Office for National Statistics

Article

Coronavirus (COVID-19) Infection Survey: characteristics of people testing positive for COVID-19 in England, 24 February 2021

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1 . Main points

- In recent weeks, there is evidence that the percentage testing positive for the coronavirus (COVID-19) has decreased in those in both patient-facing and non-patient-facing job roles.
- The number of socially distanced and physical contacts that adults and school-age children had with people outside their household decreased in January 2021, when England went into lockdown, and remains low in February.

2 . Overview

In this article, we refer to the number of coronavirus (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 in England.

This article presents analysis on the characteristics of those testing positive for SARS-CoV-2 - the coronavirus causing the COVID-19 disease in England. We include current COVID-19 infections, which we define as testing positive for SARS-CoV-2, with or without having symptoms, on a swab taken from the nose and throat.

More information on our headline estimates of the overall number of positive cases in England, Wales, Northern Ireland and Scotland are available in our latest bulletin. It should be noted that the analysis on the characteristics and behaviours of those testing positive in this article is for an older time period than the headline figures presented in the most recent bulletin. The reference periods for the various analyses are clearly stated at the start of each section.

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.

Further information on what the analysis covers is provided at the start of each section.

3 . Percentage testing positive for COVID-19 by patient-facing and non-patient-facing job roles by age

About this analysis

The estimated percentage of people in England who have had the coronavirus (COVID-19) since May 2020 is published in our weekly bulletin. The latest bulletin reports that the percentage testing positive decreased in the week ending 12 February 2021 (between 6 and 12 February).

This section provides the modelled estimates on positivity rates by patient-facing and non-patient-facing job roles by age, with the two occupational groups split between those aged under 35 years and those 35 years and above. The modelling used is similar to that used to produce national trend modelling of COVID-19 infections in our weekly bulletin. More information about the methods used in the model is available in our methodology article.

The models used to produce positivity rates for patient-facing and non-patient-facing roles include only swab test results from individuals aged 16 to 74 years. This analysis covers the time period between 1 September 2020 and 6 February 2021.

In recent weeks, there is evidence that the percentage of people testing positive decreased in those in both patient-facing and non-patient-facing job roles in both age groups

In recent weeks, the percentage of the population testing positive for the coronavirus (COVID-19) decreased in all groups: those who worked in both patient-facing and non-patient-facing job roles, and those aged under 35 years and 35 years and above.

This contrasts with analysis in our previous article published in January, where the percentage of the population testing positive had decreased in non-patient-facing job roles but increased among those in patient-facing roles, in the week ending 9 January 2021.

Figure 1: In recent weeks, there is evidence that the percentage testing positive has decreased in those in both patient-facing and non-patient-facing job roles in both age groups

Estimated percentage of the population testing positive for COVID-19 on nose and throat swabs by patient-facing role and age, England, from 1 September 2020 to 6 February 2021

Download the data

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. There are fewer people in patient facing roles in our sample than those in non-patient facing roles. Therefore the estimates for patient facing roles have a larger degree of uncertainty, represented by wider credible intervals.

4 . Number and age of people individuals had contact with

About this analysis

This section looks at how often individuals are reporting social contact (either socially distanced or physical contact) with other people outside their own household. We asked individuals how many people aged 17 years and under, 18 to 69 years, and 70 years and over, outside their household, they have had contact with up to seven days prior to each visit. "Contact" refers to either of the following:

- socially distanced contact - direct contact with social distancing only
- physical contact - physical contact, such as a handshake or personal care, including wearing Personal Protective Equipment (PPE)

This analysis covers the time period between 27 July 2020 and 8 February 2021. We have produced estimates that have been weighted to be representative of the total population in England. Analysis includes all people taking part in the survey and is presented for school-age children (age 2 years to school Year 11) and adults (school Year 12 and above). We report the number of contacts in the following groups:

- 0 (no reported contact)
- 1 to 5 (reported contacts)
- 6 to 10 (reported contacts)
- 11 to 20 (reported contacts)
- 21 or more (reported contacts)

In school-age children, the proportion of socially distanced contacts with people aged under 70 years decreased in January 2021, continuing into February

We present the proportion of school-age children by each category of socially distanced contact in Figure 2. Our analysis suggests that from September 2020 onwards, there was an increase in "21 or more" socially distanced contacts with people aged 17 years and under, corresponding to school-age individuals returning to school and coming into contact with their peers. In early January 2021, socially distanced contacts decreased as schools were not fully opened in lockdown, continuing into February as schools remain not fully open.

There was a decrease in the number of socially distanced contacts with people aged 17 years and under in late October to early November and in late December 2020, corresponding to the half-term and Christmas breaks from school. In November, the proportion of socially distanced contacts returned to a similar number of contacts seen before half-term, but this did not happen in January 2021 and February as schools remained closed to the majority of pupils.

There is a similar pattern of increased socially distanced contacts with people aged 18 to 69 years from September 2020 onwards, which is likely to relate to the increased contact with teachers and parents. In early January 2021, the number of socially distanced contacts decreased as schools were not fully open.

Over time, the number of socially distanced contacts with people who are over 70 years has decreased. There was some evidence of a slight rise in those reporting 1 to 5 contacts in late December, potentially because of some rules relaxing at Christmas.

Figure 2: In school age children, the proportion of socially-distanced contacts with people aged under 70 decreased in January 2021, continuing into February

Proportion of school age children by number of socially distanced contacts with different age groups, England, from 27 July 2020 to 8 February 2021

Download the data

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 or other institutional settings.
3. This analysis includes all participants between 27 July 2020 to 8 February 2021, regardless of whether they tested positive or negative for COVID-19.

Among adults, the number of socially distanced contacts of all ages has decreased over time since September to October 2020. In December 2020, socially distanced contacts may have risen slightly as the November lockdown ended. The number of socially distanced contacts has decreased again in January 2021 and remains low in February, which could reflect the lockdown measures in place.

Figure 3: In adults, the number of socially distanced contacts decreased in January 2021 and remains low in February

Proportion of adults by number of socially distanced contacts with different age groups, England, from 27 July 2020 to 8 February 2021

Download the data

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 or other institutional settings.
3. This analysis includes all participants between 27 July 2020 to 8 February 2021, regardless of whether they tested positive or negative for COVID-19.

In adults, the number of physical contacts with all age groups has decreased over time from September and October, and decreased further when lockdown measures were introduced in January 2021

The trends in physical contacts among school-age children are very similar to socially distanced contacts trends, although the number of physical contacts was lower. In January 2021, the proportion of physical contact across ages decreased as the country went into lockdown and schools were closed to the majority of pupils.

Trends in physical contacts over time in adults are very similar to socially distanced contact trends, but there are more respondents that have had physical contact with zero individuals outside of their household. Across all ages of physical contacts, in adults the number of physical contacts has decreased over time from September and October 2020. Direct physical contacts decreased further when lockdown measures were introduced in January 2021.

Additional information on the proportions of physical contacts by school-age children and adults can be found in the accompanying dataset.

More information on socially distanced and physical contact is also available in the Opinions and Lifestyle Survey, which examines the impact of the coronavirus (COVID-19) pandemic on people, households and communities in Great Britain.

5 . Coronavirus (COVID-19) Infection Survey data

Coronavirus (COVID-19) infections in the community in England
Dataset | Released 24 February 2021
Characteristics of people testing positive for the coronavirus (COVID-19) in England taken from the COVID-19 Infection Survey.

6 . Collaboration

The Coronavirus (COVID-19) Infection Survey analysis was produced by the Office for National Statistics (ONS) in partnership with the University of Oxford, the University of Manchester, Public Health England 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

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ONS COVID-19 Infection Survey dissemination team - Alice McTiernan, Kyle Knights, George Feldman, Emma Nash

7 . Glossary

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.

For more information, see our methodology page on statistical uncertainty.

8 . Related links

Coronavirus (COVID-19) Infection Survey, UK
Bulletin | Updated weekly
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.

Coronavirus (COVID-19) Infection Survey: antibody data for the UK
Article | Updated fortnightly
Antibody data by UK country and regions in England from the Coronavirus (COVID-19) Infection Survey. 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: characteristics of people testing positive for COVID-19 in England
Article | 22 February 2021
The analyses in this article compares the likelihood of testing positive for the coronavirus (COVID-19) on a swab test at any time between 1 September 2020 and 7 January 2021 between occupations.

Coronavirus (COVID-19) weekly insights: latest health indicators in England
Article | Updated weekly
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.

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.

COVID-19 Infection Survey (Pilot): methods and further information
Methods article | Updated 21 September 2020
Information on the methods used to collect the data, process it, and calculate the statistics produced from the COVID-19 Infection Survey pilot.

COVID-19 Infection Survey (CIS)
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) 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.