys, using a representative sample of the national adult populations in each participating country (at least N = 1000 per country). At the heart of this survey is a jointly developed questionnaire, which is translated into national language versions. The themes covered include self-declared behaviour, attitudes and opinions on unsafe traffic behaviour, enforcement experiences and support for policy measures. The survey addresses different road safety topics (e.g. driving under the influence of alcohol, drugs and medicines, speeding, distraction) and targets car occupants, motorcycle and moped drivers, cyclists and pedestrians. The present report is based on the second edition of this global survey, which was conducted in 2018 (ESRA2\_2018). In total this survey collected data from more than 35 000 road users across 32 countries.

The participating countries in ESRA2\_2018 were:

- Europe: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom;
- America: Canada, USA;
- Asia and Oceania: Australia, India, Israel, Japan, Republic of Korea;
- Africa: Egypt, Kenya, Morocco, Nigeria, South Afrika.

Vias institute in Brussels (Belgium) initiated and coordinates ESRA, in cooperation with eleven core group partners (BAST (Germany), BFU (Switzerland), CTL (Italy), IATSS (Japan), IFSTTAR (France), ITS (Poland), KFV (Austria), NTUA (Greece), PRP (Portugal), SWOV (the Netherlands), TIRF (Canada)). The common results of the ESRA2\_2018 survey will be published in a Main Report, a Methodology Report and at least fifteen Thematic Reports. (Table 1). Furthermore, 32 country fact sheets were produced, in which national key results are compared to a regional mean (benchmark) and scientific articles, national reports and many conference presentations are currently in progress. An overview of the results and news on the ESRA initiative is available on: [www.esranet.eu](http://www.esranet.eu)

Table 1: ESRA2 Thematic Reports

Driving under influence	Child restraint systems	Cyclists
Speeding	Unsafety feeling & risk perception	Moped drivers & motorcyclists
Distraction (mobile phone use)	Enforcement	Young road users
Fatigue	Vehicle automation	Elderly road users
Seat belt	Pedestrians	Gender aspects

The present report summarizes the ESRA2\_2018-results with respect to traffic enforcement, i.e. the self-declared violation behaviours that are targeted by enforcement, the experiences with and beliefs about enforcement and the opinions on strictness of enforcement and sanctions. An overview of the data collection method and the sample per country can be found in (Meesmann & Torfs, 2019. [ESRA2 methodology](#)).

Note that a weighting of the data was applied to the descriptive analyses. This weighting took into account small corrections with respect to national representativeness of the sample based on gender and six age groups: 18-24y, 25-34y, 35-44y, 45-54y, 55-64y, 65y+; based on population statistics from United Nations data (United Nations Statistics Division, 2019). For the regions, the weighting also took

into account the relative size of the population of each country within the total set of countries from this region. SPSS 25.0 was used for all analyses.

### *Significance testing*

Chi-Square tests of independence were used to test the statistical association of each binary variable (self-declared behaviour, acceptability, perception accident cause) with gender and age group.

Further column proportions tests, i.e. pairwise comparisons between pairs of groups (region, gender, age groups), were performed to test for differences between specific regions, or age groups. Significant differences are indicated in the cross-tabulation table with APA-style formatting using subscript letters and are calculated at the 0.01 significance level.

Effect size measure were expressed as Cramer's V. Cramer's V indicates the strength of the association between each binary variable (self-declared behaviour, acceptability, ...) and gender and age group. The values of Cramer's V can be interpreted as follows (Cohen, 1988)

df=1 (small=.10, medium=.30, large=.50)

df=2 (small=.07, medium=.21, large=.35)

df=3 (small=.06, medium=.17, large=.29)

df=4 (small=.05, medium=.15, large=.25)

df=5 (small=.05, medium=.13, large=.22)

For example, the table A3.1 in Appendix 3 indicates the following. There is a significant age difference in the prevalence of driving after drinking alcohol (Chi-square= 51,8, df= 5; p = .000). The associated *Cramer's V* (= 0.058) indicates the effect or difference is quite small. The subscript letters *a* and *b* indicate that the rate of self-declared driving after drinking alcohol is not significantly different among age groups 18-24 yrs., 25-34 yrs. and 35-44 yrs. (*all subscripts a*), and is not different among age groups 45-54yrs., 55-64 yrs. and 65+ yrs. (*all subscripts b*), but it is different between these two age groupings (i.e. there is a statistical difference between on the one hand those aged 18-24yrs., 25-34 yrs. or 35-44 yrs. *versus* on the other hand those aged 45-54yrs., 55-64 yrs. or 65+ yrs.).

## 3 Results

### 3.1 Descriptive analysis

This section presents the descriptive statistics on questions about enforcement-related subjects. The ESRA2 questions on enforcement-related issues concern the following:

- self-declared risky behaviour of drivers (Section 3.1.1),
- moped and motorcycle riders (section 3.1.2),
- cyclists (section 3.1.3),
- pedestrians (section 4.1.4),
- experiences of being checked in traffic (4.1.5),
- likelihood of being checked (4.1.6.) and
- opinions on stricter enforcement (4.1.7).

In each ESRA country about 1000 road users participated in the survey, among which about 800 car drivers (precise sample sizes are presented in Appendix 3). Please note that in the African countries a lower percentage of people has access to and use the internet (in Kenya and Nigeria less than 30%). Within the African countries the numbers of 65+ respondents who answered the ESRA2 survey were quite low (with the exception of South Africa), so that the answers of this particular age group in African countries cannot be considered to be representative.

For each topic, the results are presented in a similar way: first the basic results per region, then the results are further broken down by country. The results for age and gender are reported in Appendices 3 to 7.

Statistical tests of differences between gender and age groups have been performed and are reported in Appendices 3 to 7. Besides statistical significance also the effect sizes of the tested differences are reported in Appendices 3 to 7. Nearly all effect sizes range from "small" to "medium".

#### 3.1.1 Self-declared risky behaviour of drivers

This section presents result on self-declared risky driving behaviour in the past thirty days and self-declared risky behaviour in the past twelve months.

##### *Risky behaviour during past thirty days*

Figure 1 presents the results on self-declared risky driving behaviour of drivers in the past thirty days. In broad lines the results show the following:

- The unsafe transport of children in vehicles (no seat belt, no otherwise adequate protection) is three to four times more frequent in AsiaOceania and Africa (percentages over 40%) than in North America (percentages around 10%) and Europe (percentages 13-15%).
- In all four regions driving faster than the speed limits occurs most frequently on motorways freeways and least frequently on roads within built-up areas, with the highest percentages of limit offending being reported in Europe and North America (ranging between 56% and 72%) and somewhat lower in AsiaOceania and Africa (ranging between 43% and 51%).

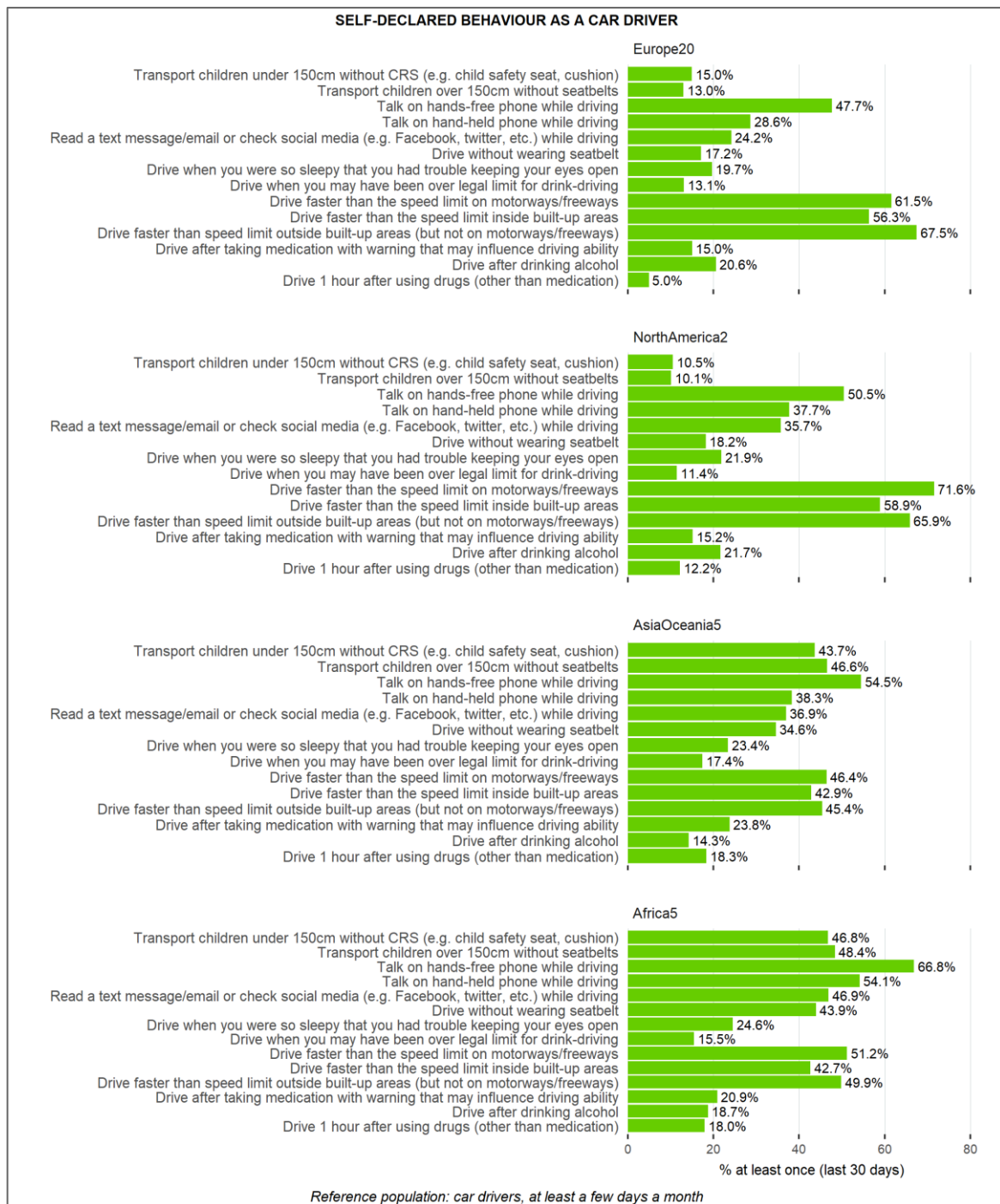


Figure 1: Self-declared risky driving behaviour by region (% of car drivers that did it at least once ... in the past 30 days).

- Driving after taking medication that may influence driving ability occurs more frequently in AsiaOceania (24%) and Africa (21%) than in Europe or North America (both 15%)
- In all four continents talking on handsfree phone while driving is more common than talking on a handheld phone. The percentages for handsfree talking on the phone, respectively handheld talking on the phone while driving are highest for drivers in the African region (67%, resp. 54%), and



lowest for drivers in Europe (48%, resp. 29%), with drivers in North America and AsiaOceania in between.

- The use of smartphones for reading a text message or checking social media is very frequent in regions Africa, AsiaOceania and North America (47%, 37% and 36%, respectively), and far less though still substantial in Europe (24%).
- Concerning driving under the influence of alcohol roughly about one in five drivers in Europe, North America and Africa has reported to have done this in the past 30 days. In AsiaOceania self-reported drinking and driving is somewhat lower with one in seven (14%) of drivers reporting this behaviour.
- Driving without wearing a seat belt is most frequent in Africa (50%), far less frequent in AsiaOceania (35%), and least frequent, though still a substantial number, in North America and Europe (18% and 17% respectively).

### *Age and gender differences*

Appendix 3 presents results of statistical significance testing of gender and age differences in self-declared risky driving behaviour. Concerning gender differences we summarise these results as follows:

- In three regions Europe, North America and Africa for nearly all risky behaviours males reported to engage more frequently in the behaviour than females;
- Most often the gender differences were quite small ( $df=1$ , Cramers'  $V < 0.10$ )
- The largest gender differences (Cramer's  $V > 1.5$ , medium size effects) were found for Europe and concerned male drivers reporting to drive more frequently after drinking alcohol (Cramer's  $V = 1.75$ ) and to drive more frequently over the speed limit on motorways (Cramer's  $V = 1.57$ )
- AsiaOceania contrasted with the other regions in the sense that there were many non-significant gender differences for risky behaviour (drinking and driving, drugged driving, driving with medication, driving faster than the speed limit inside built-up areas, not wearing seat belt, unsafely transporting children, talk on hand-held phone while driving, read text message/email or check social media while driving, fatigued driving).
- The age differences in risky behaviours were nearly all significant in all four regions with younger drivers reporting to engage more in risky driving behaviour than older drivers with Cramer's  $V$  effect mostly varying between 0,80 to 1,60 (small to medium). A number of large age effects (Cramers'  $V = 0.22$ ) was found:
- In North America, young drivers tended to report more frequently to transport children over 150 cm without letting them wear a seat belt (Cramers'  $V = 0.305$ )
- In Europe and North America younger drivers tend to report talking on a handheld smartphone much more frequently than older drivers ( Cramers'  $V = 0.209$ ; 0.212 respectively)
- In North America younger drivers tended to report talking on a handsfree mobile phone while driving more frequently than older drivers (Cramer's  $V = 0.223$ )
- In Europe and North America younger drivers tended to report more frequently to read text message/email or check social media while driving (Cramers'  $V = 0.315$ , 0.333 respectively)
- In North America younger drivers tended to report fatigued driving more frequently than older drivers (Cramers'  $V = 0.213$ )

In Figure 2 the results on self-declared risky driving behaviour in the past thirty days are further broken down by region and country.

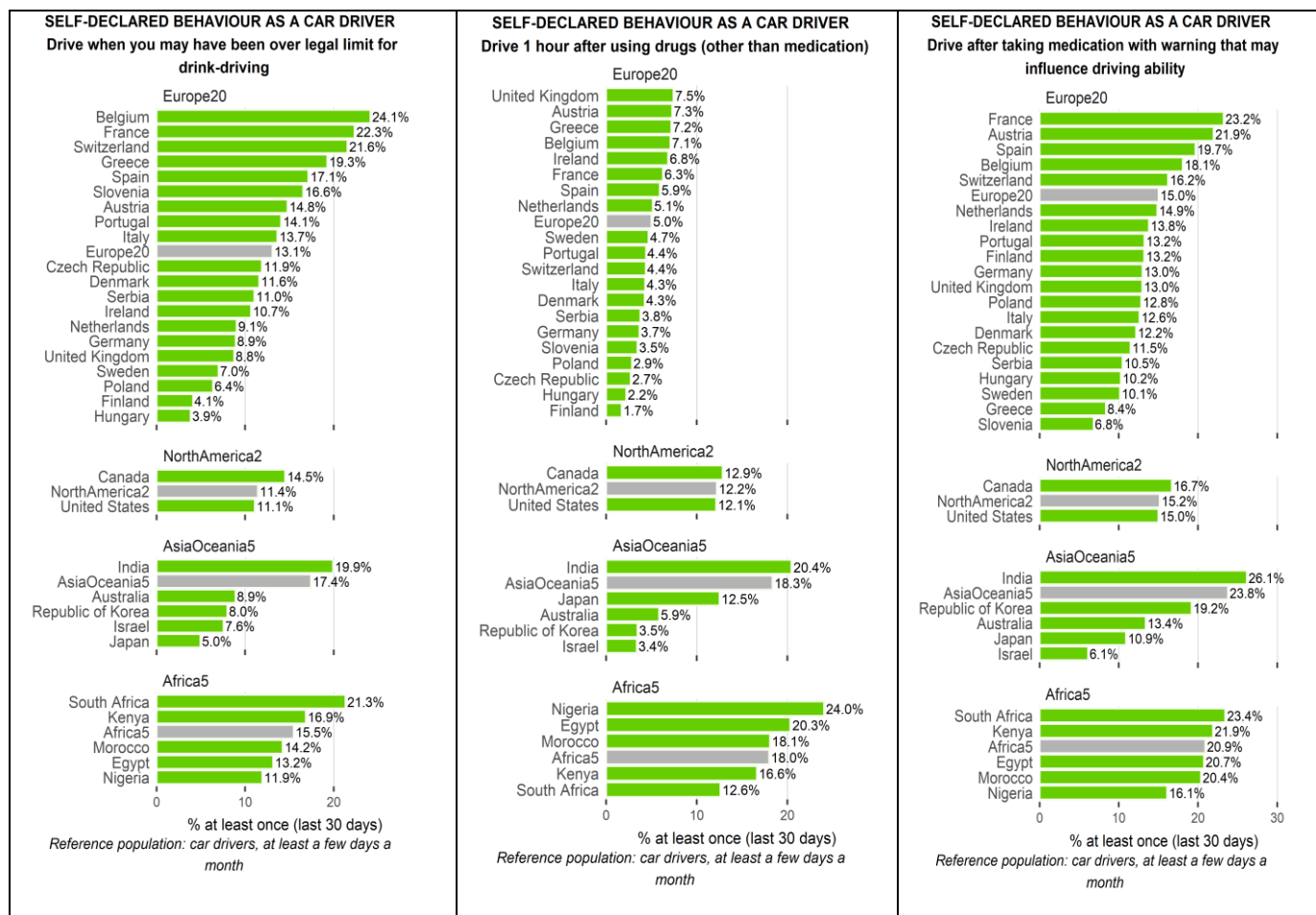


Figure 2: Self-declared risky driving behaviour in the past 30 days by region and country (% of car drivers that did it at least once ... in the past 30 days).

- In Europe, Finnish, Hungarian and Polish drivers tend to report less frequently than average to engage in drinking and driving or driving after taking drugs, whereas Belgian, French tend to report to engage in these behaviours more frequently than average. In Europe, drivers in UK report most frequently to engage in drugged driving (7.5%) whereas they report less than average to engage in drinking and driving (8.8%).
- In AsiaOceania, drivers in India report most frequently to engage in drinking and driving (19.9%), drugged driving (20.4%) and driving with medicines that may influence driving ability (16.7%).
- In North America, drivers from Canada and United states do not differ very much in the self-declared rates of drinking and driving (14.5%, 11.1%), drugged driving (12.9%, 12.1%) and driving after taking medication that may influence driving ability (16.7%, 15.0%).
- In Africa, South African drivers report most frequently to engage in drinking and driving (21.3%) and driving after taking medication that may influence driving ability (23.4%), but least frequently to engage in drugged driving (12.6%).

Figure 3 presents results on self-declared driving under influence of either alcohol or drugs for region and countries.

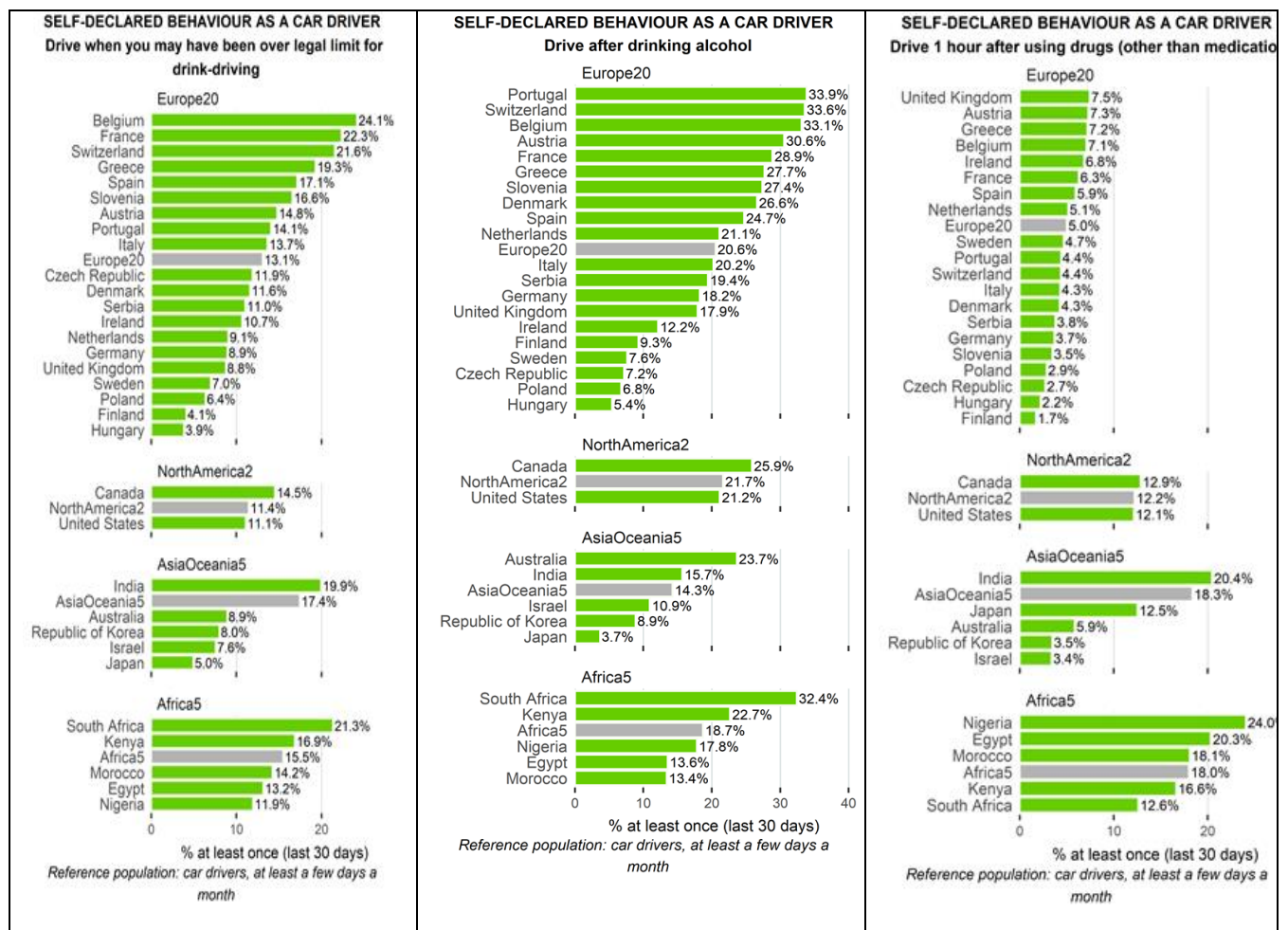


Figure 3: Self-declared driving under influence of alcohol and drugs by region and country (% of car drivers that did it at least once ... in the past 30 days).

Figure 3 shows the following:

- In the EU Belgium, France, Greece and Switzerland score above average on both questions on drinking and driving, whereas Poland, Finland, Hungary and Sweden score below average. In Africa, South-Africa has the highest self-declared rates of drinking and driving on both questions.
- In general the percentages for self-declared driving after drinking (some) alcohol are about 10 to 20 percentage points higher than for self-declared driving after drinking more than the legal limit. Basically, of the drivers who drink and drive a large share (slightly under or above half in many countries) believe they are doing so while keeping under the limit.
- Concerning self-declared drug use while driving, the African countries Nigeria, Egypt, Morocco, and India have the highest scores, not only in their own region but over all regions (18% to 24%). In Canada driving while using drugs (13%) has a lower rate than these countries but higher than the highest scoring European countries (Austria, UK, Greece: 7%)

The self-declared prevalence of speeding on different roadways is presented in Figure 4.

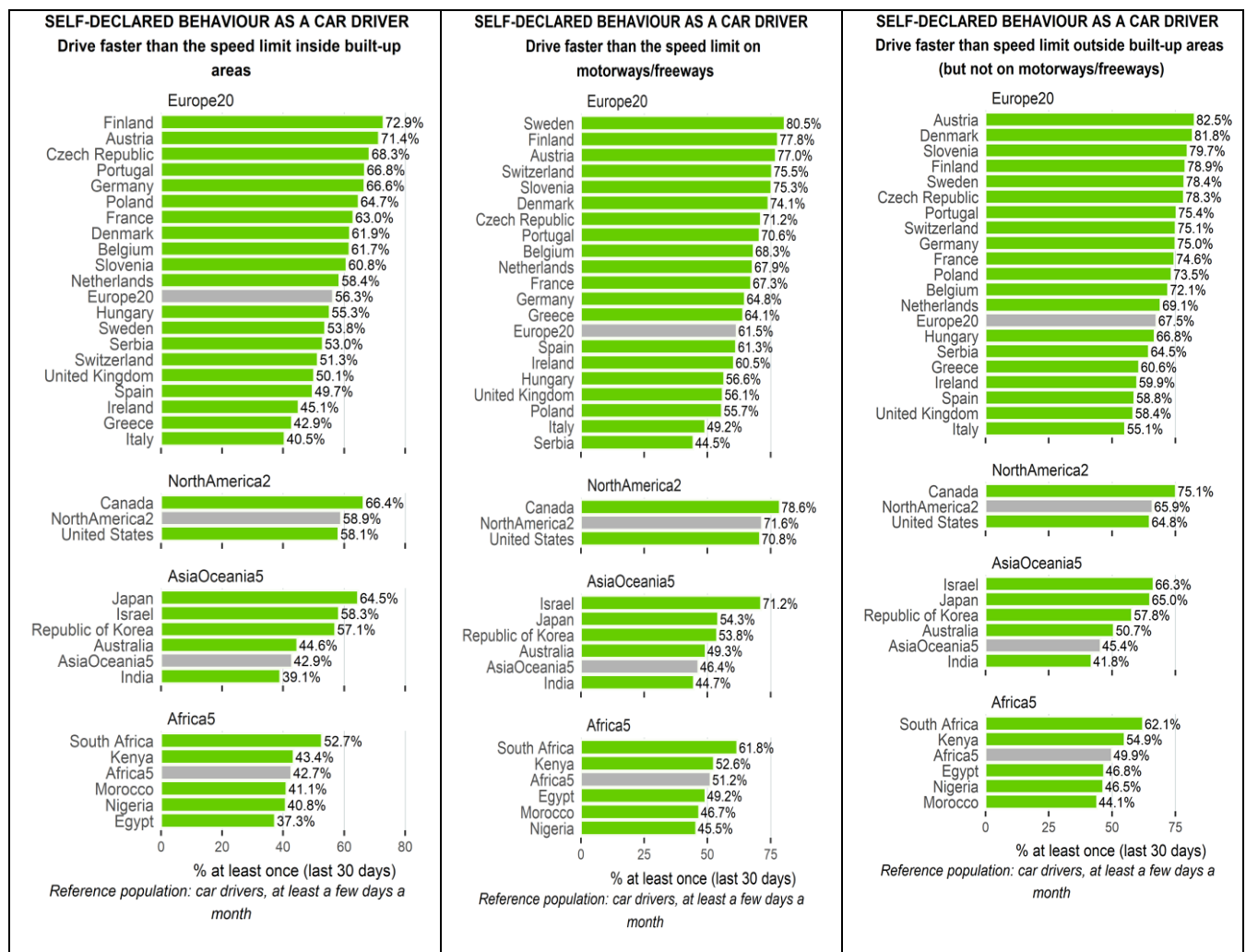


Figure 4: Self-declared speeding behaviour by region and country (% of car drivers that did it at least once ... in the past 30 days).

In general, nearly half to three quarters of drivers in countries worldwide report to have driven faster than the speed limit on different road types.

Within Europe, Finland and Austria have high proportion of drivers (>70%) who report to be speeding on three road types (within built up areas, on motorways/freeways, and outside built-up areas but not on motorways). Somewhat surprisingly, Italy seems to have the most (or nearly the most) speed limit abiding drivers on all three roadways. Within Africa, speeding on different road types seems to be most prevalent in South Africa. In North America, speeding drivers on different roadways are more frequent in Canada (66% to 79%) than in United States (58% to 71%). In AsiaOceania, the proportion of speeding drivers on different roadways is highest in Israel (58% to 71%), and lowest in India (39% to 42%).

Figure 5 presents the answers to questions on the use of seat belts as a driver and the safe transport of small (< 150 cm) and larger (> 150 cm) children. In African countries and in India and Republic of Korea substantial groups of drivers (30% - 85%) report unsafe behaviour for these three indicators. Within Europe, substantial groups of drivers from Greece, Italy, Poland and Serbia, tend to report engaging in all three unsafe behaviours (17% - 31%).



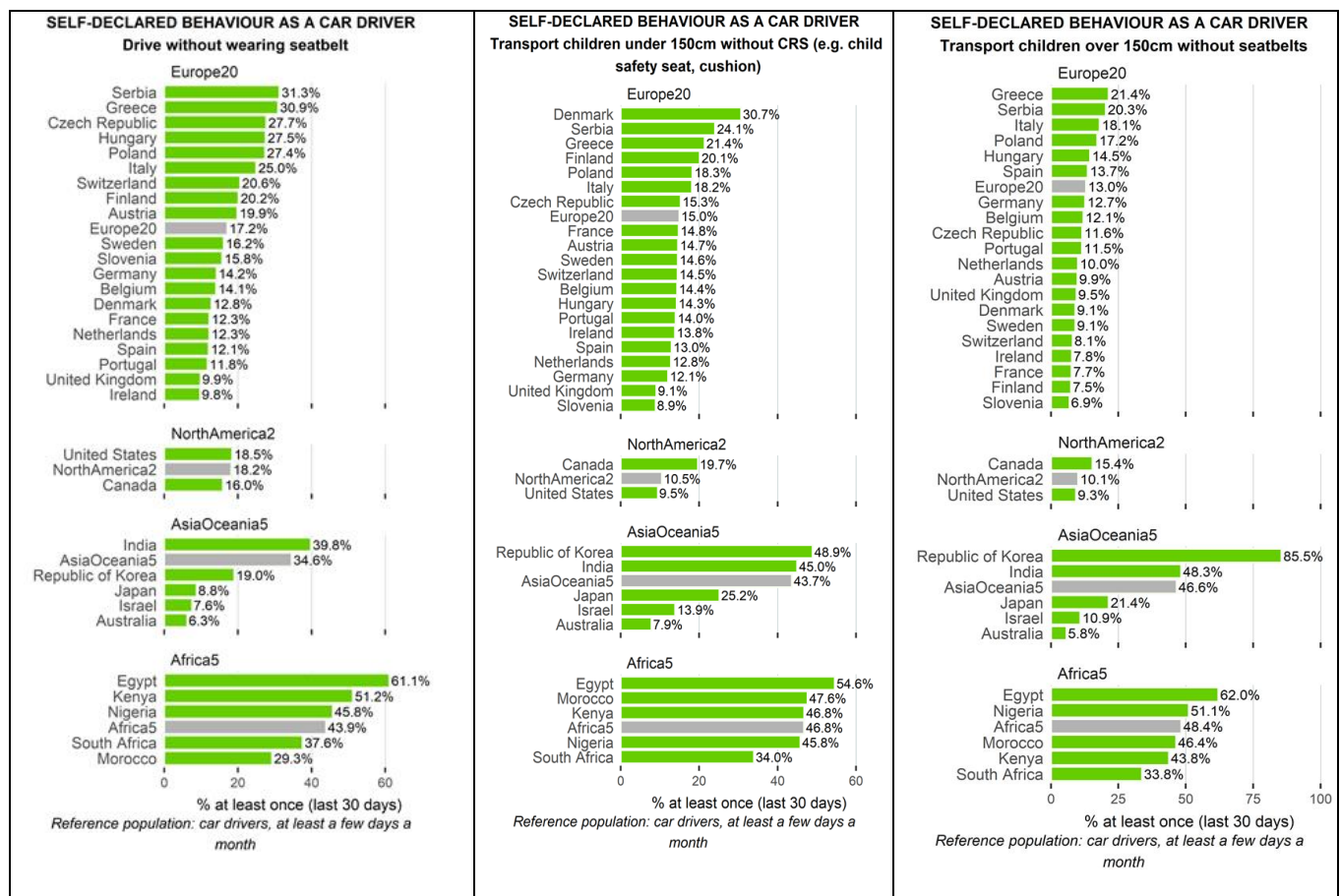


Figure 5: Risky driving behaviour related to use of safety devices (% of car drivers that did it at least once ... in the past 30 days).

Figure 6 presents the result on the use of smartphone while driving in the past 30 days. It can be seen that talking on handsfree phone while driving in the past 30 days has become quite common in countries on all four regions with percentages ranging mostly between 40% and 70%. Talking on a handheld phone while driving in the past 30 day occurs somewhat less frequently with most countries having percentages between 20% and 50%. For drivers in African countries the percentages are quite high from nearly 50% to 63%. The most distracting variant of phone use is actually reading an email or texting a message while driving which often requires that sight is actually averted from the roadway. In African countries percentages for this risky behaviour range between 37% and 52%. In Europe this behaviour is somewhat less frequent with percentages varying between 14% and 37%, with Austrian, Finnish, Serbian, and Portuguese drivers having percentages near 36%.

As can be seen in Figure 6 two countries in AsiaOceania - Australia and Japan - show relatively low percentages for all three indicators of smartphone use. Japan which is well-known for its strong work ethos still somehow manages to keep this risky behaviour at a low level.

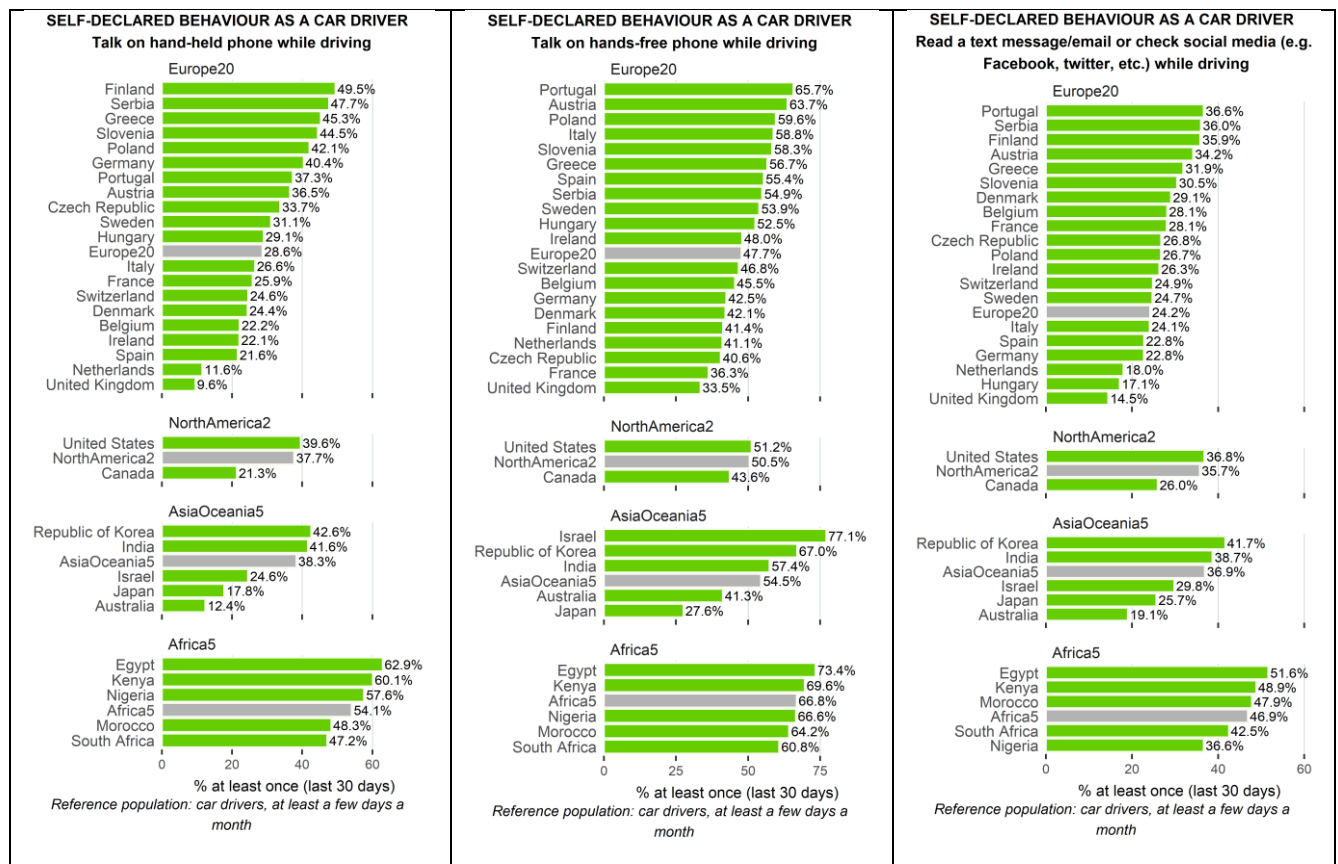


Figure 6: Risky driving behaviour related to use of smartphone (% of car drivers that did it at least once ... in the past 30 days).

### Risky behaviour during past 12 months

The ESRA2 questionnaire contained three questions on violations in the past 12 months. Figure 7 presents the results for these questions. In all four continents talking on handsfree phone while driving is more common than talking on a handheld phone. The percentages for handsfree talking on the phone, respectively hand held talking on the phone while driving are highest for drivers in the African region (67%, resp. 54%), and lowest for drivers in Europe (48%, resp. 29%), with drivers in North America and AsiaOceania in between.

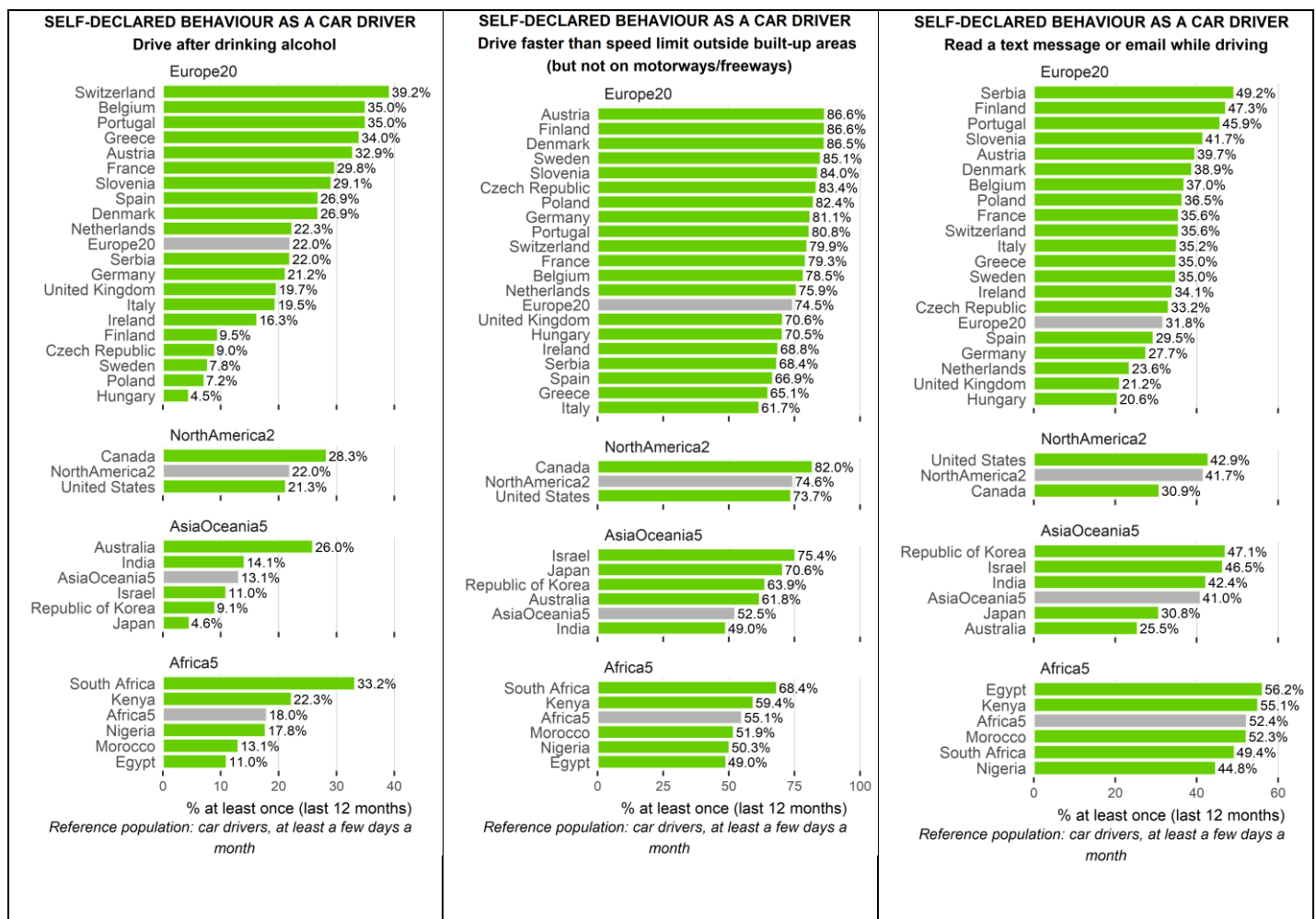


Figure 7: Self-declared risky driving behaviour in the past 12 months by region and country (% of car drivers that did it at least once ... in the past 12 months).

### 3.1.2 Self-declared risky behaviour of moped driver or motorcyclist

Figure 8 presents the result on self-declared risky driving behaviour of moped riders and motorcyclists.



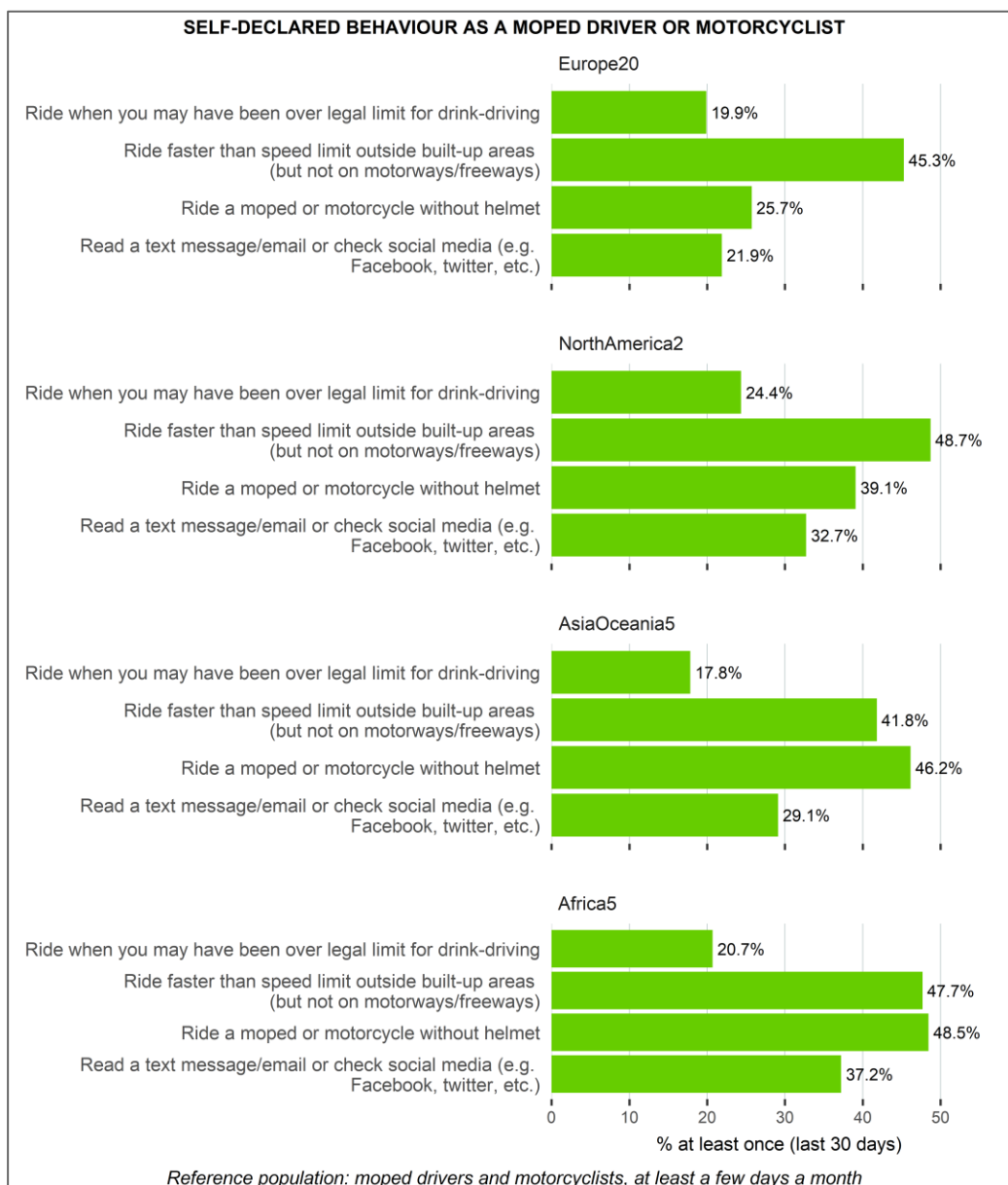


Figure 8: Self-declared risky driving behaviour of moped drivers and motorcyclists in the past 30 days by region (% of moped drivers and motorcyclists that did it at least once ... in the past 30 days).

In all four regions, nearly half of all moped riders and motorcyclists (45 to 49%) report to drive faster than the speed limits on roads outside of built-up areas. Riding without a helmet is reported by nearly a half of riders in Africa and AsiaOceania (46-48%), by two in five riders in North America (39%) and by one in four riders in Europe (26%). In each region about one in five riders (18 to 21%) reports to have ridden with perhaps an illegal amount of alcohol. Reading a text message or checking social media while riding a moped or motorcycle occurs frequently, with percentages ranging from 22% in Europe (lowest) to 37% in Africa (highest).

The figures on risky driving behaviour of moped and motorcycle riders are further broken down per region and country in Figures 9 and 10.

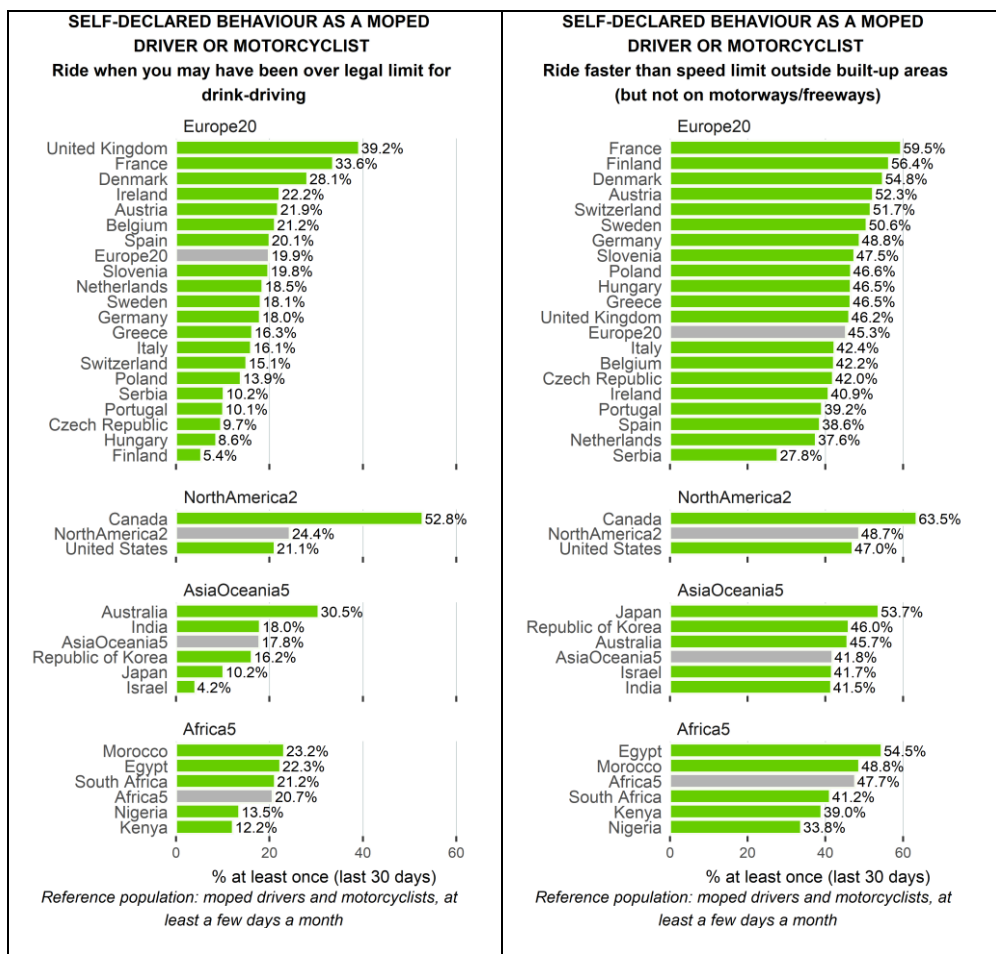


Figure 9: Self-declared risky driving behaviour – DUI and speeding- of moped drivers and motorcyclists in the past 30 days by region (% of moped drivers and motorcyclists that did it at least once ... in the past 30 days).

As can be seen in Figure 8, the rate of self-reported riding a moped or motorcycle while being perhaps over the legal limit seems to be quite high in Canada (53%), the United Kingdom (39%), Australia (30%), France (34%) and also Denmark (28%). Riding faster than the speed limit outside built-up areas is very common in all countries with highest rates being reported in Canada (63%), France (59%), Finland (56%) and lowest rates in Serbia (28%), Netherlands (38%) and Spain (39%).

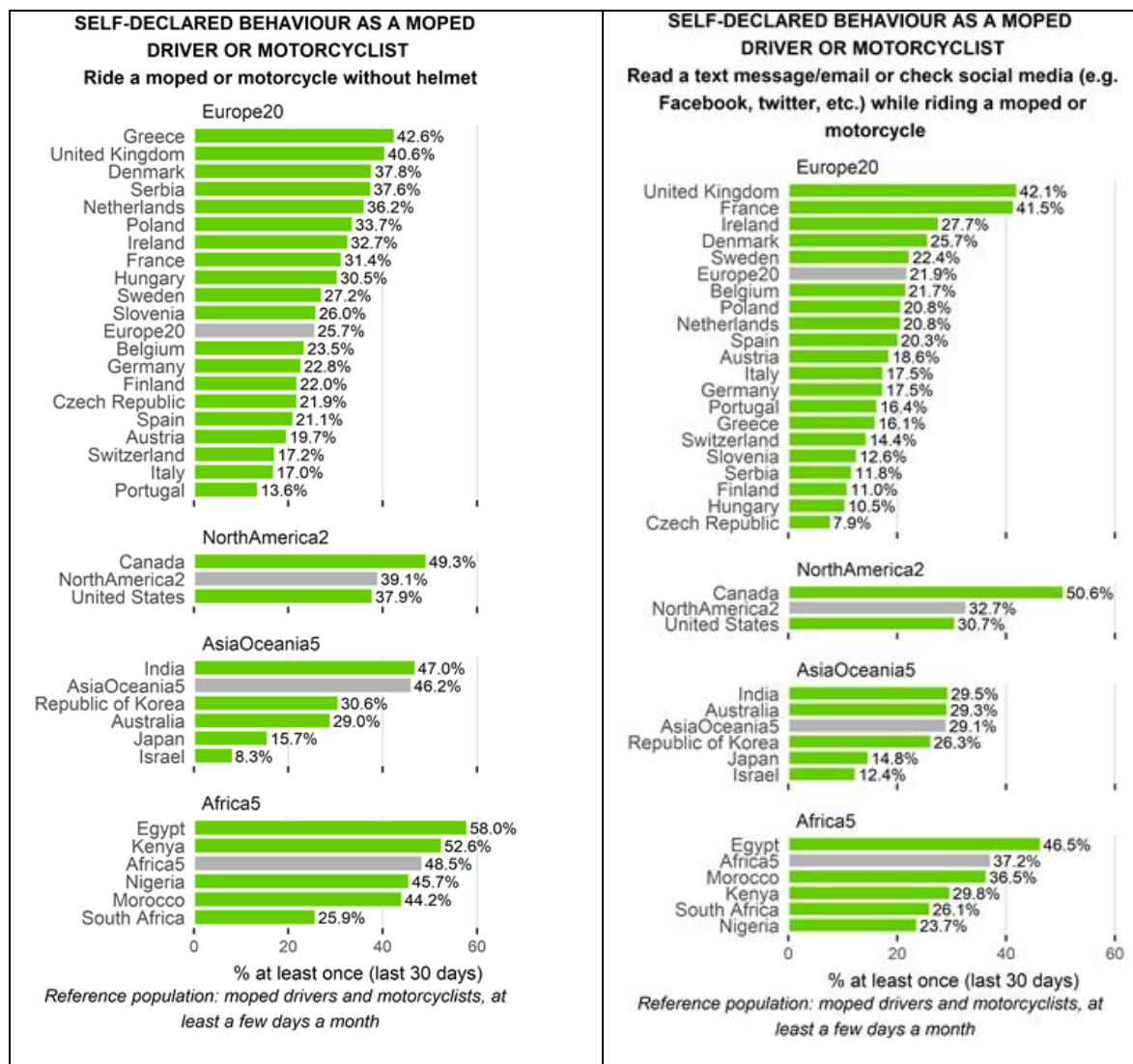


Figure 10: Self-declared risky driving behaviour of moped drivers and motorcyclists – not wearing helmet, use of smartphone - in the past 30 days by region (% of moped drivers and motorcyclists that did it at least once ... in the past 30 days).

It can be seen in Figure 10 that riding a moped or motorcycle without helmet is quite common in several African countries (percentages ranging from 44% to 58% for Morocco, Nigeria, Kenya and Egypt), and also common in Canada (49%), India (47%), Greece (43%), and United Kingdom (41%). It is to be kept in mind that in some countries there are no helmet wearing laws or some light mopeds are exempt. The use of smartphone for reading text messages or checking social media while riding is most frequent in Canada (51%), Egypt (46%), United Kingdom (42%) and France (41%). The lowest rates of smartphone use while riding are reported in Slovenia, Serbia, Hungary, Czech Republic and Finland (8% to 13%)

#### Gender and age differences

The statistical tests of gender and age differences in risky driving behaviour of moped and motorcycle riders are reported in Appendix 4. Concerning gender differences the main findings are:

- Male moped and motorcycle riders in Europe, AsiaOceania and Africa tend to engage more frequently in riding without a helmet and speeding outside built-up areas than female riders.

- Male moped riders in Europe and in AsiaOceania reported to engage more frequently in drinking and driving than female riders.
- In Africa male riders reported more frequently to engage in reading text/email or checking social media while riding than female drivers, whereas in AsiaOceania the reverse was found, with female riders engaging more in this behaviour than male riders.
- In North America no statistically significant gender differences were found for self-reported rates of drinking and driving, speeding, riding without a helmet and reading text/mail or checking social media while riding.
- Nearly all effect sizes were small (Cramer's  $V < 1$ ). The largest effect size (Cramers'  $V = 1,84$ ) was found for the finding that in Europe male riders according to self-report engaged more frequently in speeding outside built-up areas (52%) than female riders (32%).

Concerning age differences, the statistical tests indicate that younger moped riders and motorcycle riders report more frequently to engage in each of the four risky behaviours (drinking and riding, speeding outside built-up areas, riding without helmet and reading text/email or checking social media during riding). Nearly all effect sizes are medium to large (Cramer's  $V$  between 0,12 and 0,35).

### 3.1.3 Self-declared risky behaviour of cyclists

The risky driving behaviours of cyclists are presented in Figure 11. In all four regions, cycling after having drunk perhaps too much alcohol is reported by 1 in 6 cyclists (16% to 18%). Cyclists in AsiaOceania and Africa more frequently report to read a text message or check social media while cycling (30%, 34%), to cycle wearing head phones (42%, 53%), and to cycle on the road next to cycle lane (58%, 53%) than cyclists in Europe and North America. Cycling without helmet is a common cyclist behaviour in all four regions, with highest percentages being reported in AsiaOceania and Europe (69%, 71%), and lower percentages in North America and Africa (51%, 58%).

The statistical tests for gender and age differences in cyclists' risky behaviours are presented in Appendix 5. Concerning gender differences in cyclists risky behaviour the main findings can be summarised as follows:

- The largest effect sizes were found for gender differences in cyclists in Europe, with male cyclists reporting more frequently to cycle after having drunk too much alcohol, to cycle while reading a text or checking social media, to cycle while listening to music and to cycle on road next to cycle path; the effect sizes were small;
- In North America male and female cyclists did not significantly differ in self-reported rates of cycling without helmet, cycling while listening to music, cycling while reading email or checking social media, and cycle while riding on road next to cycle path.
- Concerning cycling after having perhaps drunk too much alcohol, in Europe and North America male riders reported more frequently to engage in this behaviour than female cyclists, whereas the reverse trend was found in AsiaOceania and Africa.
- In Europe and North America no significant gender differences were found for cycling without helmet, but in AsiaOceania and Africa male cyclists reported more frequently to cycle without helmet than female cyclists.

The results concerning age differences were fairly consistent with younger cyclists reporting more frequent risky cycling behaviour than older cyclists in three regions (exceptions being a non-significant age difference for cycling without helmet in North America and for cycling while listening to music in AsiaOceania). Most effect sizes were medium to large.

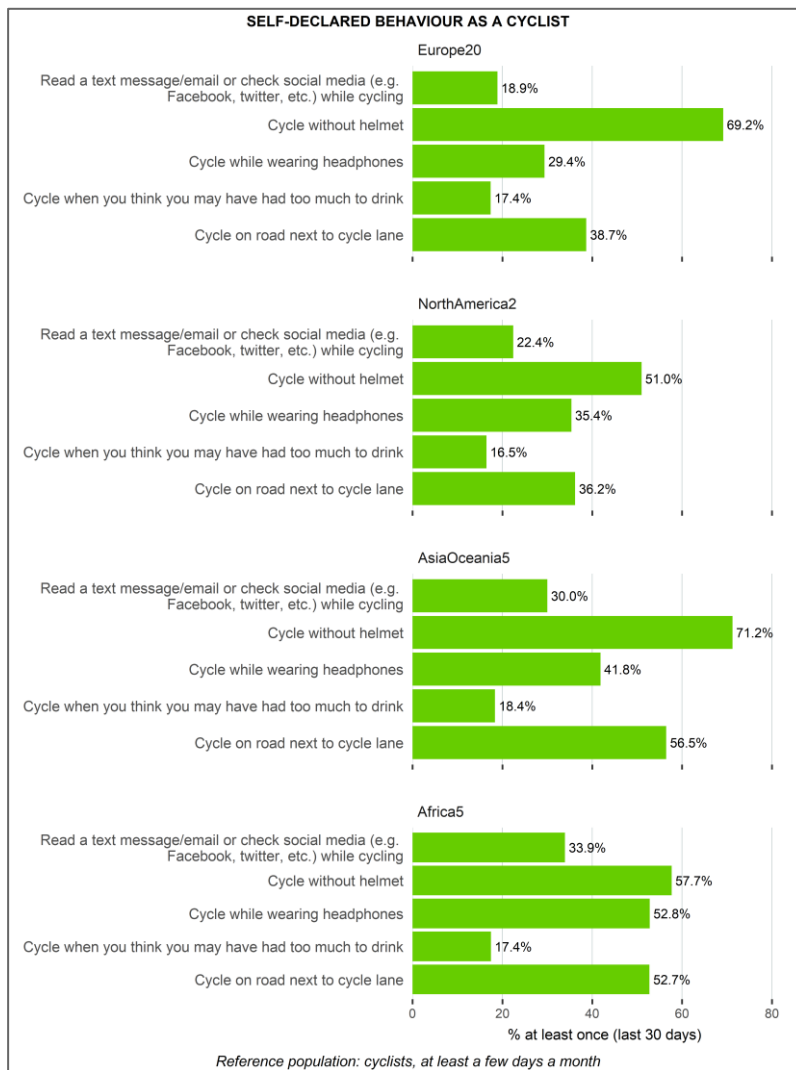


Figure 11: Self-declared risky driving behaviour of cyclists (% of cyclists that did it at least once ... in the past 30 days).

### 3.1.4 Self-declared risky behaviour of pedestrians

Figure 12 presents results on self-declared risky behaviour of pedestrians.

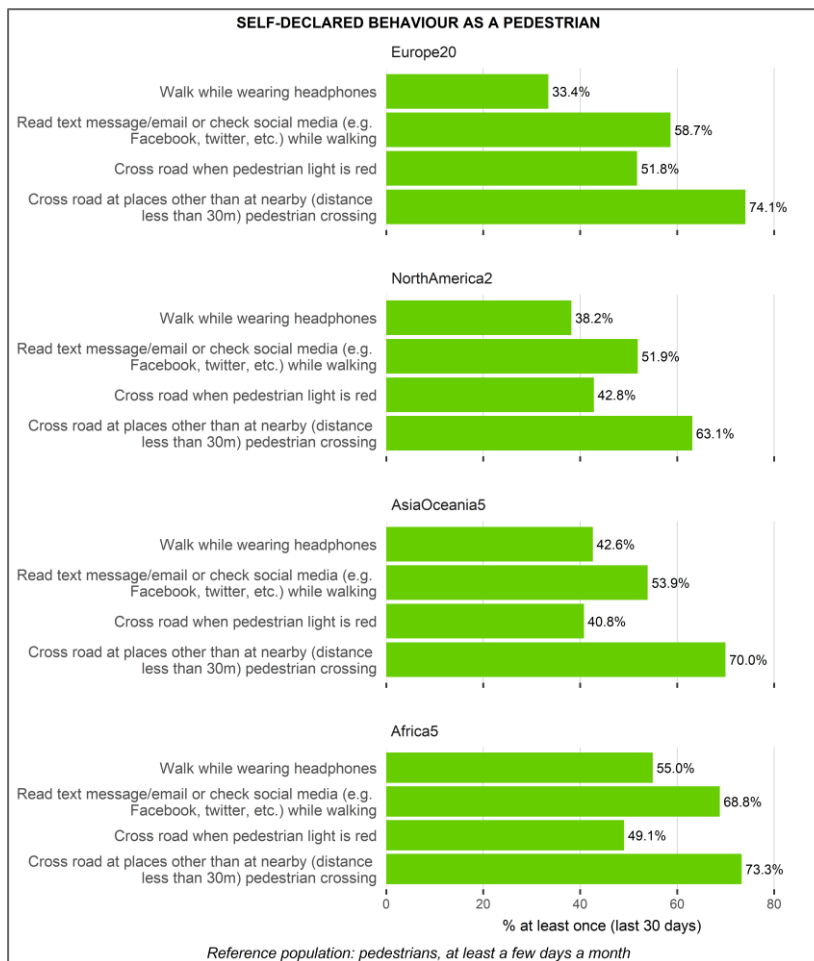


Figure 12: Self-declared risky driving behaviour of pedestrians (% of cyclists that did it at least once ... in the past 30 days).

As can be seen in Figure 12 the behaviours that may increase risk for pedestrians – phone use, head phone use, red light running, crossing road at other place than pedestrian crossing – are quite common in all four regions. Percentages for red light running range from 43% in North America (lowest) to 52% in Europe (highest). In all four regions, over half of pedestrians read text messages or check social media while walking with the highest percentages for African pedestrians (69%) and lowest for North American pedestrians (52%). Walking while wearing headphones is most common in Africa (55%) and least common in Europe (33%). The most frequently declared risky behaviour, crossing roads at other place than nearby pedestrian crossing, is reported by (almost) three quarters of pedestrians in Europe, AsiaOceania and Africa, and (74%, 70%, 73%) and by more than 3 in 5 pedestrians in North America (63%). In essence, a large amount of pedestrians seem to accept certain – in their view likely minor – risks, with the subjective advantages of the behaviour weighing stronger than the disadvantage.

The statistical tests of gender and age differences in risky driving behaviour of pedestrians are reported in Appendix 5. In Europe, walking while listening to music, walking through a red light, walking while reading a text message or checking social media, and crossing the street a location nearby a pedestrian crossing is reported more frequently by male pedestrians than by female pedestrians; on the other hand in AsiaOceania no significant gender differences are found for these

risky behaviours. In Africa male pedestrians more frequently report risky walking behaviour than female pedestrians for three of four behaviours (listening music, reading text, checking email, red light running); in North America male pedestrians report more risky behaviour for two behaviours (listening music, red light running). Effect sizes were mostly small.

The overall pattern for age differences in risky pedestrian behaviour is consistent: in all regions younger pedestrians report more frequently to engage in risky pedestrian behaviour (listening music; reading text/checking social media; red light running; crossing nearby pedestrian crossing) than older pedestrians, with effect sizes mostly ranging from medium to large.

### 3.1.5 Experiences of being checked by the police in traffic

Figure 13 presents results on the questions on how many times car drivers have been checked in traffic for alcohol or drugs in the past 12 months.

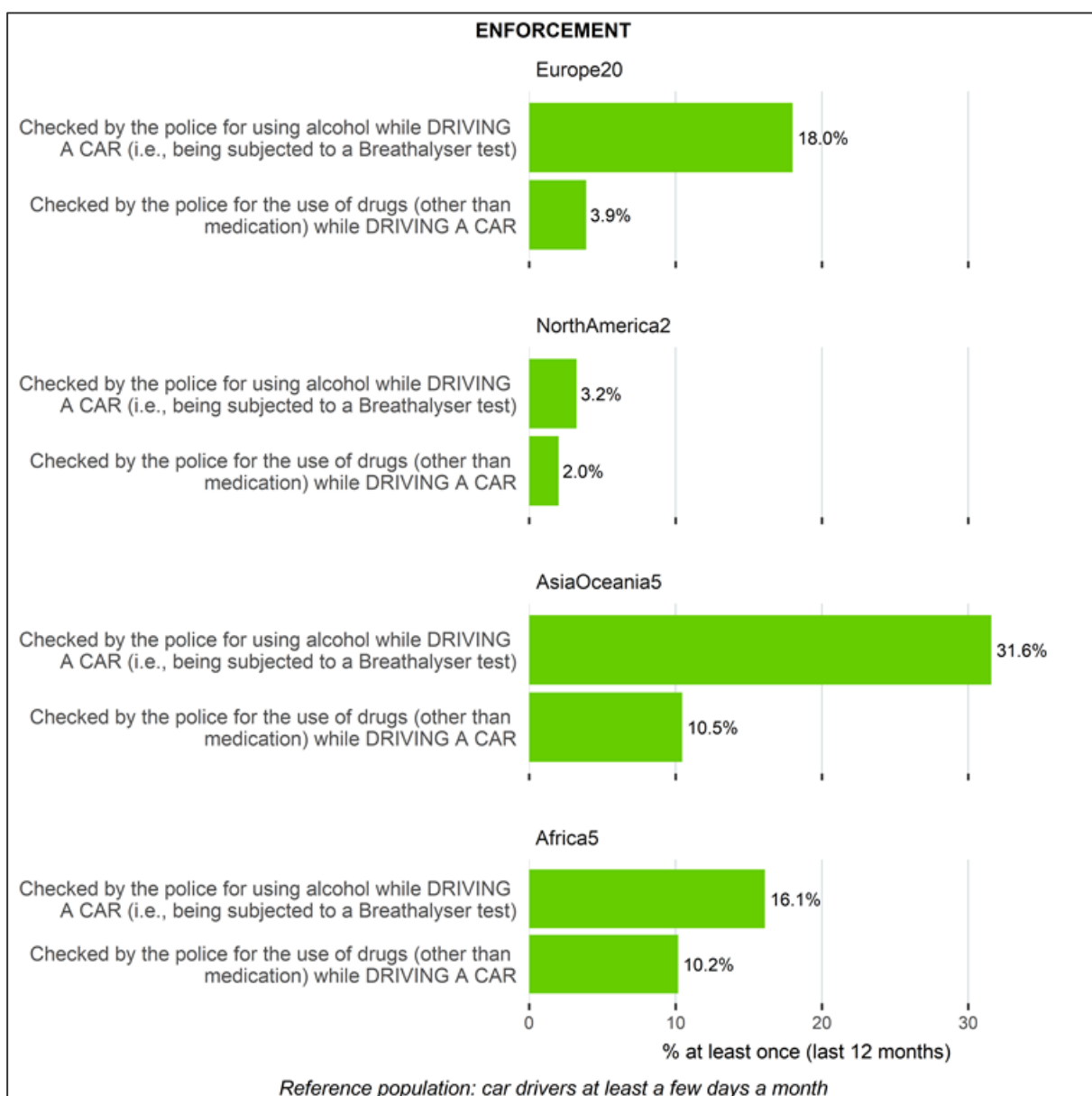


Figure 13: Self-reports of being checked by the police in traffic for alcohol or drugs per region.



In all regions being checked in traffic for alcohol occurs more frequently than being checked for drugs, with the highest percentages of alcohol checks being reported in AsiaOceania (32%) and the lowest in North America (3%), and Europe (18%) and Africa (16%) falling in between. For checks on drugged driving the highest percentages are being reported in AsiaOceania and Africa (both 10%), and low percentages in Europe (4%) and North America (2%).

#### Age and gender differences

In all four regions male drivers tend to report more experience with being checked for using alcohol than female drivers, but statistical effect sizes were consistently small. With the exception of drivers in AsiaOceania, male drivers also tended to report more experience with being checked for the use of drugs than female drivers. The effect sizes were again small.

In all regions younger drivers tended to report more experience with being checked than older drivers, with effect sizes ranging from small to medium.

#### Country differences

The results on traffic checks are further broken down by country in Figure 14.

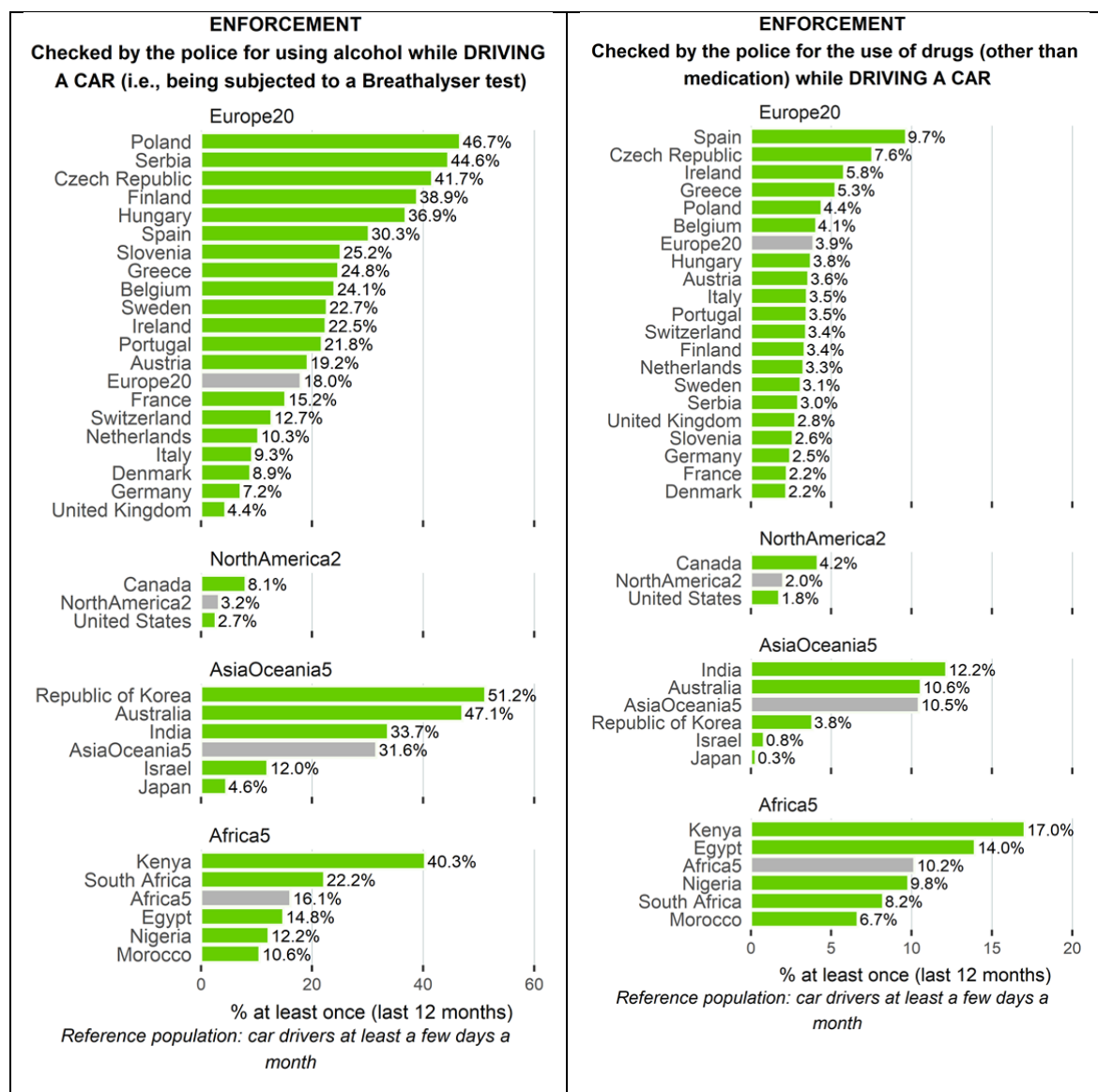


Figure 14: Self-reports of being checked by the police for alcohol (left) or drugs (right) in traffic per region and country.

In Europe, drivers in Poland (47%), Serbia (45%), Czech Republic (42%), Finland (39%) and Hungary (37%) most frequently report to have been checked for drinking and driving. In AsiaOceania, drivers in the Republic of Korea (51%), Australia (47%) and India (33%) also frequently report to have been checked for drinking and driving. In Africa drivers in Kenya stand out as the most frequent to report drink-driving checks (40%). In North America, low percentages of drivers report to have been checked for drinking and driving with somewhat higher level in Canada (8%) than in the United States (2%).

Looking at reports of checks for drugged driving, the highest percentages are being reported in Kenya (17%), India (12%), Australia (11%), Spain (10%) and Czech Republic (8%).

### 3.1.6 The subjective likelihood of being checked by the police

The subjective likelihood of being checked by the police for a traffic violation are presented in Figure 15 with the percentages indicating the response 'likely' (answer categories 5-7).

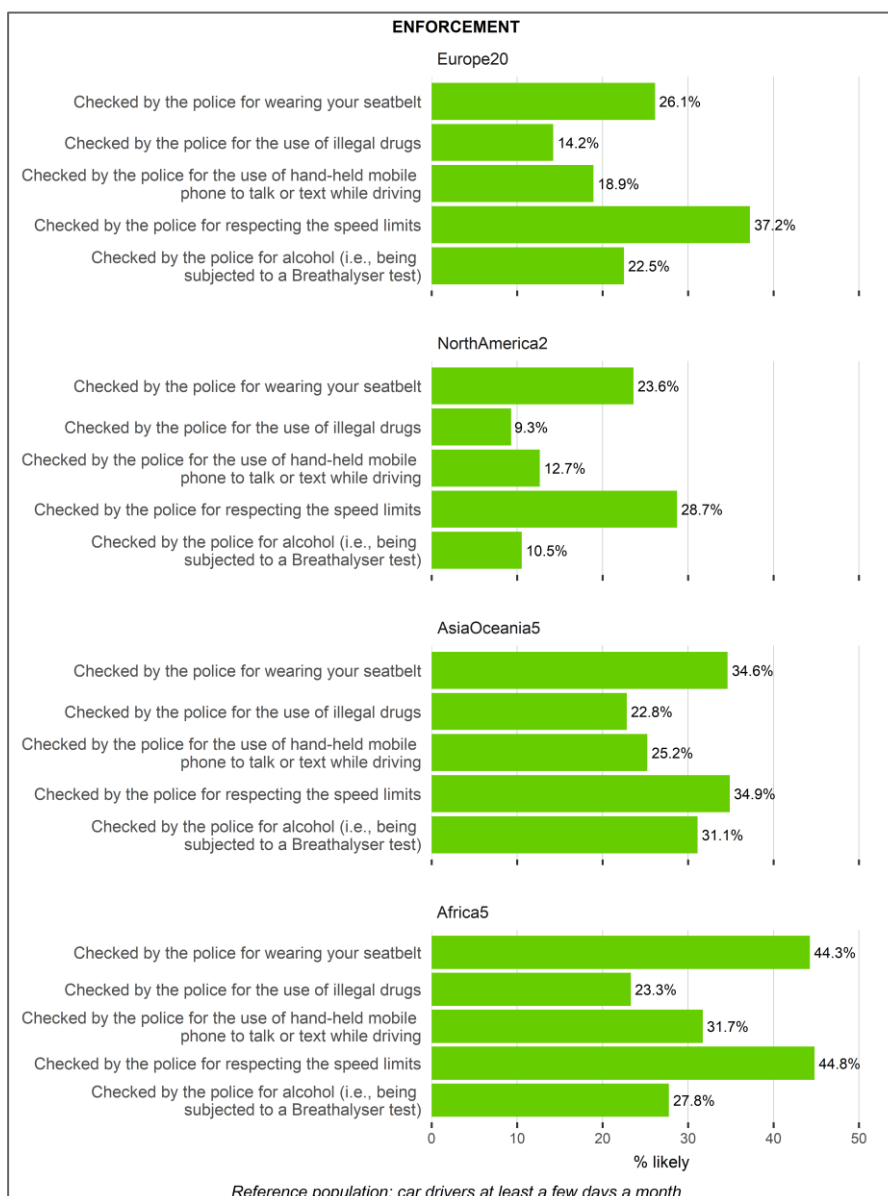


Figure 15: Car drivers' perceived likelihood of being checked for a traffic violation.

In all four regions, the reported likelihood of being checked is most frequent for speeding violations (29% to 45% of drivers reporting this to be likely) and for seat belt violations (24% to 44% of drivers reporting this likely). Drivers in African countries report most often that they consider it likely to be checked in traffic (percentages ranging from 23% to 45%) and drivers in North America report this the least often (percentages ranging from 10% to 29%).

### Age and gender differences

Concerning *gender differences* in three out of four regions male drivers tend to report a higher likelihood of being checked for traffic violations than female drivers. However, statistical effect sizes are consistently small (Cramer's  $V < 0,010$ ). In North America, there were no statistically significant gender differences for the estimated likelihood of being checked for drinking and driving, the use of illegal drugs, violating speed limits, or use of hand-held phone or texting while driving. *Age differences* also showed a fairly consistent pattern. In all regions younger drivers tended to report higher likelihood of being checked than older drivers, with effect sizes ranging from small to medium. In Africa, for two behaviours (handheld phone use and texting, seat belt use) age differences were not different.

### Country differences

Figures 16 and 17 present further results on the perceived likelihood of being checked, further split out per region and country.

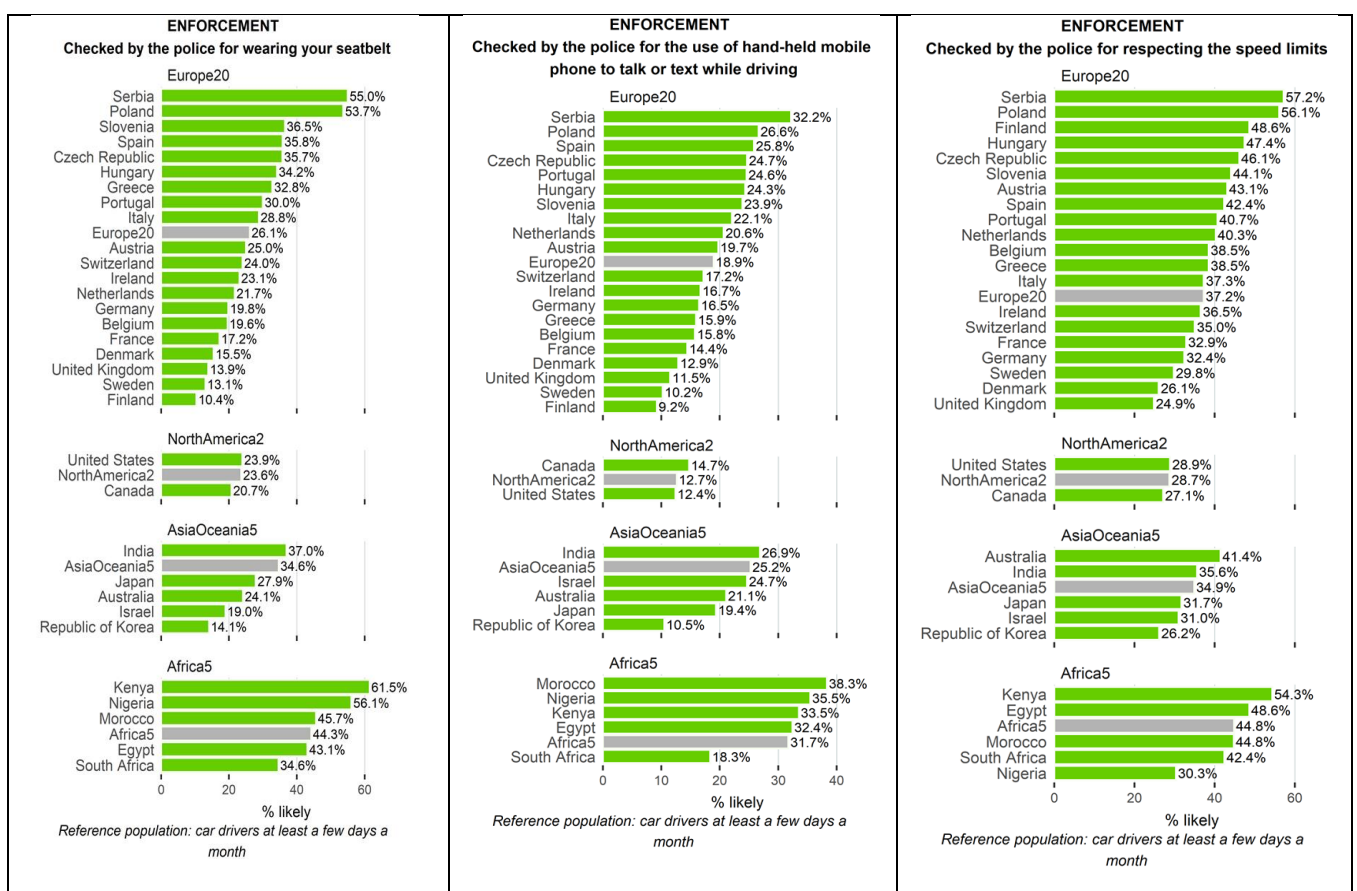


Figure 16: Car drivers' perceived likelihood of being checked for seat belt, hand held phone use and speeding by region and country.

Within Europe, drivers in Serbia, Poland, Czech Republic, Slovenia, Hungary very frequently report that being checked for wearing seat belts, hand held phone use, speeding and drinking and driving is likely. In the ETSC 2015 report on traffic enforcement it was already concluded that speed cameras were on the increase in Eastern European countries. Drivers in Denmark, Finland, France, the United Kingdom, Germany and Sweden tend to report less often that it is likely that they will be checked for any of the five traffic violations. In AsiaOceania, for four out of five traffic violations drivers in India most often report that it is likely they will be checked. In Africa, drivers in Kenya and Egypt most often report that it is likely they will be checked. In North America, relatively few drivers report that it is likely they will be checked; the differences between answers from drivers in Canada and United States are small.

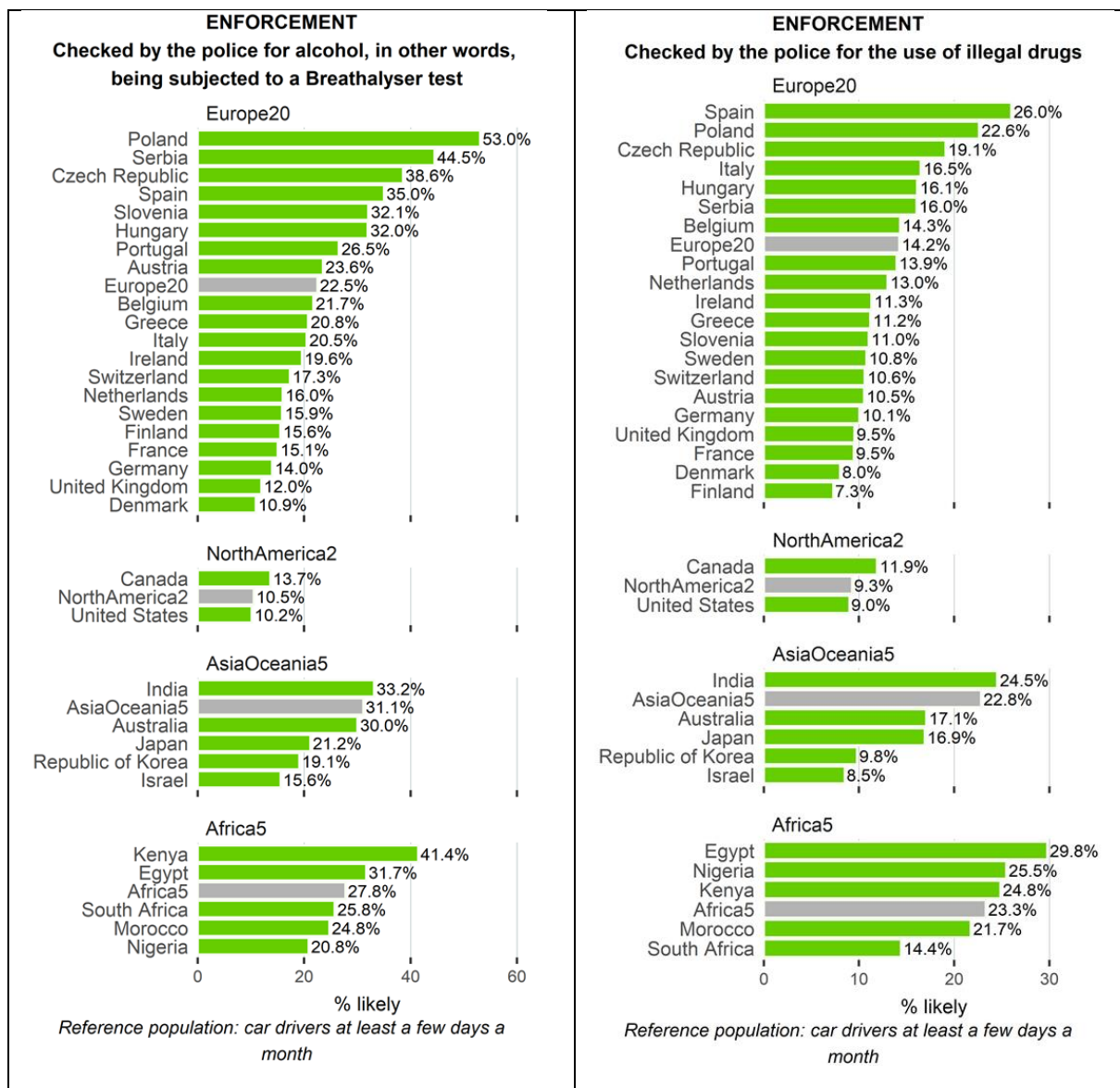


Figure 17: Car drivers' perceived likelihood of being checked for alcohol, illegal drugs by region and country.

### 3.1.7 Preferences for stricter rules and sanctions

As we have seen in previous sections traffic violations by drivers, riders, cyclists and pedestrians are quite common. In general, road users seem to be willing to take risks which they may believe to be minor to gain a subjective benefit associated with the behaviour. Speeding may be experienced as pleasurable, driving, walking or cycling through a red light may seem to be the right thing when you are in a hurry, drunk driving, riding, cycling or walking may seem to be the best or only way to get home again, driving, cycling or walking while checking some message on your phone may satisfy your craving to be informed of the state of affairs. No doubt the risks seem minor to the offenders themselves. However, what do road users think about the strictness of sanctions and enforcement for traffic violations? In this section we present results on road users' opinions on strictness of sanctions and enforcement for two violations, drinking and driving and speeding.

Figure 18 presents results on opinions on strictness of sanctions and enforcement of drinking and driving or road users in four world regions.

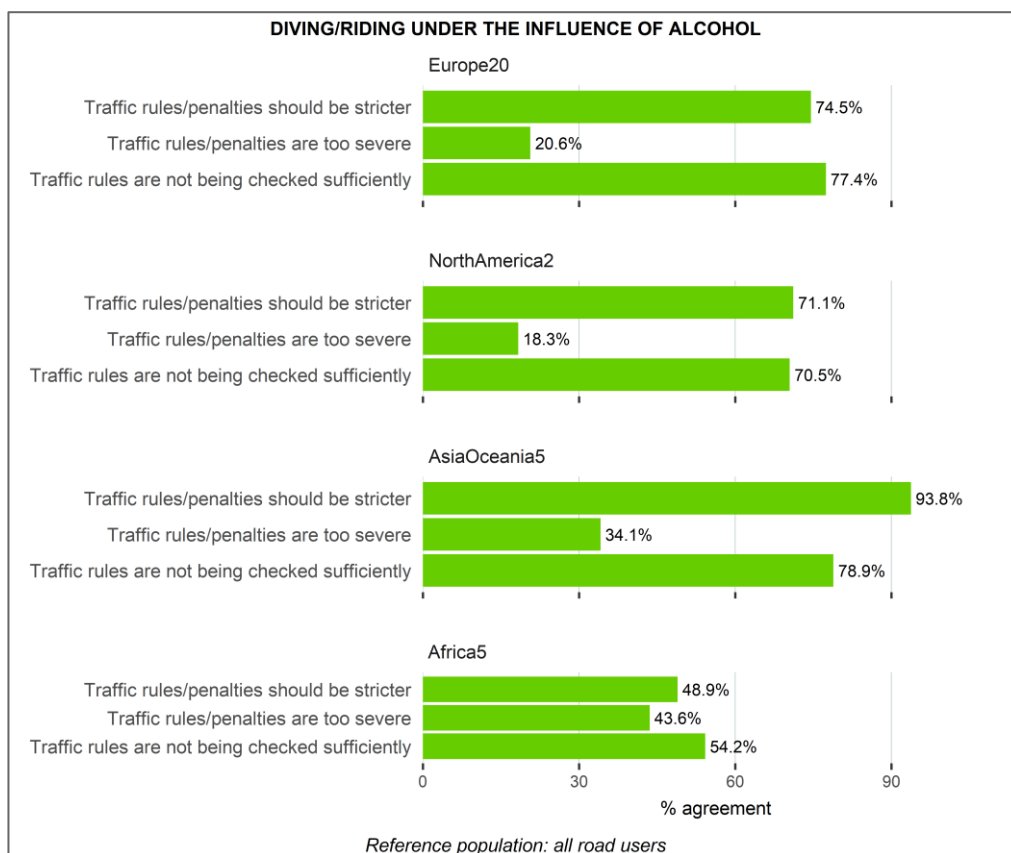


Figure 18: Road users' opinions on strictness of sanctions and enforcement for drinking and driving/riding by region.

In three regions, Europe, North America and AsiaOceania, there is a very strong majority support for more strict sanctions and enforcement approach to drinking and driving, with the highest support for stricter sanctions and more enforcement being reported by road users in AsiaOceania (support for stricter sanctions 94%, more enforcement: 79%) and also high support being reported by road user in Europe (74%, 77%) and North America (71%, 70%). The support is far less, but still considerable among African road users; about half of African road users are in support of stricter sanctions for drinking and driving (49%) and more enforcement (54%).

Figure 19 presents results on opinions on stricter sanctions and more enforcement for driving faster than the speed limit.

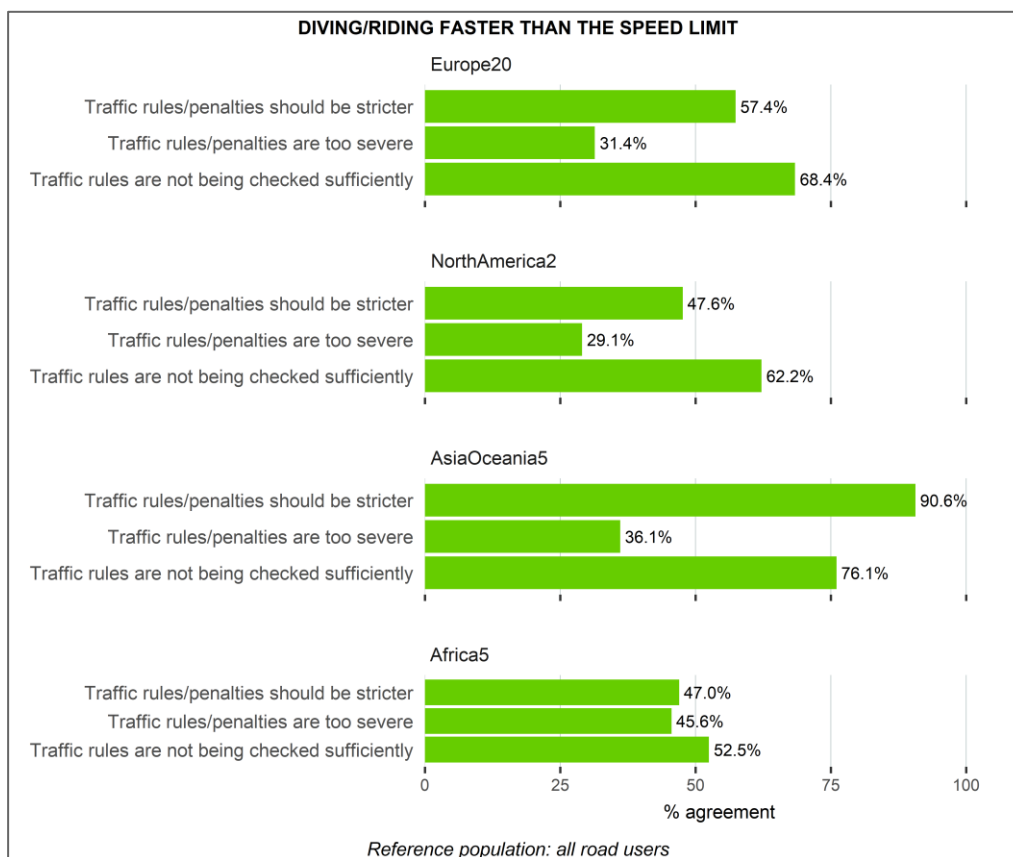


Figure 19: Road users' opinions on strictness of sanctions and enforcement for speeding by region.

With regard to speeding, again road users in AsiaOceania are most vociferous in expressing their support for stricter speeding sanctions (91%) and more speed enforcement (76%). Somewhat less but still considerable support for stricter speeding sanctions and more speed enforcement is expressed in Europe (57%, 68%), North America (48%, 62%) and Africa (47%, 52%).

#### *Age and gender differences*

On the questions on strictness of sanctions and enforcement female drivers tend to report a somewhat stronger preference for strict sanctions and more enforcement than male drivers. The statistical effect sizes are small (Cramers'  $V < 0,10$ ). This pattern of gender differences was less evident in Africa. In Africa, no gender differences were found for two questions on drinking and driving (sufficient checking, penalties too severe) and for two questions on speeding (rules should be stricter, insufficient checking), and one question on mobile phone use (penalties too severe).

The significant age differences indicated that older drivers were more in favour of strict sanctions for drinking and driving, speeding and use of handheld mobile phone than younger drivers. Effect sizes ranged from small to medium. In Africa, no age differences were found for three questions on strictness (drinking and driving not sufficiently checked; penalties too severe for drinking and driving; mobile phone use not checked sufficiently).

#### *Country differences*

The results on preferred strictness of sanctions and enforcement are further broken down by region and country in Figures 20, 21 and 22.



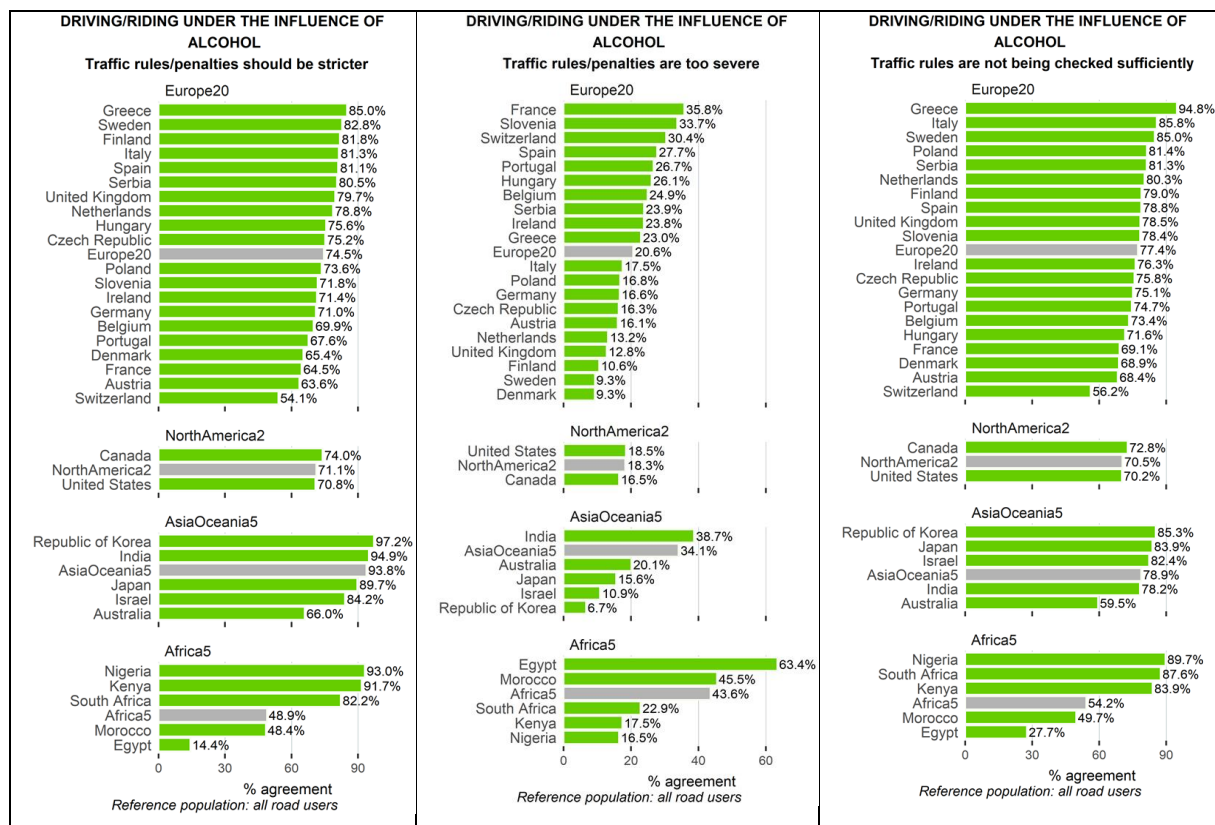


Figure 20: Road users' opinions on strictness of sanctions and enforcement for drinking and driving/riding by region and country.

Worldwide, in nearly all surveyed countries there is a majority support (> 60%) for a stricter approach to drinking and driving in the sense of stricter penalties and more traffic checks. Unlike road users worldwide, road users in Egypt are not much in favour of more strict sanctions for drinking and driving (14%) and also not much in favour of more checks (28%); they find sanctions for drinking and driving too severe (63%). This finding should be put in the context of recent law change in Egypt. On October 19, 2017, the Egyptian Cabinet approved a new amendment to the Traffic Law, Law No. 66 of 1973. A new penalty system ensures suspension of the driver's license and the deduction of five points for driving under the influence. In addition to the newly created points system, the amendment increases fines for traffic violations such as drinking and driving<sup>1</sup>.

In Europe, road users in Greece, Italy, Sweden and Finland tend to be most in favour of a more strict approach to drinking and driving (> 80%), whereas road users in France, Austria and Switzerland are somewhat less in favour (54% – 70%). It is perhaps interesting to point out here that the lowest support for stricter sanctions is found in Switzerland (54%) which already has very strict sanctions against drinking and driving. In Austria which has less strict drinking and driving sanctions, the support is nine percentage points higher.

1. see: <https://www.loc.gov/law/foreign-news/article/egypt-cabinet-approves-amendment-to-traffic-law/>, accessed at October 7th 2019



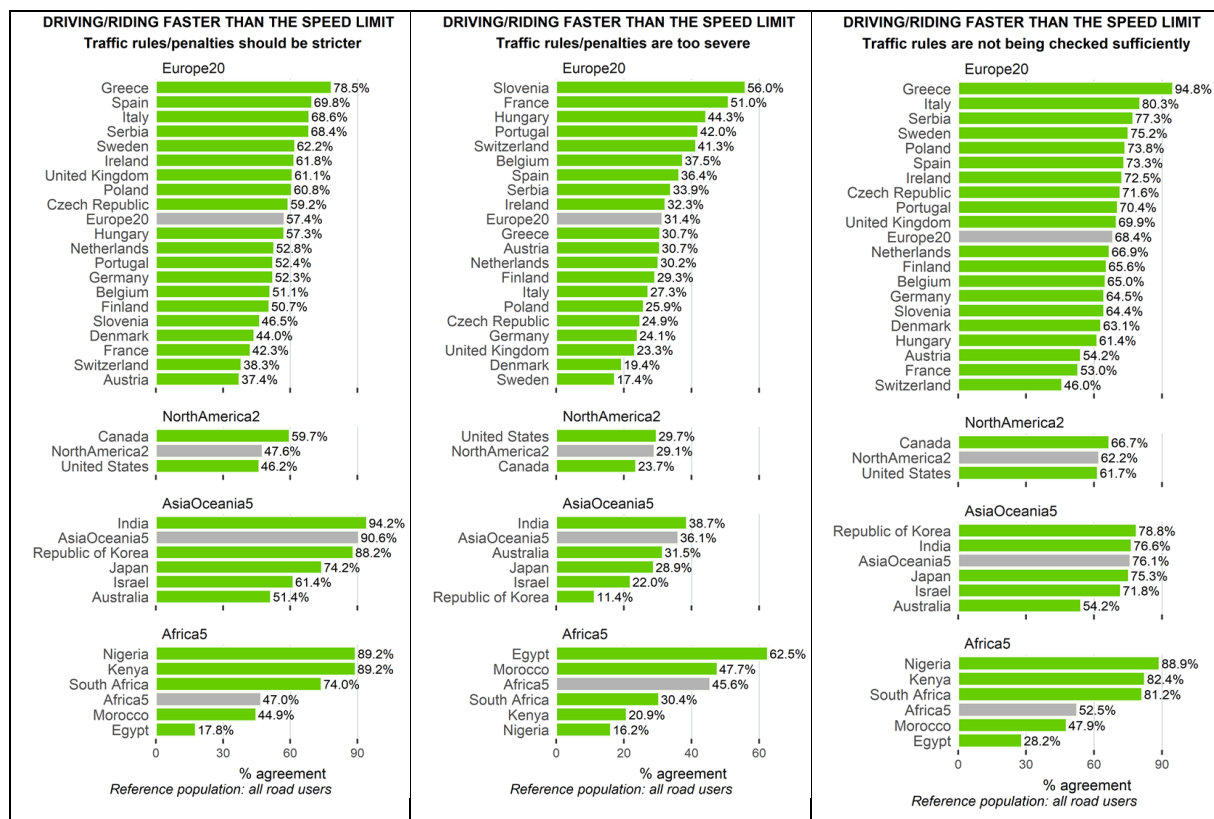


Figure 21: Road users' opinions on strictness of sanctions and enforcement for speeding by region and country.

Looking at opinions on strictness of speed control, we again find that road users in Egypt deviate from the general trend by not being very much in favour of stricter penalties (18%) or more checking (28%). Within Europe, road users in France, Switzerland and Austria are not very much in favour of stricter penalties (37%-42%) or more checks (46%-54%). On the other hand, road users in Greece, Sweden, Serbia and Italy are very much in favour of a stricter approach to speeding. In France, gilets jaunes activists destroyed over half of France's speed cameras in protest against new 80 km/h speed limits for country roads introduced in 2018 (ETSC, 2019). A majority of French people were opposed to the new speed limits associating it with governmental arrogance (BBC News, 2018).

Finally, the opinions on strictness of sanctions and enforcement of phone use while riding/driving tends to show the same pattern of preferences as for drinking and driving and speeding. Again, in nearly all surveyed countries there is a clear majority support for stricter approach to phone use while driving/riding (65%-95%). Only in Egypt the support is far less (20% - 27%). Again, in Europe road users in Greece, Italy and Serbia are amongst the strongest supporters for a stricter approach whereas road users in Austria, France and Switzerland tend to be somewhat less enthusiastic about a stricter approach.

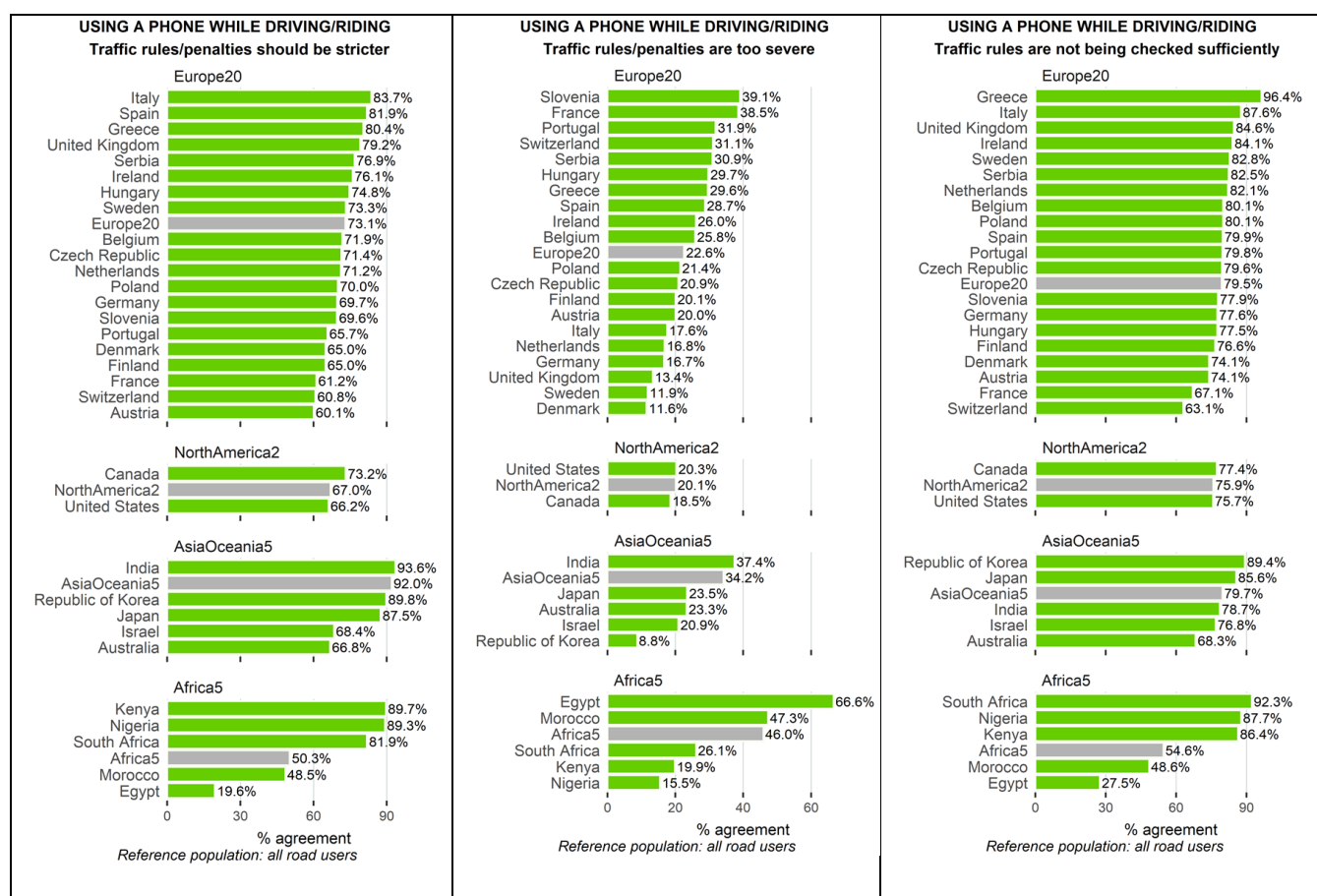


Figure 22: Road users' opinions on strictness of sanctions and enforcement for using a phone while driving/riding

### 3.1.8 Comparison over time

The questions on drinking and driving, speeding outside built-up areas and reading text or email in the past 12 months were asked in 2015 and 2018. It should be noted that in 2015 these questions were answered by slightly different samples of respondents in 2015 and 2018. In ESRA1 in 2015, the questions were answered by adult road users of which 91% had a driving license and nearly 97% said they drove at least a few days in a year (Achermann Stürmer, 2016). In ESRA2 in 2018, the questions were answered by licensed car drivers who at least drove a few days a month. Basically, the ESRA1 sample includes a low percentage of non-car drivers and a low percentage of infrequent drivers, whereas the ESRA2 sample exclusively concerns licensed car drivers who drive frequently.

Table 2 juxtaposes the results from 2015 and 2018. Concerning drinking and driving, it seems that this risky behaviour has been reduced; the EU average has decreased from 31% to 18% and in a number of countries such as Denmark, Finland, France, Germany, Netherlands, Spain and the United Kingdom substantial reductions in self-declared drinking and driving have occurred.

Table 2: Self-declared risky driving behaviour in past 12 months, in 2015 and 2018

Country	Drive after drinking alcohol		Speeding outside built-up areas (except motorways/freeways)		Read a text message or email while driving	
	2015	2018	2015	2018	2015	2018
Australia		26.0%	-	61.8%		25.6%
Austria	30%	32.9%	84%	86.6%	36%	39.6%
Belgium	43%	35.1%	76%	78.5%	37%	37.0%
Canada	-	28.3%	-	81.9%		30.9%
Czech Republic	-	9.0%	-	83.5%		33.2%
Denmark	32%	26.8%	84%	86.5%	44%	38.9%
Egypt	-	11.0%	-	49.1%		56.2%
Finland	18%	9.5%	91%	86.6%	56%	47.3%
France	41%	29.8%	68%	79.3%	39%	35.7%
Germany	30%	21.2%	82%	81.1%	32%	27.7%
Greece	29%	33.9%	64%	65.1%	45%	35.0%
Hungary	-	4.5%	-	70.5%		20.6%
India	-	14.1%	-	49.0%		42.4%
Ireland	20%	16.3%	50%	68.8%	36%	34.1%
Israel	-	11.0%	-	75.4%		46.5%
Italy	34%	19.5%	73%	61.6%	49%	35.1%
Japan	-	4.7%	-	70.6%		30.8%
Kenya	-	22.2%	-	59.4%		55.2%
Morocco	-	13.1%	-	52.0%		52.3%
Netherlands	29%	22.4%	66%	75.9%	33%	23.6%
Nigeria	-	17.8%	-	50.3%		44.8%
Poland	12%	7.2%	64%	82.4%	32%	36.6%
Portugal	34%	35.0%	72%	80.8%	44%	45.9%
Republic of Korea	-	9.1%	-	63.9%		47.1%
Serbia	-	22.0%	-	68.4%		49.2%
Slovenia	30%	29.1%	61%	84.0%	34%	41.6%
South Africa	-	33.2%	-	68.4%		49.3%
Spain	35%	26.9%	64%	66.8%	36%	29.5%
Sweden	13%	7.8%	64%	85.1%	45%	35.0%
Switzerland	38%	39.2%	75%	79.9%	36%	35.6%
United Kingdom	28%	19.7%	55%	70.6%	27%	21.3%
United States	-	21.3%	-	73.8%		42.9%
EU total	31%	18.0%	68%	74.5%	36%	31.8%

Concerning speeding outside built-up areas, it seems that this may have increased somewhat over time (further discussed in Section 4.2).

Table 3 juxtaposes the results on experience with checks on drinking and driving from 2015 and 2018. 8. The question on drugs checked was slightly changed in 2018. In 2015 the question on drugs referred to both drugs and medication; in 2018 it was nuanced that it concerned drugs other than medication. The EU averages for driving being checked for alcohol or for drugs are nearly the same in 2015 and 2018.

Table 3: Self-reports being checked for alcohol or drugs in the past 12 months

Country	Checked for alcohol in 2015	Checked for alcohol in 2018	Checked for drugs/medication in 2015	Checked for drugs (other than medication) in 2018
Australia	-	47.1%	-	10.5%
Austria	17%	19.2%	2%	3.6%
Belgium	17%	24.1%	1%	4.1%
Canada	-	8.1%	-	4.2%
Czech Republic	-	41.7%	-	7.5%
Denmark	6%	8.9%	3%	2.2%
Egypt	-	14.8%	-	14.0%
Finland	37%	38.9%	0%	3.3%
France	23%	15.2%	7%	2.2%
Germany	8%	7.2%	2%	2.5%
Greece	-	24.8%	-	5.3%
Hungary	-	36.9%	-	3.8%
India	-	33.7%	-	12.1%
Ireland	9%	22.5%	2%	5.8%
Israel	-	12.0%	-	0.8%
Italy	15%	9.3%	5%	3.5%
Japan	-	4.6%	-	0.3%
Kenya	-	40.4%	-	17.1%
Morocco	-	10.6%	-	6.7%
Netherlands	17%	10.3%	2%	3.3%
Nigeria	-	12.2%	-	9.7%
Poland	47%	46.7%	6%	4.4%
Portugal	19%	21.8%	2%	3.5%
Republic of Korea	-	51.2%	-	3.9%
Serbia	-	44.6%	-	3.0%
Slovenia	25%	25.2%	3%	2.6%
South Africa	-	22.2%	-	8.3%
Spain	29%	30.2%	5%	9.7%
Sweden	29%	22.7%	3%	3.1%
Switzerland	14%	12.7%	3%	3.4%
United Kingdom	5%	4.4%	4%	2.8%
United States	-	2.6%	-	1.8%
EU total	19%	18.0%	4%	3.9%

It can be further seen in table 3 that in a few countries, the Netherlands, the self-reports of having been checked for alcohol have decreased (France: 23% to 15%; Netherlands: 17% to 10%; Italy: 15% to 9%; Sweden 29% to 23%). In the Discussion Section 4.2 we will pay further attention to these results.

### 3.2 Advanced analyses

Two advanced analyses were done to investigate whether traffic violation behaviour could be predicted from enforcement-related variables (experience with enforcement and perceived likelihood of being checked), and from personal characteristics and beliefs and opinions concerning the violating behaviour. Binary logistic regression analyses were performed to predict the involvement in drinking and driving in the past 30 days, and the involvement in driving under the influence of drug in the past 30 days.

*Prediction of driving after having drunk perhaps more alcohol than is legally permitted*

Binary logistic regression was used to predict the involvement in illegal drinking and driving in the last 30 days (yes/no). In this analysis, the predicted dependent outcome variable was binary (yes or no driving when one may have been over legal limit for drinking and driving in the last 30 days). The independent variables in the analysis were background characteristics of gender (Q2), age (Q3) and country (Q1), and the ESRA2 questions on experience with drinking and driving control (Q21\_1), the perceived likelihood of a drinking and driving check (Q20\_1), the personal acceptability of driving while being over the legal (Q14\_1\_1) and the social acceptability of drinking and driving (Q13\_1\_1).

The independent variables in the analysis were either categorical (Q1 country, Q2 gender, Q yes/no being checked for alcohol) or continuous (Q14\_1\_1 personal acceptability of driving over legal limit; Q19\_1\_1 alcohol rules stricter Q19\_1\_2 alcohol rules not checked sufficiently Q19\_1\_3 alcohol penalties too severe; Q20\_1: likelihood being checked for alcohol). These independent variables were entered in the model by way of forced entry method. Odds ratios (and the respective 95% Confidence Intervals) are used to measure the strength of association between the variables. The Exp(B) is known as the odds ratio predicted by the model. The odds ratio is computed by raising the base of the natural log to the  $b^{\text{th}}$  power, where  $b$  is the slope from the logistic regression equation.

The exp (B) represents the change in the relative risk of engaging in the violation behaviour (yes/no) associated with change in the independent variable when all other model variables have been held constant. When Exp (B) >1 this indicates that higher values on independent variable go together with higher odds of engaging in the risk behaviour. With each increasing scale value of the independent variable there is an increase of  $((\text{exp}(B)-1) \times 100)$  percent of engaging in the risk behaviour. On the other hand when exp (B) < 1 this indicates that higher values on the independent variable go together with a lower odds of engaging in the risk behaviour. With each increasing scale value of the independent variable there is a decrease of  $(1-\text{exp}(B) \times 100)$  percent of engaging in the risk behaviour. This will be further illustrated in results below.

Table 4 presents the first part of results of the binary logistic regression on self-reported illegal drinking and driving in the past 30 days. The total explained variance of the regression model was .42 (Nagelkerke  $R^2$ ). The omnibus test of model coefficients was significant (Chi-square= 6573.253,  $df=47$ ,  $p \leq 0.001$ ) indicating that the fitted model with independent variables is an improvement over a baseline model without independent variables. In the table 4 the results are presented for independent variables age, gender, and alcohol-related opinions and perceptions. The results for the independent variable of country are presented in a separate Table 5.

First, we will clarify the meaning of results in Table 4 by giving some examples of how results for individual variables should be interpreted. One can see in the table that the independent predictor variable 'Personal acceptability' of drinking and driving (higher score: more personal acceptable) has a positive beta coefficient meaning that higher values on independent variable (i.e. higher personal acceptability) go together with higher odds of engaging in the risky behaviour (i.e. drinking and driving). The value of exp (B) for Personal acceptability is higher than 1 (namely 1.59) suggesting a positive relationship between higher values on the independent variable and higher odds of engaging in the risk behaviour. To be more precise the value of 1.59 indicates that with each higher unit/value on the scale of the independent variable, the odds of engaging in the risk behaviour increases with 59 percent  $((1.59 - 1) \times 100 = 59\% \text{ increase})$ . Another example: in Table 4 the female category of the gender variable (compared to male) has a negative beta coefficient indicating that being female is negative related to the odds of engaging in the risk behaviour; the exp (B) for gender/female is 0.628 meaning that being female instead of male lowers the odds of engaging in the risk behaviour with 37 percent  $((1 - 0.628) \times 100 = 37\% \text{ decrease})$ .

Table 4: Outcomes binary logistic regression analysis: age, gender, and alcohol-related opinions and perceptions as independent variables and self-declared driving over legal limit in past 30 days as dependent binary variable

Independent variables	B	S.E.	Wald	d f	Sign.	Exp(B)	Lower 95% C.L.	Upper 95% C.L.
V002(1) Gender/Female	-.465	.050	86.029	1	.000	.628	.569	.693
Age	.008	.002	26.075	1	.000	1.008	1.005	1.011
V013_1 Social acceptability driving over alc. limit	.125	.028	20.602	1	.000	1.134	1.074	1.197
V014_1 Personal acceptability driving over alc. limit	.466	.033	193.987	1	.000	1.593	1.492	1.701
V015_1_1 Most friends would drive after alcohol	.158	.022	51.480	1	.000	1.171	1.122	1.223
V015_2_1 Short trips one can risk DUI	.267	.026	103.936	1	.000	1.306	1.241	1.375
V015_3_1 I trust myself to drive after alcohol	.210	.018	131.801	1	.000	1.234	1.190	1.279
V015_3_3 I am able to drive after much alc.	.337	.027	158.200	1	.000	1.400	1.329	1.476
V015_4_1 I often drive after alcohol	.616	.031	396.032	1	.000	1.852	1.743	1.968
V017_1 How often alcohol cause accident	-.066	.014	21.215	1	.000	.937	.911	.963
V018_1 Support install interlock	-.148	.021	50.090	1	.000	.862	.828	.899
V018_3 Support zero tolerance for all drivers	-.127	.018	47.085	1	.000	.881	.850	.914
V019_1_1 Stricter alcohol rules	.012	.058	.043	1	.836	1.012	.903	1.134
V019_1_2 Alcohol rules insufficiently checked	-.057	.057	.986	1	.321	.945	.845	1.057
V019_1_3 Alcohol penalties too severe	.219	.055	15.896	1	.000	1.245	1.118	1.386
V020_1_1 Perceived likelihood being checked alcohol	.074	.012	36.431	1	.000	1.077	1.051	1.103
V021_1di(1) Experienced alcohol check (no/yes)	.316	.057	31.067	1	.000	1.372	1.227	1.533

We can now summarise the results in Table 4 as follows:

- The odds of engaging in driving when one may have been drinking more than the legal alcohol limit in the past 30 days significantly *increase* when people are getting older, when they find this behaviour to be more socially and personally acceptable, when they have beliefs that their friends would drive with alcohol, that one can safely drink and drive for short trips, when they trust their own ability to drive with alcohol, when they often drive after drinking alcohol, when they find penalties too severe, when they perceive a higher likelihood of alcohol checks in traffic and when they have actually been checked for drinking and driving.
- On the other hand, the odds of engaging in drinking and driving in the past 30 days significantly *decrease* when riders are female, when they believe that alcohol is a more frequent cause of accidents, and when they are more supportive of interlock measures for alcohol offenders and zero tolerance policy for drinking and driving.

Not very surprisingly the personal acceptability of drinking and driving and the statement that one often drives after consuming some alcohol have the highest values for exp(B) and can be seen as the strongest predictors for self-reported drinking and driving. Perhaps somewhat counterintuitively the actual experience of having been checked for drinking and driving and the perceived likelihood of being checked are positively associated with higher odds of engaging in the risk behaviour. We will discuss the possible meaning of this finding later (in Section 4.2).

Table 5 presents the outcomes of the analysis for the country as independent variable. The reference country is Italy which as a value nearest to the EU mean for self-reported drinking and driving in the past 30 days.



Table 5: Outcomes binary logistic regression analysis: country as independent variable and self-declared driving over legal limit in past 30 days as dependent binary variable

Independent variables	B	S.E.	Wald	df	Sign.	Exp(B)	Lower 95% C.L.	Upper 95% C.L.
<b>Reference country closest to EU average (= Italy)</b>								
Belgium	0.495	0.146	11.504	1	0.001	1.641	1.233	2.185
Switzerland	0.453	0.164	7.613	1	0.006	1.572	1.140	2.168
Germany	-0.593	0.168	12.395	1	0.000	0.553	0.397	0.769
Denmark	0.022	0.188	0.013	1	0.909	1.022	0.707	1.477
Greece	0.281	0.166	2.882	1	0.090	1.324	0.958	1.832
Spain	0.305	0.173	3.100	1	0.078	1.357	0.966	1.906
Finland	-0.937	0.246	14.455	1	0.000	0.392	0.242	0.635
France	0.601	0.165	13.188	1	0.000	1.824	1.319	2.522
Ireland	-0.188	0.191	0.969	1	0.325	0.828	0.570	1.205
Austria	-0.355	0.170	4.361	1	0.037	0.701	0.503	0.978
Netherlands	-0.409	0.204	4.021	1	0.045	0.664	0.445	0.991
Poland	-0.801	0.221	13.100	1	0.000	0.449	0.291	0.693
Portugal	0.014	0.172	0.006	1	0.936	1.014	0.724	1.421
Sweden	-0.220	0.218	1.020	1	0.313	0.803	0.524	1.230
Slovenia	0.127	0.169	0.561	1	0.454	1.135	0.815	1.580
United Kingdom	-0.510	0.229	4.974	1	0.026	0.600	0.383	0.940
Canada	0.127	0.184	0.474	1	0.491	1.135	0.792	1.627
Czech Republic	0.149	0.199	0.565	1	0.452	1.161	0.787	1.714
Hungary	-0.989	0.254	15.191	1	0.000	0.372	0.226	0.611
Israel	-0.128	0.195	0.435	1	0.510	0.879	0.600	1.288
Croatia	-0.925	0.213	18.820	1	0.000	0.396	0.261	0.602
USA	-0.048	0.184	0.069	1	0.793	0.953	0.665	1.365
Australia	-0.625	0.201	9.699	1	0.002	0.535	0.361	0.793
Serbia	-0.368	0.190	3.763	1	0.052	0.692	0.478	1.004
Japan	-0.727	0.252	8.328	1	0.004	0.483	0.295	0.792
India	0.262	0.177	2.193	1	0.139	1.300	0.919	1.838
Egypt	0.007	0.202	0.001	1	0.972	1.007	0.678	1.496
Kenya	0.028	0.187	0.022	1	0.883	1.028	0.713	1.483
Nigeria	0.112	0.183	0.373	1	0.541	1.118	0.781	1.601
Morocco	-0.232	0.203	1.308	1	0.253	0.793	0.532	1.181
South Africa	0.406	0.165	6.060	1	0.014	1.500	1.086	2.072

After statistical correction for age and gender differences, enforcement-related perceptions and personal opinions and beliefs about drinking and driving, a number of countries have high or low values for exp (b) values indicating a higher or lower than average tendency of drivers in those countries to engage in self-report drinking and driving. When holding several variables constant, Belgium, France, Greece, Spain, Switzerland and South Africa are countries with increased odds of self-reported drinking and driving compared to the reference country. On the other hand, Australia, Finland, Croatia, Germany, Japan, Morocco, Netherlands, Poland, Serbia, and Sweden show decreased odds of self-reported drinking and driving compared to the reference country.

#### *Prediction of driving under influence of drugs*

Binary logistic regression was used to predict the involvement in driving within one hour of using drugs (other than medication). In this analysis, the predicted outcome variable was binary (yes or no driving within one hour of using drugs in the past 30 days). The independent variables in the analysis were background characteristics of gender(Q2), age (Q3) and country (Q1), and the ESRA2 questions on experience with drug checks in traffic (Q22\_1), the perceived likelihood of a check on drugs in traffic (Q20\_1\_2), the social acceptability of drinking and driving (Q13\_2) and the personal acceptability of driving while being over the legal (Q14\_2).



The omnibus tests of model coefficients was strongly significant (Chi-square = 3726; df = 39;  $p \leq 0.001$ ) indicating that the model with explanatory variables was an improvement over the baseline model. The Nagelkerke  $R^2$  was .33 suggesting that the model roughly explains 33% of the variance in the outcome variable.

Table 6 presents the outcomes of the model for the independent variables (except the country variable which is presented in Table 7).

**Table 6: Outcomes binary logistic regression analysis: age, gender, and drugged-driving related experiences and beliefs as independent variables and self-declared driving within one hour of using drugs as dependent binary variable**

Independent variables	B	S.E.	Wald	d f	Sign.	Exp(B)	Lower 95% C.L.	Upper 95% C.L.
Age	-0.014	0.002	52.430	1	0.000	0.986	0.982	0.990
Gender/female vs male	-0.479	0.059	66.423	1	0.000	0.619	0.552	0.695
Social acceptability drugged driving	0.355	0.029	152.022	1	0.000	1.426	1.347	1.508
Personal acceptability drugged driving	0.857	0.033	677.394	1	0.000	2.355	2.208	2.512
Perception drugged driving as frequent acc. cause	-0.185	0.016	139.809	1	0.000	0.831	0.806	0.857
Perceived likelihood drug check in traffic	0.121	0.014	75.884	1	0.000	1.129	1.099	1.160
Been checked for drugged driving past 12 months (no, yes)	1.077	0.085	159.353	1	0.000	2.936	2.484	3.471

As we have explained earlier the Exp(B) is known as the odds ratio predicted by the model. The odds ratio is computed by raising the base of the natural log to the  $b^{\text{th}}$  power, where  $b$  is the slope from the logistic regression equation. The exp (B) represents the change in the relative risk of engaging in the violation behaviour (yes/no) associated with change in the independent variable when all other model variables have been held constant.

As can be seen in Table 6, the odds of engaging in driving under the influence of drugs is smaller than 1 for age, gender, and perception of driving under influence of drugs. This indicates a lowered odds of engaging in driving under the influence of drugs for older drivers (versus younger), for female drivers (versus male) and for drivers who perceive driving under influence as frequent accident cause (versus those who perceive this less so). The results can be further specified as follows:

- Concerning age, for each increasing year the odds of engaging in the risk behaviour is lowered with  $(1 - 0.986) * 100 = 1.4$  percent.
- Compared to males females have a  $(1 - 0.619) * 100 = 38\%$  lower odds of engaging in the risk behaviour.
- Concerning the perception of drugged driving as accident cause, with each unit increase on the rating scale of 1 = never to 5 = (almost) always the odds of engaging in the risk behaviour lowers with  $(1 - 0.83) * 100 = 17$  percent.

The odds of engaging in driving under the influence of drugs tend to be higher ( $> 1$ ) when drugged driving is more socially and personally acceptable, and when the perceived likelihood of a drug check is higher and there is more experience with drug enforcement. These results can be further nuanced as follows:

- Concerning the experience with drugs checks in traffic, those who have been checked for drugs in traffic have a  $((2.936 - 1) * 100 = 194)$  percent higher odds of having engaged in driving under the influence of drugs in the past 30 days. The positive relationship between odds of engaging in risk behaviour on the one hand and more experience with drug checks and higher perceived likelihood of being checked for drugged driving on the other hand will be discussed later (in Section 4.2).
- Concerning personal acceptability, with each unit increase on the scale of acceptability (scale: unacceptable 1-2-3-4-5 acceptable) the odds of engaging in the risk behaviour increases with  $((2.355 - 1) * 100 = 135)$  percent.

Table 7 presents further results from the regression analysis for country as independent variable. The Netherlands was used as the reference country for this variable since the average score of the Netherlands on the question on driving under the influence of drugs was closest to the EU mean.

**Table 7: Outcomes binary logistic regression analysis: country as independent variable and self-declared driving over legal limit in past 30 days as dependent binary variable**

Independent variables	B	S.E.	Wald	df	Sign.	Exp(B)	Lower 95% C.L.	Upper 95% C.L.
<b>Reference country closest to EU average (= Netherlands)</b>								
Belgium	0.247	0.226	1.190	1	0.275	1.280	0.822	1.994
Switzerland	-0.149	0.275	0.295	1	0.587	0.861	0.503	1.476
Germany	-0.469	0.250	3.517	1	0.061	0.626	0.384	1.021
Denmark	0.011	0.283	0.001	1	0.970	1.011	0.580	1.760
Greece	0.289	0.243	1.414	1	0.234	1.335	0.829	2.149
Spain	0.165	0.256	0.415	1	0.520	1.179	0.714	1.949
Finland	-0.745	0.364	4.198	1	0.040	0.475	0.233	.968
France	0.298	0.258	1.338	1	0.247	1.347	0.813	2.231
Ireland	0.295	0.253	1.355	1	0.244	1.343	0.818	2.205
Italy	0.072	0.266	0.073	1	0.786	1.075	0.638	1.809
Austria	0.228	0.242	0.884	1	0.347	1.256	0.781	2.018
Poland	-0.839	0.314	7.146	1	0.008	0.432	0.233	.799
Portugal	0.027	0.264	0.011	1	0.918	1.028	0.612	1.725
Sweden	0.132	0.277	0.227	1	0.634	1.141	0.663	1.964
Slovenia	-0.181	0.277	0.424	1	0.515	0.835	0.485	1.437
UK	0.367	0.266	1.901	1	0.168	1.443	0.857	2.431
Canada	0.833	0.235	12.599	1	0.000	2.300	1.452	3.644
Czech Republic	-0.615	0.348	3.114	1	0.078	0.541	0.273	1.070
Hungary	-0.568	0.332	2.925	1	0.087	0.567	0.296	1.087
Israel	-0.432	0.286	2.273	1	0.132	0.649	0.370	1.138
Croatia	-0.314	0.282	1.237	1	0.266	0.731	0.420	1.270
USA	1.106	0.229	23.414	1	0.000	3.024	1.931	4.733
Australia	-0.010	0.263	0.001	1	0.971	0.991	0.591	1.659
Serbia	-0.043	0.274	0.025	1	0.874	0.957	0.560	1.637
Japan	0.259	0.241	1.155	1	0.282	1.295	0.808	2.077
India	0.982	0.225	19.029	1	0.000	2.669	1.717	4.148
Egypt	0.527	0.232	5.153	1	0.023	1.694	1.075	2.670
Kenya	1.007	0.229	19.279	1	0.000	2.737	1.746	4.290
Nigeria	1.333	0.220	36.769	1	0.000	3.791	2.464	5.831
Morocco	0.446	0.238	3.499	1	0.061	1.562	0.979	2.492
South Africa	0.755	0.230	10.746	1	0.001	2.127	1.354	3.339

After statistical correction for age and gender differences, and questions on acceptability and enforcement of drugged driving, a number of countries have significantly increased or decreased odds of driver population engaging in drugged driving in the past 30 days. Compared to the reference country (Netherlands), Canada, India, Kenya, Nigeria, USA, and South Africa have significantly increased odds of drivers engaging in driving under the influence of drugs. On the other hand, Finland, Czech Republic Germany, Hungary, and Poland, present decreased odds of engaging in this risk behaviour (compared to reference country Netherlands). For a number of these countries there is evidence from other sources that is consistent with the increased or decreased odd of engaging in the risk behaviour (to be presented later in Discussion Section 4.2).

These results are also in line with prevalence rates of drugged driving found in the DRUID-project. The DRUID project confirms the relatively low prevalence of driving under influence of illegal drugs (< 1% at road side surveys) in Northern and Eastern Europe region (Houwing et al., 2011).

### 3.3 Limitations of the data

In general, self-report data are vulnerable to a number of biases. Common biases are the following (Choi & Pak, 2005; Krosnick & Presser, 2010):

- Desirability bias – the tendency of respondents to provide answers which present a favourable image of themselves, e.g. individuals may over-report good behaviour or under-report bad, or undesirable behaviour
- Bias through misunderstanding of questions (e.g. questions with difficult words, long questions)
- Recall error - unintentional faulty answers due to memory errors

The method for advanced analysis was binary logistic regression. Although the regression analysis identifies a number of explanatory variables that predict the self-declared fatigue driving, the associations between explanatory and dependent variables are correlational and the causal direction of influence between variables is not indicated by the analysis.

## 4 Summary and discussion

In Section 4.1 of this chapter we summarise results on the prevalence of self-declared violation and risk behaviour by drivers and other road user groups (question 1), on self-reported experience with enforcement checks (questions 2), on the perceived likelihood of enforcement checks (questions 3) and on opinions on stricter enforcement and sanctions (question 4). In addition, results of advanced analyses of variables that are related to driving under influence of alcohol and drugs are summarised. A further discussion of some findings is presented in Section 4.2.

### 4.1 Summary

#### *Prevalence of the risky self-declared traffic behaviour among drivers*

- On all four continents the most frequently reported traffic violations are talking on handheld phone and speeding inside urban areas, speeding on main roads outside urban areas and speeding on motorways with between 40% and 75% of road users admitting to these traffic violations
- Driving after drinking alcohol is being reported by one in five drivers in Europe, USA and Africa and by one in seven drivers in AsiaOceania.
- Concerning drinking and driving, it seems that this risky behaviour has been reduced over time; the EU average has decreased from 31% to 18% and in a number of countries such as Denmark, Finland, France, Germany, Netherlands, Spain and the United Kingdom substantial reductions in self-declared drinking and driving have occurred.
- The use of a smartphone while driving for calling, reading email or texting has become common behaviour in many countries. The most distracting variant of phone use while driving is reading an email or texting a message which requires that sight is averted from the roadway. In African countries percentages for this risky behaviour range between 37% and 52%. In Europe this behaviour is somewhat less frequent with percentages varying between 14% and 37%, with Austrian, Finnish, Serbian, and Portuguese drivers having percentages near 36%.
- The unsafe transport of children is frequent in AsiaOceania and Africa (> 40%), and less frequent in Europe and the USA (< 15%).
- The age differences in risky behaviour were nearly all significant in all four regions with younger drivers reporting to engage more in risky driving behaviour than older drivers with effect sizes mostly varying between small to medium.
- In three regions – Europe, North America and Africa – for nearly all risky behaviours males reported to engage more frequently in the behaviour than females; most often the gender differences were quite small.

#### *Reported traffic violations by other road user groups*

##### *Moped riders and motorcyclists:*

- In all four regions, nearly half of all moped riders and motorcyclists report to drive faster than the speed limits on roads outside of built-up areas.
- Riding without a helmet - which is not a violation in many ESRA2 countries - is reported by nearly a half of riders in Africa and AsiaOceania, by two in five riders in North America and by one in four riders in Europe.

- Younger moped riders and motorcycle riders report more frequently to engage in each of the four risky behaviours (drinking and riding, speeding outside built-up areas, riding without helmet and reading text/email or checking social media during riding). Nearly all effect sizes are medium to large.

#### *Cyclists:*

- In all four regions, cycling after having drunk perhaps too much alcohol is reported by one in six cyclists.
- Cyclists in AsiaOceania and Africa more frequently report to read a text message or check social media while cycling (about one in three), to cycle wearing head phones (two in five to about half), and to cycle on road next to cycle lane (slightly over half) than cyclists in Europe and North America.
- Younger cyclists reported more frequent risky cycling behaviour than older cyclist in all four regions with effect sizes mostly between medium to large.

#### *Pedestrians:*

- The behaviours that may increase risk for pedestrians, phone use, head phone use, red light running, crossing the road at another place than the pedestrian crossing, are frequently reported by pedestrians in all four regions (percentages mostly ranging between 40% and 75%).
- In all regions younger pedestrians report more frequently to engage in risky pedestrian behaviour (listening music; reading text/checking social media; red light running; crossing nearby pedestrian crossing) than older pedestrians, with effect sizes mostly ranging from medium to large.
- In all regions younger pedestrians report more frequently to engage in risky pedestrian behaviour.

#### *Drivers' experience of being checked for alcohol or drugs in traffic*

- In all regions being checked in traffic for alcohol occurs more frequently than being checked for drugs, with the highest percentages of alcohol checks being reported in AsiaOceania (32%) and the lowest in North America (3%), and Europe (18%) and Africa (16%) falling in between.
- For checks on drugged driving the highest percentages are being reported in AsiaOceania and Africa (both 10%), and low percentages in Europe (4%) and North America (2%).
- In three out of four regions male drivers tend to report a higher likelihood of being checked for traffic violations than female drivers, but statistical effect sizes were consistently small.
- In all regions younger drivers tended to report a higher likelihood of being checked than older drivers, with effect sizes ranging from small to medium.

#### *Perceived likelihood of being checked*

- In all four regions, the reported likelihood of being checked is most frequent for speeding violations (29% to 45% of drivers reporting this to be likely) and for seat belt violations (24% to 44% of drivers reporting this likely).
- Drivers in African countries report most often that they consider it likely to be checked in traffic (percentages ranging from 23% to 45%) and drivers in North America report this the least often (percentages ranging from 10% to 29%).
- Male drivers tend to report a higher likelihood of being checked for traffic violations than female drivers, but statistical effect sizes are consistently small.
- Age differences were consistent. In all regions younger drivers tended to report a higher likelihood of being checked than older drivers, with effect sizes ranging from small to medium.

### *Opinions on strictness of enforcement*

- Worldwide, in nearly all surveyed countries there is a majority support among road users (> 60%) for a stricter approach to drinking and driving in the sense of stricter penalties and more traffic checks.
- In nearly all surveyed countries there is a clear majority support for stricter approach to phone use while driving (65%-95%).
- On the questions of strictness of sanctions and enforcement female road users tend to report a somewhat stronger preference for strict sanctions and more enforcement than male road users, but the statistical effect sizes are small.
- Older road users were more in favour of strict sanctions for drinking and driving, speeding and use of handheld mobile phones than younger road users with effect sizes ranging from small to medium.

### *Changes over time*

Answers on violation behaviour of car drivers were compared between ESRA1 and ESRA2. The operational definition of car drivers slightly changed between ESRA1 and ESRA2. In view of this it cannot be excluded that the differences reported below may be partly due to slightly differing samples of ESRA1 and ESRA2.

- Concerning drinking and driving, it seems that this risky behaviour has been reduced over time; the EU average has decreased from 31% to 18% and in a number of countries such as Denmark, Finland, France, Germany, the Netherlands, Spain and the United Kingdom substantial reductions in self-declared drinking and driving have occurred.
- Concerning speeding outside built-up areas, it seems that this may have increased somewhat over time.
- Reading a text or email while driving seems to have slightly reduced overall, with large reductions in some countries (Italy, Finland, Greece, Netherlands, Sweden). However these data should not be taken at face value since there is evidence presented later in the discussion that at least for one of these countries (the Netherlands) the ESRA2 reports of less email reading and/or texting seems not be supported by actual observations of phone use in traffic.

### *Variables associated with driving under influence of alcohol or drugs*

- The odds of engaging in driving when one may have been drinking more than the legal alcohol limit in the past thirty days are significantly *increased* when people are getting older, when they find this behaviour to be more socially and personally acceptable, when they have beliefs that their friends would drive with alcohol, that one can safely drink and drive for short trips, when they trust their own ability to drive with alcohol, when they often drive after drinking alcohol, when they find penalties too severe, when they perceive a higher likelihood of alcohol checks in traffic and when they have actually been checked for drinking and driving.
- On the other hand, the odds of engaging in drinking and driving in the past thirty days is significantly *decreased* when riders are female, when they believe that alcohol is a more frequent cause of accidents, when they believe more that alcohol rules are insufficiently checked and when they are more supportive of interlock measures for alcohol offenders and zero tolerance policy for drinking and driving.
- The odds of engaging in driving under the influence of drugs are lower for older drivers, for female drivers (versus male) and for drivers who perceive driving under influence as frequent accident cause (versus those who perceive this less so). The odds of engaging in driving under the influence of drugs were increased when drugged driving is more socially and personally acceptable, and when the perceived likelihood of a drug check is higher and there is more experience with drug enforcement.

- The positive relationship between odds of engaging in driving under influence of alcohol or drugs and higher perceived likelihood of control and being checked for DUI can be explained by various processes. It can be assumed that, first, drivers who use drugs do so at times and near locations where police may focus enforcement efforts, that, second, these drivers are more motivated to look for and notice police checks, and third, that these drivers may show driving behaviour that alerts the police to their vehicle.

## 4.2 Discussion and recommendations

In this section we discuss some of the more remarkable findings. ESRA results are compared with evidence from other sources and some counterintuitive results are explained in terms of possible underlying processes.

### *Decrease in drink driving enforcement*

A remarkable finding was that in a number of countries, the self-reports of having been checked for alcohol have decreased (France: 23% to 15%; Netherlands: 17% to 10%; Italy: 15% to 9%; Sweden 29% to 23%). For the Netherlands it can be confirmed that there has been an objective decrease in the number of road users being tested for alcohol in the past 6 years. In 2013 over 6000 large random breath testing checks were conducted in the Netherlands; this number was halved to slightly over 3000 in 2016; Dutch police have changed tactics from large scale random breath testing checks to smaller scale unobtrusive checks factually resulting in less road users being checked (NOS, 2017). In two countries, Ireland and Belgium, the self-reports of being checked for alcohol have substantially increased (Ireland: 9% to 22%; Belgium: from 17% to 24%). For Belgium, the increase in self-reports of being checked correspond with objective numbers. In Belgium in 2014-2015 slightly over 300.000 drivers were tested for alcohol, whereas this number increased to slightly over 450.000 in 2016-2017 (41% increase) (Pelssers, 2018). In Ireland, the number of DUI checkpoints hardly changed in 2014-2017. In 2017 a total of 8920 drivers were arrested for drinking and driving in Ireland compared to 8067 arrests in 2016 and 7419 arrests in 2015. Compared to 2015, there was a 20% increase in DUI arrests in 2017.

### *Violations by other road users*

The self-declared violation rates by other road user groups are far from small if we look at violations such as speeding by motorcyclists and moped riders (42% to 49% per world region), and red light crossing by pedestrians (52% to 69% per world region). Cyclists' involvement in risky though not necessarily illegal behaviour, is also high with self-reported rates in world regions between 19% and 34% for reading text messages or emailing while cycling and rates between 30% and 53% for wearing head phones while cycling. Cycling without helmet is worldwide common behaviour (51% to 71% in world regions).

To support the safety of vulnerable road users ETSC (2018) recommends that enforcement should be intensified on speeding in urban areas where there are high numbers of pedestrians and cyclists. In addition, enforcement of rule violations by moped riders, cyclists, and pedestrians themselves should not be ignored.

Preferably the enforcement of risky behaviour of vulnerable road users is based on a problem-analysis of what physical, legal and personal factors may impact on rule breaking. For example, in Montreal Chaloux & El-Geneidy (2019) studied the motivation of cyclists to comply or not comply with traffic laws. They found that actions labelled as careless and dangerous by other road users were often considered the safest and most rational by cyclists themselves. This reflects a discrepancy between the safety goals of traffic laws and the cycling reality as perceived by cyclists. These researchers advocate for a consideration of more bicycle-specific rules for the road.



### *Changes over time*

In this report we looked at changes between ESRA1 and ESRA2 in self-reported drinking and driving, speeding outside built-up area, texting while driving, and self-reported experience with alcohol and drugs checks. The general question is whether changes in self-reports can be confirmed with data from other measurements.

Concerning drinking and driving, it seems that this risky behaviour has been reduced; the EU average has decreased from 31% to 18% and in a number of countries such as Denmark, Finland, France, Germany, the Netherlands, Spain and the United Kingdom substantial reductions in self-declared drinking and driving have occurred. There is other evidence for a number of these countries which confirms a positive trend in drinking and driving in recent years. Roadside surveys of drinking and driving in the Netherlands indicated that the percentage of heavy alcohol offenders in traffic (BAC > 1.3‰) has been further reduced from 0.3% in 2015 to 0.1% in 2017 (I&O Research, 2018). In Denmark also the problem of drinking and driving seems to have been reduced; the share of alcohol-related road fatalities has reduced from 23% in 2008 to 14% in 2017 (Ehlers, 2018). For Spain, a positive development in drinking and driving between 2015 and 2018 was reported by Domingo-Slave et al. (2019). Roadside surveys indicated a significant decrease in drivers tested positive for alcohol (from 3.4% in 2013 to 2.6% in 2015;  $p < 0.05$ ).

Another development over time was that in a few countries, the self-reports of having been checked for alcohol in traffic have decreased (France: 23% to 15%; Netherlands: 17% to 10%; Italy: 15% to 9%; Sweden 29% to 23%). For the Netherlands these self-report data are confirmed by data on the factual number of alcohol checks. The number of large-scale alcohol checks was reduced from over 6000 in 2013 to slightly lower than 3100 in 2016 (NOS, 2017). For Sweden, a reduction of check on speed and driver's sobriety has begun in 2012 (The Local, 2018). The reasons for the reduction of traffic policing included a high workload for the police, specifically following a reorganization in 2015 in which responsibility for traffic checks shifted from a dedicated unit of traffic police to municipal police officers (The Local, 2018).

The changes over time between ESRA1 and ESRA2 may have been influenced by slightly differing car driving populations of ESRA1 and ESRA2. Concerning speeding outside built-up areas, it was found that this may have increased somewhat over time. Reading a text or email while driving seems to have slightly reduced overall, with large reductions in some countries (Italy, Finland, Greece, Netherlands, Sweden). However, these data should not be taken at face value. For instance, for the Netherlands there is objective evidence that the use of smartphone (for various purposes such as texting, reading mails etc.) while driving has increased on different roadways between 2016 and 2018 (NDC Nederland, Goudappel Coffeng, 2018).

### *Relationship between perceived control likelihood and risk behaviour*

The advanced statistical analyses indicated both for drinking and driving and driving under the influence of drugs positive relationships between perceived likelihood of control and engagement in risky behaviour and experience with enforcement and engagement in risk behaviour. The higher the perceived likelihood of control, the more engagement in the risk behaviour, and also the more experience with enforcement, the more engagement in the risk behaviour. Below we discuss the processes that may explain these findings.

Perhaps somewhat counterintuitively the actual experience of having been checked for drinking and driving and the perceived likelihood of being checked are positively associated with higher odds of engaging in the risk behaviour. One explanation could be that drivers who drink and drive do so at times and near locations where police may focus extra enforcement on this risk behaviour. That would bring the regular drink-drivers more in contact with DUI enforcement, explaining their increased perceived likelihood of check and increased experience with this enforcement. Part of the explanation could also be that drivers who drink and drive change their driving behaviour in a way that brings their vehicle to the attention of the traffic police. The finding that perceived likelihood of enforcement

is positively related to engagement in risk behaviour has also been found in Dutch traffic surveys where respondents who report more speeding behaviour also tend to report a higher perceived likelihood of speed checks (Duijm et al., 2012).

The positive relationship between odds of engaging in risk behaviour and higher perceived likelihood of control and being checked for drugged driving can be explained by various processes. It can be assumed that, first, drivers who use drugs do so at times and near locations where police may focus enforcement efforts, that, second, these drivers are more motivated to look for and notice police checks, and third, that these drivers may show driving behaviour that alerts the police to their vehicle.

### *Driving under the influence of drugs*

The advanced statistical analysis found that a number of countries had significantly increased or decreased odds of driver population engaging in drugged driving in the past 30 days. Compared to the reference country closest to the EU average of self-reported driving under the influence of drugs (Netherlands), Canada, India, Kenya, Nigeria, USA, and South Africa have significantly increased odds of drivers engaging in driving under the influence of drugs. For a number of these countries there is (confirming) evidence from other sources that drug use in the general or in the car driver population is high:

- Concerning *Canada*, Robertson et al. (2017) report that 7% of drivers tested positive for drugs at a roadside survey - a higher rate than the average rate in Europe being 2% according to DRUID (Houwing et al., 2011; Atchison, 2017) and that in 2014 42% of fatally injured drivers tested positive for drugs.
- For the *USA*, Hedlund (2017) reports that at roadside surveys illegal drugs use was found for 15% of drivers in weekend nights and 12% for drivers at weekdays. Marijuana was the most prevalent drug, with 12.6% of drivers testing positive on weekend nights (Hedlund, 2017; p. 8).
- A national survey in *Nigeria* indicated that nearly 15% of the adult population in Nigeria (around 14.3 million people) reported a "considerable level" of use of psychoactive drug substances— a rate much higher than the 2016 global average of 5.6% among adults (Kazeem, 2019).
- Lieberman et al. (2019) report that knowledge of the extent of drugged driving in *South Africa* is limited. Furthermore, they report results of road side drug testing in South Africa where one in seven (14%) drivers tested positive for drugs.

On the other hand, Finland, Czech Republic, Germany, Hungary, and Poland, present decreased odds of engaging in this risk behaviour (compared to reference country Netherlands). These results are also in line with prevalence rates of drugged driving found in the DRUID project. The DRUID project confirms the relatively low prevalence of driving under influence of illegal drugs (< 1% at road side surveys) in Northern and Eastern Europe (Houwing et al., 2011)

### **Key recommendations**

- Drinking and driving and speeding should remain the top priorities for traffic enforcement on the four continents.
- The enforcement of seat belt use and safe transport of children is especially important in African and AsiaOceanic countries.
- A new challenge for traffic enforcement worldwide is the frequent use of (handheld) smartphones by drivers, cyclists and pedestrians.
- New legislation on distraction in traffic and on drugs in traffic, or the possible revision of current legislation should take into account traffic policing practices in order to facilitate as much as possible traffic enforcement operations in these areas.
- In some particular countries driving under the influence of drugs is a widespread and rising problem that needs focused attention in terms of health prevention, communication and traffic enforcement.

- The fairly high reported violation rates of road users other than drivers - moped riders, motorcyclists, cyclists and even pedestrians - indicates that these groups should not be ignored in road infrastructure (planning), traffic education, or in traffic enforcement planning.

### **ESRA closing statement**

The initial aim of ESRA was to develop a system for gathering reliable and comparable information about people's attitudes towards road safety in a number of European countries. This objective has been achieved and the initial expectations have even been exceeded. ESRA has become a global initiative which already conducted surveys in 46 countries across six continents. The outputs of the ESRA project have become building blocks of national and international road safety monitoring systems.

The ESRA project has also demonstrated the feasibility and the added value of joint data collection on road safety attitudes and performance by partner organizations in a large number of countries. The intention is to repeat this initiative on a triennial basis, retaining a core set of questions in every wave allowing the development of time series of road safety performance indicators.

## List of tables

Table 1: ESRA2 Thematic Reports .....	15
Table 2: Self-declared risky driving behaviour in past 12 months, in 2015 and 2018 .....	42
Table 3: Self-reports being checked for alcohol or drugs in the past 12 months .....	43
Table 4: Outcomes binary logistic regression analysis: age, gender, and alcohol-related opinions and perceptions as independent variables and self-declared driving over legal limit in past 30 days as dependent binary variable.....	45
Table 5: Outcomes binary logistic regression analysis: country as independent variable and self-declared driving over legal limit in past 30 days as dependent binary variable .....	46
Table 6: Outcomes binary logistic regression analysis: age, gender, and drugged-driving related experiences and beliefs as independent variables and self-declared driving within one hour of using drugs as dependent binary variable .....	47
Table 7: Outcomes binary logistic regression analysis: country as independent variable and self-declared driving over legal limit in past 30 days as dependent binary variable .....	48

## List of figures

Figure 1: Self-declared risky driving behaviour by region (% of car drivers that did it at least once ...	18
Figure 2: Self-declared risky driving behaviour in the past 30 days by region and country (% of car drivers that did it at least once ... in the past 30 days).....	20
Figure 3: Self-declared driving under influence of alcohol and drugs by region and country (% of car drivers that did it at least once ... in the past 30 days).....	21
Figure 4: Self-declared speeding behaviour by region and country (% of car drivers that did it at least once ... in the past 30 days).....	22
Figure 5: Risky driving behaviour related to use of safety devices (% of car drivers that did it at least once ... in the past 30 days).....	23
Figure 6: Risky driving behaviour related to use of smartphone (% of car drivers that did it at least once ... in the past 30 days).....	24
Figure 7: Self-declared risky driving behaviour in the past 12 months by region and country (% of car drivers that did it at least once ... in the past 12 months). ....	25
Figure 8: Self-declared risky driving behaviour of moped drivers and motorcyclists in the past 30 days by region (% of moped drivers and motorcyclists that did it at least once ... in the past 30 days).....	26
Figure 9: Self-declared risky driving behaviour – DUI and speeding- of moped drivers and motorcyclists in the past 30 days by region (% of moped drivers and motorcyclists that did it at least once ... in the past 30 days).....	27
Figure 10: Self-declared risky driving behaviour of moped drivers and motorcyclists – not wearing helmet, use of smartphone - in the past 30 days by region (% of moped drivers and motorcyclists that did it at least once ... in the past 30 days). ....	28
Figure 11: Self-declared risky driving behaviour of cyclists (% of cyclists .....	30
Figure 12: Self-declared risky driving behaviour of pedestrians (% of cyclists.....	31
Figure 13: Self-reports of being checked by the police in traffic for alcohol or drugs per region. ....	32
Figure 14: Self-reports of being checked by the police for alcohol (left) or drugs (right) in traffic per region and country. ....	33
Figure 15: Car drivers' perceived likelihood of being checked for a traffic violation. ....	34
Figure 16: Car drivers' perceived likelihood of being checked for seat belt, hand held phone use and speeding by region and country. ....	35

Figure 17: Car drivers' perceived likelihood of being checked for alcohol, illegal drugs by region and country.....	36
Figure 18: Road users' opinions on strictness of sanctions and enforcement for drinking and driving/riding by region.....	37
Figure 19: Road users' opinions on strictness of sanctions and enforcement for speeding by region. .	38
Figure 20: Road users' opinions on strictness of sanctions and enforcement for drinking and driving/riding by region and country. ....	39
Figure 21: Road users' opinions on strictness of sanctions and enforcement for speeding by region and country. ....	40
Figure 22: Road users' opinions on strictness of sanctions and enforcement for using a phone while driving/riding .....	41

## Overview appendix

Appendix 1: ESRA2_2018 Questionnaire .....	64
Appendix 2: ESRA2 weights and sample sizes .....	71
Appendix 3: Age and gender results risky behaviour drivers.....	73
Appendix 4: Age and gender results risky behaviour moped riders and motorcyclists.....	83
Appendix 5: Age and gender results risky behaviour cyclists and pedestrians .....	86
Appendix 6: Age and gender results experiences being checked .....	92
Appendix 7: Age and gender results opinions strictness .....	93

## References

- Achermann Stürmer, Y. (2016). *Driving under the influence of alcohol and drugs. ESRA thematic report no. 2. ESRA project (European Survey of Road users' safety Attitude)*. Bern, Switzerland: Swiss Council for Accident Prevention.
- Alfonsi, R., Meta, E., & Ammari, A. (2017). *Seatbelt law and enforcement, European Road Safety Decision Support System, developed by the H2020 project SafetyCube*. Retrieved from: [www.roadsafety-dss.eu](http://www.roadsafety-dss.eu) on 26 July 2019
- Atchison, L. (2017). *Preventing drug driving in Europe. Policy measures for national and EU action*. Brussels: European Transport Safety Council.
- BBC News (2018). Speed limit cut on French roads angers rural voters. BBC press release 16 June 2018 accessed August 22 2019 at: <https://www.bbc.com/news/world-europe-44472557>
- Blais, É., & Gagné, M. P. (2010). The effect on collisions with injuries of a reduction in traffic citations issued by police officers. *Injury Prevention*, 16 (6), 393-397.
- Buttler, I. (2016) *Enforcement and support for road safety policy measures. ESRA thematic report no. 6. ESRA project (European Survey of Road users' safety Attitudes)*. Warschau, Poland: Instytutu Transportu Samochodowego.
- Calinescu, T., & Admindaite, D. (2018). *Progress in reducing drink driving in Europe*. Brussels: European Transport Safety Council ETSC.
- Chaloux, N., & El-Geneidy, A. (2019). Rules of the road: Compliance and 38 defiance among the different types of cyclists. Paper presented at the 98th Annual Meeting of the 39 Transportation Research Board. Washington: Transportation Research Board
- Choi, B.C.K., Pak, A.W.P. (2005). A catalog of biases in questionnaires. *Preventing Chronic Disease*, 2 (1), A13.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- DaCoTA (2012). *Speed Enforcement, Deliverable 4.8t of the EC FP7 project DaCoTA*. Brussels: European Commission.
- DeAngelo, G., & Hansen, B. (2014). Life and death in the fast lane: Police enforcement and traffic fatalities. *American Economic Journal: Economic Policy*, 6 (2), 231-257.
- Dingus, T.A., Guo, F., Lee, S., Antin, J.F., et al. (2016). Driver crash risk factors and prevalence evaluation using naturalistic driving data. *National Academy of Sciences of the United States of America PNAS*, 113, p. 2636-2641.
- Domingo-Salvany, A., Herrero, M.J., Fernandez, B., Perez, J., Del Real, P., González-Luque, J.C., de la Torre, R. (2017). Prevalence of psychoactive substances, alcohol and illicit drugs, in Spanish drivers: A roadside study in 2015. *Forensic Science International*, 278, 253-259
- Duijm, S., Kraker, J. de, Schalkwijk, M., Boekwijt, L., et al. (2012). *PROV 2011 Periodiek Regionaal Onderzoek Verkeersveiligheid ("PROV 2011. Periodical regional research road safety")*. Amsterdam: TNS-NIPO, Amsterdam.
- Elliott, M. & Broughton, J. (2005). *How methods and levels of policing affect road casualty rates*. TRL Report 637. Crowthorne: Transport Research Laboratory.
- Ehlers, P. (2018). Drink driving strategies in Denmark. Brussels: European Transport safety Council. Retrieved October 10 2019 from:

- Erke, A., Goldenbeld, C. & Vaa, T. (2009). *Good practice in the selected key areas: Speeding, drink driving and seat belt wearing: Results from meta-analysis. Deliverable 9 of the PEPPER project*. Brussels: European Commission.
- ETSC (1999). *Police enforcement strategies to reduce traffic casualties in Europe*. Brussels: European Transport Safety Council ETSC, Brussels.
- ETSC (2011). *Traffic Law Enforcement Across the EU Tackling the Three Main Killers on Europe's Roads*. Brussels: European Transport Safety Council, Brussels.
- ETSC (2016a). *How traffic law enforcement can contribute to safer roads (PIN Flash 31)*. Brussels: European Transport Safety Council..
- ETSC (2016b). *Cuts to police enforcement across Europe doubly damaging for road safety*. ETSC Press release June 20<sup>th</sup> 2016, accessed July 25<sup>th</sup> 2019 at: <https://etsc.eu/cuts-to-police-enforcement-across-europe-doubly-damaging-for-road-safety/>
- ETSC (2018). *Briefing: 5th EU Road Safety Action Programme 2020-2030*. Brussels: European Transport Safety Council, Brussels.
- ETSC (2019). *Speed camera vandalism in France puts up to 75% of devices out of action*. ETSC News 5 April 2019. Brussels: European Transport Safety Council ETSC, Brussels. ETSC press release accessed August 22 2-19 at: <https://etsc.eu/speed-camera-vandalism-in-france-puts-up-to-75-of-devices-out-of-action/>
- European Commission (2018). *Speed Enforcement*. Brussels: European Commission, Directorate General for Transport, February 2018. Accessed 25 July 2019 at: [https://ec.europa.eu/transport/road\\_safety/sites/roadsafety/files/pdf/ersosynthesis2018-speedenforcement.pdf](https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/ersosynthesis2018-speedenforcement.pdf)
- GAO (2015). *Drug-impaired driving. Additional Support Needed for Public Awareness Initiatives. Report GAO-15-293*. Washington: United States Government Accountability Office.
- Garda (2017). *Annual report 2016*. Dublin: An Garda Síochána.
- Garda (2018). *Annual report 2017*. Dublin: An Garda Síochána.
- Goldenbeld, C., Daniels, S. & Schermers, G. (2019). Red light cameras revisited. Recent evidence on red light camera safety effects. *Accident Analysis & Prevention*, 128, 139-147.
- Goldenbeld, C., & Schagen, I. van (2017). Traffic rule violations - Red Light Running, European Road Safety Decision Support System, developed by the H2020 project SafetyCube. Retrieved from www.roadsafety-dss.eu on: July 25<sup>th</sup> 2019, [https://www.roadsafety-dss.eu/assets/data/pdf/synopses/Traffic\\_rule\\_violations\\_Red\\_Light\\_Running\\_08122016.pdf](https://www.roadsafety-dss.eu/assets/data/pdf/synopses/Traffic_rule_violations_Red_Light_Running_08122016.pdf)
- Hedlund, J. (2017). *Drug impaired driving. A guide for states*. Washington: Governors Highway Safety Association (GHSA).
- Hels, T., Bernhoft, I.M., Lyckegaard, A., Houwing, S., Hagenzieker, M., Mathijssen, R., Legrand, S.-A., Isalberti, C., Van Den Linden, T. & Verstraete, A. (2011). *Risk of injury by driving with alcohol and other drugs. DRUID Deliverable 2.3.5. Driving under the Influence of Drugs, Alcohol and Medicines*. Brussels: European Commission.
- Høye, A. (2015). Safety effects of section control - An empirical Bayes evaluation. *Accident Analysis and Prevention*, 78, 169-178.
- Houwing, S., Hagenzieker, M., Mathijssen, R., Bernhoft, I.M., et al. (2011). *Prevalence of alcohol and other psychoactive substances in drivers in general traffic. Part 1: General results; Part 2: Country reports*. Deliverable 2.2.3 of DRUID, Driving Under the Influence of Drugs, Alcohol and Medicines. Brussels: European Commission.
- Hu, W., & Cicchino, J.B. (2017). Effects of turning on and off red light cameras on fatal crashes in large U.S. cities. *Journal of Safety Research*, 61, 141-148.



I&O Research (2018). *Rijden onder invloed in Nederland in 2002-2017: ontwikkeling van het alcoholgebruik van automobilisten in weekendnachten* "Driving under the influence in the Netherlands 2002-2017: development of alcohol use by car drivers in weekend nights"). The Hague: Ministry of Infrastructure and Water Management.

Ko, M., Geedipally, S.R., Walden, T.D. & Wunderlicht, R.C. (2017). Effects of red light running camera systems installation and then deactivation on intersection safety. *Journal of Safety Research*, 62, 117-126.

Krosnick, J. A., & Presser, S. (2010). *Questionnaire design*. In: J. D. Wright & P. V. Marsden (Eds.), *Handbook of Survey Research* (Second Edition). West Yorkshire, England: Emerald Group.

Mäkinen, T., Zaidel, D.M., Andersson, G., Biecheler-Fretel, M.B., Christ. R., Cauzard, J.P., Elvik, R., Goldenbeld, C., Gelau, C., Heidstra, J., Jayet, M.-C., Nilsson, G., Papaioannou, P. Rothengatter, T., Quimby, A., Rehnova, V. and Vaa, T. (2003) *Traffic enforcement in Europe: effects, measures, needs and future*. Final report of ESCAPE. Espoo: VTT.

Nakano, Y., Okamura, K., Kosuge, R., Kihira, M., & Fujita, G. (2019). Effect of visible presence of policing activities on drivers' vigilance and intention to refrain from non-driving activities: A scenario-based survey of general Japanese drivers. *Accident Analysis and Prevention*, 133, 105293,

Kazeem, Y. (2019). A national survey has confirmed the massive scale of Nigeria's drug problem. Quartz Africa, January 31 2019, accessed 3 October 2019 at: <https://qz.com/africa/1538843/nigeria-drug-abuse-14-million-adults-use-drugs/>

Lacey, J.H., Brainard, K., & Sitnow, S. (2010). *Drug Per Se Laws: A Review of Their Use in States*. (Report No. DOT HS 811 317). Washington, DC: National Highway Traffic Safety Administration NHTSA.

Liebenberg, J., Toit-Prinsloo, L. du, Saayman, G. & Steenkamp, V. (2018). Drugged driving in South Africa An urgent need for review and reform. *South Africa Crime Quartely*, 67, 7-18.

NDC Nederland, Goudappel Coffeng (2018). *Apparatuurgebruik gemotoriseerd verkeer In auto's, bestelwagens en vrachtwagens*. Den Haag: Rijkswaterstaat.

NOS (2017). Aantal alcoholcontroles afgelopen drie jaar gehalveerd, press release posted 2-2-2017 by the Dutch Broadcasting Foundation (Nederlandse Omroep Stichting – NOS). Accessed August 7 2019 et: <https://nos.nl/artikel/2156235-aantal-alcoholcontroles-afgelopen-drie-jaar-gehalveerd.html>,

OECD (2018). *Speed and crash risk*. Paris: OECD, IRTAD.

Peck, R.C., Gebers, M.A., Voas, R.B. & Romano, E. (2008). The relationship between blood alcohol concentration (BAC), age, and crash risk. *Journal of Safety Research*, 39, nr. 3, p. 311-319.

Peden, M., Scurfield, R., Sleet D., Mohan, D., Hyder, A.A., Jarawan, E., & Mathers, C. (2004) (Eds.) *The World Report on Road traffic injury prevention*. Geneva: World Health Organization WHO.

Pelssers, B. (2018). *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*. Brussels: VIAS institute.

Rezapour, M., Wulff, S.S., & Ksaibati, K (2018). Effectiveness of enforcement resources in the highway patrol in reducing fatality rates. *IATSS Research*, 42, 259-264.

Robertson, R.D., Hing, M.M., Woods-Fry, H., & Vanlaar, W.G.M. (2017). *Road safety monitor 2017. Drugs and driving in Canada*. Ottawa, Ontario: Traffic Injury Research Foundation.

Rocco, L. & Sampaio, B. (2016). Are handheld cell phone and texting bans really effective in reducing fatalities? *Empirical Economics*, 51 (2), 853-876.

Rudisill, T.M., Baus, A.D., & Jarrett, T. (2018). Challenges of enforcing cell phone use while driving laws among police: a qualitative study. *Injury Prevention*, 19(2), S192-S193

Steinbach, R., Perkins, C., Edwards, P., Beecher, D., et al. (2016). *Speed cameras to reduce speeding traffic and road traffic injuries*. London: Cochrane Injuries Group, London School of Hygiene & Tropical Medicine.

SWOV (2018). *Sustainable Safety 3rd edition – The advanced vision for 2018-2030. Principles for design and organization of a casualty-free road traffic system*. The Hague: SWOV Institute for Road Safety Research.

The Local (2018). *Why did road traffic death increase in Sweden this year?* Web article The Local, 20 December 2018. Retrieved October 8 2019 from: <https://www.thelocal.se/20181220/why-have-fatal-road-accidents-risen-in-sweden>

Theofilatos, A., (2017). *Law and Enforcement - Distraction: Laws and enforcement against mobile phone use while driving*, European Road Safety Decision Support System, developed by the H2020 project SafetyCube. Retrieved from [www.roadsafety-dss.eu](http://www.roadsafety-dss.eu) on 26 July 2019

Zaal, D. (1994) *Traffic Law Enforcement: A review of the literature*. Report no. 53. Clayton, Victoria: Monash University, Accident Research Centre.

#### *ESRA2 methodology reports (2019)*

Meesmann, U., & Torfs, K. (2019). *ESRA2 survey methodology. ESRA2 report Nr. 1. ESRA project (E-Survey of Road users' Attitudes)*. Brussels, Belgium: Vias institute.

Meesmann, U., Torfs, K., Nguyen, H., & Van den Berghe, W. (2017). *Do we care about road safety? Key findings from the ESRA1 project in 38 countries*. ESRA project (E-Survey of Road users' Attitudes). Brussels, Belgium: Vias institute.

UNdata, United Nations Statistics Division, 2019. Population statistics on gender and age per country. Available at: <http://data.un.org/Data.aspx?d=POP&f=tableCode:22%20> [13/06/2019].

#### *Previous ESRA1 thematic reports (ESRA 2015)*

Achermann Stürmer, Y. (2016). *Driving under the influence of alcohol and drugs. ESRA thematic report no. 2*. ESRA project (European Survey of Road users' safety Attitude). Bern, Switzerland: Swiss Council for Accident Prevention.

Buttler, I. (2016). *Enforcement and support for road safety policy measures. ESRA thematic report no. 6*. ESRA project (European Survey of Road users' safety Attitudes). Warschau, Poland: Instytutu Transportu Samochodowego.

Furian, G., Brandstätter, C., Kaiser, S., & Witzik, A. (2016). *Subjective safety and risk perception. ESRA thematic report no. 5*. ESRA project (European Survey of Road users' safety Attitudes). Vienna, Austria: Kuratorium für Verkehrssicherheit.

Trigoso J., Areal A., & Pires C. (2016). *Distraction and fatigue. ESRA thematic report no. 3*. ESRA project (European Survey of Road users' safety Attitudes). Lisbon, Portugal: Prevenção Rodoviária Portuguesa.

Trotta, M., Meesmann, U., Torfs, K., Van den Berghe, W., Shingo Usami, D., & Sgarra, V. (2016). *Seat belt and child restraint systems. ESRA thematic report no. 4*. ESRA project (European Survey of Road users' safety Attitudes). Brussels, Belgium: Belgian Road Safety Institute.

Yannis, G., Laiou, A., Theofilatos, A., & Dragomanovits, A. (2016). *Speeding. ESRA thematic report no. 1*. ESRA project (European Survey of Road users' safety Attitude). Athens, Greece: National Technical University of Athens.

## Appendix 1: ESRA2\_2018 Questionnaire

### Introduction

In this questionnaire, we ask you some questions about your experience with, and your attitudes towards traffic and road safety. When responding to a question, please answer in relation to the traffic and road safety situation in [COUNTRY]. There are no right or wrong answers; what matters is your own experience and perception. Thank you for your contribution!

### Socio-demographic information

**Q1) In which country do you live?** \_\_\_\_\_

**Q2) Are you ...** male – female – other (only in country who officially recognizes another gender)

**Q3a) In which year were you born?** Dropdown menu

**Q3b) In which month were you born?** Dropdown menu

**Q4\_1) What is the highest qualification or educational certificate that you have obtained?** none - primary education - secondary education - bachelor's degree or similar - master's degree or higher

**Q4\_2) What is the highest qualification or educational certificate that your mother has obtained?** none - primary education - secondary education - bachelor's degree or similar - master's degree or higher - I don't know

Q5a) Which of the following terms best describes your current professional occupation? white collar or office worker (excluding executive)/employee (public or private sector) → Q5b - blue collar or manual worker/worker → Q5b - executive → Q5b - self-employed/independent professional → Q5b - currently no professional occupation → Q5c

**Q5b) Do you have to drive or ride a vehicle for work?** (Please indicate the job category that is most appropriate for you) yes, I work as a taxi, bus, truck driver, ... - yes, I work as a courier, mailman, visiting patients, food delivery, salesperson, ... - no

**Q5c) You stated that you currently have no professional occupation. Which of the following terms best describes your current situation? I am ...** a student - unemployed, looking for a job – retired - not fit to work - a stay-at-home spouse or parent - other

**Q6) What is the postal code of the municipality in which you live?** \_\_\_\_\_

**Q7) In which region do you live?** Drop down menu

**Q8a) How far do you live from the nearest bus stop, light rail stop, or metro/underground station?** less than 500 metres → Q8b - between 500 metres and 1 kilometre → Q8b - more than 1 kilometre → skip Q8b

**Q8b) What is the frequency of your nearest bus stop, light rail stop, or metro/underground station?** at least 3 times per hour - 1 or 2 times per hour - less than 1 time per hour

### Mobility & exposure

**Q9) Do you have a car driving licence or permit (including learner's permit)?** yes - no

**Q10) During the past 12 months, how often did you use each of the following transport modes in [country]? How often did you ...?** at least 4 days a week - 1 to 3 days a week - a few days a month - a few days a year - never

Items (random): walk minimum 100m (pedestrian; including jogging, inline skate, skateboard, ...) - cycle (non-electric) - cycle on an electric bicycle/e-bike/pedelec - drive a moped ( $\leq 50$  cc or  $\leq 4$  kW; non-electric) - drive a motorcycle ( $> 50$  cc and  $> 4$  kW non-electric) - drive an electric moped ( $\leq 4$  kW) - drive an electric motorcycle ( $> 4$  kW) - drive a powered personal transport device such as an electric step, hoverboard, solowheel,... - drive a car (non-electric or non-hybrid) - drive a taxi - drive a bus as a driver - drive a truck/lorry - drive a hybrid or

electric car - take a taxi or use a ride-hail service (e.g. Uber, Lyft) - take the train - take the bus - take the tram/streetcar - take the subway - take the aeroplane - take a ship/boat or ferry - be a passenger in a car - use another transport mode

**Q11) Over the last 30 days, have you transported a child (<18 years of age) in a car?** yes - no

Items: below 150cm - above 150cm

**Self-declared safe and unsafe behaviour in traffic**

**Q12\_1a) Over the last 12 months, how often did you as a CAR DRIVER ...?**

You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for all items: at least once (2-5) - never (1)

Items (random):

- drive after drinking alcohol
- drive faster than the speed limit outside built-up areas (but not on motorways/freeways)
- read a text message or email while driving

**Q12\_1b) Over the last 30 days, how often did you as a CAR DRIVER ...?**

You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for all items: at least once (2-5) - never (1)

Items (random):

- drive when you may have been over the legal limit for drinking and driving
- drive after drinking alcohol
- drive 1 hour after using drugs (other than medication)
- drive after taking medication that carries a warning that it may influence your driving ability
- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (but not on motorways/freeways)
- drive faster than the speed limit on motorways/freeways
- drive without wearing your seatbelt
- transport children under 150cm without using child restraint systems (e.g. child safety seat, cushion)
- transport children over 150cm without wearing their seatbelts
- talk on a hand-held mobile phone while driving
- talk on a hands-free mobile phone while driving
- read a text message/email or check social media (e.g. Facebook, twitter, etc.) while driving
- drive when you were so sleepy that you had trouble keeping your eyes open

**Q12\_2) Over the last 30 days, how often did you as a CAR PASSENGER ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for all items: at least once (2-5) - never (1)

Item:

- travel without wearing your seatbelt in the back seat

**Q12\_3) Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for all items: at least once (2-5) - never (1)

Items (random):

- ride when you may have been over the legal limit for drinking and driving
- ride faster than the speed limit outside built-up areas (but not on motorways/freeways)
- ride a moped or motorcycle without a helmet
- read a text message/email or check social media (e.g. Facebook, twitter, etc.) while riding a moped or motorcycle

**Q12\_4) Over the last 30 days, how often did you as a CYCLIST ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for all items: at least once (2-5) - never (1)

Items (random):

- cycle when you think you may have had too much to drink

- cycle without a helmet
- cycle while listening to music through headphones
- read a text message/email or check social media (e.g. Facebook, twitter, etc.) while cycling
- cycle on the road next to the cycle lane

**Q12\_5) Over the last 30 days, how often did you as a PEDESTRIAN ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for all items: at least once (2-5) - never (1)

Items (random):

- listen to music through headphones as a pedestrian while walking in the streets
- read a text message/email or check social media (e.g. Facebook, twitter, etc.) while walking in the streets
- cross the road when a pedestrian light is red
- cross the road at places other than at a nearby (distance less than 30m) pedestrian crossing

#### Acceptability of safe and unsafe traffic behaviour

**Q13\_1) Where you live, how acceptable would most other people say it is for a CAR DRIVER to....?**

You can indicate your answer on a scale from 1 to 5, where 1 is "unacceptable" and 5 is "acceptable". The numbers in between can be used to refine your response.

Binary variable: acceptable (4-5) – unacceptable/neutral (1-3)

Items (random):

- drive when he/she may be over the legal limit for drinking and driving
- drive 1 hour after using drugs (other than medication)
- drive faster than the speed limit outside built-up areas (but not on motorways/freeways)
- not wear a seatbelt while driving
- transport children in the car without securing them (child's car seat, seatbelt, etc.)
- talk on a hand-held mobile phone while driving
- read a text message/email or check social media (e.g. Facebook, twitter, etc.) while driving

**Q14\_1) How acceptable do you, personally, feel it is for a CAR DRIVER to...?** You can indicate your answer on a scale from 1 to 5, where 1 is "unacceptable" and 5 is "acceptable". The numbers in between can be used to refine your response.

Binary variable: acceptable (4-5) – unacceptable/neutral (1-3)

Items (random)

- drive when he/she may be over the legal limit for drinking and driving
- drive 1 hour after using drugs (other than medication)
- drive after taking a medication that may influence the ability to drive
- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (but not on motorways/freeways)
- drive faster than the speed limit on motorways/freeways
- not wear a seatbelt while driving
- transport children in the car without securing them (child's car seat, seatbelt, etc.)
- talk on a hand-held mobile phone while driving
- talk on a hand-free mobile phone while driving
- read a text message/email or check social media (e.g. Facebook, twitter, etc.) while driving
- drive when they're so sleepy that they have trouble keeping their eyes open

#### Attitudes towards safe and unsafe behaviour in traffic

**Q15) To what extent do you agree with each of the following statements?** You can indicate your answer on a scale from 1 to 5, where 1 is "disagree" and 5 is "agree". The numbers in between can be used to refine your response.

Binary variable: agree (4-5) – disagree/neutral (1-3)

Items (random):

Normative beliefs & subjective norms (including injunctive norms from Q13)

- Most of my friends would drive after having drunk alcohol.
- Most of my friends would drive 20 km/h over the speed limit in a residential area.

Behaviour believe & attitudes

- For short trips, one can risk driving under the influence of alcohol.
- I have to drive fast; otherwise, I have the impression of losing time.



- Respecting speed limits is boring or dull.
- For short trips, it is not really necessary to use the appropriate child restraint.
- I use a mobile phone while driving, because I always want to be available.
- To save time, I often use a mobile phone while driving.

Perceived behaviour control (here: self-efficacy)

- I trust myself to drive after having a glass of alcohol.
- I have the ability to drive when I am a little drunk after a party
- I am able to drive after drinking a large amount of alcohol (e.g. half a liter of wine).
- I trust myself when I drive significantly faster than the speed limit.
- I am able to drive fast through a sharp curve.
- I trust myself when I check my messages on the mobile phone while driving.
- I have the ability to write a message on the mobile phone while driving.
- I am able to talk on a hand-held mobile phone while driving.

Habits

- I often drive after drinking alcohol.
- Even when I am a little drunk after a party, I drive.
- It sometimes happens that I drive after consuming a large amount of alcohol (e.g. a liter of beer or half a liter of wine).
- I often drive faster than the speed limit.
- I like to drive in a sporty fast manner through a sharp curve.
- It happens sometimes that I write a message on the mobile phone while driving.
- I often talk on a hand-held mobile phone while driving.
- I often check my messages on the mobile phone while driving.

Intentions

- I will do my best not to drive after drinking alcohol in the next 30 days.
- I will do my best to respect speed limits in the next 30 days.
- I will do my best not to use my mobile phone while driving in the next 30 days.

Quality control items

- Indicate number 1 on the answering scale.
- Indicate number 4 on the answering scale.

### Subjective safety & risk perception

**Q16) How safe or unsafe do you feel when using the following transport modes in [country]?** You can indicate your answer on a scale from 0 to 10, where 0 is "very unsafe" and 10 is "very safe". The numbers in between can be used to refine your response.

Items (random) = Items indicated by the respondent in Q10 are displayed.

**Q17) How often do you think each of the following factors is the cause of a road crash involving a car?** You can indicate your answer on a scale from 1 to 6, where 1 is "never" and 6 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable: often/frequently (4-6) - not that often/not frequently (1-3)

Items (random)

- driving after drinking alcohol
- driving after taking drugs (other than medication)
- driving faster than the speed limit
- using a hand-held mobile phone while driving
- using a hands-free mobile phone while driving
- inattentiveness or day-dreaming while driving
- driving while tired

### Support for policy measures

**Q18) Do you oppose or support a legal obligation to ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "oppose" and 5 is "support". The numbers in between can be used to refine your response.

Binary variable: support (4-5) – oppose/neutral (1-3)

Items (random)

- install an alcohol "interlock" for drivers who have been caught drunk driving on more than one occasion (technology that won't let the car start if the driver's alcohol level is over the legal limit)
- have zero tolerance for alcohol (0,0 ‰) for novice drivers (licence obtained less than 2 years)
- have zero tolerance for alcohol (0,0 ‰) for all drivers

- install Intelligent Speed Assistance (ISA) in new cars (which automatically limits the maximum speed of the vehicle and can be turned off manually)
- install Dynamic Speed Warning signs (traffic control devices that are programmed to provide a message to drivers exceeding a certain speed threshold)
- have a seatbelt reminder system for the front and back seats in new cars
- require all cyclists to wear a helmet
- require cyclists under the age of 12 to wear a helmet
- require all moped drivers and motorcyclists to wear a helmet
- require pedestrians to wear reflective material when walking in the streets in the dark
- require cyclists to wear reflective material when cycling in the dark
- require moped drivers and motorcyclists to wear reflective material when driving in the dark
- have zero tolerance for using any type of mobile phone while driving (hand-held or hands-free) for all drivers
- not using headphones (or earbuds) while walking in the streets
- not using headphones (or earbuds) while riding a bicycle

**Q19\_1) What do you think about the current traffic rules and penalties in your country for driving or riding under the influence of alcohol?** agree – disagree

Items:

- The traffic rules should be stricter.
- The traffic rules are not being checked sufficiently.
- The penalties are too severe.

**Q19\_2) What do you think about the current traffic rules and penalties in your country for driving or riding faster than the speed limit?** agree – disagree

Items: Q19\_1

**Q19\_3) What do you think about the current traffic rules and penalties in your country for using a mobile phone while driving or riding?** agree – disagree

Items: Q19\_1

## Enforcement

**Q20\_1) On a typical journey, how likely is it that you (as a CAR DRIVER) will be checked by the police for...** You can indicate your answer on a scale from 1 to 7, where 1 is "very unlikely" and 7 is "very likely". The numbers in between can be used to refine your response.

Binary variable: likely (5-7) – unlikely/neutral (1-4)

Items (random)

- ... alcohol, in other words, being subjected to a Breathalyser test
- ... the use of illegal drugs
- ... respecting the speed limits (including checks by a police car with a camera, fixed cameras, mobile cameras, and section control systems)
- ... wearing your seatbelt
- ... the use of hand-held mobile phone to talk or text while driving

**Q21\_1) In the past 12 months, how many times have you been checked by the police for using alcohol while DRIVING A CAR (i.e., being subjected to a Breathalyser test)?** never – 1 time – at least 2 times - I prefer not to respond to this question

Binary variable: at least once - never (removing "I prefer not to respond to this Q")

**Q22\_1) In the past 12 months, how many times have you been checked by the police for the use of drugs (other than medication) while DRIVING A CAR?** never – 1 time – at least 2 times - I prefer not to respond to this question

Binary variable: at least once - never (removing "I prefer not to respond to this Q")

## Involvement in road crashes

Introduction: The following questions focus on road crashes. With road crashes, we mean any collision involving at least one road vehicle (e.g., car, motorcycle, or bicycle) in motion on a public or private road to which the public has right of access. Furthermore, these crashes result in material damage, injury, or death. Collisions include those between road vehicles, road vehicles and pedestrians, road vehicles and animals or fixed obstacles, road and rail vehicles, and one road vehicle alone.

**Q23\_1a) In the past 12 months, how many times have you personally been involved in road crashes in which you or somebody else had to be taken to the hospital?** \_\_\_\_ times (number; max. 10) if 0 →

Q23\_2a; if >0 → Q23\_1b → Q23\_2a

Binary variable: at least once - never

**Q23\_1b) Please indicate the transport modes you were using at the time of these crashes.**

Items indicated by the respondent in Q10 are displayed; Threshold = 'at least a few days a year'.

Number to be indicated after each transport mode; note the sum should be equal to the number indicated in Q23\_1a

**Q23\_2a) In the past 12 months, how many times have you personally been involved in road crashes with only minor injuries (no need for hospitalisation) for you or other people?** \_\_\_\_ times (number; max. 10) if 0 → Q23\_3a; if >0 → Q23\_2b → Q23\_3a

Binary variable: at least once - never

**Q23\_2b) = Q23\_1b**

**Q23\_3a) In the past 12 months, how many times have you personally been involved in road crashes with only material damage?**

\_\_\_\_ times (number; max. number 10) if 0 → skip Q23\_3b; if >0 → Q23\_3b → next Q

Binary variable: at least once - never

**Q23\_3b) = Q23\_1b**

#### Vehicle automation

I2) Introduction: The following questions focus on your opinion about automated passenger cars. We talk about two different levels of vehicle automation:

Semi-automated passenger cars: Drivers can choose to have the vehicle control all critical driving functions, including monitoring the road, steering, and accelerating or braking in certain traffic and environmental conditions. These vehicles will monitor roadways and prompt drivers when they need to resume control of the vehicle.

Fully-automated passenger cars: The vehicle controls all critical driving functions and monitoring all traffic situations. Drivers do not take control of the vehicle at any time.

**Q24) How interested would you be in using the following types of automated passenger car?** You can indicate your answer on a scale from 1 to 7, where 1 is "not at all interested" and 7 is "very interested". The numbers in between can be used to refine your response.

Binary variable: interested (5-7) - not interested/neutral (1-4)

Items:

- semi-automated passenger car
- fully-automated passenger car

**Q25\_1) How likely do you think it is that the following benefits will occur if everyone would use a semi-automated passenger car?** You can indicate your answer on a scale from 1 to 7, where 1 is "very unlikely" and 7 is "very likely". The numbers in between can be used to refine your response.

Binary variable: likely (5-7) – unlikely/neutral (1-4)

Items (random):

- fewer crashes
- reduced severity of crash
- less traffic congestion
- shorter travel time
- lower vehicle emissions
- better fuel economy
- time for functional activities, not related to driving (e.g. working)
- time for recreative activities, not related to driving (e.g. reading, sleeping, eating)

**Q25\_2) How likely do you think it is that the following benefits will occur if everyone would use a fully-automated passenger car?** You can indicate your answer on a scale from 1 to 7, where 1 is "very unlikely" and 7 is "very likely". The numbers in between can be used to refine your response.

Items (random) = Q25\_1

**Bonus question to be filled in by national partner**

**Q26) .....**? You can indicate your answer on a scale from 1 to 5, where 1 is "...." and 5 is "....". The numbers in between can be used to refine your response.  
Items (random; 4 items)

**Q27) .....**? You can indicate your answer on a scale from 1 to 5, where 1 is "...." and 5 is "....". The numbers in between can be used to refine your response.  
Items (random; 4 items)

**Social desirability scale**

Introduction: The survey is almost finished. The following questions have nothing to do with road safety, but they are important background information. There are no good or bad answers.

**Q28) To what extent are the following statements true?** You can indicate your answer on a scale from 1 to 5, where 1 is "very untrue" and 5 is "very true". The numbers in between can be used to refine your response.  
Items (random):

- I always respect the highway code, even if the risk of getting caught is very low.
- I would still respect speed limits at all times, even if there were no police checks.
- I have never driven through a traffic light that had just turned red.
- I do not care what other drivers think about me.
- I always remain calm and rational in traffic. (if needed pop-up: rational = non-emotional)
- I am always confident of how to react in traffic situations.

## Appendix 2: ESRA2 weights and sample sizes

The following weights are used to calculate representative means on national and regional level. They are based on UN population statistics (United Nations Statistics Division, 2019). The weighting took into account small corrections with respect to national representativeness of the sample based on gender and six age groups (18-24y, 25-34y, 35-44y, 45-54y, 55-64y, 65y+). For the regions, the weighting also took into account the population size of each country in the total set of countries from this region.

Individual country weight	Individual country weight is a weighting factor based on the gender*6 age groups (18-24y, 25-34y, 35-44y, 45-54y, 55-64y, 65y) distribution in a country as retrieved from the UN population statistics.
Europe20 weight	European weighting factor based on all 20 European countries participating in ESRA2_2018, considering individual country weight and population size of the country as retrieved from the UN population statistics.
NorthAmerica2 weight	North American weighting factor based on all 2 North American countries participating in ESRA2_2018, considering individual country weight and population size of the country as retrieved from the UN population statistics.
AsiaOceania5 weight	Asian and Oceanian weighting factor based on all 5 Asian and Oceanian countries participating in ESRA2_2018, considering individual country weight and population size of the country as retrieved from the UN population statistics.
Africa5 weight	African weighting factor based on all 5 African countries participating in ESRA2_2018, considering individual country weight and population size of the country as retrieved from the UN population statistics.
ESRA32 weight	ESRA32 weighting factor based on all 32 countries participating in ESRA2_2018, considered individual country weight and population size of the country as retrieved from the UN population statistics.
ESRA32_sample weight	ESRA32-sample weighting factor based on all 32 countries participating in ESRA2_2018, considered individual country weight with N=1000 in all countries.

**ESRA2 sample sizes (not weighted)**

		Respondents	Car drivers	Car	Cyclists	PTW	Pedestrians
Abbrev.	Country	Total		passengers			
			At least a few days a month				
AT	Austria	1999	977	739	980	242	1951
BE	Belgium	1985	1532	1245	797	209	1789
CH	Switzerland	1020	788	669	427	141	990
DE	Germany	1989	1506	1193	998	204	1862
DK	Denmark	984	732	775	556	82	931
EL	Greece	1015	823	844	367	269	975
ES	Spain	980	784	660	384	189	926
FI	Finland	994	703	701	483	73	950
FR	France	994	779	675	268	89	890
IE	Ireland	1031	782	813	302	95	925
IT	Italy	980	865	668	473	223	911
NL	Netherlands	983	710	571	722	141	893
PL	Poland	993	734	718	607	116	921
PT	Portugal	998	874	705	252	137	902
SE	Sweden	987	679	729	467	121	936
SI	Slovenia	1035	868	758	572	165	992
UK	United Kingdom	963	651	701	227	70	853
CA	Canada	980	758	696	275	90	810
CZ	Czech Republic	989	598	648	345	105	918
HU	Hungary	1014	720	802	586	161	987
IL	Israel	984	830	762	140	48	886
KR	Republic of Korea	1043	752	845	420	121	928
US	USA	1016	808	819	234	96	778
AU	Australia	968	778	697	198	71	861
RS	Serbia	1041	757	937	560	157	1001
JP	Japan	980	623	595	410	108	746
IN	India	1035	713	901	598	757	937
EG	Egypt	996	611	835	424	357	828
KE	Kenya	1000	618	947	467	387	943
NG	Nigeria	1000	711	948	452	487	923
MA	Morocco	1047	626	883	413	327	903
ZA	South Africa	1013	845	857	263	150	872
TOTAL		35036	25535	25336	14667	5988	31918
Europe20		22974	16862	15551	10373	2989	21503
AsiaOceania5		5010	3696	3800	1766	1105	4358
NorthAmerica2		1996	1566	1515	509	186	1588
Africa5		5056	3411	4470	2019	1708	4469



## Appendix 3: Age and gender results risky behaviour drivers

This appendix contains the results for statistical significance testing of gender and age differences. For the following list of questions results are presented in tables 1 to 40.

*Table ...:Results of significance testing of self-declared risk behaviour of drivers*

Question	Table number
Q12_1a. Over the last 12 months, how often did you as a CAR DRIVER drive after drinking alcohol?	A3.1
Q12_1a_1. Over the last 12 months, how often did you as a CAR DRIVER drive faster than the speed limit outside built-up areas (but not on motorways/freeways)?	A3.2
Q12_1a_2. Over the last 12 months, how often did you as a CAR DRIVER read a text message or email while driving?	A3.3
Q12_1a_3. Over the last 30 days, how often did you as a CAR DRIVER drive when you may have been over the legal limit for drinking and driving?	A3.4
Q12_1b_1. Over the last 30 days, how often did you as a CAR DRIVER drive after drinking alcohol?	A3.5
Q12_1b_2. Over the last 30 days, how often did you as a CAR DRIVER drive 1 hour after using drugs (other than medication)?	A3.6
Q12_1b_3. Over the last 30 days, how often did you as a CAR DRIVER drive after taking medication that carries a warning that it may influence your driving ability?	A3.7
Q12_1b_4. Over the last 30 days, how often did you as a CAR DRIVER drive faster than the speed limit inside built-up areas ?	A3.8
Q12_1b_5. Over the last 30 days, how often did you as a CAR DRIVER drive faster than the speed limit outside built-up areas (but not on motorways/freeways)?	A3.9
Q12_1b_6. Over the last 30 days, how often did you as a CAR DRIVER drive faster than the speed limit on motorways/freeways)?	A3.10
Q12_1b_7. Over the last 30 days, how often did you as a CAR DRIVER drive without wearing your seatbelt?	A3.11
Q12_1b_8. Over the last 30 days, how often did you as a CAR DRIVER transport children under 150cm without using child restraint systems (e.g. child safety seat cushion)?	A3.12
Q12_1b_9. Over the last 30 days, how often did you as a CAR DRIVER transport children over 150cm without wearing their seatbelts?	A3.13
Q12_1b_10. Over the last 30 days, how often did you as a CAR DRIVER talk on a hand-held mobile phone while driving?	A3.14
Q12_1b_11. Over the last 30 days, how often did you as a CAR DRIVER talk on a hands-free mobile phone while driving?	A3.15
Q12_1b_12. Over the last 30 days, how often did you as a CAR DRIVER read a text message/email or check social media (e.g. Facebook, twitter, etc.) while driving?	A3.16

Table A3.1. Over the last 12 months, how often did you as a CAR DRIVER drive after drinking alcohol?"

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	70.9%a	85.4%b		never (1)	74.3%a	75.5%a	75.4%a	80.7%b	79.8%b	79.6%b
at least once (2-5)	29.1%a	14.6%b		at least once (2-5)	25.7%a	24.5%a	24.6%a	19.3%b	20.2%b	20.4%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	464,96	1	0,000	Pearson Chi-Square	51,84	5	0,000			
Cramer's V	0,175			Cramer's V	0,058					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	87.2%a	86.6%a		never (1)	84.3%a	84.4%a	84.7%a	94.2%b	88.5%a	89.1%a
at least once (2-5)	12.8%a	13.4%a		at least once (2-5)	15.7%a	15.6%a	15.3%a	5.8%b	11.5%a	10.9%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,22	1	0,643	Pearson Chi-Square	37,21	5	0,000			
Cramer's V	0,008			Cramer's V	0,104					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	70.9%a	84.3%b		never (1)	72.7%a	74.6%a	76.6%a	81.3%a	78.6%a	82.2%a
at least once (2-5)	29.1%a	15.7%b		at least once (2-5)	27.3%a	25.4%a	23.4%a	18.7%a	21.4%a	17.8%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	40,94	1	0,000	Pearson Chi-Square	10,68	5	0,058			
Cramer's V	0,161			Cramer's V	0,082					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	79.8%a	84.6%b		never (1)	86.1%a	82.0%a	82.2%a	81.9%a	85.8%a	66.7%b
at least once (2-5)	20.2%a	15.4%b		at least once (2-5)	13.9%a	18.0%a	17.8%a	18.1%a	14.2%a	33.3%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	12,89	1	0,000	Pearson Chi-Square	50,99	5	0,000			
Cramer's V	0,063			Cramer's V	0,125					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A3.2. Statistical significance testing age and gender "Over the last 12 months, how often did you as a CAR DRIVER drive faster than the speed limit outside built-up areas?"

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	20.8%a	30.6%b		never (1)	22.0%a.b	19.9%a	23.1%b.c	25.7%c	30.1%d	29.5%d
at least once (2-5)	79.2%a	69.4%b		at least once (2-5)	78.0%a.b	80.1%a	76.9%b.c	74.3%c	69.9%d	70.5%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	189,95	1	0,000	Pearson Chi-Square	113,21	5	0,000			
Cramer's V	0,112			Cramer's V	0,086					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	43.4%a	52.6%b		never (1)	22.0%a.b	19.9%a	23.1%b.c	25.7%c	30.1%d	29.5%d
at least once (2-5)	56.6%a	47.4%b		at least once (2-5)	78.0%a.b	80.1%a	76.9%b.c	74.3%c	69.9%d	70.5%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	28,14	1	0,000	Pearson Chi-Square	113,21	5	0,000			
Cramer's V	0,091			Cramer's V	0,086	5	0,000			
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	22.0%a	28.1%b		never (1)	29.6%a	24.9%a	22.3%a	28.5%a	24.0%a	24.4%a
at least once (2-5)	78.0%a	71.9%b		at least once (2-5)	70.4%a	75.1%a	77.7%a	71.5%a	76.0%a	75.6%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	7,90	1	0,005	Pearson Chi-Square	4,68	5	0,456			
Cramer's V	0,071			Cramer's V	0,054					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	40.0%a	50.6%b		never (1)	44.8%a.b	44.8%a	47.3%a	45.1%a.b	48.7%a	35.6%b
at least once (2-5)	60.0%a	49.4%b		at least once (2-5)	55.2%a.b	55.2%a	52.7%a	54.9%a.b	51.3%a	64.4%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	37,12	1	0,000	Pearson Chi-Square	11,64	5	0,040			
Cramer's V	0,107			Cramer's V	0,060					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.3. Statistical significance testing age and gender "Over the last 12 months, how often did you as a CAR DRIVER read a text message or email while driving?"**

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	65.8%a	70.6%b		never (1)	48.3%a	48.3%a	56.8%b	69.1%c	82.6%d	88.1%e
at least once (2-5)	34.2%a	29.4%b		at least once (2-5)	51.7%a	51.7%a	43.2%b	30.9%c	17.4%d	11.9%e
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	39,98	1	0,000	Pearson Chi-Square	1713,07	5	0,000			
Cramer's V	0,051			Cramer's V	0,336					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	59.5%a	58.7%a		never (1)	50.8%a	52.9%a	55.9%a	63.6%b	70.7%b.c	73.1%c
at least once (2-5)	40.5%a	41.3%a		at least once (2-5)	49.2%a	47.1%a	44.1%a	36.4%b	29.3%b.c	26.9%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,19	1	0,667	Pearson Chi-Square	87,23	5	0,000			
Cramer's V	0,007			Cramer's V	0,160					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	56.7%a	59.5%a		never (1)	43.2%a	41.7%a	45.4%a	61.4%b	66.5%b	84.6%c
at least once (2-5)	43.3%a	40.5%a		at least once (2-5)	56.8%a	58.3%a	54.6%a	38.6%b	33.5%b	15.4%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	1,22	1	0,270	Pearson Chi-Square	165,21	5	0,000			
Cramer's V	0,028			Cramer's V	0,323					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	45.1%a	50.6%b		never (1)	44.7%a.c	43.8%a.c	48.7%a.c	49.8%a	73.6%b	39.7%c
at least once (2-5)	54.9%a	49.4%b		at least once (2-5)	55.3%a.c	56.2%a.c	51.3%a.c	50.2%a	26.4%b	60.3%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	9,89	1	0,002	Pearson Chi-Square	76,59	5	0,000			
Cramer's V	0,055			Cramer's V	0,153					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.4. Over the last 30 days, how often did you as a CAR DRIVER drive when you may have been over the legal limit for drinking and driving?**

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	82.0%a	92.1%b		never (1)	82.9%a	84.1%a	85.0%a.b	87.0%b.c	89.2%c.d	90.3%d
at least once (2-5)	18.0%a	7.9%b		at least once (2-5)	17.1%a	15.9%a	15.0%a.b	13.0%b.c	10.8%c.d	9.7%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	338,31	1	0,000	Pearson Chi-Square	90,22	5	0,000			
Cramer's V	0,149			Cramer's V	0,077					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	83.3%a	81.7%a		never (1)	76.8%a	80.2%a.d	81.5%a.c.d	88.7%b	86.8%b.c	85.9%b.d
at least once (2-5)	16.7%a	18.3%a		at least once (2-5)	23.2%a	19.8%a.d	18.5%a.c.d	11.3%b	13.2%b.c	14.1%b.d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	1,43	1	0,231	Pearson Chi-Square	37,26	5	0,000			
Cramer's V	0,021			Cramer's V	0,105					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	83.8%a	92.8%b		never (1)	83.9%a	86.4%a	85.6%a	90.4%a.b	87.4%a	95.3%b
at least once (2-5)	16.2%a	7.2%b		at least once (2-5)	16.1%a	13.6%a	14.4%a	9.6%a.b	12.6%a	4.7%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	31,15	1	0,000	Pearson Chi-Square	22,01	5	0,001			
Cramer's V	0,141			Cramer's V	0,118					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	80.9%a	88.7%b		never (1)	84.9%a	85.6%a	87.3%a	86.1%a	86.2%a	67.6%b
at least once (2-5)	19.1%a	11.3%b		at least once (2-5)	15.1%a	14.4%a	12.7%a	13.9%a	13.8%a	32.4%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	37,55	1	0,000	Pearson Chi-Square	60,28	5	0,000			
Cramer's V	0,107			Cramer's V	0,136					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.5. Over the last 30 days, how often did you as a CAR DRIVER drive after drinking alcohol?**

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	72.6%a	86.7%b		never (1)	75.3%a	76.5%a	77.3%a	81.9%b	81.6%b	81.2%b
at least once (2-5)	27.4%a	13.3%b		at least once (2-5)	24.7%a	23.5%a	22.7%a	18.1%b	18.4%b	18.8%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	461,45	1	0,000	Pearson Chi-Square	58,28	5	0,000			
Cramer's V	0,174			Cramer's V	0,062					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	85.3%a	86.3%a		never (1)	83.6%a	82.9%a	83.9%a	93.0%b	87.7%a	87.2%a
at least once (2-5)	14.7%a	13.7%a		at least once (2-5)	16.4%a	17.1%a	16.1%a	7.0%b	12.3%a	12.8%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,61	1	0,433	Pearson Chi-Square	33,30	5	0,000			
Cramer's V	0,013			Cramer's V	0,099					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	72.6%a	83.6%b		never (1)	77.3%a.b	71.1%a	77.4%a.b	81.5%b	80.3%a.b	82.2%b.c
at least once (2-5)	27.4%a	16.4%b		at least once (2-5)	22.7%a.b	28.9%a	22.6%a.b	18.5%b	19.7%a.b	17.8%b.c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	27,85	1	0,000	Pearson Chi-Square	14,69	5	0,012			
Cramer's V	0,133			Cramer's V	0,096					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	79.5%a	83.4%b		never (1)	83.1%a	80.9%a	82.5%a	81.8%a	85.3%a	69.5%b
at least once (2-5)	20.5%a	16.6%b		at least once (2-5)	16.9%a	19.1%a	17.5%a	18.2%a	14.7%a	30.5%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	8,19	1	0,004	Pearson Chi-Square	27,46	5	0,000			
Cramer's V	0,050			Cramer's V	0,092					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A3.6. Over the last 30 days, how often did you as a CAR DRIVER drive 1 hour after using drugs (other than medication)?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	93.1%a	97.0%b		never (1)	89.2%a	90.3%a	93.0%b	97.1%c	98.0%c.d	98.2%b
at least once (2-5)	6.9%a	3.0%b		at least once (2-5)	10.8%a	9.7%a	7.0%b	2.9%c	2.0%c.d	1.8%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	119,21	1	0,000	Pearson Chi-Square	376,71	5	0,000			
Cramer's V	0,089			Cramer's V	0,157					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	82.8%a	80.6%a		never (1)	81.1%a.b	79.3%a	78.1%a	85.1%b.c.d	90.9%b	81.8%a.d
at least once (2-5)	17.2%a	19.4%a		at least once (2-5)	18.9%a.b	20.7%a	21.9%a	14.9%b.c.d	9.1%b	18.2%a.d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	2,76	1	0,096	Pearson Chi-Square	34,29	5	0,000			
Cramer's V	0,029			Cramer's V	0,100					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	84.7%a	90.6%b		never (1)	86.3%a.b	79.4%a	84.9%a.b	90.8%b.d	91.0%b.c.d	93.7%b
at least once (2-5)	15.3%a	9.4%b		at least once (2-5)	13.7%a.b	20.6%a	15.1%a.b	9.2%b.d	9.0%b.c.d	6.3%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	12,52	1	0,000	Pearson Chi-Square	36,46	5	0,000			
Cramer's V	0,089			Cramer's V	0,152					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	79.5%a	85.0%b		never (1)	80.1%a	84.7%a.b	84.9%a.b	85.9%b	90.2%b.c	55.3%b
at least once (2-5)	20.5%a	15.0%b		at least once (2-5)	19.9%a	15.3%a.b	15.1%a.b	14.1%b	9.8%b.c	44.7%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	16,79	1	0,000	Pearson Chi-Square	146,78	5	0,000			
Cramer's V	0,072			Cramer's V	0,212					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.7.** Over the last 30 days, how often did you as a CAR DRIVER drive after taking medication that carries a warning that it may influence your driving ability?

* gender				* age group						
Europe20	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	83.5%a	86.5%b		82.4%a	82.4%a	84.7%a.b	86.5%b	85.1%a.b	86.7%b.c	
at least once (2-5)	16.5%a	13.5%b		17.6%a	17.6%a	15.3%a.b	13.5%b	14.9%a.b	13.3%b.c	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	26,70	1	0,000	Pearson Chi-Square	32,02	5	0,000			
Cramer's V	0,042			Cramer's V	0,046					
AsiaOceania5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	75.3%a	77.6%a		72.9%a.c	69.8%a	75.2%a.c	84.4%b	86.0%b	77.3%c	
at least once (2-5)	24.7%a	22.4%a		27.1%a.c	30.2%a	24.8%a.c	15.6%b	14.0%b	22.7%c	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	2,53	1	0,111	Pearson Chi-Square	61,67	5	0,000			
Cramer's V	0,027			Cramer's V	0,134					
NorthAmerica2	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	83.1%a	86.3%a		79.4%a	80.4%a.c	84.3%a.b	85.2%a.b	90.4%b	88.1%b.c	
at least once (2-5)	16.9%a	13.7%a		20.6%a	19.6%a.c	15.7%a.b	14.8%a.b	9.6%b	11.9%b.c	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	3,30	1	0,069	Pearson Chi-Square	17,95	5	0,003			
Cramer's V	0,046			Cramer's V	0,106					
Africa5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	78.8%a	79.4%a		81.2%a	78.3%a	80.0%a	79.2%a	90.3%b	63.3%c	
at least once (2-5)	21.2%a	20.6%a		18.8%a	21.7%a	20.0%a	20.8%a	9.7%b	36.7%c	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,15	1	0,699	Pearson Chi-Square	57,46	5	0,000			
Cramer's V	0,007			Cramer's V	0,133					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.8.** Over the last 30 days, how often did you as a CAR DRIVER drive faster than the speed limit inside built-up areas ?

* gender				* age group						
Europe20	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	38.2%a	49.5%b		36.8%a	37.2%a	41.3%b	43.2%b	47.9%b	50.2%b	
at least once (2-5)	61.8%a	50.5%b		63.2%a	62.8%a	58.7%b	56.8%b	52.1%b	49.8%b	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	195,40	1	0,000	Pearson Chi-Square	152,48	5	0,000			
Cramer's V	0,113			Cramer's V	0,100					
AsiaOceania5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	56.1%a	58.6%a		54.0%a	56.9%a	56.9%a	60.0%a	55.3%a	60.0%a	
at least once (2-5)	43.9%a	41.4%a		46.0%a	43.1%a	43.1%a	40.0%a	44.7%a	40.0%a	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	2,03	1	0,154	Pearson Chi-Square	5,69	5	0,337			
Cramer's V	0,024			Cramer's V	0,041					
NorthAmerica2	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	39.9%a	41.9%a		42.5%a.b	34.8%a	37.0%a	43.6%a.b	48.5%b	41.1%a.b	
at least once (2-5)	60.1%a	58.1%a		57.5%a.b	65.2%a	63.0%a	56.4%a.b	51.5%b	58.9%a.b	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,72	1	0,396	Pearson Chi-Square	12,99	5	0,023			
Cramer's V	0,021			Cramer's V	0,090					
Africa5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	53.4%a	61.9%b		57.1%a	56.6%a	58.8%a	61.1%a	64.7%a	42.4%b	
at least once (2-5)	46.6%a	38.1%b		42.9%a	43.4%a	41.2%a	38.9%a	35.3%a	57.6%b	
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	23,86	1	0,000	Pearson Chi-Square	31,41	5	0,000			
Cramer's V	0,085			Cramer's V	0,098					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.9.** Over the last 30 days, how often did you as a CAR DRIVER drive faster than the speed limit outside built-up areas (but not on motorways/freeways)?

**\* gender**

Europe20	male	female		
never (1)	26.8%a	38.7%b		
at least once (2-5)	73.2%a	61.3%b		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	244,04	1	0,000	
Cramer's V	0,127			
AsiaOceania5	male	female		
never (1)	51.8%a	57.9%b		
at least once (2-5)	48.2%a	42.1%b		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	12,59	1	0,000	
Cramer's V	0,061			
NorthAmerica2	male	female		
never (1)	29.5%a	37.9%b		
at least once (2-5)	70.5%a	62.1%b		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	12,23	1	0,000	
Cramer's V	0,088			
Africa5	male	female		
never (1)	43.9%a	57.3%b		
at least once (2-5)	56.1%a	42.7%b		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	58,57	1	0,000	
Cramer's V	0,134			

**\* age group**

Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	29.6%a	29.1%a	30.4%a	31.3%a	37.4%b	35.4%b
at least once (2-5)	70.4%a	70.9%a	69.6%a	68.7%a	62.6%b	64.6%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	64,38	5	0,000			
Cramer's V	0,065					
AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	48.4%a	54.9%a.b	50.8%a.c	60.4%b	58.7%b.c	58.8%b.d
at least once (2-5)	51.6%a	45.1%a.b	49.2%a.c	39.6%b	41.3%b.c	41.2%b.d
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	25,16	5	0,000			
Cramer's V	0,086					
NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	41.3%a	32.2%a	30.8%a	35.5%a	34.6%a	32.6%a
at least once (2-5)	58.7%a	67.8%a	69.2%a	64.5%a	65.4%a	67.4%a
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	6,99	5	0,222			
Cramer's V	0,066					
Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	49.2%a	50.5%a	50.3%a	53.4%a	47.2%a	47.1%a
at least once (2-5)	50.8%a	49.5%a	49.7%a	46.6%a	52.8%a	52.9%a
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	4,19	5	0,523			
Cramer's V	0,036					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.10. Over the last 30 days, how often did you as a CAR DRIVER drive faster than the speed limit on motorways/freeways?**

**\* gender**

Europe20	male	female		
never (1)	31.1%a	46.4%b		
at least once (2-5)	68.9%a	53.6%b		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	374,26	1	0,000	
Cramer's V	0,157			
AsiaOceania5	male	female		
never (1)	49.4%a	58.4%b		
at least once (2-5)	50.6%a	41.6%b		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	27,08	1	0,000	
Cramer's V	0,089			
NorthAmerica2	male	female		
never (1)	25.3%a	31.2%a		
at least once (2-5)	74.7%a	68.8%a		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	6,62	1	0,010	
Cramer's V	0,065			
Africa5	male	female		
never (1)	42.9%a	55.6%b		
at least once (2-5)	57.1%a	44.4%b		
	100,0%	100,0%		
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	
Pearson Chi-Square	52,33	1	0,000	
Cramer's V	0,127			

**\* age group**

Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	35.0%a.b	32.5%a	35.5%a.b	38.5%b	43.3%b	43.0%b
at least once (2-5)	65.0%a.b	67.5%a	64.5%a.b	61.5%b	56.7%b	57.0%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	108,45	5	0,000			
Cramer's V	0,084					
AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	46.3%a	53.8%b	53.0%a.b	54.9%b	61.0%b	55.6%b
at least once (2-5)	53.7%a	46.2%b	47.0%a.b	45.1%b	39.0%b	44.4%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	20,31	5	0,001			
Cramer's V	0,077					
NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	39.9%a	23.8%b.c	22.1%b	32.3%a.c.d	31.0%a.b	25.4%b.d
at least once (2-5)	60.1%a	76.2%b.c	77.9%b	67.7%a.c.d	69.0%a.b	74.6%b.d
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	25,00	5	0,000			
Cramer's V	0,126					
Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	47.6%a.b.c	46.9%a.c	51.5%a.b	51.7%a.b	56.6%b	39.0%b
at least once (2-5)	52.4%a.b.c	53.1%a.c	48.5%a.b	48.3%a.b	43.4%b	61.0%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	20,42	5	0,001			
Cramer's V	0,079					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.



Table A3.11. Over the last 30 days, how often did you as a CAR DRIVER drive without wearing your seatbelt?

* gender			
Europe20	male	female	
never (1)	79.8%a	86.1%b	
at least once (2-5)	20.2%a	13.9%b	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	106,03	1	0,000
Cramer's V	0,084		
AsiaOceania5	male	female	
never (1)	64.3%a	66.8%a	
at least once (2-5)	35.7%a	33.2%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	2,27	1	0,132
Cramer's V	0,026		
NorthAmerica2	male	female	
never (1)	77.4%a	85.6%b	
at least once (2-5)	22.6%a	14.4%b	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	17,00	1	0,000
Cramer's V	0,104		
Africa5	male	female	
never (1)	52.0%a	60.7%b	
at least once (2-5)	48.0%a	39.3%b	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	25,13	1	0,000
Cramer's V	0,088		

* age group						
Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	74.3%a	79.2%b	80.6%b	85.4%c	84.8%c	87.0%c
at least once (2-5)	25.7%a	20.8%b	19.4%b	14.6%c	15.2%c	13.0%c
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	163,52	5	0,000			
Cramer's V	0,104					
AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	54.5%a	59.1%a.b	63.6%b.c	67.9%c	84.1%d	77.6%d
at least once (2-5)	45.5%a	40.9%a.b	36.4%b.c	32.1%c	15.9%d	22.4%d
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	126,29	5	0,000			
Cramer's V	0,192					
NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	69.7%a	77.4%a.b	77.7%a.b	85.2%b.c	86.9%c	89.6%c.d
at least once (2-5)	30.3%a	22.6%a.b	22.3%a.b	14.8%b.c	13.1%c	10.4%c.d
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	44,69	5	0,000			
Cramer's V	0,168					
Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	51.4%a	55.1%a	62.8%b	52.1%a	73.7%c	46.8%a
at least once (2-5)	48.6%a	44.9%a	37.2%b	47.9%a	26.3%c	53.2%a
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	58,54	5	0,000			
Cramer's V	0,134					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A3.12. Over the last 30 days, how often did you as a CAR DRIVER transport children under 150cm without using child restraint systems (e.g. child safety seat cushion)?

* gender			
Europe20	male	female	
never (1)	81.4%a	89.1%b	
at least once (2-5)	18.6%a	10.9%b	
	100.0%	100.0%	
Tests	Value	df	p-value
Pearson Chi-Square	70.39	1	0.000
Cramer's V	0.108		
AsiaOceania5	male	female	
never (1)	56.2%a	56.7%a	
at least once (2-5)	43.8%a	43.3%a	
	100.0%	100.0%	
Tests	Value	df	p-value
Pearson Chi-Square	0.06	1	0.809
Cramer's V	0.006		
NorthAmerica2	male	female	
never (1)	88.7%a	90.0%a	
at least once (2-5)	11.3%a	10.0%a	
	100.0%	100.0%	
Tests	Value	df	p-value
Pearson Chi-Square	0.30	1	0.586
Cramer's V	0.023		
Africa5	male	female	
never (1)	50.2%a	56.8%b	
at least once (2-5)	49.8%a	43.2%b	
	100.0%	100.0%	
Tests	Value	df	p-value
Pearson Chi-Square	8.41	1	0.004
Cramer's V	0.066		

* age group							
Europe20	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	69.1%a	82.6%b	82.4%b	88.6%c	90.0%c.d	92.5%d	
at least once (2-5)	30.9%a	17.4%b	17.6%b	11.4%c	10.0%c.d	7.5%d	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value				
Pearson Chi-Square	180.03	5	0.000				
Cramer's V	0.172						
AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	47.7%a	63.8%b	56.5%a.b	55.0%a.b	54.1%a.b	45.5%a	
at least once (2-5)	52.3%a	36.2%b	43.5%a.b	45.0%a.b	45.9%a.b	54.5%a	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value				
Pearson Chi-Square	25.27	5	0.000				
Cramer's V	0.119						
NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	91.0%a.b	82.9%a	86.8%a.b	95.7%b	97.2%b.c	94.8%a.b	
at least once (2-5)	9.0%a.b	17.1%a	13.2%a.b	4.3%b	2.8%b.c	5.2%a.b	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value				
Pearson Chi-Square	16.79	5	0.005				
Cramer's V	0.172						
Africa5	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	52.6%a	54.8%a	51.9%a	56.0%a	63.7%a	38.4%b	
at least once (2-5)	47.4%a	45.2%a	48.1%a	44.0%a	36.3%a	61.6%b	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value				
Pearson Chi-Square	18.77	5	0.002				
Cramer's V	0.099						

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A3.13. Over the last 30 days, how often did you as a CAR DRIVER transport children over 150cm without wearing their seatbelts?*

* gender				* age group						
Europe20	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	84.3%a	90.2%b		77.6%a	81.2%a	85.9%b	90.7%c	90.8%c	92.0%c	
at least once (2-5)	15.7%a	9.8%b		22.4%a	18.8%a	14.1%b	9.3%c	9.2%c	8.0%c	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	43.49	1	0.000	Pearson Chi-Square	123.27	5	0.000			
Cramer's V	0.087			Cramer's V	0.147					
AsiaOceania5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	53.3%a	53.6%a		48.7%a.b	55.5%a.b	51.5%a.b	59.7%a	57.3%a.b	44.6%b	
at least once (2-5)	46.7%a	46.4%a		51.3%a.b	44.5%a.b	48.5%a.b	40.3%a	42.7%a.b	55.4%b	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0.01	1	0.913	Pearson Chi-Square	12.56	5	0.028			
Cramer's V	0.003			Cramer's V	0.090					
NorthAmerica2	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	90.7%a	89.0%a		92.2%a	70.9%b	93.3%a	95.0%a	92.8%a	100.0%1	
at least once (2-5)	9.3%a	11.0%a		7.8%a	29.1%b	6.7%a	5.0%a	7.2%a	0.0%1	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0.32	1	0.570	Pearson Chi-Square	38.87	5	0.000			
Cramer's V	0.028			Cramer's V	0.305					
Africa5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	50.2%a	53.5%a		50.3%a.b	55.0%a.b	51.0%a.b	46.7%a	61.1%b	44.5%a.b	
at least once (2-5)	49.8%a	46.5%a		49.7%a.b	45.0%a.b	49.0%a.b	53.3%a	38.9%b	55.5%a.b	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	1.73	1	0.189	Pearson Chi-Square	10.75	5	0.057			
Cramer's V	0.032			Cramer's V	0.080					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A3.14. Over the last 30 days, how often did you as a CAR DRIVER talk on a hand-held mobile phone while driving?*

* gender				* age group						
Europe20	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	67.7%a	75.3%b		59.5%a	60.5%a.b	63.7%b	71.3%c	78.8%b	84.4%e	
at least once (2-5)	32.3%a	24.7%b		40.5%a	39.5%a.b	36.3%b	28.7%c	21.2%b	15.6%e	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	105.99	1	0.000	Pearson Chi-Square	665.07	5	0.000			
Cramer's V	0.084			Cramer's V	0.209					
AsiaOceania5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	62.2%a	61.7%a		59.3%a	59.8%a	59.5%a	60.8%a	65.6%a.b	71.1%b	
at least once (2-5)	37.8%a	38.3%a		40.7%a	40.2%a	40.5%a	39.2%a	34.4%a.b	28.9%b	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0.08	1	0.784	Pearson Chi-Square	20.97	5	0.001			
Cramer's V	0.005			Cramer's V	0.078					
NorthAmerica2	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	64.1%a	60.3%a		48.3%a	52.8%a.b	57.4%a.b.c	63.2%b.c	66.9%b	79.4%b	
at least once (2-5)	35.9%a	39.7%a		51.7%a	47.2%a.b	42.6%a.b.c	36.8%b.c	33.1%b	20.6%b	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	2.43	1	0.119	Pearson Chi-Square	70.91	5	0.000			
Cramer's V	0.039			Cramer's V	0.212					
Africa5	male	female		18-24	25-34	35-44	45-54	55-64	65+	
never (1)	43.5%a	48.6%b		47.3%a	41.0%a	46.5%a	42.5%a	68.9%b	43.6%a	
at least once (2-5)	56.5%a	51.4%b		52.7%a	59.0%a	53.5%a	57.5%a	31.1%b	56.4%a	
	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	8.72	1	0.003	Pearson Chi-Square	60.96	5	0.000			
Cramer's V	0.052			Cramer's V	0.137					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.15.** Over the last 30 days, how often did you as a CAR DRIVER talk on a hands-free mobile phone while driving?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	47.8%a	57.2%b		never (1)	41.5%a	45.4%a.b	46.0%b	51.4%c	58.2%d	63.0%e
at least once (2-5)	52.2%a	42.8%b		at least once (2-5)	58.5%a	54.6%a.b	54.0%b	48.6%c	41.8%d	37.0%e
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	133.92	1	0.000	Pearson Chi-Square	347.40	5	0.000			
Cramer's V	0.094			Cramer's V	0.151					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	49.0%a	42.0%b		never (1)	42.8%a.b	40.7%a	41.9%a.b	48.4%b	43.3%a.b	65.4%c
at least once (2-5)	51.0%a	58.0%b		at least once (2-5)	57.2%a.b	59.3%a	58.1%a.b	51.6%b	56.7%a.b	34.6%c
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	16.65	1	0.000	Pearson Chi-Square	76.92	5	0.000			
Cramer's V	0.070			Cramer's V	0.150					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	51.6%a	47.8%a		never (1)	41.6%a.b	37.8%a	38.3%a	51.8%b.c	56.3%c	67.3%d
at least once (2-5)	48.4%a	52.2%a		at least once (2-5)	58.4%a.b	62.2%a	61.7%a	48.2%b.c	43.7%c	32.7%d
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	2.32	1	0.128	Pearson Chi-Square	79.10	5	0.000			
Cramer's V	0.038			Cramer's V	0.223					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	32.5%a	33.9%a		never (1)	34.7%a	27.4%b	30.0%a.b	35.2%a	39.2%a.c	48.7%c
at least once (2-5)	67.5%a	66.1%a		at least once (2-5)	65.3%a	72.6%b	70.0%a.b	64.8%a	60.8%a.c	51.3%c
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0.65	1	0.421	Pearson Chi-Square	49.35	5	0.000			
Cramer's V	0.014			Cramer's V	0.123					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A3.16.** Over the last 30 days, how often did you as a CAR DRIVER read a text message/email or check social media (e.g. Facebook, twitter, etc.) while driving?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	73.4%a	78.4%b		never (1)	57.0%a	58.5%a	66.5%b	77.8%c	88.3%d	92.3%e
at least once (2-5)	26.6%a	21.6%b		at least once (2-5)	43.0%a	41.5%a	33.5%b	22.2%c	11.7%d	7.7%e
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	51.35	1	0.000	Pearson Chi-Square	1508.48	5	0.000			
Cramer's V	0.058			Cramer's V	0.315					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	63.7%a	62.7%a		never (1)	57.0%a	56.4%a	59.4%a	67.8%b	72.2%b.c	78.8%c
at least once (2-5)	36.3%a	37.3%a		at least once (2-5)	43.0%a	43.6%a	40.6%a	32.2%b	27.8%b.c	21.2%c
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0.36	1	0.548	Pearson Chi-Square	87.54	5	0.000			
Cramer's V	0.010			Cramer's V	0.160					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	64.5%a	63.9%a		never (1)	49.2%a	45.2%a	51.6%a	70.0%b	76.3%b	87.3%c
at least once (2-5)	35.5%a	36.1%a		at least once (2-5)	50.8%a	54.8%a	48.4%a	30.0%b	23.7%b	12.7%c
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0.07	1	0.793	Pearson Chi-Square	175.56	5	0.000			
Cramer's V	0.007			Cramer's V	0.333					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	50.9%a	55.6%b		never (1)	48.8%a.b	47.1%a	54.6%b.c	56.6%c	79.3%d	52.8%a.b.c
at least once (2-5)	49.1%a	44.4%b		at least once (2-5)	51.2%a.b	52.9%a	45.4%b.c	43.4%c	20.7%d	47.2%a.b.c
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	7.06	1	0.008	Pearson Chi-Square	84.48	5	0.000			
Cramer's V	0.046			Cramer's V	0.161					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A3.18. Over the last 30 days, how often did you as a CAR DRIVER drive when you were so sleepy that you had trouble keeping your eyes open?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	76.3%a	84.6%b		never (1)	70.6%a	72.7%a	76.4%b	79.6%c	86.1%d	89.3%e
at least once (2-5)	23.7%a	15.4%b		at least once (2-5)	29.4%a	27.3%a	23.6%b	20.4%c	13.9%d	10.7%e
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	164.57	1	0.000	Pearson Chi-Square	427.89	5	0.000			
Cramer's V	0.104			Cramer's V	0.168					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	77.3%a	75.5%a		never (1)	75.2%a	72.5%a	75.8%a	84.9%b	78.4%a.b	76.4%a
at least once (2-5)	22.7%a	24.5%a		at least once (2-5)	24.8%a	27.5%a	24.2%a	15.1%b	21.6%a.b	23.6%a
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	1.55	1	0.213	Pearson Chi-Square	28.54	5	0.000			
Cramer's V	0.021			Cramer's V	0.091					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	71.9%a	83.8%b		never (1)	64.9%a	69.0%a	72.8%a	85.4%b	82.8%b	89.1%b
at least once (2-5)	28.1%a	16.2%b		at least once (2-5)	35.1%a	31.0%a	27.2%a	14.6%b	17.2%b	10.9%b
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	32.60	1	0.000	Pearson Chi-Square	71.99	5	0.000			
Cramer's V	0.144			Cramer's V	0.213					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	72.1%a	79.2%b		never (1)	73.7%a	76.9%a	77.5%a	77.8%a	87.7%b	54.0%c
at least once (2-5)	27.9%a	20.8%b		at least once (2-5)	26.3%a	23.1%a	22.5%a	22.2%a	12.3%b	46.0%c
	100.0%	100.0%			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	21.76	1	0.000	Pearson Chi-Square	85.50	5	0.000			
Cramer's V	0.082			Cramer's V	0.162					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

## Appendix 4: Age and gender results risky behaviour moped riders and motorcyclists

This appendix contains the results for statistical significance testing of gender and age differences. For the following list of questions results are presented in tables A4.1 to A4.4.

Question	Table number
Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST ride when you may have been over the legal limit for drinking and driving?	A4.1
Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST ride faster than the speed limit outside built-up areas (but not on motorways/freeways)?	A4.2
Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST ride a moped or motorcycle without a helmet?	A4.3
Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST read a text message/email or check social media (e.g. Facebook, twitter, etc.) while riding a moped or motorcycle?	A4.4

*Table A4.1. Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST ride when you may have been over the legal limit for drinking and driving?*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	77.2%a	85.8%b		never (1)	68.4%a	73.2%a.b	78.4%b	90.4%c	89.9%c	88.5%c
at least once (2-5)	22.8%a	14.2%b		at least once (2-5)	31.6%a	26.8%a.b	21.6%b	9.6%c	10.1%c	11.5%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	27,27	1	0,000	Pearson Chi-Square	119,05	5	0,000			
Cramer's V	0,102			Cramer's V	0,214					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	84.6%a	78.8%b		never (1)	81.7%a	81.6%a	78.1%a	87.9%b	85.8%a.b	83.9%a.b
at least once (2-5)	15.4%a	21.2%b		at least once (2-5)	18.3%a	18.4%a	21.9%a	12.1%b	14.2%a.b	16.1%a.b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	16,92	1	0,000	Pearson Chi-Square	19,60	5	0,001			
Cramer's V	0,075			Cramer's V	0,081					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	74.3%a	77.4%a		never (1)	73.9%a	62.9%a	74.0%a	99.3%b	72.3%a	100.0%1
at least once (2-5)	25.7%a	22.6%a		at least once (2-5)	26.1%a	37.1%a	26.0%a	0.7%b	27.7%a	0.0%1
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,27	1	0,601	Pearson Chi-Square	18,14	5	0,003			
Cramer's V	0,038			Cramer's V	0,307					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	80.6%a	77.1%a		never (1)	84.5%a	81.1%a	83.4%a	84.4%a	96.8%b	38.8%c
at least once (2-5)	19.4%a	22.9%a		at least once (2-5)	15.5%a	18.9%a	16.6%a	15.6%a	3.2%b	61.2%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	2,77	1	0,096	Pearson Chi-Square	189,36	5	0,000			
Cramer's V	0,042			Cramer's V	0,345					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A4.2. Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST ride faster than the speed limit outside built-up areas (but not on motorways/freeways)?*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	48.2%a	67.7%b		never (1)	43.6%a	50.8%a.b	53.4%b	62.5%c	57.3%b.c.d	67.6%c
at least once (2-5)	51.8%a	32.3%b		at least once (2-5)	56.4%a	49.2%a.b	46.6%b	37.5%c	42.7%b.c.d	32.4%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	88,40	1	0,000	Pearson Chi-Square	56,79	5	0,000			
Cramer's V	0,184			Cramer's V	0,147					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	55.8%a	61.1%b		never (1)	51.8%a	61.3%b	54.2%a	64.6%b	66.0%b	59.7%a.b
at least once (2-5)	44.2%a	38.9%b		at least once (2-5)	48.2%a	38.7%b	45.8%a	35.4%b	34.0%b	40.3%a.b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	8,33	1	0,004	Pearson Chi-Square	32,54	5	0,000			
Cramer's V	0,053			Cramer's V	0,104					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	52.6%a	47.5%a		never (1)	51.6%a	40.4%a	47.8%a	63.3%a	58.5%a	78.8%a
at least once (2-5)	47.4%a	52.5%a		at least once (2-5)	48.4%a	59.6%a	52.2%a	36.7%a	41.5%a	21.2%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,38	1	0,539	Pearson Chi-Square	7,36	5	0,195			
Cramer's V	0,044			Cramer's V	0,195					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	50.2%a	55.8%a		never (1)	53.6%a	53.8%a	56.2%a.b	51.7%a	70.3%b	29.7%c
at least once (2-5)	49.8%a	44.2%a		at least once (2-5)	46.4%a	46.2%a	43.8%a.b	48.3%a	29.7%b	70.3%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	4,83	1	0,028	Pearson Chi-Square	46,31	5	0,000			
Cramer's V	0,055			Cramer's V	0,171					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.



**Table A4.3. Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST ride a moped or motorcycle without a helmet?**

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	71.3%a	80.4%b		never (1)	62.4%a	69.2%a.b	72.7%b.d	85.1%c	80.1%c.d	82.3%c
at least once (2-5)	28.7%a	19.6%b		at least once (2-5)	37.6%a	30.8%a.b	27.3%b.d	14.9%c	19.9%c.d	17.7%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	25,44	1	0,000	Pearson Chi-Square	84,48	5	0,000			
Cramer's V	0,099			Cramer's V	0,180					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	51.9%a	56.4%a		never (1)	44.2%a	58.2%b.c	52.2%b	58.3%b.c	63.9%c	55.8%a.b.c
at least once (2-5)	48.1%a	43.6%a		at least once (2-5)	55.8%a	41.8%b.c	47.8%b	41.7%b.c	36.1%c	44.2%a.b.c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	5,96	1	0,015	Pearson Chi-Square	46,85	5	0,000			
Cramer's V	0,045			Cramer's V	0,125					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	58.4%a	64.5%a		never (1)	46.5%a	54.6%a.b	70.1%a.b	80.9%b	53.3%a.b	81.1%a.b
at least once (2-5)	41.6%a	35.5%a		at least once (2-5)	53.5%a	45.4%a.b	29.9%a.b	19.1%b	46.7%a.b	18.9%a.b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	0,68	1	0,410	Pearson Chi-Square	12,56	5	0,028			
Cramer's V	0,060			Cramer's V	0,255					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	48.8%a	56.1%b		never (1)	49.4%a	46.2%a	52.6%a	57.8%a.b	73.9%b	53.9%a
at least once (2-5)	51.2%a	43.9%b		at least once (2-5)	50.6%a	53.8%a	47.4%a	42.2%a.b	26.1%b	46.1%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	7,76	1	0,005	Pearson Chi-Square	25,55	5	0,000			
Cramer's V	0,070			Cramer's V	0,127					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

**Table A4.4. Over the last 30 days, how often did you as a MOPED DRIVER OR MOTORCYCLIST read a text message/email or check social media (e.g. Facebook, twitter, etc.) while riding a moped or motorcycle?**

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	77.3%a	79.7%a		never (1)	63.4%a	68.1%a	77.3%b	88.0%c	92.6%c	92.0%c
at least once (2-5)	22.7%a	20.3%a		at least once (2-5)	36.6%a	31.9%a	22.7%b	12.0%c	7.4%c	8.0%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	2,00	1	0,157	Pearson Chi-Square	183,76	5	0,000			
Cramer's V	0,028			Cramer's V	0,265					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	73.3%a	67.8%b		never (1)	66.1%a	70.6%a	68.8%a	78.0%b	84.3%b	64.6%a
at least once (2-5)	26.7%a	32.2%b		at least once (2-5)	33.9%a	29.4%a	31.2%a	22.0%b	15.7%b	35.4%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	10,54	1	0,001	Pearson Chi-Square	40,71	5	0,000			
Cramer's V	0,060			Cramer's V	0,116					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	64.2%a	72.0%a		never (1)	68.9%a.b	50.4%a	59.9%a.b	88.1%b	81.2%a.b	100.0%1
at least once (2-5)	35.8%a	28.0%a		at least once (2-5)	31.1%a.b	49.6%a	40.1%a.b	11.9%b	18.8%a.b	0.0%1
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	1,00	1	0,318	Pearson Chi-Square	19,66	5	0,001			
Cramer's V	0,072			Cramer's V	0,319					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	59.7%a	68.0%b		never (1)	58.7%a	59.2%a	69.1%b	67.7%a.b	86.6%c	58.2%a.b
at least once (2-5)	40.3%a	32.0%b		at least once (2-5)	41.3%a	40.8%a	30.9%b	32.3%a.b	13.4%c	41.8%a.b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>	<b>Tests</b>	<b>Value</b>	<b>df</b>	<b>p-value</b>			
Pearson Chi-Square	11,17	1	0,001	Pearson Chi-Square	32,48	5	0,000			
Cramer's V	0,084			Cramer's V	0,143					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

## Appendix 5: Age and gender results risky behaviour cyclists and pedestrians

This appendix contains the results for statistical significance testing of gender and age differences. For the following list of questions results are presented in tables A5.1. to A5.10.

Question	Table number
Over the last 30 days, how often did you as a CYCLIST cycle when you think you may have had too much to drink?	A5.1.
Over the last 30 days, how often did you as a CYCLIST cycle without a helmet?	A5.2
Over the last 30 days, how often did you as a CYCLIST cycle while listening to music through headphones?	A5.3.
Over the last 30 days, how often did you as a CYCLIST read a text message/email or check social media (e.g. Facebook, twitter, etc.) while cycling?	
Over the last 30 days, how often did you as a CYCLIST cycle on the road next to the cycle lane?	A5.6
Over the last 30 days, how often did you as a PEDESTRIAN listen to music through headphones as a pedestrian while walking in the streets?	A5.7.
Over the last 30 days, how often did you as a PEDESTRIAN read a text message/email or check social media (e.g. Facebook, Twitter, etc.) while walking in the streets?	A5.8.
Over the last 30 days, how often did you as a PEDESTRIAN cross the road when a pedestrian light is red?	A5.9.
Over the last 30 days, how often did you as a PEDESTRIAN cross the road at places other than at a nearby (distance less than 30m) pedestrian crossing?	A5.10

*Table A5.1. Over the last 30 days, how often did you as a CYCLIST cycle when you think you may have had too much to drink?*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	77.5%a	89.0%b		never (1)	70.1%a	78.1%b	81.1%b	88.0%c	87.6%c	88.4%c
at least once (2-5)	22.5%a	11.0%b		at least once (2-5)	29.9%a	21.9%b	18.9%b	12.0%c	12.4%c	11.6%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	192,85	1	0,000	Pearson Chi-Square	224,38	5	0,000			
Cramer's V	0,151			Cramer's V	0,163					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	83.8%a	78.7%b		never (1)	83.2%a.b	80.2%a	77.7%a	81.4%a	84.2%a.b	89.8%b
at least once (2-5)	16.2%a	21.3%b		at least once (2-5)	16.8%a.b	19.8%a	22.3%a	18.6%a	15.8%a.b	10.2%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	10,70	1	0,001	Pearson Chi-Square	17,53	5	0,004			
Cramer's V	0,064			Cramer's V	0,081					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	79.0%a	90.9%b		never (1)	79.6%a.b	74.5%a	82.1%a.b	92.6%b	89.3%a.b	90.0%a.b
at least once (2-5)	21.0%a	9.1%b		at least once (2-5)	20.4%a.b	25.5%a	17.9%a.b	7.4%b	10.7%a.b	10.0%a.b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	11,56	1	0,001	Pearson Chi-Square	15,52	5	0,008			
Cramer's V	0,156			Cramer's V	0,180					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	84.1%a	80.1%a		never (1)	84.1%a	87.3%a	84.5%a	80.9%a	90.2%a	53.9%b
at least once (2-5)	15.9%a	19.9%a		at least once (2-5)	15.9%a	12.7%a	15.5%a	19.1%a	9.8%a	46.1%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	5,28	1	0,022	Pearson Chi-Square	109,82	5	0,000			
Cramer's V	0,052			Cramer's V	0,237					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A5.2. Over the last 30 days, how often did you as a CYCLIST cycle without a helmet?*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	30.7%a	31.0%a		never (1)	24.3%a	33.3%b.d.e	29.3%b.c	34.3%d	29.3%c.e	32.2%b.d.e
at least once (2-5)	69.3%a	69.0%a		at least once (2-5)	75.7%a	66.7%b.d.e	70.7%b.c	65.7%d	70.7%c.e	67.8%b.d.e
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,15	1	0,697	Pearson Chi-Square	38,54	5	0,000			
Cramer's V	0,004			Cramer's V	0,068					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	26.4%a	31.9%b		never (1)	23.7%a.c	40.0%b	28.1%a.d	17.8%c	23.9%a.c.d	34.8%b.d
at least once (2-5)	73.6%a	68.1%b		at least once (2-5)	76.3%a.c	60.0%b	71.9%a.d	82.2%c	76.1%a.c.d	65.2%b.d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	9,64	1	0,002	Pearson Chi-Square	77,70	5	0,000			
Cramer's V	0,061			Cramer's V	0,171					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	47.2%a	51.5%a		never (1)	53.8%a	45.7%a	41.6%a	47.8%a	54.7%a	57.2%a
at least once (2-5)	52.8%a	48.5%a		at least once (2-5)	46.2%a	54.3%a	58.4%a	52.2%a	45.3%a	42.8%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,81	1	0,368	Pearson Chi-Square	5,60	5	0,347			
Cramer's V	0,041			Cramer's V	0,108					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	38.0%a	49.0%b		never (1)	38.0%a	41.8%a.c	52.6%b	41.0%a.b	54.2%b.c	32.0%a
at least once (2-5)	62.0%a	51.0%b		at least once (2-5)	62.0%a	58.2%a.c	47.4%b	59.0%a.b	45.8%b.c	68.0%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	23,17	1	0,000	Pearson Chi-Square	33,63	5	0,000			
Cramer's V	0,109			Cramer's V	0,131					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A5.3. Over the last 30 days, how often did you as a CYCLIST cycle while listening to music through headphones?*

* gender			
Europe20	male	female	
never (1)	68.0%a	73.8%b	
at least once (2-5)	32.0%a	26.2%b	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	34,08	1	0,000
Cramer's V	0,064		
AsiaOceania5	male	female	
never (1)	58.5%a	58.0%a	
at least once (2-5)	41.5%a	42.0%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	0,07	1	0,797
Cramer's V	0,005		
NorthAmerica2	male	female	
never (1)	64.8%a	64.0%a	
at least once (2-5)	35.2%a	36.0%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	0,03	1	0,857
Cramer's V	0,008		
Africa5	male	female	
never (1)	45.2%a	50.3%a	
at least once (2-5)	54.8%a	49.7%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	4,75	1	0,029
Cramer's V	0,049		

* age group						
Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	43.9%a	57.4%b	66.9%c	77.5%d	85.5%e	88.5%e
at least once (2-5)	56.1%a	42.6%b	33.1%c	22.5%d	14.5%e	11.5%e
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	894,82	5	0,000			
Cramer's V	0,326					
AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	54.8%a	57.1%a	57.4%a	60.8%a	64.7%a	63.2%a
at least once (2-5)	45.2%a	42.9%a	42.6%a	39.2%a	35.3%a	36.8%a
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	10,17	5	0,071			
Cramer's V	0,062					
NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	63.1%a.b	52.5%a	48.4%a	76.5%b.d	78.6%b.c.d	87.5%b
at least once (2-5)	36.9%a.b	47.5%a	51.6%a	23.5%b.d	21.4%b.c.d	12.5%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	40,95	5	0,000			
Cramer's V	0,293					
Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	41.7%a.d	47.9%a.b	53.4%b	50.5%a.b	67.6%b.c	33.5%b
at least once (2-5)	58.3%a.d	52.1%a.b	46.6%b	49.5%a.b	32.4%b	66.5%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	46,39	5	0,000			
Cramer's V	0,154					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A5.4. Over the last 30 days, how often did you as a CYCLIST read a text message/email or check social media (e.g. Facebook, twitter, etc.) while cycling?

* gender			
Europe20	male	female	
never (1)	78.8%a	84.0%b	
at least once (2-5)	21.2%a	16.0%b	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	36,38	1	0,000
Cramer's V	0,066		
AsiaOceania5	male	female	
never (1)	69.1%a	71.1%a	
at least once (2-5)	30.9%a	28.9%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	1,30	1	0,254
Cramer's V	0,022		
NorthAmerica2	male	female	
never (1)	76.0%a	80.1%a	
at least once (2-5)	24.0%a	19.9%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	0,96	1	0,327
Cramer's V	0,045		
Africa5	male	female	
never (1)	64.7%a	68.2%a	
at least once (2-5)	35.3%a	31.8%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	2,63	1	0,105
Cramer's V	0,037		

* age group							
Europe20	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	57.3%a	70.9%b	79.6%b	87.6%b	92.7%b	94.5%b	
at least once (2-5)	42.7%a	29.1%b	20.4%b	12.4%b	7.3%b	5.5%b	
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value				
Pearson Chi-Square	820,30	5	0,000				
Cramer's V	0,312						
AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	65.1%a	68.7%a.b	66.5%a	76.0%b.c.d	84.3%b	73.7%a.d	
at least once (2-5)	34.9%a	31.3%a.b	33.5%a	24.0%b.c.d	15.7%b	26.3%a.d	
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value				
Pearson Chi-Square	41,17	5	0,000				
Cramer's V	0,124						
NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	73.4%a	65.3%a	69.9%a	82.0%a.b	94.0%b	95.5%b.c	
at least once (2-5)	26.6%a	34.7%a	30.1%a	18.0%a.b	6.0%b	4.5%b.c	
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value				
Pearson Chi-Square	36,42	5	0,000				
Cramer's V	0,276						
Africa5	18-24	25-34	35-44	45-54	55-64	65+	
never (1)	63.8%a	64.4%a	70.2%a.b	75.2%b.c	84.5%b	47.0%b	
at least once (2-5)	36.2%a	35.6%a	29.8%a.b	24.8%b.c	15.5%b	53.0%b	
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	
Tests	Value	df	p-value				
Pearson Chi-Square	57,08	5	0,000				
Cramer's V	0,171						

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A5.5. Over the last 30 days, how often did you as a CYCLIST cycle on the road next to the cycle lane?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	56.1%a	67.8%b		never (1)	49.9%a	56.4%b	57.4%b	65.9%c	66.5%c	70.1%c
at least once (2-5)	43.9%a	32.2%b		at least once (2-5)	50.1%a	43.6%b	42.6%b	34.1%c	33.5%c	29.9%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	120,63	1	0,000	Pearson Chi-Square	158,70	5	0,000			
Cramer's V	0,120			Cramer's V	0,137					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	43.1%a	44.2%a		never (1)	40.0%a	47.1%b	45.9%a.b	44.8%a.b	41.1%a.b	36.9%a.b
at least once (2-5)	56.9%a	55.8%a		at least once (2-5)	60.0%a	52.9%b	54.1%a.b	55.2%a.b	58.9%a.b	63.1%a.b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,33	1	0,564	Pearson Chi-Square	12,49	5	0,029			
Cramer's V	0,011			Cramer's V	0,068					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	60.5%a	68.9%a		never (1)	62.8%a.b	54.5%a	58.7%a	66.7%a.b	71.0%a.b	80.4%b
at least once (2-5)	39.5%a	31.1%a		at least once (2-5)	37.2%a.b	45.5%a	41.3%a	33.3%a.b	29.0%a.b	19.6%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	3,27	1	0,070	Pearson Chi-Square	13,43	5	0,020			
Cramer's V	0,083			Cramer's V	0,168					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	45.3%a	50.4%a		never (1)	48.3%a.b	46.1%a.b	53.4%a	47.1%a.b	43.2%a.b	38.1%b
at least once (2-5)	54.7%a	49.6%a		at least once (2-5)	51.7%a.b	53.9%a.b	46.6%a	52.9%a.b	56.8%a.b	61.9%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	4,92	1	0,027	Pearson Chi-Square	11,69	5	0,039			
Cramer's V	0,050			Cramer's V	0,077					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A5.6. Over the last 30 days, how often did you as a PEDESTRIAN listen to music through headphones as a pedestrian while walking in the streets?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	63.5%a	69.5%b		never (1)	24.5%a	45.6%b	58.7%c	71.4%d	82.5%e	90.0%f
at least once (2-5)	36.5%a	30.5%b		at least once (2-5)	75.5%a	54.4%b	41.3%c	28.6%d	17.5%e	10.0%f
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	72,48	1	0,000	Pearson Chi-Square	3546,19	5	0,000			
Cramer's V	0,063			Cramer's V	0,438					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	57.1%a	57.9%a		never (1)	47.1%a	52.2%a.b	56.5%b.c	63.0%c.d	64.0%d	75.2%e
at least once (2-5)	42.9%a	42.1%a		at least once (2-5)	52.9%a	47.8%a.b	43.5%b.c	37.0%c.d	36.0%d	24.8%e
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,25	1	0,614	Pearson Chi-Square	129,11	5	0,000			
Cramer's V	0,008			Cramer's V	0,170					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	58.6%a	64.8%a		never (1)	38.7%a	49.6%a.b	45.7%a	59.7%b	78.2%c	93.2%d
at least once (2-5)	41.4%a	35.2%a		at least once (2-5)	61.3%a	50.4%a.b	54.3%a	40.3%b	21.8%c	6.8%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	6,18	1	0,013	Pearson Chi-Square	239,38	5	0,000			
Cramer's V	0,063			Cramer's V	0,393					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	41.7%a	48.4%b		never (1)	26.8%a	40.2%b	55.9%c.e	59.3%c	71.7%d	47.2%b.e
at least once (2-5)	58.3%a	51.6%b		at least once (2-5)	73.2%a	59.8%b	44.1%c.e	40.7%c	28.3%d	52.8%b.e
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	19,41	1	0,000	Pearson Chi-Square	344,77	5	0,000			
Cramer's V	0,067			Cramer's V	0,283					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A5.7. Over the last 30 days, how often did you as a PEDESTRIAN read a text message/email or check social media (e.g. Facebook, Twitter, etc.) while walking in the streets?*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	39.8%a	42.8%b		never (1)	14.9%a	22.4%b	28.7%c	40.7%d	55.0%e	66.1%f
at least once (2-5)	60.2%a	57.2%b		at least once (2-5)	85.1%a	77.6%b	71.3%c	59.3%d	45.0%e	33.9%f
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	16,91	1	0,000	Pearson Chi-Square	2478,71	5	0,000			
Cramer's V	0,030			Cramer's V	0,366					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	45.2%a	47.2%a		never (1)	38.8%a	42.7%a	43.7%a.b	49.4%b	49.7%b.c	63.3%d
at least once (2-5)	54.8%a	52.8%a		at least once (2-5)	61.2%a	57.3%a	56.3%a.b	50.6%b	50.3%b.c	36.7%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	1,74	1	0,188	Pearson Chi-Square	87,73	5	0,000			
Cramer's V	0,020			Cramer's V	0,141					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	48.9%a	46.7%a		never (1)	29.0%a	29.4%a	31.0%a	51.6%b	64.5%c	78.5%d
at least once (2-5)	51.1%a	53.3%a		at least once (2-5)	71.0%a	70.6%a	69.0%a	48.4%b	35.5%c	21.5%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	0,81	1	0,369	Pearson Chi-Square	232,78	5	0,000			
Cramer's V	0,023			Cramer's V	0,388					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	28.2%a	34.2%b		never (1)	23.1%a	24.3%a	35.6%b	40.3%b	51.4%c	38.1%b
at least once (2-5)	71.8%a	65.8%b		at least once (2-5)	76.9%a	75.7%a	64.4%b	59.7%b	48.6%c	61.9%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	18,36	1	0,000	Pearson Chi-Square	158,88	5	0,000			
Cramer's V	0,065			Cramer's V	0,192					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A5.8. Over the last 30 days, how often did you as a PEDESTRIAN cross the road when a pedestrian light is red?*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	43.2%a	53.0%b		never (1)	32.4%a	39.9%b	47.8%c	49.5%c.d	52.0%d	57.4%e
at least once (2-5)	56.8%a	47.0%b		at least once (2-5)	67.6%a	60.1%b	52.2%c	50.5%c.d	48.0%d	42.6%e
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	176,24	1	0,000	Pearson Chi-Square	429,67	5	0,000			
Cramer's V	0,098			Cramer's V	0,153					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	58.2%a	60.1%a		never (1)	55.6%a	59.8%a.b	58.2%a	57.8%a	61.1%a.b	66.2%b
at least once (2-5)	41.8%a	39.9%a		at least once (2-5)	44.4%a	40.2%a.b	41.8%a	42.2%a	38.9%a.b	33.8%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	1,62	1	0,203	Pearson Chi-Square	16,03	5	0,007			
Cramer's V	0,019			Cramer's V	0,060					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	51.2%a	63.2%b		never (1)	48.8%a	50.1%a	49.7%a	57.4%a.b	68.0%b	67.3%b.c
at least once (2-5)	48.8%a	36.8%b		at least once (2-5)	51.2%a	49.9%a	50.3%a	42.6%a.b	32.0%b	32.7%b.c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	22,28	1	0,000	Pearson Chi-Square	41,74	5	0,000			
Cramer's V	0,120			Cramer's V	0,164					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	49.0%a	52.8%a		never (1)	44.7%a	48.7%a.c	56.5%b	55.1%b.c.d	63.0%b	46.1%a.d
at least once (2-5)	51.0%a	47.2%a		at least once (2-5)	55.3%a	51.3%a.c	43.5%b	44.9%b.c.d	37.0%b	53.9%a.d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	6,14	1	0,013	Pearson Chi-Square	55,74	5	0,000			
Cramer's V	0,038			Cramer's V	0,114					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A5.9. Over the last 30 days, how often did you as a PEDESTRIAN cross the road at places other than at a nearby (distance less than 30m) pedestrian crossing?*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never (1)	23.8% <sup>a</sup>	28.0% <sup>b</sup>		never (1)	17.0% <sup>a</sup>	22.7% <sup>b</sup>	26.4% <sup>c</sup>	28.1% <sup>c</sup>	28.9% <sup>c</sup>	27.8% <sup>c</sup>
at least once (2-5)	76.2% <sup>a</sup>	72.0% <sup>b</sup>		at least once (2-5)	83.0% <sup>a</sup>	77.3% <sup>b</sup>	73.6% <sup>c</sup>	71.9% <sup>c</sup>	71.1% <sup>c</sup>	72.2% <sup>c</sup>
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	42,34	1	0,000	Pearson Chi-Square	121,96	5	0,000			
Cramer's V	0,048			Cramer's V	0,081					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	29.4% <sup>a</sup>	30.9% <sup>a</sup>		never (1)	26.8% <sup>a</sup>	35.2% <sup>b</sup>	28.5% <sup>a</sup>	28.3% <sup>a</sup>	32.2% <sup>a.b</sup>	27.3% <sup>a</sup>
at least once (2-5)	70.6% <sup>a</sup>	69.1% <sup>a</sup>		at least once (2-5)	73.2% <sup>a</sup>	64.8% <sup>b</sup>	71.5% <sup>a</sup>	71.7% <sup>a</sup>	67.8% <sup>a.b</sup>	72.7% <sup>a</sup>
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	1,15	1	0,283	Pearson Chi-Square	22,38	5	0,000			
Cramer's V	0,016			Cramer's V	0,071					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never (1)	35.3% <sup>a</sup>	38.5% <sup>a</sup>		never (1)	25.9% <sup>a</sup>	30.0% <sup>a.b</sup>	33.0% <sup>a.b</sup>	40.1% <sup>b.c</sup>	44.6% <sup>c</sup>	45.2% <sup>c.d</sup>
at least once (2-5)	64.7% <sup>a</sup>	61.5% <sup>a</sup>		at least once (2-5)	74.1% <sup>a</sup>	70.0% <sup>a.b</sup>	67.0% <sup>a.b</sup>	59.9% <sup>b.c</sup>	55.4% <sup>c</sup>	54.8% <sup>c.d</sup>
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	1,63	1	0,202	Pearson Chi-Square	34,39	5	0,000			
Cramer's V	0,033			Cramer's V	0,149					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never (1)	26.4% <sup>a</sup>	27.0% <sup>a</sup>		never (1)	24.3% <sup>a</sup>	26.3% <sup>a</sup>	29.3% <sup>a</sup>	24.1% <sup>a</sup>	31.3% <sup>a</sup>	30.2% <sup>a</sup>
at least once (2-5)	73.6% <sup>a</sup>	73.0% <sup>a</sup>		at least once (2-5)	75.7% <sup>a</sup>	73.7% <sup>a</sup>	70.7% <sup>a</sup>	75.9% <sup>a</sup>	68.7% <sup>a</sup>	69.8% <sup>a</sup>
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>	<i>Tests</i>	<i>Value</i>	<i>df</i>	<i>p-value</i>			
Pearson Chi-Square	0,22	1	0,637	Pearson Chi-Square	13,33	5	0,020			
Cramer's V	0,007			Cramer's V	0,056					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.



## Appendix 6: Age and gender results experiences being checked

Table A6.1. In the past 12 months, how many times have you been checked by the police for using alcohol while DRIVING A CAR (i.e., being subjected to a Breathalyser test)?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never	77.0%a	87.3%b		never	74.0%a	74.1%a	76.7%a	85.0%b	85.7%b	90.0%c
at least once	23.0%a	12.7%b		at least once	26.0%a	25.9%a	23.3%a	15.0%b	14.3%b	10.0%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	285,49	1	0,000	Pearson Chi-Square	423,37	5	0,000			
Cramer's V	0,134			Cramer's V	0,163					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never	64.2%a	72.7%b		never	63.7%a	60.2%a	63.9%a	76.0%b	79.1%b.c	84.1%c
at least once	35.8%a	27.3%b		at least once	36.3%a	39.8%a	36.1%a	24.0%b	20.9%b.c	15.9%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	29,93	1	0,000	Pearson Chi-Square	121,60	5	0,000			
Cramer's V	0,091			Cramer's V	0,182					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never	95.6%a	97.8%a		never	96.0%a.b	93.6%a	94.6%a	98.6%b.c	97.8%a.b.c	99.7%c
at least once	4.4%a	2.2%a		at least once	4.0%a.b	6.4%a	5.4%a	1.4%b.c	2.2%a.b.c	0.3%c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	5,76	1	0,016	Pearson Chi-Square	26,45	5	0,000			
Cramer's V	0,059			Cramer's V	0,127					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never	79.7%a	88.5%b		never	79.9%a	82.3%a.b	85.2%b.c	88.4%c.d.e	92.1%b.d	82.0%a.b.e
at least once	20.3%a	11.5%b		at least once	20.1%a	17.7%a.b	14.8%b.c	11.6%c.d.e	7.9%b.d	18.0%a.b.e
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	52,00	1	0,000	Pearson Chi-Square	34,02	5	0,000			
Cramer's V	0,120			Cramer's V	0,097					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A6.2. In the past 12 months, how many times have you been checked by the police for the use of drugs (other than medication) while DRIVING A CAR?

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
never	94.8%a	97.5%b		never	91.1%a	93.3%a.b	94.8%b	97.6%b.c	97.9%b.c	98.7%b.d
at least once	5.2%a	2.5%b		at least once	8.9%a	6.7%a.b	5.2%b	2.4%b.c	2.1%b.c	1.3%b.d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	73,64	1	0,000	Pearson Chi-Square	273,40	5	0,000			
Cramer's V	0,068			Cramer's V	0,131					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
never	88.6%a	90.4%a		never	82.8%a	87.4%a.b	88.5%b.d	96.2%b.c	93.1%b.c	94.9%b.c
at least once	11.4%a	9.6%a		at least once	17.2%a	12.6%a.b	11.5%b.d	3.8%b.c	6.9%b.c	5.1%b.c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	3,22	1	0,073	Pearson Chi-Square	78,61	5	0,000			
Cramer's V	0,030			Cramer's V	0,146					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
never	97.2%a	98.7%a		never	94.5%a	97.8%a.b	96.9%a.b	98.5%a.b	99.1%b	100.0%1
at least once	2.8%a	1.3%a		at least once	5.5%a	2.2%a.b	3.1%a.b	1.5%a.b	0.9%b	0.0%1
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	4,71	1	0,030	Pearson Chi-Square	22,85	5	0,000			
Cramer's V	0,054			Cramer's V	0,118					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
never	88.7%a	91.0%a		never	87.9%a	90.7%a.b	92.6%b	92.2%a.b	94.5%b.c	75.2%b.d
at least once	11.3%a	9.0%a		at least once	12.1%a	9.3%a.b	7.4%b	7.8%a.b	5.5%b.c	24.8%b.d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	5,32	1	0,021	Pearson Chi-Square	80,46	5	0,000			
Cramer's V	0,038			Cramer's V	0,150					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

## Appendix 7: Age and gender results opinions strictness

*Table A7.1 What do you think about the current traffic rules and penalties in your country for driving or riding under the influence of alcohol? The traffic rules should be stricter.*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
disagree	30.9%a	20.4%b		disagree	32.2%a	29.0%a	25.0%b	25.1%b	25.7%b	20.7%c
agree	69.1%a	79.6%b		agree	67.8%a	71.0%a	75.0%b	74.9%b	74.3%b	79.3%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	293,38	1	0,000	Pearson Chi-Square	123,51	5	0,000			
Cramer's V	0,121			Cramer's V	0,079					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
disagree	7.3%a	5.3%b		disagree	7.8%a	6.9%a	5.5%a.b	5.9%a.b	6.9%a.b	3.8%b
agree	92.7%a	94.7%b		agree	92.2%a	93.1%a	94.5%a.b	94.1%a.b	93.1%a.b	96.2%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	8,12	1	0,004	Pearson Chi-Square	12,65	5	0,027			
Cramer's V	0,041			Cramer's V	0,050					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
disagree	32.4%a	25.8%b		disagree	28.5%a.c.e	24.7%a.b	36.8%b	34.8%b.c	27.5%a.c.e	21.9%b.e
agree	67.6%a	74.2%b		agree	71.5%a.c.e	75.3%a.b	63.2%b	65.2%b.c	72.5%a.c.e	78.1%b.e
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	10,48	1	0,001	Pearson Chi-Square	28,46	5	0,000			
Cramer's V	0,073			Cramer's V	0,119					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
disagree	53.1%a	49.1%b		disagree	56.3%a	50.4%b	49.0%b	52.2%a.b	50.6%a.b	38.2%b
agree	46.9%a	50.9%b		agree	43.7%a	49.6%b	51.0%b	47.8%a.b	49.4%a.b	61.8%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	7,66	1	0,006	Pearson Chi-Square	37,98	5	0,000			
Cramer's V	0,039			Cramer's V	0,087					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A7.2. What do you think about the current traffic rules and penalties in your country for driving or riding under the influence of alcohol? The traffic rules are not being checked sufficiently.*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
disagree	24.7%a	20.6%b		disagree	30.3%a	27.8%a	24.6%b	22.8%b.c	20.4%b	15.7%b
agree	75.3%a	79.4%b		agree	69.7%a	72.2%a	75.4%b	77.2%b.c	79.6%b	84.3%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	45,99	1	0,000	Pearson Chi-Square	258,63	5	0,000			
Cramer's V	0,048			Cramer's V	0,114					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
disagree	19.8%a	22.5%a		disagree	20.7%a.c	26.2%b	21.4%a	22.3%a.b	15.8%b.c	15.1%b
agree	80.2%a	77.5%a		agree	79.3%a.c	73.8%b	78.6%a	77.7%a.b	84.2%b.c	84.9%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	5,41	1	0,020	Pearson Chi-Square	40,24	5	0,000			
Cramer's V	0,033			Cramer's V	0,090					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
disagree	32.3%a	27.1%a		disagree	33.3%a	28.4%a	36.5%a	32.9%a	29.5%a	19.2%b
agree	67.7%a	72.9%a		agree	66.7%a	71.6%a	63.5%a	67.1%a	70.5%a	80.8%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	6,48	1	0,011	Pearson Chi-Square	31,63	5	0,000			
Cramer's V	0,057			Cramer's V	0,126					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
disagree	46.7%a	44.9%a		disagree	47.7%a	45.2%a	45.7%a	43.4%a	48.0%a	43.3%a
agree	53.3%a	55.1%a		agree	52.3%a	54.8%a	54.3%a	56.6%a	52.0%a	56.7%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	1,58	1	0,208	Pearson Chi-Square	5,18	5	0,395			
Cramer's V	0,018			Cramer's V	0,032					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A7.3. What do you think about the current traffic rules and penalties in your country for driving or riding under the influence of alcohol? The penalties are too severe.*

* gender			* age group						
Europe20	male	female	Europe20	18-24	25-34	35-44	45-54	55-64	65+
disagree	75.4%a	83.1%b	disagree	70.8%a	75.6%b	77.9%b.c	79.6%c.d	81.1%d	85.2%e
agree	24.6%a	16.9%b	agree	29.2%a	24.4%b	22.1%b.c	20.4%c.d	18.9%d	14.8%e
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value		
Pearson Chi-Square	179,31	1	0,000	Pearson Chi-Square	222,60	5	0,000		
Cramer's V	0,095			Cramer's V	0,106				
AsiaOceania5	male	female	AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
disagree	64.3%a	67.8%a	disagree	57.7%a	60.1%a	67.2%b	69.5%b.c	73.6%c.d	76.1%d
agree	35.7%a	32.2%a	agree	42.3%a	39.9%a	32.8%b	30.5%b.c	26.4%c.d	23.9%d
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value		
Pearson Chi-Square	6,55	1	0,010	Pearson Chi-Square	93,70	5	0,000		
Cramer's V	0,036			Cramer's V	0,137				
NorthAmerica2	male	female	NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
disagree	78.2%a	85.0%b	disagree	77.5%a.b	79.0%a.b	77.2%a	85.1%b.c	80.3%a.b	88.7%c
agree	21.8%a	15.0%b	agree	22.5%a.b	21.0%a.b	22.8%a	14.9%b.c	19.7%a.b	11.3%c
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value		
Pearson Chi-Square	15,60	1	0,000	Pearson Chi-Square	24,38	5	0,000		
Cramer's V	0,089			Cramer's V	0,110				
Africa5	male	female	Africa5	18-24	25-34	35-44	45-54	55-64	65+
disagree	56.7%a	56.1%a	disagree	55.2%a	57.4%a	57.2%a	57.9%a	57.6%a	50.7%a
agree	43.3%a	43.9%a	agree	44.8%a	42.6%a	42.8%a	42.1%a	42.4%a	49.3%a
	100,0%	100,0%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value		
Pearson Chi-Square	0,21	1	0,651	Pearson Chi-Square	6,97	5	0,223		
Cramer's V	0,006			Cramer's V	0,037				

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A7.4. What do you think about the current traffic rules and penalties in your country for driving or riding faster than the speed limit? The traffic rules should be stricter.*

* gender			
Europe20	male	female	
disagree	47.5%a	38.1%b	
agree	52.5%a	61.9%b	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	181,45	1	0,000
Cramer's V	0,095		
AsiaOceania5	male	female	
disagree	11.0%a	7.7%b	
agree	89.0%a	92.3%b	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	15,65	1	0,000
Cramer's V	0,056		
NorthAmerica2	male	female	
disagree	55.1%a	50.3%a	
agree	44.9%a	49.7%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	4,62	1	0,032
Cramer's V	0,048		
Africa5	male	female	
disagree	53.9%a	52.1%a	
agree	46.1%a	47.9%a	
	100,0%	100,0%	
Tests	Value	df	p-value
Pearson Chi-Square	1,65	1	0,199
Cramer's V	0,018		

* age group						
Europe20	18-24	25-34	35-44	45-54	55-64	65+
disagree	49.5%a	46.3%a	42.9%b	43.0%b	41.1%b	37.7%c
agree	50.5%a	53.7%a	57.1%b	57.0%b	58.9%b	62.3%c
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	105,63	5	0,000			
Cramer's V	0,073					
AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
disagree	9.4%a	9.8%a	9.3%a	8.6%a	8.4%a	10.4%a
agree	90.6%a	90.2%a	90.7%a	91.4%a	91.6%a	89.6%a
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	2,27	5	0,811			
Cramer's V	0,021					
NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
disagree	51.5%a.b	52.8%a.b	54.8%a.b	58.0%a	48.7%a.b	48.4%b
agree	48.5%a.b	47.2%a.b	45.2%a.b	42.0%a	51.3%a.b	51.6%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	9,95	5	0,077			
Cramer's V	0,071					
Africa5	18-24	25-34	35-44	45-54	55-64	65+
disagree	57.5%a	51.8%b	51.6%b	52.3%a.b	54.3%a.b	45.3%b
agree	42.5%a	48.2%b	48.4%b	47.7%a.b	45.7%a.b	54.7%b
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value			
Pearson Chi-Square	20,50	5	0,001			
Cramer's V	0,064					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A7.5. What do you think about the current traffic rules and penalties in your country for driving or riding faster than the speed limit? The traffic rules are not being checked sufficiently.*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
disagree	33.9%a	29.4%b		disagree	41.4%a	38.1%a	34.0%b	31.8%b	27.8%c	23.8%d
agree	66.1%a	70.6%b		agree	58.6%a	61.9%a	66.0%b	68.2%b	72.2%c	76.2%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	46,36	1	0,000	Pearson Chi-Square	312,43	5	0,000			
Cramer's V	0,048			Cramer's V	0,125					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
disagree	21.6%a	25.8%b		disagree	26.1%a.b	27.2%a	22.3%b	23.0%a.b	21.0%b.c	20.9%b.d
agree	78.4%a	74.2%b		agree	73.9%a.b	72.8%a	77.7%b	77.0%a.b	79.0%b.c	79.1%b.d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	11,93	1	0,001	Pearson Chi-Square	16,52	5	0,006			
Cramer's V	0,049			Cramer's V	0,057					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
disagree	39.5%a	36.3%a		disagree	39.9%a.b.c	37.1%a.c.d	48.4%b	44.0%a.b	30.6%c.d	28.6%d
agree	60.5%a	63.7%a		agree	60.1%a.b.c	62.9%a.c.d	51.6%b	56.0%a.b	69.4%c.d	71.4%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	2,18	1	0,140	Pearson Chi-Square	42,60	5	0,000			
Cramer's V	0,033			Cramer's V	0,146					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
disagree	50.2%a	44.9%b		disagree	51.4%a	47.2%a.b	44.7%b	48.0%a.b	45.9%a.b	43.2%b.c
agree	49.8%a	55.1%b		agree	48.6%a	52.8%a.b	55.3%b	52.0%a.b	54.1%a.b	56.8%b.c
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	13,69	1	0,000	Pearson Chi-Square	13,82	5	0,017			
Cramer's V	0,052			Cramer's V	0,053					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

*Table A7.6. What do you think about the current traffic rules and penalties in your country for driving or riding faster than the speed limit? The penalties are too severe.*

* gender				* age group						
Europe20	male	female		Europe20	18-24	25-34	35-44	45-54	55-64	65+
disagree	65.0%a	72.0%b		disagree	59.4%a	65.6%b	69.1%c	69.8%c	69.4%c	72.6%d
agree	35.0%a	28.0%b		agree	40.6%a	34.4%b	30.9%c	30.2%c	30.6%c	27.4%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	113,39	1	0,000	Pearson Chi-Square	129,04	5	0,000			
Cramer's V	0,075			Cramer's V	0,080					
AsiaOceania5	male	female		AsiaOceania5	18-24	25-34	35-44	45-54	55-64	65+
disagree	63.7%a	64.8%a		disagree	59.6%a	54.0%a	67.2%b	70.6%b	71.3%b	69.3%b
agree	36.3%a	35.2%a		agree	40.4%a	46.0%a	32.8%b	29.4%b	28.7%b	30.7%b
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,71	1	0,399	Pearson Chi-Square	96,54	5	0,000			
Cramer's V	0,012			Cramer's V	0,139					
NorthAmerica2	male	female		NorthAmerica2	18-24	25-34	35-44	45-54	55-64	65+
disagree	64.4%a	76.8%b		disagree	62.7%a	67.0%a.b	73.4%b.d	74.5%b.c.d	66.4%a.b	78.5%d
agree	35.6%a	23.2%b		agree	37.3%a	33.0%a.b	26.6%b.d	25.5%b.c.d	33.6%a.b	21.5%d
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	37,16	1	0,000	Pearson Chi-Square	28,49	5	0,000			
Cramer's V	0,137			Cramer's V	0,119					
Africa5	male	female		Africa5	18-24	25-34	35-44	45-54	55-64	65+
disagree	53.9%a	54.9%a		disagree	51.4%a	55.2%a	54.1%a	56.6%a.b	62.8%b	49.7%a
agree	46.1%a	45.1%a		agree	48.6%a	44.8%a	45.9%a	43.4%a.b	37.2%b	50.3%a
	100,0%	100,0%			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Tests	Value	df	p-value	Tests	Value	df	p-value			
Pearson Chi-Square	0,51	1	0,475	Pearson Chi-Square	20,17	5	0,001			
Cramer's V	0,010			Cramer's V	0,064					

Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.