

Statistical bulletin

# Avoidable mortality in the UK: 2018

Deaths from causes considered avoidable given timely and effective health care or public health interventions. Data are based on a revised definition of avoidable mortality for all persons.



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Release date:  
27 February 2020

Next release:  
February 2021

## Table of contents

1. [Main points](#)
2. [Avoidable mortality in the UK](#)
3. [Avoidable mortality by cause](#)
4. [Avoidable mortality in children and young people](#)
5. [Preventable mortality in local authorities in England and unitary authorities in Wales](#)
6. [Treatable mortality in CCGs in England and Health Boards in Wales](#)
7. [Avoidable mortality data](#)
8. [Glossary](#)
9. [Measuring the data](#)
10. [Strengths and limitations](#)
11. [Related links](#)

# 1 . Main points

- In 2018, approximately 22% of all deaths in the UK were considered avoidable (138,293 deaths out of 616,014).
- Avoidable mortality rates in 2018 for all four constituent countries of the UK were statistically significantly lower than in 2001.
- Since 2013, the rate of improvement in avoidable mortality across the UK's constituent countries sharply contracted compared with the two previous six-year periods.
- In 2018, Scotland had a statistically significantly higher avoidable mortality rate for three out of the seven broad causes, while the rate for Wales was statistically significantly higher for diseases of the respiratory system.
- In 2016 to 2018, across all local authorities in England and Wales, Blackpool had the highest male preventable mortality rate of 355.3 deaths per 100,000 males; Knowsley had the highest female preventable mortality rate with 192.3 deaths per 100,000 females.
- In 2018, across all Clinical Commissioning Groups (CCGs) in England and all Health Boards in Wales, NHS Bradford City CCG had the highest male treatable mortality rate with 168.4 deaths per 100,000 males; NHS Blackpool CCG had the highest female treatable mortality rate with 134.4 deaths per 100,000 females.

## 2 . Avoidable mortality in the UK

Data in this release have been created using the new international [avoidable mortality definition \(DOC, 421KB\)](#). When discussing avoidable deaths, the following terms are used:

- preventable mortality – deaths that can be mainly avoided through effective public health and primary prevention interventions
- treatable mortality – deaths that can be mainly avoided through timely and effective healthcare interventions, including secondary prevention and treatment
- avoidable mortality – deaths defined as either preventable or treatable

In 2018, approximately 22% of all deaths in the UK were considered avoidable (138,293 deaths out of 616,014) with an age-standardised mortality rate of 237.9 deaths per 100,000 population. This was [statistically significantly](#) lower than all years back to 2001 except for 2017, which was non-significantly lower than 2018 (236.3 deaths per 100,000 population). Of the avoidable deaths in 2018, 64% could be attributed to causes considered preventable (88,299 deaths) and 36% to treatable conditions (49,994 deaths).

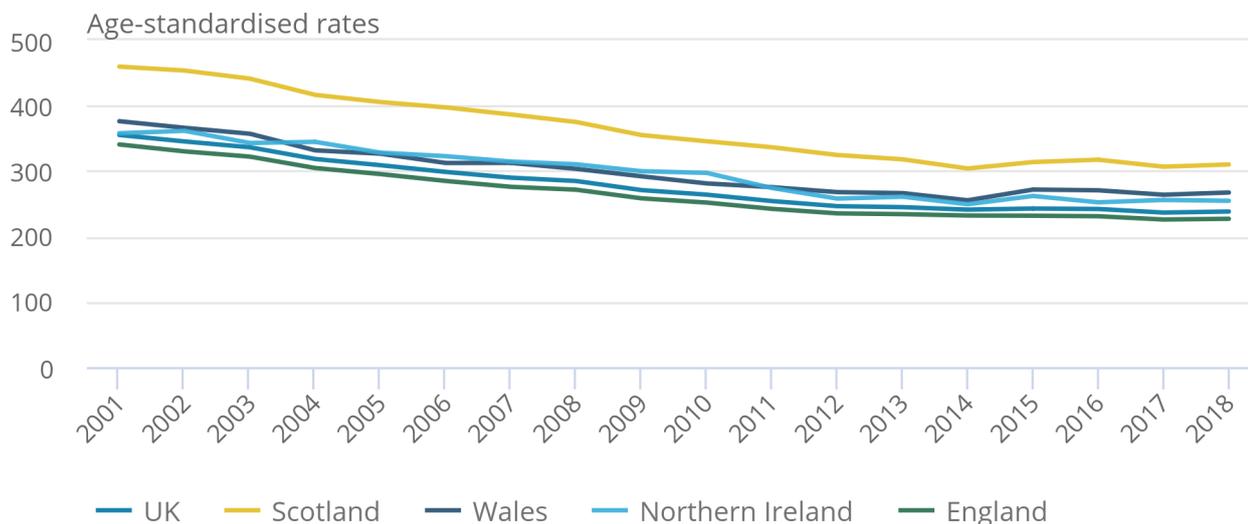
Within the UK, rates varied across constituent countries. Scotland had the highest avoidable mortality rate in 2018 with 309.9 deaths per 100,000 population, which was statistically significantly higher than the rates for the other three countries (Figure 1). England had the lowest avoidable mortality rate in 2018 with 226.8 deaths per 100,000 population, which was statistically significantly lower than the rates for the other three countries. The gap between Scotland's and England's rates have narrowed since 2001, with 2014 having the narrowest gap. Mortality rates in 2018 for all four constituent countries of the UK were statistically significantly lower than their 2001 rate, with evidence of a slowdown in improvement of avoidable mortality rates during the second decade. However, the timing of the slowdown between each country was not uniform.

**Figure 1: Scotland's 2018 avoidable mortality rate was statistically significantly higher than the rates for other UK constituent countries**

Age-standardised avoidable mortality rates by persons, UK and its constituent countries, 2001 to 2018

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Age-standardised avoidable mortality rates by persons, UK and its constituent countries, 2001 to 2018



Source: Office for National Statistics; National Records of Scotland; and Northern Ireland Statistics and Research Agency

Notes:

1. Age-standardised mortality rates are expressed per 100,000 population and standardised to the 2013 European Standard Population. Age-standardised mortality rates are used to allow comparison between populations that may contain different proportions of people of different ages.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for the UK and Scotland.
3. Figures are for deaths registered in each calendar year.

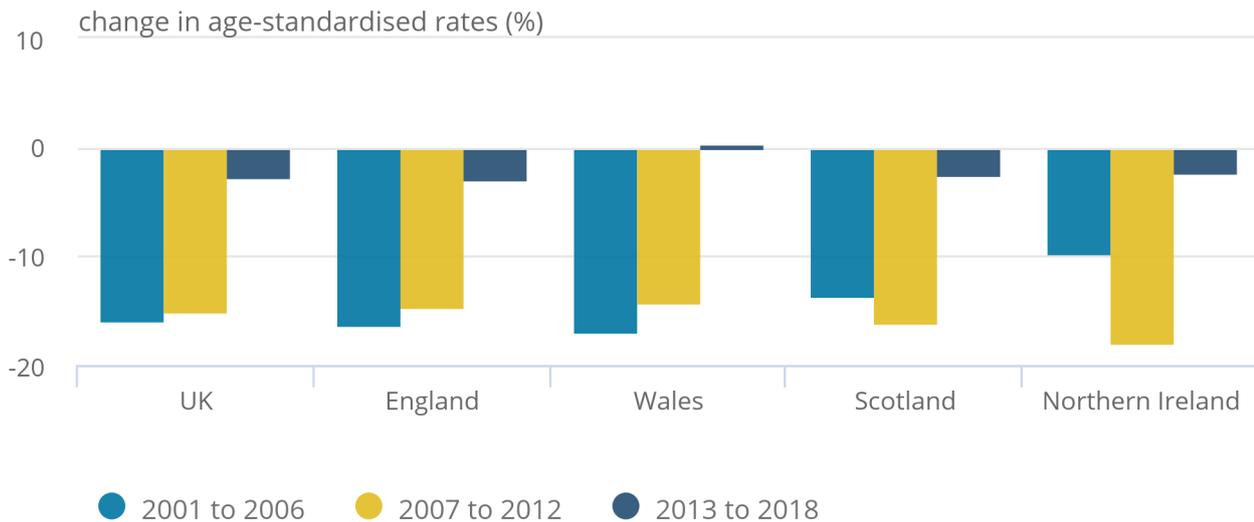
Figure 2 shows the differential improvement since 2001 using three discrete time periods, spanning six years: 2001 and 2006, 2007 and 2012, and 2013 and 2018. Across the UK and its constituent countries, the rate of change between 2013 and 2018 was notably smaller than between 2001 and 2006 and 2007 to 2012, with the rate for Wales worsening with a 0.3% increase in avoidable deaths. This highlights the slowdown of improvement in avoidable mortality rates across the UK in the latest period. Overall, the UK's, England's and Scotland's mortality rates have decreased by 33% since 2001, while Northern Ireland's and Wales' rates have decreased by 29%.

**Figure 2: The scale of improvement in avoidable mortality was smaller between 2013 and 2018 for UK countries apart from Wales where rates increased**

Rate of change in age-standardised avoidable mortality rates by persons, UK and its constituent countries, between 2001 and 2006, 2007 and 2012 and 2013 and 2018

Figure 2: The scale of improvement in avoidable mortality was smaller between 2013 and 2018 for UK countries apart from Wales where rates increased

Rate of change in age-standardised avoidable mortality rates by persons, UK and its constituent countries, between 2001 and 2006, 2007 and 2012 and 2013 and 2018



Source: Office for National Statistics; National Records of Scotland; and Northern Ireland Statistics and Research Agency

**Notes:**

1. The rate of change in avoidable mortality is calculated by subtracting the earlier mortality rate from the later mortality rate for each time period, before dividing by the earlier mortality rate. This is expressed as a percentage.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for the UK and Scotland.
3. Figures are for deaths registered in each calendar year.

### 3 . Avoidable mortality by cause

Causes of avoidable mortality can be categorised into seven broad cause groups. This section will focus on diseases of the circulatory system, diseases of the respiratory system, and alcohol- and drug-related deaths. However, the data for all broad cause groups are available in the accompanying datasets.

Under the new avoidable mortality definition, the majority of the diseases of the circulatory system are equally proportioned between preventable and treatable mortality, with two additional causes classified as solely treatable. Out of the UK's constituent countries, Wales had the largest proportion of avoidable deaths caused by diseases of the circulatory system in 2018 amounting to 28%; this compares with Northern Ireland, which had the lowest proportion at 23%.

For diseases of the circulatory system, Scotland had the highest avoidable mortality rate in 2018 with 77.5 deaths per 100,000 population, and it was [statistically significantly](#) higher than the rates for England and Northern Ireland (Figure 3). The lowest rate for avoidable diseases of the circulatory system was in Northern Ireland with 59.0 deaths per 100,000 population, which was statistically significantly lower than the rates for Scotland and Wales.

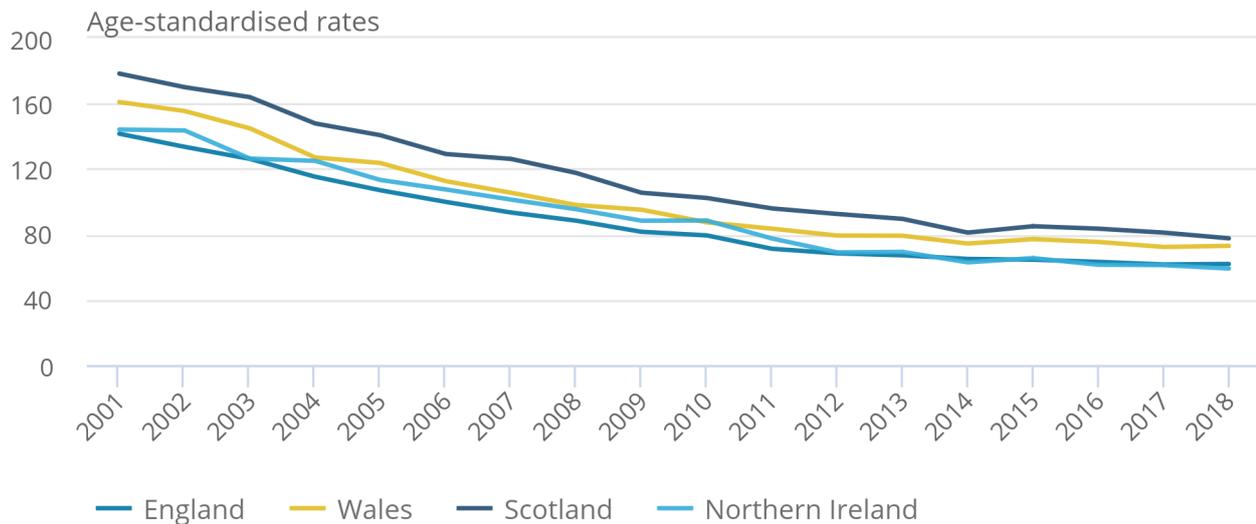
Since the beginning of the time series, mortality rates for diseases of the circulatory system have generally declined with statistically significantly lower rates in 2018 compared with 2001 across the UK's constituent countries. Northern Ireland had the largest percentage decrease during this period with a 59% decline; this compares with Wales, which had the smallest percentage decrease (55%). However, the substantial falls during the first decade were not sustained in the second decade (Figure 3).

**Figure 3: Avoidable mortality rates for diseases of the circulatory system in 2018 were statistically significantly lower than in 2001, but recently the rate of improvement has slowed**

Age-standardised avoidable mortality rates for diseases of the circulatory system by persons, UK's constituent countries, 2001 to 2018

Figure 3: Avoidable mortality rates for diseases of the circulatory system in 2018 were statistically significantly lower than in 2001, but recently the rate of improvement has slowed

Age-standardised avoidable mortality rates for diseases of the circulatory system by persons, UK's constituent countries, 2001 to 2018



Source: Office for National Statistics; National Records of Scotland; and Northern Ireland Statistics and Research Agency

**Notes:**

1. Age-standardised mortality rates are expressed per 100,000 population and standardised to the 2013 European Standard Population. Age-standardised mortality rates are used to allow comparison between populations that may contain different proportions of people of different ages.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for Scotland.
3. Figures are for deaths registered in each calendar year.

For diseases of the respiratory system, Wales had the highest avoidable mortality rate in 2018 with 40.2 deaths per 100,000 population, which was statistically significantly higher than the rates for the other three countries. The lowest mortality rate was in Northern Ireland with 31.5 deaths per 100,000 population, which was only statistically significantly lower than the rate for Wales.

The majority of avoidable deaths caused by diseases of the respiratory system included in the definition are considered preventable rather than treatable. In 2018, this ranged from 79% considered preventable in Scotland to 63% in Wales.

Mortality rates for diseases of the respiratory system have fluctuated across the time series (Figure 4). Between 2001 and 2018, only two of the four constituent countries of the UK (England and Scotland) had a statistically significant decrease in mortality rates with the largest improvement in Scotland with a 23% decline; the rate for Wales worsened with an overall 9% increase.

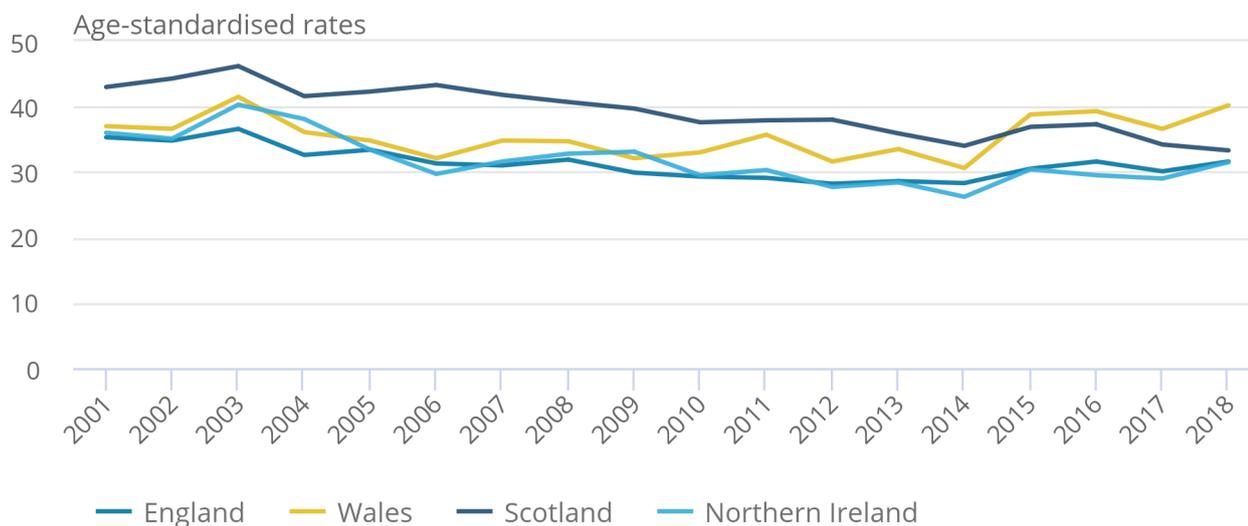
Interestingly, since 2011 Scotland was the only country to see a decrease in its avoidable mortality rates for diseases of the respiratory system (12% decline). Wales', England's and Northern Ireland's mortality rates increased, conforming with the general slowdown in improvement during the second decade.

**Figure 4: Wales' mortality rate for avoidable deaths from diseases of the respiratory system was statistically significantly higher than the other three constituent countries in 2018**

Age-standardised avoidable mortality rates for diseases of the respiratory system by persons, UK's constituent countries, 2001 to 2018

Figure 4: Wales' mortality rate for avoidable deaths from diseases of the respiratory system was statistically significantly higher than the other three constituent countries in 2018

Age-standardised avoidable mortality rates for diseases of the respiratory system by persons, UK's constituent countries, 2001 to 2018



Source: Office for National Statistics; National Records of Scotland; and Northern Ireland Statistics and Research Agency

**Notes:**

1. Age-standardised mortality rates are expressed per 100,000 population and standardised to the 2013 European Standard Population. Age-standardised mortality rates are used to allow comparison between populations which may contain different proportions of people of different ages.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for Scotland.
3. Figures are for deaths registered in each calendar year.

For alcohol- and drug-related deaths taken as a whole, the avoidable mortality rate in 2018 for all of the UK's constituent countries was statistically significantly higher than the mortality rate in 2001. The highest mortality rate in 2018 was in Scotland with 48.2 deaths per 100,000 population, which was statistically significantly higher than the rates for the other three countries and 2.3 times higher than in England. The lowest rate was in England with 21.1 deaths per 100,000 population; this was statistically significantly lower than the rates for the other three countries.

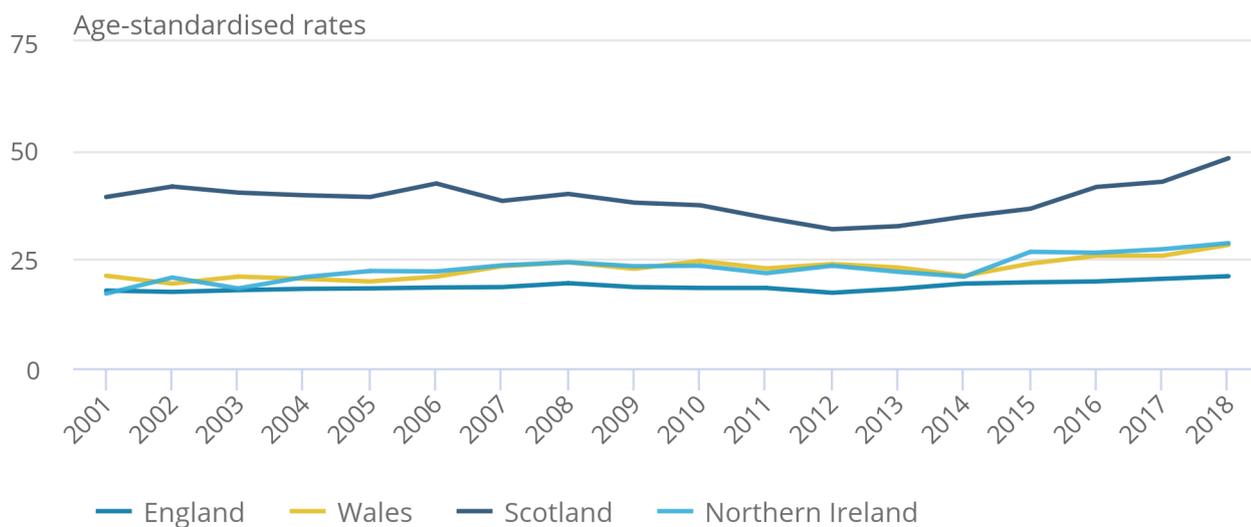
Mortality rates in Scotland, Wales and Northern Ireland have fluctuated since the beginning of the time series with England's rate remaining flatter (Figure 5). However, from 2012 to 2018, statistically significant increases were observed across the UK's constituent countries with a particularly sharp increase in Scotland after its lowest point in 2012. More recently, increases were observed across all of the UK's constituent countries since 2017, but only Scotland's increase was statistically significant.

**Figure 5: Avoidable mortality rates for alcohol- and drug-related deaths in 2018 were statistically significantly higher than 2001 for all UK constituent countries**

Age-standardised avoidable mortality rates for alcohol- and drug-related disorders by persons, UK's constituent countries, 2001 to 2018

Figure 5: Avoidable mortality rates for alcohol- and drug-related deaths in 2018 were statistically significantly higher than 2001 for all UK constituent countries

Age-standardised avoidable mortality rates for alcohol- and drug-related disorders by persons, UK's constituent countries, 2001 to 2018



Source: Office for National Statistics; National Records of Scotland; and Northern Ireland Statistics and Research Agency

Notes:

1. Age-standardised mortality rates are expressed per 100,000 population and standardised to the 2013 European Standard Population. Age-standardised mortality rates are used to allow comparison between populations that may contain different proportions of people of different ages.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for Scotland.
3. Figures are for deaths registered in each calendar year.

## 4 . Avoidable mortality in children and young people

In 2018, of all deaths among children and young people aged 0 to 19 years in the UK, 35% were considered avoidable (1,720 deaths out of 4,883). Overall, avoidable deaths in children and young people made up 1% of the total number of avoidable deaths in the UK.

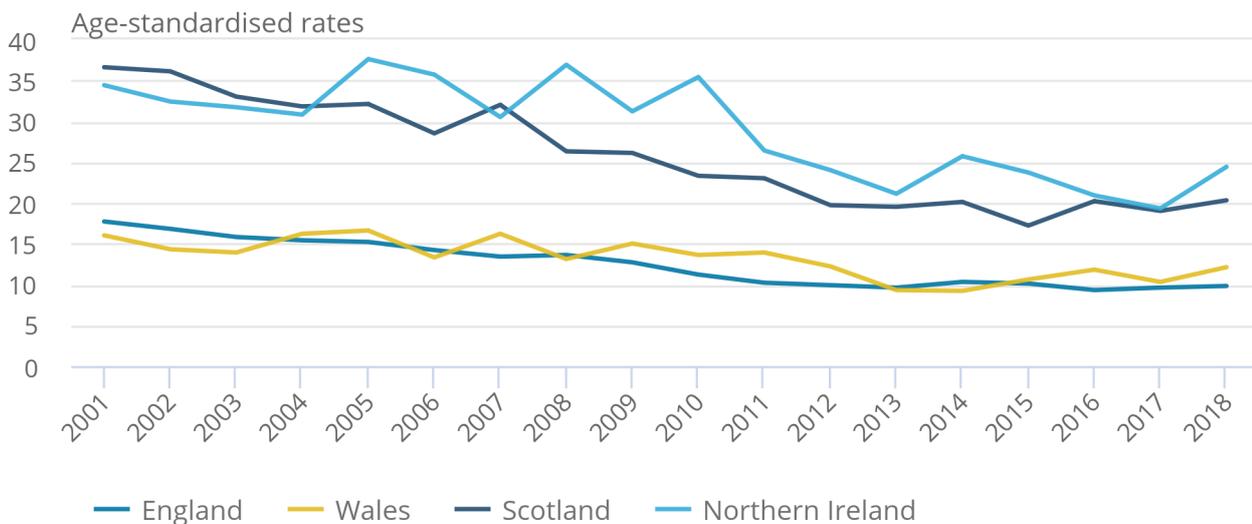
Between 2001 and 2018, there have been fluctuations in avoidable mortality rates across the UK's constituent countries with an overall [statistically significant](#) decrease in England, Northern Ireland and Scotland. Since 2001, mortality rates in Northern Ireland and Scotland have remained statistically significantly higher than in England and Wales. All of the UK's constituent countries saw their rates higher in 2018 compared with 2017, but these were not statistically significant.

**Figure 6: Avoidable mortality rates for children and young people have fluctuated for all of the UK's constituent countries from 2001 to 2018**

Age-standardised avoidable mortality rates for children and young people (aged 0 to 19 years) by persons, UK's constituent countries, 2001 to 2018

Figure 6: Avoidable mortality rates for children and young people have fluctuated for all of the UK's constituent countries from 2001 to 2018

Age-standardised avoidable mortality rates for children and young people (aged 0 to 19 years) by persons, UK's constituent countries, 2001 to 2018



Source: Office for National Statistics; National Records of Scotland; and Northern Ireland Statistics and Research Agency

**Notes:**

1. Age-standardised mortality rates are expressed per 100,000 population and standardised to the 2013 European Standard Population. Age-standardised mortality rates are used to allow comparison between populations that may contain different proportions of people of different ages.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for Scotland.
3. Figures are for deaths registered in each calendar year.

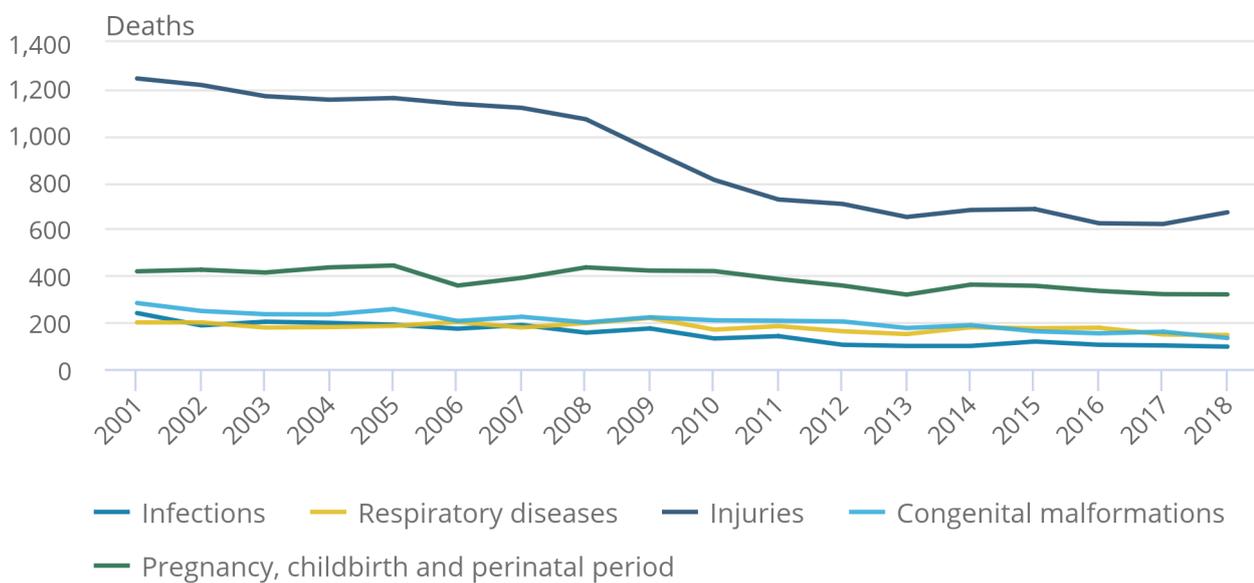
Since 2001, injuries have been the leading cause of avoidable deaths in children and young people in the UK despite these deaths almost halving in 2018 (1,245 deaths in 2001 to 671 deaths in 2018). The second leading cause of avoidable deaths in children and young people was conditions relating to pregnancy, childbirth and the perinatal period (418 deaths in 2001 to 319 deaths in 2018).

**Figure 7: Injuries have remained the leading cause of avoidable death since 2001 for children and young people**

Number of avoidable deaths by broad cause group for children and young people (aged 0 to 19 years) by persons, UK, 2001 to 2018

Figure 7: Injuries have remained the leading cause of avoidable death since 2001 for children and young people

Number of avoidable deaths by broad cause group for children and young people (aged 0 to 19 years) by persons, UK, 2001 to 2018



Source: Office for National Statistics; National Records of Scotland; and Northern Ireland Statistics and Research Agency

Notes:

1. Deaths of non-residents are included in figures for the UK.
2. Figures are for deaths registered in each calendar year.

## 5 . Preventable mortality in local authorities in England and unitary authorities in Wales

This section covers preventable mortality in local areas in England and Wales. For more information on local areas in Scotland, contact [National Records of Scotland \(NRS\)](#) and for Northern Ireland contact [Northern Ireland Statistics and Research Agency \(NISRA\)](#).

Preventable mortality measures the effectiveness of primary preventive public health interventions and wider public health sector actions that are designed to reduce the incidence of disease and injury. In 2018, 63% of avoidable deaths were attributed to preventable conditions in both England and Wales.

## Local authorities in England

In 2016 to 2018, of the 315 lower-tier local authorities in England, Blackpool had the highest rate of preventable mortality for males with 355.3 deaths per 100,000 males. This was [statistically significantly](#) higher than 312 of these local authorities; in comparison with Hart, which had the lowest rate, there were an additional 245.6 deaths per 100,000 males in Blackpool. Improvements in male mortality rates between 2001 to 2003 and 2016 to 2018 were greatest in Tower Hamlets, where the rate halved from 436.1 deaths per 100,000 males to 217.4 deaths per 100,000 males. In comparison, Oadby and Wigston saw the only increase in their rate from 193.7 deaths per 100,000 males to 203.3 deaths per 100,000 males; however, this increase was not statistically significant. The highest proportion of male deaths under the age of 75 years considered preventable in 2016 to 2018 was in Barrow-in-Furness (55%).

For females, Knowsley had the highest rate of preventable mortality in 2016 to 2018 with 192.3 deaths per 100,000 females. This was statistically significantly higher than 304 local authorities and an additional 141.9 deaths per 100,000 females than South Oxfordshire, which had the lowest mortality rate. The highest proportion of female deaths considered preventable was also in Knowsley (48%). Improvement in female mortality rates during 2001 to 2003 and 2016 to 2018 was greatest in Newham, which decreased from 170.2 deaths per 100,000 females to 93.5 deaths per 100,000 females. In comparison, Norwich had the largest rate increase from 102.5 deaths per 100,000 females to 125.1 deaths per 100,000 females.

## Unitary authorities in Wales

In 2016 to 2018, of the 22 Welsh unitary authorities, Neath Port Talbot had the highest rate of preventable mortality for males with 279.6 deaths per 100,000 males. This was statistically significantly higher than 13 others and had an additional 121.8 deaths per 100,000 males than the lowest rate observed in Monmouthshire. Neath Port Talbot also had the largest proportion of deaths considered preventable (52%) together with Pembrokeshire in 2016 to 2018. Improvement in mortality rates for males between 2001 to 2003 and 2016 to 2018 was greatest in Merthyr Tydfil with a decrease from 374.3 deaths per 100,000 males to 237.9 deaths per 100,000 males. Ceredigion had the smallest improvement with their rate remaining similar (193.5 deaths per 100,000 males in 2001 to 193.3 deaths per 100,000 males in 2018) over time.

Merthyr Tydfil had the highest preventable mortality rate for females in 2016 to 2018 with 164.7 deaths per 100,000 females. This was statistically significantly higher than 13 unitary authorities and an additional 87.8 deaths per 100,000 females than the lowest rate in Powys. Merthyr Tydfil also had the largest proportion of preventable deaths (46%) in 2016 to 2018. Improvement in female mortality rates from 2001 to 2003 and 2016 to 2018 was greatest in Denbighshire, which decreased from 177.3 deaths per 100,000 females to 115.3 deaths per 100,000 females, while Bridgend's rate increased from 135.0 deaths per 100,000 females to 141.1 deaths per 100,000 females.

### Figure 8: Age-standardised preventable mortality rates by local authorities in England and unitary authorities in Wales, by sex, 2001 to 2018

## 6 . Treatable mortality in CCGs in England and Health Boards in Wales

Treatable mortality measures the effectiveness of timely healthcare interventions, including secondary prevention and treatment. In 2018, 37% of avoidable deaths could be attributed to treatable conditions in both England and Wales.

## Clinical Commissioning Groups (CCGs) in England

Of the 191 CCGs in England, NHS Bradford City CCG had the highest rate of treatable mortality for males with 168.4 deaths per 100,000 males. This was [statistically significantly](#) higher than 84 CCGs and an additional 123.1 deaths per 100,000 males than the lowest rate in NHS Surrey Heath CCG. Despite accounting for the highest mortality rate, NHS Bradford City CCG had the largest improvement since 2001 with the treatable rate more than halving. The highest proportion of male deaths considered treatable in 2018 was in NHS South West Lincolnshire CCG (29%).

In 2018, NHS Blackpool CCG had the highest treatable mortality rate for females with 134.4 deaths per 100,000 females. This was statistically significantly higher than 139 CCGs and an additional 88.4 deaths per 100,000 females than the lowest rate in NHS Surrey Downs CCG. NHS Blackpool was the only CCG to show an increase in treatable mortality rates between 2001 and 2018, but this was not significant. The highest proportion of female deaths considered treatable in 2018 was in NHS East Staffordshire CCG (39%).

## Health Boards in Wales

In 2018, of the seven Health Boards in Wales, Aneurin Bevan University Health Board had the highest treatable mortality rate for males with 122.3 deaths per 100,000 males. This was statistically significantly higher than two Health Boards and an additional 50.5 deaths per 100,000 males than the lowest rate in Powys Teaching Health Board. Aneurin Bevan University Health Board also accounted for the highest proportion of treatable deaths in 2018 (26%). Improvements in treatable mortality rates for males between 2001 and 2018 were largest in Hywel Dda University Health Board, decreasing from 174.1 deaths per 100,000 males to 90.9 deaths per 100,000 males. Improvement was smallest in Betsi Cadwaladr University Health Board where the rate decreased from 148.8 deaths per 100,000 males to 105.4 deaths per 100,000 males.

For females in 2018, Cwm Taf Morgannwg University Health Board had the highest mortality rate with 103.3 deaths per 100,000 females, although this was not statistically significantly higher than the other Health Boards. The lowest mortality rate was in Powys Teaching Health Board with 79.8 deaths per 100,000 females. Interestingly, improvements in female treatable rates from 2001 to 2018 were largest in Cwm Taf Morgannwg University Health Board, decreasing from 166.6 deaths per 100,000 females to 103.3 deaths per 100,000 females. The smallest improvement was in Powys Teaching Health Board, decreasing from 113.2 deaths per 100,000 females to 79.8 deaths per 100,000 females. Powys Teaching Health Board also accounted for the highest proportion of deaths considered treatable in 2018 as well as Cardiff and Vale University Health Board (31%).

### **Figure 9: Age-standardised treatable mortality rates by Clinical Commissioning Groups in England and Health Boards in Wales by sex, 2001 to 2018**

## 7 . Avoidable mortality data

### [Avoidable mortality in the UK](#)

Dataset | Released 27 February 2020

Annual age-standardised mortality rates for causes considered avoidable, treatable and preventable in the UK and the four constituent countries, 2001 to 2018.

### [Avoidable mortality in the UK – children and young people](#)

Dataset | Released 27 February 2020

Annual age-standardised mortality rates for causes considered avoidable, treatable and preventable in the UK and the four constituent countries for children and young people (aged 0 to 19 years), 2001 to 2018.

### [Avoidable mortality in England and Wales – supplementary data tables](#)

Dataset | Released 27 February 2020

Supplementary annual data for England and Wales for 2001 to 2018: standardised years of life lost (SYLL) because of causes considered avoidable; age-standardised avoidable, treatable and preventable mortality rates with and without deaths from ischaemic heart disease (IHD); and number of avoidable, treatable and preventable deaths by sex and age.

### [Avoidable mortality by local authority in England and Wales](#)

Dataset | Released 27 February 2020

Annual age-standardised mortality rates for causes considered avoidable, treatable and preventable by local authority in England and Wales from 2001 to 2003 to 2016 to 2018.

### [Avoidable mortality by Clinical Commissioning Groups in England and Health Boards in Wales](#)

Dataset | Released 27 February 2020

Annual age-standardised mortality rates for causes considered avoidable, treatable and preventable by Clinical Commissioning Groups (CCGs) in England and Health Boards in Wales, 2001 to 2018.

## 8 . Glossary

### **Preventable mortality**

Preventable mortality refers to causes of death that can be mainly avoided through effective public health and primary prevention interventions (that is, before the onset of diseases or injuries, to reduce incidence).

### **Treatable mortality**

Treatable mortality refers to causes of death that can be mainly avoided through timely and effective healthcare interventions, including secondary prevention and treatment (that is, after the onset of disease, to reduce case-fatality).

### **Avoidable mortality**

Avoidable mortality refers to deaths that are preventable or treatable.

## Age-standardised mortality rates

Age-standardised mortality rates are used to allow comparisons between populations that may contain different proportions of people of different ages.

## 9 . Measuring the data

Figures for the UK are calculated using [death registration data](#) for England and Wales held by the Office for National Statistics (ONS) and death registration data for Scotland and Northern Ireland provided by [National Records of Scotland \(NRS\)](#) and the [Northern Ireland Statistics and Research Agency \(NISRA\)](#) respectively.

### Defining avoidable mortality

With advances in medical technology and wider public health interventions, deaths from conditions previously not avoidable may have since become avoidable. This means the avoidable mortality definition requires review and, if appropriate, revisions.

In 2017, an Organisation for Economic Co-operation and Development (OECD) working group was set up to review the definitions of avoidable mortality used internationally with a remit to create a harmonised definition. The group proposed a [new definition of avoidable mortality](#) and in 2019, the ONS ran a [public consultation](#) to review this definition. As a result of the consultation, it was agreed the ONS would implement the [new international avoidable mortality definition \(DOC, 421KB\)](#) to ensure our statistics are comparable. The new definition has been implemented from data year 2001 onwards.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Avoidable mortality in the UK QMI](#). The [accompanying datasets](#) also include further breakdowns of data such as standardised years of life lost (SYLL) for England and Wales.

Our definition of avoidable mortality is different to the measure of [avoidable deaths in hospital](#), which NHS Trusts in England are required to publish figures on. We use a defined set of underlying causes of death that have been approved through consultation with users and expert guidance. It includes conditions where it is reasonable to expect deaths to be avoided through good quality health care, even after the condition has developed (treatable mortality), as well as those where it is possible to prevent the condition from occurring in the first place (incidence reduction) through wider public health interventions, such as those targeted at reducing the incidence of smoking (preventable mortality). The avoidable deaths in hospital measure is based on a record review of a sample of deaths deemed to be the result of problems in care. Avoidable deaths in hospital data are not intended to be comparable and are not currently collated centrally.

### Early access for quality assurance purposes

We provide early access for quality assurance to a small number of people working in other government bodies. This is to acknowledge use of mortality data we do not own in the case of Scotland and Northern Ireland and for general comment on the plausibility of our findings. However, the ONS itself independently produces these statistics, including determining the focus, content, commentary, illustration and interpretation of these measures presented in bulletins.

## 10 . Strengths and limitations

The strengths of avoidable mortality include:

- information is supplied when a death is registered, which gives complete population coverage and ensures the estimates are of high precision and representative of the underlying population at risk
- coding for cause of death is carried out according to the World Health Organization (WHO) [ICD-10](#) and agreed rules
- the implementation of the [new international avoidable mortality definition \(DOC, 421KB\)](#) means our statistics are internationally comparable as well as comparable between local administrations and over time at national and sub-national level

The limitations of avoidable mortality include:

- data are insufficiently robust to provide local authority estimates for single years and must be aggregated over three years; this means the timeliness of non-overlapping time periods to make judgements on health improvement is limited
- in a very small number of cause of death breakdowns, the number of deaths is either too small to report an age-standardised rate or too small to report a rate with reliability; it is our practice not to calculate rates based on fewer than 10 deaths and rates based on 10 to 19 deaths are marked with a “u” to warn users that their reliability is low

## 11 . Related links

### [Socioeconomic inequalities in avoidable mortality, England and Wales: 2001 to 2017](#)

Article | Released 1 May 2019

Avoidable mortality in England and Wales using measures of multiple deprivation to measure socioeconomic inequalities.

### [Avoidable mortality in Scotland](#)

Statistical bulletin | Released 26 June 2019

Information on the numbers of deaths that may be counted as “avoidable” for 2018 and three previous years.

### [Health inequalities annual report 2019 for Northern Ireland](#)

Report | Released 27 March 2019

Annual publication presenting a comprehensive analysis of health inequality gaps between the most and least deprived areas of Northern Ireland and within health and social care trust and local government district areas.

### [Deaths registered in England and Wales: 2018](#)

Statistical bulletin | Released 6 August 2019

Registered deaths by age, sex, selected underlying causes of death and the leading causes of death.

Contains death rates and death registrations by area of residence and single year of age.