

Article

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

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

Contact:  
Rachel Rushton, Georgia Brett  
and Charlee Humphries  
Health.Data@ons.gov.uk  
+44 (0)1633 582629

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# 1 . Other pages in this release

More information regarding the ongoing coronavirus (COVID-19) pandemic can be found in:

- [Deaths registered in England and Wales: 2020](#)
- [Deaths registered weekly in England and Wales, provisional: week ending 25 June 2021](#)

## 2 . Main points

- Of all deaths registered in 2020 in England and Wales, 73,766 (12.1%) were due to coronavirus (COVID-19); the age-standardised mortality rate (ASMR) was 126.9 deaths per 100,000 people.
- The number of deaths (29,435) and the ASMR (619.3 deaths per 100,000 people) for deaths due to COVID-19 were highest in April 2020.
- Age-specific mortality rates in 2020 were highest among people aged 90 years and over at 2,918.1 deaths per 100,000 people; this was true for both males (3,707.2 per 100,000) and females (2,537.8 per 100,000).
- The North West of England had the highest ASMR for deaths due to COVID-19 in 2020 at 176.0 deaths per 100,000 people, while the South West of England had the lowest rate at 59.3 deaths per 100,000.
- In Wales, the ASMR for deaths due to COVID-19 in 2020 was 129.7 deaths per 100,000 people.
- In England and Wales, hospitals had the highest proportion of deaths due to COVID-19 in 2020 – 19.6% of all deaths that occurred in hospitals.
- Among deaths due to COVID-19 in England and Wales, dementia and Alzheimer's disease was the most common pre-existing condition mentioned on death certificates (18,420 deaths).

## 3 . Overview

This article is an addition to the [annual death registrations release for 2020](#) to provide an in-depth look at the coronavirus (COVID-19) pandemic over the year, and how it impacted mortality rates in England and Wales. This release includes data on the number of deaths and mortality rates for deaths due to and involving COVID-19 in 2020.

There were a total of 607,922 deaths registered in England and Wales in 2020. Of these deaths 81,795 involved COVID-19 (13.5% of all deaths), of which 73,766 were due to COVID-19 (12.1% of all deaths). The first death involving COVID-19 was registered on 9 March 2020.

In this article, we use the term "due to COVID-19" when referring only to deaths with an underlying cause of death of COVID-19 and we use the term "involving COVID-19" when referring to deaths that had COVID-19 mentioned anywhere on the death certificate, whether as the underlying cause or not.

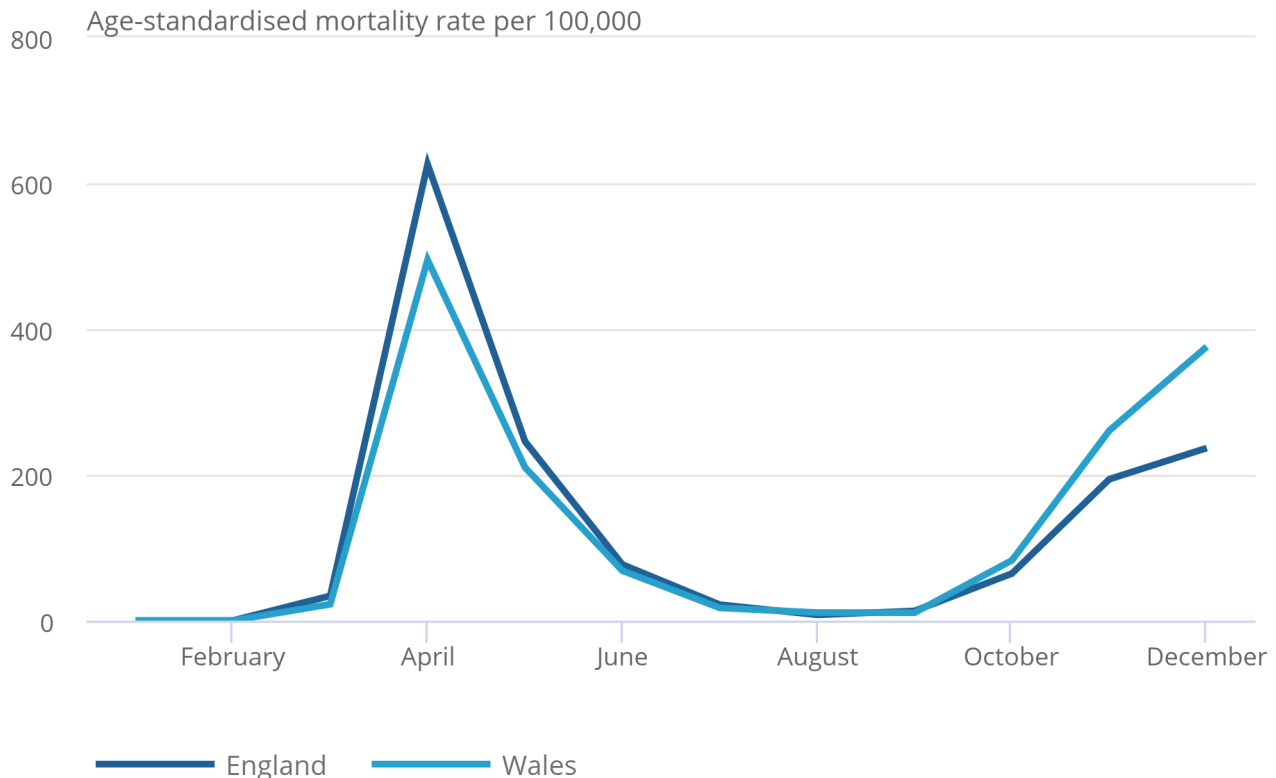
## 4 . Deaths due to COVID-19 by month

**Figure 1: Mortality rates in 2020 were highest in April, for both England and Wales**

Age-standardised mortality rates for deaths due to COVID-19, per 100,000 people, England and Wales, 2020

### Figure 1: Mortality rates in 2020 were highest in April, for both England and Wales

Age-standardised mortality rates for deaths due to COVID-19, per 100,000 people, England and Wales, 2020



Source: Office for National Statistics – Deaths registered in England and Wales

**Notes:**

1. Based on area of usual residence. Geographical boundaries are based on the most up-to-date information available.
2. Figures exclude deaths of non-residents.
3. Based on deaths registered in the calendar year.
4. Age-standardised mortality rates per 100,000 people, standardised to the 2013 European Standard Population. Monthly rates are adjusted to allow for comparisons with annual rates.
5. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: coronavirus (COVID-19) (U07.1, U07.2 and U10.9).

There were 69,299 deaths due to coronavirus (COVID-19) registered in England and 4,382 in Wales, in 2020.

Age-standardised mortality rates (ASMRs) are a better measure of mortality than the number of deaths, because they account for the population size and age structure, allowing for easier comparison over time and between different areas.

Both countries recorded the highest monthly mortality rate (ASMR) due to COVID-19 in April 2020 (Figure 1) with England reporting 626.0 deaths per 100,000 people (28,022 deaths) and Wales reporting 494.8 per 100,000 (1,366 deaths). The ASMR in England was significantly higher than in Wales between March and May.

Following this, both countries recorded a fall in mortality rates for deaths due to COVID-19, with England experiencing a low in August at 7.9 deaths per 100,000 people (367 deaths), while in Wales the lowest mortality rate was in September at 10.8 deaths per 100,000 (30 deaths).

Wales then reported an increase in mortality rates into the winter months reaching 375.8 deaths per 100,000 people (1,084 deaths) in December. England followed a similar trend recording 236.7 deaths per 100,000 people (11,088 deaths) in December. The ASMR in Wales was significantly higher than in England between October and December.

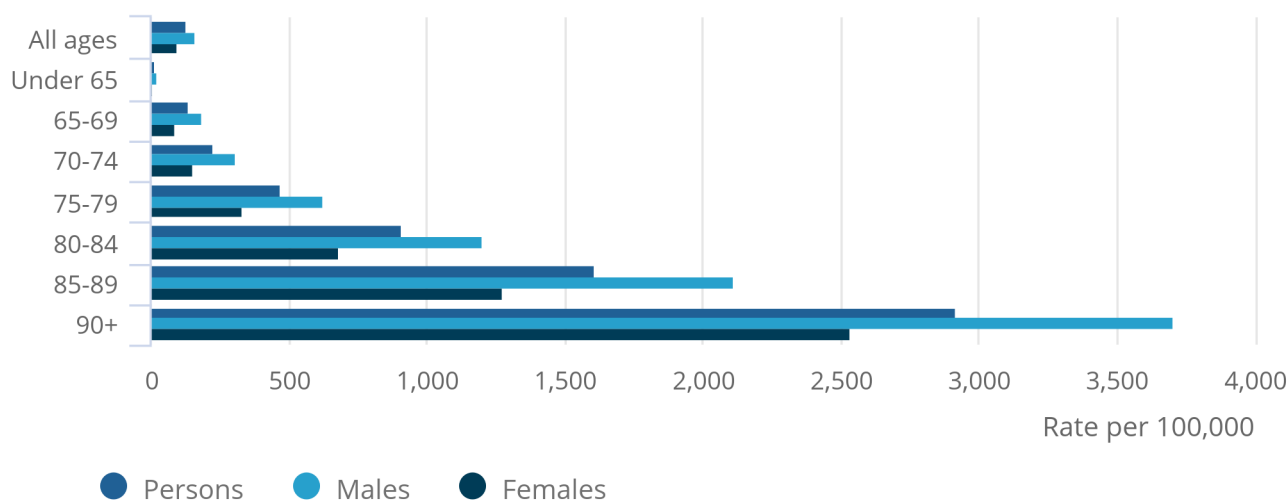
## 5 . Deaths due to COVID-19 by age and sex

**Figure 2: COVID-19 mortality rates in 2020 were highest among people aged 90 years and over, for both males and females**

Age-standardised and age-specific mortality rates for deaths due to COVID-19 by sex and age group, per 100,000 people, England and Wales, 2020

Figure 2: COVID-19 mortality rates in 2020 were highest among people aged 90 years and over, for both males and females

Age-standardised and age-specific mortality rates for deaths due to COVID-19 by sex and age group, per 100,000 people, England and Wales, 2020



**Source: Office for National Statistics – Deaths registered in England and Wales**

**Notes:**

1. Figures include deaths of non-residents.
2. Based on deaths registered in the calendar year.
3. Age-standardised mortality rates per 100,000 people, standardised to the 2013 European Standard Population.
4. Age-specific mortality rates are used to allow comparisons between specified age groups and age-standardised mortality rates (ASMRs) are used to allow comparisons between populations that may contain different proportions of people of different ages.
5. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: coronavirus (COVID-19) (U07.1, U07.2 and U10.9).

Of the 73,766 deaths due to coronavirus (COVID-19) registered in 2020, 40,995 were males (166.6 deaths per 100,000 males) and 32,771 were females (96.7 deaths per 100,000 females). Male mortality rates due to COVID-19 were significantly higher than females (Figure 2); males accounted for 55.6% of all COVID-19 deaths in 2020.

The significant sex differences in mortality rates due to COVID-19 can be seen in England and Wales separately. In 2020, the age-standardised mortality rate (ASMR) in England was 166.3 deaths per 100,000 males and 96.4 deaths per 100,000 females. In Wales, the ASMR was 167.8 deaths per 100,000 males and 100.5 deaths per 100,000 females.

The ASMR for those aged under 65 years was 15.9 deaths per 100,000 people (7,393 deaths). In Figure 2, age-specific mortality rates increased significantly with each five-year age group, from 139.7 deaths per 100,000 people aged 65 to 69 years (4,142 deaths) to 2,918.1 deaths per 100,000 people aged 90 years and over (16,103 deaths).

When looking at all age groups, age-specific mortality rates increased significantly in each age group from 20 to 24 years. A full breakdown of mortality rates by sex and age is available in the [accompanying dataset](#).

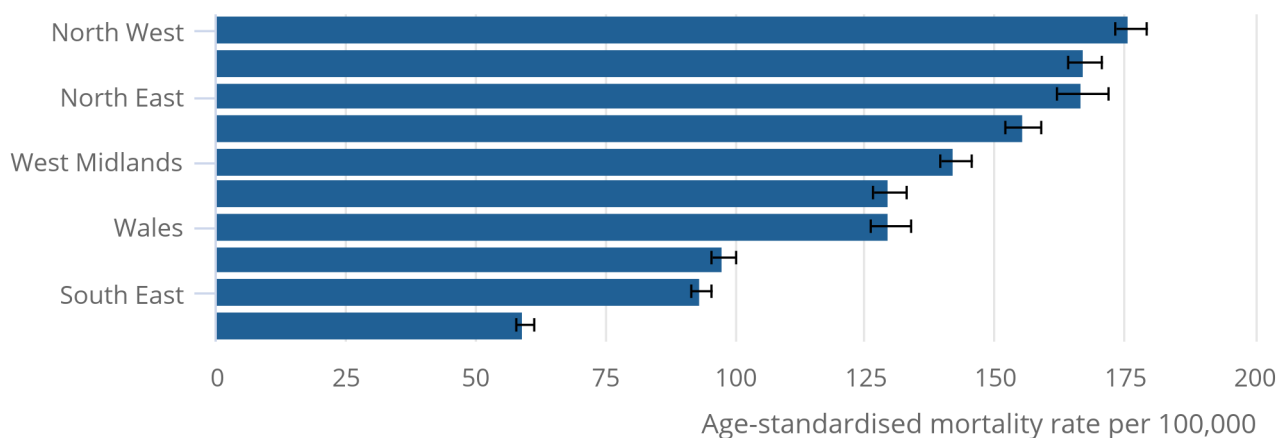
## 6 . Deaths due to COVID-19 in Wales and English regions

**Figure 3: The North West of England had the highest mortality rate for deaths due to COVID-19 in 2020**

Age-standardised mortality rates for deaths due to COVID-19, per 100,000 people, Wales and regions in England, 2020

### Figure 3: The North West of England had the highest mortality rate for deaths due to COVID-19 in 2020

Age-standardised mortality rates for deaths due to COVID-19, per 100,000 people, Wales and regions in England, 2020



Source: Office for National Statistics – Deaths registered in England and Wales

#### Notes:

1. Based on area of usual residence. Geographical boundaries are based on the most up-to-date information available.
2. Figures exclude deaths of non-residents.
3. Based on deaths registered in the calendar year.
4. Age-standardised mortality rates per 100,000 people, standardised to the 2013 European Standard Population.
5. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: coronavirus (COVID-19) (U07.1, U07.2 and U10.9).

Age-standardised mortality rates (ASMRs) for deaths due to COVID-19 in 2020 were highest in the North West region of England at 176.0 deaths per 100,000 people (12,428 deaths); this was significantly higher than any other region. This was followed by London at 167.3 deaths per 100,000 (10,070 deaths) and the North East of England at 166.8 deaths per 100,000 (4,467 deaths).

The South West of England recorded the lowest ASMR for deaths due to COVID-19 in 2020 at 59.3 deaths per 100,000 people (3,986 deaths); this was significantly lower than any other region.

In Wales, the ASMR for deaths due to COVID-19 in 2020 was 129.7 per 100,000 people (4,382 deaths).

A full breakdown of mortality rates by region and month is available in the [accompanying dataset](#), alongside further geographical breakdowns, including by local authority.

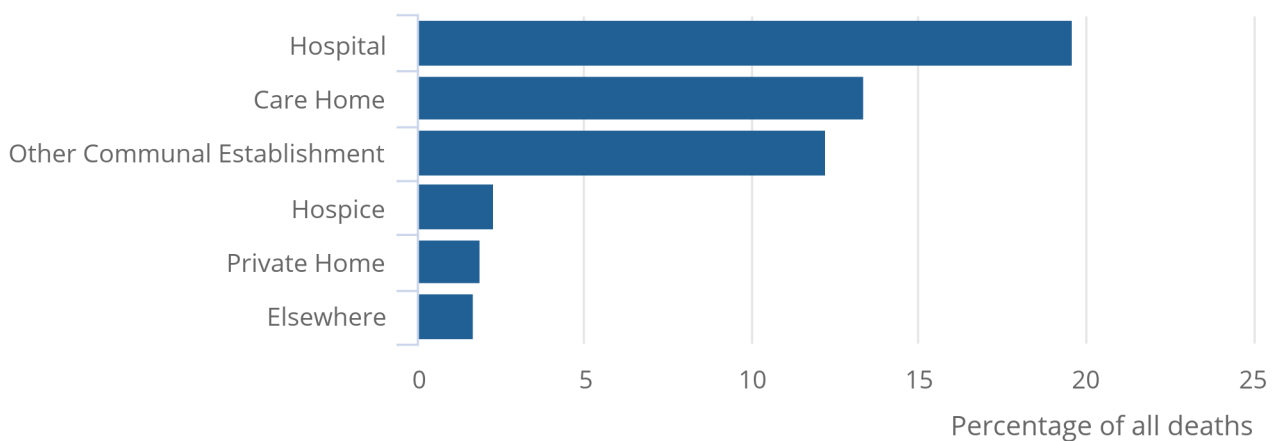
## 7 . Deaths due to COVID-19 by place of occurrence

**Figure 4: Hospitals had the highest proportion of deaths due to COVID-19 in 2020**

Proportion of deaths due to COVID-19 by place of occurrence, England and Wales, 2020

### Figure 4: Hospitals had the highest proportion of deaths due to COVID-19 in 2020

Proportion of deaths due to COVID-19 by place of occurrence, England and Wales, 2020



**Source: Office for National Statistics – Deaths registered in England and Wales**

**Notes:**

1. Figures include deaths of non-residents.
2. Based on deaths registered in the calendar year.
3. More information on the place of death definitions used is available in the [accompanying dataset](#).
4. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: coronavirus (COVID-19) (U07.1, U07.2 and U10.9).

Figure 4 shows the proportion of deaths due to coronavirus (COVID-19) by place of occurrence in 2020. Hospitals had the highest proportion of deaths due to COVID-19, with 19.6% of all deaths occurring in hospital being due to COVID-19; this was true across all age groups (see the [accompanying dataset](#)). This was followed by care homes and other communal establishments, with 13.4% and 12.2% of all deaths respectively. Lower proportions of deaths due to COVID-19 occurred in hospices (2.3%), private homes (1.9%) and elsewhere locations (1.7%).





## 8 . Deaths due to confirmed and suspected COVID-19

Our definition of coronavirus (COVID-19) (regardless of whether it was the underlying cause or mentioned elsewhere on the death certificate) includes some cases where the certifying doctor suspected the death involved COVID-19 but was not certain. For example, a doctor may have clinically diagnosed COVID-19 based on symptoms, but this diagnosis may not have been confirmed because no test was available, or the test result was inconclusive.

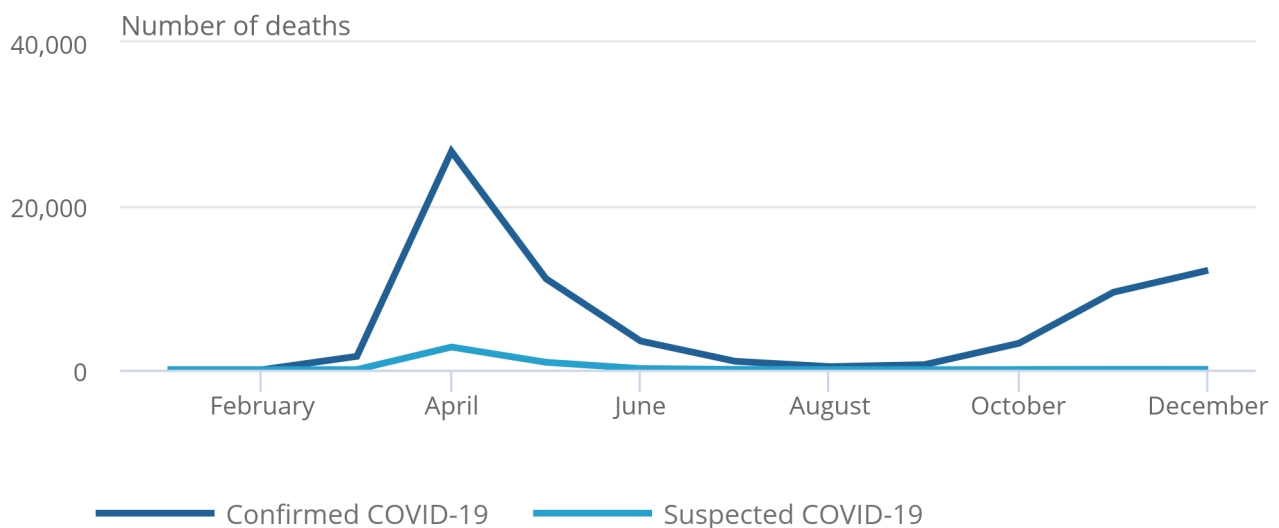
Of the 73,766 deaths due to COVID-19 in 2020, 4,004 (5.4%) were classified as "suspected" COVID-19. Including all deaths involving COVID-19 (81,795 deaths), "suspected" COVID-19 was recorded on 5.6% (4,592 deaths) of all deaths involving COVID-19 in England and Wales.

### Figure 5: Deaths due to confirmed COVID-19 and suspected COVID-19 reached a peak in April 2020

Number of deaths due to confirmed COVID-19 (U07.1) and suspected COVID-19 (U07.2), England and Wales, 2020

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Number of deaths due to confirmed COVID-19 (U07.1) and suspected COVID-19 (U07.2), England and Wales, 2020



Source: Office for National Statistics – Deaths registered in England and Wales

#### Notes:

1. Figures include deaths of non-residents.
2. Based on deaths registered in the calendar year.
3. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: U07.1 (COVID-19, virus identified) and U07.2 (COVID-19, virus not identified).

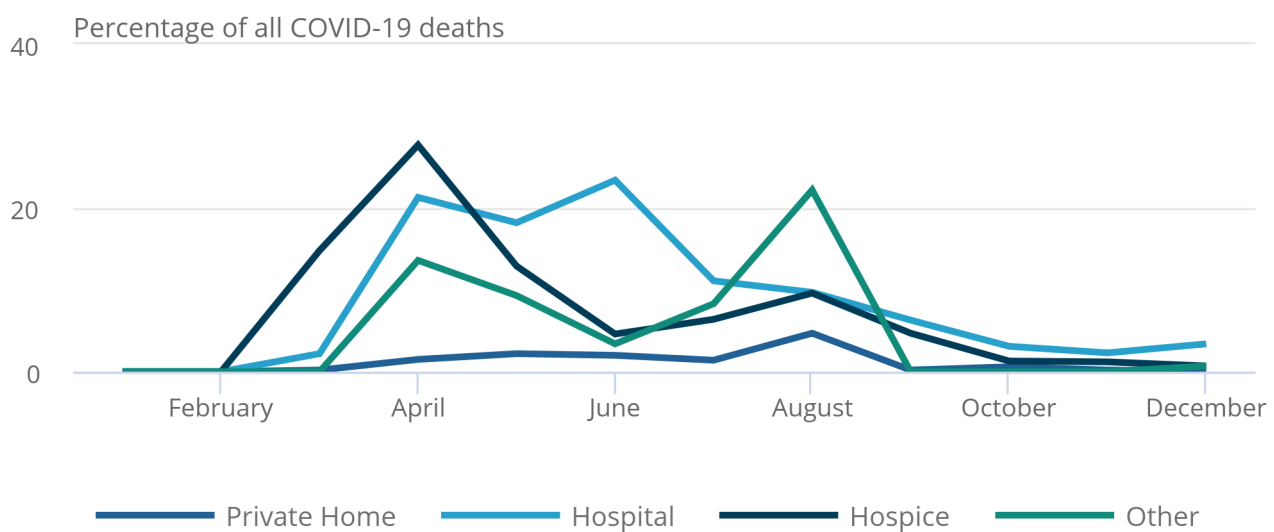
Figure 5 shows that in April 2020, at the height of the first wave of the pandemic, there were 26,669 deaths due to confirmed COVID-19 (90.6% of all COVID-19 deaths) and 2,766 deaths due to suspected COVID-19 (9.4% of all COVID-19 deaths) in England and Wales. The proportion of deaths due to suspected COVID-19 is likely to have been influenced by the availability of testing, which was extremely limited at the beginning of the pandemic. Deaths due to suspected COVID-19 remained relatively low when confirmed COVID-19 deaths increased again later in the year, as testing was much more accessible at that point.

**Figure 6: Hospitals had the lowest proportion of deaths due to suspected COVID-19 in 2020**

Proportion of deaths due to COVID-19, which were suspected COVID-19 (U07.2) by place of occurrence, England and Wales, 2020

Figure 6: Hospitals had the lowest proportion of deaths due to suspected COVID-19 in 2020

Proportion of deaths due to COVID-19, which were suspected COVID-19 (U07.2) by place of occurrence, England and Wales, 2020



Source: Office for National Statistics – Deaths registered in England and Wales

Notes:

1. Figures include deaths of non-residents.
2. Based on deaths registered in the calendar year.
3. "Other" includes deaths in communal establishments other than hospitals and care homes, in hospices, and that occurred "elsewhere". More information on the place of death definitions used is available in the [accompanying dataset](#).
4. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: U07.2 (COVID-19, virus not identified).

Looking at deaths due to suspected COVID-19 by place of occurrence (Figure 6), in wave one (week ending 20 March 2020 to week ending 11 September 2020) there were more deaths due to suspected COVID-19 outside of hospitals. This is likely to be because testing was more available in hospitals than elsewhere.

Hospitals had the lowest proportion of deaths due to suspected COVID-19 at 1.1% (557 of 50,541 deaths). In comparison, care homes had the highest proportion of deaths due to suspected COVID-19 at 15.3% (2,903 of 16,010 deaths). This was closely followed by private homes where 14.0% of all deaths were due to suspected COVID-19 (451 of 3,221 deaths).

## 9 . Pre-existing conditions of people whose death was due to COVID-19

This section looks at pre-existing and consequential conditions of deaths due to coronavirus (COVID-19). This has been carried out in line with the Office for National Statistics (ONS) [leading causes of death](#) groupings, based on a list developed by the World Health Organization (WHO). Some codes not included in this list have been included if there were a high number of deaths with this pre-existing condition mentioned on the death certificate.

Table 1: Number of deaths due to COVID-19 by pre-existing condition, England and Wales, 2020

<b>Pre-existing condition</b>	<b>ICD-10 Code</b>	<b>Number of deaths due to COVID-19 with this pre-existing condition</b>
<b>Dementia and Alzheimer's disease</b>	F01, F03, G30	18,420
<b>Diabetes</b>	E10-E14	14,658
<b>Hypertensive diseases</b>	I10-I15	13,092
<b>Symptoms signs and ill-defined conditions</b>	R00-R99	12,035
<b>Chronic lower respiratory diseases</b>	J40-J47	11,798
<b>Ischaemic heart diseases</b>	I20-I25	9,732
<b>Diseases of the urinary system</b>	N00-N39	9,728
<b>Heart failure and complications and ill-defined heart disease</b>	I50-I51	6,780
<b>Cardiac arrhythmias</b>	I47-I49	6,169
<b>Cerebrovascular diseases</b>	I60-I69	5,160

Source: Office for National Statistics – Deaths registered in England and Wales

#### Notes

1. Figures include deaths of non-residents.
2. Based on deaths registered in the calendar year.
3. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: Coronavirus (U07.1, U07.2 and U10.9).
4. Some deaths will be counted twice if there was more than one pre-existing condition, therefore the total number of deaths will be greater than the total number of deaths due to COVID-19.

We define a pre-existing condition here as the last health condition mentioned on the first part of the death certificate (the direct sequence of events leading to death) when it is recorded on a lower line to, and therefore clearly preceding, COVID-19. For more information, see the [accompanying dataset](#).

Of the 73,766 deaths due to COVID-19 in England and Wales in 2020, dementia and Alzheimer's disease was the most common pre-existing condition mentioned on death certificates (18,420 deaths) (Table 1). Of these, the majority were for females aged 65 years and over (51.8%), closely followed by males aged 65 years and over (47.4%). Of deaths due to coronavirus, with dementia and Alzheimer's disease mentioned as a pre-existing condition, the most common places of death were care homes (54.4%) and hospitals (42.7%).

The second most common pre-existing condition mentioned of deaths due to COVID-19 was diabetes (14,658 deaths); of these, 86.5% of deaths were for those aged 65 years and over (12,672 deaths). This was also the most common pre-existing condition in people aged under 65 years, accounting for 26.9% of deaths in the age group (1,986 deaths).

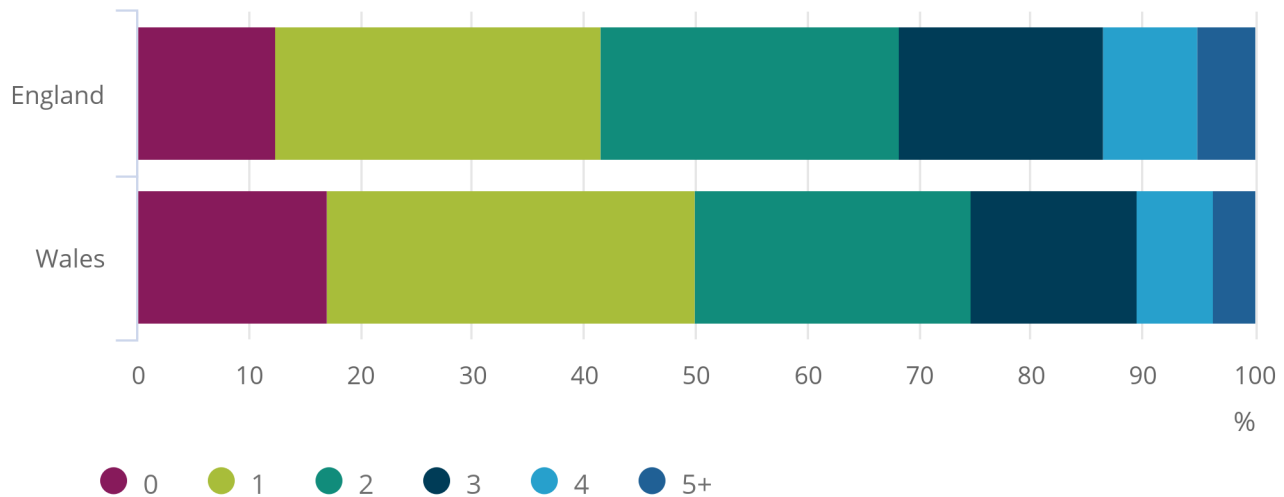
Similarly, in England, dementia and Alzheimer's disease, and diabetes were the most common pre-existing conditions mentioned on death certificates where the underlying cause was COVID-19 (17,473 and 13,925 deaths respectively). In Wales, the most common pre-existing condition was also dementia and Alzheimer's disease (945 deaths), but the second was chronic lower respiratory diseases (717 deaths). However, diabetes was the most common pre-existing condition in people aged under 65 years in both England and Wales, accounting for 27.3% and 20.6% of deaths in the age group respectively.

**Figure 7: The majority of deaths due to COVID-19 in 2020 had up to two pre-existing conditions mentioned on the death certificate**

Proportion of pre-existing conditions mentioned on death certificates where the underlying cause was COVID-19, England and Wales, 2020

Figure 7: The majority of deaths due to COVID-19 in 2020 had up to two pre-existing conditions mentioned on the death certificate

Proportion of pre-existing conditions mentioned on death certificates where the underlying cause was COVID-19, England and Wales, 2020



Source: Office for National Statistics – Deaths registered in England and Wales

Notes:

1. Figures exclude deaths of non-residents.
2. Based on deaths registered in the calendar year.
3. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: Coronavirus (U07.1, U07.2 and U10.9).
4. Some deaths will be counted twice if there was more than one pre-existing condition, therefore the total number of deaths will be greater than the total number of deaths due to COVID-19.

Of the 73,766 deaths due to COVID-19 in England and Wales in 2020, 12.8% had no pre-existing conditions mentioned on the death certificate; it was most common for there to be either one or two pre-existing conditions (56.0% of COVID-19 deaths).



Table 2: Number of deaths due to COVID-19 by condition mentioned as a consequence, England and Wales, 2020

<b>Pre-existing condition</b>	<b>ICD-10 Code</b>	<b>Number of deaths due to COVID-19 with this pre-existing condition</b>
<b>Influenza and pneumonia</b>	J09-J18	7,755
<b>Symptoms signs and ill-defined conditions</b>	R00-R99	3,149
<b>Acute respiratory diseases other than influenza and pneumonia</b>	J00-J06, J20-J22	1,254
<b>Respiratory failure</b>	J96	1,066
<b>Pulmonary oedema and other intestinal pulmonary diseases</b>	J80-J84	603
<b>Septicaemia</b>	A40-A41	479
<b>Pulmonary heart disease and diseases of pulmonary circulation</b>	I26-I28	351
<b>Pneumonitis due to solids and liquids</b>	J69	271
<b>Heart failure and complications and ill-defined heart disease</b>	I50-I51	256
<b>Diseases of the urinary system</b>	N00-N39	221

Source: Office for National Statistics – Deaths registered in England and Wales

Notes

1. Figures include deaths of non-residents.
2. Based on deaths registered in the calendar year.
3. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows: coronavirus (U07.1, U07.2 and U10.9).
4. Some deaths will be counted twice if there was more than one pre-existing condition, therefore the total number of deaths will be greater than the total number of deaths due to COVID-19.

We define as a consequence of COVID-19 here a health condition mentioned on the first part of the death certificate (the direct sequence of events leading to death) when it is recorded on a line above the line mentioning COVID-19. Of the 73,766 deaths due to COVID-19 in England and Wales in 2020, 79.3% had no conditions mentioned as a consequence of COVID-19 on the death certificate; following this, it was most common for there to be one condition mentioned (18.5% of COVID-19 deaths).

For more information, see the [accompanying dataset](#).

Of the 73,766 deaths due to COVID-19 in England and Wales in 2020, influenza and pneumonia (likely to be pneumonia caused by COVID-19) was the most common condition mentioned on death certificates as a consequence of COVID-19 (7,755 deaths) (Table 3). Of these, the majority were in males aged 65 years and over (51.7%), and most commonly occurred in hospitals (67.7%). Influenza and pneumonia was also the most common condition mentioned on death certificates as a consequence of COVID-19 in England and Wales separately (7,415 and 334 deaths respectively).

The second most common condition mentioned on death certificates as a consequence of COVID-19 was "symptoms, signs and ill-defined conditions" (3,149 deaths); of these, 69.9% of deaths were in those aged 65 years and over. This leading cause grouping includes abnormal results of clinical or other investigative procedures, where diagnosis is not classifiable elsewhere, such as abnormalities of breathing and heartbeat. This was also the most common pre-existing condition in people aged under 65 years, accounting for 12.8% of deaths in the age group (947 deaths).

### More about coronavirus

- Find the latest on [coronavirus \(COVID-19\) in the UK](#).
- Explore the latest [coronavirus data](#).
- All ONS analysis, summarised in our [coronavirus roundup](#).
- View [all coronavirus data](#).
- Find out how we are [working safely in our studies and surveys](#).

## 10 . Deaths due to COVID-19, registered in England and Wales, 2020 data

### [Deaths due to COVID-19, England and Wales](#)

Dataset | Released 6 July 2021

The number of deaths registered in England and Wales in 2020 due to and involving the coronavirus (COVID-19). Breakdowns include: age, sex, region, local authority and place of death. Includes age-specific and age-standardised mortality rates.

### [Pre-existing conditions mentioned and conditions mentioned as a consequence of COVID-19 of people who died due to COVID-19, England and Wales](#)

Dataset | Released 6 July 2021

Pre-existing conditions of people who died due to the coronavirus (COVID-19) by country, broad age group, and place of death occurrence. Includes deaths where pre-existing conditions were identified as a consequence of COVID-19.

## 11 . Glossary

### Age-specific mortality rates

Age-specific mortality rates are used to allow comparisons between specified age groups.

### Age-standardised mortality rates

Age-standardised mortality rates (ASMRs) are used to allow comparisons between populations that may contain different proportions of people of different ages. The 2013 European Standard Population is used to standardise rates.

### 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 is available from the World Health Organization (WHO).

The following International Classification of Diseases, 10th Edition (ICD-10) codes and definitions are used to define deaths due to COVID-19 and involving COVID-19:

- U07.1: COVID-19, virus identified
- U07.2: COVID-19, virus not identified
- U09.9: Post-COVID condition, unspecified (this cannot be assigned to the underlying cause of death so is not included in the "deaths due to COVID-19" definition)
- U10.9: Multisystem inflammatory syndrome associated with COVID-19, unspecified\ ICD-10 codes U09.9 (Post-COVID condition, where the acute COVID had ended before the condition immediately causing death occurred) and U10.9 (Multisystem inflammatory syndrome associated with COVID-19 (also called Kawasaki-like syndrome), a specific, uncommon effect of COVID-19 in children) were issued by the World Health Organization (WHO) in early 2021 and implemented in the [February 2021 monthly mortality bulletin](#) and the [Week 8 of 2021 weekly deaths bulletin](#).

There are several ICD-10 codes not included in our definitions of deaths due to COVID-19 and deaths involving COVID-19. These are:

- U08.9: Personal history of COVID-19, unspecified
- U11.9: Need for immunisation against COVID-19, unspecified
- U12.9: COVID-19 vaccines causing adverse effects in therapeutic use, unspecified

ICD-10 code U08.9 is used to record an earlier episode of COVID-19 when the person no longer suffers from COVID-19. ICD-10 codes U11.9 and U12.9 relate to COVID-19 vaccines rather than COVID-19 itself.

U11.9 is an optional code that may be used when a person encounters health services for the specific purposes of receiving a COVID-19 vaccine, and U12.9 covers deaths caused by an adverse effect of the COVID-19 vaccine.

Although these three codes are not included in our figures for deaths "due to" or "involving" COVID-19, a summary of deaths for these codes is available in Table 12 of the [monthly mortality analysis, England and Wales dataset](#).

## Pre-existing condition

[A pre-existing condition](#) is defined as any condition that either preceded the disease of interest (for example, COVID-19) in the sequence of events leading to death or was a contributory factor in the death but was not part of the causal sequence. More information on the pre-existing conditions methodology is available in the [accompanying dataset](#).

## 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. More information is available in the [Impact of registration delays on mortality statistics](#) release.

## Statistical significance

The term "significant" refers to statistically significant changes or differences. Significance has been determined using the 95% confidence intervals, where instances of non-overlapping confidence intervals between estimates indicate the difference is unlikely to have arisen from random fluctuation.

## 95% confidence intervals

A confidence interval is a measure of the uncertainty around a specific estimate. If a confidence interval is 95%, it is expected that the interval will contain the true value on 95 occasions if repeated 100 times. As intervals around estimates widen, the level of uncertainty about where the true value lies increases. The size of the interval around the estimate is strongly related to the number of deaths, prevalence of health states and the size of the underlying population. At a national level, the overall level of error will be small compared with the error associated with a local area or a specific age and sex breakdown. More information is available on our [uncertainty pages](#).

## 12 . Data sources and quality

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 [User guide to mortality statistics](#).

### Definition of COVID-19

The doctor certifying a death can list all causes in the chain of events that led to the death and pre-existing conditions that may have contributed to the death. Using this information, we determine an [underlying cause of death](#). We use the term "due to COVID-19" when referring only to deaths with an underlying cause of death of COVID-19. When taking into account all of the deaths that COVID-19 mentioned anywhere on the death certificate, whether as an underlying cause or not, we use the term "involving COVID-19". Age-standardised rates for deaths due to COVID-19 and involving COVID-19 are available in the [accompanying dataset](#).

### Data coverage, timeliness and registration delays

Mortality data give complete population coverage. They ensure the estimates are of high precision and are representative of the underlying population at risk. 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 example, when a death needs to be investigated by a coroner. More information on this issue can be found in our [Impact of registration delays release](#).

## 13 . Related links

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

Bulletin | Weekly

Provisional counts of the numbers 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, England and Wales](#)

Bulletin | Monthly

Provisional death registration data for England and Wales, broken down by sex, age and country. Includes analysis of deaths due to COVID-19 compared with the leading causes of death. Datasets include deaths due to COVID-19 by local area and socioeconomic deprivation.

### [Coronavirus \(COVID-19\) product page](#)

Product page | Updated when new data are available

Brings together the latest data and analysis on the coronavirus pandemic in the UK and its effect on the economy and society.

### [Coronavirus \(COVID-19\) roundup](#)

Article | Updated when new data are available

Catch up on the latest data when analysis related to the coronavirus pandemic and its impact on our economy and society.

