

KSI Reported Road Casualties 2012: Analysis by Police Force Area

November 2013

This report presents an analysis of the DfT database of reported killed or seriously injured (KSI) road casualties for each of the four main modes, with a comparison of police force areas.

It is not clear who has the responsibility for monitoring figures, comparing policies, and drawing conclusions on best practice. We were unable to find any evidence of work being carried out by:

- Her Majesty's Inspectorate of Constabulary
- The Association of Chief Police Officers, or
- The Department for Transport.

Key Points

Pedestrian KSI casualties: (page 2) The three worst rates per head of population were in

- Merseyside (58% above the GB average)
- London
- West Midlands

Child pedestrian KSI casualties: (page 3) The three worst rates were in

- Grampian (double the GB average)
- West Midlands
- Cleveland

Cyclist KSI casualties: (page 4) The three worst rates were in

- Surrey (double the GB average)
- Dorset
- Hampshire

Child cyclist KSI casualties: (page 5) The three worst rates were in

- Merseyside (three times the GB average)
- Nottinghamshire
- South Yorkshire

Motorcyclist KSI casualties: (page 6) The three worst rates were in

- North Yorkshire (85% above the GB average)
- Hampshire
- Cheshire

Car occupant KSI casualties: (page 7) The three worst rates were in

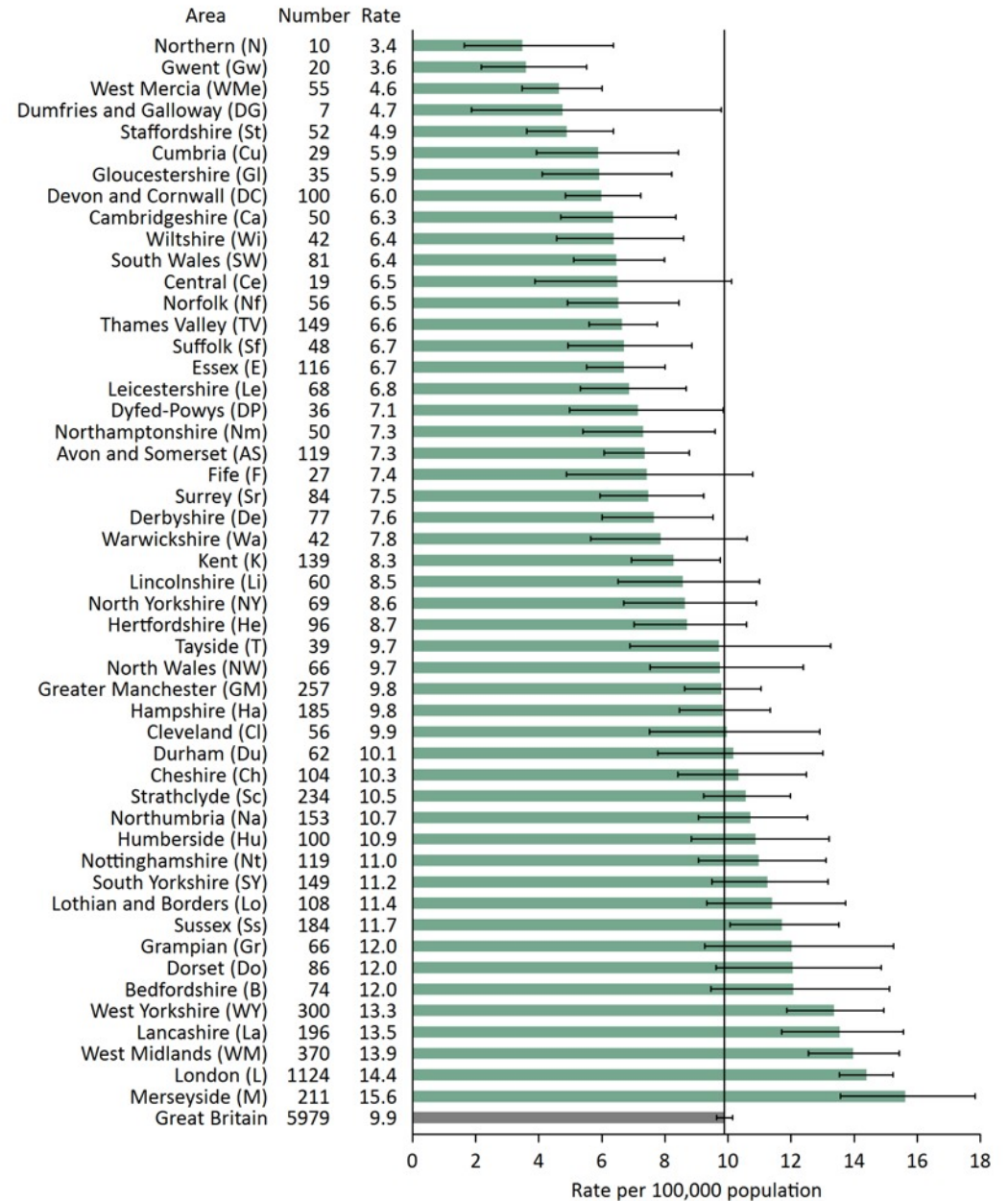
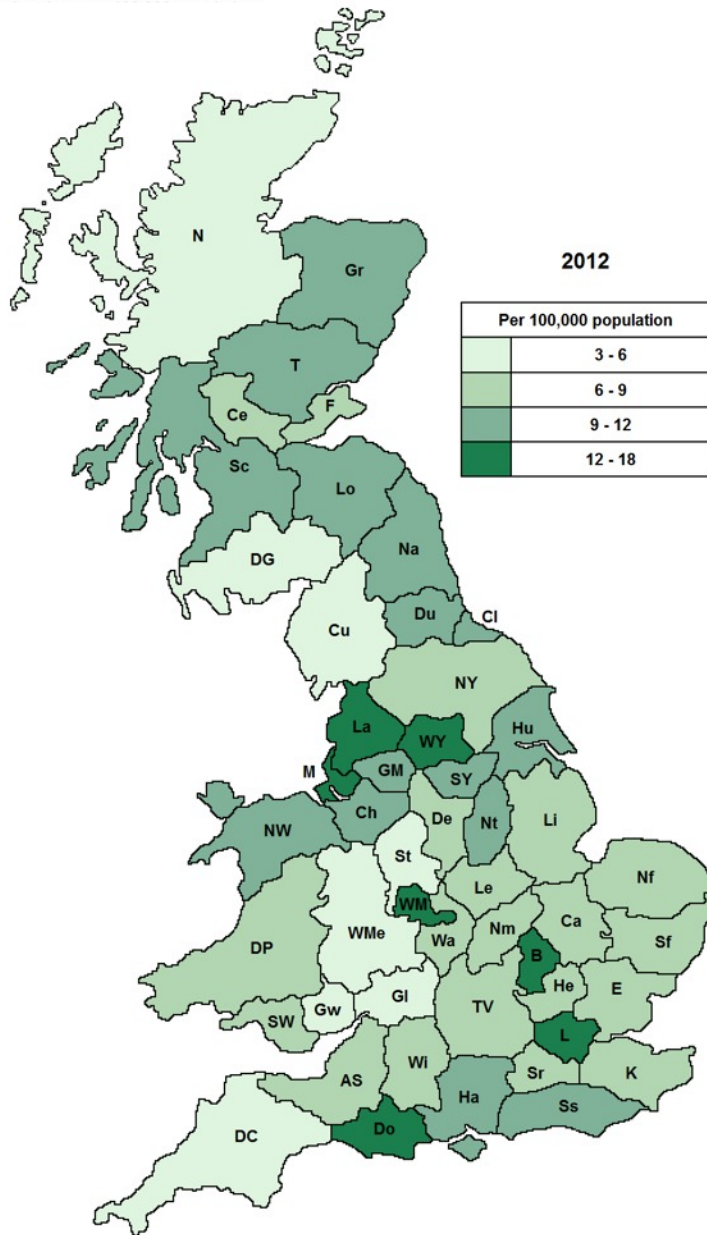
- Dyfed-Powys (two and a half times the GB average)
- Grampian
- Dumfries and Galloway

The **methodology and sources** and other notes are on page 8.



Pedestrians (all ages)

Pedestrian KSI Casualties Reported in 2012 by Police Force Area

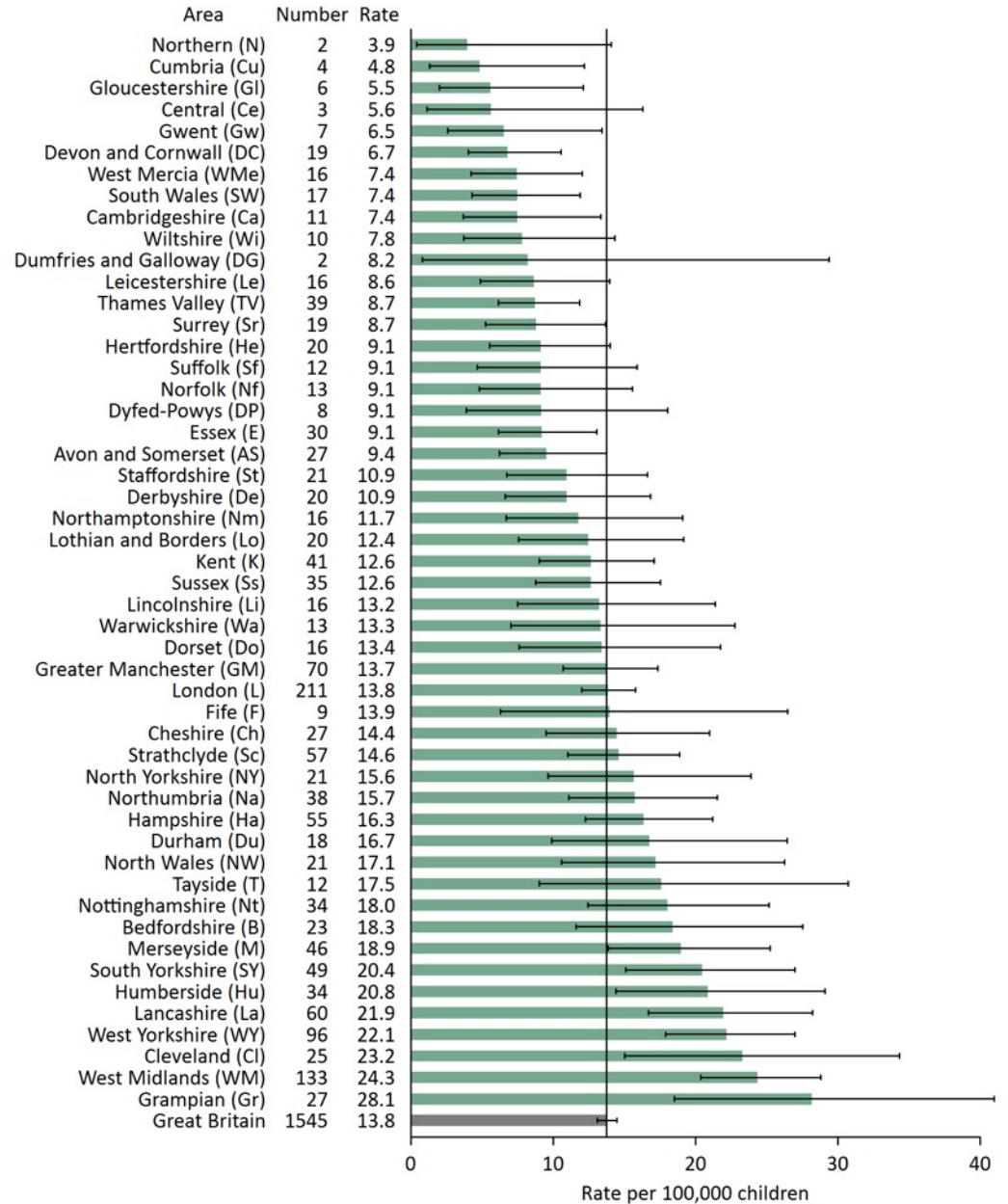
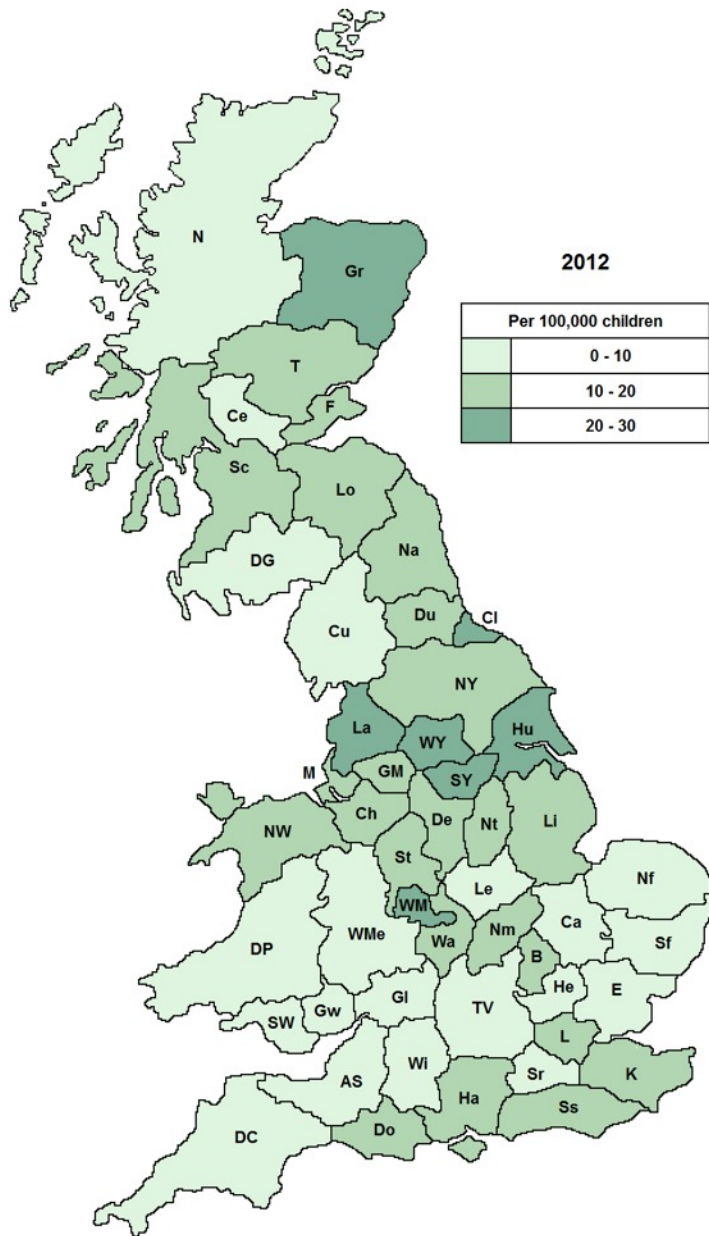


The 'error bars' show the 95% confidence intervals for the underlying risk - see final page.



Child Pedestrians (0 - 15 years)

Child Pedestrian KSI Casualties Reported in 2012 by Police Force Area

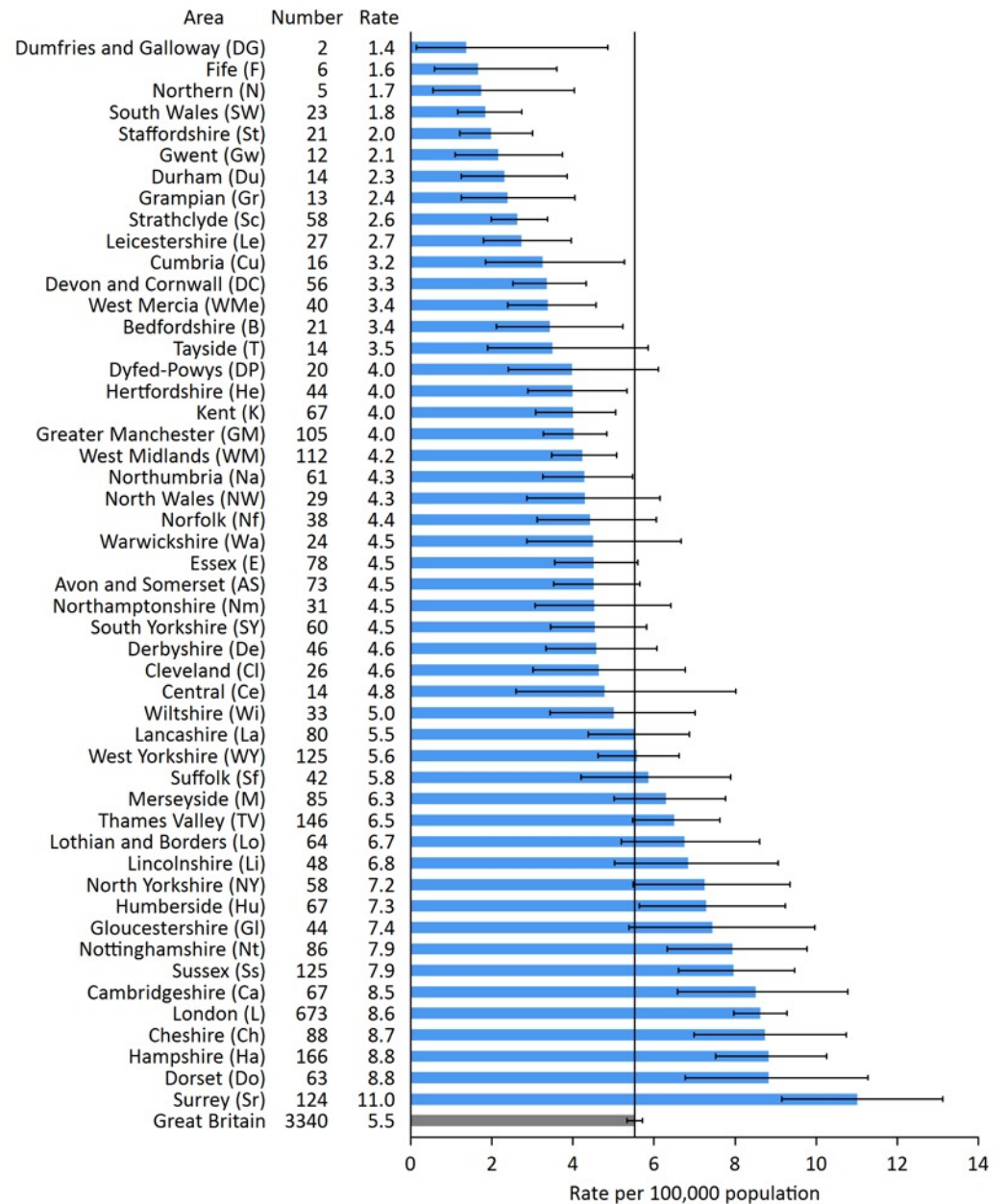
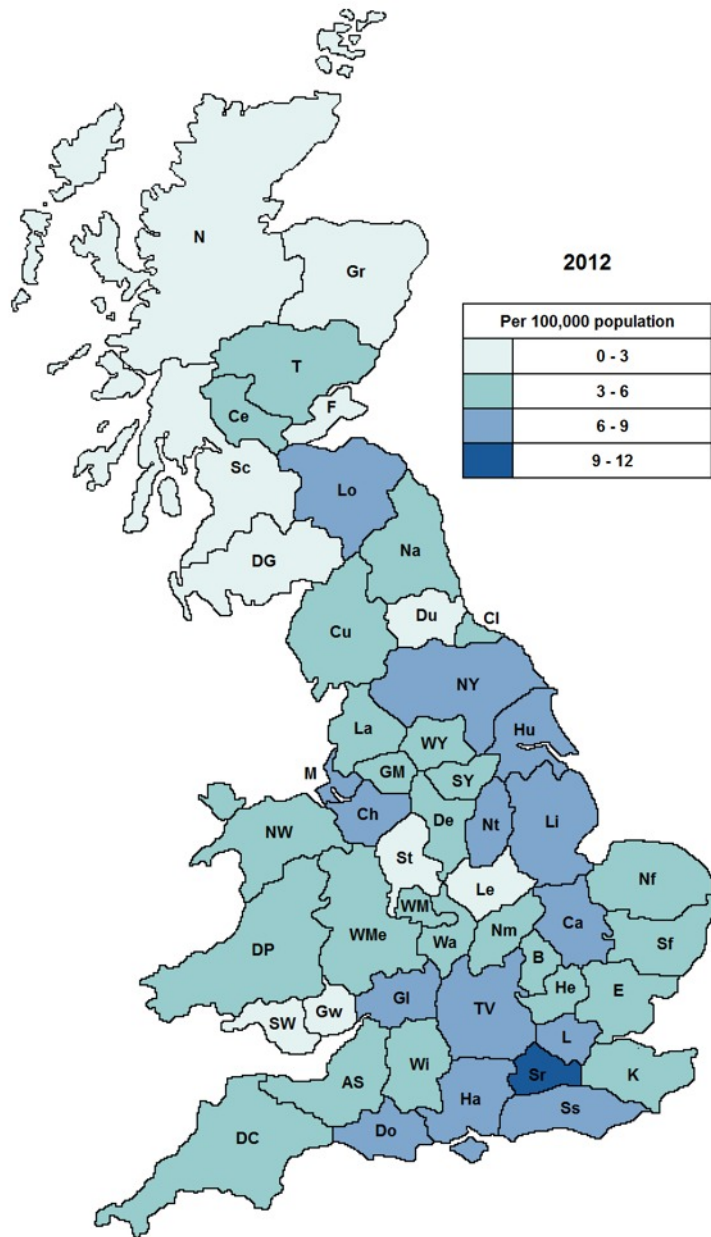


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Cyclists (all ages)

Cyclist KSI Casualties Reported in 2012 by Police Force Area

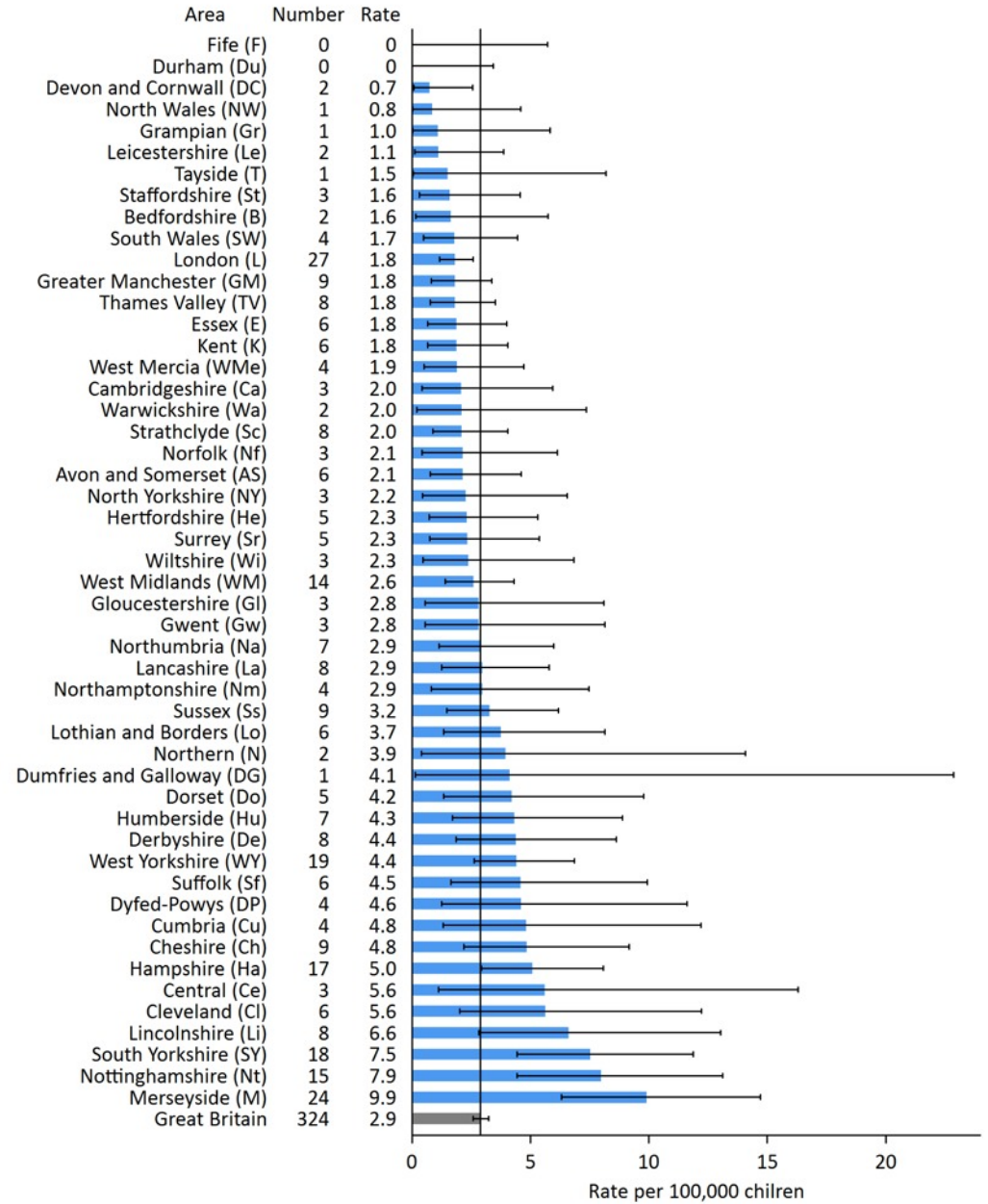
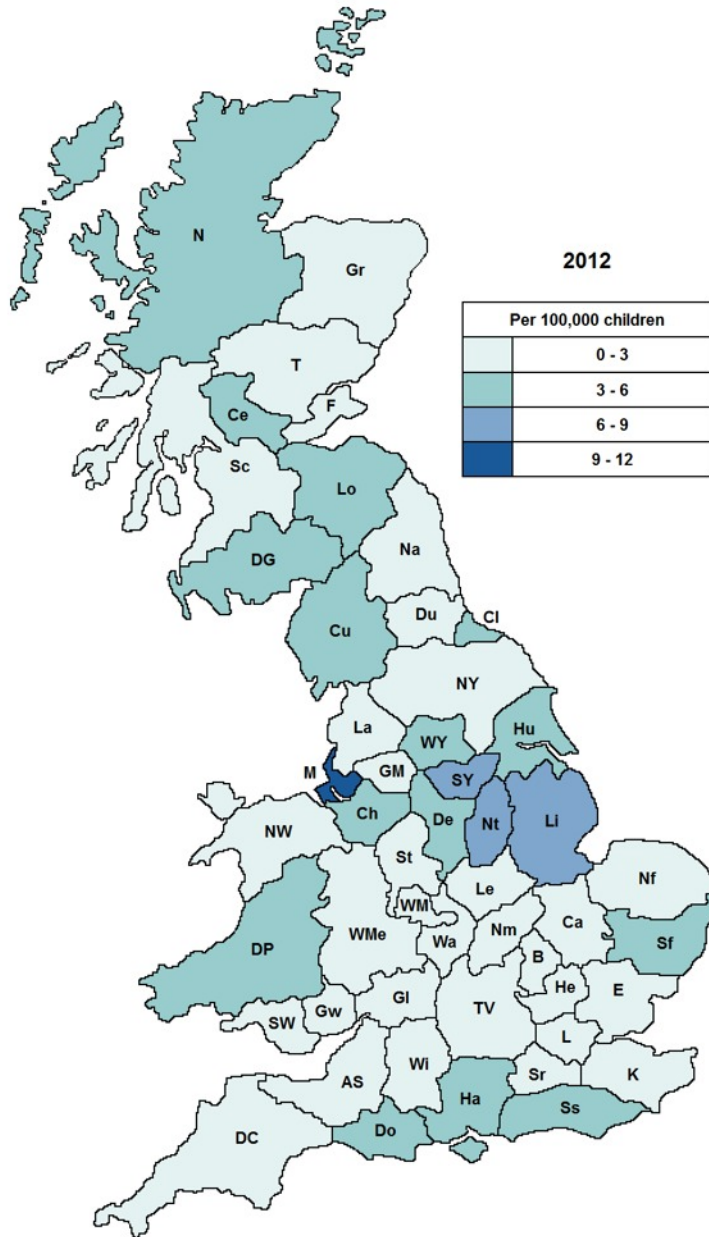


The 'error bars' show the 95% confidence intervals for the underlying risk - see final page.



Child cyclists (0 - 15 years)

Child Cyclist KSI Casualties Reported in 2012 by Police Force Area

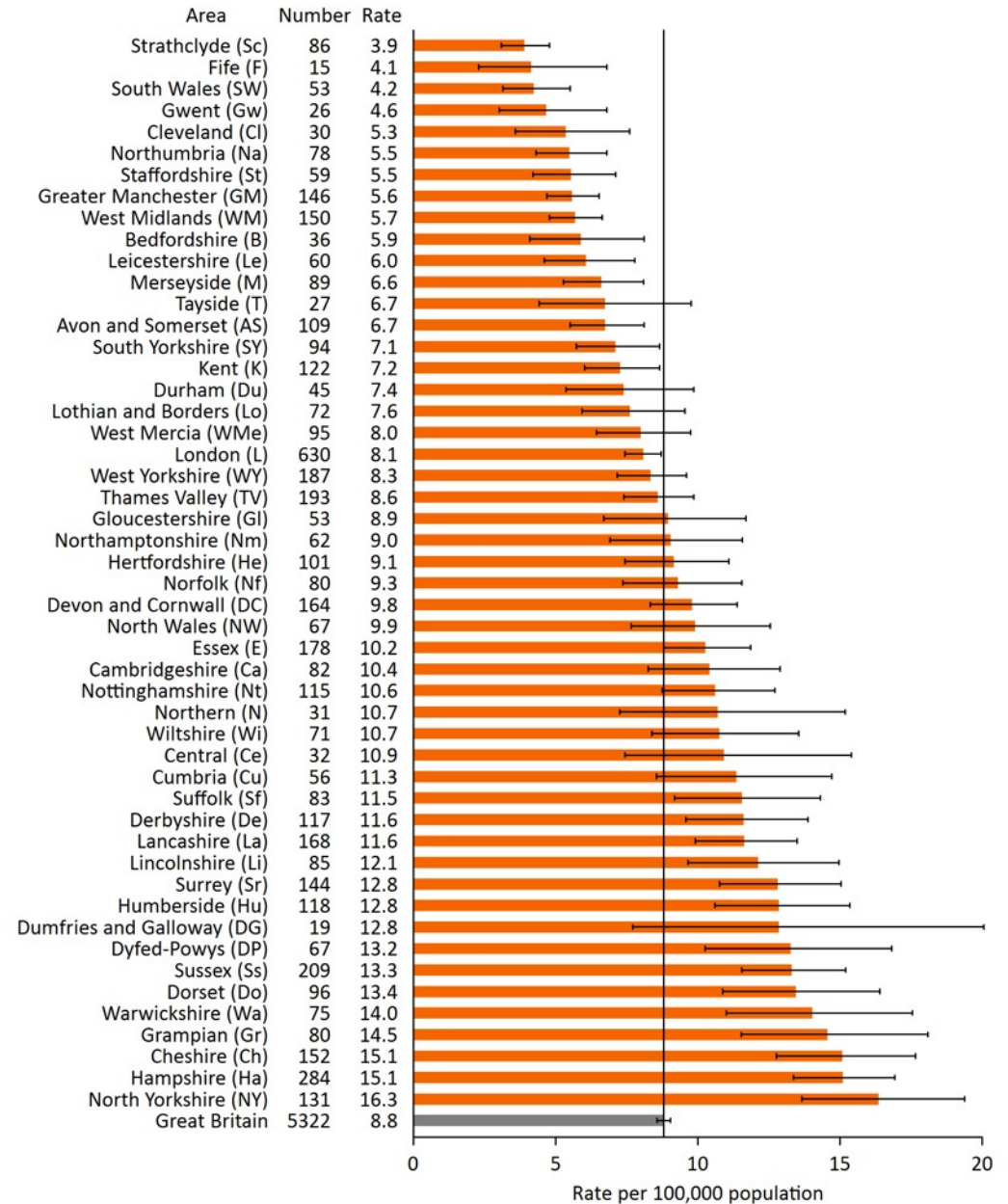
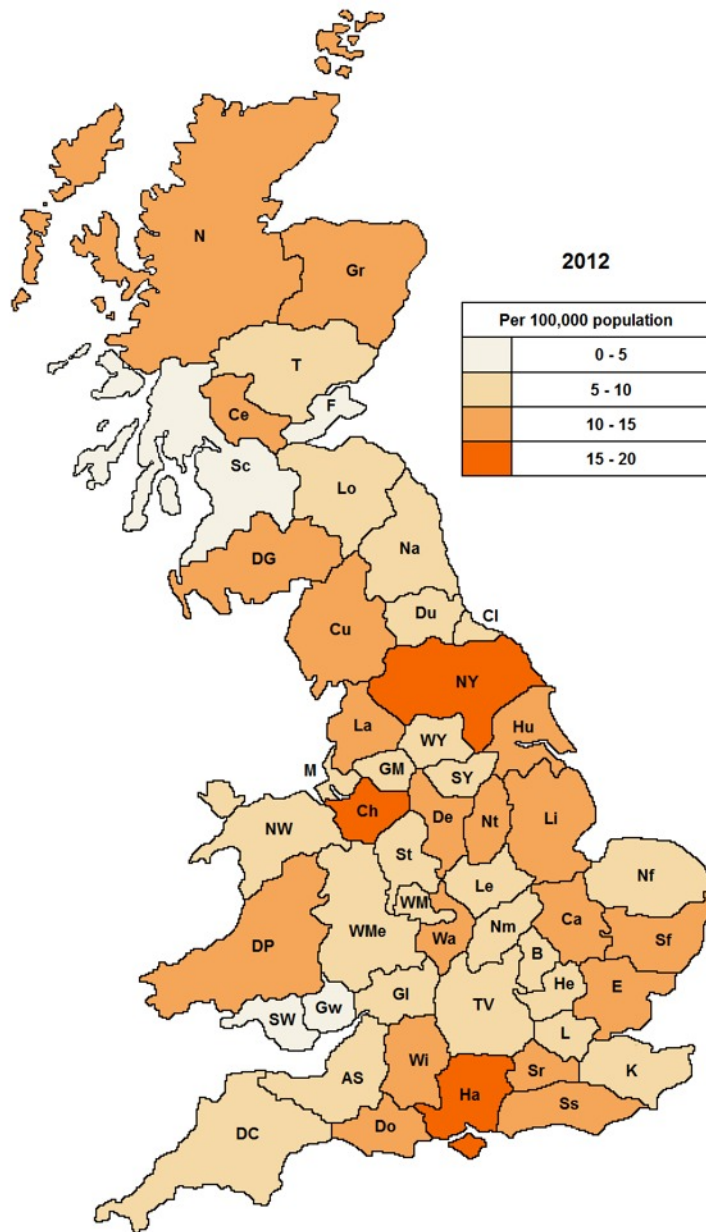


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Motorcyclists

Motorcyclist KSI Casualties Reported in 2012 by Police Force area

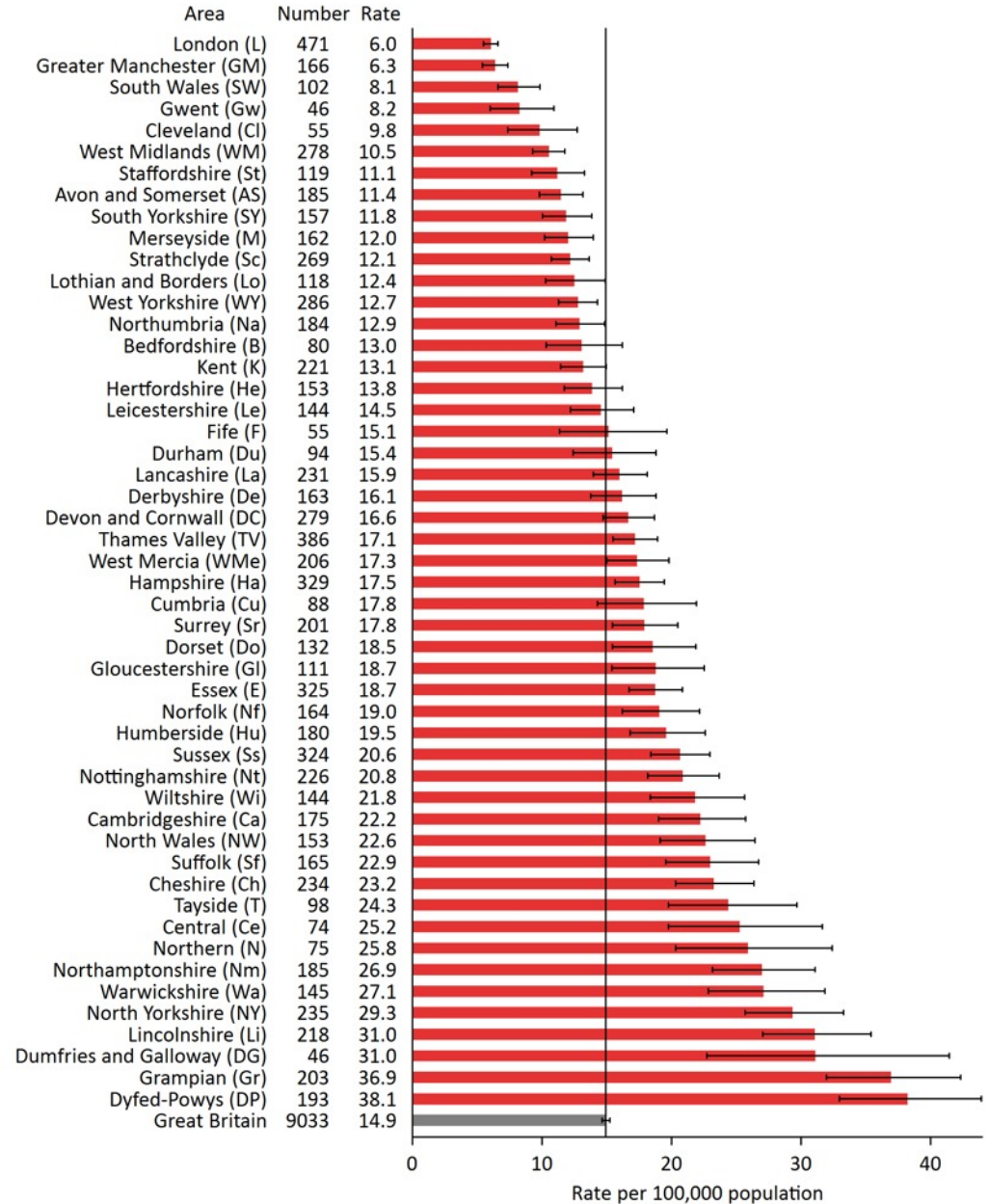
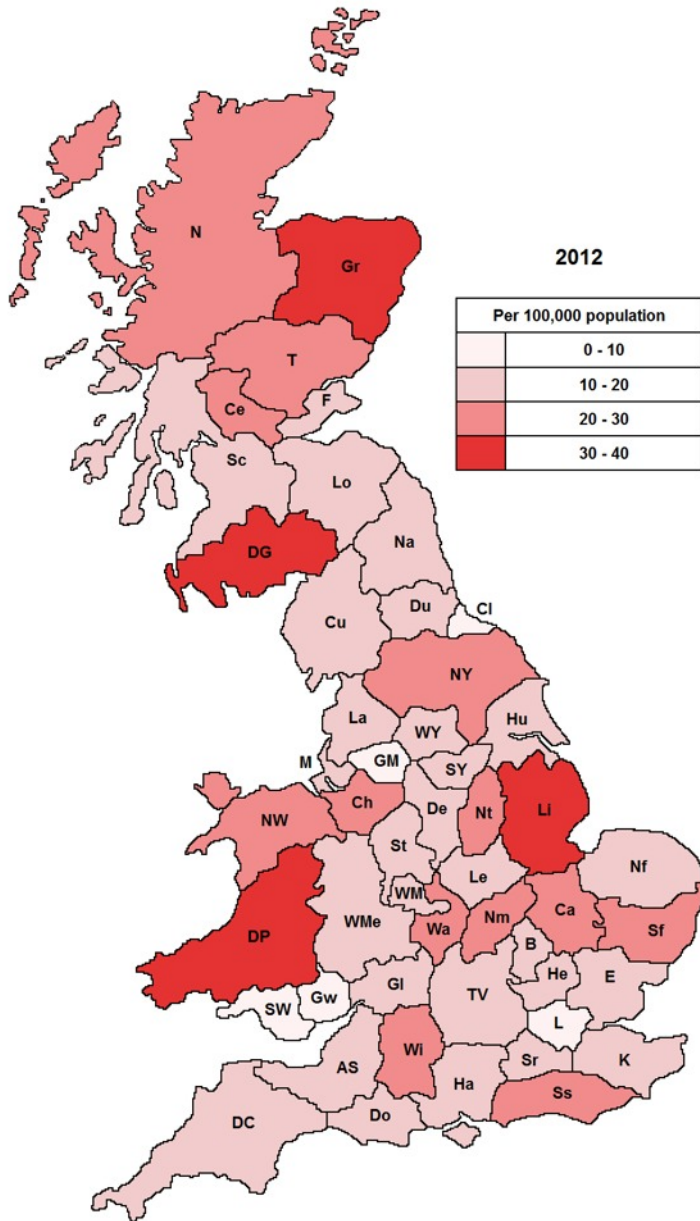


The 'error bars' show the 95% confidence intervals for the underlying risk - see final page.



Car occupants

Car Occupant KSI Casualties Reported in 2012 by Police Force area



The 'error bars' show the 95% confidence intervals for the underlying risk - see final page.

Methodology

The analyses were carried out on the STATS19 database of reported road collisions and casualties that is collected by police forces and published by the DfT [1]. The 2012 DfT annual report [2] does not contain analyses by police area, but Table RAS30043 [3] [4] gives the numbers of KSI casualties for each highway authority, from which police area totals can be obtained.

It is thought that almost all road deaths are reported, but only about one third of serious injuries are reported [5].

Population data, for calculation of the rates per 100,000 was taken from Office for National Statistics data [6].

"Car occupants" in these analyses comprise car drivers, car passengers, taxi/private hire car occupants, and minibus (8 - 16 passenger seats) occupants, in line with DfT practice. "Children" are those aged less than 16 years.

The London totals were obtained by combining the numbers for the Metropolitan Police and the City of London Police. This gives an area that is the same as the Transport for London area except that the latter does not include Heathrow Airport.

Confidence Intervals

The bar charts in this report show the 95% confidence intervals for the underlying risk. They indicate the size of the random year-to-year variation that occurs in road casualty numbers even when road risks are unchanged. They are necessary when comparing different places, or when comparing the same place at different times. This is because they indicate whether a difference is statistically significant or within random variation.

Road casualties do not occur at a regular fixed interval, but are randomly distributed over time. So even when road risks are unchanged, the number of road casualties in a year (or other period) will *still* vary. The 95% confidence interval indicates the size of this random variation. When comparing different places via bar charts, if the confidence intervals do not overlap, it is highly likely that the difference in the rate of casualties reflects a real difference in risk. Further explanation is available on the Travel Independent website [7].

References

- [1] <http://data.gov.uk/dataset/road-accidents-safety-data/>
- [2] <https://www.gov.uk/government/publications/reported-road-casualties-great-britain-annual-report-2012>
- [3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/244917/rrcgb-2012.zip
- [4] <http://www.travelindependent.org.uk/files/ras30043.xls>
- [5] *Survey data on road traffic accidents* article of Reported Road Casualties Great Britain: 2010 Annual report
<http://webarchive.nationalarchives.gov.uk/20120104201631/http://www.dft.gov.uk/statistics/releases/road-accidents-and-safety-annual-report-2010/>.
- [6] <http://www.travelindependent.org.uk/files/table-8-local-authority-selected-ages-2010.xls>
- [7] http://www.travelindependent.org.uk/confidence_intervals.html