



# COVID-19 Wales Situational Report

## COVID-19 Intelligence Cell

COVID-19 Intelligence Cell: 7 October 2021  
Health Protection Advisory Group: 8 October 2021

Data as at 6 October 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 and test positivity rates are beginning to reduce across Wales.**

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 between shrinking every 16 days and flat (as at 6 October 2021), while PHW's estimate is 0.8 with a halving time of 31 days (6 October 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 has generally stabilised over the latest 2 weeks.** As at 6 October 2021, there were 596 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed (-30 compared to previous week), of which 423 were confirmed. As at 6 Oct 2021, there are 49 patients with Suspected or Confirmed COVID-19 in critical care beds in Wales; 115 lower than the maximum COVID-19 position of approximately 164. Non-COVID-19 urgent & emergency pressure remains intense.

**As at 5 October 2021, Wales has had 37,294 confirmed cases of the dominant Delta variant (an increase of 5,847 from the previous week).** No other variants of concern were confirmed by genomic sequencing in Wales. *Source: PHW*

**As at 10pm 5 October 2021, a total of 4,611,274 (+13,129) doses of COVID-19 vaccine were given in Wales** and recorded in the COVID-19 Welsh Immunisation System. Of this, 2,385,134 (+9,191) were first doses and 2,226,140 (+3,938) were second doses. *Source: PHW*

## Key indicators

Cases, admissions and deaths are showing signs of decreases. Prevalence continues to increase.

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

	Current value (02/10/21)	Change since previous week (25/09/21 – 02/10/21 unless stated otherwise)	
		Percentage change	Value change
Confirmed case rate (rolling 7 day sum per 100k)	487	-25% ↓	(-164)
Confirmed case rate for over 60s (rolling 7 day sum per 100k)	211	0% —	(+1)
Test positivity (7 day RA)	14.4%	-6.5% ↓	(-1.0 percentage points)
Population estimated to have COVID-19 (prevalence) <sup>1</sup>	1.87%	+6% ↑	(+0.11 percentage points)
NHS COVID-19 Admissions <sup>2</sup>	45	-4% ↓	(-2)
ONS deaths (7 day sum) <sup>3</sup>	52	-37% ↓	(-30)
PHW deaths (7 day sum)	59	+51% ↑	(+20)

## Footnotes

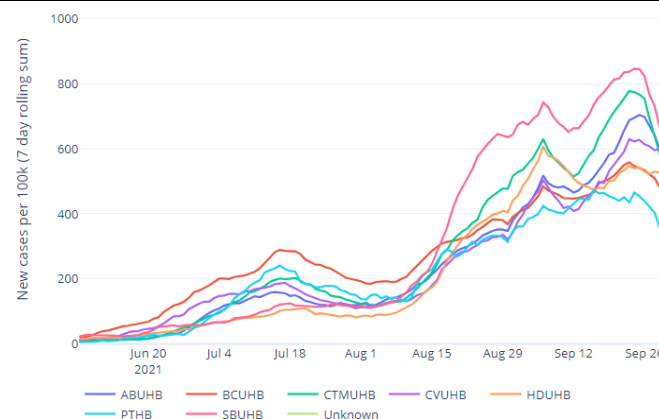
1. Latest Covid Infection Survey data is taken from 26 September 2021 to 2 October 2021.
2. Seven day rolling average to the current date of confirmed COVID-19 admissions
3. Latest ONS deaths data is to 24 September 2021 (rather than 2 October 2021) for the current value. Data to 17 September 2021 is used for the change since previous week.

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

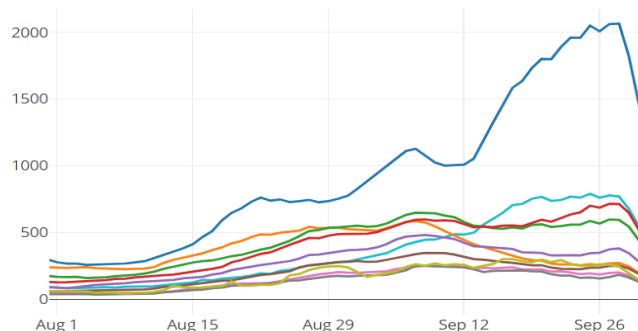
Cases per 100,000 population (7 day period ending 5th October 2021)

Local Authority	Health Board	Number	% of All Wales Total	Case Incidence per 100,000	Change from previous week
Torfaen	ABUHB	647	4.0%	688.6	4% ↑
Denbighshire	BCUHB	605	3.8%	632.2	3% ↑
Vale of Glamorgan	CVUHB	842	5.3%	630.3	-16% ↓
Neath Port Talbot	SBUHB	859	5.4%	599.4	-36% ↓
Caerphilly	ABUHB	1076	6.7%	594.2	-30% ↓
Carmarthenshire	HDUHB	1096	6.9%	580.6	-6% ↓
Cardiff	CVUHB	2045	12.8%	557.4	-2% ↓
Swansea	SBUHB	1349	8.4%	546.2	-31% ↓
Rhondda Cynon Taf	CTMUHB	1255	7.8%	520.2	-42% ↓
Pembrokeshire	HDUHB	645	4.0%	512.6	11% ↑
Isle of Anglesey	BCUHB	350	2.2%	499.7	-1% ↓
Newport	ABUHB	747	4.7%	482.9	-30% ↓
Bridgend	CTMUHB	671	4.2%	456.3	-16% ↓
Conwy	BCUHB	528	3.3%	450.5	-28% ↓
Gwynedd	BCUHB	552	3.5%	443.2	-23% ↓
Blaenau Gwent	ABUHB	303	1.9%	433.7	-40% ↓
Flintshire	BCUHB	670	4.2%	429.2	-22% ↓
Merthyr Tydfil	CTMUHB	247	1.5%	409.4	-50% ↓
Wrexham	BCUHB	498	3.1%	366.3	-12% ↓
Monmouthshire	ABUHB	309	1.9%	326.7	-22% ↓
Ceredigion	HDUHB	235	1.5%	323.3	-30% ↓
Powys	PTHB	423	2.6%	319.4	-31% ↓
Unknown	Unknown	42	0.3%	-	-25% ↓
<b>Total</b>	<b>Total</b>	<b>15994</b>	<b>100.0%</b>	<b>507.3</b>	<b>-22% ↓</b>

Cases per 100k (PHW Data) (7 day rolling sum to 2 October)



Cases per 100k by age (PHW LA Summary report) (7 day rolling sum to 2 October)



The JBC consensus Reproduction number ( $R_t$ ) estimate for Wales is between 0.8 and 1.1 (reported 6 October 2021), with daily growth rate of between -5% and  $\pm 0\%$  and a doubling time from -16 days to flat. Using PHW positive test data only (more timely data but limited by variation in testing),  $R_t$  is estimated to be 0.8 for Wales with a halving time of 31 days (6 October 2021). The central  $R_t$  estimate is highest for Cardiff & Vale and Hywel Dda Health Boards at 0.95. *Source: JBC/PHW*

7-day cumulative case incidence in Wales has decreased by 22% to 507.3 per 100,000 population in the last week.

Case incidence is decreasing in 19 of the 22 local authorities. Case incidence is above 500 per 100,000 population for ten local authorities. Local authorities with the highest case incidences are Torfaen, Denbighshire and the Vale of Glamorgan at 688.6, 632.2 and 630.3 per 100,000 population, respectively.

Case incidence has decreased in all age groups, remaining highest in 10-19. Case incidence has dropped in most local authorities over the past few days. Case incidence is highest in Cardiff & Vale health board at 582 cases per 100,000 population.

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  $R_t$  and halving times will be unstable when incidence is low.

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

Reproduction number and doubling time (PHW methodology)  
PHW data by Local Health Board (6 October 2021 estimate)

Local Health Board	All Wales	Swansea Bay UHB	CTM UHB	Aneurin Bevan UHB	Cardiff & Vale UHB	Hywel Dda UHB*	Powys THB*	Betsi Cadwaladr UHB
<b><math>R_t</math> (cases)</b>	0.8 (0.8 to 0.8)	0.7 (0.65 to 0.7)	0.65 (0.65 to 0.7)	0.75 (0.75 to 0.8)	0.95 (0.9 to 1.0)	0.95 (0.9 to 1.0)*	0.7 (0.65 to 0.8)*	0.85 (0.85 to 0.9)
<b>Doubling time (days)</b>	-31.1 (15 to -870)	-15.7 (10 to 38)	-14 (9 to 29)	-25 (13 to 485)	103 (19.3 to -31)	-435 (28 to -31)*	-21 (9 to -69)*	-43 (17 to -76)

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+

# 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 two weeks. As at 6 October 2021, there were 596 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed. This compares to 626 (30 fewer occupied beds) on 29 September 2021. Confirmed patients accounted for 423 of the total occupied beds.

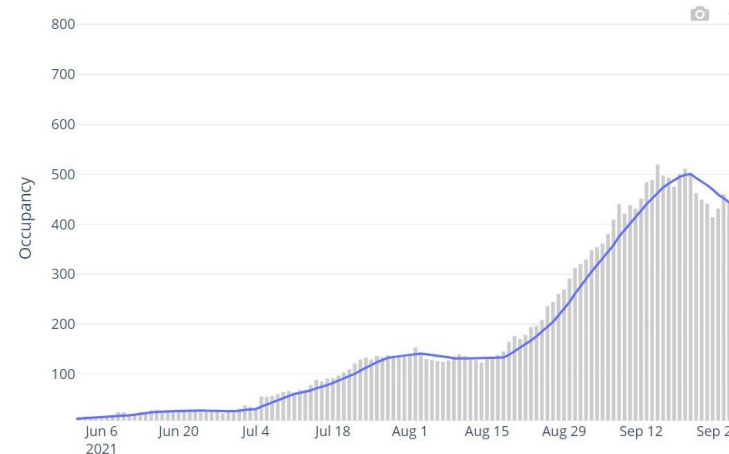
There are 49 patients with Suspected or Confirmed COVID-19 in critical care beds in Wales. This is 115 lower than the maximum COVID-19 position of approximately 164. The total number of patients in critical care for both COVID-19 and non-COVID-19 stands at 175, 23 more than the 152 baseline number of critical care beds available before the COVID-19 pandemic.

Non-COVID-19 urgent & emergency pressure remains intense, whilst the NHS continues to try and recover from the considerable backlogs that have developed over the past 18 months. There is also a considerable staffing challenge in health and care system, culminating in a lack of flow through the system and extended ambulance and emergency department waiting times.

There is the potential for significant harm in the community (and our hospitals) for people with non-covid illnesses or injuries, which may exceed the direct harm from COVID-19 at this point in time.

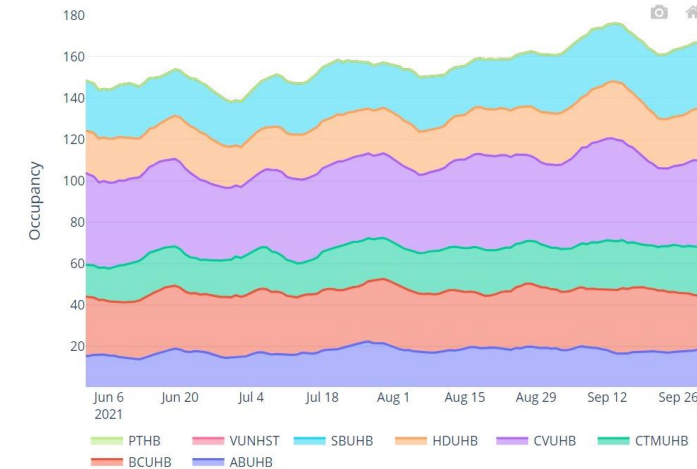
In the latest National Situation Background Assessment Recommendation (SBAR) report covering the week of 27 September to 3 October 2021, IMTs reported 131 care homes in 'red' status (an ongoing outbreak/incident reported in last 7 days) last week, compared to 164 in the previous week. In the latest SBAR, 0 health boards reports having no care homes in 'red' status. Source: National SBAR.

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



StatsWales 1st Oct 2021

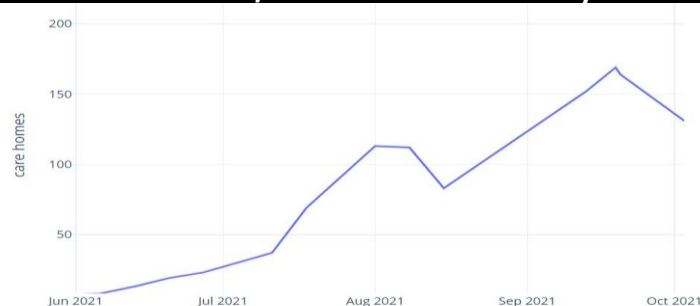
**Overall invasive ventilated bed occupancy  
(7 day rolling average)**



StatsWales 1st Oct 2021

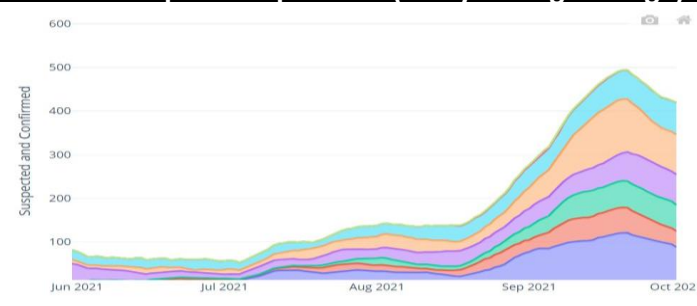
Data as at 12:00PM 06 October 2021 unless otherwise specified

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



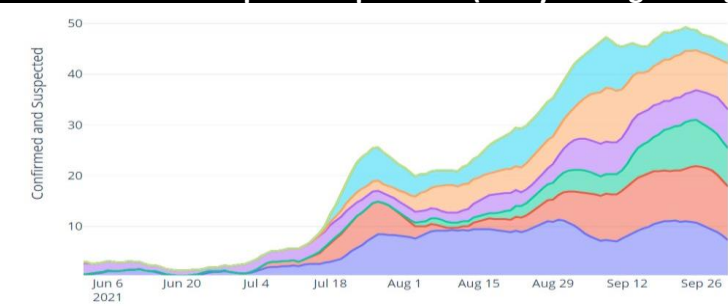
3rd Oct 2021

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



StatsWales 1st Oct 2021

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



StatsWales 1st Oct 2021

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

## School attendance

For the week 27 September - 1 October an average of 85% of all pupils were present in school. This data is provisional and will be revised on 13 October when the number in attendance is expected to increase.

## Schools

The latest National Situation Background Assessment Recommendation (NSBAR) for the week 27 September–3 October has reported 70\* new clusters compared to 85 the previous week. A number of IMTs are currently unable to provide reliable data on the number of school related clusters. It is likely that cluster numbers are higher than those the reported. 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 8\* new and 20\* ongoing clusters in childcare settings last week.

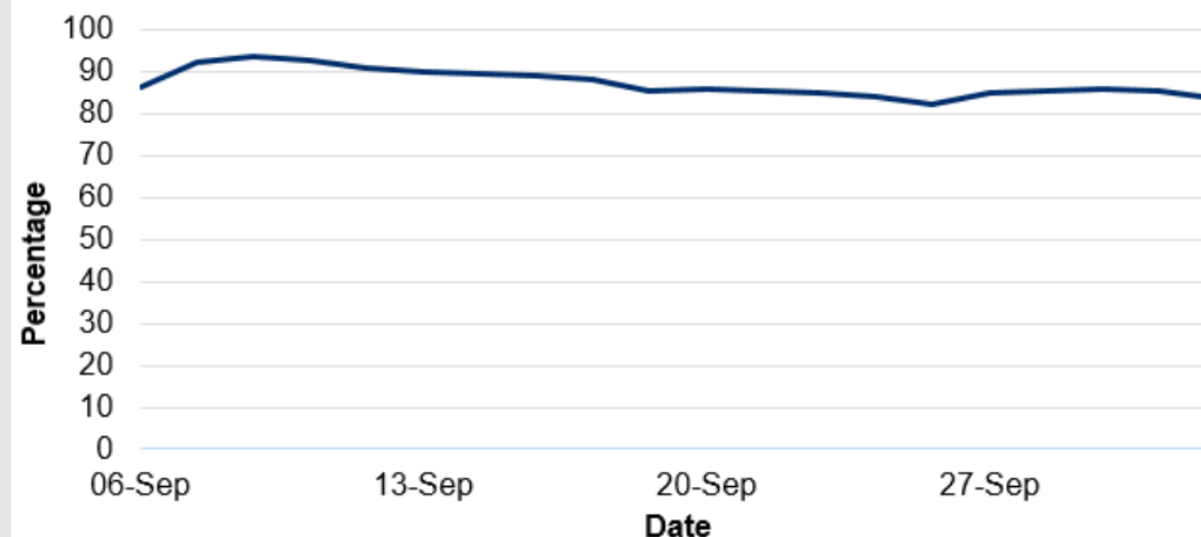
## Further Education (FE) Higher Education Institutions (HEIs)

According to the latest SBAR there were no new and 6\* ongoing clusters reported in FE last week compared with 1 new and 1 ongoing cluster reported the previous week. In HE there was 1\* ongoing cluster reported last week compared to 0 new and 1 ongoing cluster reported the previous week. *Source National SBAR*

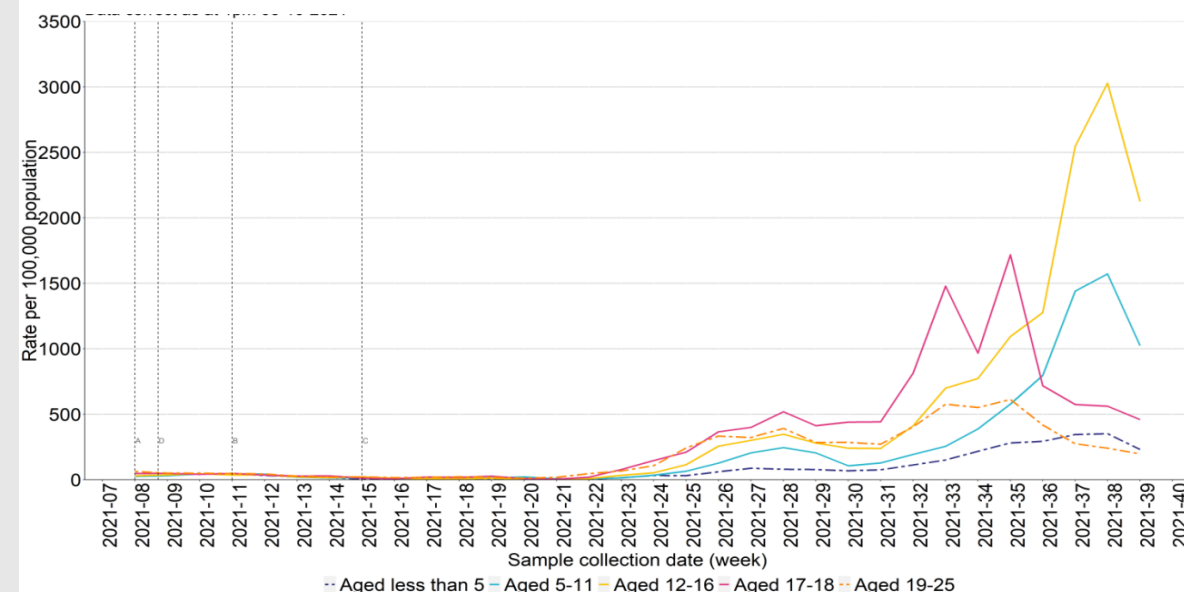
*\*Figures do not include data from 1 LA.*

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 1pm 6th October



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

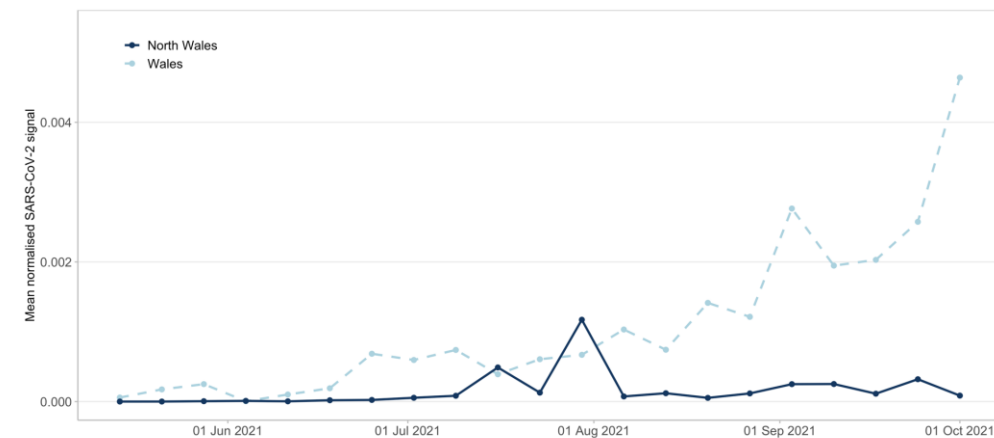
Changes in mean normalised SARS-CoV-2 signal by catchment. Means taken over each of the last two weeks for each catchment; third column shows the fold change in these means. Colours and arrows indicate direction of change

		Mean normalised SARS-CoV-2 signal		Fold change
		18 Sep 2021 to 24 Sep 2021	25 Sep 2021 to 01 Oct 2021	Mean normalised SARS-CoV-2 signal
North Wales	Bangor (Treborth)	2.22	1.11	0.5 ↓
	Chester	1.63	0.69	0.42 ↓
	Flint	1.09	3.41	3.14 ↑
	Holyhead	0.52	1.19	2.3 ↑
	Llandudno (Ganol)	1.86	0.72	0.38 ↓
	Llangefni	1.96	0.47	0.24 ↓
	Rhyl (Kinmel Bay)	0.66	0.32	0.48 ↓
	Wrexham (Five Fords)	6.39	0.87	0.14 ↓
South Wales	Abergavenny (Llanfoist)	7.77	53.32	6.86 ↑
	Barry (Cog Moors)	27.11	63.6	2.35 ↑
	Bridgend (Merthyr Mawr)	13.97	65.83	4.71 ↑
	Cardiff	41.36	61.56	1.49 ↑
	Carmarthen (Parc Y Splotts)	21.57	17.64	0.82 ↓
	Cwmbran (Ponhir)	19.46	34.73	1.78 ↑
	Gowerton	38.46	54.04	1.41 ↑
	Haverfordwest (Merlin's Bridge)	6.33	70.7	11.18 ↑
	Llanelli	14.07	32.95	2.34 ↑
	Merthyr Tydfil (Cilfynydd)	15.72	17.48	1.11 ↑
	Newport	8.37	33.46	4 ↑
	Swansea	33.91	48.63	1.43 ↑



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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 1 Oct 2021.



**In the week ending 1 October 2021 the mean wastewater signal for Wales remains high and the trend is continuing to indicate a continued increase in prevalence.**

The trend in normalised wastewater SARS-CoV-2 signal over the past 3-4 weeks has stayed fairly level across North Wales WWTW sites whilst the trend in normalised wastewater SARS-CoV-2 signal across South Wales WWTW sites has continued to increase over the same period at odds with the marked decrease in COVID-19 positive cases for these catchments. Comparing with the week before, almost all WWTW sites/regions in South Wales showed differences in the wastewater SARS-CoV-2 signal that were at variance with PHW COVID-19 case data for the corresponding wastewater catchment areas

Surveillance of Merthyr Tydfil (Cilfynydd WWTW) commenced three weeks ago, analysis of early data indicate that Merthyr Tydfil's wastewater signal is high. The increase observed in Haverfordwest over the last week is currently under investigation.

**For this period, all South Wales sites (except Carmarthen/Parc Y Splott) are on the watchlist.**

Wastewater signal is a very 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. 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. Wastewater data analysis and reporting is still in a pilot stage and should not be relied upon in isolation.

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 1 Oct 2021.



# Slide 7. What is the situation with arriving travellers?



To date, there have been 65 positive travellers (0.27% positivity), compared to 63 for the previous week (0.26% positivity) at time of reporting.

Spain continues to provide the greatest number of travellers, and these increased last week (by 0.9%) despite the decrease in total amber arrivals. There were also increases seen in travellers from Greece (2.9%), Portugal (9.7%) and Italy (15.9%).

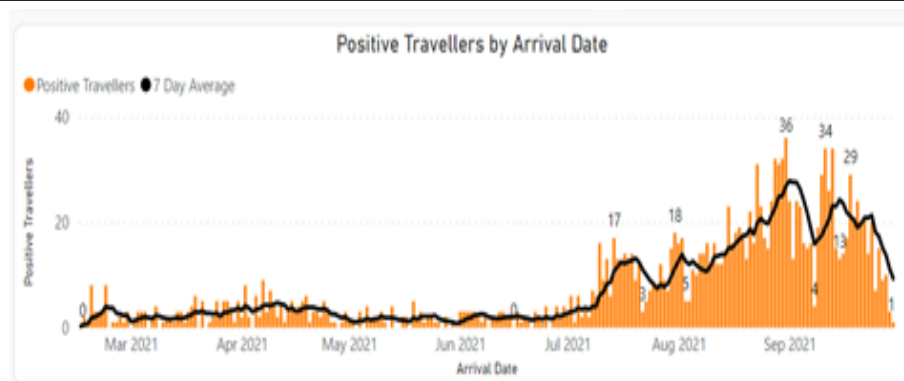
**23,821 total arrivals for the week (24,336 last week; -2.1%)**

- Red: 38 (70 last week)
- Amber: 20,261 (20,492 last week)
- Green: 3,522 (3,774 last week)

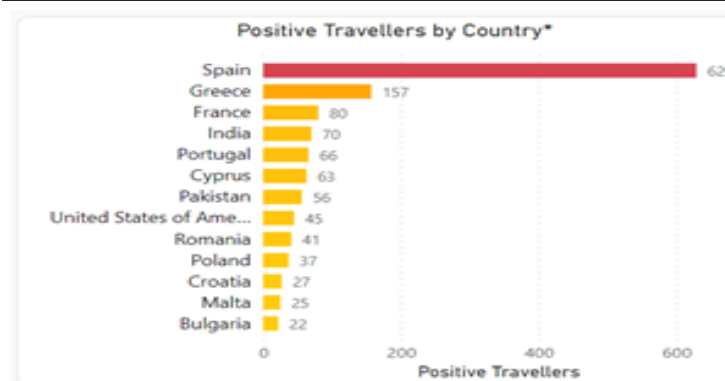
Date Source: Home Office [Wales Travel Rules](#)

**NOTE:** Travellers may have travelled through more than one country on their journey.

## Positive travellers timeline



## Positive travellers this week by country



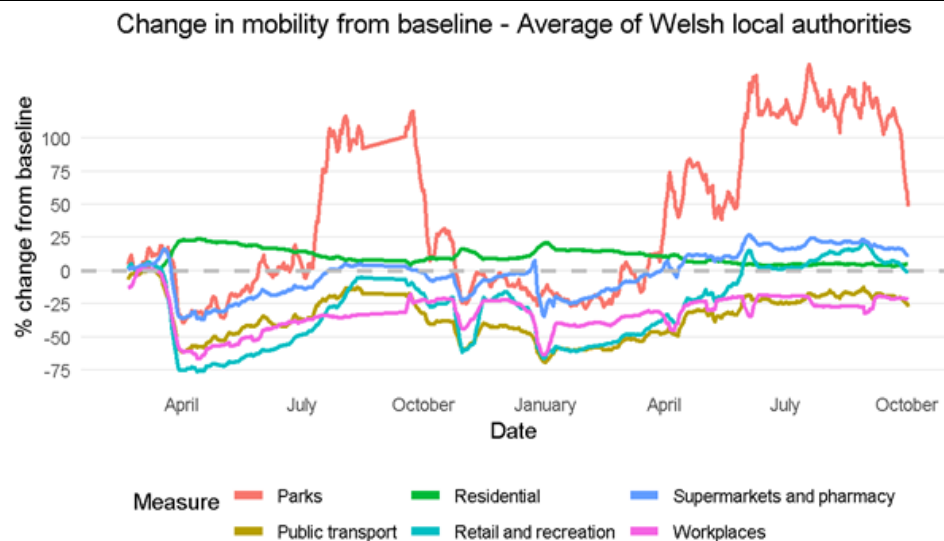
## Arriving travellers timeline



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.

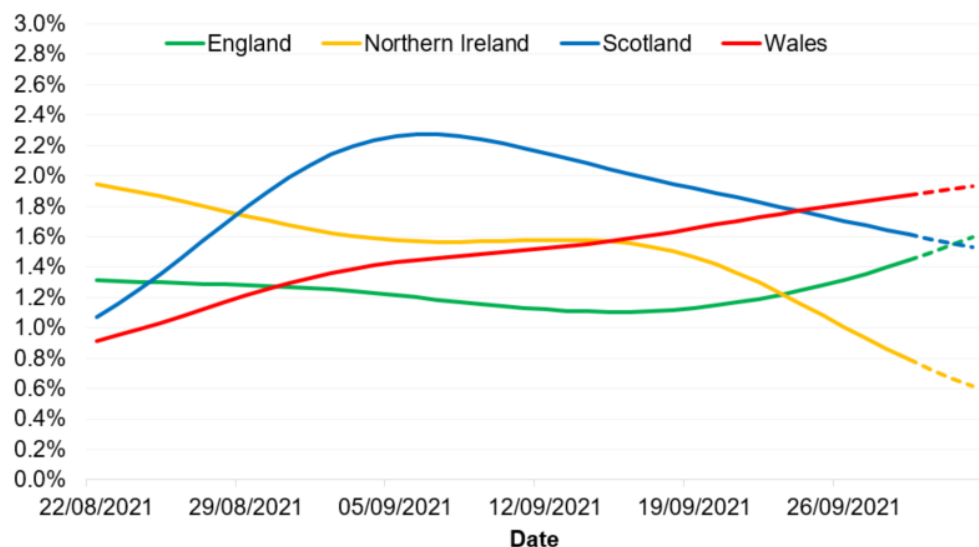
# Slide 8. Mobility data and UK Comparison

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



Source: Google LLC "Google COVID-19 Community Mobility Reports."

## Positivity rates (%) across UK nations up to 2 October



The latest mobility data shows reductions in the latest week (with increases in people spending time at home) compared to 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 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 24 to 28 September for Wales shows the number of people only leaving home for essential trips has remained stable with the last survey wave, along with the majority of people maintaining 2m social distancing when out.

## Coronavirus (Covid-19) Infection Survey results, 2 October

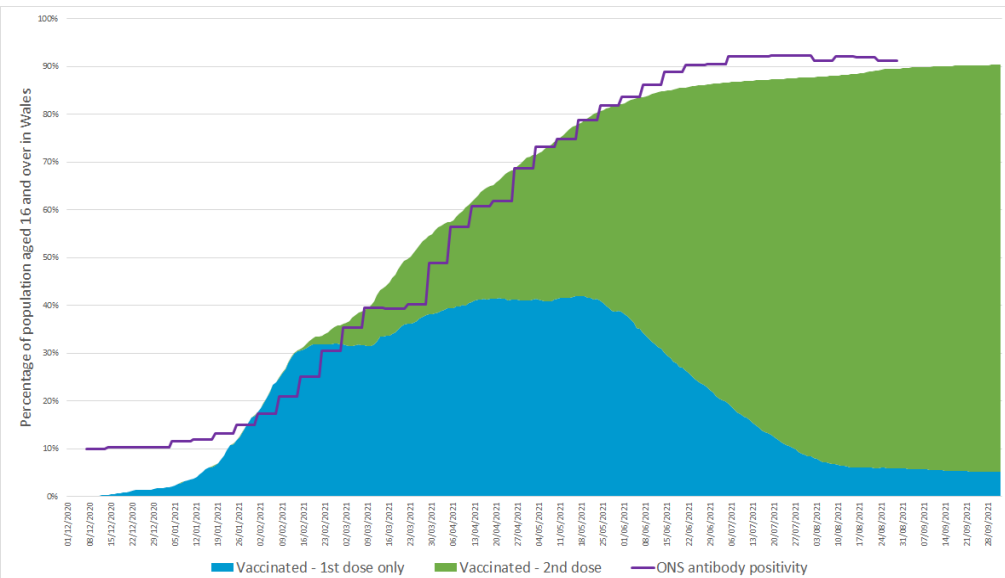
The percentage of people testing positive increased over the last two weeks in Wales but the trend is uncertain in the most recent week. In England the percentage testing positive has increased. The percentage of people testing positive for coronavirus (COVID-19) decreased in Scotland and Northern Ireland.

In Wales, the percentage of people testing positive is uncertain in the week ending 2 October; ONS estimate that 56,900 people in Wales had COVID-19 (95% credible interval: 45,700 to 69,300), equating to around 1 in 55 people (95% CI: 1 in 65 to 1 in 45). This compares to around 1 in 70 people in England, around 1 in 130 in Northern Ireland and around 1 in 60 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 2 October 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 2 October 2021, it is estimated that 91% of people aged 16 and over in Wales had some immunity against COVID-19 infection. The lower and higher estimates of immunity are 82% and 100% 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.<sup>1</sup> Note that the immunity estimate of 91% 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:

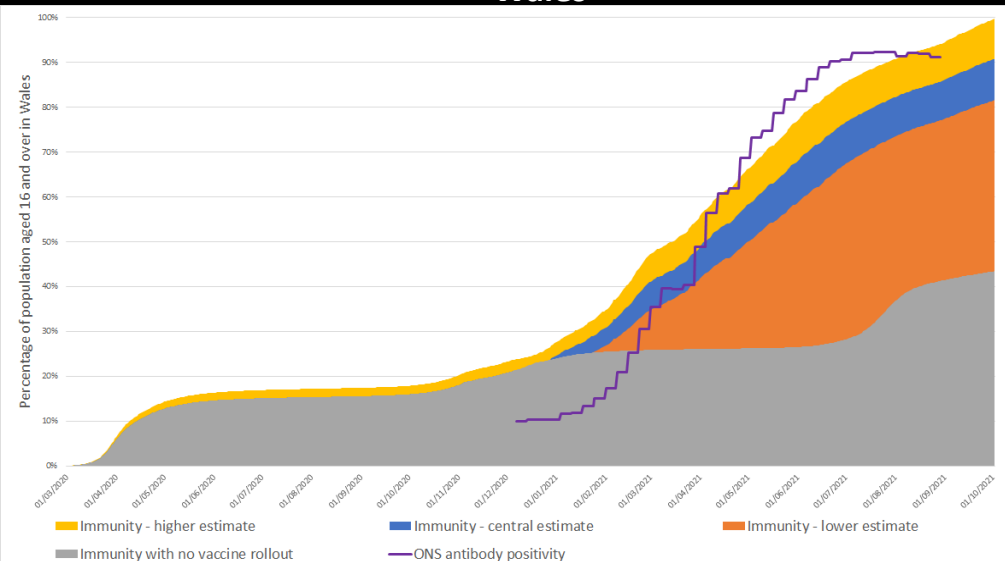
- ONS antibody estimates are based on study participants who have volunteered for the study and estimates are extrapolated.
- ONS estimates are based on the 16+ community population, which excludes people in care homes or hospitals. Immunity estimates are based on the whole 16+ Wales population.
- While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

<sup>1</sup> 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 none of the 22 local authorities. 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 over the next three weeks. *Source: Modelled medium term projections, SAGE/SPI-M, 5 October*
- **Hospitalisations per day (bottom right)** – projected to decrease from around 25 to around 10 per day over the next three weeks (note confidence intervals). *Source: Modelled medium term projections, SAGE/SPI-M, 5 October*

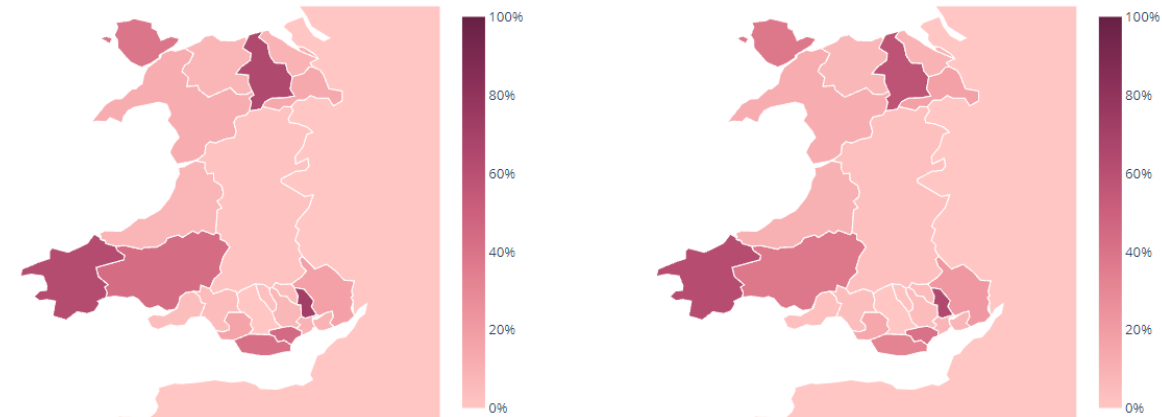
These projections are based on current trends and will not fully reflect the impact of policy or behavioural changes over the past two to three weeks. The projections include the impact of vaccines, but cannot capture any future increases in transmission resulting from new variants. They are not forecasts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

## Number of deaths per day, Wales As at SPI-M 5 October 2021

The number of deaths have fallen to very low levels in Wales. Projecting forwards is difficult when numbers fall to very low levels, therefore SPI-M-O have decided to pause producing medium term projections where this is the case.

SPI-M's consensus view is that the number of deaths in Scotland, Wales, Northern Ireland and all NHS England regions will reduce over the next three weeks.

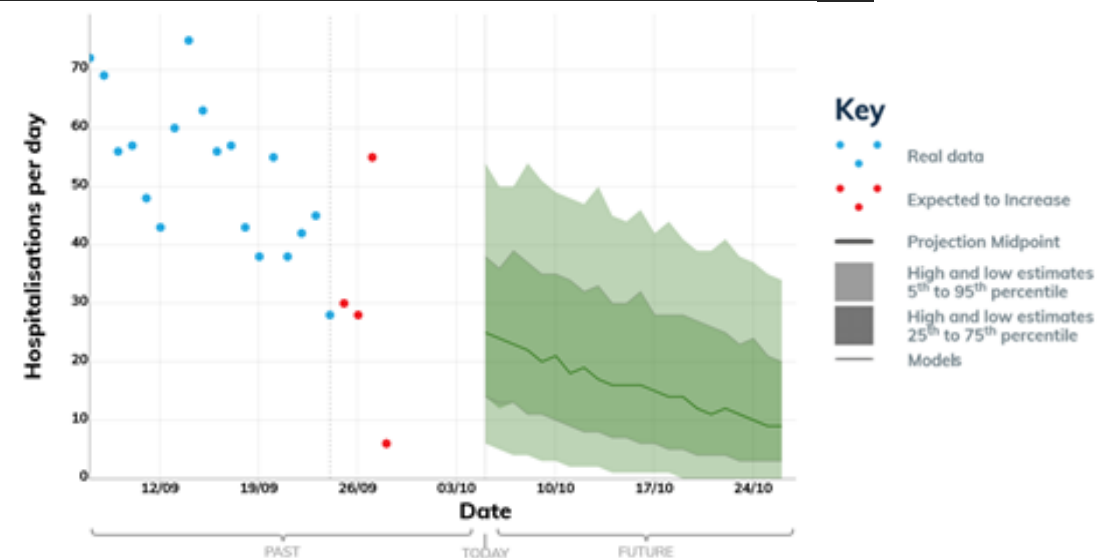
## Probability of greater than 500 per 100,000 cases by local authority



Time period: 10 Oct – 16 Oct

Time period: 17 Oct - 23 Oct

## Number of new hospitalisations per day, Wales As at SPI-M 5 October 2021



# Slide 11. Key risks and sources

Key risks	
Area	Assessment
Transmission, incidence and prevalence	Overall transmission of COVID-19 and test positivity rates have decreased across Wales.
NHS Capacity	From early-July 2021, COVID-19 pressure on the NHS was generally increasing. However, COVID-19 related hospital bed and ICU occupancy have stabilised. Wider non-COVID-19 pressures remain.
Mortality	Number of daily deaths declining in the last week.
Variants	Wales has had 37,294 confirmed cases of the dominant Delta variant (an increase of 5,847 from the previous week). Delta remains the dominant variant of COVID-19 in Wales.
Immunity and Vaccines	<b>4,611,274 (+13,129) doses of COVID-19 vaccine were given in Wales</b> and recorded in the COVID-19 Welsh Immunisation System. 91% of those aged 16 and over in Wales were estimated to have some immunity against COVID-19 infection at 2nd October September 2021.
International	Arriving traveller numbers decreased this week, with the proportion of travellers testing positive remaining 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>