Office for National Statistics

Article

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

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

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1 . Main points

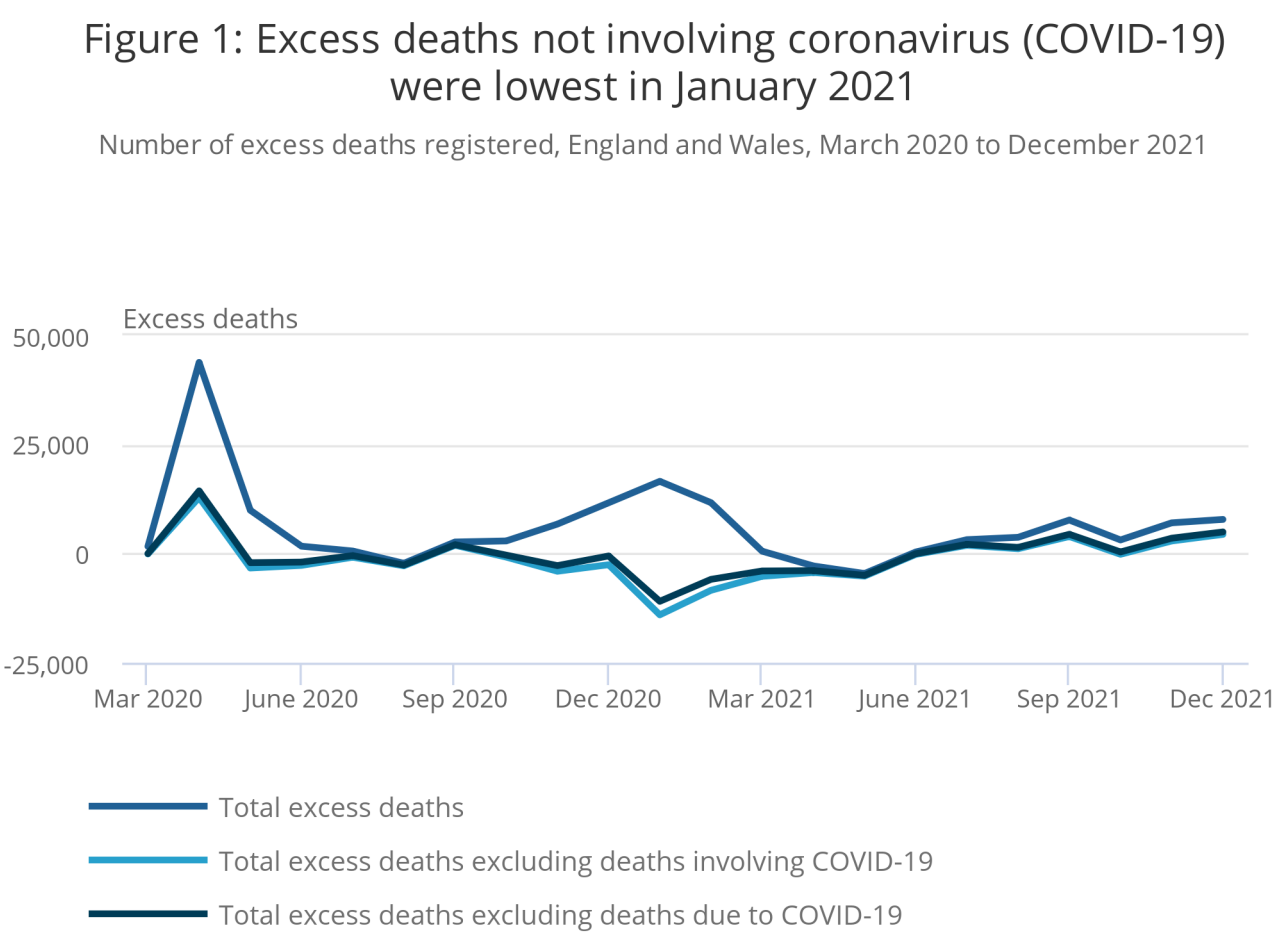
- The total number of excess deaths, due to all causes, registered in England and Wales between March 2020 and December 2021 was 133,623; of these, 81,885 were males and 51,737 females.
- For deaths where the underlying cause of death was not coronavirus (COVID-19), excess deaths were 7,401 below the five-year average (2015 to 2019); deaths were 4,150 above the five-year average for males and 11,552 below the five-year average for females.
- The months with the highest number of excess deaths were April 2020 (43,796 excess deaths) and January 2021 (16,548 excess deaths); these were also the months which had the highest number of deaths due to COVID-19.
- When deaths due to COVID-19 were removed from the total, the number of deaths remained above the five-year average in 9 out of 22 months; six of these being consecutive (July 2021 to December 2021).
- 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, (7,085 excess deaths), Cirrhosis and other diseases of liver (3,061 excess deaths), and Diabetes (2,696 excess deaths).
- The age group with the highest number of excess deaths that were not due to COVID-19 was those aged 70 to 74 years with 4,059 excess deaths, an increase of 4.4% on the five-year average (2015 to 2019).
- The place of occurrence with the highest number of excess deaths due to causes other than COVID-19 was private homes with a 75,668 excess (a 33.3% increase).

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-pandemic) year.

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 December 2021



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 2021 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 December 2021 was 133,623. Of these, 81,885 were males (a 17.3% increase) and 51,737 were females (a 10.6% 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 7,401 below average (4,150 excess deaths for males, a 0.9% increase, and 11,552 fewer deaths for females, a 2.4% decrease).

Once deaths where there was any mention of COVID-19 on the death certificate were removed (including deaths where there was a different underlying cause of death), deaths were 25,837 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 (14,037 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 December 2021, the number of deaths due to all causes in England and Wales was above the five-year average in 19 of the 22 months (Figure 1), with August 2020, April 2021 and May 2021 the only exceptions. When deaths due to COVID-19 were subtracted from the total number of excess deaths, the number of deaths remained above the five-year average in 9 of the 22 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 (16,548 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. Data on daily testing capacity in the UK is available.

The trend also shows that excess deaths were at their highest in the winter months, when the highest number of deaths are usually expected, and at their lowest in the summer months. The months that saw the highest numbers of excess deaths were generally followed by the months that saw the lowest, which could be evidence of mortality displacement.

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 (10,940 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 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 Excess mortality and mortality displacement in England and Wales: 2020 to mid-2021.

Deaths due to causes other than COVID-19 were above average in each month between July to December 2021. Thus, the remainder of Section 3 discusses this period specifically. There were 32,575 excess deaths in this period, and when deaths due to COVID-19 were subtracted from the total number of deaths, the number of deaths remained 16,796 above average.

The overall leading cause of excess mortality during this period was Symptoms, signs, and ill-defined conditions (often linked to old age and frailty), with an excess of 2,289 deaths, a 37.0% increase. This excess was driven by those aged 80 years and over, a group which saw 2,381 excess deaths due to this cause, representing an increase of 43.4%. Within this age group, the excess was largely accounted for by females, who saw 1,640 of the total excess deaths (a 39.6% increase), compared with 741 for males (a 55.3% increase). This could be because of the higher proportion of females in the older population.

Whereas Symptoms, signs, and ill-defined conditions was the leading cause of excess mortality for females, for males the leading cause of excess mortality was Ischaemic heart diseases, with an excess of 1,908 deaths (an increase of 11.4%). This excess was spread across age groups, with 100 excess deaths among those aged 35 to 49 years (an 18.8% increase), 623 among those aged 50 to 64 years (a 23.3% increase), and 995 among those aged 65 to 79 years (a 16.1% increase).

Deaths due to Chronic lower respiratory diseases saw notable excesses, an underlying cause which, earlier in the pandemic, saw numbers of deaths below the five-year average. This cause was the fifth leading cause of excess mortality in July to December 2021. Within this period, it was the second leading cause of excess mortality among those aged 65 to 79 years (717 excess deaths, a 13.2% increase). This was perhaps driven by this being the leading cause of excess death for females in this age bracket (461 excess deaths, a 17.9% increase).

For younger age groups, deaths due to External causes of morbidity and mortality saw notable excesses. These deaths can be subject to registration delays as they are often referred to a coroner and therefore may have been registered during this period but occurred before. In 2020, deaths from external causes registered within one week remained at a low of 9.9%. 28.9% had a registration delay of between three and six months, 26.3% took between six months and one year, and 9.8% took over one year to be registered. More information can be found in our Impact of registrations delays bulletin.

For those aged 1 to 19 years, the leading cause of excess mortality was Suicide and injury or poisoning of undetermined intent (12 excess deaths, a 12.0% increase), followed by Accidental poisoning (seven excess deaths, a 31.8% increase), and Homicide and probable homicide (seven excess deaths, an 18.4% increase). These excesses were driven by males, who saw respective excesses in these causes of 13, 11 and 8 deaths, representing respective increases of 19.1%, 68.8%, and 30.8%. It is important to treat these findings with caution because of low numbers.

In early 2022 deaths have been below the five-year average (2016, 2017, 2018, 2019, 2021) in most weeks, up to week 10 (week ending 11 March 2022). The same is also true when comparing to the 2015 to 2019 five-year average. We will continue to monitor this trend over the coming weeks in our Deaths registered weekly in England and Wales, provisional bulletin.

4 . Excess deaths by age group

Figure 2: Those aged 70 to 74 years had the highest number of excess deaths not due to coronavirus (COVID-19)

Number 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 December 2021

Notes:

1. X-axis scale varies between charts.
2. Based on date a death was registered rather than occurred.
3. Includes deaths of non-residents.
4. Figures for 2021 are provisional.
5. Please see Section 11 for definition of excess deaths.

Download the data

.xlsx

From March 2020 to December 2021, 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 70 to 74 years with 4,059 excess deaths, an increase of 4.4% on the five-year average. As a proportion, the age group with the largest excess was those aged 35 to 39 years with a 9.0% increase (571 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, (404 fewer deaths, an 8.3% decrease) and those aged 20 to 24 years (198 fewer deaths, an 8.1% decrease). As a percentage, the age group with the largest decrease compared with the five-year average were those aged one to four years (22.7%, 169 fewer deaths) followed by those aged five to nine years (19.0%, 90 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: 4,262, 8,543, and 3,037 fewer deaths respectively). These were also the age groups in which deaths due to COVID-19 were the highest (24,987, 27,106, and 29,794 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.

The three oldest age groups were also those that saw the largest differences in excess deaths due to causes other than COVID-19 when comparing March to December 2020 and January to December 2021. In those aged 90 years and over there was an excess of 2,200 deaths (a 2.4% increase) due to causes other than COVID-19 from March to December 2020, followed by 5,237 deaths below average in 2021 (a 4.6% decrease). It is possible that deaths being below average in 2021 was because of the high numbers of deaths due to causes other than COVID-19 in 2020. It could also be the case that high levels of COVID-19 mortality in 2020 displaced many of the deaths that would have normally been expected to occur because of other causes in this age group in 2021.

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 was those aged 25 to 29 years. This age group saw a decrease in deaths due to causes other than COVID-19 of 2.8% in England, and a 22.6% decrease in Wales, representing a 19.8% difference. This was followed by those aged five to nine years, in which a 16.9% decrease was seen in England compared with 30.8% in Wales, representing a difference of 13.9%.

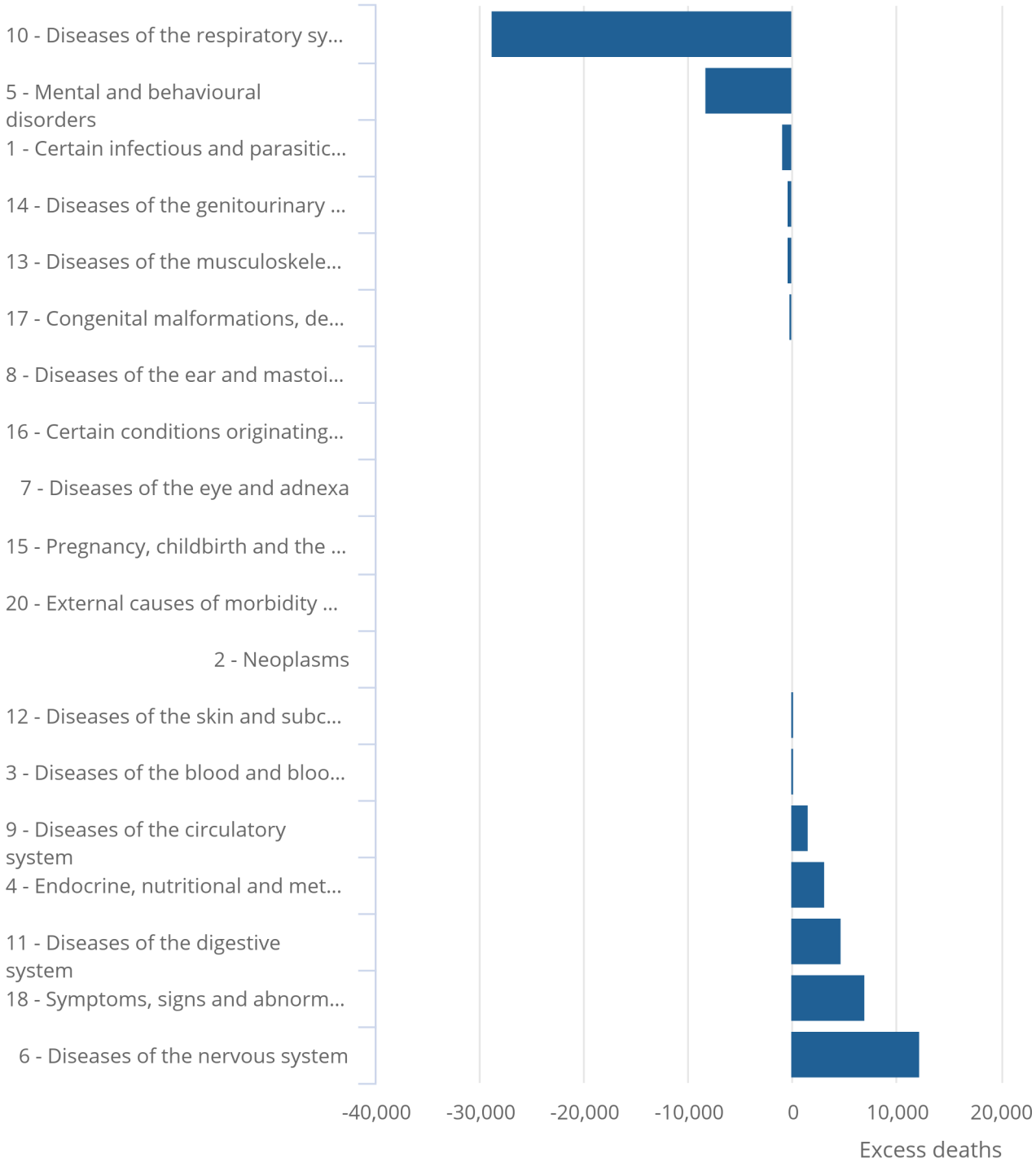
5 . Excess deaths by cause grouping

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 December 2021

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 December 2021



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 2021 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 categorisation which had the highest number of excess deaths in England and Wales, from March 2020 to December 2021, was Diseases of the nervous system with 12,297 excess deaths (a 20.9% increase). The excess in this cause grouping was driven largely by deaths due to Parkinson disease (2,334 excess deaths, a 21.6% increase) and Dementia and Alzheimer's disease (573 excess deaths, a 0.5% increase).

For males, Diseases of the circulatory system had the highest number of excess deaths (5,245 deaths, a 4.2% increase), with the largest excess seen in deaths due to Ischaemic heart diseases. For females, Diseases of the nervous system had the highest excess (7,500 deaths, a 22.6% increase), with the largest excess seen in deaths due to Parkinson disease.

Deaths due to Diseases of the digestive system had 4,684 excess deaths (a 10.1% increase). The excess in this cause grouping was driven largely by an excess in deaths due to Cirrhosis and other diseases of liver (3,061 excess deaths, a 20.4% increase).

External causes of morbidity and mortality displayed contrasting trends. For instance, whereas deaths due to Accidental poisoning had 1,143 excess deaths (an 18.0% increase), Land transport accidents saw numbers of deaths below the five-year average (834 fewer deaths, a 28.8% decrease). This could be because of the impact of restrictions on social contact during the coronavirus (COVID-19) pandemic. Also, deaths due to external causes can be subject to registration delays as they are often referred to a coroner and therefore may have been registered during this period but occurred before. More information can be found in our Impact of registrations delays bulletin.

The ICD-10 chapter categorisation which had the largest decrease in deaths was Diseases of the respiratory system with 28,755 fewer deaths (a 22.1% decrease), COVID-19 is not included in this chapter. This could also have been because of restrictions on social contact during the 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-pandemic year. Further investigation is required to understand this.

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 December 2021

Leading cause	Total deaths	Total excess deaths	Percentage excess deaths
Symptoms, signs and ill-defined conditions	30,242	7,085	30.6%
Cirrhosis and other diseases of liver	18,095	3,061	20.4%
Diabetes	13,630	2,696	24.7%
Cardiac arrhythmias	14,743	2,533	20.7%
Parkinson disease	13,142	2,334	21.6%
Hypertensive diseases	14,528	2,175	17.6%
Heart failure and complications and ill-defined heart disease	16,237	2,014	14.2%
Accidental poisoning	7,505	1,143	18.0%
Malignant neoplasm of liver and intrahepatic bile ducts	9,906	944	10.5%
Accidental falls	11,579	928	8.7%

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 2021 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 December 2021, the leading cause of death with the highest number of excess deaths in England and Wales was Symptoms, signs, and ill-defined conditions (often linked to old age and frailty) with an excess of 7,085 deaths (a 30.6% increase). The excess for this cause was driven by those aged 80 years and above, in which 7,123 excess deaths were registered (an increase of 34.4% 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 liver had the second largest number of excess deaths within the same period, with 3,061 more deaths (a 20.4% increase). Of these excess deaths, 1,739 were males (an 18.8% increase) and 1,322 were females (a 22.9% increase). This excess was driven by Cirrhosis and other diseases of liver being among the top five leading causes of death with the highest number of excess deaths, in all age groups for those aged between 20 and 79 years.

Diabetes also saw an excess of 2,696 deaths, representing a 24.7% 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 cause of death with the highest percentage of excess deaths was Chronic rheumatic heart diseases with an increase of 33.5% (478 excess deaths). Males saw an increase of 39.0% (193 excess deaths) while females saw an increase of 30.5% (284 excess deaths).

The leading causes of death where the numbers of deaths were below the five-year average were Influenza and pneumonia (18,133 fewer deaths, a 37.1% decrease) and Chronic lower respiratory diseases (8,345 fewer deaths, a 14.9% decrease). Both causes are categorised as Diseases of the respiratory system, the cause grouping with the largest decrease in deaths compared with the five-year average between March 2020 and December 2021.

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. 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 4,417 below average, representing a 6.7% decrease.

Malignant neoplasms of the prostate, though with smaller numbers of deaths, showed a similar trend, with an excess of 352 deaths from March to December 2020 (a 4.0% increase), followed by 312 deaths below average in 2021 (a 2.9% 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 pandemic, an example of mortality displacement.

7 . Excess deaths by place of occurrence

Figure 4: Deaths occurring in private homes saw the highest number of excess deaths

Excess deaths by place of deaths excluding deaths due to COVID-19, England and Wales, March 2020 to December 2021

Notes:

1. Based on date a death was registered rather than occurred.
2. Includes deaths of non-residents.
3. Figures for 2021 are provisional.
4. Please see Section 11 for definition of excess deaths.
5. Please see Section 11 for definition of place of occurrence.

Download the data

.xlsx

From March 2020 to December 2021, 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 a 75,668 excess (a 33.3% increase).

Leading causes of death that saw a marked excess of deaths in private homes included Ischaemic heart diseases (8,095 excess deaths, a 20.2% increase), Dementia and Alzheimer's disease (7,836 excess deaths, a 71.4% increase), and numerous Malignant neoplasms, including of the trachea, bronchus, and lung (5,033 excess deaths, a 27.7% increase), and of the colon, sigmoid, rectum, and anus (3,362 excess deaths, a 36.8% increase). More information is available in our Deaths registered in private homes release.

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 74,183 fewer deaths due to causes other than COVID-19 between March 2020 and December 2021, which was a 16.6% decrease on the five-year average.

Though this was driven in part by fewer deaths due to Influenza and pneumonia (13,810 deaths below average, a 38.9% decrease). There was also fewer deaths due to Ischaemic heart diseases (9,253 fewer deaths, a 19.4% decrease) and Dementia and Alzheimer's disease (9,046 fewer deaths, a 31.3% 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 10,037 deaths below the five-year average (an 18.3% 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 (2,321 fewer deaths, a 27.4% decrease), of the colon, sigmoid, rectum, and anus (1,015 fewer deaths, an 18.7% decrease), of the breast (838 fewer deaths, a 23.6% decrease), and of the prostate (734 fewer deaths, a 28.2% decrease). Deaths occurring in private homes increased for all of these causes.

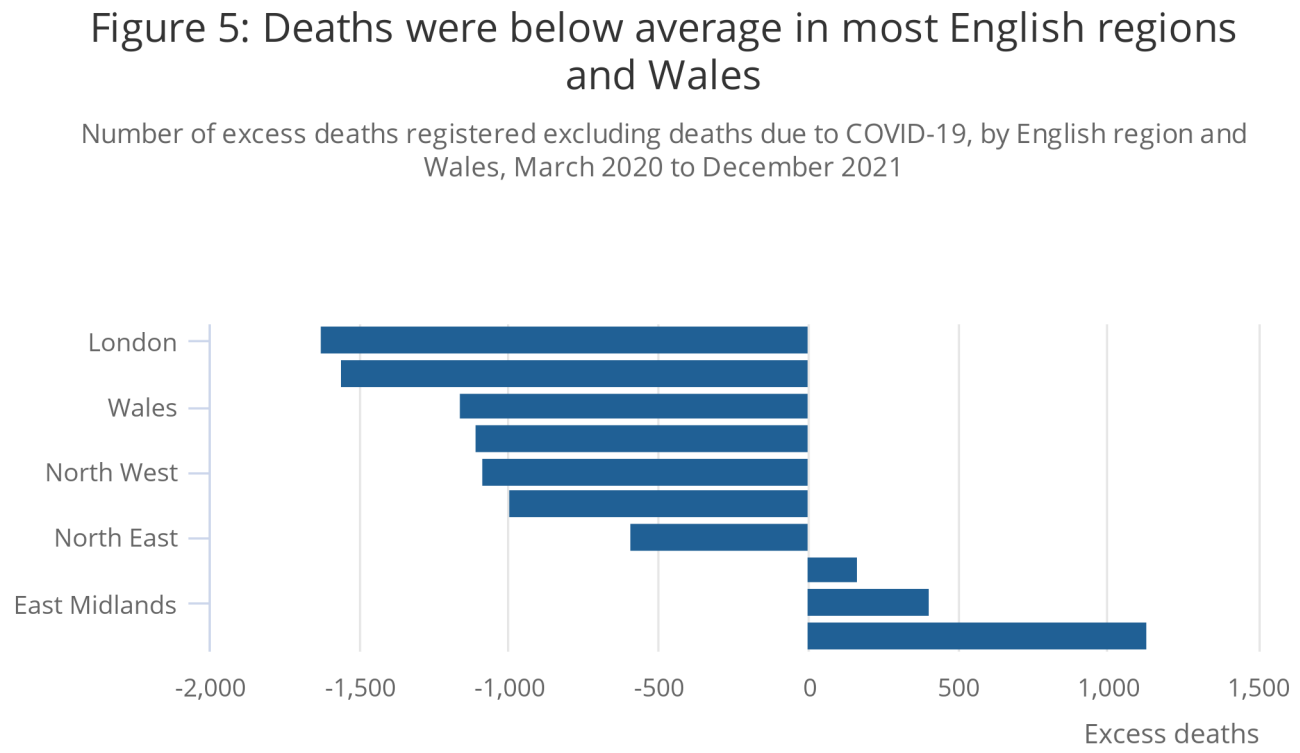
Between March 2020 and December 2021, for deaths due to causes other than COVID-19, care homes saw 4,531 fewer deaths compared with the five-year average, representing a decrease of 2.2%.

When comparing the trend in excess mortality due to causes other than COVID-19 between the period March to December 2020 and January to December 2021, we see evidence of mortality displacement in care homes. From March to December 2020, 7,341 excess deaths were recorded in care homes, followed by 11,872 deaths below average in 2021. 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.

8 . Excess deaths by geography

Figure 5: Deaths were below average in most English regions and Wales

Number of excess deaths registered excluding deaths due to COVID-19, by English region and Wales, March 2020 to December 2021



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 2021 are provisional.
3. Based on area of usual residence.
4. Please see Section 11 for definition of coronavirus (COVID-19).
5. Please see Section 11 for definition of excess deaths.

From March 2020 to December 2021, there were 127,516 excess deaths in England (a 14.2% increase) and 6,864 excess deaths in Wales (a 11.4% increase). When deaths due to coronavirus (COVID-19) were subtracted, there were 5,250 deaths below the five-year average in England (a 0.6% decrease) and 1,164 fewer deaths in Wales (a 1.9% 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 (1,134 excess deaths, a 1.1% increase), East Midlands (409 excess deaths, a 0.5% increase), and the South West (165 excess deaths, a 0.2% increase). The other six regions saw a decrease, the most notable being in London (1,624 fewer deaths, a 1.8% decrease), East of England (1,558 fewer deaths, a 1.5% decrease), and the South East (1,105 fewer deaths, a 0.8% decrease).

The local authority with the highest proportion of excess deaths due to causes other than COVID-19 was Warwick with an 11.5% increase on the five-year average for deaths due to all causes (249 excess deaths). This was followed by Melton with a 10.3% increase (89 excess deaths), and Harborough with a 10.1% increase (149 excess deaths). The greatest proportion of deaths below the five-year average was observed in Three Rivers with a 15.9% decrease (232 fewer deaths), followed by Dartford with a 10.7% decrease (174 fewer deaths), and Watford with a 9.1% decrease (120 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 1,518 deaths compared with the five-year average for deaths due to all causes (a 0.8% increase). Areas classified as "Urban" saw a 1.0% decrease (7,933 fewer deaths).

Please see the 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 December 2021, two 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 two least deprived deciles of the ten; the tenth decile saw an excess of 1,403 deaths (a 1.8% increase) and the ninth decile saw an excess of 798 deaths (a 0.9% increase).

In Wales, the number of deaths due to causes other than COVID-19 was below average in every quintile. The number of deaths in the least deprived quintile (quintile 5) was the closest to the five-year average with four deaths below average. The second most deprived quintile (quintile 2) had the largest decrease compared with the five-year average (352 deaths below).

10 . Excess deaths data

Excess deaths in England and Wales: March 2020 to December 2021
Dataset | Released 22 March 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-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 the Mortality statistics in England and Wales QMI.

The User guide to mortality statistics 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 World Health Organization (WHO) International Classification of Diseases, 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 . Related links

Deaths registered weekly in England and Wales, provisional: week ending 11 March 2022
Bulletin | Released 22 March 2022
Provisional counts of the number of deaths registered in England and Wales, including deaths involving coronavirus (COVID-19), 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.

Monthly mortality analysis, England and Wales: January 2022
Bulletin | Released 23 February 2022
Provisional death registration data for England and Wales, broken down by sex, age and country. Includes analysis of deaths due to coronavirus (COVID-19), compared with the leading causes of death. Datasets include deaths due to COVID-19 by local area and socioeconomic deprivation.

Excess mortality and mortality displacement in England and Wales: 2020 to mid-2021
Article | Released 15 October 2021
Deaths registered in England and Wales by week, from 28 December 2019 to 2 July 2021. Breakdowns include country, sex, age group, region, place of death, and leading cause. Includes analysis of excess deaths and relative cumulative age-standardised mortality rates.

Deaths registered in private homes, England and Wales: 2020 final and January to June 2021, provisional
Article | Released 10 November 2021
Deaths registered in private homes by age, sex, place of occurrence and selected underlying causes of death and the leading causes of death.

COVID-19 vaccination and mortality in young people during the coronavirus pandemic
Article | Released 22 March 2022
An analysis of the mortality following COVID-19 vaccination and of excess death during the pandemic in young people.