Llywodraeth Cymru
Welsh Government

STATISTICS

Coronavirus (COVID-19) infection survey (positivity estimates): 25 November to 1 December 2021

Analysis of the proportion of people testing positive for COVID-19 for 25 November to 1 December 2021.

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Contents

Introduction

Antibody data for Wales is now published fortnightly in a separate release.

The Coronavirus (COVID-19) Infection Survey (CIS) is run across the whole of the UK and aims to estimate:

- how many people have the infection over a given time (positivity)
- how many new cases occur over a given period (incidence)
- how many people have antibodies to COVID-19

The survey helps track the extent of infection and transmission of COVID-19

among people in private residences, referred to as the **community population**.

Proportion of people in Wales who had COVID-19

For the week of 25 November to 1 December 2021 it is estimated that 1.98% of the **community population** had COVID-19 (95% **credible interval**: 1.62% to 2.34%).

This equates to around 1 in 50 individuals (95% credible interval: 1 in 60 to 1 in 45), or an estimated 60,300 people in total (credible interval: 49,400 to 71,200).

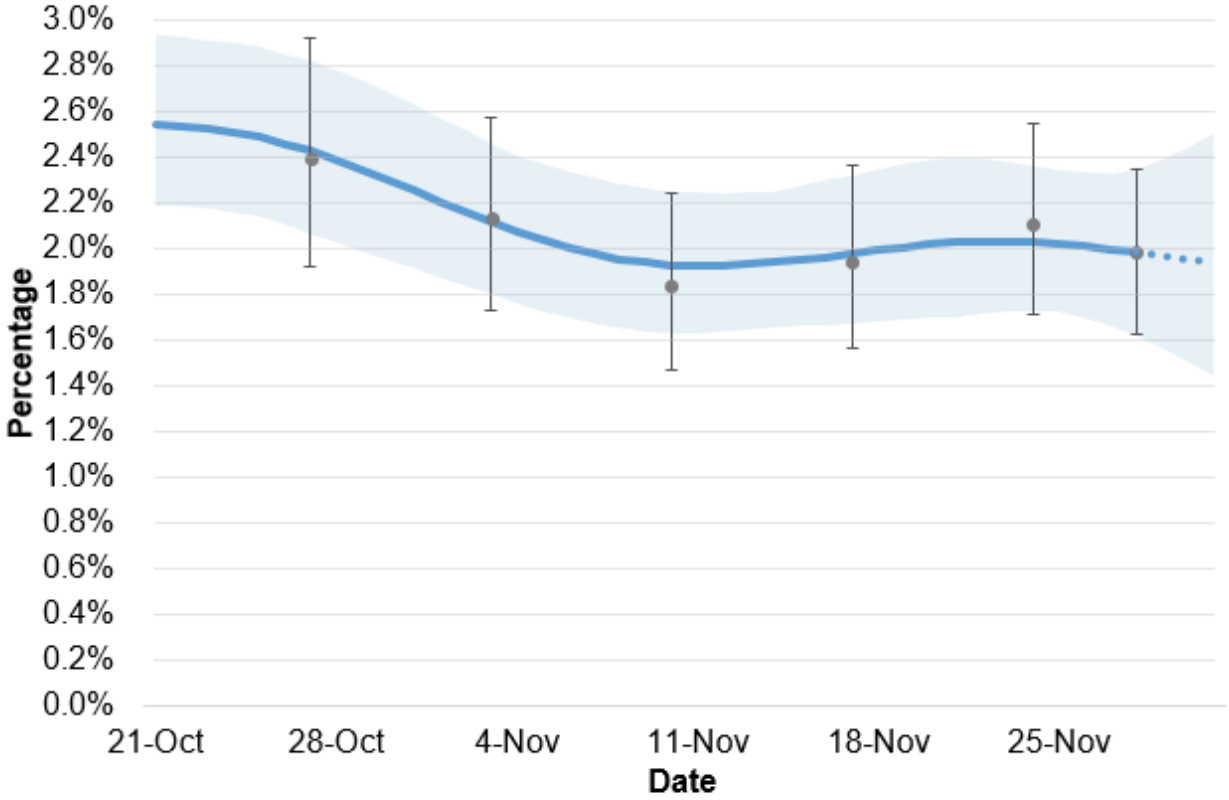
For the percentage of people testing positive in Wales the rates over the most recent three weeks appear stable.

Since the estimates are based on a relatively low number of positive tests, caution should be taken in over-interpreting any small movements in the latest trend.

Further information on the classification of positive cases can be found on the **Office for National Statistics (ONS) website**.

Please note that there is a greater lag in data from the infection survey than from other sources such as **Public Health Wales**.

Chart 1: Official estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) on nose and throat swabs since 21 October 2021



Source: Coronavirus (COVID-19) Infection Survey, ONS
The blue line and shading represent the modelled trend and 95% credible intervals based on the latest data. The point estimate and error bars are the official estimates published at the time. Estimates for the last few days of the series, shown as dashed lines in the chart, have more uncertainty.

Since the end of May, infections compatible with the Delta variant have been the most common across all four UK countries. Because of this high proportion of a single variant, we have not included any breakdown by variant. We last **published our main variant analysis** on the 23 July 2021, where more detail can be found. Infections by variant will continue to be monitored and the analysis will be re-introduced if the situation changes.

The percentage of people testing positive for COVID-19 by single year of age

since 21 October 2021 for Wales, Northern Ireland, England and Scotland is provided in the **ONS dataset**.

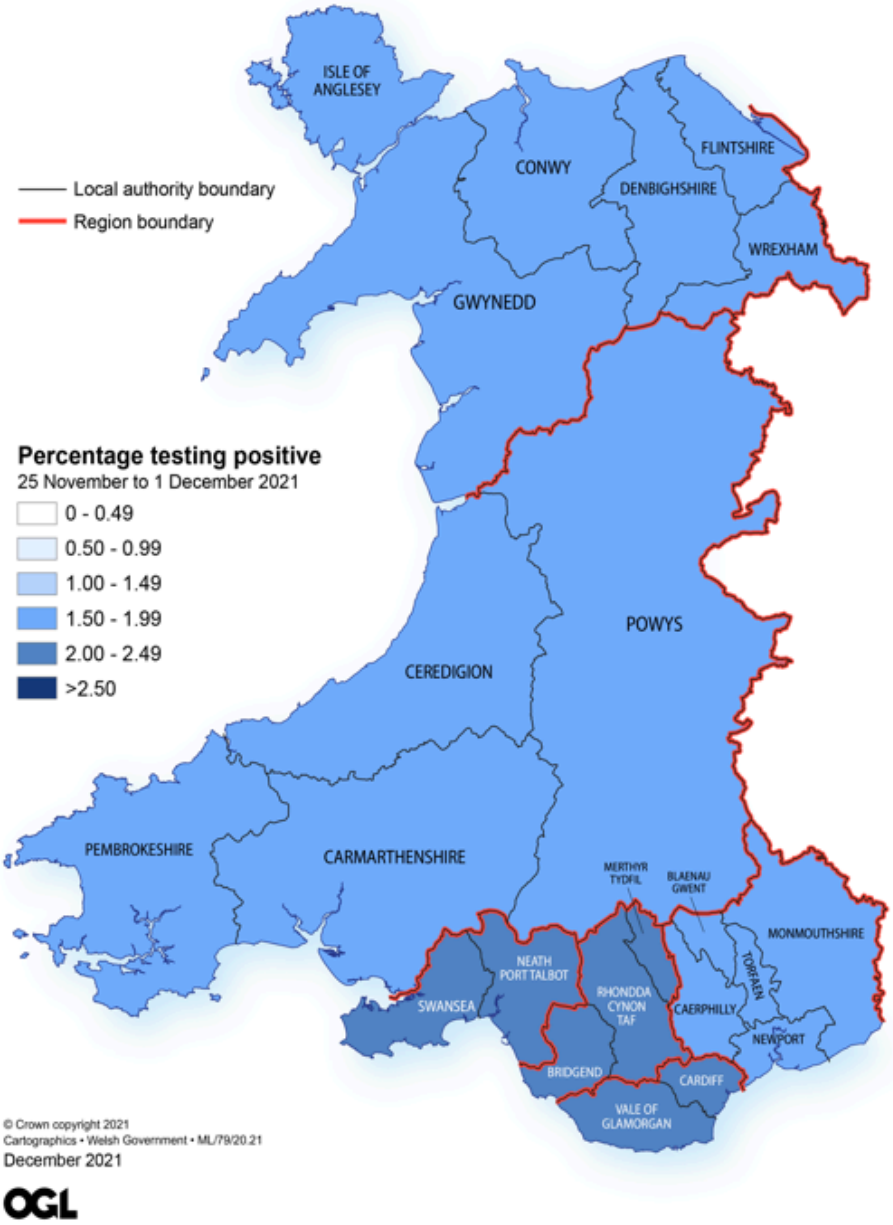
Percentage of people testing positive by region

Modelled estimates are provided for regions in Wales. Estimates are provided for the seven days up to 1 December 2021 based on modelling the entire seven-day period.

The rate of positive cases appears to be highest in the region covering Swansea and Neath Port Talbot, though differences between the regions are small. The regions covering Ceredigion, Pembrokeshire, Carmarthenshire, Powys and Isle of Anglesey, Gwynedd, Conwy, Denbighshire, Flintshire, Wrexham have lower rates of positivity.

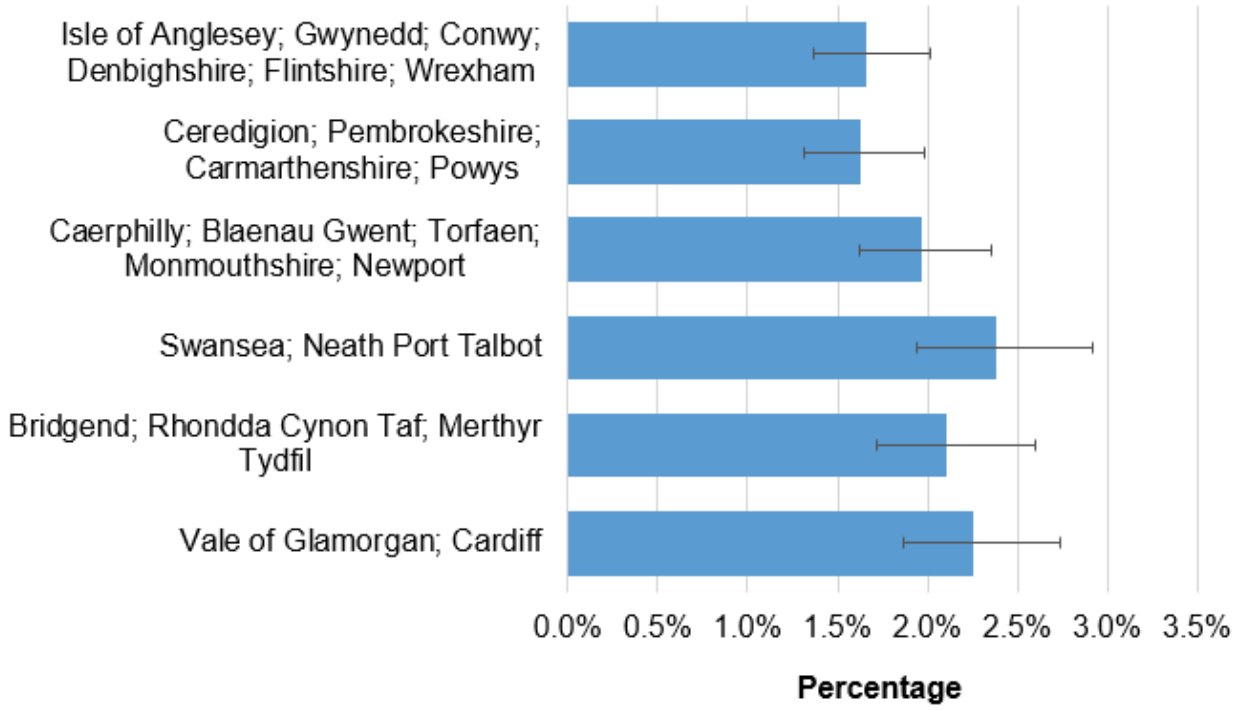
Please use caution when comparing regional estimates against the overall national estimate. The regional estimates are based on a different model and should not be compared with the national positivity estimate. Due to smaller sample sizes there is a higher degree of uncertainty in estimates for individual regions, as indicated by larger credible intervals.

Figure 1: Estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) by region between 25 November and 1 December 2021



Source: Coronavirus (COVID-19) Infection Survey, ONS

Chart 2: Estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) by region 25 November to 1 December 2021



Source: Coronavirus (COVID-19) Infection Survey, ONS
The blue bars give point estimates and the horizontal lines indicate the 95% credible intervals. Modelled estimates shown for regional estimates for the seven days up to 1 December 2021 based on modelling the entire seven-day period.

Estimates for incidence in Wales

Estimates of incidence of PCR-positive cases are produced for England, Wales, Northern Ireland and Scotland and are available in the data tables on the **ONS website**.

The incidence of new infections (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 the main measure of positivity (how many people test positive at any given time) to provide a fuller understanding of the coronavirus

(COVID-19) pandemic.

For more information on the method of estimating incidence please see the methods article on the **ONS website**.

In Wales, during the week ending 17 November 2021, it is estimated that there were 16.43 new positive coronavirus (COVID-19) cases per 10,000 people per day (95% credible interval: 12.14 to 21.42).

This equates to 5,000 new positive cases in Wales per day (95% credible interval: 3,700 to 6,500).

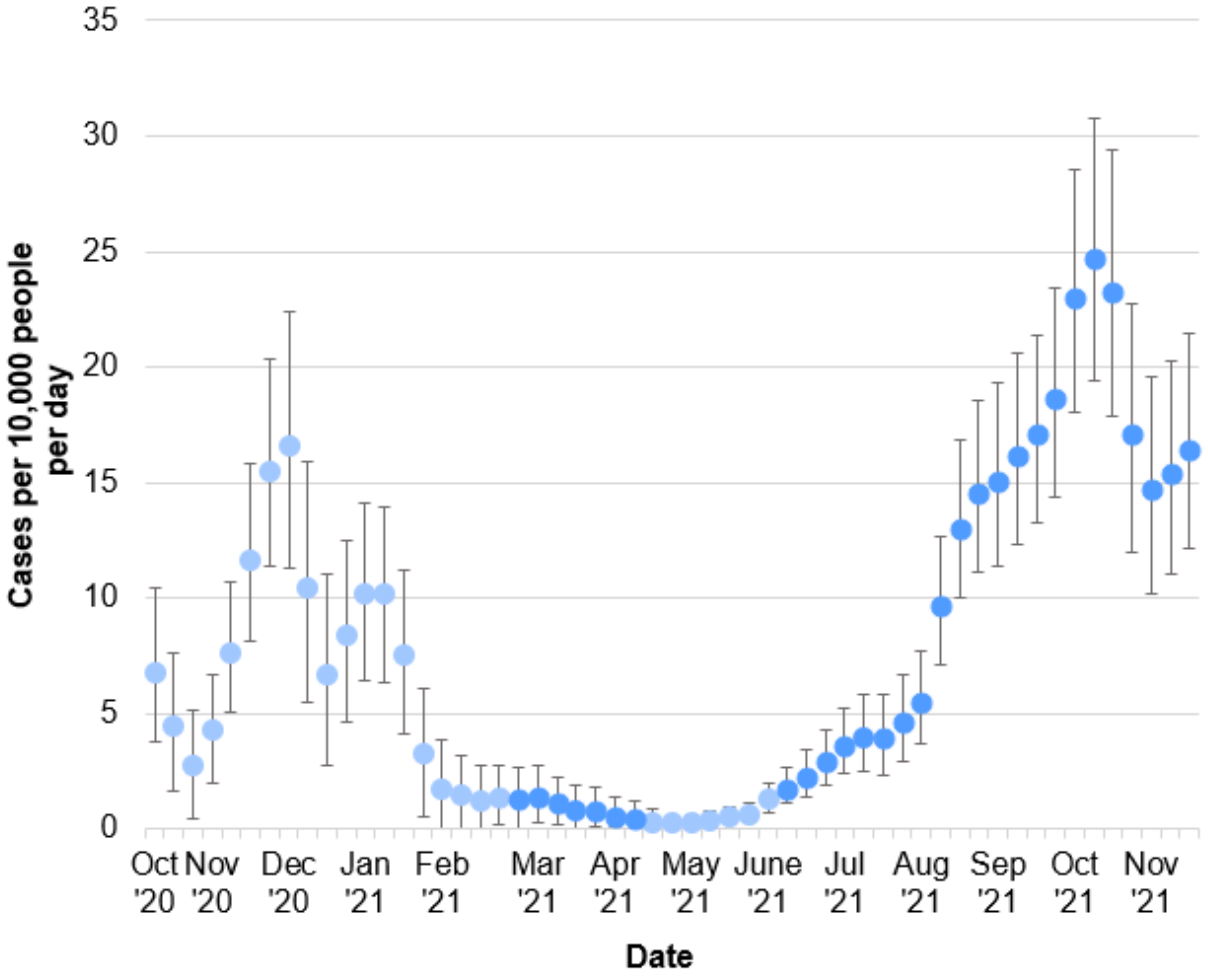
The trend was uncertain in the incidence rate in Wales in the week up to 17 November 2021.

The incidence of new positive cases in Wales is again at the level seen in September after a period of increase. This increase had followed a period of low incidence during the Spring and early Summer period. Credible intervals are wide due to the smaller sample size, however, and care should be taken in interpreting results.

When prevalence is very low it may not be possible to produce a reliable estimate.

Indicative estimates are provided going back to 28 October 2020.

Chart 3: Estimates of incidence rates per 10,000 people per day since 28 October 2020



Source: Coronavirus (COVID-19) Infection Survey, ONS

The point estimate and error bars are unpublished indicative estimates (light blue) and the published official estimates (dark blue). Estimates shown for surveillance weeks from 28 October 2020 to 17 November 2021.

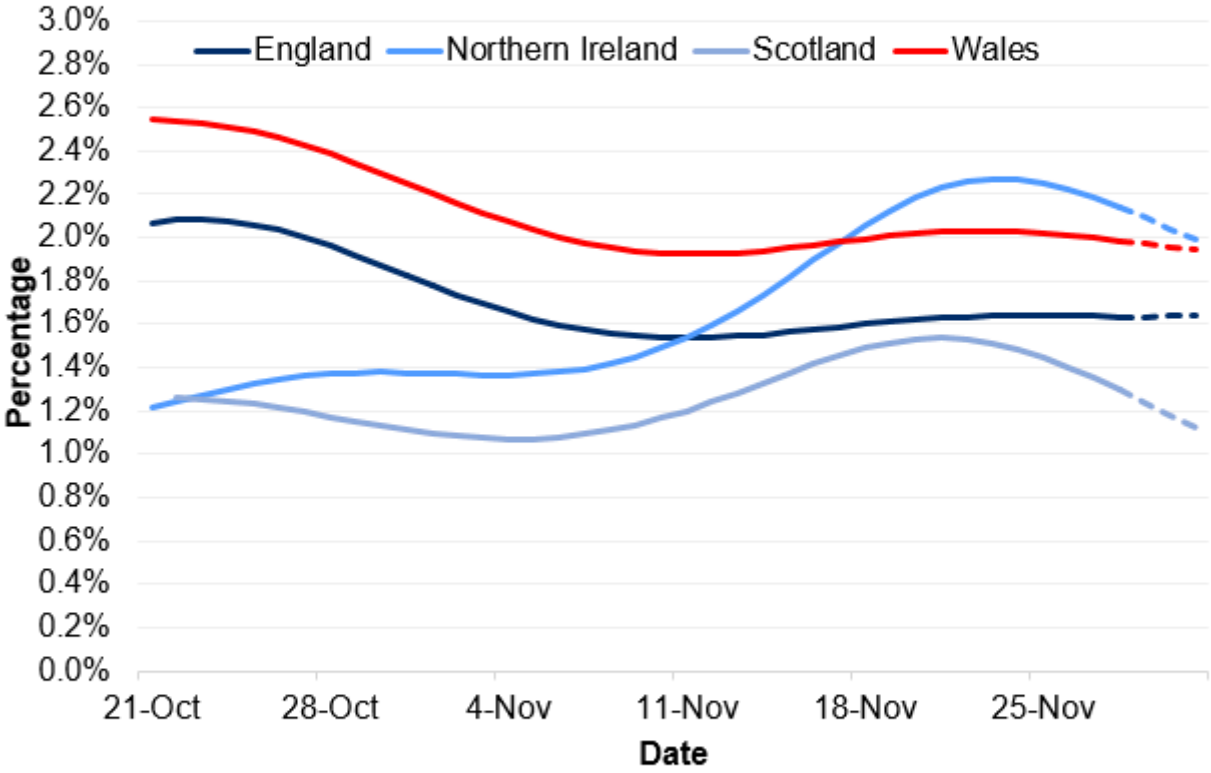
Estimates for the countries of the UK

At the midpoint of the most recent week (25 November to 1 December 2021), the estimated percentage of the community population with COVID-19 across the UK ranged from 1.24% in Scotland to 2.14% in Northern Ireland.

The percentage of people testing positive increased in England and Northern Ireland over the most recent two weeks but the trend was uncertain over the most recent week. The percentage of people testing positive decreased in Scotland* in the most recent week, whilst the trend appears stable in Wales over the most recent three weeks.

There is some uncertainty around the individual point estimates for the nations. Estimates for the last few days of the series, shown as dashed lines in the chart below, have more uncertainty.

Chart 4: Estimates of the percentage of the population in the UK countries testing positive for the coronavirus (COVID-19) on nose and throat swabs since 21 October 2021*



Source: Coronavirus (COVID-19) Infection Survey, ONS
*The reference week in Scotland runs from 26 November to 2 December 2021.
The lines represent the modelled trend based on the latest data. Estimates for the last few days of the series, shown as dashed lines in the chart, have more uncertainty.

The following tables summarise positivity rates and incidence rates across the UK countries.

Table 1: Positivity rates across UK countries for the week 25 November to 1 December 2021*

Country	Positivity rates (95% Credible Interval)		
Wales	1.98% (1.62 to 2.34)	1 in 50 people (1 in 60 to 1 in 45)	60,300 people (49,400 to 71,200)
England	1.64% (1.54 to 1.73)	1 in 60 people (1 in 65 to 1 in 60)	891,500 people (842,000 to 941,200)
Scotland	1.24% (1.01 to 1.50)	1 in 80 people (1 in 100 to 1 in 65)	65,200 people (53,200 to 79,100)
Northern Ireland	2.14% (1.67 to 2.67)	1 in 45 people (1 in 60 to 1 in 35)	39,300 people (30,600 to 49,000)

*The reference week in Scotland runs from 26 November to 2 December 2021.

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

Table 2: Official estimates of incidence rates across UK countries, 11 to 17 November 2021

Country	Incidence (95% Credible Interval)	
Wales	16.43 cases per 10,000 people per day (12.14 to 21.42)	5,000 new cases per day (3,700 to 6,500)
England	13.32 cases per 10,000 people per day (12.23 to 14.48)	72,600 new cases per day (66,700 to 79,000)

Country	Incidence (95% Credible Interval)	
Scotland	14.51 cases per 10,000 people per day (11.37 to 18.31)	7,600 new cases per day (6,000 to 9,600)
Northern Ireland	20.96 cases per 10,000 people per day (15.74 to 27.13)	3,800 new cases per day (2,900 to 5,000)

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

Definitions

Cases compatible with variants

Cases identified as being compatible with known variants of Covid-19 based on their genetic patterns. **Variants of Concern and Variants of Interest have recently been relabelled by the World Health Organisation (WHO)**. **Further information on the identification of variants in the survey can be found on the ONS website**.

Community population

This survey covers people living in private households only and this is referred to as the community population. Residents in hospitals, care homes and/or other institutional settings are excluded.

Confidence intervals

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.

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.

Incidence

The number of new infections over a period of time.

Modelled estimates

Estimates of positivity from this survey are based on statistical modelling of the underlying data. The model smooths the series to understand the trend and is revised each week to incorporate new test results.

Point estimates

The headline point estimates are based on the modelled trend and reflect the most representative reference point for the given week.

Positivity rate

The estimated proportion of people who test positive for coronavirus (COVID-19) at a point in time, with or without symptoms, based on nose and throat swabs.

Quality and methodology information

The results of the survey are based on self-administered nose and throat swabs provided by participants to the study. A subgroup of participants also provide blood test, taken by trained field staff.

As well as looking at overall **incidence**, **positivity** and antibody level, 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. The results are for private households only and do not apply to those in hospitals, care homes or other institutional settings. This is referred to as the **community population**.

The survey covers all the countries of the UK, enabling estimates to be calculated for each country individually, and in time the UK as a whole.

When comparing Test and Trace (T&T) and estimates from the COVID-19 Infection Survey it is important to note that T&T provides information on the number of tested people who are positive, while the estimates in this release are based on the total number of people who are currently infected at a particular point in time (prevalence). Estimates from this survey are also based on a random sample of the population, including people who are asymptomatic. Asymptomatic individuals are less likely to go for a test and therefore appear in the T&T data.

Fieldwork started first in England on 26 April 2020 meaning there is more cumulative data available for England enabling more detailed analysis at present. Fieldwork began in Wales on 29 June 2020 followed by Northern Ireland on 26 July 2020 and Scotland on 21 September 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% **credible** or **confidence** intervals to indicate the range within which we may be confident the true figure lies.

The **modelled estimates** are carried out afresh each week using the previous 6 weeks' data. The model works by smoothing the series to understand the trend and is revised each week to incorporate new test results. This means that the latest estimate for an earlier period may be different to the official estimate that was produced at the time. Chart 1 shows the latest modelled trend and the official **(point) estimates** that were published at the time.

ONS publishes **weekly statistical bulletins** and references tables and periodic **statistical articles** which include results for England, Wales, Northern Ireland and Scotland as they become available. The estimates for **Northern Ireland** and **Scotland** are published by the respective administrations, as we do here for Wales.

Further information about quality and methodology can be found on the **ONS website** and the survey pages on the **Oxford University site**.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural wellbeing of Wales. The Act puts in place seven wellbeing goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ('national indicators') that must be applied for the purpose of measuring progress towards the achievement of the wellbeing goals, and (b) lay a copy of the national indicators before Senedd Cymru. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the **Well-being of Wales report**.

Further information on the **Well-being of Future Generations (Wales) Act 2015**.

The statistics included in this release could also provide supporting narrative to

the national indicators and be used by public services boards in relation to their local wellbeing assessments and local well-being plans.

Next update

17 December 2021

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About this document