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## GOV.UK

## Coronavirus (COVID-19) cases in the UK

Data dashboard (/)

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# About the data

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## Lab confirmed cases of COVID-19

## Total and daily UK cases

COVID-19 cases are identified by taking specimens from people and sending these specimens to laboratories around the UK to be tested. If the test is positive, this is a referred to as a lab-confirmed case.

There are separate reporting processes for each of the 4 Nations of the UK. England, Northern Ireland and Scotland each provide data based on tests carried out in NHS (and PHE) laboratories. These represent 'pillar 1' of the Government's mass testing programme. Wales provides data based on tests carried out in NHS laboratories ('pillar 1') and testing by commercial partners ('pillar 2' of the masstesting programme). The Department for Health and Social Care (DHSC) combines the counts from the 4 Nations, and adds data from tests carried out by commercial partners ('pillar 2') in England, Northern Ireland and Scotland to give daily and total (cumulative) counts of lab-confirmed cases. These are submitted to Public Health England (PHE) to display on the dashboard. The 4 figures are not all taken from the same cut-off time: England and Scotland counts are as at 9am on the day of publication; Wales counts are as at 7am on the day of publication; Northern Ireland counts are from different times on the morning of publication.

The headline UK case count is published by DHSC each day via <a href="https://twitter.com/DHSCgovuk">Twitter</a> (<a href="https://twitter.com/DHSCgovuk">https://twitter.com/DHSCgovuk</a>) and on the <a href="https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public">DHSC website</a> (<a href="https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public">https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public</a>).

The data published on this website are constantly being reviewed and corrected. Cumulative counts can occasionally go down from one day to the next, and on some occasions there have been major revisions that have a significant effect on local, regional, National or UK totals. Data are provided daily from several different electronic data collection systems and these can experience technical issues which can affect daily figures, usually resulting in lower daily counts. The missing data are normally included in the data published the following day.

The UK total is not the sum of the 4 National totals as the pillar 2 cases cannot currently be included in the individual National totals for England, Northern Ireland and Scotland. All other data on this website are based only on cases detected through pillar 1. Information about the different pillars is available on <a href="GOV.UK">GOV.UK</a> (<a href="https://www.gov.uk/government/publications/coronavirus-covid-19-scaling-up-testing-programmes/coronavirus-covid-19-scaling-up-our-testing-programmes">https://www.gov.uk/government/publications/coronavirus-covid-19-scaling-up-our-testing-programmes</a>).

Details of the processes for counting cases in the devolved administrations are available on their websites:

- <u>Scottish Government coronavirus information</u>
  <u>(https://www.gov.scot/publications/coronavirus-covid-19-daily-data-for-scotland/)</u>
- <u>Public Health Wales coronavirus information</u>
   (<a href="https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary">https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary</a>)

Northern Ireland Department of Health coronavirus information
 (<a href="https://app.powerbi.com/view?">https://app.powerbi.com/view?</a>
 r=eyJrljoiZGYxNjYzNmUtOTImZS00ODAxLWE1YTEtMjA0NjZhMzImN2JmliwidCl6ljljOW
 EzMGRILWQ4ZDctNGFhNC05NjAwLTRiZTc2MjVmZjZjNSIsImMiOjh9)

## **England cases**

In England, laboratories submit test results to PHE through the Second Generation Surveillance System (SGSS). Cases received from laboratories by 12:30am are included in the counts published that day. Confirmed positive cases are matched to ONS geographical area codes using the home postcode of the person tested. Postcodes are supplied by the laboratory information systems.

Duplicate tests for the same person are removed. The first positive specimen date is used as the specimen date for that person.

Cases are aggregated to Region, Upper Tier Local Authority (UTLA) and Lower Tier Local Authority (LTLA) level and shown in the table and on the map. UTLAs include Counties, Unitary Authorities, Metropolitan Districts and London Boroughs. LTLAs include County Districts (Non-Metropolitan Districts), Unitary Authorities, Metropolitan Districts and London Boroughs. Some cases cannot be matched to a geographical area because postcode information is missing or received late. This is why the Region, UTLA and LTLA counts do not add up to the England total. Data for Cornwall and Isles of Scilly are combined because Isles of Scilly has a population of less than 10,000 and fewer than 5 cases.

The ages and sexes of the people who have tested positive are shown in a chart and table. Date of birth and/or sex are missing from some records. This is why the age and sex counts do not add up to the England total. Clicking on 'Male' or 'Female' in the chart legend selects which data are shown.

Cumulative case counts include patients who are currently unwell, those who have recovered and those that have died.

Cases in people who have not been tested are not included in the confirmed case counts.

More information about lab-confirmed cases in England is available in the <u>PHE</u> <u>weekly surveillance reports (https://www.gov.uk/government/publications/national-covid-19-surveillance-reports)</u>.

### Rates

The different Nations, Regions, UTLAs and LTLAs vary enormously in population size. Areas with larger populations will tend to have more cases than those with smaller populations. To account for the different population sizes, rates are calculated. The count for each area is divided by the total population and multiplied by 100,000. Populations are the 2018 Mid-year Estimates from the Office for National Statistics

(https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland).

The rates are easier to compare than the raw counts, but they do not take into account other factors that may affect the numbers of cases, such as the age of the population or the amount of testing carried out.

The rates are not included in the CSV or JSON downloads. They will be added as soon as possible.

## Interpreting the maps

The maps show rates or counts of cases in each area.

When rates are shown, the density of the colour indicates how high the rate is: darker colours mean higher rates. Clinking on an area highlights the area in the table to the left.

When total counts are shown, the areas of the circles on the map are proportional to the counts.

### Cases over time

Daily case counts are shown in charts and tables, and can be downloaded for Regions and UTLAs as a CSV file or in JSON format. They are currently only available for England on this website. Data for the rest of the UK will be added (where available from the devolved administrations).

Lab-confirmed positive cases are attributed to the day the first specimen was taken from the person being tested (the specimen date). Each day new cases are reported, but the dates they originate from cover the previous few days. Because of this, there are few cases reported for the most recent date on the chart, but this does not mean the epidemic is tailing off. Data from around 5 days ago can be considered complete. Data for recent days are constantly being revised as more information becomes available.

The new cases reported in the most recent daily update are shown by the upper, dark section of the bars. The lower sections of the bars represent cases previously reported. This shows how the new cases reported relate to specimens taken over the last few days, with the occasional tests coming in with longer delays.

The line on the chart shows the 7 day rolling average of the daily number of cases. This helps to smooth out day-to-day variation and, especially, the effect of lower testing rates at the weekends, to show the long term trend more clearly. The 7 day rolling average for each day is calculated by adding the number of cases for that day to the numbers of cases for the previous 3 days and the following 3 days, and dividing by 7. The latest 3 days' data are not used to calculate rolling averages as they are far from complete.

Clicking on 'Rolling average of the total', 'Previously reported' or 'Newly reported' in the chart legend selects which data are shown.

In the CSV and JSON download files, the total daily cases and cumulative cases by specimen date are provided for England, each Region and UTLA. A breakdown

of both the daily cases and the cumulative cases is provided to show the previously reported figures (ie those that were published on the previous day) and the overnight change. As in the England chart, this shows how the new cases reported relate to specimens taken over the last few days, with the occasional tests coming in with longer delays. Negative changes indicate cases being removed or corrected as the data are continually checked and cleaned.

In the CSV and JSON downloads, the counts for Hackney up to 19 March 2020 include cases in City of London because City of London has a population of less than 10,000 and had fewer than 5 cases until 20 March.

## Note on the way the dates are attributed

Data were previously shown by reporting date. The reporting date is the date that PHE published the data, which would normally be one day after the laboratory submitted the data to PHE. In many cases labs submit data in batches, so there may be no cases for a week and then a large number on one day. This is not helpful for analysing the incidence of COVID-19 over time.

The data are now shown by the date the specimen was taken from the person being tested. This gives a much more useful analysis of the progression of cases over time. It does mean that the latest days' figures are always incomplete, and only data from 5 days or more ago can be considered complete.

## **COVID-19** associated deaths

All the deaths data shown on this website are deaths of people who have had a positive test result confirmed by a Public Health or NHS laboratory. They also include, for England, deaths of people who have had a positive test result confirmed by testing by commercial partners.

The data do not include deaths of people who had COVID-19 but had not been tested, people who were tested positive only via a non-NHS or Public Health laboratory, or people who had been tested negative and subsequently caught the virus and died.

Deaths of people who have tested positively for COVID-19 could in some cases be due to a different cause.

There are separate reporting processes for England, Scotland, Wales and Northern Ireland. DHSC combines these 4 counts to give the overall UK daily and total (cumulative) counts. DHSC submits the counts to PHE to display on this website. The 4 figures are not all taken from the same cut-off time: England and Wales counts are as at 5pm on the day before publication; Scotland counts are as at 9am on the day before publication; Northern Ireland counts are as at 9:15am on the day before publication.

Details of the processes for counting deaths in the devolved administrations are available on their websites. Links are provided in the 'Total and daily UK cases' section on this page.

## **England COVID-19 associated deaths**

### **Current process**

Data on COVID-19 deaths in England are produced by Public Health England (PHE). These data are taken from 3 different sources:

- NHS England: deaths are reported by NHS Trusts using the COVID-19 Patient Notification System (CPNS) (this includes only deaths in hospitals)
- PHE Health Protection Teams: the local teams report deaths notified to them (mainly deaths not in hospitals)
- Linking data on confirmed positive cases (identified through testing by NHS and PHE laboratories and commercial partners) to the NHS Demographic Batch Service: when a patient dies, the NHS central register of patients is notified (this is not limited to deaths in hospitals). The list of all lab-confirmed cases is checked against the NHS central register each day, to check if any of the patients have died.

Data on deaths from these 3 sources are linked to the list of people who have had a diagnosis of COVID-19 confirmed by a PHE or NHS laboratory. This is to identify as many people with a confirmed case who have died as possible.

Deaths will often appear in 2 or 3 different sources, so the records are checked and merged into one database and duplicates are removed so there is no double counting. Automated processes are used to ensure that the data are as complete as possible. Full details of the process of producing the data are available on <a href="Mailto:GOV.UK">GOV.UK</a> (<a href="https://www.gov.uk/government/publications/phe-data-series-on-deaths-in-people-with-covid-19-technical-summary">https://www.gov.uk/government/publications/phe-data-series-on-deaths-in-people-with-covid-19-technical-summary</a>).

The final list of deaths includes all deaths previously reported by NHS England, but also includes other deaths of patients who were confirmed cases, whether they died in hospital or elsewhere.

### Changes to the reporting process

The way COVID-19 deaths are reported in England changed on 29 April 2020.

Previously, deaths were reported by NHS England and only included deaths in NHS-commissioned services of patients who have tested positively for COVID-19. The data previously published on this website are available to download on the <a href="https://example.com/Archive.new/Archive.new/">Archive.new/Archive.new/Archive.new/Archive.new/Archive.new/</a>.

The change to the current process resulted in an additional 3,810 deaths being included (as at 29 April 2020).

An official statement on this change in reporting is available on the <u>ONS website</u> (<a href="https://www.ons.gov.uk/news/statementsandletters/thedifferentusesoffiguresondeathsfromcovid19publishedbydhscandtheons">https://www.ons.gov.uk/news/statementsandletters/thedifferentusesoffiguresondeathsfromcovid19publishedbydhscandtheons</a>).

Data on deaths in hospital are available on the <u>NHS England website</u> (https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-daily-deaths/).

A further change to the reporting process was introduced on 1 June 2020 and affected data from 24 May onwards. Deaths linked to cases identified through 'pillar 2' testing (see 'Total and daily UK cases' section on this page) are included as well as 'pillar 1' cases. All deaths before 24 May 2020 of people who tested positive through 'pillar 2' testing are included in the reported daily figure for 24 May 2020.

This change resulted in an additional 445 deaths being included (as at 1 June 2020).

### **Deaths over time**

Deaths are shown in charts and tables according to the day they were reported, not the day they occurred. They can be downloaded as a <u>CSV file</u> (<a href="https://coronavirus.data.gov.uk/downloads/csv/coronavirus-deaths\_latest.csv">https://coronavirus.data.gov.uk/downloads/csv/coronavirus-deaths\_latest.csv</a>) or in <u>JSON format (https://coronavirus.data.gov.uk/downloads/json/coronavirus-deaths\_latest.json</u>).

The daily change in deaths column shows the difference between consecutive cumulative counts. This is not necessarily the same as the number of new deaths announced each day as the changes occasionally include corrections to earlier data.

The line on the chart shows the 7 day rolling average of the daily UK reported deaths. This helps to smooth out day-to-day variation and, especially, the effect of lower reporting rates at the weekends, to show the long term trend more clearly. The 7 day rolling average for each day is calculated by adding the number of deaths reported that day to the numbers of deaths for the previous 3 days and the following 3 days and dividing by 7.

Clicking on 'Rolling average', or 'Daily deaths' in the chart legend selects which data are shown.

## Other sources of data on deaths in England

### **Department of Health and Social Care**

The headline UK deaths figure is published by DHSC each day via <u>Twitter (https://twitter.com/DHSCgovuk)</u> and on the <u>DHSC website</u> (https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public).

### **Public Health England**

More information about COVID-19 associated deaths in England is available in the <a href="https://www.gov.uk/government/publications/national-covid-19-surveillance-reports">PHE weekly surveillance reports (<a href="https://www.gov.uk/government/publications/national-covid-19-surveillance-reports">https://www.gov.uk/government/publications/national-covid-19-surveillance-reports</a>).

#### Office for National Statistics

Deaths reported by the Office for National Statistics (ONS) are based on the causes of death recorded on death certificates. These can include cases where the doctor thought it likely that the person had COVID-19, even when there was no positive test result.

The deaths reported by ONS will include deaths that are not included in the PHE definition, because they had no positive test result confirmed by a PHE or NHS laboratory.

They may also exclude cases that are included in the PHE definition because although the patient had a positive test for COVID-19 this was not mentioned on the death certificate. However, in general, the numbers of deaths reported by ONS will be larger than those included in the PHE definition.

ONS figures are published on their website

(https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsand diseases) later than PHE figures, as they cannot be reported until the deaths are registered.

### **NHS England**

Data on deaths in hospital, including breakdowns by Trust, NHS Region age and ethnic group reported by NHS England are available on the <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-daily-deaths/">NHS England website</a> (<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-daily-deaths/">https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-daily-deaths/</a>).

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Developed by PHE and NHSX

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