Office for National Statistics

Article

Coronavirus (COVID-19) weekly insights: latest health indicators in England, 22 January 2021

This article brings together latest coronavirus (COVID-19) data in England. Exploring how these measures interact with each other can improve understanding of the severity and spread of the pandemic. This weekly summary gives an overview of the current situation and explores variations for different age groups and regions.

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1 . Main points

- Infection rates have decreased slightly but remain high, with 1 in 55 (1.88%) of the population estimated to have the coronavirus (COVID-19) in the week ending 16 January 2021 (Coronavirus (COVID-19) Infection Survey (CIS)).
- The percentages of cases compatible with the new variant of COVID-19 decreased in London, East of England and South East and have generally levelled off in other regions (week ending 16 January 2021, CIS).
- The rate of confirmed COVID-19 patients admitted to hospital remained high at 35.2 per 100,000 people in the week ending 17 January 2021, more than twice the rate seen in the week ending 6 December 2020 (13.3 per 100,000 people).
- In the week ending 8 January 2021, the number of registered deaths involving COVID-19 in England increased.
- Deaths involving COVID-19 represented 33.9% of all deaths in England compared with 30.4% in the previous week (ending 1 January 2021).
- Around 1 in 8 people (12.1%) had antibodies in December 2020, more than double the proportion seen in September 2020 (5.7%) (CIS).
- Well-being scores for life satisfaction, feeling that things done in life are worthwhile and happiness remained at some of the lowest levels recorded since March 2020 (Opinions and Lifestyle Survey, Great Britain, 13 to 17 January 2021).
- Around 1 in 14 (7%) adults reported they had already received at least one dose of COVID-19 vaccination (Opinions and Lifestyle Survey, Great Britain, 13 to 17 January 2021).
- Of those who had not already received or been offered the vaccine, the proportion who said they would be likely to have the vaccine if offered increased with age, from 81% of those aged 16 to 29 years to 98% of those aged 70 years and over.

Last week, we identified some differences between laboratories' recording of results and further quality assurance was necessary before publication of the latest COVID-19 Infection Survey statistics. Because of this we did not publish the Coronavirus weekly insights article. The data from these tests have now been reviewed and our final analysis has been adjusted.

2 . Overview

In this weekly summary, we present the main findings from the latest coronavirus (COVID-19) data for England. This article is a collaboration between the Office for National Statistics (ONS), Joint Biosecurity Centre (JBC) and Public Health England (PHE).

In England, infections, hospitalisations and deaths started increasing in December 2020. The infection and hospital admission rates remain high and the number of deaths involving COVID-19 has increased in the most recent week. Cases compatible with the new variant of COVID-19 have decreased but continue to account for the majority of positive cases in England. Despite recent increases most people do not have antibodies to COVID-19, suggesting most of the population is still vulnerable to infection.

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.

3 . Infections, hospital admissions and deaths

New coronavirus (COVID-19) infections and hospital admissions started increasing in December 2020. Infection rates remain high, despite a slight decrease in the week ending 16 January 2021. The hospital admission rate stayed similar to the previous week. The number of registered deaths involving COVID-19 increased in the most recent week (ending 8 January). However, as the number of deaths registered in England and Wales has been impacted by bank holidays in recent weeks, this trend should be interpreted with caution.

There is a period of time between a person becoming infected with COVID-19 and being admitted to hospital or dying because of it. Therefore, we expect to see a delay between a change in infection levels and corresponding changes in the numbers of hospital admissions and deaths.

Figure 1: Infection rates and hospital admissions remain high, deaths involving COVID-19 have increased

Estimated COVID-19 positivity rates, hospital admissions and number of deaths, England, 1 August 2020 to 17 January 2021

Notes:

1. All figures are provisional and subject to revision.
2. Infection statistics refer to infections reported in the community, by which we mean residential households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
3. Figures exclude deaths of non-residents.
4. Based on date a death was registered rather than occurred.
5. The International Classification of Diseases, 10th edition (ICD-10) definitions are as follows: coronavirus (COVID-19) (U07.1 and U07.2).
6. We use the term “involving COVID-19” when referring to deaths that had COVID-19 mentioned anywhere on the death certificate, whether as an underlying cause or not.

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The Coronavirus (COVID-19) Infection Survey (CIS) estimated that 1,023,700 people in England had COVID-19 between 10 and 16 January 2021. This is equal to about 1 in 55 people or 1.88% of the population. The percentage of people testing positive (positivity rate) has decreased slightly in recent weeks but remains more than twice as high as in the first week of December (ending 5 December 2020), when 0.88% of the population tested positive.

The Real-time Assessment of Community Transmission (REACT) study estimated 1.58% of the population to be infected between 6 and 15 January 2021. Both REACT and CIS show similar trends over time, with positivity rates much higher than in the beginning of December.

CIS and REACT both estimate how many infections there are in the community, although they use different methods. For more information see Data sources and quality.

Figure2:Coronavirus(COVID-19)Infection Survey(CIS)and Real-time Assessment of Community Transmission (REACT) study show similar trends over time

Estimated percentage of community population testing positive for COVID-19,3 May 2020 to 16 January 2021, 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. CIS estimates until 5 July arefortnightly weighted estimated and after thatdatethey are weekly modelled estimates.

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In the week ending 17 January 2021, confirmed COVID-19 hospital admission rates remained high at 35.2 per 100,000 people compared with 35.5 in the previous week (ending 10 January 2021). This is more than twice the rate seen in the week ending 6 December 2020 (13.3 admissions per 100,000 people). The number of COVID-19 patients being admitted to intensive care units (ICU) and high-dependency units (HDU) also remained high in the latest week, unchanged from the previous week at 2.4 per 100,000 people.

Proportion of deaths involving COVID-19 in England increased from the previous week

The number of deaths involving COVID-19 in England increased by 97.7% to 5,597 in the week ending 8 January 2021. However, this sharp increase may in part be because of deaths in the previous weeks whose registrations were delayed because of the Boxing Day and New Year Bank Holidays. Deaths involving COVID-19 represented 33.9% of all deaths in England compared with 30.4% in the previous week (ending 1 January 2021).

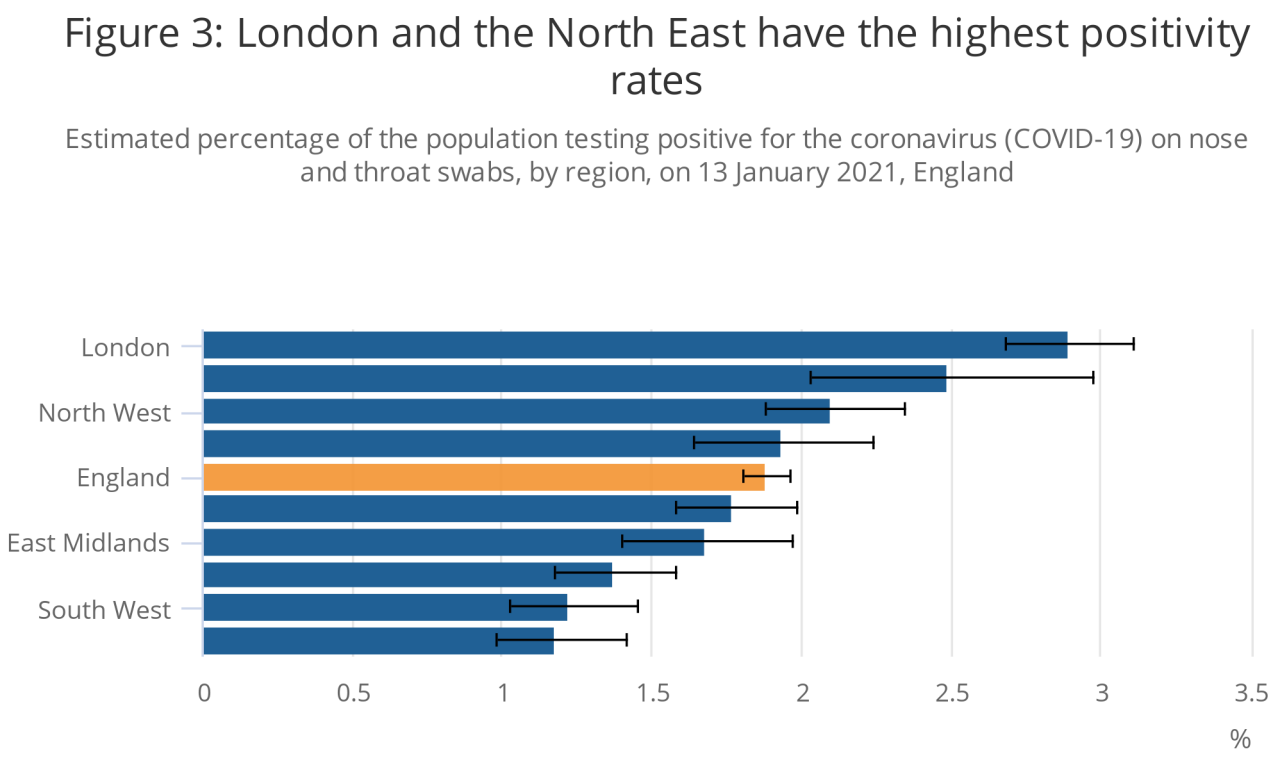
4 . Regional differences

The percentage of people testing positive decreased in London, the South East, the East Midlands, the East of England and Yorkshire and The Humber since the beginning of January 2021 (CIS). In the South West, the North East and the West Midlands, the percentage of people testing positive has increased since the start of January 2021. However, rates in the North East and the West Midlands have levelled off in the week ending 16 January 2021.

Despite the decrease London still has the highest positivity rate among English regions (2.89%), followed by the North East (2.49%). The South West (1.22%) and Yorkshire and The Humber (1.18%) have the lowest proportions of people testing positive.

Figure 3: London and the North East have the highest positivity rates

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs, by region, on 13 January 2021, England



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.

3. Infection estimates are given for the reference date: 13 January 2021.

Hospital admission rates increased in most English regions

In the week ending 17 January 2021, confirmed COVID-19 hospital admission rates increased in most regions of England, except for in London, East of England and the South East, where the rates decreased.

The highest admission rates in the week ending 17 January have been in the West Midlands, which recorded a rate of 46.3 per 100,000 people. Yorkshire and The Humber recorded the lowest hospital admission rates in the most recent week, at 20 per 100,000 people. The North East saw the largest increase in admission rates, rising to 36.3 from 25.8 per 100,000 people in the previous week (ending 10 January).

Figure 4: Hospital admissions and deaths involving COVID-19 by region

Change in hospital admission rates and numbers of deaths involving COVID-19 from previous week, England, weeks ending 17 and 8 January 2021

Notes:

1. All figures are provisional and subject to revision.
2. Figures exclude deaths of non-residents.
3. Based on date a death was registered rather than occurred.
4. The International Classification of Diseases, 10th edition (ICD-10) definitions are as follows: coronavirus (COVID-19) (U07.1 and U07.2).
5. We use the term “involving COVID-19” when referring to deaths that had COVID-19 mentioned anywhere on the death certificate, whether as an underlying cause or not.

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The South East had the highest number of deaths involving COVID-19

Deaths involving COVID-19 increased in the week ending 8 January 2021 in all English regions, with the largest increase seen in the South East. The South East had the highest number of deaths involving COVID-19 (1,197 deaths).

5 . Age differences

The percentage of people testing positive has decreased in secondary school children and those aged 35 years and above (week ending 16 January 2021, Coronavirus Infection Survey (CIS)). Positivity rates levelled off in those between school year 12 and age 34 years in the most recent week. The percentage of positive tests was highest in young adults from school Year 12 to age 24 years (2.72%) and lowest in adults aged 70 years and over (0.87%).

Hospital admission rates have decreased for most age groups

Even though more young people have been infected, hospital admissions and deaths involving the coronavirus (COVID-19) are highest among those aged over 65 years. Of more than 82,200 deaths involving COVID-19 in England to date, almost 90% were among people aged 65 years and over.

Hospital admissions decreased among most age groups in the week ending 17 January 2021. The largest rise in admission rates was seen among those aged 85 years and over, where 298.7 per 100,000 people were admitted to hospital, up from 294.3 in the previous week (ending 10 January 2021). This is almost 30 times the rate among those aged 15 to 44 years. Rates have been the highest among those aged over 85 years throughout the pandemic. The hospital admission rate is lowest among children aged between 5 and 14 years, at 1 per 100,000 people.

In the week ending 8 January 2021, the number of deaths involving COVID-19 in England increased in all age groups compared with the previous week, except those aged under 1 year, which had no deaths. The biggest increase was seen in those aged 85 years and over, with 1,073 more deaths than the previous week.

Figure 5: COVID-19 infections, hospital admissions and deaths by age

Estimated percentage of the population testing positive for COVID-19 in the week ending 16 January 2021, hospital admission rates in the week ending 17 January 2021 and deaths registered in the week ending 8 January 2021, by age, England

Notes:

1. All figures are provisional and subject to revision.
2. Infection statistics refer to infections reported in the community, by which we mean residential households. These figures exclude infections reported in hospitals, care homes and/or other institutional settings.
3. Infection statistics are based on statistical modelling conducted by CIS research partners at the University of Oxford.
4. Infection estimates are given for the reference date: 13 January 2021.
5. Figures exclude deaths of non-residents.
6. Based on date a death was registered rather than occurred.
7. The International Classification of Diseases, 10th edition (ICD-10) definitions are as follows: coronavirus (COVID-19) (U07.1 and U07.2).
8. We use the term “involving COVID-19” when referring to deaths that had COVID-19 mentioned anywhere on the death certificate, whether as an underlying cause or not.

6 . New variant of COVID-19

A new genetic variant of the coronavirus (COVID-19) was identified in the UK in December 2020. Positivity rates for cases compatible with the new variant increased sharply in December. At the national level, rates of new variant compatible positives appear to have decreased in the most recent week (Coronavirus Infection Survey (CIS), 10 January to 16 January 2021). New variant compatible positives continue to show higher rates than other positives. For more information on the new variant, see Glossary.

Figure 6: Positivity rate for cases compatible with the new variant has decreased in England

Modelled percentage of cases which are compatible with the new variant (ORF1ab- and N-gene positive) and other variants of coronavirus (COVID-19) on nose and throat swabs, daily, since 6 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. Data should be interpreted with caution. There is uncertainty given that not all cases that are positive for genes compatible with the new variant 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, regardless of cycle threshold (Ct) value.

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Rates in the three regions with the highest percentages of positives compatible with the new variant show marked decreases in recent weeks (London, East of England and South East). In other regions, rates of positives compatible with the new variant have generally levelled off (CIS, 10 January to 16 January 2021).

Figure 7: Cases compatible with the new variant have decreased in London, South East and East of England

Modelled percentage of cases which are compatible with the new variant (ORF1ab- and N-gene positive) and other variants of coronavirus (COVID-19) on nose and throat swabs, daily, by region since 6 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. Data should be interpreted with caution. There is uncertainty given that not all cases that are positive for genes compatible with the new variant 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, regardless of cycle threshold (Ct) value.

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7 . COVID-19 antibody prevalence

Despite recent increases, most people do not have COVID-19 antibodies

The presence of coronavirus (COVID-19) antibodies suggests that a person previously had the infection. The Coronavirus (COVID-19) Infection Survey (CIS) reported an increase in the proportion of people with antibodies to 12.1% (around 1 in 8 people) in December 2020. This is more than double the percentage seen in September (5.7%). Despite the increase, the results suggest that most of the population is still vulnerable to infection.

Figure 8: Around 1 in 8 people in England had antibodies in December 2020

Estimated percentage of people testing positive for antibodies to COVID-19 from a blood sample, by month, England, May to December 2020

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.

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Antibody positivity varies substantially by region. Yorkshire and The Humber had the highest proportion testing positive for antibodies (16.8%), while the South West had the lowest proportion (4.9%).

Figure 9: Yorkshire and The Humber had the highest antibody positivity, followed by London and the North West

Estimated percentage of people testing positive for antibodies to COVID-19 from a blood sample in 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.

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8 . Preventative measures: behaviours and vaccine attitudes

The proportion of people following preventative measures to help slow the spread of the coronavirus (COVID-19) remained high in the latest week (Opinions and Lifestyle Survey, Great Britain, 13 to 17 January 2021). The majority of people reported that in the last seven days, they always or often washed their hands after returning home (90%), used a face covering (96%), avoided physical contact when outside their home (93%) and maintained social distance (88%).

This week, around 9 in 10 adults reported they had now either received the COVID-19 vaccine, had accepted an offer and were awaiting vaccination, or would be very or fairly likely to have the vaccine if offered.

Around 1 in 14 (7%) adults reported they had already received at least one dose of COVID-19 vaccination this week (Opinions and Lifestyle Survey, Great Britain, 13 to 17 January 2021). Of those who had not already received or been offered the vaccine, the proportion who said that they would be very or fairly likely to have the vaccine if offered increased with age. This was from 81% of those aged between 16 and 29 years to 98% of those aged 70 years and over.

Figure 10: The proportion of adults who said they would be likely to have the COVID-19 vaccine increased with age

Great Britain, 13 to 17 January 2021

Notes:

1. Question: "If a vaccine for the coronavirus (COVID-19) was offered to you, how likely or unlikely would you be to have the vaccine?".
2. Base population for percentage: Adults who reported they had not yet received or been offered COVID-19 vaccination.
3. Response for the category "Prefer not to say" has been removed from the chart due to having a reported proportion amongst all adults of 1% or less.
4. Response for the categories "Neither likely or unlikely", "Very unlikely", or "Don’t know" for adults aged 70 years and above have been suppressed due to having either a small sample size or the estimate being less than 1%.
5. Confidence intervals are provided in the datasets associated with this bulletin. As a general rule, if the confidence interval around one estimate overlaps with the interval around another, we cannot say with certainty that there is more than a chance difference between the two estimates.
6. Totals may not sum to 100% due to rounding and removal of the response category "Prefer not to say".

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9 . Well-being

Following a decline in well-being last week, this week well-being scores for life satisfaction (6.4) and feeling that things done in life are worthwhile (7.1) remained at some of the lowest levels recorded since the survey began in March 2020 (Opinions and Lifestyle Survey, Great Britain, 13 to 17 January 2021). Happiness continued to decline slightly (6.4 compared with 6.5 last week), now matching the lowest score seen since March 2020. However, there was an improvement in the anxiety score (4.3 this week compared with 4.6 last week).

Figure 11: Well-being scores remained low this week with happiness at its lowest level since March 2020

Average well-being scores, March 2020 to January 2021, Great Britain

Notes:

1. Questions: "Overall, how satisfied are you with your life nowadays?", "Overall, to what extent do you feel that the things you do in your life are worthwhile?", "Overall, how happy did you feel yesterday?" and "Overall, how anxious did you feel yesterday?".
2. This question is answered on a scale of 0 to 10, where 0 is “not at all” and 10 is “completely”.
3. Base: all adults.

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10 . Collaboration

This report was prepared by the Office for National Statistics (ONS) in collaboration with our partners at the Joint Biosecurity Centre (JBC) and Public Health England (PHE).

11 . Coronavirus data

Coronavirus (COVID-19) Infection Survey
Dataset | Released 22 January 2021
Findings from the Coronavirus (COVID-19) Infection Survey, England, Wales, Northern Ireland and Scotland.

Coronavirus (COVID-19) infections in the community in England
Dataset | Released 19 January 2021
Characteristics of people testing positive for the coronavirus (COVID-19) in England taken from the COVID-19 Infection Survey.

Deaths registered weekly in England and Wales, provisional
Dataset | Released 19 January 2021
Provisional counts of the number of deaths registered in England and Wales, by age, sex and region, in the latest weeks for which data are available. Includes the most up-to-date figures available for deaths involving the coronavirus (COVID-19).

Coronavirus and the social impacts on Great Britain
Dataset | Released 22 January 2021
Indicators from the Opinions and Lifestyle Survey (OPN) to understand the impact of the coronavirus (COVID-19) pandemic on people, households and communities in Great Britain. Includes breakdowns by at-risk age, sex and underlying health condition.

This release uses data from REACT and Public Health England. For links to the data and an explanation of how the sources differ, see Data sources and quality.

12 . Glossary

Positivity rate

In this article we refer to the positivity rate as the proportion of people that have tested positive for the coronavirus (COVID-19) using nose and throat swab tests. The Coronavirus COVID-19 Infection Survey (CIS) estimates positivity in the community population. CIS positivity rates refer to everybody that had the infection within a given week. This is different to the incidence rate, which refers to the proportion of "new" positive COVID-19 cases.

Please note that the NHS Test and Trace records infections among people experiencing symptoms or referred for testing (for example, by their employer). It only includes new COVID-19 cases when computing the positivity rates (incidence of the disease).

New 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 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 variation in COVID-19 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.

Antibodies

Evidence of a previous infection and a degree of immunity to the virus. You can read more about antibody testing in the Department of Health and Social Care guidance.

13 . Data sources and quality

Coronavirus (COVID-19) Infection Survey

The Office for National Statistics (ONS) Coronavirus (COVID-19) Infection Survey (CIS) estimates the number of infections in the community population in England, Wales, Northern Ireland and Scotland.

People tested are from randomly selected residential households and may or may not have any coronavirus (COVID-19) symptoms. Nose and throat swabs are taken from all household members aged two years and over. It excludes those in hospitals, care homes or other institutional settings. Positivity rates are calculated for seven-day periods and adjusted to represent the population. Results are published in a weekly bulletin, with a release on the characteristics of people testing positive published monthly. The survey is delivered in partnership with University of Oxford, University of Manchester, Public Health England and Wellcome Trust.

Real-time Assessment of Community Transmission (REACT) Study

The REACT Study also estimates the number of infections in the community population. The study tests randomly selected individuals (rather than households) over the age of five years. Results are calculated for time periods ranging from 18 to 32 days for each testing round.

Differences between REACT and CIS include data collection procedures and modelling approaches. Unlike CIS, REACT does not carry out follow-up visits with subjects. Because of this, the incidence rate cannot be calculated for REACT studies. REACT-2 additionally tracks COVID-19 antibody prevalence using finger-prick blood tests. REACT is commissioned by the Department of Health and Social Care (DHSC) and carried out by Imperial College in partnership with Ipsos MORI.

Hospital admissions

Data on hospital admissions is provided by Public Health England and comes from the Severe Acute Respiratory Infection (SARI) Watch surveillance system. SARI Watch monitors the number of patients with confirmed flu and COVID-19 admitted to hospital and critical care units (ICU and HDU). Admission rates are recorded by age and region. These data are provisional and subject to revision, and previous estimates may be updated in subsequent weeks.

Deaths

Figures for deaths involving COVID-19 included in this publication are from the ONS's weekly provisional counts of the number of deaths registered in England and Wales. This includes deaths with COVID-19 mentioned on the death certificate. Figures are based on the date the death was registered, not when it occurred. There is usually a delay of at least five days between occurrence and registration. More information on this issue can be found in the Impact of registration delays release.

Preventative measures, social contact and well-being

This publication includes indicators from the Opinions and Lifestyle Survey collected to understand the impact of the coronavirus pandemic on people, households and communities in Great Britain.

Strengths and limitations of data sources

This publication collates data from a range of sources reporting on the coronavirus pandemic. Each of these sources has their own strengths and limitations.

The Coronavirus (COVID-19) Infection Survey and REACT data both track COVID-19 infections in the community, by testing samples of the population. Their estimates of positivity rates contain uncertainty. There is uncertainty in the estimates, swab tests results and in the quality of data collected in the questionnaire.

Death figures in this article are based on the date the death was registered, not when it occurred. There is usually a delay of at least five days between occurrence and registration. More information on this issue can be found in our Impact of registration delays release.

14 . Related links

National flu and COVID-19 surveillance reports
Public Health England report | Updated weekly
National influenza and COVID-19 report, monitoring COVID-19 activity, seasonal flu and other seasonal respiratory illnesses.

Real-time Assessment of Community Transmission study findings
Web page | Updated as and when data become available
REACT is a research program looking at how the virus is spreading across the country. The study was commissioned by the Department of Health and Social Care and carried out by Imperial College London, Imperial College Healthcare NHS Trust and Ipsos MORI.

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) 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.

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.