Llywodraeth Cymru
Welsh Government

Science Evidence Advice (SEA)

Summary of Advice

14 July 2023

gov.wales

Top Line Summary

- **Highly pathogenic avian influenza virus continues to present a global risk as more cases of inflections in mammals are identified. The general public as well as animal workers should be advised to avoid contact with sick and dead animals and to report these to animal health authorities.**
- There is a slightly mixed picture of COVID-19 infections across all 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.
- Preliminary data for XBB.1.16 suggest no immediate concerns at this stage.
- PHW report that influenza activity has decreased to baseline levels, but small numbers of cases continue to be detected. UKHSA reports that influenza positivity remains low and stable. WHO reports that the influenza detections generally low, some countries reported increased influenza detections, detections in other countries seemed to have peaked. Australian government reports that the impact on society due to the 2023 influenza season this fortnight remains stable.
- PHW report that cases of RSV in children under 5 years of age remains below the baseline threshold. UKHSA reports that the overall RSV positivity remains low.
- PHW report that Scarlet fever and iGas notifications have decreased.

1. Wales COVID-19 Situation Update

- There is a slightly mixed picture 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 slightly increased.
- 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 XBB1.16 is the most dominant variant in Wales accounting for 43.9% of all sequenced cases.
- Preliminary data for XBB.1.16 suggest no immediate concerns at this stage.

1.1. Wastewater surveillance

Wastewater surveillance[1] suggests the overall SARS-CoV-2 viral load has decreased across the country. However, the signal increased at Cleddau and Pembrokeshire Coastal Rivers and Ynys Môn, and remained level at Conwy, Dee, Meirionnydd, Teifi and North Ceredigion and Hafren Dyfrdwy.

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

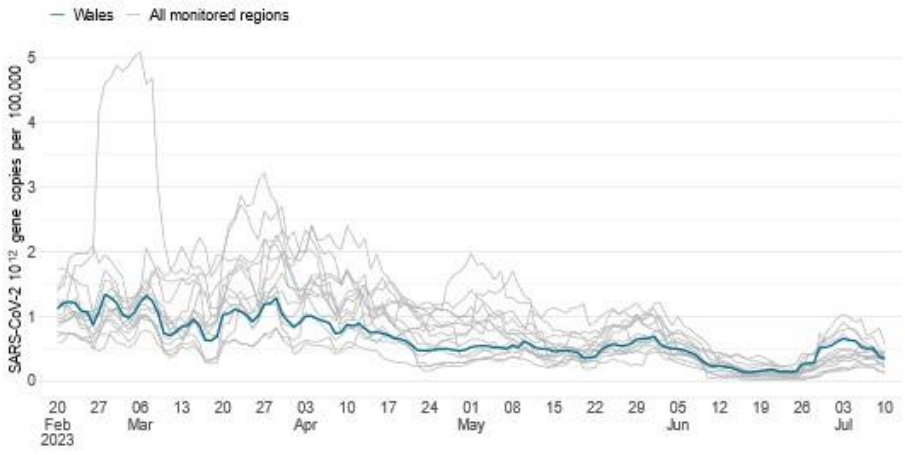
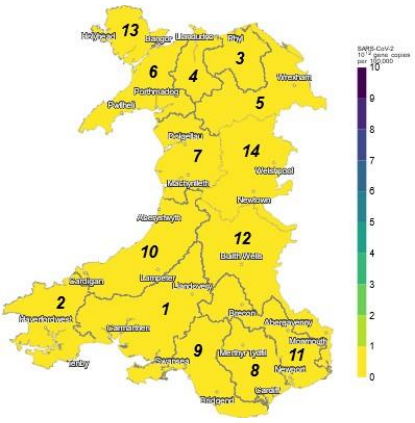


Figure 2 - National Heat Map showing Regional Mean Wastewater Signal



1.2. PHW Cases (PCR & LFD Testing)

PHW most recent epidemiological report from 12 July 2023 reports[2] that the 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 stable and at low levels. Compared to the previous week, LFT positivity rate was 30.52% in week 26 and increased to 32.02% in week 27. Incidence based on LFT testing was highest in the 40-59 age group.

1.3. Deaths

ONS published statistics on 11 July 2023 on provisional weekly deaths[3], including deaths involving COVID-19, for the week ending 30 June 2023. 7 deaths involving COVID-19 were registered in the latest week. This was 1.0% of all deaths and 6 less than the previous week.

685 deaths from all causes were registered in the latest week. This was 53 more than the previous week and is 111 more than the five-year average for 2017-2019 and 2021-2022.

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[1] Wastewater monitoring reports: coronavirus | GOV.WALES

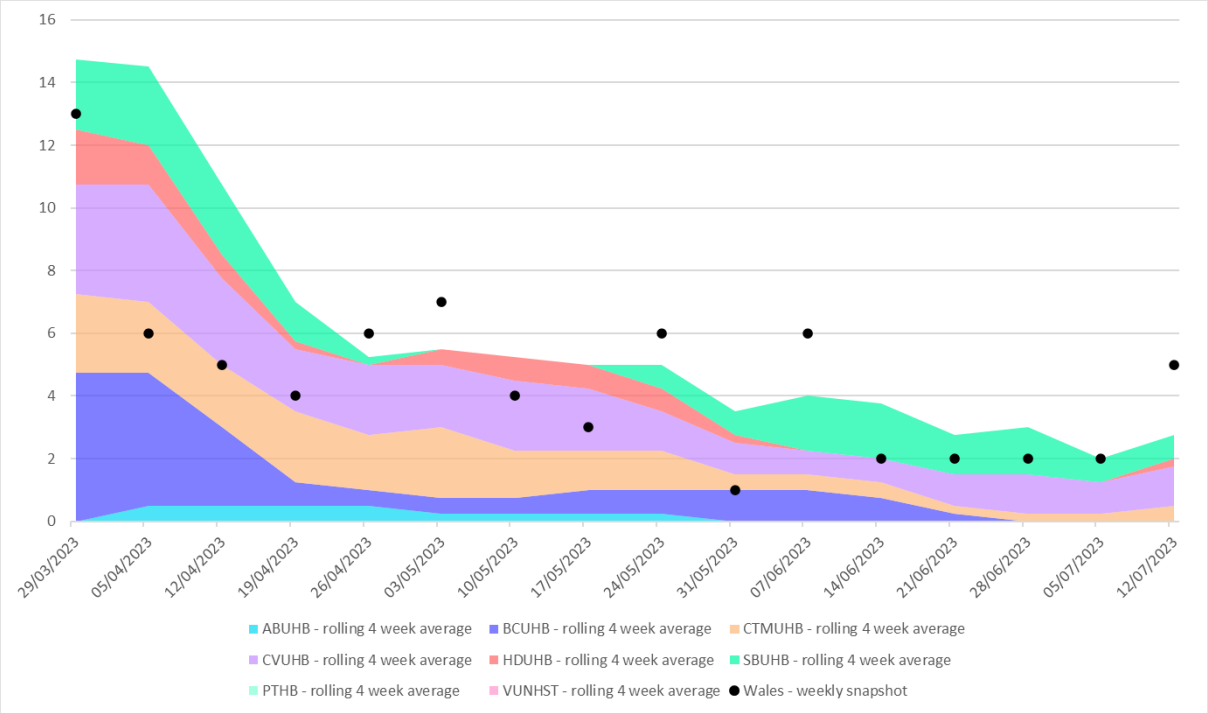
[2] https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/PHWVirologyDashboard-Reportsandnotes_16535581718100/Notesondatainterpretationandreports

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

1.4. NHS

As of 12 July 2023, hospital admissions of suspected and confirmed COVID-19 positive patients was at 5 admissions. The data in included in this section includes a rolling 4-week average and weekly snapshot (Wednesday only data).

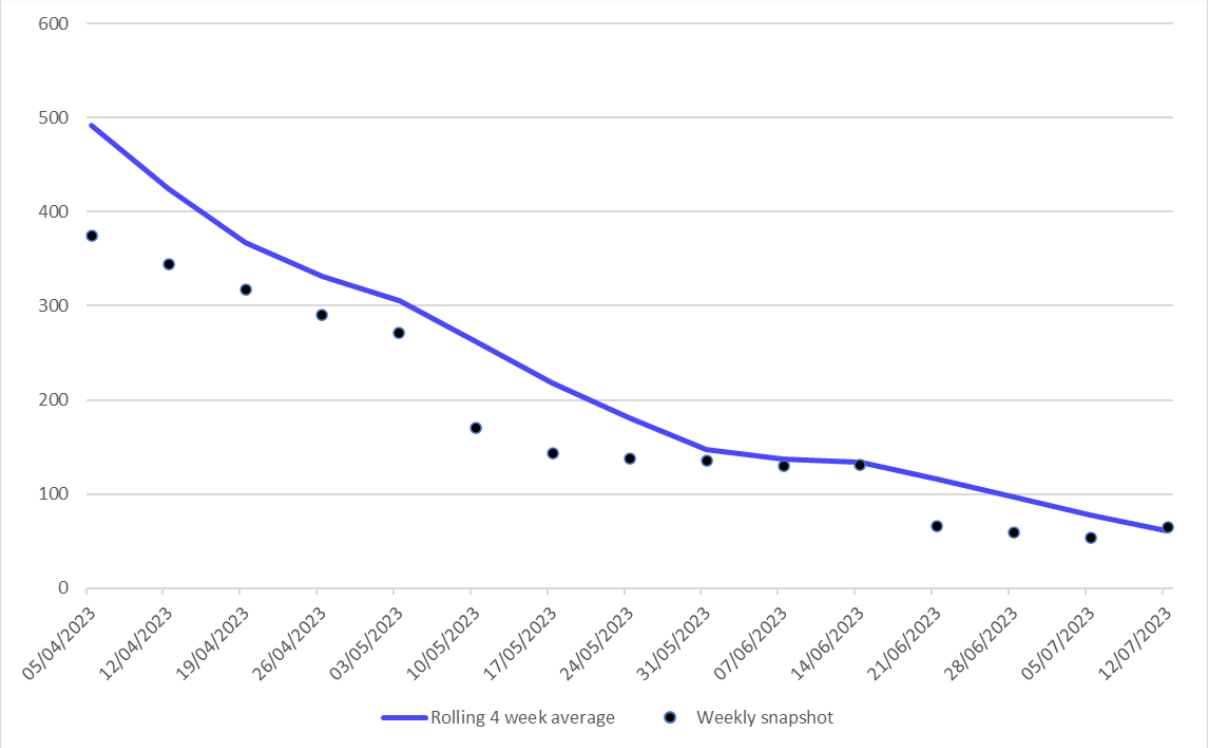
Figure 3 - Hospital admissions of suspected and confirmed COVID-19 positive patients.



As of 12 July 2023, the number of hospital bed occupancy of confirmed COVID-19 patients was 65 beds, an increase from 53 beds reported on the previous Wednesday.

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

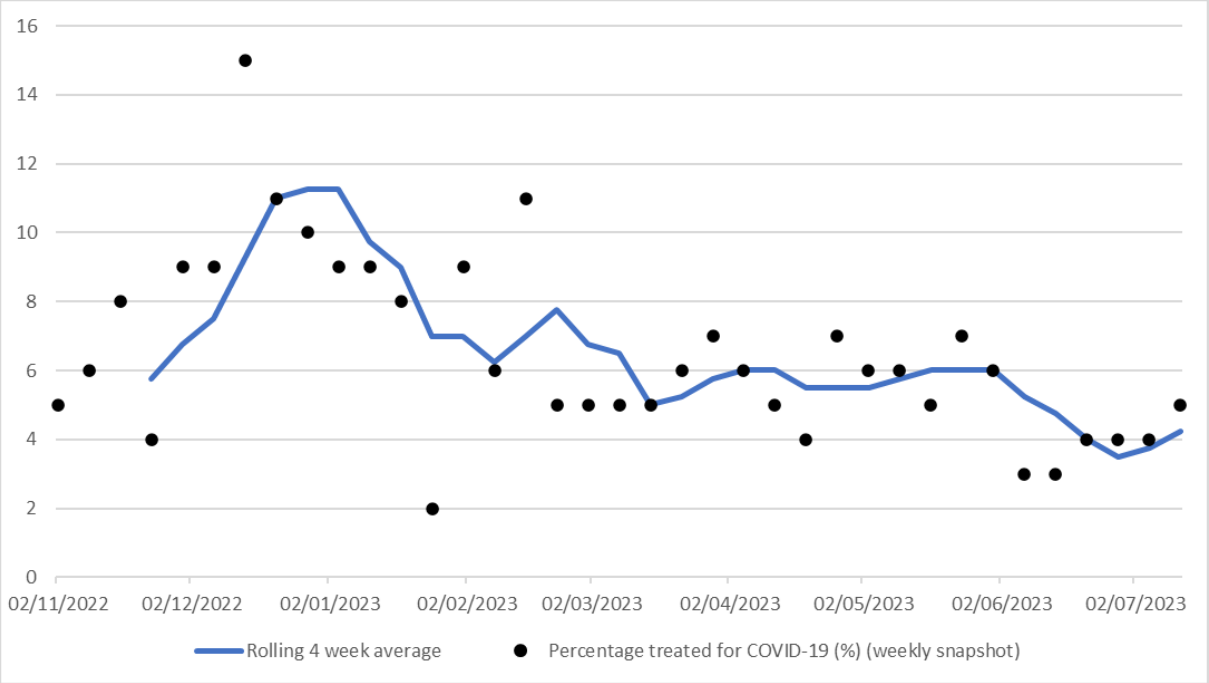
Figure 4 - Average of hospital bed occupancy of confirmed COVID-19 patients



The proportion of [patients in hospital](#)[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 5 July was 4% and the snapshot taken on 12 July was 5%.

[4] statswales.gov.wales

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



1.5. Vaccines

The 2023 Spring COVID-19 booster vaccination programme has now closed. As of 6 July 2023, a total of 281,286 individuals had received a 2023 Spring booster dose, equating to a percentage uptake of 67.91% 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	94,169	46,805	49.70
Care home residents	18,132	14,190	78.26
75 years and older	339,411	250,107	73.69
All Eligible	414,187	281,286	67.91

Source: Public Health Wales

Note: data extracted at 8am on 06/07/2023. 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. International overview – World Health Organisation update

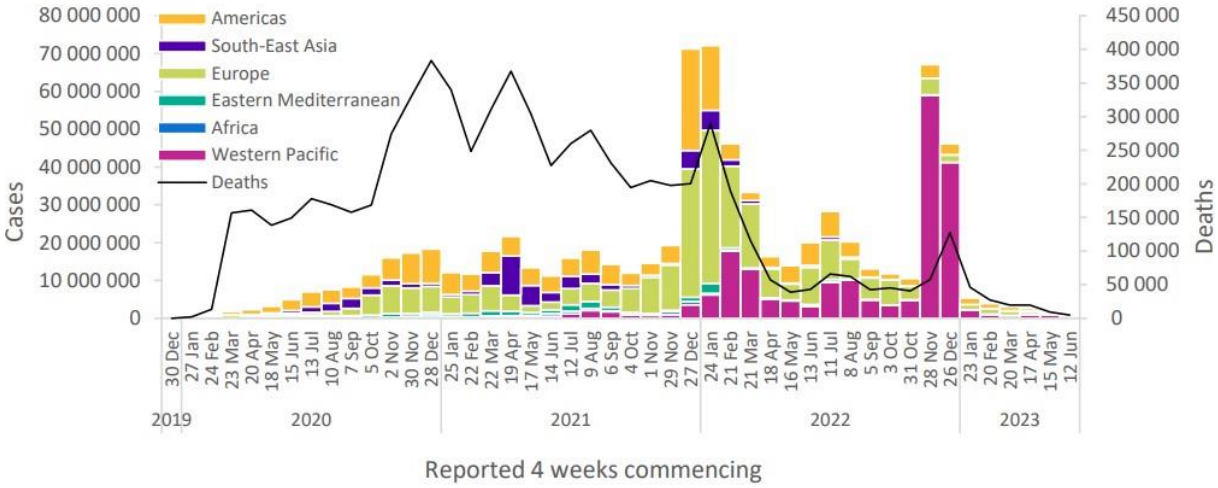
As of 13 July 2023, WHO reports**Error! Bookmark not defined.** that globally, over 794 000 new COVID-19 cases and over 4800 deaths were reported in the last 28 days (12 June to 9 July 2023). While five WHO regions have reported decreases in the number of both cases and deaths, the African Region has reported a decline in cases but an increase in deaths – albeit from a relatively low baseline. As of 9 July 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 reduction in testing and reporting globally. During this 28-day period, 57% (133 of 234) of countries and territories reported at least one case – a proportion that has been 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 section of the 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 cases within a 28-day period has decreased across all six WHO regions: the Eastern Mediterranean Region (-77%), the South-East Asia Region (-67%), the European Region (-65%), the Region of the Americas (-45%), the Western Pacific Region (-36%), and the African Region (-31%). The number of newly reported deaths within a 28-day period has decreased across five regions: the European Region (-67%), the Eastern Mediterranean Region (-60%), the South-East Asia Region (-57%), the Western Pacific Region (-23%), and the Region of the Americas (-19%); while deaths increased in the African Region (+43%).

Figure 6 - COVID-19 cases reported by WHO Region, and global deaths by 28-day intervals, as of 9 July 2023



Source: *WHO Weekly Epidemiological Update on COVID-19*

The highest numbers of new 28-day cases were reported from the Republic of Korea (372 557 new cases; -22%), Australia (62 748 new cases; -59%), Brazil (56 744 new cases; -50%), New Zealand (38 949 new cases; +12%), and Singapore (28 333 new cases; -59%). The highest numbers of new 28-day deaths were reported from Brazil (868 new deaths; -26%), Australia (566 new deaths; +16%), the Russian Federation (423 new deaths; -18%), Peru (410 new deaths; +48%), and Italy (251 new deaths; -53%).

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

As of 13 July 2023, ECDC reports[5] decreasing or stable trends were observed in EU/EEA all indicators based on pooled country data for COVID-19 in all age groups. This is a continuation of the pattern observed in recent weeks.

Of 17 countries reporting COVID-19 cases, one showed an increase in overall case rates compared to the previous week. One country reported an increase in ICU occupancy. There were 81 deaths reported from 12 countries, with one country reporting an increase in its COVID-19 death rate.

No country is predicted to see increases in the number of reported COVID-19 cases, hospital admissions, or deaths in the period up to 23 July 2023, based on ensemble model forecasts.

Figure 7 - EU/EEA weekly test positivity, 13 July 2023

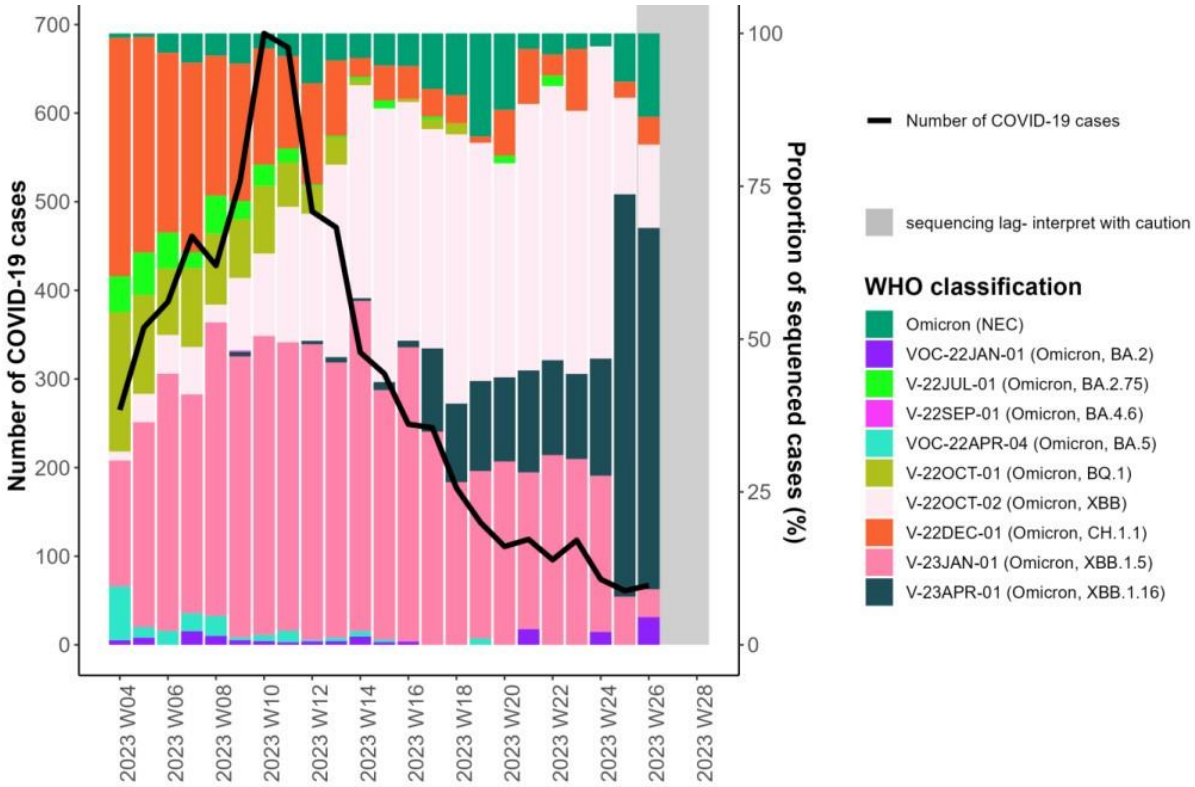
Data source: Weekly COVID-19 country overview (europa.eu)

[5] Weekly COVID-19 country overview (europa.eu)

1.8. Variant of Concern update

As of 12 July 2023, PHW reports[6] the last four reporting weeks, V-23APR-01 (Omicron, XBB.1.16) has been the most dominant variant in Wales, accounting for 43.9% of all sequenced cases.

Figure 8 – Proportion of sequenced cases typed as each variant in the past six months in Wales (Data as of 11 July 2023)



Source: Public Health Wales COVID-19 genomic surveillance

As of 11/07/2023 there have been 57,117 cases of VOC-21NOV-01 (Omicron, BA.1), 29,329 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), 1,377 cases of V-22DEC-01 (Omicron, CH.1.1), 1,975 cases of V-23JAN-01 (Omicron XBB.1.5), 1,103 cases of V-22OCT-02 (Omicron XBB), and 160 cases if V-23APR-01 (Omicron, XBB.1.16) confirmed in Wales.

As of 13 July 2023, WHO is currently tracking[7] several SARS-CoV-2 variants, including two variants of interest (VOIs); XBB.1.5 and XBB.1.16. Six variants under

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

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

monitoring (VUMs) and their descent lineages; BA.2.75, CH.1.1, XBB, XBB.1.9.1, XBB.1.9.2, and XBB.2.3.

Globally, 115 countries have reported the detection of XBB.1.5 since its emergence. Notably, its prevalence has been declining steadily. In epidemiological week 25 (19 to 25 June 2023), XBB.1.5 accounted for 19.8% of sequences, compared to 26.8% in week 21 (22 to 28 May 2023).

XBB.1.16 has been reported from 91 countries. In week 25, XBB.1.16 accounted for 22.1% of sequences, an increase from 18.5% in week 21. Its prevalence has surpassed that of XBB.1.5 in week 25. An analysis of available data indicates that countries with a low prior prevalence of XBB.1.5 have experienced a significant increase in the prevalence of XBB.1.16, while countries that had a high prevalence of XBB.1.5 have reported low circulation of XBB.1.16.

As of 13 July 2023, ECDC reports[8] that among the nine countries reporting at least 10 results from SARS-CoV-2 sequencing or genotyping for weeks 25–26 (19 June to 2 July 2023), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 92.9% (87.5–100.0% from nine countries) for XBB.1.5, 4.9% (0.7–7.7% from six countries) for BA.2.75, 2.3% (0.5–10.0% from four countries) for XBB and 1.0% (1.0–1.0% from one countries) for BQ.1.

[8] https://www.ecdc.europa.eu/en/covid-19/country-overviews

2. Influenza Situation Update

- Avian influenza continues to be a risk, there is limited evidence that avian influenza virus is getting better at infecting humans or other mammals.
- WHO has advised that the general public as well as animal workers should be advised to avoid contact with sick and dead animals and to report these to animal health authorities. In addition, steps should be taken to strengthen influenza surveillance in animals and humans and to prevent avian influenza at its source.
- 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 influenza detections generally low, some countries reported increased influenza detections, detections in other countries seemed to have peaked.
- Australian government reports that the number of laboratory-confirmed influenza notifications have been stable.

2.1. Weekly Influenza and Acute Respiratory Infection Report – PHW

As of 12 July 2023, PHW report[9] that there were five 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 27, was 0.7 consultations per 100,000 practice population. This is an increase compared to the previous Week (0.2 consultations per 100,000).

The Sentinel GP consultation rate for Acute Respiratory Infections (ARI) was 113.1 per 100,000 practice population during Week 27. This is an increase compared to the previous week (92.1 per 100,000). Weekly consultations for Lower Respiratory Tract Infections remained stable (27.0 per 100,000) and Upper Respiratory Tract Infections (86.5 per 100,000) increased compared to the previous week.

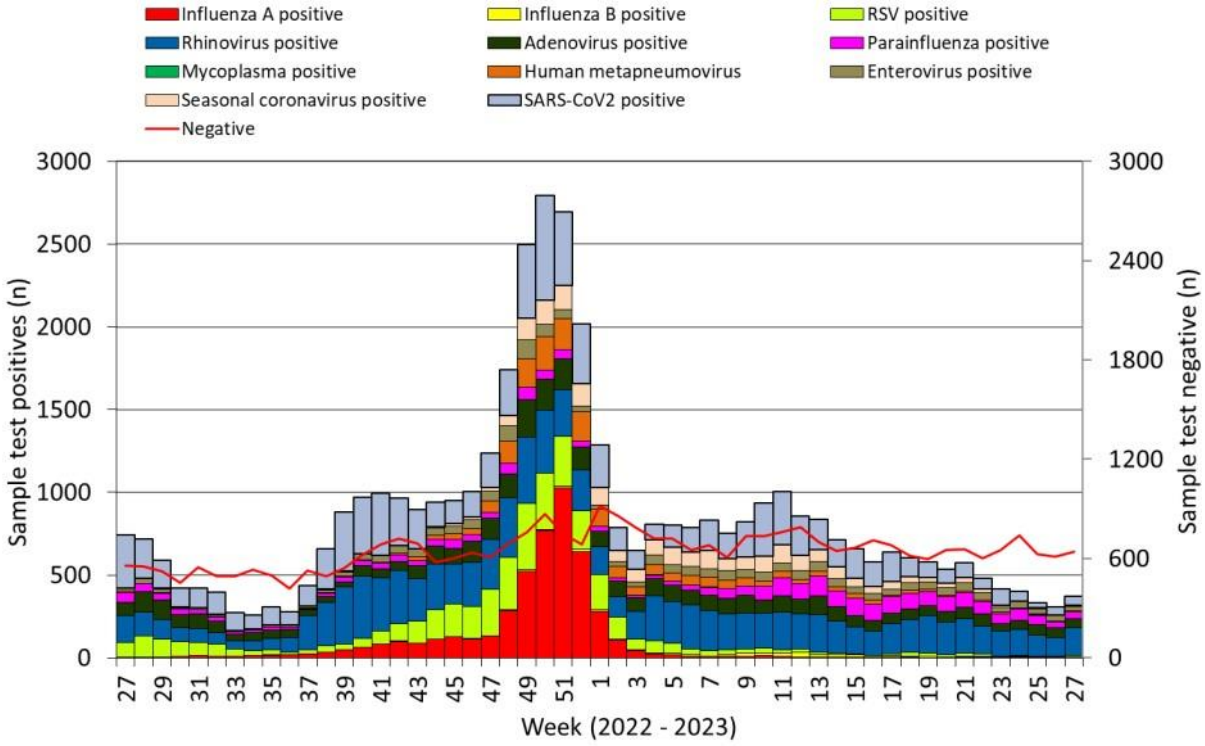
The percentage of calls to NHS Direct Wales which were ‘influenza-related’ (cold/flu, cough, fever, headache, and sore throat) during Week 27 increased to 13.6%.

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

Figure 9 - Uptake of influenza immunisations in GP Practice patients in Wales

Influenza immunisation uptake in the 2022/23 season	
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 10 - Specimens submitted for virological testing for hospital patients and non-sentinel GPs



Data Source: PHW Weekly Influenza & Acute Respiratory Infection Surveillance

2.2. UKHSA Weekly national influenza surveillance report

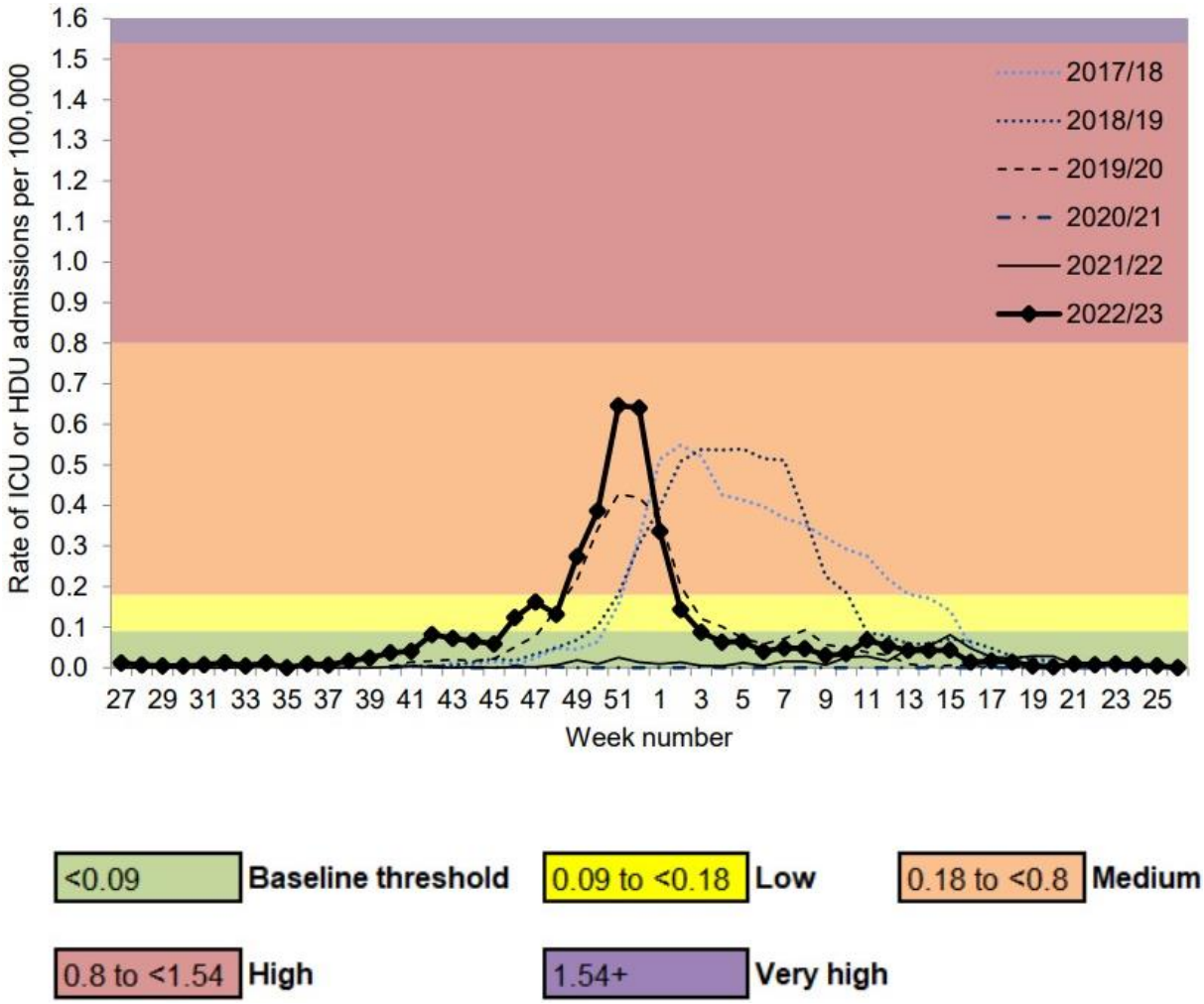
As of 6 July 2023, UKHSA reports[10], that influenza remained low and stable at 0.4% compared to the previous week, with highest positivity seen in the 15 to 44 years old age group at 1.1%. Through primary care surveillance, the influenza-like-illness consultations indicator remained stable in week 26 compared to the previous week and was within the baseline activity level range.

No influenza confirmed outbreaks were reported in week 26 in England.

Influenza ICU admissions remained low and stable in week 26 and remained within the baseline range of activity.

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

Figure 11 - Weekly influenza ICU or HDU admissions by influenza type, SARI Watch, England



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

2.3. WHO influenza update

As of 10 July 2023, WHO reports[11] that globally, influenza detections remained low, but in the southern hemisphere, some countries reported increased influenza detections in recent weeks while detections in other countries seemed to have peaked. In Europe, influenza detections were low in all reporting countries. Influenza B viruses predominated in Eastern Europe, A and B viruses were detected in roughly equal proportions in Northern Europe and A virus detections predominated in Southwest Europe. Pooled all-cause mortality estimates from the EuroMOMO network showed no excess mortality across all age groups.

2.4. Australian Influenza Surveillance

As of 14 July 2023, the Australian government reports that Influenza-like-illness (ILI) activity in the community reported to FluTracking and ILI presentations to ASPREN sentinel general practitioners (GPs) have been stable in the last fortnight.

In the year-to-date (1 January to 9 July 2023), there have been 149,989 notifications reported to the National Notifiable Diseases Surveillance System (NNDSS) in Australia, of which 32,132 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 149,989 notifications of laboratory-confirmed influenza, 134 influenza-associated deaths have been notified to the NNDSS.

Since seasonal surveillance commenced in April 2023, there have been 1,568 sentinel hospital admissions with influenza, of which 104 (6.6%) were admitted directly to ICU.

This fortnight, community ILI activity has stabilised, notifications of laboratory confirmed influenza to the NNDSS have stabilised, and admissions to sentinel hospitals with influenza appear to be decreasing.

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

[11] https://www.who.int/publications/m/item/influenza-update-n--445

2.5. Avian Influenza

As of 14 July 2023, UKHSA reports [12] that detections of influenza in farmed poultry continue but remain at low levels compared to the last quarter of 2022. Wild bird detections continue to be geographically dispersed across England with a strong association with gull and tern species. The joint Defra and APHA assessment states that there continues to be a high level of influenza transmission in wild birds across the UK. In March 2023, asymptomatic surveillance of people exposed to avian influenza commenced. By 10 July 2023, 144 individuals from 8 infected premises have been tested, of which 4 were positive (2.7% positivity). This represents 2 additional detections since the last technical briefing. Since 2021, there have been 5 human influenza A(H5N1) detections in the UK in total, including a detection in December 2021 in a surveillance pilot.

As of 12 July 2023, WHO reports that recently, there have been increasing reports of deadly outbreaks among mammals also caused by influenza viruses. 10 countries across three continents have reported outbreaks in mammals since 2022. There are likely to be more countries where outbreaks have not yet been detected or reported. Both land and sea mammals have been affected, including outbreaks in farmed mink in Spain, seals in the United States of America, and sea lions in Peru and Chile, with at least 26 species known to have been affected. H5N1 viruses have also been detected in domestic animals such as cats and dogs in several countries, with recent detections of H5N1 in cats announced by authorities in Poland. With the information available so far, the virus does not appear to be able to transmit from one person to another easily, but vigilance is needed to identify any evolution in the virus.

Given the unprecedented spread of the A(H5N1) avian influenza virus among birds and mammals, and the potential risk to human health, the tripartite partners—FAO, WHO and WOAH—urge countries to take the following actions:

- **Prevent avian influenza at its source**, mainly through enhanced biosecurity measures in farms and in poultry value chains, and apply good hygiene practices. WOAH members, in consultation with the poultry sector, may consider the vaccination of poultry as a complementary disease control tool based on sound surveillance and taking into account local factors such as circulating virus strains, risk assessment and vaccination implementation conditions.
- **Rapidly detect, report and respond to animal outbreaks** as the first line of defence. When an infection is detected in animals, countries are encouraged to implement control strategies as described in WOAH standards.
- **Strengthen influenza surveillance in animals and humans.** To allow for early response, risk-based surveillance **in animals** should be enhanced before and during high-risk periods. Animal cases of avian influenza should be reported to WOAH in a timely manner. Genetic sequencing should be conducted periodically to detect any changes in the viruses already present in

[12] Investigation into the risk to human health of avian influenza (influenza A H5N1) in England: technical briefing 5 - GOV.UK (www.gov.uk)

the area or the introduction of new viruses. **In humans**, the following should be prioritized: (i) surveillance for severe acute respiratory infections and influenza-like illnesses, (ii) careful review of any unusual epidemiological patterns, (iii) reporting of human infections under the International Health Regulations, and (iv) sharing of influenza viruses with WHO Global Influenza Surveillance and Response System (GISRS) Collaborating Centres for Reference and Research on Influenza.

- **Conduct epidemiological and virological investigations around animal outbreaks and human infections.** Surveillance should be enhanced to rapidly detect and investigate further suspected animal and human cases.
- **Share the genetic sequence data** of viruses from humans, animals or their environments in publicly accessible databases rapidly, even before peer-reviewed publication.
- **Encourage collaboration between the animal and human health sectors**, especially in the areas of information sharing, joint risk assessment and response.
- **Communicate the risk.** Alert and train healthcare workers and occupationally-exposed persons on ways to protect themselves. The general public as well as animal workers should be advised to avoid contact with sick and dead animals, and to report these to animal health authorities. They should also be advised to seek medical care if unwell and to report any exposure to animals to their healthcare provider.
- **Ensure influenza pandemic preparedness at all levels.**

WHO reports[13] that between 16 June and 22 June 2023, no new cases of human infection with avian influenza A(H5N1) virus were reported to WHO in the Western Pacific Region. As of 31 May 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.

Figure 12 - 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	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	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**

Whenever avian influenza viruses are circulating in poultry, there is a risk for sporadic infection and small clusters of human cases due to exposure to infected

[13] https://www.who.int/westernpacific/emergencies/surveillance/avian-influenza

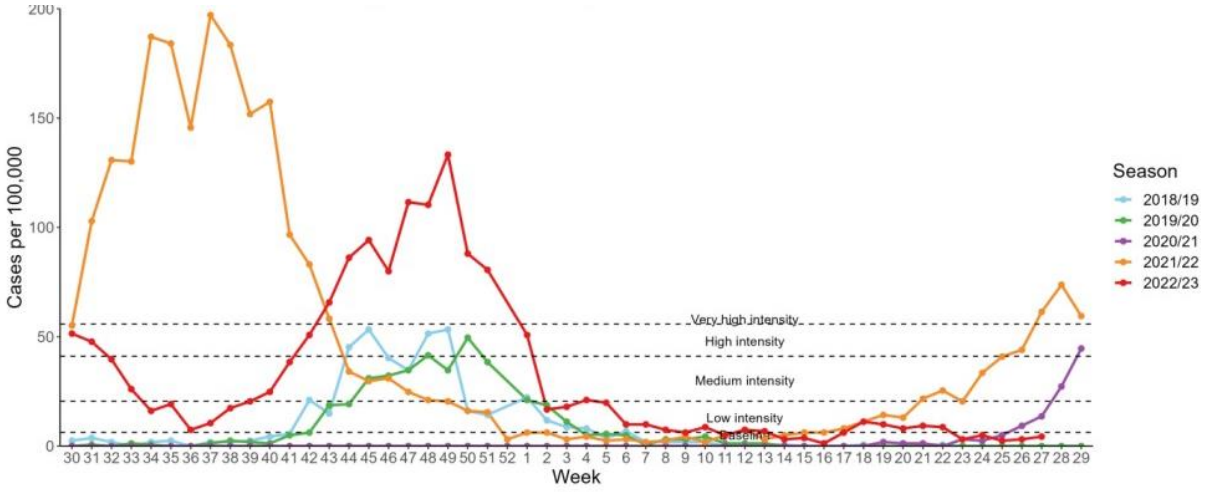
poultry or contaminated environments. Therefore, sporadic human cases are not unexpected. The rise in the number of reported human cases of A(H5N6) infection may reflect the continued circulation of the virus in birds, and enhanced surveillance system and diagnostic capacity as a direct outcome of the response to the COVID-19 pandemic. The zoonotic threat remains elevated due to the spread of the viruses among birds. However, the overall pandemic risk associated with A(H5) is considered not significantly changed in comparison to previous years. WHO recommends that Member States remain vigilant and consider mitigation steps to reduce human exposure to potentially infected birds to reduce the risk of additional zoonotic infection.

3. Respiratory Syncytial Virus (RSV) and Invasive Group A streptococcal update

- PHW report that cases of RSV in children under 5 years of age remains below the baseline threshold.
- UKHSA reports that the overall positivity for RSV remained low.
- PHW report that Scarlet fever and iGas notifications have decreased.

As of 13 July 2023, PHW report that RSV incidence in children younger than 5 remains below the baseline threshold.

Figure 13 - RSV Incidence rate in those aged under 5 in Wales, by week



As of 6 July 2023, UKHSA reports[14] the overall positivity for RSV remained low at 0.2%, with the highest positivity in those aged under 5 years old at 1.2%. Emergency department attendances for acute bronchiolitis remained stable nationally.

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

3.1. Incidence data for Strep A and Scarlet Fever

As of 13 July 2023, PHW report that Scarlet fever and iGas notifications have decreased as at 09 July 2023.

Figure 14 - PHW Scarlet Fever Notifications by year, 09 July 2023

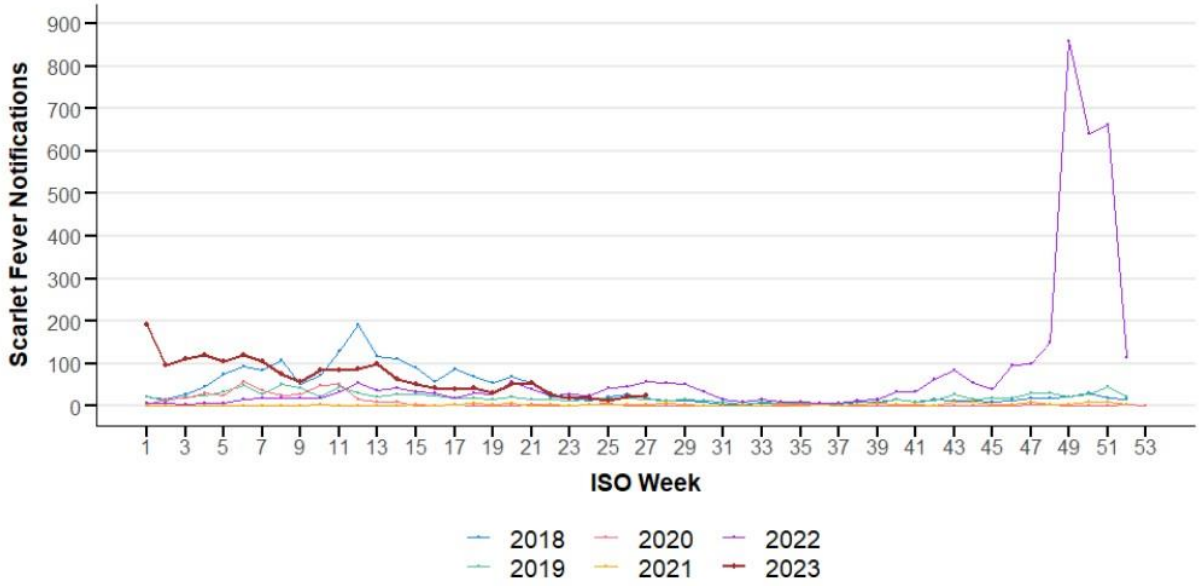


Figure 15 - PHW Lab Confirmed Invasive group A streptococcal infections, 09 July 2023