Office for National Statistics

Article

Comparison of weekly death occurrences in England and Wales: up to week ending 19 June 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 19 June 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 19 June 2020 and explains the differences between various data sources that report on coronavirus (COVID-19) deaths.
- A total of 49,371 deaths involving COVID-19 were registered in England and Wales between 28 December 2019 and 19 June 2020 (year to date).
- In England, including deaths that occurred up to 19 June but were registered up to 27 June, of those we have processed so far, the number involving COVID-19 was 47,127; the comparative number of death notifications reported by the Department of Health and Social Care (DHSC) on GOV.UK was 38,208.
- In Wales, including deaths that occurred up to 19 June but were registered up to 27 June, of those we have processed so far, the number involving COVID-19 was 2,408; the comparative number of death notifications reported by the DHSC on GOV.UK was 1,476 and Public Health Wales (PHW) numbers, which come from the same source as the DHSC figures but are continuously updated, showed 1,483 deaths.
- In England, the number of deaths involving COVID-19 in care homes that were registered by 19 June 2020 was 13,982, while in Wales the number of deaths was 670.
- The Care Quality Commission (CQC) provides numbers of deaths involving COVID-19 in care homes in England that were notified between 10 April and 26 June, which showed 12,211 deaths, of which 132 occurred in the week up to 26 June.
- The Care Inspectorate Wales (CIW) provides the number of deaths involving COVID-19 in care homes in Wales that occurred between 17 March and 26 June, which showed 497 deaths, of which 6 occurred in the week up to 26 June.

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 19 June 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.

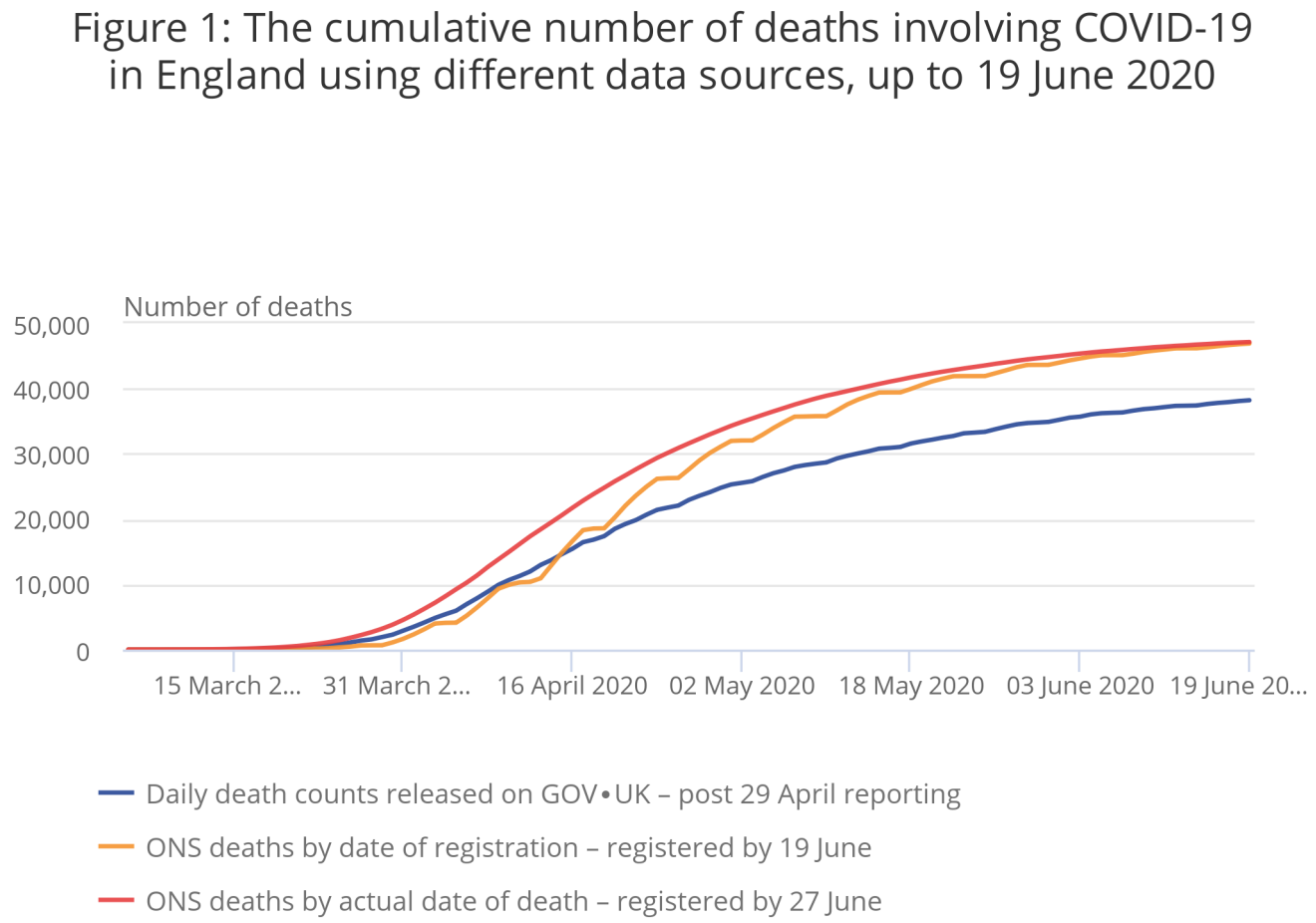
Difference between ONS, DHSC and PHW figures

The DHSC release 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 19 June 2020



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

Notes:

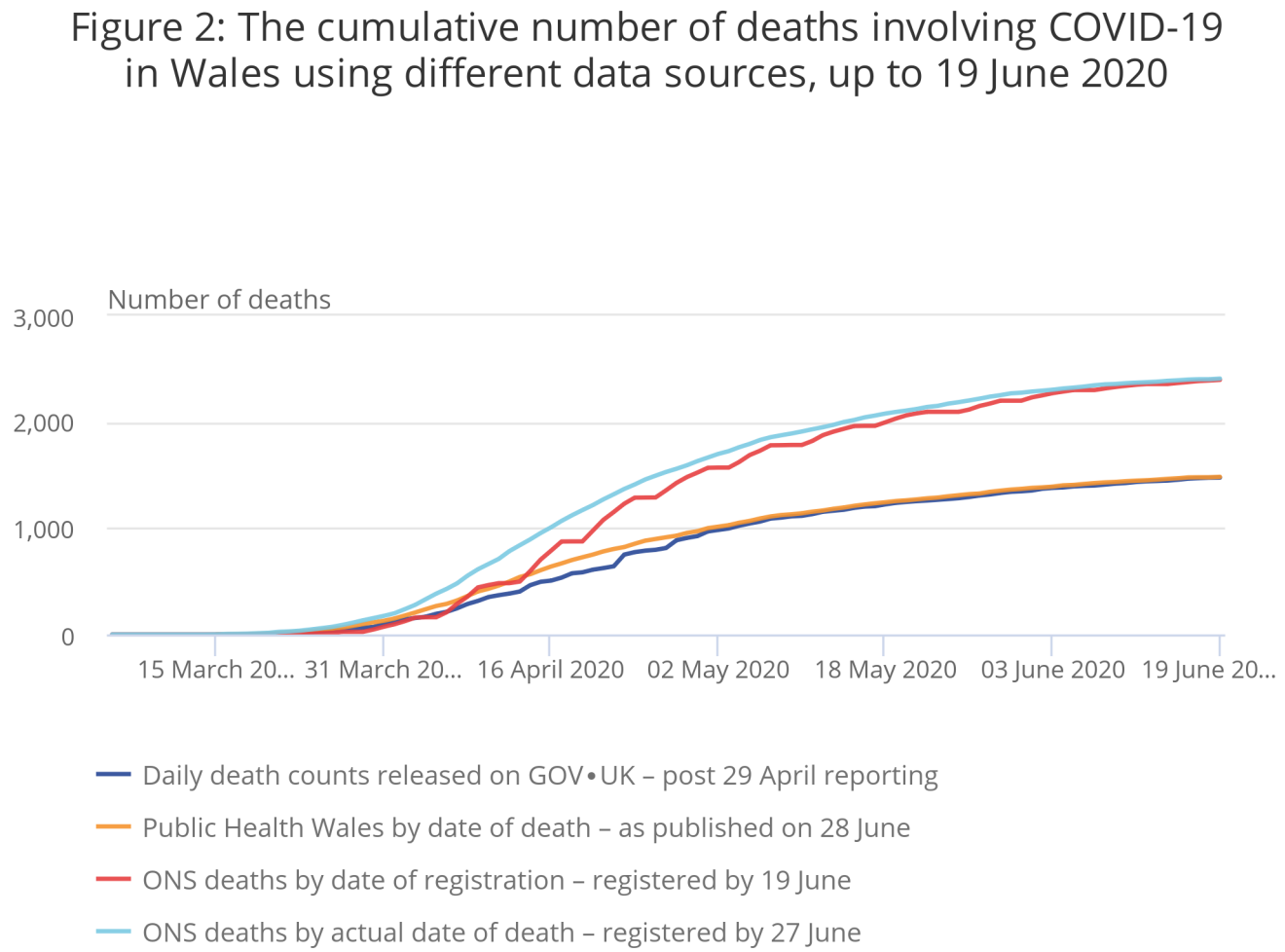
1. Department of Health and Social Care (DHSC) figures.
2. Figures include deaths of non-residents.
3. All Office for National Statistics (ONS) figures for 2020 are provisional.
4. The ICD-10 definitions for the coronavirus (COVID-19) are U07.1 and U07.2.
5. Daily death counts are released on GOV.UK.

The DHSC number of deaths reported by 19 June 2020 where the person tested positive for COVID-19 and died in hospital and elsewhere was 38,208.

The current DHSC figure reported is 8,696 fewer than the 46,904 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 19 June and registered by 27 June was 47,127, which is 8,919 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 19 June 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 19 June was 1,476 for Wales (Figure 2). This number is 920 fewer than the 2,396 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 19 June and registered by 27 June was 2,408, which is 932 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 next section looks at DHSC numbers based on date of death, which are more in line with ONS occurrences.

The PHW numbers by date of death, which are the same source as the DHSC's numbers but are continuously updated, showed 1,483 deaths by 19 June. This is 7 more than DHSC deaths for Wales but 925 fewer than the ONS figures for Wales by date of death.

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

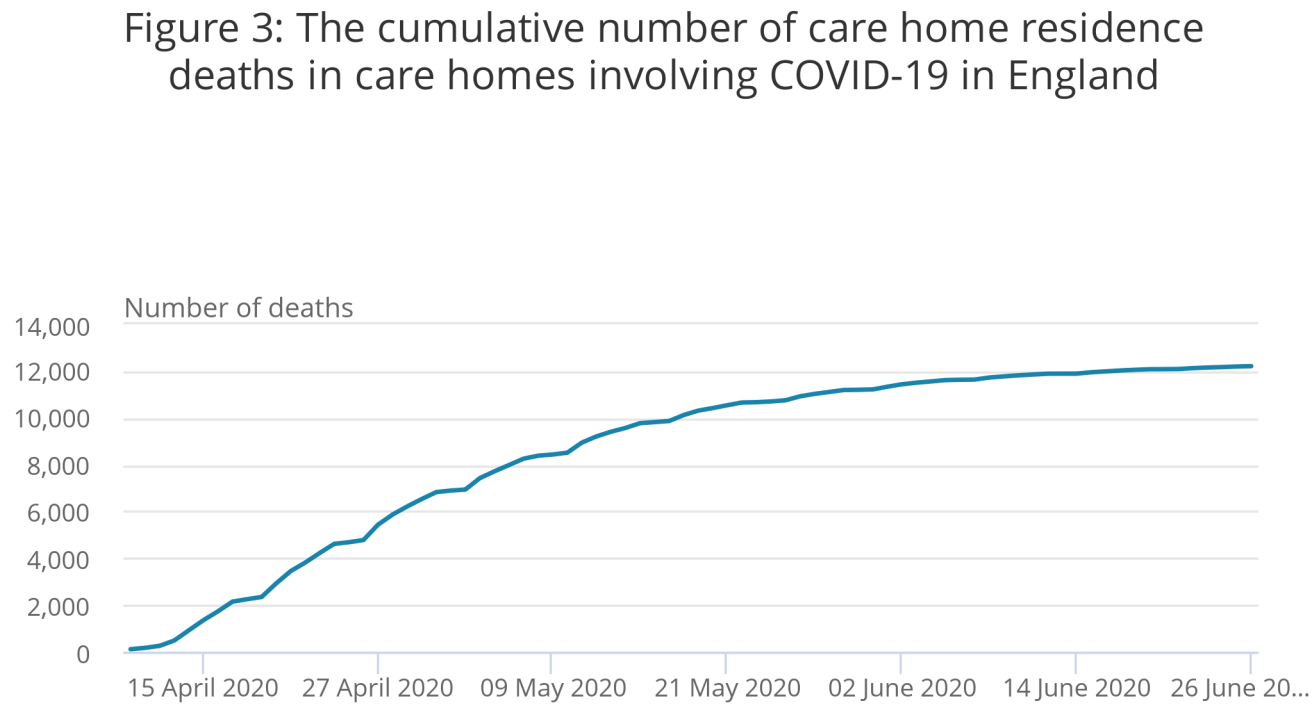
On 15 May 2020, we released Deaths involving COVID-19 in the care sector, England and Wales: deaths occurring up to 1 May 2020 and registered up to 9 May 2020 , which looks at deaths of care home residents. The following section looks at deaths that occurred in care homes.

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.

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

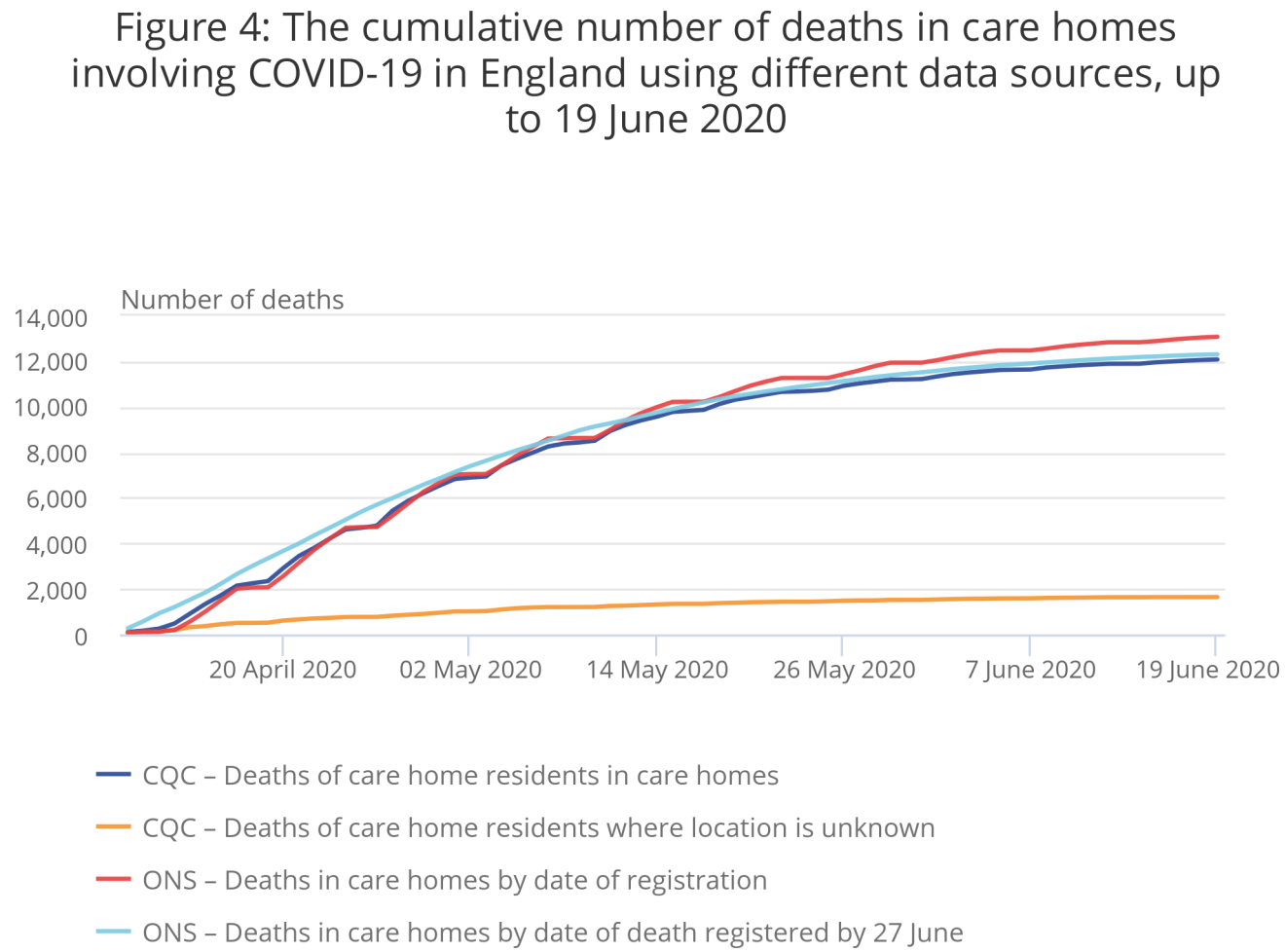
Notes:

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 26 June 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 106 deaths of care home residents in care homes notified to the CQC. From 10 April up to and including 26 June, the latest date for which data are available, the number had increased to 12,211 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 19 June 2020



Source: Care Quality Commission and Office for National Statistics

Notes:

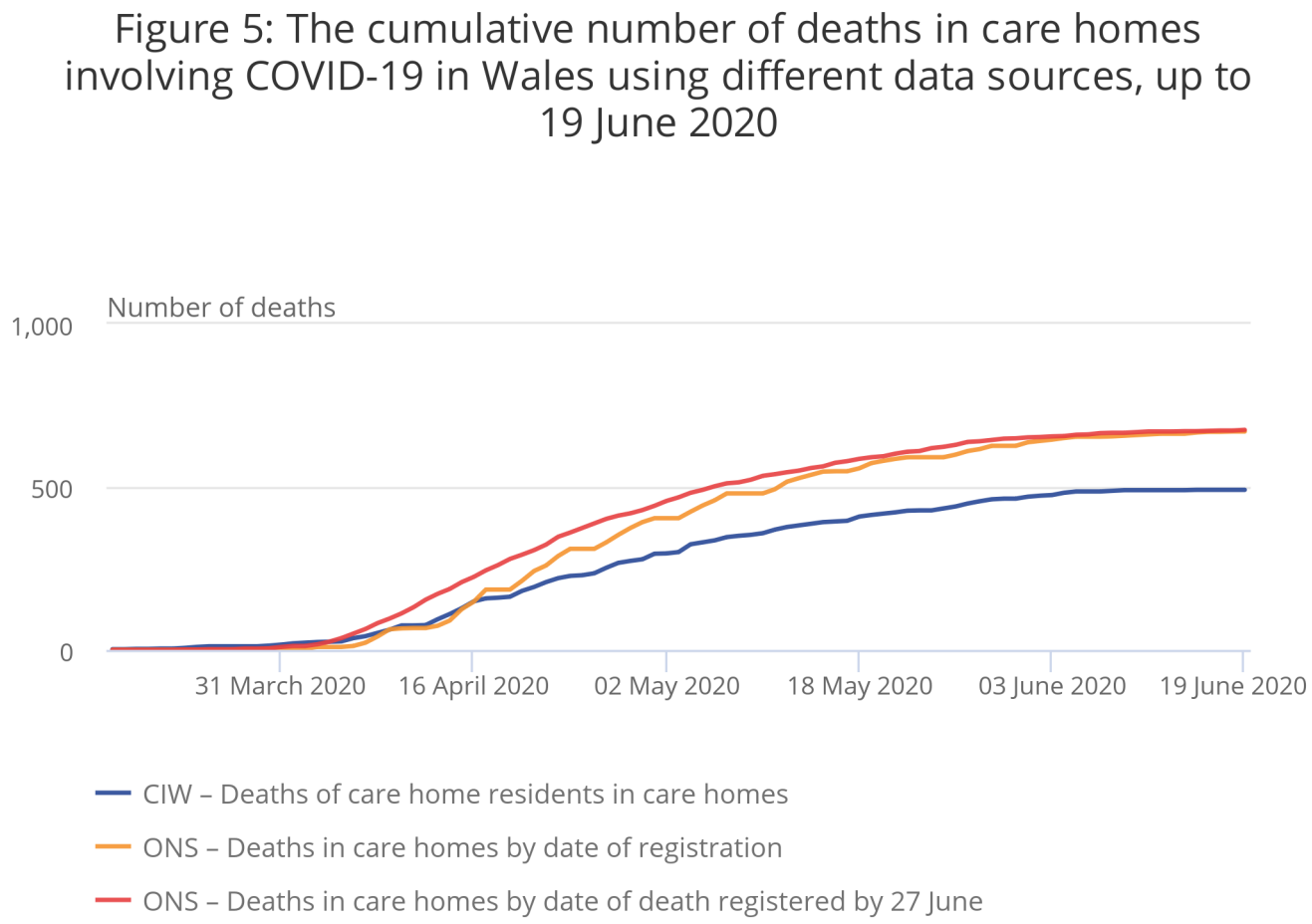
1. All Office for National Statistics (ONS) figures for 2020 are provisional.
2. The ICD-10 definitions for coronavirus (COVID-19) are U07.1 and U07.2.
3. Figures for the Care Quality Commission (CQC) are based on the date the CQC was notified of the death. Figures only include deaths that were notified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

Up to 19 June, there were 12,079 deaths in care homes involving COVID-19 notified to the CQC (Figure 4). There were an additional 1,640 deaths of care home residents where the location of death was not stated by the care home provider, shown separately in Figure 4. 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 13,074 deaths involving COVID-19 in care homes registered during the same period and 12,304 deaths in care homes occurring in the same period that were registered by 27 June.

The data from the CQC and ONS registrations follow a similar pattern. 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. ONS death occurrences are higher than the CQC figures as these numbers are based on the date of the death rather than date of notification.

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 19 June 2020



Source: Care Inspectorate Wales and Office for National Statistics

Notes:

1. All Office for National Statistics (ONS) figures for 2020 are provisional.
2. 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 26 June, there were 497 deaths where the death occurred in care homes and COVID-19 was confirmed or suspected. This is 173 fewer than the 670 deaths registered as involving COVID-19 and occurred in care homes, as reported by the ONS, and 178 fewer than the 675 deaths that occurred between 17 March and 19 June but were registered by 27 June.

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 it is 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 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 23 June 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 23 June 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 23 June 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 20 June 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

	DHSC COVID-19 (as published on GOV.UK) before 29 April	DHSC COVID-19 (as published on GOV.UK) from 29 April	ONS COVID-19 deaths registered	ONS COVID-19 death occurrence (actual date of death)	NHS England	Public Health Wales
Coverage	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		
Inclusion	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
	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
Timeliness	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
			Registered in the week ending 19 June (week 25)	Deaths which occurred in week 25 but were registered up to 27 June		

Source: Office for National Statistics

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)
	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
Coverage	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 a clinician has stated COVID-19 as a suspected or confirmed cause of death on the death notification
	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 - these take on average 4 days to receive and process
Timeliness			Data are published weekly by ONS	Data are published weekly by CIW – details to be confirmed
			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 up to and including 20 April 2020
Article | Released 11 May 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: 2018
Bulletin | Released 6 August 2019
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.