

Article

Excess deaths in England and Wales: March 2020 to June 2022

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

Contact:
Alex Cooke, Andreas Christofi,
Rachel Woods
health.data@ons.gov.uk
+44 1329 444110

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1. Main Points

- In England and Wales, the total number of excess deaths, due to all causes, registered between March 2020 and June 2022 was 137,447; of these, 87,358 were males and 50,089 were females.
- The months with the highest numbers of excess deaths were April 2020 (43,796 excess deaths) and January 2021 (16,546 excess deaths); these were also the months, which had the highest number of deaths due to coronavirus (COVID-19).
- The leading causes of death with the highest numbers of excess deaths in England and Wales were Symptoms, signs, and ill-defined conditions, which is often linked to old age and frailty, (9,094 excess deaths), Cirrhosis and other diseases of the liver (3,834 excess deaths), and Diabetes (3,466 excess deaths).
- For deaths where the underlying cause of death was not coronavirus (COVID-19), excess deaths were 7,360 below the five-year average; deaths were 7,406 above the five-year average for males and 14,766 below the five-year average for females.
- When deaths due to COVID-19 were removed from the total, the number of deaths remained above the five-year average in 12 of the 28 months; six of these were consecutive (July 2021 to December 2021).
- The age group with the highest number of excess deaths that were not due to COVID-19 was those aged 75 to 79 years with 7,408 excess deaths, an increase of 4.9% on the five-year average.
- The place of occurrence with the highest number of excess deaths due to causes other than COVID-19 was private homes with 89,253 excess deaths (a 30.2% increase).

The term excess deaths in this article refers to the number of deaths above the five-year average. For 2020 and 2021, the average for 2015 to 2019 has been used whereas for 2022, the five-year average for 2016 to 2019 and 2021 has been used.

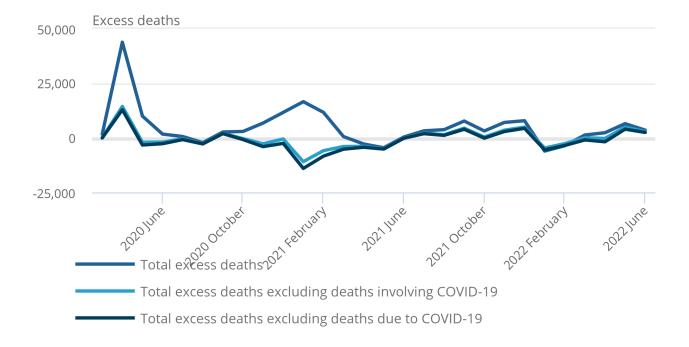
2. Excess deaths not involving coronavirus (COVID-19)

Figure 1: Excess deaths not involving coronavirus (COVID-19) were lowest in January 2021

Number of excess deaths registered, England and Wales, March 2020 to June 2022

Figure 1: Excess deaths not involving coronavirus (COVID-19) were lowest in January 2021

Number of excess deaths registered, England and Wales, March 2020 to June 2022



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

Notes:

- 1. Based on date a death was registered rather than occurred.
- 2. Includes deaths of non-residents.
- 3. Figures for 2022 are provisional.
- 4. Please see Section 11 for definition of coronavirus (COVID-19).
- 5. Please see Section 11 for definition of excess deaths.

The total number of excess deaths, due to all causes, registered in England and Wales between March 2020 and June 2022 was 137,447. Of these, 87,358 were males (14.2% increase) and 50,089 were females (an 8.0 % increase). Coronavirus (COVID-19) accounted for many of these deaths. Once deaths where the underlying cause of death was COVID-19 were removed, deaths were 7,360 below average. However, males had 7,406 excess deaths, a 1.2% increase, whereas females had 14,766 fewer deaths, a 2.4% decrease.

Once deaths where COVID-19 was mentioned anywhere on the death certificate were removed (including deaths where there was a different underlying cause of death), deaths were 31,397 below average. Although the overall number of deaths was below average once deaths due to and involving COVID-19 were removed, this trend was not consistent and varied by month. Once deaths involving COVID-19 were removed, the month with the highest number of deaths below average was January 2021 (14,040 fewer deaths). In contrast, the month with the highest number of excess deaths was April 2020 (12,859 excess deaths).

3. Excess deaths by month

From March 2020 to June 2022, the number of deaths due to all causes in England and Wales was above the five-year average in 23 of the 28 months (Figure 1), with August 2020, April and May 2021, January, and February 2022 the exceptions. When deaths due to coronavirus (COVID-19) were subtracted from the total number of excess deaths, the number of deaths remained above the five-year average in 12 of the 28 months; six of which were consecutive (July 2021 to December 2021).

The months with the highest number of total excess deaths were April 2020 (43,796 excess deaths, a 98.8% increase) and January 2021 (16,546 excess deaths, a 29.2% increase). These were also the months in which the highest numbers of deaths due to COVID-19 were registered (29,435 and 27,488 deaths, respectively). The number of deaths due to COVID-19 during the early stages of the coronavirus pandemic may have been higher because of the limited availability of testing. You can find data on daily testing capacity in the UK on the GOV.UK website.

Mortality displacement is a phenomenon by which a period of high mortality can be followed by below-average mortality. It occurs when vulnerable people, such as older people and those who already had medical conditions, die sooner than expected. Therefore, these individuals are not dying in the following days, weeks, or months, where they would likely have died, potentially leading to a lower-than-average period of mortality.

When deaths due to COVID-19 were subtracted from the analysis, April 2020 remained the month with the highest number of excess deaths (14,361 excess deaths, a 32.4% increase on the five-year average for deaths due to all causes). Conversely, January 2021 was the month with the largest number of deaths below the five-year average when deaths due to COVID-19 were subtracted (10,942 fewer deaths, a 19.3 % decrease).

This shows that the relationship between non-COVID-19 mortality and COVID-19 mortality has changed over the course of the coronavirus pandemic. Whereas in April 2020, non-COVID-19 excess mortality correlated positively with COVID-19 mortality, the opposite was the case for January 2021. This could be an indication of mortality displacement. For more information relating to mortality displacement, please see our Excess mortality and mortality displacement in England and Wales: 2020 to mid-2021 article. An updated publication on mortality displacement is due for release later this year.

When looking at months individually between March 2020 and June 2022, excess deaths from all causes were below average in only five months and these typically followed winter months where there is increased mortality. However, when deaths due to COVID-19 were removed, this increased to 16 individual months and there appears to be a pattern. Deaths due to causes other than COVID-19 were below average in each month between May 2020 and June 2021, excluding September 2020. Between May 2020 and June 2021 there were 55,599 excess deaths from all causes in this period (9.0% increase), but when deaths due to COVID-19 were subtracted from the total number of deaths, the number of deaths was 38,569 below average (a 6.3% decrease). Following this period, deaths due to causes other than COVID-19 were above average in each month between July 2021 and June 2022, with January, February and April 2022 the only exceptions. During this period there were 36,409 excess deaths from all causes (a 6.8% increase), and when deaths due to COVID-19 were removed, the number of deaths remained 16,846 above average (a 3.1% increase).

This shows the overall pattern in excess mortality over the 28-month period. During the early part of the coronavirus pandemic between May 2020 and June 2021, all-cause excess mortality was mostly above average in each individual month, but non-COVID-19 excess mortality was below average in almost every month. Whereas, for the period of July 2021 to June 2022, all-cause excess mortality was above average in most months and remained above average when deaths due to COVID-19 were subtracted. This is further evidence of mortality displacement. In 2022, we have implemented a new five-year average. Usually, we use the most recent five years; for example, we compared deaths in 2020 with the five-year average for 2015 to 2019.

Because of the coronavirus (COVID-19) pandemic, 2020 saw the second highest number of deaths since 1838. If this was used to calculate the five-year average, then the number of deaths in the five-year average would be abnormally high and would not be comparable with a "normal" (non-coronavirus pandemic) year.

The further we move away from 2019, the less robust the 2015 to 2019 five-year average becomes. The decision was made, in collaboration with colleagues across government including the devolved administrations, for 2022 to move to an average of the following five years: 2016, 2017, 2018, 2019 and 2021. This moves our five-year average along by a year but does not include the exceptionally high number of deaths seen in 2020. It allows deaths in 2022 to be compared with a five-year average that is as up to date as possible, while still being close to representing a "normal" year. However, this does include some COVID-19 deaths, especially at the start of 2021 when there was a COVID-19 wave. For more information, please see our blog, Understanding excess deaths during a pandemic.

During 2022, deaths have been above the five-year average (2016, 2017, 2018, 2019, 2021), with 3,848 excess deaths registered (a 1.4% increase). Excluding deaths with an underlying cause of COVID-19, the number of deaths were marginally above average (157 excess deaths, a 0.1% increase). However, when deaths involving COVID-19 were subtracted there were 5,475 fewer excess deaths (a 2.0% decrease). When looking at individual months in 2022, the number of deaths was below average in January and February, but since March has been above average for four consecutive months.

4. Excess deaths by age group

Figure 2: High excess mortality due to diabetes was observed in four out of the seven age groups examined

Proportion of deaths registered by age group and top five leading causes of death for each age group, ordered by number of excess deaths, England and Wales, March 2020 to June 2022

Notes:

- 1. Based on date a death was registered rather than occurred.
- 2. Includes deaths of non-residents.
- 3. Figures for 2022 are provisional.
- 4. Please see Section 11 for definition of excess deaths.

Download the data

.xlsx

From March 2020 to June 2022, the number of deaths in England and Wales was above the five-year average in 14 out of 20 five-year age groups. When deaths due to coronavirus (COVID-19) were subtracted, the number of deaths remained above the five-year average in eight of these age groups.

The age group with the highest number of excess deaths that were not due to COVID-19 was those aged 75 to 79 years old with 7,408 excess deaths, an increase of 4.9% on the five-year average. As a proportion, the age group with the largest excess of deaths that were not due to COVID-19 was those aged 55 to 59 years with an 8.1% increase (3,311 excess deaths).

Deaths due to all causes except COVID-19 were below the five-year average in each of the seven youngest age groups (aged 29 years and under). Of these, the age groups with the largest number of deaths below the five-year average were those aged under one year, (541 fewer deaths, an 8.8% decrease) and those aged 20 to 24 years (228 fewer deaths, a 7.3% decrease). As a percentage, the age group with the largest decrease compared with the five-year average were those aged one to four years (18.9%, 178 fewer deaths) followed by those aged five to nine years (14.9%, 89 fewer deaths).

Deaths due to all causes except COVID-19 were also below the five-year average in the three oldest age groups (those aged 80 to 84 years, 85 to 89 years, and 90 years and over: 4,979, 10,330, and 4,128 fewer deaths, respectively). These were also the age groups in which deaths due to COVID-19 were the highest (27,279, 30,015, and 33,657 deaths, respectively). This could be evidence that, in the age groups most vulnerable to deaths due to COVID-19, deaths may have been subject to mortality displacement.

Differences were also observed when comparing data for England and Wales separately. The age group with the largest percentage difference in excess deaths between England and Wales, when deaths due to COVID-19 were removed, was in those aged five to nine years. This age group saw a decrease in deaths due to causes other than COVID-19 of 12.4% in England, and a 32.9% decrease in Wales, representing a 20.5% difference. This was followed by those aged 25 to 29 years, in which a 1.3% decrease was seen in England, compared with a 20.3% decrease in Wales, representing a difference of 18.9%.

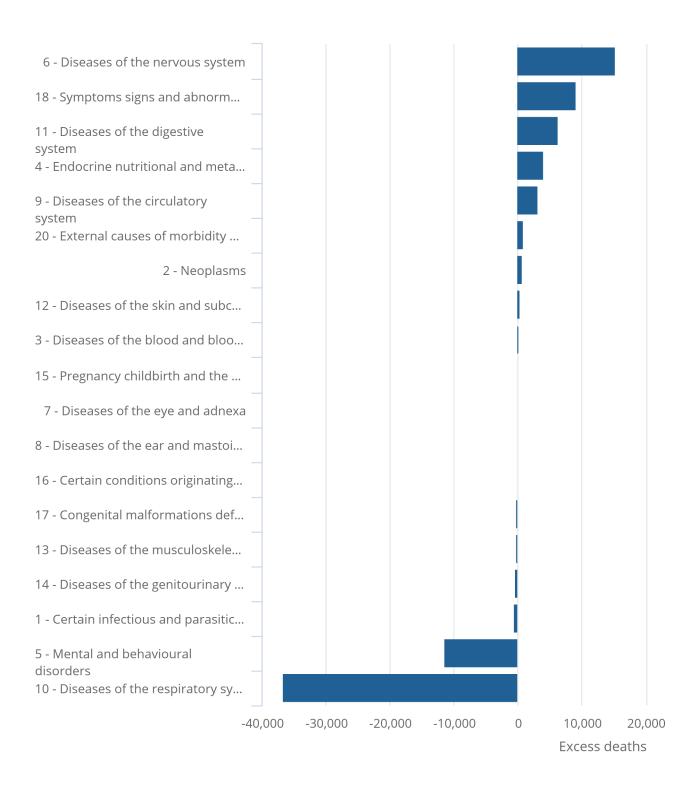
5.	Excess	deaths	by	cause	grouping
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Figure 3: Diseases of the nervous system had the highest number of excess deaths

Number of excess deaths registered by ICD-10 chapter, England and Wales, March 2020 to June 2022

Figure 3: Diseases of the nervous system had the highest number of excess deaths

Number of excess deaths registered by ICD-10 chapter, England and Wales, March 2020 to June 2022



Source: Office for National Statistics - Excess deaths registered in England and Wales

Notes:

- 1. Based on date a death was registered rather than occurred.
- 2. Includes deaths of non-residents.
- 3. Figures for 2022 are provisional.
- 4. Please see Section 11 for definition of excess deaths.

This section refers to excess deaths by chapter of the International Classification of Diseases, 10th Revision (ICD-10). The ICD-10 chapter, which had the highest number of excess deaths in England and Wales, from March 2020 to June 2022, was Diseases of the nervous system with 15,229 excess deaths (a 20.0% increase). The excess in this cause grouping was driven largely by deaths due to Parkinson's disease (3,037 excess deaths, a 21.8% increase).

Deaths due to Diseases of the digestive system had 6,282 excess deaths (a 10.6% increase). The excess in this cause grouping was driven largely by an excess in deaths due to cirrhosis and other diseases of the liver (3,834 excess deaths, a 19.7% increase). In addition, Diseases of the endocrine, nutritional, and metabolic diseases saw an excess of 3,958 deaths (a 20.3% increase). The excess in this cause grouping was driven largely by an excess in diabetes (3,466 excess deaths, a 24.4% increase).

The ICD-10 chapter categorisation, which had the largest decrease in deaths, was Diseases of the respiratory system with 36,700 fewer deaths (a 21.8% decrease), COVID-19 is not included in this chapter. This could also have been because of restrictions on social contact since the start of the coronavirus pandemic, and the consequent stemming of transmission of such diseases. It remains possible, however, that deaths due to COVID-19 have also displaced some of the deaths due to diseases of the respiratory system that we would expect in a non-coronavirus-pandemic year. Further investigation is required to understand this.

The ICD-10 chapter categorisation with the second largest number of deaths below the average was Mental and behavioural disorders with 11,471 fewer deaths (a 10.2% decrease).

6. Excess deaths by leading causes

Table 1: Symptoms, signs, and ill-defined conditions had the highest number of excess deaths, driven by those aged 80 years and above

Number of deaths registered and percentage of excess deaths by leading cause, England and Wales, March 2020 to June 2022

Leading cause	Total deaths		Percentage excess deaths
Symptoms signs and ill-defined conditions	39,142	9,094	30.3%
Cirrhosis and other diseases of liver	23,276	3,834	19.7%
Diabetes	17,648	3,466	24.4%
Cardiac arrhythmias	19,273	3,389	21.3%
Parkinson's disease	16,967	3,037	21.8%
Hypertensive diseases	18,878	2,826	17.6%
Heart failure and complications and ill-defined heart disease	21,275	2,806	15.2%
Accidental falls	15,375	1,636	11.9%
Accidental poisoning	9,625	1,479	18.2%
Malignant neoplasm of colon sigmoid rectum and anus	35,825	1,239	3.6%

Source: Office for National Statistics - Excess deaths registered in England and Wales

Notes

- 1. Based on date a death was registered rather than occurred.
- 2. Includes deaths of non-residents.
- 3. Figures for 2022 are provisional.
- 4. Ordered by deaths with the highest number of excess deaths.
- 5. Leading causes groupings produced by the World Health Organization (WHO) have been used.
- 6. Please see Section 11 for definition of excess deaths.

The leading underlying causes of death are based on a list developed by the World Health Organization (WHO). This categorises causes using the International Classification of Diseases version 10 (ICD-10), specially designed for determining the leading causes of death. More information about leading causes of death is available in our Leading causes of death methodology.

From March 2020 to June 2022, the leading cause of death with the highest number of excess deaths in England and Wales was Symptoms, signs and ill-defined conditions with an excess of 9,094 deaths (a 30.3% increase). The excess for this cause was driven by those aged 80 years and above, in which 9,062 excess deaths were registered (an increase of 33.6% on the five-year average for this age group). This was also the leading cause of excess deaths for both males and females among those aged 80 years and over.

Cirrhosis and other diseases of the liver had the second largest number of excess deaths within the same period, with 3,834 more deaths (a 19.7% increase). Of these excess deaths, 2,159 were males (an 18.0% increase) and 1,676 were females (a 22.4% increase).

Diabetes also saw an excess of 3,466 deaths, representing a 24.4% increase compared with the five-year average. This excess was driven by Diabetes being among the top five leading causes of death with the highest number of excess deaths in those aged 20 to 34 years and all other age groups aged 50 years and over.

The leading causes of death with the largest decreases below the five year-average were Influenza and pneumonia (23,305 fewer deaths, a 36.7% decrease) and chronic lower respiratory diseases (10,640 fewer deaths, a 14.7% decrease).

There is further evidence of mortality displacement in the analysis of excess deaths by underlying cause when comparing the period March to December 2020 with January to December 2021 and January to June 2022. Though most causes of death saw similar proportions of excess deaths across these two periods, deaths due to Dementia and Alzheimer's disease displayed a notably different trend. From March to December 2020, there was an excess of 4,990 deaths due to these causes, representing an increase of 9.7%. In contrast, in 2021, deaths due to these causes were 4,385 below average, representing a 6.7% decrease. Furthermore, from January to June 2022, the number of deaths due to Dementia and Alzheimer's have aligned more closely with the five-year average but still remain below average at 1,560 fewer deaths (a 4.6% decrease).

Though further investigation is required to understand this, it offers cautious evidence that the indirect effects of the coronavirus (COVID-19) pandemic may have accelerated mortality in certain causes of death, thereby causing deaths to be below average later in the coronavirus pandemic, an example of mortality displacement.

7. Excess deaths by place of occurrence

Figure 4: Deaths occurring in private homes saw the highest proportion of excess mortality

Proportion of excess mortality by place of deaths excluding deaths due to COVID-19, England and Wales, March 2020 to June 2022

Notes:

- 1. Based on date a death was registered rather than occurred.
- 2. Includes deaths of non-residents.
- 3. Figures for 2022 are provisional.
- 4. Please see <u>Section 11</u> for definition of excess deaths.

Download the data

.xlsx

From March 2020 to June 2022, in England and Wales, the place of occurrence with the highest number of excess deaths due to causes other than coronavirus (COVID-19) was private homes with 89,253 excess deaths (a 30.2% increase).

Leading causes of death that saw a marked excess of deaths in private homes included ischaemic heart diseases (9,991 excess deaths, a 19.1% increase), dementia and Alzheimer's disease (9,134 excess deaths, a 62.5% increase), and numerous Malignant neoplasms, including of the trachea, bronchus, and lung (5,685 excess deaths, a 24.3% increase), and of the colon, sigmoid, rectum, and anus (3,908 excess deaths, a 33.1% increase). More information is available in our <u>Deaths registered in private homes release.</u>

There is evidence that deaths due to causes other than COVID-19 usually expected to have occurred in hospitals were transposed to other places of occurrence, particularly private homes. Hospitals saw 83,827 fewer deaths due to causes other than COVID-19 between March 2020 and June 2022, which was a 14.6% decrease on the five-year average.

Though this was driven in part by fewer deaths due to influenza and pneumonia (17,537 deaths below average, a 37.9% decrease) and chronic lower respiratory diseases (10,998, a 24.7% decrease). There were also fewer deaths due to ischaemic heart diseases (10,795 fewer deaths, a 17.7% decrease) and Dementia and Alzheimer's disease (10,632 fewer deaths, a 28.5% decrease), the same two causes of death that saw the largest increases in deaths in private homes.

There is evidence of the same pattern for deaths occurring in hospices, which saw 10,936 deaths below the five-year average (a 16.1% decrease) due to causes other than COVID-19 over the period studied. Most of this decrease was accounted for by deaths due to several malignant neoplasms, particularly of the trachea, bronchus, and lung (2,653 fewer deaths, a 25.4% decrease), of the colon, sigmoid, rectum, and anus (1,074 fewer deaths, a 15.9% decrease), of the breast (950 fewer deaths, a 21.5% decrease), and of the prostate (827 fewer deaths, a 25.7% decrease). Deaths occurring in private homes increased for all these causes.

Between March 2020 and June 2022, for deaths due to causes other than COVID-19, care homes saw 8,557 fewer deaths compared with the five-year average, representing a decrease of 3.2%.

When comparing the trend in excess mortality due to causes other than COVID-19 between the period March to December 2020, January to December 2021 and January to June 2022, we see evidence of mortality displacement in care homes. From March to December 2020, 7,390 excess deaths were recorded in care homes, followed by 11,794 deaths below average in 2021. This was followed by 4,153 deaths below average between January and June 2022. Though further investigation is required, it could therefore be the case that the excess mortality observed from March to December 2020 has displaced some of the mortality that would be expected to occur in 2021 and 2022.

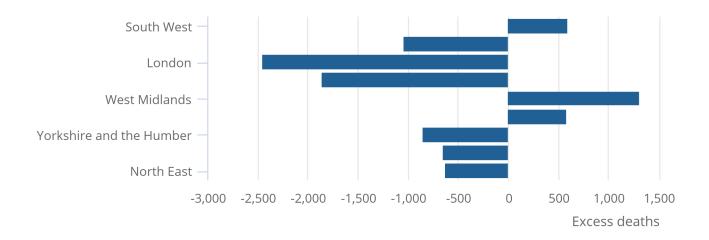
8. Excess deaths by geography

Figure 5: Deaths were below average in six out of the nine English regions

Number of excess deaths registered excluding deaths due to COVID-19, by English region, March 2020 to June 2022

Figure 5: Deaths were below average in six out of the nine English regions

Number of excess deaths registered excluding deaths due to COVID-19, by English region, March 2020 to June 2022



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

Notes:

- 1. Based on date a death was registered rather than occurred.
- 2. Figures for 2022 are provisional.
- 3. Based on area of usual residence.
- 4. Please see <u>Section 11</u> for definition of coronavirus (COVID-19).
- 5. Please see Section 11 for definition of excess deaths.

From March 2020 to June 2022, there were 131,254 excess deaths in England (an 11.3% increase) and 7,007 excess deaths in Wales (a 9.0% increase). When deaths due to coronavirus (COVID-19) were subtracted, there were 4,979 deaths below the five-year average in England (a 0.4% decrease) and 1,327 fewer deaths in Wales (a 1.7% decrease).

For deaths due to causes other than COVID-19, three of the nine English regions saw an increase on the five-year average. These were the West Midlands (1,306 excess deaths, a 1.0% increase), East Midlands (584 excess deaths, a 0.6% increase), and the South West (597 excess deaths, a 0.5% increase). The other six regions saw a decrease, the most notable being in London (2,450 fewer deaths, a 2.1% decrease), East of England (1,854 fewer deaths, a 1.4% decrease), and the South East (1,308 fewer deaths, a 0.5% decrease).

The local authorities with the joint highest proportion of excess deaths due to causes other than COVID-19 was Warwick (295 excess deaths) and Harborough (200 excess deaths) both with a 10.5% increase on the five-year average for deaths due to all causes. This was followed by Melton with a 9.1% increase (102 excess deaths). The greatest proportion of deaths below the five-year average was observed in Three Rivers with a 15.3% decrease (284 fewer deaths), followed by Dartford with a 11.6% decrease (242 fewer deaths), and Watford with a 10.0% decrease (169 fewer deaths).

There is evidence of a small divide between urban and rural areas in excess mortality due to causes other than COVID-19. Overall, areas classified by the 2011 census Rural Urban Classification as "Rural" saw an excess of 2,880 deaths compared with the five-year average for deaths due to all causes (a 1.1% increase). Areas classified as "Urban" saw a 0.9% decrease (9,185 fewer deaths).

Please see our accompanying datasets for more data on geographical breakdowns.

9. Excess deaths by deprivation

For deaths due to causes other than COVID-19 in England from March 2020 to June 2022, three of the ten Index of Multiple Deprivation deciles saw an increase compared with the five-year average for deaths due to all causes. These were the three least deprived deciles of the ten; the tenth decile saw an excess of 2,241 deaths (a 2.2% increase), the ninth decile saw an excess of 1,045 deaths (a 0.9% increase), and the eighth saw an excess of 451 deaths (a 0.4% excess).

In Wales, the number of deaths due to causes other than COVID-19 was below average in all but one quintile. As in England, the number of deaths was above the five-year average in the least deprived quintile (quintile 5), with 52 excess deaths (a 0.4% increase). The second most deprived quintile (quintile 2) had the largest decrease compared with the five-year average (442 deaths below, a 2.7% decrease).

10. Excess deaths data

Excess deaths in England and Wales: March 2020 to June 2022

Dataset | Released 20 September 2022

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

11. Glossary

Excess deaths

The term excess deaths in this article refers to the number of deaths above the 2015 to 2019 five-year average. The average for 2015 to 2019 has been used as this provides a comparison of the number of deaths expected in a usual (non-coronavirus-pandemic) year.

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).

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.

Index of multiple deprivation

The index of multiple deprivation is the official measure of relative deprivation for small areas (or neighbourhoods) in England. The Welsh index of multiple deprivation is used for areas in Wales.

Place of occurrence

Deaths at home are those at the usual residence of the deceased (according to the informant), where this is not a communal establishment.

Care homes includes homes for the chronic sick; nursing homes; homes for people with mental health problems and non-NHS multi-function sites.

Hospices include Sue Ryder Homes; Marie Curie Centres; oncology centres; voluntary hospice units; and palliative care centres.

Other Communal Establishments include schools for people with learning disabilities; holiday homes and hotels; common lodging houses; aged persons' accommodation; assessment centres; schools; convents and monasteries; nurses' homes; university and college halls of residence; young offender institutions; secure training centres; detention centres; prisons and remand homes.

Elsewhere includes all places not covered above such as deaths on a motorway; at the beach; climbing a mountain; walking down the street; at the cinema; at a football match; while out shopping; or in someone else's home. This category also includes people who are pronounced dead on arrival at hospital.

12. Data sources and quality

Figures for England and Wales are calculated using death registration data held by the Office for National Statistics (ONS). Mortality statistics are compiled from information supplied when deaths are certified and registered as part of civil registration. See more information in our Mortality statistics in England and Wales QMI.

Our <u>User guide to mortality statistics</u> provides further information on the collection, production and quality of mortality data.

Strengths

Strengths of this article include:

- information being supplied when a death is registered, which gives complete population coverage and ensures the estimates are of high precision and representative of the underlying population at risk
- coding for cause of death being carried out according to the <u>World Health Organization (WHO) International</u>
 <u>Classification of Diseases</u>, 10th Revision (ICD-10) and internationally agreed rules

Limitations

Limitations of this article include:

- provisional death occurrences data being used to generate the data, which means data are always somewhat incomplete because of registration delays
- deaths in England and Wales are normally registered within five days, but there can be a considerably longer delay in some circumstances, particularly when the death is referred to a coroner. More information on this issue can be found in our Impact of registration delays on mortality statistics article.

13. Cite this statistical bulletin

Office for National Statistics (ONS), released 20 September 2022, ONS website, statistical bulletin, <u>Excess</u> deaths in <u>England and Wales: March 2020 to June 2022</u>