



COVID-19 Wales Situational Report

COVID-19 Intelligence Cell

COVID-19 Intelligence Cell: 30 September 2021

Health Protection Advisory Group: 1 October 2021

Data as at 29 September 2021 unless otherwise specified

Slide 2. COVID-19 Situation Report Summary

Key points to note

Wales moved to [Alert Level 0](#) on 7 August 2021.

Overall cases of COVID-19 continues to grow across Wales, driven by a rising incidence in 10 –19 year-olds. 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 0.8 and 1.1 and a doubling time of flat/ greater than 23 days (as at 29 September 2021), while PHW's estimate is around 1.1 with a doubling time of 24 days. (29 September 2021). 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*

Hospital bed and ICU occupancy general stabilised over the latest week. As at 29 September 2021, there were 626 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed (-19 since previous week), of which 437 were confirmed. As at 29 Sep 2021, there are 44 patients with Suspected or Confirmed COVID-19 in critical care beds in Wales; 120 lower than the maximum COVID-19 position of approximately 164.

As at 27 September 2021, Wales has had 31,447 confirmed cases of the dominant Delta variant (an increase of 1,535 from the previous week). No other variants of concern were confirmed by genomic sequencing in Wales. *Source: PHW*

As at 10pm 29 September 2021, a total of 4,598,145 doses of COVID-19 vaccine were given in Wales and recorded in the COVID-19 Welsh Immunisation System. Of this, 2,375,943 were first doses and 2,222,202 were second doses. Figures cannot be directly compared with last week's COVID-19 Situation Report, due to a change in methodology from 15/09/2021, for those who had their first dose outside Wales and second dose in Wales. Where previously these were reported as first doses these have been reclassified as second doses, resulting in a dip in cumulative number of first doses given. Between 13/9/2021 - 19/9/2021, confirmed episodes of COVID-19 were lower in fully vaccinated (348 per 100,000) than in the unvaccinated population (1,026 per 100,000). Note: The best way to understand vaccine effectiveness is to look at population level epidemiological studies, using adjustments for other effects and confounders, rather than routine descriptive data. *Source: PHW*

Key indicators

The case rate and prevalence have increased since the previous week, but admissions and deaths are showing signs of decreases.

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

	Current value (25/09/21)	Change since previous week (18/09/21 – 25/09/21 unless stated otherwise)	
		Percentage change	Value change
Confirmed case rate (rolling 7 day sum per 100k)	650	+16%	↑ (+88)
Confirmed case rate for over 60s (rolling 7 day sum per 100k)	210	-13%	↓ (-32)
Test positivity (7 day RA)	15.4%	+0.9%	↑ (+0.1 percentage points)
Population estimated to have COVID-19 (prevalence)¹	1.76%	+5%	↑ (+0.09 percentage points)
NHS COVID-19 Admissions²	44	-13%	↓ (-7)
ONS deaths (7 day sum)³	65	-2%	↓ (-1)
PHW deaths (7 day sum)	36	-46%	↓ (-31)

Footnotes

1. Latest Covid Infection Survey data is taken from 19 September 2021 to 25 September 2021.
2. Seven day rolling average to the current date of confirmed COVID-19 admissions
3. Latest ONS deaths data is to 17 September 2021 (rather than 25 September 2021) for the current value. Data to 10 September 2021 is used for the change since previous week.

Data as at 12:00PM 29 September 2021 unless otherwise specified

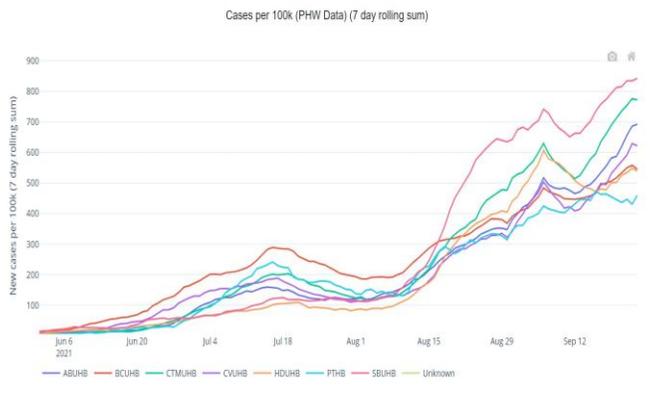
Slide 3. What is the current status of the epidemic?

Cases per 100,000 population (7 day period ending 24 September 2021)

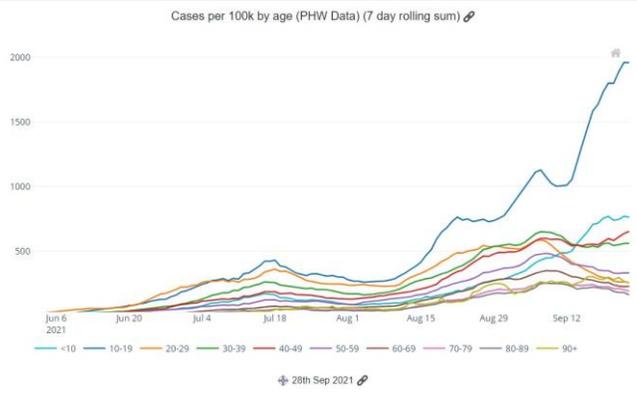
Local Authority	Health Board	Number	% of All Wales Total	Case incidence per 100,000	Change from previous week
Neath Port Talbot	SBUHB	1345	6.6%	938.5	8% ↑
Rhondda Cynon Taf	CTMUHB	2146	10.5%	889.5	26% ↑
Caerphilly	ABUHB	1522	7.4%	840.5	19% ↑
Merthyr Tydfil	CTMUHB	494	2.4%	818.9	3% ↑
Swansea	SBUHB	1937	9.5%	784.2	13% ↑
Vale of Glamorgan	CVUHB	1004	4.9%	751.6	17% ↑
Blaenau Gwent	ABUHB	503	2.5%	720.0	11% ↑
Newport	ABUHB	1055	5.2%	682.1	43% ↑
Torfaen	ABUHB	622	3.0%	662.0	33% ↑
Conwy	BCUHB	731	3.6%	623.7	2% ↑
Carmarthenshire	HDUHB	1166	5.7%	617.7	-1% ↓
Denbighshire	BCUHB	585	2.9%	611.3	16% ↑
Gwynedd	BCUHB	714	3.5%	573.2	16% ↑
Cardiff	CVUHB	2085	10.2%	568.3	28% ↑
Flintshire	BCUHB	860	4.2%	550.9	5% ↑
Bridgend	CTMUHB	799	3.9%	543.4	23% ↑
Isle of Anglesey	BCUHB	351	1.7%	501.1	20% ↑
Pembrokeshire	HDUHB	581	2.8%	461.8	44% ↑
Powys	PTHB	610	3.0%	460.6	-0% ↓
Ceredigion	HDUHB	334	1.6%	459.5	24% ↑
Monmouthshire	ABUHB	396	1.9%	418.6	76% ↑
Wrexham	BCUHB	569	2.8%	418.5	12% ↑
Unknown	Unknown	53	0.3%	-	-16% ↓
Total	Total	20462	100.0%	649.0	18% ↑

28th Sep 2021

Cases per 100k (PHW Data) (7 day rolling sum to 24th September)



Cases per 100k by age (PHW Data) (7 day rolling sum to 24th September)



- Wales <10
- Wales 10-19
- Wales 20-29
- Wales 30-39
- Wales 40-49
- Wales 50-59
- Wales 60-69
- Wales 70-79
- Wales 80-89
- Wales 90+

The JBC consensus Reproduction number (Rt) estimate for Wales is between 0.8 and 1.1 (reported 29 September 2021), with daily growth rate of between -3% and +1% and a doubling time from -23 days to flat. Using PHW positive test data only (more timely data but limited by variation in testing), Rt is estimated to be 1.1 for Wales (29 September 2021). The central Rt estimate is highest for Aneurin Bevan Health Board at 1.3. Source: JBC/PHW

7-day cumulative case incidence in Wales has increased by 18% to 649.0 per 100,000 population in the last week.

Case incidence is increasing in 20 of the 22 local authorities. Case incidence is above 500 per 100,000 population for seventeen local authorities. Local authorities with the highest case incidences are Neath Port Talbot and Rhondda Cynon Taf at 938.5 and 889.5 per 100,000 population, respectively.

Case incidence is highest in those aged 10-19 at almost 2,000 per 100,000 population. Case incidence has remained stable most age groups over the past few days. Case incidence is highest for the Swansea Bay local health board.

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.

Data as at 12:00PM 29 September 2021 unless otherwise specified

Local Health Board	All Wales	Swansea Bay UHB	CTM UHB	Aneurin Bevan UHB	Cardiff & Vale UHB	Hywel Dda UHB*	Powys THB*	Betsi Cadwaladr UHB
Rt (cases)	1.2 (1.1 to 1.2)	1.1 (1.1 to 1.1)	1.2 (1.2 to 1.2)	1.3 (1.2 to 1.3)	1.2 (1.2 to 1.3)	1.1 (1.1 to 1.1)	1.0 (0.9 to 1.1)	1.1 (1.1 to 1.1)
Doubling time (days)	23.5 (13.6 to -85.7)	28.6 (14.0 to -672.1)	18.4 (11.0 to -56.3)	15.3 (10.2 to -30.4)	18.1 (10.8 to 56.0)	34.1 (16.4 to -403.5)	98.0 (19.4 to -32.3)	37.6 (17.3 to -219.1)

Slide 4. What is the situation with the NHS and social care?

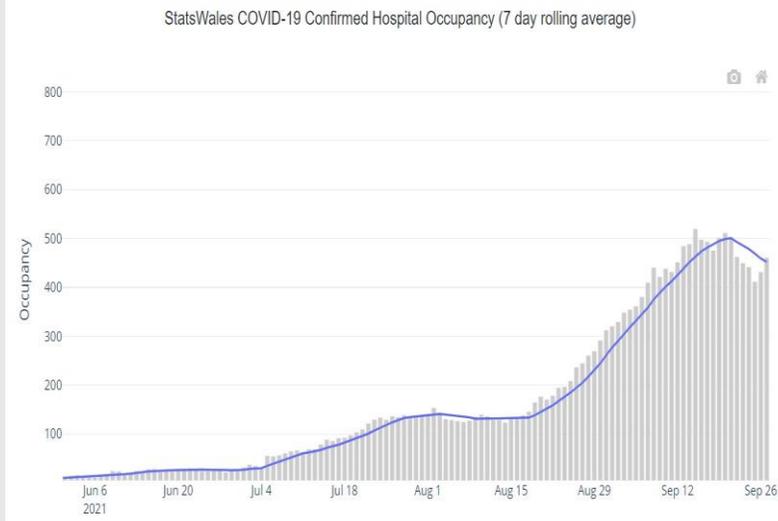
From early July 2021, COVID-19 pressure on the NHS has been generally increasing, however, this has generally stabilised over the latest week. As at 29 September 2021, there were 626 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed. This compares to 645 (19 fewer occupied beds) on 22 September 2021. Confirmed patients accounted for 437 of the total occupied beds.

There are 44 patients with Suspected or Confirmed COVID-19 in critical care beds in Wales. This is 120 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 169, 17 more than the 152 baseline critical care beds available pre the COVID-19 pandemic.

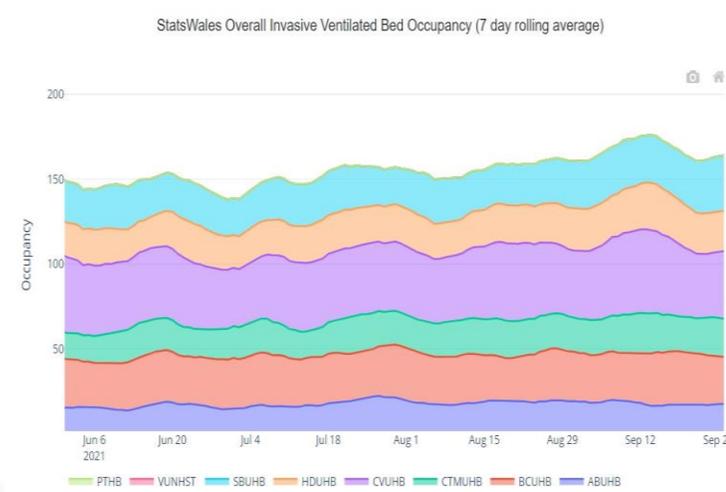
Non-COVID-19 urgent & emergency demands are close to historic levels, whilst the NHS also continues to try and recover with the considerable backlogs that have developed over the past 18 months. There is also a considerable staffing challenge across the whole health and care system, culminating in a lack of flow through the system.

In the latest National Situation Background Assessment Recommendation (SBAR) report covering the week of 20 September to 26 September 2021, IMTs reported 164 care homes in 'red' status (an ongoing outbreak/incident reported in last 7 days) last week, compared to 152 in the previous week. In the latest SBAR, one health board reports having no care homes in 'red' status. Source: National SBAR.

Covid-19 Confirmed Hospital occupancy (7 day rolling average)

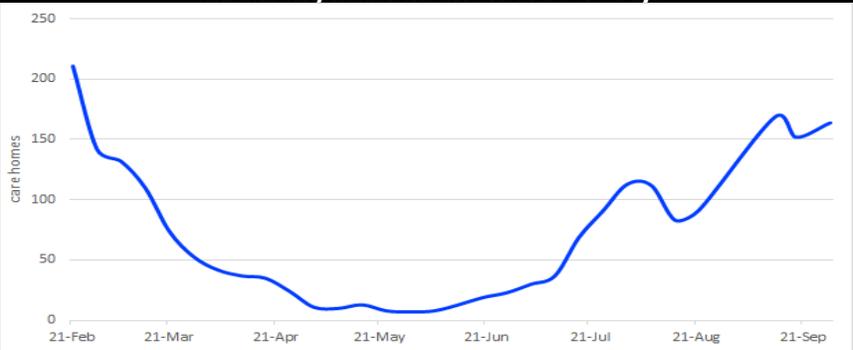


Overall invasive ventilated bed occupancy (7 day rolling average)

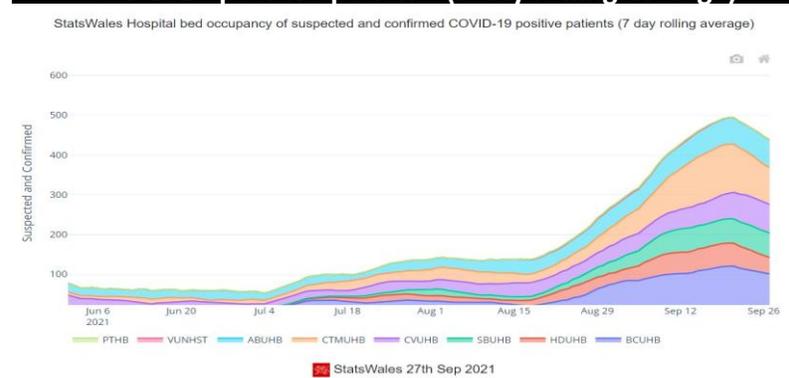


Data as at 12:00PM 29 September 2021 unless otherwise specified

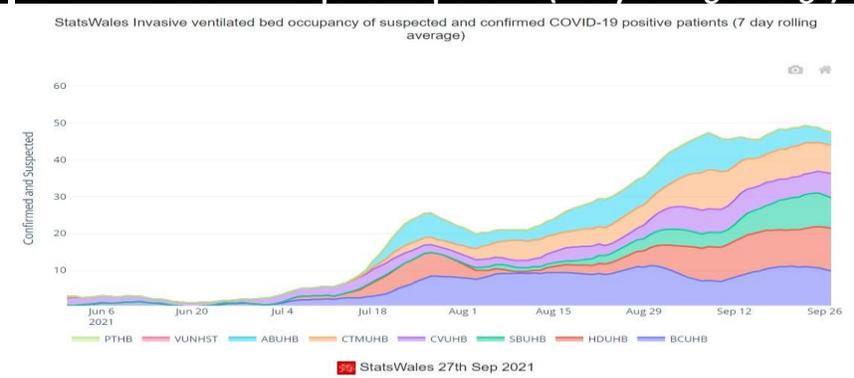
Number of adult care homes reporting an ongoing outbreak/incident in the last 7 days



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)



StatsWales 27th Sep 2021

StatsWales 27th Sep 2021

Slide 5. What is the situation with education, children and young adults?

School attendance

For the week 20-24 September an average of 85% of all pupils were present in school continuing the downward trend. This data is provisional and will be revised on 6 October when the number in attendance is expected to increase.

Schools

The latest National Situation Background Assessment Recommendation (NSBAR) for the week 20-26 September has reported 85* new clusters compared to 105 the previous week. Community transmission remains widespread so whilst there is some evidence of in-school transmission, the majority are still likely associated with social interaction outside the school setting, household transmission and extra-curricular activities.

Childcare settings

The latest NSBAR reported very few new and ongoing clusters in childcare settings last week.

Further Education (FE) Higher Education Institutions (HEIs)

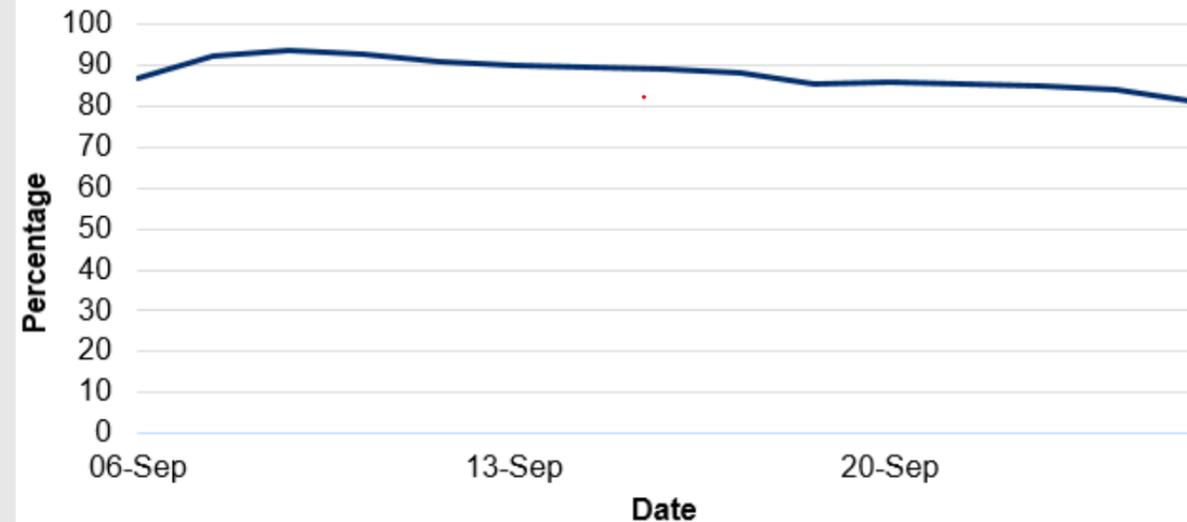
According to the latest SBAR there was 1** new and 1** ongoing cluster reported in FE last week compared with 7 new and 13 ongoing clusters reported the previous week; and no new and 10** ongoing clusters reported in HE last week compared to 2 new and 1 ongoing cluster the week before. *Source National SBAR*

*Figures do not include data from 3 LAs.

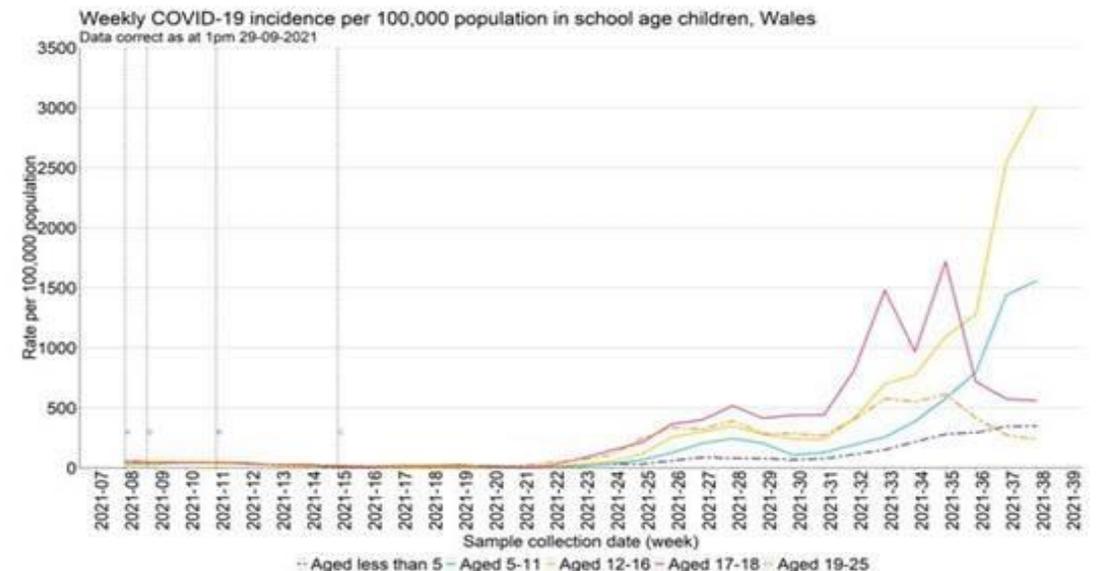
**Figures do not include data from 4 LAs.

Please note: Due to accuracy & timeliness limitations with the capability of our surveillance systems, distinguishing exact case associations between children over 19, school staff and/or family members is currently not possible. We are looking to develop this with local health protection officers.

Attendance of pupils in maintained schools by day from 6 September 2021 onwards



Weekly C-19 Incidence per 100k population in school aged children as at 29th September



Slide 6. Wastewater Monitoring for Covid-19 (Pilot)

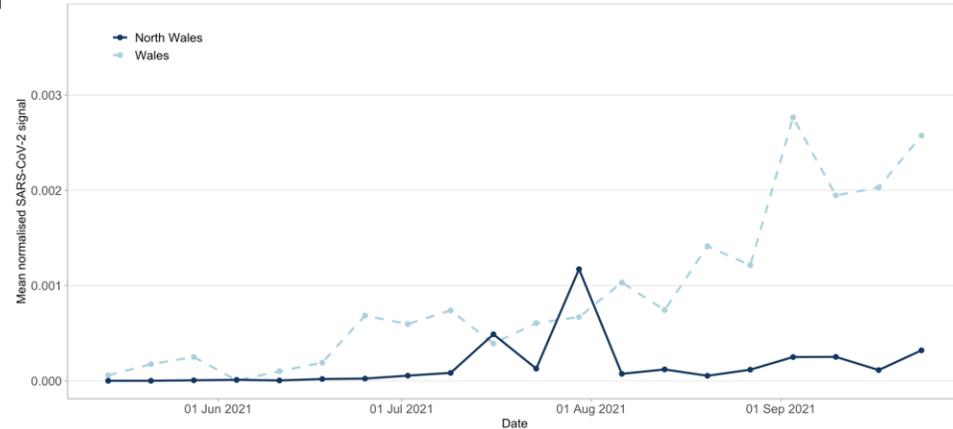
Changes in mean normalised SARS-CoV-2 signal by catchment. Means taken over each of the last two weeks for each catchment; third column shows the fold change in these means. Colours and arrows indicate direction of change

Weekly comparison of North and all-Wales mean normalised SARS-CoV-2 signal. All-Wales mean signal (dashed line) and South Wales mean signal (solid line). Data to 24 Sept 2021.

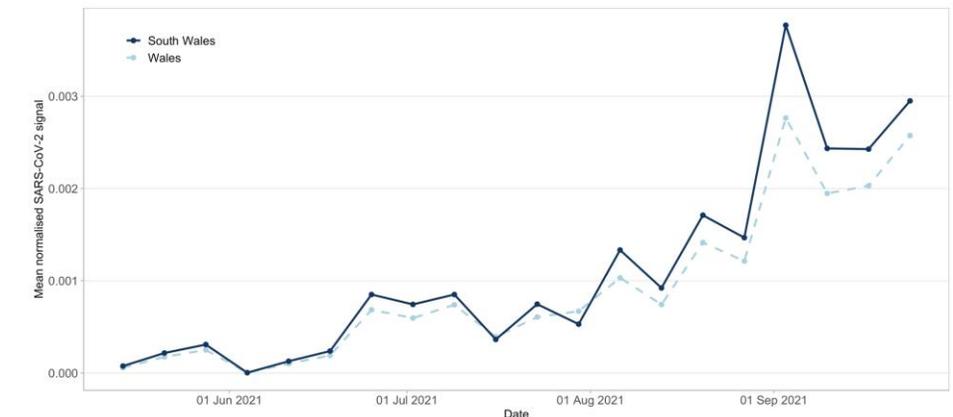
	Mean normalised SARS-CoV-2 signal		Fold change
	11 Sep 2021 to 17 Sep 2021	18 Sep 2021 to 24 Sep 2021	Mean normalised SARS-CoV-2 signal
North Wales			
Bangor (Treborth)	9.51	2.22	0.23 ↓
Chester	1.77	1.63	0.92
Flint	0.25	1.09	4.35 ↑
Holyhead	0.09	0.52	5.69 ↑
Llandudno (Ganol)	0.57	1.86	3.28 ↑
Llangefni	0.22	1.96	8.91 ↑
Rhyl (Kinmel Bay)	1.76	0.66	0.38 ↓
Wrexham (Five Fords)	0.81	6.39	7.9 ↑
South Wales			
Abergavenny (Llanfoist)	4.23	7.77	1.83 ↑
Barry (Cog Moors)	16.49	27.11	1.64 ↑
Bridgend (Merthyr Mawr)	22.61	13.97	0.62 ↓
Cardiff	29.23	41.36	1.41 ↑
Carmarthen (Parc Y Splotts)	2.68	21.57	8.04 ↑
Cwmbran (Ponthir)	18.84	19.46	1.03
Gowerton	53.09	38.46	0.72 ↓
Haverfordwest (Merlin's Bridge)	6.18	6.33	1.02
Llanelli	17.7	14.07	0.79 ↓
Merthyr Tydfil (Cilfynydd)	7.94	15.72	1.98 ↑
Newport	12.96	8.37	0.65 ↓
Swansea	33.14	33.91	1.02



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Weekly comparison of South and all-Wales mean normalised SARS-CoV-2 signal. All-Wales mean signal (dashed line) and South Wales mean signal (solid line). Data to 24 Sept 2021.



In the week ending 24 September 2021 the mean wastewater signal for Wales remains high, however, the trend is now indicating a continued increase in prevalence.

The normalised wastewater SARS-CoV-2 signal for Wales appeared to be showing early signs of stabilisation last week, however, the mean signal has increased this week in line with the previous trend of increasing signal. The overall trend in the wastewater SARS-CoV-2 signal remains in line with the total COVID-19 positive cases reported for this area, however, more sites in North and South Wales showed trend differences in the wastewater SARS-CoV-2 signal compared with PHW COVID-19 case data for the corresponding wastewater catchment areas.

Surveillance of Merthyr Tydfil (Cilfynydd WwTW) commenced two weeks ago, analysis of early data indicate that Merthyr Tydfil's wastewater signal is high and showing signs of increasing this week.

For this period, Holyhead, Llangefni, Llandudno, Flint and Wrexham in North Wales, and Carmarthen, Merthyr Tydfil, Barry, Cardiff and Abergavenny in South Wales are on the watchlist.

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. Positive case data and wastewater signal can differ as wastewater can give an indication of the prevalence of Covid-19 in asymptomatic groups not subject to PCR testing, as well as other sources of SARS-CoV-2 infection.

Slide 7. What is the situation with arriving travellers?



To date, there have been 63 positive travellers (0.26% positivity), compared to 38 for the previous week (0.17% positivity) at time of reporting.

Spain continues to provide the greatest number of travellers, and the increase seen last week (14.1%) was higher than the overall % increase in amber travellers. There was also a significant increase of 36.2% in travellers visiting/from Cyprus.

24,336 total arrivals for the week (22,793 last week; +6.8%), and again, the highest number ever included in this report

- Red: 70 (107 last week)
- Amber: 20,492 (18,771 last week)
- Green: 3,774 (3,915 last week)

Date Source: Home Office [Wales Travel Rules](#)

Positive travellers timeline



Positive travellers this week by country



Arriving travellers timeline

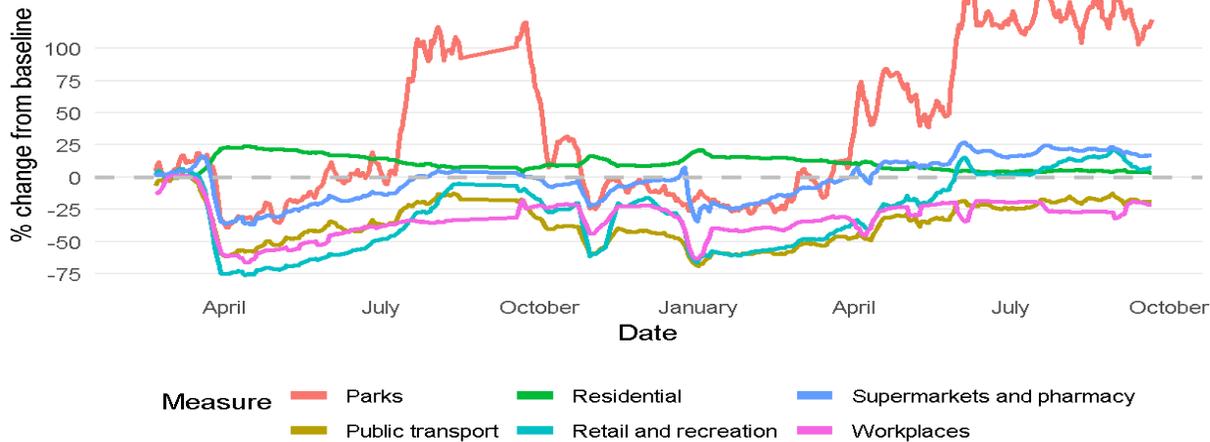


Please note that the data provided by the Home Office is derived from Passenger Locator Forms (PLF) which are self-completed by travellers. As such, data may contain inaccuracies. Due to the limitations associated with data capture and legislation, some minor discrepancies may be present in the data. Countries with 10 or less travellers have been included in the overall positive traveler total, but excluded from the Green/Amber/Red positive traveller breakdown totals for personal identifiable information purposes.

Slide 8. Mobility data and UK Comparison

Mobility data by location of trip – Average of Welsh local authorities

Change in mobility from baseline - Average of Welsh local authorities



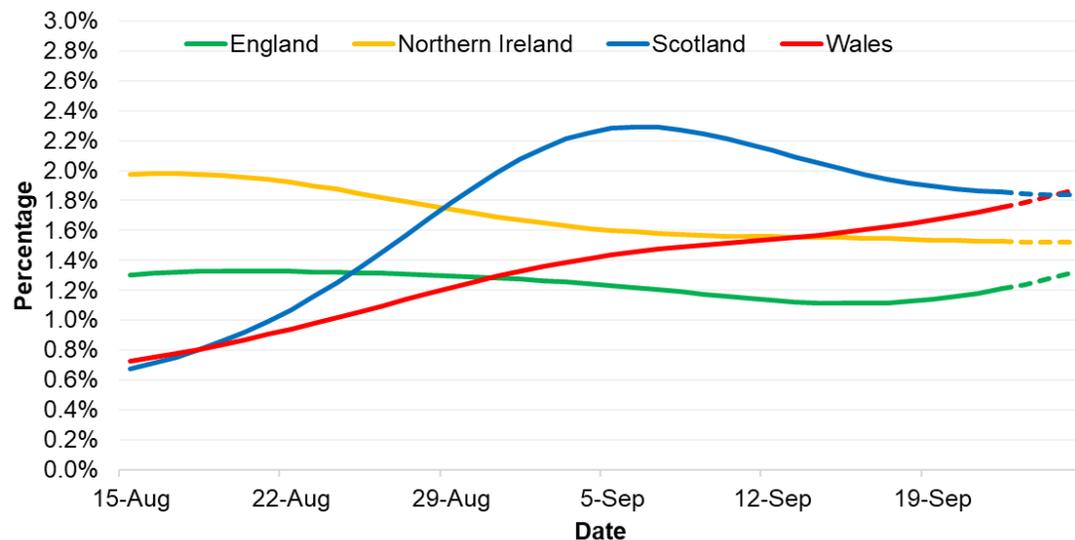
The latest mobility data shows the latest week is mostly in line with the previous week. The baseline for much of the data is during January to February 2020 and changes are relative to that period. It is not possible to determine if mobility is higher/lower than would have been expected prior to the pandemic as data for 2019 or earlier years is not published.

The [most recent IPSOS MORI data](#) for the period 10 to 14 September for Wales shows the number of people only leaving home for essential trips has remained stable with the last survey wave, along as has the majority of people maintaining 2m social distancing when out.

Coronavirus (Covid-19) Infection Survey results, 1st October

The percentage of people testing positive for coronavirus (COVID-19) increased in England and Wales and decreased in Scotland. In the same week, the trend was uncertain in Northern Ireland.

Positivity rates (%) across UK nations up to 29 September

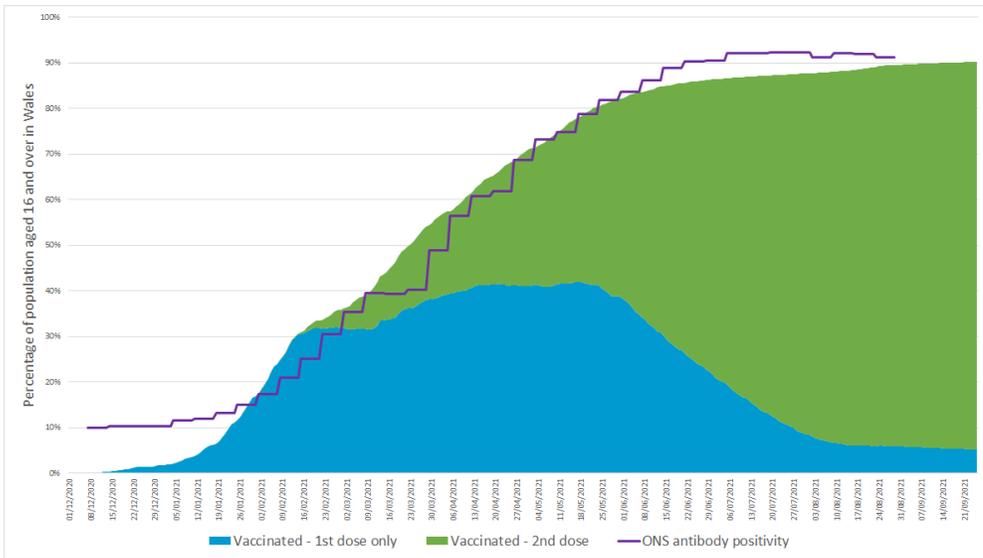


In Wales, the percentage of people testing positive increased in the week ending 25 September 2021; we estimate that 53,300 people in Wales had COVID-19 (95% credible interval: 42,700 to 65,300), equating to around 1 in 55 people. This compares to around 1 in 85 people in England, around 1 in 65 in Northern Ireland and around 1 in 55 people in Scotland.

Source: [Office for National Statistics COVID-19 Infection Survey](#)

Slide 9. Vaccine and Immunity Status

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



The COVID-19 vaccination rollout of first and second doses has slowed in Wales. As at 25 September 2021, 90% of people aged 16 and over had received at least one COVID-19 vaccine dose in Wales. 5% of people aged 16 and over had exactly one vaccine dose and 85% were fully vaccinated.

Between 23 and 29 August 2021, the ONS COVID-19 Infection Survey estimated that 91.2% of the community population aged 16 and over in Wales tested positive for COVID-19 antibodies.

As at 25 September 2021, it is estimated that 90% of people aged 16 and over in Wales had some immunity against COVID-19 infection. The lower and higher estimates of immunity are 81% and 99% of people aged 16 and over in Wales. If no vaccines had been administered, it is estimated that 43% of people aged 16 and over would be immune.

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.¹ Note that the immunity estimate of 90% 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:

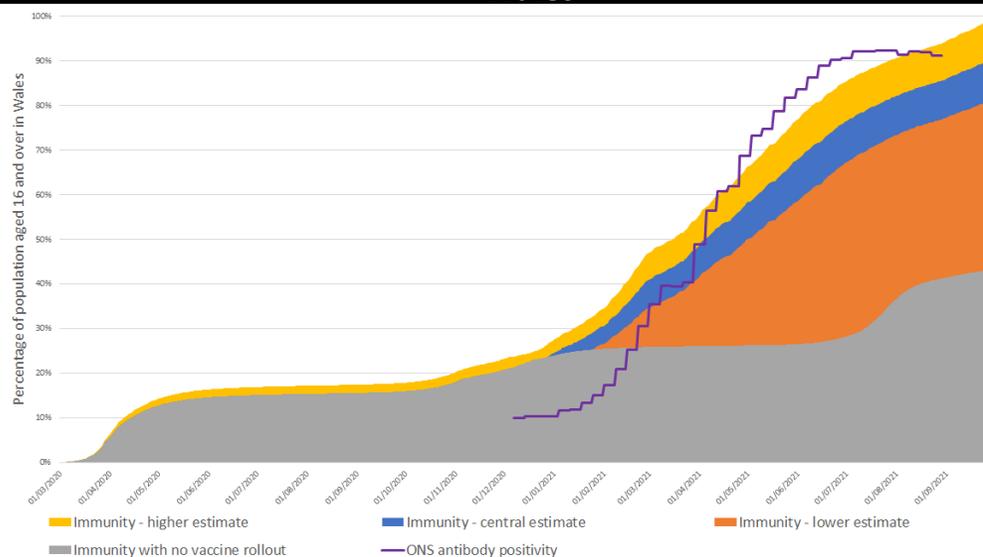
- ONS antibody estimates are based on study participants who have volunteered for the study and estimates are extrapolated.
- ONS estimates are based on the 16+ community population, which excludes people in care homes or hospitals. Immunity estimates are based on the whole 16+ Wales population.
- While 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.

Source: [ONS COVID-19 Infection Survey](#), [PHW](#), [SPI-M](#), Swansea University modelling

¹ TAG advice on the Delta variant, published 18 June 2021

Note: The lower, central and higher immunity estimates use cautious, central and optimistic vaccine efficacy from SAGE (27/08/21) and immunity-following-natural-infection assumptions, and do not account for waning immunity.

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



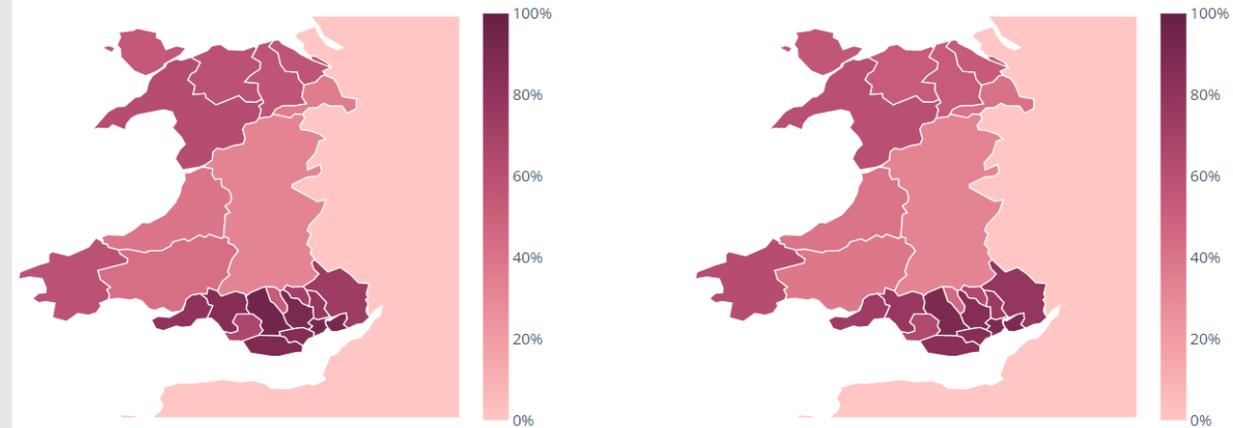
Slide 10. What does the situation look like going forward?

Based on the current rates observed with current restrictions:

- **Cases (right)** – the probability of incidence reaching greater than 500 per 100,000 between 10 and 16 October is at or above 80% for 5 of the 22 local authorities, Rhondda Cynon Taf, Vale of Glamorgan, Cardiff, Newport, Caerphilly. The figure illustrates the probability (between 0 – 100%) of incidence being greater than 500 per 100,000. *Source: Imperial College London*
- **Deaths per day (bottom left)** – projected to reduce from 6 deaths per day to around 5 over the next three weeks. *Source: Modelled medium term projections, SAGE/SPI-M, 29 September*
- **Hospitalisations per day (bottom right)** – projected to decrease from around 40-50 to around 10-40 per day over the next three weeks. *Source: Modelled medium term projections, SAGE/SPI-M, 29 September*

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. 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.

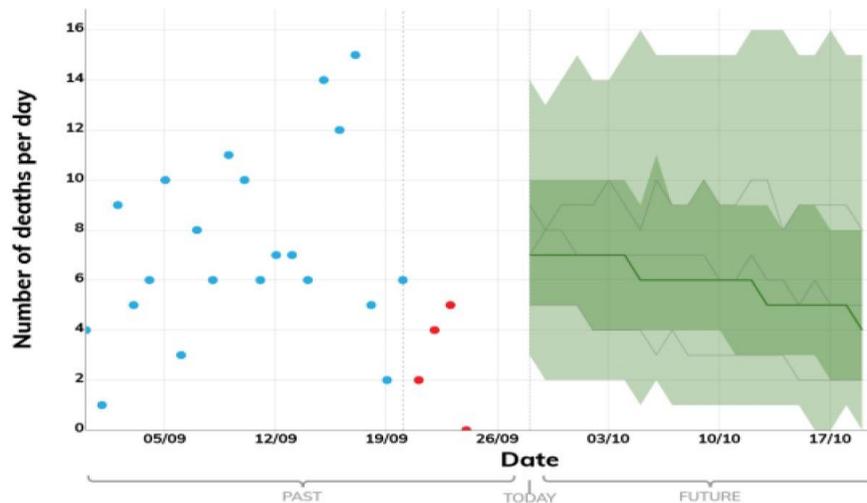
Probability of greater than 500 per 100,000 cases by local authority



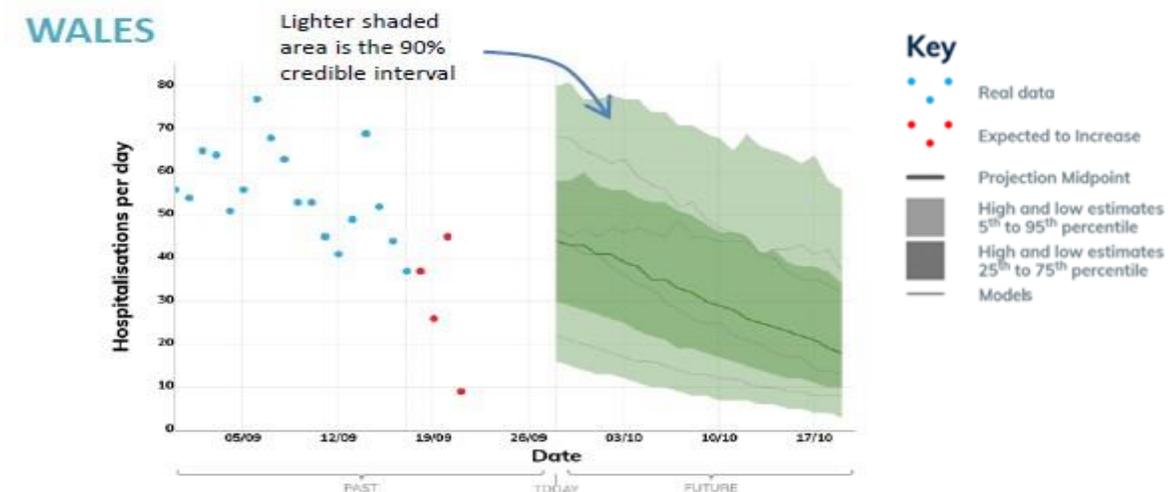
Time period: 03 Oct – 09 Oct

Time period: 10 Oct - 16 Oct

Number of deaths per day, Wales As at 27 September 2021



Number of new hospitalisations per day, Wales As at 27 September 2021



Slide 11. Key risks and sources

Key risks	
Area	Assessment
Transmission, incidence and prevalence	Overall transmission of COVID-19 has increased across Wales, driven by a rising incidence in 10 –19 year-olds, while test positivity has decreased.
NHS Capacity	From early-July 2021, COVID-19 pressure on the NHS was generally increasing. However, hospital bed and ICU occupancy have generally stabilised over the most recent week.
Mortality	Low, but slowly rising number of daily deaths in the most recent week.
Variants	Wales has had 31,447 confirmed cases of the dominant Delta variant (an increase of 1,535 from the previous week). Delta remains the dominant variant of COVID-19 in Wales.
Immunity and Vaccines	4,598,145 doses of COVID-19 vaccine were given in Wales and recorded in the COVID-19 Welsh Immunisation System. Between 13/9/2021 - 19/9/2021, confirmed episodes of COVID-19 were lower in fully vaccinated (348 per 100,000) than in the unvaccinated population (1,026 per 100,000). 90% of those aged 16 and over in Wales were estimated to have some immunity against COVID-19 infection at 25th September 2021.
International	Arriving traveller numbers increased to the highest reported level to date. However, the proportion of travellers testing positive is relatively low.

Key Sources for this update

Technical Advisory Cell brief:

<https://gov.wales/advice-coronavirus-technical-advisory-cell>

COVID Infection Survey results:

<https://gov.wales/coronavirus-covid-19-infection-survey>

Public Health Wales:

<https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary>

Hospital occupancy:

<https://gov.wales/nhs-beds-admissions-and-hospitalisations-during-coronavirus-covid-19-pandemic>

Higher Education:

<https://gov.wales/positive-coronavirus-cases-reported-higher-education-institutions-wales-27-september-2020-onwards>

School attendance:

<https://gov.wales/pupils-present-maintained-schools>

Public Health England VoC Technical Briefing:

<https://www.gov.uk/government/publications/investigation-of-novel-sars-cov-2-variant-variant-of-concern-20201201>