

COVID-19 Wales Situational Report

COVID-19 Intelligence Cell:
18 November 2021

Health Protection Advisory Group:
19 November 2021

Data as at 17 November 2021 unless otherwise specified

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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 are currently fluctuating. We will need to continue monitoring case rates and other key indicators in each nation carefully to better understand the impact of easements of restrictions, return of schools and universities, and impact on the NHS.

The UKHSA consensus estimate of the reproduction number for Wales is between 0.8 and 1.0 and a halving time of 34 days to flat (as at 18 November 2021), while PHW's estimate is 1.05 with a doubling time of 31 days (17 November 2021). Note that UKHSA'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*

Covid-19 pressure on the NHS fluctuates. As at 17 November 2021, there were 857 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed (+28 compared to previous week), of which 585 were confirmed. As at 3 November 2021, there were 72 compared patients with Suspected or Confirmed COVID-19 in critical care beds in Wales; 92 lower than the maximum COVID-19 position of approximately 164. **Non-COVID-19 urgent & emergency pressures have resulted in total hospital bed occupancy increasing to its highest level since February 2020.**








As at 16 November 2021, Wales has had 66,084 (+6,031) confirmed cases of the dominant Delta variant, and 5,782 (+1,313) confirmed cases of VUI-21OCT-01 (AY4.2). No other variants of concern were confirmed by genomic sequencing in Wales. *Source: PHW*

As at 16 November 2021, a total of 5,386,809 (+95,661) doses of COVID-19 vaccine were given in Wales and recorded in the COVID-19 Welsh Immunisation System. 2,459,583 were first doses. 2,253,495 were second doses. 673,169,324 were booster doses. 36,562 were third dose primary course recommended for severely immunosuppressed individuals. *Source: PHW*

Key indicators

Cases are starting to increase. PHW deaths due to COVID-19 have increased over the past week. Remaining indicators are showing signs of decrease.

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

	Current value (13/11/21)	Change since previous week (06/11/21 – 13/11/21 unless stated otherwise)	
		Percentage change	Value change
Confirmed case rate (rolling 7 day sum per 100k)	503	+2% 	(+12)
Confirmed case rate for over 60s (rolling 7 day sum per 100k)	277	-10% 	(-31)
Test positivity (7 day RA)	19%	-3.4% 	(-0.7 percentage points)
Population estimated to have COVID-19 (prevalence) ¹	1.84%	-14% 	(-0.29 percentage points)
NHS COVID-19 Admissions ²	49	-18% 	(-11)
ONS deaths (7 day sum) ³	70	-18% 	(-15)
PHW deaths (7 day sum)	65	+3% 	(+2)

Footnotes

1. Latest Covid Infection Survey data is taken from 31 October 2021 to 6 November 2021.
2. Seven day rolling average to the current date of confirmed COVID-19 admissions.
3. Latest ONS deaths data is to 5 November 2021 (rather than 13 November 2021) for the current value. Data to 29 October 2021 is used for the change since previous week.

What is the current status of the epidemic?

The JBC consensus Reproduction number (R_t) estimate for Wales is between 0.8 and 1.0 (reported 18 November 2021), with daily growth rate between –3% to 0%. Using PHW positive test data only (more timely data but limited by variation in testing), R_t is estimated to be 1.05 for Wales with a doubling time of 702 days (17 November 2021). The central R_t estimate is highest for the Betsi Cadwaladr Health Board at 1.1. *Source: JBC/PHW*

The 7-day cumulative case incidence in Wales is fluctuating at around 500 per 100,000 population.

Case incidence is increasing in 8 of the 22 local authorities. Case incidence is above 500 per 100,000 population for 10 local authorities. Local authorities with the highest case incidences are Vale of Glamorgan (672.2), Gwynedd (657.5) and Torfaen (570.4) per 100,000 population, respectively.

Case incidence is stabilising in most age groups, remaining highest in 10–19-year-olds. Case incidence has decreased in most Local Health Boards over the past few days. Case incidence is highest in Cardiff & Vale University Health Board at 604.1 cases per 100,000 population as of 13 November 2021.

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 shown 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.

Table 1: Cases per 100,000 population (7-day period ending 16th November 2021)

Local Authority	Number	% of All Wales Total	Case Incidence per 100,000	Change from previous week
Vale of Glamorgan	898	5.7%	672.2	-5% ↓
Gwynedd	819	5.2%	657.5	37%
Torfaen	536	3.4%	570.4	-19% ↓
Cardiff	2062	13.1%	562.0	-4% ↓
Monmouthshire	529	3.4%	559.3	13%
Carmarthenshire	1025	6.5%	543.0	14%
Powys	716	4.6%	540.6	3%
Neath Port Talbot	774	4.9%	540.1	-9% ↓
Merthyr Tydfil	315	2.0%	522.2	15%
Swansea	1238	7.9%	501.2	-3% ↓
Wrexham	674	4.3%	495.7	20%
Blaenau Gwent	345	2.2%	493.8	-17% ↓
Caerphilly	877	5.6%	484.3	-20% ↓
Denbighshire	463	2.9%	483.8	13%
Newport	741	4.7%	479.1	-10% ↓
Bridgend	702	4.5%	477.4	-10% ↓
Rhondda Cynon Taf	1023	6.5%	424.0	6%
Pembrokeshire	531	3.4%	422.0	-17% ↓
Flintshire	578	3.7%	370.3	-8%
Conwy	391	2.5%	333.6	-9%
Isle of Anglesey	217	1.4%	309.8	-4%
Ceredigion	189	1.2%	260.0	-38% ↓
Unknown	58	0.4%	-	0%
Total	15701	100.00%	498.0	-3% ↓

Figure 1: Cases per 100k (PHW Data) (7 day rolling sum to 14th Nov)

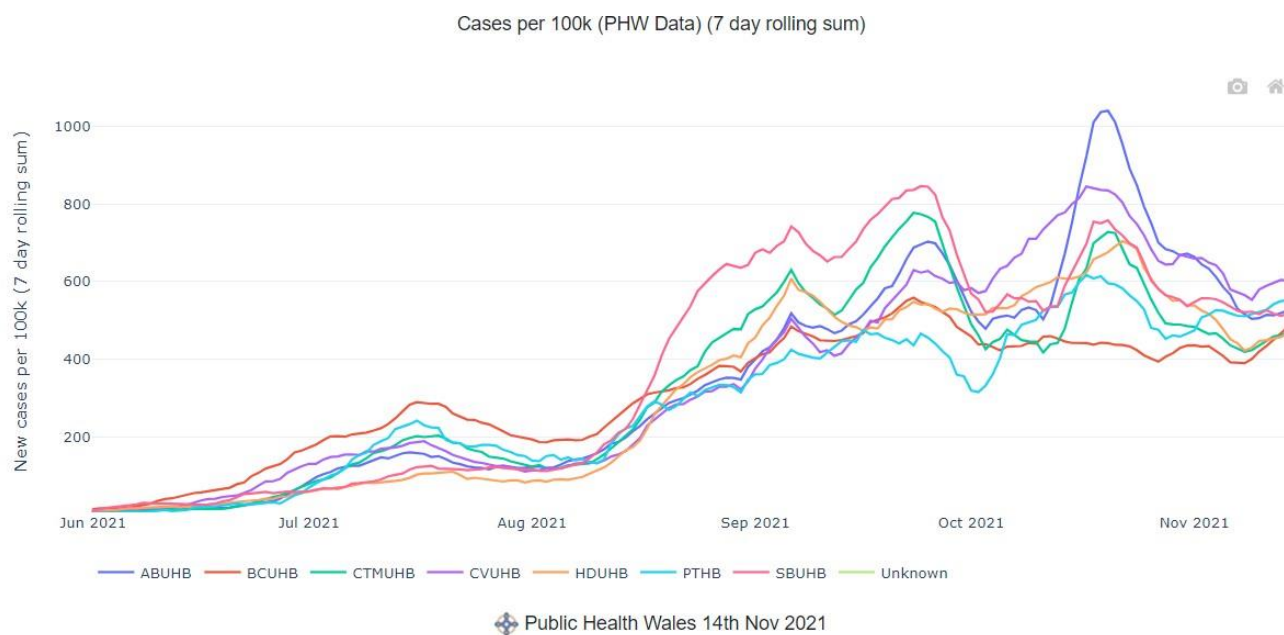


Figure 2: Cases per 100k by age (PHW Data) (7 day rolling sum to 17th Nov)

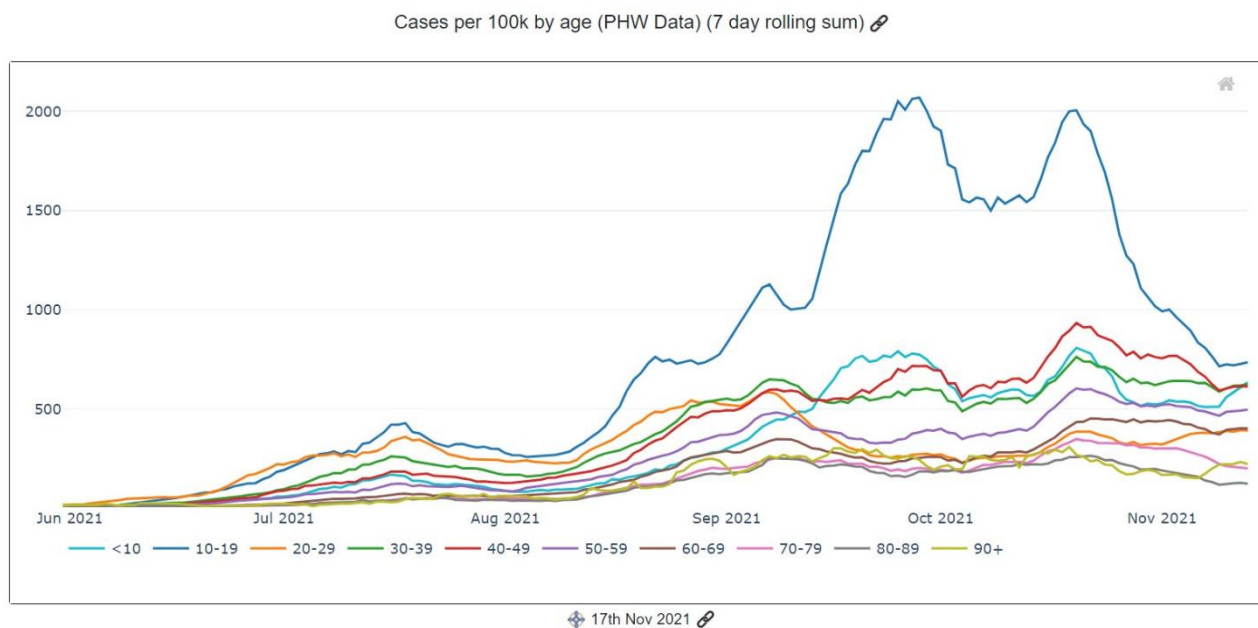


Table 2: Reproduction number and doubling time (PHW methodology) PHW data by Local Health Board (17th November 2021 estimate)

Local Health Board	All Wales	Swansea Bay UHB	CTM UHB	Aneurin Bevan UHB	Cardiff & Vale UHB	Hywel Dda UHB*	Powys THB*	Betsi Cadwaladr UHB
Rt (cases)	1.05 (1.0 to 1.05)	1.0 (0.95 to 1.0)	1.05 (1.0 to 1.1)	0.95 (0.9 to 1.0)	1.05 (1.0 to 1.05)	1.0 (1.0 to 1.05)*	1.05 (1.0 to 1.1)*	1.1 (1.1 to 1.15)
Doubling time (days)	702 (28 to -31)	-2559.2 (28 to -29)	94 (22 to -42)	-48 (10 to -86)	3561 (23 to -23)	-461 (24 to -27)*	42 (16 to -27)*	41 (16 to -68)

What is the situation with the NHS and social care?

The number of beds occupied with COVID-19 patients (confirmed, suspected and recovering) fluctuates. Taking this into account, since July 2021 to early November 2021 COVID-19 pressure on the NHS has generally increased. Over the latest week, the number of beds occupied with COVID-19 related patients has decreased. This was due to a decrease in confirmed patients despite an increase in suspected and recovering patients. As at 17 November 2021, there were 744 COVID-19 related patients (Suspected, Confirmed and Recovering) occupying a hospital bed. This compares to 805 (61 fewer occupied beds) on 10 November 2021. Confirmed patients accounted for 468 of the total occupied beds.

There are 60 patients with Suspected or Confirmed COVID-19 in critical care beds in Wales. This is 104 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 180, 28 more than the 152 baseline number of critical care beds available before the COVID-19 pandemic. Note: The charts presented do not include recovering patients.

Non-COVID-19 urgent & emergency pressures have resulted in total hospital bed occupancy increasing to its highest level since February 2020. Above seasonal prevalence of non-COVID 19 respiratory disease remains evident whilst the NHS also continues to try and recover from the considerable backlogs that have developed over the past 18 months. There is also a considerable staffing challenge across the health and care system, with staff sickness absence rates currently just over 2% higher than pre-covid rates, culminating in delayed discharge volumes increasing and a lack of flow throughout the whole health and care system resulting in 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 26th October to 9th November 2021, IMTs reported **122** care homes with an outbreak attributed to Covid 19. The majority of cluster sizes remain small and there were no reports of significant outbreaks associated with this sector. Source: National SBAR

Figure 3: Covid-19 Confirmed Hospital occupancy (7 day rolling average)

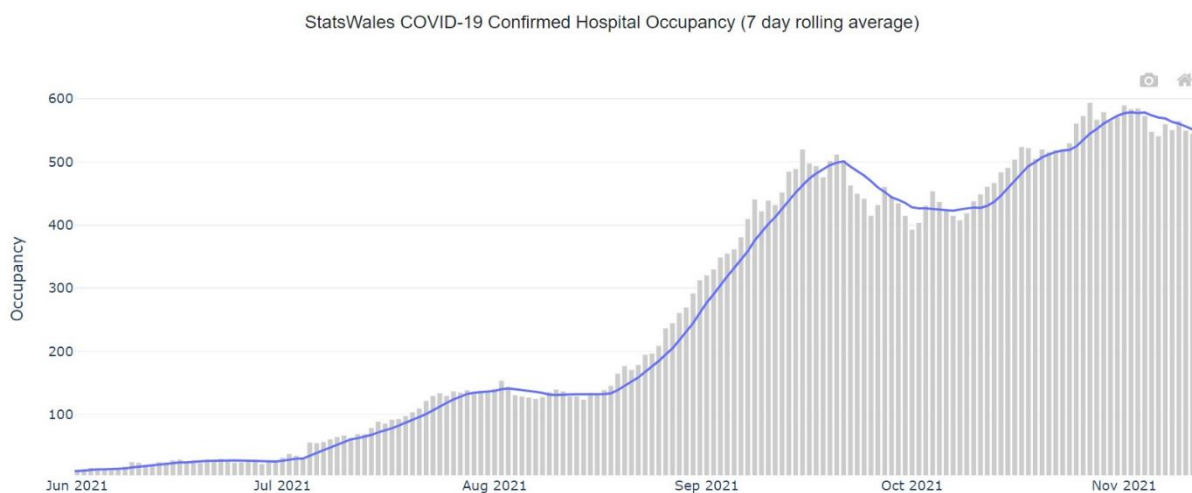


Figure 4: Overall invasive ventilated bed occupancy (7 day rolling average)

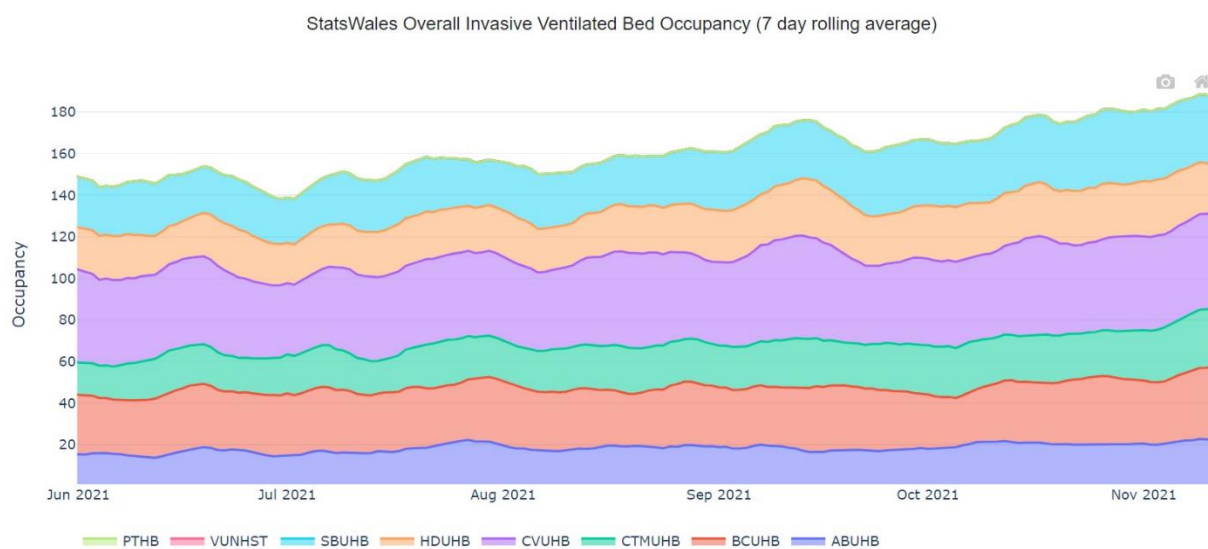


Figure 5: Hospital bed occupancy for suspected and confirmed COVID-19 positive patients (7 day rolling average)

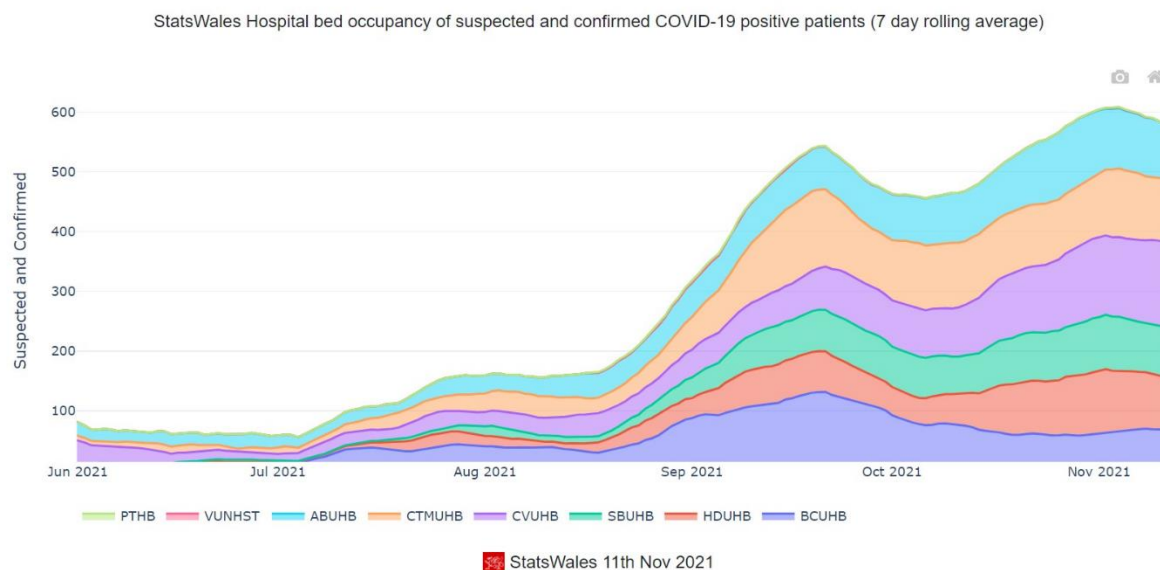
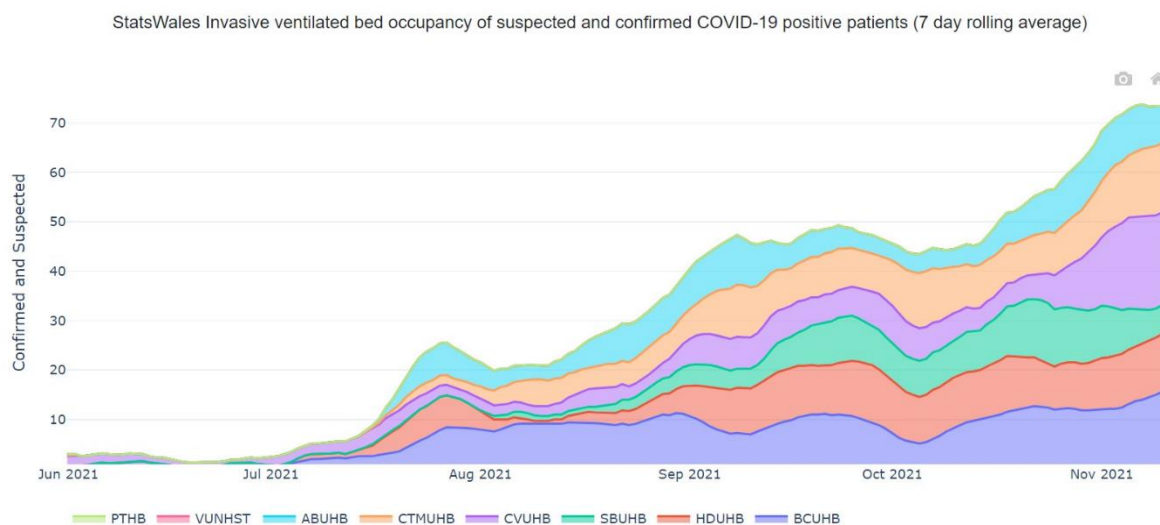


Figure 6: Invasive ventilated bed occupancy for suspected and confirmed COVID-19 positive patients (7 day rolling average)



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

School attendance

For the week 8 –12 November an average of 89.3% of all pupils were present in school, up from 89.2% the week before. Data for the last two weeks is provisional.

In the same time period 1.3% of pupils were absent due to a known COVID-19 related reason, with an average of 1.4% of all primary and 1.2% of all secondary pupils absent for this reason. **Source Stats Wales, Schools in Wales**

Schools, Childcare settings, Further Education (FE) Higher Education Institutions (HEIs) - From this week onwards updates on all educational settings have changed and include details of significant outbreaks and notable public health intelligence linked to these settings only.

There were no significant outbreaks/clusters or notable public health intelligence associated with childcare , FE and HE settings reported by IMTs.

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.

Figure 7: Attendance of pupils in maintained schools by day from 6th Sep onwards

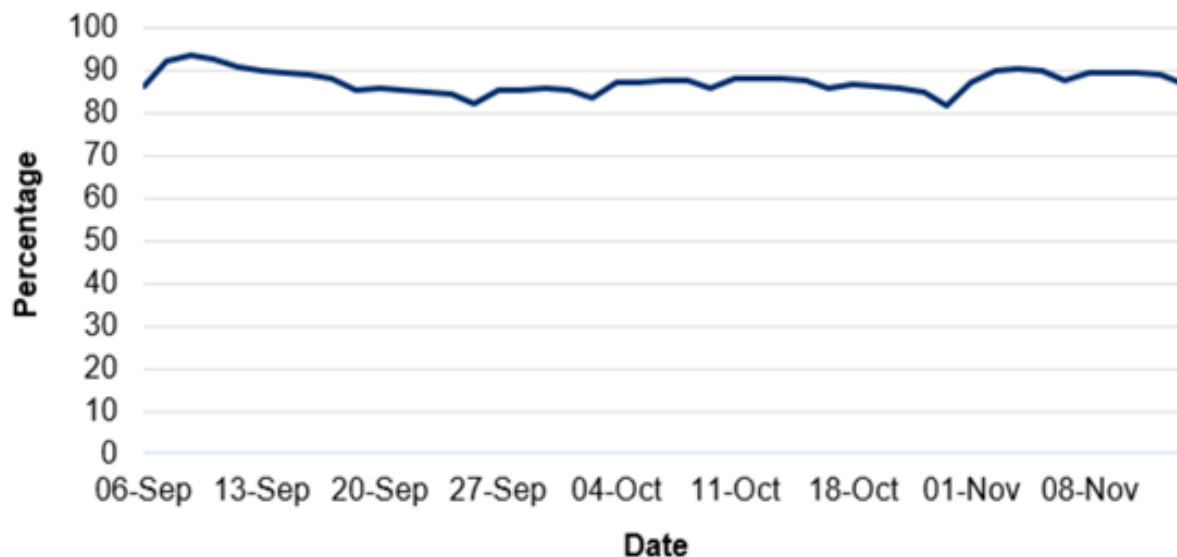


Figure 8: Percentage pupils by number of days missed due to COVID-19 related reason and all reasons, 12th Apr – 5th Nov

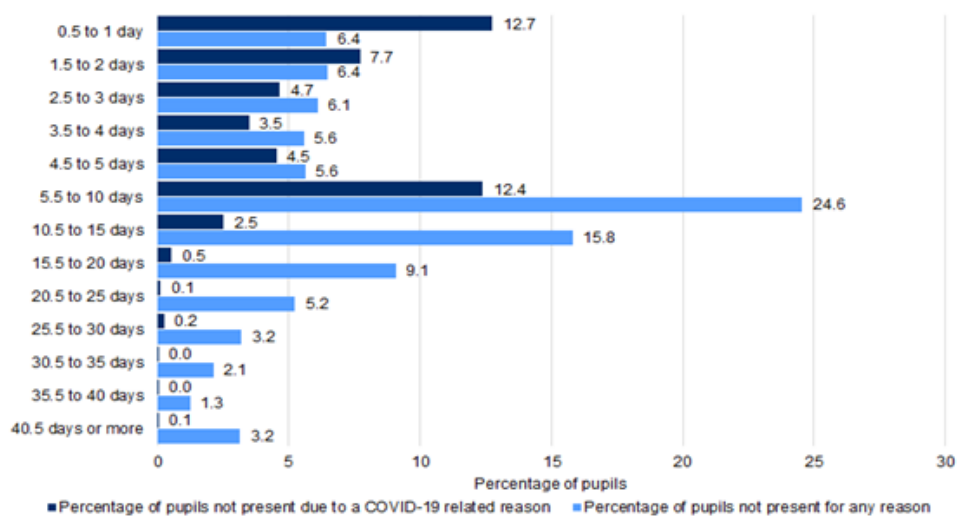


Figure 10: Absence due to COVID-19 by day and phase, 13th September – 5th November

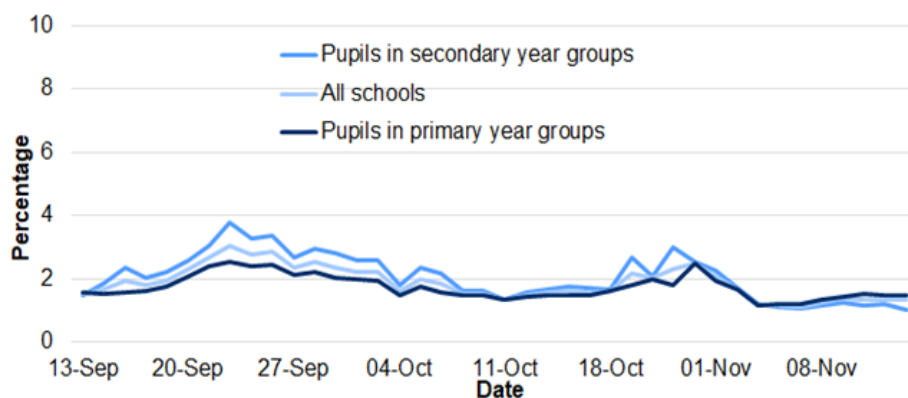


Figure 11: Weekly Covid-19 Incidence per 100k population in school aged children

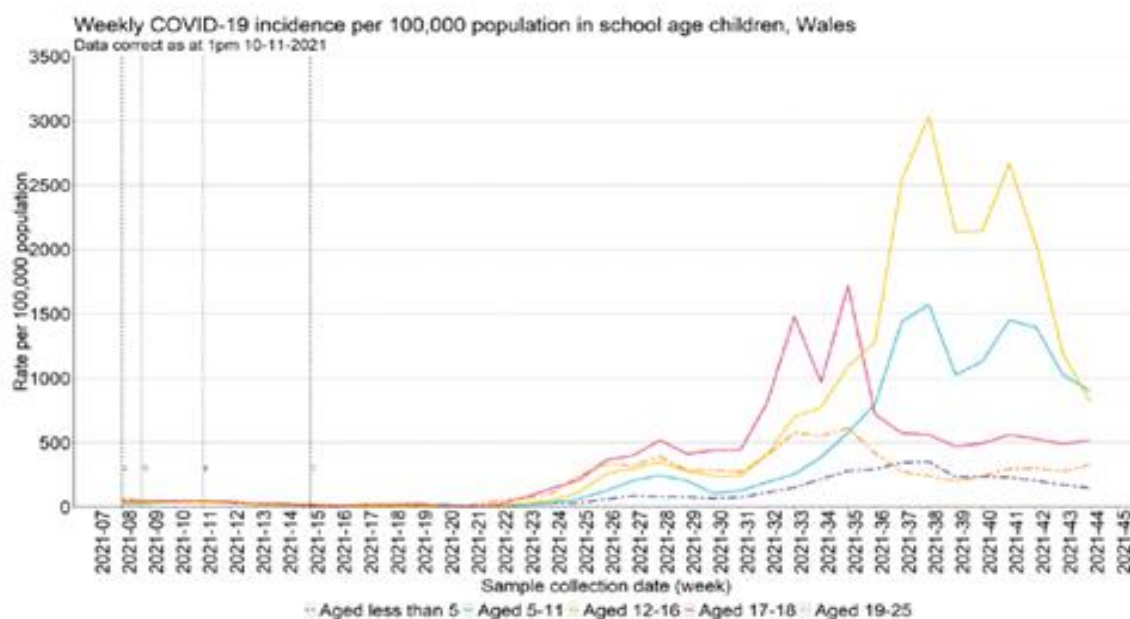


Figure 12: Weekly Testing Incidence per 100k population in school aged children

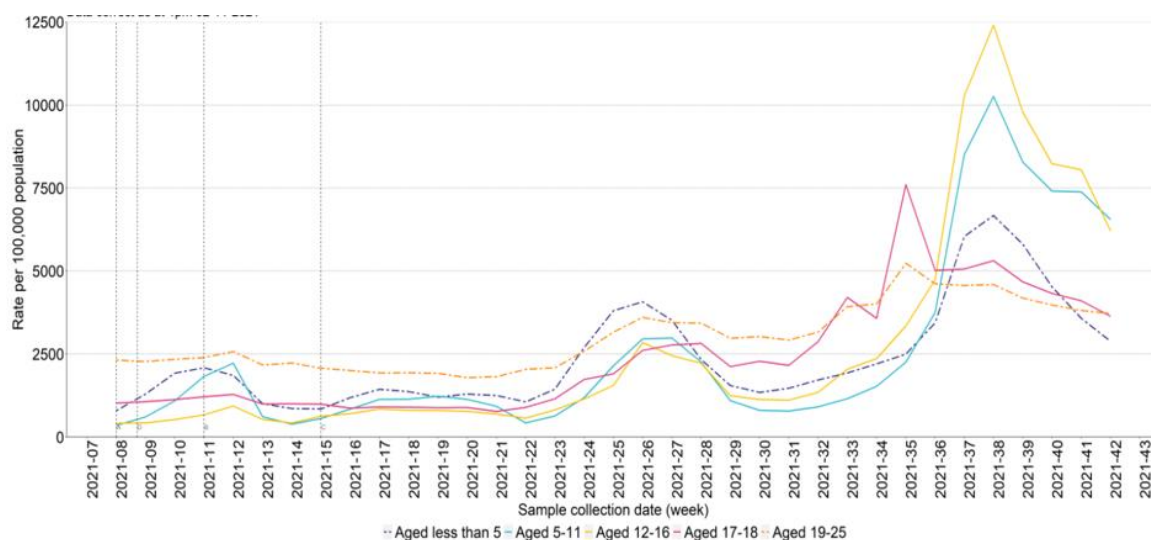
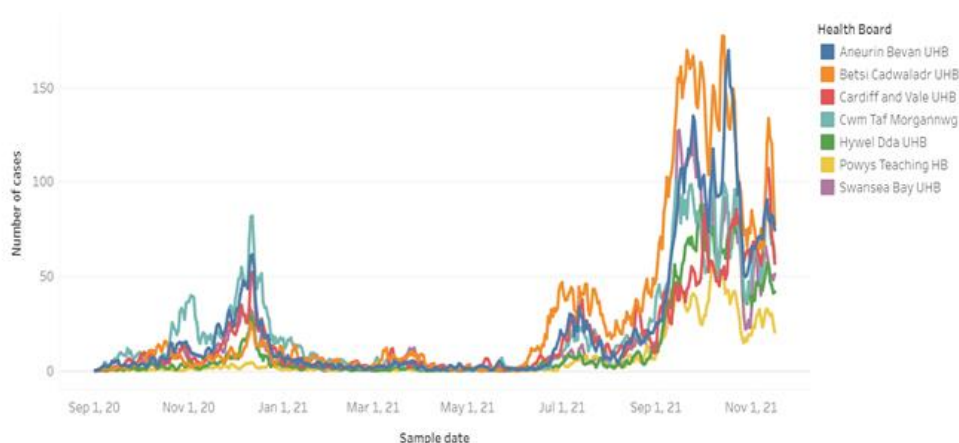


Figure 13: Rolling 3 day average of new C-19 cases in school aged children or staff linked to schools by Heath Board and date of test result since Sept 2020 as at 18th November



Wastewater Monitoring for Covid-19 (Pilot)

In the week ending 12 November 2021 the mean wastewater signal for Wales is indicating a reduced level in signal compared to the previous four weeks. This is believed to be a genuine reduction in observed signal.

In South Wales, the 'bounce back' in wastewater signal compared to the week before is primarily led by marginal increases at the five largest sites under surveillance: Cardiff, Barry, Swansea, Newport and Bridgend. Despite the slight variance, the signal is comparable to that observed in the second half of August 2021. In North Wales, the trend in the normalised wastewater signal continues to be stable. Furthermore, North Wales' signal remains aligned with the trends in reported COVID-19 cases in the region.

Sites on the watchlist include: all those listed above in South Wales (as a result of the variability in the last four weeks) as well as Rhyl in North Wales.

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.

Figure 94: Monitored site map.



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Figure 105: 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 15 Oct 2021.

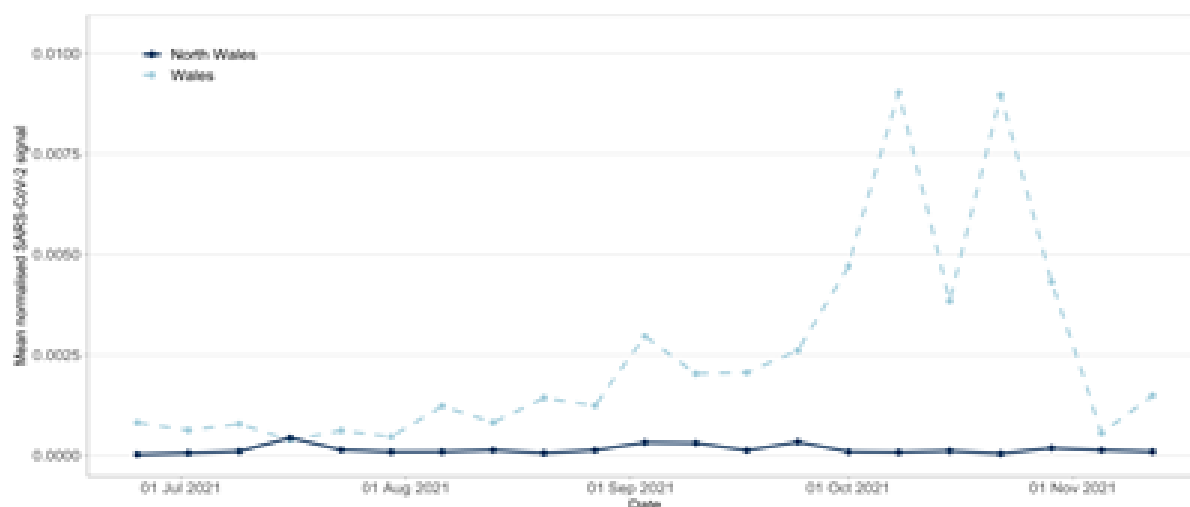
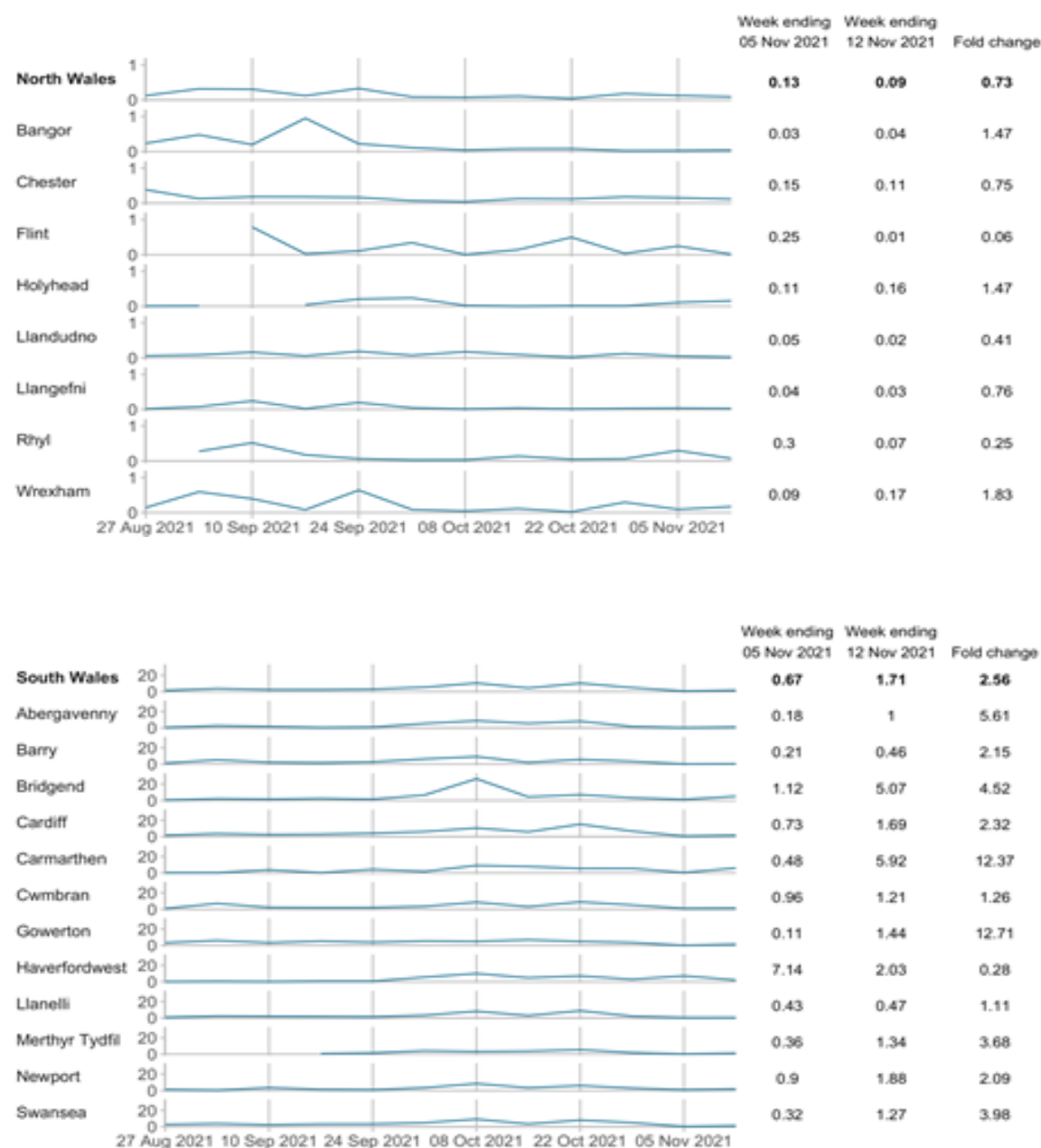


Figure 116: Weekly comparison of South and all-Wales mean normalised SARS-CoV-2 signal. All-Wales mean signal (dashed line) and South Wales mean signal (solid line). Data to 29 Oct 2021.



Figure 127: Fold Changes in mean normalised SARS-CoV-2, scaled for population.



What is the situation with arriving travellers?

There have been 126 positive travelers (0.69% positivity), compared to 228 for the previous week (0.96% positivity) at time of reporting.

Travellers visiting Spain continue to provide the highest numbers testing positive on return, with 55 to date for the period, with a positivity rate of 0.93%. This has decreased when comparing to the previous week, with 104 testing positive at a rate of 1.37% at time of reporting.

18,385 total arrivals for the week (23,678 last week; -22.4%)

- Red: There are currently no countries in the red list (0 last week)
- Rest of world: 18,385 (23,678 last week)

Date Source: Home Office Wales Travel Rules

Figure 138: Arriving Travellers Summary Data to 28 Oct 2021.



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

Figure 149: Positive travellers timeline

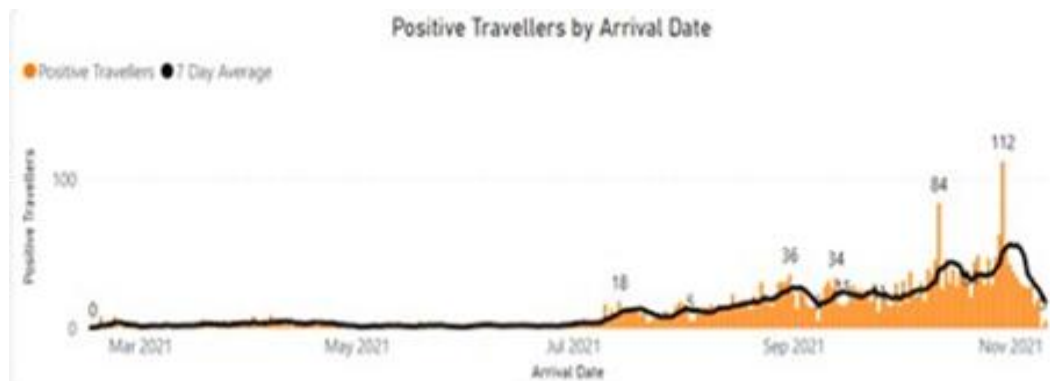


Figure 20: Positive travellers this week by country

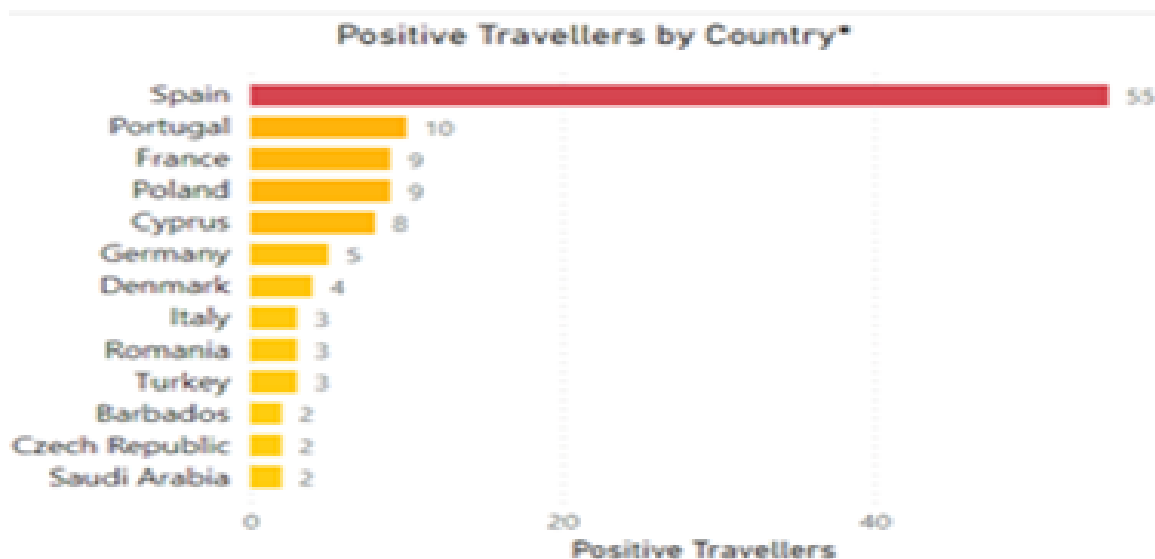
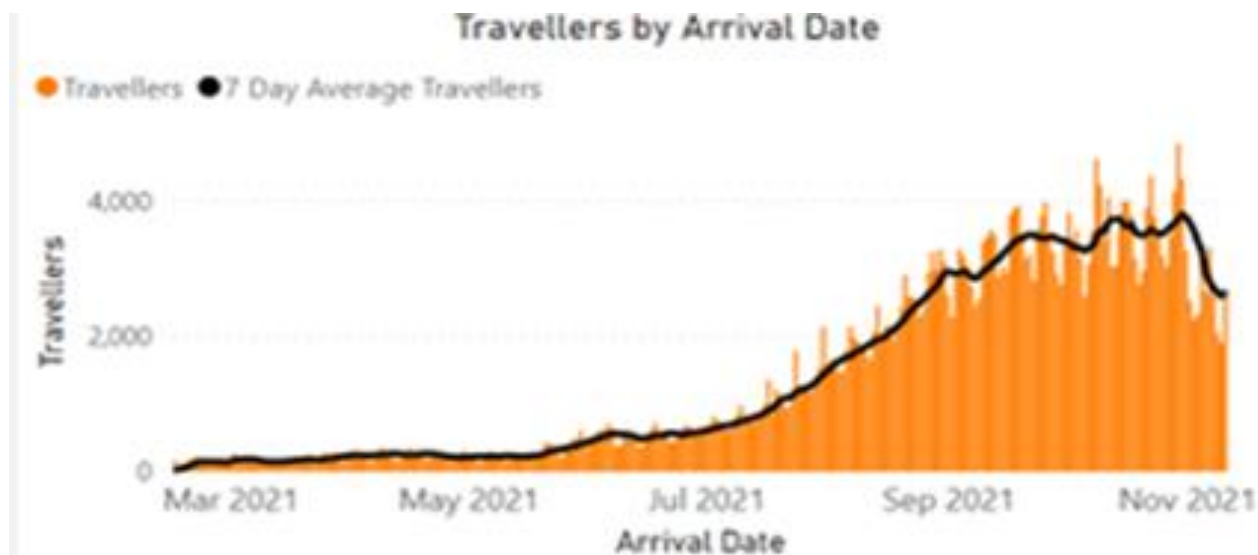


Figure 21: Arriving travellers timeline



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 traveller total, but excluded from the Green/Amber/Red positive traveller breakdown totals for personal identifiable information purposes.

Mobility data and UK Comparison

The latest mobility data shows an increase in workplaces, 'retail and recreation' categories and decreases in Commutes, Supermarkets and pharmacy and 'public transport' in the latest week compared to the previous week. There was marginal decreases in residential (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.

The **most recent IPSOS MORI data** for the period 29 October to 1 November for Wales shows the number of people only leaving home for essential trips has remained stable, and just over half of people report continuing to try to keep 2m away from others when out.

Coronavirus (Covid-19) Infection Survey results, 12 November

The percentage of people testing positive has continued to decrease over the most recent week in England and Wales. The percentage of people testing positive remained level in Scotland, whilst the trend was uncertain in Northern Ireland.

ONS estimate that 55,800 people in Wales had COVID-19 (95% credible interval: 44,800 to 68,100), equating to around 1 in 55 people. This compares to around 1 in 65 people in England, around 1 in 65 in Northern Ireland and around 1 in 95 people in Scotland.

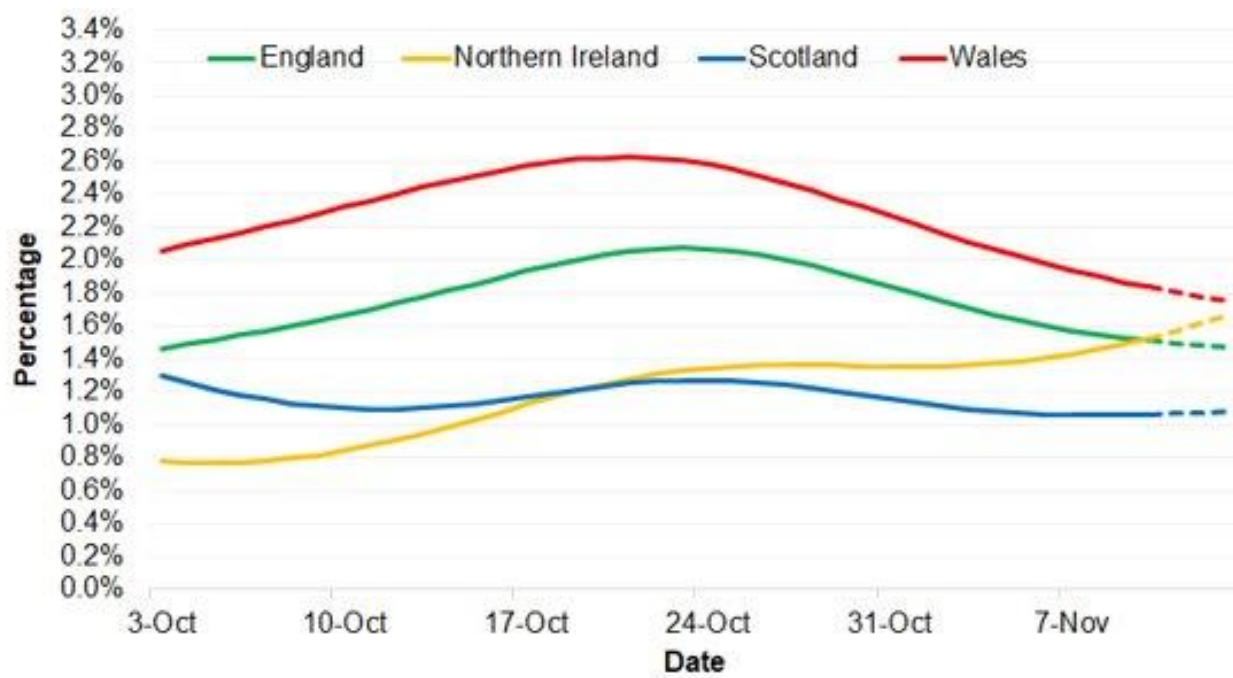
Source: Office for National Statistics COVID-19 Infection Survey

Figure 22: Mobility data by location of trip – Average of Welsh local authorities



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

Figure 23: Positivity rates (%) across UK nations up to 13th November



Vaccine and Immunity Status

The COVID-19 vaccination rollout of first and second doses has slowed in Wales. As at 13 November 2021, 91% of people aged 16 and over had received at least one COVID-19 vaccine dose in Wales. Of people aged 16 and over, 5% had exactly one vaccine dose, 62% had exactly two doses, and 25% have also had a third dose or booster, so 87% have had at least 2 doses.

Between 18 October 2021 and 24 October 2021, the ONS COVID-19 Infection Survey estimated that 92% of the community population aged 16 and over in Wales tested positive for COVID-19 antibodies.

As at 13 November 2021, it is estimated that 99% of people aged 16 and over in Wales had some immunity against COVID-19 infection. The lower and higher estimates of immunity are 89% and 100% of people aged 16 and over in Wales. If no vaccines had been administered, it is estimated that 45% of people aged 16 and over would be immune.

It is currently estimated that over 80% (but 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. Note that the immunity estimate of 97% 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 yet account for waning immunity or any additional immunity gained from a third dose or booster.

Figure 24: Vaccination and antibody status of individuals aged 16 and over in Wales

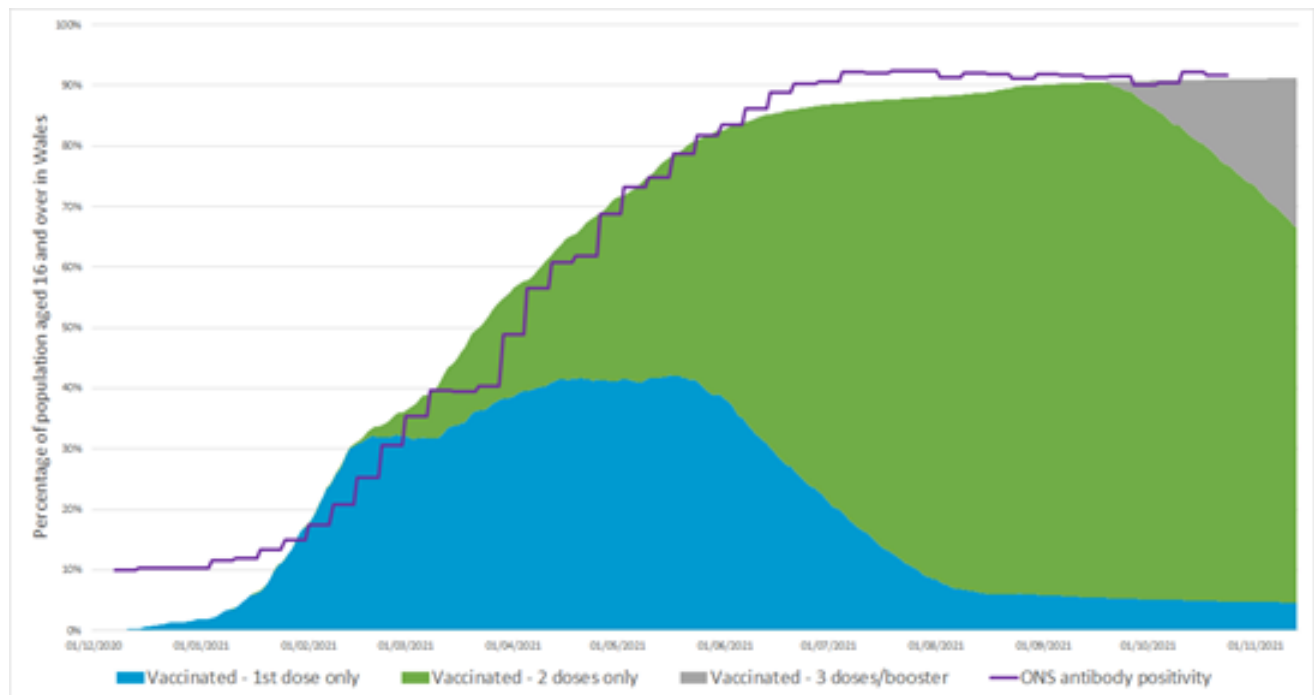
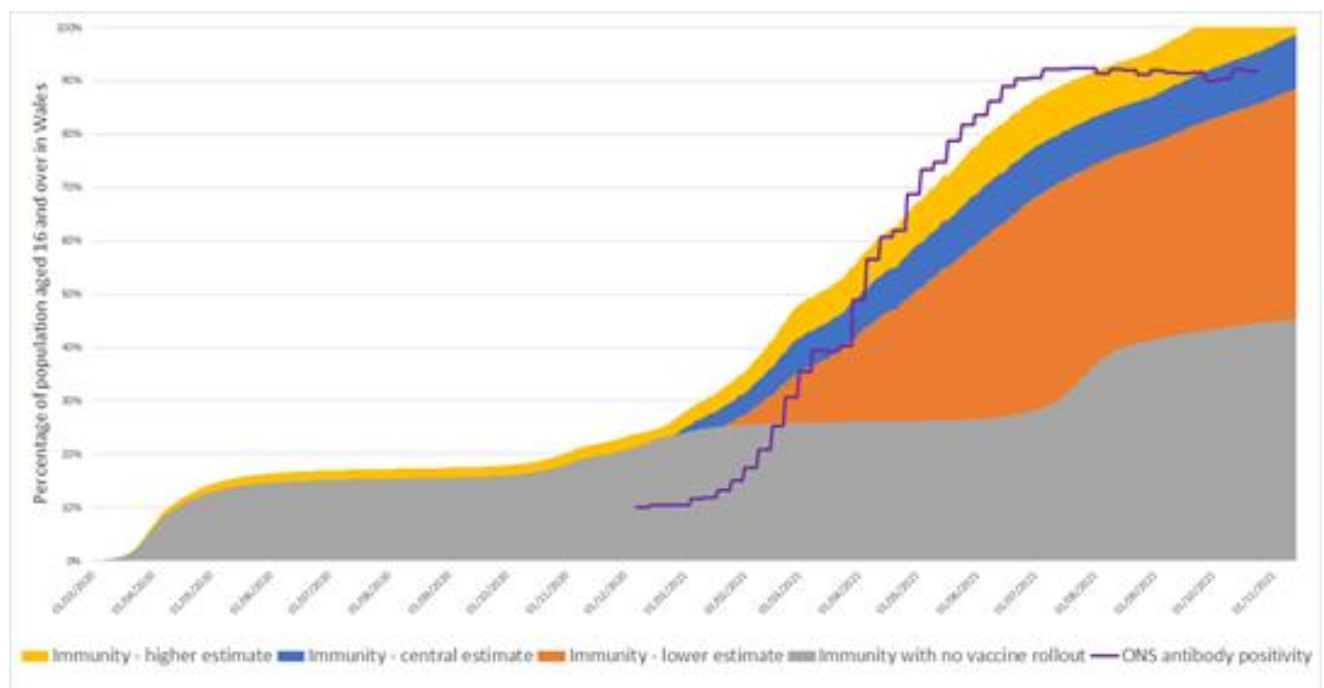


Figure 25: Immunity estimates and antibody status of individuals aged 16 and over in Wales



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 21 – 27 November and 28 – 04 December is above 90% for 1 of the 22 local authorities across both periods (Gwynedd).** The figure illustrates the probability (between 0 – 100%) of incidence being greater than 500 per 100,000. *Source: Imperial College London*

There was an insufficient number of models this week, we're unable to produce a reliable set of projections this week. We are hoping that we will be able to produce a new set of consensus projections next week. *Source: SPI-M*

These projections include the potential impact of vaccines to be given over the next three weeks.

Projections do not include the effects of any future policy or behavioural changes.

Figure 26: Probability of greater than 500 per 100,000 cases by local authority

Probability of incidence greater than 500 per 100k - 21/11-27/11

Probability of incidence greater than 500 per 100k - 28/11-04/12

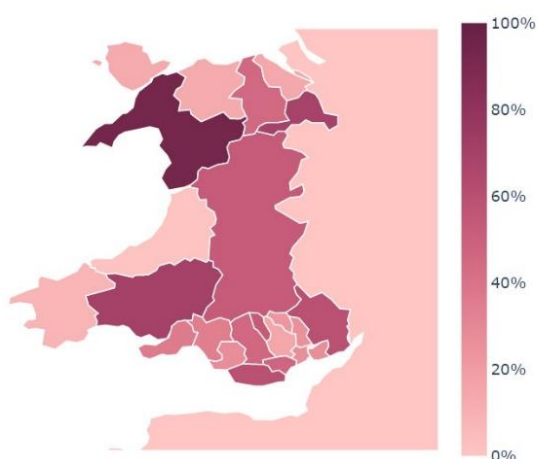


Figure 29 - 15th Nov 2021

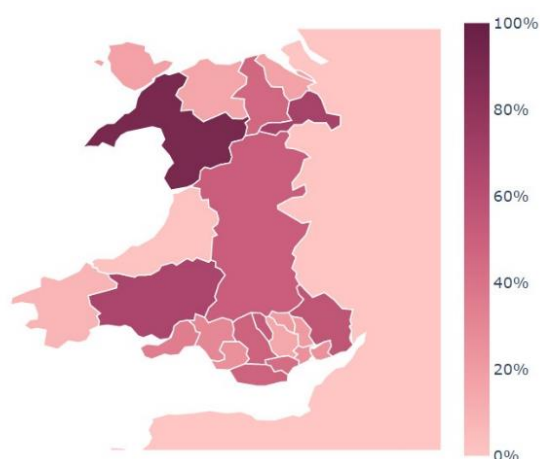


Figure 30 - 15th Nov 2021

Key risks and sources

Key risks

Area	Assessment
Area	Assessment
Transmission, incidence and prevalence	Overall cases of COVID-19 and test positivity are currently fluctuating.
NHS Capacity	Covid-19 pressure on the NHS fluctuates, and the number of beds occupied with COVID-19 related patients has decreased in the most recent week. However, pressure has generally increased since July. Non-COVID-19 urgent & emergency pressures have resulted in total hospital bed occupancy increasing to its highest level since February 2020. NHS trying to recover from the considerable backlogs that have developed over the past 18 months, alongside a considerable staffing challenge. 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.
Mortality	COVID-19 deaths decreased slightly in the most recent week.
Variants	Wales has had 66,084 (+6,031) confirmed cases of the dominant Delta variant, and 5,782 (+1,313) confirmed cases of VUI-21OCT-01 (AY4.2). Delta remains the dominant variant of COVID-19 in Wales.
Immunity and Vaccines	As at 16 November 2021, a total of 5,386,809 doses of COVID-19 vaccine were given in Wales and recorded in the COVID-19 Welsh Immunisation System. <i>Source: PHW</i> 99% of those aged 16 and over in Wales were estimated to have some immunity against COVID-19 infection at 13th November 2021.
International	Arriving traveller numbers decreased this week. The proportion of travellers testing positive decreased, with numbers remained relatively low.

Key Sources for this update

[Technical Advisory Cell brief | GOV.WALES](#)

[COVID Infection Survey results | GOV.WALES](#)

[Rapid COVID-19 virology | Public Health Wales](#)

[Hospital occupancy | GOV.WALES](#)

Higher Education | GOV.WALES

School attendance | GOV.WALES

Variants of Concern Technical Briefing | Public Health England