

Science Evidence Advice (SEA)

Summary of Advice

19 May 2023



Top Line Summary

- There is a downward trend of COVID-19 infections across all Wales-wide indicators.
- Deaths related to COVID-19 are slightly decreasing.
- The continued hospitalisations related to COVID-19, which are preventable through vaccination, strongly suggest that while the PHEIC has ended, COVID-19 still poses a significant threat to human health. COVID-19 is still circulating and vaccines should be prioritised for high-priority groups in settings where coverage (including boosters) is incomplete.
- Case numbers are still too low in Wales to accurately determine the growth rate or advantage of XBB.1.16. Preliminary data suggest no immediate concerns at this stage.
- PHW report that influenza activity has decreased since February, but small numbers of cases continue to be detected. UKHSA reports that influenza positivity remains low and stable. WHO reports that influenza positivity decreased.
- Avian influenza continues to be a risk, there is limited evidence that avian influenza virus is getting better at infecting humans or other mammals.
- RSV in children under 5 years of age have increased above the baseline threshold in recent week.
- PHW report that iGAS incidence levels are returning to levels, but still elevated and case notifications of Scarlet fever are at baseline levels.

Sur	mmary of Advice	1
Top L	ine Summary	2
1. V	Vales COVID-19 Situation Update	4
1.1.	Wastewater surveillance	5
1.2.	PHW Cases (PCR & LFD Testing)	5
1.3.	Deaths	5
1.4.	NHS	6
1.5.	Vaccines	8
1.6.	Care homes	10
1.7.	International overview – World Health Organisation update	11
1.8.	European Centre for Disease Prevention and Control (ECDC)	12
1.9.	Variant of Concern update	13
2. C	COVID-19 Medium Term Projections	15
2.1.	Swansea University MTPs, data to 12 May	15
3. Ir	nfluenza Situation Update	17
3.1.	Weekly Influenza and Acute Respiratory Infection Report – PHW	17
3.2.	UKHSA Weekly national influenza surveillance report	19
3.3.	WHO influenza update	20
3.4.	Avian Influenza	20
	Respiratory Syncytial Virus (RSV) and Invasive Group A streptococcal Situa	tion
2		
4.1.	Incidence data for Strep A and Scarlet Fever	22

1. Wales COVID-19 Situation Update

- There is a downward trend of COVID-19 infections across all Wales-wide indicators.
- Hospital bed occupancy of confirmed COVID-19 patients has been decreasing. Admissions to critical care wards based on the weekly number of confirmed cases have decreased.
- The continued hospitalisations related to COVID-19, which are preventable through vaccination, strongly suggest that while the PHEIC has ended, COVID-19 still poses a significant threat to human health. COVID-19 is still circulating and vaccines should be prioritised for high-priority groups in settings where coverage (including boosters) is incomplete.
- Deaths related to COVID-19 are slightly decreasing.
- Data from sequenced cases shows that XBB.1.5 is the most dominant variant in Wales accounting for 39.5% of cases.
- Case numbers are still too low in Wales to accurately determine the growth rate or advantage of XBB.1.16. Preliminary data suggest no immediate concerns at this stage.

1.1. Wastewater surveillance

<u>Wastewater surveillance</u>¹ suggests the overall SARS-CoV-2 viral load has decreased across the country. However, the signal increased at South East Valleys, Teifi and North Ceredigion. The viral load has remained stable at Tawe to Cadoxton and Usk.

Figure 1 - National (blue lines) and Regions (grey lines) wastewater signal for COVID-19 in Wales.

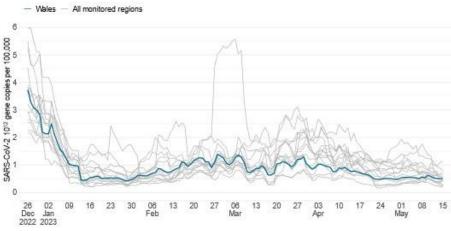
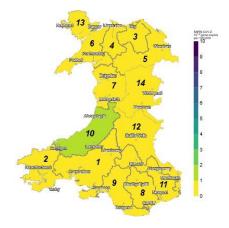


Figure 2 - National Heat Map showing Regional Mean Wastewater Signal



1.2. PHW Cases (PCR & LFD Testing)

PHW most recent epidemiological report from 17 May 2023 <u>reports</u>² a downward trend of COVID-19 infections across all Wales-wide indicators.

PHW reports that confirmed PCR cases continue to remain generally stable and the adjusted case episode rates (PCR +LFD episodes) have decreased slightly and they remain at low levels.

Compared to the previous week, LFT positivity rate was 36.94% in week 18 and decreased to 30.77% in week 19. Incidence based on LFT testing was highest in the 40-59 age group.

1.3. Deaths

ONS published statistics on 16 May 2023 on provisional <u>weekly deaths</u>³, including deaths involving COVID-19, for the week ending 5 May 2023. 24 deaths involving COVID-19 were registered in the latest week. This was 3.7% of all deaths and 1 more than the previous week.

647 deaths from all causes were registered in the latest week. This was 85 less than the previous week and is 33 more than the five-year average for 2017-2019 and 2021-2022. The number of deaths registered in the week ending 5 May 2023 will have been impacted by the bank holiday closure of registration offices.

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¹ Wastewater monitoring reports: coronavirus | GOV.WALES

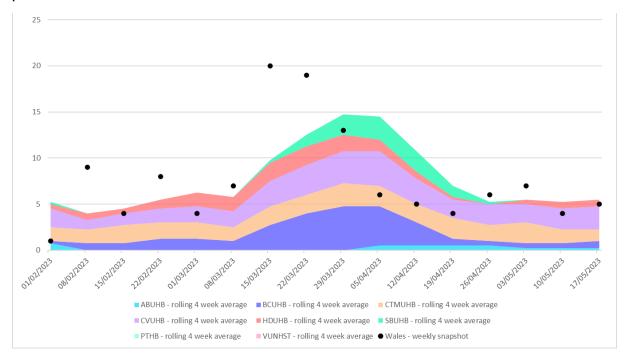
https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/PHWVirologyDashboard-Reportsandnotes_16535581718100/Notesondatainterpretationandreports

³ Deaths registered weekly in England and Wales, provisional - Office for National Statistics (ons.gov.uk)

1.4. NHS

As of 17 May 2023, hospital admissions of suspected and confirmed COVID-19 positive patients were at 5 admissions. The data in included in this section has moved to a rolling 4-week average and weekly snapshot (Wednesday only data).

Figure 3 - Hospital admissions of suspected and confirmed COVID-19 positive patients.



As of 17 May 2023, the number of hospital bed occupancy of confirmed COVID-19 patients was 150 beds, a decrease from 170 beds reported on the previous Wednesday.

Hospital bed occupancy of confirmed COVID-19 patients had been increasing since early February but has been decreasing since the middle of March when there was a peak of 614 beds occupied.

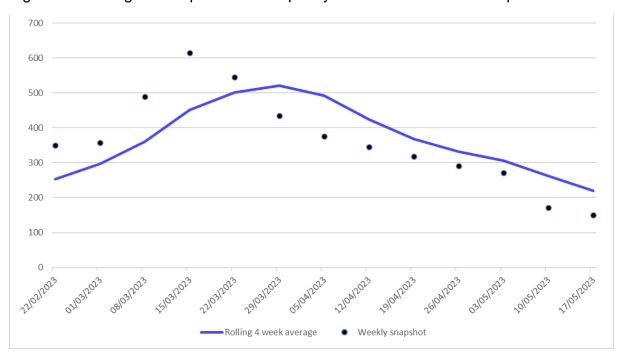
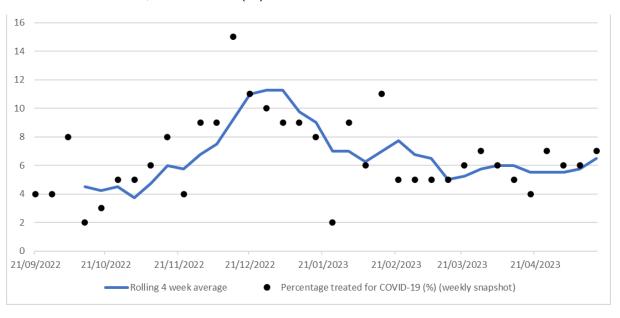


Figure 4 - Average of hospital bed occupancy of confirmed COVID-19 patients

The proportion of <u>patients in hospital</u>⁴ 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 below 10% every reporting Wednesday in 2023, except for 15 February 2022 when this figure was 11%. More recent snapshots were lower - the snapshot taken on 10 May was 6% and the snapshot taken on 17 May 7%.

Figure 5 - Percentage of COVID-19 patients in acute hospitals actively treated for COVID-19 in Wales, StatsWales (%)



⁴ statswales.gov.wales

1.5. Vaccines

The 2023 Spring COVID-19 booster vaccination programme is now under way. As of 10 May 2023, a total of 168,187 individuals had received a 2023 spring booster dose, equating to a percentage uptake of 39.28% of eligible individuals.

Table 1 - COVID-19 2023 Spring booster vaccination coverage in eligible groups

Eligibility group	Wales Resident (n)	Spring Booster vaccinated (n)	Spring Booster vaccinated (%)				
Immunosuppressed	112,138	17,177	15.32				
Care home residents	18,307	12,843	70.15				
75 years and older	342,893	163,238	47.61				
All Eligible	428,201	168,187	39.28				

Source: Public Health Wales

Note: data extracted at 8am on 11/05/2023. In this table groups are not mutually exclusive. Individuals are counted in all the eligibility groups for which they meet the criteria. Both Wales residents and Spring Booster vaccinated totals exclude those who have died.

On May 5, 2023, the World Health Organization (WHO) announced that COVID-19 no longer constitutes a public health emergency of international concern (PHEIC)⁵. The WHO's decision to lift the PHEIC designation for COVID-19 is based on a number of factors, including the decreasing number of cases and deaths, the increasing number of people who are vaccinated or have been infected with the virus, and the development of effective treatments.

This does not mean the pandemic is over. WHO reports that COVID-19 is still a threat, and people should continue to take steps to protect themselves, such as getting vaccinated and boosted, wearing a mask and social distancing.

<u>UKHSA reports</u> that while cases and hospital admission rates continue to fall, those over the age of 75 remain more vulnerable to severe illness due to COVID-19. This age group and those aged over 5 with weakened immune systems are now eligible for the spring booster. ⁶

As of 28 March 2023, <u>WHO's Strategic Advisory Group of Experts on Immunization</u>⁷ (SAGE) revised its roadmap for prioritising the use of COVID-19 vaccines. The revised roadmap prioritises protecting populations at the greatest risk of death and severe disease from SARS-CoV-2 infection.

⁵ https://www.who.int/news/item/05-05-2023-statement-on-the-fifteenth-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-coronavirus-disease-(covid-19)-pandemic

⁶ https://www.gov.uk/government/news/national-flu-and-covid-19-surveillance-reports-published

The WHO roadmap outlines three priority-use groups for COVID-19 vaccination:

- **High priority**: Older adults; younger adults with significant comorbidities; people with immunocompromising conditions; including children aged 6 months and older; pregnant persons; and frontline health workers.
- **Medium priority**: Healthy adults usually under the age of 50-60 without comorbidities and children and adolescents with comorbidities.
- Low priority: Healthy children and adolescents aged 6 months to 17 years.

The roadmap considers the cost-effectiveness of COVID-19 vaccination for those at lower risk, such as healthy children and adolescents. SAGE does not routinely recommend additional boosters for this group, given the comparatively low public health returns.

The revised roadmap is time-limited, applying for the current epidemiological scenario only. WHO reports that countries that already have a policy in place for additional boosters, should assess the evolving need based on national disease burden, cost effectiveness and opportunity costs.

WHO urges countries to consider their specific context in deciding whether to continue vaccinating low risk groups, like healthy children and adolescents, while not compromising the routine vaccines that are so crucial for the health and well-being of this age group.

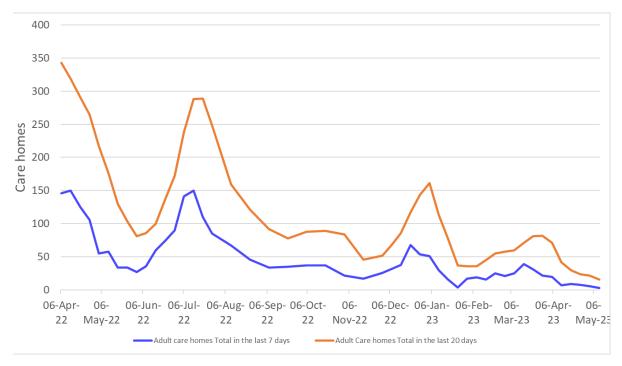
Vaccines should be prioritised for high-priority groups in settings where coverage (including boosters) is incomplete. This will help to protect the most vulnerable people and reduce the spread of the virus. Vaccines are especially important for people who are at high risk of severe disease, such as older adults and people with underlying health conditions.⁷

⁷ https://www.who.int/news/item/28-03-2023-sage-updates-covid-19-vaccination-guidance

1.6. Care homes

As of 10 May 2023, the number of adult care homes in Wales that have <u>notified</u> <u>CIW</u>⁸ of one or more confirmed cases of COVID-19 in staff or residents in the last 7 days has decreased since the previous week, to 3 notifying, from 6 notifying. This figure for the last 20 days is at 16 (period ending 10 May 2023), from 22 (period ending 3 May 2023). In Wales there are 1,016 adult care homes in total.

Figure 6 - Number of adult care homes which have notified CIW of one or more confirmed cases of COVID-19 in staff or residents.



As of 10 May 2023, the <u>number of notifications to CIW of deaths of adult care home</u> residents involving COVID-19 (both confirmed and suspected) in the last 7 days has decreased from the previous week, at 1 death reported, from 6 deaths reported previously.

In total, CIW has been notified of 2,336 care home resident deaths with suspected or confirmed COVID-19 between 1 March 2020 and 10 May 2023. This makes up 11% of all adult care home resident reported deaths (21,744) during this period.

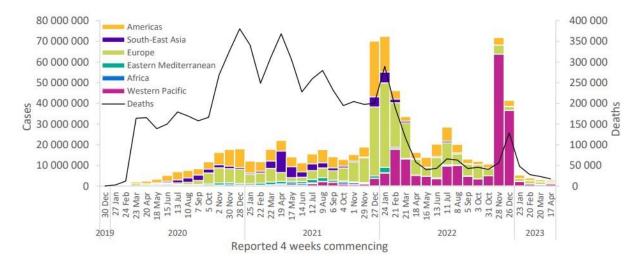
⁸ statswales.gov.wales

⁹ statswales.gov.wales

1.7. International overview – World Health Organisation update

As of 18 May 2023, WHO reports Error! Bookmark not defined. that globally, nearly 2.6 million new cases and over 17 000 deaths were reported in the last 28 days (17 April to 14 May 2023), a decrease of 14% and 26%, respectively, compared to the previous 28 days (20 March to 16 April 2023). The situation is mixed at regional levels, with increases in reported cases seen in the South-East Asia and Western Pacific regions and increases in deaths in South-East Asia. As of 14 May 2023, over 766 million confirmed cases and over 6.9 million deaths have been reported globally.

Figure 7 - COVID-19 cases reported weekly by WHO Region, and global deaths, as of 14 May April 2023



Source: WHO Weekly Epidemiological Update on COVID-19

The highest numbers of new 28-day cases were reported from the Republic of Korea (418 960 new cases; +46%), the United States of America (355 376 new cases; -34%), Japan (229 877 new cases; +15%), India (162 559 new cases; +32%), and Brazil (153 829 new cases; -28%). The highest numbers of new 28-day deaths were reported from the United States of America (5333 new deaths; -22%), Brazil (1305 new deaths; +11%), France (925 new deaths; +31%), the Russian Federation (882 new deaths; -11%), and India (656 new deaths; +110%).

1.8. European Centre for Disease Prevention and Control (ECDC)

As of 18 May 2023, <u>ECDC reports</u>¹⁰ decreasing or stable trends were observed in EU/EEA indicators in all age groups, a continuation of the pattern observed in the last month. There were 370 deaths reported from 19 countries in week 19 (ending 14 May 2023).

There was some variation in country-level trends across the EU/EEA, with increasing trends of short duration reported by very few countries. Overall, values of reported indicators remain low relative to the pandemic maximum. The number of countries reporting data fell compared to week 18 and it is not possible to assess the current situation in countries not reporting data up to week 19.

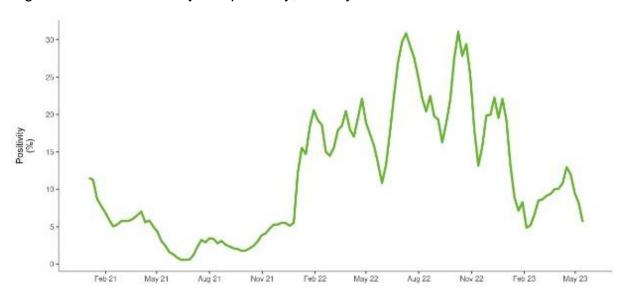


Figure 8 - EU/EEA weekly test positivity, 18 May 2023

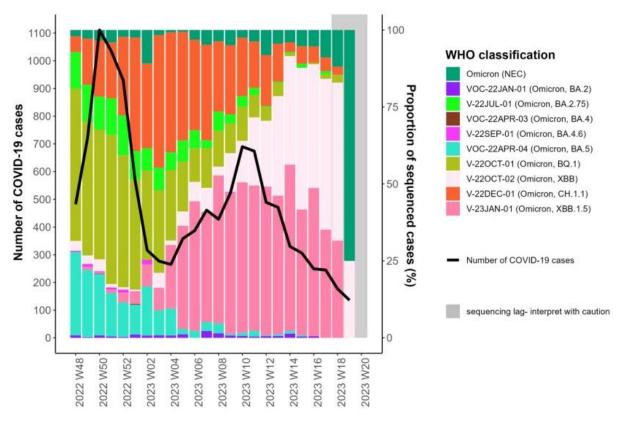
Data source: Weekly COVID-19 country overview (europa.eu)

¹⁰ Weekly COVID-19 country overview (europa.eu)

1.9. Variant of Concern update

As of 17 May 2023, <u>PHW reports</u>¹¹ that in the last four reporting weeks, V-22DEC-01 (Omicron, XBB) has been the most dominant variant in Wales, accounting for 39.5% of all sequenced cases.

Figure 9 – Proportion of sequenced cases typed as each variant in the past six months in Wales (Data as of 16 May 2023)



Source: Public Health Wales COVID-19 genomic surveillance

As of 17 May 2023, PHW reports that there have been 57,114 cases of VOC-21NOV-01 (Omicron, BA.1), 29,302 cases of VOC-22JAN-01 (Omicron, BA.2), 1,192 cases of VOC22APR-03 (Omicron, BA.4), 7,458 cases of VOC-22APR-04 (Omicron, BA.5), 2,078 cases of V-22OCT-01 (Omicron, BQ.1), 1,348 cases of V-22DEC-01 (Omicron, CH.1.1), 1,845 cases of V-23JAN-01 (Omicron XBB.1.5) and 946 cases of V-22OCT-02 (Omicron XBB) confirmed in Wales.

As of 18 May 2023, WHO is currently monitoring¹² two variants of interest (VOIs), XBB.1.5 and XBB.1.16, along with seven variants under monitoring (VUMs) and their descendent lineages. The VUMs are BA.2.75, CH.1.1, BQ.1, XBB, XBB.1.9.1, XBB.1.9.2, and XBB.2.3. On 18 May 2023, XBB.2.3 was added to the list of VUMs.

https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/PHWVirologyDashboar d-Reportsandnotes 16535581718100/Notesondatainterpretationandreports

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

XBB.2.3 is a descendent lineage of XBB, which is a recombinant of two BA.2 descendent lineages.

Globally, XBB.1.5 has been reported from 110 countries. In epidemiological week 17 (24 to 30 April 2023), XBB.1.5 accounted for 43.8% of sequences, a decrease from 51.9% in epidemiological week 13 (27 March to 2 April 2023).

XBB.1.16 has been reported from 49 countries. In week 17, XBB.1.16 accounted for 11.6% of sequences, an increase from 4.9% in week 13.

Available evidence does not show an increase in severity for XBB descendent lineages. An epidemiological study conducted in Singapore assessing the severity of SARS-CoV-2 variants in 3798 participants found no significant differences in COVID-19 infection or hospitalisation outcomes across XBB descendent lineages, including the VOIs XBB.1.16 and XBB.1.5. Additionally, a recent laboratory study showed that XBB.1.16 and XBB.1.5 have similar viral entry and neutralisation evasion characteristics.

As of 18 May 2023, ECDC reports¹³ that among the 20 countries reporting at least 10 results from SARS-CoV-2 sequencing or genotyping for weeks 17–18 (24 April to 7 May 2023), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 89.6% (30.6–96.9% from 18 countries) for XBB.1.5, 6.2% (1.5–94.7% from 16 countries) for BA.2.75, 3.8% (0.3–7.1% from 15 countries) for BQ.1, 3.8% (0.5–100.0% from 14 countries) for XBB, 1.4% (0.3–9.4% from five countries) for BA.5 and 1.1% (0.3–1.8% from four countries) for BA.2.

¹³ https://www.ecdc.europa.eu/en/covid-19/country-overviews

2. COVID-19 Medium Term Projections

 The most recent medium-term projections show a plateau in the coming weeks. However, the numbers for admitted to ward projections do show a small uptick in numbers in early March with a steeper decline than the other projections, before reaching a plateau.

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.

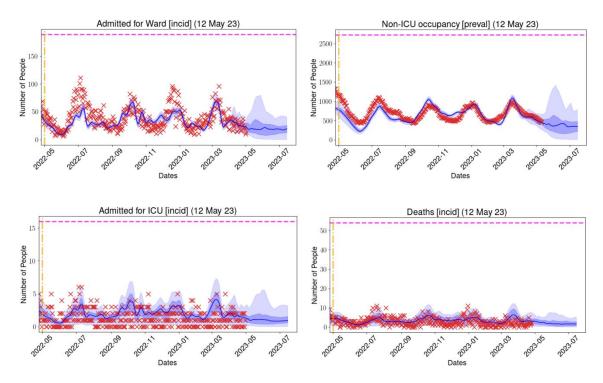
2.1. Swansea University MTPs, data to 12 May

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 set of projections is based on data up to 12 May and shows median indicators are tapering off and have reached a stable plateau. There is a fair amount of uncertainty around the median estimates, however.

Figure 10 - Swansea University Medium Term Projections



3. Influenza Situation Update

- PHW report that influenza activity has decreased since February, but small numbers of cases continue to be detected.
- UKHSA reports that influenza positivity remained low and stable.
- WHO reports that the percentage of influenza positivity decreased.
- Avian influenza continues to be a threat and whilst high levels of transmission in wild birds present a constant risk, there is limited evidence that avian influenza virus is getting better at infecting humans or other mammals.
 Additional research and development is required to understand the impact of human to human transmission of H5N1 is required.

3.1. Weekly Influenza and Acute Respiratory Infection Report – PHW

As of 17 May 2023, PHW report¹⁴ that during Week 19 (ending 14/05/2023) there were seven cases of influenza. Overall influenza activity has decreased since February, but small numbers of cases continue to be detected.

The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during Week 19, was 2.7 consultations per 100,000 practice population. This is an increase compared to the previous Week (1.4 consultations per 100,000).

The Sentinel GP consultation rate for Acute Respiratory Infections (ARI) was 143.0 per 100,000 practice population during Week 19. This is an increase compared to the previous week (128.1 per 100,000). Weekly consultations for Lower Respiratory Tract Infections (at 43.2 per 100,000) and Upper Respiratory Tract Infections (101.97 per 100,000) increased compared to the previous week.

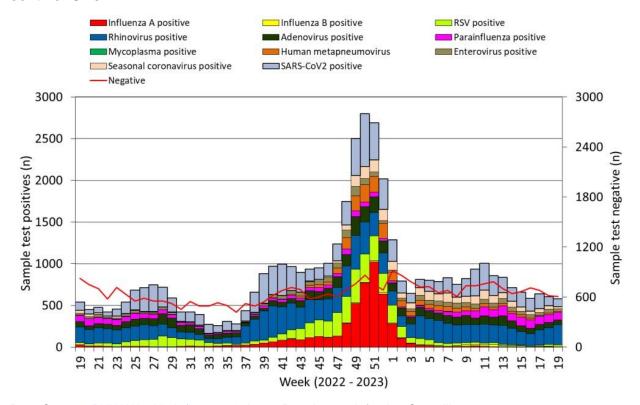
The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache, and sore throat) during Week 19 decreased to 16.9%.

¹⁴ Weekly Influenza and Acute Respiratory Infection Report - Public Health Wales (nhs.wales)

Figure 11 - Uptake of influenza immunisations in GP Practice patients in Wales

Influenza immunisation uptake in the 2022/23 seas	on
People aged 65y and older	76.3%
People younger than 65y in a clinical risk group	44.2%
Children aged two & three years	44.0%
Children aged between four & ten years	63.9%
Children aged between 11 & 15 years	54.4%
Total NHS staff	46.2%
NHS staff with direct patient contact	46.7%

Figure 12 - Specimens submitted for virological testing for hospital patients and non-sentinel GPs



Data Source: PHW Weekly Influenza & Acute Respiratory Infection Surveillance

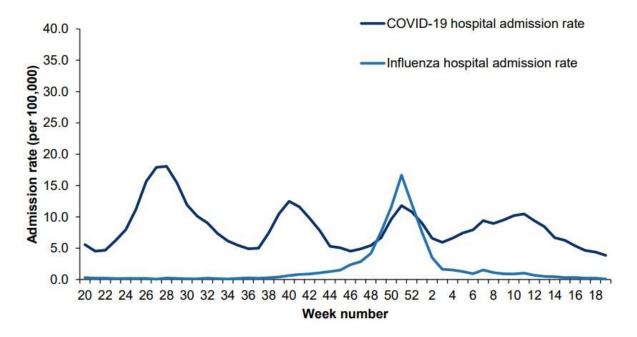
3.2. UKHSA Weekly national influenza surveillance report

As of 18 May 2023, <u>UKHSA reports</u>¹⁵, that influenza positivity remained low and stable at 0.5% in week 19 compared with 1.0% in week 18. The highest positivity was seen in those aged 15 to 44 years at 2.1%. Influenza B positivity remained low at 0.3% in week 19 compared with 0.8% in week 18.

Through primary care surveillance, the influenza-like-illness consultations indicator remained stable in week 19 compared with the previous week and was within the baseline activity level range.

There was one confirmed influenza A (not subtyped) outbreak reported in week 19 in England. The influenza hospital admission rate decreased slightly in week 19 compared with the previous week and remained within the baseline range of activity. Influenza ICU admissions remained low and stable in week 19 and remained within the baseline range of activity. Emergency department attendances for influenza-like illness remained stable nationally.

Figure 13 - Weekly overall hospital admission rates of new COVID-19 and influenza positive cases per 100k population, England



¹⁵ https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2022-to-2023-season

3.3. WHO influenza update

As of 15 May 2023, WHO reports¹⁶ that globally, influenza detections decreased further due to a decline in detections in the northern hemisphere, while some countries in the southern hemisphere reported an increase in influenza detections in recent weeks. In Europe, overall influenza detections decreased and influenza positivity from sentinel sites decreased below the epidemic threshold of 10% at the regional level. Overall, influenza B viruses predominated in both sentinel and non-sentinel surveillance as all subregions experienced a wave of influenza B activity after an initial influenza A wave. Influenza detections were low in all reporting countries.

3.4. Avian Influenza

WHO reports¹⁷ Between 28 April to 04 May 2023, no new cases of human infection with avian influenza A(H5N1) virus were reported to WHO in the Western Pacific Region. As of 24 April 2023, a total of 244 cases of human infection with avian influenza A(H5N1) virus have been reported from four countries within the Western Pacific Region since January 2003 (Figure 14). Of these cases, 136 were fatal, resulting in a case fatality rate (CFR) of 56%. The last cases in the WPR were reported from Cambodia on 23 and 24 February 2023, in an 11-year-old girl who died and her father who survived.

Figure 14 - World Health Organisation cumulative number of laboratory-confirmed human cases and deaths of influenza A(H5N1) virus infections.

Country	2003-2009		2010-2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		Total	
	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D
Cambodia	9	7	47	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	58	38
China	38	25	9	5	6	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	55	32
Lao PDR	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	2
Viet Nam	112	57	15	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	128	64
Total	161	91	71	42	6	1	0	0	0	0	0	0	0	0	1	0	0	0	2	1	3	1	244	136

¹⁶ https://www.who.int/publications/m/item/influenza-update-n--445

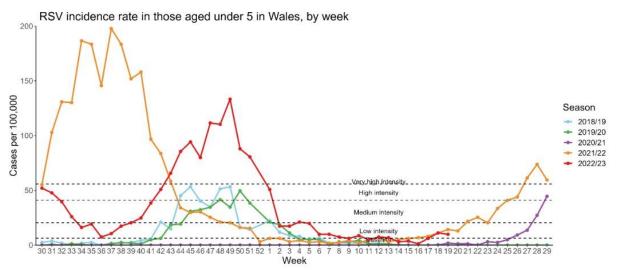
¹⁷ https://www.who.int/westernpacific/emergencies/surveillance/avian-influenza

4. Respiratory Syncytial Virus (RSV) and Invasive Group A streptococcal Situation

- PHW report that cases of RSV in children under 5 years of age have increased above the baseline threshold in recent week.
- UKHSA reports that the overall positivity for RSV remained low.
- PHW report that iGAS incidence levels are returning to levels, but still elevated and case notifications of Scarlet fever are at baseline levels.

As of 17 May 2023, PHW report that cases of RSV in children under 5 years of age have increased above the baseline threshold in recent week.

Figure 15 - RSV Incidence rate in those aged under 5 in Wales, by week



As of 18 May 2023, <u>UKHSA reports</u>¹⁸ the overall positivity for RSV remained low at 0.3%, with the highest positivity in those aged under 5 years at 1.2%. In week 19, the overall hospital admission rate for RSV remained low at 0.05 per 100,000.

¹⁸ National flu and COVID-19 surveillance reports: 2022 to 2023 season - GOV.UK (www.gov.uk)

4.1. Incidence data for Strep A and Scarlet Fever

As of 18 May 2023, PHW report that iGAS is returning to normal incidence, but is still elevated. Cases are now in the more usual age groups and Scarlet fever notifications are at baseline levels.

Figure 16 - PHW Scarlet Fever Notifications by year, 14 May 2023

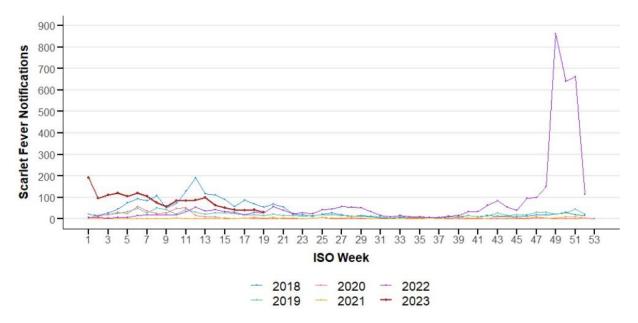


Figure 17 - PHW Lab Confirmed Invasive group A streptococcal infections, 14 May 2023

