

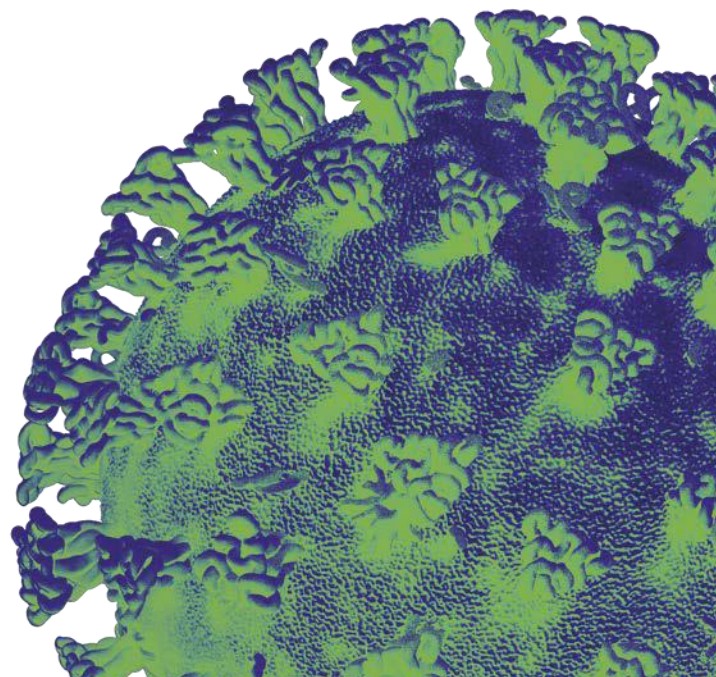
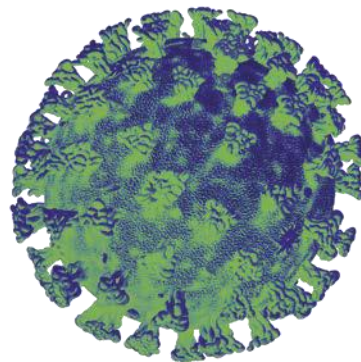
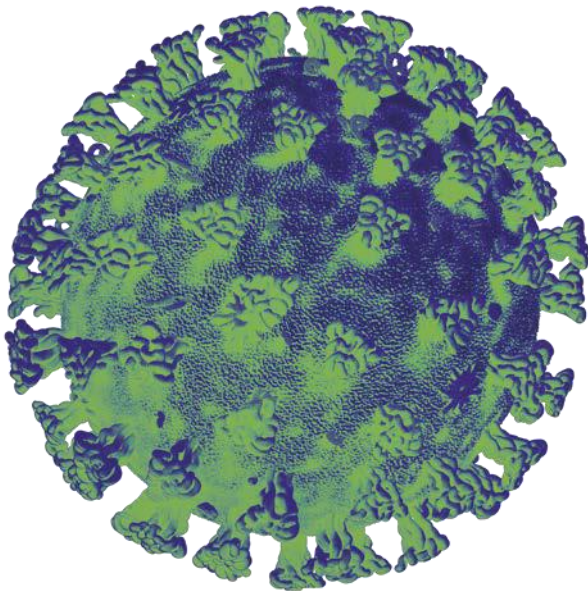


Llywodraeth Cymru
Welsh Government

Technical Advisory Cell

Summary of Advice

22 July 2022



This advice has been drafted based on the available evidence at the time of writing and has been assembled to support policy colleagues and Welsh ministers. The purpose of scientific advice is to provide an overview of what we know from scientific and technical investigations, what we can infer indirectly from the evidence base or by a consensus of expert opinion. This is advice, not Welsh Government policy. Due to the current situation of increasing cases this report will be produced weekly going forward.

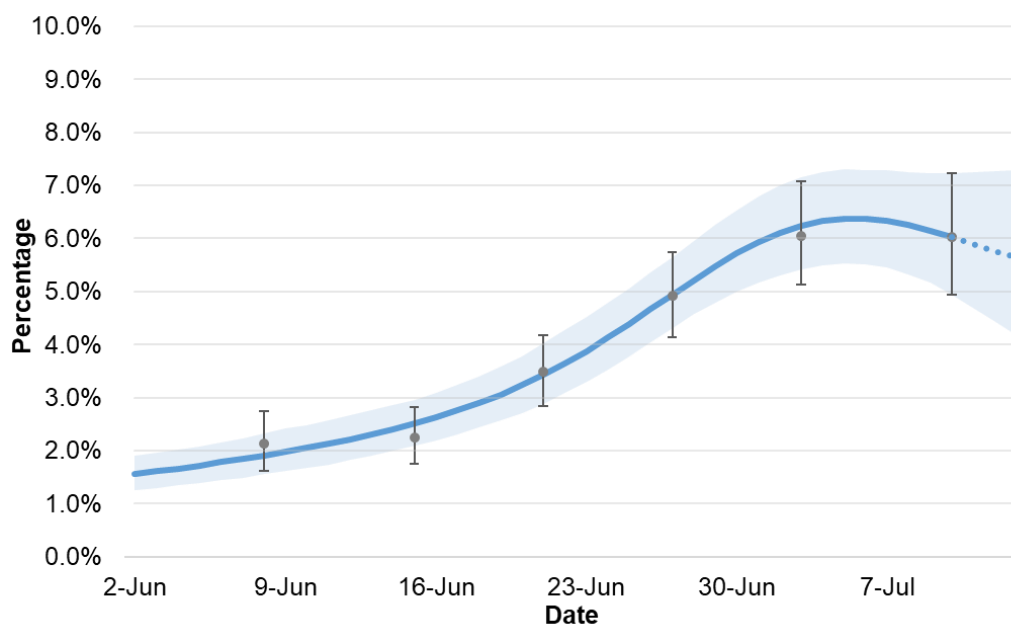
Top Line Summary

- *Lagged data from the ONS Coronavirus infection survey suggests that the trend in the percentage of people testing positive for COVID-19 in Wales is uncertain in the most recent week. England is still increasing and as the sample is much bigger, there is a lot more confidence in the estimates. Caution should be taken in over-interpreting any small movements in the latest trend.*
- *Wastewater surveillance suggests the overall SARS-CoV-2 signal viral load has increased across the country. The signal increased in 13 regions and remained level in 1 region.*
- *PHW lateral flow test data in the latest reporting week (11/07/2022 to 17/07/2022) shows the number of reported tests decreased from 80,965 in the previous week to 73,096 in the latest reporting week, while the number of positive testing episodes decreased from 16,809 in the previous week to 12,188 in the latest reporting week.*
- *As of 21 July 2022, suspected and confirmed admissions (7-day average) have begun to decrease to around 23 admissions a day, following a peak of 25 admissions per day the week before.*
- *PHW reports that in the most recent period weekly deaths in confirmed COVID-19 cases in hospital, reported by clinicians through PHW mortality rapid surveillance, decreased to 24 compared to 38 in the previous week. Overall deaths remain at lower levels compared to previous waves.*
- *As of 18 of July 2022, BA.2.75 was designated V-22JUL-01 UKHSA allowing it to be monitored and investigated once there are sufficient cases.*
- *This week's MTPs project that NHS pressures are at or just after their peak, beginning to decrease from early to mid-July. COVID-19 admissions increased throughout June, and MTPs project admissions to have peaked around 70 admissions per day in early-July, then they will begin to fall. Similarly, MTPs project ICU admissions will have peaked in early July and occupancy in mid-July. Deaths are projected to have risen slowly to a peak in mid-July, but remain at low levels, peaking at under 5 deaths a day.*
- *SU MTP modelling report that actual admissions have followed a similar pattern to the model, peaking then beginning to decrease, however have since begun to rise again.*

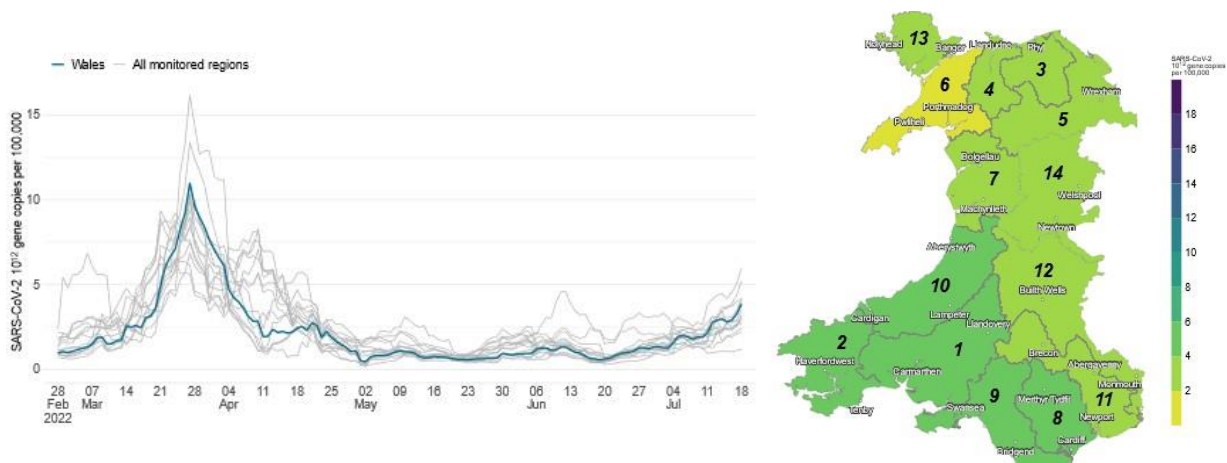
1. Wales Situation Update

Infections

- The trend in the percentage of people testing positive for COVID-19 in Wales is uncertain in the most recent week. Caution should be taken in over-interpreting any small movements in the latest trend. During this period, it is estimated that 6.03% of the community population had COVID-19 (95% credible interval: 4.94% to 7.22%).
- This equates to approximately 1 person in every 17 (95% credible interval: 1 in 20 to 1 in 14), or 183,200 people during this time (95% credible interval: 150,300 to 219,600).



- [Wastewater surveillance](#) suggests the overall SARS-CoV-2 signal viral load has **increased** across the country. The signal increased in 13 regions and remained level in 1 region.



- Since 1 April 2022, free NHS lateral flow tests (LFTs) in Wales are only available to members of the public that are showing symptoms of coronavirus

or who are visiting someone eligible for new COVID-19 treatments. This is scheduled to end on July 31. As a result, testing data will be incomplete and should be interpreted with caution, although it may still be useful to signal wider trends.

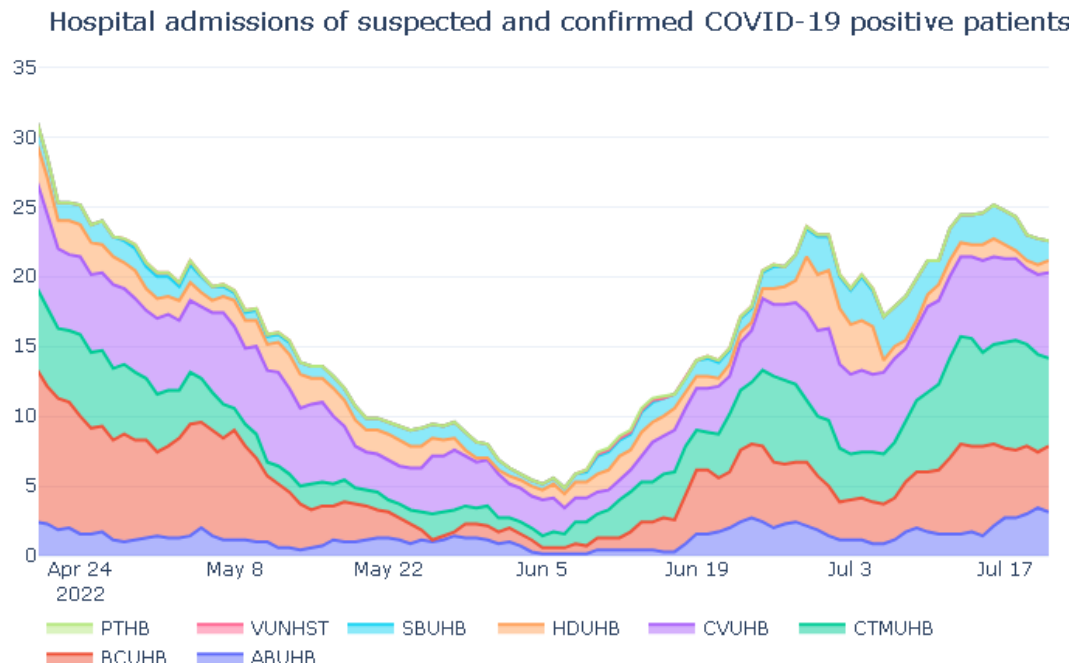
- In the latest [reporting week](#) (11/07/2022 to 17/07/2022) the number of LFTs reported decreased from 80,965 in the previous week to 73,096 in the latest reporting week. The number of positive testing episodes decreased from 16,809 in the previous week to 12,188 in the latest reporting week. The episode positivity rate decreased from 32.81% in the previous week to 27.00% in the latest reporting week. The 40-59 age group recorded the highest incidence rate of 575.2 positive testing episodes per 100,000 population. The Under 20 age group recorded the highest episode positivity rate of 43.37%.

Deaths

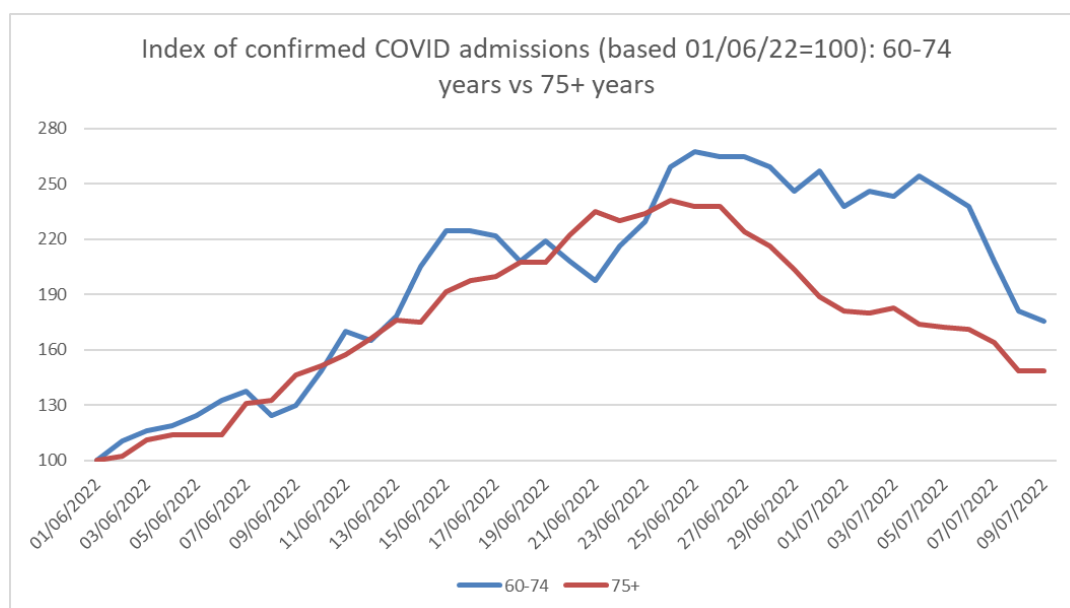
- The most recent PHW [COVID-19 weekly surveillance and epidemiological summary](#) reports that deaths in confirmed COVID-19 cases in hospital, reported by clinicians through PHW mortality rapid surveillance, remain at lower levels compared to previous waves.
- ONS surveillance data indicate that since the start of 2022, the numbers of deaths from any cause have been oscillating around the 2015-2019 five-year average. In the most recent reporting period the numbers were higher than average.

NHS

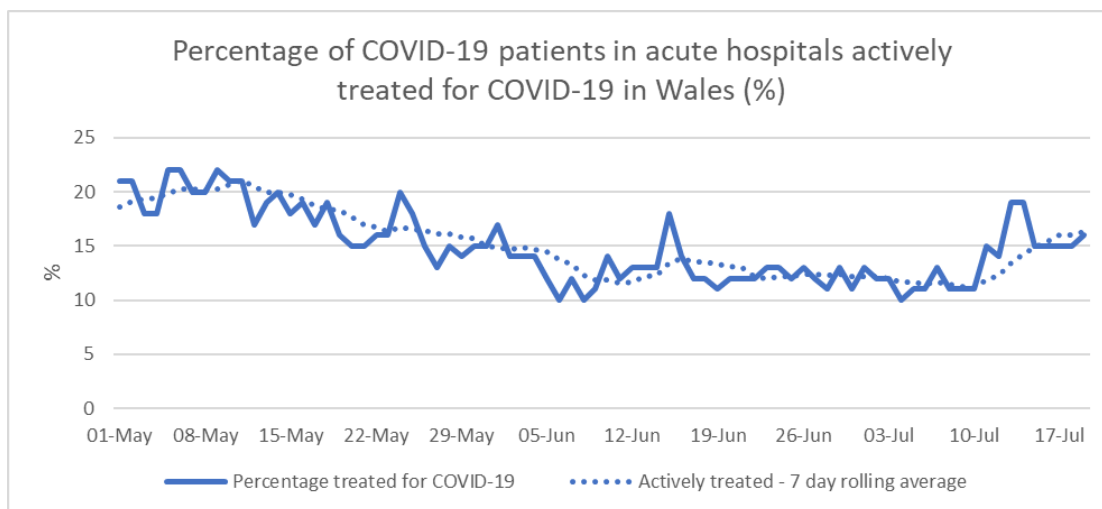
- COVID-19 admissions (suspected and confirmed) increased in Wales from 6 July 2022 to 16 July 2022. Admissions appear to be decreasing again since then.
- As of 21 July 2022, suspected and confirmed admissions (7-day average) had begun to decrease to around 23 admissions a day, following a peak of 25 admissions per day the week before, a level last observed in late April, and just over half the maximum number of admissions observed during the BA.2 wave in early April.



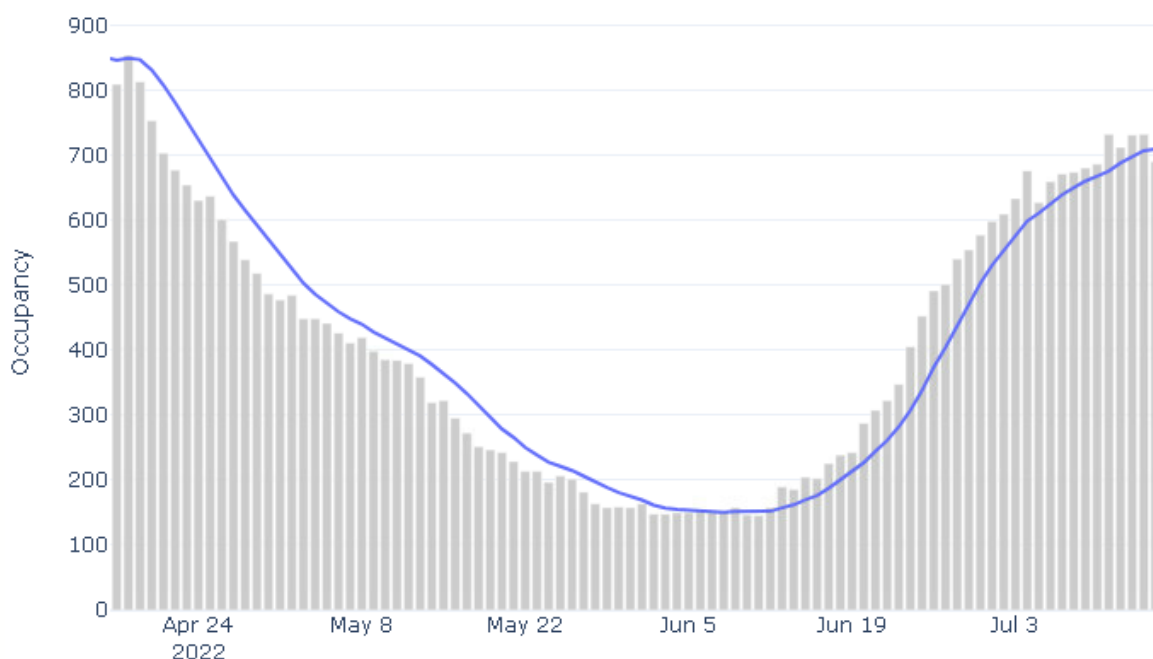
- Confirmed COVID-19 admissions in individuals aged 60 to 74 years and 75 years and over have been decreasing since late June. At the peak, admissions in individuals aged 75 years and over increased 2.4-fold compared with 1 June. In contrast, admissions in individuals aged 60 to 74 years increased 2.7-fold compared with 1 June, despite this younger age group generally being at lower risk of severe COVID-19 illness compared with individuals age 75 years and over. Since the former group was eligible for the Spring 2022 booster, of which the uptake was 85.2% as at 13 July 2022, it is likely that the Spring booster programme contributed to reducing the risk of severe illness in those aged 75 years and over and dampened the increase in admissions for this age group during the June wave.



- The proportion of patients in hospital with COVID-19 who are being actively treated for COVID-19, as opposed to testing positive for COVID-19 but being primarily treated for other reasons, has increased since 10 July, after remaining steady throughout June¹.



- Confirmed COVID-19 hospital occupancy in Wales (7-day average) has been increasing rapidly since mid-June, reaching 710 on 9 July, roughly three quarters of the maximum occupancy peak level in March 2022 when BA.1 was dominant. Rate of increase has begun to slow throughout July.



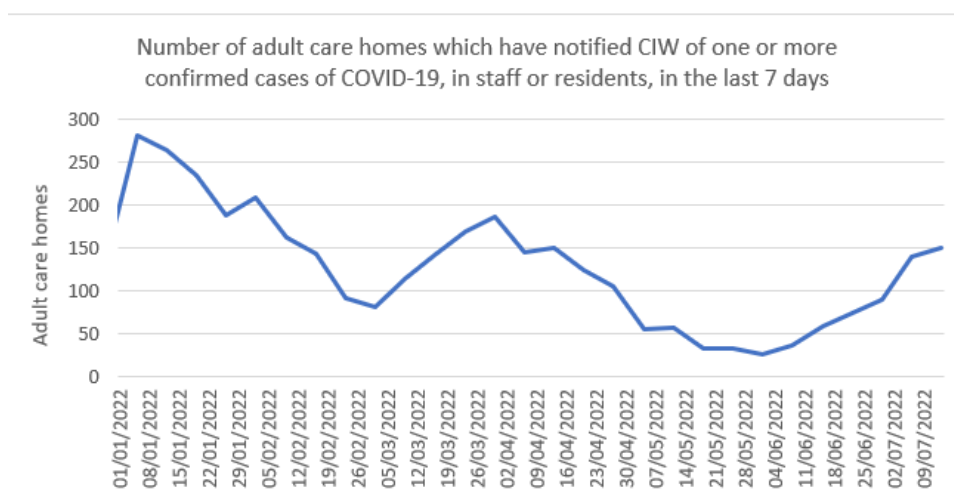
- [NHS staff absence figures](#) up to 11 July show absence due to self-isolation has remained the same as the previous week at 0.6%, whilst absence due to COVID-19 sickness has increased to 1.9%.

¹ [COVID-19 patients in acute hospitals actively treated for COVID-19 in Wales by date \(gov.wales\)](#)

- As of 20 July 2022, the total number of COVID related patients in hospital beds today is 1,027. This is 16 higher than yesterday and 78 (7%) lower than the same day last week.
- As of 20 July 2022, the number confirmed COVID patients in hospital occupying a bed today is 608. This is 24 lower than yesterday and 124 lower than the same day last week.
- As of 20 July 2022, the number of occupied surge and normal beds in a critical care environment today is 175, which is 23 higher than the pre-COVID baseline of 152 for critical care beds. This is two lower than yesterday and 12 lower than the same day last week.
- As of 20 July 2022, the number of COVID related patients in critical care today was 17 patients occupying a bed. This is one lower than yesterday and one lower than the same day last week.
- As of 20 July 2022, data showed that of the 499 confirmed COVID patients in an acute and major acute hospital bed (excluding Velindre), 112 patients (22%) are actively being treated for COVID.

Care homes

- As at 13 July 2022, the number of adult care homes in Wales that have [notified CIW](#) of one or more confirmed cases of COVID-19 in staff or residents in the last 7 days has increased, although at a slower rate than previous weeks. The most recent data shows an increase of 6.4% to 150 compared to 141 in the previous week, while this figure for the last 20 days has increased by 21% to 288 compared to 238 in the previous week. There are 1,029 adult care homes in total in Wales. Welsh Government guidance from December 2020 states COVID-19 outbreaks can now be declared as over once 20 days have elapsed since the last affected individual returns a positive test or manifests symptoms.



- As at 13 July 2022, the number of notifications of deaths of adult care home residents involving COVID-19 (both confirmed and suspected) in the last 7 days has decreased to 2 compared to 4 in the previous week.
- In total, CIW has been notified of 2,211 care home resident deaths with suspected or confirmed COVID-19 between 1 March 2020 and 13 July 2022. This makes up 12.8% of all adult care home resident reported deaths (17,307) during this period.

Schools (6 September to 15 July 2022)

- An average of 83.2% of all pupils were in attendance in school over the week of 11 to 15 July 2022, 83.8% in the previous week. The figure for 4 to 8 July 2022 has been revised down from 83.9%. Data for the latest two weeks is provisional.
- 1.3% of pupils were absent due to a known COVID-19 related reason over the week of 11 to 15 July 2022, down from 1.6% the previous week.
- The most common reason for sessions missed during the week of 11 to 15 July 2022 was illness (code "I") with 4.6% of sessions missed for this reason. The data for code "I" (illness) does not include COVID-19 related illness from 22 November 2021 onwards and is not comparable to the data before this date.
- An average of 0.8% of all primary pupils and 2.1% of all secondary pupils were absent due to a known COVID-19 related reason between 11 to 15 July 2022.
- 26.9% of pupils (129,489 pupils) have missed more than a week of face-to-face learning due to a known COVID-19 related reason since 6 September 2021 (5.5 days or more) and 87.6% of pupils (422,339 pupils) have missed more than a week for any reason since 6 September 2021.

Vaccinations

- [The most recent](#) COVID-19 weekly surveillance and epidemiological summary reports that at week ending 13 July 2022, 7,219,531 COVID-19 vaccinations had been given in Wales (This total includes those who are alive and resident in Wales at time of reporting).
- [PHW report](#) that the delivery of the 2022 Spring booster is now underway. As at 13 July 2022, uptake was 85% for those aged 75y and older, 84% for people living in residential care homes for older adults and 60% of people who are immunosuppressed (the majority of immunosuppressed patients will only recently have been vaccinated with 2021/22 boosters, and will be called to receive a 2022 Spring booster dose when the appropriate interval has elapsed). [The full vaccinations report can be accessed here](#)

Vaccine uptake by priority group and age, counting individuals in all groups in which they belong (non de-duplicated) – [PHW Covid-19 Vaccination Tableau](#)

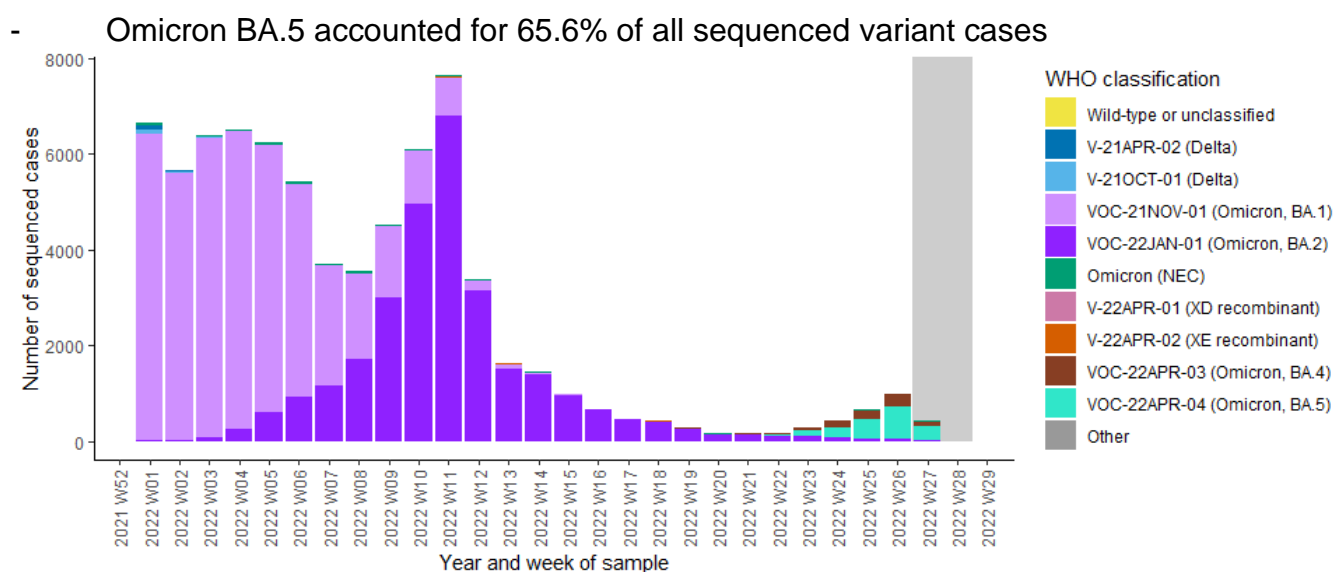
Group	Group size (n)	Received 1st dose (n)	Completed primary course* (n)	Received booster dose** (n)	First dose uptake (%)	Primary course uptake* (%)	Booster dose uptake** (%)
Severely Immunosuppressed	51,695	51,225	48,430	42,031	99.1%	93.7%	81.3%
Care home residents	13,294	13,106	13,032	12,631	98.6%	98.0%	95.0%
Care home worker	37,692	35,799	35,199	29,439	95.0%	93.4%	78.1%
80 years and older	174,499	168,194	167,305	162,723	96.4%	95.9%	93.3%
Health care worker	140,814	137,359	135,985	122,632	97.5%	96.6%	87.1%
Social care worker		44,937	44,600	39,790			
Aged 75-79 years	143,270	139,091	138,493	134,964	97.1%	96.7%	94.2%
Clinically extremely vulnerable aged 16-69..	75,625	72,283	71,416	62,346	95.6%	94.4%	82.4%
Aged 70-74 years	177,241	170,767	169,819	164,597	96.3%	95.8%	92.9%
Aged 65-69 years	182,635	173,660	172,295	165,417	95.1%	94.3%	90.6%
Clinical risk groups aged 5-64 years	350,667	313,849	304,688	263,336	89.5%	86.9%	75.1%
Aged 60-64 years	211,660	197,983	195,818	185,105	93.5%	92.5%	87.5%
Aged 55-59 years	235,496	216,348	213,534	197,728	91.9%	90.7%	84.0%
Aged 50-54 years	227,253	204,555	201,183	181,454	90.0%	88.5%	79.8%
Aged 40-49 years	393,510	335,484	326,410	275,695	85.3%	82.9%	70.1%
Aged 30-39 years	436,091	348,837	332,628	247,875	80.0%	76.3%	56.8%
Aged 18-29 years	490,187	396,500	367,665	249,059	80.9%	75.0%	50.8%
Aged 16-17 years	70,948	54,568	46,211	24,657	76.9%	65.1%	34.8%
Aged 12-15 years	149,066	92,019	73,089		61.7%	49.0%	
Aged 5-11 years	255,301	48,534	10,350		19.0%	4.1%	

Joint Committee on Vaccination and Immunisation (JCVI) recommendations

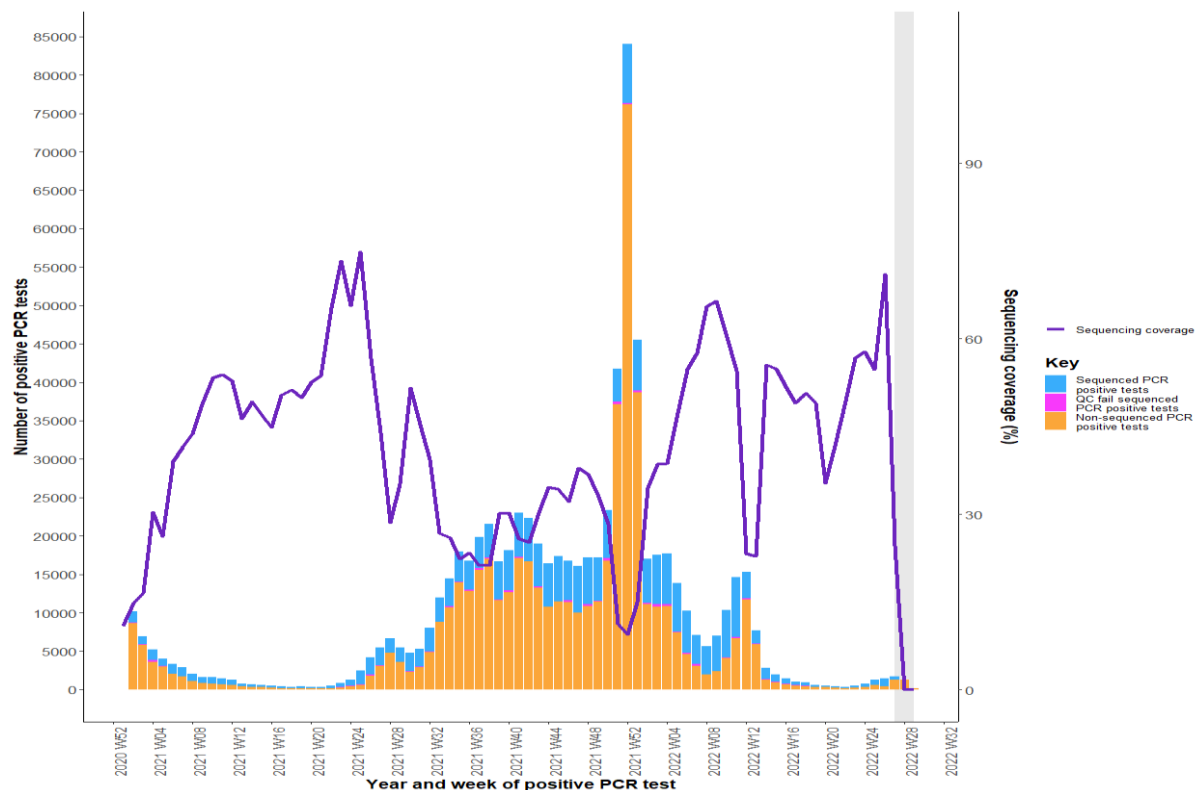
- A recent press release from UKHSA reports that everyone aged 50 and over will be among those offered a COVID-19 booster and a flu jab this autumn under plans to increase protection against respiratory viruses ahead of winter. The Joint Committee on Vaccination and Immunisation (JCVI) has now published its final recommendations for this autumn's programme. Under the advice, those eligible for a further dose will be:
 - All adults aged 50 years and over
 - Those aged 5 to 49 years in a clinical risk group, including pregnant women
 - Those aged 5 to 49 years who are household contacts of people with immunosuppression
 - Those aged 16 to 49 years who are carers
 - Residents in a care home for older adults and staff working in care homes for older adults
 - Frontline health and social care workers
- In addition, the Department of Health and Social Care (DHSC) will be widening the offer of the free flu vaccine to more eligible groups. These additional groups will only be eligible once the most vulnerable, including previously announced pre-school and primary school children, those aged 65 years and over and those in clinical risk groups, have been offered the jab. [The full report can be accessed here](#)

Public Health Wales Variant Surveillance Update

- As of 19 July 2022 (W29), PHW report the current dominant variant in Wales is VOC-22JAN-01 (Omicron, BA.5) which accounted for 68.69% of sequenced cases in the last 14 days.
- In the latest three reporting weeks (W26-28);
 - Omicron (NEC) increased slightly to 2.2% of all sequenced variant cases
 - Omicron BA.2 decreased to 4.7% of all sequenced variant cases
 - Omicron BA.4 decreased slightly to 24.7% of all sequenced variant cases
 - Omicron BA.5 increased slightly to 68.3% of all sequenced variant cases



Epicurve of all sequenced variant cases in Wales, data as at 19/07/2022, Genomic Epidemiology Team, CDSC Weekly Wales Variant Summary



Sequencing coverage in Wales, Genomic Epidemiology Team, CDSC Weekly Wales Variant Summary

- (Please note data in the grey shaded region is indicative of a lag in sequencing data and should be interpreted with caution.)

Weekly Influenza and Acute Respiratory Infection Report – PHW

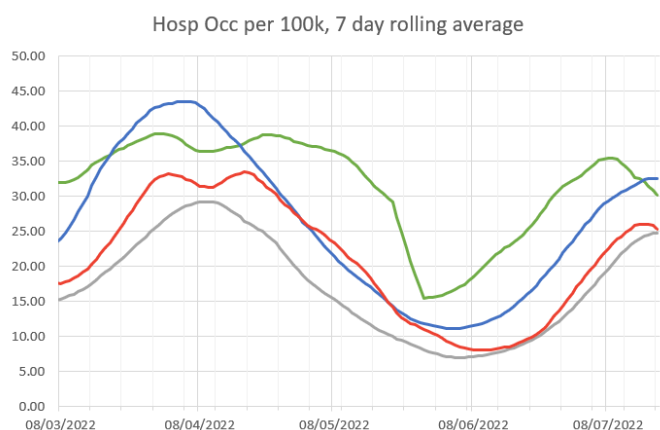
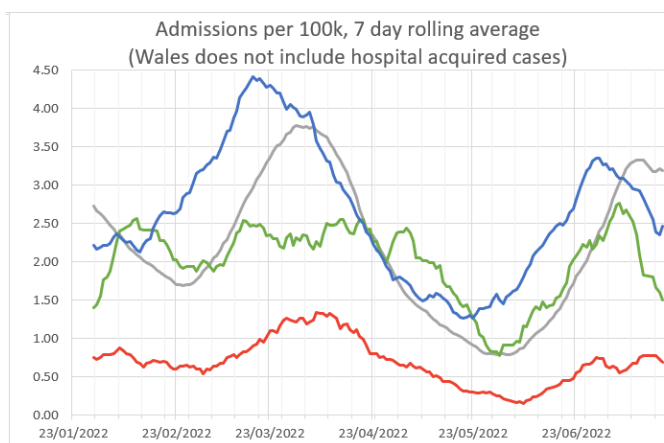
- As at 20 July, PHW report that confirmed influenza cases continue to be seen at low levels, while RSV confirmed cases continue to increase. This is an unusually early start to the RSV season in Wales. During Week 27 (ending 10/07/2022) there were 15 cases of influenza. COVID-19 cases continue to be detected in symptomatic patients in hospital and in the community. RSV incidence in children under 5 years of age is currently at levels that would indicate very high levels of activity (compared to the 10 seasons leading up to 2020). Rhinovirus, RSV and adenovirus, are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI), with increasing confirmed cases in recent weeks.

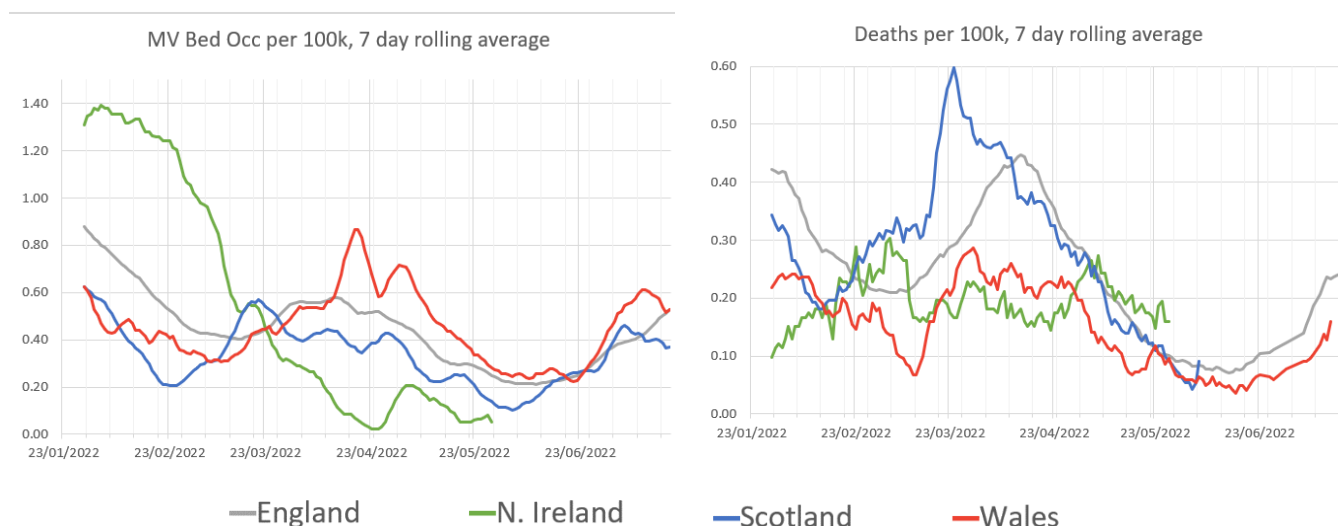
Situation in the UK and international comparators

UK Overview

UK COVID-19 dashboard data

- Surveillance data for the four nations is summarised below. (Data source: [UK Summary | Coronavirus \(data.gov.uk\)](#)).
- **Note that this data is classified as management information rather than official statistics and there may be differences in methodology between the nations.** As a result caution should be taken when interpreting this data. Full documentation is available at [Metrics documentation | Coronavirus in the UK \(data.gov.uk\)](#). Case data is no longer included in this analysis due to the decreased level of community testing reducing this data's value.
- Recent data suggests that admissions have peaked in Scotland and Northern Ireland, while the trend for England and Wales appears stable but uncertain. Note that Wales admissions includes suspected cases and does not include hospital acquired infections, so **caution should be taken in comparisons with the other UK nations.**
- In terms of hospital occupancy, Northern Ireland appears to have peaked while there are early signs of this in Wales. The trend is uncertain in Scotland and England, although the most recent data appears to have stabilised.
- ICU/ Mechanically ventilated bed occupancy remains lower than previous waves and may have peaked in Scotland and Wales, although England appears to be continuing to increase. Northern Ireland appear to be no longer reporting this data.
- The number of deaths also remains low relative to previous waves. England appears to have peaked in the most recent data while Wales has continued to increase. Scotland and Northern Ireland no longer report death data.



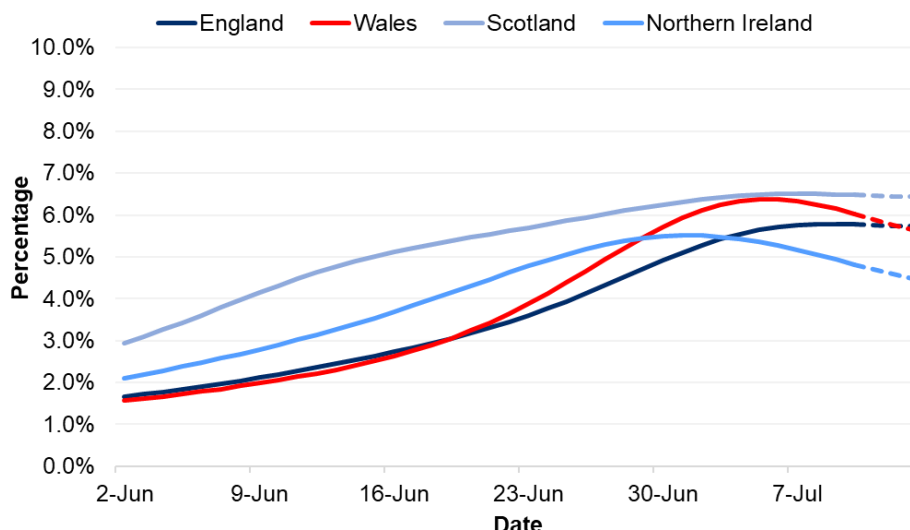


UK Infection positivity – ONS Coronavirus Infection Survey, 7 to 13 July 2022

- At the midpoint of the most recent week (7 to 13 July 2022), the positivity rate has continued to increase in England while the trend is uncertain in Wales, Scotland and Northern Ireland. The estimated percentages of the community population with COVID-19 ranged from 4.82% in Northern Ireland to 6.48% in Scotland.
- During this period, it is estimated that approximately 1 in 17 people in Wales had COVID-19 (95% credible interval: 1 in 20 to 1 in 14). This compares to 1 in 17 people in England (1 in 18 to 1 in 17), 1 in 15 in Scotland (1 in 19 to 1 in 13) and 1 in 20 in Northern Ireland (1 in 30 to 1 in 16).

Note that there is uncertainty around the estimates and credible intervals are provided in the figures above to indicate the range within which we may be confident the true figure lies. Since the estimates are based on a relatively low number of positive tests, there is some uncertainty and the results should be interpreted with caution.

Positivity rates (%) across UK countries since 2 June 2022



UKHSA Therapeutics Technical Briefing 4

- The [UK Health Security Agency's \(UKHSA\) COVID-19 therapeutics](#) programme of work aims to support rapid deployment of specific COVID-19 therapeutics by undertaking genomic, virological and epidemiologic surveillance. As of [11 of July](#), the UK data suggest that whilst mutations are emerging in patients with longer term infections after treatment, the viruses with these mutations are not transmitting widely in the population at present. Whilst the current findings do not pose immediate risks to the national clinical treatment policy, the changes observed highlight that this could change quickly.

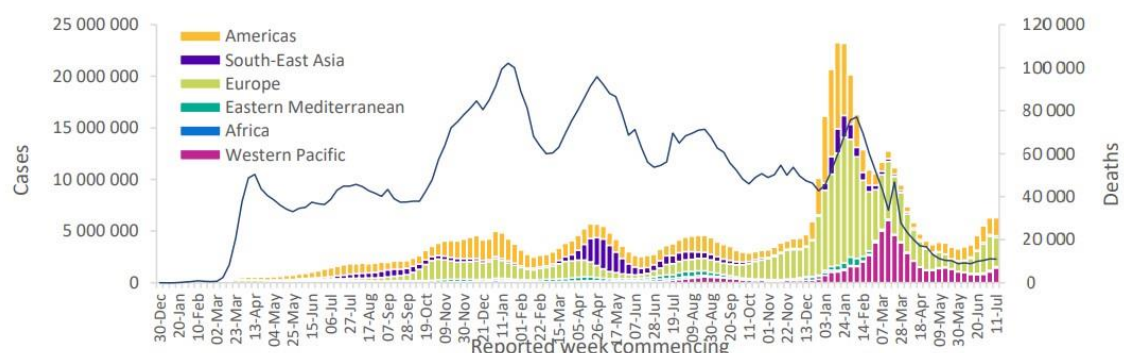
Long Covid

- An estimated 2.0 million people living in private households in the UK (3.0% of the population) were experiencing self-reported long COVID (symptoms continuing for more than four weeks after the first suspected coronavirus (COVID-19) infection that were not explained by something else) as of 4 June 2022. Of people with self-reported long COVID, 405,000 (21%) first had (or suspected they had) COVID-19 less than 12 weeks previously, 1.4 million people (74%) at least 12 weeks previously, 807,000 (41%) at least one year previously and 403,000 (21%) at least two years previously. Fatigue continued to be the most common symptom reported as part of individuals' experience of long COVID (56% of those with self-reported long COVID), followed by shortness of breath (31%), loss of smell (22%), and muscle ache (21%). [The full report is available here](#)

International overview – World Health Organisation and ECDC update

- As of 20 July, the [WHO reports](#) that globally, the number of weekly cases plateaued, with just under 6.3 million new cases after an increasing trend for

the past five weeks. The reported number of new weekly deaths is increasing with 11, 000 fatalities reported. At the regional level, the number of new weekly cases increased in the Western Pacific Region (+37%), the Region of the Americas (+9%) and the South-East Asia Region (+5%), while it decreased in the African Region (-27%) and the European Region (-16%). The number of new weekly cases in the Eastern Mediterranean Region was similar to the figure reported during the previous week. The number of new weekly deaths increased in the South-East Asia Region (+20%), the Eastern Mediterranean Region (+15%) and the Region of the Americas (+7%), while it decreased in the African Region (-39%) and the European Region (-14%). The number of new weekly deaths in the Western Pacific Region was similar to the figure reported during the previous week.



Source: [Weekly Epidemiological Update on COVID-19](#)

The WHO reports that the Omicron VOC remains the dominant variant circulating globally, accounting for 95.4% of sequences. The remaining 4.4% sequences are awaiting lineage designations and 0.2% (321) are Delta and several recombinants. Among Omicron sequences, BA.2 represents 2.61%, while BA.2.12.1 represents 4.51%, BA.4 represents 10.57%, and BA.5 represents 53.59%. Compared to the proportion of Omicron sequences collected in the latest period, BA.2 declined from 3.84% to 2.61%, BA.2.12.1 declined from 10.59% to 4.51%, BA.4 declined from 13.21% to 10.57% while BA.5 increased from 51.84% to 53.59%. BA.5 has been reported in 100 countries and continues to drive an increase in cases, hospitalisations and ICU admissions. Several subvariants of Omicron have emerged and some of these are being monitored by the WHO. As of 18 July, 250 sequences of BA.2.75 from 15 countries have been reported on GISAID.

- ECDC reports that at week ending 17 July, case rates among people aged 65 years and over increased in 18 of the 27 countries reporting these data to reach 90.8% of the pandemic maximum. This corresponds to a 13% increase compared to the previous week at EU/EEA level. These increases have been observed for the past six weeks in eight affected countries. The increasing transmission among older age groups is also starting to translate into higher rates of severe disease.

- Forecasts of cases, hospital admissions and deaths from the [European COVID-19 Forecast Hub](#) provide predictions for weeks 29 and 30. Compared with the previous week, increasing trends in cases, stable trends in hospital admissions, and increasing trends in deaths are forecast for the EU/EEA overall by the end of week 30. Forecasts for individual countries may differ from those for the EU/EEA as a whole. It should be noted that forecasts of cases are considered to be increasingly unreliable due to changes in testing criteria and reporting procedures. All current forecasts, case forecasts in particular, should be interpreted with caution.

2. Variant update – BA.4, BA.5 and BA.2.75

BA.4 and BA.5

- BA.5 is dominant in England making up 75.49% of confirmed English cases, while BA.4 has stabilised as a proportion, with early signs of decreasing, making up 18.38% of confirmed cases (20.85% in the previous week).
- As of 18 July 2022, 36,342 cases of BA.5 have been confirmed in the UK. BA.5 is the dominant variant in the UK.
- Many countries worldwide, regardless of previous variant waves, are continuing to see increases in incidence, hospitalisation, ICU admissions and deaths concurrent with increasing BA.5 proportions.

BA.2.75

- BA.2.75 is a newly designated sub-lineage of BA.2, mainly circulating in India. 234 sequences have been reported to GISAID EpiCoV as of 14 July 2022, but sequences have also been detected in 14 other countries spanning four continents (51 sequences). ECDC designated BA.2.75 a “variant under monitoring” on 7 July² based on preliminary evidence that had not been assessed.
- BA.2.75 was designated V-22JUL-01 on 18 July 2022 by UKHSA allowing it to be monitored and investigated once there are sufficient cases.
- The WHO reports that there is no evidence yet of the extent to which BA.2.75 has an impact on transmissibility and disease severity compared to other circulating lineages.
- There are currently 20 cases of BA.2.75 in England, three in Scotland and one in Wales. A few laboratories are showing that properties of BA.2.75 such as immune escape look less worse than BA.4/5, but it may be better at binding to cells than previous variants. It is currently unclear if BA.2.75 will have an overriding competitive advantage in the population.

² [SARS-CoV-2 variants of concern as of 7 July 2022 \(europa.eu\)](#)

- There is currently insufficient data to determine growth rates for BA.2.75 in UK.

3. COVID-19 Medium Term Projections

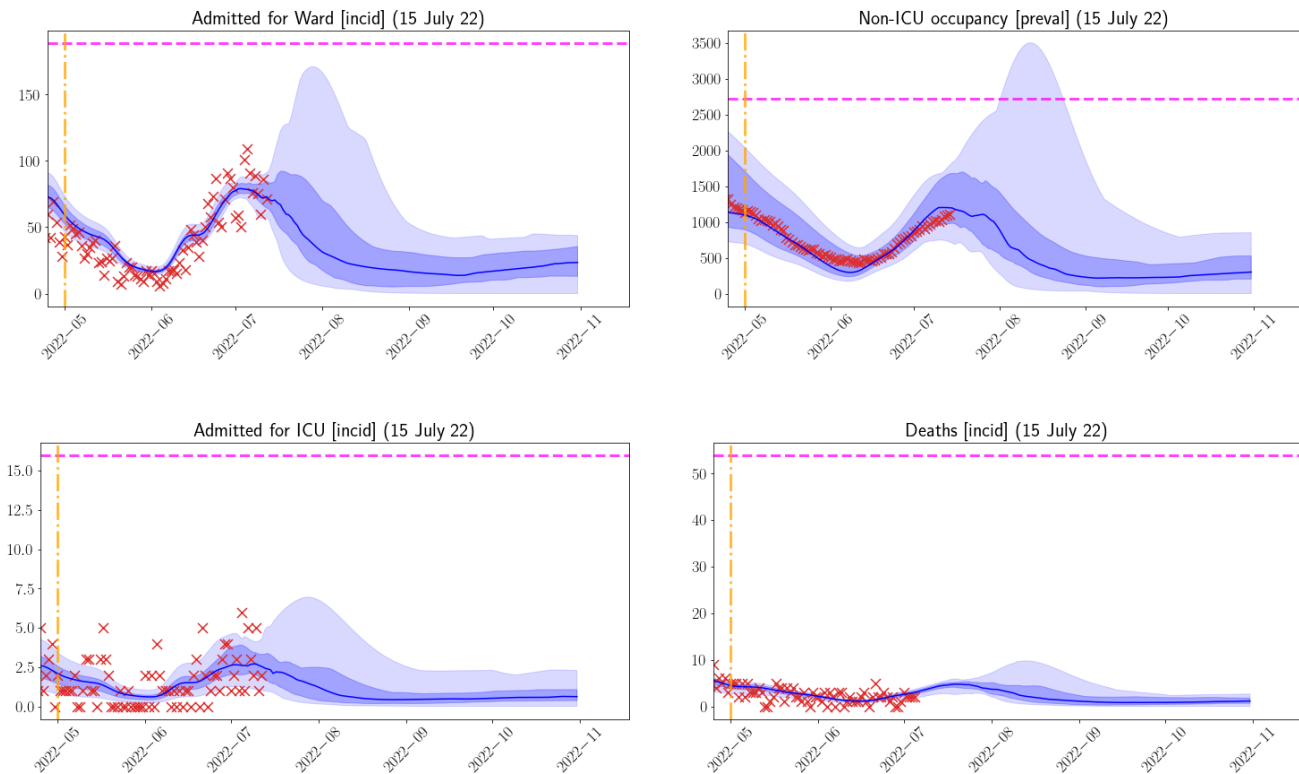
- Swansea University (SU) regularly produces medium-term projections (MTPs) for Wales. The SU projections are also combined with other models to go into a consensus MTP for admissions and deaths which is agreed every two weeks by the UKHSA Epidemiological Modelling Review Group (EMRG), which has taken over from COVID-M-O in agreeing these MTPs.
- The SU projections are typically more up to date but may be less robust as they are based on one model only. Both MTPs are based on projecting forward from current data and do not explicitly factor in policy changes, changes in testing, changes in behaviour, or rapid changes in vaccinations.

These MTPs for COVID-19 hospitalisations and deaths are not forecasts or predictions. They represent a scenario in which the trajectory of the epidemic continues to follow the trends that were seen in data available at the time.

Swansea University MTPs, 15 July

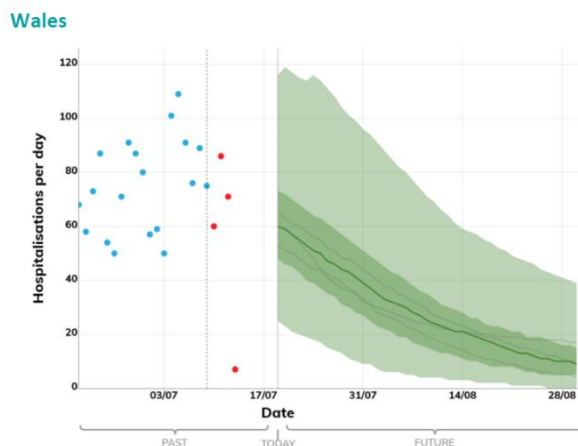
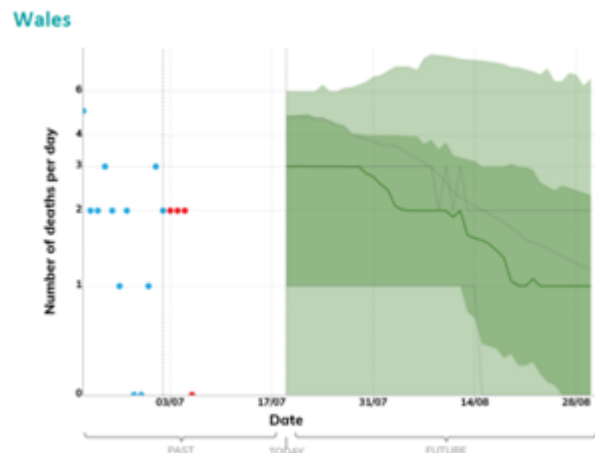
- In the charts below, red crosses represent actual Omicron data, which the model is fitted to, while the blue line represents the central modelling estimate. The blue ribbon represents the confidence intervals, with the darker blue ribbon indicating the 25th to 75th centiles, and the 95% confidence limits in the lighter ribbon. The pink dotted line represents pre-Omicron peaks.
- In recent weeks, MTPs have been fitted to a shorter period than normal (indicated by the vertical orange line) since this improved model fit to admissions and occupancy considerably. It is likely that either the admission/infection ratio has decreased (consistent with reduced severity of disease due to increased proportion of reinfections) or that length of hospital stay has increased recently, impacting model fitting.
- This week's MTPs project that NHS pressures are at or just after their peak, beginning to decrease from early to mid-July.
- COVID-19 admissions increased throughout June, and MTPs project admissions to have peaked around 70 admissions per day in early-July, then they will begin to fall. However, there is high uncertainty, with the confidence intervals diverting widely from the central estimate. Since the model was run on data to 8th July, actual admissions have followed a similar pattern to the model, peaking then beginning to decrease. However, they have subsequently begun to rise again.
- COVID-19 hospital occupancy (excluding ICU) has been increasing in recent weeks. MTPs project bed occupancy to peak at almost 1,200 beds in late July, just under half the maximum occupancy levels observed in April during the BA.2 wave peak.

- Similarly, MTPs project ICU admissions will have peaked in early July and occupancy in mid-July.
- Deaths are projected to have risen slowly to a peak in mid-July, but remain at low levels, peaking at under 5 deaths a day.



UKHSA EMRG Consensus MTPs, 20 July – [Available here](#)

- The most recent MTPs suggest admissions in Wales have peaked and will be decreasing from mid-July. Note that this is similar the above MTPs produced by SU (which also project that admissions will be decreasing throughout July and August).
- UKHSA have this week produced projections for deaths in Wales, despite the very low numbers making forward projection difficult. The consensus view is that the number of deaths will remain low and continue to decrease over the next four weeks, although the confidence intervals are relatively wide.

EMRG MTP – hospitalisations, Wales:*EMRG MTP – deaths, Wales:*

4. Evidence round up

Paper 1 - A Qualitative Study Evaluating the Factors Affecting Families' Adherence to the First COVID-19 Lockdown in England

- A recently published study reports on qualitative interviews with 30 parents of children aged 18 and under, between 16 and 21 April 2020 when schools in England were closed due to the COVID-19 pandemic. The study identified 40 factors that influenced a family's ability to adhere to protective measures. Parents generally indicated they could adhere and reported how their family had changed their behaviour to comply with the guidance. Parents primarily reported they were motivated to adhere out of concern for the health consequences of COVID-19, and because the guidance was delivered by the government. The study found reduced access to resources (e.g. technology, transport, and outside space) and social influences that encouraged non-adherent behaviour, decreased adherence. The authors suggest that families with low psychological and physical ability may face additional challenges to adherence and need to be supported. [The full paper can be accessed here](#)

Paper 2 - Mask wearing in community settings reduces SARS-CoV-2 transmission

- Using several datasets from 92 regions on six continents covering the period May to September 2020, this study aims to estimate the direct effects of mask wearing on transmission by linking wearing of face coverings with reported cases in each region.
- The effectiveness of mask wearing for controlling severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission has been unclear. While masks are known to substantially reduce disease transmission in healthcare settings, studies in community settings report inconsistent results. Many such studies focus on how masks impact transmission, by analysing how effective

government mask mandates are. Despite difficulties in measuring effectiveness of mask mandates. The study estimates imply that the mean observed level of mask wearing corresponds to a 19% decrease in the reproduction number R. These observations are from a pre-mass vaccination period. The authors suggest that policy makers can effectively reduce transmission by intervening to increase mask wearing. [The full paper can be accessed here](#)

Paper 3 - Precarious employment and associations with health during COVID-19: a nationally representative survey in Wales, UK

- The COVID-19 pandemic had an early impact on employment, with the United States (US) and the United Kingdom (UK) experiencing more severe immediate labour market impacts than other Western countries. Emerging evidence from the initial phase of the pandemic highlighted that job losses were experienced more by those holding non-standard employment contracts (e.g. zero hours). Furthermore, it is predicted that this associated unemployment will increase precarious employment arrangements during the COVID-19 pandemic. The study results suggest that pre-pandemic, one in four respondents were determined to be in precarious employment (26.5%). A higher proportion of females (28.3%) and those aged 18-29 years (41.0%) were in precarious employment in February 2020. In addition, a greater percentage of individuals who reported poorer health across all self-reported measures were in precarious employment compared to those reporting better health. [The full paper can be accessed here](#)

Paper 4 - Operational considerations for respiratory virus surveillance in Europe

- The European Centre for Disease Prevention and Control (ECDC) report that, the monitoring of COVID-19 during the pandemic has largely been based on trends in counts of positive cases, deaths, and other indicators, the interpretation of which has been made challenging due to a lack of common syndromic case definitions, consistency in testing strategies, and lack of denominators based on well-defined populations under surveillance. As of 18th of July 2022, ECDC, the World Health Organization (WHO) and the European surveillance networks for COVID-19 and influenza, agree on the urgent need to develop and sustain resilient population based integrated surveillance systems for influenza, COVID-19 and potentially other respiratory virus infections (such as RSV or new viral diseases of public health concern) in Europe. Effective integrated respiratory surveillance systems should provide data sufficient for monitoring the spread and intensity of respiratory viruses to guide control measures and mitigate their impact. These systems will also be important in the event of future pandemics. [The full report is available here.](#)

Paper 5 - COVID-19: what next? Academy of Medical Sciences' policy position

- A recent publication from the academy of medical sciences reports that COVID-19 pandemic put unprecedented pressures on health and care services, and the measures to address the virus have greatly impacted the economy. The authors suggest that what many consider to be the 'acute' phase of the pandemic may have passed, the UK will still experience waves of COVID-19 alongside further challenges such as delayed care provision and increases in the cost of living. The paper proposes a series of recommendations to minimise the wider impacts of COVID-19 on society. The report suggests that to maximise the success of any interventions, policymakers should seek to reduce inequalities; conduct meaningful public involvement; ensure the timely access and sharing of data; and collaborate globally where possible. [The full report is available here](#).
- The Technical Advisory Group (TAG) are also developing a "Preparing for Winter 2022/23" paper. Only for internal WG circulation; due early August.

Paper 6 - SARS-CoV-2 Variant Vaccine Boosters Trial: Preliminary Analyses Preprint

- A recent study evaluated safety and immunogenicity of SARS-CoV-2 variant vaccines. A formal [definition of immunogenicity](#) can be stated as "the ability of a molecule or substance to provoke an immune response" or "the strength or magnitude of an immune response". Protection from SARS-CoV-2 vaccines wanes over time and is compounded by emerging variants including Omicron subvariants. Antigenic distance is a method that is commonly used to measure the antigenic closeness between circulating strains and the current vaccine strain. There are currently no clinical data with a BA.4/BA.5 vaccine to indicate how this variant vaccine may alter antigenic landscapes. The study results suggest that higher Omicron BA.1 antibody concentrations were observed with Omicron-containing vaccines compared to a prototype vaccine and antibody concentrations against Omicron BA.4/BA.5 were lower than against BA.1 for all candidate vaccines. The authors suggest that if future VOCs are similar to BA.4/BA.5 but continue to increase antigenic distance, optimizing the antigenic landscape near BA.4/BA.5 will be critical to improve COVID-19 vaccine effectiveness. [The full report is available here](#)

Paper 7 - Navigating the 'new normal': Public attitudes and behaviours two years into the COVID-19 pandemic in the UK

- A study published in July 2022, explored public attitudes and behaviours in relation to COVID-19 two years into the pandemic. Most participants reported feeling 'back to normal', not having thought much about COVID-19 recently,

and were not wearing masks or socially distancing. Lack of media coverage was a big factor cited, as was the perception that new variants were 'milder.' A minority of participants were still wearing masks or socially distancing and some argued they felt 'reconditioned' to be more cautious or less socially active. Identifying COVID-19 symptoms, and distinguishing them from flu was challenging, with some suggesting they would test on 'instinct' or if they felt very unwell. Intention to take a COVID-19 test and to socially distance if unwell was generally high. There was a modest appetite for future boosters, with those already triple-jabbed suggesting they would receive another dose in future, particularly if it was officially recommended. Most participants said they would adopt more caution if there was a future wave, although many argued that the lack of trust caused by UK political figures breaking rules ('Partygate') would harm future compliance. [The full report is available here](#)

Paper 8 - Daily testing of contacts of SARS-CoV-2 infected cases as an alternative to quarantine for key workers in Liverpool: A prospective cohort study

- A recent publication suggests that COVID-19 test-to-release from quarantine policies affect many lives. The SMART Release pilot was the foundation of these policies and an element of the world's largest population cohort study of community-wide rapid antigen testing. The objective of the study was to evaluate daily lateral flow testing (LFT) as an alternative to 10-14 days quarantine for key worker contacts of known COVID-19 cases. The findings from this study suggest that compliance with daily testing among key workers was high, helping sustain service continuity during periods of very high risk of staffing shortage. Services reported that the pilot was a "lifeline" and its successful delivery in Liverpool has been replicated elsewhere. [The full report is available here](#)