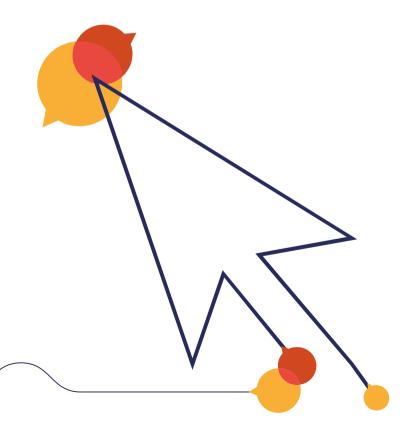


# Identifying Accidental harms



Date: 05/11/2019. Report for RoSPA Neil Pollock and Graham Kirkwood With Allyson M. Pollock





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# Introduction: Collecting data on Accidents in the UK

This research analyses a range of core data sets on accidents to key age groups in the home and on the road. The 0-4, 17-25 and over 65 age groups are highlighted in RoSPA's national strategy to prevent accidental injury from 2018<sup>1</sup>. We have updated trends and figures for each of these key age groups to provide data about relevant accidents for the four years from 2015-2018/19.

Injuries in the home affect all age groups but are particularly important for young children and older people. In a large-scale multi-centre study Kendrick and colleagues found home safety interventions were effective in increasing the use of smoke alarms and stair gates, and in promoting safe hot tap water temperatures, fire escape planning and storage of medicines and household products in addition to reduced baby walker use<sup>2</sup>. Falls, scalds and poisonings in under 5-year olds are also known to be costly to both NHS and individual families<sup>3</sup>. Falls from furniture are a particular issue for young children in the home with many amenable to injury prevention intervention to change parental behaviour.<sup>4</sup>

Adults over the age of 65 years living at home are estimated to have on average at least one fall a year<sup>5</sup>. These can be caused by balance problems, poor eyesight and long term health conditions as well as environmental factors such as loose rugs or carpets. <sup>6</sup>NICE guidelines identify falls in people aged 65 years and over as a major health issue and urge health professionals to carry out multifactorial assessments including a detailed falls history and medication review. <sup>7</sup>

Injury and death from road traffic collisions are a major issue in young people and older people. In the UK, drivers under the age of 26 years and those over the age of 76 years are more likely to be deemed to be at blame for a collision<sup>8</sup>. Young drivers have been found to "specialise" in loss of control accidents, more so than even the oldest of drivers. Older drivers, particularly those over 70 years were most likely to be involved in a collision involving a "right of way violation"<sup>9</sup>.

The data sources analysed in this research are described below:



<sup>&</sup>lt;sup>1</sup> RoSPA October 2018, 'Safe and Active at all Ages: A national Strategy to Prevent Serious Accidental injuries in England'

<sup>&</sup>lt;sup>2</sup> Kendrick D, Ablewhite J, Achana F, al. e. Keeping Children Safe: a multicentre programme of research to increase the evidence base for preventing unintentional injuries in the home in the under-fives. NIHR Volume 5 Issue 14. July 2017.

<sup>&</sup>lt;sup>3</sup> Cooper NJ, Kendrick D, Timblin C, Hayes M, Majsak-Newman G, Meteyard K, et al. The short-term cost of falls, poisonings and scalds occurring at home in children under 5 years old in England: multicentre longitudinal study. Injury prevention: journal of the International Society for Child and Adolescent Injury Prevention. 2016;22(5):334-41.

<sup>&</sup>lt;sup>4</sup> Kendrick D, Maula A, Reading R, Hindmarch P, Coupland C, Watson M, et al. Risk and protective factors for falls from furniture in young children: multicenter case-control study. JAMA Pediatr. 2015;169(2):145-53.

<sup>&</sup>lt;sup>5</sup> NHS. Falls. Available from: https://www.nhs.uk/conditions/falls/.

<sup>&</sup>lt;sup>6</sup> NHS. Falls. Available from: https://www.nhs.uk/conditions/falls/.

<sup>&</sup>lt;sup>7</sup> National Institute for Health and Care Excellence (NICE). Falls in older people: assessing risk and prevention. Clinical Guideline 161. June 2013 June 2013.

<sup>&</sup>lt;sup>8</sup> Clarke DD, Ward P, Bartle C, Truman W. Killer crashes: fatal road traffic accidents in the UK. Accid Anal Prev. 2010;42(2):764-70.

<sup>&</sup>lt;sup>9</sup> Clarke DD, Ward P, Bartle. C, Truman W. ibid



- 1. NHS Digital Hospital Episode Statistics Hospital Admitted Patient Care Activity England: External Causes
- Routinely collected from all NHS admitted patients to hospitals across England from the financial year
   eg. 2018/19 figures collected from 31 March 2018 until 31 March 2019
- Uses ICD10 codes to categorize injury. Past 4 years all available.

https://digital.nhs.uk/data-and-information/publications/statistical/hospital-admitted-patient-care-activity

# 2. Office for National Statistics – Deaths Registered in England and Wales

- ONS centrally collects data for all registered deaths from local authorities in England and Wales in a calendar year.
- Uses ICD10 coding, past 4 years all available.

https://www.nomisweb.co.uk

#### 3. National Records of Scotland - Vital Events Reference Tables: Deaths, causes

- Collects all deaths registered by medical professionals across Scotland in a calendar year.
- Uses ICD10 coding, past 4 years all available

https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/vital-events-reference-tables

### 4. Northern Ireland Statistics and Research Agency – Births, Deaths and Marriages: Cause of Death

- Collects all deaths registered in Northern Ireland in a calendar year.
- Uses ICD10 coding, past 4 years all available

https://www.nisra.gov.uk/publications/registrar-general-annual-report-2016-cause-of-death

#### 5. Public Health England fingertips tool

- Collects data on hospital admissions across England, broken down by areas or regions of England. Information on socio-economic inequalities in relation to injuries.
- Uses NHS Digital HES data (ICD-10) and Department for Transport STATS19 Police data. Different dates used, generally between 2015-16 and 2017-18

https://fingertips.phe.org.uk/

6. Department for Transport – Road Accidents and safety Statistics: Reported Road Casualties Great Britain





- STATS19 police data collected by police at road traffic accidents, collated centrally by DfT.

https://www.gov.uk/government/collections/road-accidents-and-safety-statistics

# 7. Home Office - Fire Statistics: Fatalities by Age, gender and type of location, England

- Collected for fire service for fires attended across the country
- Available for each of past four years.

https://www.gov.uk/government/collections/fire-statistics-great-britain

#### 8. Trauma Audit Research Network data, Oxford University Hospitals NHS Foundation Trust

Data on severe injury leading to hospital admission under Trauma and Audit Research Network (TARN) criteria to the Oxford University Hospitals NHS Foundation Trust hospitals from 1 January 2012 to 24 Jan 2015 were obtained from the Oxford University Hospitals' Trauma and Audit Research Network (TARN) database.

https://www.tarn.ac.uk/

#### 9. Royal College of Emergency Medicine Oxfordshire Accident & Emergency

 Injury data were collected from 1 January 2012 to 30 March 2014 from patients attending the emergency department (ED) receptions of the John Radcliffe Hospital in Oxford and the Horton General Hospital in Banbury by clerical staff

#### 10. Rospa National Accident Prevention Strategy 2018

- Extensive Research on Accidents and relevant areas





# Accidents nationwide since 2015: Key trends

In 2018, there were 15538 deaths in England and Wales from accidents – an average of 14490 a year since 2015. This was an increase of 9.5% since 2015 when there were 14001 accidental deaths. The mortality rate for all accidents also increased from 24.2 per 100,000 in 2015 to 26.3 per 100,000 in 2018.

100,000 Pupulation Numbers per Rates Accidental Deaths: numbers Accidental Deaths: rates per 100,000

Figure 1: Deaths from Accidental Injury all ages England & Wales 2015-18

Source: ONS 2015-2018: Deaths registered in England and Wales. Accidental deaths - ICD10 codes V01-X59, Y85, Y86

Hospital admissions in England from accidents have also risen each year since 2015, with the largest increase in Finished Consultant Episodes (FCEs)<sup>10</sup> from 14426 to 15538 (3.7%) from 2017/18 to 2018/19.

<sup>&</sup>lt;sup>10</sup> NHS Digital HES data measure hospital admissions in 'Finished Consultant Episodes' (FCEs). Each episode relates to a period of care for a patient under a single consultant at a single hospital. This counts the number of episodes of care for admitted patients rather than the number of patients, which may affect the figures for different categories.





The rate of admissions for accidental injury per 100,000 population has risen consistently by a total of 7% from 1448 in 2015-16 to 1548 in 2018-19.

1000000 1800 1600 800000 1400 1200 600000 1000 rates 800 400000 600

Figure 2: Hospital Admissions from Accidental injuries, England 2015-19 (FCEs)

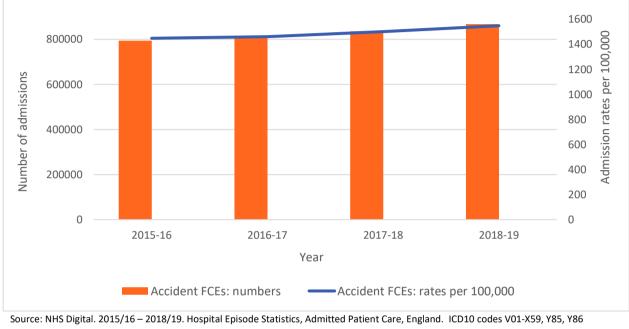
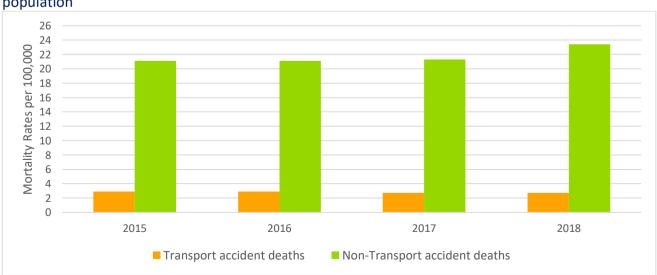


Figure 3 shows transport accident mortality rates have slightly fallen from 2.9 to 2.7 per 100,000 population in England and Wales since 2015, while deaths from other accidents likely to have occurred in the home, at work or during leisure activities have steadily risen from 21.3 per 100,000 to 23.4 per 100,000.

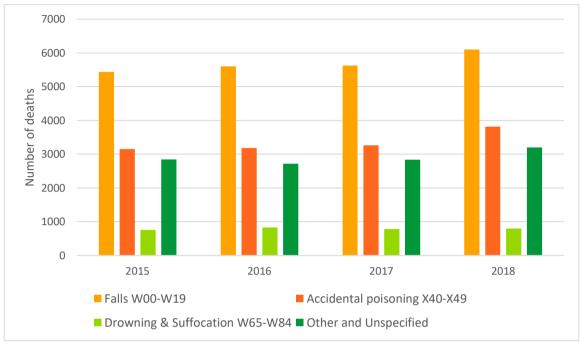






Source: Office for National Statistics 2015-2018: Deaths registered in England and Wales.

Figure 4: Number of non-transport Accidental deaths England & Wales 2015-18: significant causes

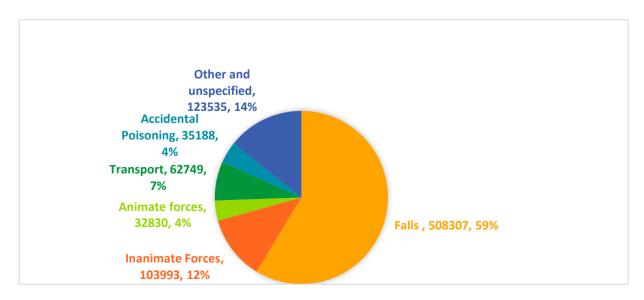


Source: Office for National Statistics 2015-2018: Deaths registered in England and Wales.

Falls are the largest cause of accidental deaths, rising by 12.2% from 5438 to 6103 between 2015 and 2018. Accidental Poisonings continue to increase, causing 3199 deaths in 2018.

Major Causes of accidental injury differ slightly from deaths, these can be seen in figure 5. Falls were 59% of all admissions while exposure to inanimate forces are the second largest cause of accidental injury - this includes being struck by, cut, or caught between objects, machinery and equipment.

Figure 5: Leading causes of Hospital Admissions in England 2018-19 (FCEs), numbers and % of all causes







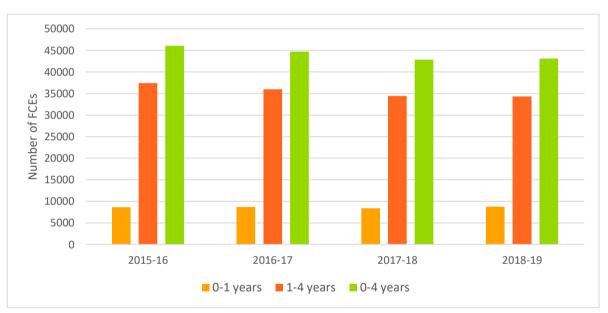
Source: NHSDigital. 2015/16 -2017/18. Hospital Episode Statistics, Admitted Patient Care, England. V01-V99, W01-W19, W20-W49, W50-W64

# Section 1: Under 5-year olds in the home

# **Trends since 2015**

Under 5s have been identified as a key focus of research on accidents. Since 2015, there has been a decline in hospital admissions for accidents to 0-4 year olds. The overall reduction of 6.5% from 46073 in 2015-16 to 43087 episodes in 2018-19 is in the 1-4 age group with a small rise in the <1 years age group to 8755 in 2018-19.

Figure 6: Number of admissions for Accidental injuries in 0-4 years England since 2015 (FCEs)



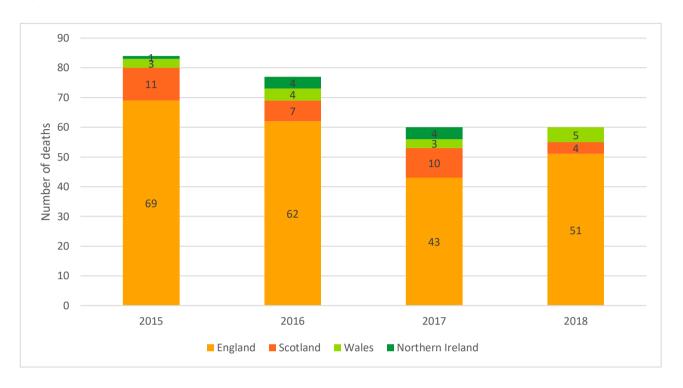
Source: NHS Digital. 2015/16 –2017/18. Hospital Episode Statistics, Admitted Patient Care, England.

Deaths from accidents in under 5s have also decreased since 2015, despite a rise in England in 2018 from the previous year. Figures for Northern Ireland in 2018 were unavailable.





Figure 7: Number of accidental deaths in 0-4 year olds – England, Wales and Scotland combined 2015-18



Sources: combines 1) Office for National Statistics 2015-18: Deaths registered in England and Wales. 2) National Records of Scotland 2015-18: Deaths registered in Scotland - Causes. 3) Northern Ireland Statistics and Research Agency 2015-17: Deaths registered in Northern Ireland - Causes

Table 1 shows that in children aged 0-4, mortality and hospital admissions rates per 100,000 population in under 5s have continued to fall since 2015. Mortality rates have dropped by almost a quarter in this period.

Table 1: Mortality and Hospital Admission rates for Accidents 0-4 years - rates per 100,000 population

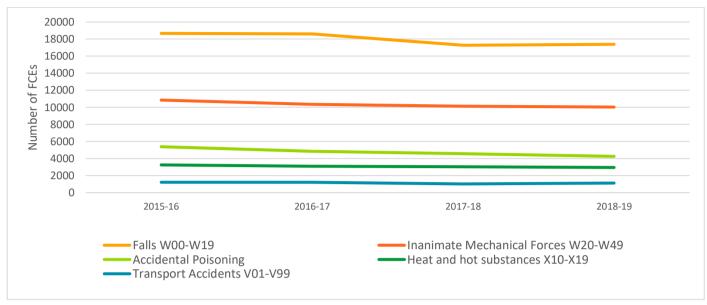
0-4 years	2015	2016	2017	2018
Mortality Rate UK: per 100,000	2.1	1.9	1.5	1.6
Hospital FCE Rate England: per 100,000	1340	1303	1267	1287

Sources: combines 1) Office for National Statistics 2015-18: Deaths registered in England and Wales 2) National Records of Scotland 2015-18: Deaths registered in Scotland. 3) Office for national Statistics 2015-18: Population statistics





Figure 8: Leading causes of Hospital admissions England for under 5s since 2015, number of FCEs

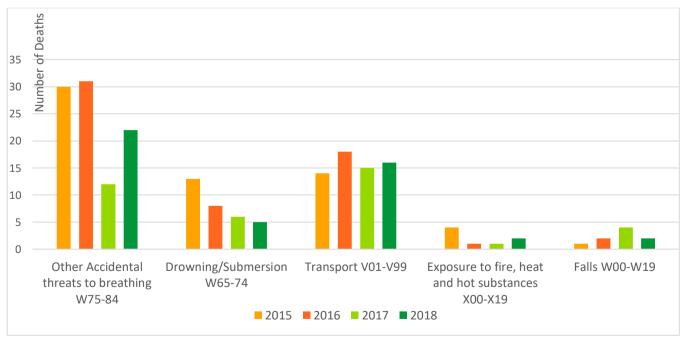


Source: NHS Digital HES – Hospital Admitted care Activity 2015-18.

Figure 8 shows falls as the main cause of hospital admissions for 0-4 years, causing 17374 in 2018-19.

Yet, as figure 9 shows, accidental deaths in under 5s are caused mainly by drowning/submersion, suffocation/threats to breathing and transport accidents.

Figure 9: Leading causes of deaths in 0-4 years in England and Wales since 2015



Source: Office for National Statistics, 2015-18 Deaths Registered in England and Wales





# **Accidents in the Home:**

Data sources make it difficult to establish the location of injuries. Trauma Audit and Research Network (TARN) data, collected from Oxford University Hospitals NHS Foundation Trust from 1st January 2012 to 24th January 2015, found that 24 of the 61 serious traumatic injuries recorded to under 5s occurred within the home.

Within this, the frequency and severity of injuries in each location in or around the home were recorded.

Table 2: Location of accidental injury in the home, Oxford University Hospitals NHS Foundation trust

Location in the home	Number	Mean injury severity
	injured	score
Garden	5	12.2
Bedroom	4	16
Lounge	3	9
Driveway / Parking outside home	2	38.5
Stairs	1	16
Bathroom	1	25
Hall	1	9
Unknown	7	14.1
Grand Total	24	15.8

Source: Oxford University Hospitals NHS Foundation Trust's Trauma and Audit Research Network (TARN) database, 1 January 2012 to 24 Jan 2015

In addition to this, data collected between 1 January 2012 to 30 March 2014 from the Emergency Department (ED) Reception of the John Radcliffe Hospital in Oxford and the Horton General Hospital in Banbury by clerical staff, found that 2805 of 3972 unintentional injuries for under 5s occurred in the home (70.6%).

#### **Falls**

Falls are the largest cause of accidental injury for 0-4 year olds. In England in 2018-19, these were 40% of all FCEs for the age group. Falls in under 5s are far more likely to be from furniture than other age groups as Table 3 shows. This often results in more serious injury – HES data found that falls





from furniture categories<sup>11</sup> have an average mean length of stay of 5 days compared to the 3.53 days for all other falls.

Table 3: Hospital Admissions, Falls from furniture in 0-4 years England 2018-19

Age	Falls from furniture (% of all falls)	All Falls
0-4	4495 (25.6%)	17374
5-16	1450 (5.2%)	28034
17-24	269 (2.4%)	11413
25-64	4274 (4.1%)	104467
<i>65+</i>	30864 (8.9%)	345509
All Ages	41496 (8.2%)	508307

Source: NHS Digital HES – Admitted Patient Care Activity 2018/9

Figure 10: Hospital Admissions, falls from furniture in under 5s England 2018/19 (FCEs)



Source: NHS Digital HES data – Admitted Patient Care Activity 2018/9

Oxford Emergency Department Data also showed that low falls from under 1 metre were 50.3% of all unintentional injuries to under 5s compared to high falls from over 1 metre only 4.8% of all accidental injuries.

<sup>&</sup>lt;sup>11</sup>Falls from furniture W06-W08 frequently categorised in ICD codes, see Public Health England report November 2018: 'Reducing unintentional injuries in and around the home among children under five years: Report for East Midlands region'



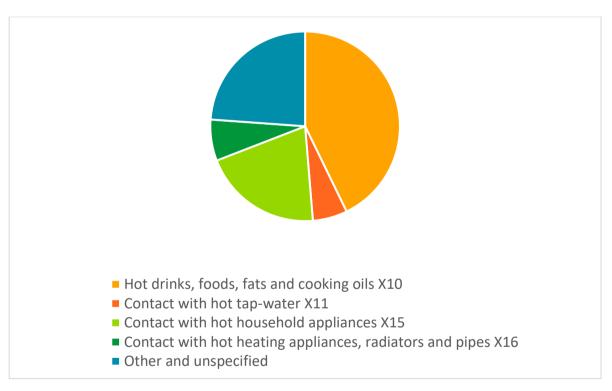


#### **Burns and Scalds**

Burns and scalds are one of the main dangers to under 5s in the home. In 2018-19, 2947 (37.6%) of the 7841 Admissions from exposure to heat and hot substances were for 0-4 years.

Data indicates the location of burns and scalds is in or around the home. 43% of FCEs for burns and scalds in under 5s in 2018-19 were from exposure to hot drinks, foods, fats and cooking oils and 20% for contact with hot household appliances.

Figure 11: Causes of admissions from burns and scalds in under 5s in and around the home, England 2018/19 (number of FCEs)



Source: NHS Digital HES Admitted Patient Care Activity 2018/19

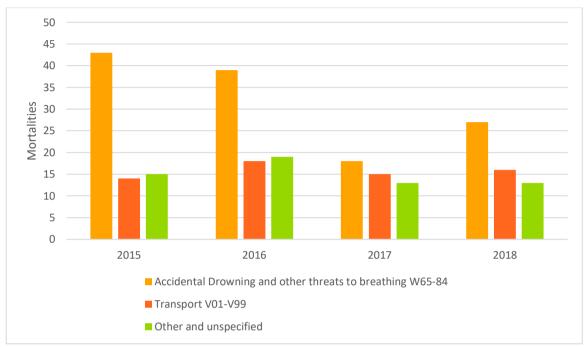
# Drowning, suffocation and threats to breathing

These are by far the largest accidental causes of mortality nationally in under 5s. The 681 FCEs in 2018-19 for drowning and other threats to breathing was only 1.6% of all accidental injuries for the age group, yet was responsible for 27 of the 56 deaths from accidents (48.2%) for under 5s in England and Wales last year.





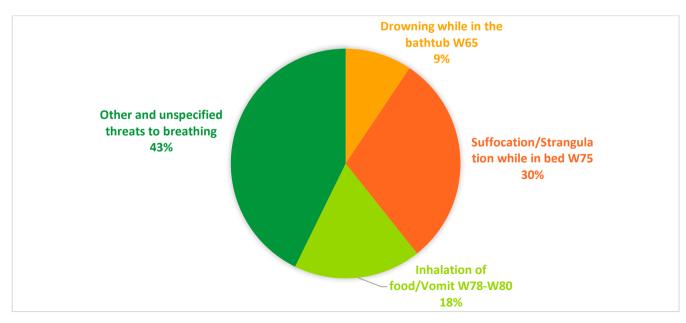
Figure 12: Number of deaths in 0-4 years England and Wales since 2015, accidental drowning and other threats to breathing



Source: Office for National Statistics: Deaths Registered in England and Wales 2015-2018

Two significant causes of death by drowning and suffocation are attributable to locations in and around the home. Drowning in the bathtub, and accidental strangulation/suffocation while in bed are among the highest single causes of death from threats to breathing in under 5s.

Figure 13: Deaths from drowning, submersion and other threats to breathing in 0-4 years, England and Wales 2015-2018



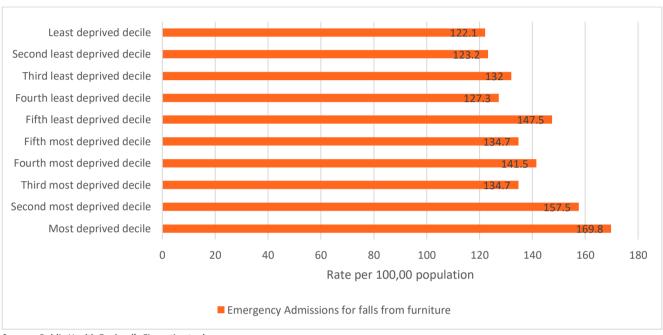




Source: Office for National Statistics: Deaths Registered in England and Wales 2015-2018

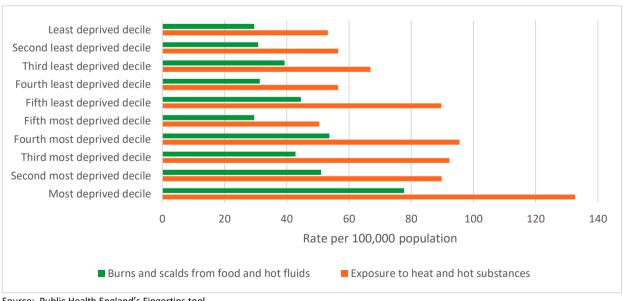
# **Socio-economic implications**

Figure 14: Rate of Emergency admissions for falls from furniture in children aged 0-4 England, 2014/15 - 16/17 - Partitioned by County & UA (pre Apr2019) deprivation deciles in England (IMD2015)



Source: Public Health England's Fingertips tool

Figure 15: Rate of Emergency admissions for 'Exposure to heat and hot substances' and 'Burns and Scalds from hot fluids' in children aged 0-4 England, 2014/15 - 16/17: Partitioned by County & UA (pre Apr2019) deprivation deciles in England (IMD2015)



Source: Public Health England's Fingertips tool



Key causes of accidental injury identified in and around the home have considerable socioeconomic dimensions, as figures 14 and 15 show. The rate of falls from furniture for under 5s during 2014/15 -2016/17 rises from 122.1 to 169.8 (40%) between the least deprived decile and the most deprived. This disparity was even greater for the burns and scalds from food and hot fluids category as the rate of 53.2 per 100,000 in the least deprived decile increases by almost 150% to 132.7 in the most deprived.

# Accidents to young children in perspective

In England and Wales in 2018 there were 2950 total deaths for 0-4 year olds, of which 56 were accidental. Accidents are responsible for the lowest percentage of deaths in this age group than any other (1.9%).

Of the 2950 mortalities in 0-4 year olds, 2571 were infant deaths under 1 year and 379 were aged 1-4. Of the 56 accidental deaths, 23 were infant deaths compared to 33 age 1-4. Accidental mortality rates are higher in infants aged under 1 than 1-4 years (3.1 and 1.0 per 100,000 population respectively) but lower as a percentage of overall mortalities (0.9% <1 and 8.7% 1-4).

There were 24 deaths in 0-4 year olds from other external causes excluding accidents in England and Wales 2018. 9 of these deaths were from adverse reactions to surgical and medical procedure (Y82-Y83) and 12 from different types of assault (X85-Y09).

There were 1,481,573 admissions across England for 0-4 year olds in 2018/19, of these 43078 were from unintentional injuries (2.9%). There were 56108 admissions from external causes in total, after accidents, most of these were caused by complications of medical and surgical care Y83-Y84<sup>12</sup>.

<sup>&</sup>lt;sup>12</sup> Grouping prescribed by 'International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10)-WHO Version for ;2016' from icd.who.int



# Section 2: 17-25 year olds on the road

# **Trends Since 2015**

Figure 16: Leading Causes of Hospital Admissions for accidents in 17-24 years England 2015-19 (FCEs)<sup>13</sup>



Source: NHS Digital HES Hospital Admitted Patient Care Activity: External Causes 2015-16/2018-19

<sup>&</sup>lt;sup>13</sup> Road Transport Vehicle accidents commonly coded in ICD10 as V01-V80, V87 & V89 to describe transport accidents involving at least one occupant of a vehicle for primary use on the road. This does not allude to location of accident occurring on the road and may have occurred in an off road location such as a car park, driveway etc.





350
300
250
150
100
50
2015
2016
2017
2018

Road Transport

Figure 17: Leading Causes of deaths for accidents in 15-24 years, England and Wales 2015-2018

Source: Office for National Statistics 2015-2018. Deaths Registered in England and Wales

Other and unspecified

■ Drowning, suffocation and threats to breathing ■ Falls

The number of accidental injuries for 17-24 years has decreased slightly since 2015. Hospital admissions for Road Transport accidents have decreased from 9210 to 8049 (12.6%) in this period. The proportion of all unintentional injuries for 17-24s causes by Road Transport Accidents has also decreased from 18.4% to 16.6% between 2015 and 2018.

Road Transport accident injuries and deaths are significantly higher among males than females for young adults. 230 of the 278 (82.7%) road transport accident deaths in England, Wales and Scotland in 2018 were male. STATS19 road traffic collision figures for casualties since 2015 recorded 61.5% of the total 94253 as male and 38.5% female.

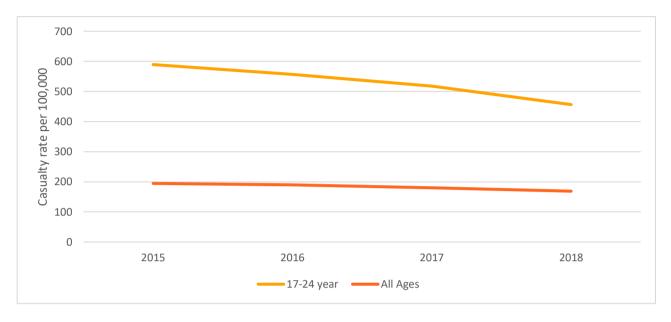
Road accident deaths in young adults are especially high in Northern Ireland. Since 2015, 62 of the recorded 83 accidental deaths from 15-24 years were transport accidents (74.7%) compared to 1130 of 2371 accidental deaths across England and Wales for the age group since 2015 (47.7%).

STATS19 police data on road accidents shows that per population, rates of road traffic casualties are far higher in the 17-25 age group than other ages. In 2018 the casualty rate for 17-25s was 456.5 compared to 168.8 for all ages.





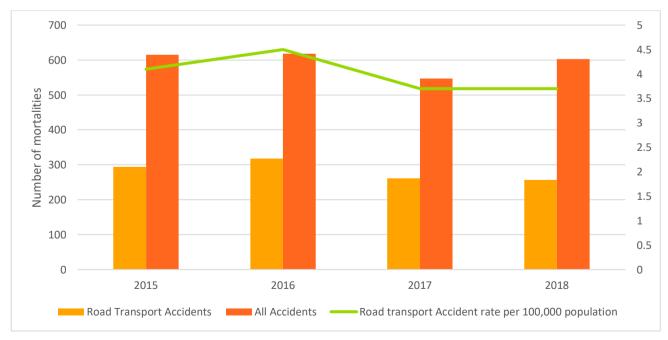
Figure 18: Rate of road traffics casualties per 100,000 for 17-25s and All ages



Source: Department for Transport STATS19 data – Reported Road Casualties Great Britain 2015-18

Road transport accidents are also the leading cause of accidental death for young adults across the UK. Despite a rise in 2016, numbers of deaths from road transport accidents in 15-24 years old have decreasesd slightly since 2015, as has the rate per 100,000 population.

Figure 19: Numbers and rate per 100,000 population of Road Transport Accident mortalities in 15-24 year olds England and Wales





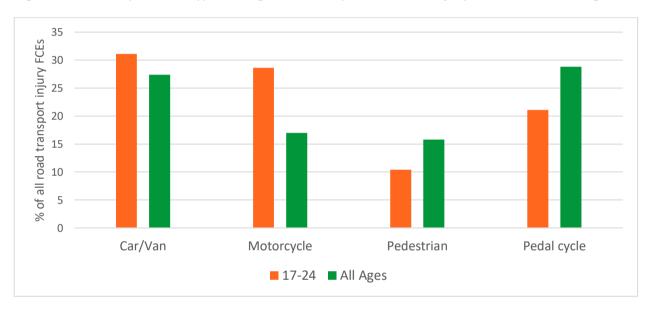


Source: Office for National Statistics, Deaths registered in England and Wales 2015-2018

# Activity during road traffic accident: Cars, Bicycles, Motorcycles, Pedestrians

Figure 20 shows that 17-24 years olds injured in road transport accidents are more likely to be occupants of cars and motorcycles than other ages.

Figure 20: Activity/vehicle type during Road Transport Accident injury, as a % of total, England 2018



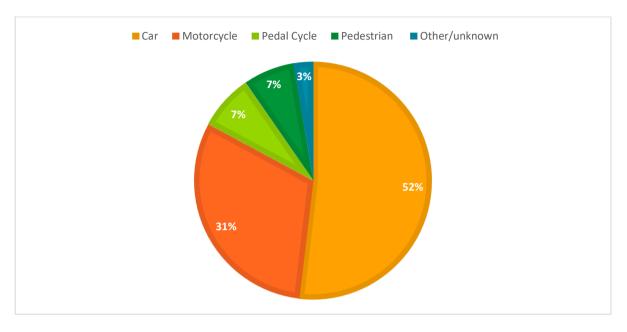
Source: NHS Digital HES data, Admitted Patient Care Activity External Causes 2018

Trauma Audit and Research Network data from Oxford University Hospitals further emphasises that for the traumatic injuries recorded in young adults from road traffic collisions, the majority of them were occupants of cars or motorcycles.





Figure 21: Activity/vehicle during road injury traumas in 17-25s, Oxford University Hospitals 2012-15



Source: Oxford University Hospitals' Trauma and Audit Research Network (TARN) database: 1 January 2012 to 24 Jan 2015

# **Accident Class: Drivers and passengers**

As road traffic accidents in 17-25s have decreased in the past few years – driver and passenger casualties have declined more sharply and consistently than pedestrian casualties.

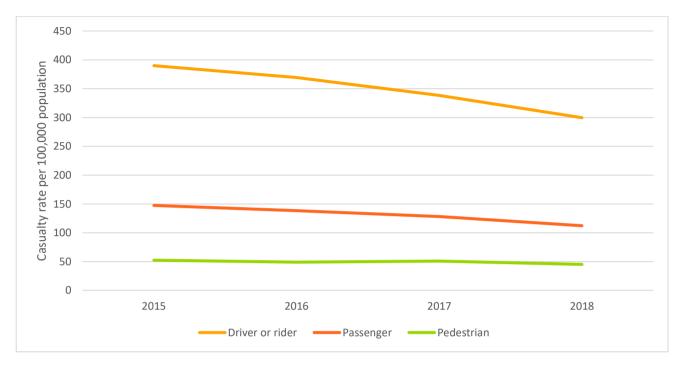
In 2018, casualty rates for front seat passengers were 65.8 per 100,000 compared to 38.9 per 100,000 for rear seat passengers.

Car passenger casualties in STATS19 data can be divided into three types – slight, serious and fatal and it is usual to group fatal and serious together. While overall accidents for passengers have declined since 2015, figure 24 shows that this decline has come largely from 'slight' casualties. Rates of fatal/serious accidents in front and rear seats have increased since 2015 – from 7.4 to 7.7 and 4.6 to 5.6 respectively in 2018.



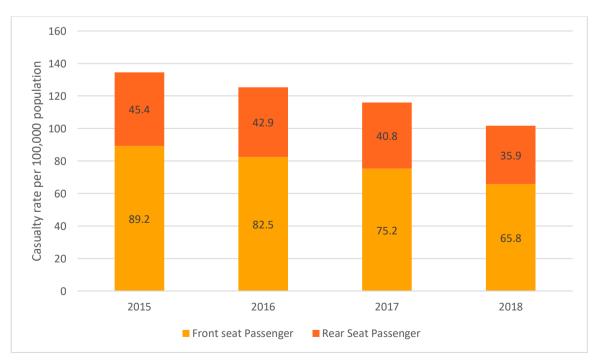


Figure 22: Casualty class driver/passenger/pedestrians of 17-25s in Great Britain since 2015, casualty rates per 100,000 population



Source: Department for Transport STATS19 – Reported Road Casualties Great Britain 2015-2018

Figure 23: Car Passenger 17 – 25 on the road: casualty rates per 100,000 population Great Britain



Source: Department for Transport – Reported Road Casualties Great Britain: STATS19



Figure 24: Casualty type Slight/Fatal & Serious in car passengers, rates per 100,000



Source: Department for Transport – Reported Road Casualties Great Britain: STATS19

Table 4: Mean Severity Score of different activities/vehicles/positions in 17-25 years during traumatic accident, Oxford University Hospitals 2012-15

Position in vehicle	Number of injured patients (percentage of total)	Mean injury severity score
Rear seat passenger	27 (14.4%)	24.7
Pedestrian	13 (7.0%)	24.2
Driver	47 (25.1%)	23.5
Front seat passenger	23 (12.3%)	20.3
Pedalcyclist	14 (7.5%)	19.1
Motorcyclist/Quad biker	58 (31.0%)	18.5
Pillion passenger	1 (0.5%)	9
Not Known	4 (2.1%)	24.8
Grand Total	187	21.4

Source: Oxford University Hospitals' Trauma and Audit Research Network (TARN) database: 1 January 2012 to 24 Jan 2015





# Accidents to young adults aged 17-25 on the road in perspective

Accidents are a significant external cause of hospital admissions in England, around 43% in 2018-19. Intentional self-harm and assaults together accounted for 36366 (36%) of all external cause FCEs. There were slightly more admissions for road transport accidents (8049) than assaults (7673).

All other accidents
40%

Road Transport
Accidents
8%

Medical and
Surgical
complications Y10Y84
16%

Figure 25: Hospital admissions from external causes England 2018-19

Source: NHS Digital HES data, Admitted Patient Care Activity External Causes 2018

Figure 26 shows road transport accidents as a more significant proportion of mortalities (21%) in young adults than for hospital admissions. Intentional self-harm was the largest external cause of death for the age group.

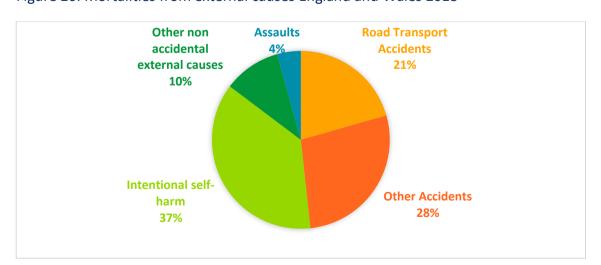


Figure 26: Mortalities from external causes England and Wales 2018





Source: Office for National Statistics, Deaths registered in England and Wales 2015-2018





# Section 3: Over 65s on the road and in the home

# **Trends since 2015**

Hospital admissions and mortalities from accidental injury across the UK have risen since 2015. There was an increase in all admissions for over 65s of 11.3% from 383991 in 2015/16 to 433037 in 2018/19.

Figure 27: Leading accidental causes of Hospital Admissions England for 65+ years, numbers and rates per 100,000



NHS Digital HES Hospital Admitted Patient Care Activity: External Causes 2015-16/2018-19.

Figure 28 shows a rise in mortalities and mortality rates per 100,000 from falls and other accidental injuries since 2015. This increase is more pronounced in the 'falls' category, with the number of deaths rising 7.5% between 2017 and 2018 and the rate per 100,000 up to 50.4 from 47.3.

While falls are the largest cause of accidental death in over 65s in England and Wales, there are other significant causes. Transport accidents remain the second largest cause of accidental death for old people and mortalities from accidental suffocation/threat to breathing and poisoning have risen since 2015.



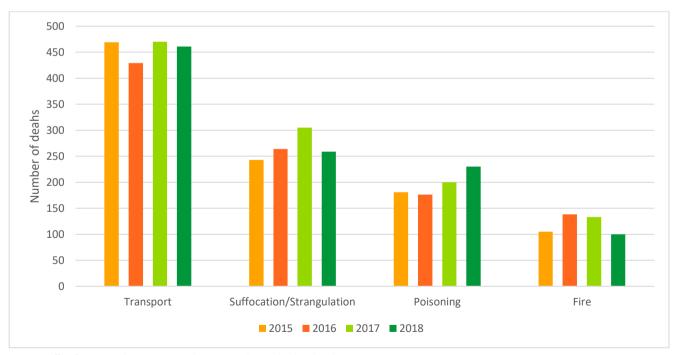


Figure 28: Accidental deaths in over 65s, England & Wales since 2015



Source: Office for National Statistics, Deaths registered in England and Wales 2015-2018

Figure 29: Other Causes of death in over 65s (excluding falls), England and Wales since 2015

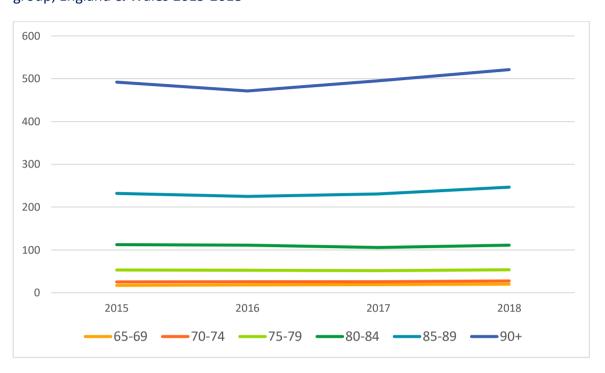


 $Source: \ Office \ for \ National \ Statistics, \ Deaths \ registered \ in \ England \ and \ Wales \ 2015-2018$ 





Figure 30: Mortality rates of accidental injury per 100,000 populations in over 65s by compressed age group, England & Wales 2015-2018



Figures 28-30 Office for National Statistics: Deaths registered in England and Wales 2015-2018

Figure 30 shows the eldest age groups to be most at risk from accidental deaths in England and Wales. Ages 90+ years were more than twice as likely to die from accidents as those aged 85-89 in 2018 with an accident mortality rate of 521.2 per 100,000 compared to 246.6 per 100,000.





# Over 65s: Accidents in the Home

Oxford Emergency Department data collected from January 2012 to January 2014 found that 4817 of the total 6968 (69.1%) attendances for accidental injuries in over 65s occurred within the home. Figure 30 shows 85-89 and 90+ age groups to be significantly more at risk of death from accidental injury. Accidental injuries for the oldest age groups were also more likely to have occurred in the home.

Table 5: Emergency Attendances in Oxford hospitals for over 65s in the Home, Jan 2012 - Mar 2014

Age	Accidents in the home (% of all Accidental injuries)	All Accidental injuries
65-74	1368 (55.6%)	2461
75-84	1677 (69.2%)	2422
85+	1772 (83.2%)	2130
65+	4817 (69.1%)	6968

Source: Injury data collected from patients attending the emergency department (ED) receptions of the John Radcliffe Hospital in Oxford and the Horton General Hospital in Banbury by clerical staff: 1 January 2012 to 30 March 2014

#### **Falls**

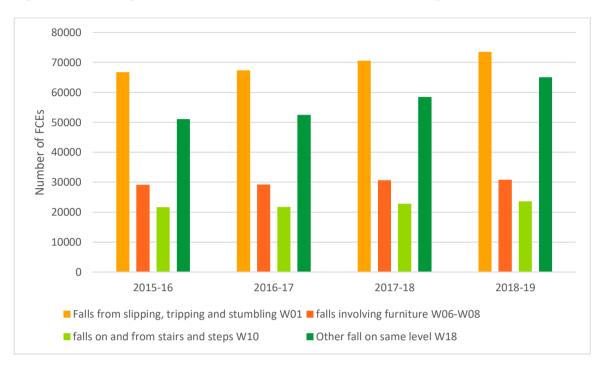
Oxford Emergency Department Data shows that 80.9% of admissions for injuries in the home to over 65 year olds resulted from fall (76.9% falls <1 metre and 4.0% falls from >1metre). Nationwide, 80.7% of all admissions for accidental injuries in over 65s across England in 2018-19 (shown in figure 25) were from falls.

Figures 27 & 28 also show that recorded hospital admissions and deaths from falls have increased since 2015 as well as their rates per 100,000 population. Falls are responsible for the majority of deaths in over 65s in England and Wales. While falls were around 80% of all unintentional injury admissions for the age group, this figure was lower for deaths at 60.1% of all accidental deaths in over 65s in 2018



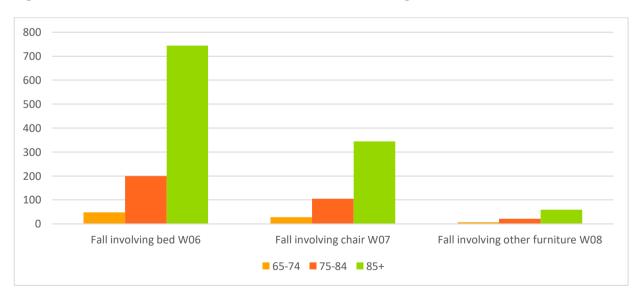


Figure 31: Leading Causes of Hospital Admissions in over 65s, England 2015-16 to 2018-19



Source: NHS Digital HES Hospital Admitted Patient Care Activity: External Causes 2018-19.

Figure 32: Admissions for falls from furniture in over 65s, England 2018-19



source: NHS Digital HES Hospital Admitted Patient Care Activity: External Causes 2018-19.





Table 5: Mortality rates for age groups over 65, England, Wales & Scotland combined 2018

Age	Number of deaths from accidental falls W00-W20	Mortality rate per 100,000 of accidental falls
65-74	750	11.6
75-84	1930	50.7
85+	3643	231.9
65+	6323	53.3

This table combines 1) Office for National Statistics: Deaths registered in England and Wales 2018. 2) National Records of Scotland 2018: Deaths registered in Scotland - Causes

# **Fires**

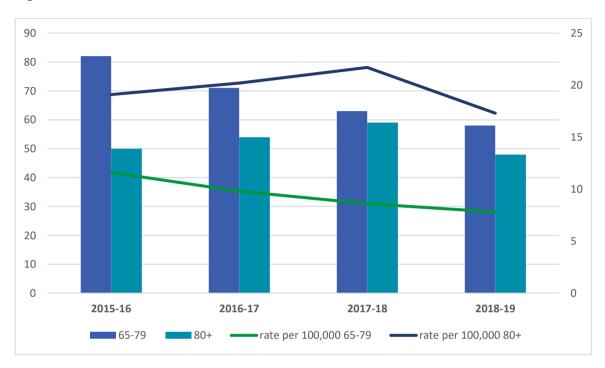
Exposure to fire, flames and smoke is not a leading cause of hospital admissions in over 65s, and was responsible for only 323 hospital admissions in England 2018/19. The number of admissions for all ages from fires was 2107, this is low compared to other causes.

The number of deaths from fires in over 65s in England 2018 was 100, over half of the total of 196 deaths for all ages. Home Office fire statistics show a steady decline in fire related deaths in over 65-79 year olds from 82 in 2015-16 to 58 in 2018-19. Numbers and rates per million population for people over 80 rose from 2015-16 to 2017-18 before a substantial decline in the last year. Of the 485 fire related deaths shown in figure 33, 430 (88.7%) of these were due fires in the home.





Figure 33: Fire fatalities UK in over 65s



Home Office Fire Statistics: Fatalities and non-fatal casualties by age, gender and type of location, England. 2018-19





# Over 65s: Accidents on the Road

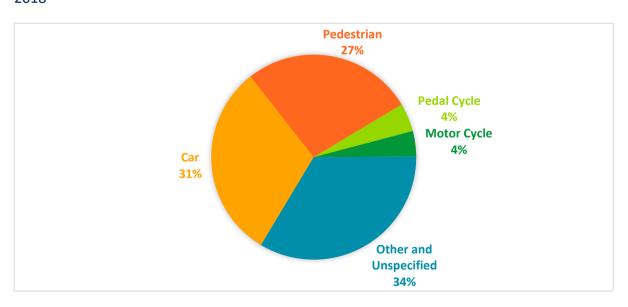
Deaths from road transport accidents have fallen slightly from 458 in 2015 to 448 in 2018m, as has the mortality rate per 100,000 people.

Figure 34: Deaths from road transport accidents in 65+ years since 2015, England & Wales



Office for National Statistics: Deaths registered in England and Wales 2015-2018

Figure 35: Activity/Vehicle during death from road transport accidents in over 65s, England & Wales 2018



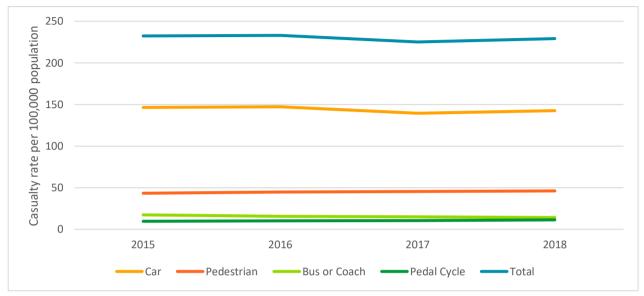
Office for National Statistics: Deaths registered in England and Wales 2015-2018





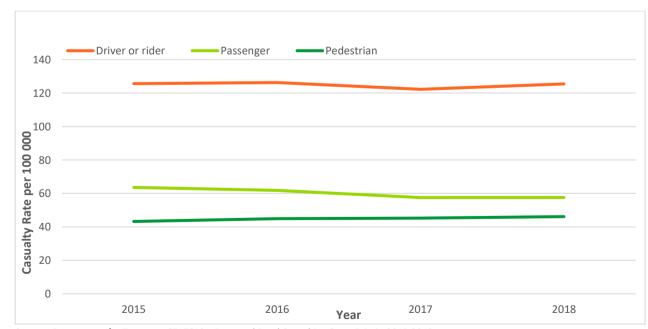
STATS19 data on road traffic collisions across the UK found that road traffic collision casualty rates per 100,000 population in over 65 year olds decreased slightly from 232.4 in 2015 to 229.1 in 2018 although elderly pedestrian casualties have actually risen slightly in this period.

Figure 36: Casualty Type 65+ year olds on the road; rates per 100,000 population



Source: Department for Transport STATS19 – Reported Road Casualties Great Britain 2015-2018

Figure 37: Casualty Class/position in vehicle 65+ years on the road, rates per 100,000 population

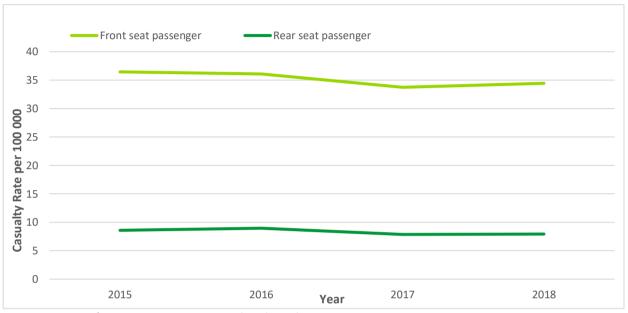


Source: Department for Transport STATS19 – Reported Road Casualties Great Britain 2015-2018



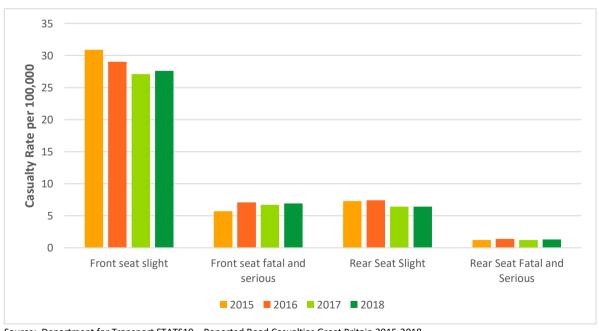
Vehicle passenger casualty rates per 100,000 in over 65s decreased from 63.6 to 57.6 from 2015 to 2018; rates of casualties for front seat passengers fell from 36.5 to 34.4 per 100,000 population while rear seat passenger casualties fell from 8.6 to 7.9 per 100,000 despite a rise in 2016.

Figure 38: Car Passenger Front seat/Rear seat casualty rates 65+ years, per 100,000 population, UK



Source: Department for Transport STATS19 – Reported Road Casualties Great Britain 2015-2018

Figure 39: Injury severity slight/serious & fatal for 65+ years car passenger casualties, UK



Source: Department for Transport STATS19 – Reported Road Casualties Great Britain 2015-2018



Figure 39 shows that while slight injuries in front seat and rear seat passengers have decreased since 2015, fatal and serious accidents in front seat passengers rose from 5.7 to 6.9 per 100,000 population and from 1.2 to 1.3 for rear seat passengers between 2015 and 2018.

Table 6: Mean Severity Score of different activities/vehicles/positions in over 65s during traumatic accident, Oxford University Hospitals 2012-15

Position in vehicle	Number of injured patients (percentage of total)	Mean injury severity score
Pedestrian	34 (22.1%)	21.4
Driver	62 (40.3%)	20.3
Motorcyclist/Quad biker	8 (5.2%)	16.6
Pedal cyclist	19 (12.3%)	16.6
Front seat passenger	24 (15.6%)	15.3
Mass transport passenger	2 (1.3%)	10.5
Not Known	5 (3.2%)	20.6
<b>Grand Total</b>	154	19.0

Source: Oxford University Hospitals' Trauma and Audit Research Network (TARN) database: 1 January 2012 to 24 Jan 2015





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