



# Cell phone use while driving Summary

# 2015



## What is the problem?

Several studies indicate the harmful consequences of driver distraction associated with the use of cell phones while driving, whether hand-held or hands-free. New availability of visual display information on cell phones, new services offering broadband internet access and the increasing opportunity to use the car as a mobile office are likely to further increase the road safety challenges of cell phone use while driving.

## How big is the problem?

**Risk exposure:** Few EU countries conduct systematic surveys about cell phone use by drivers. Roadside surveys in Europe and the US have shown that between 1% and 11% of drivers use telephones while driving, with many drivers reporting occasional use.

**Risk of accident involvement:** Cell phone use while driving increases the likelihood of being involved in an accident leading to either property damage or serious injury by a factor of three to four. Accident involvement risk escalates with increased cell phone use. Those driving and using cell phones a lot are twice more likely to be involved in an accident than those making minimal use of cell phones.

**Size of accident injury problem:** In Sweden it has been estimated that around 10 to 20 people die annually as a result of using a cell phone while driving. A Dutch study estimated that nearly 600 road deaths and hospital admissions would have been prevented annually (2004 data) in the Netherlands with zero cell phone use while driving. A US study estimated that cell phone use while driving in the US results in around 2.600 deaths and 330.000 serious injuries annually.

## What does science say?

### Driver distraction and adverse effects on driver behaviour

The most important negative factor associated with using a cell phone while driving, whether hands-free or hand-held, is the diversion of attention from driving to the conversation itself. Driver reaction times are 30% slower when telephoning while driving than driving with BAC levels of 80mg/100ml and 50% slower than under normal driving conditions.

### Hands-free versus hand-held?

Although hands-free phones reduce physical distraction, studies indicate that the use of hands-free phones causes as much important driver distraction as the use of hand-held phones. Some studies show that cell phone conversations while driving can impair drivers more than listening to the radio or talking to passengers.

### Effects of texting

Many young drivers admit to the largely illegal activity of texting while driving. Text messaging has a detrimental effect on safety-critical driving tasks such as lane-keeping, hazard detection, headways and the detection and appropriate response to traffic signs. Studies indicate that texting and driving is a greater distraction and safety threat than dialing a cell phone, driving while drunk, smoking cannabis or talking on a cell phone.

## **Age-related effects**

Research indicates that the use of cell phones while driving is widespread amongst young novice drivers and adds to the already higher accident risk associated with this group of drivers. Older drivers can find it more difficult than drivers in general to conduct two tasks at the same time: driving and phone conversation.

## **Public awareness of accident risks**

Available surveys indicate an under-estimation amongst drivers of how cell phone use while driving adversely affects driving performance and an erroneous belief that the use of hands-free phones is largely danger-free. General support exists for hand-held bans for all drivers.

## **Effectiveness of interventions**

While the short-term effects of the introduction of laws to reduce cell phone use while driving can be significant, they may not be sustained in the longer term and levels of use may even return to pre-law usage levels. Monitoring shows, however, that the effects can be enhanced combining awareness campaigns, police enforcement and stricter penalties.

## **What are the solutions?**

A variety of recommendations for action has been made in the literature which could inform EU, national, local and company policies. These include:

### **Research and data collection:**

- Determination of the extent of cell phone use in the EU while driving.
- Recording of cell phone use in accident reports.
- Larger scale simulator studies on driver distraction (larger and more representative samples).
- Study of the effect of cell phone use by road users other than car drivers such as cyclists, pedestrians and truck drivers.

### **Public and private sector rules and EU role:**

- Focusing on in-vehicle enforcement through technological means.
- Targeting on texting and driving, which is on the increase especially amongst young drivers.
- Continuing enforcement and publicity to increase the efficacy of legislation.
- The EU can play a major role in supporting activity towards harmonised requirements as well as in provision of guidance, data collection and support for research and development. Company policies which impose a complete ban on the use of mobile phones while driving could be encouraged and supported

### **Better hands-free design:**

- Redesign of human-machine interface of in-car information systems and cell phones to allow safe use and regulate driver use of in-vehicle systems.

### **Information, education and training:**

- Educate drivers about the dangers of cell phone use and other distracting activities, as well as provide practical advice on how to deal with cell phones in vehicles.

## Notes

### 1. Country abbreviations

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

2. This 2015 edition of Traffic Safety Synthesis on Cell Phone Use While Driving updates the previous versions produced within the EU co-funded research projects [SafetyNet](#) (2008) and [DaCoTA](#) (2012). This Synthesis on Cell Phone Use While Driving was originally written in 2008 and then updated in 2012 and in 2015 by Jeanne Breen, [Jeanne Breen Consulting](#).

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

### 4. Disclaimer

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### 5. Please refer to this Report as follows:

*European Commission, Cell Phone Use While Driving, European Commission, Directorate General for Transport, September 2015.*

