

Article

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

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

Contact:
Sarah Caul
health.data@ons.gov.uk
+44 (0)1633 456490

Release date:
21 April 2020

Next release:
28 April 2020

Table of contents

1. [Other pages in this release](#)
2. [Main points](#)
3. [Comparisons](#)
4. [Deaths data](#)
5. [Glossary](#)
6. [Measuring the data](#)
7. [Strengths and limitations](#)
8. [Related links](#)

1 . Other pages in this release

- [Deaths registered weekly in England and Wales, provisional: week ending 10 April 2020](#)
- [Death registrations and occurrences by local authority and health board](#)

2 . Main points

- This short article accompanies the Weekly deaths release for the week ending 10 April 2020 and explains the differences between various data sources that report on coronavirus (COVID-19) deaths.
- A total of 10,350 deaths involving COVID-19 were registered in England and Wales between 28 December 2019 and 10 April 2020 (year to date).
- Including deaths that occurred up to 10 April but were registered up to 18 April, the number involving COVID-19 was 13,121.
- For deaths that occurred up to 10 April, the comparative number of death notifications reported by the Department of Health and Social Care (DHSC) on GOV.UK for England and Wales was 9,288.
- NHS England COVID-19 deaths by date of death, which come from the same source as DHSC but are continuously updated, showed 10,260 deaths by 10 April; 2,256 fewer than Office for National Statistics figures for England by date of death (12,516).
- Week 15 included the Good Friday bank holiday; the five-year average does show a decrease in registrations over the Easter holiday; however, the Coronavirus Act 2020 allowed registry offices to remain open over Easter, which may have reduced any drop in registrations for Week 15 2020.

3 . Comparisons

Figure 1 shows the cumulative numbers of deaths relating to the coronavirus (COVID-19) for England and Wales by day up to 10 April 2020, allowing comparison between the daily death counts released by the Department of Health and Social Care (DHSC) on GOV.UK, Office for National Statistics (ONS) death records by date of registration and ONS death records by date of death. Figure 2 is for England only and includes NHS England numbers, which are the numbers supplied to DHSC but based on date of occurrence rather than date of notification.

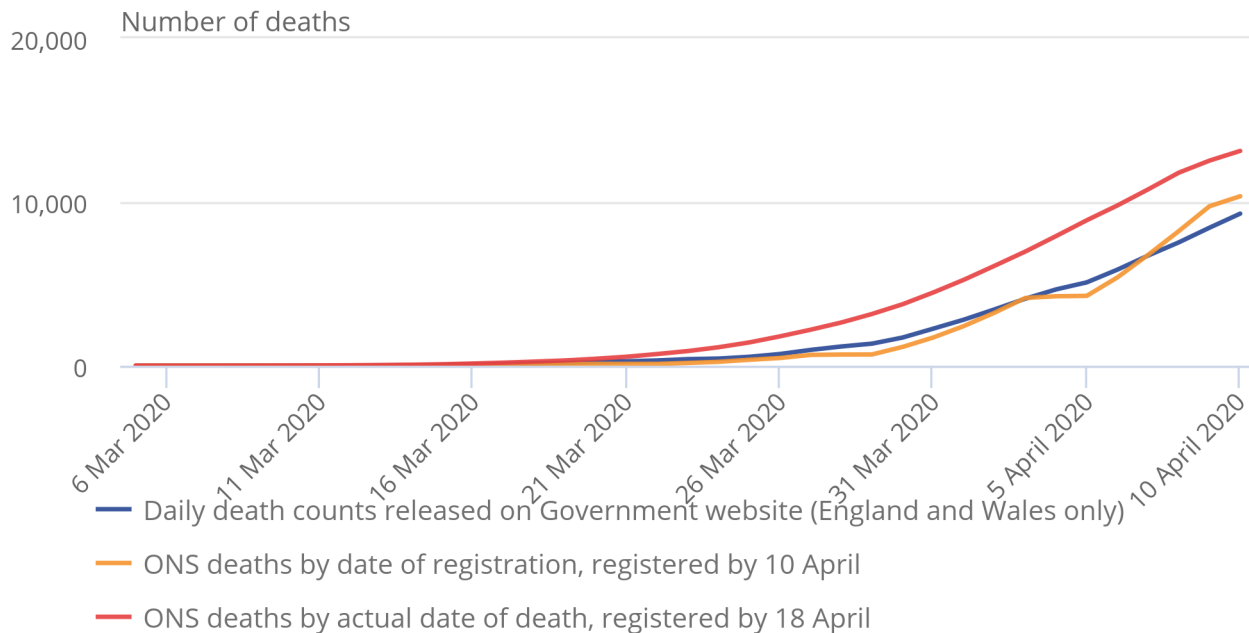
Difference between ONS and DHSC figures

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

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 and Wales using different data sources, up to 10 April 2020

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



Source: Department of Health and Social Care, Office for National Statistics

Notes:

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

As can be seen in Figure 1, the number of deaths reported to the DHSC by 10 April was 9,288 for England and Wales (9,875 deaths for the whole of the UK). The England and Wales number is 1,062 fewer than the 10,350 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.

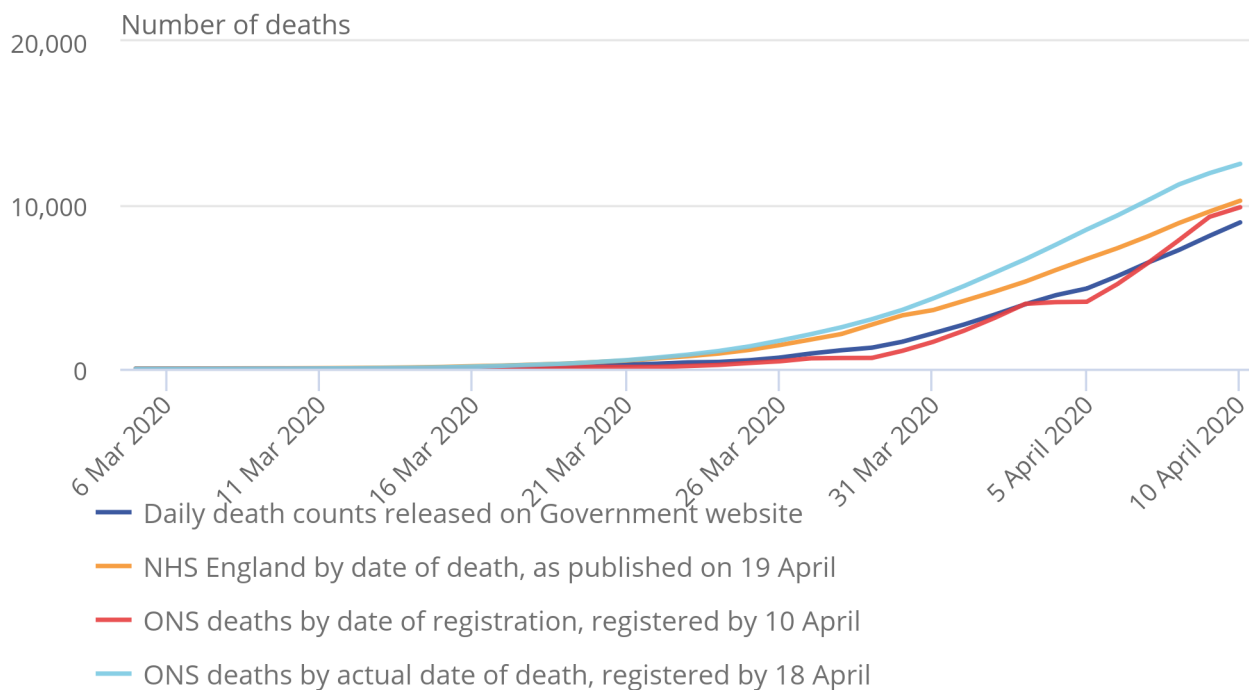
The number of deaths occurring by 10 April and registered by 18 April was 13,121, which is 3,833 higher than the DHSC reported number. This is because ONS figures for occurrence are based on date of death whereas DHSC report on date of notification. The next section looks at DHSC numbers based on date of death, which is more in line with ONS occurrences.

Difference between ONS and NHS England figures

NHS England provide the [data on deaths in hospital in England](#) that feed into the GOV.UK figure and publish a continuously updated series by date of death. They also provide the numbers based on date of death as opposed to date of notification.

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

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



Source: Source: Department of Health and Social Care, NHS England, Office for National Statistics

Notes:

1. Department of Health and Social Care ([DHSC](#)) figures.
2. [NHS England figures](#).
3. Figures exclude deaths of non-residents.
4. Estimates are provisional.
5. The ICD-10 definitions for COVID-19 are U07.1 and U07.2.
6. Daily death counts are released on the GOV.UK website.

The NHS England numbers by date of death, which come from the same source as DHSC but are continuously updated, showed 10,260 deaths by 10 April. This is 1,323 more than DHSC England-only deaths (8,937) but 2,256 fewer than ONS figures for England by date of death (12,516). In contrast to last week when the ONS registrations figures were similar to the GOV.UK figures, in Week 15 the ONS registration figures overtook the GOV.UK figures around 7 April and are now more in line with NHS England figures.

The difference between the NHS England figures and the ONS figures by date of death is because of the wider coverage of the ONS figures, including deaths outside of hospital and those where COVID-19 was reported on the death certificate but there was no positive test. Looking at the year-to-date, 15.8% of deaths in England involving COVID-19 occurred outside hospital (1,555 deaths).

Conclusion

ONS and DHSC COVID-19 death numbers have different criteria. The DHSC count deaths where a person has been tested positive for coronavirus, and for England this is in hospitals only. The ONS counts deaths where COVID-19 (including suspected cases) was mentioned on the death certificate, regardless of location.

It can be seen that 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 NHS England are close 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 in England that are not in a hospital, or where no test result was available.

NHS England's 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 provide figures based on deaths registered in England and Wales with COVID-19 (more information can be found in the Measuring the data section of the weekly deaths publication).

4 . Deaths data

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

Dataset | Released 21 April 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 data on coronavirus (COVID-19) deaths.

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 April 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 the [GOV.UK](#) website, for the UK as a whole and 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 hospital.

In contrast to the GOV.UK figures, we include only deaths registered in England and Wales, which is the legal remit of the Office for National Statistics (ONS). Table 1 provides 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)	ONS COVID-19 deaths registered	ONS COVID-19 death occurrence (actual date of death)	NHS England
Coverage	UK (however we only include England and Wales breakdowns for comparable coverage with ONS data)	Registrations in England and Wales In discussions with devolved nations to create UK estimates in the near future	Registrations in England and Wales In discussions with devolved nations to create UK estimates in the near future	England
Inclusion	Deaths in hospitals Deaths where patient has been tested for COVID-19	Any place of death, including Nursing homes Deaths where COVID-19 has been mentioned on the death certificate	Any place of death, including Nursing homes Deaths where COVID-19 has been mentioned on the death certificate	Deaths in hospitals Deaths where patient has been tested for COVID-19
Timeliness	Provided daily but not officially registered. Data are provided to NHS-E directly by hospitals. Data only published once confirmed family have been notified of death	Weekly registrations are 11 days behind because of the time taken to register, process and publish. Registered in the week ending the 10 April 2020 (Week 15).	Weekly registrations are 11 days behind because of the time taken to register, process and publish. Deaths which occurred in Week 15 but were registered up to 18 April 2020.	Updated daily for each date of death

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.

The Care Quality Commission (CQC) collects notifications from care homes of the deaths of their residents. ONS, CQC and DHSC are considering using these data, subject to assurance of their fitness for purpose, as an additional data source to complement the numbers of deaths in hospitals published by DHSC. We hope to include these independent figures on deaths in care homes from the 28 April bulletin.

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

[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.

[Coronavirus \(COVID-19\) product page](#)

Product page | Updated when new data are available

Brings together the latest data and analysis on the coronavirus (COVID-19) pandemic in the UK and its effect on the economy and society.