

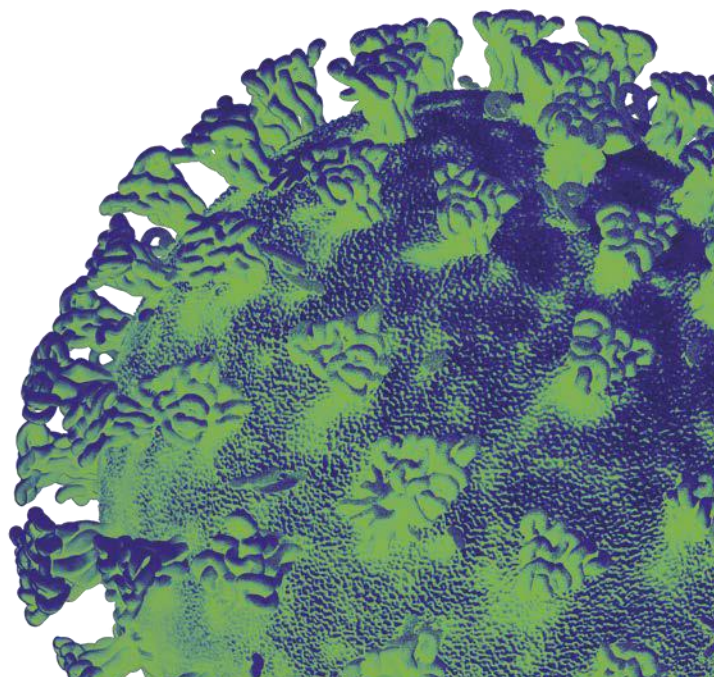
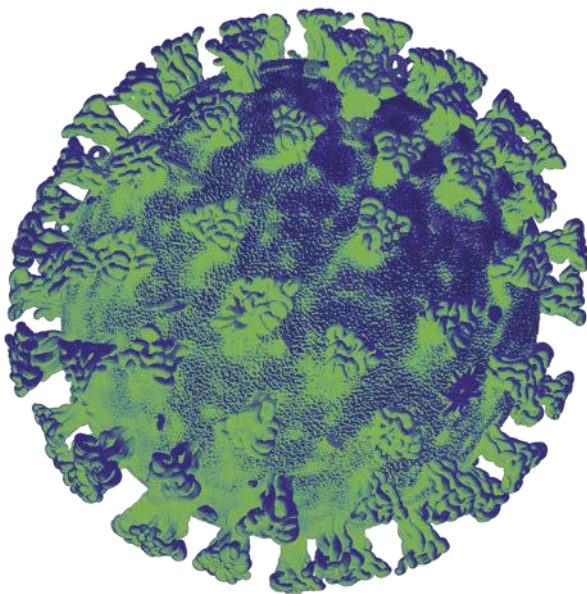
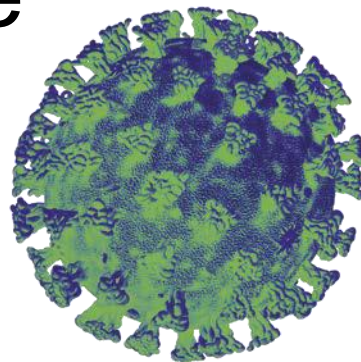


Llywodraeth Cymru  
Welsh Government

# Science Evidence Advice (SEA)

## Summary of Advice

21 October 2022



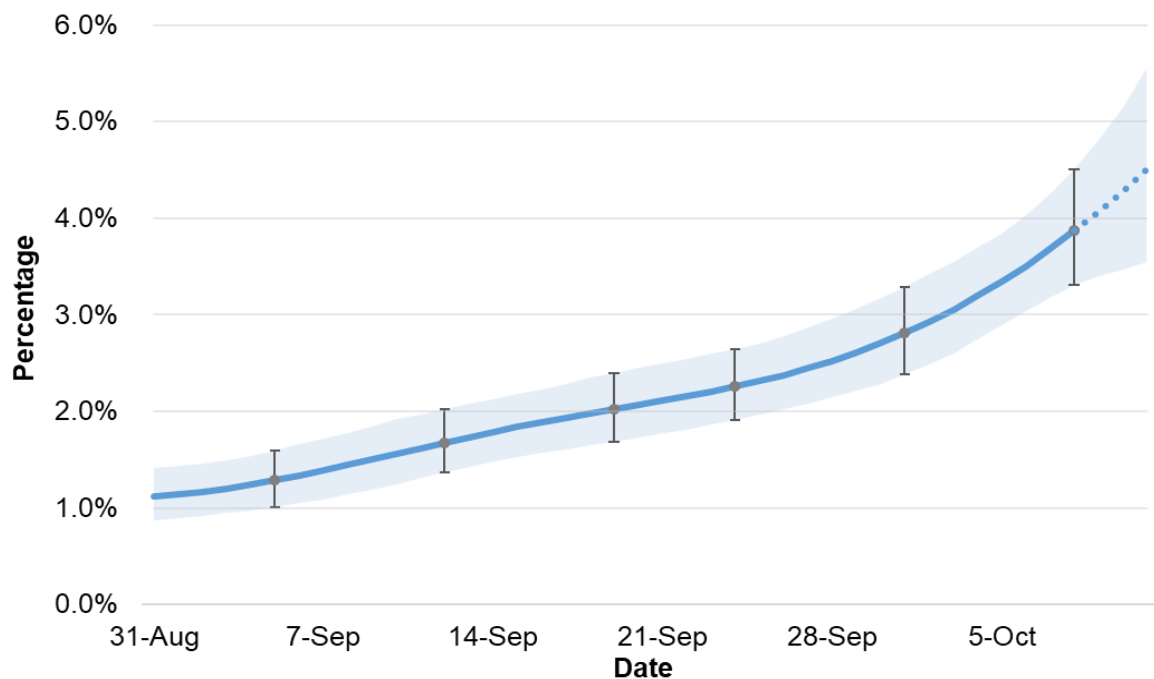
## Top Line Summary

- In the latest ONS positivity update, the trend in the percentage of people testing positive in Wales continued to increase in the most recent week.
- ONS estimates for the week 5 to 11 October 2022, that around 1 in 25 people in Wales had COVID-19. The positivity rate has increased in England and Scotland. The trend in the percentage of people testing positive in Ireland was uncertain.
- Wastewater surveillance indicates the overall SARS-CoV-2 viral load has decreased across the country. The signal decreased in 8 regions, remained level in 5 regions and increased in 1 region.
- PHW lateral flow test data in the latest week based on data up to 16 October 2022, PHW reports that the number of LFTs reported decreased from 18,657 in the previous week to 18,082 in the latest reporting week.
- As at 18 October 2022, hospital admissions of suspected and confirmed COVID-19 positive patients are approximately 18 admissions per day.
- In conclusion, these data sources suggests that the positivity rate in Wales may have peaked or may be plateauing.
- ONS surveillance data reports that 28 deaths involving COVID-19 were registered in the latest week. This was 3.8% of all deaths, and 15 more than the previous week.
- PHW reports that the current dominant variant in Wales is VOC-22APR-04 (Omicron, BA.5) which accounted for 84.5% of sequenced cases in the last four reporting weeks.
- As at week ending 16 October, PHW report that confirmed influenza and RSV cases are rapidly increasing.

## 1. Wales Situation Update

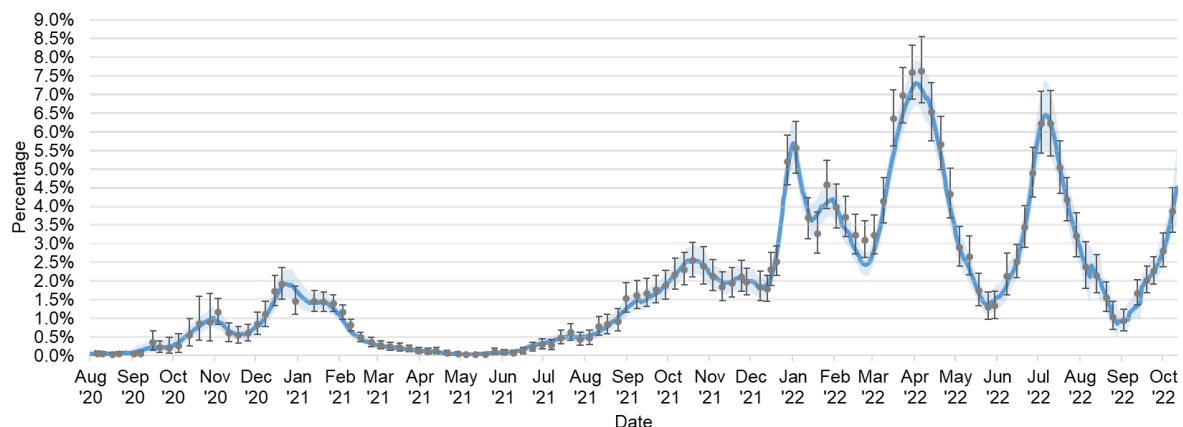
### Infections

- According to the [ONS Coronavirus Infection survey](#), for the week 5 to 11 October 2022 the percentage of people testing positive in Wales continued to increase in the most recent week. It is estimated that 3.87% of the community population had COVID-19 (95% credible interval: 3.31% to 4.50%). This equates to approximately 1 person in every 25 (95% credible interval: 1 in 30 to 1 in 20), or 117,600 people during this time (95% credible interval: 100,500 to 136,800).
- Caution should be taken in over-interpreting small movements - credible intervals are provided to indicate the range within which we may be confident the true figure lies.



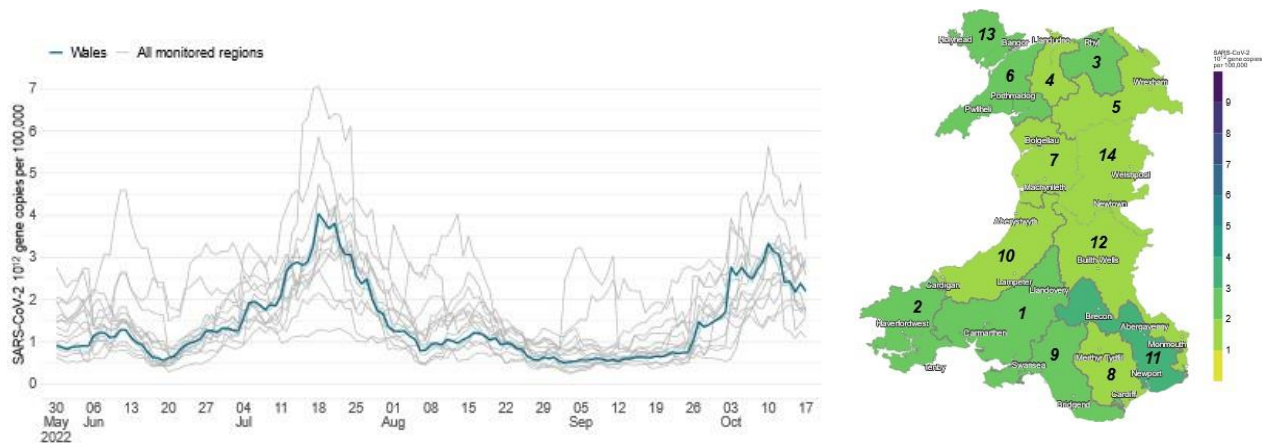
### Wales, estimated % testing positive for Covid 19 since August 2020

Source: Coronavirus (COVID-19) Infection Survey, ONS, 19/10/22



## Wastewater surveillance

- [Wastewater surveillance](#) suggests the overall SARS-CoV-2 viral load has decreased across the country. However, the signal remained level at Carmarthen Bay and the Gower, Conwy, Dee, Tawe to Cadoxton and Ynys Môn and increased at Clwyd.



## 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.*
- As of 19 October 2022, based on data up to 16 October 2022, [PHW reports](#) that the number of LFTs reported decreased from 18,657 in the previous week to 18,082 in the latest reporting week.
- The number of positive testing episodes decreased from 3,975 in the previous week to 3,601 in the latest reporting week.
- The episode positivity rate decreased from 30.44% in the previous week to 28.65% in the latest reporting week.
- The 40-59 age group recorded the highest incidence rate of 175.4 positive testing episodes per 100,000 population.
- The Under 20 age group recorded the highest episode positivity rate of 46.46%.

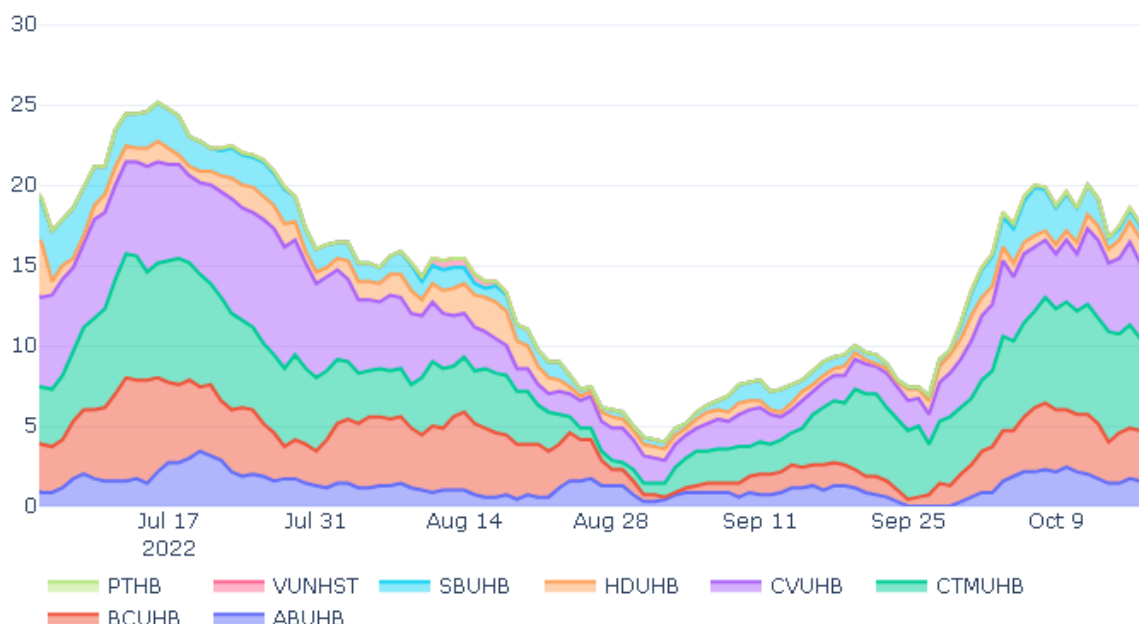
## Deaths

- The Office for National Statistics (ONS) published statistics on 18 October on [provisional weekly deaths](#), including deaths involving COVID-19, for the week ending 7 October 2022. The cumulative number of deaths involving COVID-19 in Wales, occurring throughout the pandemic up to the latest week, was 10,875.
- 730 deaths from all causes were registered in the latest week. This was 81 more than the previous week and is 110 more than the five-year average for 2016-19 and 2021.
- 28 deaths involving COVID-19 were registered in the latest week. This was 3.8% of all deaths, and 15 more than the previous week.

## NHS

- As of 18 October 2022, hospital admissions of suspected and confirmed COVID-19 positive patients is at approximately 18 admissions per day. Admissions steadily increased from late September 2022 through the first week of October, and since then they have remained fairly constant, with a slight overall decrease over the past few days. Hospital admissions currently sit at just over two thirds of the mid-July peak.

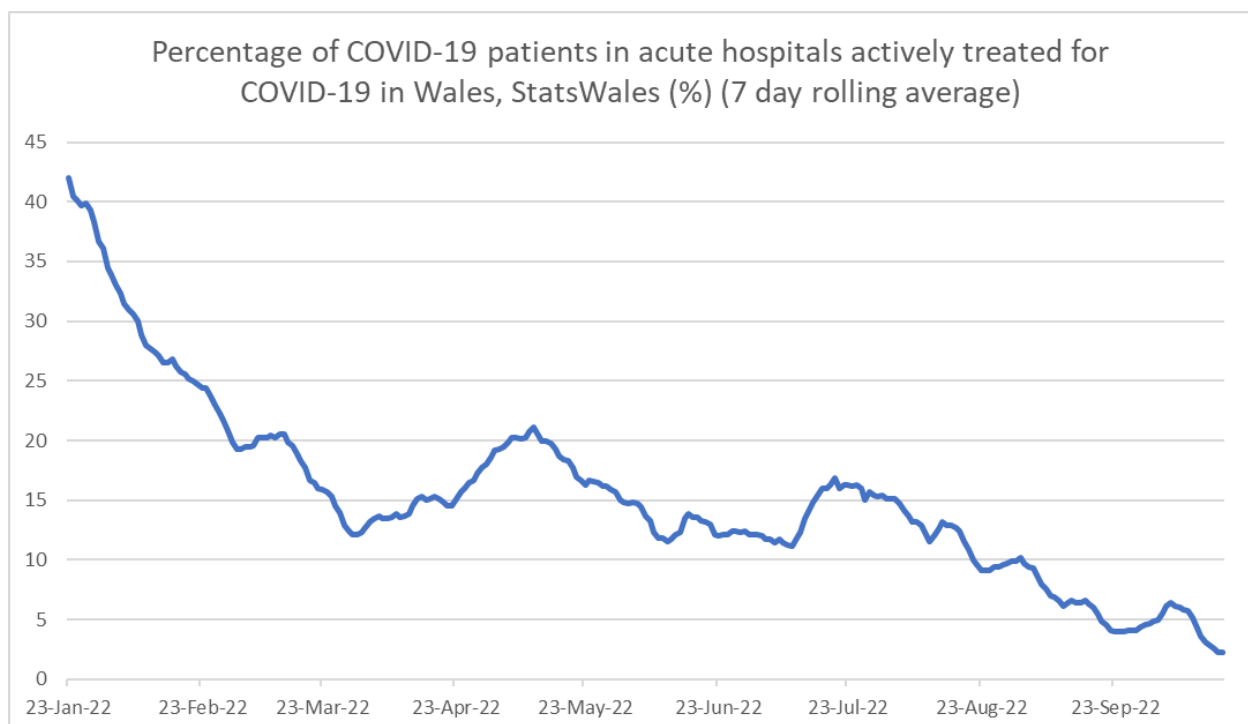
Hospital admissions of suspected and confirmed COVID-19 positive patients



- As of 18 October 2022, the 7-day average of hospital bed occupancy of confirmed COVID-19 patients was 594 beds, an increase of almost 200 beds compared with 2 weeks prior. Confirmed COVID-19 hospital occupancy in Wales (7-day average) reached a peak of over 700 in mid-July 2022, roughly three quarters of the maximum occupancy peak level in March 2022 when BA.2 was dominant.



- 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.



- [NHS staff absence figures](#) up to 17 October 2022 show absence due to self-isolation has remained the same the period ending 3 October 2022 at 0.4%, whilst absence due to COVID-19 sickness has increased to 0.9% from 0.7%.



## Vaccines

- The Autumn booster campaign is under way, as outlined in these tables:

**Cumulative number of Autumn 22/23 doses given, by week.** Uptake, based on Wales residents, uses indicative denominator 1,608,231

| Week ending | Number of doses | Uptake |
|-------------|-----------------|--------|
| 2022-09-04  | 23,356          | 1.5%   |
| 2022-09-11  | 91,665          | 5.7%   |
| 2022-09-18  | 155,964         | 9.7%   |
| 2022-09-25  | 232,048         | 14.4%  |
| 2022-10-02  | 325,946         | 20.3%  |
| 2022-10-09  | 423,371         | 26.3%  |

Data for this report were extracted at 2pm 20/10/2022

Source: <https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/COVID-19vaccination-Public/Vaccination?publish=yes>

**Number of COVID-19 Autumn 22/23 booster immunisations given by age and risk group**

| Risk group                                     | Denominator *(n) | Immunised (n) - 22/23 Booster | Uptake (%) - 22/23 Booster |
|--|------------------|-------------------------------|----------------------------|
| Severely Immunosuppressed                      | 51,033           | 22,974                        | 45.0                       |
| Residents in a care home for older adults*     | 14,712           | 10,464                        | 71.1                       |
| Staff working in care homes for older adults** | 37,941           | 10,324                        | 27.2                       |
| Health care staff**                            | 141,342          | 51,459                        | 36.4                       |
| Social care staff**                            |                  | 13,367                        |                            |
| All adults aged 65 years and older             | 711,598          | 315,733                       | 44.4                       |
| All adults aged 50_to_64 years                 | 677,150          | 104,140                       | 15.4                       |
| Aged 5 to 49 years in a clinical risk group    | 218,523          | 10,209                        | 4.7                        |

*An individual will be counted more than once if they are in more than one risk group.*

*Denominator data is taken from WIS and based on Wales residents, with the exception of care home workers, healthcare workers and social care workers where denominators are based on those working in Wales.*

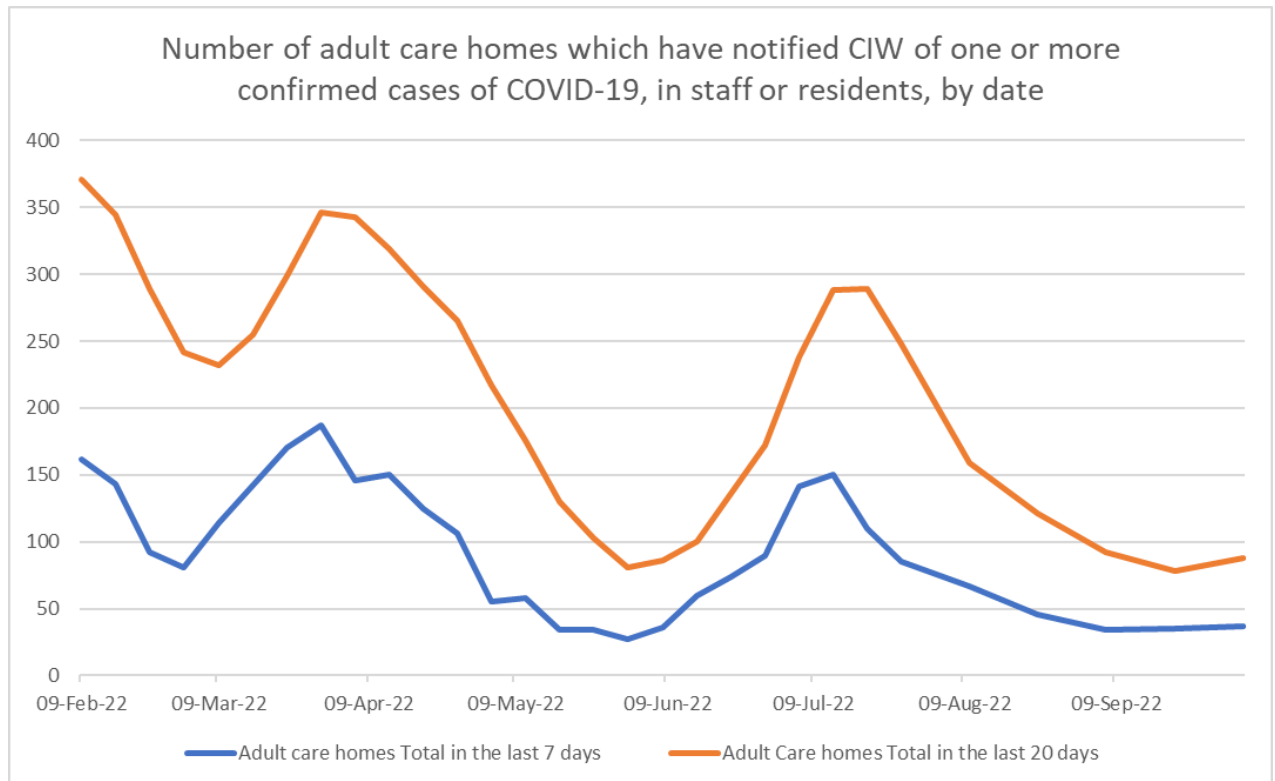
*All age groups are based on age as at 31 March 2022.*

*Quality of recording of staff priority groups is variable and incomplete, these figures are provided provisionally and should be interpreted with caution.*

*Care home residents have been identified by matching address as recorded in the Welsh Demographic Service (WDS) to a Care Inspectorate Wales list of registered Care Homes.*

## Care homes

- As of 11 October 2022 (with data up to 5 October 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 remained similar to the previous fortnight, following a period of steady decrease. The most recent data shows 37 care homes with one or more confirmed cases, compared to 35 in the previous week. This figure for the last 20 days has increased to 88, up from 78 in the period ending 21 September 2022. In Wales there are 1,024 adult care homes in total.



- As of 5 October 2022, the [number of notifications to CIW of deaths of adult care home residents involving COVID-19](#) (both confirmed and suspected) in the last 7 days has increased to 2, compared to 0 in the previous week.
- In total, CIW has been notified of 2,232 care home resident deaths with suspected or confirmed COVID-19 between 1 March 2020 and 5 October 2022. This makes up 13% of all adult care home resident reported deaths (17,410) during this period.



**Schools**

- As of 14 October 2022, an average of 91.0% of half-day school sessions were recorded as present for pupils aged 5 to 15 over the week of 10 to 14 October 2022, up from 90.7% the week before.
- The average attendance for this academic year to date is 91.5%. An average of 6.1% of half-day school sessions were recorded as authorised absence for pupils aged 5 to 15 over the week of 10 to 14 October 2022, down from 6.5% the week before.
- An average of 2.9% of half-day school sessions were recorded as unauthorised absence for pupils aged 5 to 15 over the week of 10 to 14 October 2022, up from 2.8% the week before.

## Weekly Influenza and Acute Respiratory Infection Report – PHW

- As at week ending 16 October, [PHW](#) report that confirmed influenza cases are increasing.
- RSV confirmed cases have also increased in recent weeks. During Week 41 (ending 16/10/2022) there were 130 cases of influenza (an increase from the previous weeks), this is the highest number of confirmed influenza cases within a week since the 2019-20 influenza season, although currently remaining at low levels.
- RSV incidence in children under 5 years of age has increased and is now at levels that would indicate medium levels of activity.
- Confirmed RSV case incidence in children aged under 5 has increased and is at medium intensity levels.
- The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during Week 41 decreased to 19.9%.
- Community and syndromic influenza indicators remained low in the UK. GP Influenza Like Illness (ILI) consultations increased in Scotland to 2.7 per 100,000 and in Northern Ireland to 1.3 per 100,000. This is well below the baseline intensity threshold. The weekly ILI GP consultation rate in England increased to 3.0 per 100,000, which is well below the MEM threshold for baseline activity (12.2 per 100,000).
- As at 17 October 2022, based on data up to 02 October 2022, the [WHO report](#) that globally, influenza activity remained low with influenza A(H3N2) viruses predominately detected. In Europe, overall influenza activity remained at inter-seasonal levels with influenza A(H3N2) detections increasing in a few countries.

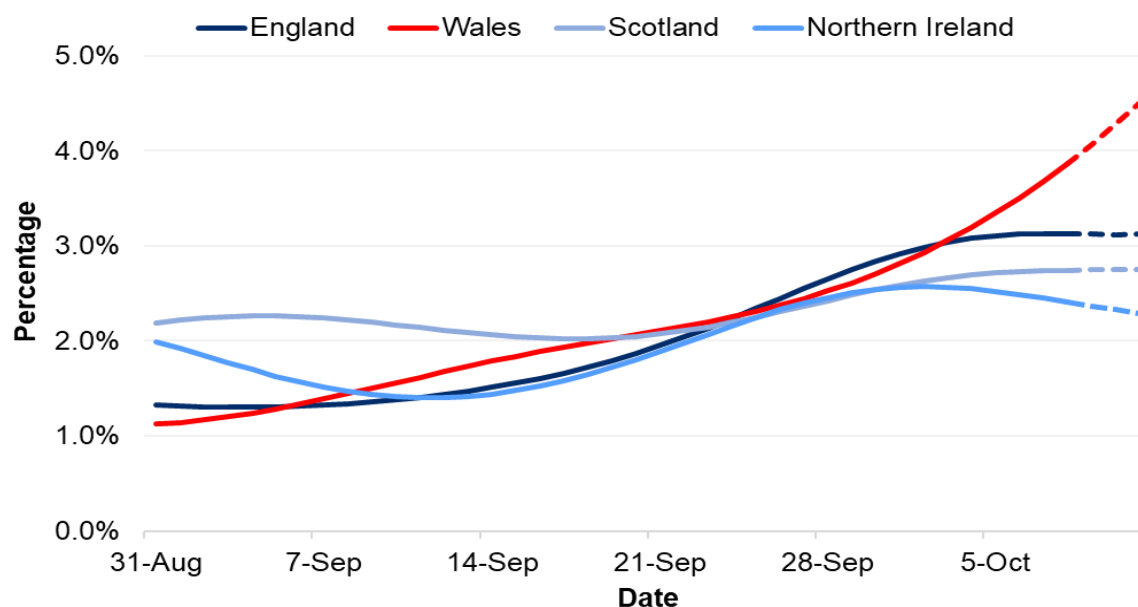
## 2. Situation in the UK and international comparators

### UK Infection positivity – ONS Coronavirus Infection Survey, 5 to 11 October 2022\*

- The ONS Coronavirus Infection Survey reports that at the midpoint of the most recent week (5 to 11 October 2022\*), the positivity rate has increased in Wales and England.
- The trend in the percentage of people testing positive in Scotland was uncertain in the most recent week but increased over the last two.
- The trend was uncertain in Northern Ireland in the most recent week.
- The estimated percentages of the community population with COVID-19 ranged from 3.87% in Wales to 2.41% in Northern Ireland.
- In Wales, the estimated number of people testing positive for COVID-19 was 117,600 people (95% credible interval: 100,500 to 136,800), equating to 3.87% of the population, or around 1 in 25 people.
- In England, the estimated number of people testing positive for COVID-19 was 1,706,200 people (95% credible interval: 1,631,600 to 1,780,100), equating to 3.13% of the population, or around 1 in 30 people.
- In Scotland, the estimated number of people testing positive for COVID-19 was 144,400 people (95% credible interval: 122,000 to 168,700), equating to 2.74% of the population, or around 1 in 30 people.
- In Northern Ireland, the estimated number of people testing positive for COVID-19 was 44,200 people (95% credible interval: 33,500 to 56,600), equating to 2.41% of the population, or around 1 in 30 people.

\*The reference week in England, Scotland and Northern Ireland is 4 to 10 October 2022

### Positivity rates (%) across UK countries since 31 August 2022

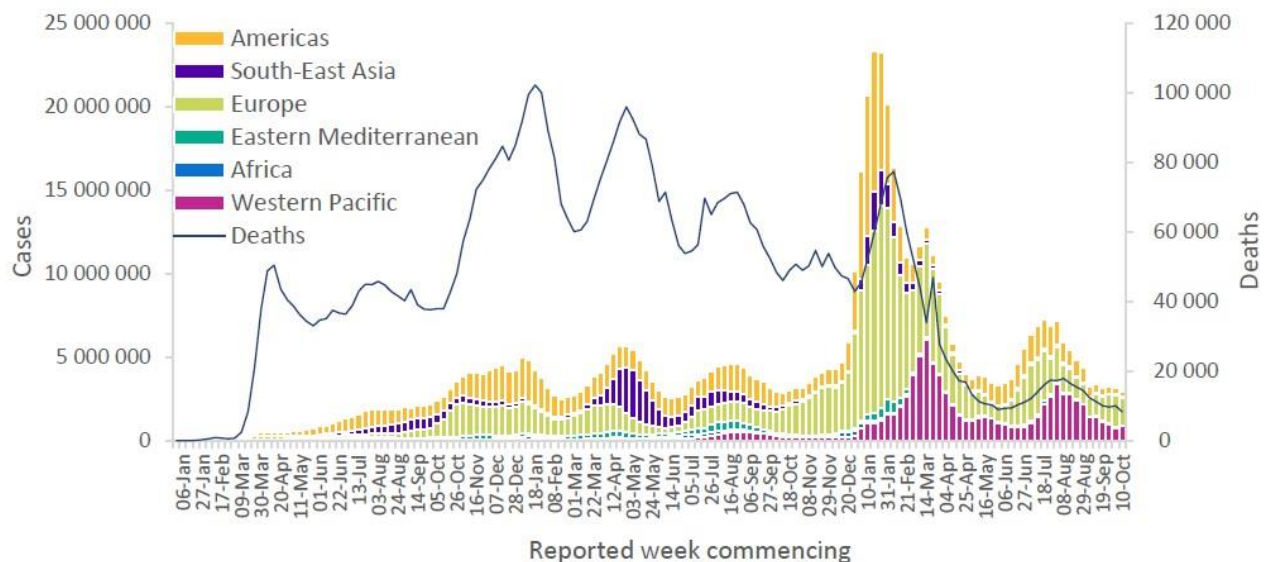


## Long Covid

- As previously reported, an estimated 2.3 million people living in private households in the UK (3.5% of the population) were experiencing self-reported long COVID (symptoms continuing for more than four weeks after the first confirmed or suspected coronavirus (COVID-19) infection that were not explained by something else) as of 3 September 2022.
- Data for Wales showed that an estimated 120,000 people (3.9% of the population) had self-reported long COVID in the four-week period ending 3 September 2022. [The full report is available here](#).

## International overview – World Health Organisation update

- [The WHO reports](#) that globally, the number of new weekly cases decreased by 6% during the week of 10 to 16 October 2022 as compared to the previous week, with over 2.9 million new cases reported (Figure 1, Table 1). The number of new weekly deaths decreased by 17% as compared to the previous week, with about 8300 fatalities reported. As of 16 October 2022, over 621 million confirmed cases and over 6.5 million deaths have been reported globally.



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

- The highest numbers of new weekly cases were reported from Germany (583 232 new cases; similar to the previous week), France (337 253 new cases; -12%), China (328 910 new cases; -1%), Italy (288 452 new cases; +3%) and the United States of America (251 280 new cases; -10%). The highest numbers of new weekly deaths were reported from the United States of America (2274 new deaths; -11%), the Russian Federation (702 new deaths; -4%), Italy (478 new deaths; +37%), China (431 new deaths; +5%) and Japan (409 new deaths; -28%).
- As of 20 October 2022, [ECDC reports](#) increases across all epidemiological indicators for COVID-19 although they appear to be slowing down.
- The number of countries reporting increases in case rates and deaths has decreased compared to the previous week, and in many countries the rate of increase in reported case rates has decreased or appears to have reached a peak.
- The rate of COVID-19 cases among people aged 65 years and older increased by 10% compared with the previous week, as part of a four-week increasing trend, reaching 57% of the maximum value reported during the pandemic.

- ICU occupancy and ICU admissions for COVID-19 have been increasing for the last 2–3 weeks. Of 26 countries reporting data, 14 observed increasing trends of 1–5 weeks' duration in at least one hospital or ICU indicator.
- Hospital and ICU indicators continue to increase in almost half of EU/EEA countries, and increased COVID-19 transmission and mortality continues to be reported among residents of long-term care facilities.
- ECDC has reclassified the Omicron variant sub-lineage BQ.1 as a variant of interest (VOI). Although this variant is not included in the data for this week's report, it represents a rapidly increasing proportion of variant detections across the EU/EEA.



### 3. Variant of Concern update

[PHW report](#) the weekly summary of the total number of COVID-19 variants of concern (VOC) in Wales. (Data correct as at: 18 Oct 2022).

|              |         |      |       |         |      |
|--------------|---------|------|-------|---------|------|
| All cases    |         |      | 1,998 | 135,359 | +674 |
| VOC-22JAN-01 | BA.2    | BA.2 | 9     | 29,193  | +1   |
| VOC-22APR-03 | BA.4    | -    | 19    | 1,177   | -132 |
| VOC-22APR-04 | BA.5    | -    | 863   | 5,684   | +203 |
| V-22JUL-01   | BA.2.75 | -    | 58    | 67      | +14  |
| V-22SEP-01   | BA.4.6  | -    | 42    | 145     |      |

Source: [Public Health Wales COVID-19 genomic surveillance](#)

- The [WHO reports](#) that globally, during epidemiological week 39 (26 September to 2 October 2022), Omicron BA.5 descendent lineages continued to be dominant, accounting for 78.9% of sequences submitted to GISAID; followed by BA.4 descendent lineages (including BA.4.6), which accounted for 6.7%; and BA.2 descendent lineages (including BA.2.75), which accounted for 3.9% of sequences.
- From 17 September to 17 October 2022, 98 731 SARS-CoV-2 sequences were shared through GISAID. Among these, 98 386 sequences were the Omicron variant of concern (VOC), accounting for 99.7% of sequences reported globally in the past 30 days.
- There continues to be increased diversity within Omicron and its descendent lineages. A number of these Omicron descendent lineages are under monitoring.
- These variants are being monitored and assessed by WHO based on criteria of genetic constellations of mutations, and/or indications of a rise in prevalence in a geographic location, as well as any evidence of phenotypic changes. All of these lineages have different additional mutations, yet the majority do not warrant concern, either based on current knowledge of relevant genetic sites, or based on very low sequence circulation over several weeks.

#### 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 14 October

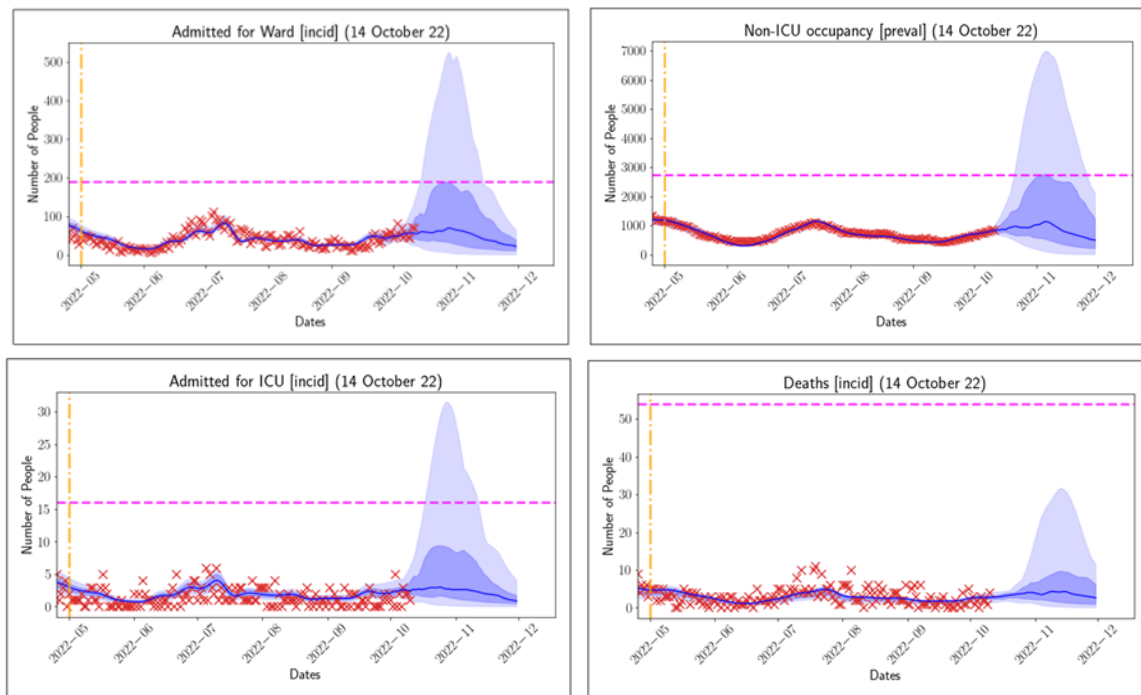
- In the charts below, red crosses represent actual Omicron data, which the model is fitted to – fit is weighted to data points after the vertical orange line to represent the characteristics of emergent strains. The blue line represents the central modelling estimate. The blue ribbon represents the 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.
- The latest projections suggest that NHS pressures will plateau in coming weeks, although with significant uncertainty. There are high uncertainties towards the upper bounds. This is likely because of the recent general increases, especially at the scenarios of longest stay in hospital.

Hospital admissions are projected to increase very slightly in the short term before plateauing from November, though there is a fair amount of uncertainty (confidence intervals are wide).

Bed occupancy is closely following the projections, which project that occupancy will increase in coming weeks to peak at around 1,250 beds, before decreasing from around 7<sup>th</sup> November. This is more optimistic than the previous set of projections which peaked at around 1,500 beds.

ICU occupancy is expected to increase very slightly before decreasing. Deaths continue to fluctuate at low levels.

Note that, in the figures, fit is weighted to data points after the vertical orange line to reflect the characteristics of emergent strains. The horizontal pink line represents pre-omicron peaks.



### UKHSA EMRG Consensus MTPs

Swansea University (SU) projections are used by the UKHSA Epidemiological Modelling Review Group (EMRG). These consensus MTPs were produced a week before the most recent Swansea MTPs and there has since been a plateauing / reduction in hospital occupancy so the next set are likely to look more optimistic.

