

Statistical bulletin

Coronavirus (COVID-19) Infection Survey, UK: 29 January 2021

Estimates for England, Wales, Northern Ireland and Scotland. This survey is being delivered in partnership with University of Oxford, University of Manchester, Public Health England and Wellcome Trust.

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1. Main points

- In England, the percentage of people testing positive for the coronavirus (COVID-19) remains high in the week ending 23 January 2021; we estimate that 1,018,700 people (95% credible interval: 976,200 to 1,061,600) within the community population in England had COVID-19, equating to around 1 in 55 people (95% credible interval: 1 in 55 to 1 in 50).
- During the week ending 23 January 2021, London had the highest percentage of people testing positive; we estimate that 2.71% of people in London had COVID-19 (95% credible interval: 2.52% to 2.91%), equating to around 1 in 35 people (95% credible interval: 1 in 40 to 1 in 35).
- In Wales, the percentage of people testing positive has remained level over the week ending 23 January 2021; we estimate that 43,600 people in Wales had COVID-19 (95% credible interval: 36,100 to 51,600), equating to around 1 in 70 people (95% credible interval: 1 in 85 to 1 in 60).
- In Northern Ireland, the percentage of people testing positive has levelled off in the week ending 23 January 2021; we estimate that 36,800 people in Northern Ireland had COVID-19 (95% credible interval: 30,500 to 43,900), equating to around 1 in 50 people (95% credible interval: 1 in 60 to 1 in 40).
- In Scotland, the percentage of people testing positive remained level in the week ending 23 January 2021; we estimate that 48,500 people in Scotland had COVID-19 (95% credible interval: 41,900 to 55,700), equating to around 1 in 110 people (95% credible interval: 1 in 125 to 1 in 95).
- The percentage of cases that are compatible with the new variant increased in the East Midlands in the week ending 23 January 2021; rates were relatively stable or declining in all other regions.

In this bulletin, we refer to the number of current COVID-19 infections within the community population; community in this instance refers to private residential households and it excludes those in hospitals, care homes and/or other institutional settings.

The positivity rate is the percentage of people who have tested positive for COVID-19 at a point in time. We use current COVID-19 infections to mean testing positive for SARS-CoV-2, with or without having symptoms, on a swab taken from the nose and throat. This is different to the incidence rate, which is a measure of only the new infections in a given time period.

All analysis was produced with our research partners at the University of Oxford.

Have you been asked to take part in our survey?

- For more information, please visit the CIS participant guidance page.
- If you have any further questions, please email the CIS operations team: COVID-19@ons.gov.uk.

How the data in this bulletin can be used

The data can be used for:

- estimating the number of current positive cases in the community, including cases where people do not report having any symptoms
- identifying differences in numbers of positive cases between different regions
- estimating the number of new cases and change over time in positive cases

The data cannot be used for:

- measuring the number of cases and infections in care homes, hospitals and/or other institutional settings
- providing information about recovery time of those infected

2. Number of people in England who had COVID-19

During the week ending 23 January 2021, we estimate that 1,018,700 people in England had the coronavirus (COVID-19) (95% credible interval: 976,200 to 1,061,600)¹. This equates to 1.87% (95% credible interval: 1.79% to 1.95%) of the population in England or around 1 in 55 people (95% credible interval: 1 in 55 to 1 in 50). The ratios presented are rounded to the nearest five. This is based on statistical modelling of the trend in rates of positive nose and throat swab results.

Official estimates of the percentage of people testing positive over time are presented in Figure 1. The percentage of people testing positive remains high in England and is similar to last week's estimate.

In the latest six-week period, there were 501,255 swab tests, and a total of 8,945 positive tests, in 8,014 people from 5,858 households. In the latest two-week period, there were 173,508 swab tests, and a total of 3,293 positive tests, in 3,146 people from 2,398 households.

Official estimates are our headline estimates and should be used to understand the positivity rate for a single point in time. This estimate, based on the modelled estimate for the latest week, is our best and most stable estimate and is used in all previous outputs. The modelled estimate can be used to understand the recent trend. The modelling includes a set period of data and smooths the estimate over time.

As this is a household survey, our figures do not include people staying in hospitals, care homes and/or other institutional settings. In these settings, rates of COVID-19 infection are likely to be different. More information about rates of COVID-19 in care homes can be found in Impact of coronavirus in care homes in England: 26 May to 19 June 2020.

Figure 1: In England, the percentage of people testing positive remains high in the week ending 23 January 2021

Official estimates of the percentage of the	ne population in England testing positive for the coronavirus ((COVID-
19) on nose and throat swabs from 3 Ma	y 2020	

Notes:

- 1. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- 2. All estimates are subject to uncertainty, given that a sample is only part of the wider population. The model used to provide these estimates is a Bayesian model: these provide 95% credible intervals. A credible interval gives an indication of the uncertainty of an estimate from data analysis. 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval.
- 3. Official reported estimates are plotted at a reference point believed to be most representative of the given week. Details of which day was used for each week can be found in the <u>dataset</u> that accompanies this bulletin.
- 4. As there was no publication on 15 January 2021 there are no official estimates available for the week ending 9 January 2021. However, we have conducted some additional analysis to assess what the estimate may have been and have estimated it as 2.08% (95% credible interval: 2.00% to 2.17%).

Download the data

.xlsx

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.

Figure 2: The most recent modelled estimate shows signs that the percentage testing positive remains high and is similar to last week's estimate

Estimated percentage of the population in England testing positive for the coronavirus (COVID-19) on nose and throat swabs based on modelled estimates from 13 December 2020

Notes:

- 1. These results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- 3. All estimates are subject to uncertainty, given that a sample is only part of the wider population. The model used to provide these estimates is a Bayesian model: these provide 95% credible intervals. A credible interval gives an indication of the uncertainty of an estimate from data analysis. 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval.
- 4. Official reported estimates are plotted at a reference point believed to be most representative of the given week. Details of which day was used for each week can be found in the <u>dataset</u> that accompanies this bulletin.
- 5. Modelled estimates include all swab results that are available at the time the official estimates are produced. Additional swab tests that become available after this are included in subsequent models, meaning that modelled estimates can change slightly as additional data are included.
- 6. As there was no publication on 15 January 2021 there are no official estimates available for the week ending 9 January 2021. However, we have conducted some additional analysis to assess what the estimate may have been and have estimated it as 2.08% (95% credible interval: 2.00% to 2.17%).

Download the data

.xlsx

The estimates for non-overlapping 14-day periods (which underpin our modelled official estimates) are presented in Figure 3. These estimates are provided for context. The <u>dataset</u> that accompanies this bulletin includes the 14-day estimates and the unweighted sample counts. The 14-day time periods presented in Figure 3 overlap with those presented in the data tables in our <u>previous publication</u>, so direct comparisons are not possible.

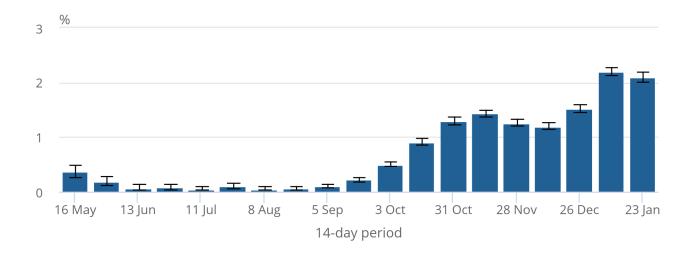
The percentage testing positive in the latest 14-day period (10 to 23 January 2021) was 2.10% (95% confidence interval: 2.01% to 2.19%).

Figure 3: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests the percentage testing positive in England remains high

Estimated percentage of the population in England testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 3 May 2020 and 23 January 2021

Figure 3: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests the percentage testing positive in England remains high

Estimated percentage of the population in England testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 3 May 2020 and 23 January 2021



Source: Office for National Statistics - Coronavirus (COVID-19) Infection Survey

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- Caution should be taken around using the 14-day estimate as averaging the percentage testing positive over the past 14-day period can mask changes in the percentage testing positive that have occurred over the most recent two weeks.

Information about how the modelled and 14-day non-overlapping estimates are calculated can be found in our methods article.

We are continuously refining and looking to improve our modelling and presentations. We would welcome any feedback via email: infection.survey.analysis@ons.gov.uk.

For information about the potential impact of false-positive and false-negative test results, see our methods article.

More about coronavirus

- Find the latest on coronavirus (COVID-19) in the UK.
- Explore the latest coronavirus data from the ONS and other sources.
- All ONS analysis, summarised in our coronavirus roundup.
- View all coronavirus data.
- Find out how we are working safely in our studies and surveys.

Notes for: Number of people in England who had COVID-19

 This is based on model estimates from the reference point of the most recent week (17 to 23 January 2021), Wednesday 20 January 2021. More information on reference dates can be found in <u>Section 15:</u> <u>Measuring the data</u>.

3 . Regional analysis of the number of people in England who had COVID-19

In the data used to produce these estimates, the number of people sampled in each region who tested positive for the coronavirus (COVID-19) is low relative to England overall. This means there is a higher degree of uncertainty in the regional estimates for this period, as indicated by larger credible intervals.

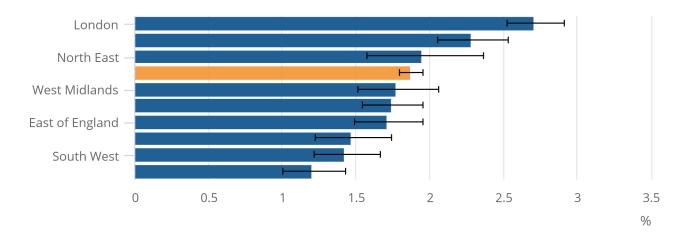
During the week ending 23 January 2021, London and the North West had the highest percentage of people testing positive. The lowest rates were in Yorkshire and The Humber.

Figure 4: London and the North West had the highest percentage of people testing positive in the week ending 23 January 2021

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs across regions, England, 20 January 2021 (reference point of the most recent week from modelling)

Figure 4: London and the North West had the highest percentage of people testing positive in the week ending 23 January 2021

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs across regions, England, 20 January 2021 (reference point of the most recent week from modelling)



Source: Office for National Statistics - Coronavirus (COVID-19) Infection Survey

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.

Trends over time vary substantially between regions and can be seen in Figure 5. The percentage of people testing positive in London, the North East, the West Midlands and the South East decreased during the week ending 23 January 2021. Rates in all other regions appear to be level. Caution should be taken in over-interpreting any small movements in the latest trend. The percentage of people testing positive by region was calculated using a similar modelling approach to the national daily estimates in Section 2: Number of people in England who had COVID-19.

The analysis is conducted over a six-week period, which means specific positive cases move into and then out of the sample. This causes variability between estimates over time, which is expected given the lower number of positive tests within each region, compared with England as a whole.

Figure 5: The percentage of people testing positive has decreased in London, the North East, the West Midlands and the South East in the most recent week

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs, daily, by region since 13 December 2020, England

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.

Download the data

.xlsx

Estimates for non-overlapping 14-day periods (which underpin our modelled estimates) for regions in England are available in our <u>dataset</u>, and are provided for context.

4 . Sub-regional analysis of the number of people in England who had COVID-19

The analysis in this section presents modelled estimates for the most recent week of data at the sub-regional level. In the data used to produce these estimates, the number of people sampled in each area who tested positive for the coronavirus (COVID-19) is lower relative to the England overall sample and the regional samples. This means there is a higher degree of uncertainty in the sub-regional estimates for this period and caution should be taken when interpreting or ranking these estimates, and the uncertainty of the estimates and wide credible intervals should be taken into account.

During the most recent period of the study (18 to 23 January 2021), the highest rates can be seen in areas in London and the North West. The lowest rates can be seen in areas in the West Midlands, the East of England and the South West.

Figure 6: Between 18 to 23 January 2021, the highest percentage testing positive were seen in areas in London and the North West

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs, by sub-regional geography, England, from modelling the most recent six days of data 18 to 23 January 2021

Notes:

- 1. These results are provisional and subject to revision.
- 2. All estimates are subject to uncertainty, given that a sample is only part of the wider population. The model used to provide these estimates is a Bayesian model: these provide 95% credible intervals. A credible interval gives an indication of the uncertainty of an estimate from data analysis. 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval.
- 3. Official reported estimates are plotted at a reference point believed to be most representative of the given week. Details of which day was used for each week can be found in the <u>dataset</u> that accompanies this bulletin.

Download the data

.xlsx

5. Age analysis of the number of people in England who had COVID-19

Our age categories separate children and young people by school age:

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

This means that 11- to 12-year-olds have been split between the youngest age categories depending on whether they are in school Year 6 or 7 (birthday before or after 1 September).

Similarly, 16- to 17-year-olds are split depending on whether they are in school Years 11 or 12 (birthday before or after 1 September).

In the week ending 23 January 2021, rates remained high but decreased in all ages, except age two years to school Year 6, which showed early signs of levelling off. School Year 7 to Year 11 showed a substantial decrease in recent weeks. Caution should be taken in over-interpreting small movements in the narrower age groups, which have wider credible intervals. This is based on statistical modelling of nose and throat swab test results.

In the data used to produce these estimates, the number of people sampled in the different age groups who tested positive for COVID-19 is lower relative to England overall. This means there is a higher degree of uncertainty in estimates for individual age groups over this period, as indicated by larger credible intervals.

Figure 7: The percentage of people testing positive has decreased in all ages except age two years to school Year 6 in the week ending 23 January 2021

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs, daily, by age group since 13 December 2020, England

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- 3. The trends shown in the modelled estimates are representative of England, but the scale is based on East Midlands as a reference region.

Download the data

.xlsx

Estimates for non-overlapping 14-day periods (which underpin our modelled estimates) by age group are available in our <u>dataset</u>, and are provided for context.

Currently in our main analysis, individuals in school Years 12 and 13 have been grouped with young adults up to age 24 years. We are considering the most appropriate category for these individuals to be grouped with for future bulletins.

6. Incidence rate in England

Incidence (the number of new infections in a set period of time), helps us understand the rate at which infections are growing within the population and supports our main measure of prevalence to provide a fuller understanding of the coronavirus (COVID-19). We have estimated incidence by directly measuring when a participant in our study who has previously tested negative, subsequently tests positive, and comparing this with the number of participants who remain negative.

When enrolled on the survey, participants are swabbed weekly for five weeks and then move to monthly swabbing. Increasing the Coronavirus (COVID-19) Infection Survey sample size to 150,000 participants per fortnight enabled the majority of participants to be swabbed weekly, providing us with regular and timely updates on the number of new infections and the "time at risk". The proportion swabbed monthly has now increased and we have reviewed our estimation of incidence, determining options that will adapt our approach to reflect changes in data capture and survey design. We committed to regular reviews of our methods and survey design as part of our ongoing quality assurance process to ensure our estimates remain of the highest quality possible and continue to meet our user needs. This review ensures we will continue to provide an accurate estimate of incidence and to make sure our statistics continue to be of high quality. We will confirm a date for publication of our reviewed estimates nearer the time.

7. Number of people in Wales who had COVID-19

During the week ending 23 January 2021¹, we estimate that 43,600 people in Wales had the coronavirus (COVID-19) (95% credible interval: 36,100 to 51,600). This equates to 1.43% (95% credible interval: 1.19% to 1.70%) of the population in Wales or around 1 in 70 people (95% credible interval: 1 in 85 to 1 in 60). The ratios are rounded to the nearest five. Our modelling suggests that the percentage of those testing positive has remained level over the week ending 23 January 2021. This is based on exploratory modelling of throat and nose swab results.

Because of the relatively small number of tests and a low number of positives in our sample, credible intervals are wide and therefore results should be interpreted with caution.

In the latest six-week period, there were 24,321 swab tests, and a total of 358 positive tests, in 312 people from 261 households. In the latest two-week period, there were 11,254 swab tests, and a total of 151 positive tests, in 149 people from 136 households.

Official estimates are our headline estimates and should be used to understand the positivity rate for a single point in time. This estimate, based on the modelled estimate for the latest week, is our best and most stable estimate and is used in all previous outputs. The modelled estimate can be used to understand the recent trend. The modelling includes a set period of data and smooths the estimate over time.

Figure 8: The percentage of those testing positive in Wales has remained level in the week ending 23 January 2021

Estimated percentage of the population in Wales testing positive for the coronavirus (COVID-19) on nose and throat swabs since 13 December 2020

Notes:

- 1. These results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- 3. All estimates are subject to uncertainty, given that a sample is only part of the wider population. The model used to provide these estimates is a Bayesian model: these provide 95% credible intervals. A credible interval gives an indication of the uncertainty of an estimate from data analysis. 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval.
- 4. Official reported estimates are plotted at a reference point believed to be most representative of the given week. Details of which day was used for each week can be found in the <u>dataset</u> that accompanies this bulletin.
- 5. Modelled estimates include all swab results that are available at the time the official estimates are produced. Additional swab tests that become available after this are included in subsequent models, meaning that modelled estimates can change slightly as additional data are included.
- 6. As there was no publication on 15 January 2021 there are no official estimates available for the week ending 9 January 2021. However, we have conducted some additional analysis to assess what the estimate may have been and have estimated it as 1.45% (95% credible interval: 1.15% to 1.78%).

Download the data

.xlsx

The estimates for non-overlapping 14-day periods (which underpin our modelled official estimates) are presented in Figure 9. These 14-day estimates are provided for context. The <u>dataset</u> that accompanies this bulletin includes the 14-day estimates and the unweighted sample counts. The 14-day time periods presented in Figure 9 overlap with those presented in the data tables in our previous publication, so direct comparisons are not possible.

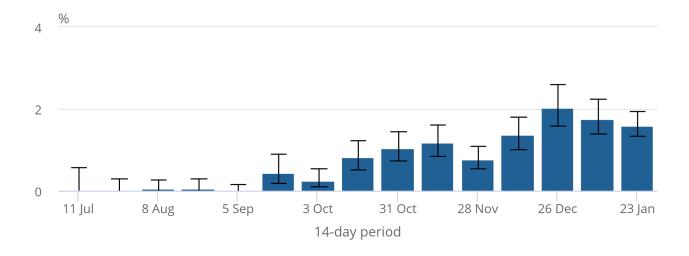
The percentage testing positive in Wales in the latest 14-day period (10 to 23 January 2021) was 1.60% (95% confidence interval: 1.32% to 1.92%).

Figure 9: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests that the percentage testing positive in Wales has remained level

Estimated percentage of the population in Wales testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 28 June 2020 and 23 January 2021

Figure 9: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests that the percentage testing positive in Wales has remained level

Estimated percentage of the population in Wales testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 28 June 2020 and 23 January 2021



Source: Office for National Statistics - Coronavirus (COVID-19) Infection Survey

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- Caution should be taken around using the 14-day estimate as averaging the percentage testing positive
 over the past 14-day period can mask changes in the percentage testing positive that have occurred over
 the most recent two weeks.

The Welsh Government also publishes results from this survey that describe COVID-19 infections in Wales in English and in Welsh.

Notes for: Number of people in Wales who had COVID-19

 This is based on model estimates from the reference point of the most recent week (17 to 23 January 2021), Wednesday 20 January 2021. More information on reference dates can be found in <u>Section 15:</u> <u>Measuring the data</u>.

8. Number of people in Northern Ireland who had COVID-19

During the week ending 23 January 2021¹, we estimate that 36,800 people in Northern Ireland had the coronavirus (COVID-19) (95% credible interval: 30,500 to 43,900). This equates to 2.01% (95% credible interval: 1.66% to 2.39%) of the population in Northern Ireland or around 1 in 50 people (95% credible interval: 1 in 60 to 1 in 40). The ratios in this bulletin are rounded to the nearest five. Our modelling suggests that in the week ending 23 January 2021, the percentage of people testing positive in Northern Ireland has levelled off. This is based on exploratory modelling of throat and nose swab results.

Because of the relatively small number of tests and a low number of positives in our sample, credible intervals are wide and therefore results should be interpreted with caution.

In the latest six-week period, there were 17,847 swab tests, and a total of 240 positive tests, in 209 people from 179 households. In the latest two-week period, there were 7,613 swab tests, and a total of 147 positive tests, in 136 people from 123 households.

Official estimates are our headline estimates and should be used to understand the positivity rate for a single point in time. This estimate, based on the modelled estimate for the latest week, is our best and most stable estimate and is used in all previous outputs. The modelled estimate can be used to understand the recent trend. The modelling includes a set period of data and smooths the estimate over time.

Figure 10: The percentage of people testing positive in Northern Ireland has levelled off in the week ending 23 January 2021

Estimated percentage of the population in Northern Ireland testing positive for the coronavirus (COVID-19) on nose and throat swabs since 13 December 2020

Notes:

- 1. These results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- 3. All estimates are subject to uncertainty, given that a sample is only part of the wider population. The model used to provide these estimates is a Bayesian model: these provide 95% credible intervals. A credible interval gives an indication of the uncertainty of an estimate from data analysis. 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval.
- 4. Official reported estimates are plotted at a reference point believed to be most representative of the given week. Details of which day was used for each week can be found in the <u>dataset</u> that accompanies this bulletin.
- 5. Modelled estimates include all swab results that are available at the time the official estimates are produced. Additional swab tests that become available after this are included in subsequent models, meaning that modelled estimates can change slightly as additional data are included.
- 6. As there was no publication on 15 January 2021 there are no official estimates available for the week ending 9 January 2021. However, we have conducted some additional analysis to assess what the estimate may have been and have estimated it as 1.20% (95% credible interval: 0.91% to 1.53%).

Download the data

.xlsx

The estimates for non-overlapping 14-day periods (which underpin our modelled official estimates) are presented in Figure 11. These 14-day estimates are provided for context. The data are also included in the accompanying dataset.

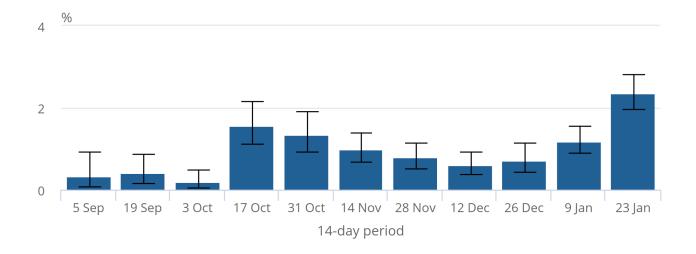
The percentage testing positive in Northern Ireland in the latest 14-day period (10 to 23 January 2021) was 2.35% (95% confidence interval: 1.95% to 2.82%).

Figure 11: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests that the percentage testing positive in Northern Ireland was 2.35%

Estimated percentage of the population in Northern Ireland testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 23 August 2020 and 23 January 2021

Figure 11: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests that the percentage testing positive in Northern Ireland was 2.35%

Estimated percentage of the population in Northern Ireland testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 23 August 2020 and 23 January 2021



Source: Office for National Statistics - Coronavirus (COVID-19) Infection Survey

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- Caution should be taken around using the 14-day estimate as averaging the percentage testing positive
 over the past 14-day period can mask changes in the percentage testing positive that have occurred over
 the most recent two weeks.

Notes for: Number of people in Northern Ireland who had COVID-19

 This is based on model estimates from the reference point of the most recent week (17 to 23 January 2021), Wednesday 20 January 2021. More information on reference dates can be found in <u>Section 15:</u> <u>Measuring the data</u>.

9. Number of people in Scotland who had COVID-19

During the week ending 23 January 2021¹, we estimate that 48,500 people in Scotland had the coronavirus (COVID-19) (95% credible interval: 41,900 to 55,700). This equates to 0.92% (95% credible interval: 0.79% to 1.06%) of the population in Scotland or around 1 in 110 people (95% credible interval: 1 in 125 to 1 in 95). The ratios in this bulletin are rounded to the nearest five. Our modelling suggests that in the week ending 23 January 2021, the percentage of people testing positive in Scotland remained level. This is based on exploratory modelling of throat and nose swab results.

Because of the relatively small number of tests and a low number of positives in our sample, credible intervals are wide and therefore results should be interpreted with caution.

In the latest six-week period, there were 64,892 swab tests, and a total of 569 positive tests, in 481 people from 425 households. In the latest two-week period, there were 25,125 swab tests, and a total of 237 positive tests, in 225 people from 194 households.

Official estimates are our headline estimates and should be used to understand the positivity rate for a single point in time. This estimate, based on the modelled estimate for the latest week, is our best and most stable estimate and is used in all previous outputs. The modelled estimate can be used to understand the recent trend. The modelling includes a set period of data and smooths the estimate over time.

Figure 12: The percentage testing positive in Scotland remained level in the week ending 23 January 2021

Estimated percentage of the population in Scotland testing positive for the coronavirus (COVID-19) on nose and throat swabs since 13 December 2020

Notes:

- 1. These results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- 3. All estimates are subject to uncertainty, given that a sample is only part of the wider population. The model used to provide these estimates is a Bayesian model: these provide 95% credible intervals. A credible interval gives an indication of the uncertainty of an estimate from data analysis. 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval.
- 4. Official reported estimates are plotted at a reference point believed to be most representative of the given week. Details of which day was used for each week can be found in the <u>dataset</u> that accompanies this bulletin.
- 5. Modelled estimates include all swab results that are available at the time the official estimates are produced. Additional swab tests that become available after this are included in subsequent models, meaning that modelled estimates can change slightly as additional data are included.
- 6. As there was no publication on 15 January 2021 there are no official estimates available for the week ending 9 January 2021. However, we have conducted some additional analysis to assess what the estimate may have been and have estimated it as 1.06% (95% credible interval: 0.88% to 1.27%).

Download the data

.xlsx

The estimates for non-overlapping 14-day periods (which underpin our modelled official estimates) are presented in Figure 13. These 14-day estimates are provided for context. The data are also included in the accompanying dataset.

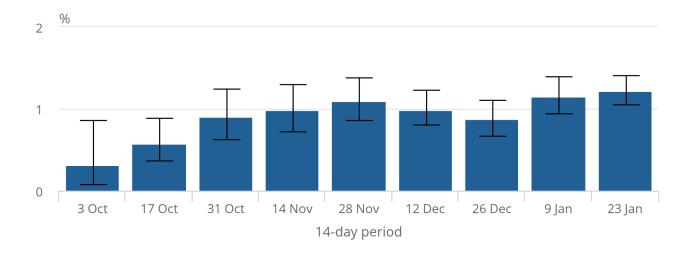
The percentage testing positive in Scotland in the latest 14-day period (10 to 23 January 2021) was 1.22% (95% confidence interval: 1.05% to 1.41%).

Figure 13: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests the percentage testing positive in Scotland remained level

Estimated percentage of the population in Scotland testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 20 September 2020 and 23 January 2021

Figure 13: The weighted fortnightly estimate to 23 January 2021 (which underpins our modelled official estimates) suggests the percentage testing positive in Scotland remained level

Estimated percentage of the population in Scotland testing positive for the coronavirus (COVID-19) by non-overlapping 14-day periods between 20 September 2020 and 23 January 2021



Source: Office for National Statistics - Coronavirus (COVID-19) Infection Survey

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- Caution should be taken around using the 14-day estimate as averaging the percentage testing positive
 over the past 14-day period can mask changes in the percentage testing positive that have occurred over
 the most recent two weeks.

Notes for: Number of people in Scotland who had COVID-19

 This is based on model estimates from the reference point of the most recent week (17 to 23 January 2021), Wednesday 20 January 2021. More information on reference dates can be found in <u>Section 15:</u> <u>Measuring the data</u>.

10. Positive tests that are compatible with the new UK variant

Swabs are tested for three genes present in the coronavirus: N protein, S protein and ORF1ab. Each swab can have any one, any two or all three genes detected. Positives are those where one or more of these genes is detected in the swab other than tests that are only positive on the S-gene, which is not considered a reliable indicator of the virus if found on its own.

The new UK variant of COVID-19 has genetic changes in the S-gene. This means the S-gene is no longer detected in the current test, and cases that would have previously been positive on all three genes are now positive only on the ORF1ab and the N-gene (not the S-gene).

There are also other reasons why a swab may be positive for only these two genes, including lower viral load in the sample, which is why we have always seen a small percentage of this type of positive result. Absence of the S-gene appears to have become a reliable indicator of the new UK variant from mid-November, based on the higher levels of virus in these type of positives after this date. Prior to that, the data should not be read as being an indicator of the variant. In contrast the South African variant has an S-gene that is detectable with the current test and will therefore be included in the other types of COVID-19. Which of the other types of COVID-19 are compatible with the South African variant cannot be identified from the swab PCR test alone.

There has recently been an increase in the percentage of positive cases where only the ORF1ab- and N-genes were found and a decrease in the percentage of cases with all three genes. We can use this information to approximate the growth of the new UK variant.

Data should be treated with caution. In particular, there are small numbers of positives detected in Wales, Northern Ireland and Scotland leading to considerable uncertainty surrounding these estimates. There are further uncertainties given that not all cases that are positive on the ORF1ab- and N-genes will be the new variant.

Percentage of people testing positive that are compatible with the new UK variant and other variants

This analysis was produced by Sarah Walker at the University of Oxford and looks at the percentage of positive tests which are compatible with the new variant of the virus across the UK.

We have improved our reporting of infections by different gene combinations. Our blog has further details.

This analysis looks at the percentage of people in the population testing positive for COVID-19 that are compatible with the new UK variant, those that test positive but are not compatible with the new variant and those that test positive but where the virus is too low to be identifiable as either the new or existing variants of COVID-19. Cases that are classified as not identifiable are usually those where individuals have had the virus for a longer period of time. This means that increases in this group are consistent with an increase in infections acquired a longer time ago. This therefore is also consistent with an overall decrease in the total rate of new infections.

In England, trends in new variant compatible positives varied substantially by region. At the national level the percentage of people testing positive with strains of the virus that were either compatible with or clearly not compatible with the new variant decreased in the week ending 23 January 2021. The number of positives where the virus was too low for the variant to be identifiable has increased in recent weeks.

In Wales, the percentage of people testing positive that were compatible with the new variant has levelled off in the week ending 23 January 2021. The percentage of people testing positive that were not compatible with the new variant has decreased in the most recent week, while the rate of cases where the virus was too low for the variant to be identifiable has increased in recent weeks.

In Northern Ireland, the percentage of people testing positive that were compatible with the new variant has remained stable in the week ending 23 January 2021. The percentage of people testing positive that were not compatible with the new variant has decreased in the most recent week, while the rate of cases where the virus was too low for the variant to be identifiable increased in recent weeks.

In Scotland, both the percentage of people testing positive that were compatible with the new variant and those that were not compatible with the new variant have decreased in the week ending 23 January 2021. The percentage of people testing positive where the virus was too low for the variant to be identifiable has increased in recent weeks.

For the Devolved Administrations, credible intervals are wide and the sample sizes relatively small, meaning there is greater uncertainty in these figures. Caution should be taken in over-interpreting any small movements in these latest trends.

Figure 14: In the week ending 23 January 2021, the percentage testing positive and compatible for the new variant decreased in England and Scotland

Modelled percentage of cases that are compatible with the new variant, not compatible with the new variant and where the virus was too low for the variant to be identifiable based on nose and throat swabs, daily, by country since 13 December 2020, UK

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- Data should be treated with caution. In particular, there are small numbers of positives detected in Wales, Northern Ireland and Scotland leading to considerable uncertainty surrounding these estimates. There are further uncertainties given that not all cases that are positive on the ORF1ab- and N-genes will be the new variant.
- 4. New variant compatible positives are defined as those that are positive on the N-gene and ORF1ab-gene, but not the S-gene. Positives that are not compatible with the new variant are defined as those that are positive on the S-gene, N-gene and ORF1ab-gene. Positives where the virus is too low for the variant to be identifiable are defined as those that are positive with all other gene patterns. These definitions are regardless of cycle threshold (Ct) value.

Download the data

.xlsx

Figure 15 shows that in the week ending 23 January 2021, cases that are compatible with the new variant increased in the East Midlands. Rates are relatively stable or declining in all other regions. Cases that are clearly not compatible with the new variant are decreasing in all regions. Rates of cases where the virus was too low for the variant to be identifiable increased in almost all regions.

Figure 15: In the week ending 23 January 2021, cases compatible with the new variant of the virus increased in the East Midlands

Modelled percentage of cases that are compatible with the new variant, not compatible with the new variant and where the virus was too low for the variant to be identifiable based on nose and throat swabs, daily, by country since 13 December 2020, UK

Notes:

- 1. All results are provisional and subject to revision.
- 2. These statistics refer to infections reported in the community, by which we mean private households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
- 3. Data should be treated with caution. There are small numbers of positives detected leading to considerable uncertainty surrounding these estimates. There are further uncertainties given that not all cases that are positive on the ORF1ab- and N-genes will be the new variant.
- 4. New variant compatible positives are defined as those that are positive on the N-gene and ORF1ab-gene, but not the S-gene. Positives that are not compatible with the new variant are defined as those that are positive on the S-gene, N-gene and ORF1ab-gene. Positives where the virus is too low for the variant to be identifiable are defined as those that are positive with all other gene patterns. These definitions are regardless of cycle threshold (Ct) value.

Download the data

.xlsx

11. Test sensitivity and specificity

The estimates provided in <u>Section 2</u>, <u>Section 7</u>, <u>Section 8</u>, <u>Section 9</u> and <u>Section 10</u> are for the percentage of the private-residential population testing positive for the coronavirus (COVID-19), otherwise known as the positivity rate. We do not report the prevalence rate. To calculate the prevalence rate, we would need an accurate understanding of the swab test's sensitivity (true-positive rate) and specificity (true-negative rate).

While we do not know the true sensitivity and specificity of the test, our data and related studies provide an indication of what these are likely to be. In particular, the data suggest that the false-positive rate is very low, under 0.005%. We do not know the sensitivity of the swab test. However, other studies suggest that sensitivity may be somewhere between 85% and 98%.

To understand the potential impact of false-positives and false-negatives, we can estimate what the prevalence would be for various different observed positivity rates under different assumptions about the test sensitivity and specificity. We do this using Bayesian analysis to calculate what prevalence would be in two different scenarios, one with medium sensitivity and the other with low sensitivity, and both with the same specificity. We can do this for any observed positivity rate.

As an example, the weighted fortnightly estimate for England between 1 and 14 November was 1.27% (95% credible interval: 1.21% to 1.33%). Under a scenario where test sensitivity is between 85% and 95%, and test specificity is between 98.5% and 100%, the weighted fortnightly estimate for England between 1 to 14 November would be 1.39% (95% credible interval: 1.27% to 1.53%). In the unlikely situation where test sensitivity was lower, between 45% and 75%, the weighted fortnightly estimate for England between 1 to 14 November would be 2.11% (95% credible interval: 1.71% to 2.80%).

You can find more information on <u>sensitivity and specificity in our methods article</u>. You can find more information on the data suggesting that our test's false-positive rate is very low in a <u>paper written by academic partners</u> at the University of Oxford.

12 . COVID-19 Infection Survey data

Coronavirus (COVID-19) Infection Survey

Dataset | Released 29 January 2021

Findings from the Coronavirus (COVID-19) Infection Survey, UK.

13. Collaboration

The Coronavirus (COVID-19) Infection Survey analysis was produced by the Office for National Statistics (ONS) in collaboration with our research partners at the University of Oxford, the University of Manchester, Public Health England (PHE) and Wellcome Trust. Of particular note are:

- Sarah Walker University of Oxford, Nuffield Department for Medicine: Professor of Medical Statistics and Epidemiology and Study Chief Investigator
- Koen Pouwels University of Oxford, Health Economics Research Centre, Nuffield Department of Population Health: Senior Researcher in Biostatistics and Health Economics
- Thomas House University of Manchester, Department of Mathematics: Reader in Mathematical Statistics

14. Glossary

Community

In this bulletin, we refer to the number of coronavirus (COVID-19) infections within the community. Community in this instance refers to private households, and it excludes those in hospitals, care homes and/or other institutional settings.

Confidence interval

A confidence interval gives an indication of the degree of uncertainty of an estimate, showing the precision of a sample estimate. The 95% confidence intervals are calculated so that if we repeated the study many times, 95% of the time the true unknown value would lie between the lower and upper confidence limits. A wider interval indicates more uncertainty in the estimate. Overlapping confidence intervals indicate that there may not be a true difference between two estimates. For more information, see our methodology page on statistical uncertainty.

Credible interval

A credible interval gives an indication of the uncertainty of an estimate from data analysis. 95% credible intervals are calculated so that there is a 95% probability of the true value lying in the interval.

False-positives and false-negatives

A false-positive result occurs when the tests suggest a person has COVID-19 when in fact they do not. By contrast, a false-negative result occurs when the tests suggest a person does not have COVID-19 when in fact they do. For more information on false-positives and false-negatives, see our methods article.

Incidence rate

The incidence rate is an estimate of how often new cases of COVID-19 occur over a given period of time. In our study, we have previously calculated this by dividing the number of times a person has a positive test for the first time in the study, having first tested negative, by the total time everyone is in the study. We included the time people are in the study between successive negative tests for those who never have a positive test and the time up to halfway (or maximum of seven days, whichever is later) between their last negative and first positive test for those who have a positive test. This reflects the fact that we do not actually know when a person first becomes positive, only when we tested them. People who are positive when they join the study are not included in this calculation. We are currently reviewing our methods for calculating incidence as part of our ongoing quality assurance process.

15. Measuring the data

Data presented in this bulletin come from the Coronavirus (COVID-19) Infection Survey, which looks to identify the percentage of the population testing positive for COVID-19 and whether they have symptoms or not. The survey helps track the current extent of infection and transmission of COVID-19 among the population as a whole. This section of the bulletin provides a short summary of the study data and data collection methods. Our methodology article provides further information around the survey design, how we process data and how data are analysed. The study protocol specifies the research for the study.

Reference dates

We aim to provide the estimates of positivity rate (the percentage of those who test positive) and incidence that are most timely and most representative of each week. We decide the most recent week we can report on based on the availability of test results for visits that have already happened, accounting for the fact that swabs have to be couriered to the labs, tested and results returned. On most occasions, the reference data align perfectly, but sometimes this is not feasible. This week, the reference week is 17 to 23 January 2021.

Within the most recent week, we provide an official estimate for positivity rate based on a reference point from the modelled trends. For positivity rates, we can include all swab test results, even from the most recent visits. Therefore, although we are still expecting further swab test results from the labs, there is sufficient data for the official estimate for infection to be based on a reference point after the start of the reference week. To improve stability in our modelling while maintaining relative timeliness of our estimates, we are reporting our official estimates based on the midpoint of the reference week. This week, the reference day for positivity rates is Wednesday 20 January 2021.

Response rates

At the beginning of the survey, our sample was largely made up of people in England who have taken part in previous Office for National Statistics (ONS) surveys and had agreed to future contact regarding research. We initially invited 20,276 households, and then a further 91,143 in extension weeks. Of those households invited, 44% have provided at least one swab. The likelihood of enrolment decreases over time and response rate information for those initially asked to take part in these first two phases can be considered as relatively final.

In England, we expanded our sampling at the end of July to invite a random sample of households from a list of addresses. As we have expanded, we reached out across the country to enrol new households; this different approach will affect response rates. The number of households invited to participate in the survey in this expansion in England, as of 23 January 2021, was 923,090, of which 14% of households have provided a swab so far, increasing the total number of households in England that have provided at least one swab to 175,280 to date.

Response rates for these expansion weeks cannot be regarded as final response rates to the survey since those who are invited are not given a time limit in which to respond, and should not be compared with response rates for those that have taken part in a previous survey, as this is a different mode of sampling. The total number of households invited will contain households for which the mail was undeliverable and therefore could not respond.

Fieldwork began in Wales on 29 June, and the number of households initially invited to participate was 15,967, of which 33% have provided at least one swab so far. The initial sample was made up of people who had taken part in previous ONS surveys and had agreed to future contact regarding research. At the beginning of October, the survey in Wales was expanded to invite a random sample of households from a list of addresses, and as of 23 January 2021, a further 37,845 households have been invited, of which 11% of households have provided at least one swab so far.

Fieldwork began in Northern Ireland on 26 July, and as of 23 January 2021, 13,297 households in Northern Ireland have been invited to participate, of which 41% of households have provided at least one swab so far. The initial sample was made up of people who had taken part in previous ONS and Northern Ireland Statistics and Research Agency (NISRA) surveys and had agreed to future contact regarding research.

Fieldwork began in Scotland on 21 September, and as of 23 January 2021, the number of households invited to participate in the survey in Scotland, was 137,255 of which 11% have provided at least one swab. This initial sample is taken from a random sample of households from a list of addresses.

Response rates for Wales, Northern Ireland and Scotland cannot be regarded as final response rates to the survey since those who are invited are not given a time limit in which to respond; and different modes of sampling are not comparable. Since the survey began, we have taken over 2.6 million swabs from participants across the UK.

Response rates for each nation are found in the <u>dataset</u> that accompanies this bulletin. We provide response rates separately for the different sampling phases of the study.

Coverage

Survey fieldwork for the pilot study began in England on 26 April 2020. Survey fieldwork in Wales began on 29 June, and since 7 August we have reported headline figures for Wales. Survey fieldwork began in Northern Ireland on 26 July and since 25 September we have reported headline figures for Northern Ireland. Survey fieldwork in Scotland began on 21 September, and we have reported headline figures for Scotland since 23 October.

Only private residential households, otherwise known as the target population in this bulletin, are included in the sample. People in hospitals, care homes and/or other institutional settings are not included.

The overall target population for England used in this study is 54,524,766. The overall target population for Wales used in the study is 3,039,465. The overall target population for Northern Ireland used in the study is 1,834,846. The overall target population for Scotland used in the study is 5,264,705.

Sub-regional geographies

We have presented modelled estimates for the most recent week of data at the sub-regional level. To balance the granularity with the statistical power, we have grouped together groups of local authorities into COVID-19 Infection Survey sub-regions. The geographies are a rules-based composition of local authorities, and local authorities with a population over 200,000 have been retained where possible.

The boundaries for these COVID-19 Infection Survey sub-regions can be found on the Open Geography Portal.

Analysing the data

All estimates presented in this bulletin are provisional results. As swabs are not necessarily analysed in date order by the laboratory, we have not yet received test results for all swabs taken on the dates included in this analysis. Estimates may therefore be revised as more test results are included.

We continue to develop our analysis methods, and these quality enhancements may lead to minor changes in estimates, for example, the positive test counts across the study period.

We are giving increasing prominence to the weighted estimates to ensure we are giving appropriate visibility to all available indicators.

Other CIS analysis

Our recent release, <u>Coronavirus (COVID-19) Infection Survey: antibody data for the UK: January 2021</u>, includes analysis on the likelihood of testing positive for COVID-19 antibodies in England, Wales, Northern Ireland and Scotland.

We have also provided more detailed analysis on the characteristics and behaviours of those with COVID-19 in our recent article, Coronavirus (COVID-19) Infection Survey: characteristics of people testing positive for COVID-19 in England and antibody data for the UK: January 2021, including the percentage testing positive by patient facing job roles and age, symptoms profile by cases compatible with the new UK variant and other positive cases, social and physical distanced contacts and the positivity by youth employment status.

Laboratory confirmed cases in the UK

Public Health England (PHE) presents data on the total number of <u>laboratory-confirmed cases in the UK</u>, which capture the cumulative number of people in the UK who have tested positive for COVID-19. These statistics present all known cases of COVID-19, both current and historical, for the UK, and by nation, by regions of England, and because of the large sample size, by local authority. Further information can be found on the <u>Coronavirus Dashboard</u>. A summary for each nation: <u>England</u>, <u>Wales</u>, <u>Northern Ireland</u> and <u>Scotland</u> is also available.

Testing and tracing systems

Each nation of the UK has a testing and tracing system: for England, Wales, Northern Ireland and Scotland. These ensure that anyone who develops symptoms of COVID-19 can quickly be tested to find out if they have the virus. Some nations also include targeted asymptomatic testing of NHS and social care staff and care home residents. Additionally, it helps trace close recent contacts of anyone who tests positive for COVID-19 and, if necessary, notify them that they must self-isolate. We have recently published an article that compares the methods used in the COVID-19 Infection Survey and NHS Test and Trace in England.

In comparison with Public Health data and Testing and Tracing data, the statistics presented in this bulletin take a representative sample of the community population (those in private residential households), including people who are not otherwise prioritised for testing. This means that we can estimate the number of people in the community population with COVID-19 who do not report any evidence of symptoms.

Other studies

This study is one of a number of studies that look to provide information around the coronavirus pandemic within the UK.

COVID Symptom Study (ZOE app and King's College London), UK

The <u>COVID Symptom Study app</u> allows users to log their health each day, including whether or not they have symptoms of COVID-19. The study aims to predict which combination of symptoms indicate that someone is likely to test positive for COVID-19. The app was developed by the health science company ZOE with data analysis conducted by King's College London. Anyone over the age of 18 years can download the app and take part in the study. Respondents can report symptoms of children.

The study estimates the total number of people with symptomatic COVID-19 and the daily number of new cases of COVID-19 based on app data and swab tests taken in conjunction with the Department of Health and Social Care (DHSC). The study investigates the "predictive power of symptoms", and so the data do not capture people who are infected with COVID-19 but who do not display symptoms.

Unlike the data presented in this bulletin, the COVID Symptom Study is not a representative sample of the population. It is reliant on app users and so captures only some cases in hospitals, care homes and other communities where few people use the app. To account for this, the model adjusts for age and deprivation when producing UK estimates. The larger sample size allows for <u>detailed geographic breakdown</u>.

Real-time Assessment of Community Transmission-1 and -2 (REACT-1 and -2), England

Like our study, the Real-time Assessment of Community Transmission-1 REACT-1 survey, led by Imperial College London, involves taking swab samples to test for COVID-19 antigens to estimate the prevalence and transmission of the virus that causes COVID-19 in the community. Each round of the study currently involves around 160,000 participants aged five years and over, selected from a random cross-section sample of the general public from GP registration data. Trends in infection by characteristics, such as age, sex, ethnicity, symptoms and key worker status, are also possible through the study. Here are the latest REACT findings from 28 January 2021.

One of the main differences from our COVID-19 Infection Survey is that the REACT surveys do not require followup visits, as the study is interested primarily in prevalence at a given time point. Consequently, the incidence rate cannot be calculated from the REACT studies.

In addition, the <u>REACT-2 study</u> uses antibody finger-prick tests to track past infections and monitor the progress of the pandemic. Estimates in this bulletin and the REACT study use different tests and different methods, for example, the REACT estimates are based on self-administered and self-read finger prick tests, whereas tests in this survey are carried out by a trained nurse, phlebotomist or healthcare assistant.

PHE surveillance

PHE also publish an estimate of the <u>prevalence of antibodies in the blood</u> in England using blood samples from healthy adult blood donors. PHE provide estimates by region and currently do not scale up to England. Estimates in this bulletin and those published by PHE are based on different tests; PHE estimates are based on testing using the Euroimmun assay method, while blood samples in our survey are tested for antibodies by research staff at the University of Oxford using a novel ELISA. For more information about the antibody test used in this bulletin, see the <u>COVID-19 Infection Survey protocol</u>.

16 . Strengths and limitations

These statistics have been produced quickly in response to developing world events. The Office for Statistics Regulation, on behalf of the UK Statistics Authority, has <u>reviewed them</u> against several important aspects of the <u>Code of Practice for Statistics</u> and regards them as consistent with the Code's pillars of <u>trustworthiness</u>, <u>quality</u> and <u>value</u>.

The estimates presented in this bulletin contain <u>uncertainty</u>. There are many sources of uncertainty, including uncertainty in the test, in the estimates and in the quality of data collected in the questionnaire. Information on the main sources of uncertainty are presented in <u>our methodology article</u>.

17 . Related links		

COVID-19 Infection Survey (Pilot): methods and further information

Methodology article | Updated 21 September 2020

Information on the methods used to collect the data, process it, and calculate the statistics produced from the Coronavirus (COVID-19) Infection Survey (pilot).

Coronavirus (COVID-19) Infection Survey: characteristics of people testing positive for COVID-19 in England and antibody data for the UK: 27 January 2021

Article | Released 27 January 2021

Characteristics of people testing positive for COVID-19 from the Coronavirus (COVID-19) Infection Survey, including antibody data by UK country, and region for England. Includes the percentage testing positive by patient facing job roles and age, symptoms profile by cases compatible with the new UK variant and other positive cases, social and physical distanced contacts and the positivity by youth employment status. This survey is being delivered in partnership with University of Oxford, University of Manchester, Public Health England and Wellcome Trust.

Coronavirus (COVID-19) Infection Survey: antibody data for the UK: January 2021

Article | Released 19 January 2021

Antibody data from the Coronavirus (COVID-19) Infection Survey on the likelihood of testing positive for COVID-19 antibodies in England, Wales, Northern Ireland and Scotland. This survey is being delivered in partnership with University of Oxford, University of Manchester, Public Health England and Wellcome Trust.

Coronavirus (COVID-19) weekly insights: latest health indicators in England

Article | Updated weekly

Brings together data about the coronavirus (COVID-19) pandemic in England and explores how these measures interact with each other can improve understanding of the severity and spread of the pandemic.

Coronavirus (COVID-19) latest data and analysis

Web page | Updated as and when data become available

Latest data and analysis on the coronavirus pandemic in the UK and its effect on the economy and society.

Coronavirus (COVID-19) roundup

Web page | 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.

Deaths registered weekly in England and Wales, provisional

Bulletin | Updated weekly

Provisional counts of the number of deaths registered in England and Wales, including deaths involving COVID-19, by age, sex and region, in the latest weeks for which data are available.

Comparing methods used in the Coronavirus (COVID-19) Infection Survey and NHS Test and Trace, England: October 2020

Article | Released 6 October 2020

The methods used in the COVID-19 Infection Survey and NHS Test and Trace in England and why the data cannot be directly compared.

New survey results provide first snapshot of the current number of COVID-19 infections in England

Blog | Released 14 May 2020

A large study jointly led by the Office for National Statistics (ONS), in partnership with the Universities of Oxford and Manchester, Public Health England (PHE), and Wellcome Trust, is tracking infections within a representative sample of people of all ages across England. This blog explains what these mean, why they are important and how to compare this survey with other COVID-19 estimates.

COVID-19 Infection Survey

Article | Updated 14 May 2020

Whether you have been invited to take part, or are just curious, find out more about our COVID-19 Infection Survey and what is involved.

Coronavirus (COVID-19) latest insights

Interactive tool | Updated as and when data become available

Explore the latest data and trends about the coronavirus (COVID-19) pandemic from the ONS and other official sources.

Coronavirus and higher education students: England

Bulletin | updated weekly

Experimental statistics from a pilot of the Student COVID-19 Insights Survey in England. Includes information on the behaviours, plans, opinions and well-being of higher education students in the context of guidance on the coronavirus (COVID-19) pandemic.

The prevalence of long COVID symptoms and COVID-19 complications

Article | Released 16 December 2020

The Office for National Statistics (ONS) has announced plans for estimating the prevalence of, and risk factors for, "long COVID" symptoms and health complications following coronavirus (COVID-19) infection. An initial set of early experimental results has also been released.