



Department for Transport

**Reported road casualties in Great Britain: provisional estimates involving illegal alcohol levels: 2017**

**About this release**

This publication presents provisional estimates of casualties arising from reported accidents involving at least one motor vehicle driver or rider over the legal alcohol limit for driving, in Great Britain in 2017.

Figures are derived from the STATS19 forms completed by the police plus toxicology data for road fatalities from coroners and procurators fiscal.

Final 2017 estimates, based on more complete data, will be published in August 2019.

**Uncertainty**

These statistics, especially the number of fatalities, are subject to considerable uncertainty (see Sampling uncertainty on page 6). This means that it is impossible to be sure of the precise number of fatalities, so ranges and confidence intervals are used for fatalities throughout the publication.

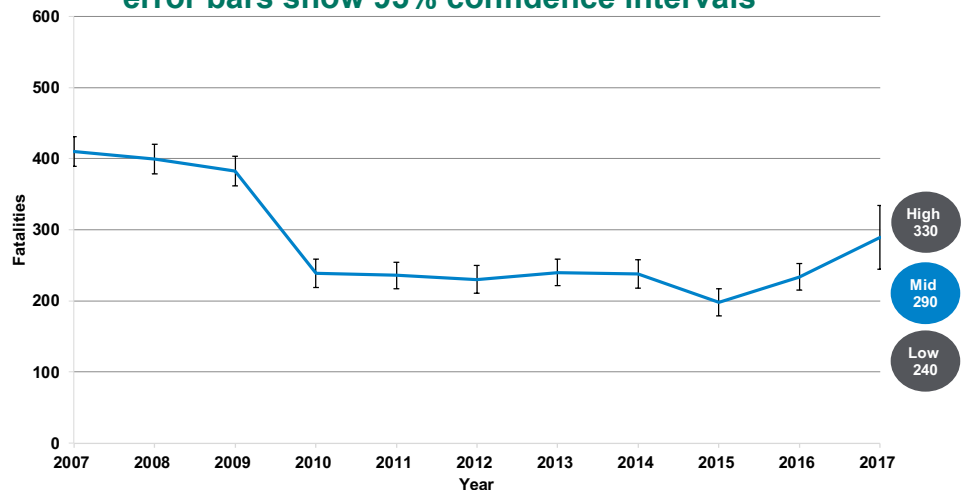
**In this publication**

- Drink-drive casualties.....[p2](#)
- Drink-drive accidents.....[p4](#)
- Strengths & weaknesses..... [p6](#)
- Background information..... [p6](#)

**Provisional estimates for 2017 show that between 240 and 330 people were killed in accidents in Great Britain where at least one driver was over the drink-drive limit, with a central estimate of 290 deaths.**

- The provisional estimate of **fatalities** for 2017 is the highest since 2009. However, the rise is **not statistically significant** (see definition on page 3).

**Chart 1: Fatalities in reported drink-drive accidents: GB 2007-2017 error bars show 95% confidence intervals**



[RAS51001]

- An estimated 8,660 people were **killed or injured** when at least one driver was over the drink-drive limit. This represents a **reduction** of 4% from 9,040 in 2016, and is reverting to a similar level to 2015.
- The **total number of accidents where at least one driver was over the alcohol limit** fell by 6% to 5,730 in 2017.

Follow @DfTStats

RESPONSIBLE STATISTICIAN:

Delphine Robineau

AUTHOR: Mike Dark

FURTHER INFORMATION:

Media: 020 7944 3021

Public: 020 7944 6595

Email: [roadacc.stats@dft.gov.uk](mailto:roadacc.stats@dft.gov.uk)

# Casualties in drink-drive accidents in 2017

The provisional central estimate of the number of deaths in accidents with at least one driver over the alcohol limit for 2017 is **290**. This represents about 16% of all deaths in reported road accidents in 2017. **The central estimate for 2017 is higher than the final figure for 2016, but the increase is not statistically significant.** The 95% confidence range indicates that we can be 95% certain that the **true figure, as opposed to the estimate, falls somewhere between 240 and 330 fatalities.**

The provisional estimate for 2017 is based on coroners' and procurators' fiscal reports for 28% of the drivers or riders who were killed in road traffic accidents in 2017 in addition to breath tests taken at the scene (see definitions opposite). The final figure for 2017 will be published in August 2019, and is likely to be based on around 60-70% of drivers who died in road accidents. Therefore the **final 2017 figure may be different from this provisional estimate.**

## Definitions

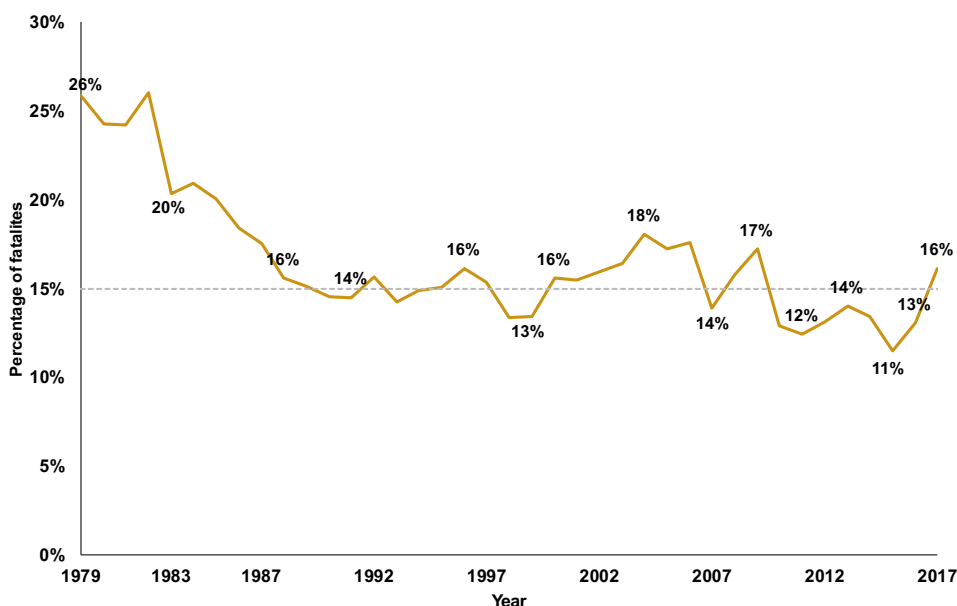
**Drink-drive accident:** A reported incident on a public road in which someone is killed or injured, where at least one of the motor vehicle drivers or riders involved met one of these criteria:

- failed a roadside breath test by registering above 35 micrograms of alcohol per 100ml of breath (in England and Wales) or 22 micrograms (in Scotland).
- refused to give a breath test specimen when requested by the police (other than when incapable of doing so for medical reasons).
- died, within 12 hours of the accident, and was subsequently found to have more than 80 milligrams of alcohol per 100ml of blood (in England and Wales) or 50 milligrams (in Scotland).

**Drink-drive casualties:** All road users killed or injured in drink-drive accidents.

A full list of the casualty definitions used in this release can be found [here](#).

**Chart 2: Fatalities in reported drink-drive accidents as a proportion of all fatalities: GB, 1979-2017**

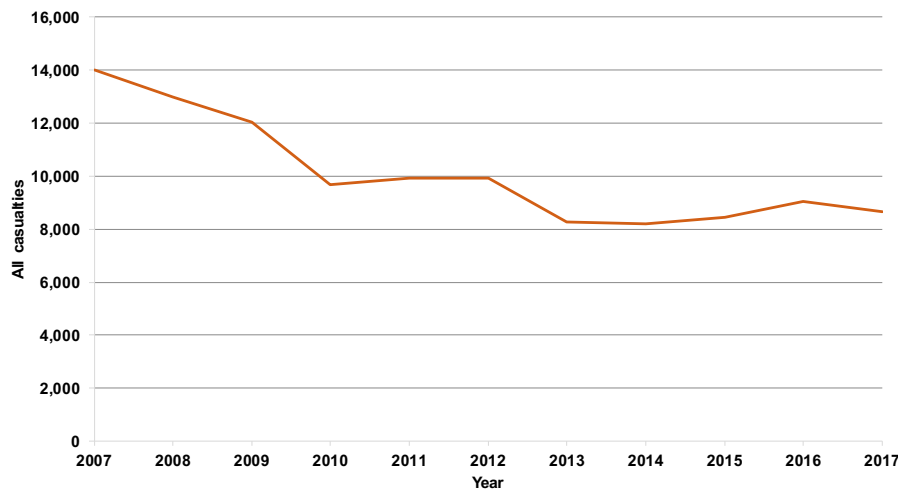


[RAS51001]

The prevalence of drink-driving in road deaths has fallen over time. In 1979, 26% of road deaths occurred in accidents where at least one driver/rider was over the drink-drive limit. This had fallen to 16% by 1988 and has varied around 15% since then.

The central estimate of the number of **drink-drive casualties of all severities** in 2017 is 8,660, a decrease of 4% on 2016. This is reverting to a similar level to 2015.

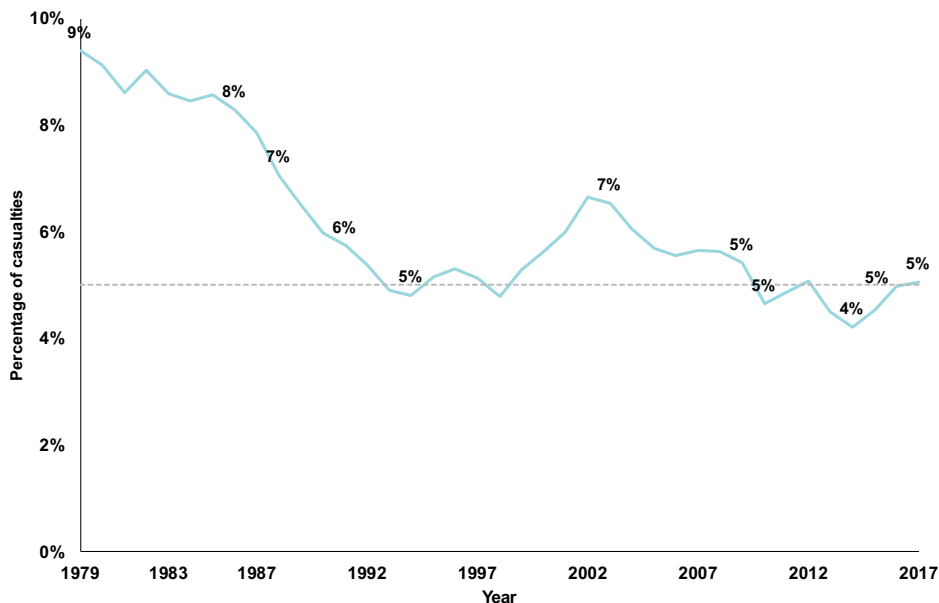
**Chart 3: Total casualties in reported drink-drive accidents: GB 2007-2017**



[RAS51001]

It is provisionally estimated that around 5% of all casualties in reported road accidents in 2017 were involved in accidents in which at least one driver or rider was over the drink-drive limit.

**Chart 4: Casualties in reported drink-drive accidents as a proportion of all casualties: GB. 1979-2017**



[RAS51001]

In 1979, 9% of road casualties occurred in accidents in which at least one driver/rider was over the drink-drive limit. This has fallen to 6% by 1990 and has mainly varied around 5% since then.

## Statistically significant

The **95% confidence level** is the standard against which statistics are typically tested. It means that in 100 years with the same risk of fatalities (or injury), 95 of those years will result in a number of fatalities (or injuries) between a given range. If the actual change falls outside of this range then we can be 95% confident that the change is as a result of a genuine trend (statistically significant) rather than a product of chance (not statistically significant).

## 95% confidence interval

The bars on chart 1 are ranges of values for an estimate which we are 95% confident that the 'true' value falls in.

Technically, it indicates that if many samples of the same population were drawn, 95% of the results would fall between the confidence interval values.

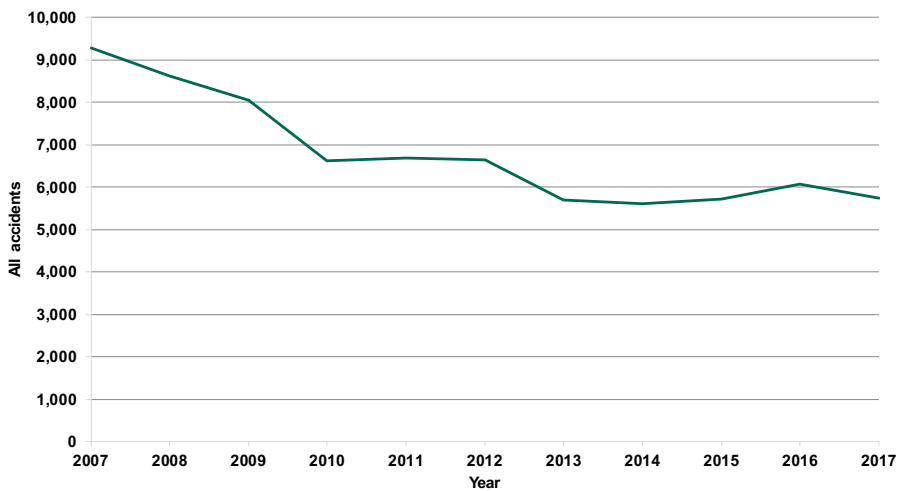
For instance, for 2017 we have an upper limit 330 fatalities and lower limit of 240. This means that we are 95% confident that the true number for 2017 will fall between these values, but most likely towards the centre of this range.

# Number of drink-drive accidents in 2017

There were an estimated 250 **fatal drink-drive accidents** in 2017. This is an increase from 220 in 2016, but is **not statistically significant**.

The **total number of drink-drive accidents** of all severities fell by 6% to 5,730 in 2017, reverting to levels seen between 2013 and 2015. This means that around 4% of all reported road traffic accidents in 2017 involved at least one driver/rider over the legal alcohol limit.

**Chart 5: Number of reported drink-drive accidents: GB 2007-2017**



[RAS51001]

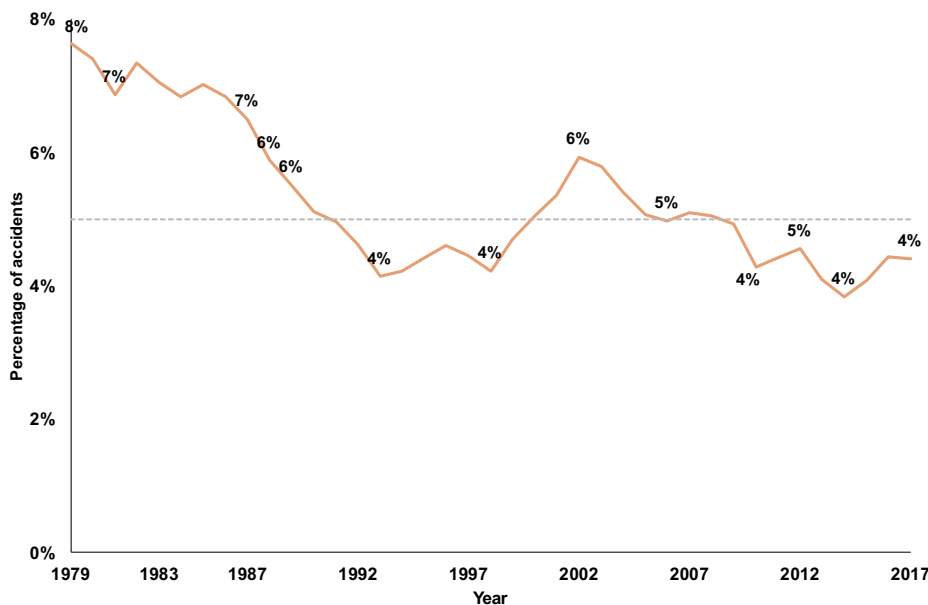
## Table published with this release

With this release, the headline table on drink-driving, [RAS51001](#), has been updated with provisional 2017 figures. It shows accidents and casualties by severity since 1979. The final update for 2017 will be published in August 2019.

## How do provisional estimates differ from the final estimates?

The provisional estimates have a wider range than the final estimates. This is because the provisional estimates are based on fewer toxicology reports (28% for this release) from coroners and procurators fiscal. The final estimates will be based on more reports and will, therefore, increase the accuracy of the results.

**Chart 6: Reported drink-drive accidents in comparison with overall reported accidents: GB, 1979-2017**



[RAS51001]

In 1979, 8% of reported road accidents were drink-drive. This has fallen to 6% by 1988 and has been generally around 5% since then.

## Reviewing the frequency and improving the timeliness of drink-drive estimates

We want to further improve the quality and timeliness of road safety data. Currently, provisional drink-drive estimates are released 14 months after the end of the year reported on (with a return rate around 30% from coroners), and final estimates are released 20 months after the end of the year (with a return rate around 60% from coroners).

The range of uncertainty associated with the lower return rate at the provisional stage means that it is very unlikely the provisional publication can detect significant changes in the underlying trends. Therefore the road safety team aims to reduce the number of drink-drive publications from two (one provisional in February and one final in August) to one, more timely, release.

The road safety team is working to allow the data collection from coroners to start earlier and more regularly based on Stats19 data. The aim is to improve the overall response rate and allow one publication of drink-drive estimates to be released in less than 20 months after the end of the year. This approach is currently being tested and progress will be reported on in the 2017 final publication in August 2019.

Feedback from users on this approach is welcome at [roadacc.stats@dft.gov.uk](mailto:roadacc.stats@dft.gov.uk).

## Background on legislation

The Road Safety Act 1967 introduced the first drink-driving limit in the UK, set at a maximum blood alcohol concentration of 80mg of alcohol per 100ml of blood (or the equivalent 107mg of alcohol per 100ml of urine). It became an offence to drive, attempt to drive or be in charge of a motor vehicle on a road or other public place with a BAC that exceeded the maximum prescribed legal limit. The 1967 Act also made it an offence to fail to provide a specimen for a laboratory test without reasonable excuse.

[The Transport Act 1981](#) introduced evidential breath testing and established a maximum breath alcohol concentration of 35 micrograms of alcohol in 100ml of breath. This was implemented in 1983. Today, people are given a preliminary breath test at the roadside and then taken back to the police station for an evidential breath test.

Drink-driving legislation has been strengthened over the years, including tougher penalties for offenders which can include potentially unlimited fines, disqualification from driving, or facing imprisonment for the most serious offences.

On 5 December 2014, Scotland reduced the legal BAC limit for all drivers from 80mg/100ml of blood to 50mg/100ml. The drink drive limit introduced by the 1967 Act remains in place for England and Wales today.

## Evaluation of changes to the drink-drive limit

An independent evaluation of the impact of the limit reduction in Scotland led by the University of Glasgow was [published in the Lancet](#) on 12 December 2018. This evaluation took advantage of the natural experiment created by the lowering of the legal blood alcohol limit in Scotland only and compared data on weekly road traffic accident rates and alcohol consumption (off and on sales data) between Scotland (the intervention group) and England and Wales (the control group). The study found that lowering the drink-drive limit was not associated with any reduction in total accident rates or serious and fatal accident rates, but that the change was associated with a small reduction in per-capita alcohol consumption from on trade alcohol sales.

## Strengths and weaknesses of the data

### Sampling uncertainty

Toxicology data are not available for all killed drivers / riders recorded in STATS19 and are typically available for around 60% to 70% of relevant cases (averaging 62% between 2011 and 2016) for final estimates. Provisional estimates for 2017 are based on 28% of relevant cases.

To account for the killed drivers without a known Blood Alcohol Content (BAC), the casualties from the known cases are scaled up. The estimates are therefore based on a sample, rather than a complete count, which introduces an element of uncertainty.

Due to the nature of the data used to create these estimates, **there is considerably more uncertainty in the number of fatalities and fatal accidents than any other severity level**. The reason for this is that 53% of fatalities in 2017 were motor vehicle drivers themselves.

### Under-reporting of road casualties

The estimates in this release are based only on those road accidents which are reported to the police. Comparisons of road accident reports with death registrations show that very few, if any, road accident fatalities are not reported to the police. However, it has long been known that a considerable proportion of non-fatal casualties are not known to the police. The data used as the basis for these statistics are therefore not a complete record of all personal injury road accidents, and this should be borne in mind when using and analysing the figures.

### Changes in systems for severity reporting

The 2016 and 2017 figures have been affected by a large number of police forces changing their reporting systems during the year which has had a large impact on the classification of non-fatal number of serious injuries recorded. Further details are in the [2017 Annual Report](#).

### Methodology details

A [methodology note](#) is available describing how the estimates are compiled from the sources.

### Next release

Updated 2017 final estimates for casualties in reported drink-drive accidents will be published in August 2019.

## Background information

National Statistics are produced to high professional standards as set out in the Code of Practice for Official Statistics. They undergo quality assurance reviews to ensure that they meet customer needs. The statistics were last assessed during 2013 and the report, [number 258](#), is available.

Details of Ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found [here](#).