

# Science Evidence Advice

Weekly Surveillance Report

18 March 2024

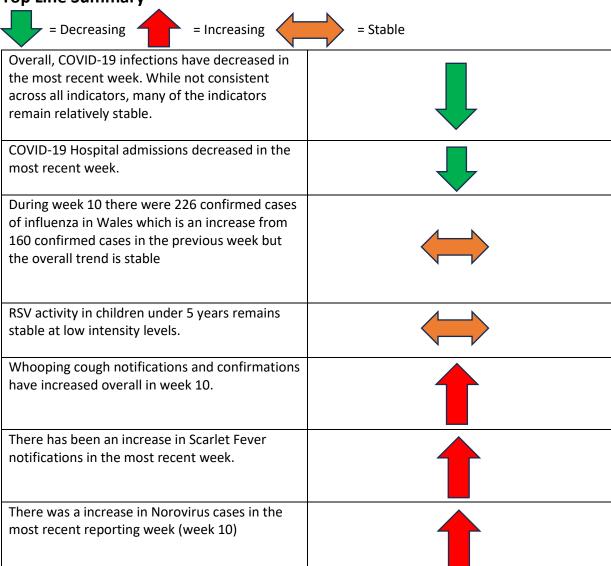


Science Evidence Advice (SEA)

gov.wales

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

# **Top Line Summary**



#### 1. COVID-19 Situation Update

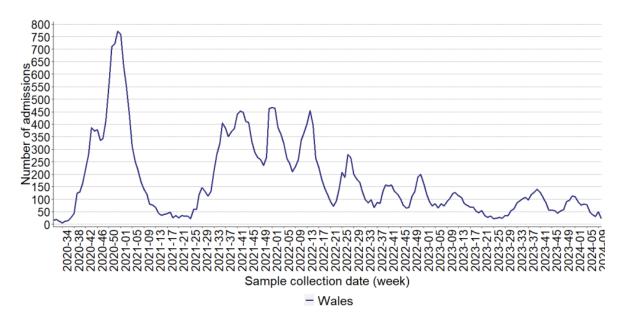
Overall, COVID-19 infections have decreased in the most recent week. While not consistent across all indicators, many of the indicators remain relatively stable.

- 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 10, following a gradual declining trend in recent weeks. As at 10 March 2024, 132 people currently in hospital have had a positive COVID test, including 2 currently in ICU compared to 152 and 4 in the previous week.
- The all-Wales incidence as estimated using adjusted PCR and LFD episodes remains at low levels and relatively stable. On the 1st of February 2024, the UK portal used to order LFT tests and report these results was decommissioned. PHW testing surveillance related to LFTs will be under review and subject to change. Due to low numbers of lateral flow tests,

reporting on rolling seven day positivity has been discontinued as of the 21st of February 2024.

- The number of deaths from any cause has decreased in the latest reported data available from <u>ONS</u> 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 **89.7%** of all sequenced cases.
- There were **3** new respiratory incidents recorded in the health protection case and incident management system (Tarian) in week 10 2024, this has remained stable since the previous week. Of the respiratory incidents, 2 were found in residential homes and the third in other settings.
- The proportion of calls to NHS 111 and NHS Direct related to possible COVID-19 symptoms has decreased slightly in week 10 compared to previous weeks. GP consultations for any Acute Respiratory Infection (ARI) have slightly decreased 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 slightly increased and the proportion of incidents remains relatively unchanged in week 10.

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

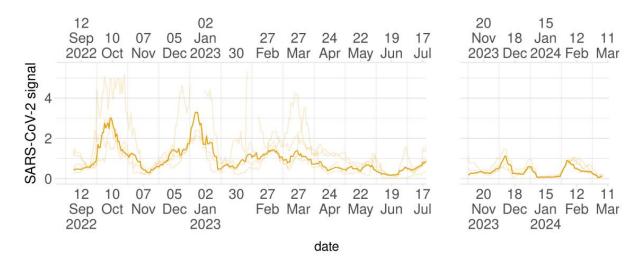
The latest Wastewater monitoring report from Welsh Government (WG) (in collaboration with Bangor and Cardiff Universities) with data up to 6 March suggests that the wastewater signal for COVID-19 remains at low levels in the most recent week (Figure 2).

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

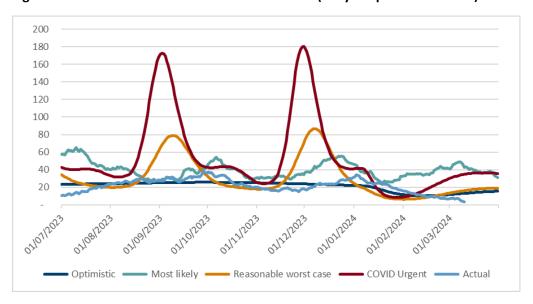
#### **National Summary**



# **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 also 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 23 February project an increase in COVID-19 non-ICU hospital admissions through March before plateauing at relatively low levels. ICU admissions remain at low levels.

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

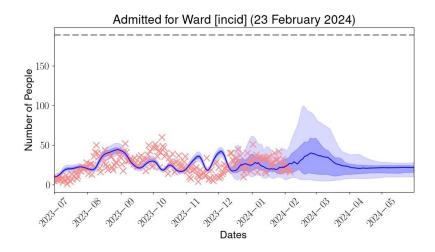
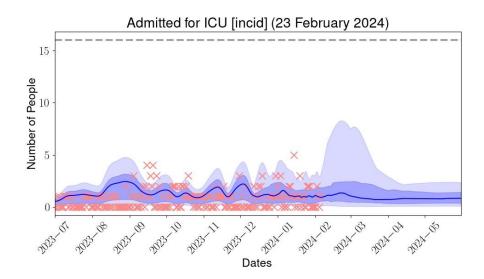


Figure 5: Daily COVID-19 ICU admissions, projected to May 2024

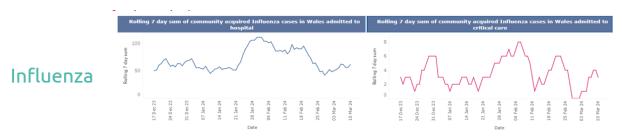


Notes: In the charts above, red crosses represent actual COVID-19 cases data. The blue line represents the central modelling estimate. The blue ribbon represents the confidence intervals, with the darker blue ribbon indicating the 25th to 75th percentiles, and the 95% confidence limits in the lighter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

#### 2. Influenza Situation Update

Current levels of influenza are low and the overall current trend is decreasing. During week 10 (ending 10/03/2024) there were **224** confirmed cases of influenza in Wales. Of these there were **29** for influenza A(H1N1), **139** for influenza A (not subtyped), **28** for influenza A(H3) and **28** for influenza B)).

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



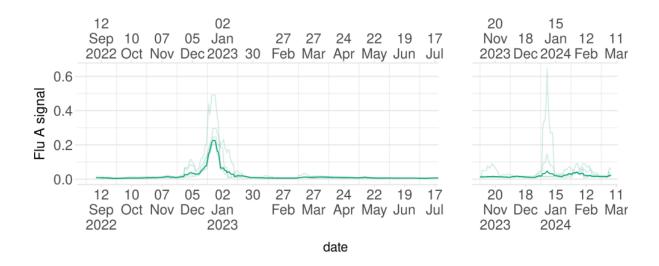
#### Wastewater Signal

The latest wastewater monitoring report using data up to the 6 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 Winter modelling scenarios**

SEA developed three alternative influenza season <u>scenarios</u> based on previous flu seasons and varying in severity. Tracking these against actual admissions data from PHW shows that this influenza season is later than the scenarios envisaged. There is a continued decrease in the most recent week possibly suggesting that the flu season has peaked at quite low levels this Winter in comparison to the scenarios produced.

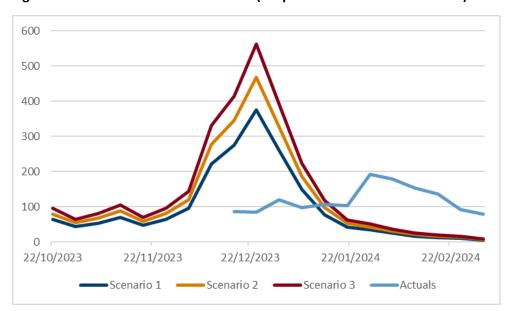
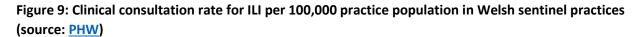
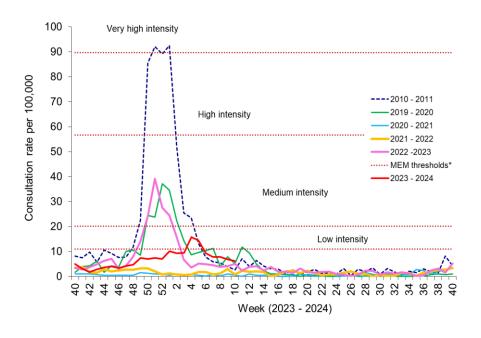


Figure 8: Influenza scenarios vs. Actuals (hospital admissions – PEDW data)

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 10 (the bright red line is the 2023-2024 influenza season).





#### 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 13 below shows the **decrease** in both notifications and confirmations up to week 10.

Whooping Cough notifications remain at an elevated level and have increased in the most recent week following a steady decline.

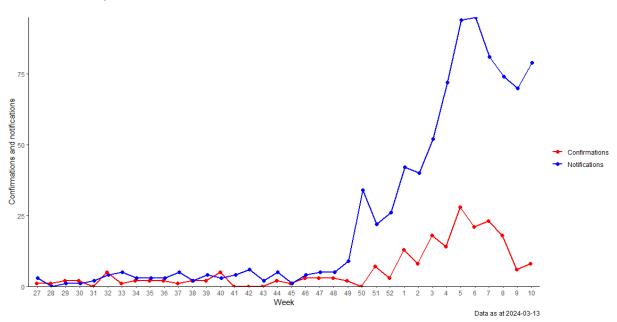
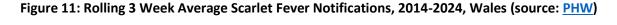


Figure 10: Weekly notifications and confirmations of Pertussis/Whooping Cough in Wales in the 2023-24 season year. (Source: PHW)

#### 3.2 iGAS and Scarlet Fever

The number of iGAS notifications are currently low, remaining at seasonally expected levels. Scarlet Fever notifications have **increased** in the most recent week as shown in the figures below (up to 10 March) with Figure 12 showing the rise for the current season (the bright red line on the chart). These notifications are now over 100 a week compared to the peak of over 800 notifications in January 2023.



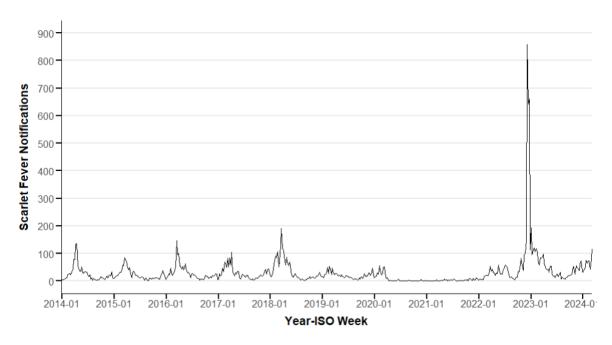
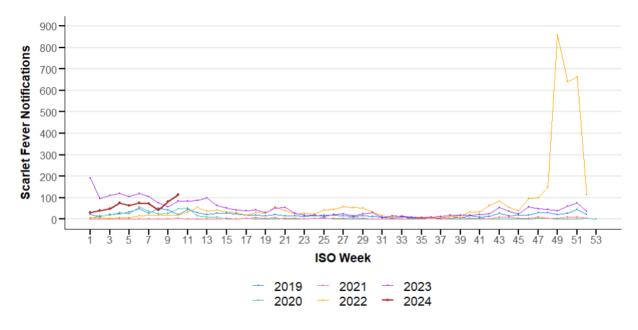


Figure 12: Rolling 3 Week Average Scarlet Fever Notifications, 2014-2024, Wales (Source: PHW)



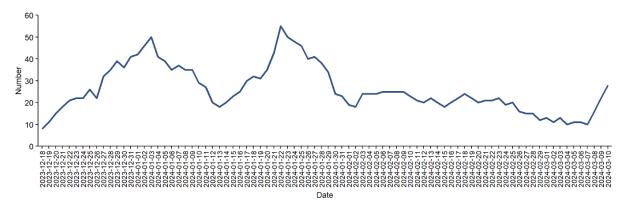
#### 3.3 Norovirus

# PHW report that:

• During week 10, 47 new cases of norovirus were confirmed in Wales. 23 (49%) were hospital acquired. This is an increase of 17 cases compared to week 9. The proportion of hospital acquired cases has increased from 20%.

- At the end (23:59 on Sunday) of week 10, there were 28 patients in hospital with confirmed norovirus. This is an increase of 15 inpatient cases compared to the end of week 9.
- The number of wards with at least one case has increased from 9 to 18 wards across 8 hospitals in 5 health boards.

Figure 13: Daily number of hospital inpatient norovirus cases in Wales, 12 weeks up to end of week 10, 2024 (source: PHW)



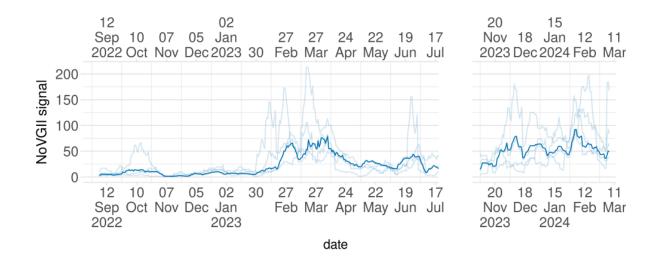
#### Wastewater

The latest wastewater report with data up to the 6 March indicates that Norovirus is still at relatively high levels nationally but continues to decrease in the most recent period (with a slight tick upwards in the last few days).

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 remains stable compared with the previous week and remains at low intensity levels (compared to historic levels before 2021).

RSV incidence rate in those aged under 5 in Wales, by week

Season

2019/20
2020/21
2020/21
2020/22
2020/23
2020/24

Medium intensity

Low intensity

Low intensity

Low intensity

Low intensity

Bastomap

3031 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

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 10 March 2024 to make short term projections for Flu 2 weeks forward (24 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 in all Health Boards apart from Hwyl Dda Health Board and Betsi Cadwaladr Health Board.

Dec Jan

20232024

Feb

Figure 16: SEA short term projections for Influenza

#### Parameters k1=5, k2=5 Cardiff and Vale Aneurin Bevan Betsi Cadwaladr 25-50 Dots 60 20-40- True data points 15-30 40 Weekly new admissions 10-20 Line 20-Most recent model fit Cwm Taf Morgannwg Hywel Dda Swansea Bay Colour Key (95% CI) 100· current projections 60-75-40 projection 1 week ago 40 projection 2 weeks ago 50 projection 3 weeks ago 20projection 4 weeks ago 0-0 08 22 25 08 22 05 19 04 18 25 05 19 04 25 08 22 05 18 18 19

Feb

20232024

Local healthboard Influenza Admissions Projections, Data until 10 March 2024

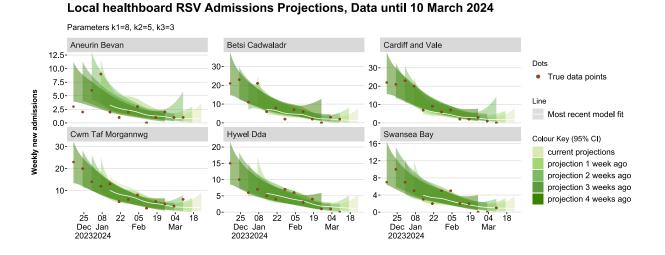
The RSV STPs use admissions data from PHW until 10 March 2024 to make short term projections for RSV 2 weeks forward (24 March 2024). The brown dots show the actual data points while the white line is the best fit from the most recent projection. The colour shadings represent the 95% confidence interval of the projections with light green showing the most recent projection and the dark green showing the oldest. The RSV STPs show the decline in RSV across the Health Boards.

Feb

Jan

20232024

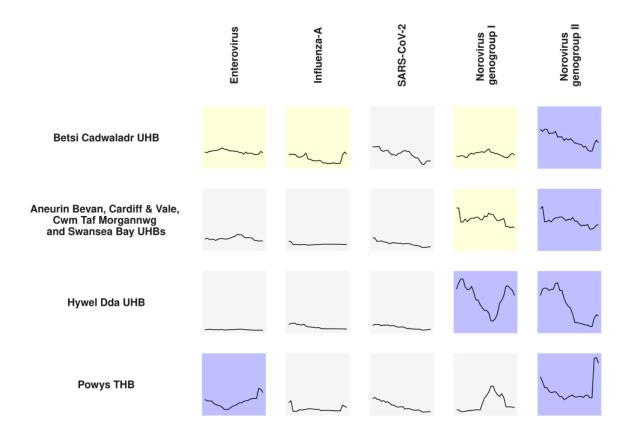
Figure 16: SEA short term projections for Influenza



### 8.2 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:

Figure 17: 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.

Yellow and blue shading represent higher signal levels which indicates that Norovirus is still at elevated levels across the Health Boards and that Enterovirus is elevated in Powys THB.