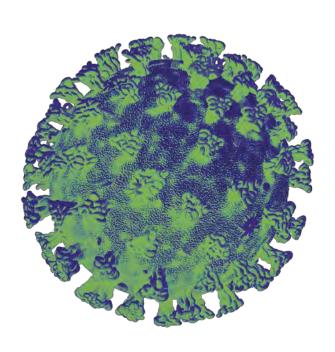
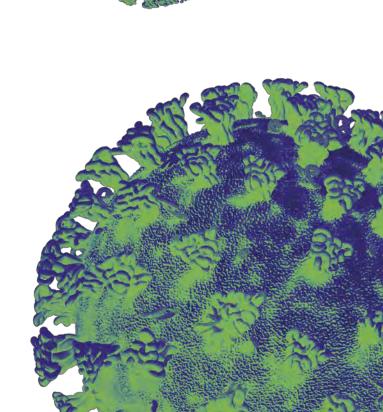


Science Evidence Advice (SEA)

Summary of Advice

9 September 2022





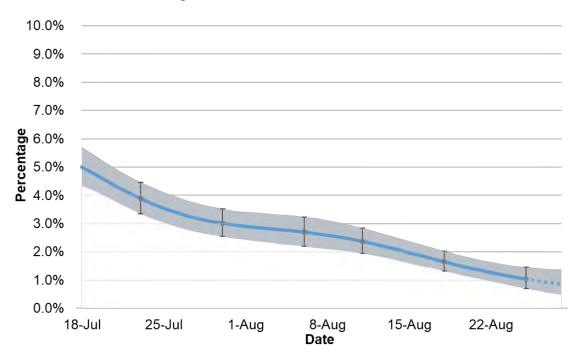
Top Line Summary

- In the latest update, ONS positivity continues to decline to 1 in 95 people in Wales. The positivity rate has decreased in England and Wales, while the trend is uncertain in Northern Ireland and Scotland.
- Wastewater surveillance indicates the overall SARS-CoV-2 viral load has remained stable across Wales. The signal remained level in 3 regions, increased in 4 regions and decreased in 6 regions.
- PHW lateral flow test data in the latest week (29/08/2022 to 04/09/2022) shows the number of reported tests decreased from 34,476 in the previous week to 33,107 in the latest reporting week. The number of positive testing episodes increased from 1,558 in the previous week to 1,768 in the latest reporting week.
- As of 6 September 2022, after reaching a peak of 25 admissions per day in mid-July, suspected and confirmed admissions (7-day average) have decreased to around 6 admissions a day.
- 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 antibody data indicates that the 2022 Spring booster has successfully maintained high antibody levels in vulnerable, older populations.
- The PHW COVID-19 variants update (31 August) noted that in the latest four reporting weeks Omicron BA.5 remained dominant in Wales, accounting for 84.6% of sequenced cases.
- The latest Medium Term Projections (using data to 26 August) project that NHS pressures are currently decreasing and will continue to decrease, though significant uncertainty is projected.

1. Wales Situation Update

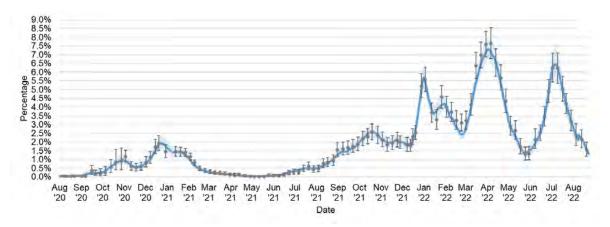
Infections

- According to the <u>ONS Coronavirus Infection survey</u>, the trend in the percentage of people testing positive for COVID-19 in Wales has decreased in the week ending 28 August. During this period, it is estimated that 1.04% of the community population had COVID-19 (95% credible interval: 0.70% to 1.46%). This equates to approximately 1 person in every 95 (95% credible interval: 1 in 140 to 1 in 70), or 31,500 people during this time (95% credible interval: 21,200 to 44,200).
- Caution should be taken in over-interpreting any small movements and credible intervals are provided to indicate the range within which we may be confident the true figure lies.



Wales, estimated % testing positive for Covid 19 since August 2020

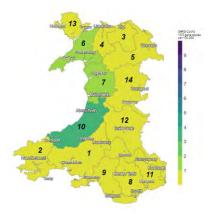
Source: Coronavirus (COVID-19) Infection Survey, ONS, 07/09/22



Wastewater surveillance

 Wastewater surveillance suggests the overall SARS-CoV-2 viral load has remained stable at a national level across Wales. The signal remained level in three regions, decreased at Cleddau and Pembrokeshire Coastal Rivers, Dee, Usk, Wye and Ynys Môn, and increased at Clwyd, Conwy, Llŷn and Eryri, Merionnydd, South East Valleys and Teifi and North Ceredigion.





PHW Lateral Flow Testing Surveillance

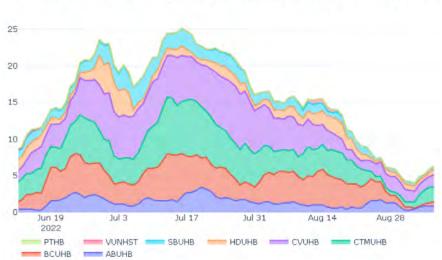
- As of 1 August 2022, free NHS lateral flow tests (LFTs) in Wales have not been available to members of the public showing symptoms of coronavirus or who are visiting someone eligible for new COVID-19 treatments. As a result, testing data will be incomplete and should be interpreted with caution, although it may still be useful to signal wider trends.
- In the latest <u>reporting week</u> (29/08/2022 to 04/09/2022) the number of LFTs reported decreased from 34,476 in the previous week to 33,107 in the latest reporting week. The number of positive testing episodes increased from 1,558 in the previous week to 1,768 in the latest reporting week.
- The episode positivity rate increased from 6.89% in the previous week to 8.03% in the latest reporting week, with the highest positivity rate by age group recorded in the under 20 age group at 20.04%. The 40-59 age group recorded the highest incidence rate of 83.5 positive testing episodes per 100,000 population.

Deaths

- The most recent PHW <u>COVID-19 weekly surveillance and epidemiological summary</u> 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.
- The Office for National Statistics (ONS) published statistics on 6 September on <u>provisional weekly deaths</u>, including deaths involving COVID-19, for the week ending 26 August 2022. The cumulative number of deaths involving COVID-19 in Wales, occurring throughout the pandemic up to the latest week, was 10,747.
- 668 deaths from all causes were registered in the latest week. This was 3 more than the previous week, and 84 more than the five-year average for 2016-2019 and 2021.
 - 32 deaths involving COVID-19 were registered in the latest week. This was 4.8% of all deaths, and 3 more than the previous week.

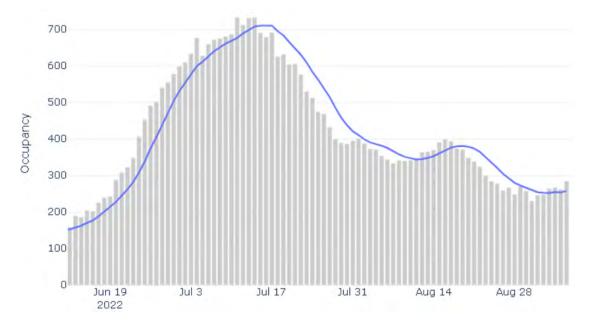
NHS

 As of 6 September 2022, after reaching a peak of 25 admissions per day in mid-July, suspected and confirmed admissions (7-day average) have decreased to around 6 admissions a day.

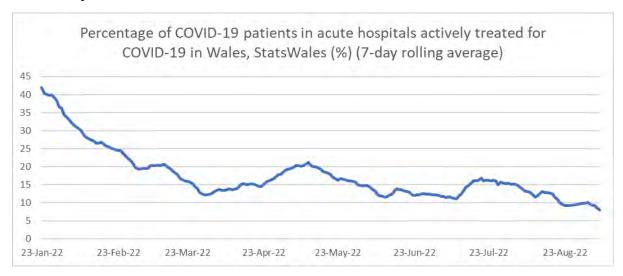


Hospital admissions of suspected and confirmed COVID-19 positive patient

Confirmed COVID-19 hospital occupancy in Wales (7-day average) reached a
peak of over 700 in mid-July, roughly three quarters of the maximum
occupancy peak level in March 2022 when BA.2 was dominant. Since then,
occupancy has generally decreased. As of 6 September 2022, the 7-day
average was 258 beds.



 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 been generally decreasing since mid-July.¹



• NHS staff absence figures up to 5 September 2022 show absence due to self-isolation has remained stable compared with the previous week at 6%, whilst absence due to COVID-19 sickness has decreased to 11%.

Care homes

 As of 30 August 2022, the number of adult care homes in Wales that have <u>notified CIW</u> of one or more confirmed cases of COVID-19 in staff or residents in the last 7 days has continued to decrease. The most recent data shows a steady decrease of 31% to 46 care homes, compared to 67 in the previous

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

Adult Care homes Total in the last 20 days

Number of adult care homes which have notified CIW of one or more confirmed cases of COVID-19, in staff or residents, by date 400 350 300 250 200 150 100 09-Feb-22 09-Mar-22 09-Apr-22 09-May-22 09-Jun-22 09-Jul-22 09-Aug-22

week. This figure for the last 20 days has decreased to 121, down from 159 in the previous week. There are 1,029 adult care homes in total in Wales.

- As of 24 August 2022, the <u>number of notifications to CIW of deaths of adult care home residents involving COVID-19</u> (both confirmed and suspected) in the last 7 days has decreased slightly to 1, compared to 2 in the previous week.
- In total, CIW has been notified of 2,219 care home resident deaths with suspected or confirmed COVID-19 between 1 March 2020 and 24 August 2022. This makes up 15.3% of all adult care home resident reported deaths (14,530) during this period.

Weekly Influenza and Acute Respiratory Infection Report - PHW

-Adult care homes Total in the last 7 days

- As at 7 September, PHW report that confirmed influenza cases continue to be seen at low levels, likewise RSV confirmed cases are at low levels. During Week 35 (ending 04/09/2022) there were 16 cases of influenza. COVID-19 cases continue to be detected in symptomatic patients in hospitals and in the community. RSV incidence in children under 5 years of age is currently at levels that would indicate low 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 decreasing confirmed cases in recent weeks. The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during Week 35 increased to 14.8%.
- As of week 34, community and syndromic influenza indicators remained low in the UK. GP influenza-like illness (ILI) consultations increased in Scotland to 0.6 per 100,000 - well below the baseline intensity threshold.

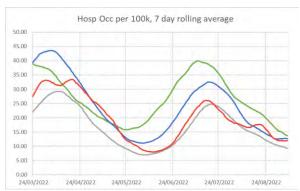
 The WHO and the European Centre for Disease Prevention and Control (ECDC) have entered a monthly reporting cycle for influenza and reported that activity across Europe remained at inter-seasonal levels during weeks 26-30. The WHO reported on 07/08/2022 that globally, influenza activity has steadily decreased, following a peak in March 2022. However, influenza detections in South-East Asia have increased.

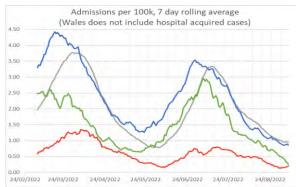
2. Situation in the UK and international comparators

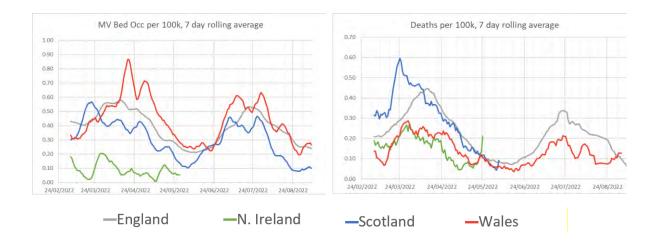
UK Overview

UK COVID-19 dashboard data

- Surveillance data for the four nations is summarised below. (Data source: <u>UK</u> 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.
- ONS Coronavirus Infection Survey reports that at the midpoint of the most recent week (22 to 28 August 2022*), the positivity rate has decreased in England and Wales, while the trend is uncertain in Northern Ireland and Scotland.
- All UK nations have continued to observe decreases in the number of admissions after reaching a peak in July. 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.
- Hospital occupancy data also shows a continued decrease all four nations, although in Wales numbers appear to be starting to plateau.
- The overall ICU/Mechanically ventilated bed occupancy trend has continued to decrease in England, Wales and Scotland after reaching a peak in mid to late July, despite some fluctuation in the Wales figures. Northern Ireland no longer report this data.
- The number of deaths remains low relative to previous waves and has decreased in England, while fluctuating in Wales at a lower level. Scotland and Northern Ireland no longer report this data.





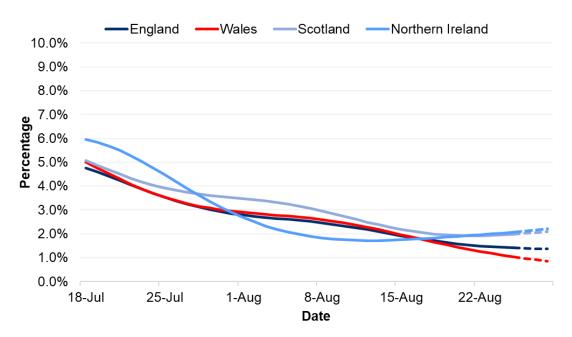


UK Infection positivity - ONS Coronavirus Infection Survey, 10 to 16 August

- According to the <u>ONS Coronavirus Infection survey</u>, at the midpoint of the
 most recent week (22 to 28 August 2022*), the positivity rate has decreased
 in England and Wales, while the trend is uncertain in Northern Ireland and
 Scotland. The estimated percentages of the community population with
 COVID-19 ranged from 1.04% in Wales to 2.07% in Northern Ireland.
- During the most recent period, it is estimated that around 1 in 95 people in Wales had COVID-19. This compares to around 1 in 70 people in England, around 1 in 50 in Northern Ireland and around 1 in 50 people in Scotland.

Note since these estimates are based on a relatively low number of positive tests, there is some uncertainty and the results should be interpreted with caution. The survey recently moved to an online data collection method, with postal returns for swabs and blood samples.

Positivity rates (%) across UK countries 6 July to 16 August 2022

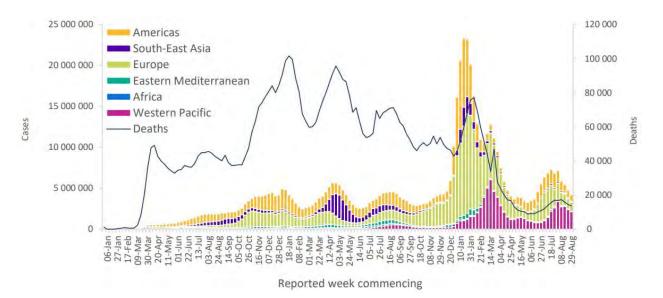


Long Covid

- An estimated 2.0 million people living in private households in the UK (3.1% 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 31 July 2022. Due to a change in data collection, estimates are not fully comparable with previously published data.
- Of people with self-reported long COVID, 253,000 (13%) first had (or suspected they had) COVID-19 less than 12 weeks previously, 1.7 million people (83%) at least 12 weeks previously, 892,000 (45%) at least one year previously, and 429,000 (22%) at least two years previously.
- Fatigue continued to be the most common symptom reported as part of individuals' experience of long COVID (62% of those with self-reported long COVID), followed by shortness of breath (37%), difficulty concentrating (33%) and muscle ache (31%).
- Data for Wales showed that an estimated 99,000 people (3.1% of the population) had self-reported long COVID as of 31 July 2022. <u>The full report is</u> available here.

International overview - World Health Organisation update

- The WHO reports that globally, the number of new weekly cases decreased by 12% during the week of 29 August to 4 September 2022, as compared to the previous week, with just under 4.2 million new cases reported. The number of new weekly deaths decreased by 5% as compared to the previous week, with over 13 700 reported. Globally, as of 4 September 2022, over 600 million confirmed cases and over 6.4 million deaths have been reported.
- At the regional level, the number of newly reported weekly cases decreased across all six regions: the Eastern Mediterranean Region (-29%), the South-East Asia Region (-22%), the European Region (-15%), the African Region (-10%), the Western Pacific Region (-10%) and the Region of the Americas (-9%). The number of new weekly deaths decreased across three of the six regions: the South-East Asia Region (-24%), the European Region (-22%) and the Eastern Mediterranean Region (-12%); while it increased in the African Region (+14%), the Region of the Americas (+6%) and the Western Pacific Region (+5%).



Source: Weekly Epidemiological Update on COVID-19

• ECDC reports that as of week ending 4 September, the overall notification rate of COVID-19 cases in the EU/EEA continued its decreasing trend, falling by 13% compared to the previous week, reaching 9% of the pandemic maximum. A similar decreasing trend was observed for case rates among people aged 65 years and above, reaching 26% of the pandemic maximum. Of 28 countries with data on hospital or ICU admissions/occupancy up to week 35, four reported an increasing trend in at least one of these indicators compared with the previous week.

3. Variant of Concern update

<u>PHW report</u> the weekly summary of the total number of COVID-19 variants of concern (VOC) in Wales.

Lineage	Alternate names	Å	30 day cases*	Total cases	
			1,255	132,873	
BA.2	BA.2		5	29,170	
BA.4	-		60	1,228	
BA.5	-		750	4,317	
BA.2.75			2	4	
B.1.1.529	B1.1.1529, BA.3, genotyped cases		438	40,989	

Source: Public Health Wales COVID-19 genomic surveillance

A comparison of sequences submitted to GISAID in epidemiological week 34 (22 to 28 August 2022) and week 33 (15 to 21 August 2022) shows that BA.5 Omicron descendent lineages continue to be dominant globally, with an increase in weekly prevalence from 84.8% to 86.8%. The prevalence of BA.4 descendent lineages decreased from 6.8% in week 33 to 4.2% in week 34 including BA.4.6 descendent lineage, which decreased from 3.5% to 2% within the same time period.

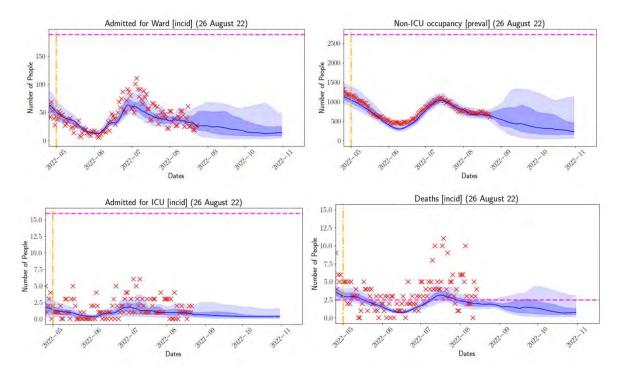
The prevalence of BA.2 descendent lineages (BA.2.X) remained stable in week 34 compared to week 33 (2.6% in week 33 and 2.5% in week 34).
 BA.2.75, an Omicron descendent lineage under monitoring, still shows a relatively low (0.9% and 1.2% in weeks 33 and 34 respectively) prevalence globally, but a number of countries have observed recent increasing trends.

4. 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, data as at 26 August

- In the charts below, red crosses represent actual Omicron data, which the
 model is fitted to fit is weighted to data points after the vertical orange line to
 represent the characteristics of emergent strains. 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 percentiles,
 and the 95% confidence limits in the lighter ribbon The pink dotted line
 represents pre-Omicron peaks.
- As in the previous iteration of projections, NHS pressures are steadily decreasing, although with significant uncertainty.
- Hospital admissions are steadily decreasing and are projected to continue decreasing in the coming weeks though there is a fair amount of uncertainty (confidence intervals are wide).
- Bed occupancy is closely following the projections, which project that occupancy has peaked and will continue decreasing – this trend is uncertain.
- ICU occupancy is also closely following the projections and is expected to remain at a low plateau. ICU admissions and deaths continue to fluctuate at low levels.



UKHSA EMRG Consensus MTPs

Swansea University (SU) projections are usually 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). Once again there was an insufficient number of models available and so a combined projection could not be produced – this may become the norm unless more models come on board that include Wales.