Llywodraeth Cymru
Welsh Government

Science Evidence Advice

Weekly Surveillance Report

11 February 2025

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Science Evidence Advice (SEA)

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

A. Top Line Summary (as at week 5 2025, up to 2nd February 2025)

- Overall, COVID-19 confirmed case admissions to hospital **increased** in the most recent week.
- COVID-19 cases who are inpatients have **remained stable** in the most recent week.
- RSV activity in children under 5 years has **decreased** in the most recent week.
- Influenza in-patient cases and admissions have **decreased** in the latest week.
- Whooping Cough notifications have **increased** in the most recent week (week 3).
- Scarlet Fever notifications **increased** in the most recent week.
- Norovirus confirmed cases have **decreased** in the most recent reporting week.

B. Acute Respiratory Infections Situation Update

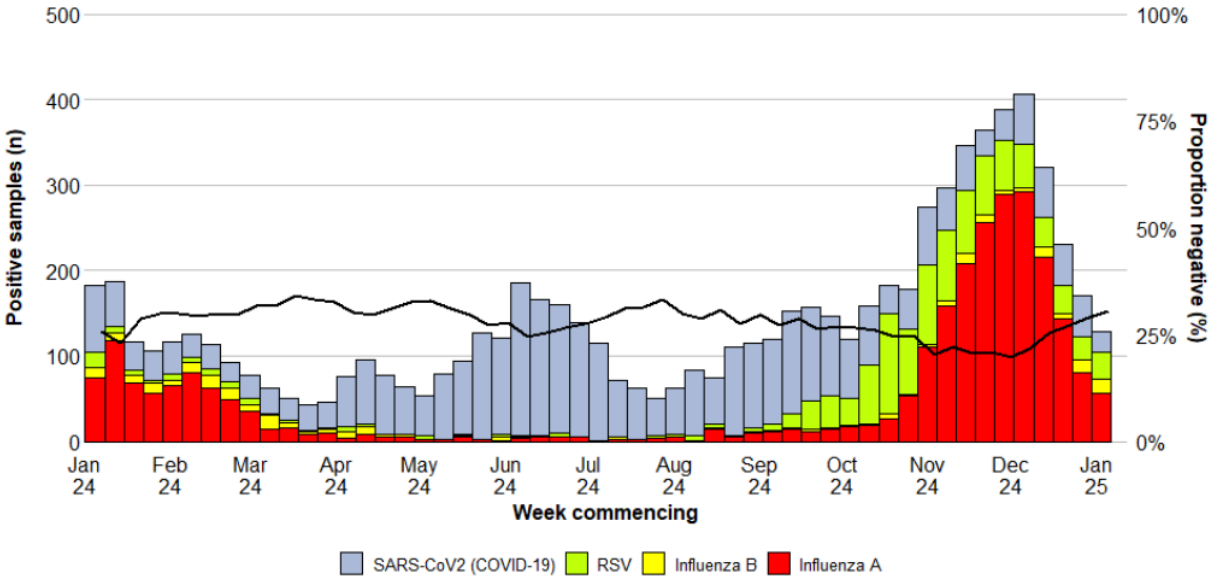
B1. COVID-19 Situation Update

COVID-19 case numbers have remained broadly stable in recent weeks

- At a national level, the weekly number of confirmed cases of community-acquired admissions to hospital and the number of cases who were inpatients have **remained broadly stable** in week 5 2025 (to 2 February 2025).
- As at 2 February 2025 (week 5), the number of confirmed cases of community acquired COVID-19 admitted to hospital increased to **18** from **12** in the previous week and there were **185** in-patient cases of confirmed COVID-19, **1** of whom was in critical care compared to **210** and **none** in the previous week.
- The overall proportion of samples testing positive for COVID-19 in hospitals and sentinel GP practices decreased to **3.7%** in the most recent week (week 5) compared with **4.0%** in the previous week. Consultations with sentinel GPs for ARI decreased in the most recent week (week 5) and confirmed cases of COVID-19 in sentinel GP patients remained stable.
- During week 5, according to European Mortality Monitoring (EuroMoMo) methods, 'no excess deaths' were reported in the weekly number of deaths from all causes in Wales.
- In the last four reporting weeks, **Omicron XEC** is the most dominant COVID-19 variant in Wales, accounting for **56.9**% of all sequenced cases.
- The number of Ambulance calls recorded referring to syndromic indicators increased from **1,796** in the previous week to **1,910** in the latest reporting week (week 5).
- During week 5, **10** ARI outbreaks were reported to the Public Health Wales Health Protection Team. Three were influenza, two were RSV, one was COVID-19, one was

influenza A/RSV and three were influenza like illness. Nine were in residential homes and one was in a hospital.

Figure 1: Samples from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, by week of sample collection, Week 5, 2024 to Week 5, 2025. (source: PHW)



COVID-19 Short Term Projections

The Science Evidence Advice team at Welsh Government have produced short term projections (STPs) for COVID-19 which can be produced nationally and at the Local Health Board unit. STPs project 2 weeks forward from 8 weeks of current data, and do not explicitly factor in properties of the infectious disease, policy changes, changes in testing, changes in behaviour, emergence of new variants or rapid changes in vaccinations.

The COVID-19 STPs uses admissions data from PHW until 1 February 2025 to make short term projections for COVID-19 two weeks forward (15th February 2025). The black 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 purple showing the most recent projection and the dark purple showing the oldest. The STPs for Wales show that COVID-19 admissions are projected to continue to decrease over the next two week period (Figure 2). Figure 3 shows that COVID-19 admissions are projected to decrease across all health boards in Wales over the next two weeks.

Figure 2: Short Term Projections for COVID-19 hospital admissions in Wales (data until 1 February 2025)

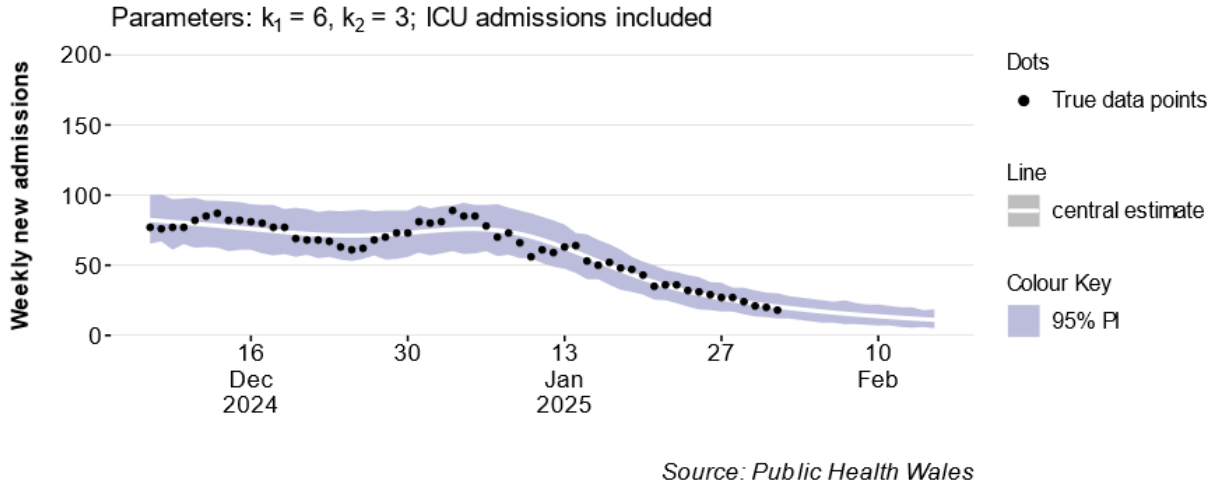
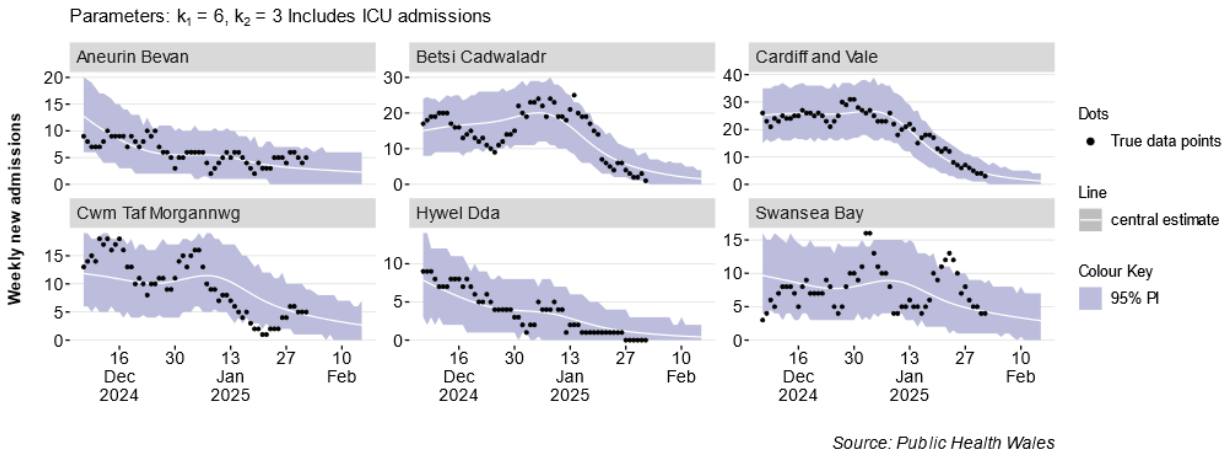


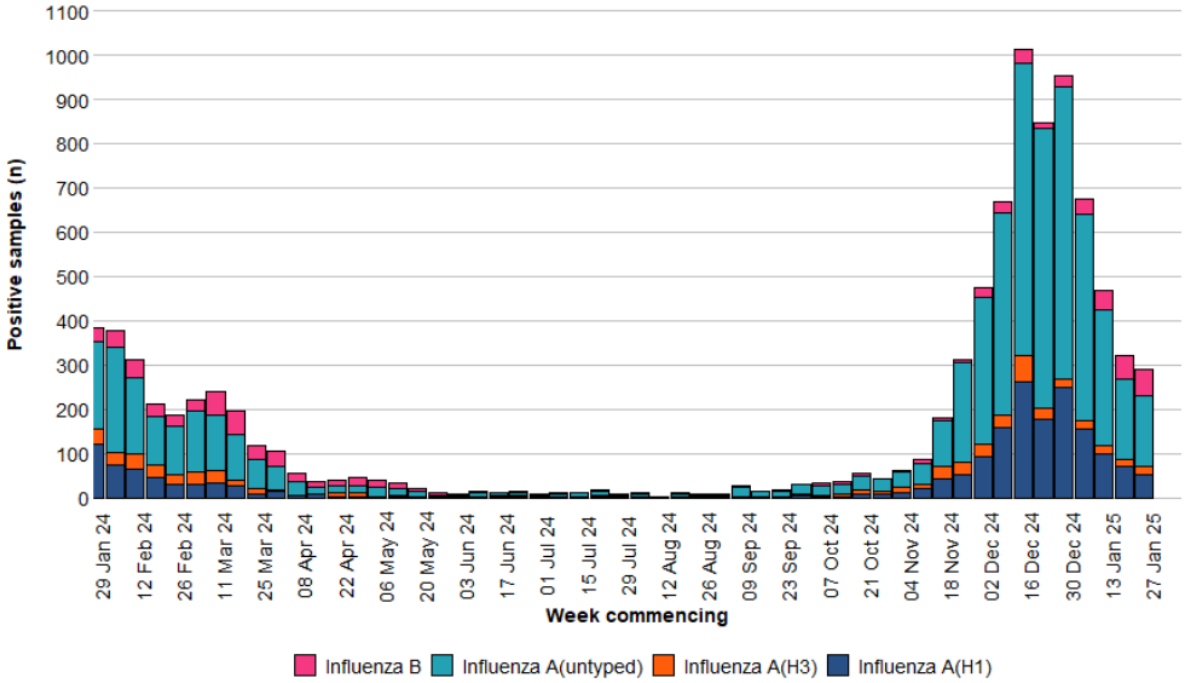
Figure 3: Short Term Projections for COVID-19 hospital admissions in Wales Health Boards (data until 1 February 2025)



B2. Influenza Situation Update

Influenza is **still circulating** with activity now at "**low**" intensity levels. GP consultations for influenza-like illness and confirmed case numbers have decreased in the current week, as did test positivity. During the week ending 2 February the number of confirmed cases of community acquired influenza admitted to hospital decreased to **84** and there were **292** in-patient cases of confirmed influenza, **4** of whom were in critical care (compared to **384** and **11** in the previous week). In week 5 2025, there were 20 confirmed cases of influenza A(H3N2), 51 cases of influenza A(H1N1)pdm09, 160 influenza A untyped and 60 influenza B. (Figure 4).

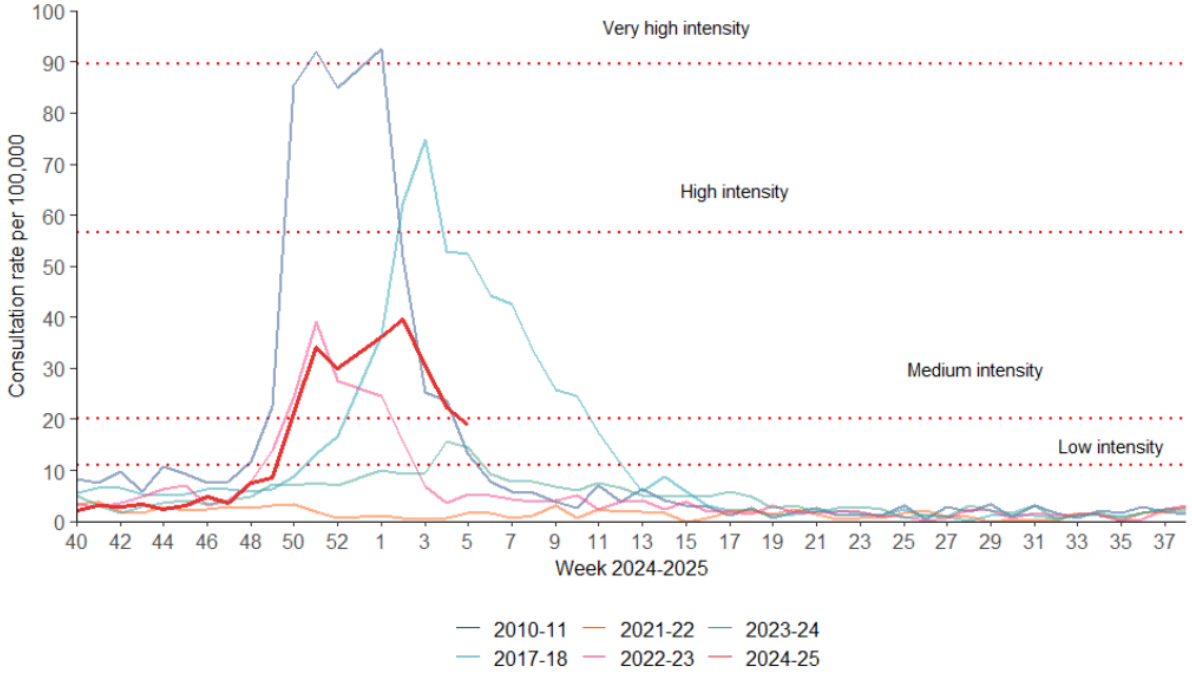
Figure 4: Influenza subtypes based on samples submitted for virological testing by Sentinel GPs and community pharmacies, hospital patients, and non-Sentinel GPs, by week of sample collection, Week 5, 2024 to Week 5, 2025 (source: PHW)



The sentinel GP consultation rate for influenza-like illness (ILI) is at low intensity and the three-week trend is decreasing. There were **18.9** ILI consultations per 100,000 practice population in the most recent week, a decrease compared to the previous week (22.2 consultations per 100,000).

In the most recent week, using all available data from general practices, there were 18.3 ARI consultations per 100,000 practice population, stable compared to the previous week. The highest rates were found in people aged under 1 year (951.7) followed by people aged 1 to 4 (702.8) and people aged 5 to 14 (251.4).

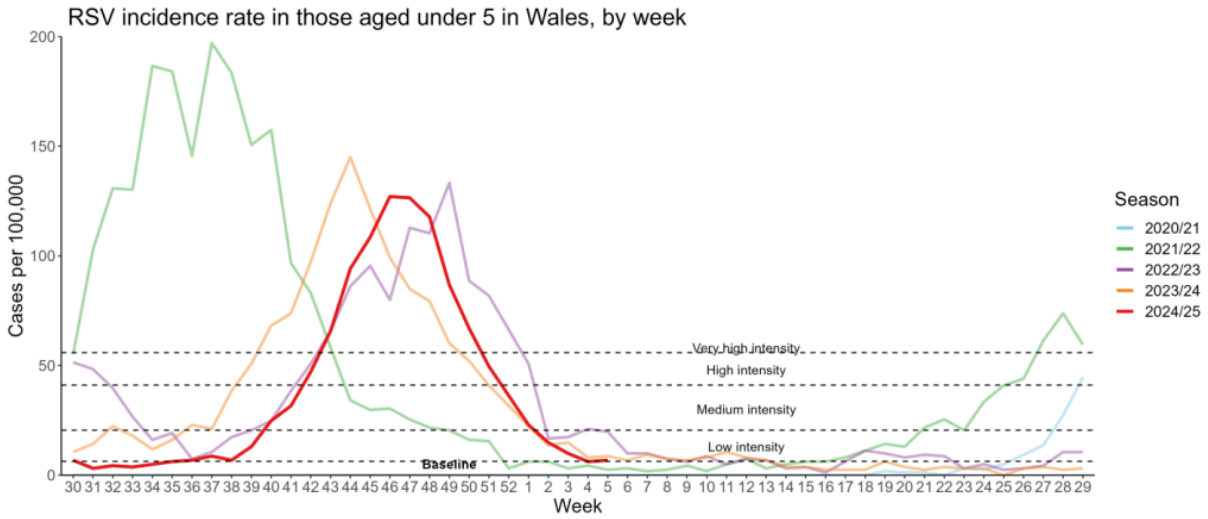
Figure 5: Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (source: PHW)



B.3. Respiratory Syncytial Virus (RSV) update

RSV has been decreasing in recent weeks and activity is now at low intensity levels in children aged up to 5 years old (week 5 2025). Incidence per 100,000 population in children aged up to 5 years remained stable at **6.8** in the most recent week (**6.2** in the previous week). The number of confirmed cases of community acquired RSV admitted to hospital increased to **38** in the most recent week (**31** in the previous week).

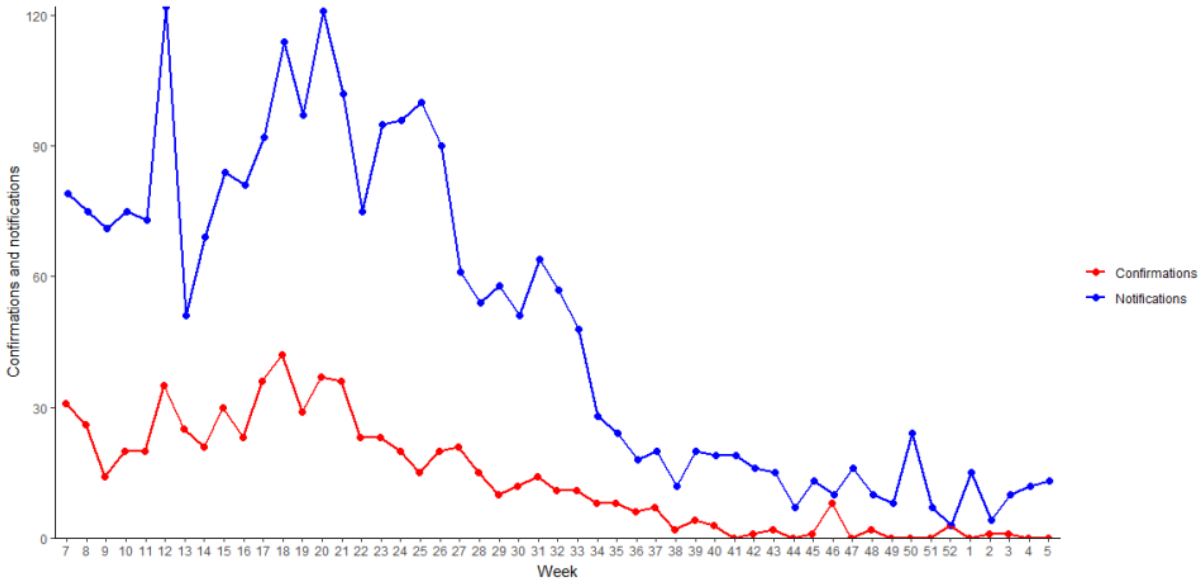
Figure 6: RSV Incidence Rate per 100,000 population under 5 years, weeks 30 2020 to week 5 2025 (source: PHW)



B4. Whooping Cough (Pertussis)

Figure 7 below shows that whooping cough notifications up to the end of week 5 **increased**, but remain at relatively low levels. Lab confirmations continue to be at very low levels (Whooping cough is now reported on every two weeks).

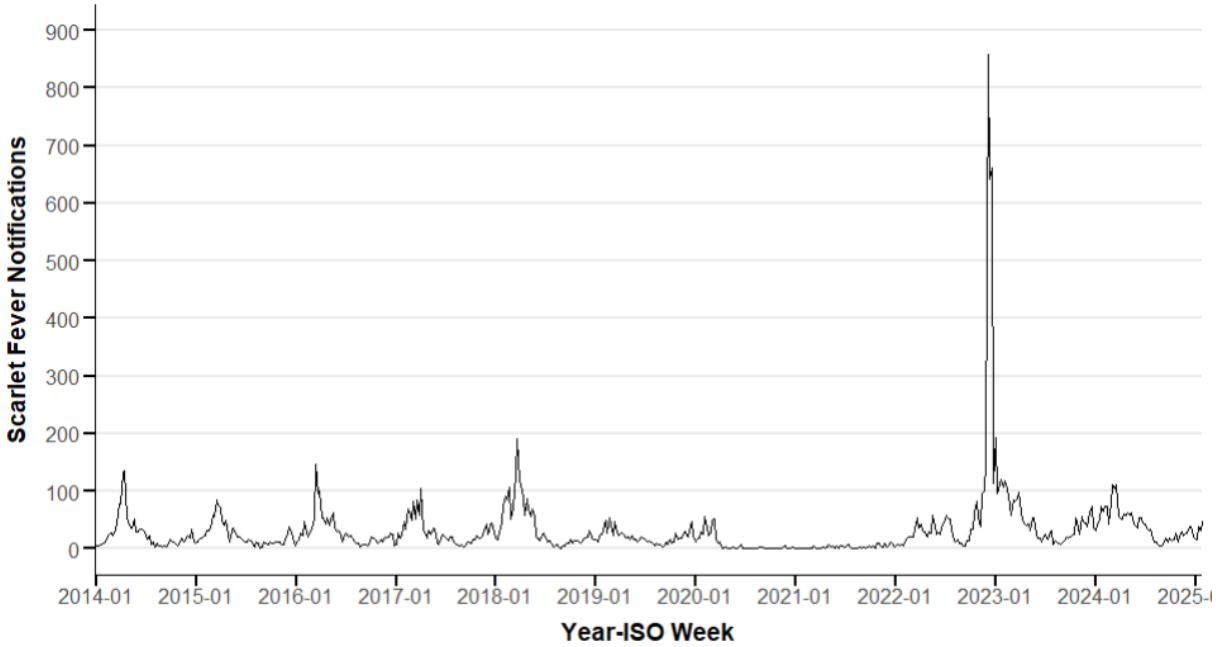
Figure 7: Weekly notifications and confirmations of Pertussis/Whooping Cough in Wales. (Source: PHW)



B.5 iGAS and Scarlet Fever

The number of iGAS notifications are currently low, remaining at seasonally expected levels. Scarlet Fever notifications have **increased** slightly in the most recent week (week 5) as shown in the figure below (up to 2 February 2025).

Figure 8: Rolling 3 Week Average Scarlet Fever Notifications, 2014-2025, Wales (source: PHW)



C. Science Evidence Advice Winter Modelling

The Science Evidence Advice (SEA) team in Welsh Government have published modelled scenarios for COVID-19, RSV and Influenza for Winter 2024-25. This uses analysis of historical data used to project forward to estimate what we may see in winter 2024/25, contributing to winter planning for NHS Wales. The aim is to estimate the pressures that could be seen by an increase in respiratory viruses and other factors which are typically more prevalent in the winter months than other times of the year. The charts that follow show the scenarios for each disease and plot these against actual data to reveal how well the scenarios are capturing the current pressures on the health system in Wales.

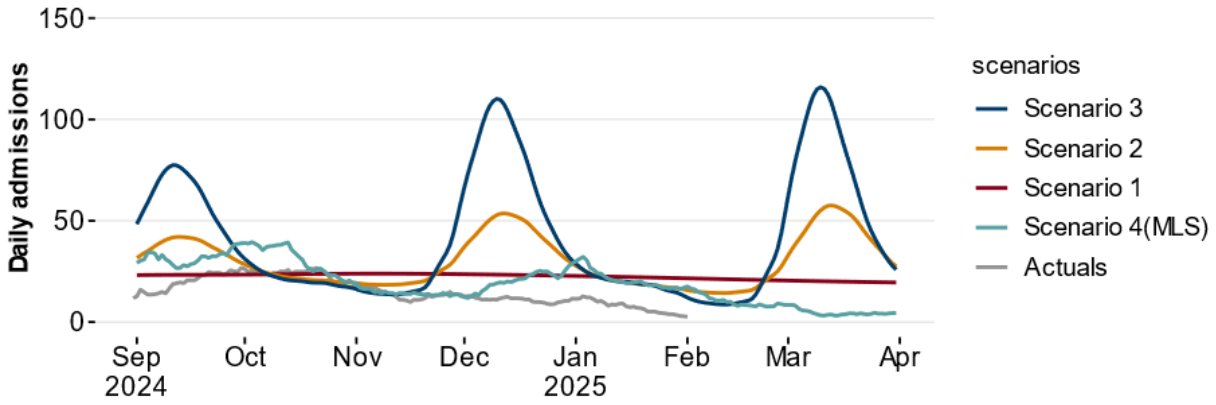
Note that, the modelling is an estimate of what may happen, not a prediction of what will happen.

Our winter modelling uses hospital admissions data from the Patient Episode Data for Wales (PEDW) dataset provided by Digital Health and Care Wales (DHCW). However, due to a lag in clinical coding and receiving PEDW data from DHCW, we use ICNET admissions data provided by Public Health Wales (PHW) for our actuals. The data sources differ for a few reasons: the flu and RSV data from PHW includes lab-confirmed results only and includes inpatients only. The PEDW data from DHCW is based on International Classification of Diseases version 10 (ICD-10) codes and the definitions may go wider than those used by PHW (e.g. our flu modelling using DHCW's data includes codes for both flu and pneumonia). Therefore, we account for these differences by multiplying the PHW data by the average of the differences in daily sums between the two data sources (3.92 for flu, 4.09 for RSV) for hospital admissions between 1 September and 31 December 2023.

COVID-19

COVID-19 actuals are currently tracking well below scenario 4 which is the Most Likely Scenario (MLS). There has been a downward trend into November and December which has continued through into February.

Figure 9 Daily COVID-19 Winter 2024-5 admissions scenarios, data until 1 February 2025



Source: Swansea University modelling (Scenarios 1, 2 3), actuals underlying the MLS to 31 March 2024 provided by DHCW, projected MLS scenarios from 1 September 2024 to 31 March 2025 from SEA.

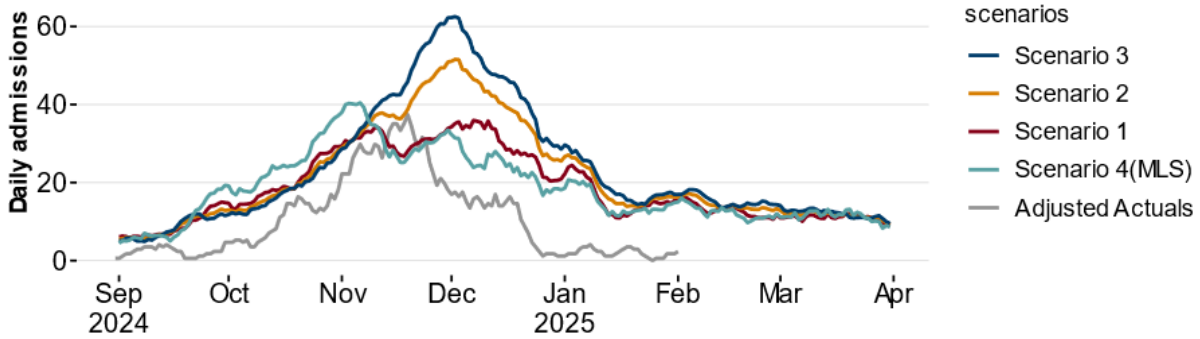
Notes

COVID-19 admissions and occupancy scenarios were created by Swansea University where a new variant emerges gradually every 3 months. The degrees of immune evasion from the variant is given by the scalar value 1, 1.2 and 1.5 and represented as scenarios 1-3. Scenario 4 is the repeat of last year's data from Digital Health and Care Wales. Includes ICD-10 codes U071, U072, U099, U109.

RSV

Adjusted RSV actuals are currently tracking below the MLS and are almost at baseline levels, reflecting the decrease in the number of RSV admissions in recent weeks.

Figure 10: Daily RSV Winter 2024-25 paediatric (ages 0-4) admissions scenarios data until 1 February 2025



Source: Raw data to 31 March 2024 provided by DHCW, projected scenarios from 1 September 2024 to 31 March 2025 from SEA

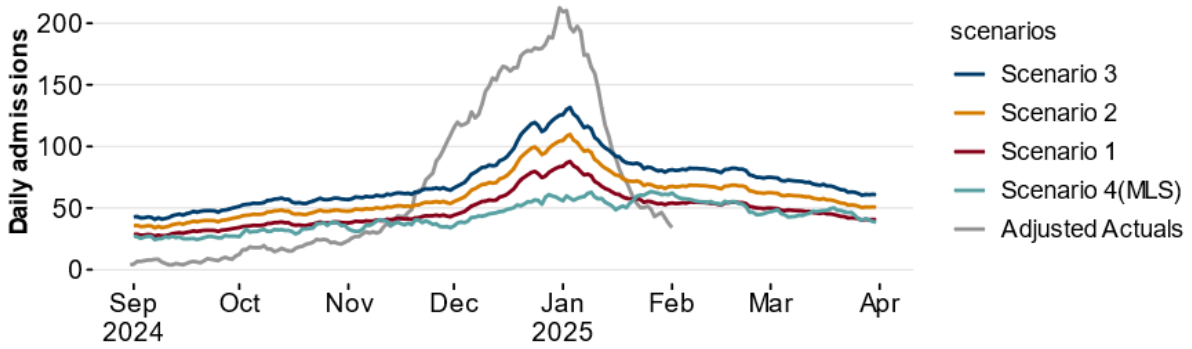
Notes

Scenario 1 reflects trends in the last two years. Scenario 3 assumes pre-pandemic patterns (from 2017/18, 2018/19 and 2019/20). Scenario 2 combines elements from both Scenario 1 and 3 (2017/18, 2018/19, 2019/20, 2022/23 and 2023/24. Scenario 4 is a repeat of last year's data (2023/24). Data includes diagnosis codes J21 to J22 from the ICD-10.

Influenza and Pneumonia

Adjusted Influenza and pneumonia actuals have been tracking below the Most Likely Scenario, reflecting the sharp decrease in flu admissions as we have progressed through the flu season.

Figure 11: Daily flu and pneumonia Winter 2024-5 admissions scenarios, data until 1 February 2025



Source: Raw data to 31 March 2024 provided by DHCW, projected scenarios from 1 September 2024 to 31 March 2025 from SEA

Notes: Based on the previous seven years of historical data,[1] the following scenarios were created for flu admissions and occupancy: Scenario 1 represents the average of non-pandemic years (2017/18, 2018/19, 2019/20, 2022/23 and 2023/24). Scenarios 2 and 3 are obtained by multiplying Scenario 1 by scalars 1.25 and 1.5. Finally, scenario 4, which repeats last year's admissions, is considered the most likely scenario (MLS). Data includes diagnosis codes J09 to J18 (flu and pneumonia) from ICD-10. The adjusted actuals for flu admissions are currently tracking below the most likely scenario.

D. Communicable Disease Situation Update (non-respiratory)

D.1 Norovirus

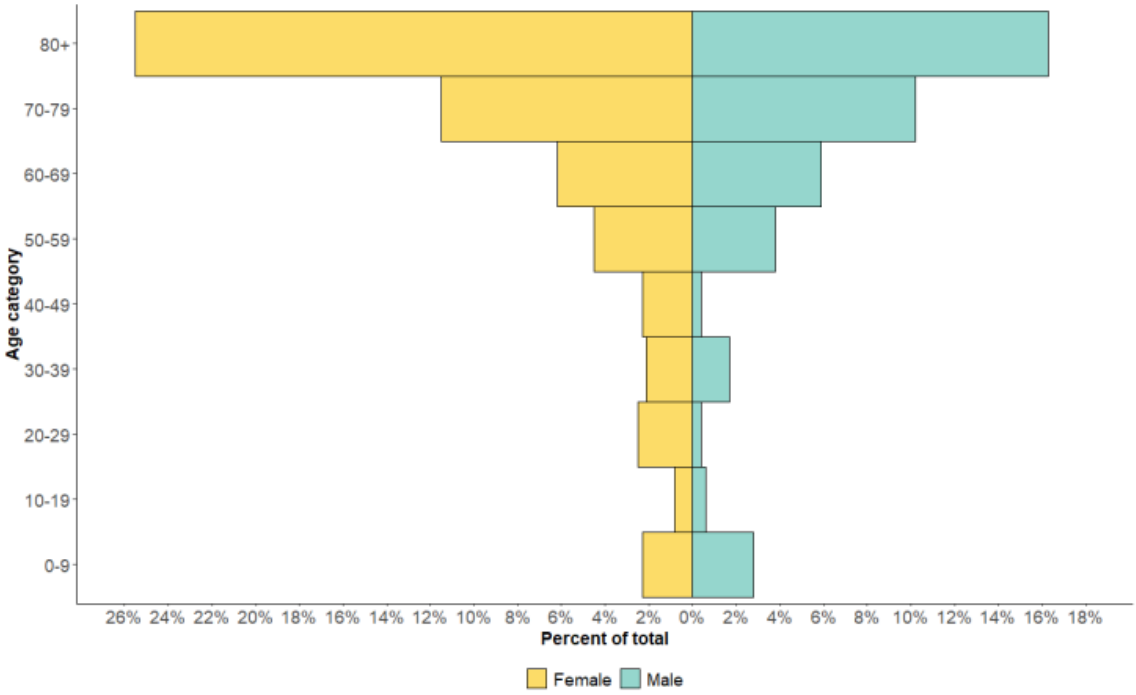
In the current reporting week (week 5 2025), a total of **24** Norovirus confirmed cases were reported in Welsh residents. This is a decrease (-17.2%) in reported cases compared to the previous reporting week (week 4 2025), where **29** Norovirus confirmed cases were reported.

In the last 12 week period (11/11/2024 to 02/02/2025) a total of **471** Norovirus confirmed cases were reported in Welsh residents. This is an increase (2.4%) in reported cases compared to the same 12 week period in the previous year (11/11/2023 to 02/02/2024) where **460** Norovirus confirmed cases were reported

[1] Admissions during the pandemic years were not included in the scenarios due to very low numbers.

In the last 12 weeks (11/11/2024 to 02/02/2025) **272** (57.7%) confirmed Norovirus cases were female and **199** (42.3%) confirmed cases were male. The age groups with the most cases were the 80+ (197 cases) and 70-79 (102 cases) age groups.

Figure 12: Age and sex distribution of confirmed Norovirus cases in the last 12 weeks (11/11/2024 to 02/02/2025**)**



Notes: This data from PHW only includes locally-confirmed PCR positive cases of Norovirus in Wales within the 12 week period up until the end of the current reporting week, **week 4 2025** (11/11/2024 to 02/02/2025). Under-ascertainment is a recognised challenge in norovirus surveillance with sampling, testing and reporting known to vary by health board. In addition, only a small proportion of community cases are confirmed microbiologically.

E. UK and International Surveillance Update

E.1 Human case of avian flu detected in England (27th January 2025)

UKHSA has confirmed a case of influenza A(H5N1) in a person in the West Midlands region. Bird-to-human transmission of avian influenza is rare and has previously occurred a small number of times in the UK.

The person acquired the infection on a farm, where they had close and prolonged contact with a large number of infected birds. The risk to the wider public continues to be very low.

The individual is currently well and was admitted to a High Consequence Infectious Disease (HCID) unit.

The birds were infected with the DI.2 genotype, one of the viruses known to be circulating in birds in the UK this season. This is different to strains circulating among mammals and birds in the US.

Although there has been no demonstrated human-to-human transmission despite extensive recent surveillance of influenza A(H5N1), UKHSA has been tracing all individuals who have been in contact with the confirmed case of avian influenza. Those at highest risk of exposure have been offered antiviral treatment. This is done to reduce the chance that any virus they have been exposed to will be able to cause infection.

The case was detected after the Animal and Plant Health Agency (APHA) identified an outbreak of avian influenza A(H5N1) in a flock of birds. UKHSA carried out routine monitoring on people who had been in close contact with the infected birds.

Professor Susan Hopkins, Chief Medical Adviser at UKHSA, said:

“The risk of avian flu to the general public remains very low despite this confirmed case. We have robust systems in place to detect cases early and take necessary action, as we know that spillover infections from birds to humans may occur.

Currently there is no evidence of onwards transmission from this case.

People are reminded not to touch sick or dead birds and it’s important that they follow Defra advice about reporting any suspected avian influenza cases”.

E.2 Latest Mpox update from UKHSA (31st January 2025)

A new case of clade Ib mpox has been detected in England, the UK Health Security Agency (UKHSA) can confirm.

The case was detected in London and the individual is now under specialist care at the Royal Free Hospital High Consequence Infectious Diseases unit. They had recently returned from Uganda, where there is currently community transmission of clade Ib mpox. The UKHSA and NHS will not be disclosing any further details about the individual.

The risk to the UK population remains low. In the context of the outbreak in parts of Africa, we expect to see the occasional imported case of clade Ib mpox in the UK.

This is the eighth case of clade Ib mpox confirmed in England since October 2024. This case has no links to the previous cases identified in England.

Close contacts of the case are being followed up by UKHSA and partner organisations. Contacts will be offered testing and vaccination where needed to prevent further infections and they will be advised on any necessary further care if they have symptoms or test positive.

Dr Merav Kliner, Incident Director at UKHSA, said:

The risk to the UK population remains low. Close contacts have been identified and offered appropriate advice in order to reduce the chance of further spread.

Clade Ib mpox has been circulating in several countries in Africa in recent months. Imported cases have been detected in a number of countries including Belgium, Canada, France, Germany, Sweden and the United States.

There has been extensive planning undertaken to ensure healthcare professionals are equipped and prepared to respond to confirmed cases.

Further updates on clade Ib mpox case numbers will be published on the following page: Confirmed cases of mpox clade Ib in United Kingdom.

E.2 UKHSA 28th January 2025 Mpox Update:

Another case of clade Ib mpox has been detected in England, bringing the total number of confirmed cases since October 2024 to 7, the UK Health Security Agency (UKHSA) can confirm.

The individual had recently travelled to Uganda. The risk to the UK population remains low. The UKHSA and NHS will not be disclosing any further details about the individual.

Professor Susan Hopkins, Chief Medical Adviser at UKHSA, said:

"The risk to the UK population remains low. Close contacts have been identified and offered appropriate advice in order to reduce the chance of further spread".

E3. European Communicable Disease Centre (ECDC): Ebola outbreak in Uganda (30th January)

Overview: On 30 January 2025, the public health authorities in Uganda declared an outbreak of Sudan virus disease (SVD) in Kampala, Uganda. This follows laboratory confirmation from three national reference laboratories: the Central Public Health Laboratory in Kampala, the Uganda Virus Research Institute in Entebbe, and Makerere University. According to the Ministry of Health's press release, the index case is a 32-year-old man working as a nurse at the Mulago National Referral Hospital. The patient presented with a five-day history of high fever, chest pain, and difficulty in breathing, which later progressed to bleeding. The patient sought treatment at multiple health facilities in the Central district, as well Mbale City, including a traditional healer. On 29 January 2025, the patient experienced multi-organ failure and died.
Background: This is the eighth Ebola outbreak in the country, with the latest being in 2022. ECDC assessment: During the previous SVD outbreak in Uganda, ECDC produced a Rapid risk assessment assessing the risk as very low to citizens in the EU/EEA. The current outbreak is in the densely populated capital, leading to a higher probability of exposure despite the small size of the outbreak. Since the case occurred among healthcare workers in hospital, EU/EEA citizens working in healthcare settings in Uganda should be aware of the ongoing outbreak and take appropriate personal protection measures. Considering the above, the importation of a case in the EU/EEA is very unlikely, and, should that happen, the likelihood of further transmission is considered very low

E.3 Communicable Disease Centre (CDC) USA – Avian Flu update

January 14, 2025

Current H5N1 bird flu risk

People who are at increased risk include:

- Farmers and workers who work with infected animals or their byproducts
- Backyard bird flock owners
- Animal care workers (e.g., veterinarians, wild animal facility workers)
- Animal health and public health responders.

But what factors would influence a change to CDC's current risk assessment for the general public? What follows is a description of the epidemiological and virologic characteristics of the avian influenza situation that CDC scientists are tracking to formulate the agency's immediate avian flu risk assessment and further calibrating the avian flu response to protect the public's health:

- **Virus transmission:** How is virus spreading and how efficiently does it spread?
- **Disease severity:** How ill do people with H5N1 bird flu infections become?
- **Case distribution:** How widespread are cases?
- **Effects of genetic changes in the virus:** What is the impact of genetic changes to the virus on infectivity or transmissibility, the accuracy of diagnostic tests, and effectiveness of antiviral drugs and vaccines?

Virus transmission

What is CDC on the lookout for? Sustained human-to-human transmission outside of a household increases the likelihood of significant public health impact.

Influenza A(H5N1) has been spreading in wild birds globally since the mid-1990s and in the United States since 2014. The virus initially spread to commercial and backyard poultry and has also infected mammals, including minks, sea lions and now dairy cattle. There have been sporadic human cases both in the United States and in other countries, and limited human-to-human transmission of avian influenza has been occasionally reported globally. To date, there is no evidence of human-to-human transmission associated with the current avian influenza situation in the United States. Transmission identified outside of a household would be of greater concern than within a household when assessing immediate public health risk.

Beyond looking out for human-to-human transmission through case investigation, CDC continues to rapidly analyse and share genetic sequences of samples from human cases and, alongside information gained from viral samples from infected animals, is monitoring for changes that would allow the virus to spread more easily—particularly to humans and other mammals.

Disease severity

What is CDC on the lookout for? CDC is concerned about all people who become infected with avian flu and is particularly concerned if we begin seeing people who quickly become severely ill and require hospitalization or who die of the infection. Severe disease may indicate the virus has changed and is now better able to make people severely ill. This degree of severity could have a greater public health impact, straining the healthcare system and may have other societal and economic impacts (e.g., if people cannot work).

Most cases of H5N1 bird flu associated with the ongoing outbreak in the United States have resulted in mild symptoms. CDC experts and other scientists continue to work to understand why some infections, including an infection reported in Canada and one reported in Louisiana, resulted in serious illness. Severity of illness can be impacted by a number of factors, including acquired genetic changes of the virus, the amount of virus to which the infected people were exposed, the route of transmission, underlying health conditions, how long the person was sick and the timeliness of medical care/treatment, or some combination of all these factors.

Case distribution

What is CDC on the lookout for? Indication that that virus may have broad dissemination among humans within specific populations or to the general population, or increasing numbers of people who are becoming infected without clear exposure to infected animals.

Human cases associated with the ongoing outbreak have been sporadic, and nearly all have followed identifiable exposures to dairy cows, poultry, and/or other animals.

Broad dissemination of cases would be evident if all of the following were to occur:

- Numerous sporadic (i.e., occurring at irregular intervals or infrequently as isolated events) human cases **unrelated to expected shared/common animal exposures**
- Cases occurring in multiple geographic locations
- Cases occurring close together in time

Effects of genetic changes in the virus

What is CDC on the lookout for? Genetic changes known to be associated with increased severity or transmissibility or other viral changes seen at the same time as increased transmissibility and increasing severity of infection.

CDC conducts routine assessment of the sequences of the viruses from humans and animals for changes that might impact infectivity or transmissibility in humans, the accuracy of diagnostic tests and the effectiveness of vaccines or antivirals. To date, genetic analysis has not identified changes in viruses compared to available clade 2.3.4.4b candidate vaccine viruses (CVVs) that would be predicted to impact cross-protection if A(H5) vaccines were needed for use in humans. Nor have changes been identified in the receptor binding domain of viruses except for low frequency changes in the fatal case from Louisiana and the severe case from Canada. These changes were believed to have occurred after the individuals were

infected rather than acquired from their infecting exposure. There is no evidence that viruses with these changes spread beyond these patients.

Collectively, these data indicate that A(H5N1) viruses circulating in animals retain avian receptor binding properties with no significant changes that would impact infectivity or transmissibility in humans. Additionally, there have been only a few sporadic changes identified in viruses detected in animals or humans associated with mammalian adaptation or slightly reduced susceptibility to commercially available antiviral drugs. Finally, no changes have been identified in viruses that impact the performance of H5 influenza diagnostic tests that are used for testing across all U.S. states and at CDC.

These factors are all important considerations that inform what public health actions should be implemented in the H5 avian flu public health response. Should we see concerning changes in these factors, additional actions may be necessary to protect the health and safety of people with potential animal exposures as well as the general public. Additional actions may include but are not limited to:

- Updating guidance to better protect those who may be exposed to H5 avian flu, such as who should receive pre- or post-exposure prophylaxis, testing strategy, and how to best use personal protective equipment.
- Procuring additional treatments and vaccines, to ensure we have sufficient supply for those who would benefit from their use.
- Initiating a voluntary H5 vaccination program focused on people with predictable exposure to the virus.
- Initiating a broader voluntary H5 vaccination program if the possibility of widespread transmission or increasing disease severity is found.