Office for National Statistics

Statistical bulletin

Coronavirus (COVID-19) Infection Survey, antibody and vaccination data, UK: 9 February 2022

Antibody and vaccination data by UK country and regions in England from the Coronavirus (COVID-19) Infection Survey. This analysis has been produced in partnership with the University of Oxford, University of Manchester, UK Health Security Agency, and Wellcome Trust. This study is jointly led by the Office for National Statistics (ONS) and the Department for Health and Social Care (DHSC) working with the University of Oxford and Lighthouse Laboratory to collect and test samples.

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14. Related links

1 . Main points

The following statistics are the percentage of the population, that would have tested positive on a blood test for antibodies against SARS-CoV-2, the specific virus that causes coronavirus (COVID-19). This suggests that they have had the infection in the past or have been vaccinated.

- In England, it is estimated that 98.1% of the adult population (95% credible interval: 97.7% to 98.4%) would have tested positive for antibodies against SARS-CoV-2 in the week beginning 10 January 2022.
- In Wales, it is estimated that 97.7% of the adult population (95% credible interval: 97.1% to 98.3%) would have tested positive for antibodies against SARS-CoV-2 in the week beginning 10 January 2022.
- In Northern Ireland, it is estimated that 98.7% of the adult population (95% credible interval: 97.8% to 99.1%) would have tested positive for antibodies against SARS-CoV-2 in the week beginning 10 January 2022.
- In Scotland, it is estimated that 98.3% of the adult population (95% credible interval: 97.8% to 98.7%) would have tested positive for antibodies against SARS-CoV-2 in the week beginning 10 January 2022.
- Across the UK, the percentage of children who would have tested positive for antibodies against SARS-CoV-2 ranged from 90.2% to 93.3% for those aged 12 to 15 years and from 63.3% to 72.7% for those aged 8 to 11 years in the week beginning 10 January 2022.
- Across the UK, between 95.1% to 96.5% of the adult population would have tested positive for antibodies against SARS-CoV-2 at or above a higher antibody threshold needed to provide protection from new COVID-19 infections for those who are vaccinated; the booster programme has likely led to the rapid increases in antibodies above this threshold seen in older age groups.

About this bulletin

This bulletin presents the latest estimates on the percentage of people aged eight years and over who would have tested positive for antibodies to SARS-CoV-2 for England, Wales, Northern Ireland, and Scotland based on findings from the Coronavirus (COVID-19) Infection Survey in the UK. People who test positive for antibodies are those who have experienced previous infection and/or vaccination. We present the percentage of people who would have tested positive for antibodies to SARS-CoV-2 at or above the standard antibody threshold and an additional higher antibody threshold in England, Wales, Northern Ireland and Scotland (Section 7). The higher antibody threshold is based on recent academic research that suggested a higher level of antibodies was needed to provide protection following vaccination. We further present data on the percentage of adults aged 16 years and over who report having received three or more doses of a COVID-19 vaccination and the percentage of children aged 12 to 15 years who report having received one or more and two or more doses of a COVID-19 vaccination.

Modelled vaccination estimates for adults reporting one or more and two or more COVID-19 vaccinations for England, Wales, Northern Ireland and Scotland require additional quality assurance and have not been updated in this bulletin. We will reintroduce these vaccine estimates as soon as possible. Official government figures on vaccinations are available.

Data in this bulletin

The analysis on antibodies in this bulletin is based on blood test results taken from a randomly selected subsample of individuals aged 8 years and over who live in private households. The survey excludes those in hospitals, care homes and/or other communal establishments. The blood samples are used to test for antibodies against SARS-CoV-2. In England, an estimated 90% of people aged 80 years and over live in private households and 10% live in other communal establishments such as care homes.

Our antibodies and vaccination estimates are based on the data we collect from people visited in the Coronavirus (COVID-19) Infection Survey (CIS). We present weekly modelled antibody estimates and vaccine estimates for adults and children by country, and grouped age for England, Wales, Northern Ireland and Scotland, as well as antibody estimates by regions in England. Further information on our method to model antibodies and vaccinations can be found in our methods article.

There is a clear pattern between vaccination and testing positive for antibodies to SARS-CoV-2 but the detection of antibodies alone is not a precise measure of the immunity protection given by vaccination. Further information is available on antibody levels post vaccination from research partners at the University of Oxford.

Modelled vaccine estimates are produced to provide context alongside our antibodies estimates and do not replace the official government figures on vaccinations, which are a more precise count of total vaccines issued. While we would expect the overall trend of our estimated number of people who reported they have received vaccines to increase, it is possible that in some weeks, the estimate may remain the same or decrease as a result of sampling variability (for example, we may have a lower number of participants recording a vaccination in the latest week compared with an earlier week).

National Immunisation Management System (NIMS) administrative data are used to validate CIS self-reported records of vaccination for England. The equivalent of this is currently not included for other countries, meaning the estimates for Wales, Scotland and Northern Ireland are produced from CIS self-reported records of vaccination only.

Our vaccination estimates are explained in more detail in Section 12: Measuring the data.

2 . Understanding antibodies and immunity

Antibody positivity is defined by having a fixed concentration of antibodies in the blood. A negative test result occurs if there are no antibodies, or if antibody levels are too low to reach a threshold at the time of testing. Our standard antibody threshold is 42 nanograms per millilitre (ng/ml). This is the threshold that the test is CE marked against and approved by the Medicines and Healthcare products Regulatory Agency, providing greater than 99% sensitivity and specificity in identifying people who have had a coronavirus (COVID-19) infection before ("natural immunity") from people who have not. A negative result means that detected antibody levels are below this threshold and does not necessarily mean that a person has no antibodies or immune protection.

Most people who are vaccinated will increase their antibody level above this threshold and will retain a higher antibody level than before vaccination even if they subsequently drop below the standard antibody threshold value.

There are other parts of the immune system that will offer protection, for example, a person's T-cell response. This will not be detected by blood tests for antibodies. A person's immune response is affected by a number of factors, including health conditions and age.

Equally, antibody levels are expected to decrease over time irrespective of vaccination or natural infection, especially when exposure to the virus is reduced. This is because our bodies stop making antibodies when they are not needed.

Our blog on antibodies and immunity gives further information on the link between antibodies and immunity and the vaccine programme. Our blog on vaccine effectiveness provides information on the effectiveness of vaccinations against Alpha and Delta variants, which is based upon the research conducted by partners from the University of Oxford. It is too early to provide information on the effectiveness of vaccinations against the Omicron variant.

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. The Coronavirus (COVID-19) Infection Survey QMI details the strength and limitations of the data.

3 . By UK country

In the week beginning 10 January 2022, the percentage of adults aged 16 years and over who would have tested positive for coronavirus (COVID-19) antibodies by the standard antibody threshold of 42 nanograms per millilitre (ng/ml) remained high across the UK.

Table 1: Estimated percentage of adults who would have tested positive for SARS-CoV-2 antibodies, week beginning 10 January 2022, UK countries

Country	Estimated % who would have tested positive for COVID-19 antibodies	95% credible interval	
		Lower	Upper
England	98.1	97.7	98.4
Wales	97.7	97.1	98.3
Northern Ireland	98.7	97.8	99.1
Scotland	98.3	97.8	98.7

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 antibody tests for individuals living in private households.
3. All estimates are subject to uncertainty given that a sample is only part of the wider population. A credible interval gives an indication of the uncertainty of an estimate from data analysis.
4. Estimates show the percentage of adults aged 16 years and over who would have tested positive for antibodies against SARS-CoV-2 at or above the standard antibody threshold of 42 ng/ml.

Figure 1: The percentage of adults who would have tested positive for COVID-19 antibodies remained high across UK countries in the week beginning 10 January 2022

Modelled percentage of adults with antibodies to SARS-CoV-2 and number of COVID-19 vaccinations reported, UK countries, 7 December 2020 to 16 January 2022

Notes:

1. All results are provisional and subject to revision.

2. These statistics refer to antibody tests and reported vaccinations for individuals living in private households.

3. All estimates are subject to uncertainty, given that a sample is only part of the wider population. A credible interval gives an indication of the uncertainty of an estimate from data analysis.

4. The denominators used for both antibodies and vaccinations are the total adults aged 16 years and over in the sample at that particular time point, then post-stratified by the mid-year population estimate.

5. Estimates show the percentage of adults aged 16 years and over who would have tested positive for antibodies against SARS-CoV-2 at or above the standard antibody threshold of 42 ng/ml.

6. Our estimates of vaccination are provided for context alongside our antibodies estimates but are likely to be different from the official figures. Thedaily official government figuresprovide the recorded actual numbers of vaccines against SARS-CoV-2 issued, whereas our estimates reflect those who report they have been vaccinated as part of the Coronavirus (COVID-19) Infection Survey

Download the data

.xlsx

The estimated percentage of adults who reported they have received three or more COVID-19 vaccinations has increased rapidly since September 2021. Modelled vaccination estimates since 13 September 2021 can be found in the Coronavirus (COVID-19) Infection Survey: antibody and vaccination dataset. These vaccination estimates will differ from official figures as explained in Section 1.

4 . By regions in England

In the week beginning 10 January 2022, the percentage of adults who would have tested positive for coronavirus (COVID-19) antibodies by the standard antibody threshold of 42 nanograms per millilitre (ng/ml) remained high across all regions of England. Regional data can be found in Tables 1b, 1f and 1k in the Coronavirus (COVID-19) Infection Survey: antibody and vaccination dataset.

5 . By age group

In the week beginning 10 January 2022, the percentage of adults who would have tested positive for coronavirus (COVID-19) antibodies by the standard antibody threshold of 42 nanograms per millilitre (ng/ml) remained high for all age groups across the UK.

In the data used to produce estimates for Wales, Northern Ireland and Scotland, the number of adults sampled who tested positive for antibodies to SARS-CoV-2 or who have been vaccinated is low compared with England. This means there is a higher degree of uncertainty in estimates for these nations when our analysis splits the sample into smaller groups (for example, age groups) as indicated by larger credible intervals.

Figure 2: The percentage of adults who would have tested positive for COVID-19 antibodies remained high for all age groups across the UK in the week beginning 10 January 2022

Modelled percentage of adults with antibodies to SARS-CoV-2 and number of COVID-19 vaccinations reported, by age group, UK countries, 7 December 2020 to 16 January 2022

Notes:

1. All results are provisional and subject to revision.

2. These statistics refer to antibody tests and reported vaccinations for individuals living in private households.

3. In Northern Ireland, the number of adults sampled is low compared with England, Wales and Scotland; therefore, adults aged 50 to 69 years are included in the same age group, and those aged 70 years and over are included in the same age group.

4. All estimates are subject to uncertainty, given that a sample is only part of the wider population. A credible interval gives an indication of the uncertainty of an estimate from data analysis.

5. The denominators used for both antibodies and vaccinations are the total adults aged 16 years and over in the sample at that particular time point, then post-stratified by the mid-year population estimate.

6. Estimates show the percentage of adults aged 16 years and over who would have tested positive for antibodies against SARS-CoV-2 at or above the standard antibody threshold of 42 ng/ml.

7. Our estimates of vaccination are provided for context alongside our antibodies estimates but are likely to be different from the official figures. Thedaily official government figuresprovide the recorded actual numbers of vaccines against SARS-CoV-2 issued, whereas our estimates reflect those who report they have been vaccinated as part of the Coronavirus (COVID-19) Infection Survey.

Download the data

.xlsx

6 . Children aged under 16 years

We have collected samples from children aged between 8 and 15 years since 29 November 2021 to test for coronavirus (COVID-19) antibodies. We also provide data on reported vaccination status for children aged 12 to 15 years since 29 November 2021 for context alongside our antibody estimates. The antibody and vaccination estimates have been produced using the same models as the estimates for those aged 16 years and over (Section 3, Section 4 and Section 5) but have been post-stratified separately to be representative of the population. Vaccination estimates are based on the vaccination status reported in our survey and may differ from official government figures.

In the week beginning 10 January 2022, the percentage of children who would have tested positive for antibodies to SARS-CoV-2 at or above the standard antibody threshold of 42 nanograms per millilitre (ng/ml) ranged from 90.2% to 93.3% for those aged 12 to 15 years and from 63.3% to 72.7% for those aged 8 to 11 years across the UK.

Across all UK countries, the number of children sampled is lower compared with the sample size for those aged 16 years and over. This means there is a higher degree of uncertainty in estimates for those aged under 16 years when our analysis splits the sample into smaller groups (for example, further age groups) as indicated by larger credible intervals.

Figure 3: The percentage of children who would have tested positive for COVID-19 antibodies was high across the UK in the week beginning 10 January 2022

Modelled percentage of children with antibodies to SARS-CoV-2 and number of COVID-19 vaccinations reported, by age group, UK countries, 29 November 2021 to 16 January 2022

Notes:

1. All results are provisional and subject to revision.

2. These statistics refer to antibody tests and reported vaccinations for individuals living in private households.

3. All estimates are subject to uncertainty, given that a sample is only part of the wider population. A credible interval gives an indication of the uncertainty of an estimate from data analysis.

4. The denominators used for both antibodies and vaccinations are the total children aged 8 to 15 years in the sample at that particular time point, then post-stratified by the mid-year population estimate.

5. Estimates show the percentage of children aged 8 to 15 years who would have tested positive for antibodies against SARS-CoV-2 at or above the standard antibody threshold of 42 ng/ml.

6. Our estimates of vaccination are provided for context alongside our antibodies estimates but are likely to be different from the official figures. Thedaily official government figuresprovide the recorded actual numbers of vaccines against SARS-CoV-2 issued, whereas our estimates reflect those who report they have been vaccinated as part of the Coronavirus (COVID-19) Infection Survey.

Download the data

.xlsx

7 . Analysis using an alternative antibody threshold

The standard antibody threshold (42 nanograms per millilitre (ng/ml)) was determined prior to the development of coronavirus (COVID-19) vaccinations. As the coronavirus pandemic and vaccinations have evolved, we have reviewed the way that we present information about antibody levels. In this section we have introduced an additional second antibody threshold reflecting a higher concentration of antibodies, to estimate the percentage of adults who are likely to have a strong antibody response to protect from getting a new COVID-19 infection. This is based upon research by our academic partners. A previous COVID-19 infection typically results in a stronger immune response than vaccination. To get a similar level of protection from vaccination alone, a higher concentration of antibodies is needed.

The higher antibody threshold is 179 ng/ml and was identified as providing a 67% lower risk of getting a new COVID-19 infection with the Delta variant after two vaccinations with either Pfizer or AstraZeneca vaccines, compared with someone who was unvaccinated and had not had COVID-19 before. This higher antibody threshold was identified by comparing how the risk of new COVID-19 infections with the most common COVID-19 variant at the time of the research, the Delta variant, varied across different antibody levels. It is unlikely that this threshold will provide equivalent protection against the Omicron variant and analyses of the effectiveness of vaccinations against the Omicron variant are ongoing.

The test used for spike antibodies measures their concentration in ng/ml. The standard antibody threshold of 42 ng/ml corresponds to 23.5 binding antibody units (BAU)/ml using the World Health Organization's (WHO) standardised units (enabling comparison across different antibody assays). The higher antibody threshold of 179 ng/ml corresponds to 100 BAU/ml.

Figure 4 shows estimates of the percentage of adults who would have tested positive for antibodies against SARS-CoV-2 at or above our standard antibody threshold of 42 ng/ml and, additionally, at or above the higher antibody threshold of 179 ng/ml.

Additional breakdowns of the higher antibody threshold data are available in the Coronavirus (COVID-19) Infection Survey: antibody and vaccination dataset.

In the week beginning 10 January 2022, between 95.1% and 96.5% of the adult population across the UK would have tested positive for antibodies to SARS-CoV-2 at or above the higher antibody threshold, with the booster programme likely leading to the rapid increases in antibodies above this threshold seen in older age groups.

In the week beginning 10 January 2022, the percentage of people aged eight years and above with levels of antibodies to SARS-CoV-2 at or above the higher antibody threshold of 179 ng/ml remains high for all age groups across the UK.

Across the UK, antibody waning is more evident in those aged 50 years and over when using the higher antibody threshold of 179 ng/ml in comparison with the standard antibody threshold of 42 ng/ml, between May 2021 and September 2021. Since early October 2021, there has been a rapid increase in antibody levels, which suggests higher protection (levels at or above the higher antibody threshold of 179 ng/ml) across the UK among those aged 50 years and over, likely as a result of the vaccination booster programme.

Figure 4: The percentage of adults who would have tested positive for antibodies at or above the higher antibody threshold remained high for all age groups across the UK in the week beginning 10 January 2022

Modelled percentage of adults with levels of antibodies to SARS-CoV-2 at or above the standard and higher antibody thresholds, and number of COVID-19 vaccinations reported, by age group, UK countries, 7 December 2020 to 16 January 2022

Notes:

1. All results are provisional and subject to revision.

2. These statistics refer to antibody tests and reported vaccinations for individuals living in private households.

3. In Northern Ireland, the number of adults sampled is low compared with England, Wales and Scotland; therefore, adults aged 50 to 69 years are included in the same age group, and those aged 70 years and over are included in the same age group.

4. All estimates are subject to uncertainty, given that a sample is only part of the wider population. A credible interval gives an indication of the uncertainty of an estimate from data analysis.

5. The denominators used for both antibodies and vaccinations are the total adults aged 16 years and over in the sample at that particular time point, then post-stratified by the mid-year population estimate.

6. Estimates show the percentage of adults aged 16 years and over who would have tested positive for antibodies against SARS-CoV-2 at or above the standard antibody threshold of 42 ng/ml and the higher antibody threshold of 179 ng/ml.

7. The higher antibody threshold of 179 ng/ml was determined from analysis during the period when most COVID-19 infections were with the Delta variant. It is likely that the equivalent level of protection for the Omicron variant will require a different threshold (see Section 7).

8. Our estimates of vaccination are provided for context alongside our antibodies estimates but are likely to be different from the official figures. Thedaily official government figuresprovide the recorded actual numbers of vaccines against SARS-CoV-2 issued, whereas our estimates reflect those who report they have been vaccinated as part of the Coronavirus (COVID-19) Infection Survey.

Download the data

.xlsx

Figure 5 shows estimates of the percentage of children aged 8 to 15 years who would have tested positive for antibodies against SARS-CoV-2 at or above our standard antibody threshold of 42 ng/ml and, additionally, at or above the higher antibody threshold of 179 ng/ml.

Additional breakdowns of the higher antibody threshold data are available in the Coronavirus (COVID-19) Infection Survey: antibody and vaccination dataset.

In the week beginning 10 January 2022, the percentage of children aged 8 to 15 years with levels of antibodies to SARS-CoV-2 at or above the higher antibody threshold of 179 ng/ml was at a high level and increasing across all UK countries.

Figure 5: The percentage of children who would have tested positive for antibodies at or above the higher antibody threshold was high across the UK in the week beginning 10 January 2022

Modelled percentage of children with levels of antibodies to SARS-CoV-2 at or above the standard and higher antibody thresholds, and number of COVID-19 vaccinations reported, by age group, UK countries, 29 November 2021 to 16 January 2022

Notes:

1. All results are provisional and subject to revision.

2. These statistics refer to antibody tests and reported vaccinations for individuals living in private households.

3. All estimates are subject to uncertainty, given that a sample is only part of the wider population. A credible interval gives an indication of the uncertainty of an estimate from data analysis.

4. The denominators used for both antibodies and vaccinations are the total children aged 8 to 15 years in the sample at that particular time point, then post-stratified by the mid-year population estimate.

5. Estimates show the percentage of children aged 8 to 15 years who would have tested positive for antibodies against SARS-CoV-2 at or above the standard antibody threshold of 42 ng/ml and the higher antibody threshold of 179 ng/ml.

6. The higher antibody threshold of 179 ng/ml was determined from analysis during the period when most COVID-19 infections were with the Delta variant. It is likely that the equivalent level of protection for the Omicron variant will require a different threshold (see Section 2).

7. Our estimates of vaccination are provided for context alongside our antibodies estimates but are likely to be different from the official figures. Thedaily official government figuresprovide the recorded actual numbers of vaccines against SARS-CoV-2 issued, whereas our estimates reflect those who report they have been vaccinated as part of the Coronavirus (COVID-19) Infection Survey

Download the data

.xlsx

8 . By single year of age

Modelled daily estimates of the percentage of people aged 8 years and over who would have tested positive for coronavirus (COVID-19) antibodies by the higher antibody threshold of 179 nanograms per millilitre (ng/ml) by single year of age for England, Wales, Northern Ireland and Scotland separately, between 8 December 2021 and 18 January 2022 can be found in the Coronavirus (COVID-19) Infection Survey: antibody and vaccination dataset. Modelled data are produced using a different method to the weekly modelled estimates presented in Section 5 and so cannot be compared.

9 . Coronavirus (COVID-19) Infection Survey data

Coronavirus (COVID-19) antibody and vaccination data, UK
Dataset | Released 9 February 2022
Antibody and vaccination data by UK country and regions in England from the Coronavirus (COVID-19) Infection Survey. This analysis has been produced in partnership with the University of Oxford, University of Manchester, UK Health Security Agency and Wellcome Trust. This study is jointly led by the ONS and the Department for Health and Social Care (DHSC) working with the University of Oxford and Lighthouse Laboratory to collect and test samples.

10 . 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, UK Health Security Agency 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

11 . Glossary

Antibodies

We measure the presence of antibodies in people who live in private households to understand who has had coronavirus (COVID-19) in the past, and the impact of vaccinations. It takes between two and three weeks after infection or vaccination for the body to make enough antibodies to fight the infection. Antibodies can help prevent individuals from getting the same infection again. If they do get infected, people with antibodies are less likely to have severe symptoms. Once infected or vaccinated, antibodies remain in the blood at low levels and can decline over time. The length of time antibodies remain at detectable levels in the blood is not fully known.

SARS-CoV-2

This is the scientific name given to the specific virus that causes COVID-19.

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. A 95% credible interval is calculated so that there is a 95% probability of the true value lying in the interval.

12 . Measuring the data

Reference dates

We produce weekly modelled estimates using standard calendar weeks starting Monday. To provide the most timely and accurate estimates possible for antibody positivity, the model will include data for the first four to seven days of the most recent week available, depending on the availability of test results. The antibody estimates for the most recent week in this publication includes data from 10 to 16 January 2022. The estimates for the number of coronavirus (COVID-19) vaccinations reported for the most recent week in this publication includes data from 10 to 16 January 2022. Modelled vaccination estimates for adults reporting one or more and two or more doses of a COVID-19 vaccination for England, Wales, Northern Ireland and Scotland require additional quality assurance and have not been updated in our bulletin this time.

More information on measuring the data is available in the Coronavirus (COVID-19) Infection Survey statistical bulletin.

Our methodology article provides further information around the survey design, how we process data, and how data are analysed. The Quality and Methodology Information explains the strengths and limitations of the data, methods used, and data uses and users.

Vaccination estimates

While the daily official government figures provide the recorded actual numbers of vaccines against SARS-CoV-2 issued, our vaccination estimates are likely to be different from the official figures. This is because they are estimates based on a sample survey of reported vaccine status and are provided for context alongside our antibodies estimates. We control for the effect of ethnicity by post-stratifying our analysis by White and other ethnic groups, rather than individual ethnicities, because of our current sample size. This could result in differences between our survey estimates and the government figures in the numbers of vaccines received for some ethnic minority groups.

Importantly, our survey collects information from the population living in private households and does not include people living in communal establishments such as care homes, hospitals, or prisons.

The value of showing our estimates of vaccines alongside our estimates of people who would have tested positive for antibodies is to illustrate the relationship between the two.

Differences between official figures and the estimates from this survey differ in scale across each of the four UK nations (some survey estimates are closer to the official reported figures than others) because of differences in reporting dates and the inclusion of National Immunisation Management System (NIMS) data for England. In addition, our sampling method for Northern Ireland is different to the other nations, inviting only people who have previously participated in a Northern Ireland Statistics and Research Agency (NISRA) survey, which could result in a sample of individuals who are more likely to get vaccinated. This should be taken into consideration if comparing vaccine and antibody estimates across the four nations, as vaccine status and antibody positivity are related.

13 . Strengths and limitations

More information on strengths and limitations of the data is available in Coronavirus (COVID-19) Infection Survey QMI and in the Coronavirus (COVID-19) Infection Survey statistical bulletin.

14 . 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 the University of Oxford, University of Manchester, UK Health Security Agency and Wellcome Trust.

Coronavirus (COVID-19) Infection Survey: characteristics of people testing positive for COVID-19 in England
Bulletin | Updated fortnightly
Characteristics of people testing positive for COVID-19 from the Coronavirus (COVID-19) Infection Survey, including antibody data by UK country, and region and occupation for England. Antibodies data published before 3 February 2021 are available in this series.

Coronavirus (COVID-19) Infection Survey technical article: Analysis of characteristics associated with vaccination uptake
Technical article | Released 15 November 2021
Analysis of populations in the UK by likelihood of being vaccinated against COVID-19 using the Coronavirus (COVID-19) Infection Survey. This survey is being delivered in partnership with University of Oxford, University of Manchester, UK Health Security Agency and Wellcome Trust.

Coronavirus (COVID-19) Infection Survey Technical Article: Impact of vaccination on testing positive in the UK: October 2021
Technical article | Released 18 October 2021
The reduction in risk of testing positive for COVID-19 associated with vaccination overall and by different vaccine types using data from the Coronavirus (COVID-19) Infection Survey. Two time periods were analysed; when the Alpha variant was dominant in the UK (1 December 2020 to 16 May 2021), and when the Delta variant was dominant (17 May to 14 August 2021).

Coronavirus (COVID-19) Infection Survey QMI
QMI | Released 16 July 2021
Quality and Methodology Information for the Coronavirus (COVID-19) Infection Survey (CIS), detailing the strengths and limitations of the data, methods used, and data and users.