



Llywodraeth Cymru
Welsh Government

Science Evidence Advice

Weekly Surveillance Report

21 January 2025



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

A. Top Line Summary (as at week 2 2025, up to 12th January 2025)

- Overall, COVID-19 confirmed case admissions to hospital **decreased** in the most recent week.
- COVID-19 cases who are inpatients have **increased** 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 1).
- Scarlet Fever notifications **decreased** in the most recent week.
- Norovirus confirmed cases have **decreased** in the most recent reporting week.

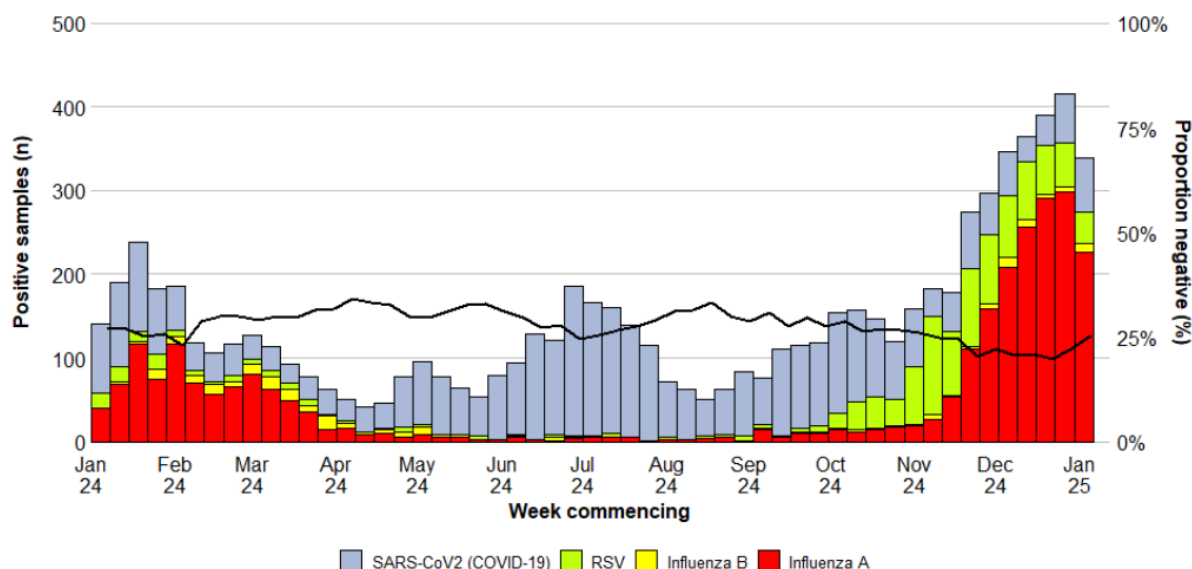
B. Acute Respiratory Infections Situation Update

B1. COVID-19 Situation Update

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

- At a national level, the weekly number of confirmed cases of community-acquired admissions to hospital have decreased and the number of cases who were inpatients have increased in week 2 2025 (to 12th January 2025).
- As at 5 January 2025 (week 1), the number of confirmed cases of community acquired COVID-19 admitted to hospital decreased to **26** from **33** in the previous week and there were **198** in-patient cases of confirmed COVID-19, **3** of whom were in critical care compared to **176** and **1** in the previous week.
- The overall proportion of samples testing positive for COVID-19 in hospitals and sentinel GP practices increased to **3.6%** in the most recent week (week 2) compared with 1.8% in the previous week. Consultations with sentinel GPs for ARI decreased in the most recent week (week 2) and confirmed cases of COVID-19 in sentinel GP patients remained stable.
- During week 2, 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 **38.3%** of all sequenced cases.
- The number of Ambulance calls recorded referring to syndromic indicators decreased from **2,357** in the previous week to **1,937** in the latest reporting week (week 2).
- During week 2, **4** ARI outbreaks were reported to the Public Health Wales Health Protection Team. One was Covid-19, one was Influenza (untyped), one was Influenza A, and one was RSV. All 4 outbreaks were in residential homes.

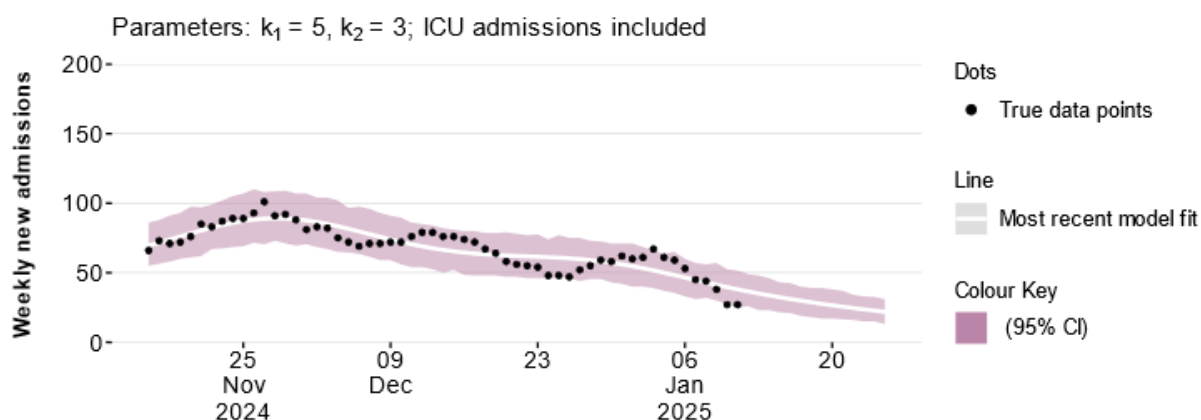
Figure 1: Samples from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, by week of sample collection, Week 2, 2024 to Week 2, 2025. (source: [PHW](#))



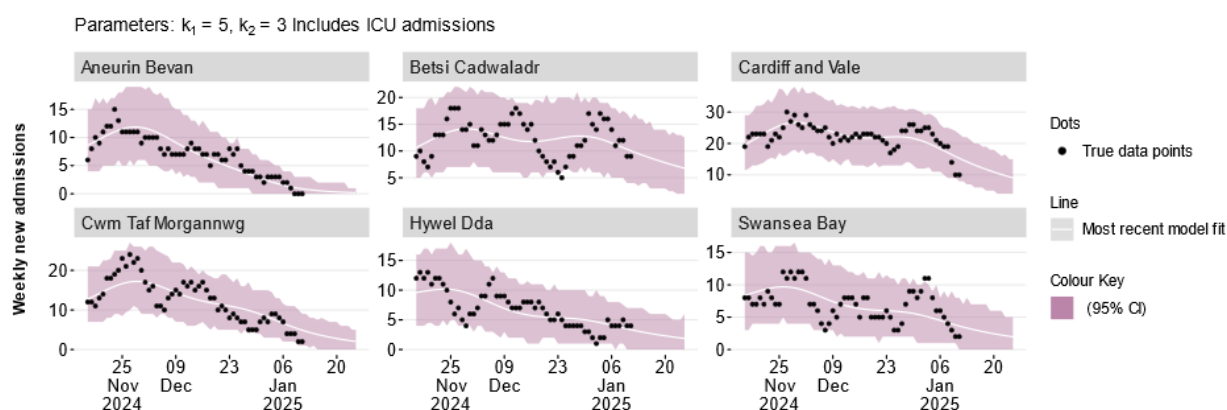
COVID-19 Short Term Projections

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 11 January 2025 to make short term projections for COVID-19 two weeks forward (25 January 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 over the next two weeks.

Figure 2: Short Term Projections for COVID-19 hospital admissions in Wales (data until 11 January 2025)

Source: Public Health Wales

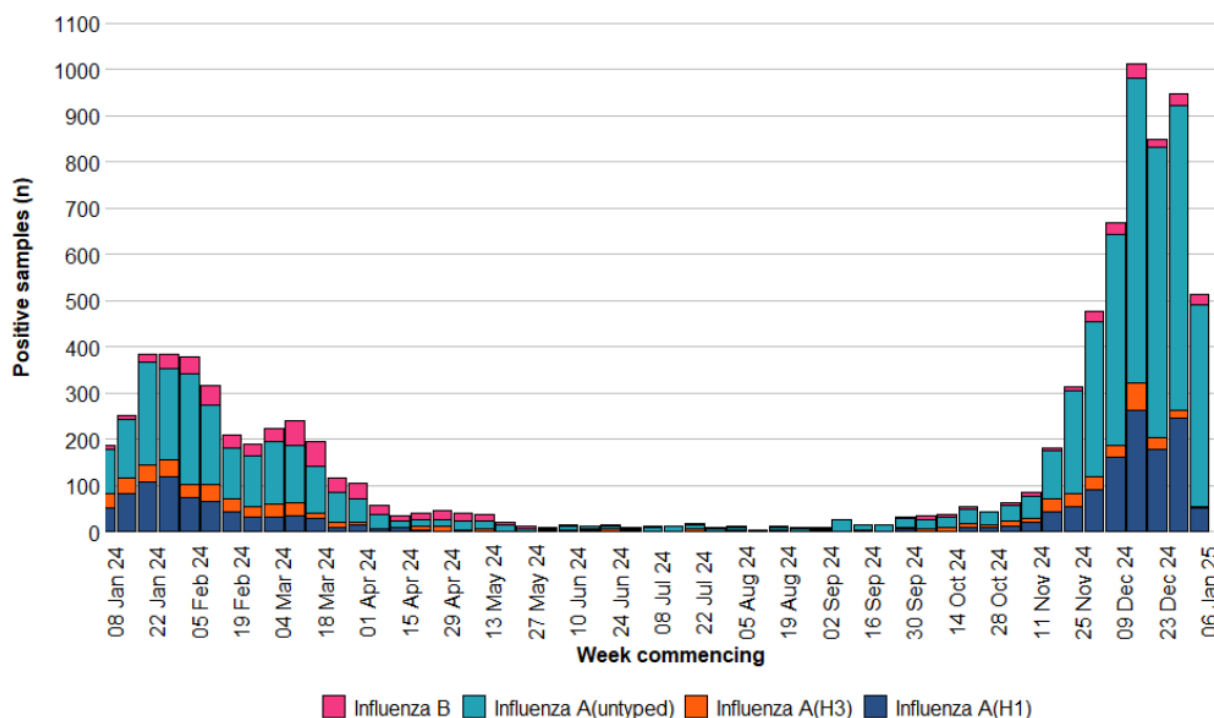
Figure 3: Short Term Projections for COVID-19 hospital admissions in Wales Health Boards (data until 11 January 2025)

Source: Public Health Wales

B2. Influenza Situation Update

Influenza is **still circulating** with activity at “medium” intensity levels. Although GP consultations for influenza-like illness have increased, confirmed case numbers have decreased in the current week. During the week ending 12 January the number of confirmed cases of community acquired influenza admitted to hospital decreased to **216** and there were **607** in-patient cases of confirmed influenza, **32** of whom were in critical care (compared to **628** and **45** in the previous week). In week 2 2025, there were 3 confirmed cases of influenza A(H3N2), 51 cases of influenza A(H1N1)pdm09, 436 influenza A untyped and 23 influenza B. (Figure 4).

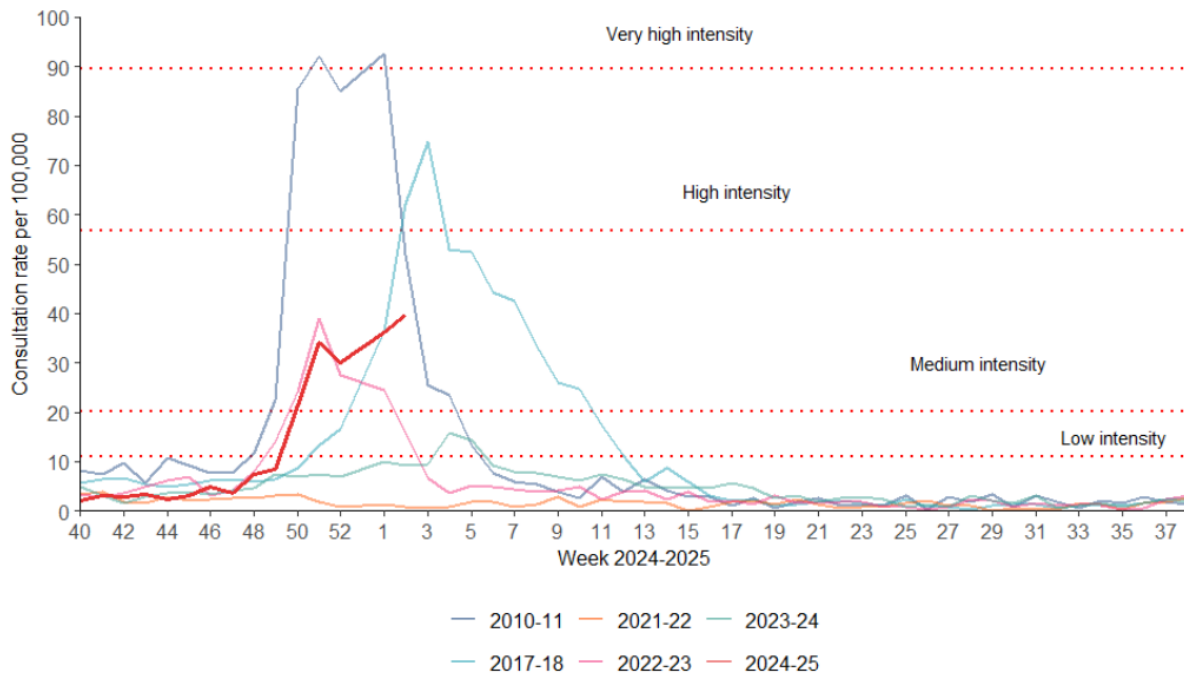
Figure 4: Influenza subtypes based on samples submitted for virological testing by Sentinel GPs and community pharmacies, hospital patients, and non-Sentinel GPs, by week of sample collection, Week 2, 2024 to Week 2, 2025 (source: [PHW](#))



Consultations for influenza-like illness (ILI) with sentinel GPs are likely stable compared to the previous week and is at medium intensity. There were 39.7 ILI consultations per 100,000 practice population in the most recent week, an increase compared to the previous week (36.2 consultations per 100,000).

In the most recent week, using all available data from general practices, there were 24.5 ARI consultations per 100,000 practice population, a decrease from 33.1 in the previous week. The highest rates were found in people aged under 1 year (1,511.2) followed by people aged 1 to 4 (604.9) and people aged 75+ (449). Surveillance indicators for acute respiratory infections in GP consultation data in Wales are increasing in people aged under 5 years

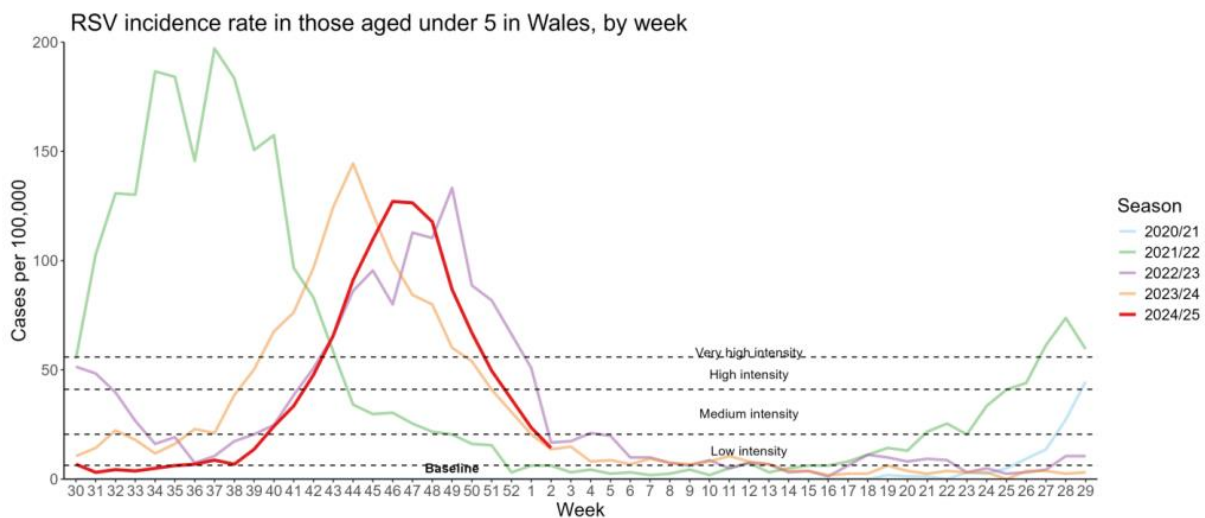
Figure 5: Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (source: [PHW](#))



B.3. Respiratory Syncytial Virus (RSV) update

RSV is decreasing from its peak and activity is now at low intensity levels in children aged up to 5 years old (week 2 2025). Incidence per 100,000 population in children aged up to 5 years decreased to **14.3** in the most recent week (**25.4** in the previous week). The number of confirmed cases of community acquired RSV admitted to hospital remained stable at **53** in the most recent week (**60** in the previous week).

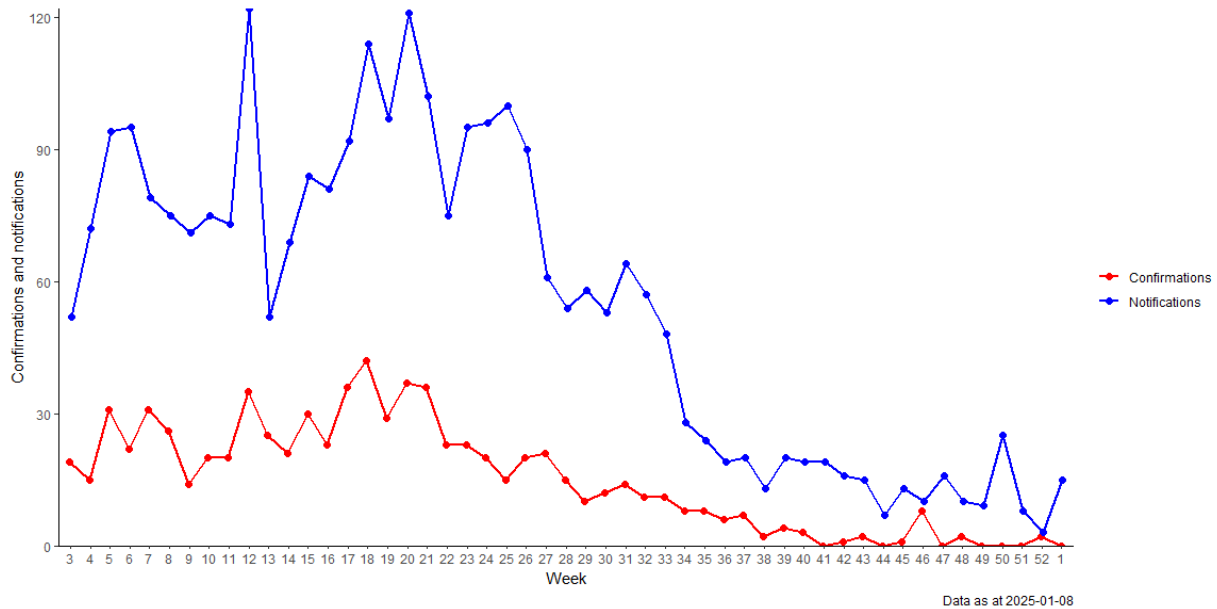
Figure 6: RSV Incidence Rate per 100,000 population under 5 years, weeks 30 2020 to week 2 2025 (source: [PHW](#))



B4. Whooping Cough (Pertussis)

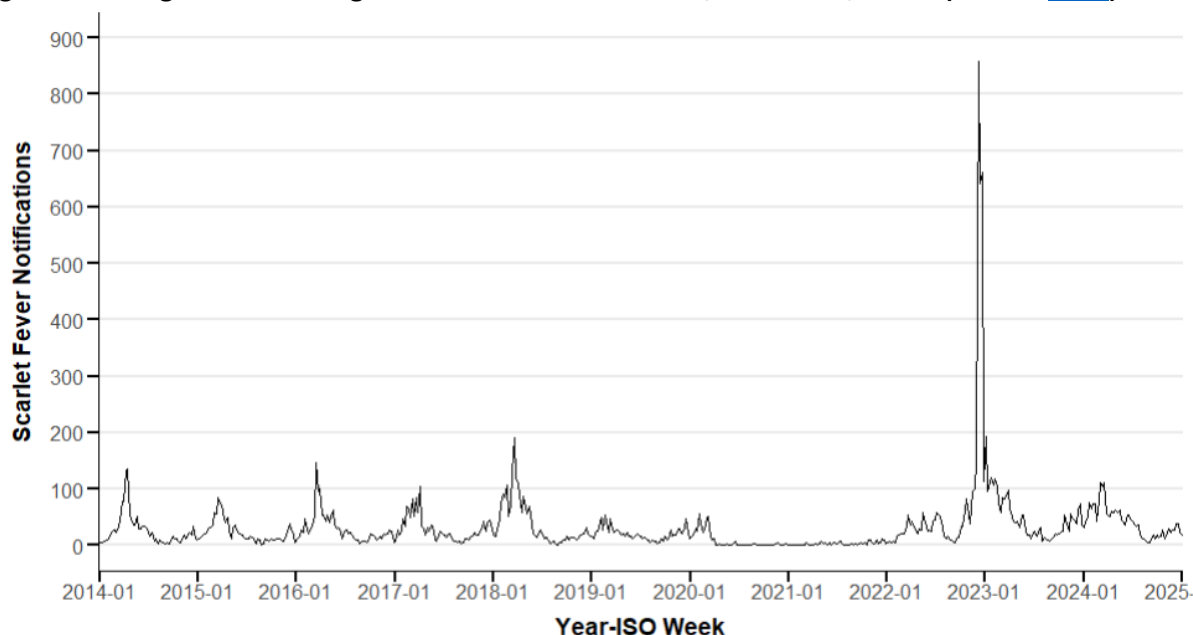
Figure 7 below shows that whooping cough notifications up to the end of week 1 increased, but remains at relatively low levels. Lab confirmations continue to be at very low levels (Whooping cough is now reported on every two weeks).

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 **decreased** in the most recent week (week 2) as shown in the figure below (up to 14 January 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.

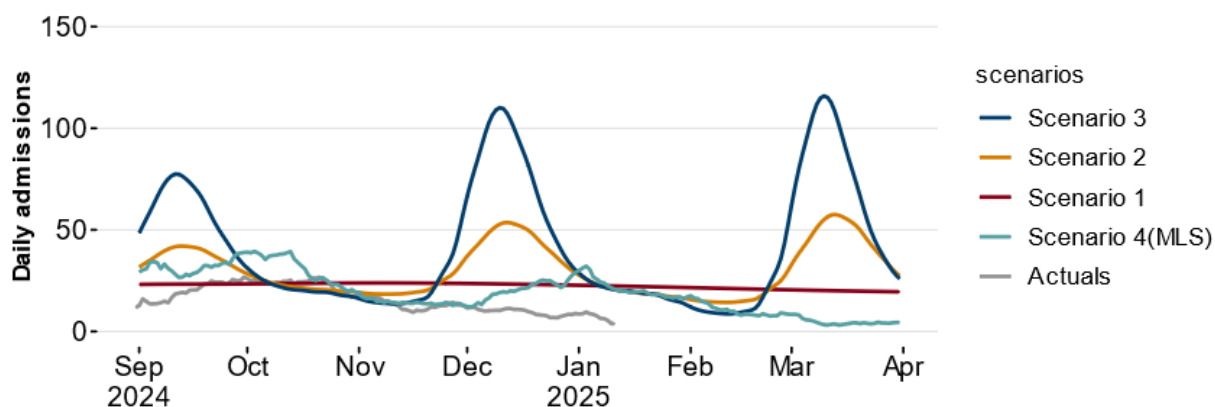
Our winter modelling uses hospital admissions data from the Patient Episode Data for Wales (PEDW) dataset provided by Digital Health and Care Wales (DHCW). However, due to a lag in clinical coding and receiving PEDW data from DHCW, we use ICNET admissions data provided by Public Health Wales (PHW) for 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 into January.

Figure 9 Daily COVID-19 Winter 2024-5 admissions scenarios, data until 11 January 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.



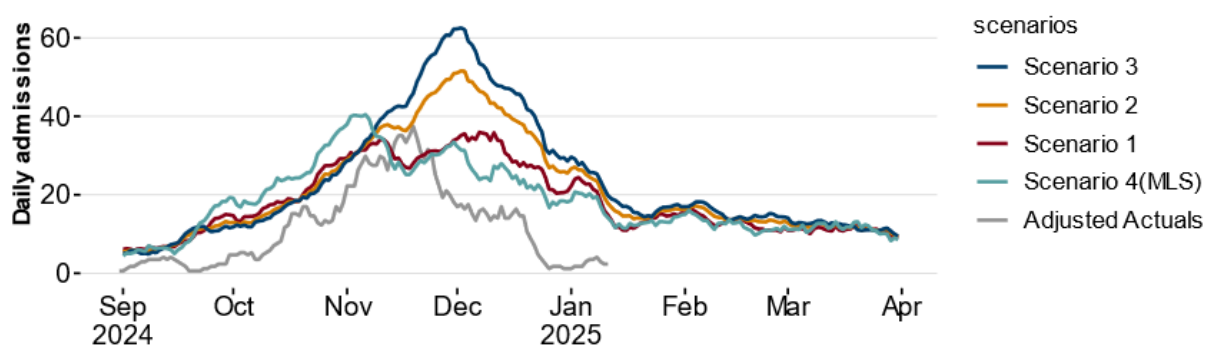
Notes

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 11 January 2025



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

Notes

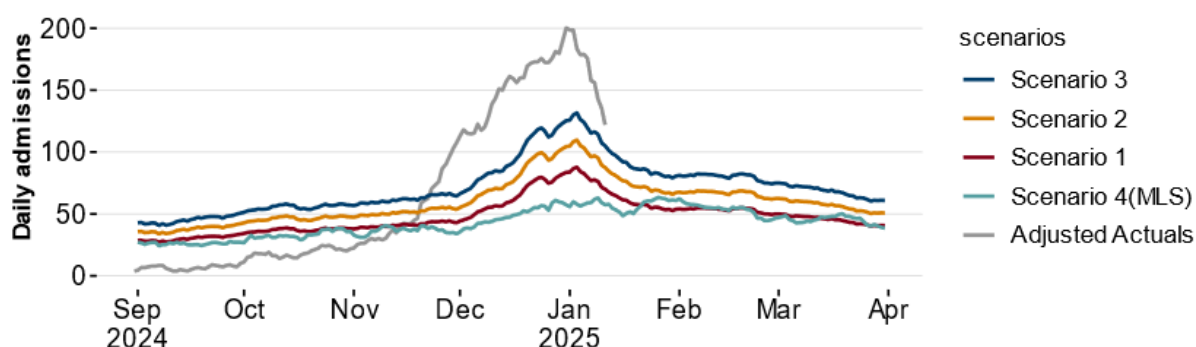
Scenario 1 reflects trends in the last two years. Scenario 3 assumes pre-pandemic patterns (from 2017/18, 2018/19 and 2019/20). Scenario 2 combines elements from both Scenario 1 and 3 (2017/18, 2018/19, 2019/20, 2022/23 and 2023/24). Scenario 4 is a repeat of last year's data (2023/24). Data includes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

Influenza and Pneumonia

Adjusted Influenza and pneumonia actuals have been tracking above Scenario 3, reflecting the increase in flu admissions as we have progressed through the flu season, but have decreased in the most recent reporting period.

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

COVID-19 actuals are currently tracking below the MLS



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)

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

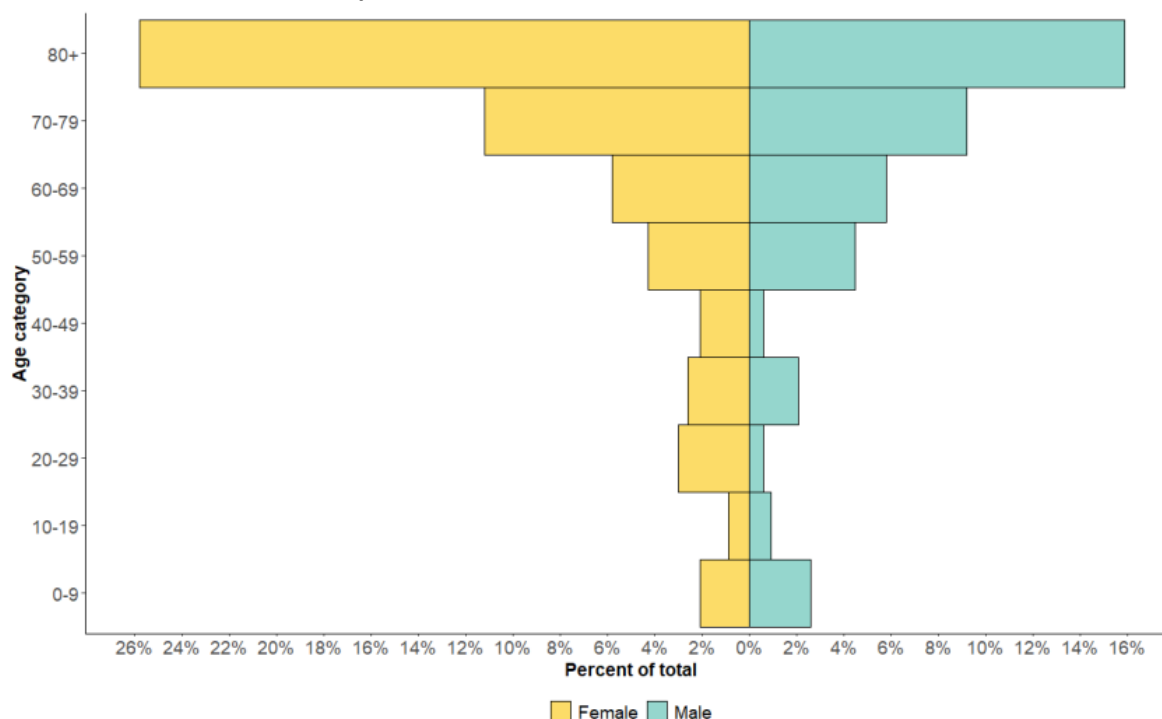
D.1 Norovirus

In the current reporting week (week 2 2025), a total of **32** Norovirus confirmed cases were reported in Welsh residents. This is a decrease (-33.3%) in reported cases compared to the previous reporting week (week 1 2025), where **48** Norovirus confirmed cases were reported.

In the last 12 week period (21/10/2024 to 12/01/2025) a total of **467** Norovirus confirmed cases were reported in Welsh residents. This is an increase (18.8%) in reported cases compared to the same 12 week period in the previous year (21/10/2023 to 12/01/2024) where **393** Norovirus confirmed cases were reported.

In the last 12 weeks (21/10/2024 to 12/01/2025) **269** (57.6%) confirmed Norovirus cases were female and **197** (42.2%) confirmed cases were male. The age groups with the most cases were the 80+ (**194** cases) and 70-79 (**95** cases) age groups. Sex data was not available for 1 case.

Figure 12: Age and sex distribution of confirmed Norovirus cases in the last 12 weeks (21/10/2024 to 12/01/2025)



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 1 2025** (21/10/2024 to 12/01/2025). 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. International Surveillance Update

E.1 Mpox Clade 1b: [Updated guidance from ECDC \(Jan 2025\)](#)

Following the epidemic of MPXV clade I in the DRC in 2024, MPXV clade I was first detected in Burundi, Rwanda, Uganda and Zambia (all neighbouring the DRC), as well as in Kenya and Zimbabwe. Overall, on the African continent in 2024 and as of 5 January 2025, most confirmed clade I cases have been reported from the DRC (over 40 000 cases overall, over 9 000 confirmed and over 40 confirmed deaths), Burundi (over 3 000 confirmed cases and one death), and Uganda (overall 1 830 cases reported, including 10 deaths). Rwanda has reported 74 cases, Kenya 31 cases, Zambia four cases and Zimbabwe two cases (WHO Global report on mpox (data as of 12 January 2025)). Outside of Africa, in the EU/EEA, travel-associated cases or sporadic cases reporting epidemiological links with travel-associated cases of MPXV clade Ib have been reported in the EU/EEA by:

- Sweden (one case in August 2024);
- Germany (one case in October, five in December 2024 and one in January 2025);
- Belgium (two cases in December 2024); and
- France (one case in January 2025).

In addition to Africa and the EU/EEA, clade I cases have been reported by Thailand (one case in August 2024), India (one case in September 2024), the UK (five cases in October and November 2024), the United States (US) (one case in November 2024), Canada (one case in November 2024), Pakistan (one case in December 2024), Oman (one case in December 2024), and China (five cases in January 2025). Travel-associated cases from all non-African countries besides India, Pakistan and Oman have reported a travel history to Africa. The travel-associated cases reported by India, Pakistan and Oman had a travel history to the United Arab Emirates (WHO Multi-country outbreak of mpox, External situation report 44, 23 December 2024). Confirmed secondary transmission of mpox due to MPXV clade Ib outside of Africa was reported for the first time in 2024 in the EU/EEA by Germany and Belgium, and outside of the EU/EEA by the UK and China. The number of secondary cases reported in all secondary transmission events outside of Africa range from one to four cases per event. Based on the available information, all transmission events were due to close contact, the cases presented with mild symptoms and no deaths have been reported.

Since September 2024, following an analysis of the patterns of MPXV transmission observed at the national level and given the limitations and uncertainties, ECDC has used official epidemiological information to classify countries according to whether MPXV clade I is endemic or was reported for the first time in 2024. The categories are as follows:

- countries reporting only travel-associated cases or cases with a clear link to travel-associated cases: Belgium, Canada, China, Germany, France, India, Oman, Pakistan, Sweden, Thailand, the UK, the US, Zambia, and Zimbabwe;
- countries reporting clusters of cases: Congo and Kenya;
- countries reporting community transmission: Burundi, Central African Republic, the DRC, Rwanda, and Uganda.

E.2 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.