

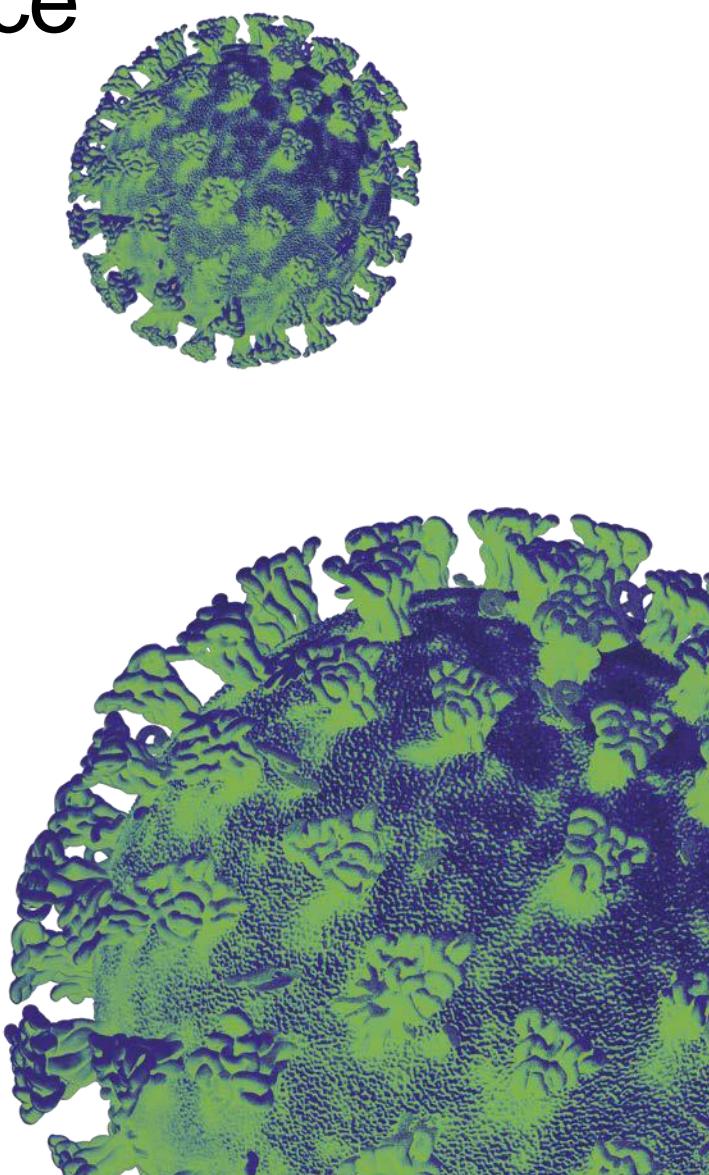
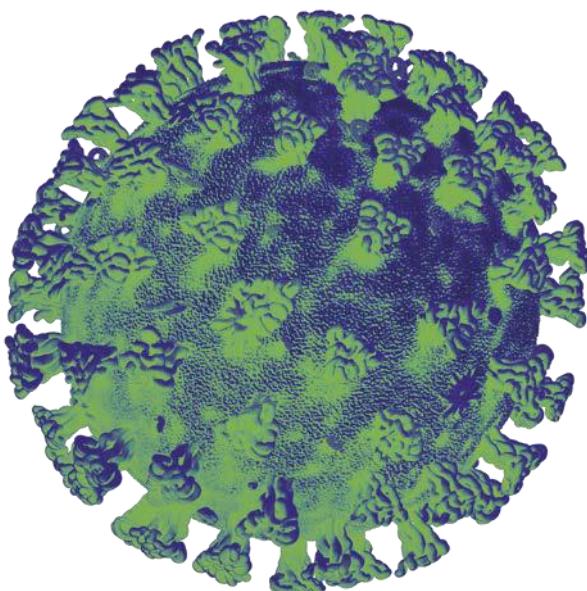


Llywodraeth Cymru  
Welsh Government

# Science Evidence Advice (SEA)

## Summary of Advice

16 December 2022



## Top Line Summary

**NHS Wales is seeing increased demand due to a number of pressures, including acute respiratory conditions, changes in health seeking behaviour and industrial action.**

**As of 13 December 2022, wastewater surveillance and lateral flow testing data suggest that COVID-19 levels in Wales are stable after increasing in previous weeks. ONS COVID-19 infection survey positivity has increased slightly but this is more lagged than other indicators.**

**We cannot be certain at this time whether increases in NHS COVID-19 demand are due to the introduction of new variants or due to changes in behaviour over the festive period (for instance more indoor contacts) driving increased transmission in the population. Previous weeks wastewater and LFT data has been elevated and these could be driving a delayed increase in hospital pressures.**

**Influenza activity is at very high intensity levels across surveillance indicators and GPs have been advised to commence the administration of antiviral medications to vulnerable groups in England and Wales.**

**UKHSA reports that the influenza admission rate is now above that of the COVID-19 admission rate.**

**RSV activity continues to be at very high intensity levels in Wales and the rest of the UK.**

**Paediatric services remain under pressure, with added pressure on paediatric assessment units and emergency departments in recent days due to the publicity surrounding the recent invasive Group A streptococcal (iGAS) disease.**

**Numbers of invasive Group A streptococcal (Strep A) infections are high and at unseasonal levels in Wales, but have not yet exceeded previous seasonal highs.**

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## 1. Wales COVID-19 Situation Update

- As of 13 December 2022, wastewater surveillance and lateral flow testing data suggest that COVID-19 levels in Wales are stable after increasing in previous weeks. ONS covid infection survey positivity has increased slightly but this is more lagged than other indicators.
- There are increases in hospital admissions of suspected and confirmed COVID-19 positive patients and hospital occupancy has increased. The proportion of hospital cases being actively treated for COVID-19 has increased slightly but is fluctuating from day to day from 8% to 17%.
- Deaths related to COVID-19 are increasing compared to previous weeks.
- Based on the most recent data, the BQ.1 variant and its sub-lineages are most abundant variant in Wales; however there are a number of other variants and sub lineages being detected.
- UKHSA reports that the influenza admission rate for England is now above the COVID-19 admission rate.
- We cannot be certain at this time whether increases in NHS demand are due to the introduction of new variants or due to changes in behaviour over the festive period (for instance more indoor contacts) driving increased transmission in the population. Previous weeks wastewater and LFT data has been elevated and these could be driving a delayed increase in hospital pressures.

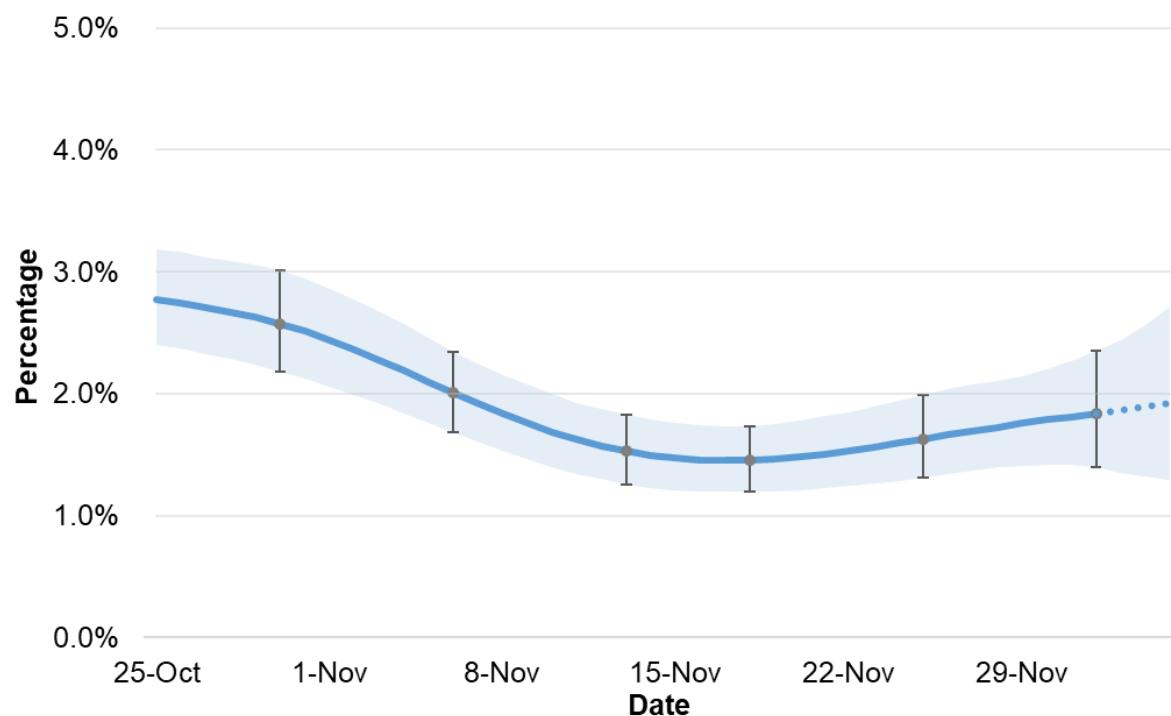
### 1.1. Infections

- According to the [ONS Coronavirus Infection survey](#)<sup>1</sup>, for the week 29 November to 5 December 2022, the percentage of people testing positive in Wales increased in the most recent week. It is estimated that 1.84% of the community population had COVID-19 (95% credible interval: 1.40% to 2.35%). This equates to approximately 1 person in every 55 (95% credible interval: 1 in 70 to 1 in 45), or 55,900 people during this time (95% credible interval: 42,400 to 71,500).
- 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.

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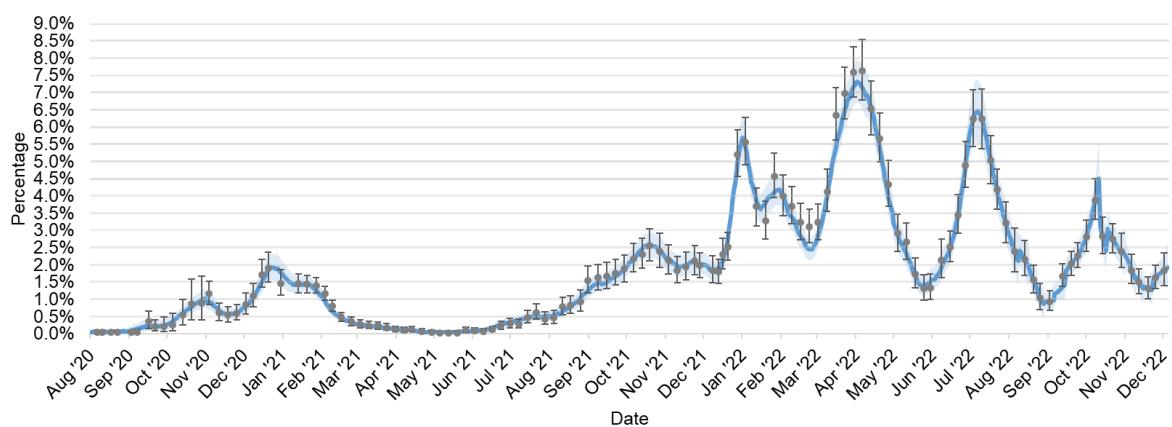
<sup>1</sup> [Coronavirus \(COVID-19\) Infection Survey, UK Statistical bulletins - Office for National Statistics](#)

*Figure 1 - Official estimates of the percentage of the population in Wales testing positive for COVID-19 on nose and throat swabs since 25 October 2022*



Source: Coronavirus (COVID-19) Infection Survey, ONS, 14/12/22

*Figure 2 - Wales, estimated % testing positive for Covid 19 since August 2020*

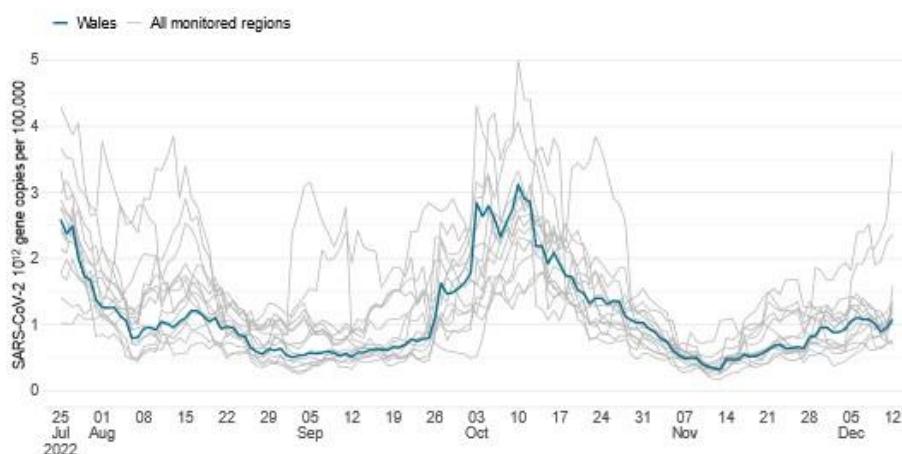


Source: Coronavirus (COVID-19) Infection Survey, ONS, 14/12/22

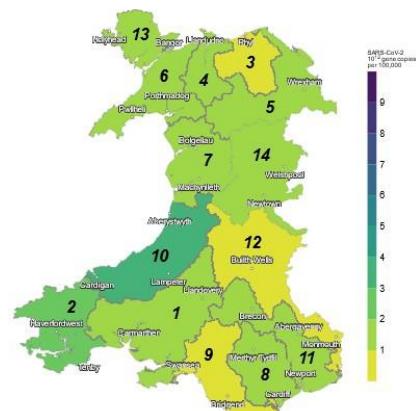
## 1.2. Wastewater surveillance

- [Wastewater surveillance](#)<sup>2</sup> suggests the overall SARS-CoV-2 viral load has remained level across the country. However, the signal increased at Carmarthen Bay and the Gower, Cleddau and Pembrokeshire Coastal Rivers, Conwy, Dee, Llŷn and Eryri, Tawe to Cadoxton, Teifi and North Ceredigion, Ynys Môn and Hafren Dyfrdwy, and decreased at Clwyd, South East Valleys, Usk and Wye.

*Figure 3 - National (blue lines) and Regions (grey lines) wastewater signal for COVID-19 in Wales.*



*Figure 4 - National Heat Map showing Regional Mean Wastewater Signal*



## 1.3. PHW Cases (PCR & LFD Testing)

- As of 14 December 2022, [PHW reports](#)<sup>3</sup> PHW report that COVID-19 infections have decreased compared to the previous week in Wales.
- The all-Wales incidence as estimated using testing data available to PHW suggests that confirmed PCR cases continue to remain stable.
- Adjusted case episode rates (PCR +LFD episodes) have continued to increase from a low base.
- LFT positivity has increased from 26% in the previous week to 30% in week 49.
- The incidence rate remains highest in the 40-59 age groups.

## 1.4. Deaths

- ONS published statistics on 13 December on [provisional weekly deaths](#)<sup>4</sup>, including deaths involving COVID-19, for the week ending 2 December 2022. The

<sup>2</sup> [Wastewater monitoring reports: coronavirus | GOV.WALES](#)

<sup>3</sup> [https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/PHWVirologyDashboard-Reportsandnotes\\_16535581718100/Notesondatinterpretationandreports](https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/PHWVirologyDashboard-Reportsandnotes_16535581718100/Notesondatinterpretationandreports)

<sup>4</sup> [Deaths registered weekly in England and Wales, provisional - Office for National Statistics \(ons.gov.uk\)](#)

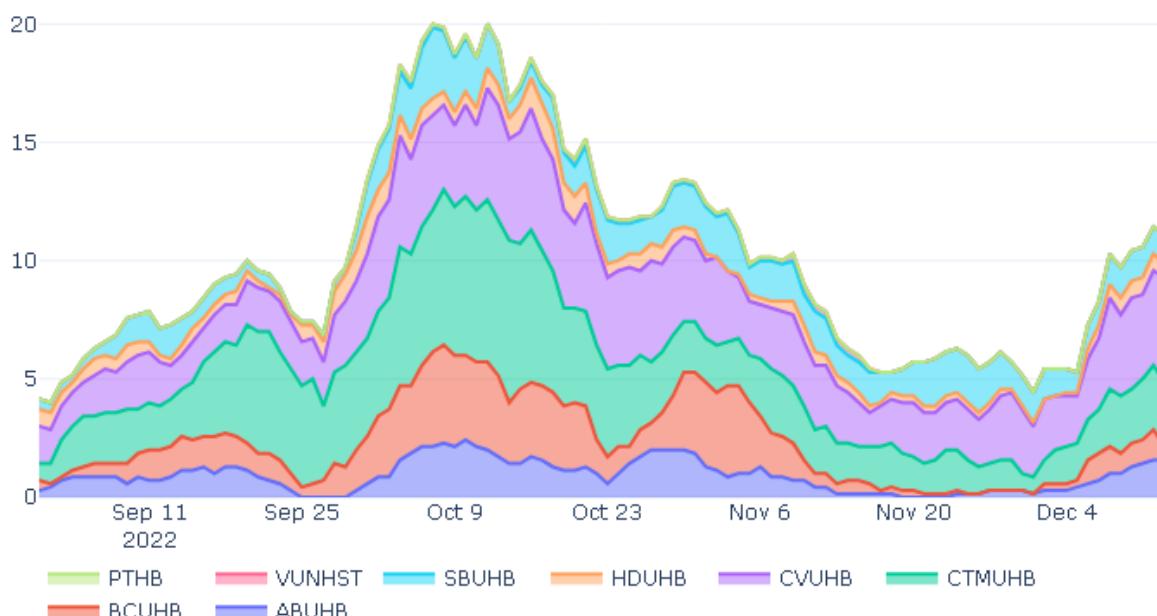
cumulative number of deaths involving COVID-19 in Wales, registered throughout the pandemic up to the latest week, was 11,128.

- 730 deaths from all causes were registered in the latest week. This was 30 more than the previous week and is 59 more than the five-year average for 2016-19 and 2021.
- 17 deaths involving COVID-19 were registered in the latest week. This was 2.3% of all deaths, and two more than the previous week.
- PHW 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.

## 1.5. NHS

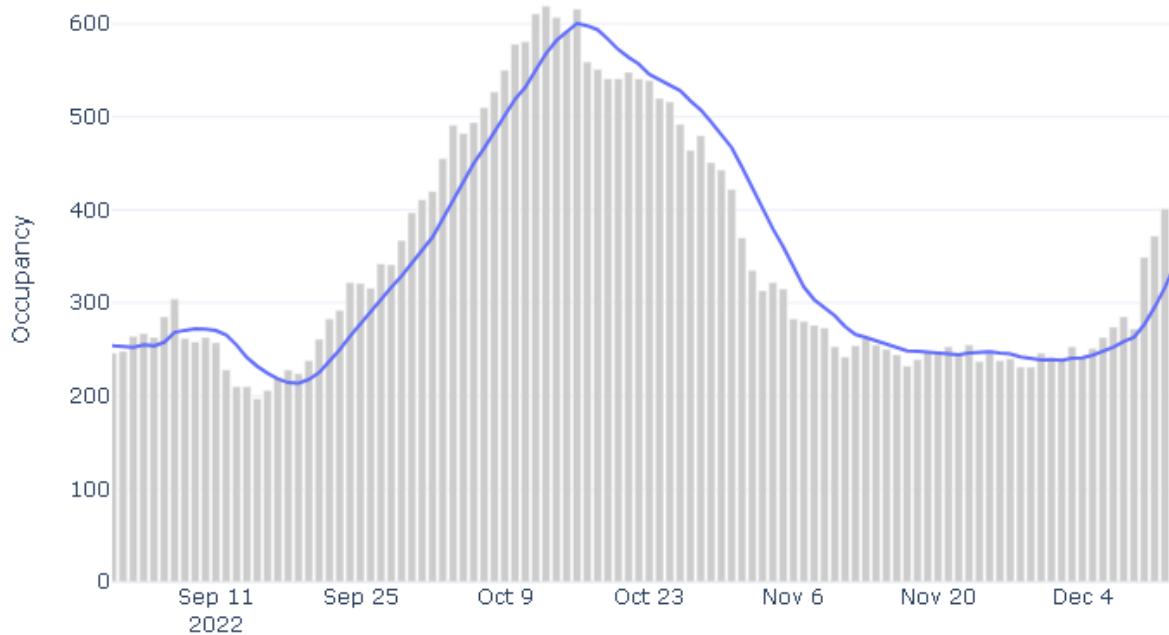
- As of 13 December 2022, hospital admissions of suspected and confirmed COVID-19 positive patients are at approximately 11 admissions per day.
- Admissions decreased to about 5 admissions per day in late November, however numbers have started to increase since the beginning of December.

*Figure 5 - Hospital admissions of suspected and confirmed COVID-19 positive patients*



- As of 13 December 2022, the 7-day average of hospital bed occupancy of confirmed COVID-19 patients was 341 beds. This is an increase of almost 200 beds compared to the last 2 weeks.

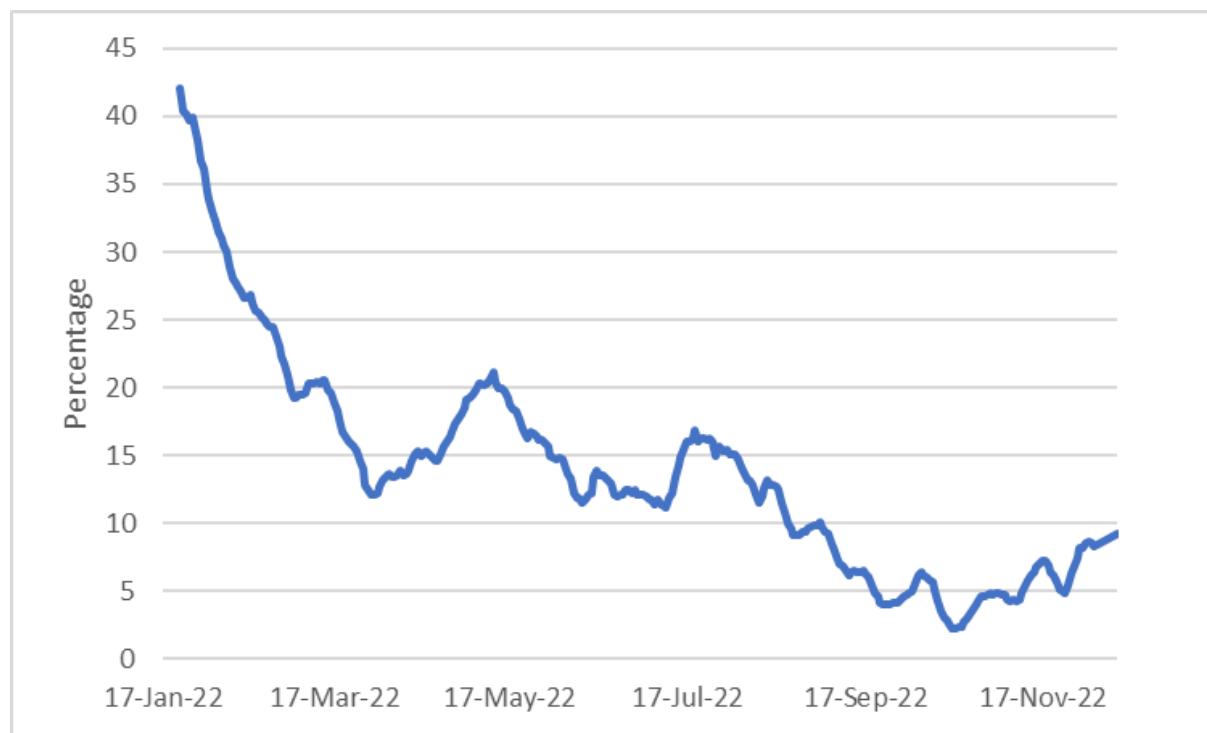
*Figure 6 - Average of hospital bed occupancy of confirmed COVID-19 patients*



- The proportion of patients in hospital<sup>5</sup> 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 fluctuating, with a generally increasing trend since the middle of October. Between the 6 and 13 December, the proportion has fluctuated between 8% and 17%.

<sup>5</sup> [statswales.gov.wales](https://statswales.gov.wales)

*Figure 7 - Percentage of COVID-19 patients in acute hospitals actively treated for COVID-19 in Wales, StatsWales (%), 7 day rolling average*



- As of 12 December 2022, [NHS staff absence due to self isolation<sup>6</sup>](#) has remained consistent since the period ending 28 November 2022, at 0.2%. Absence due to COVID-19 sickness has increased to 0.8% from 0.6%.

## 1.6. Paediatric care

- Paediatric services remain under pressure, with added pressure on paediatric assessment units and emergency departments in recent days due to the publicity surrounding the recent invasive Group A streptococcal (iGAS) disease.
- Hospital admissions remain high due to the prevalence of paediatric respiratory viruses including RSV, COVID-19 and influenza.
- Paediatric critical care services have surged to cope with the increased demand, but this is having an effect on other services including the cancellation of some paediatric surgery.

## 1.7. Vaccines

- The Autumn COVID-19 vaccine booster campaign is under way, as outlined in these tables:

<sup>6</sup> [statswales.gov.wales](http://statswales.gov.wales)

**Cumulative number of COVID-19 Autumn 22/23 vaccine doses given, by week.  
Uptake, based on Wales residents, uses indicative denominator 1,613,329**

Week ending	Number of doses	Uptake
2022-09-04	23,513	1.5%
2022-09-11	91,861	5.7%
2022-09-18	156,472	9.7%
2022-09-25	233,236	14.5%
2022-10-02	328,939	20.4%
2022-10-09	429,039	26.6%
2022-10-16	544,925	33.8%
2022-10-23	645,987	40.0%
2022-10-30	736,412	45.6%
2022-11-06	808,949	50.1%
2022-11-13	882,787	54.7%
2022-11-20	943,201	58.5%
2022-11-27	992,968	61.5%
2022-12-04	1,032,599	64.0%

Source: [Public Health Wales](#)

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

Risk group	Denominator *(n)	Immunised (n) - 22/23 Booster	Uptake(%) - 22/23 Booster
Severely Immunosuppressed	50,642	36,392	71.9
Residents in a care home for older adults*	14,566	12,603	86.5
Staff working in care homes for older adults**	37,690	14,898	39.5
Health care staff**	141,555	77,036	54.4
Social care staff**		22,399	
All adults aged 65 years and older	710,195	559,575	78.8
All adults aged 50_to_64 years	683,976	360,219	52.7
Aged 5 to 49 years in a clinical risk group	219,158	64,204	29.3

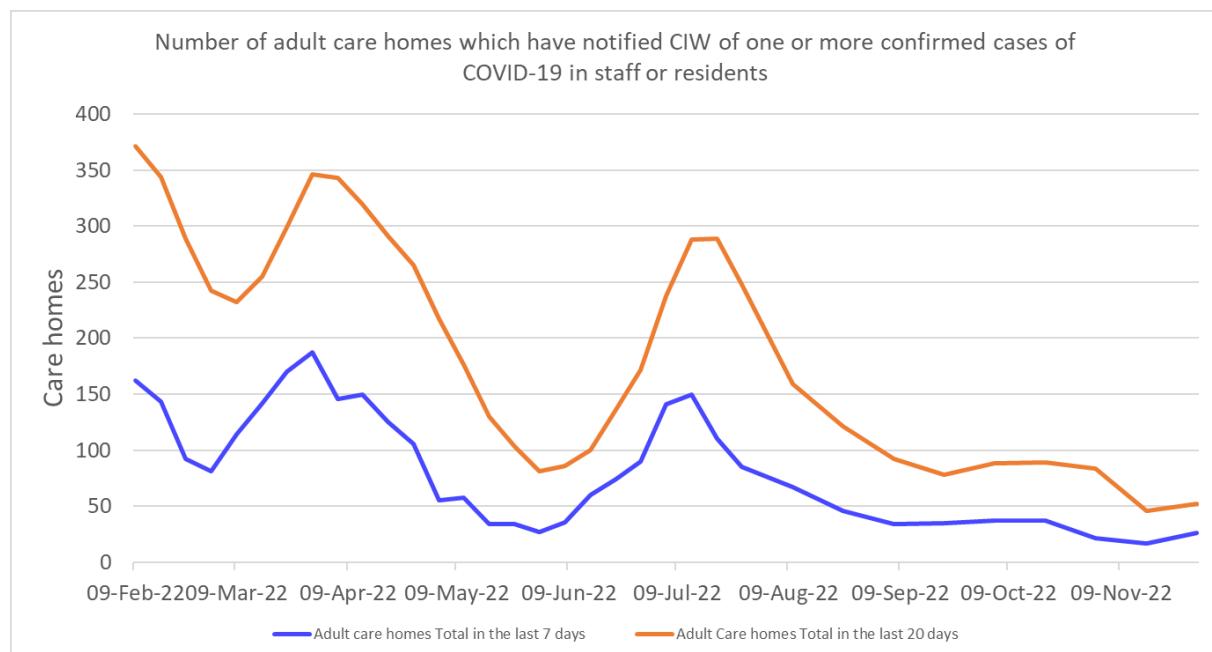
Source: [Public Health Wales](#)

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. From 2 February 2022, all age groups are based on age as at 31 March 2023. 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.

## 1.8. Care homes

- As of 14 December 2022 (with data up to 30 November 2022), the number of adult care homes in Wales that have [notified CIW](#)<sup>7</sup> of one or more confirmed cases of COVID-19 in staff or residents in the last 7 days has increased since the previous fortnight, to 26 cases, from 17 cases. This figure for the last 20 days has increased to 52, from 46 in the period ending 16 November 2022. In Wales there are 1,021 adult care homes in total.

*Figure 8 - Number of adult care homes which have notified CIW of one or more confirmed cases of COVID-19 in staff or residents*



- As of 30 November 2022, the [number of notifications to CIW of deaths of adult care home residents involving COVID-19](#)<sup>8</sup> (both confirmed and suspected) in the last 7 days has increased to 1, compared to 0 in the previous week.
- In total, CIW has been notified of 2,251 care home resident deaths with suspected or confirmed COVID-19 between 1 March 2020 and 30 November 2022. This makes up 12% of all adult care home resident reported deaths (18,446) during this period.

<sup>7</sup> [statswales.gov.wales](http://statswales.gov.wales)

<sup>8</sup> [statswales.gov.wales](http://statswales.gov.wales)

## 1.9. Schools

- As of 14 December, the average attendance for this academic year to date is 90.3%.
- The latest week is 5 to 9 December 2022, the week before is the 28 November to 2 December.
- An average of 85.3% of half-day school sessions were recorded as present for pupils aged 5 to 15 over the latest week, down from 87.4% the week before. Data for the latest week is provisional.
- An average of 10.8% of half-day school sessions were recorded as authorised absence for pupils aged 5 to 15 over the latest week, up from 9.4% the week before.
- An average of 3.8% of half-day school sessions were recorded as unauthorised absence for pupils aged 5 to 15 over the latest week, up from 3.2% the week before.
- There has been little difference in the attendance rate by gender for the academic year to date, 90.3% for boys and 90.2% for girls.
- The attendance rate by year group for the academic year to date has been highest for pupils in Years 3, 4, and 5 (92.2%) and lowest for pupils in Year 11 (86.3%).
- The attendance rate for the academic year to date has been higher for pupils not eligible for free school meals (92.0%) than pupils who are eligible for free school meals (85.3%).
- The most common reason for absence for the academic year to date has been illness, with 53.4% of sessions missed being for this reason. [The full report is available here](#)<sup>9</sup>

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<sup>9</sup> [Attendance of pupils in maintained schools | GOV.WALES](#)

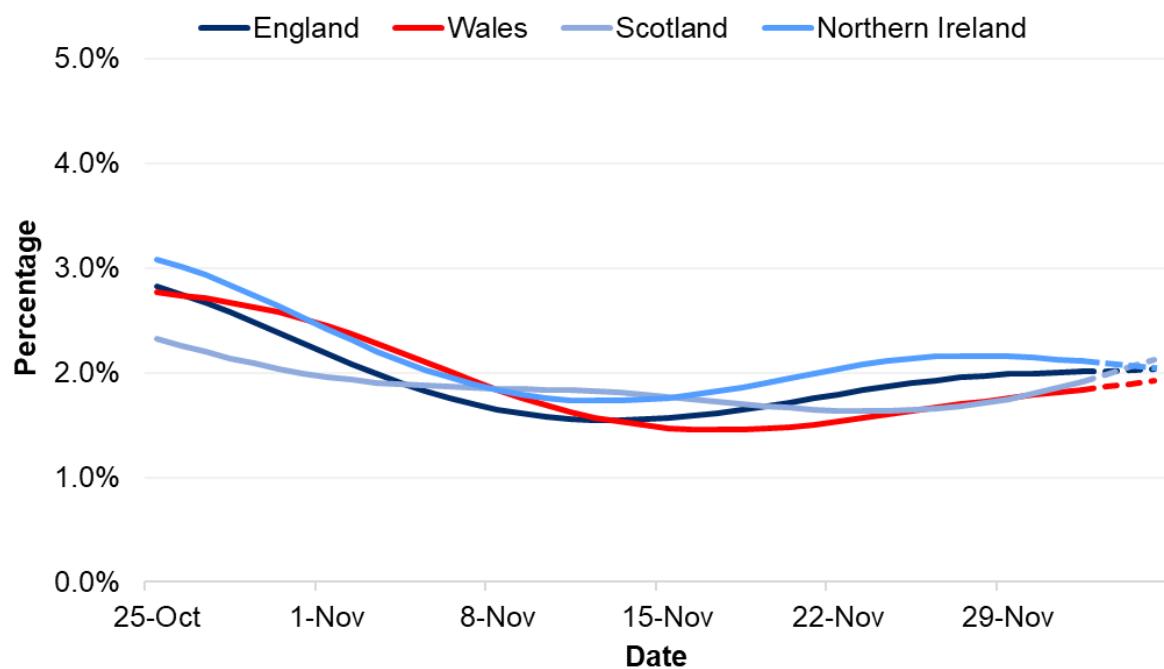
### 1.10. UK Infection positivity – ONS Coronavirus Infection Survey, 29 November to 5 December 2022

- The [ONS Coronavirus Infection Survey](#)<sup>10</sup> reports that at the midpoint of the most recent week (29 November to 5 December 2022), the positivity rate increased in Wales. The trend in the percentage of people testing positive in England and Scotland increased in the most recent week. The percentage of people testing positive in Northern Ireland was uncertain in the most recent week.
- The estimated percentages of the community population with COVID-19 ranged from 1.84% in Wales to 2.11% in Northern Ireland.
- In Wales, the estimated number of people testing positive for COVID-19 was 55,900 people (95% credible interval: 42,400 to 71,500), equating to 1.84% of the population, or around 1 in 55 people.
- In England, the estimated number of people testing positive for COVID-19 was 1,095,100 people (95% credible interval: 1,022,000 to 1,173,500), equating to 2.01% of the population, or around 1 in 50 people.
- In Scotland, the estimated number of people testing positive for COVID-19 was 100,700 people (95% credible interval: 81,300 to 121,800), equating to 1.91% of the population, or around 1 in 50 people.
- In Northern Ireland, the estimated number of people testing positive for COVID-19 was 38,700 people (95% credible interval: 27,500 to 51,600), equating to 2.11% of the population, or around 1 in 45 people.

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<sup>10</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionssurveypilot/previousReleases>

*Figure 9 - Positivity rates (%) across UK countries since 25 October 2022*

Source: Coronavirus (COVID-19) Infection Survey, ONS, 14/12/22

### **1.11. Long Covid**

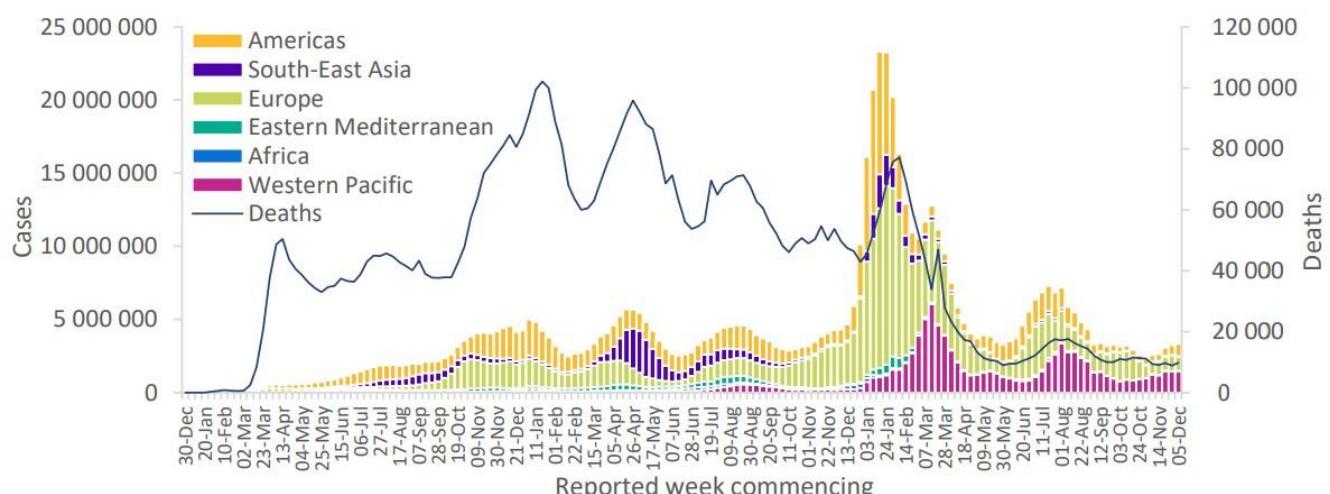
- An estimated 2.2 million people living in private households in the UK (3.4% of the population) were experiencing self-reported long COVID (symptoms continuing for more than four weeks after the first confirmed or suspected coronavirus (COVID-19) infection that were not explained by something else) as of 6 November 2022.
- Fatigue continued to be the most common symptom reported as part of individuals' experience of long COVID (70% of those with self-reported long COVID), followed by difficulty concentrating (48%), shortness of breath (46%) and muscle ache (45%).
- In the same period in Wales, 114,000 people self-reported long COVID (3.7% of the Welsh population). This is an increase of 6,000 people since the four week period ending 1 October 2022. The full report is [available here](#)<sup>11</sup>.

<sup>11</sup> [Prevalence of ongoing symptoms following coronavirus \(COVID-19\) infection in the UK - Office for National Statistics \(ons.gov.uk\)](#)

### 1.12. International overview – World Health Organisation update

- The WHO reports <sup>12</sup> that globally, the number of new weekly cases remained stable (+2%) during the week of 5 to 11 December 2022 as compared to the previous week, with just under 3.3 million new cases reported. The number of new weekly deaths increased by over 10% as compared to the previous week, with over 9700 new fatalities reported. As of 11 December 2022, over 645 million confirmed cases and over 6.6 million deaths have been reported globally.

*Figure 10 - COVID-19 cases reported weekly by WHO Region, and global deaths, as of 11 December 2022*



Source: [WHO Weekly Epidemiological Update on COVID-19](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports)

- The highest numbers of new weekly cases were reported from Japan (849 371 new cases; +13%), the United States of America (448 634 new cases; +50%), the Republic of Korea (420 392 new cases; +13%), France (366 699 new cases; -5%), and Brazil (194 170 new cases; +3%). The highest numbers of new weekly deaths were reported from the United States of America (2934 new deaths; +62%), Japan (1358 new deaths; +28%), Brazil (603 new deaths; -5%), France (478 new deaths; +4%), and Italy (475 new deaths; -29%).

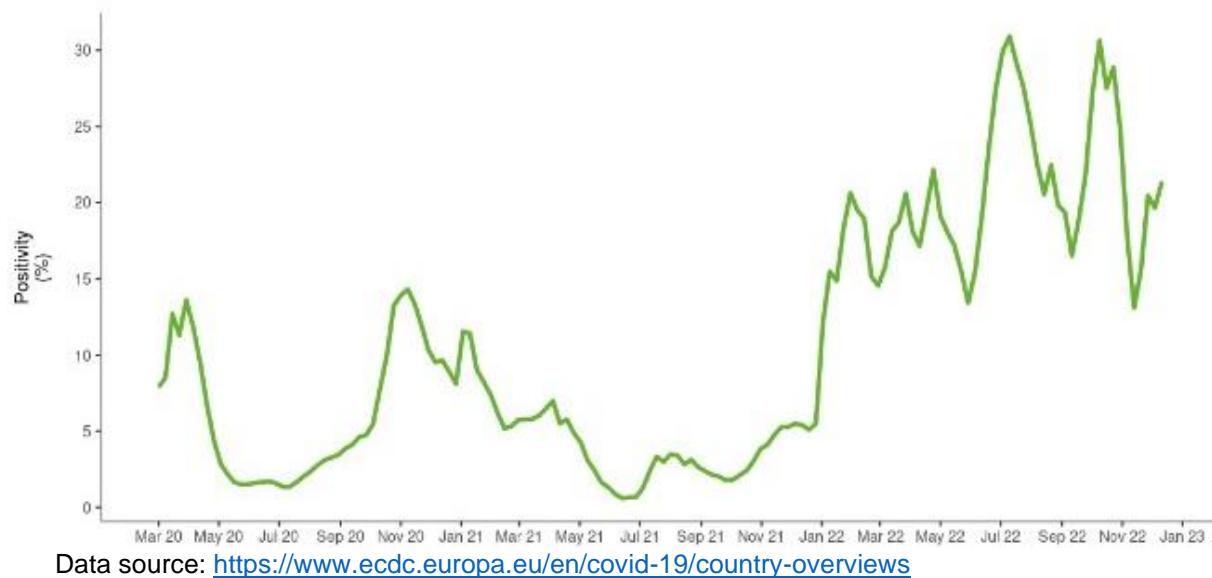
### 1.13. European Centre for Disease Prevention and Control (ECDC) update

- As of 15 December 2022, [ECDC reports](https://www.ecdc.europa.eu/en/covid-19/situation-reports) <sup>13</sup> that COVID-19 case rates increased by 6%, both in those aged 65 years and older and overall (all ages) compared to the previous week. At the EU/EEA-level, hospital occupancy has increased since the previous week, while hospital and ICU admissions and ICU occupancy indicators remain stable. Overall, the EU/EEA death rate also continued to decrease and is at low levels compared to the pandemic maximum.

<sup>12</sup> <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

<sup>13</sup> [COVID-19 situation updates \(europa.eu\)](https://ecdc.europa.eu/en/covid-19/situation-reports)

*Figure 11 EU/EEA weekly test positivity, 15 December 2022*



- The notification rates increased for all ages or for those aged 65 years and above in 23 countries, and the two indicators concurrently increased in 18 countries. In six countries, country-level rates among those aged 65 years and older surpass 30% of the respective country pandemic maximum.
- Pooled EU/EEA hospital and ICU admissions have remained stable compared to the previous week. Nine countries reported an increase in at least one admission indicator since the previous week.
- Hospital occupancy at EU/EEA level has increased by 13%, whilst ICU occupancy has remained stable, with eight countries reporting increases in at least one occupancy indicator compared to the previous week.
- Decreasing trend in the pooled EU/EEA COVID-19 death rate is continuing, with five countries in the EU/EEA reporting increases over the past week.
- Forecasts of cases and deaths from the European COVID-19 Forecast Hub provide predictions for weeks 50 and 51. Compared with the previous week, increasing trends in cases and stable trends in deaths are forecast for the EU/EEA overall by the end of week 51.

## 1.14. Variant of Concern update

[PHW report](#)<sup>14</sup> the weekly summary of the total number of COVID-19 variants of concern (VOC) in Wales. (Data correct as at: 13 Dec 2022).

WHO	Variant	Lineage	Alternate names	30 day cases*	Total cases	Change
Omicron	All cases			1,030	137,928	+340
	VOC-22JAN-01	BA.2	BA.2	5	29,226	+4
	VOC-22APR-03	BA.4	-	3	1,189	
	VOC-22APR-04	BA.5	-	269	6,975	+47
	V-22JUL-01	BA.2.75	-	95	287	+21
	V-22SEP-01	BA.4.6	-	8	182	+1
	V-22OCT-01	BQ.1		300	668	+88
	V-22OCT-02	XBB	-	18	30	+9
	Not elsewhere classified	B.1.1.529	B1.1.1529, BA.3, genotyped cases	332	42,207	+170

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

- The [WHO reports](#)<sup>15</sup> that, BA.5 descendent lineages remain predominant, with a prevalence of 73.7% as of epidemiological week 46 (14 to 20 November 2022), followed by BA.2 descendent lineages, with a prevalence of 10.4%.
- BA.4 descendent lineages have declined in prevalence, accounting for 2.0% of sequences within the same reporting period. XBB and descendent lineages account for 3.9%, a trend that is rising. Unassigned sequences (presumed to be Omicron subvariants) account for 9.9% of sequences submitted to GISAID in week 46.
- The evolution of Omicron descendent variants continues to show genetic diversification and has resulted in more than 540 descendent lineages, and more than 61 recombinants.
- Only some of these descendent lineages continue to increase in prevalence, while others remain at only a few sequence detections. Among the more relevant variant lineages, specific substitutions are accumulating, a genetic pattern referred to as convergent evolution.

<sup>14</sup> [COVID-19 genomic surveillance | Tableau Public](#)

<sup>15</sup> [Coronavirus Disease \(COVID-19\) Situation Reports \(who.int\)](#)

- Five Omicron subvariants are under monitoring due to relevant genetic variation, rise in prevalence, and/or an observed and continued impact on case incidence in more than one country. These five pooled Omicron subvariants under monitoring have replaced previous BA.5 descendent lineages and account for 63.5% of prevalence at a global level.
- [ECDC reports](#)<sup>16</sup> that among the nine countries with an adequate volume of sequencing or genotyping for weeks 47–48 (21 November to 4 December 2022), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 47.2% (18.9–93.7% from 9 countries) for BA.5, 40.5% (25.3–69.4% from 7 countries) for BQ.1, 8.0% (3.6–20.3% from 9 countries) for BA.2.75, 5.5% (2.7–7.8% from 4 countries) for XBB, 0.9% (0.5–6.5%, 606 detections from 9 countries) for BA.2 and 0.9% (0.5–2.6%, 336 detections from 9 countries) for BA.4.

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<sup>16</sup> [Country overview report: week 48 2022 \(europa.eu\)](#)

## 2. COVID-19 Medium-Term Projections

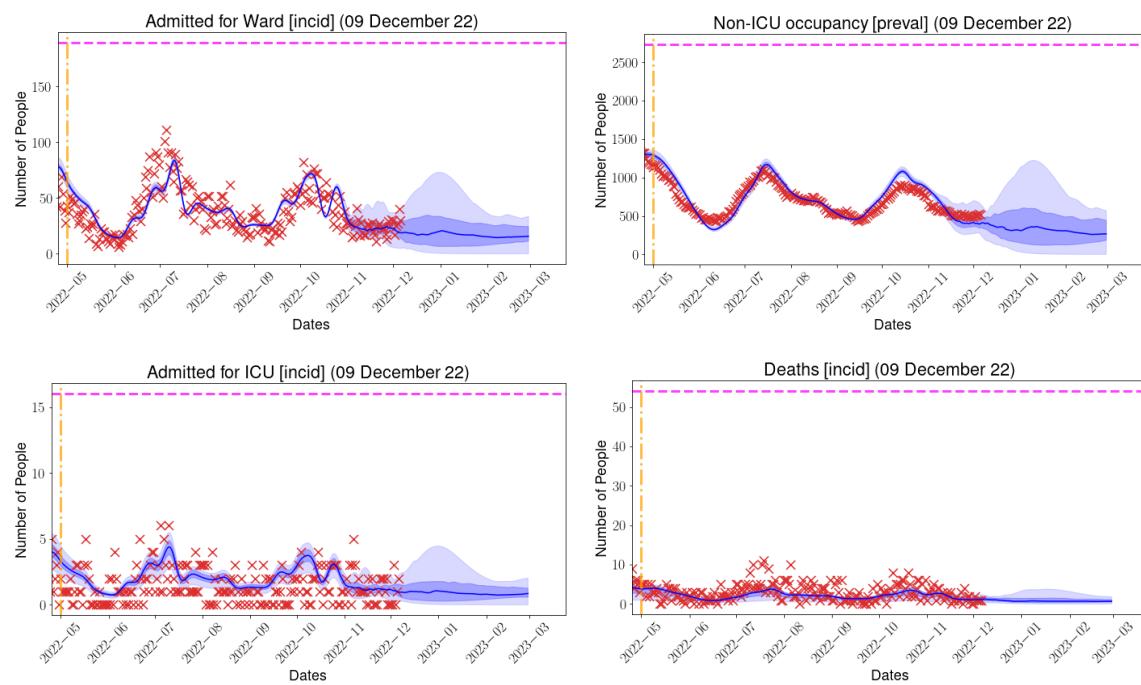
- The most recent medium term projections do not reflect the increase on hospital activity that has been seen this week. This should be reflected in the next set of medium term projections.
- The current medium term projections have a plateau in most indicators of the next few weeks but the next iteration are likely to look different.

- 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 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 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.

### 2.1. Swansea University MTPs, data as at 9 December

- 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.
- This week the median projections are steady; the median is projected to be reasonably flat over the coming weeks. **Since the data cut off, admissions and occupancy have been increasing and it is likely that this trend will be reflected in the next few iterations of medium term projections.**
- 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.

*Figure 12 Swansea University Medium Term Projections*



## 2.2. Winter Modelling compared to actuals

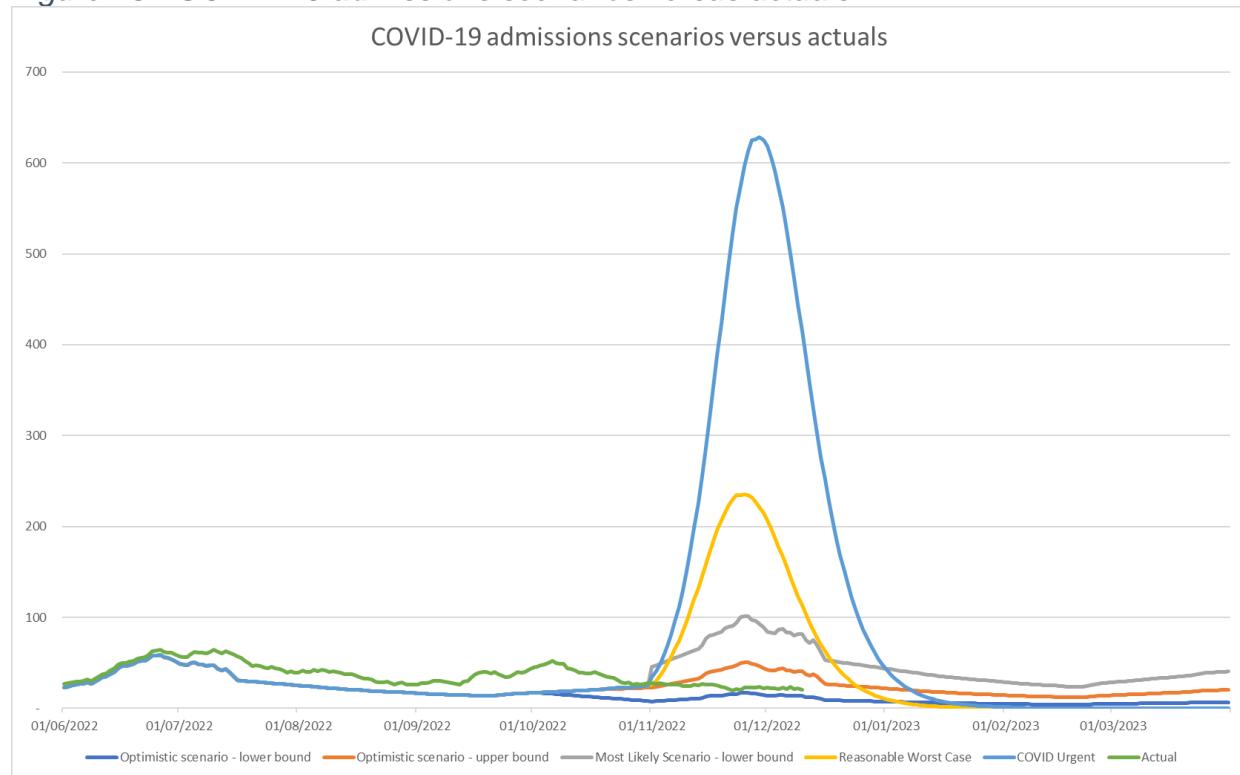
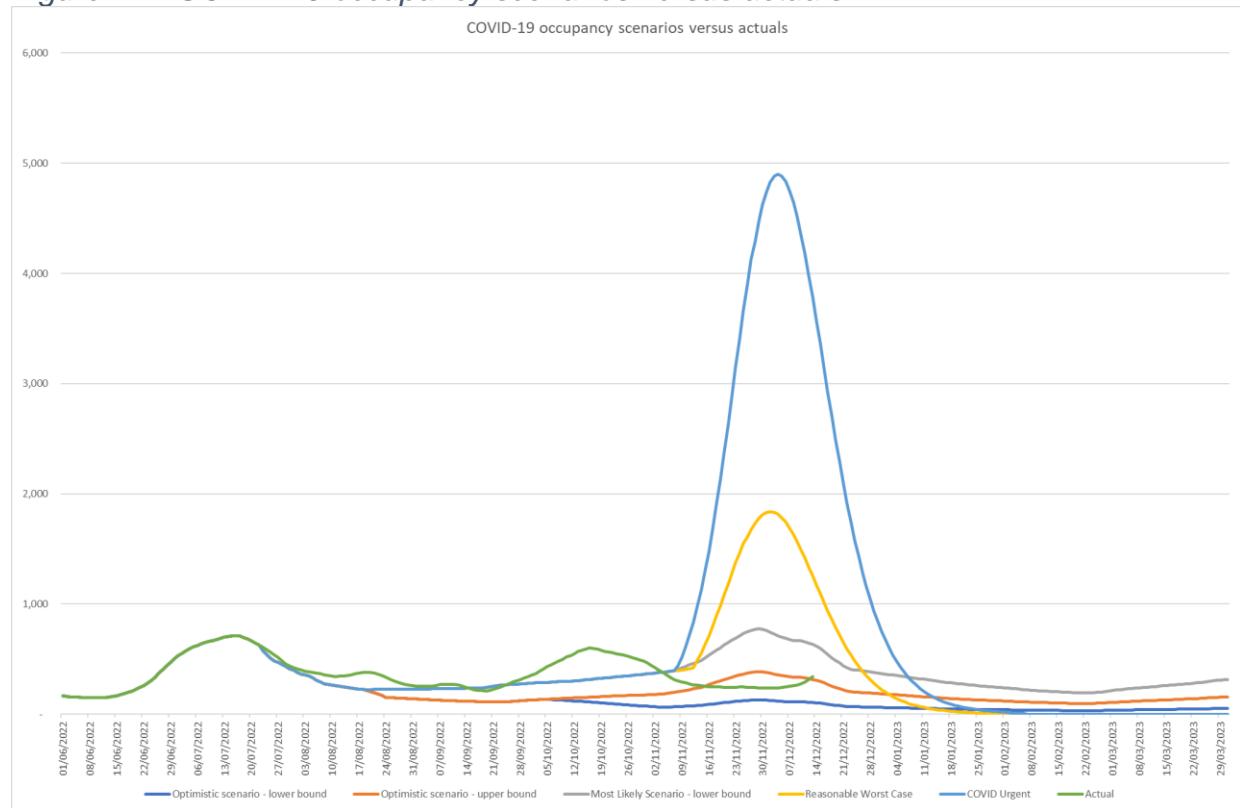
In order to aid with winter planning of COVID-19 admissions and occupancy over the 2022/23 winter, a [paper was published](#)<sup>17</sup> outlining several scenarios. It's important to note that these scenarios were not an indication of what would happen, but rather what could happen. Since the publication of the winter modelling continuous monitoring has taken place to track actual data against the scenarios. The admissions data is provided by Public Health Wales and occupancy data is sourced from [Digital Health and Care Wales](#)<sup>18</sup>.

Data up to 10 December 2022 showed a trend in admissions tracking between the optimistic upper and lower bound scenarios.

Data up to 13 December 2022 showed current occupancy at a similar level to the optimistic upper bound scenario, however the trend is different to all the scenarios. While the scenarios project that we are past the peak of occupancy, actual occupancy is beginning to rise again.

<sup>17</sup> [Science Evidence Advice: Winter modelling 2022 to 2023 | GOV.WALES](#)

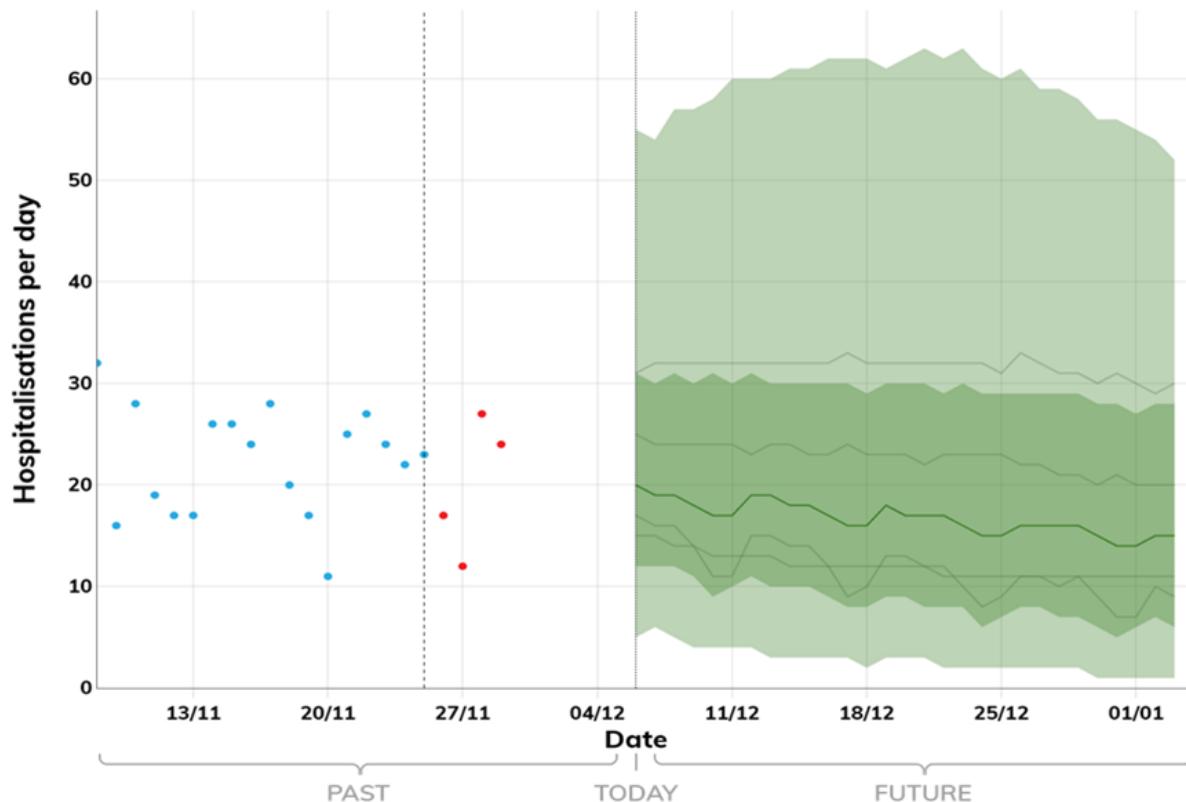
<sup>18</sup> [statswales.gov.wales](#)

*Figure 13 - COVID-19 admissions scenarios versus actuals**Figure 14 - COVID-19 occupancy scenarios versus actuals*

### 2.3. UKHSA EMRG Consensus MTPs, data as at 1 December

- Swansea University (SU) projections are used by the UKHSA Epidemiological Modelling Review Group (EMRG).
- The combined projection for admissions suggests an overall slight decline with some small fluctuations in admissions over the coming weeks. Since the data cut off for this set of projections, we have seen an increase in admissions and occupancy – it is likely that this trend will be reflected in the next set of MTPs.

Figure 15 - UKHSA EMRG Consensus MTPs, data as at 1 December



### 3. Influenza Situation Update

- As of 14 December 2022, influenza is rapidly increasing and circulating in Wales.
- UKHSA reports that influenza admission rate is now above that of the COVID-19 admission rate.
- The WHO reports that globally, influenza activity has increased.
- In Europe, overall influenza activity continues on an increasing trend above epidemic threshold.

#### 3.1. Weekly Influenza and Acute Respiratory Infection Report – PHW

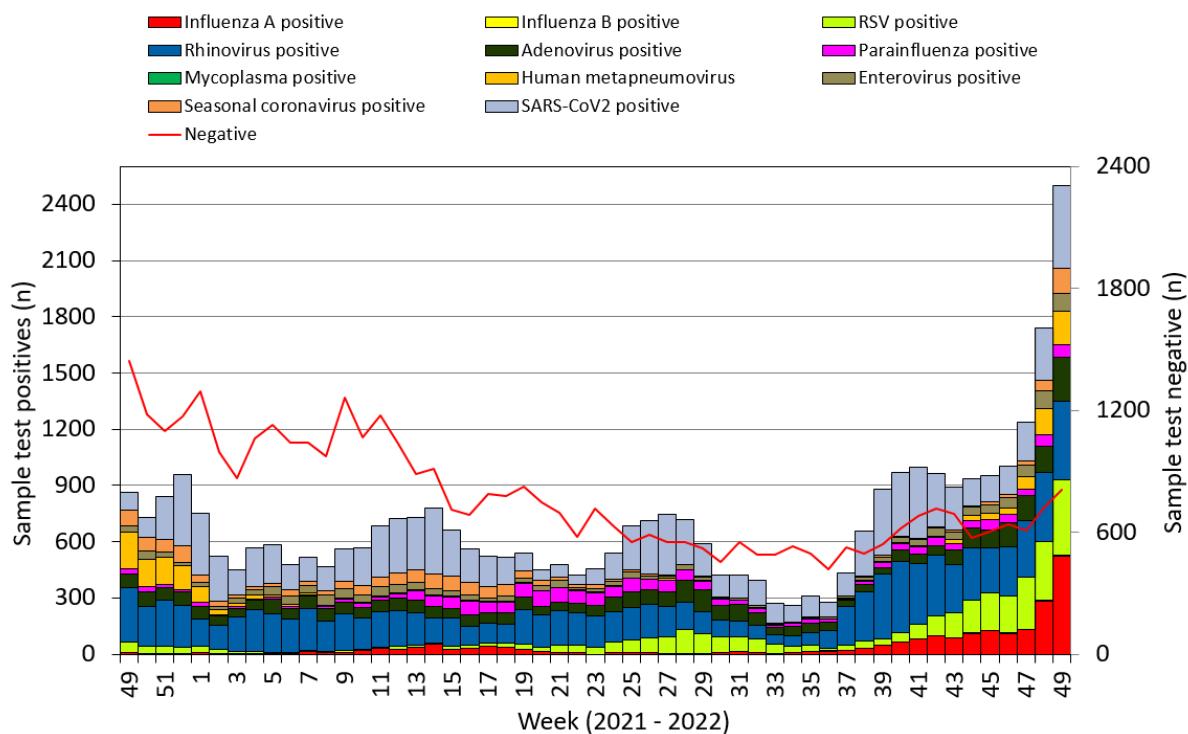
- As of 14 December 2022, [PHW report](#)<sup>19</sup> that influenza is circulation in Wales. During week 49 (ending 11 December 2022), there were 765 cases of influenza (a large increase from the previous week).
- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 49, was 15.5 consultations per 100,000 practice population. This is a large increase compared to the previous week (7.9 consultations per 100,000). The rate has exceeded the baseline threshold for seasonal influenza activity (11.0 per 100,000 practice population).
- The percentage of calls to NHS Direct Wales which were ‘influenza-related’ (cold/flu, cough, fever, headache and sore throat) during Week 49 increased to 40.1%.

*Figure 16 Uptake of influenza immunisations in GP Practice patients in Wales, 14 December 2022*

People aged 65y and older	72.5%
People younger than 65y in a clinical risk group	38.5%
Children aged two & three years	35.4%
Children aged between four & ten years	63.0%
Children aged between 11 & 15 years	54.8%
Total NHS staff	33.7%
NHS staff with direct patient contact	33.9%

<sup>19</sup> [Weekly Influenza and Acute Respiratory Infection Report - Public Health Wales \(nhs.wales\)](#)

*Figure 17 - Specimens submitted for virological testing for hospital patients and non-sentinel GPs*



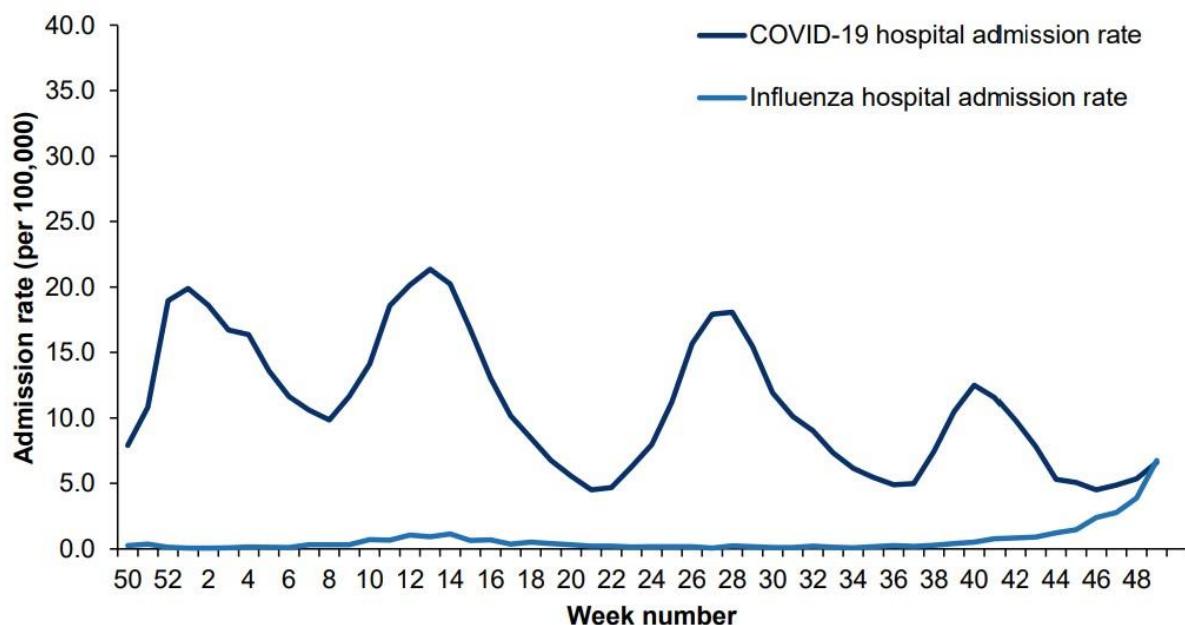
Data Source: [PHW Weekly Influenza](#) & Acute Respiratory Infection Surveillance

### 3.2. UKHSA Weekly national influenza surveillance report

- As of 15 December 2022, [UKHSA reports](#)<sup>20</sup> that influenza positivity increased to 20.2% in week 49; with highest positivity seen in the 5 to 14 years age group at 32.9%.
- Through primary care surveillance, the influenza-like-illness consultations indicator increased and is now above the baseline threshold for the first time this season. The lower respiratory tract infection and COVID-19 indicators also increased.
- The overall weekly hospital admission rate for influenza increased to 6.76 per 100,000 compared to 3.89 per 100,000 in the previous week.
- The influenza-positive admission rate is now above that of the COVID-19-positive admission rate.**
- A lot of flu-related admissions are for pneumonia as a complication of flu so the true number of flu-related admissions will be higher than this.

<sup>20</sup> <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2022-to-2023-season>

*Figure 18 Weekly overall hospital admission rates of new COVID-19 and influenza positive cases per 100k population, England*

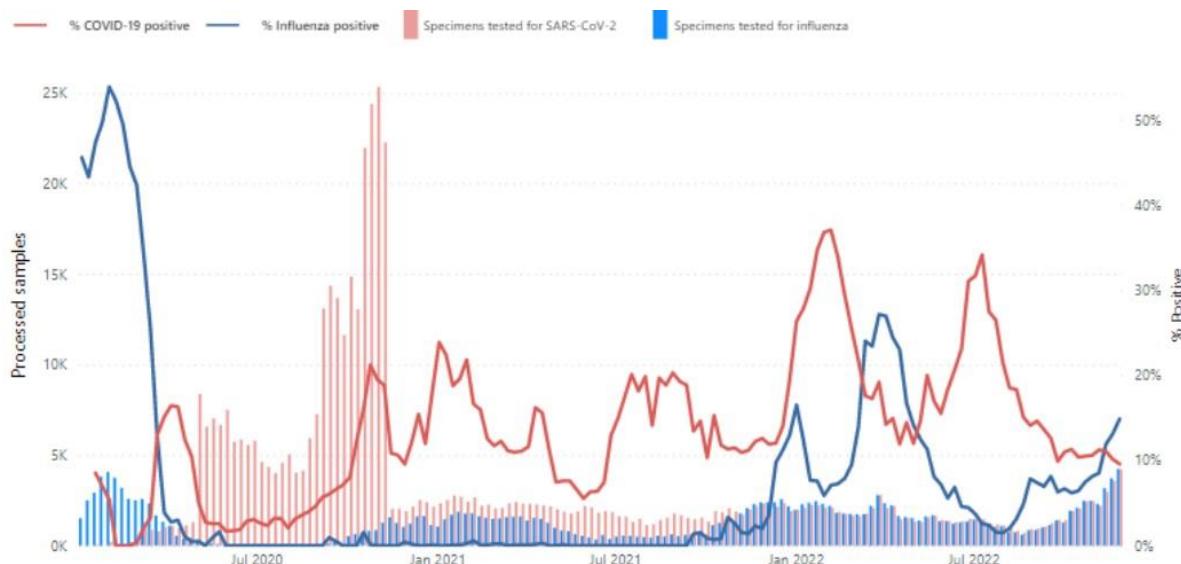


- The trend in vaccine uptake compared to the previous 2021 to 2022 season is comparable for 65 year olds and over, for those under 65 years in clinical risk groups, and for pregnant women, but lower in and 2 and 3 year olds.

### 3.3. WHO Weekly Influenza Surveillance Report

- The [WHO reports](#)<sup>21</sup> that globally, influenza activity increased and where subtyped, influenza A(H3N2) viruses predominated. In Europe, overall influenza activity continued to increase with influenza positivity from sentinel sites remaining above the epidemic threshold at the regional level.
- Influenza A(H3N2) was the predominant virus detected.
- In Europe, overall influenza activity continued to increase with influenza positivity from sentinel sites remaining above the epidemic threshold at the regional level. Influenza A viruses predominated among the reported detections in general, with A(H3N2) viruses accounting for the majority of subtyped influenza A viruses from sentinel sites and influenza A(H1N1)pdm09 viruses predominant among non-sentinel samples.
- The charts below show Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO European Region.

*Figure 19 - Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO European Region*



Data source: FluNet [www.who.int/toolkits/flunet](http://www.who.int/toolkits/flunet) 09/12/2022

<sup>21</sup> [Global Influenza Programme \(who.int\)](http://Global Influenza Programme (who.int))

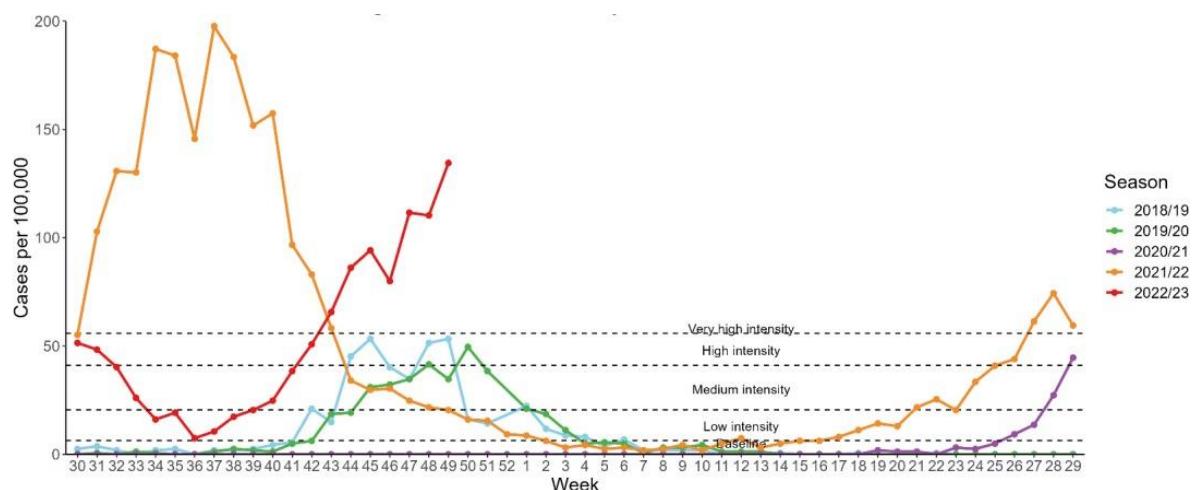
#### 4. Respiratory Syncytial Virus (RSV) Situation Update

- RSV continued to be at very high intensity levels in Wales with very high activity compared to last week.
- Information from Europe indicates that RSV levels are also very high in these regions.
- Hospital admissions remain high due to the prevalence of paediatric respiratory viruses including RSV, COVID-19 and influenza

##### 4.1. Weekly Influenza and Acute Respiratory Infection Report – PHW

- As of 14 December 2022, PHW report that RSV confirmed cases remain at very high intensity levels.
- RSV incidence in children under 5 years of age is currently at very high levels of activity (compared to the 10 seasons leading up to 2020).
- Confirmed RSV case incidence in children aged under 5 has increased compared to the previous week and remains at very high intensity levels.
- The 7-day rolling sum of cases hospitalised within 28 days of an influenza positive test result in the community (or up to two days post-admission) increased to 145 during week 49, from 66 cases in week 48.

*Figure 20 - RSV Incidence rate in those aged under 5 in Wales, by week*



\*RSV seasons are monitored from W30 to W29, the most recent data is presented in red

##### 4.2. Centres for Disease Control and Prevention (CDC) National Respiratory and Enteric Virus Surveillance System (NREVSS)

- As of 14 December 2022, [NREVSS reports](#)<sup>22</sup> the weekly national average percent of diagnostic tests positive for RSV among all the diagnostics performed

<sup>22</sup> [RSV National Trends - NREVSS | CDC](#)

to detect RSV, as reported by participating laboratories for the United States (US).

- The latest data suggest that the rates of RSV positive tests for the US is decreasing.

## 5. Streptococcal Infection Update

- PHW, UKHSA and a number of European countries have reported increases in the number of cases of invasive Group A streptococcal (iGAS) disease among children under 10 years of age.
- WHO suggests that the disease is easily treatable with antibiotics and assess the risk for the general population posed by iGAS infection as low.
- Numbers of invasive Group A streptococcal (Strep A) infections are high and at unseasonal levels in Wales, but have not yet exceeded previous seasonal highs. Concerns around iGAS infection combined with high rates of winter viruses has put a lot of pressure on Welsh NHS services, particularly 111 and emergency departments.
- iGAS is a rare complication of strep A infection. PHW data suggests that there is an increase in Strep A positivity in throat swabs. Strep A infection also causes scarlet fever which has seen a fourfold increase in notifications to PHW.
- We do not know what proportion of the increases in positive cases of Strep A are due to increases in public concern due to media attention, and how much of it is due to genuine increases in prevalence, but it is likely to be a combination of both, as testing and positivity rates have both increased.

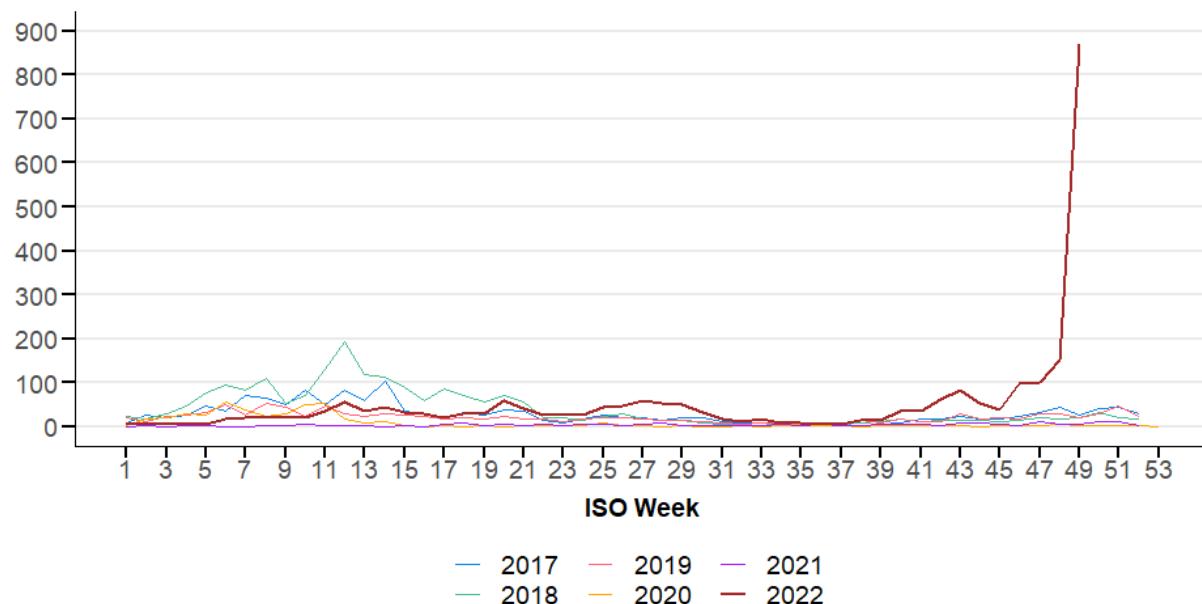
### 5.1. NHS 111 and emergency departments

- Concern around strep A infection combined with high rates of other winter viruses has put a lot of pressure on NHS services, particularly 111 and emergency departments.
- The proportion of dropped/unanswered calls in 111 has been higher than usual at 30-50% when it is usually around 5-25% reflecting increased call volumes due to concerns around strep A and other issues. The proportion of calls from 8/12/22 to 14/12/22 relating to children aged 0-10 has been around 36% whereas on average in Sept-Nov 2022 it has been 30%.

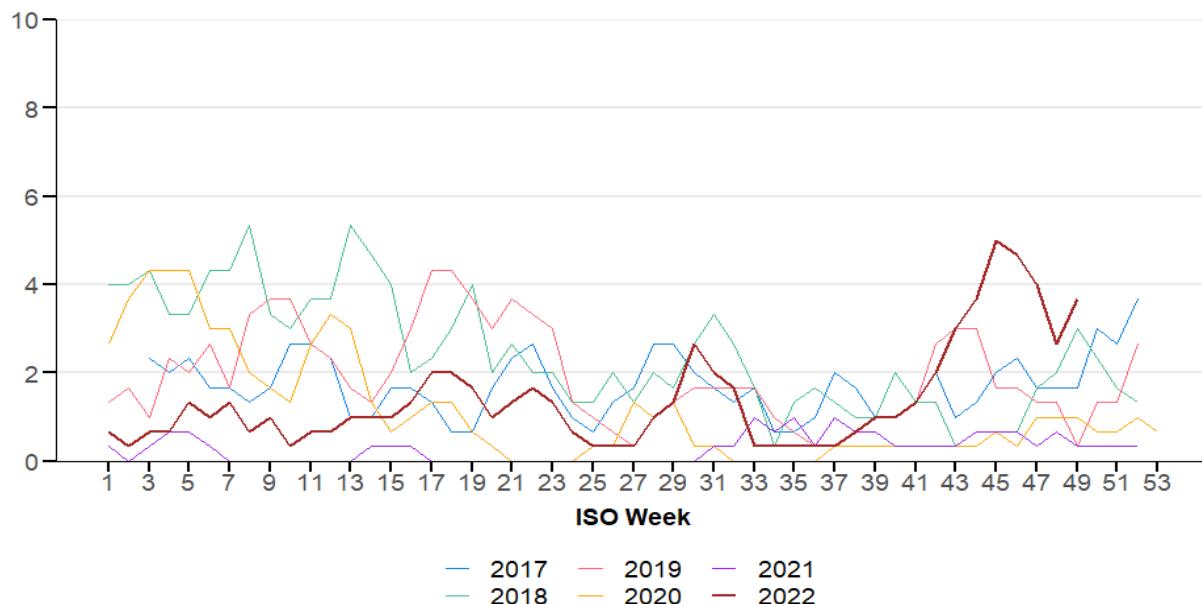
## 5.2. Incidence Data for Strep A and Scarlet Fever

- As of 11 December 2022, PHW report a 4-fold increase in scarlet fever notifications. This is notably higher than the 2018 peak.

*Figure 21 PHW Scarlet Fever Notifications per 100k, 11 December 2022*



*Figure 22 PHW Lab Confirmed Invasive group A streptococcal infections, 11 December 2022*



- The sore throat test and treat service (STTT) has recently been restarted in several pharmacies, and although we only have a few days data, around 13-16% of people tested positive for strep A (including adults and children), and were therefore prescribed antibiotics.
- Continued monitoring of these data may tell us about whether strep A prevalence is increasing or decreasing, however it will also depend on health-seeking

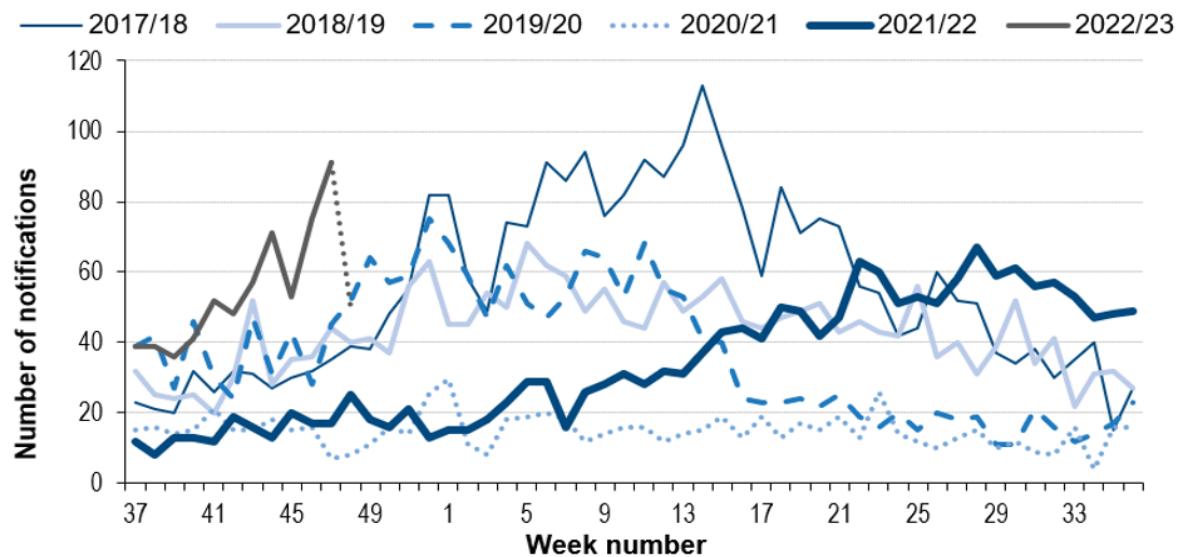
behaviours and will only tell us about prevalence where STTT is operational in pharmacies.

- The positivity rate for group A strep from throat swabs submitted to PHW is currently around 6.2%, and there has been a large increase in the number of throat swabs since November 2022. Currently, antibiotic resistance rates for these strep A positives are lower than previous for macrolide antibiotics (e.g. azithromycin) and lincosamides antibiotics (clindamycin).
- PHW data looking at several years for scarlet fever incidence suggest higher incidence in deprived areas. PHW iGAS data for under 15 year olds suggests there is not a clear relationship of iGAS with deprivation this year, however numbers of cases are very low for Wales.

### 5.3. UKHSA Update

- As of [8 December 2022](#), UKHSA reports that laboratory notifications of iGAS so far this season (weeks 37 to 48, 2022 to 2023) are higher than expected. As of [8 December 2022](#), UKHSA reports that laboratory notifications of iGAS so far this season (weeks 37 to 48, 2022 to 2023) are higher than expected. As of 8 December 2022, [UKHSA reports](#)<sup>23</sup> that laboratory notifications of iGAS so far this season (weeks 37 to 48, 2022 to 2023) are higher than expected. So far this season there have been 652 notifications of iGAS disease reported through laboratory surveillance in England, with a weekly high of 91 notifications in week 47. Laboratory notifications of iGAS are higher than recorded over the last 5 seasons for the same weeks (average 311, range 175 to 454 notifications).

*Figure 23 Weekly laboratory iGAS notifications, England, by season, 2017 onwards*



<sup>23</sup> <https://www.gov.uk/government/publications/group-a-streptococcal-infections-activity-during-the-2022-to-2023-season/group-a-streptococcal-infections-first-update-on-seasonal-activity-in-england-2022-to-2023>

#### 5.4. WHO and ECDC Risk Assessment

- As of 12 December 2022, [WHO reports](#)<sup>24</sup> that a number of European countries have indicated an increase in 2022, in the number of cases of invasive Group A streptococcal (iGAS) disease among children under 10 years of age.
- Several deaths associated with iGAS disease in children under 10 have also been reported, including from France, Ireland, and the United Kingdom. In France and the United Kingdom, the number of iGAS cases observed in children has been several-fold higher than pre-pandemic levels for the equivalent period of time.
- WHO suggests that given that the current increase in cases of iGAS disease is, overall, relatively low, that the reported cases are not caused by a new strain, and that the disease is easily treatable with antibiotics, WHO/Europe and ECDC currently assess the risk for the general population posed by iGAS infection as low. This will be reviewed as investigations continue.

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<sup>24</sup> [Increase in invasive Group A streptococcal infections among children in Europe, including fatalities \(who.int\)](#)