Llywodraeth Cymru
Welsh Government

STATISTICS

Coronavirus (COVID-19) infection survey (positivity estimates): 22 to 28 February 2023

Analysis of the proportion of people testing positive for COVID-19 for 22 to 28 February 2023.

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Contents

Introduction

Antibody data for Wales is published 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**.

Previous estimates can be found in the **Coronavirus (COVID-19) Infection Survey datasets (Office for National Statistics (ONS))**.

Proportion of people in Wales who had COVID-19

For the week 22 to 28 February 2023, it is estimated that 2.14% of the **community population** had COVID-19 (95% **credible interval**: 1.75% to 2.56%).

This equates to approximately 1 person in every 45 (95% credible interval: 1 in 55 to 1 in 40), or 66,200 people during this time (95% credible interval: 54,100 to 79,100).

The trend in the percentage of people testing positive in Wales was uncertain the most recent week but increased over the last two weeks.

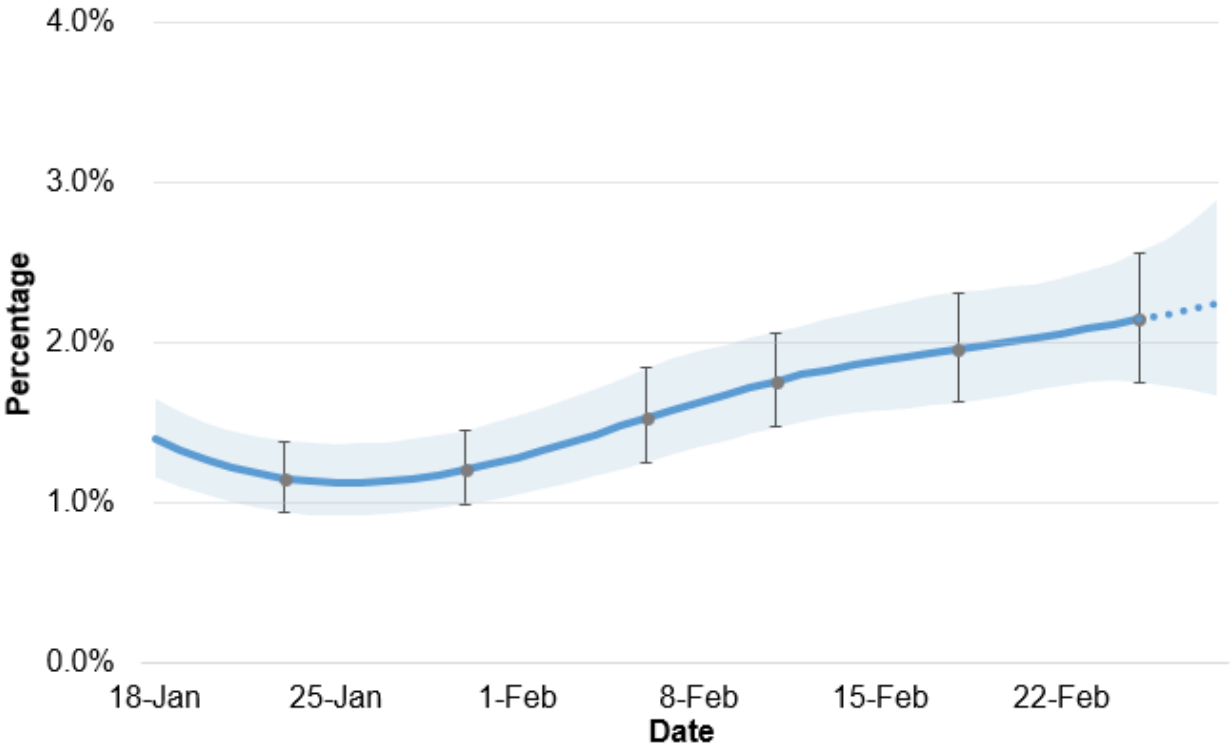
Since the estimates are based on a relatively low number of positive tests,

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 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 18 January 2023



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.

Percentage of people testing positive by region

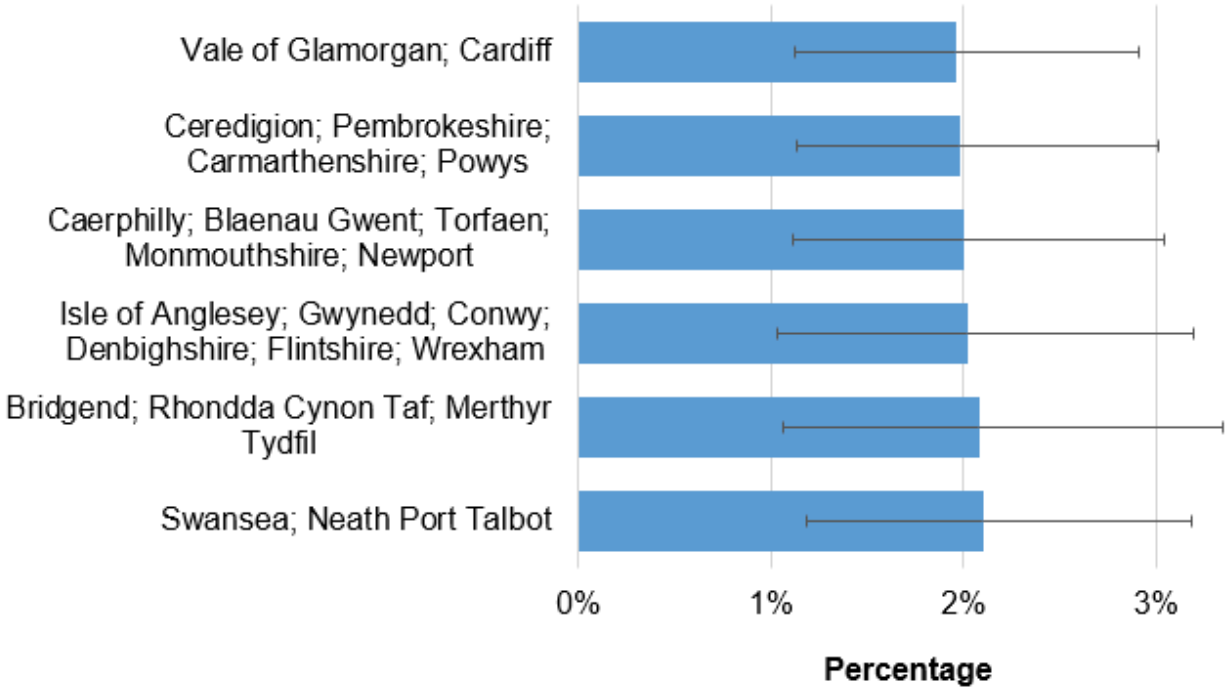
Modelled estimates are provided for regions in Wales. Estimates are provided for the seven days up to 28 February 2023 based on modelling the entire seven-

day period.

The rate of positive cases appears to be highest in the region covering Swansea and Neath and Port Talbot, though differences between the regions are small. The regions covering The Vale of Glamorgan and Cardiff 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.

Chart 2: Estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) by region 22 February to 28 February 2023



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 28 February 2023 based on modelling the entire seven-day period.

Estimates for the countries of the UK

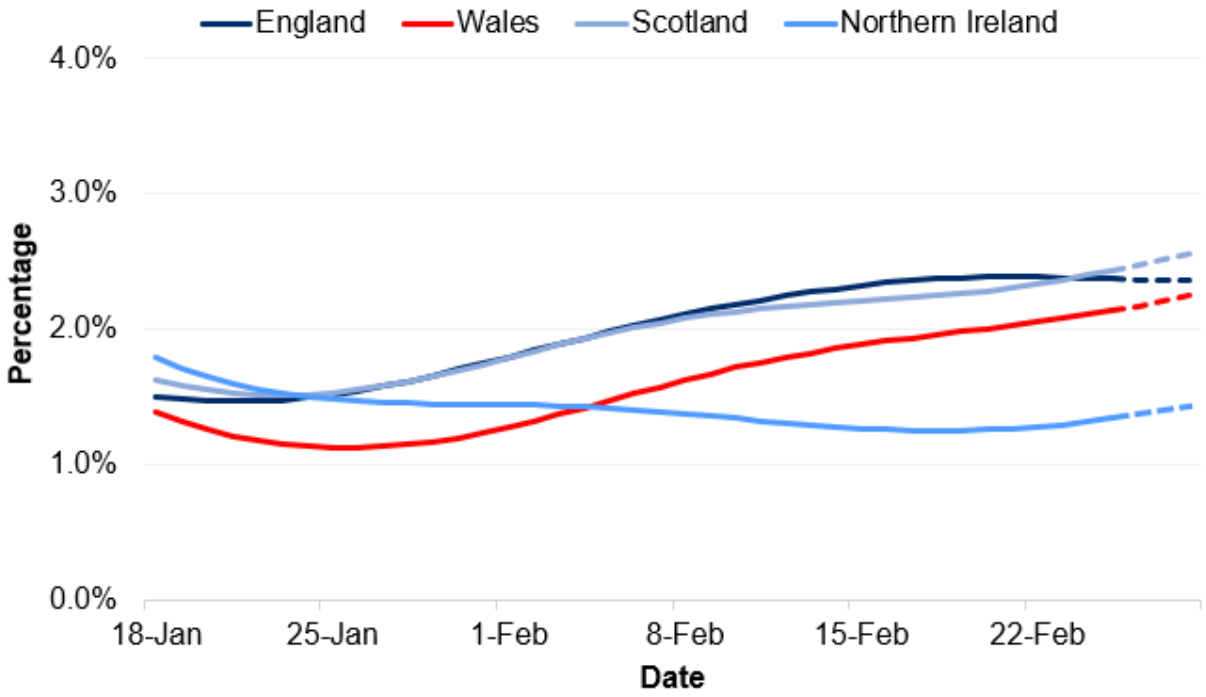
At the midpoint of the most recent week (22 to 28 February 2023), the estimated percentage of the community population with COVID-19 across the UK ranged from 1.35% in Northern Ireland to 2.44% in Scotland.

The trend in the percentage of people testing positive was uncertain in Wales,

England and Northern Ireland in the most recent week. The percentage of people testing positive increased in Scotland in the most recent week.

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 3: Estimates of the percentage of the population in the UK countries testing positive for the coronavirus (COVID-19) on nose and throat swabs since 18 January 2023



Source: Coronavirus (COVID-19) Infection Survey, ONS
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 table summarises positivity rates across the UK countries.

Table 1: Positivity rates across UK countries for the week 22 to 28 February 2023

Country	Positivity rates (95% Credible Interval)		
Wales	2.14% (1.75 to 2.56)	1 in 45 people (1 in 55 to 1 in 40)	66,200 people (54,100 to 79,100)
England	2.38% (2.27 to 2.49)	1 in 40 people (1 in 45 to 1 in 40)	1,333,400 people (1,270,700 to 1,396,600)
Scotland	2.44% (2.07 to 2.83)	1 in 40 people (1 in 50 to 1 in 35)	128,400 people (109,000 to 149,000)
Northern Ireland	1.35% (0.93 to 1.84)	1 in 75 people (1 in 110 to 1 in 55)	24,700 people (17,100 to 33,700)

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

Estimates for incidence in Wales

Estimates of incidence of PCR-positive cases are produced for England, Wales, Northern Ireland and Scotland on a monthly basis.

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, in the week up to 14 February 2023, it is estimated that there were 23.75 new positive coronavirus (COVID-19) cases per 10,000 people per day (95% credible interval: 18.39 to 30.00).

This equates to 7,334 new positive cases in Wales per day (95% credible interval: 5,677 to 9,263).

Credible intervals are wide in Wales, Northern Ireland and Scotland due to the smaller sample sizes and care should be taken in interpreting results.

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

Table 2: Official estimates of incidence rates across UK countries, 8 to 14 February 2023

Country	Incidence (95% Credible Interval)	
Wales	23.75 cases per 10,000 people per day (18.39 to 30.00)	7,334 new cases per day (5,677 to 9,263)
England	28.60 cases per 10,000 people per day (26.84 to 30.44)	160,437 new cases per day (150,585 to 170,778)
Scotland	27.09 cases per 10,000 people per day (21.82 to 32.94)	14,258 new cases per day (11,484 to 17,339)
Northern Ireland	13.79 cases per 10,000 people per day	2,530 new cases per day

Country	Incidence (95% Credible Interval)	
	(8.98 to 19.44)	(1,646 to 3,565)

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

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 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. Under section 10(8) of the Well-being of Future Generations Act, where the Welsh Ministers revise the national indicators, they must as soon as reasonably practicable (a) publish the indicators as revised and (b) lay a copy of them before the Senedd. These national indicators were laid before the Senedd in 2021. The indicators laid on 14 December 2021 replace the set laid on 16 March 2016.

Information on the indicators, along with narratives for each of the wellbeing goals and associated technical information is available in the **Wellbeing 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 wellbeing plans.

Next update

17 March 2023

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