

Article

# Death registration summary statistics, England and Wales: 2021

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

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# 1. Main points

- There were 586,334 deaths registered in England and Wales in 2021; 21,588 (3.6%) fewer deaths than 2020, and 54,257 (10.2%) more deaths than the 2015 to 2019 five-year average.
- In England, 549,349 deaths were registered, 20,351 fewer deaths than 2020 and 10.4% above the five-year average; in Wales, 36,135 deaths were registered, 1,264 fewer deaths than 2020 and 8.1% above the five-year average.
- There were more male deaths registered (297,989 deaths) than female (288,345 deaths) in 2021, continuing trends seen in 2020.
- The English region with the largest percentage of deaths above the five-year average was London (14.8% higher); the region with the smallest was Yorkshire and The Humber (7.5% higher).
- Coronavirus (COVID-19) remained the overall leading cause of death in England and Wales, with 67,350 deaths (11.5% of all deaths in 2021); this was a decrease in comparison with 2020 (73,766 deaths and 12.1% of all deaths).
- The leading cause of death in males in 2021 was ischaemic heart diseases (37,095 deaths, 12.4% of all male deaths) replacing COVID-19 in 2020; for females, dementia and Alzheimer's disease remained the leading cause of death (40,250 deaths, 14.0% of all female deaths).

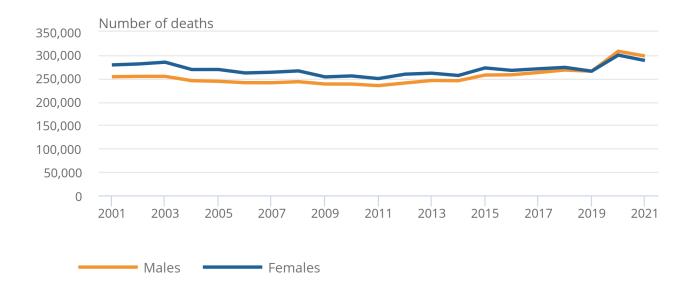
# 2. Number of deaths by sex

Figure 1: The number of deaths was higher for males than females in 2021

Number of deaths registered by sex, 2001 to 2021, England and Wales

Figure 1: The number of deaths was higher for males than females in 2021

Number of deaths registered by sex, 2001 to 2021, England and Wales



Source: Office for National Statistics - Death registrations summary statistics

#### Notes:

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

The number of deaths registered in 2021 across England and Wales was 586,334. This was 21,588 (3.6%) fewer death registrations than 2020 (607,922 deaths) and 54,257 deaths (10.2%) more than the five-year average of 2015 to 2019 (532,077 deaths).

The five-year average has been provided for 2015 to 2019 (rather than 2016 to 2020) because of the impact of the coronavirus (COVID-19) pandemic on deaths registered in 2020. The average for 2015 to 2019 provides a comparison of the number of deaths expected in a usual (non-pandemic) year.

In England, in 2021, there were 549,349 deaths registered, 20,351 fewer deaths than 2020 and 10.4% above the five-year average for England (51,907 more deaths). In Wales, 36,135 deaths were registered in 2021, 1,264 fewer deaths than 2020 and 8.1% above the five-year average for Wales (2,715 more deaths).

The number of deaths registered in 2019 was similar for males (265,300 deaths) and females (265,541 deaths). In 2020, the number of deaths was greater for males (308,069 deaths) than females (299,853 deaths) for the first time since 1981. This trend continued in 2021 with more deaths being registered for males (297,989 deaths) than females (288,345 deaths), a difference of 9,644 deaths.

It is important to note that 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 2021, including age-standardised mortality rates, will be released in summer 2022.

# 3. Number of deaths by area

The number of death registrations was lower in 2021 compared with 2020 across all regions of England, and Wales, apart from the South West, where the number of deaths remained similar (61,249 deaths in 2021 compared with 61,165 deaths in 2020).

This section will not make 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 2020 and 2021, all remained above the 2015 to 2019 five-year average. The region with the largest percentage of deaths above the five-year average was London (14.8% higher) and the region with the smallest percentage above the five-year average was Yorkshire and The Humber (7.5% higher).

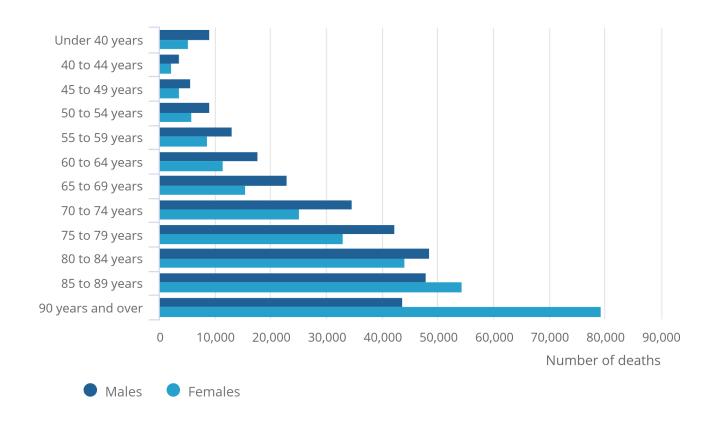
# 4. Number of deaths by age

Figure 2: The number of deaths was higher for males than females for the majority of age groups in 2021

Number of deaths registered by sex and age group, 2021, England and Wales

# Figure 2: The number of deaths was higher for males than females for the majority of age groups in 2021

Number of deaths registered by sex and age group, 2021, England and Wales



Source: Office for National Statistics - Death registrations summary 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 the <u>population estimates for 2020</u> we see that those aged under 40 years make up 49% of the population but account for 2% of deaths. Also, population numbers for males and females are similar for most age groups, however, as the age group increases, we see more deaths in females than males; females account for 68% of deaths in the 90 years and over population. More information will be available in our Deaths registered in England and Wales: 2021 bulletin later this summer.

We can use these numbers to look at overall trends in mortality by age groups. Similar to previous years, the number of deaths in 2021 increased as age increased. We also see that the oldest age groups were the only age groups where the number of deaths was higher in females than males. One of the reasons for this is that females make up the majority of the population in these age groups.

# 5. Number of deaths by leading cause of death

The top five leading causes of death (based on the <u>leading causes of death groupings</u>) in England and Wales accounted for 41.4% of all deaths registered in 2021; there was no change in the top five leading causes compared with 2020.

Coronavirus (COVID-19) remained the leading cause of death, with 67,350 deaths having an underlying cause of COVID-19, accounting for 11.5% of all deaths registered in 2021. Dementia and Alzheimer's disease was the second-leading cause of death (61,250 deaths) accounting for 10.4% of all deaths. The other leading causes which made up the top five were ischaemic heart diseases (56,960 deaths), cerebrovascular diseases (29,041 deaths) and malignant neoplasms of trachea, bronchus and lung (28,190 deaths).

Table 1: COVID-19 was the leading cause of death in 2021 for all people and was the second leading cause of death for males and females separately

Number of deaths and proportion of all deaths registered by selected leading causes of death and sex, 2021, England and Wales

Sex	Leading causes	Number of deaths	Proportion of deaths (%)
Persons	COVID-19	67,350	11.5
	Dementia and Alzheimer's disease	61,250	10.4
	Ischaemic heart diseases	56,960	9.7
	Cerebrovascular diseases	29,041	5.0
	Malignant neoplasm of trachea, bronchus and lung	28,190	4.8
Males	Ischaemic heart diseases	37,095	12.4
	COVID-19	36,794	12.3
	Dementia and Alzheimer's disease	21,000	7.0
	Malignant neoplasm of trachea, bronchus and lung	14,801	5.0
	Chronic lower respiratory diseases	13,091	4.4
Females Dementia and Alzheimer's disease		40,250	14.0
	COVID-19	30,556	10.6
	Ischaemic heart diseases	19,865	6.9
	Cerebrovascular diseases	16,121	5.6
	Malignant neoplasm of trachea, bronchus and lung	13,389	4.6

Source: Office for National Statistics - Death registrations summary statistics

#### Notes:

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

For males, in 2021, the leading cause of death was ischaemic heart diseases (37,095 deaths, 12.4% of all male deaths); in 2020, the leading cause of male deaths was COVID-19 (40,995 deaths, 13.3% of all male deaths). For females, dementia and Alzheimer's disease remained the leading cause of death (40,250 deaths, 14.0% of all female deaths), although this was a decrease compared with 2020 (45,922 deaths, 15.3% of all female deaths). For both males and females, COVID-19 was the second-leading cause of death (36,794 deaths and 30,556 deaths respectively) in 2021.

When looking at leading causes by age group in 2021, the leading cause in each individual age group was consistent with 2020. Deaths due to COVID-19 remained the most common leading cause in individual age groups, appearing as a top five underlying cause in five out of the seven age groups analysed. For males, the leading causes of death in individual age groups remained consistent in 2021 as in 2020. For females, most individual age groups had the same leading cause in 2021 as in 2020, except in those aged 50 to 64 years, where the leading cause changed from malignant neoplasm of the breast in 2020 to COVID-19 in 2021.

# 6. Death registration summary statistics, England and Wales, 2021 data

Deaths registered summary statistics, England and Wales

Dataset | Released 9 June 2022

First analysis of deaths data for 2021. Number of deaths registered by year, sex, area of usual residence and selected underlying cause of death.

# 7. Glossary

#### Coronaviruses

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, with a further 13 deaths mentioning the virus as a contributory factor on the death certificate.

#### **Coronavirus (COVID-19)**

COVID-19 refers to the "coronavirus disease 2019" and is a disease that can affect the lungs and airways. It is caused by a type of coronavirus. Further information on <u>coronavirus (COVID-19) disease is available from the WHO</u>.

#### **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 <u>Births and Deaths Registration Act 1953</u>, 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.

### 8. Data sources and quality

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in <u>our Mortality statistics in England and Wales QMI</u> and <u>our User quide to mortality statistics</u>.

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 (850 of the 586,334 deaths registered in 2021), while 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 <u>our Impact of registration delays release</u>.

#### Coding of deaths

Deaths are cause coded using the World Health Organization's (WHO) <u>International Classification of Diseases</u>, <u>10th edition (ICD-10)</u>. 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 the <u>bridge coding study</u>) 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 <u>dual coding study</u>) 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). 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 2021; this includes deaths where 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 <u>selected</u> <u>leading causes of death</u>, 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 the <u>accompanying dataset</u> include analysis of causes of death by broad disease groupings; a list of these is available in <u>our User guide to mortality statistics</u>

#### **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, in order to provide the public with timely statistics, and to allow 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 2022.

#### 9. 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.

#### Deaths registered in England and Wales: 2020

Bulletin | Released 6 July 2021

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.

#### Deaths due to COVID-19, registered in England and Wales: 2020

Article | Released 6 July 2021

Deaths registered in England and Wales due to coronavirus (COVID-19) by age, sex, region, place of death, and pre-existing condition.

#### Coronavirus (COVID-19) latest data and analysis

Web page | Updated as and when new data become available

Brings together the latest data and analysis on the coronavirus (COVID-19) pandemic in the UK and its effect on the economy and society.

#### Excess deaths in England and Wales: March 2020 to December 2021

Article | Released 22 March 2022

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