

Article

# Deaths involving COVID-19 in the care sector, England and Wales: deaths occurring up to 12 June 2020 and registered up to 20 June 2020 (provisional)

Provisional figures on deaths involving the coronavirus (COVID-19) within the care sector, in England and Wales.

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Next release: To be announced

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### 1. Main points

- Since the beginning of the coronavirus (COVID-19) pandemic (between the period 2 March to 12 June 2020, registered up to 20 June 2020), there were 66,112 deaths of care home residents (wherever the death occurred); of these, 19,394 involved COVID-19, which is 29.3% of all deaths of care home residents.
- Since mid-April 2020, we have seen a slowdown in both the total number of deaths and deaths involving COVID-19 in care home residents.
- England had a statistically significantly higher age-standardised mortality rate for deaths involving COVID-19 (1,182.9 deaths per 100,000 care home residents) compared with Wales (822.3 deaths per 100,000 care home residents).
- Of deaths involving COVID-19 among care home residents, 74.9% (14,519 deaths) occurred within a care home and 24.8% (4,810 deaths) occurred within a hospital.
- From 2 March 2020, of all deaths in hospital involving COVID-19, 15.5% could be accounted for by care home residents.
- Between the period 2 March to 12 June 2020, registered up to 20 June 2020, COVID-19 was the leading cause of death in male care home residents, accounting for 33.5% of all deaths, and the second leading cause of death in female care home residents, after Dementia and Alzheimer disease, accounting for 26.6% of all deaths.
- Dementia and Alzheimer disease was the most common main pre-existing condition found among deaths involving COVID-19 and was involved in 49.5% of all deaths of care home residents involving COVID-19.
- The Care Quality Commission (CQC) collects information on recipients of domiciliary care in England and between 10 April and 19 June 2020, there were 6,523 deaths of recipients of domiciliary care; this was 3,628 deaths higher than the three-year average (2,895 deaths).

### 2. Deaths involving COVID-19 among care home residents

The number of deaths reported in this release will differ to the number of deaths reported in the <a href="Impact of coronavirus">Impact of coronavirus in care homes in England (Vivaldi)</a> publication also released today. This is because of differences in reporting periods, care home coverage and information source. For more information, please refer to the <a href="Measuring the data">Measuring the data</a> section and a blog we have released on <a href="care homes outlining the differences in the data">Care homes outlining the differences in the data</a>.

The term "care home residents" used in this article refers to all deaths where either (a) the death occurred in a care home or (b) the death occurred elsewhere but the place of residence of the deceased was recorded as a care home. The figures should not be confused with "deaths in care homes" as reported in other publications, which refers only to category (a).

This article contains detailed analysis of all deaths of care home residents that occurred in England and Wales where the coronavirus (COVID-19) was involved. Some information on deaths of recipients of domiciliary care, living in private homes, is also provided.

Please note that the figures presented within this article are based on the date a death occurred, not the date a death was registered. Therefore, figures may differ from those published in the <u>Deaths registered weekly in England and Wales publication.</u>

Between 28 December 2019 and 12 June 2020, there were 93,475 deaths of care home residents that occurred in England and Wales and were registered by 20 June 2020.

Our definition of deaths involving COVID-19 includes cases where the certifying doctor suspected the death involved COVID-19 but was not certain, for example, because a test was not undertaken. Of the 19,394 deaths involving COVID-19 of care home residents, 16,305 (84.1%) were classified as "confirmed" COVID-19 and 3,089 (15.9%) were classified as "suspected" COVID-19.

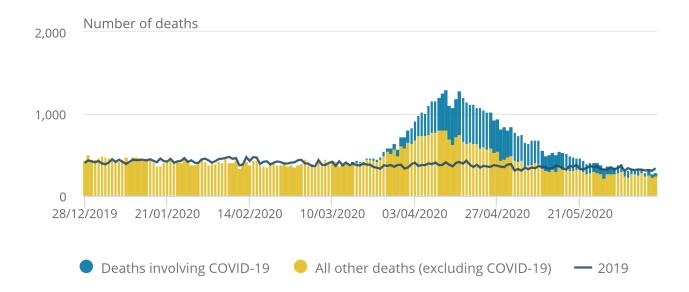
In this article, we use the term "due to COVID-19" when referring only to deaths with an underlying cause of death as COVID-19, and we use the term "involving COVID-19" when referring to deaths that had COVID-19 mentioned anywhere on the death certificate, whether as an underlying cause or not.

Figure 1: Since mid-April 2020, the number of deaths among care home residents has been decreasing

Number of deaths of care home residents from 28 December 2019 to 12 June 2020, registered up to 20 June 2020, England and Wales

### Figure 1: Since mid-April 2020, the number of deaths among care home residents has been decreasing

Number of deaths of care home residents from 28 December 2019 to 12 June 2020, registered up to 20 June 2020, England and Wales



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

### Notes:

- 1. Figures for 2020 are provisional and the latest data could be subject to change due to registration delays.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than it was registered.
- 4. To allow day-by-day comparisons to be made between 2020 and 2019, the date 29 February 2020 has been removed from this chart.

The provisional number of deaths of care home residents occurring in England and Wales from 28 December 2019 to 12 June 2020 (registered up to 20 June 2020) was 93,475; this represents 29,393 more than the same period last year, a 45.9% increase. Of these deaths, 19,394 mentioned "novel coronavirus (COVID-19)", which is 20.7% of all deaths of care home residents.

Since 15 March 2020, the number of deaths of care home residents has remained above the number of deaths that occurred in the same time period in 2019. However, during June 2020, there were instances where the number of deaths was lower than in 2019. These findings should be interpreted with caution, as these decreases may be an effect of <u>registration delays</u>.

To improve the timely availability of data on deaths that involved COVID-19 in care homes, the Office for National Statistics (ONS) and the Care Quality Commission (CQC) as well as Care Inspectorate Wales (CIW) have agreed to publish provisional counts of deaths of care home residents in care homes in England and Wales, respectively, based on statutory notification by care home providers. More information can be found in <a href="Measuring the data">Measuring the data</a>.

### Figure 2: In England, we are beginning to see a slowdown in the number of deaths among care home residents

Cumulative number of deaths of care home residents from 28 December 2019 to 12 June 2020, registered up to 20 June 2020, England

Up to 12 June 2020, there were 90,133 deaths among care home residents notified to the CQC. The ONS reported that there were 89,018 deaths among care home residents in England occurring in the same period that were registered by 20 June 2020 (Figure 2). When comparing with the <u>previous publication</u>, a slowdown in total deaths and deaths involving COVID-19 can be seen in the latest data. The 10 April 2020 was the first day when data were collected using the CQC's new method of identifying deaths involving COVID-19. Since then, there have been 17,736 deaths involving COVID-19 notified to the CQC up to 19 June 2020.

An important difference between the two sources is that the ONS reports deaths where COVID-19 was mentioned on the death certificate, while CQC notifications rely on the statement of the care home provider that COVID-19 was suspected or confirmed. The CQC does not hold person-level information that allows a direct comparison between the two sources and so an accurate assessment between the different reporting criteria cannot be determined. More information can be found in a joint statement.

### Figure 3: In Wales, we are beginning to see a slowdown in number of deaths involving COVID-19 among care home residents

Cumulative number of deaths of care home residents from 28 December 2019 to 12 June 2020, registered up to 20 June 2020, Wales

In Wales, the Welsh Government publishes the number of <u>deaths of care home residents involving COVID-19</u> <u>notified to the CIW</u>. Any death involving COVID-19 was notified to the CIW where suspected or confirmed COVID-19 was listed as the cause of death by the service provider. CIW data include deaths in registered adult care home settings, whereas ONS figures include a broader range of settings.

Up to 12 June 2020, there were 4,251 deaths among adult care home residents notified to the CIW. The ONS has reported that there were 4,428 deaths among care home residents in Wales occurring in the same period that were registered by 20 June 2020 (Figure 3). When comparing to the <u>previous publication</u>, a slowdown in deaths involving COVID-19 can be seen in the latest data. In Wales, the CIW has reported a total of 717 deaths involving COVID-19 up to 19 June 2020.

During 2019, care home services were undergoing re-registration with the CIW because of new legislation, which introduced a new method of notifying the CIW of deaths of care home residents. This may have resulted in some disruptions to notifications being submitted.

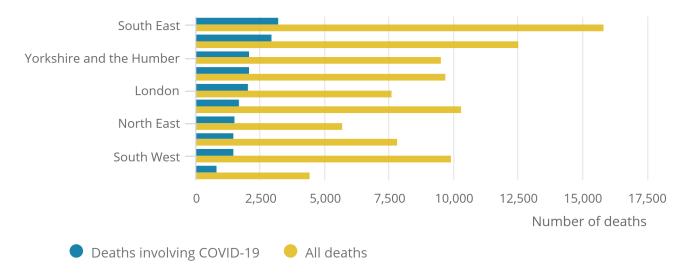
### 3. Country and regional breakdown of deaths involving COVID-19 among care home residents

Figure 4: The highest number of deaths involving COVID-19 among care home residents was recorded in the South East region of England, while the lowest number was recorded in Wales

Number of deaths of care home residents from 28 December 2019 to 12 June 2020, registered up to 20 June 2020, English regions and Wales

Figure 4: The highest number of deaths involving COVID-19 among care home residents was recorded in the South East region of England, while the lowest number was recorded in Wales

Number of deaths of care home residents from 28 December 2019 to 12 June 2020, registered up to 20 June 2020, English regions and Wales



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Based on area of usual residence.
- 2. Figures for 2020 are provisional.
- 3. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 4. Based on the date a death occurred rather than when it was registered.
- 5. Figures exclude deaths of non-residents.
- 6. Age-standardised mortality rates (ASMRs) have not been calculated for regions as we do not have care home resident population data by region available.

When comparing with our <u>previous publication</u>, with the additional data for deaths occurring up to 12 June and registered up to 20 June, we continue to see similar regional patterns of deaths of care home residents. When looking at the regions of England, the highest number of deaths involving the coronavirus (COVID-19) of care home residents continues to be in the South East, with 3,222 deaths. However, London continued to have the highest proportion of deaths involving COVID-19, accounting for 26.9% of deaths of care home residents. The South West continued to have the lowest proportion of deaths involving COVID-19 accounting for 14.9% of deaths of care home residents. When comparing Wales with the English regions, it had the lowest number (826) of deaths involving COVID-19 among care home residents with the third lowest proportion (18.7%).

### 4. Characteristics of care home residents who died from COVID-19

The following sections cover deaths occurring during the pandemic period, from 2 March to 12 June 2020, registered up to 20 June 2020.

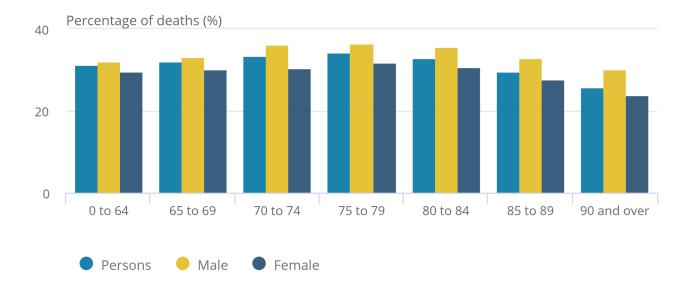
This section looks at the proportion of deaths involving the coronavirus (COVID-19) accounted for out of all deaths among care home residents in each age group since the beginning of the pandemic, occurring from 2 March to 12 June 2020, registered up to 20 June 2020.

Figure 5: There was a higher proportion of deaths involving COVID-19 among male care home residents than female care home residents across all age groups

Percentage of deaths of care home residents involving COVID-19, by sex and age, from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales

# Figure 5: There was a higher proportion of deaths involving COVID-19 among male care home residents than female care home residents across all age groups

Percentage of deaths of care home residents involving COVID-19, by sex and age, from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales



Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures for 2020 are provisional.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

From 2 March to 12 June 2020 (registered up to 20 June 2020), 29.3% of all deaths of care home residents involved COVID-19. When broken down by sex, 33.3% of male care home resident deaths and 26.8% of female care home resident deaths involved COVID-19. When looking at the proportion by age group, the highest proportion of deaths involving COVID-19 was for those aged 75 to 79 years in both male and female care home residents, accounting for 36.4% and 31.7% of all deaths respectively. The smallest percentage of deaths involving COVID-19 of both male and female care home residents was of those aged 90 years and over, accounting for 30.1% and 23.9% of all deaths respectively.

This section presents age-standardised and age-specific mortality rates for deaths of care home residents in England and Wales involving COVID-19. These are a better measure of mortality than the number of deaths, as they account for the population size and age structure and you can compare between areas and over time.

The total number of care home resident deaths in England from 2 March to 12 June 2020, registered up to 20 June 2020, was 63,097 (25,013 male deaths and 38,084 female deaths). This equates to an age-standardised rate of 3,690.2 deaths per 100,000 care home residents, with 4,601.3 deaths per 100,000 male care home residents and 3,125.1 deaths per 100,000 female care home residents.

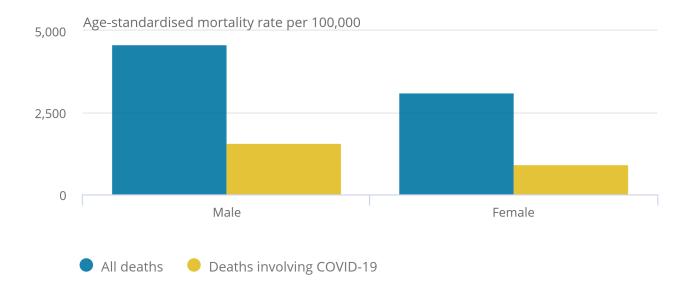
The total number of care home resident deaths involving COVID-19 in England was 18,562 (8,328 male deaths and 10,234 female deaths). This equates to an age-standardised rate of 1,182.9 deaths per 100,000 care home residents, with 1,580.5 deaths per 100,000 male care home residents and 929.4 deaths per 100,000 female care home residents.

### Figure 6: In England, mortality rates were statistically significantly higher for male care home residents than female care home residents

Age-standardised mortality rates for deaths of care home residents per 100,000 population from 2 March to 12 June 2020, registered up to 20 June 2020, England

## Figure 6: In England, mortality rates were statistically significantly higher for male care home residents than female care home residents

Age-standardised mortality rates for deaths of care home residents per 100,000 population from 2 March to 12 June 2020, registered up to 20 June 2020, England



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

### Notes:

- 1. Figures for 2020 are provisional.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

The total number of care home resident deaths in Wales from 2 March to 12 June 2020, registered up to 20 June 2020, was 2,996 (1,087 male deaths and 1,909 female deaths). This equates to an age-standardised rate of 2,869.5 deaths per 100,000 care home residents, with 3,552.9 deaths per 100,000 male care home residents and 2,403.9 deaths per 100,000 female care home residents.

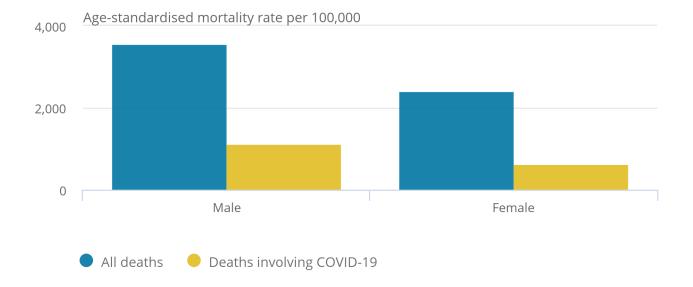
The total number of care home resident deaths involving COVID-19 in Wales was 826 (354 male deaths and 472 female deaths). This equates to an age-standardised rate of 822.3 deaths per 100,000 care home residents, with 1,134.6 deaths per 100,000 male care home residents and 623.2 deaths per 100,000 female care home residents.

### Figure 7: In Wales, mortality rates were statistically significantly higher for male care home residents than female care home residents

Age-standardised mortality rates for deaths of care home residents per 100,000 population from 2 March to 12 June 2020, registered up to 20 June 2020, Wales

Figure 7: In Wales, mortality rates were statistically significantly higher for male care home residents than female care home residents

Age-standardised mortality rates for deaths of care home residents per 100,000 population from 2 March to 12 June 2020, registered up to 20 June 2020, Wales



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures for 2020 are provisional.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

Figures 8 and 9 present age-specific mortality rates for deaths of care home residents and non-care residents. The term "non-care home residents" used in this article refers to the rest of the population excluding our definition of care home residents.

It should be noted that a higher mortality rate is to be expected among care home residents than non-care home residents, even taking age into account, since poor health or frailty is a common reason for needing residential care

### Figure 8: In England, deaths involving COVID-19 were higher in the care home population than in the non-care home population

Age-specific mortality rates for deaths of care home residents and non-care home residents involving COVID-19 per 100,000 population, from 2 March to 12 June 2020, registered up to 20 June 2020, England

### Figure 8: In England, deaths involving COVID-19 were higher in the care home population than in the non-care home population

Age-specific mortality rates for deaths of care home residents and non-care home residents involving COVID-19 per 100,000 population, from 2 March to 12 June 2020, registered up to 20 June 2020, England



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures for 2020 are provisional.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

Mortality rates for deaths involving COVID-19 of both male and female care home residents (Figure 8) increased consistently with age, with males having a higher age-specific mortality rate than females for each age group. This difference was statistically significant in age groups 65 years and over. The age group 85 years and over had the highest age-specific mortality rate for both males (8,638.5 deaths per 100,000) and females (4,254.6 deaths per 100,000), with 5,284.4 deaths per 100,000 involving COVID-19 occurring overall in this age group.

In England, the age-specific mortality rate was at least 6.2 times higher for care home residents aged 85 years and over (persons) than for non-care home residents for deaths involving COVID-19 and for all deaths.

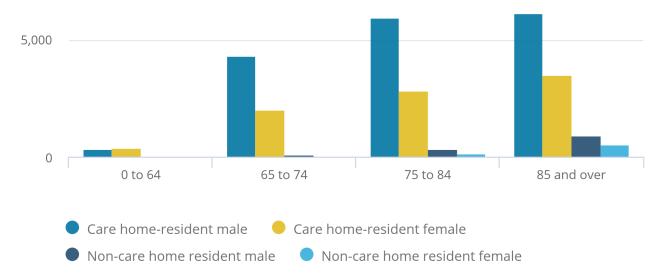
Figure 9: In Wales, deaths involving COVID-19 were higher in the care home population than in the non-care home population

Age-specific mortality rates for deaths of care home residents and non-care home residents involving COVID-19 per 100,000 population, from 2 March to 12 June 2020, registered up to 20 June 2020, Wales

# Figure 9: In Wales, deaths involving COVID-19 were higher in the care home population than in the non-care home population

Age-specific mortality rates for deaths of care home residents and non-care home residents involving COVID-19 per 100,000 population, from 2 March to 12 June 2020, registered up to 20 June 2020, Wales





Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures for 2020 are provisional.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

Like in England, mortality rates for male and female care home residents in Wales increased consistently with age (Figure 9). Males had a higher age-specific mortality rate than females for ages over 65 years, but females had a higher mortality rate for ages under 65 years. These differences were statistically significant in age groups aged 65 years and older. The age group 85 years and over had the highest age-specific mortality rate for both males (6,131.2 deaths per 100,000) and females (3,483.0 deaths per 100,000), with 4,097.0 deaths per 100,000 involving COVID-19 occurring overall in this age group.

In Wales, the age-specific mortality rate was at least 4.7 times higher for care home residents aged 85 years and over (persons) than for non-care home residents for deaths involving COVID-19 and for all deaths.

### 5. Place of death for care home residents

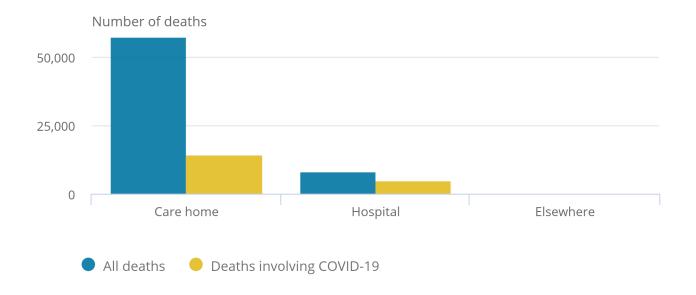
Of deaths involving the coronavirus (COVID-19) among care home residents (date of death from 2 March to 12 June 2020, registered up to 20 June 2020), 74.9% (14,519 deaths) occurred within a care home, with the remainder occurring in hospitals (24.8%) or elsewhere (0.3%). Of all hospital deaths involving COVID-19, 15.5% were accounted for by care home residents.

Figure 10: The majority of deaths of care home residents involving COVID-19 occurred within care homes

Number of deaths of care home residents by place of death from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales

### Figure 10: The majority of deaths of care home residents involving COVID-19 occurred within care homes

Number of deaths of care home residents by place of death from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures for 2020 are provisional.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

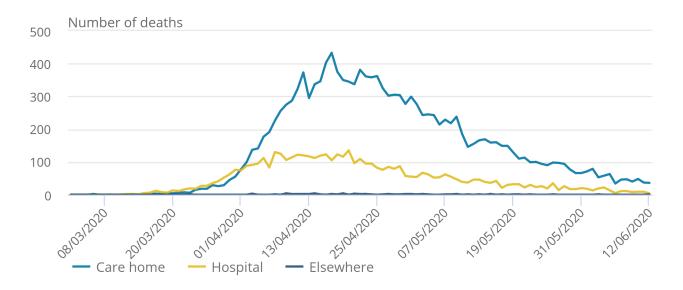
At the beginning of the pandemic, more deaths involving COVID-19 among care home residents occurred within the hospital setting (Figure 11); however, from the beginning of April, deaths within care homes increased more rapidly, becoming more prevalent.

### Figure 11: The number of deaths involving COVID-19 of care home residents within care homes accounted for more deaths than hospitals and elsewhere

Number of deaths of care home residents involving COVID-19 by place of death from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales

# Figure 11: The number of deaths involving COVID-19 of care home residents within care homes accounted for more deaths than hospitals and elsewhere

Number of deaths of care home residents involving COVID-19 by place of death from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales



Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures for 2020 are provisional.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

When looking at deaths in care homes only (instead of deaths among care home residents) between 2 March and 12 June 2020, deaths occurring in 2020 were much higher than deaths occurring between 2015 and 2019, when deaths remained similar (Figure 12).

Figure 12: The number of deaths occurring in care homes in 2020 was higher than deaths occurring in 2015 to 2019

Number of deaths in care homes from 2 March to 12 June 2020, registered up to 20 June 2020, 2015 to 2020, England and Wales

### Figure 12: The number of deaths occurring in care homes in 2020 was higher than deaths occurring in 2015 to 2019

Number of deaths in care homes from 2 March to 12 June 2020, registered up to 20 June 2020, 2015 to 2020, England and Wales



2018

2019

2020

2017

Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

2016

#### Notes:

1. Figures for 2020 are provisional.

Number of deaths

2. Based on the date a death occurred rather than when it was registered.

### 6. Leading causes of death among care home residents

The Office for National Statistics's (ONS's) <u>leading causes of death</u> groupings are based on a list developed by the World Health Organization (WHO). This categorises causes of death using the International Classification of Diseases, 10th edition (ICD-10) into groups that are epidemiologically more meaningful than single ICD-10 codes, for the purpose of comparing the most common causes of death in the population.

Table 1 shows the top five underlying causes of death occurring among care home residents and non-care home residents from 2 March to 12 June 2020 in England and Wales. England- and Wales-specific breakdowns are also available in the <u>accompanying dataset</u>.

Table 1: Percentage of deaths of care home residents and non-care home residents for the five leading causes of death from 2 March to 12 June 2020, registered up to 20 June 2020, in England and Wales

Male		Female	
Care home residents:		Care home residents:	
COVID-19	33.5%	Dementia and Alzheimer disease	
Dementia and Alzheimer disease	24.7%	COVID-19	26.6%
Cerebrovascular diseases	4.4%	Symptoms signs and ill-defined conditions	
Ischaemic heart diseases	4.0%	Cerebrovascular diseases	5.0%
Symptoms signs and ill-defined conditions	3.4%	Ischaemic heart diseases	3.1%
Non-care home residents:		Non-care home residents:	
COVID-19	26.3%	COVID-19	20.1%
Ischaemic heart diseases	10.00/		
	13.0%	Ischaemic heart diseases	8.0%
Malignant neoplasm of trachea bronchus and lung	5.5%	Ischaemic heart diseases  Dementia and Alzheimer disease	8.0% 6.2%
•			

Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

#### Notes

- 1. Figures for 2020 are provisional. Back to table
- 2. Based on the date a death occurred rather than when it was registered. Back to table
- 3. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2. <u>Back to table</u>
- 4. The symptoms, signs and ill-defined conditions category includes deaths where no more specific diagnosis can be made. More information can be found on the official ICD-10 website. <u>Back to table</u>

For males, COVID-19 was the leading cause of death, accounting for 33.5% of deaths of care home residents and 26.3% of deaths of non-care home residents.

For females, Dementia and Alzheimer disease was the leading cause of death of care home residents, accounting for 33.8% of deaths, while COVID-19 was the second leading cause of death, accounting for 26.6% of deaths of female care home residents. This contrasts with non-care home residents, where COVID-19 was the leading cause of death of females accounting for 20.1% of deaths.

COVID-19 was the leading cause of death of male care home residents for all age groups. COVID-19 was also the leading cause of death of female care home residents aged under 80 years, but for those aged 80 years and over Dementia and Alzheimer disease was the leading cause of death.

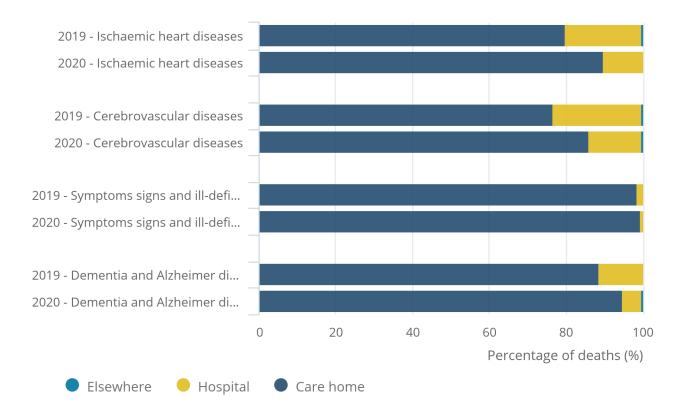
To determine if there are any differences in the place of death for care home residents this year (deaths occurring from 2 March to 12 June 2020, registered up to 20 June 2020) in comparison with the same period last year, Figure 13 looks at place of death by leading cause of death.

Figure 13: There was a higher proportion of deaths in care homes in 2020 than in 2019

Percentage of deaths of care home residents by place of death for the leading causes of death, from 2 March to 12 June 2020, registered up to 20 June 2020, compared with the same time period in 2019, England and Wales

### Figure 13: There was a higher proportion of deaths in care homes in 2020 than in 2019

Percentage of deaths of care home residents by place of death for the leading causes of death, from 2 March to 12 June 2020, registered up to 20 June 2020, compared with the same time period in 2019, England and Wales



Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures for 2020 provisional.
- 2. Based on the date a death occurred rather than when it was registered.
- The symptoms, signs and ill-defined conditions category includes deaths where no more specific diagnosis
  can be made. More information can be found on the official <u>International Classification of Diseases</u>, <u>10th</u>
  <u>edition (ICD-10) website</u>.

For all leading causes of death, there were more deaths in care homes in 2020 in comparison with the same period in 2019. Furthermore, there have been fewer deaths in hospitals among care home residents in 2020 in comparison with 2019. This is consistent across all the leading causes of death examined.

The biggest difference in place of death of care home residents is evident in Ischaemic heart diseases (IHD). The proportion of deaths due to IHD that occurred between 2 March and 12 June 2020 (registered up to 20 June 2020) in a care home was 89.8%, compared with 79.8% for the same period in 2019. In 2019, more deaths (20.0%) due to IHD occurred within a hospital setting in comparison with 2020 (10.1%).

### 7. Pre-existing conditions of care home residents

We define a pre-existing condition as any health condition mentioned on the death certificate that either came before the coronavirus (COVID-19) or was an independent contributory factor in the death. Where only COVID-19 was recorded on the death certificate, or only COVID-19 and subsequent conditions caused by COVID-19 were recorded, we refer to these deaths as having "No pre-existing conditions".

Here, we analyse deaths involving COVID-19 among care home residents by the main pre-existing condition. This is defined as the one pre-existing condition that is, on average, most likely to be the underlying cause of death for a person of that age and sex had they not died from COVID-19. For more detail on how pre-existing conditions and main pre-existing conditions are derived, please see <a href="Measuring pre-existing health conditions in death certification - deaths involving COVID-19">Measuring pre-existing health conditions in death certification - deaths involving COVID-19</a>.

Figures 14 and 15 show the proportion of deaths involving COVID-19 with five main pre-existing cause groups for males and females of care home residents and non-care home residents.

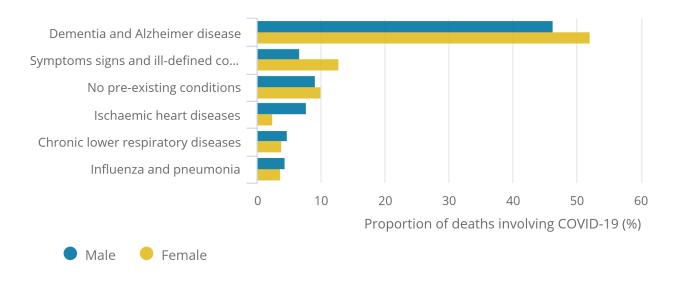
Of the 19,394 care home resident deaths involving COVID-19, 17,528 (90.4%) had at least one pre-existing health condition. The mean number of pre-existing conditions was 2.0. The most common main pre-existing health condition in care home residents was Dementia and Alzheimer disease, with 9,605 deaths (49.5% of all deaths involving COVID-19) (Figure 14).

### Figure 14: Dementia and Alzheimer disease was the most common pre-existing health condition in deaths involving COVID-19 among care home residents

Proportion of deaths of care home residents involving COVID-19 by main pre-existing condition, occurring from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales

# Figure 14: Dementia and Alzheimer disease was the most common pre-existing health condition in deaths involving COVID-19 among care home residents

Proportion of deaths of care home residents involving COVID-19 by main pre-existing condition, occurring from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales



Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Based on deaths involving the coronavirus (COVID-19) rather than deaths where COVID-19 was the underlying cause of death.
- 2. Figures for 2020 are provisional.
- 3. Based on the date a death occurred rather than when it was registered.
- 4. The symptoms, signs and ill-defined conditions category includes deaths where no more specific diagnosis can be made. More information can be found on the official <u>International Classification of Diseases, 10th edition (ICD-10) website</u>.
- 5. Main pre-existing causes are grouped using the Office for National Statistics (ONS) leading causes of deaths list and the ICD-10 blocks of causes.

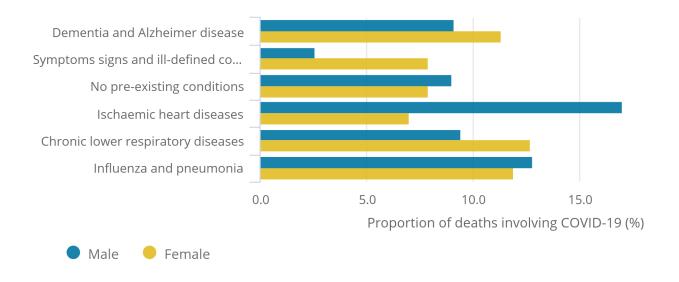
Of the 29,472 non-care home resident deaths involving COVID-19, 26,938 (91.4%) had at least one pre-existing health condition. The mean number of pre-existing conditions was 2.5. Unlike care home residents, the most common main pre-existing health condition for male non-care home residents was Ischaemic heart diseases (IHD), with 3,096 deaths (17.0% of all deaths involving COVID-19) (Figure 15). For female non-care home residents, the most common main pre-existing health condition was Chronic lower respiratory diseases, with 1,423 deaths (12.7% of all deaths involving COVID-19).

Figure 15: Ischaemic heart diseases was the most common pre-existing health condition in deaths involving COVID-19 among male non-care home residents

Proportion of deaths of non-care home residents involving COVID-19, by main pre-existing condition, from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales

# Figure 15: Ischaemic heart diseases was the most common pre-existing health condition in deaths involving COVID-19 among male non-care home residents

Proportion of deaths of non-care home residents involving COVID-19, by main pre-existing condition, from 2 March to 12 June 2020, registered up to 20 June 2020, England and Wales



Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Based on deaths involving the coronavirus (COVID-19) rather than deaths where COVID-19 was the underlying cause of death.
- 2. Figures for 2020 are provisional.
- 3. Based on the date a death occurred rather than when it was registered.
- 4. The symptoms, signs and ill-defined conditions category includes deaths where no more specific diagnosis can be made. More information can be found on the official <u>International Classification of Diseases, 10th edition (ICD-10) website</u>.
- 5. Main pre-existing causes are grouped using the Office for National Statistics (ONS) leading causes of deaths list and the ICD-10 blocks of causes.

### 8. Deaths of recipients of domiciliary care in England

The Care Quality Commission (CQC) collects notifications of deaths of people in receipt of <u>domiciliary care</u>, that is, care provided in a private home by a home care agency registered with the CQC. The needs of people using the services may vary greatly, but packages of care are designed to meet individual circumstances. The person is visited at various times of the day or, in some cases, care is provided over a full 24-hour period. Where care is provided intermittently throughout the day, the person may live independently of any continuous support or care between the visit.

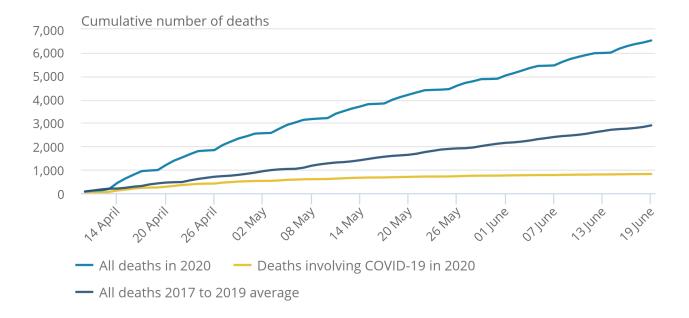
Providers are required to notify the CQC of a death where the person died while a regulated activity was being provided or where their death may have been a result of the regulated activity or how it was provided. More information regarding notifications from providers can be found on the <a href="CQC's website">CQC's website</a>.

### Figure 16: The number of domiciliary care recipient deaths for 2020 was higher than the three-year average

Cumulative number of deaths of domiciliary care recipients notified from 10 April to 19 June 2020, England

### Figure 16: The number of domiciliary care recipient deaths for 2020 was higher than the three-year average

Cumulative number of deaths of domiciliary care recipients notified from 10 April to 19 June 2020, England



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures are for deaths that the Care Quality Commission (CQC) is notified of on the days specified. Figures only include deaths that were notified by 19 June 2020, and they may be an underestimate because of reporting delays.
- 2. The 10 April 2020 was the first day when data were collected using the CQC's new method of identifying deaths involving COVID-19.
- 3. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 4. Based on the date a death occurred rather than when it was registered.

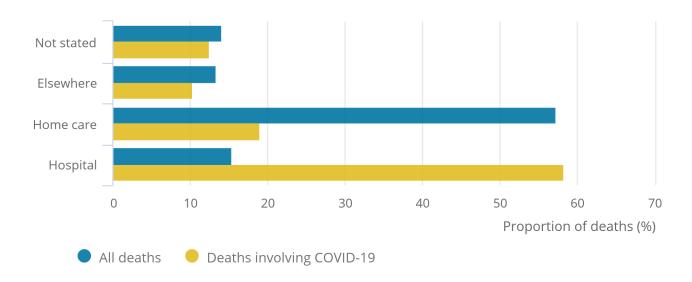
From 10 April 2020 (when data were first available) to 19 June 2020, there were 6,523 deaths of recipients of domiciliary care in England; this is 3,628 deaths higher than the three-year average (2,895 deaths) for the same time period (Figure 16). Of the 6,523 deaths of home care residents, 819 (12.6%) of these involved COVID-19. This is lower than the 38.4% of deaths involving COVID-19 among care home residents notified to the CQC for the same time period.

Figure 17: The majority of domiciliary care recipient deaths involving COVID-19 occurred in hospital

Proportion of deaths of domiciliary care recipients by place of death notified from 10 April to 19 June 2020, England

### Figure 17: The majority of domiciliary care recipient deaths involving COVID-19 occurred in hospital

Proportion of deaths of domiciliary care recipients by place of death notified from 10 April to 19 June 2020, England



Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

#### Notes:

- 1. Figures are for deaths that the Care Quality Commission (CQC) is notified of on the days specified. Figures only include deaths that were notified by 19 June 2020, and they may be an underestimate because of reporting delays.
- 2. The International Classification of Diseases, 10th edition (ICD-10) definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
- 3. Based on the date a death occurred rather than when it was registered.

Out of the 819 domiciliary care recipient deaths involving COVID-19, 58.2% occurred in a hospital, 19.0% occurred at home and 22.8% occurred elsewhere or the location was not stated. This contrasts with the place of occurrence for all causes where the majority of deaths to those receiving domiciliary care occurred within people's own homes (57.3%).

When looking at deaths from all causes over the time series, the proportion of deaths that occurred at home has increased while deaths that occurred in hospitals have decreased. This is in line with findings in <u>Analysis of death registrations not involving COVID-19</u>.

The Care Inspectorate Wales (CIW) do not hold information on deaths in domiciliary care services, as these services are not legally required to notify CIW of deaths. The Office for National Statistics (ONS) data do not contain information on whether a person was in receipt of domiciliary care, so no direct comparisons are possible.

### 9. Deaths data

Deaths involving COVID-19 in the care sector, England and Wales

Dataset | Released 3 July 2020

Provisional counts of the number of deaths and age-standardised mortality rates involving the coronavirus (COVID-19) within the care sector occurring up to 12 June 2020 and registered up to 20 June 2020.

### 10. Glossary

### Coronaviruses

The World Health Organization (WHO) defines <u>coronaviruses</u> 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. <u>Further information</u> is available from the 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.

### 11. Measuring the data

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

To meet user needs, we are providing more information alongside our usual <u>Deaths registered monthly in England and Wales</u> dataset. This information is presented by sex and age group. We are also presenting age-specific mortality rates for recent time periods and breakdowns of deaths involving the coronavirus (COVID-19) by associated pre-existing health conditions.

The information used to produce these statistics is based on details collected when certified deaths are registered with the local registration office. The counts of deaths from specific conditions are updated with each <a href="weekly\_publication">weekly\_publication</a> as the coding of the underlying cause is not always complete at the time of production. 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 <a href="user guide">user guide</a>.

In England and Wales, deaths should be registered within five days of the death occurring, but there are some situations that result in the registration of the death being delayed. For example, when a death needs to be investigated by a coroner. Therefore, there may be some deaths involving COVID-19 that have occurred but are yet to be registered, meaning they will not be included in this analysis.

Figures on deaths published by the Office for National Statistics (ONS) differ from those produced by the Department of Health and Social Care (DHSC) and the UK's public health agencies for two main reasons: the time between death and reporting of the death and the ONS's wider inclusion criteria. Our blog <u>Counting deaths involving COVID-19</u> helps to explain the differences.

Deaths involving COVID-19 are reported for each week in our <u>Deaths registered weekly in England and Wales</u>, <u>provisional</u> release. The weekly numbers reported as "occurring" change over time as more deaths are registered that happened in past weeks. Unlike most ONS publications on deaths, this article is based on occurrence (date of death), not date of registration.

### **Care Quality Commission (CQC)**

To improve the timely availability of data on deaths in care homes caused by COVID-19, the ONS and the Care Quality Commission (CQC) have agreed to publish provisional counts of deaths of care home residents in care homes in England, based on statutory notification by care home providers to the CQC.

The CQC is the independent regulator of health and social care in England. Notifications about deaths in care homes must be sent to the CQC without delay and are typically provided within two to three days of death. The data provided by the CQC are counts of deaths each day of care home residents who died in care homes, by date of notification. The data are from 10 April 2020 when CQC introduced a new method to understand whether COVID-19 was involved in the death.

A death involving COVID-19 is based on the statement from the care home provider to the CQC: the assessment of whether COVID-19 was involved may or may not correspond to a medical diagnosis or test result or be reflected in the death certification. More information on the data provided by the CQC can be found in our <u>joint transparency statement</u>. As with ONS registrations, reduced numbers of notifications occur on the weekend.

### **Care Inspectorate Wales (CIW)**

In Wales, the Welsh Government publishes the number of deaths of registered adult care home residents involving suspected or confirmed COVID-19 notified to the Care Inspectorate Wales (CIW).

Data are collected on a daily basis through an online form developed and maintained by the CIW. The data are validated against previous returns and any significant changes are queried. Data include all notifications up to midnight each day. The data collection covers residents of adult care homes.

Care homes are required to notify the CIW of the location of death and cause of death. Prior to 29 April 2020, this was done through a free-text box, and the CIW have used manual searches on the data to produce summaries by category. From 29 April 2020, the form has been amended to include mandatory tick box categories for COVID-19 Confirmed or Suspected and location (hospital, care home, hospice, ambulance or other). Therefore, there is a change to the methodology used to produce these figures from 29 April 2020.

In terms of "Confirmed" COVID-19, from 29 April 2020 onwards, this has been provided to the CIW by the care home provider by means of an answer to the question: "Was the death a result of confirmed COVID-19?".

Prior to this date, the care home provider was not asked this question and so "Confirmed" for these is where the CIW's inspectors have reviewed the free-text data provided by the care home provider (on the questions "cause of the person's death, if known and confirmed by a medical practitioner" and "summary of the circumstances leading up to the person's death and all contributing factors") and determined that it relates to a confirmed case.

In both scenarios, the CIW are reliant on the care home provider to inform them appropriately of a confirmed case.

The ONS uses a broader definition of care home residents than that used in the CIW data.

An important difference between the three sources (ONS, CQC and CIW) is that the ONS reports deaths where COVID-19 was mentioned on the death certificate, while the CQC and CIW notifications rely on the statement of the care home provider that COVID-19 was suspected or confirmed.

Differences in data can be caused by registration delays in the ONS figures or reporting delays in the CQC and CIW figures. It takes around two to three days for the CQC and CIW to be notified of a death, while the ONS has to wait until a death is registered to be included in our statistics, which can take longer. On average, there was a median delay of four days between a death occurring and being registered in care home residents, year-to-date. The CQC and CIW do not hold person-level information that allows a direct comparison between the two sources and so an accurate effect of different reporting criteria cannot be determined. Table 2 provides an overview of the differences in definitions between sources.

Table 2: Definitions of COVID-19 deaths in care homes between different sources

	ONS COVID-19 deaths registered	ONS COVID-19 death occurrence (actual date of death)	Care Quality Commission deaths in care homes (date of notification received)	Care Inspectorate Wales deaths in care homes (date of notification received)
Coverage	Registrations in England and Wales	Registrations in England and Wales	Death notifications sent by registered care home operators in England to CQC	Death notifications sent by registered care home operators in Wales to CIW
	Selected UK figures are included in the weekly release	In discussions with devolved nations to create UK estimates in the near future		
	Any place of death, including care homes	Any place of death, including care homes	Deaths in care homes – deaths of care home residents that occurred elsewhere are also collected	Deaths in care homes – deaths of care home residents that occurred elsewhere are also collected
Inclusion	Deaths where COVID-19 has been mentioned on the death certificate	Deaths where COVID-19 has been mentioned on the death certificate	Deaths where the care home provider has stated COVID-19 as a suspected or confirmed cause of death on the death notification	Deaths where the care home provider has stated COVID-19 as a suspected or confirmed cause of death on the death notification
Timeliness	Weekly registrations are 11 days behind because of the time taken to register, process and publish	Weekly registrations are 11 days behind because of the time taken to register, process and publish	Daily deaths notifications by date of notification - these take on average 4 days to receive and process	Daily deaths notifications by date of notification
			Data are published weekly by ONS	Data are published weekly by Welsh Government
			Deaths which were notified to CQC from 10 April 2020	

Source: Office for National Statistics - Deaths involving COVID-19 in the care sector

There is usually a delay of at least five days between occurrence and registration. More information on this issue can be found in our <u>impact of registration delays release</u>.

Our <u>User guide to mortality statistics</u> provides further information on data quality, legislation and procedures relating to mortality and includes a <u>glossary of terms</u>.

### Impact of coronavirus in care homes in England (Vivaldi)

There are a number of differences between the death figures reported here and those reported in the <u>Impact of coronavirus in care homes in England (Vivaldi)</u> publication.

First, the definition of care home resident is different. The Deaths involving COVID-19 in the care sector article describes deaths involving COVID-19 in England and Wales. The term "care home residents" used in this article refers to all deaths where either (a) the death occurred in a care home or (b) the death occurred elsewhere but the place of residence of the deceased was recorded as a care home. This is different from the term "care home residents" in the Vivaldi study, which refers only to those resident in a subsector of care homes (those providing dementia care or care for the elderly) at the time that the survey was taken. The Vivaldi study also only covers care homes in England.

Secondly, these publications have different reporting periods. The Deaths involving COVID-19 in the care sector article includes provisional deaths data occurring up to 12 June 2020 and registered up to 20 June 2020. The reference period for the Vivaldi study was "since 1 March 2020", and the survey took place between 26 May and 20 June 2020.

Thirdly, the coverage of care homes is different. The Deaths involving COVID-19 in the care sector article covers deaths occurring among all care home residents across both England and Wales. This Vivaldi study covers deaths reported in England only. Of the 9,081 care homes in England, 56% (5,126) responded.

Finally, they have different sources of information. Data in the Deaths involving COVID-19 in the care sector article are based on death occurrence (date of death), not date of registration, and are obtained from details collected when deaths are certified and registered. Data in the Vivaldi study are based on reported information provided by care home managers. Therefore, caution should be applied when drawing any inferences between these two publications.

### 12 . Strengths and limitations

Figures are based on the date the death occurred, not when it was registered. There is usually a delay of at least five days between occurrence and registration, so there may be some deaths that occurred in March 2020 that are not yet registered. More information on this issue can be found in our <u>impact of registration delays release</u>.

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

We have used the most up-to-date communal establishment file we have for both 2019 and 2020 data. Therefore, there is some potential for under- and over-coverage within the figures provided.

### 13. Related links

### Deaths registered weekly in England and Wales: provisional

Bulletin | Released 30 June 2020

Provisional counts of the number of deaths registered in England and Wales, including deaths involving the coronavirus (COVID-19), by age, sex and region, in the latest weeks for which data are available.

### Coronavirus (COVID-19) product page

Product page | Updated when new data are available

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

#### Coronavirus (COVID-19) roundup

Article | Updated when data are available

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