

COVID-19 Wales situational report: 19 August 2021

Update from the COVID-19 Intelligence Cell and Health Protection Advisory Group.

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COVID-19 situation report summary

Key points to note

Wales moved to Alert Level 0 on 7 August.

Overall cases of COVID-19 and test positivity has increased across Wales, following a small decrease last week. It is currently difficult to say with any certainty what impact the move to Alert level 0 has had on transmission in Wales, as not enough time has passed to provide a clear signal. We will need to monitor case rates and other key indicators in each nation carefully to better understand the impact of easements of restrictions and return of schools.

The JBC consensus estimate of the reproduction number for Wales is between 0.9 and 1.2, while PHW's estimate is between 1.3 and 1.4. Source: JBC/ PHW (19/8/21). Note that JBC's estimate is typically lagged by 2-3 weeks while PHW, which uses a different methodology, is lagged by around 1 week. Slide 3, Source: PHW.

The trend for COVID-19 hospital occupancy in Wales is currently uncertain but appears to be stable at 220 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed as at 18 August, after increasing through July from a low base. The trend for invasive ventilated bed occupancy of COVID-19 patients appears to be increasing after briefly stabilising last week, with 26 patients with Suspected or Confirmed COVID-19 in critical care beds in Wales. COVID-19 admissions of suspected and confirmed COVID-19 patients are currently at the lowest levels since the pandemic began at an average of 15 patients per day as at 17 August.

As at 17 August 2021, Wales has had 15,341 confirmed cases of the dominant Delta variant (an increase of 1,981 from the previous week). No other variants of concern were detected in Wales. Data regarding vaccine status of cases and hospitalisations is currently being amended by Public Health Wales and so is not available. Source: PHW.

As at 18 August 2021, a total of 4,470,306 (+49,136) doses of COVID-19 vaccine were given in Wales and recorded in the COVID-19 Welsh Immunisation System. Of this 2,320,165 (+18,567) were first doses and 2,150,141 (+30,659) were second doses. The JCVI recently approved first dose vaccination of 16 and 17 year olds in the UK and this has recently begun in Wales. Source: PHW, SPI-M-O.

Key indicators

Several key indicators are starting to show an increase, following decreases in recent weeks.

Please note that the arrows represent a change in comparison for the last week.

	Current value (14/ 08/21)	Change since previous week (07/08/21 - 14/08/21 unless stated otherwise)		
		Percentage change	e Value change	
Confirmed case rate (rolling 7 day sum per 100k)	209	+46%	1	(+66)
Confirmed case rate for over 60s (rolling 7 day sum per 100k)	87	+52%	↑	(+30)

Test positivity (7 day RA)	13.7%	+32%	1	(+3.4 percentage points)
Population estimated to have COVID-19 (prevalence) ¹	0.77%	+67%	Ţ	(+0.31 percentage points)
NHS COVID-19 Admissions ²	16	+11%	Ţ	(+2)
ONS deaths (7 day sum) ³	18	-10%	Ļ	(-2)
PHW deaths (7 day sum)	11	-21%	Ļ	(-3)

- 1. Latest COVID Infection Survey data is taken from 8 August 2021 to 14 August 2021.
- 2. Seven day rolling average to the current date of confirmed COVID-19 patients, does not include COVID-19 suspected or recovering.
- 3. Latest ONS deaths data is to 6 August 2021 (rather than 14 August 2021) for the current value. Data to 30 July 2021 is used for the change since previous week.

What is the current status of the epidemic?

Cases per 100,000 population (7 day period ending 12 August 2021)

Local Authority	Number	% of All Wales Total	Case Incidence per 100,000	Change from previous week
Denbighshire	337	5.8%	352.2	17% ↑

296	5.1%	252.6	5% ↑
336	5.8%	247.1	23% ↑
384	6.6%	248.3	53% ↑
363	6.2%	232.5	24% ↑
244	4.2%	165.9	8% ↑
143	2.5%	151.2	8% ↑
188	3.2%	140.7	18% ↑
241	4.1%	182.0	30% ↑
446	7.7%	180.6	48% ↑
295	5.1%	205.8	82% ↑
549	9.4%	149.6	29% ↑
249	4.3%	199.9	74% ↑
186	3.2%	198.0	69% ↑
74	1.3%	122.7	9% ↑
	 336 384 363 244 143 188 241 446 295 549 249 186 	3365.8%3846.6%3636.2%2444.2%1432.5%1883.2%2414.1%4467.7%2955.1%5499.4%2494.3%1863.2%	3365.8%247.13846.6%248.33636.2%232.52444.2%165.91432.5%151.21883.2%140.72414.1%182.04467.7%180.62955.1%205.85499.4%149.62494.3%199.91863.2%198.0

Blaenau Gwent	112	1.9%	160.3	67% ↑
Caerphilly	252	4.3%	139.2	28% ↑
Rhondda Cynon Taf	438	7.5%	181.5	80% ↑
Isle of Anglesey	96	1.7%	137.1	43% ↑
Carmarthenshire	210	3.6%	111.2	21% ↑
Pembrokeshire	199	3.4%	158.2	69% ↑
Ceredigion	103	1.8%	141.7	84% ↑
Unknown	69	1.2%	-	17% ↑
Total	5810	100.0%	142.4	-1% ↓

At a Wales level, on 12 August 2021, the 7-day rolling incidence of COVID-19 cases and percentage of people testing positive for COVID-19 have sharply increased since last week (slide 2).

The JBC consensus Reproduction number (Rt) estimate for Wales is between 0.9 and 1.2 (19 August 2021), with daily growth rate of between -2% and +7 % and a doubling time of flat to doubling every 10 days. Using PHW positive test data only (more timely data but limited by variation in testing), Rt is estimated to be between 1.3 and 1.4 for Wales (18 August 2021). The central Rt estimate is highest for the Swansea Bay and Hywel Dda health boards at 1.6. Source: JBC/ PHW.

7-day cumulative case incidence in Wales has increased by 35% to 184.3 per 100,000 population in the last week.

Case incidence is increasing in all of the 22 local authorities. Case incidence is above 200 per 100,000 population for 6 of the 22 local authorities. Local authorities with the highest case incidences are Denbighshire and Conwy at 352.2 and 252.6 per 100,000 population, respectively.

Case incidence is highest in those aged 10-19 and 20-29. Case incidence has decreased throughout the last few weeks in these age groups, but has increased in the latest week. Case incidence is highest for the Betsi Cadwaladr health board and increasing for all health boards.

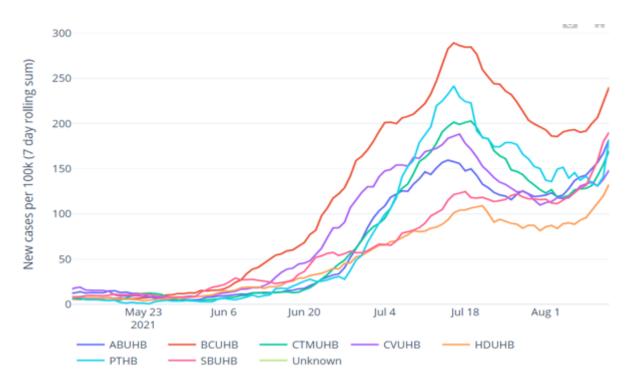
The second table below provides estimates of doubling and halving times based on PHW COVID-19 positive test data. In this table, doubling times are positive, whilst halving times are negative. The 95% confidence intervals are showing in brackets after the central estimate. An asterisk (*) means that there are small numbers and estimates should be treated with caution. Local health board level estimates of Rt and halving times will be unstable when incidence is low.

Reproduction number and halving time (PHW methodology) PHW data by Local Health Board (18 August 2021 estimate)

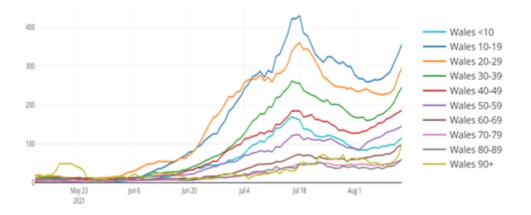
Area	Rt (cases)	Halving time (days)
All Wales	1.4 (1.3 to 1.4)	12 (8 to 23) DOUBLING
Swansea Bay UHB	1.6 (1.5 to 1.7)	8 (7 to 12) DOUBLING
СТМ ИНВ	1.5 (1.4 to 1.5)	10 (6 to 23) DOUBLING

Area	Rt (cases)	Halving time (days)
Aneurin Bevan UHB	1.4 (1.3 to 1.4)	13 (8 to 28) DOUBLING
Cardiff & Vale UHB	1.2 (1.1 to 1.3)	14 (9 to 36) DOUBLING
Hywel Dda UHB	1.6 (1.5 to 1.7)	9 (6 to 14)* DOUBLING
Powys THB	1.5 (1.3 to 1.6)	10 (5 to 595)* DOUBLING
Betsi Cadwaladr UHB	1.3 (1.3 to 1.4)	15 (9 to 43) DOUBLING

Cases per 100k (PHW Data) (7 day rolling sum)



Cases per 100k by age (PHW Data) (7 day rolling sum)



Data as at 12:00PM 18 August 2021 unless otherwise specified.

What is the situation with the NHS and social care?

COVID-19 pressure on the NHS has been generally increasing over recent weeks. As at 18 August 2021, there were 220 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed. This compares to 202 (18 more occupied beds) on 11 August 2021. Confirmed patients accounted for 146 of the total occupied beds.

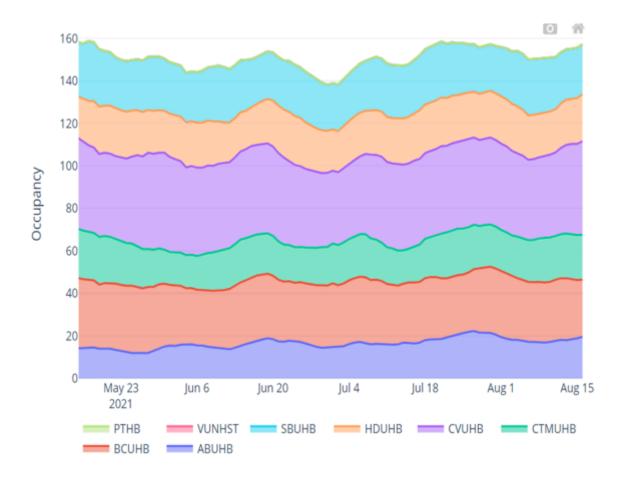
There are 26 patients with Suspected or Confirmed COVID-19 in critical care beds in Wales. This is 138 lower than the maximum COVID-19 position of approximately 164. The total number of patients in critical care for both COVID-19 and non-COVID-19 stands at 160, 8 more than the historic maximum critical care capacity of approximately 152.

In the latest National Situation Background Assessment Recommendation (SBAR) report covering the week of 9 August 2021 to 15 August 2021, IMTs reported 83 care homes were in 'red' status (an ongoing outbreak/incident reported within the last 7 days), with 1 health board reporting having no care homes in 'red' status. This is compared with 112 care homes in 'red' status in the 7 days up to 8 August 2021. Source: National SBAR.

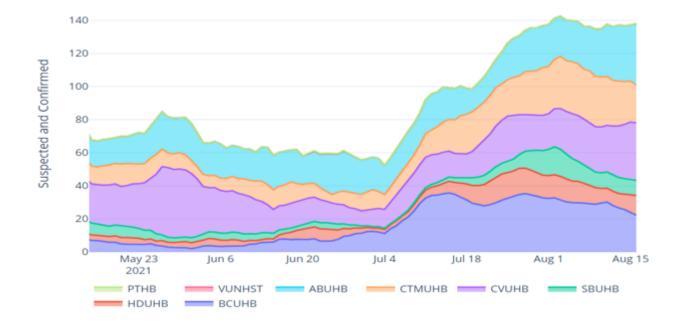


Confirmed hospital occupancy (7 day rolling average)

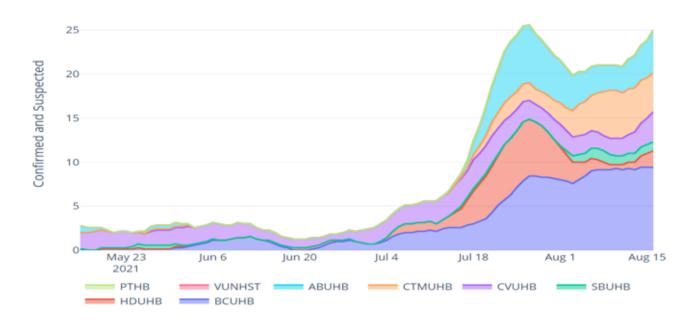
Overall invasive ventilated bed occupancy (7 day rolling average)



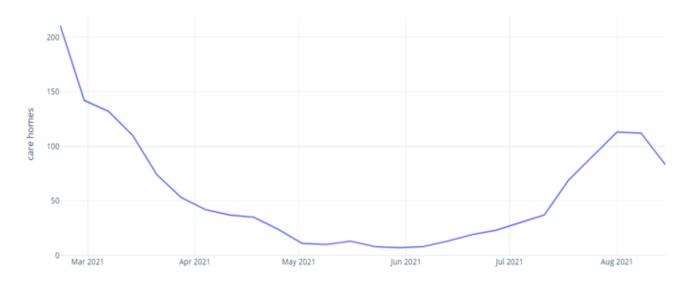
Hospital bed occupancy for suspected and confirmed COVID-19 positive patients (7 day rolling average)



Invasive ventilated bed occupancy for suspected and confirmed COVID-19 positive patients (7 day rolling average)



Number of adult care homes reported an ongoing outbreak/incident (last 7 days)



Wastewater Monitoring for COVID-19

In the recent period up to 15 August 2021, the wastewater signal broadly confirms the national trend in positive COVID-19 cases (PHW) over the same period.

The normalised wastewater SARS-CoV-2 signal across North Wales sites was relatively stable last week and over the past 4 weeks. The slight rise across South Wales reported last week has reversed. Comparing the week ending 15 August 2021 with the previous week, there are still differences between the change in SARS-CoV-2 signal from wastewater data and the change in COVID-19 case incidence data (PHW) over the same time period. (See table below.)

Wastewater signal is a relatively unbiased indicator because it is not dependent

on testing policy and behaviour. The characteristics of the individual sewerage systems could have an impact on the signal being seen. Subsequently, the relationship between cases and wastewater signal is still being investigated.

Sites/regions on the watch-list (increases and/or divergence between SARS-CoV-2 signal and corresponding LSOA PHW COVID-19 case data over the past 2-4 weeks): Kinmel Bay, Treborth in North Wales; and Newport, Cog Moors, Merthyr Mawr, Swansea Bay in South Wales.

Wastewater SARS-CoV-2 signal data below limit of detection recorded as zero. The wastewater data for individual WwTW sites, normalised and unnormalised are inherently noisy. Sampling from Treborth has not been consistent due to construction work at the site, and this has impacted on the North Wales average figures. Wastewater data analysis and reporting is still in a pilot stage and should not be relied upon in isolation.

Changes in mean normalised SARS-CoV-2 signal by catchment. Means taken over each of the last two weeks for each catchment; third column shows the fold change in these means.

Region	Site	2 to 8 August mean	9 to 15 August mean	Fold change ^a
North Wales	Chester	0	1	b↑
North Wales	Flint	0	0.8	b↑

Region	Site	2 to 8 August mean	9 to 15 August mean	Fold change ^a
North Wales	Ganol	1	0.6	0.6 ↓
North Wales	Holyhead	0	0	1
North Wales	Kinmel Bay	1.5	2.5	1.7 ↑
North Wales	Llangefni	0.4	0.2	0.5↓
North Wales	Treborth	0.9	1.1	1.3 ↑
North Wales	Wrexham	1	0.6	0.7 ↓
South Wales	Cardiff Bay	19.4	10.7	0.6 ↓

Region	Site	2 to 8 August mean	9 to 15 August mean	Fold change ^a
South Wales	Cog Moors	1.3	2.4	1.8 ↑
South Wales	Gowerton	17.4	5.8	0.3↓
South Wales	Llanelli Coastal	11.2	3.7	0.3↓
South Wales	Llanfoist	14.1	0	b
South Wales	Merlin's Bridge	0.1	0	b
South Wales	Merthyr Mawr	2.7	3.7	1.4 ↑
South Wales	Newport Nash	9.2	12.4	1.4 ↑

Region	Site	2 to 8 August mean	9 to 15 August mean	Fold change ^a
South Wales	Parc Y Splotts	12.3	11.4	0.9↓
South Wales	Ponthir	35.3	18.5	0.5↓
South Wales	Swansea Bay	1.3	11.8	9.1 ↑

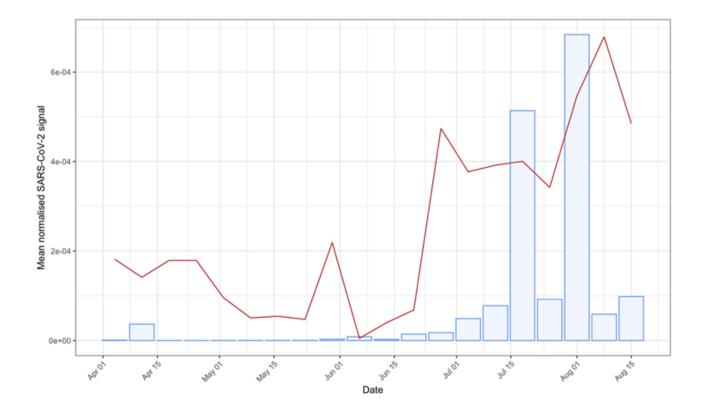
^{a:} The ratio between the measurement from the most recent week (B) and that of the preceding week (A), i.e. B/A

^b: Magnitude of fold change from or to zero cannot be presented numerically



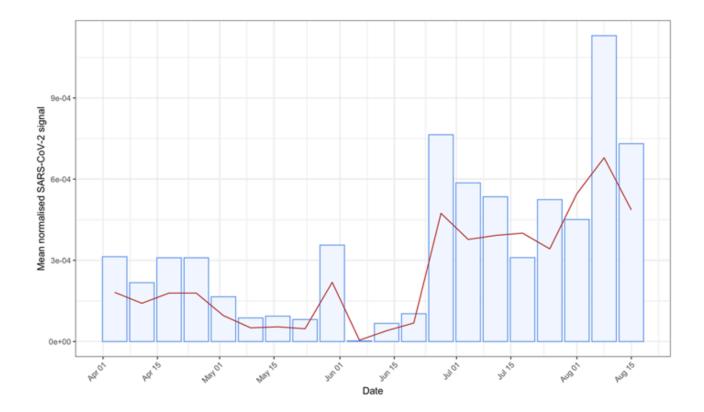
Weekly comparison of North and all-Wales mean normalised SARS-CoV-2 signal.

All-Wales mean signal (red line) and North Wales mean signal (blue bars). Data taken from week ending 4 April 2021.



Weekly comparison of South and all-Wales mean normalised SARS-CoV-2 signal.

All-Wales mean signal (red line) and South Wales mean signal (blue bars). Data taken from week ending 4 April 2021.



What is the situation with arriving travellers?

There were significant increases in arrivals from Greece, Poland, and Portugal compared to the previous week. However, arrivals from Spain decreased by 573. Requirements are now dependent on vaccination status as per Amber regulations. Fully vaccinated travellers will no longer need to self-isolate or test after arrival.

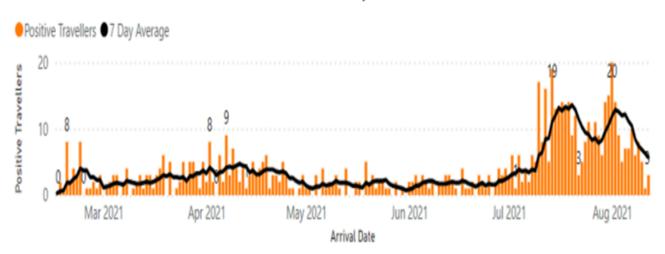
13,062 total travellers this week (11,504 last week):

- Red: 169 (141 last week)
- Amber: 11,072 (10,224 last week)
- Green: 1,819 (1,139 last week)

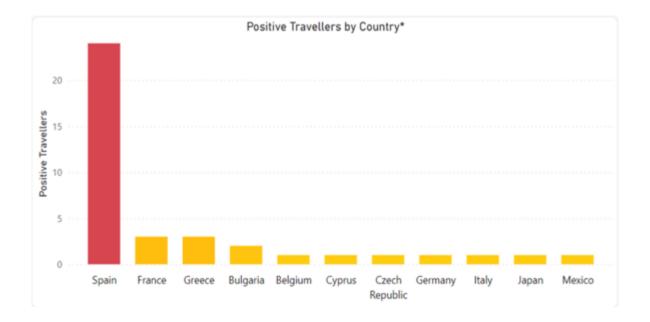
40 total positive travellers (61 total last week):

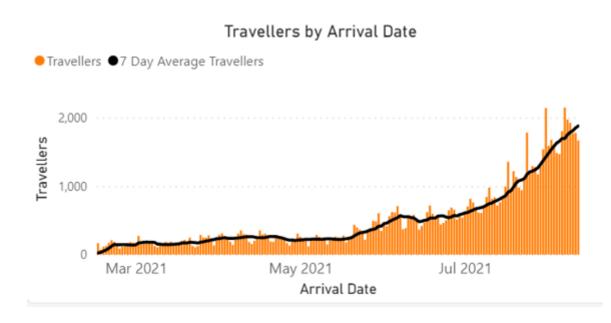
- Red: 1 positive travellers (3 last week)
- Amber: 35 positive travellers (47 last week)
- Green: 3 positive travellers (4 last week)
- 1 positive traveller (not in managed quarantine) isolating outside Wales





Positive Travellers by Arrival Date





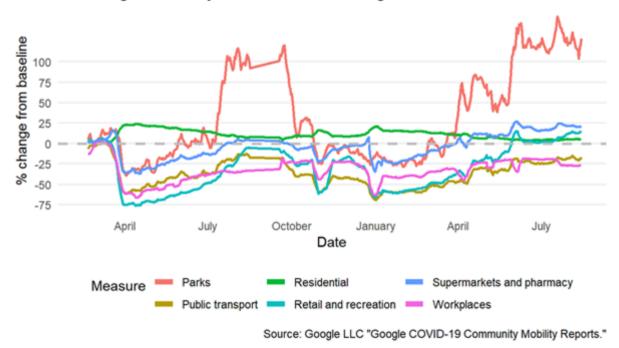
Source: Home Office

Please note that the data provided by the Home Office is derived from Passenger Locator Forms (PLF) which are self-completed by travellers. As such, data may contain inaccuracies. Due to the limitations associated with data capture and legislation, some minor discrepancies may be present in the data.

Mobility data, adherence and UK comparison

Mobility data by location of trip, Welsh local authorities

The latest mobility data shows increases in the latest week across most categories compared to the previous week with reductions in people spending time at home. The baseline for much of the data is during January to February 2020 and changes are relative to that period. It is not possible to determine if mobility is higher/lower than would have been expected prior to the pandemic as data for 2019 or earlier years is not published.



Change in mobility from baseline - Average of Welsh local authorities

Adherence

The **most recent IPSOS MORI data** for the period 30 July to 2 August for Wales shows a reduction compared with the last survey wave in those trying to maintain 2m from people when out, while those only leaving home for essential trips remained steady. It should be noted that this is self-reported adherence and will be affected by individuals' understanding of the rules and circumstances that apply to them.

The latest results from the **Public Engagement Survey on Health and Wellbeing during Coronavirus Measures** (2 to 8 August) shows that 81% of people said they understand current restrictions in Wales 'very well' or 'quite well'. When asked 'how much would you say you are following the restrictions?' on a scale of 1 to 10, where 10 is 'completely', 80% of people ranked themselves at 8 or higher.

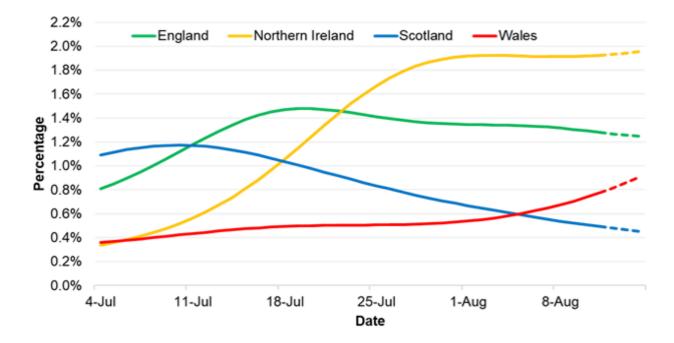
Results from the coronavirus (COVID-19) Infection Survey, 8 to 14 August

The percentage of people testing positive has decreased in England and Scotland in the most recent week. Positivity has increased in Wales in the most recent week, whilst the trend is uncertain in Northern Ireland.

It is estimated that an average of 23,500 people in Wales had COVID-19 (95% credible interval: 16,600 to 31,900), equating to around 1 in 130 people or 0.77% of the community population (up from 0.46% last week). This compares to around 1 in 80 people in England, around 1 in 200 people in Scotland, and around 1 in 50 people in Northern Ireland.

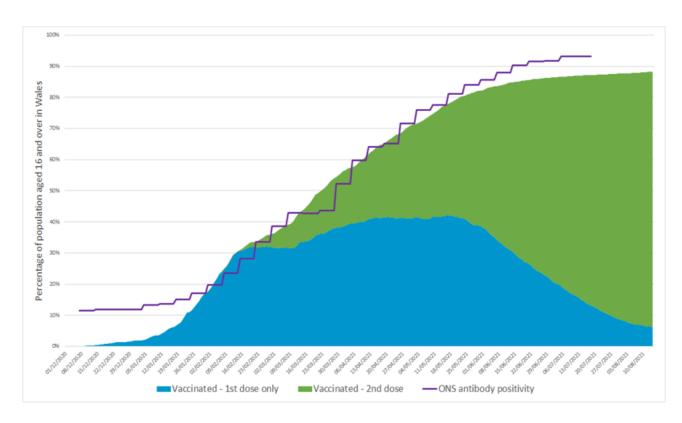
Source: Office for National Statistics COVID-19 Infection Survey.

Positivity rates (%) across UK countries up to 14 August 2021

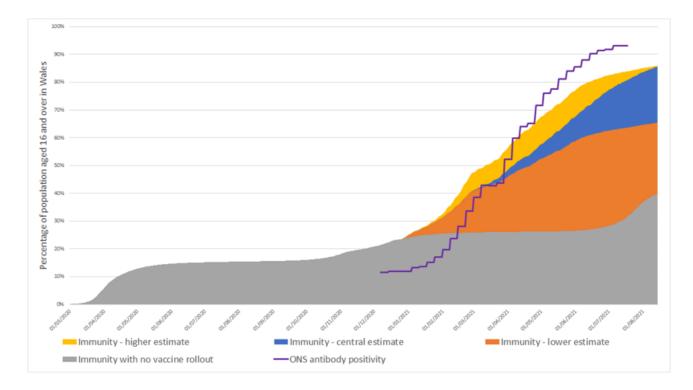


Vaccine and immunity status

Vaccination and antibody status of individuals aged 16 and over in Wales



Immunity estimates and antibody status of individuals aged 16 and over in Wales



The COVID-19 vaccination rollout of first doses has slowed in Wales, but rollout of second doses continues to progress well. As at 14 August 2021, 88% of people aged 16 and over had received at least one COVID-19 vaccine dose in Wales. 6% of people aged 16 and over had exactly one vaccine dose and 82% were fully vaccinated.

Between 12 and 18 July 2021, the ONS COVID-19 Infection Survey estimated that 93.2% of the community population aged 16 and over in Wales tested positive for COVID-19 antibodies.

As at 14 August 2021, it is estimated that 86% of people aged 16 and over in Wales had some immunity against COVID-19 infection. The lower and higher estimates of immunity are 65% and 86% of people aged 16 and over in Wales. If

no vaccines had been administered, it is estimated that 40% of people aged 16 and over would be immune. These estimates assume 84% of natural infections lead to immunity, but do not account for waning immunity. (SIREN study paper, The Lancet, published 9 April 2021).

It is currently estimated that over 80% (may be closer to 90%) of the population, spread evenly across Wales, must be immune to COVID-19 before population immunity effects would be observed (TAG advice on the Delta variant, published 18 June 2021). Note that the immunity estimate of 86% is for individuals aged 16 and over, not the total Wales population, and varies across age groups.

Differences between antibody presence and immunity estimates include:

- ONS antibody estimates are based on study participants who have volunteered for the study and estimates are extrapolated.
- ONS estimates are based on the 16+ community population, which excludes people in care homes or hospitals. Immunity estimates are based on the whole 16+ Wales population.
- While antibody protection doesn't equal immunity from infection, it does give a useful indication of the level of protection from infection in the Welsh population.
- Antibody estimates use 2019 mid-year population estimates while the immunity estimates use 2020 mid-year estimates.

What does the situation look like going forward?

Based on the current rates observed with current restrictions:

Cases

The probability of incidence reaching greater than 200 per 100,000 between 29 August and 4 September is above 80% for 10 of the 22 local authorities. The figure illustrates the probability (between 0 - 100%) of incidence being greater than 200 per 100,000. Source: Imperial College London.

Probability of greater than 100 per 100,000 cases by local authority



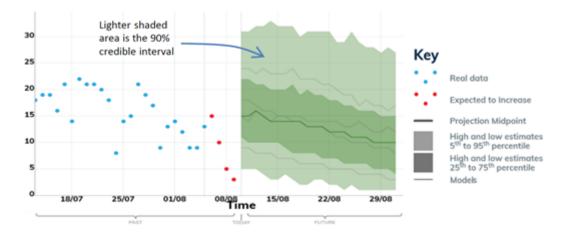
22 to 28 August 2021 and 29 August to 4 September 2021.

Deaths per day

SPI-M's consensus view is that the number of deaths in Wales will remain low compared with previous waves over the next three weeks. Source: Modelled medium term projections, SAGE/SPI-M, 11 August.

Hospitalisations per day

Projected to decrease slightly to around 10 per day over the next three weeks. Source: Modelled medium term projections, SAGE/SPI-M, 11 August.



These projections are based on current trends and will not fully reflect the impact of policy or behavioural changes over the past two to three weeks, including the recent downward trend in all UK nations. The projections include the impact of vaccines, but cannot capture any future increases in transmission resulting from new variants. They are not forecasts or predictions.

Key risks and sources

Key risks

Transmissions, incidence and prevalence

Overall transmission of COVID-19 and test positivity has increased across Wales.

Rising trends across health boards and local authorities.

NHS capacity

COVID-19 hospital bed occupancy has been stable over the past few weeks, whilst critical care occupancy has increased over the past week.

Mortality

Low numbers of deaths in the most recent week.

Variants

Wales has 15,341 confirmed cases of the dominant Delta variant (an increase of 1,981 from the previous week) Delta remains the dominant variant of COVID-19 in Wales.

Immunity and vaccines

4.47 (+0.05) million doses of COVID-19 vaccine have been given in Wales, of which 2.32 (+0.02) million were first doses and 2.15 million (+0.03) were second doses. 86% of those aged 16 and over in Wales were estimated to have some immunity against COVID-19 infection at 14 August.

International

There is an increase in traveller numbers this week, however the proportion of travellers testing positive is relatively low.

Key sources for this update

Technical Advisory Cell brief

COVID infection survey results

Public Health Wales

Hospital occupancy

Higher Education

School attendance

Public Health England VoC Technical Briefing

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