

Article

# Leading causes of death, UK: 2001 to 2018

Registered leading causes of death by age, sex and country.

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# 1 . Main points

- The leading cause of death in the UK in 2018 was dementia and Alzheimer disease, accounting for 12.7% of all deaths registered.
- In 2008, the leading cause of death for females aged 50 to 64 years changed from malignant neoplasm of breast to malignant neoplasm of trachea, bronchus and lung, which accounted for 10.1% of deaths for this age group in 2018.
- From 2001 to 2018, suicide and injury or poisoning of undetermined intent was the leading cause of death for both males and females aged 20 to 34 years in the UK, for all years observed, accounting for 27.1% of male deaths and 16.7% of female deaths for this age group.

## 2 . Introduction

This article presents the UK's leading causes of death from 2001 to 2018. To identify the leading causes for this analysis, we used a [grouping](#) originally produced by the World Health Organization (WHO) to determine which causes were among the top five for all deaths registered, accounting for approximately 40% of all deaths registered in each country. The number of leading causes differs for each combination of age, sex and constituent country. More information can be found in the [Measuring the data](#) section.

### 3 . UK leading causes of death for all ages

The leading causes of death for males and females since 2001 are presented in Figures 1 and 2 respectively. The numbers of deaths from ischaemic heart diseases (IHD) and cerebrovascular disease have decreased over time, but IHD remains the leading cause of death in males.

For females, the number of deaths caused by the dementia and Alzheimer disease has increased since 2001. In 2011, this became the leading cause of death, accounting for 16.5% of all female deaths in 2018.

There are several reasons why the number of deaths from dementia and Alzheimer disease has increased in recent years. Dementia and Alzheimer disease are more likely to occur among older age groups, and more people are living longer and surviving other illnesses. In addition, a better understanding of dementia and improved diagnosis is likely to have caused increased reporting of dementia on death certificates. This may be a consequence of initiatives put in place in 2013 to 2014, such as the Prime Minister's [challenge on dementia](#) and the government's [mandate to NHS England](#), which included an ambition that two-thirds of the estimated number of people with dementia in England should have a diagnosis.

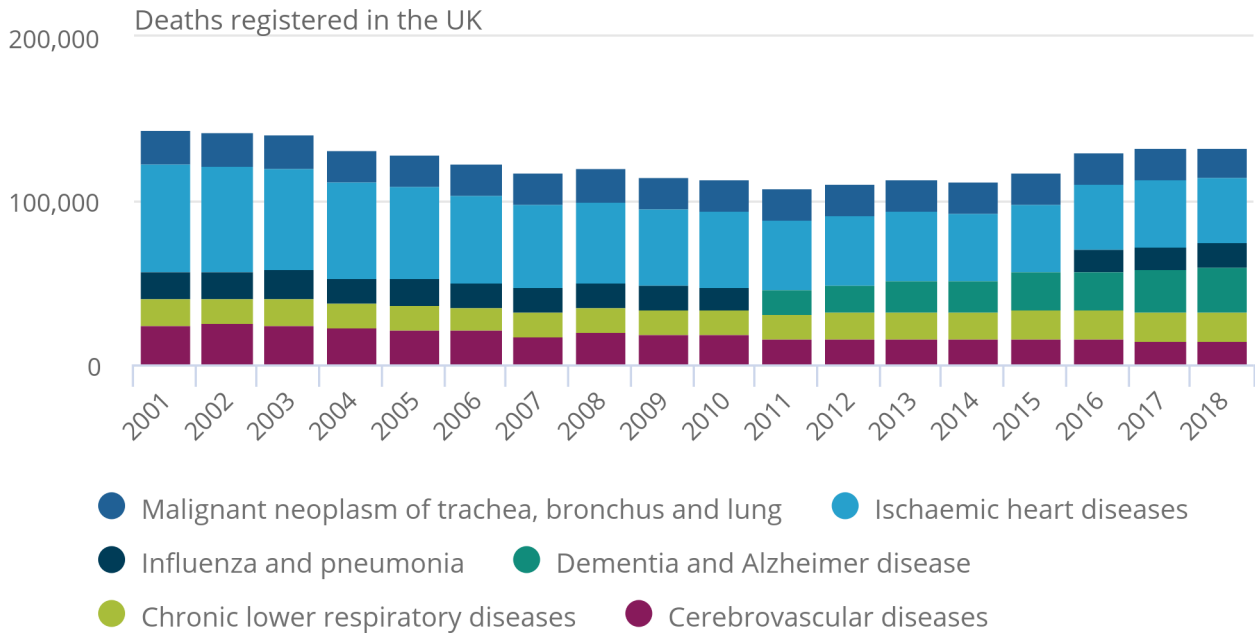
There was a [2011 update to the coding framework](#) and a [2014 update to the coding framework](#) used to code cause of death. These updates increased the number of deaths coded with an underlying cause of dementia.

**Figure 1: While there has been a decrease in deaths resulting from IHD, it remains the main cause of male deaths**

Deaths registered in the UK by leading causes of death, males, all ages, 2001 to 2018

Figure 1: While there has been a decrease in deaths resulting from IHD, it remains the main cause of male deaths

Deaths registered in the UK by leading causes of death, males, all ages, 2001 to 2018



Source: Office for National Statistics – Leading causes of death

Notes:

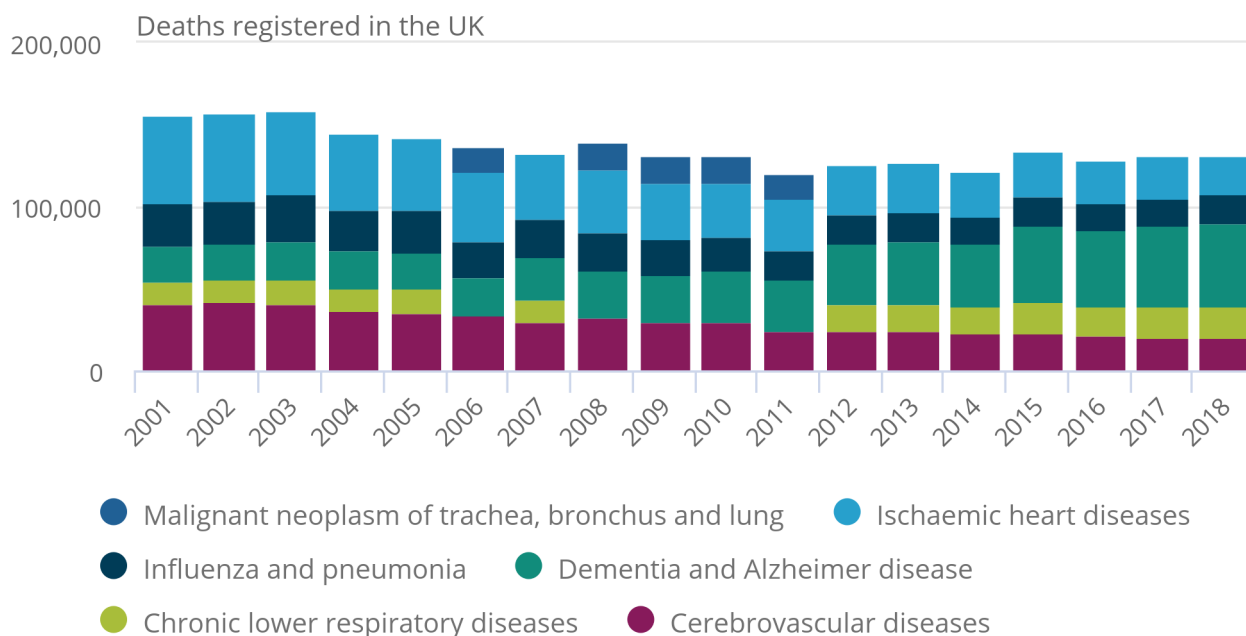
1. Based on deaths registered in the calendar year.
2. Updates to the coding framework used to code cause of death took place in 2011 and 2014. More information on these updates is available in the Measuring the data section.
3. To account for these coding changes, comparability ratios have been applied to death counts of the dementia and Alzheimer disease and influenza and pneumonia.

## Figure 2: Dementia and Alzheimer disease has become the leading cause of death for females

Deaths registered in the UK by leading causes of death, females, all ages, 2001 to 2018

### Figure 2: Dementia and Alzheimer disease has become the leading cause of death for females

Deaths registered in the UK by leading causes of death, females, all ages, 2001 to 2018



Source: Office for National Statistics – Leading causes of death

#### Notes:

1. Based on deaths registered in the calendar year.
2. Updates to the coding framework used to code cause of death took place in 2011 and 2014. More information on these updates is available in the Measuring the data section.
3. To account for these coding changes, comparability ratios have been applied to death counts of the dementia and Alzheimer disease and influenza and pneumonia.

## 4 . UK leading causes of death by age group

The overall changes seen in the leading causes of death in the UK between 2001 and 2018 have been largely influenced by the older age groups analysed (65 years and over).

### UK leading causes of death for those aged 80 years and over

In 2001, the leading cause of death in males and females was ischaemic heart disease (IHD), accounting for 21.8% and 18.1% of deaths registered, respectively. Since then, there has been a decrease in deaths resulting from IHD and cerebrovascular disease and an increase in deaths resulting from the dementia and Alzheimer disease. For males, the dementia and Alzheimer disease became the leading cause of death in 2015, accounting for 15.1% of deaths registered for males aged 80 years and over in 2018. For females, it became a leading cause of death in 2009 and then again from 2011 onwards.

## UK leading causes of death for those aged 65 to 79 years

Since 2001, there has been a decrease in deaths resulting from IHD. It has decreased from 26.0% of deaths registered to males aged 65 to 79 years in 2001 to 14.8% in 2018. Despite this, IHD remains the leading cause of death for males aged 65 to 79 years.

For females aged 65 to 79 years, IHD was the leading cause of death until 2013, when malignant neoplasm of trachea, bronchus and lung became the leading cause of death. Deaths from malignant neoplasm of trachea, bronchus and lung accounted for 10.4% of female deaths in this age group in 2018.

## UK leading causes of death for those aged 50 to 64 years

From 2001 to 2018, IHD has been the leading cause of death in males aged 50 to 64 years. Males in this age group had over three times the number of deaths from IHD than females throughout the years observed. In 2018, there were 6,570 male deaths from IHD (17.2% of total male deaths for those aged 50 to 64 years), whereas there were 1,767 female deaths from IHD (6.8% of total female deaths for those aged 50 to 64 years).

For females, the leading cause of death was malignant neoplasm of breast from 2001 to 2007 (accounting for 12.2% of total female deaths aged 50 to 64 years in 2001). From 2008, malignant neoplasm of trachea, bronchus and lung was the leading cause of death, accounting for 10.1% of deaths in this age group in 2018. These findings could partly be explained by the increase in breast cancer survival in England (see [Public Health England's report on cancer survival](#)) and the likelihood that those dying from neoplasm of trachea, bronchus and lung would have started smoking at a time when prevalence was high (see [adult smoking habits in the UK](#)).

## UK leading causes of death for the younger age groups

The leading cause of death for males aged 35 to 49 years changed from IHD between 2001 and 2010, to suicide and injury or poisoning of undetermined intent from 2011 to 2015, to accidental poisoning in more recent years.

Suicide and injury or poisoning of undetermined intent was the leading cause of death for both males and females aged 20 to 34 years in the UK, for all years observed. Males had over three times the number of deaths from suicide compared with females for each year observed in this age group. In 2018, there were 1,233 male deaths from suicide and injury or poisoning of undetermined intent (27.1% of total male deaths for those aged 20 to 34 years) and 353 female deaths from suicide and injury or poisoning of undetermined intent (16.7% of total female deaths for those aged 20 to 34 years).

## 5 . Leading causes of death by constituent country for all ages

Generally, the leading causes of death for England, Wales, Scotland and Northern Ireland follow the same trend as the UK total: there has been decreases in the number of deaths resulting from cerebrovascular disease and ischaemic heart diseases (IHD) and an increase in deaths resulting from the dementia and Alzheimer disease. The dementia and Alzheimer disease first became a leading cause of death in 2007 for Scotland and Northern Ireland. For England, this was later in 2010, and for Wales, this was in 2011.

Influenza and pneumonia is a leading cause of death in all countries except Scotland.

The data for death registrations broken down by age groups and sex for each UK country can be found in the reference tables.

## 6 . UK leading causes of death data

Leading causes of death, UK: 2001 to 2018  
Dataset | Released 27 March 2020  
Annual leading causes of death registered in the UK from 2001 to 2018.

## 7 . Measuring the data

### Data sources

Death statistics are compiled from information supplied when deaths are certified and registered as part of civil registration, which is a legal requirement.

The summary figures published in the release include analysis of causes of death by broad disease groupings, which can be found in [Section 10 of the User guide to mortality statistics](#).

### Coding framework updates

In 2011, there was an update to the coding framework (detailed in the [bridge coding study](#)) used to code cause of death. This meant that deaths from vascular dementia that were previously coded to cerebrovascular disease (I60 to I69) would be coded to vascular dementia (F01). There were further changes to the framework in 2014 (detailed in the [dual coding study](#)), where deaths that were coded to chest infection (J98) would now be coded to chest infection (J22) but those with a mention of dementia (F01 or F03) would now be coded to dementia (F01 or F03). In addition, deaths that were previously coded to aspiration pneumonia (I69) where dementia was mentioned on the death certificate would now be coded to dementia (F01 or F03).

### Leading causes of death

The Office for National Statistics (ONS) determines the [leading causes of death](#) using a detailed list based on one developed by the World Health Organization (WHO). This list uses more specific groupings than the broad group level, splitting causes such as cancer and circulatory diseases into different subtypes, with the aim to provide policymakers with enough detail to generate appropriate health policies and interventions.

To identify the leading causes of death for this analysis, we used a grouping originally produced by the World Health Organization (WHO) to determine which causes were among the top five for all deaths registered, accounting for approximately 40% of all deaths registered in each country. As this analysis covers an 18-year time period, we identified the leading causes of death for each data year from 2001 to 2018 for each age grouping, sex and country. This is why the number of leading causes of death we have focused on differs for each variable combination.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Mortality statistics in England and Wales QMI](#) and the [User guide to mortality statistics](#).

## 8 . Strengths and limitations

### Strengths

- There is a large degree of comparability in death statistics between countries within the UK; there are some differences, although these are believed to have a negligible impact on the comparability of the statistics.
- Coding for cause of death is carried out according to the World Health Organization (WHO) [International Statistical Classification of Diseases \(ICD-10\)](#) and internationally agreed rules.

## Limitations

- The figures represent the number of deaths registered in each calendar year; this includes some deaths that occurred in the years prior to the calendar year, while a proportion of deaths occurring in this year will not be registered until subsequent years (more information can be found in [Impact of registration delays on mortality statistics in England and Wales: 2018](#)).
- The figures represent deaths that were registered in England, Wales, Scotland and Northern Ireland. Any deaths of residents that happened abroad are not included.

## 9 . Related links

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

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.

### [Vital Events Reference Tables](#)

Report | Released 26 June 2019

This release presents final figures for vital events that were registered in Scotland in the period from 1 January to 31 December 2018, inclusive.

### [Registrar General Northern Ireland Annual Report 2018](#)

Report | Released 6 November 2019

The report provides an overview of Northern Ireland through the analysis of significant life events such as births, deaths, marriages and civil partnerships that were registered in 2018.

### [The top 10 causes of death](#)

Article | Released 24 May 2018

The World Health Organization (WHO) provides data on the leading causes of death in the world.