

Statistical bulletin

Monthly mortality analysis, England and Wales: July 2021

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.

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1 . Main points

- In July 2021, there were 40,467 deaths registered in England, 2,864 deaths (7.6%) more than the July five-year average (2015 to 2019) and there were 2,738 deaths registered in Wales, 259 deaths (10.4%) more than the July average.
- The leading cause of death in July 2021 was dementia and Alzheimer's disease in both England (accounting for 10.9% of all deaths) and Wales (10.3% of all deaths).
- Coronavirus (COVID-19) was the ninth leading cause of death in July 2021 in England (accounting for 2.4% of all deaths registered in July); in Wales, COVID-19 was the 22nd leading cause of death in July 2021 and accounted for 1.2% of all deaths.
- Taking into account the population size and age structure, the age-standardised mortality rate (ASMR) for deaths due to COVID-19 in England was statistically significantly higher in July 2021 (20.5 deaths per 100,000 people) compared with June 2021 (7.5 deaths per 100,000 people); the ASMR for deaths due to COVID-19 in Wales was 11.6 per 100,000 people in July 2021, there were not enough deaths in June to calculate a reliable ASMR.
- The North West of England continued to be the English region with the highest ASMR for deaths due to COVID-19 in July 2021 (50.1 deaths per 100,000 people); all English regions (except the South East) had statistically significant increases between June and July 2021.

2 . Death registrations and the overall mortality rate for July 2021

Based on provisional data, there were 40,467 deaths registered in England in July 2021. This was 2,288 more deaths than in July 2020 and 2,864 deaths more than the five-year average (2015 to 2019) (7.6% higher).

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 Wales, the provisional number of deaths registered in July 2021 was 2,738. This was 190 more deaths than in July 2020 and 259 more deaths than the five-year average for July (10.4% higher).

Age-standardised mortality rates (ASMRs) are used for comparisons over time rather than numbers of deaths, as ASMRs account for changes to the population size and age structure. In England, mortality rates for the month of July had been generally decreasing since 2002 (the highest mortality rate in this analysis), from 1,190.5 deaths per 100,000 people in 2002, to a low of 812.4 deaths per 100,000 people in July 2017. The [statistically significant](#) decrease in ASMRs from 2002 was seen in both males and females (Figure 1).

In England, the July 2021 mortality rate (853.5 deaths per 100,000 people) was significantly higher than July 2020 (820.8 deaths per 100,000 people).

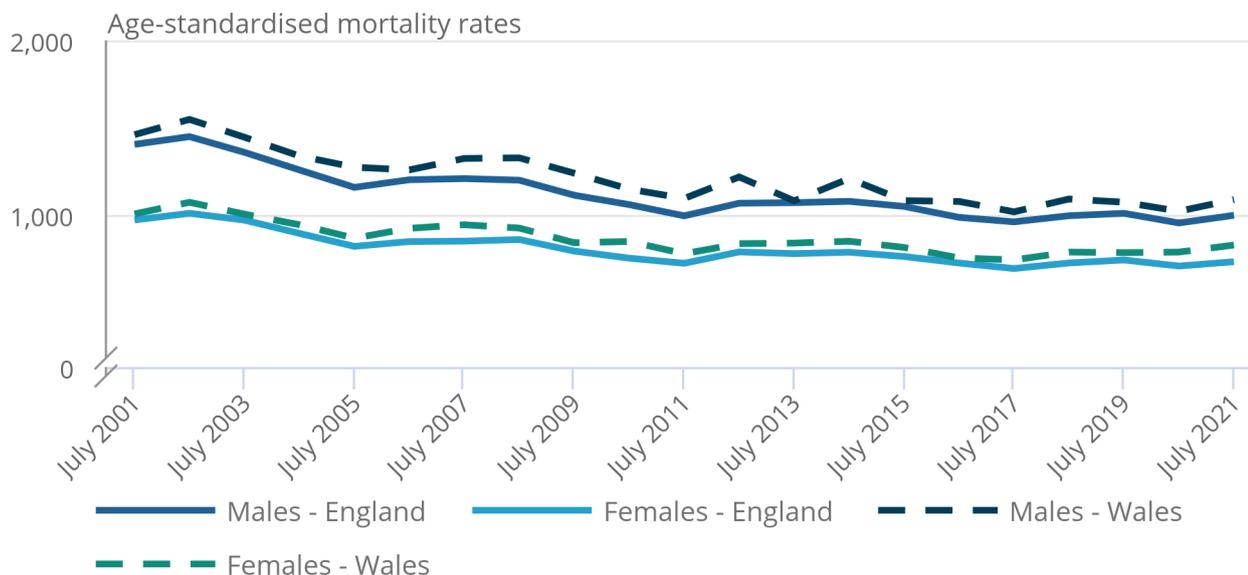
In Wales, mortality rates for July had also been decreasing over time, from 1,273.4 deaths per 100,000 people in 2002 (the highest mortality rate in this analysis), to a low of 867.6 deaths per 100,000 people in July 2017. In July 2021, the mortality rate was 947.9 deaths per 100,000 people; this was higher than July 2020 (895.1 deaths per 100,000 people) but this difference was not [statistically significant](#).

Figure 1: Mortality rates for the month of July were higher in 2021 than in 2020, for males and females in England and Wales

Age-standardised mortality rates by sex, England and Wales, deaths registered in July 2001 to July 2021

Figure 1: Mortality rates for the month of July were higher in 2021 than in 2020, for males and females in England and Wales

Age-standardised mortality rates by sex, England and Wales, deaths registered in July 2001 to July 2021



Source: Office for National Statistics – Monthly mortality analysis

Notes:

1. Age-standardised mortality rates per 100,000 people, standardised to the 2013 European Standard Population. Monthly rates in this bulletin are adjusted to allow for comparisons with annual rates. For more information, see [Section 10: Measuring the data](#).
2. Figures are for deaths registered rather than deaths occurring in each period.
3. Figures for 2020 and 2021 are based on provisional mortality data and projected populations.
4. Figures exclude non-residents.

3 . Deaths due to COVID-19 registered in July 2021

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. More information on this process can be found in our [user guide](#).

Since March 2020 (when the first deaths involving coronavirus (COVID-19) were registered in England and Wales), where COVID-19 was mentioned on the death certificate it was the underlying cause of death in most cases (88.9% in England, 87.3% in Wales). In July 2021, COVID-19 was the underlying cause of death for 83.5% of deaths that mentioned COVID-19 on the death certificate in England and 80.5% in Wales. For more information on our definition of COVID-19 deaths, see [Section 10: Measuring the data](#).

In this bulletin, 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 an underlying cause or not.

Of the 40,467 deaths registered in July 2021 in England, 2.4% (969 deaths) were due to COVID-19, a larger proportion than in June 2021 (0.9%). Including all deaths involving COVID-19 (1,161 deaths) increases the percentage to 2.9% of all deaths in England in July 2021.

In Wales, 1.2% of the 2,738 deaths registered in July 2021 were due to COVID-19 (33 deaths), a larger proportion than in June 2021 (0.1%). Including all deaths involving COVID-19 (41 deaths) increases the percentage to 1.5% of all deaths in Wales.

In England, the number of deaths due to COVID-19 increased by 625 compared with June 2021. In Wales, deaths due to COVID-19 increased by 31 compared with June 2021.

Mortality rates for deaths due to COVID-19

When adjusting for the size and age structure of the population, age-standardised mortality rates (ASMRs) for deaths due to COVID-19 in England for July 2021 showed [statistically significant](#) increases compared with June 2021. The ASMR for deaths due to COVID-19 increased to 20.5 deaths per 100,000 people in July 2021 (compared with 7.5 in June 2021). In Wales, the ASMR increased to 11.6 deaths per 100,000 people in July 2021. In June 2021, the number of deaths in Wales due to COVID-19 was too low to calculate a reliable ASMR and therefore it is not possible to form a reliable comparison.

Figure 2: In England, mortality rates due to COVID-19 in July 2021 significantly increased compared with June 2021

Age-standardised mortality rates for deaths due to COVID-19, per 100,000 people, England and Wales, deaths registered in March 2020 to July 2021

Figure 2: In England, mortality rates due to COVID-19 in July 2021 significantly increased compared with June 2021

Age-standardised mortality rates for deaths due to COVID-19, per 100,000 people, England and Wales, deaths registered in March 2020 to July 2021

Because of small numbers (2 deaths due to COVID-19), the age-standardise mortality rate for June 2021 in Wales has not been calculated



Source: Office for National Statistics – Monthly mortality analysis

Notes:

1. Age-standardised mortality rates per 100,000 people, standardised to the 2013 European Standard Population. Monthly rates in this bulletin are adjusted to allow for comparisons with annual rates. For more information, see [Section 10: Measuring the data](#).
2. Figures for 2020 and 2021 are based on provisional mortality data and projected populations.
3. Figures exclude non-residents of England and Wales.
4. Deaths "due to COVID-19" include only deaths where COVID-19 was the underlying cause of death. Age-standardised mortality rates for all deaths involving COVID-19 are available in the accompanying dataset.
5. The International Classification of Diseases, 10th Edition (ICD-10) definitions are as follows; coronavirus (COVID-19) (U07.1, U07.2 and U10.9). For more information on our definitions of COVID-19 deaths, see [Section 10: Measuring the data](#).
6. Because of small numbers, the rate for May 2021 in Wales is unreliable (15 deaths) so should be interpreted with caution, and the rate for June 2021 (2 deaths) has not been calculated.

In July 2021, the ASMR for deaths due to COVID-19 significantly increased for males in England (26.5 deaths per 100,000 males) compared with June 2021. The ASMRs in Wales were 14.2 deaths per 100,000 males and 9.8 deaths per 100,000 females. The ASMR for males in Wales was 14.2 deaths per 100,000 males and 9.8 deaths per 100,000 females. Reliable rates for June 2021 could not be calculated because of the low numbers of deaths, so comparisons between June and July 2021 could not be made for Wales. More information on mortality rates by sex is available in Tables 3a and 3b of the [accompanying dataset](#).

More about coronavirus

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

4 . Leading causes of death

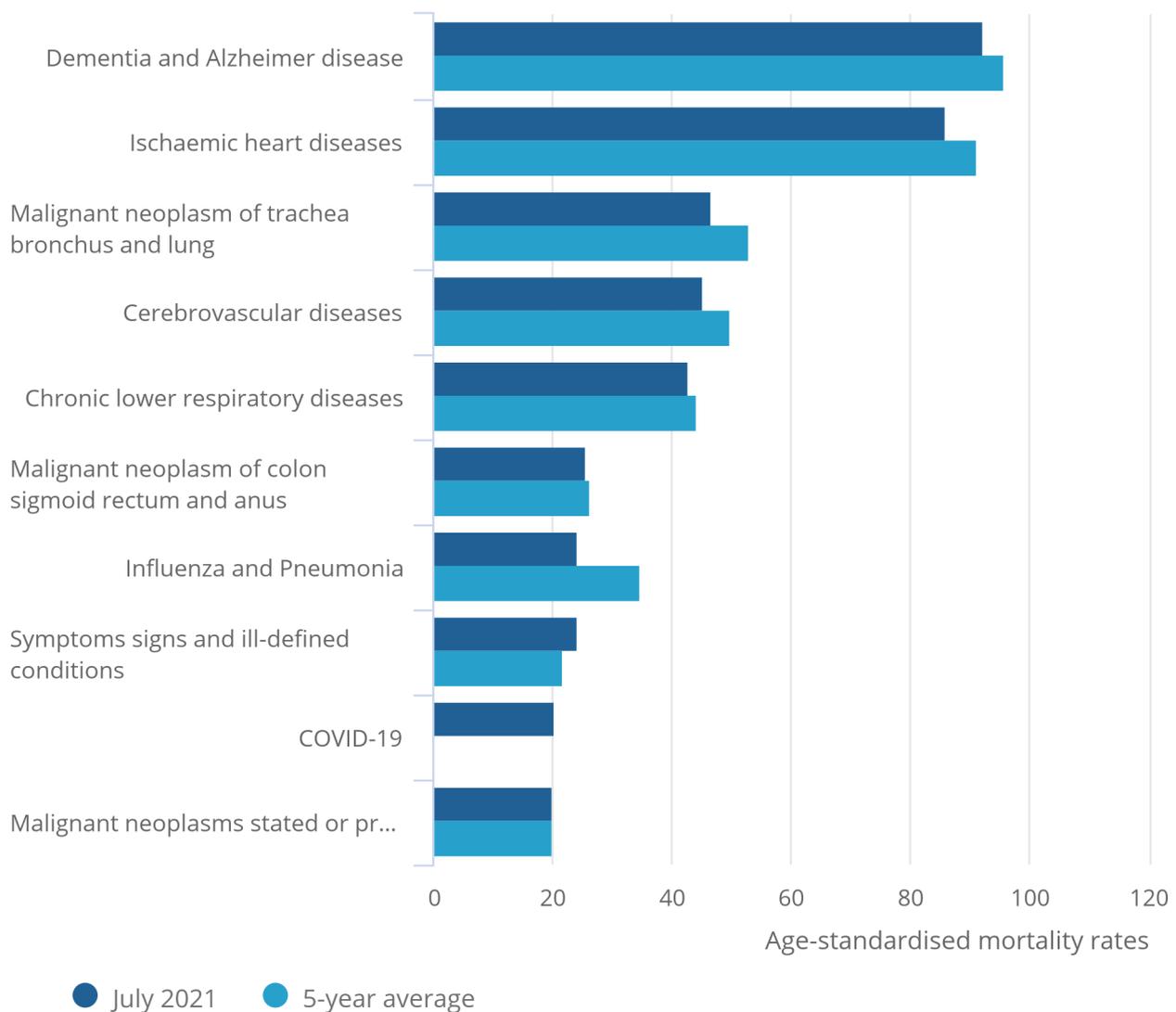
Figures 3 and 4 show the 10 most common underlying causes of death, (based on the [leading causes of death groupings](#)) registered in July 2021 for England and Wales, compared with the five-year average for July (2015 to 2019).

Figure 3: In England, dementia and Alzheimer's disease was the leading cause of death in July 2021

Age-standardised mortality rate for selected leading causes of death, per 100,000 people, England, deaths registered in July 2021

Figure 3: In England, dementia and Alzheimer's disease was the leading cause of death in July 2021

Age-standardised mortality rate for selected leading causes of death, per 100,000 people, England, deaths registered in July 2021



Notes:

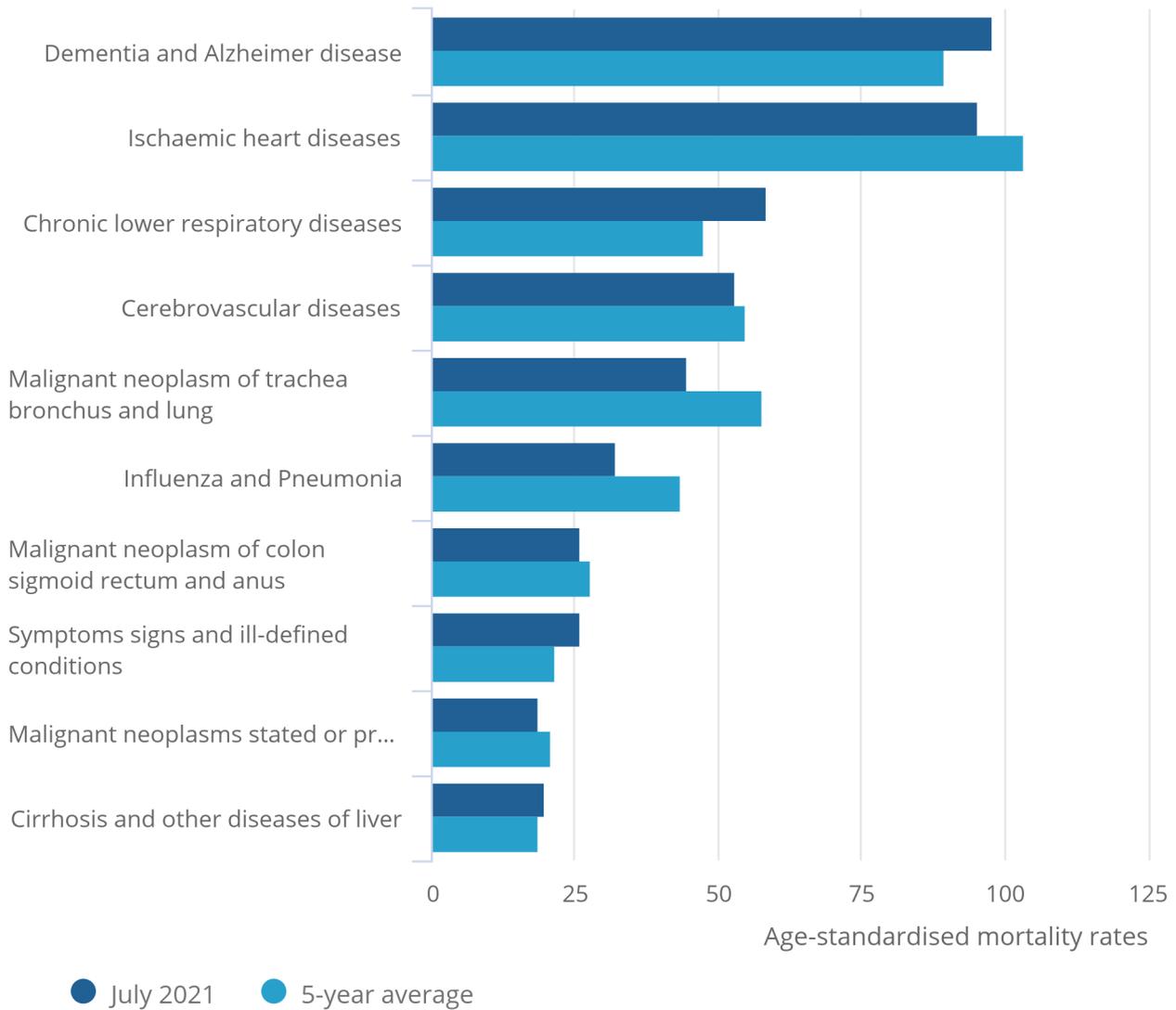
1. Age-standardised mortality rates per 100,000 population, standardised to the 2013 European Standard Population. Monthly rates are adjusted to allow for comparisons with annual rates. For more information, see [Section 10: Measuring the data](#).
2. Figures for 2020 and 2021 are based on provisional mortality data and projected populations.
3. "COVID-19" includes only deaths where COVID-19 was the underlying cause of death.
4. Figures exclude deaths of non-residents.
5. 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 per month in a usual (non-pandemic) year.
6. Leading causes are ranked based on number of deaths, not age-standardised mortality rates.

Figure 4: In Wales, dementia and Alzheimer's disease was the leading cause of death in July 2021

Age-standardised mortality rate for selected leading causes of death, per 100,000 people, Wales, deaths registered in July 2021

Figure 4: In Wales, dementia and Alzheimer's disease was the leading cause of death in July 2021

Age-standardised mortality rate for selected leading causes of death, per 100,000 people, Wales, deaths registered in July 2021



Source: Office for National Statistics – Monthly mortality analysis

Notes:

1. Age-standardised mortality rates per 100,000 population, standardised to the 2013 European Standard Population. Monthly rates are adjusted to allow for comparisons with annual rates. For more information, see [Section 10: Measuring the data](#)
2. Figures for 2020 and 2021 are based on provisional mortality data and projected populations.
3. Figures exclude deaths of non-residents.
4. 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 per month in a usual (non-pandemic) year.
5. Leading causes are ranked based on number of deaths, not age-standardised mortality rates.

In both England and Wales, dementia and Alzheimer's disease was the leading cause of death in July 2021, with 92.2 deaths per 100,000 people in England (4,404 deaths) and 98.1 deaths per 100,000 people in Wales (282 deaths). The second most common cause of death in July 2021 was ischaemic heart diseases, with 85.8 deaths per 100,000 people in England (4,062 deaths) and 95.4 deaths per 100,000 people in Wales (277 deaths).

In England, coronavirus (COVID-19) was the ninth leading cause of death in July 2021 (969 deaths), whereas in June 2021, COVID-19 was the 26th leading cause of death in England (344 deaths). In Wales, COVID-19 was the 22nd leading cause of death in July 2021 (33 deaths). It was not possible to reliably rank COVID-19 compared with other leading causes for Wales in June 2021 as there were so few deaths.

In England in July 2021, 4 of the 10 leading causes of death were significantly lower than the five-year average (2015 to 2019). The mortality rate for deaths with an underlying cause of influenza and pneumonia was 25.5% lower in July 2021 than the five-year average for July; this is likely in part because of coronavirus restrictions and guidance, such as social distancing, reducing the spread of infections such as flu.

In England, the mortality rate for symptoms, signs and ill-defined conditions was significantly above the five-year average in July 2021 (19.7% higher). This leading cause group includes mostly deaths with a code for "old age" but is also used for causes such as "frailty".

In Wales, 2 of the 10 leading causes were significantly lower than the five-year average. The July 2021 mortality rate for influenza and pneumonia was 21.8% lower than the five-year average for July. The mortality rates for the remaining eight leading causes were similar to those seen in the five-year average.

Leading causes of death registered in the year-to-date

In the first seven months (January to July) of 2021, the leading cause of death in both England and Wales was COVID-19, accounting for 15.4% of all deaths in England and 12.3% of all deaths in Wales. The year-to-date mortality rate for deaths due to COVID-19 was 154.2 deaths per 100,000 people in England and 128.9 deaths per 100,000 people in Wales.

In both countries, the year-to-date COVID-19 mortality rate was significantly higher than the next leading cause of death (dementia and Alzheimer's disease in England and ischaemic heart diseases in Wales).

More information on the 2021 year-to-date leading causes of death is available in Tables 11a and 11b of the [accompanying dataset](#). More in-depth [analysis of leading causes of death](#) is available in our annual publication based on finalised mortality data, and analysis focusing on COVID-19 in 2020 is available in our [deaths due to COVID-19 article](#).

5 . Deaths registered in the year-to-date

There were 323,294 deaths registered in England and 20,890 in Wales during the first seven months (January to July) of 2021.

To gain a better idea of year-to-year differences in mortality rates, we calculated year-to-date age-standardised mortality rates (ASMRs) based on deaths registered in January to July of each year from 2001 to 2021 (Figure 5). For England, the year-to-date ASMR for 2021 was 1,000.9 deaths per 100,000 people, which was significantly lower than the same period in 2020 (1,102.9 deaths per 100,000 people). However, when compared with the same period in 2019 (936.5 deaths per 100,000 people), the 2021 year-to-date mortality rate was significantly higher.

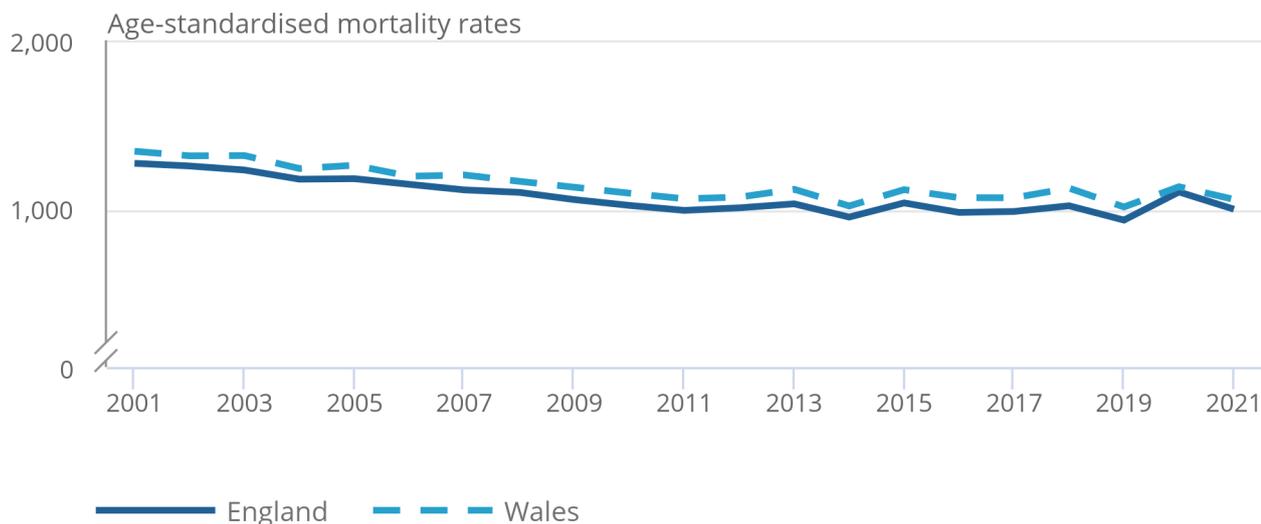
For Wales, the year-to-date ASMR for 2021 decreased to 1,059.0 deaths per 100,000 people. This was [statistically significantly](#) lower than the same period in 2020 (1,133.7 deaths per 100,000 people). But, as with England, January to July 2021 was significantly higher than the same period in 2019 (1,014.1 deaths per 100,000 people).

Figure 5: The mortality rate for January to July 2021 was lower than the same period in 2020 in both England and Wales

Age-standardised mortality rates, England and Wales, deaths registered in January to July 2001 to 2021

Figure 5: The mortality rate for January to July 2021 was lower than the same period in 2020 in both England and Wales

Age-standardised mortality rates, England and Wales, deaths registered in January to July 2001 to 2021



Source: Office for National Statistics – Monthly mortality analysis

Notes:

1. Age-standardised mortality rates per 100,000 population, standardised to the 2013 European Standard Population. Monthly rates in this bulletin are adjusted to allow for comparisons with annual rates. For more information, see [Section 10: Measuring the data](#).
2. Figures are for deaths registered rather than deaths occurring in each period.
3. Figures for 2020 and 2021 are based on provisional mortality data and projected populations.
4. Figures exclude deaths of non-residents.

6 . Death occurrences in July 2021 and year-to-date

This section is based on the date a death occurred - rather than the date of registration used in the previous sections - to monitor current mortality trends. Further information can be found in [Section 10: Measuring the data](#).

In England, 35,982 deaths occurred in July 2021 (and were registered by 7 August). This was 1,572 fewer deaths than the five-year average (2015 to 2019) for July (4.2% lower). Of the 35,982 deaths that occurred, 2.9% were due to coronavirus (COVID-19) (1,054 deaths).

In Wales, 2,489 deaths occurred in July 2021 (and were registered by 7 August), which was 5 fewer deaths than the five-year average (0.2% lower). COVID-19 was the underlying cause of death in 1.7% of all deaths that occurred (42 deaths).

In England, the first death due to COVID-19 occurred on 30 January 2020. Figure 6 shows the trend in COVID-19 death occurrences from March 2020 onwards. The largest number of COVID-19 deaths that occurred in a single day in England was on 8 April 2020 (1,225 deaths), followed by 19 January 2021 (1,203 deaths).

Figure 6: In England in July 2021, daily deaths due to COVID-19 remained low

Number of deaths occurring on each day from March 2020 to July 2021¹, five-year average and range, England

Notes:

1. Figures are for deaths occurring on each day rather than deaths registered, registered up to 7 August.
2. Figures exclude non-residents.
3. "COVID-19 deaths" include only deaths where COVID-19 was the underlying cause.
4. This chart includes deaths from 1 March 2020. Three deaths due to COVID-19 occurred prior to this (one death in January 2020 and two deaths in February 2020) in England, but are not included here.

[Download the data](#)

Figure 7: In Wales in July 2021, daily deaths due to COVID-19 remained low

Number of deaths occurring on each day from March 2020 and July 2021, five-year average and range, Wales

Notes:

1. Figures are for deaths occurring on each day rather than deaths registered, registered up to 7 August.
2. Figures exclude non-residents.
3. "COVID-19 deaths" include only deaths where COVID-19 was the underlying cause.

[Download the data](#)

It is important to note that the number of death occurrences is incomplete as it is likely that more deaths need to be registered, therefore comparisons should be treated with caution.

In particular, instances where the number of death occurrences on each day in July was below the range of the last five years are likely to be a result of when the data extract was created. Specifically, deaths that occurred towards the end of the month may not have been registered by the time the data extract was created. We would therefore expect the number of death occurrences to be higher in future releases.

7 . Pre-existing conditions of people whose death was due to COVID-19, deaths registered in April to June 2021

In this section we use the multiple health conditions that can be recorded on a death certificate to identify deaths where there were pre-existing health conditions that contributed to the cause of death. Health conditions are recorded on the death certificate only if the certifying doctor or coroner believed they made some contribution to the death, direct or indirect: the death certificate does not include all health conditions from which the deceased might have suffered if they were not considered relevant. However, the fact that a pre-existing condition was recorded does not suggest that the deceased was likely to have died from that condition in the absence of the coronavirus (COVID-19) infection.

Because of the small numbers of deaths due to COVID-19 in Wales in Quarter 2 (April to June) 2021 (52 deaths due to COVID-19), this analysis of pre-existing conditions covers England and Wales as a whole only.

Overall patterns of pre-existing conditions for COVID-19 deaths in Quarter 2 were similar to how they were in Quarter 1 ([January to March](#)) 2021. Diabetes remained the most common pre-existing condition (23.0% of all deaths due to COVID-19), however, dementia and Alzheimer's disease dropped from second most common pre-existing condition in Quarter 1 (20.0% of COVID-19 deaths) to joint seventh most common in Quarter 2 (8.9% of COVID-19 deaths). This was driven by a decrease in the proportion of deaths where dementia and Alzheimer's disease was a pre-existing condition in both those aged 0 to 64 years (14.7% in Quarter 1 to 0.4% in Quarter 2) and those aged 65 years and over (22.7% in Quarter 1 to 12.0% in Quarter 2). A decrease was also seen in the overall proportion of COVID-19 deaths for individuals aged 65 years and over (87.0% of all COVID-19 deaths in Quarter 1 and 73.7% in Quarter 2), however an overall increase was seen in the proportion of COVID-19 deaths amongst those aged 0-64 years (26.3% in Quarter 2 compared with 13.0% in Quarter 1).

Overall, the proportion of COVID-19 deaths with no pre-existing conditions increased slightly from 13.1% in Quarter 1 to 18.8% in Quarter 2 ([Table 2](#) in the dataset). However, the average number of different pre-existing conditions per COVID-19 deaths remained similar between these two periods (2.0 pre-existing conditions on average).

In Quarter 2, diabetes remained the most common pre-existing condition for deaths due to COVID-19 occurring in hospitals (25.9%, up slightly from 24.2% in Quarter 1). Dementia and Alzheimer's disease also remained the most common pre-existing condition for deaths occurring in care homes (25.3%), however, decreased proportionately in comparison with Quarter 1 (50.0%). The largest increase seen in care homes was in the proportion of deaths with no pre-existing conditions (23.5% in Quarter 2, up from 15.6% in Quarter 1).

Although the proportion of deaths occurring in private homes with diabetes as a pre-existing condition increased to 19.2% (from 17.6% in Quarter 1), diabetes dropped from the most common pre-existing condition for deaths in private homes to second most common. Instead, hypertensive diseases were the most common pre-existing condition for deaths in private homes in Quarter 2 (20.8%, up from 14.5% in Quarter 1, when it was the third most common).

8 . Monthly mortality data

[Monthly mortality analysis, England and Wales](#)

Dataset | Released 23 August 2021

Monthly data on death registrations and death occurrences in England and Wales, broken down by sex and age. Includes deaths due to coronavirus (COVID-19) by date of death occurrence, and comparisons of COVID-19 with the leading causes of death.

[Deaths due to COVID-19 by English region and Welsh health board](#)

Dataset | Released 23 August 2021

Provisional age-standardised mortality rates for deaths due to COVID-19 by age, sex, local authority and deprivation indices, and numbers of deaths by Middle-layer Super Output Area.

[Deaths involving COVID-19 by month of registration, UK](#)

Dataset | Released 23 August 2021

Provisional age-standardised mortality rates for deaths involving COVID-19 by sex and month of death registration, for England, Wales, Scotland, and Northern Ireland.

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

Dataset | Released 23 August 2021

Number of deaths registered each month by area of usual residence for England and Wales, by region, county, local and unitary authority, and London borough.

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

Dataset | Released 20 May 2021

Pre-existing conditions of people who died due to COVID-19, broken down by country, broad age group, and place of death occurrence, usual residents of England and Wales.

9 . 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. In this bulletin, we have adjusted the monthly ASMRs to allow for comparisons with annual rates. For more information see [Section 10: Measuring the data](#).

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 \(WHO\)](#).

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.

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](#).

10 . Measuring the data

This bulletin provides timely surveillance of mortality in England and Wales, based on the best available provisional data, including all-cause mortality and coronavirus (COVID-19) deaths.

Analysis contains deaths registered in July 2021 by age and sex, and also includes deaths that occurred in July 2021 by date of death. Non-residents of England and Wales are excluded. In July 2021, there were 59 deaths of non-residents that were registered in England and Wales.

Planned revisions to data in this bulletin

Mortality analysis in this publication is based on provisional data. Data for deaths registered in 2020 are now final, and analysis of the final deaths dataset is available in [Deaths registered in England and Wales: 2020](#). We plan to revise analysis including 2020 registrations in Monthly mortality analysis in the August edition (to be published in September 2021).

Age-standardised rates in this bulletin currently use [population projections](#) for 2020. Now that [mid-year population estimates for 2020](#) have been published, we also plan to revise our Monthly mortality analysis to use these populations in the August edition. These revisions will affect data from July 2019 to June 2021, because the 2020 populations are used in our [monthly population estimation method](#) for these months.

Data sources

This bulletin is based primarily on death registrations; analysis by month of death registration is consistent with the [weekly death registrations release](#) and allows for a more timely analysis than would be possible using death occurrences. There is a section on death occurrences for surveillance of recent mortality trends. Death occurrences show the number of deaths that occurred within a calendar period and give a better indication of exactly when deaths were at their highest. This allows mortality to be related to other factors such as weather patterns.

A provisional extract of death registrations and death occurrences data is taken on the first working day after the 8th of the month, to allow time for deaths to be registered. For more detail on the data sources used, see our [methodology article](#).

Definition of COVID-19 deaths

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 had COVID-19 mentioned anywhere on the death certificate, whether as an underlying cause or not, we use the term "involving COVID-19". The International Classification of Diseases (ICD-10) codes used to define COVID-19 are:

- 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.

Our definition of 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 (U07.2). For example, a doctor may have clinically diagnosed COVID-19 based on symptoms, but this diagnosis may not have been confirmed with a test. Of the 125,684 deaths due to COVID-19, 4,015 (3.2%) were classified as "suspected" COVID-19. Including all 141,519 deaths involving COVID-19, "suspected" COVID-19 was recorded on 3.2% (4,594 deaths) of all deaths involving COVID-19 in England and Wales. For more information on the ICD-10 definition of COVID-19, see [Section 8 of the methodology article](#).

Monthly mortality rates

To calculate monthly mortality rates that are comparable with annual rates, adjustments must be made to annual population estimates to account for the time period covered. [Section 2 of the methodology article](#) provides more detail on how this is calculated.

Acknowledgement

We would like to thank Jessica Walkeden, Craig Arnold, Rhys Owen-Williams, and Fred Barton for their valued contribution to this bulletin.

11 . Strengths and limitations

Provisional data are used

Provisional death registrations and death occurrences data are used in this bulletin. This enables timely analysis to be completed to monitor mortality trends. However, as the data for 2020 and 2021 are provisional, they are subject to change.

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. However, because of [registration delays](#), monthly death occurrence data are always somewhat incomplete. This is especially true for deaths that occurred towards the end of the month.

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](#).

12 . Related links

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

Bulletin | Released 17 August 2021

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 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.

[Deaths at home increased by a third in 2020, while deaths in hospitals fell except for COVID-19](#)

Article | Released 7 May 2021

The coronavirus (COVID-19) was the main reason for a rise in the overall number of deaths registered in England and Wales in 2020. Many deaths not due to COVID-19, which would normally have occurred in hospital, happened in private homes instead.