

Article

# Comparison of weekly death occurrences in England and Wales: up to week ending 10 July 2020

This article accompanies the weekly deaths release and explains the differences between various data sources that report on coronavirus (COVID-19) deaths.

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## 1 . Other pages in this release

- [Deaths registered weekly in England and Wales, provisional: week ending 10 July 2020](#)
- [Where to find statistics on UK deaths involving the coronavirus \(COVID-19\) and infection rates by country](#)

## 2 . Main points

- This article accompanies the [Weekly deaths release for the week ending 10 July 2020](#) and explains the differences between various data sources that report on coronavirus (COVID-19) deaths.
- A total of 50,946 deaths involving COVID-19 were registered in England and Wales between 28 December 2019 and 10 July 2020 (year to date).
- In England, including deaths that occurred up to 10 July but were registered up to 18 July, of those we have processed so far, the number involving COVID-19 was 48,532; the comparative number of death notifications reported by the Department of Health and Social Care (DHSC) on GOV.UK was 40,213.
- In Wales, including deaths that occurred up to 10 July but were registered up to 18 July, of those we have processed so far, the number involving COVID-19 was 2,489; the comparative number of death notifications reported by the DHSC on GOV.UK was 1,541 and Public Health Wales (PHW) numbers, which come from the same source as the DHSC figures but are continuously updated, showed 1,542 deaths.
- In England, the number of deaths involving COVID-19 in care homes that were registered by 10 July 2020 was 14,424 while in Wales the number of deaths was 692.
- The Care Quality Commission (CQC) provides numbers of deaths involving COVID-19 in care homes in England that were notified between 10 April and 17 July, which showed 14,003 deaths, of which 56 occurred in the week up to 17 July.
- The Care Inspectorate Wales (CIW) provides the number of deaths involving COVID-19 in care homes in Wales that occurred between 17 March and 10 July, which showed 500 deaths.

From next week (Week 29, ending 17 July 2020), this comparison of weekly death occurrences article will no longer be produced, however, a small section covering England and Wales comparisons will be added to the weekly bulletin.

## 3 . Comparisons

Figures 1 and 2 show the cumulative numbers of deaths relating to the coronavirus (COVID-19) for England and Wales respectively, by day, up to 10 July 2020, allowing comparison between:

- the daily death counts released by the Department of Health and Social Care (DHSC) on GOV.UK
- the reconciled data by date of death released by Public Health Wales (PHW)
- Office for National Statistics (ONS) death records by date of registration
- ONS death records by date of death

Numbers produced by PHW are the numbers supplied to the DHSC but based on date of occurrence rather than date of notification.

Figures 3 and 4 are for England only and include numbers of deaths provided by the Care Quality Commission (CQC) for deaths involving COVID-19 in care homes. Figure 5 is for Wales only and compares deaths in care homes as reported by the Care Inspectorate Wales (CIW) and the ONS.

## Difference between ONS, DHSC and PHW figures

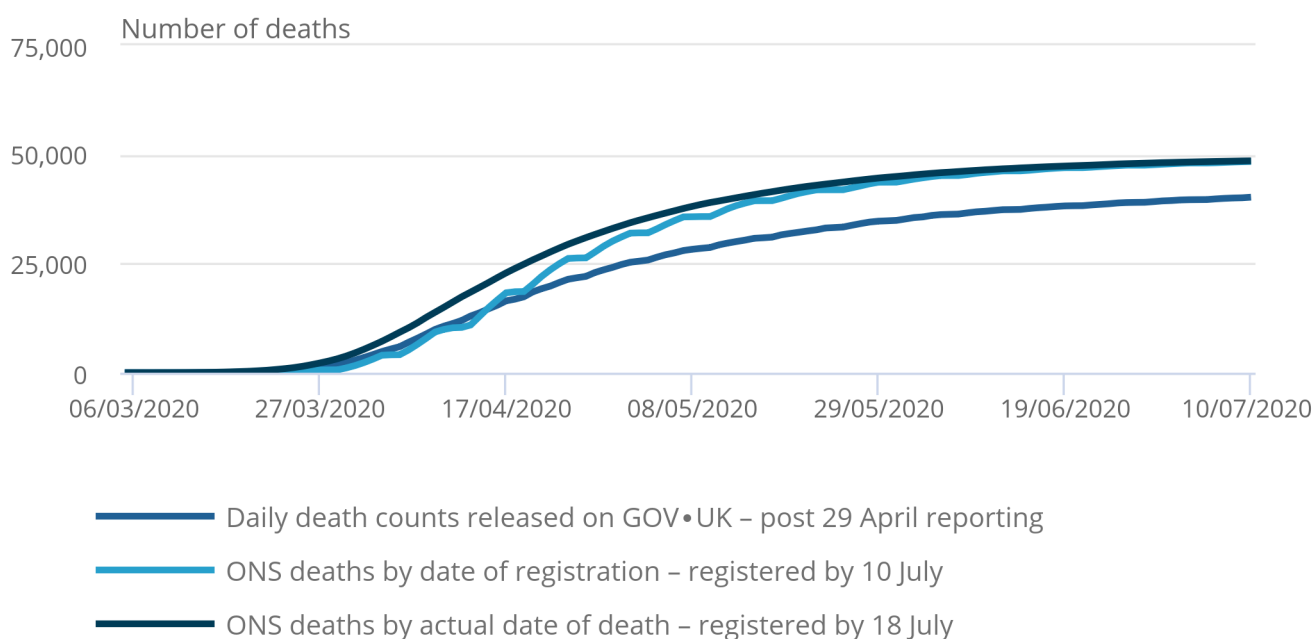
The DHSC releases daily updates on [GOV.UK](#) counting the total number of deaths reported to them among patients who had tested positive for COVID-19, regardless of place of death. This covers all deaths reported up to 5pm the day before in England, Wales, Scotland and Northern Ireland wherever they occurred, if known to the public health agencies. To allow comparison with the ONS figures, only the numbers for England and Wales are shown in this article.

PHW provides data on [deaths in Wales](#) that feed into the GOV.UK figure. [PHE](#) and PHW also publish continuously updated series by date of death as opposed to date of notification.

The ONS provides figures based on all deaths registered involving COVID-19 according to death certification, whether in or out of hospital, for England and Wales. We also provide the figures by date of death (occurrence). More information can be found in the [Measuring the data section of our Weekly deaths publication](#).

**Figure 1: The cumulative number of deaths involving COVID-19 in England using different data sources, up to 10 July 2020**

Figure 1: The cumulative number of deaths involving COVID-19 in England using different data sources, up to 10 July 2020



Source: Office for National Statistics – Comparison of weekly death occurrences in England and Wales

### Notes:

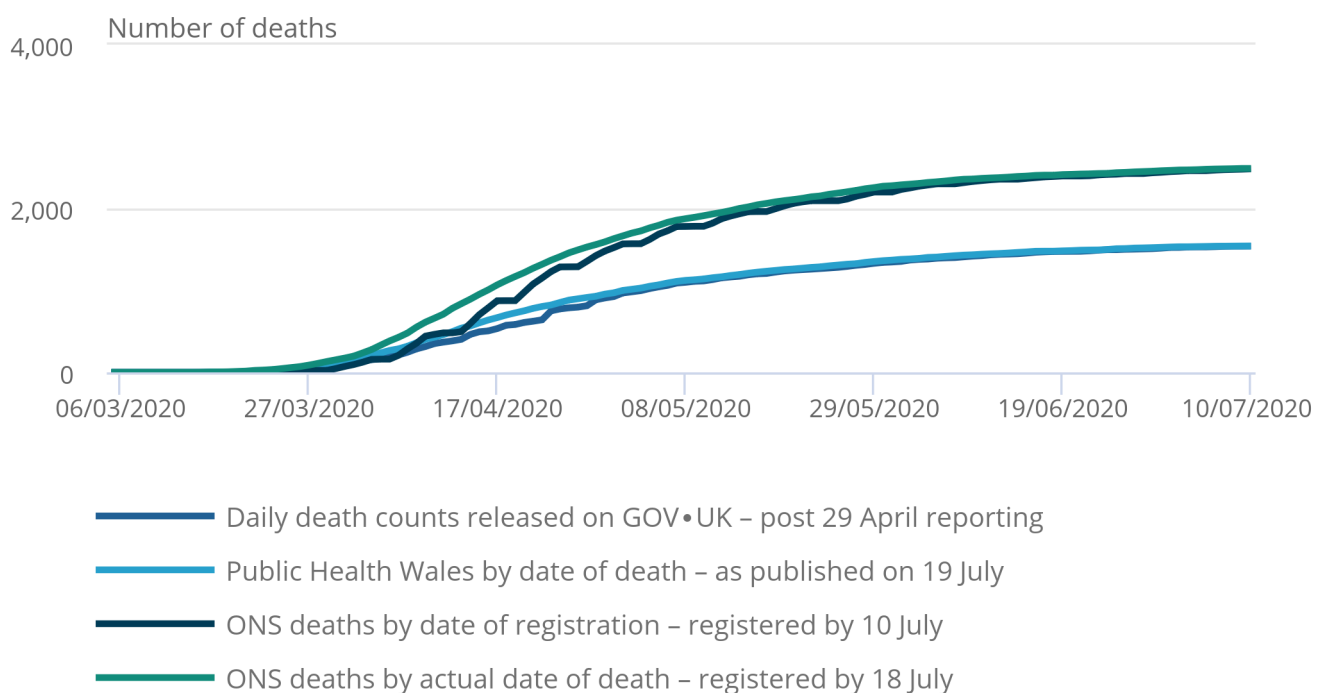
1. [Department of Health and Social Care \(DHSC\)](#) figures.
2. Figures include deaths of non-residents.
3. All Office for National Statistics (ONS) figures for 2020 are provisional.
4. The ICD-10 definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
5. Daily death counts are released on GOV.UK.

The DHSC number of deaths reported by 10 July 2020 where the person tested positive for COVID-19 and died in hospital and elsewhere was 40,213.

The current DHSC figure reported is 8,175 fewer than the 48,388 death registrations involving COVID-19 reported by the ONS for the same period. Both data sources have some delay from date of death to reporting. The number of deaths occurring by 10 July and registered by 18 July was 48,532, which is 8,319 higher than the current DHSC-reported number. This is because the ONS figures for occurrence are based on date of death while the DHSC report on date of notification.

**Figure 2: The cumulative number of deaths involving COVID-19 in Wales using different data sources, up to 10 July 2020**

Figure 2: The cumulative number of deaths involving COVID-19 in Wales using different data sources, up to 10 July 2020



Source: Office for National Statistics – Comparison of weekly death occurrences in England and Wales

**Notes:**

1. [Department of Health and Social Care \(DHSC\)](#) figures.
2. [Public Health Wales \(PHW\)](#) figures
3. Figures include deaths of non-residents.
4. All Office for National Statistics (ONS) figures for 2020 are provisional.
5. The ICD-10 definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
6. Daily death counts are released on GOV.UK.

The number of deaths reported by PHW to the DHSC by 10 July was 1,541 for Wales (Figure 2). This number is 943 fewer than the 2,484 death registrations involving COVID-19 reported by the ONS for the same period. Both data sources have some delay from date of death to reporting.

The number of deaths in Wales occurring by 10 July and registered by 18 July was 2,489, which is 948 higher than the DHSC-reported number. This is because the ONS figures for occurrence are based on date of death while the DHSC report on date of notification.

The difference between the PHW figures and the ONS figures by date of death is because of the wider coverage of the ONS figures, including deaths where COVID-19 was reported on the death certificate but there was no positive test.

## Deaths in care homes

On 3 July 2020, we released [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](#), which looks at deaths of care home residents. The following section looks at deaths that occurred in care homes.

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 the CQC introduced a new method to understand whether COVID-19 was involved in the death.

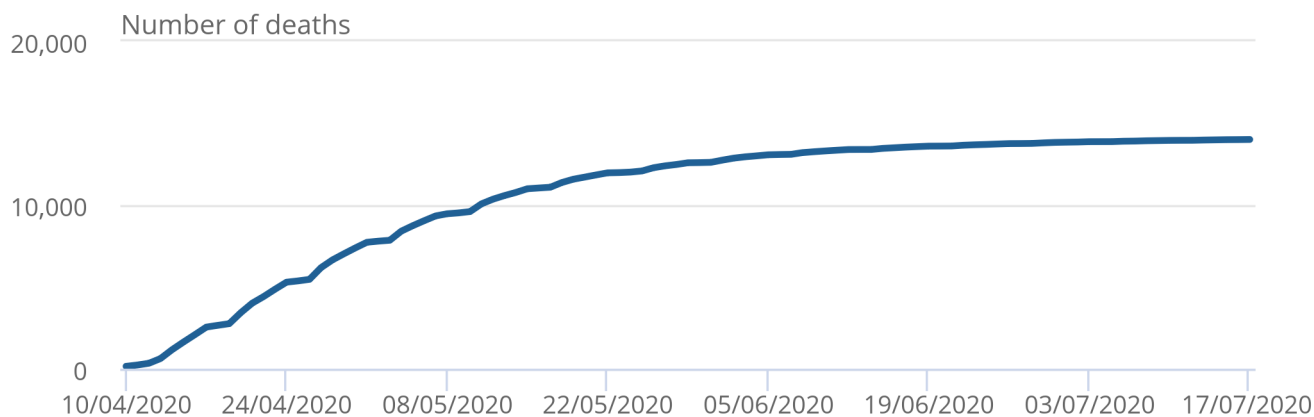
A death involving COVID-19 is based on the statement from the care home provider to the CQC: the assessment of whether COVID-19 was involved may or may not correspond to a medical diagnosis or test result or be reflected in the death certification. More information on the data provided by the CQC can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

CQC have undertaken data quality improvements in their processing of death notifications. This has meant that some deaths which have previously been included in the “Not Stated” place of death category have now been reclassified. The majority of these (80%) have been classified to care homes, which has led to a 12% increase in the number of deaths involving COVID-19 in care homes as reported by the CQC. These increases occur throughout the time series. This improvement work also led to some deaths not previously identified as related to COVID-19 being reclassified to involving COVID-19.

Please note, this does not affect the overall number of deaths. The [back series in Tables 1, 2 and 4](#) provided alongside today’s release has been updated to include these improvements.

**Figure 3: The cumulative number of care home residence deaths in care homes involving COVID-19 in England**

Figure 3: The cumulative number of care home residence deaths in care homes involving COVID-19 in England



**Source: Care Quality Commission data published by the Office for National Statistics**

**Notes:**

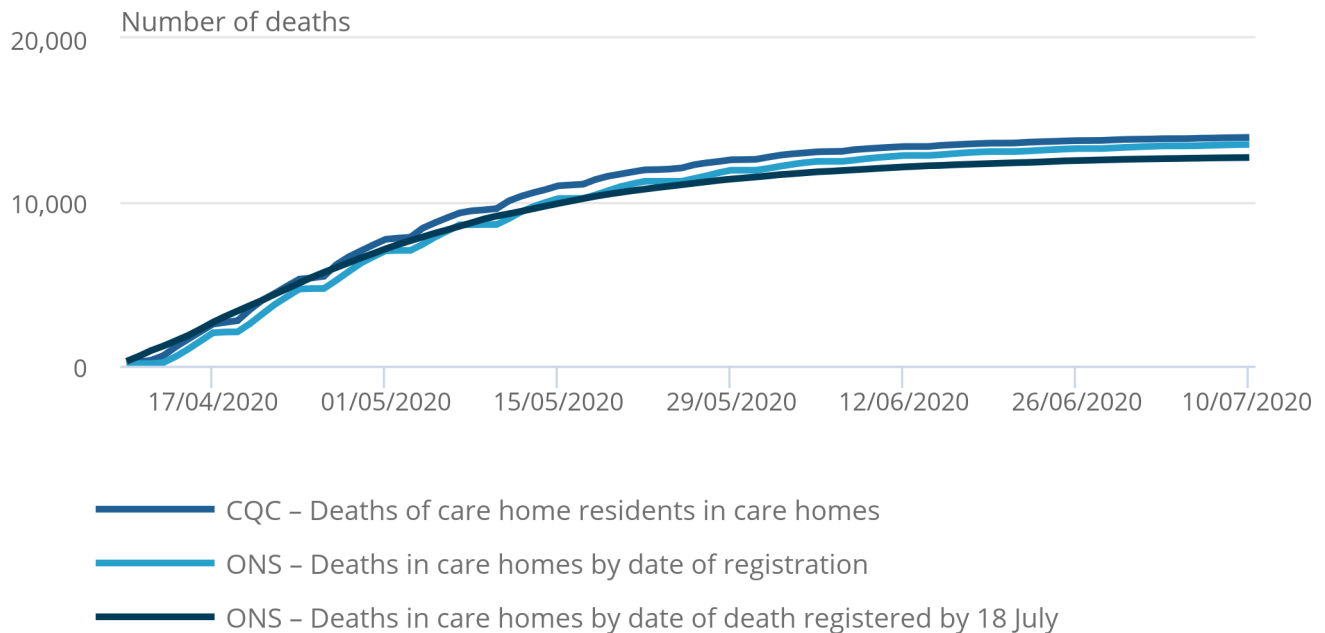
1. Figures are for deaths that the Care Quality Commission (CQC) is notified of on the days specified. Figures only include deaths that were notified by 17 July 2020, and they may be an underestimate because of reporting delays.
2. Figures are for persons who were resident in and died in a care home.

On 10 April 2020, the first day when data were collected using the CQC's new method of identifying deaths involving COVID-19, there were 147 deaths of care home residents in care homes notified to the CQC. From 10 April up to and including 17 July, the latest date for which data are available, the number had increased to 14,003 deaths of residents in care homes involving COVID-19.



**Figure 4: The cumulative number of deaths in care homes involving COVID-19 in England using different data sources, up to 10 July 2020**

Figure 4: The cumulative number of deaths in care homes involving COVID-19 in England using different data sources, up to 10 July 2020



**Source: Care Quality Commission and Office for National Statistics**

**Notes:**

1. Figures exclude non-residents.
2. All Office for National Statistics (ONS) figures for 2020 are provisional.
3. The ICD-10 definitions for coronavirus (COVID-19) are U07.1 and U07.2.
4. Figures for the Care Quality Commission (CQC) are based on the date the CQC was notified of the death. Figures only include deaths that were notified by 17 July 2020, and they may be an underestimate because of reporting delays.

Up to 10 July, there were 13,947 deaths in care homes involving COVID-19 notified to the CQC (Figure 4). There were an additional 7 deaths of care home residents where the location of death was not stated by the care home provider. These deaths may have taken place in a care home, but they could have been in hospital or elsewhere. The ONS has reported that there were 13,516 deaths involving COVID-19 in care homes registered during the same period and 12,718 deaths in care homes occurring in the same period that were registered by 18 July.

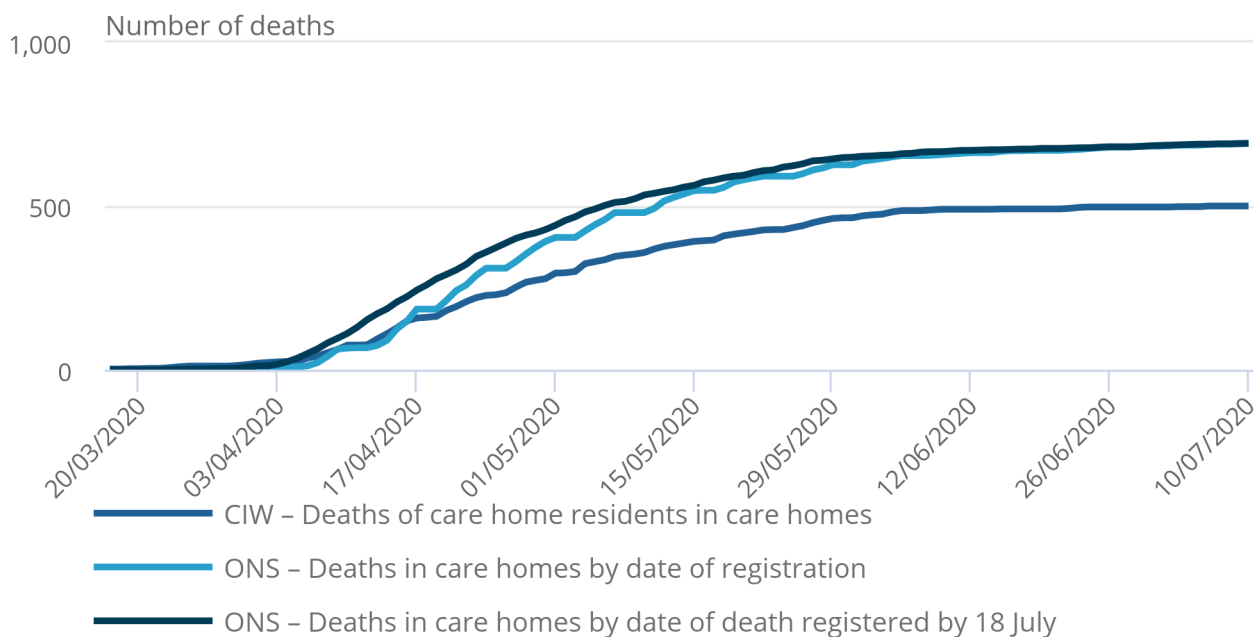
Because of the improvements made by CQC, the number of deaths reported by CQC are now higher than those produced by the ONS. The difference is likely to be caused by registration delays in the ONS figures or reporting delays in the CQC figures. It takes around two to three days for the CQC to be notified of a death, while the ONS has to wait until a death is registered to be included in the statistics, which can take longer. On average, for deaths occurring in May 2020, there was a delay of four days between a death occurring and being registered.

The ONS data by date of death are lower than that produced on registration and by CQC; this is because deaths prior to 10 April, the first date that CQC report from, have not been counted.

An important difference between the two sources is that the ONS reports deaths where COVID-19 was mentioned on the death certificate, while the 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 effect of different reporting criteria cannot be determined.

**Figure 5: The cumulative number of deaths in care homes involving COVID-19 in Wales using different data sources, up to 10 July 2020**

Figure 5: The cumulative number of deaths in care homes involving COVID-19 in Wales using different data sources, up to 10 July 2020



Source: Care Inspectorate Wales and Office for National Statistics

Notes:

1. Figures exclude non-residents.
2. All Office for National Statistics (ONS) figures for 2020 are provisional.
3. The ICD-10 definitions for coronavirus (COVID-19) are U07.1 and U07.2.

In Wales, the Welsh Government publishes the number of deaths of care home residents involving COVID-19 notified to the Care Inspectorate Wales (CIW). Figure 5 shows the number of deaths notified to the CIW from 17 March 2020 (the first notification) that occurred in care homes and where suspected or confirmed COVID-19 was listed as the cause of death by the service provider.

Including deaths notified to the CIW up to 10 July, there were 500 deaths where the death occurred in care homes and COVID-19 was confirmed or suspected. This is 192 fewer than the 692 deaths registered as involving COVID-19 and occurred in care homes, as reported by the ONS, and 191 fewer than the 691 deaths that occurred between 17 March and 10 July but were registered by 18 July.

It is acknowledged that care homes will be feeling the effects of the deaths of any of their residents including those that died outside of care homes, for example, in hospitals. The ONS, CQC, PHE and CIW are undertaking further work to better understand the total impact on care home residents.

## Conclusion

The ONS and DHSC COVID-19 death numbers have different criteria. The DHSC count deaths where a person has been tested positive for COVID-19, while the ONS counts deaths where COVID-19 (including suspected cases) was mentioned on the death certificate, regardless of location. The improvement to the recording of COVID-19 deaths in England by PHE has gone some way in reconciling the differences.

The ONS registration numbers in Figure 1 align more closely to the DHSC-reported number of deaths, as like the DHSC-reported number they are based on the date a death is known (reported) rather than when it occurred. The [date of death data](#) from Public Health England (PHE) are closer to the ONS occurrence data as they are both based on the date the person died. The figures published on GOV.UK are valuable because they are available very quickly and give an indication of what is happening day by day. Their definition is also clear, so the limitations of the data can be understood, but they do not include all deaths involving COVID-19, such as those where no test result was available.

PHE-reconciled numbers by date of death are valuable as they give a good indication of the lags in the daily deaths in the hospital reporting process. They allow analysis by date of death to be carried out, which is a better indicator of the growth in the number of deaths.

Numbers produced by the ONS take longer to prepare because they have to be certified by a doctor, registered and processed. But once ready, they are the most accurate and complete information. The ONS provides figures based on deaths registered in England and Wales with COVID-19 (more information can be found in the [Measuring the data section of our Weekly deaths publication](#)).

The ONS is now publishing on behalf of the CQC the [number of deaths in care homes that are notified to the CQC](#). This gives a more up-to-date number of deaths in care homes than was previously available. In the CQC figures, 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.

The ONS is also including figures produced by the CIW, which give a more up-to-date figure of numbers of deaths in care homes where COVID-19 was suspected or confirmed as recorded by a clinician.

## 4 . Deaths data

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

Dataset | Released 21 July 2020

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

### [Death registrations and occurrences by local authority and health board](#)

Dataset | Released 21 July 2020

Provisional counts of the number of deaths registered in England and Wales, including deaths involving COVID-19, by local authority, health board and place of death in the latest weeks for which data are available.

### [Deaths involving COVID-19 in care homes notified to the Care Quality Commission, England](#)

Dataset | Released 21 July 2020

Provisional counts of deaths in care homes caused by COVID-19 by local authority. Published by the Office for National Statistics and Care Quality Commission.

## 5 . Glossary

## **Coronavirus (COVID-19) deaths**

Coronavirus (COVID-19) deaths are those deaths registered in England and Wales in the stated week where COVID-19 was mentioned on the death certificate as “deaths involving COVID-19”. A doctor can certify the involvement of COVID-19 based on symptoms and clinical findings – a positive test result is not required.

## 6 . Measuring the data

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Mortality statistics in England and Wales QMI](#).

To meet user needs, we publish very timely but provisional counts of death registrations in England and Wales in our [Deaths registered weekly in England and Wales, provisional](#) dataset. These are presented by sex, age group and regions (within England) as well as for Wales as a whole. To allow time for registration and processing, these figures are published 11 days after the week ends. Because of the rapidly changing situation, in this bulletin we have also given provisional updated totals based on the latest available death registrations, up to 18 July 2020.

Because of the coronavirus (COVID-19) pandemic, our regular [weekly deaths release](#) now provides a separate breakdown of the numbers of deaths involving COVID-19: that is, where COVID-19 or suspected COVID-19 was mentioned anywhere on the death certificate, including in combination with other health conditions. If a death certificate mentions COVID-19, it will not always be the main cause of death but may be a contributory factor. This new bulletin summarises the latest weekly information and will be updated each week during the pandemic.

These figures are different from the daily surveillance figures on COVID-19 deaths published by the Department of Health and Social Care (DHSC) on GOV.UK, for the UK as a whole and its constituent countries. Figures in this report are derived from the formal process of death registration and may include cases where the doctor completing the death certificate diagnosed possible cases of COVID-19, for example, where this was based on relevant symptoms but no test for the virus was conducted. Our figures also include any deaths that occur outside of hospital.

From 29 April 2020, there was a change in the reporting of the Department of Health and Social Care (DHSC) [daily coronavirus \(COVID-19\) deaths data](#). Prior to 29 April, the daily published counts of COVID-19 deaths for England accounted for deaths that had tested positive for COVID-19 in hospitals only. From 29 April, this data series has been improved by Public Health England (PHE) to include all deaths where a positive test for COVID-19 has been confirmed, wherever the death took place.

The improved data series has been reconciled back to 6 March 2020 when the first COVID-19 deaths were notified. Figures for Scotland, Wales and Northern Ireland had already begun to include deaths outside hospitals, so this change ensured that the UK-wide series has a shared and common definitional coverage. A detailed explanation of the change can be found in our [transparency statement](#). In this report we have included the improved post-29 April England COVID-19 data series in the comparisons. The improved PHE (post-29 April) data series is the series that should now be compared with the Office for National Statistics (ONS) data series.

In contrast to the GOV.UK figures, we include only deaths registered in England and Wales, which is the legal remit of the ONS. Tables 1 and 2 provide an overview of the differences in definitions between sources.

Table 1: Definitions of COVID-19 deaths between different sources

	<b>DHSC COVID-19 (as published on GOV.UK) before 29 April</b>	<b>DHSC COVID-19 (as published on GOV.UK) from 29 April</b>	<b>ONS COVID-19 deaths registered</b>	<b>ONS COVID-19 death occurrence (actual date of death)</b>	<b>NHS England</b>	<b>Public Health Wales</b>
<b>Coverage</b>	UK (however we only include England and Wales breakdowns for comparable coverage with ONS data)	UK (however we only include England and Wales breakdowns for comparable coverage with ONS data)	Registrations in England and Wales	Registrations in England and Wales	England only	Wales only
			Selected UK figures are included in the weekly release	In discussions with devolved nations to create UK estimates in the near future		
	Deaths in hospitals	Includes any place of death, including care homes and community	Any place of death, including care homes and community	Any place of death, including care homes and community	Deaths in hospitals	Includes any place of death, including care homes and community
<b>Inclusion</b>	Deaths where patient has been tested for COVID-19	Deaths where patient has been tested for COVID-19	Deaths where COVID-19 has been mentioned on the death certificate	Deaths where COVID-19 has been mentioned on the death certificate	Deaths where patient has been tested for COVID-19	Deaths where patient has been tested for COVID-19
	Provided daily but not officially registered	Provided daily but not officially registered	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	Updated daily for each date of death	Updated daily for each date of death
<b>Timeliness</b>			Registered in the week ending 10 July (week 28)	Deaths which occurred in week 28 but were registered up to 18 July		

Source: Office for National Statistics

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

	<b>ONS COVID-19 deaths registered</b>	<b>ONS COVID-19 death occurrence (actual date of death)</b>	<b>Care Quality Commission deaths in care homes (date of notification received)</b>	<b>Care Inspectorate Wales deaths in care homes (date of notification received)</b>
<b>Coverage</b>	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		
<b>Inclusion</b>	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
	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
<b>Timeliness</b>	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

We will publish accompanying articles periodically, giving enhanced information such as age-standardised and age-specific mortality rates for recent time periods and breakdowns of deaths involving COVID-19 by associated pre-existing health conditions.

There is usually a delay of at least five days between occurrence and registration. More information on this issue can be found in our [impact of registration delays](#) release.

Our [User guide to mortality statistics](#) provides further information on data quality, legislation and procedures relating to mortality and includes a [glossary of terms](#).

## 7 . Strengths and limitations

Figures are based on the date the death was registered, not when it occurred. There is usually a delay of at least five days between occurrence and registration. More information on this issue can be found in our [impact of registration delays](#) release.

## 8 . Related links

### [Coronavirus \(COVID-19\) related deaths by occupation, England and Wales: deaths registered between 9 March and 25 May 2020](#)

Bulletin | Released 26 June 2020

Provisional analysis of deaths involving the coronavirus (COVID-19), by different occupational groups, among males and females aged 20 to 64 years in England and Wales.

### [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 as and when data become available

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

### [Coronavirus \(COVID-19\) related deaths by ethnic group, England and Wales: 2 March 2020 to 15 May 2020](#)

Article | Released 19 June 2020

Deaths related to the coronavirus (COVID-19) by ethnic group, including death counts, age-standardised mortality rates, and hazard rate ratios by age, sex and ethnic group.

### [Coronavirus \(COVID-19\) related deaths by religious group, England and Wales: 2 March to 15 May 2020](#)

Article | Released 19 June 2020

Deaths involving the coronavirus (COVID-19) by religious group, including death counts, age-standardised mortality rates, and hazard rate ratios by age, sex and religious group.

### [Coronavirus \(COVID-19\) related deaths by disability status, England and Wales: 2 March to 15 May 2020](#)

Article | Released 19 June 2020

Deaths related to the coronavirus (COVID-19) by disability status, including death counts, age-standardised mortality rates, and hazard rate ratios by age, sex and disability status.

### [Deaths registered in England and Wales: 2019](#)

Bulletin | Released 1 July 2020

Registered deaths by age, sex, selected underlying causes of death and the leading causes of death. Contains death rates and death registrations by area of residence and single year of age.

### [Deaths involving COVID-19, England and Wales: June 2020](#)

Bulletin | Released 17 July 2020

Number of deaths involving the coronavirus (COVID-19) that occurred in each month in England and Wales, by country, age, sex and place of death.