

Article

Death registration summary statistics, England and Wales: 2022

Number of deaths registered by year, sex, area of usual residence and selected underlying cause of death.

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1 . Main points

- In 2022, there were 577,160 deaths registered in England and Wales; this was 9,174 (1.6%) fewer deaths than in 2021, and 33,747 (6.2%) more deaths than the five-year average (2016 to 2019 and 2021).
- In England, 540,333 deaths were registered in 2022, which was 9,016 (1.6%) fewer deaths than 2021 and 32,083 (6.3%) above the five-year average; in Wales, 35,694 deaths were registered, which was 441 (1.2%) fewer deaths than 2021 and 1,686 (5.0%) above the five-year average.
- There were more male deaths registered (292,064 deaths) than female (285,096 deaths) in 2022, continuing the trend seen in 2020 and 2021.
- Deaths were above the five-year average in every English region in 2022; the region with the largest percentage of deaths above the five-year average was the South West of England (8.0% higher), and the region with the smallest was London (2.2% higher).
- The leading cause of death in England and Wales in 2022 was dementia and Alzheimer's disease, with 65,967 deaths (11.4% of all deaths); this percentage was higher than in 2021 (61,250 deaths, 10.4% of all deaths).
- Coronavirus (COVID-19) was the sixth leading cause of death in 2022 (22,454 deaths, 3.9% of all deaths registered), having been the leading cause of death in 2021 (67,350 deaths, 11.5% of all deaths registered).
- The leading cause of death among males in 2022 was ischaemic heart diseases (38,730 deaths, 13.3% of all male deaths registered), and among females was dementia and Alzheimer's disease (42,635 deaths, 15.0% of all female deaths registered); this pattern was unchanged from 2021.

2 . Number of deaths registered in 2022

The number of deaths registered in 2022 in England and Wales was 577,160. This was 9,174 fewer death registrations than in 2021, and 6.2% (33,747 deaths) above the five-year average (2016 to 2019 and 2021).

The five-year average is based on 2016 to 2019 and 2021 (rather than 2017 to 2021) because of the impact of the coronavirus (COVID-19) pandemic on deaths registered in 2020. The average for 2016 to 2019 and 2021 provides a comparison of the number of deaths expected in a usual (non-pandemic) year. More information can be found in our blog post, [Understanding excess deaths during a pandemic](#).

In England, there were 540,333 deaths registered in 2022, 9,016 fewer deaths than 2021, and 6.3% above the five-year average for England (32,083 more deaths). In Wales, 35,694 deaths were registered in 2022, 441 fewer deaths than 2021, and 5.0% above the five-year average for Wales (1,686 more deaths).

The numbers of deaths shown for England and Wales separately do not add up exactly to the numbers for England and Wales together. This is because the latter figures include deaths of non-residents in addition to those of residents of the two countries.

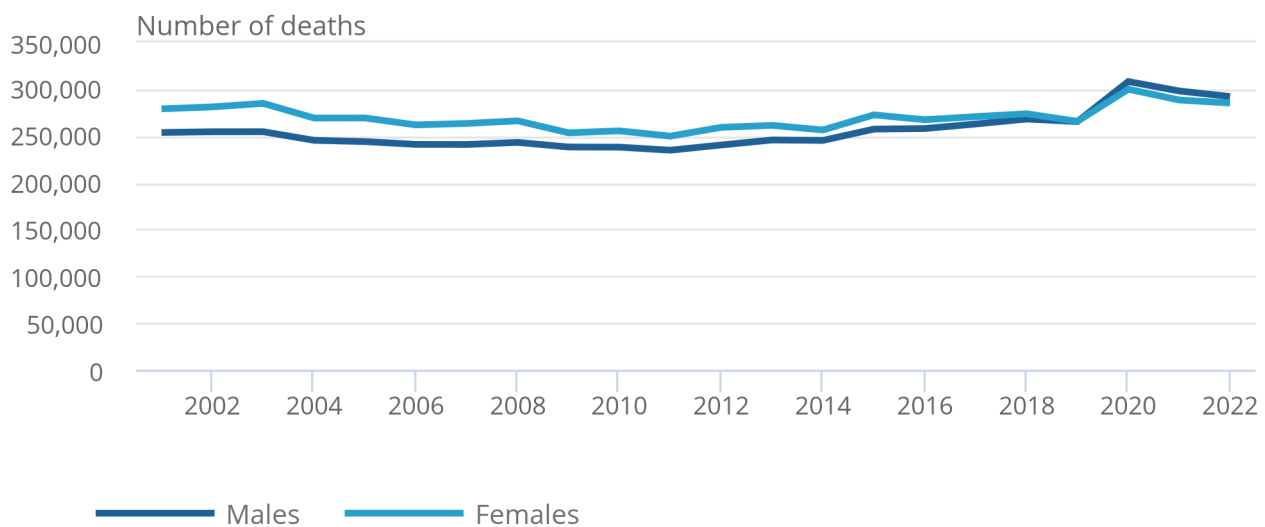
3 . Number of deaths by sex

Figure 1: The number of deaths was higher for males than females in 2022, continuing the trend seen since the onset of the coronavirus (COVID-19) pandemic

Number of deaths registered by sex, 2001 to 2022, England and Wales

Figure 1: The number of deaths was higher for males than females in 2022, continuing the trend seen since the onset of the coronavirus (COVID-19) pandemic

Number of deaths registered by sex, 2001 to 2022, England and Wales



Source: Death registration summary statistics from the Office for National Statistics

Notes:

1. Figures are based on deaths registered in each calendar year, rather than death occurrences.
2. Figures include deaths of non-residents.

In England and Wales, the number of deaths registered in 2022 was greater for males (292,064) than females (285,096), continuing the trend observed in 2020 and 2021. There were more registered deaths among females than males in every year from 1982 to 2019; more information can be found in our [Deaths registered in England and Wales: 2021 dataset](#).

Among males in 2022, death registrations were 5,925 fewer than in 2021, and 8.0% (21,716 deaths) above the five-year average (2016 to 2019 and 2021). Among females, death registrations were 3,249 fewer than in 2021, and 4.4% (12,031 deaths) above the five-year average.

Comparisons between sub-groups of the population (for example, by sex) and across time need to be treated with caution as population size and age structure has not been taken into account in these numbers. Further analysis on deaths registered in 2022, including age-standardised mortality rates, will be released in summer 2023 in the 2022 edition of our [Deaths registered in England and Wales Statistical bulletin](#).

4 . Number of deaths by area

The number of death registrations was lower in 2022 compared with 2021 across most regions of England, and Wales. The regions that had an increase in death registrations were Yorkshire and the Humber (57,222 and 56,155 deaths in 2022 and 2021, respectively) and the South West of England (62,546 and 61,249 deaths in 2022 and 2021, respectively).

The English region with the smallest difference in deaths registered between 2022 and 2021 was the North East of England (30,168 and 30,274 deaths, respectively; 106 fewer deaths in 2022). The largest difference in deaths registered between 2022 and 2021 was observed in London (52,002 and 56,945 deaths, respectively; 4,943 fewer deaths in 2022).

This section does not make direct comparisons between areas as the population size and age structure of each area has not been taken into account.

Each English region made up a similar proportion of death registrations compared with previous years. Although the majority of regions saw a decrease in the number of deaths between 2021 and 2022, all remained above the 2016 to 2019 and 2021 five-year average. The region with the largest proportion of deaths above the five-year average was the South West (8.0% higher, 4,626 more deaths) and the region with the smallest percentage above the five-year average was London (2.2% higher, 1,129 more deaths).

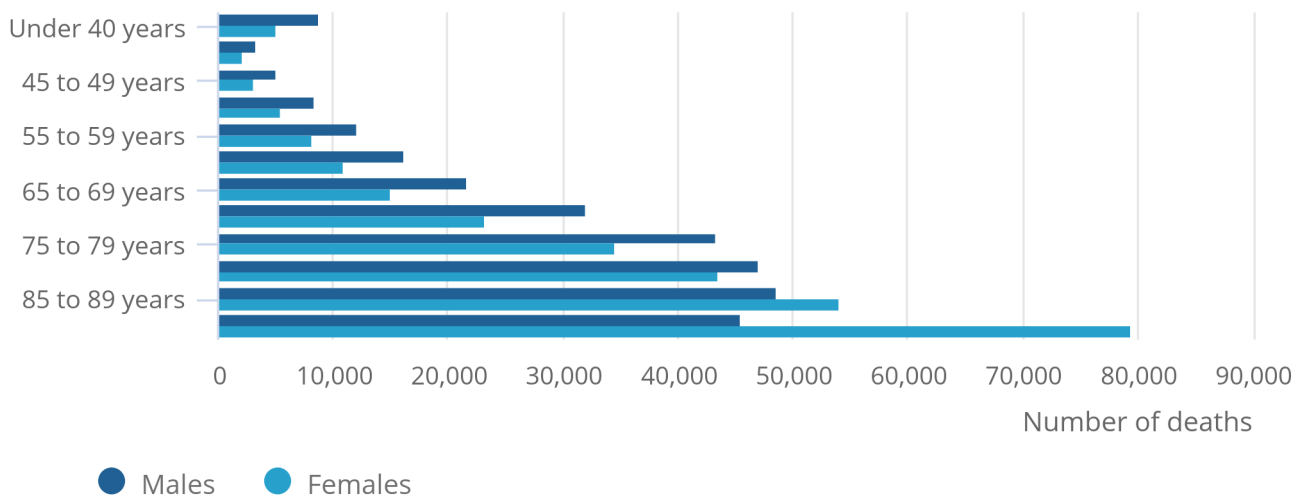
5 . Number of deaths by age

Figure 2: The number of deaths was higher for males than females for the majority of age groups in 2022

Number of deaths registered by sex and age group, 2022, England and Wales

Figure 2: The number of deaths was higher for males than females for the majority of age groups in 2022

Number of deaths registered by sex and age group, 2022, England and Wales



Source: Death registration summary statistics from the Office for National Statistics

Notes:

1. Figures are based on deaths registered, rather than death occurrences.
2. Figures include deaths of non-residents.

Caution is needed when looking at numbers of deaths across age groups and sex because of the different population sizes. For example, when looking at our [population estimates for 2021](#), we see that people aged under 40 years make up 49% of the population, but account for 2% of deaths. Population numbers for males and females are similar for most age groups, however, as age increases, we see more deaths in females than males. In 2022, females accounted for 63.6% of deaths registered in those aged 90 years and above. More information will be available in our [Deaths registered in England and Wales: 2022 bulletin](#) later this summer.

We can use these numbers to look at overall trends in mortality by age group. Like previous years, the number of deaths in 2022 increased as age increased. The oldest age groups (aged 85 to 89 years and aged 90 years and above) were the only age groups where the number of death registrations was higher among females than males. One reason for this is that females account for the majority of the population in these age groups.

6 . Number of deaths by leading cause of death

The top five leading causes of death (based on the [leading causes of death groupings](#)) in England and Wales accounted for 36.9% of all deaths registered in 2022.

The leading cause of death in 2022 was dementia and Alzheimer's disease (65,967 deaths) accounting for 11.4% of all deaths. The other leading causes that made up the top five causes of death were ischaemic heart diseases (59,356 deaths), chronic lower respiratory diseases (29,815 deaths), cerebrovascular diseases (29,274 deaths) and malignant neoplasms of trachea, bronchus and lung (28,571 deaths). Coronavirus (COVID-19) was not in the top five leading causes of death for the first time since the beginning of the coronavirus pandemic.

Table 1: Dementia and Alzheimer's disease was the leading cause of death for all persons and for females in 2022, and was the second leading cause of death for males

Number and proportion of deaths registered by leading cause of death and sex, 2022, England and Wales

Sex	Leading causes	Number of deaths	Proportion of deaths (%)
Persons	Dementia and Alzheimer's disease	65,967	11.4
	Ischaemic heart diseases	59,356	10.3
	Chronic lower respiratory diseases	29,815	5.2
	Cerebrovascular diseases	29,274	5.1
	Malignant neoplasm of trachea, bronchus and lung	28,571	5.0
Males	Ischaemic heart diseases	38,730	13.3
	Dementia and Alzheimer's disease	23,332	8.0
	Malignant neoplasm of trachea, bronchus and lung	14,856	5.1
	Chronic lower respiratory diseases	14,690	5.0
	Cerebrovascular diseases	13,046	4.5
Females	Dementia and Alzheimer's disease	42,635	15.0
	Ischaemic heart diseases	20,626	7.2
	Cerebrovascular diseases	16,228	5.7
	Chronic lower respiratory diseases	15,125	5.3
	Malignant neoplasm of trachea, bronchus and lung	13,715	4.8

Source: Death registration summary statistics from the Office for National Statistics

Notes

1. Figures are based on deaths registered rather than death occurrences.
2. Figures include deaths of non-residents.
3. Leading cause of death groupings are based on a list developed by the World Health Organization (WHO).

For males, ischaemic heart diseases remained the leading cause of death (38,730 deaths, 13.3% of all male deaths) in 2022. For females, dementia and Alzheimer's disease remained the leading cause of death (42,635, 15.0% of all female deaths). These were both increases compared with 2021.

The leading causes of death in each individual age group in 2022 were consistent with those of 2021, with the exception of COVID-19. Having featured in the top five leading causes of death in most age groups in 2021, COVID-19 was not in the top five leading causes of death for all persons in any of the age groups in 2022. When the data were broken down by sex, COVID-19 was the third leading cause of death among males aged 80 years and above.

For males, the leading causes of death among individual age groups in 2022 remained largely consistent with 2021. This was except for those aged 80 years and above, where the leading cause changed from COVID-19 in 2021 to dementia and Alzheimer's disease in 2022. Among females, the leading causes of death by age group were also mostly consistent with 2021, except among those aged 50 to 64 years and those aged 65 to 79 years. COVID-19 was the leading cause of death for both of these age groups in 2021. However, the leading causes in 2022 were malignant neoplasms of breast and malignant neoplasms of trachea, bronchus and lung, respectively.

7 . Death registration summary statistics, England and Wales, 2022 data

[Deaths registered summary statistics, England and Wales](#)

Dataset | Released 11 April 2023

First analysis of finalised deaths data for 2022. Number of deaths registered by year, sex, area of usual residence and selected underlying cause of death.

8 . Glossary

Coronavirus (COVID-19)

The World Health Organization (WHO) defines coronaviruses as "a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS)." Between 2001 and 2018, there were 12 deaths in England and Wales due to a coronavirus infection other than COVID-19, with a further 13 deaths mentioning the virus as a contributory factor on the death certificate.

COVID-19 is a disease caused by a type of coronavirus. [Further information is available from the WHO.](#)

Registration delay

Mortality statistics are compiled from information supplied when deaths are certified and registered as part of civil registration, a legal requirement. According to the [Births and Deaths Registration Act 1953](#), a death should be registered within five days unless it is referred to a coroner for investigation. Mortality statistics for a given time period can be based on occurrence (death date) or registration (registration date); registration delay is the difference between date of occurrence and date of registration.

9 . Data sources and quality

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

Figures in this release only represent deaths that were registered in England and Wales. These include some deaths of individuals whose usual residence was outside England and Wales (1,133 of the 577,160 deaths registered in 2022, an increase of 283 from 2021). These deaths are included in totals for England and Wales combined but excluded from breakdowns for England and Wales separately. Any deaths of residents that happened abroad are not included.

Data coverage, timeliness and registration delays

In England and Wales, deaths should be registered within five days of the death occurring, but there are some situations that result in the registration of the death being delayed. For more information, see our [Impact of registration delays on mortality statistics in England and Wales article](#).

Coding of deaths

Deaths are cause coded using the World Health Organization's (WHO) [International Classification of Diseases, 10th edition \(ICD-10\)](#). 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.

In 2011, there was an update to the coding framework (detailed in our [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 our [dual coding study](#)) where deaths that were coded to chest infection (J98) would now be coded to chest infection (J22). Those deaths that mentioned dementia (F01 or F03) would now be coded to dementia (F01 or F03). Additionally, 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).

For deaths registered from 1 January 2022, cause of death is coded to the ICD-10 classification using MUSE 5.8 software. Deaths registered between 1 January 2020 and 31 December 2021 were coded to the using MUSE 5.5 and previous years were coded to IRIS 4.2.3. For more information see our [Cause of death coding in mortality statistics, software changes](#) article.

Leading causes of death

This release provides information about the number of deaths and causes of death registered in 2022; this includes deaths where coronavirus (COVID-19) was the underlying cause of death.

When interpreting these mortality statistics, please note that:

- death statistics are compiled from information supplied when deaths are certified and registered as part of civil registration, a legal requirement
- this release provides both summary figures and more detail on both individual causes of death and [selected 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
- deaths where COVID-19 was the underlying cause have been included in this release using the ICD-10 definition: U07.1, U07.2 and U10.9
- summary figures published in [our accompanying dataset](#) include analysis of causes of death by broad disease groupings; a list of these is available in our [User guide to mortality statistics](#).

Strengths and limitations

As the figures in this release are based on number of deaths, they are not provided to be comparable across groups or time. This is because population size and age structure has not been taken into account. This means we are able to provide the public with timely statistics, and allows future releases from the Office for National Statistics to use finalised data (rather than provisional), increasing the efficiency of our statistics. Finalised deaths registration figures, including age-standardised mortality rates, will be released in our [Deaths registered in England and Wales](#) bulletin in summer 2023.

10 . Related links

[Deaths registered weekly in England and Wales](#)

Bulletin | Released weekly

Provisional counts of the number of deaths registered in England and Wales, including deaths involving the coronavirus (COVID-19) pandemic, by age, sex and region, in the latest weeks for which data are available.

[Monthly mortality analysis](#)

Bulletin | Released monthly

Provisional death registration data for England and Wales, broken down by sex, age and country. Includes deaths due to coronavirus (COVID-19) and leading causes of death.

[Deaths registered in England and Wales: 2021 \(refreshed populations\)](#)

Bulletin | Released 27 January 2023

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 usual residence and single year of age.

[Excess deaths in England and Wales: March 2020 to December 2022](#)

Article | Released 9 March 2023

Number of excess deaths, including deaths due to coronavirus (COVID-19) and due to other causes. Including breakdowns by age, sex and geography.

11 . Cite this article

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