

Statistical bulletin

# Deaths registered in England and Wales (Series DR): 2015

Registered deaths by age, sex, selected underlying causes of death and the leading causes of death for both males and females.



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Release date:  
14 November 2016

Next release:  
October to November 2017  
(provisional)

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# 1 . Main points

Dementia and Alzheimer disease has replaced ischaemic heart diseases as the leading cause of death in England and Wales, accounting for 11.6% of all deaths registered in 2015.

Ischaemic heart diseases was the second leading cause of death in England and Wales, with 11.5% of all deaths registered in 2015.

For males, ischaemic heart diseases was the leading cause of death accounting for 14.3% of all male deaths in 2015, compared with 14.8% in 2014.

For females, the leading cause of death was dementia and Alzheimer disease accounting for 15.2% of all female deaths, up from 13.4% in 2014.

## 2 . Statistician's quote

"In 2015, dementia and Alzheimer's disease became the leading cause of death in part because people are simply living longer but also because of improved detection and diagnosis. An updating of the international rules for determining the underlying cause of death is also a factor, with the increase in cases attributed to these conditions accompanied by falls in other causes."

Elizabeth McLaren, Vital Statistics Outputs Branch, Office for National Statistics: follow [@StatsLiz](#) on Twitter.

## 3 . Things you need to know

Important information for interpreting these mortality statistics:

- death statistics are compiled from information supplied when deaths are certified and registered as part of civil registration, a legal requirement
- figures represent the number of deaths registered in the calendar year; this includes some deaths that occurred in the years prior to the calendar year (more information is available in the Quality and methodology section, point 4)
- figures represent deaths which occurred in England and Wales; these include the deaths of individuals whose usual residence was outside England and Wales
- summary figures were published in [Deaths registered in England and Wales, 2015](#) released in July 2016; this included analysis of causes of death by broad disease groupings
- this release provides more detail on both individual causes of death and leading causes of death, where individual causes are aggregated using a [list](#) developed by the World Health Organization WHO, modified for use in England and Wales

## 4 . Dementia and Alzheimer disease was the leading cause of death in 2015

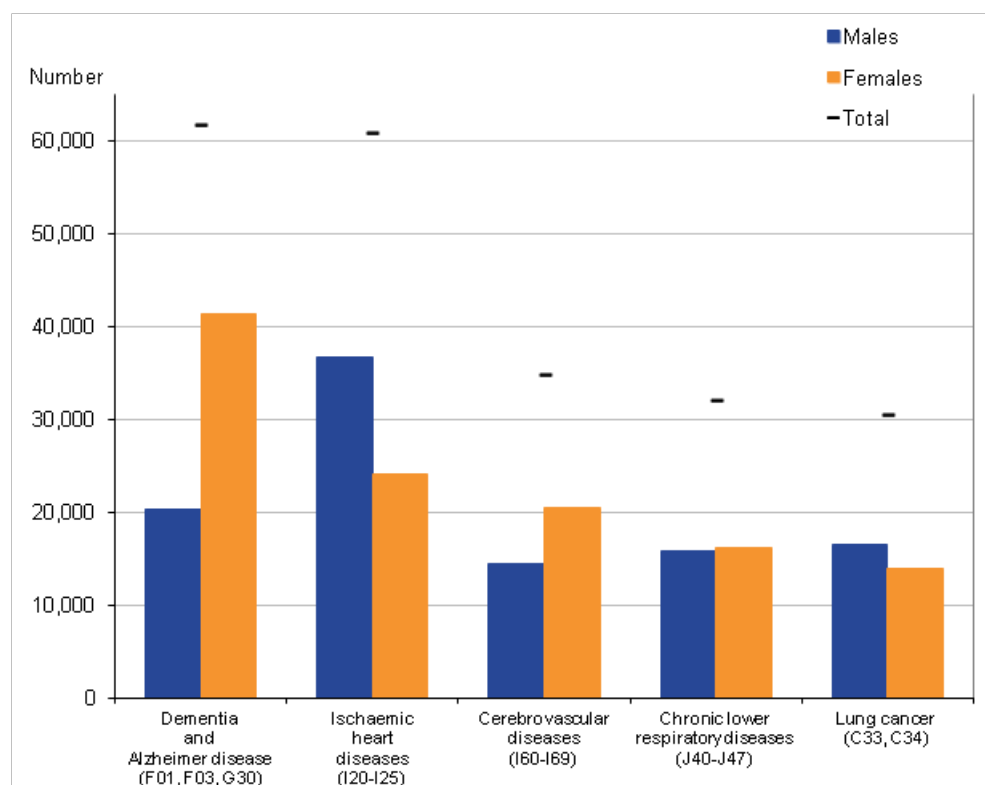
There were 529,655 deaths registered in England and Wales in 2015. As previously reported in [Deaths registered in England and Wales, 2015](#), at the broad disease group level, cancer was the most common cause of death in 2015 (27.9% of all deaths registered). This was followed by circulatory diseases, such as heart diseases and strokes (26.2%).

At a lower level, the Office for National Statistics (ONS) uses a [grouping](#) based on that developed by the World Health Organisation (WHO) which allows mortality patterns in England and Wales to be analysed.

The top 5 leading causes of death, using this grouping, account for 41.5% of all deaths registered in England and Wales in 2015 (Figure 1).

**Figure 1: Number of deaths from top 5 leading causes, 2015**

England and Wales



Dementia and Alzheimer disease became the leading cause of death in England and Wales in 2015 accounting for 11.6% of all deaths registered; it replaced ischaemic heart diseases which accounted for 11.5% of all deaths registered in 2015. Ischaemic heart diseases was the leading cause of death between 2011 and 2014 (leading causes of death using this grouping are available for 2011 to 2015).

Dementia and Alzheimer disease was the second leading cause of death between 2011 and 2014. The number of deaths from dementia and Alzheimer disease has increased in recent years.

There are several important reasons why this has occurred:

People are tending to live longer for a variety of reasons, including improved lifestyles and medical advances in the treatment of many illnesses and diseases. Dementia and Alzheimer disease mainly affects people over 65. With people living longer and surviving other illnesses, the number of people developing dementia and Alzheimer disease is increasing. Male life expectancy has been improving at a slightly faster rate than women's in recent years and [men are tending to live longer than before](#), which is likely to have contributed to the increased number of deaths from dementia and Alzheimer disease in men.

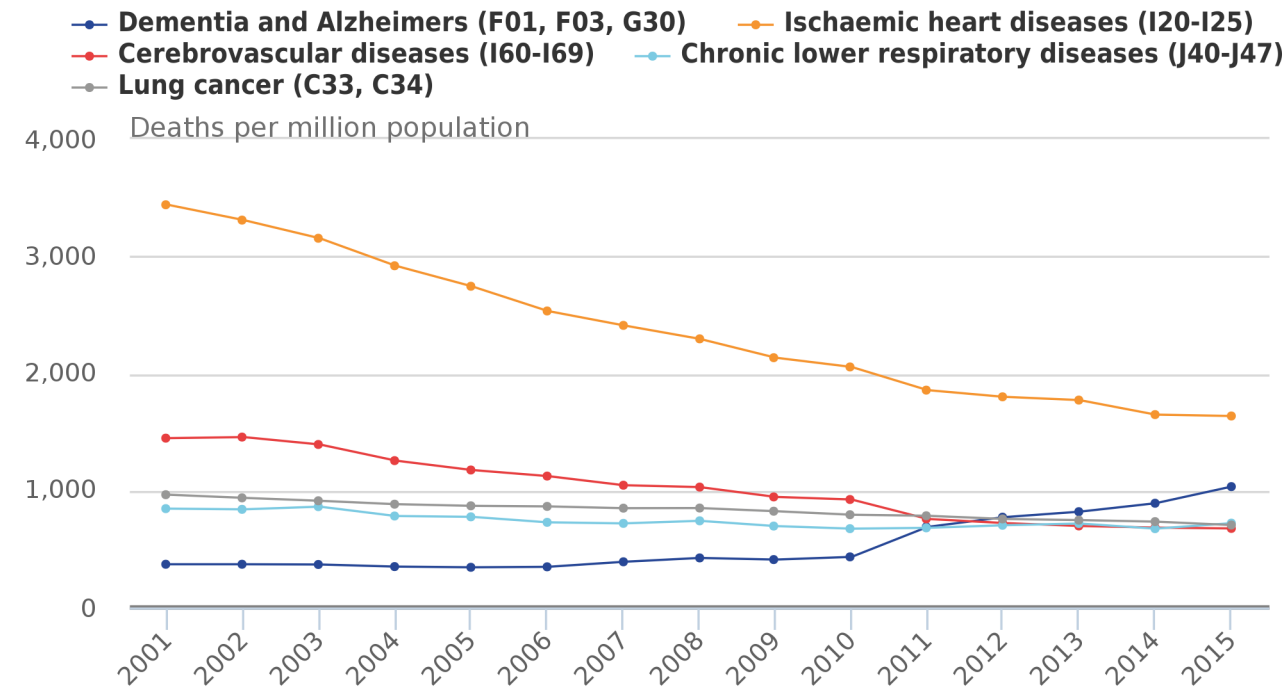
A better understanding of dementia and improved diagnosis is also likely to have caused increased reporting of dementia on death certificates. These are a likely consequence of [incentives put in place](#) in 2013/14, the Prime Minister's [challenges on dementia](#) and the government's [mandate to NHS England](#), which includes an agreed ambition that two-thirds of the estimated number of people with dementia in England should have a diagnosis.

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 Quality and methodology section, point 8).

Age-standardised mortality rates (ASMRs) for dementia and Alzheimer disease have increased since 2010 for both males and females (Figures 2 and 3). In contrast, mortality rates for the other top 5 leading causes of death have fallen since 2001 due to improvements in the treatment and diagnosis of these diseases and the introduction of preventative programmes and awareness campaigns that seek to improve people's health (see section 9).

**Figure 2: Male age-standardised mortality rates, for top 5 leading causes, 2001 to 2015**

England and Wales



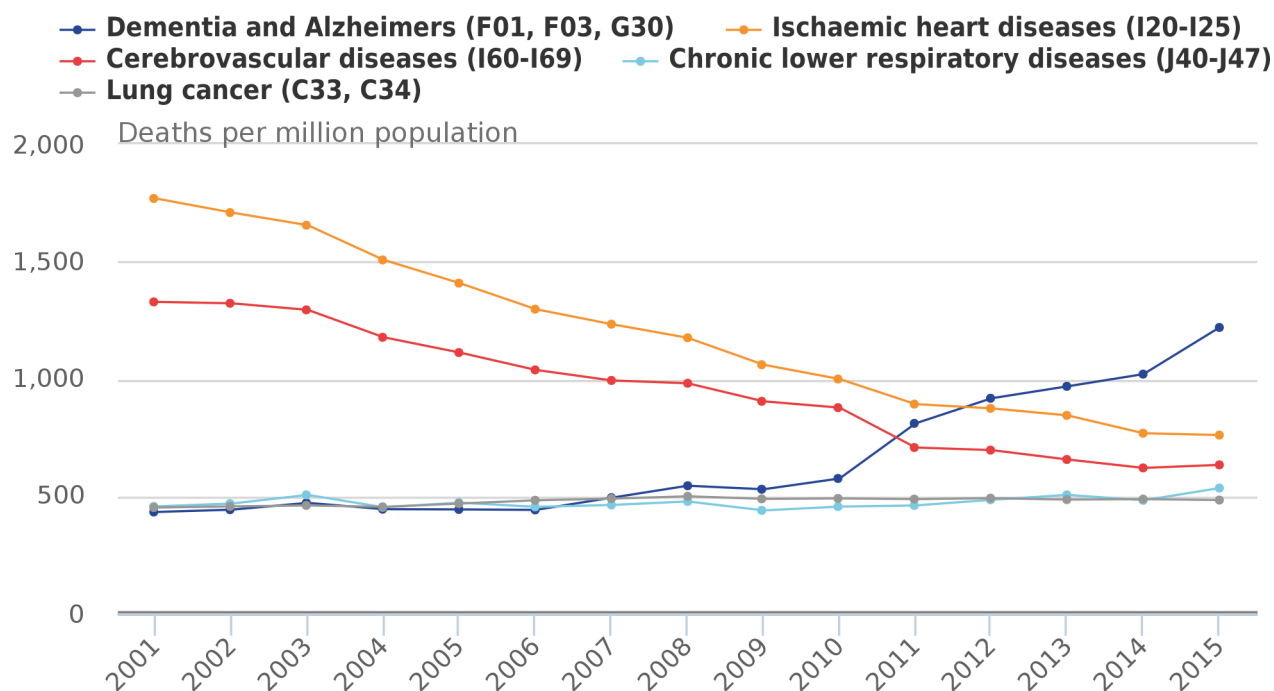
Source: Office for National Statistics

Notes:

1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

**Figure 3: Female age-standardised mortality rates, for top 5 leading causes, 2001 to 2015**

England and Wales



Source: Office for National Statistics

Notes:

1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

There have been similar increases in the number of deaths from dementia and Alzheimer disease reported in other countries including [Finland](#), [Northern Ireland](#), and [Australia](#).

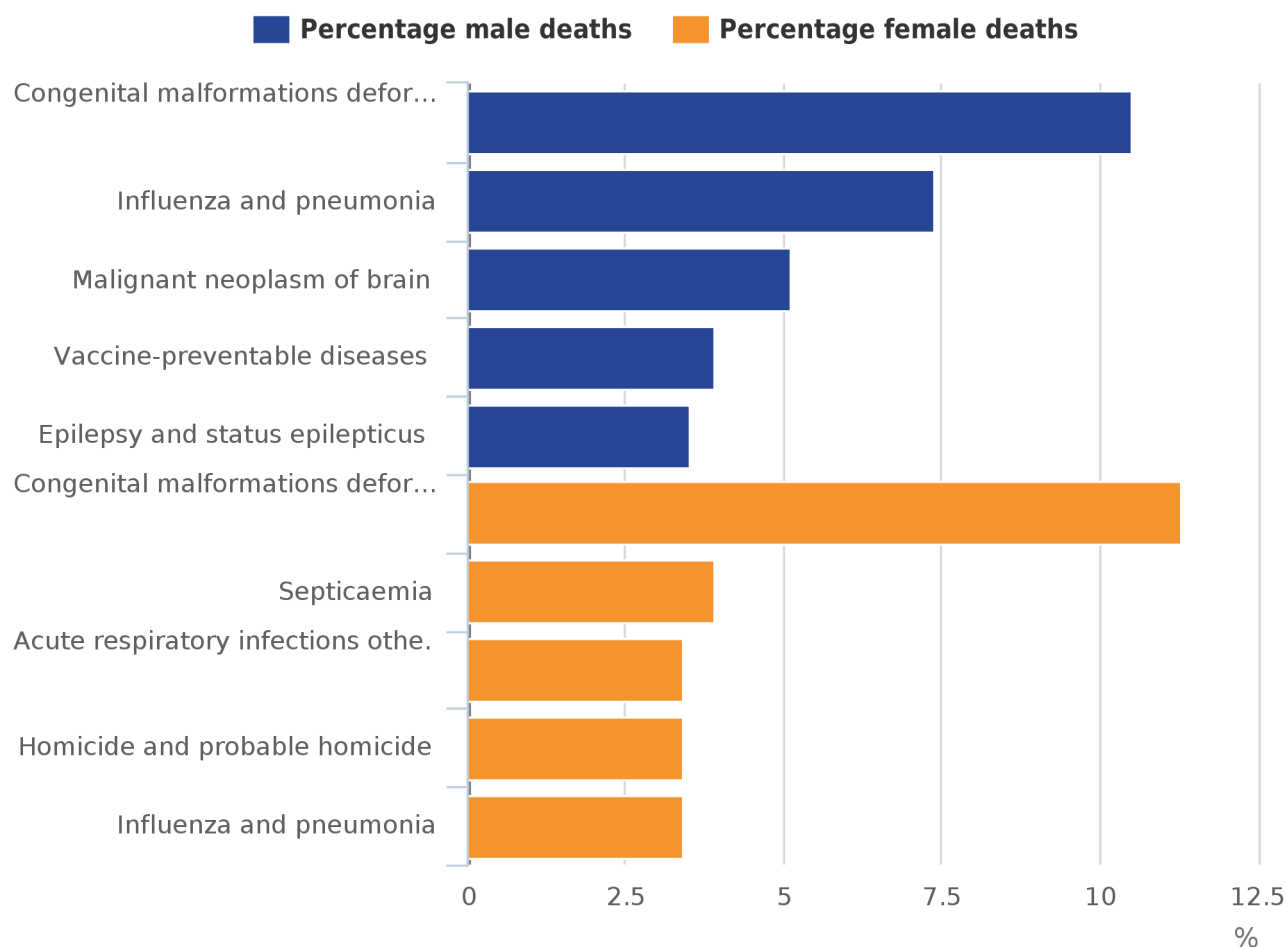
There is more information on dementia in an [infographic](#) and information on Alzheimer disease, on the [Alzheimer's Society](#) website.

## 5 . Number of land transport accidents among 5 to 19 year olds decreases in 2015

The leading cause of death for boys and girls aged 1 to 4 years in 2015 (Figure 4) was congenital malformations, deformations and chromosomal abnormalities. This cause accounted for 10.5% of male deaths and 11.3% of female deaths in this age group. This represents a decrease from 2014 when 13.7% of boys and 13.1% of girls aged 1 to 4 died from this cause.

**Figure 4: Top 5 leading causes of death for 1 to 4 year olds, 2015**

England and Wales



Source: Office for National Statistics

Notes:

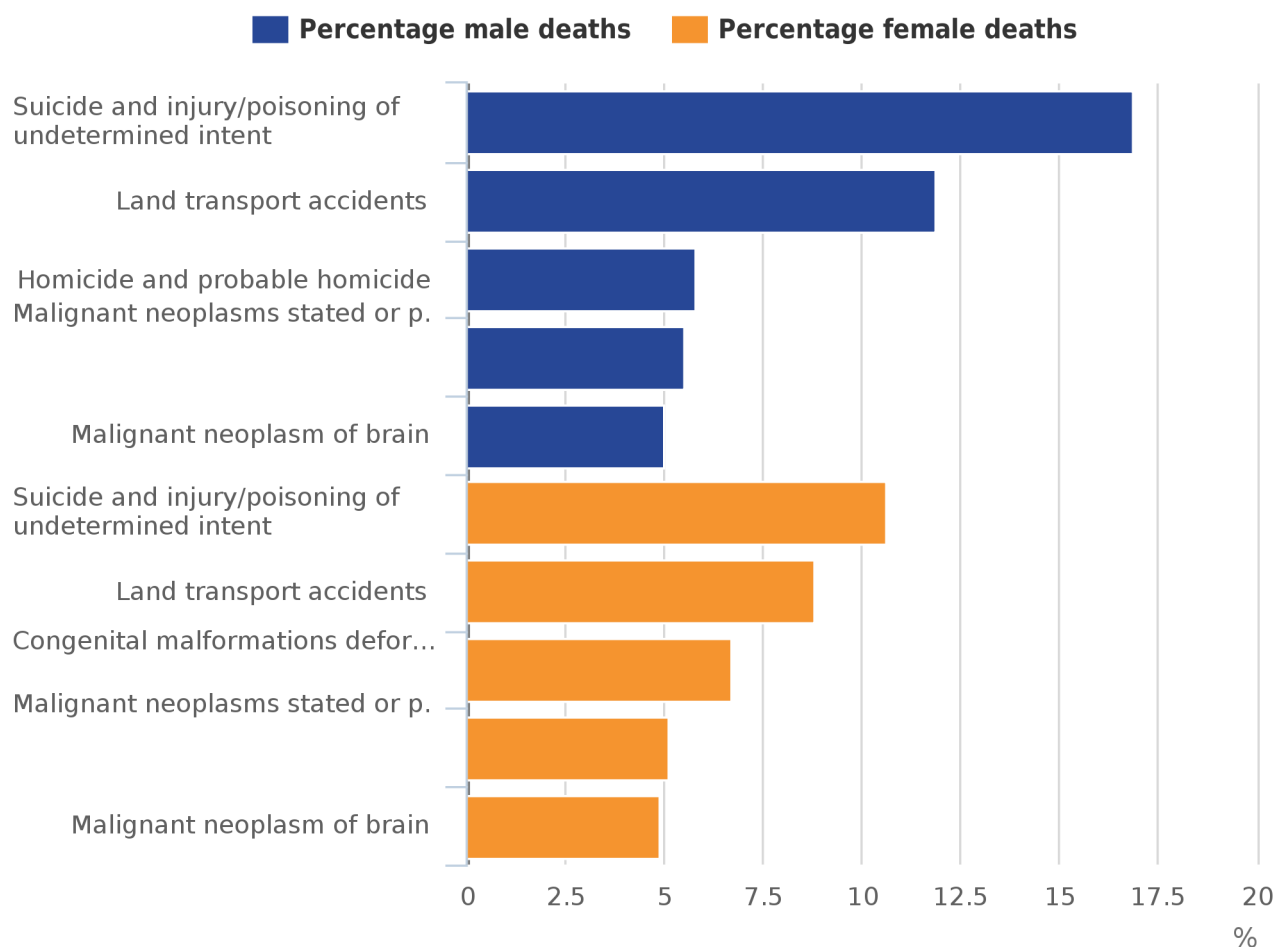
1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

Suicide and injury or poisoning of undetermined intent, was the leading cause of death for both boys and girls aged 5 to 19, accounting for 16.9% and 10.6% deaths respectively in 2015 (Figure 5). Land transport accidents was the joint leading cause of death for girls aged 5 to 19 in 2014 alongside suicide and injury or poisoning of undetermined intent. (The definition for suicide used here includes deaths of children aged 10 and over. From the ages 10 to 14 the cause of death was intentional self-harm and for those aged 15 and over it was intentional self-harm and event of undetermined intent.)

Land transport accidents was the second leading cause of death for both boys and girls aged 5 to 19 in 2015, accounting for 11.9% of male deaths and 8.8% of female deaths (Figure 5). The proportion of deaths from land transport accidents has decreased in comparison with 2014, when it accounted for 12.2% of male deaths and 9.4% of female deaths at ages 5 to 19.

**Figure 5: Top 5 leading causes of death for 5 to 19 year olds, 2015**

England and Wales



Source: Office for National Statistics

**Notes:**

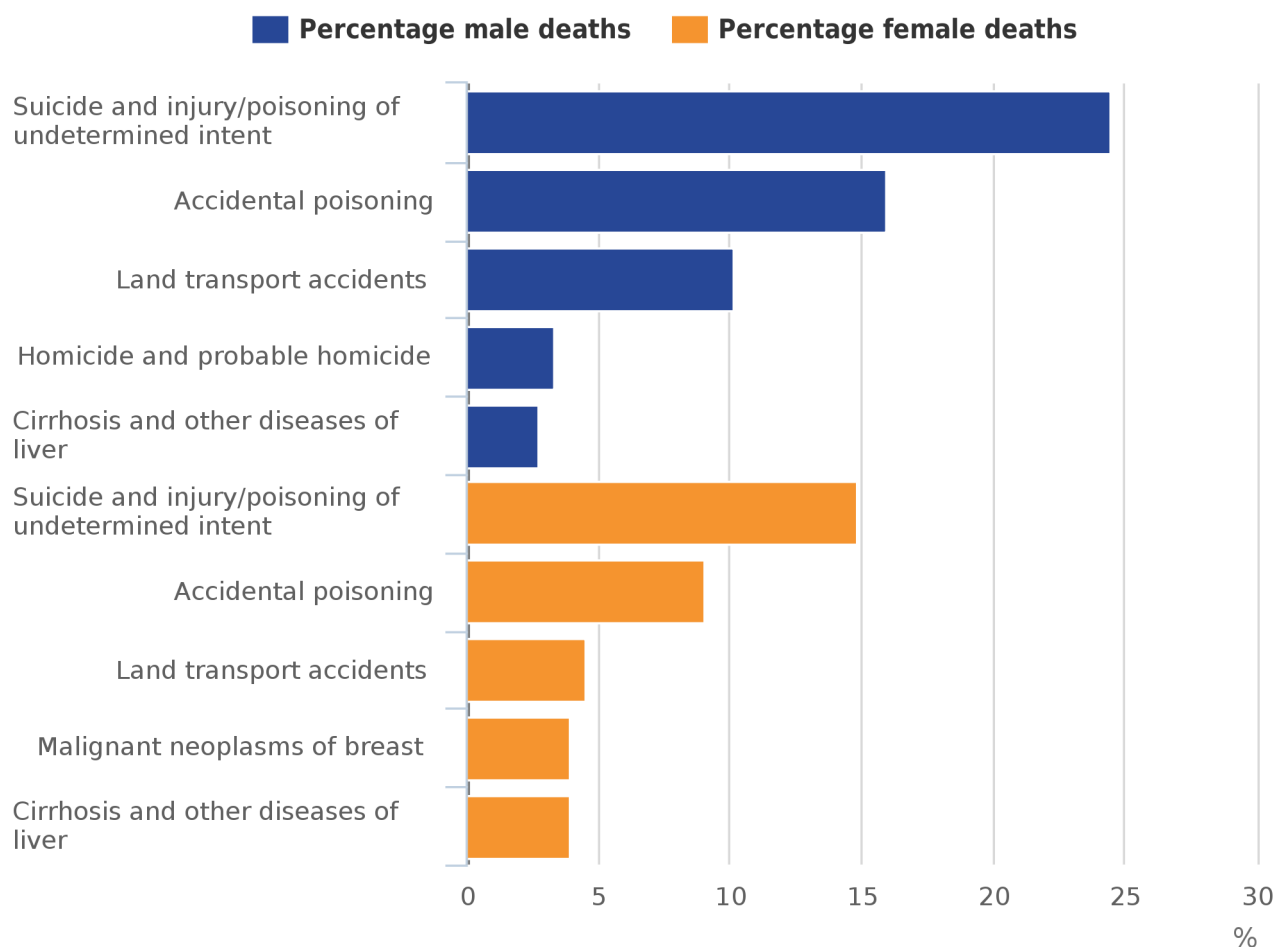
1. Based on deaths registered in each calendar year.
2. In England and Wales, a conclusion of suicide cannot be returned for children under the age of 10 years.
3. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

## 6 . Breast cancer remains the leading cause of death for women aged 35 to 49 in 2015

In 2015, the leading cause of death of 20 to 34 year olds was suicide and injury or poisoning of undetermined intent which has remained the leading cause of death for both males and females in this age group with 21.4% of deaths (Figure 6).

**Figure 6: Top 5 leading causes of death for 20 to 34 year olds, 2015**

England and Wales



Source: Office for National Statistics

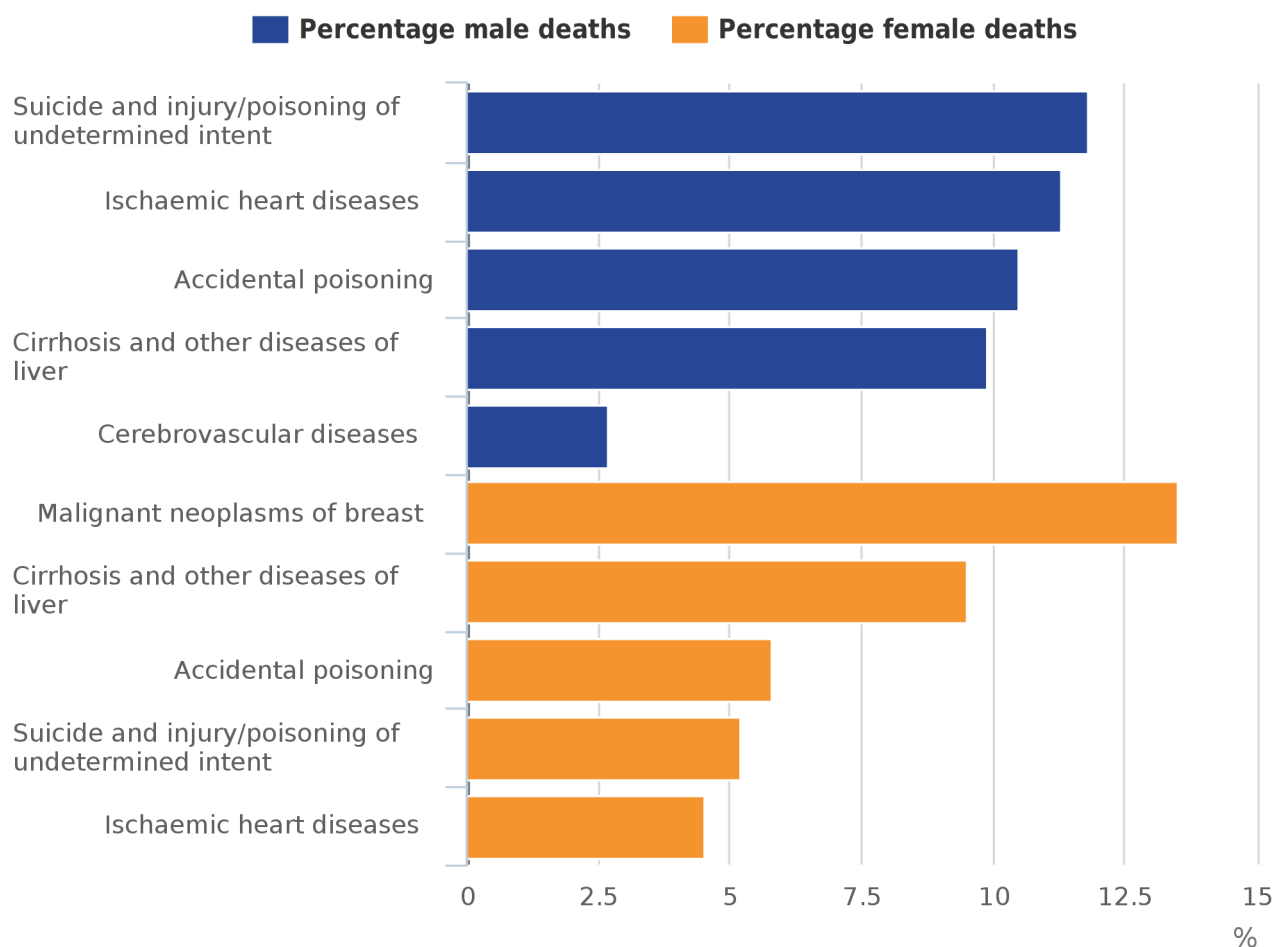
**Notes:**

1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

Breast cancer remains the leading cause of death for women aged 35 to 49, accounting for 13.5% of deaths, while suicide and injury or poisoning of undetermined intent remains the leading cause for males in this age group, with 11.8% of deaths (Figure 7).

**Figure 7: Top 5 leading causes of death for 35 to 49 year olds, 2015**

England and Wales



Source: Office for National Statistics

Notes:

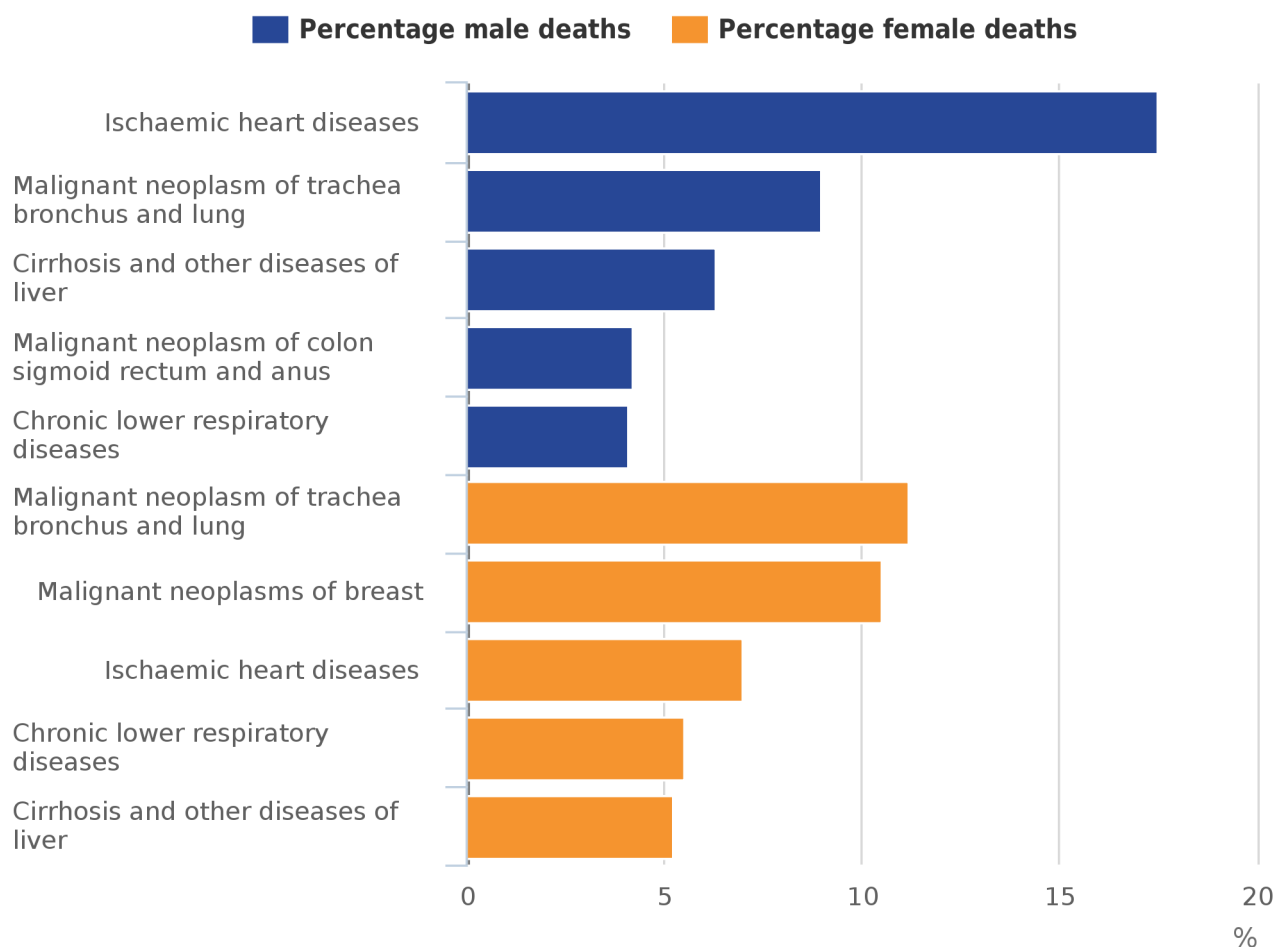
1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

## 7 . Ischaemic heart diseases leading cause of death for men aged 50 to 79 in 2015

For both men and women aged 50 to 79, the leading causes of death in 2015 were due to long-term diseases and conditions. For men this was ischaemic heart diseases which accounted for 16.2% of deaths and for women this was lung cancers which accounted for 10.6% of deaths in this age group. Lung cancers were the second leading cause of death for men aged 50 to 79 (Figures 8 and 9).

**Figure 8: Top 5 leading causes of death for 50 to 64 year olds, 2015**

England and Wales



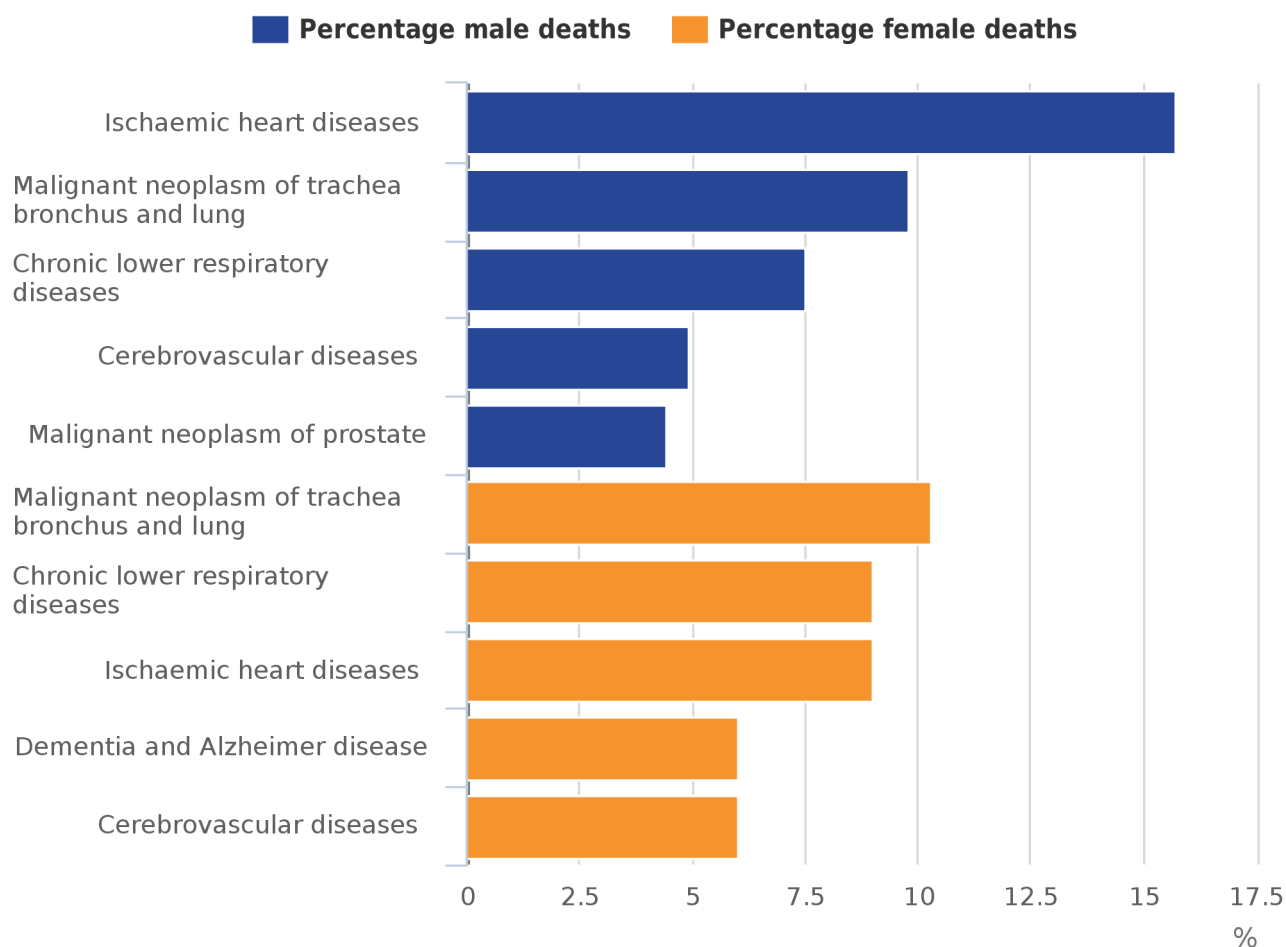
Source: Office for National Statistics

**Notes:**

1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

**Figure 9: Top 5 leading causes of death for 65 to 79 year olds, 2015**

England and Wales



Source: Office for National Statistics

Notes:

1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

## 8 . Dementia and Alzheimer disease leading cause of death for both men and women aged 80 and over

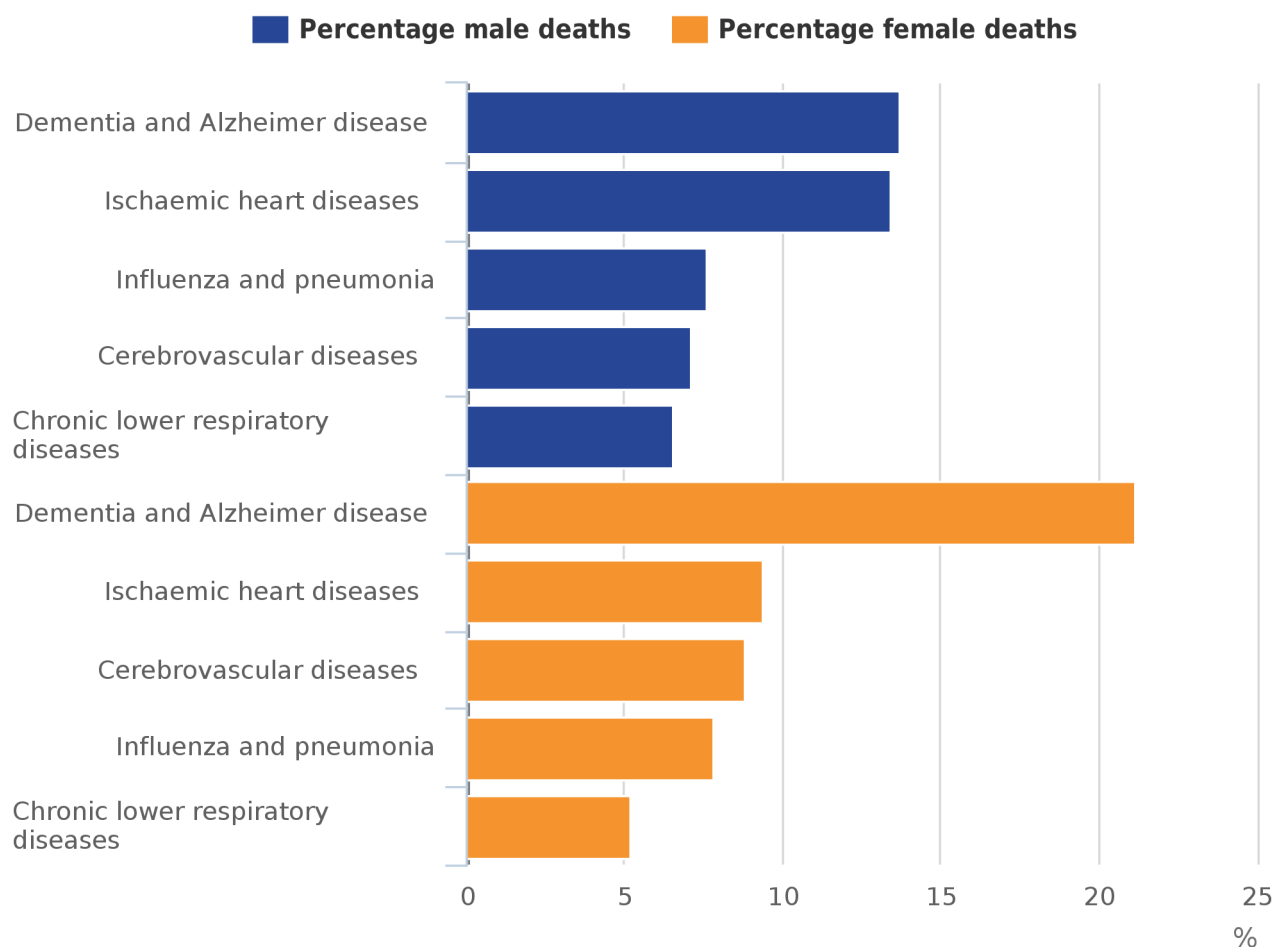
In 2015, the leading cause of death for men and women aged 80 years and over was dementia and Alzheimer disease, accounting for 13.7% of male deaths and 21.2% of female deaths (Figure 10).

Alzheimer disease is the most common cause of dementia. These are more likely to [occur at the older ages](#) with [Alzheimer disease affecting more women than men](#).

In 2014, the leading cause of death for males in this age group was ischaemic heart diseases which accounted for 14.3% of deaths. This was the second leading cause of death for males in 2015, with 13.4% of deaths.

**Figure 10: Top 5 leading causes of death for ages 80 and over, 2015**

England and Wales



Source: Office for National Statistics

**Notes:**

1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales.

## 9 . What is being done to make the public aware of their own health

There have been a number of awareness campaigns and preventative programmes put in place by the Department of Health and Welsh Government. These are aimed at making the public more aware of their own health. These include:

[NHS Breast screening](#), which was introduced in 1988

[Change4life campaign](#), which began in 2009

[Be clear on cancer campaign](#), which has been active since 2010/11

[Stoptober](#), which runs every October

[Stop smoking Wales](#)

[Change4life Wales](#), which launched in 2010

[Screening for life](#) campaign, which is run every July

[Prime Minister's challenge on dementia](#)

[Prime Minister's Challenge on dementia 2020](#)

[Dementia4Schools](#) an inter-generational schools project aimed at developing children and young peoples' knowledge and understanding of dementia

[One You](#) helping people to make healthier choices

## 10 . Links to related ONS statistics

More data on [deaths](#) in England and Wales in 2015 are available on our website.

More detailed data on underlying cause of death, area of usual residence, age and sex is available as an [explorable dataset](#). Data are available for 2013 to 2015 and is based on the year the death was registered. This dataset can also be used to extract mortality rates.

The number of deaths and death rates for the UK and constituent countries can be found in the [Vital Statistics: Population and Health Reference tables](#); an international comparison of numbers of deaths and death rates is also available. The [World Health Organization \(WHO\)](#) provides data on the leading causes of death in the world.

Further 2015 death statistics will be published later in 2016, see the [GOV.UK release calendar](#) for more details.

To meet user needs, very timely but provisional counts of death registrations are published:

- [provisional counts of weekly death registrations by sex, age group and region](#)
- [provisional counts of monthly death registrations by local authority](#)

Figures for 2016 have not been subject to the full quality assurance process so are considered provisional.

Special extracts and tabulations of deaths data for England and Wales are available to order (subject to legal frameworks, disclosure control, resources and the [ONS charging policy](#), where appropriate). Enquiries should be made to Vital Statistics Outputs Branch ([vsob@ons.gsi.gov.uk](mailto:vsob@ons.gsi.gov.uk) or telephone: +44 (0)1329 444110). User requested data will be published onto [our website](#).

## 11 . What has changed within this publication?

The dataset published alongside this release has changed. Numbers and rates for each individual underlying cause of death by age and sex for 2013 to 2015 are now available from an [explorable dataset](#). These figures are available at the national and local area level down to middle layer super output area (MSOA). Data not available from the explorable dataset are available in table format in our [published dataset](#). The published dataset contains a table listing showing how the new table numbers relate to those which used to be published.

Improvements have also been made to this bulletin and its contents, to provide a more concise summary of the main statistics. We welcome [feedback](#) on these changes.

## 12 . Quality and methodology

1. Mortality statistics are used for producing population estimates and projections and to quality assure the census estimates. They are also used to carry out further analysis on, for example: life expectancy; health expectancy; causes of death; and to further analyse infant mortality. They also enable the analysis of social and demographic trends.
2. The [Mortality Statistics Quality and Methodology Information](#) document contains important information on:
  - the strengths and limitations of the data
  - the quality of the output: including the accuracy of the data and how it compares with related data
  - uses and users
  - how the output was created
3. Our [User Guide to Mortality Statistics](#) provides further information on data quality, legislation and procedures relating to mortality and includes a glossary of terms. Information on how age-standardised mortality rates (ASMRs) are calculated is included.
4. Death figures reported here are based on deaths registered in the data year. This includes some deaths that occurred in the years prior to 2015 (25,172 deaths). ONS also takes an annual extract of death occurrences in the autumn following the data year to allow for late registrations. Further information on [the impact of registration delays for a range of causes](#) is available.
5. 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. These differences are outlined in [the Mortality Statistics Quality and Methodology Information](#) document.
6. The [Revisions policies for population statistics \(including mortality statistics\)](#) is available on our website.
7. Deaths are cause coded using the World Health Organization's (WHO) International Classification of Diseases (ICD). Deaths are coded to ICD-10 using [IRIS](#) software (version 2013). Cause of death reported here represents the final underlying cause of death for ages 28 days and over. This takes account of additional information received from medical practitioners or coroners after the death has been registered.
8. 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 to 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 be now 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 to 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).

