

Science Evidence Advice (SEA)

Summary of Advice

16 June 2023



Top Line Summary

- Levels of COVID-19 appear to be generally stable and at low levels across
 Wales-wide indicators. Deaths related to COVID-19 are slightly decreasing.
- 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.
- Influenza activity in Wales has decreased to baseline levels, however small numbers of cases continue to be detected.
- Avian influenza continues to be a risk, there is limited evidence that avian influenza virus is getting better at infecting humans or other mammals.
- Cases of RSV in children under 5 years of age has increased above the baseline threshold in recent weeks, but it is not a clear and consistent upward signal. RSV positivity in England remains low.
- Scarlet fever notifications in Wales are back to baseline, but iGAS reports have increased slightly in recent weeks.

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1. Wales COVID-19 Situation Update

- Levels of COVID-19 appear to be generally stable and at low levels across 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.
- 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 is the most dominant variant in Wales accounting for 45% of all sequenced cases.
- Preliminary data for XBB.1.16 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 remained level at Meirionnydd.

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

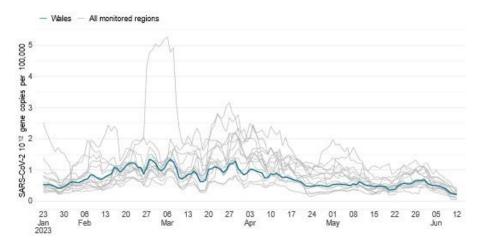
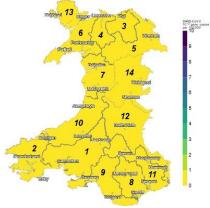


Figure 2 - National Heat Map showing Regional Mean Wastewater Signal



1.2. PHW Cases (PCR & LFD Testing)

PHW most recent epidemiological report from May 2023 <u>reports</u>² data suggest a slightly mixed picture of COVID-19 infections. Most parameters have remained relatively stable compared to the previous week in Wales. However, this is not consistent across all indicators.

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

Compared to the previous week, LFT positivity rate was 30.96% in week 22 and decreased to 26.32% in week 23. Incidence based on LFT testing was highest in the 60-79 age group.

1.3. Deaths

ONS published statistics on 13 June 2023 on provisional <u>weekly deaths</u>³, including deaths involving COVID-19, for the week ending 2 June 2023. 12 deaths involving COVID-19 were registered in the latest week. This was 2.2% of all deaths and 1 more than the previous week.

557 deaths from all causes were registered in the latest week. This was 116 less than the previous week and is 48 more than the five-year average for 2017-2019 and

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¹ Wastewater monitoring reports: coronavirus | GOV.WALES

 $[\]underline{\text{https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/PHWVirologyDashboar} \\ \underline{\text{d-Reportsandnotes}_16535581718100/Notesondatainterpretationandreports}}$

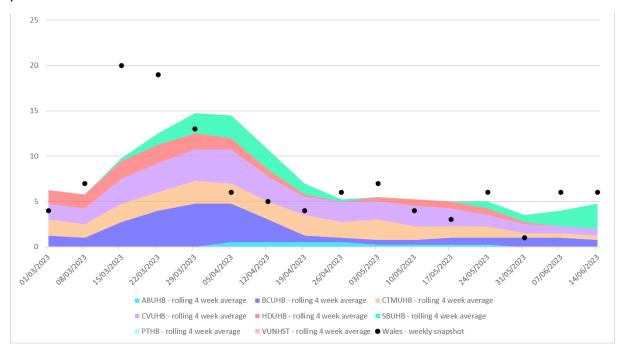
³ Deaths registered weekly in England and Wales, provisional - Office for National Statistics (ons.gov.uk)

2021-2022. The number of deaths registered in week ending 2 June 2023 will have been impacted by the late-May Bank Holiday closure of registration offices.

1.4. NHS

As of 14 June 2023, hospital admissions of suspected and confirmed COVID-19 positive patients was at 6 admissions. The data in included in this section includes 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 14 June 2023, the number of hospital bed occupancy of confirmed COVID-19 patients was 123 beds, a decrease from 130 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.

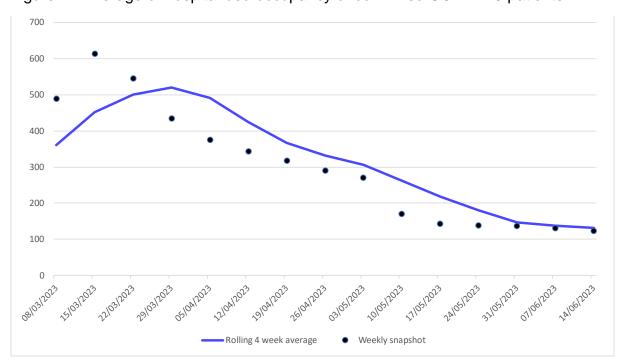
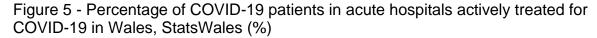
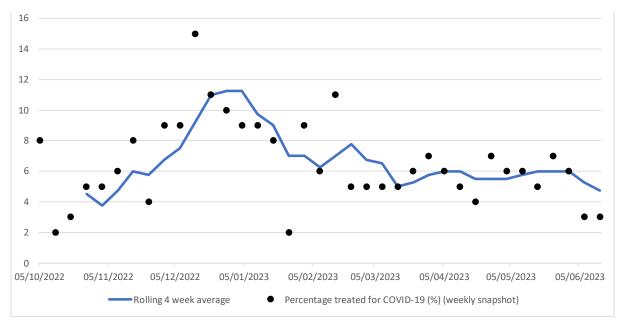


Figure 4 - Average of hospital bed occupancy of confirmed COVID-19 patients

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 2023 when this figure was 11%. More recent snapshots were lower - the snapshot taken on 7 June was 3% and the snapshot taken on 14 June was also 3%.





⁴ statswales.gov.wales

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1.5. Vaccines

The 2023 Spring COVID-19 booster vaccination programme is now under way. As of 8 June 2023, a total of 253,637 individuals had received a 2023 Spring booster dose, equating to a percentage uptake of 59.48% of eligible individuals.

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

Eligibility group	Wales Residents (n)	Spring Booster vaccinated (n)	Spring Booster vaccinated (%)
Immunosuppressed	111,802	40,734	36.43
Care home residents	18,350	13,948	76.01
75 years and older	341,160	231,761	67.93
All Eligible	426,439	253,637	59.48

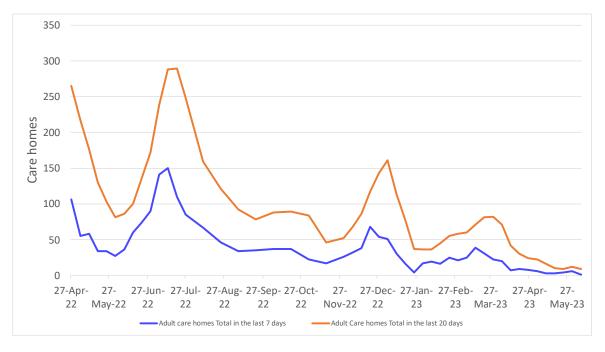
Source: Public Health Wales

Note: data extracted at 8am on 08/06/2023. 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.

1.6. Care homes

As of 7 June 2023, the number of adult care homes in Wales that have <u>notified CIW</u>⁵ 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 1 notifying, from 6 notifying. This figure for the last 20 days is at 9 (period ending 7 June 2023), from 12 (period ending 31 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.



⁵ statswales.gov.wales

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As of 7 June 2023, the <u>number of notifications to CIW of deaths of adult care home</u> residents involving COVID-19 ⁶ (both confirmed and suspected) in the last 7 days decreased from the previous week – there were 0 deaths reported as of 7 June and 2 deaths reported in the last 7 days as of 31 May.

In total, CIW has been notified of 2,338 care home resident deaths with suspected or confirmed COVID-19 between 1 March 2020 and 7 June 2023. This makes up 11% of all adult care home resident reported deaths (22,164) during this period.

1.7. International overview – World Health Organisation update

As of 1 June 2023, WHO reports Error! Bookmark not defined. that globally, nearly 1 .5 million new cases and 7300 deaths were reported in the last 28 days (15 May to 11 June 2023). At the regional level, all six WHO regions reported decreases in cases and deaths. As of 11 June 2023, over 767 million confirmed cases and over 6.9 million deaths have been reported globally.

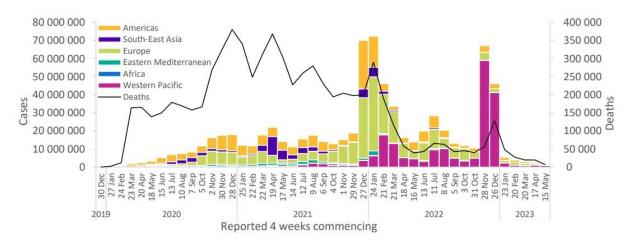
Reported cases are not an accurate representation of infection rates due to the reductions in testing and due to continued reductions in reporting globally. During this 28-day period, only 59% (139 of 234) of countries and territories reported cases – a proportion that has been consistently declining since mid-2022.

Additionally, data from previous weeks are continuously being updated to incorporate retrospective changes in reported COVID-19 cases and deaths made by countries. Data presented in this report are therefore incomplete and should be interpreted in light of these limitations. Some countries continue to report high burdens of COVID-19, including increases in newly reported cases and, more importantly, increases in hospitalizations and deaths – the latter of which are considered more reliable indicators given the reductions in testing.

At the regional level, the number of newly reported 28-day cases decreased across all WHO regions: the South-East Asia Region (-81%), the Region of the Americas (-69%), the Eastern Mediterranean Region (-67%), the European Region (-47%), the African Region (-30%), and the Western Pacific Region (-19%). The number of newly reported 28-day deaths decreased across all six regions: the Eastern Mediterranean Region (-77%), the Region of the Americas (-76%), the European Region (-56%), the African Region (-55%), the South-East Asia Region (-51%), and the Western Pacific Region (-41%).

⁶ statswales.gov.wales

Figure 7 - COVID-19 cases reported weekly by WHO Region, and global deaths, as of 11 June 2023



Source: WHO Weekly Epidemiological Update on COVID-19

The highest numbers of new 28-day cases were reported from the Republic of Korea

(475 577 new cases; +14%), Australia (150 877 new cases; +25%), Brazil (113 995 new cases; -26%), France (80 644 new cases; -46%), and Singapore (59 914 new cases; -40%). The highest numbers of new 28-day deaths were reported from Brazil (1175 new deaths; -10%), the Russian Federation (516 new deaths; -41%), Italy (503 new deaths; -26%), Spain (499 new deaths; -21%), and France (497 new deaths; -47%).

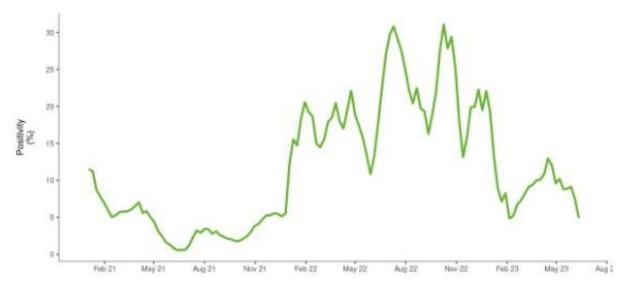
1.8. European Centre for Disease Prevention and Control (ECDC)

As of 16 June 2023, <u>ECDC reports</u>⁷ decreasing or stable trends were observed in EU/EEA indicators based on pooled country data in all age groups. This is a continuation of the pattern observed in recent weeks.

A recent increase in case rates was reported by one country in the age group 80 and above (23 countries reported data). No country reported increases in hospital indicators. There were 288 deaths reported from 21 countries, out of which two countries reported an increasing trend in one age group.

No country is predicted to see increases in the number of reported cases, hospital admissions or deaths in the period up to 25 June 2023, based on ensemble model forecasts.

Figure 8 - EU/EEA weekly test positivity, 16 June 2023



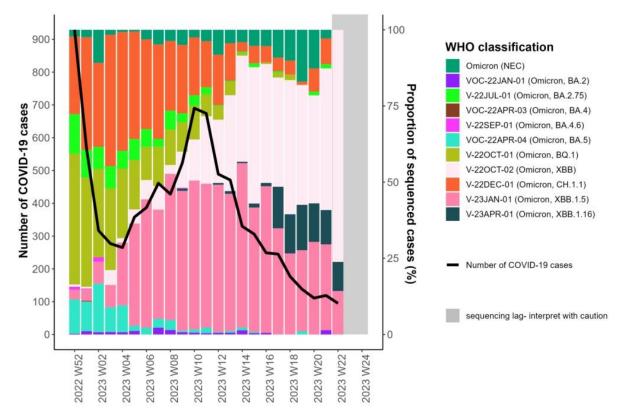
Data source: Weekly COVID-19 country overview (europa.eu)

⁷ Weekly COVID-19 country overview (europa.eu)

1.9. Variant of Concern update

As of 14 June 2023, <u>PHW reports</u>⁸ the last four reporting weeks, V-22OCT-02 (Omicron, XBB) has been the most dominant variant in Wales, accounting for 45.0% of all sequenced cases.

Figure 9 – Proportion of sequenced cases typed as each variant in the past six months in Wales (Data as of 13 June 2023)



Source: Public Health Wales COVID-19 genomic surveillance

As of 13/06/2023 there have been 57,117 cases of VOC-21NOV-01 (Omicron, BA.1), 29,325 cases of VOC-22JAN-01 (Omicron, BA.2), 1,192 cases of VOC-22APR-03 (Omicron, BA.4), 7,459 cases of VOC-22APR-04 (Omicron, BA.5), 2,078 cases of V-22OCT-01 (Omicron, BQ.1), 1,364 cases of V-22DEC-01 (Omicron, CH.1.1), 1,919 cases of V-23JAN-01 (Omicron XBB.1.5), 1,025 cases of V-22OCT-02 (Omicron XBB), and 89 cases if V-23APR-01 (Omicron, XBB.1.16) confirmed in Wales.

As of 15 June 2023, <u>WHO is currently tracking</u>⁹ two variants of interest (VOIs), XBB.1.5 and XBB.1.16, along with seven variants under monitoring (VUMs) and their descendent lineages.

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

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

Globally, XBB.1.5 has been reported from 116 countries since its emergence. While XBB.1.5 remains dominant globally, its prevalence has been declining steadily. In epidemiological week 21 (22 to 28 May 2023), XBB.1.5 accounted for 30% of sequences, a decrease from 43.5% in week 17 (24 to 30 April 2023).

XBB.1.16 has been reported from 69 countries. In week 21, XBB.1.16 accounted for 18% of sequences, an increase from 10.9% in week 17.

As of 16 June 2023, <u>ECDC reports</u>¹⁰ that among the 15 countries reporting at least 10 results from SARS-CoV-2 sequencing or genotyping for weeks 21–22 (22 May to 4 June 2023), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 94.6% (47.4–100.0% from 15 countries) for XBB.1.5, 4.3% (0.4–21.1% from 11 countries) for BA.2.75, 2.0% (0.4–3.6% from six countries) for XBB and 1.8% (0.6–31.6% from six countries) for BQ.1.

¹⁰ https://www.ecdc.europa.eu/en/covid-19/country-overviews

2. COVID-19 Medium Term Projections

 The most recent medium-term projections show a continued plateau in the coming weeks. However, there is a large amount of uncertainty in these projections, particularly in June.

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 2 June

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 2 June and shows median indicators have reached a stable plateau but could increase slightly in coming weeks. There is a fair amount of uncertainty around the median estimates, however.

21/05

28/05

PAST

04/06

11/06

Date

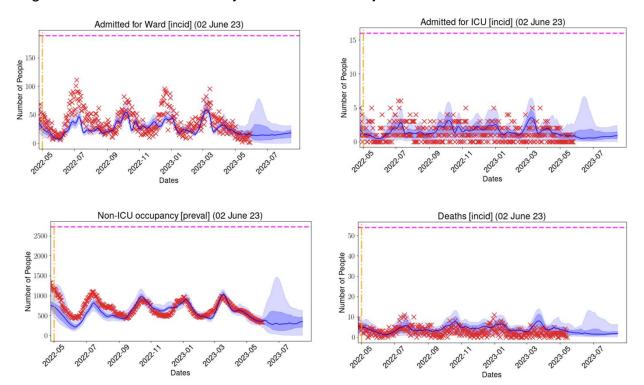
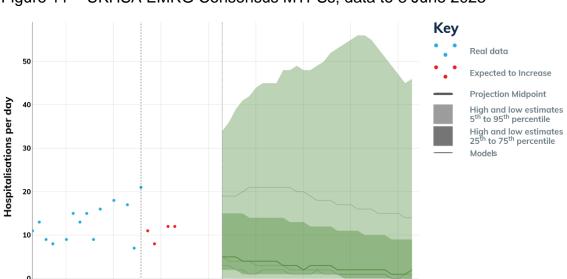


Figure 10 - Swansea University Medium Term Projections

2.2. UKHSA EMRG Consensus MTPs, data to 8 June 2023

- Swansea University (SU) projections are used by the UKHSA Epidemiological Modelling Review Group (EMRG).
- The combined projection for admissions suggests a gradually decreasing trend, with significant uncertainty.



25/06

FUTURE

02/07

09/07

Figure 11 – UKHSA EMRG Consensus MTPSs, data to 8 June 2023

3. Influenza Situation Update

- PHW report that influenza activity has decreased to baseline levels, 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 decreased in the northern hemisphere, while some countries in the southern hemisphere reported an increase.
- Australian government reports that the number of laboratory-confirmed influenza notifications have increased from the previous fortnight. However, community ILI activity and hospitalisations due to influenza at sentinel hospitals have decreased. It is likely that the impact on society remains stable.
- 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 14 June 2023, PHW report¹¹ that there were three cases of influenza with a further 4 cases from previous weeks. Overall influenza activity has decreased to baseline levels, but small numbers of cases continue to be detected.

The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during Week 23, was 2.0 consultations per 100,000 practice population. This is an increase compared to the previous Week (1.7 consultations per 100,000).

The Sentinel GP consultation rate for Acute Respiratory Infections (ARI) was 112.1 per 100,000 practice population during Week 23. This is an increase compared to the previous week (92.9 per 100,000).

The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache, and sore throat) during Week 23 decreased to 13.8%.

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

Influenza immunisation uptake in the 2022/23 seas	
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%

¹¹ Weekly Influenza and Acute Respiratory Infection Report - Public Health Wales (nhs.wales)

Influenza A positive Influenza B positive RSV positive Rhinovirus positive Adenovirus positive Parainfluenza positive Mycoplasma positive Human metapneumovirus Enterovirus positive Seasonal coronavirus positive SARS-CoV2 positive -Negative 3000 3000 2500 2400 Sample test negative (n) Sample test positives (n) 2000 1800 1500 1200 1000 600 500 0 43 49 51 41 Week (2022 - 2023)

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

Data Source: PHW Weekly Influenza & Acute Respiratory Infection Surveillance

3.2. UKHSA Weekly national influenza surveillance report

As of 8 June 2023, <u>UKHSA reports</u>¹², that influenza remained low and stable at 0.4% compared to the previous week, with highest positivity seen in the 15 to 44 years old age group at 1.4%.

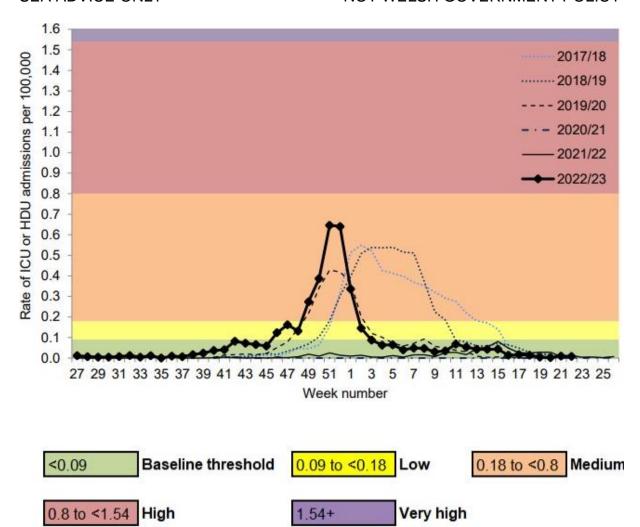
Through primary care surveillance, the influenza-like-illness consultations indicator remained stable in week 22 compared to the previous week and was within the baseline activity level range.

No influenza confirmed outbreaks were reported in week 22 in England. Influenza ICU admissions remained low and stable in week 22 and remained within the baseline range of activity.

Emergency department attendances for influenza-like illness remained stable nationally.

Figure 13 - Weekly influenza ICU or HDU admissions by influenza type, SARI Watch, England

¹² https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2022-to-2023-season



3.3. WHO influenza update

As of 12 June 2023, WHO reports ¹³ 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 continued to decrease and influenza positivity from sentinel sites decreased to 2%, below epidemic threshold of 10% at the regional level. At national level, only Norway and Slovakia reported influenza positivity above 10% in sentinel primary care. All countries reported low or below baseline intensity and most countries reported no or sporadic activity. Influenza detections were low in all reporting countries and influenza B viruses predominated in both sentinel and non-sentinel surveillance overall. Pooled all-cause mortality estimates from the EuroMOMO network showed no excess mortality across all age groups. The proportion of sentinel specimens testing positive for influenza was lower than the proportion testing positive for SARS-CoV-2.

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¹³ https://www.who.int/publications/m/item/influenza-update-n--445

3.4. Australian Influenza Surveillance

As of 16 June 2023, the <u>Australian government</u> reports that Influenza-like-illness (ILI) activity in the community reported to FluTracking decreased this fortnight, while ILI presentations to ASPREN sentinel general practitioners (GPs) increased.

The number of notifications of laboratory-confirmed influenza has increased in half of the Australian jurisdictions this fortnight but has decreased or remained stable in the others.

In the year-to-date (1 January to 11 June 2023), there have been 85,986 notifications reported to the National Notifiable Diseases Surveillance System (NNDSS) in Australia, of which 27,540 notifications had a diagnosis date this fortnight. There is currently not enough information to comprehensively assess the potential severity of the 2023 influenza season at this time.

In the year-to-date, of the 85,986 notifications of laboratory-confirmed influenza, 78 influenza-associated deaths have been identified by the National Notifiable Diseases Surveillance System (NNDSS).

Since seasonal surveillance commenced in April 2023, there have been 782 sentinel hospital admissions, of which 55 (7%) were admitted directly to ICU.

While the number of laboratory-confirmed influenza notifications and ILI presentations to sentinel GPs has continued to increase this fortnight, community ILI activity reported to FluTracking and hospitalisations due to influenza at FluCAN sentinel hospitals have decreased.

It is likely that the impact on society due to the 2023 influenza season this fortnight remains stable.

3.5. Avian Influenza

UKHSA works with partners including the Animal and Plant Health Agency (APHA) to assess the risk to human health from avian influenza and improve the understanding of the virus. While the very high levels of transmission in wild birds present a constant risk, there is no evidence so far that the virus is getting better at infecting humans or other mammals.

WHO reports¹⁴ that 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. 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. Globally, from January 2003 to 24 April 2023, 874 cases of human infection with avian influenza A(H5N1) virus were reported from 23 countries. Of these 874 cases, 458 were fatal (CFR of 52%).

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

¹⁴ https://www.who.int/westernpacific/emergencies/surveillance/avian-influenza

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

- PHW report that cases of RSV in children under 5 years of age has increased above the baseline threshold in recent weeks, but it is not a clear and consistent upward signal.
- UKHSA reports that the overall positivity for RSV remained low.
- PHW report that Scarlet fever notifications are back to baseline but iGAS reports have increased slightly in recent weeks.

As of 14 June 2023, PHW report that RSV incidence in children younger than 5 has increased above the baseline threshold in recent weeks, but it is not a clear and consistent upward signal.

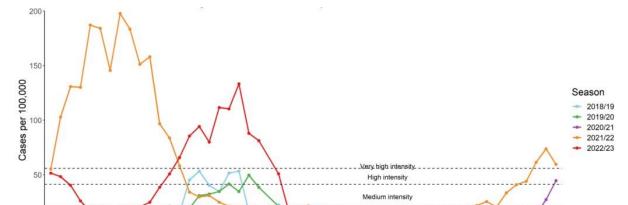


Figure 15 - RSV Incidence rate in those aged under 5 in Wales, by week

As of 08 June 2023, <u>UKHSA reports</u>¹⁵ the overall positivity for RSV remained low at 0.3%, with the highest positivity in those aged under 5 years old at 1.2%. Emergency department attendances for acute bronchiolitis decreased nationally.

¹⁵ 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 11 June 2023, PHW report that Scarlet fever notifications are back to baseline but iGAS reports have increased slightly in recent weeks (spike on week 20-21 followed by a small decrease).

Figure 16 - PHW Scarlet Fever Notifications by year, 11 June 2023

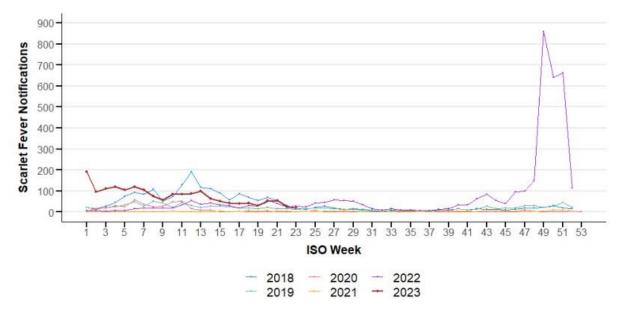


Figure 17 - PHW Lab Confirmed Invasive group A streptococcal infections, 11 June 2023

