

Statistical bulletin

# Coronavirus (COVID-19) Infection Survey, UK: 3 March 2023

Percentage of people testing positive for coronavirus (COVID-19) in private residential households in England, Wales, Northern Ireland and Scotland. This survey is being delivered in partnership with University of Oxford, University of Manchester, UK Health Security Agency (UKHSA) and Wellcome Trust, working with the University of Oxford and partner laboratories to collect and test samples.

Contact:  
Eleanor Fordham and Elizabeth  
Fuller  
health.data@ons.gov.uk  
+44 1633 560499

Release date:  
3 March 2023

Next release:  
10 March 2023

## Table of contents

1. [Main points](#)
2. [Viral load and variants of COVID-19](#)
3. [Coronavirus \(COVID-19\) Infection Survey data](#)
4. [Glossary](#)
5. [Measuring the data](#)
6. [Related links](#)
7. [Cite this statistical bulletin](#)

# 1 . Main points

The following points are for the week ending 21 February 2023.

- The estimated percentage of people testing positive for coronavirus (COVID-19) continued to increase in England and Wales, decreased in Northern Ireland, and the trend was uncertain in Scotland.
- In England, the estimated number of people testing positive for COVID-19 was 1,298,600 (95% credible interval: 1,236,900 to 1,361,200), equating to 2.31% of the population (2.18% in the previous reference week), or around 1 in 45 people.
- In Wales, the estimated number of people testing positive for COVID-19 was 68,100 (95% credible interval: 55,900 to 82,500), equating to 2.21% of the population (1.79% in the previous reference week), or around 1 in 45 people.
- In Northern Ireland, the estimated number of people testing positive for COVID-19 was 20,800 (95% credible interval: 14,600 to 28,400), equating to 1.14% of the population (1.62% in the previous reference week), or around 1 in 90 people.
- In Scotland, the estimated number of people testing positive for COVID-19 was 117,100 (95% credible interval: 98,200 to 137,800), equating to 2.22% of the population, or around 1 in 45 people.
- In England, the estimated percentage of people testing positive for COVID-19 increased in the North East, North West, East Midlands, East of England, and London, decreased in Yorkshire and The Humber, and the trends were uncertain in the West Midlands, South East, and South West.
- In England, the estimated percentage of people testing positive for COVID-19 increased in those aged 25 to 49 years and those aged 70 years and over, decreased in those aged 2 years to school Year 11, and the trends were uncertain for those in school Year 12 to aged 24 years and aged 50 to 69 years.

## **Figure 1: The percentage of people testing positive for coronavirus (COVID-19) continued to increase in England and Wales, decreased in Northern Ireland, and the trend was uncertain in Scotland, in the week ending 21 February 2023**

Estimated percentage of the population testing positive for COVID-19 on nose and throat swabs, UK, 13 February 2022 to 21 February 2023

### Notes:

1. Modelled results are provisional and subject to revision.
2. These statistics refer to infections occurring in private households. The figures exclude infections reported in hospitals, care homes and/or other communal establishments.
3. Official reported estimates are plotted at a reference point believed to be most representative of the given week.
4. The official estimate presents the best estimate at that point in time. Modelled estimates are used to calculate the official reported estimate. The model smooths the series to understand the trend and is revised each week to incorporate new test results, providing the best indication of trend over time.
5. Official estimates are displayed over a rolling year up to the most recent week. The full time series of our official estimates from 27 April 2020 onwards are available in our [Coronavirus \(COVID-19\) Infection Survey dataset](#).
6. There is a higher degree of uncertainty in our estimates for Wales, Northern Ireland and Scotland, compared with England. This is shown by wider [credible intervals](#).

## Download the data

[.xlsx](#)

## 2 . Viral load and variants of COVID-19

The latest [cycle threshold \(Ct\) values](#) of coronavirus (COVID-19) positive tests, as well as latest analysis of the genetic lineages of COVID-19 seen in the samples we sequence, are provided in our [Coronavirus \(COVID-19\) Infection Survey dataset](#).

Since mid-January 2023, the Omicron variant BA.2.75 and its sub-lineages have comprised the largest proportion of all sequenced infections. In the week ending 19 February 2023, of all sequenced infections:

- BA.2.75 and its sub-lineages (including XBB and CH.1.1 and their respective sub-lineages) comprised 79.5%
- the sub-lineage CH.1.1 and its sub-lineages comprised 25.6%
- the sub-lineage XBB.1.5 and its sub-lineages comprised 41.4%, with other XBB sub-lineages (excluding XBB.1.5) comprising 9.2%
- BQ.1 (a sub-lineage of Omicron BA.5) and its sub-lineages comprised 14.2%

More information on our variant analysis by gene pattern and how we measure variants can be found in Section 6 of our [Coronavirus \(COVID-19\) Infection Survey, UK: 10 February 2023 bulletin](#).

The [whole genome sequencing](#) is produced by the Wellcome Trust Sanger Institute, and analysis is produced by research partners at the University of Oxford. Of particular note are Dr Katrina Lythgoe, Dr Tanya Golubchik and Dr Helen Fryer. Genome sequencing is funded by the COVID-19 Genomics UK (COG-UK) consortium. COG-UK is supported by funding from the Medical Research Council (MRC) part of UK Research and Innovation (UKRI), the National Institute of Health Research (NIHR), and Genome Research Limited operating as the Wellcome Sanger Institute.

## 3 . Coronavirus (COVID-19) Infection Survey data

[Coronavirus \(COVID-19\) Infection Survey headline results, UK](#)

Dataset | Released 3 March 2023

Headline estimates for England, Wales, Northern Ireland and Scotland.

## 4 . Glossary

### Age groups for children and young people

- "Aged 2 years to school Year 6" includes children in primary school and below.
- "School Year 7 to school Year 11" includes children in secondary school.
- "School Year 12 to those aged 24 years" includes young adults who may be in further or higher education.

## Credible interval

A credible interval gives an indication of the uncertainty of an estimate from data analysis. The 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval. A wider interval indicates more uncertainty in the estimate. Overlapping credible intervals indicate that there may not be a true difference between two estimates. For more information, see our [methodology page on statistical uncertainty](#).

## Cycle threshold (Ct) values

The strength of a positive coronavirus (COVID-19) test is determined by how quickly the virus is detected, measured by a cycle threshold (Ct) value. The lower the Ct value, the higher the viral load and stronger the positive test. Positive results with a high Ct value can be seen in the early stages of infection when virus levels are rising, or late in the infection, when the risk of transmission is low.

## Whole genome sequencing

Swabs that are positive on a PCR test for COVID-19 with a Ct value less than 30 are additionally sent for genomic sequencing. A detailed investigation is undertaken to work out the specific order of the letters that make up the genetic material of the virus in the sample. Where we can identify at least 50% of the genetic code, we can identify the COVID-19 variant present through comparisons with the genetic sequences of known variants. Currently, the variants under surveillance in the UK are Omicron, including sub-lineages BA.2, BA.4 and BA.5 and their sub-lineages.

# 5 . Measuring the data

## Reference dates

We aim to provide the estimates of positivity rate (the percentage of people who test positive) that are most timely and most representative of each week. In addition, to improve stability in our modelling while maintaining relative timeliness of our estimates, we report our official estimates based on the midpoint of the reference week.

This week, the reference week is 15 to 21 February 2023 for all UK countries, and the reference day is Saturday 18 February 2023. More information on reference weeks and days can be found in the Measuring the data section of our [Coronavirus \(COVID-19\) Infection Survey, UK: 10 February 2023 bulletin](#).

## Additional COVID-19 Infection Survey data

Our full [Coronavirus \(COVID-19\) Infection Survey datasets for England, Wales, Northern Ireland, and Scotland and our Technical dataset](#) are available. These datasets include our monthly incidence, sub-regional and single year of age analysis, and will be updated on a monthly basis.

## Survey fieldwork

Survey fieldwork for the pilot study began in England on 26 April 2020. Fieldwork began on 29 June 2020 in Wales, 26 July 2020 in Northern Ireland, and 21 September 2020 in Scotland.

## Remote data collection

The Office for National Statistics (ONS) Coronavirus (COVID-19) Infection Survey has moved from collecting data and samples through home visits by a study worker to a more flexible approach for participants. We have introduced an online questionnaire, and swab and blood samples are returned through the post (or by courier for some participants). Further information on what these changes mean and how the survey will continue to be valuable can be found in our recent [blog post: The COVID-19 Infection Survey is changing](#).

There were minimal differences between estimates of swab positivity produced from remote data collection methods compared with data collected by study worker home visits. New data presented in our [Coronavirus \(COVID-19\) Infection Survey, UK: 19 August 2022 bulletin](#) were based on a combination of data collected remotely and by study worker home visits. New data presented from the [Coronavirus \(COVID-19\) Infection Survey, UK: 26 August 2022 bulletin](#) onwards were collected by remote data collection only. Further information on the effects of the change in data collection method can be found in our [Quality Report: August 2022](#) and [Quality Report: December 2022](#).

## Other Coronavirus Infection Survey (CIS) analysis and studies

This study provides the main measure of coronavirus infection in the UK. Other sources have provided data during previous stages of the pandemic. For information on other studies, see [Section 4: Quality characteristics of the Coronavirus \(COVID-19\) Infection Survey](#) (coherence and comparability) of the [Coronavirus \(COVID-19\) Infection Survey: quality and methodology information \(QMI\)](#), revised 20 January 2023.

### Quality

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in our [Coronavirus \(COVID-19\) Infection Survey: methods and further information article](#) and the [Coronavirus \(COVID-19\) Infection Survey QMI](#).

## 6 . Related links

[Regional and sub-regional estimates of coronavirus \(COVID-19\) positivity over time: 12 January 2023](#)

Article | Released 12 January 2023

Percentage of people testing positive for coronavirus (COVID-19) in private residential households by region and sub-region, over time.

[Coronavirus \(COVID-19\) Infection Survey quality report: December 2022](#)

Methodology | Last revised 21 December 2022

Information on the Coronavirus (COVID-19) Infection Survey data collection method change from study worker home visit to remote data collection.

[Coronavirus \(COVID-19\) Infection Survey quality report: September 2022](#)

Methodology | Last revised 23 September 2022

This quality report presents information on the Coronavirus (COVID-19) Infection Survey data collection method change from study worker home visit to remote data collection.

[Coronavirus \(COVID-19\) Infection Survey quality report: August 2022](#)

Methodology | Last revised 18 August 2022

This quality report presents information on the Coronavirus (COVID-19) Infection Survey data collection method change from study worker home visit to remote data collection.

[Coronavirus \(COVID-19\) Infection Survey, characteristics of people testing positive for COVID-19, UK](#)

Bulletin | Updated monthly

Characteristics of people testing positive for COVID-19 from the Coronavirus (COVID-19) Infection Survey. This survey is delivered in partnership with University of Oxford, University of Manchester, UK Health Security Agency (UKHSA) and Wellcome Trust, working with the University of Oxford and partner laboratories to collect and test samples.

[Coronavirus \(COVID-19\) Infection Survey, antibody data, UK](#)

Bulletin | Updated monthly

Antibody data, by UK country and age, from the Coronavirus (COVID-19) Infection Survey. This survey is delivered in partnership with University of Oxford, University of Manchester, UK Health Security Agency (UKHSA) and Wellcome Trust, working with the University of Oxford and partner laboratories to collect and test samples.

[Coronavirus \(COVID-19\) latest insights](#)

Interactive tool | Updated as and when data become available

The latest data and trends about the coronavirus (COVID-19) pandemic from the Office for National Statistics (ONS) and other sources.

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

Bulletin | Updated weekly

Provisional number of deaths registered in England and Wales, including deaths involving coronavirus (COVID-19), in the latest weeks.

[Coronavirus \(COVID-19\) Infection Survey technical article: Characteristics associated with third vaccination uptake: 21 April 2022](#)

Technical article | Released 21 April 2022

Analysis of populations in the UK by likelihood of having received a third vaccination against COVID-19 using the Coronavirus (COVID-19) Infection Survey. This survey is being delivered in partnership with University of Oxford, University of Manchester, UK Health Security Agency and Wellcome Trust.

[Coronavirus \(COVID-19\) Infection Survey technical article: Cumulative incidence of the number of people who have tested positive for COVID-19, UK: 22 April 2022](#)

Technical article | Released 22 April 2022

Analysis of the number of people in the UK who have tested positive for COVID-19 using the Coronavirus (COVID-19) Infection Survey. This survey is being delivered in partnership with University of Oxford, University of Manchester, UK Health Security Agency and Wellcome Trust.

[The relationship between COVID-19 infections and antibodies: What do the data show?](#)

Blog article | Released 6 April 2022

Information on how COVID-19 infections have recently reached their highest levels across many parts of the UK while antibody levels are high.

# 7 . Cite this statistical bulletin

Office for National Statistics (ONS), released 3 March 2023, ONS website, statistical bulletin, [Coronavirus \(COVID-19\) Infection Survey, UK: 3 March 2023](#)