



Coronavirus (COVID-19) Infection Survey

Headline Results for Northern Ireland

5th January 2022

Temporary publication of early results from the Coronavirus (Covid-19) Infection Survey

During the coronavirus (COVID-19) pandemic, weekly figures on the latest results from the COVID-19 Infection Survey have been published by the Department of Health. These figures cover the latest available estimates of the numbers and proportion of the population in Northern Ireland who would test positive for COVID-19, as well as breakdowns by age, sub-region and when appropriate, analysis by variant. Additionally, fortnightly estimates of antibodies have been published since the start of 2021.

During this rapidly changing phase of the pandemic, it is recognised that the early release of data is in the public interest. Therefore, our aim is to publish headline results at 2pm on Wednesday each week, in advance of our fuller, regular weekly bulletin issued at midday each Friday. This will coincide with the ONS release of information for all four UK countries.

There are a number of risks associated with the release of early results (e.g. laboratory delays or quality assurance issues) however it is felt that the risks are outweighed by the public benefit of releasing these important statistics as early as possible.

Further information on the decision to publish early results is available in a [statement](#) on the ONS website.

Introduction

The findings set out in this report relate to the most recent week of the study up to 31st December 2021. CIS aims to estimate how many people have the infection and the number of new cases that occur over a given time as well as estimating how many people have developed antibodies to COVID-19.

The survey over time will help track the extent of infection and transmission of COVID-19 among people living in private households. The sample includes people who would not necessarily have otherwise been tested, and is intended to estimate the number of current positive cases in the community in Northern Ireland, including cases where people do not report to having any symptoms.

It is important to note that these statistics are based on a survey sample and differ from those reported in the [Department of Health Daily Dashboard](#) which are based on all laboratory confirmed tests for COVID-19 completed in Northern Ireland.

Proportion of people in Northern Ireland who had COVID-19

During this period of high infections, we have [decided to publish our headline results two days early](#). This means that the latest estimates on infection levels are available at their earliest opportunity and further breakdowns for the same period and a longer time series will be published on Fridays. These early estimates are provisional and are subject to change as we receive more data, but they have undergone sufficient quality assurance to ensure that they are based upon an acceptable number of test results received up to the end of the reference week. This week, we are publishing estimates for the week ending 31 December, based on a reference date of 28 December to account for anticipated additional test results for the last few days.

During the most recent week of the study (25th December – 31st December), it is estimated that 72,900 people in Northern Ireland had COVID-19 (95% credible interval: 56,800 to 90,100). This equates to 3.97% of the population (95% credible interval: 3.10% to 4.91%) or around 1 in 25 people (95% credible interval: 1 in 30 to 1 in 20). This is based on statistical modelling of the trend in rates of positive nose and throat swab results.

Modelling suggests the trend in the percentage of people testing positive continued to increase in the week ending 31st December in Northern Ireland.

The reported headline positivity estimates contain both Omicron (B.1.1.529) and Delta (B.1.617.2 and its genetic descendants) variants.

As this is a household survey, the statistics refer to infections occurring in private households. The figures exclude infections reported in hospitals, care homes and/or communal establishments. In these settings, rates of COVID-19 infection are likely to be different.

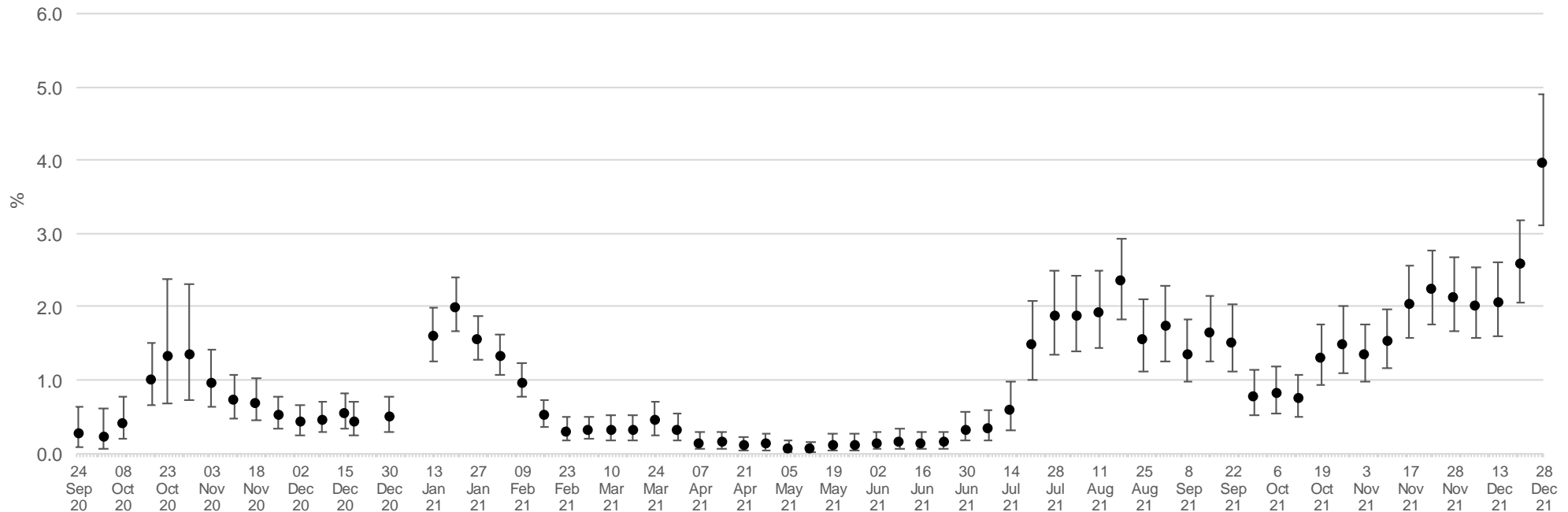
Positivity over time in Northern Ireland

Due to relatively small number of tests and low number of positives within the sample, credible intervals are wide and therefore results should be interpreted with caution.

Modelling suggests the trend in the percentage of people testing positive continued to increase in the week ending 31st December in Northern Ireland. The official estimates of the percentage of people in NI previously testing positive for COVID-19 are set out in figure 1.

Figure 1: Estimated percentage of the population in Northern Ireland testing positive for the coronavirus (COVID-19) on nose and throat swabs since 24 September 2020

Official Estimates



The point estimates and error bars indicated on the chart represent the official estimates reported in previous weeks based on the best information and methods at each point in time.

Positivity across the UK

- In England, the percentage of people testing positive for coronavirus (COVID-19) continued to increase; it is estimated that 3,270,800 people in England had (COVID-19) (95% credible interval: 3,163,500 to 3,377,500), equating to around 1 in 15 people.
- In Wales, the percentage of people testing positive for COVID-19 continued to increase; it is estimated that 157,900 people in Wales had COVID-19 (95% credible interval: 138,900 to 179,600), equating to around 1 in 20 people.
- In Northern Ireland, the percentage of people testing positive for COVID-19 continued to increase; it is estimated that 72,900 people in Northern Ireland had COVID-19 (95% credible interval: 56,800 to 90,100), equating to around 1 in 25 people.
- In Scotland, the percentage of people testing positive for COVID-19 continued to increase; it is estimated that 238,000 people in Scotland had COVID-19 (95% credible interval: 209,300 to 268,000), equating to around 1 in 20 people.

Variant Analysis

The [World Health Organization \(WHO\) have defined names for Variants of Concern](#). These are variants that the UK government has under surveillance. You can find out more in the [SARS-CoV-2 variants of concern and variants under investigation in England briefing document \(PDF, 2.51MB\)](#).

UK Variants of Concern:

- Alpha: B.1.1.7
- Beta: B.1.351
- Gamma: P.1
- Delta: B.1.617.2 and its genetic descendants
- Omicron: B.1.1.529 (which includes sublineages BA.1, BA.2 and BA.3)

The Omicron variant (B.1.1.529) of COVID-19 has changes in one of the three genes that coronavirus swab tests detect, known as the S-gene. This means in cases compatible with the Omicron variant, the S-gene is no longer detected by the current test. When there is a high viral load (for example, when a person is most infectious) absence of the S-gene in combination with the presence of the other two genes (ORF1ab and N-genes) is a reliable indicator of the Omicron variant (B.1.1.529). However, as the viral load decreases (for example, if someone is near the end of their recovery from the infection), the absence of the S-gene is a less reliable indicator of the Omicron variant.

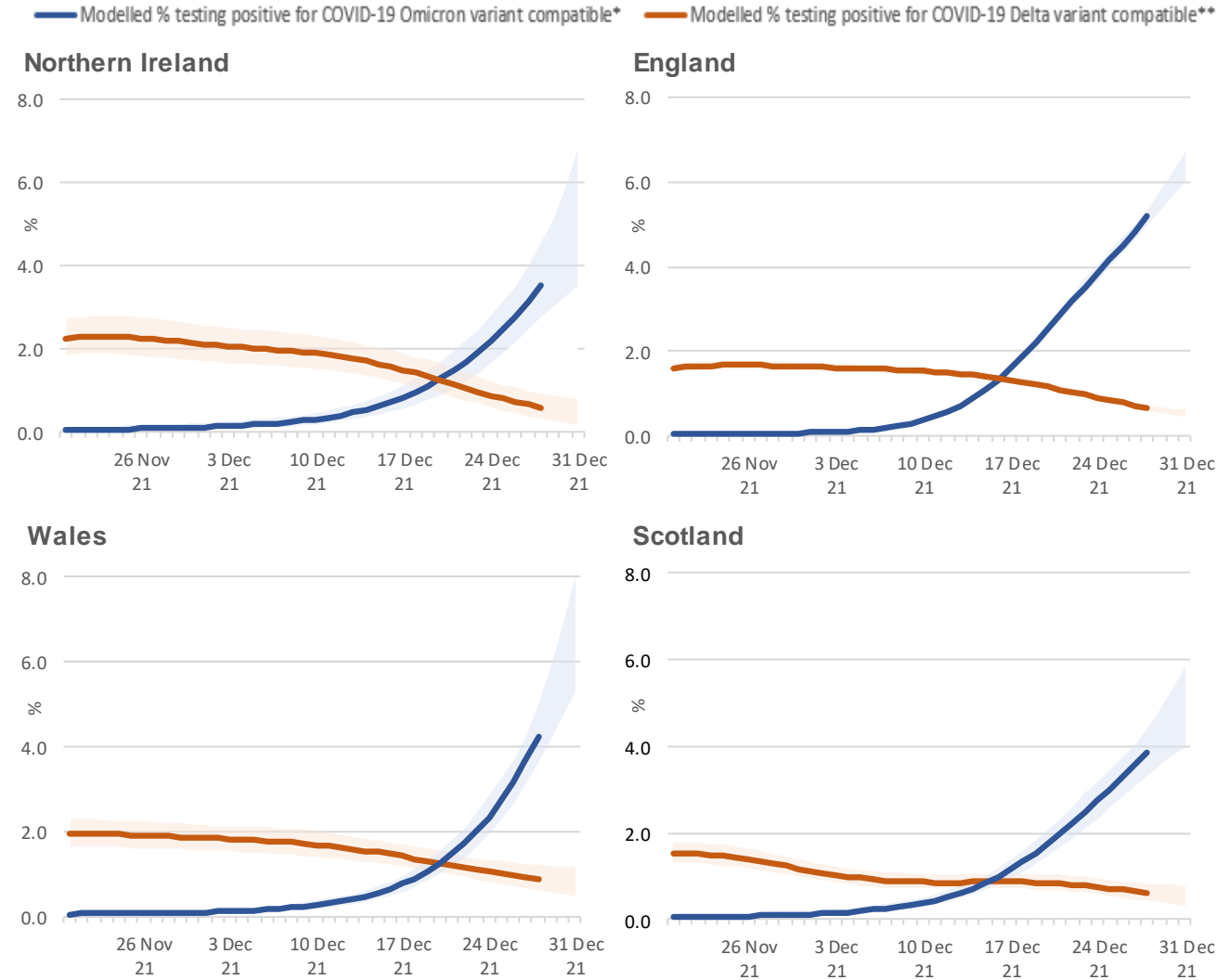
More information on how variants from positive tests on the survey are measured can be found in the ONS [Understanding COVID-19 Variants blog](#) and in the [methodology article](#).

Variant analysis across the UK

COVID-19 infections compatible with the Omicron variant continued to increase rapidly across England, Wales, Northern Ireland and Scotland in the week ending 31 December 2021 and Omicron is now the most common variant across all UK countries.

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 only on the ORF1ab and N-genes (denoted Omicron-compatible) will be the Omicron variant.

Figure 2a, 2b, 2c, 2d: Modelled percentage of positive cases compatible with the Delta variant and compatible with the Omicron variant across the UK



* Omicron variant compatible positives are defined as those that are positive on the ORF1ab-gene and N-gene, but not the S-gene.

** Delta variant compatible positives will mostly have a gene pattern ORF1ab+N+S (or occasionally S+ORF1ab and S+N), and so in this analysis are defined as those that are positive on the ORF1ab, N-gene and S-gene, as well as gene patterns N+S and ORF1ab+S.

Methodology

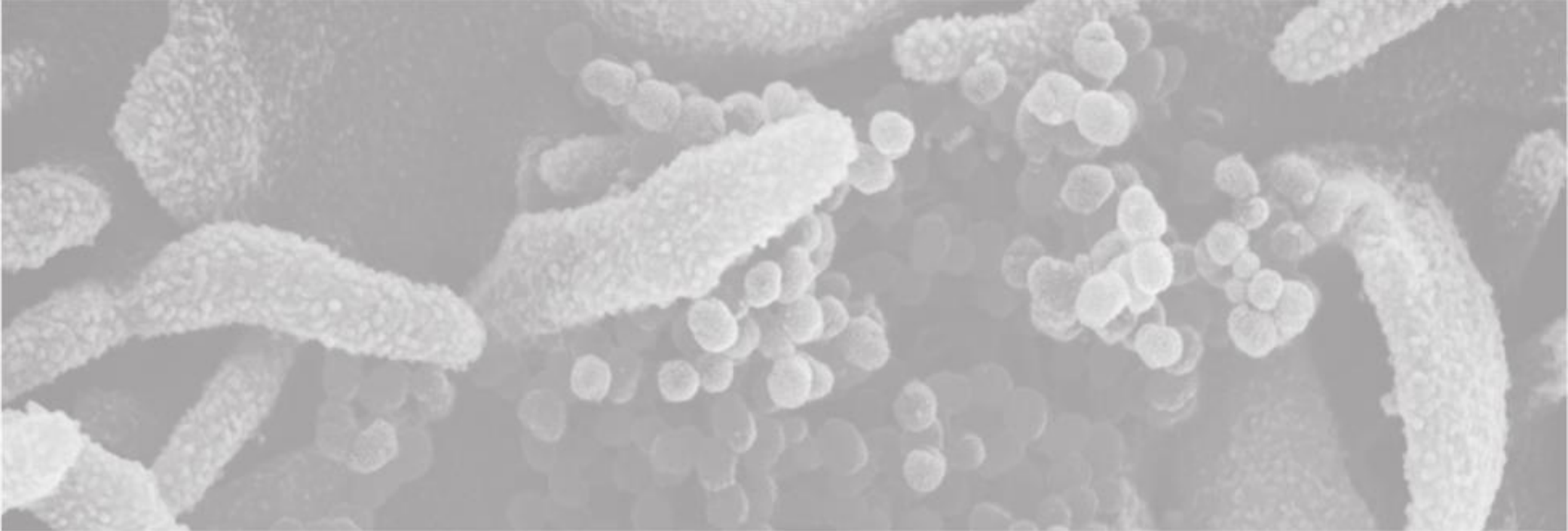
The results are based on nose and throat swabs provided by participants to the study. As well as looking at incidence overall, the survey will be used to examine the characteristics of those testing positive for COVID-19 and the extent to which those infected experience symptoms.

Extending the COVID-19 Infection Survey to Northern Ireland has been achieved by a collaboration between the Department of Health, Public Health Agency (PHA), Northern Ireland Statistics and Research Agency (NISRA) and the Office for National Statistics (ONS) and its various survey partners. Fieldwork commenced in Northern Ireland on 27th July 2020. It is important to note that there is a significant degree of uncertainty with the estimates. This is because, despite a large sample of participants, the number of positive cases identified is small. Estimates are provided with 95% confidence intervals to indicate the range within which we may be confident the true figure lies.

The results are for private households only and do not apply to those in hospitals, care homes or other institutional settings.

The Office for National Statistics (ONS) publishes [weekly statistical bulletins and references tables, including results for England, Wales, Scotland and Northern Ireland](#) on its website. Further detail for Northern Ireland is available in the ONS [data tables](#).

Further information about quality and methodology can be found on the [ONS website](#).



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