

Science Evidence Advice

Weekly Surveillance Report

2 April 2024



Science Evidence Advice (SEA)

gov.wales

Providing evidence and advice for Health and Social Services Group on behalf of the Chief Scientific Advisor for Health

Science Evidence Advice: Weekly Surveillance Report

Top Line Summary

= Decreasing = Increasing = Stable

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Overall, COVID-19 infections have decreased in the most recent week. While not consistent across all indicators, many of the indicators remain relatively stable.	
COVID-19 Hospital admissions decreased in the most recent week.	
During week 12 there were 195 confirmed cases of influenza in Wales which is a decrease from 233 confirmed cases in the previous week.	
RSV activity in children under 5 years has remains stable at low intensity levels.	
Whooping Cough Notifications and Confirmations have increased in the most recent week.	1
Scarlet Fever notifications are stable in the most recent week.	
There was a decrease in Norovirus cases in the most recent reporting week (week 12)	

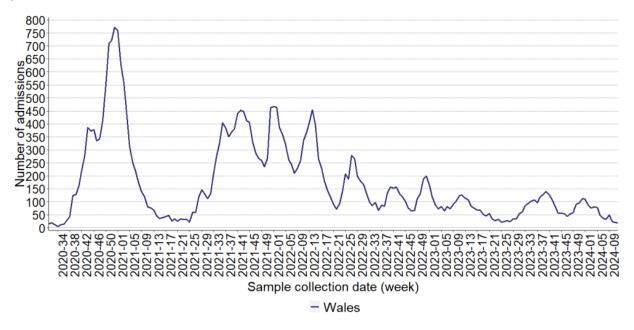
1. COVID-19 Situation Update

Overall, COVID-19 infections have decreased in the most recent week. While not consistent across all indicators, many of the indicators remain relatively stable.

- At a national level, the weekly number of confirmed case admissions to hospital and the number of cases who are inpatients has decreased in week 12, following a gradual declining trend in recent weeks. As at 24 March 2024, 99 people currently in hospital have had a positive COVID-19 test, including 3 currently in ICU.
- The all-Wales incidence as estimated using PCR episodes remains at low levels.
- The number of deaths from any cause has slightly increased in the latest reported data available from ONS and remains above the 5 year average.
- In the last four reporting weeks, V-23DEC-01 (Omicron, JN.1) is the most dominant variant in Wales, accounting for **96.3%** of all sequenced cases.

- There were **3** new respiratory incidents recorded in the health protection case and incident management system (Tarian) in week 12 2024, this has remained stable since the previous week. Of the respiratory incidents, all 3 were found in residential homes.
- The proportion of calls to NHS 111 and NHS Direct related to possible COVID-19 symptoms has decreased slightly in week 12 compared to previous weeks. GP consultations for any Acute Respiratory Infection (ARI) have slightly increased in the most recent week and consultations for suspected COVID have remained stable at very low levels.
- The overall number of ambulance calls related to COVID-19 has decreased and the proportion of incidents remains relatively unchanged in week 12.

Figure 1: Weekly number of admissions to all hospitals in Wales testing positive on or within 28d prior to admission, Wales (ICNET clinical surveillance software)(source: PHW)



Wastewater Signal

The latest Wastewater monitoring report from Welsh Government (WG) (in collaboration with Bangor and Cardiff Universities) with data up to 26 March suggests that the wastewater signal for COVID-19 remains at low levels and continues to decline in the most recent week (Figure 2).

Note. Level of SARS-CoV-2 given as a 10 day rolling mean at the national (bold line) and healthboard (faint lines) level. An upper limit has been placed on the y axis, which obscures a high healthboard value but, allows better visualisation of the national trend.

Figure 2: Wastewater signal

SARS-CoV-2

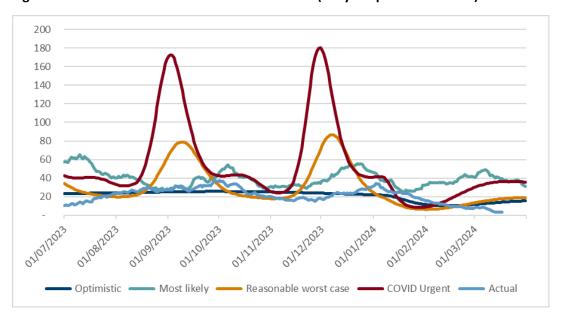
National Summary



SEA Winter Scenarios

The Science Evidence Advice (SEA) division (WG) <u>Winter COVID-19 scenarios</u> have been plotted against the actual COVID-19 hospital admissions data from PHW. Currently the actual data is tracking well below the 'most likely' scenario (which is the COVID-19 series from last Winter) and is now well below the 'reasonable worst case' and 'optimistic' scenarios developed for the Winter season.

Figure 3: SEA COVID-19 scenarios vs. PHW actuals (daily hospital admissions)



Swansea University Mid Term Projections

The latest available Swansea University MTPs using data up to 13 March project a plateau in COVID-19 non-ICU hospital admissions through April and continuing on this trajectory through May. ICU admissions remain at low levels.

Figure 4: Daily COVID-19 hospital admissions, projected to May 2024

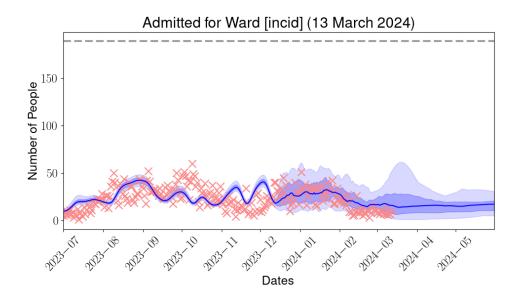
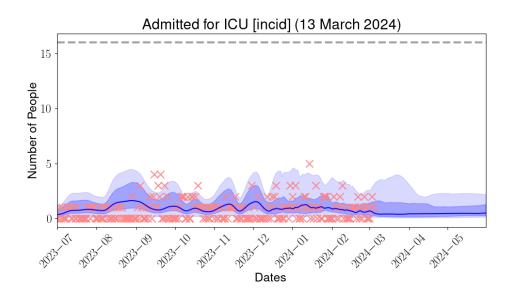


Figure 5: Daily COVID-19 ICU admissions, projected to May 2024

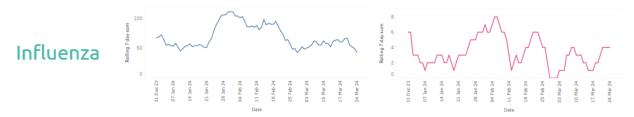


Notes: In the charts above, red crosses represent actual COVID-19 cases data. The blue line represents the central modelling estimate. The blue ribbon represents the confidence intervals, with the darker blue ribbon indicating the 25th to 75th percentiles, and the 95% confidence limits in the lighter ribbon.

2. Influenza Situation Update

Current levels of influenza are low and the overall current trend is decreasing. During week 12 (ending 24/03/2024) there were **195** confirmed cases of influenza in Wales (**25** influenza A(H1N1), **103** for influenza A (not subtyped), **11** for influenza A(H3) and **56** for influenza B).

Figure 6: 7 day rolling sum of influenza case admissions to hospital in Wales (source: PHW)



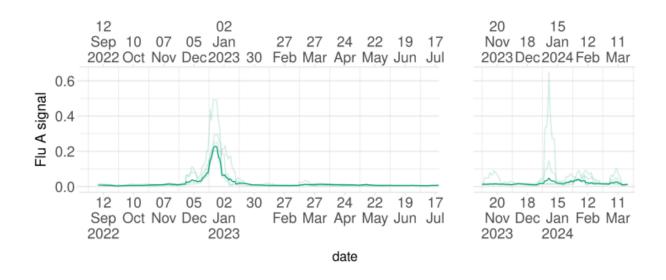
Wastewater Signal

The latest wastewater monitoring report using data up to the 26 March shows a stable picture at low levels for Influenza A signal in the most recent period.

Figure 7: Influenza A Wastewater signal

Influenza A (flu-A) virus

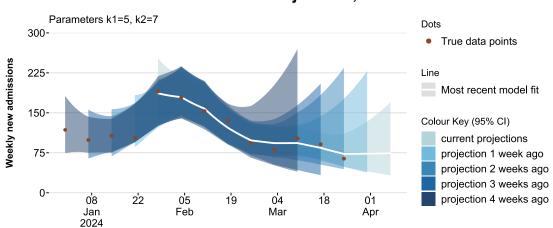
National Summary



SEA Short term projections (STPs)

SEA have developed STPs for influenza which uses admissions data from PHW until 24 March 2024 to make short term projections for influenza 2 weeks forward (7 April 2024). The brown dots show the actual data points while the white line is the best fit from the most recent projection. The colour shadings represent the 95% confidence interval of the projections with light blue showing the most recent projection and the dark blue showing the oldest.

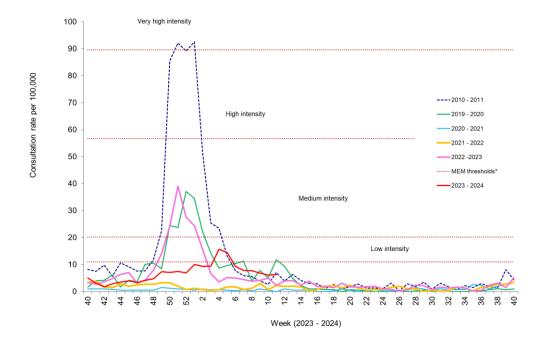
Figure 8: Influenza STPs (hospital admissions – PHW data)



Welsh Influenza Admissions Projections, Data until 24 March 2024

There is evidence of a continued decrease in syndromic surveillance of influenza like illness (ILI) in the most recent period and this is at the low intensity level. The figure below shows a decrease in week 12 (the bright red line is the 2023-2024 influenza season).

Figure 9: Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (source: PHW)



3. Other Infectious Diseases

3.1 Whooping Cough

Public health experts in Wales are encouraging all pregnant women and parents of babies and young children to ensure that they have had their Pertussis (Whooping Cough) vaccinations as cases in Wales show rapid increase in recent weeks.

Whooping cough has waves of increased infection every 3-4 years and in the last few weeks, notifications of whooping cough have risen sharply. Following reduced circulation in 2020-2022, current notifications are at levels not seen since 2012 and 2015. Laboratory confirmed cases have not yet risen in line with notifications but are likely to increase as test results are reported.

Figure 10 below shows the significant increase in both notifications and confirmations of whooping cough up to the end of week 12.



Figure 10 Weekly notifications and confirmations of Pertussis/Whooping Cough in Wales in the 2023-24 season year. (Source: PHW)

3.2 iGAS and Scarlet Fever

The number of iGAS notifications are currently low, remaining at seasonally expected levels. Scarlet Fever notifications are stable in the most recent week as shown in the figures below (up to 24 March) with Figure 11 showing the rise for the current season (the bright red line on the chart). These notifications are over 100 a week compared to the peak of over 800 notifications in January 2023.

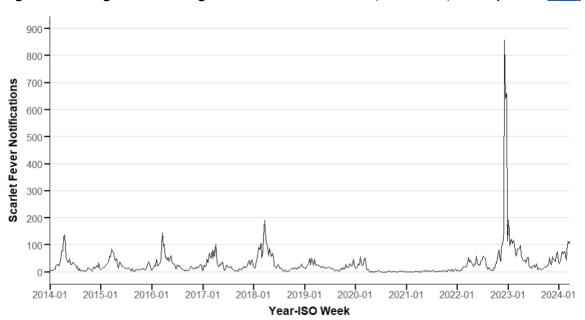


Figure 11: Rolling 3 Week Average Scarlet Fever Notifications, 2014-2024, Wales (source: PHW)

45 46 Week

Data as at 2024-03-26

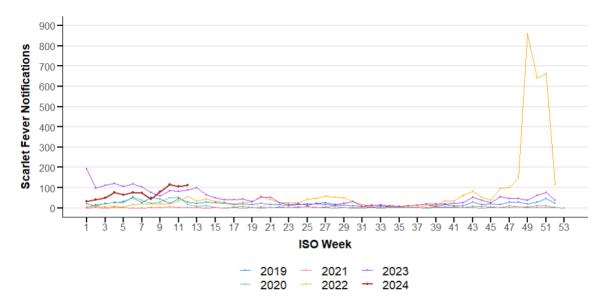
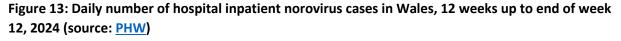


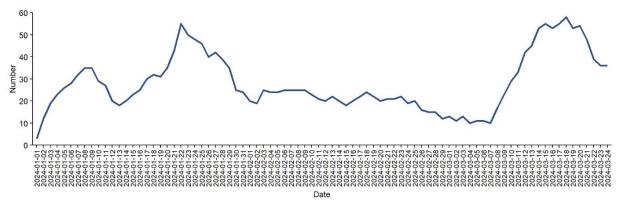
Figure 12: Rolling 3 Week Average Scarlet Fever Notifications, 2014-2024, Wales (Source: PHW)

3.3 Norovirus

PHW report that:

- During week 12, **48** new cases of norovirus were confirmed in Wales. **34** (71%) were hospital acquired. This is a **decrease** of 20 cases compared to week 11. The proportion of hospital acquired cases has remained the same.
- At the end (23:59 on Sunday) of week 12, there were **36** patients in hospital with confirmed norovirus. This is a decrease of 19 inpatient cases compared to the end of week 11. The number of wards with at least one case has **decreased** from 27 to 16 wards across 7 hospitals in 5 health boards.
- The number of wards with at least one case has increased from 19 to 26 wards across 10 hospitals in 6 health boards.





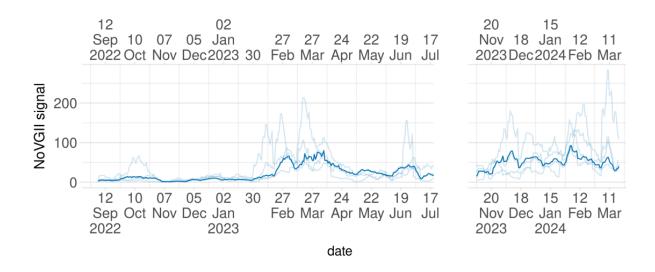
<u>Wastewater</u>

The latest wastewater report with data up to the 20 March indicates that Norovirus is still at relatively high levels nationally and has seen an increase in the most recent period (following a downward trend previously).

Figure 14: Wastewater signal for Norovirus genogroup II (NoVGII)

Norovirus genogroup II (NoVGII)

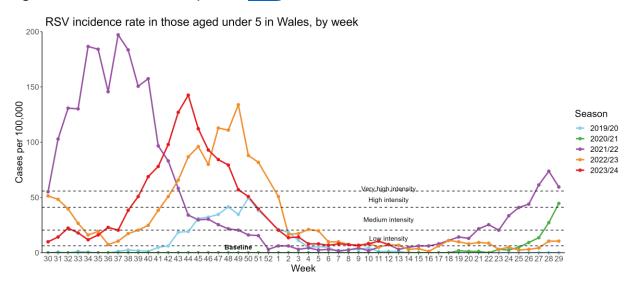
National Summary



3.4 Respiratory Syncytial Virus (RSV) update

RSV activity in children under 5 years has stabilised in the most recent week and remains at low intensity levels (compared to historic levels before 2021).

Figure 15: RSV Incidence Rate (source: PHW)



4. Health Board Analysis

4.1 Short Term Projections for Influenza and RSV

SEA have produced short term projections (STPs) for Influenza and RSV which can be produced at the Local Health Board unit.

The Influenza STPs uses admissions data from PHW until 17 March 2024 to make short term projections for Flu 2 weeks forward (31 March 2024). The brown dots show the actual data points while the white line is the best fit from the most recent projection. The colour shadings represent the 95% confidence interval of the projections with light blue showing the most recent projection and the dark blue showing the oldest. The STPs for Health Boards how that Influenza is on a downward trend or plateauing in all Health Boards apart from Cardiff and Vale UHB.

Local healthboard Influenza Admissions Projections, Data until 24 March 2024 Parameters k1=5, k2=7 Aneurin Bevan Betsi Cadwaladr Cardiff and Vale 60 20 50-40 True data points 15-30-10-Weekly new admissions 20 20 5-10 Most recent model fit 0-Taf Morgannwg Swansea Bay Colour Key (95% CI) 100 80 30 current projections 75 projection 1 week ago 60 20 projection 2 weeks ago 50 40 projection 3 weeks ago 20. projection 4 weeks ago 08 22 05 19 19 04 18 Feb Feb Mar Feb 2024

Figure 16: SEA short term projections for Influenza

The RSV STPs use admissions data from PHW until 24 March 2024 to make short term projections for RSV 2 weeks forward (7 April 2024). The brown dots show the actual data points while the white line is the best fit from the most recent projection. The colour shadings represent the 95% confidence interval of the projections with light green showing the most recent projection and the dark green showing the oldest. This shows a slight uptick in Aneurin Bevan and Cwm Taf Morgannwg Health Boards but a stable picture overall.

Jan 2024

Local healthboard RSV Admissions Projections, Data until 24 March 2024 Parameters k1=3, k2=4, k3=3 Aneurin Bevan Betsi Cadwaladr Cardiff and Vale 12.5 Dots 10.0-True data points 15-7.5-5.0-10-Weekly new admissions 10-Line 5-2.5-Most recent model fit 0.0-0-0-Cwm Taf Morgannwg Hywel Dda Swansea Bay Colour Key (95% CI) current projections 20-9-10projection 1 week ago 15-6projection 2 weeks ago 10projection 3 weeks ago 3-5projection 4 weeks ago 19 04 Mar 19 04 18 01 Mar Apr 0⁵ 1⁹ Feb 80 0[']4 Mar 80 22 80 18 18

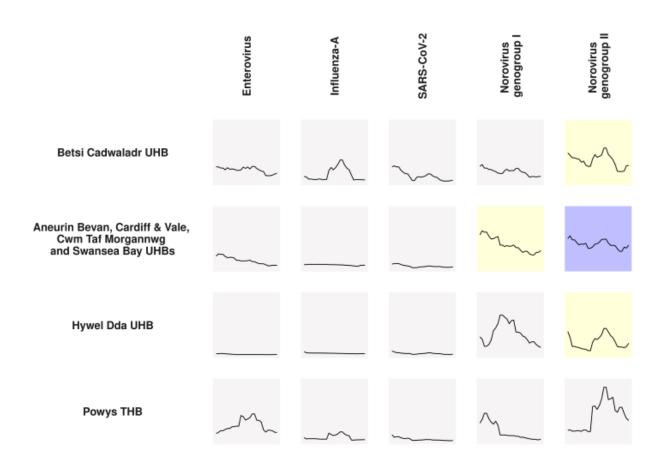
Figure 17: SEA short term projections for RSV

4.2 Wastewater signal HB summary

Wastewater monitoring has produced a graphic that allows a range of infections to be viewed in summary across the health boards, as follows:

Jan 2024

Figure 18: Wastewater monitoring Health Board summary



Plot backgrounds are shaded according to the average actual signal (%) during the most recent week. Lines represent the smoothed signal during the most recent 4 week period.

All values are a percentage of the highest observed value per virus per area since wastewater monitoring commenced. The background shades are divided into 3 categories, light grey: average actual signal < 20%, mid yellow: $20\% \le \text{average}$ actual signal < 40%, and dark blue: $40\% \le \text{average}$ actual signal. The smoothed signal is a 10 day rolling average.

Blue shading represents higher signal levels which indicates that Norovirus is only at elevated levels in the area covering Aneurin Bevan, Cardiff and Vale, Cwm Taf Morgannwg, and Swansea Bay Health Boards.