Llywodraeth Cymru
Welsh Government

# Science Evidence Advice

**Weekly Surveillance Report**

**26 November 2024**

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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

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

## B. Acute Respiratory Infections Situation Update

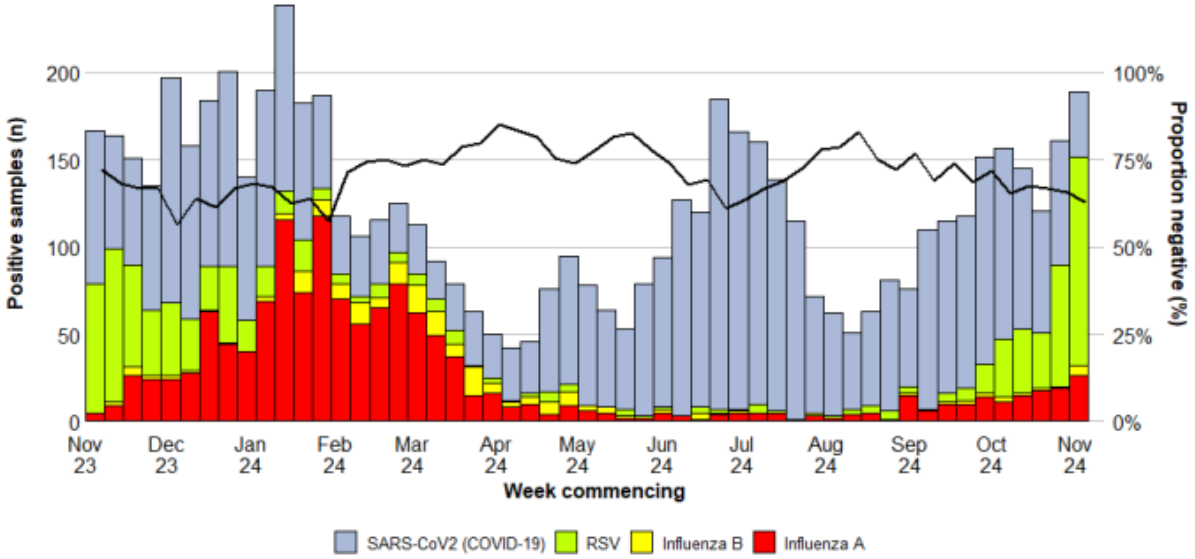
### B.1 COVID-19 Situation Update

COVID-19 case numbers have decreased in recent weeks.

- At a national level, the weekly number of confirmed case admissions to hospital decreased and the number of cases who are inpatients has also decreased in week 46.
- As at 17 November 2024 the number of confirmed cases of community acquired COVID-19 admitted to hospital decreased to **32** and there were **226** in-patient cases of confirmed COVID-19, **3** of whom were in critical care compared to **338** and **5** in the previous week.
- The overall proportion of samples testing positive in hospitals and sentinel GP practices decreased to **5.6%** in the most recent week. Consultations with sentinel GPs for ARI increased in the most recent week and confirmed cases of COVID-19 in sentinel GP patients decreased.
- During week 46, according to European Mortality Monitoring (EuroMoMo) methods, 'no excess deaths' were reported in the weekly number of deaths from all causes in Wales.
- Between weeks 39 and 44, KP.3* from the Pango lineage was the most dominant variant in Wales, accounting for **50.9%** of all sequenced cases. The emerging XEC variant accounted is second highest at **24.4%** of cases.
- The number of Ambulance calls recorded referring to syndromic indicators increased from **2,151** in the previous week to **2,166** in the latest reporting week.

- During week 46, 2024, **2** ARI outbreaks were reported to the Public Health Wales Health Protection Team. Of these one was COVID-19 and one was influenza. Both outbreaks were in a residential home setting.

**Figure 1: Samples from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, by week of sample collection, Week 46, 2023 to Week 46, 2024 (source: PHW)**

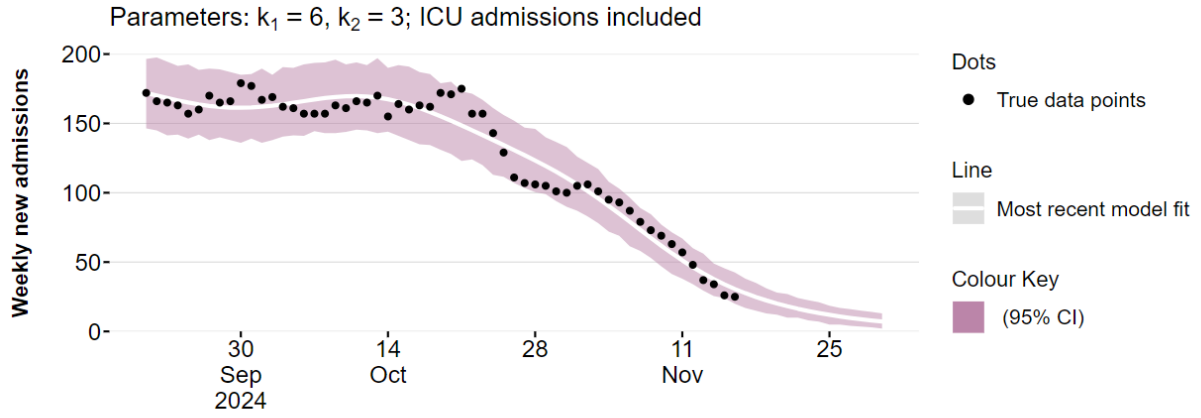



## COVID-19 Short Term Projections

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.

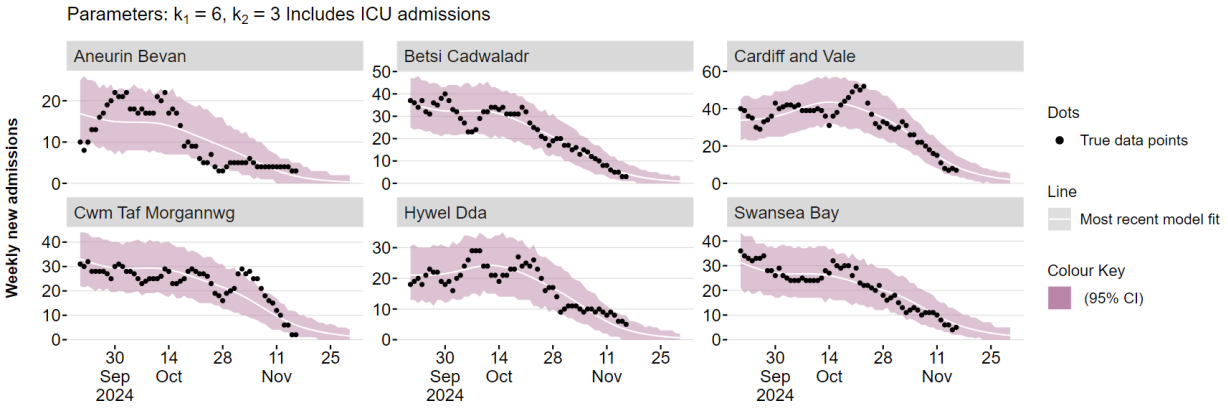
The COVID-19 STPs uses admissions data from PHW until 16 November 2024 to make short term projections for COVID-19 weeks forward (30 November 2024). The black dots show the actual data points while the white line is the best fit from the most recent projection. The colour shadings represent the 95% confidence 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 decline 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 16 November 2024)**




*Source: Public Health Wales*

**Figure 3: Short Term Projections for COVID-19 hospital admissions in Wales Health Boards (data until 16 November 2024)**




*Source: Public Health Wales*

## Swansea University Mid Term Projections (MTPs) for COVID-19

The latest available Swansea University MTPs using data up to the end of January 2025 indicate a decline in COVID-19 non-ICU hospital admissions through to the end of November and into December and then plateauing into January 2025. ICU admissions are projected to remain at low levels as are deaths caused by COVID-19.

**Notes**: In the charts below, 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.

**Figure 4: Daily COVID-19 hospital admissions, projected to end January 2025**

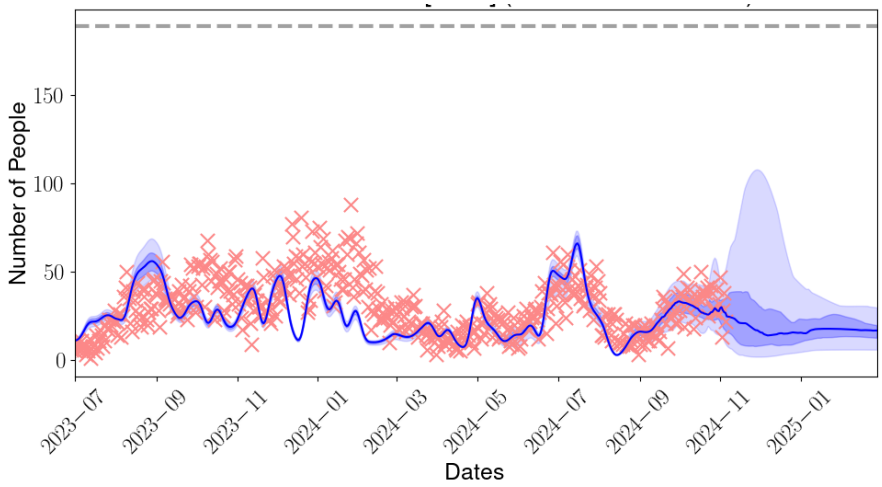



**Figure 5: Daily COVID-19 ICU admissions, projected to end January 2025**

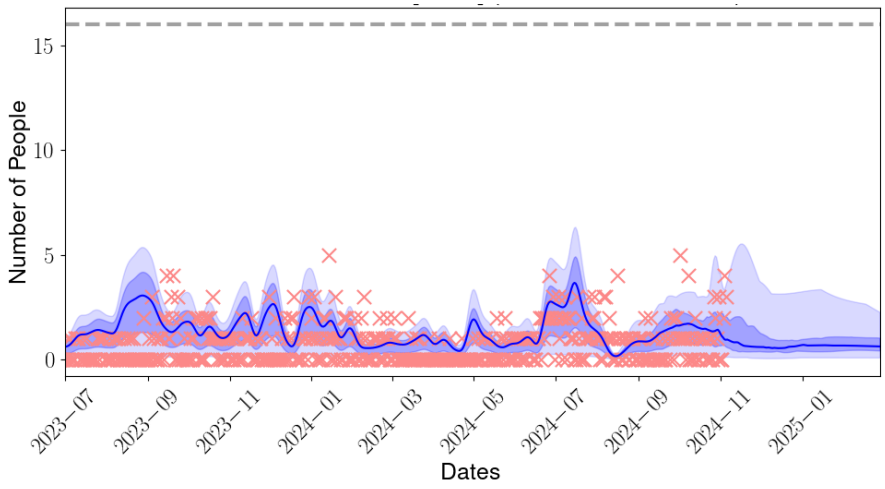
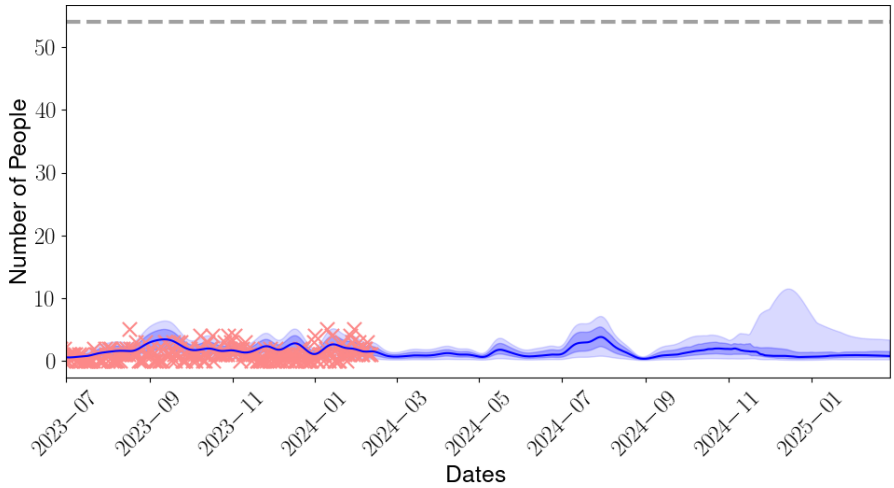


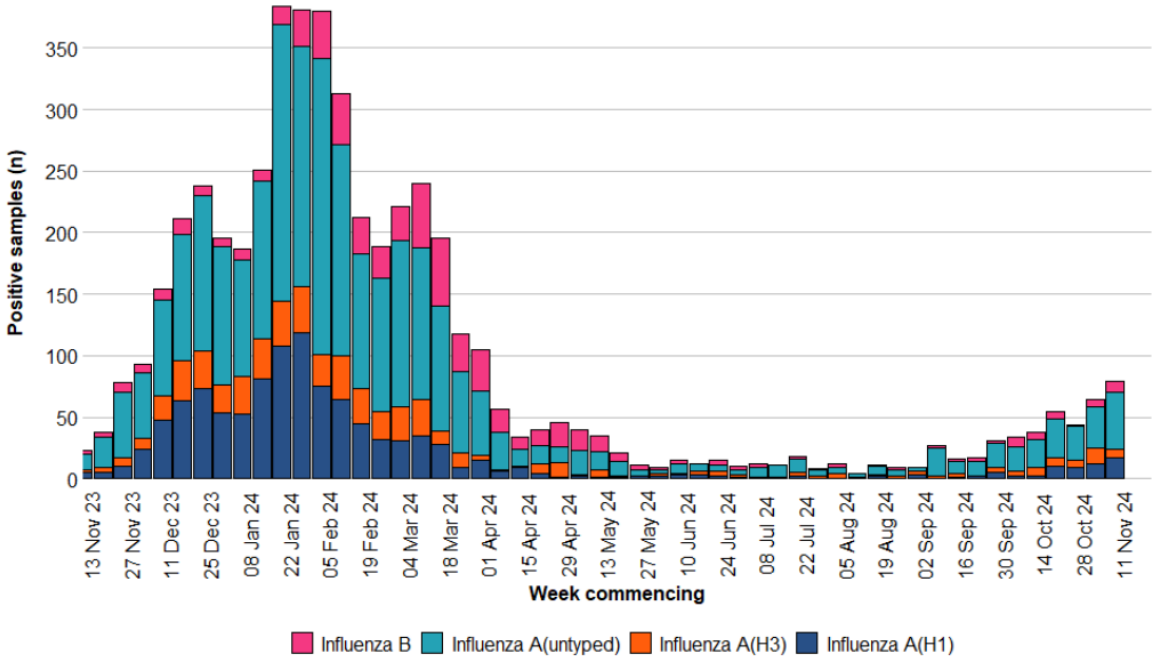

**Figure 6: Daily COVID-19 deaths, projected to projected to end January 2025**



### B.2 Influenza Situation Update

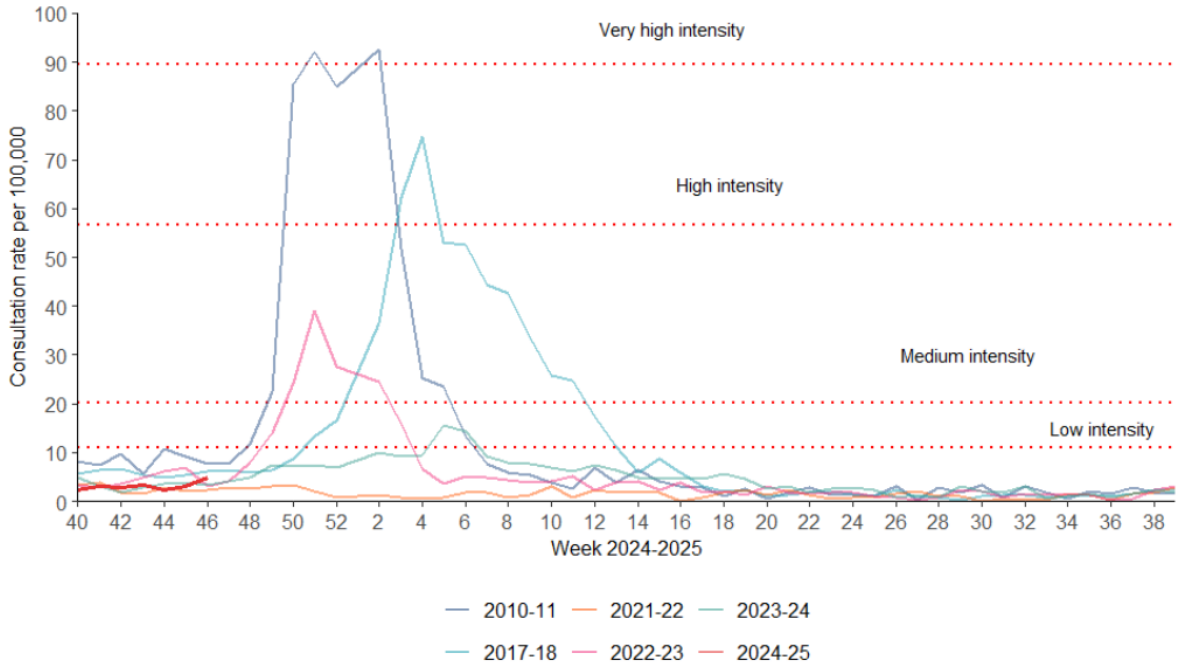
Influenza case numbers decreased in week 46 and remain at low levels. The number of confirmed cases of community acquired influenza admitted to hospital decreased to **30** in the most recent week. In the most recent week, there were **35** hospital in-patient cases of confirmed influenza, **2** of whom was in critical care. In the most recent week there were 7 confirmed cases of influenza A(H3N2), 17 cases of influenza A(H1N1)pdm09, 46 influenza A untyped and 9 influenza B (Figure 7).

**Figure 7: 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 46, 2023 to Week 46, 2024 (source: PHW)**




Consultations for influenza-like illness (ILI) with sentinel GPs increased compared to the previous week, and are at the baseline thresholds. There were 4.8 ILI consultations per 100,000 practice population in the most recent week, a decrease compared to the previous week (3.1 consultations per 100,000) (Figure 8).

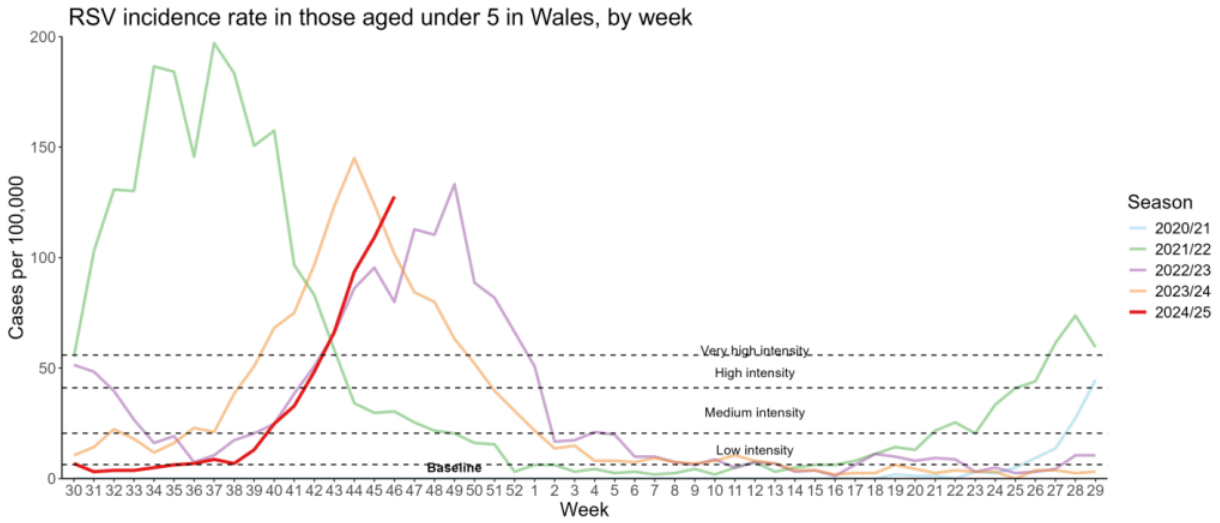
**Figure 8: Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (source: PHW)**



### B.3. Respiratory Syncytial Virus (RSV) update

RSV is circulating, with activity at **very high** intensity levels in children aged up to 5 years old. Incidence per 100,000 population in children aged up to 5y increased to **127.7** in the most recent week. The number of confirmed cases of community acquired RSV admitted to hospital increased to **102** in the most recent week (83 in the previous week).

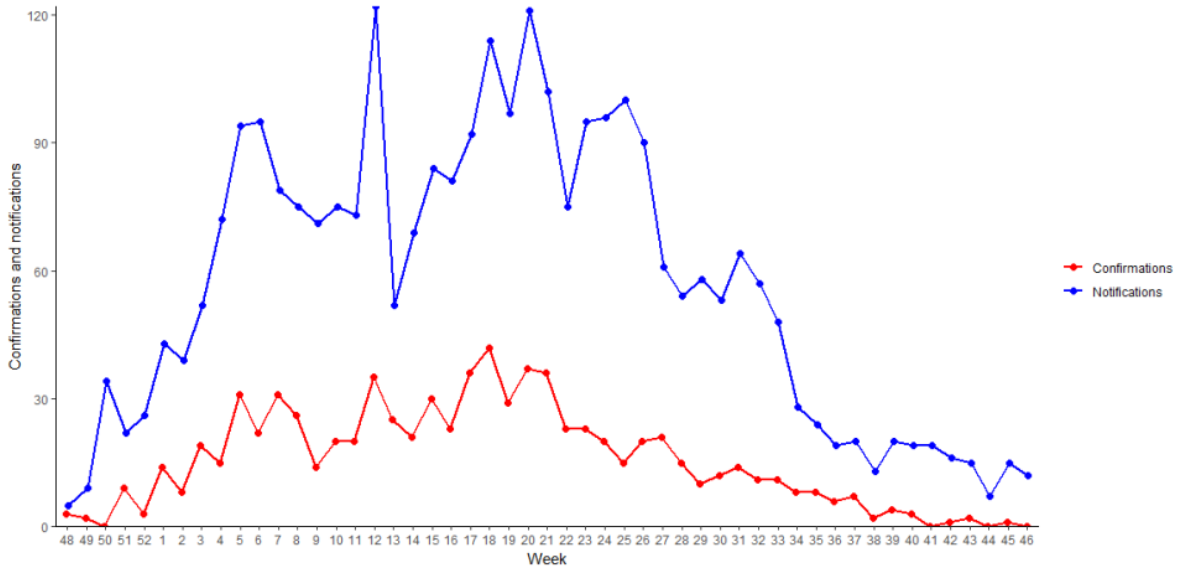
**Figure 9: RSV Incidence Rate per 100,000 population under 5 years, weeks 30 2020 to week 46 2024 (source: PHW)**




### B.4 Whooping Cough (Pertussis)

Figure 10 below shows that whooping cough notifications up to the end of week 46 decreased slightly and remain at low levels. Lab confirmations continue to be at very low levels and have remained stable in the latest week.

**Figure 10: 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 **remained stable** in the most recent week (week 46) as shown in the figures below (up to 10 November 2024) with Figure 12 showing a stable picture overall for the current season (the bright red line on the chart). These notifications are now well below 100 a week compared to the peak of over 800 notifications in winter 2022-23.

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

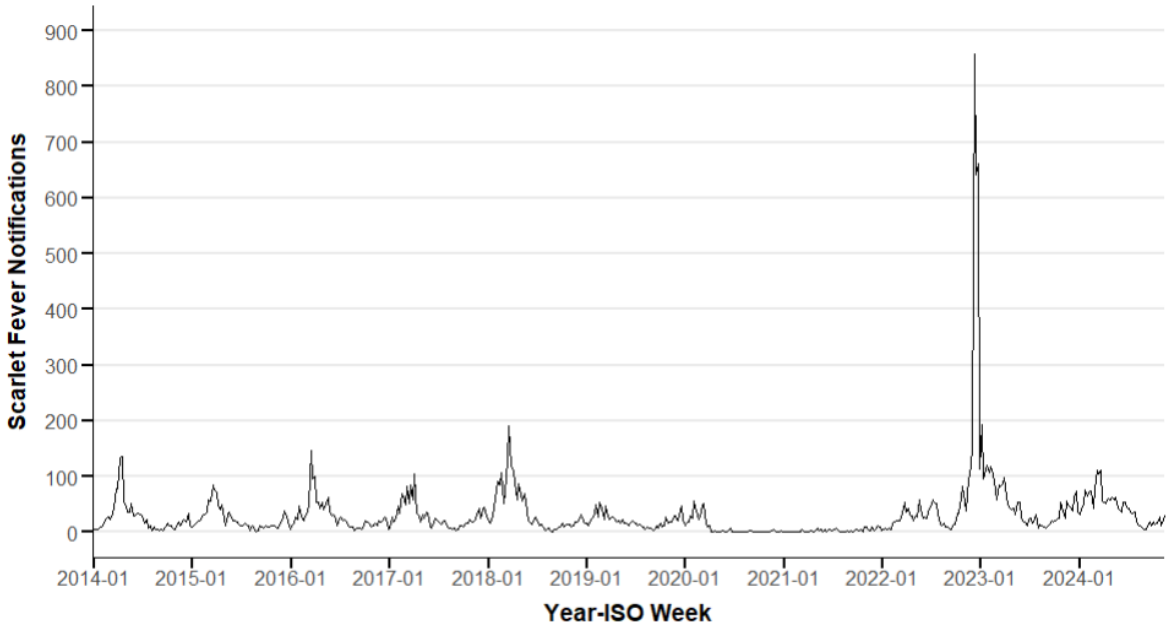
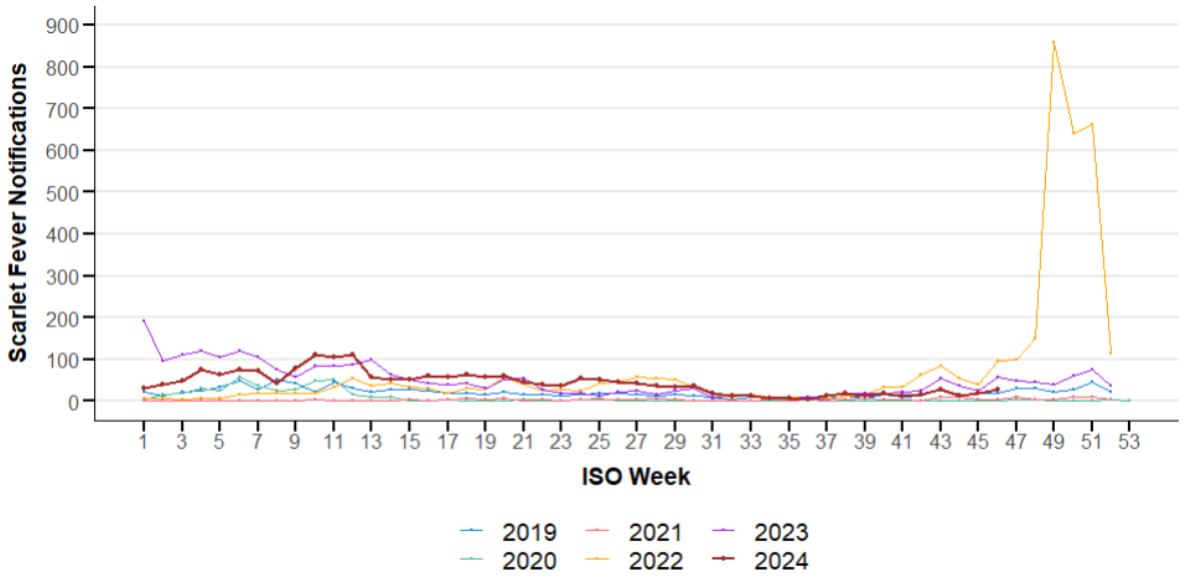



**Figure 12: Rolling 3 Week Average Scarlet Fever Notifications, 2019-2024, Wales (Source: PHW)**



## 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.

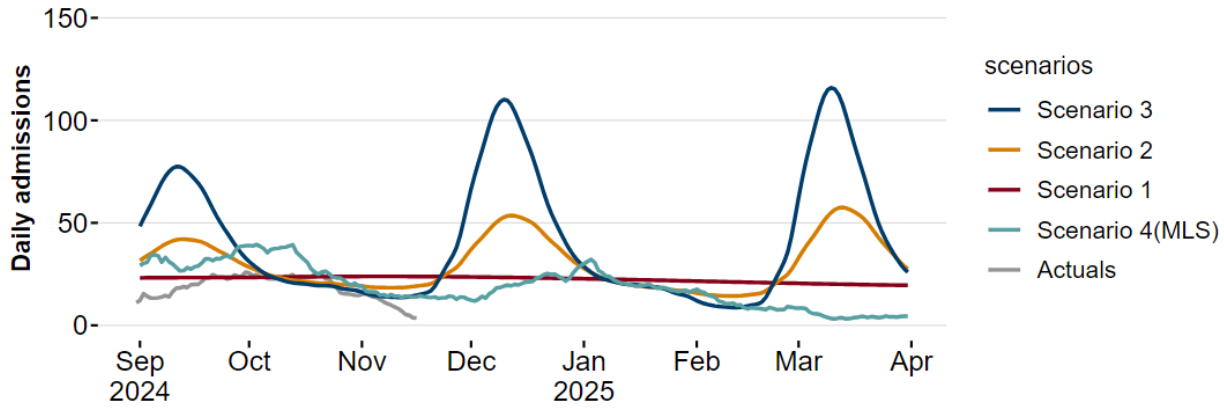
Note that, the modelling is an estimate of what may happen, not a prediction of what will happen.

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 INCET 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 vers. 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) last year for hospital admissions.

### COVID-19

COVID-19 actuals are currently tracking below scenario 4 which is the Most Likely Scenario (MLS), Following a slight uptick in admissions in October there has been a downward trend into November.

**Figure 13 Daily COVID-19 Winter 2024-5 admissions scenarios, data until 16 November 2024**




**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.

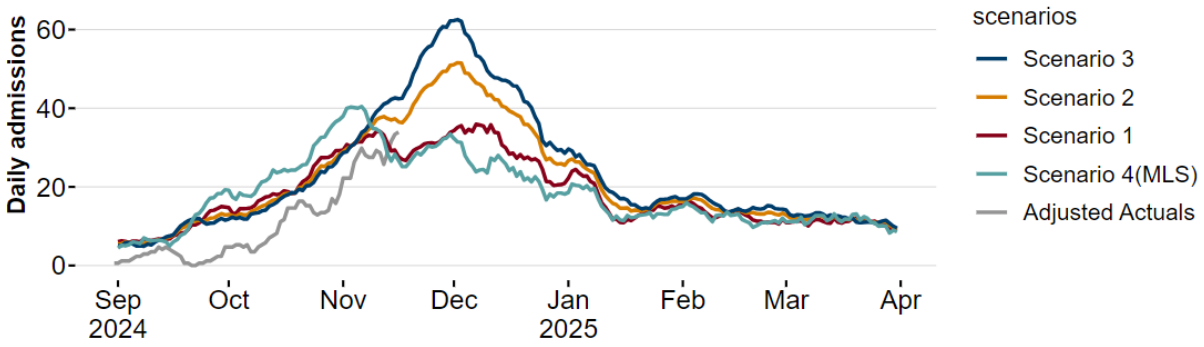
**Notes**

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, 1.25 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 just above the MLS and is closer to scenarios 1-3. However, there has been a significant increase in the number of admissions in recent weeks.

**Figure 14: Daily RSV Winter 2024-5 admissions scenarios, data until 16 November 2024**




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

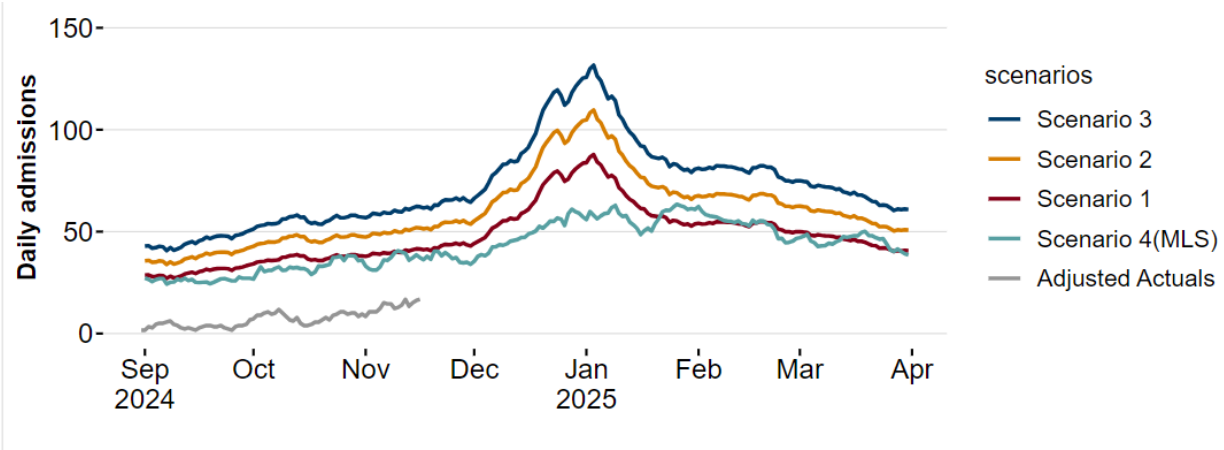
**Notes**

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 are currently tracking well below the MLS, although there has been an increase in admissions in the first half of November.

**Figure 15: Daily flu and pneumonia Winter 2024-5 admissions scenarios, data until 16 November 2024**




**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

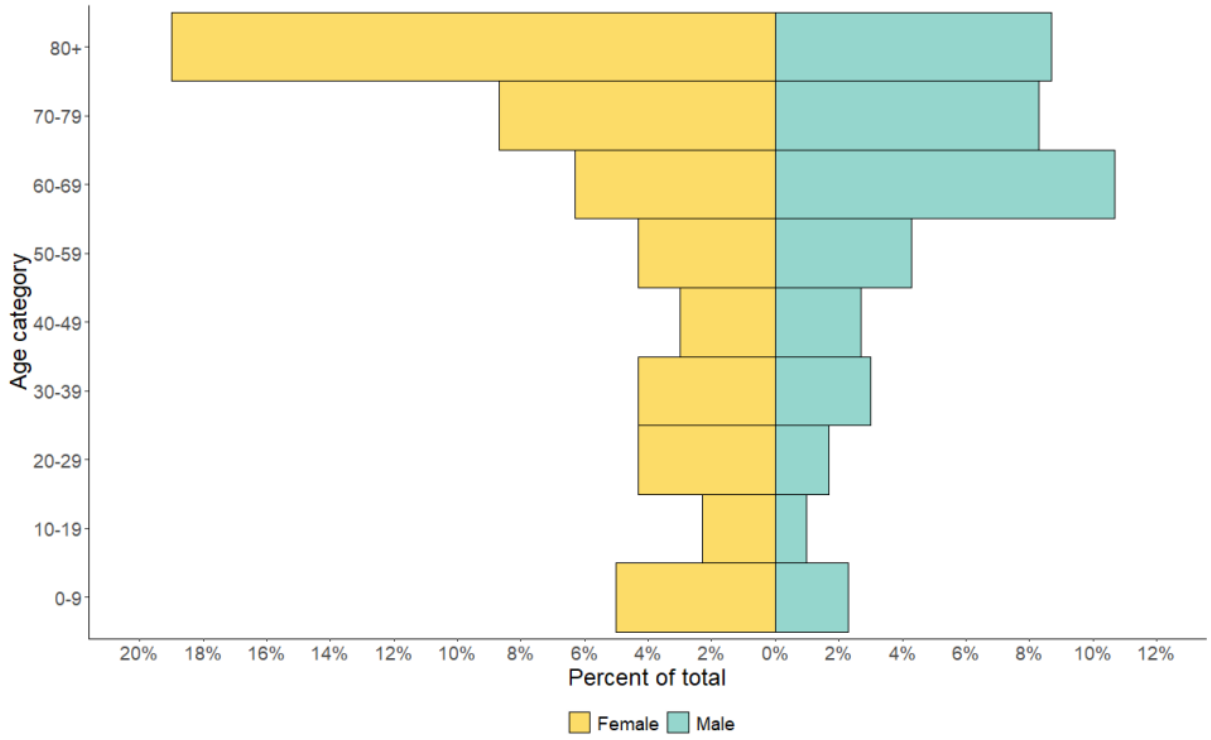
In the current reporting week (week 46 2024), a total of **41** Norovirus confirmed cases were reported in Welsh residents. This is an increase (46.4%) in reported cases compared to the previous reporting week (week 45 2024), where 2**8** Norovirus confirmed cases were reported.

In the last 12 week period (26/08/2024 to 17/11/2024) a total of **302** Norovirus confirmed cases were reported in Welsh residents. This is an increase (76.6%) in reported cases compared to the same 12 week period in the previous year (26/08/2023 to 17/11/2023) where **171** 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 (26/08/2024 to 17/11/2024) **172** (57.0%) confirmed Norovirus cases were female and **128** (42.4%) confirmed cases were male. The age groups with the most cases were the 80+ (83 cases) and 60-69 (51 cases) age groups. Sex data were not available for 2 cases.

**Figure 13: Age and sex distribution of confirmed Norovirus cases in the last 12 weeks (26/08/2024 to 17/11/2024)**




**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 45 2024 (26/08/2024 to 17/11/2024). 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 1 (UKHSA Update)

**November 6**: One further case of Clade Ib mpox has been detected in a household contact of the first UK case, the UK Health Security Agency (UKSHA) can confirm.

This brings the total number of confirmed cases to 4, all of which belong to the same household. The patient is currently under specialist care at Guy's and St Thomas' NHS Foundation Trust in London. The risk to the UK population remains low. The patient has been

isolating since identified as a contact of the first case and no additional contact tracing is required.

**November 5:** Two cases of Clade Ib mpox have been detected in household contacts of the first case, the UK Health Security Agency (UKSHA) can confirm. This brings the total number of confirmed cases to 3.

The 2 patients are currently under specialist care at Guy's and St Thomas' NHS Foundation Trust in London. The risk to the UK population remains low.

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

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

Mpox is very infectious in households with close contact and so it is not unexpected to see further cases within the same household.

The overall risk to the UK population remains low. We are working with partners to make sure all contacts of the cases are identified and contacted to reduce the risk of further spread.

Contacts of all 3 cases are being followed up by UKHSA and partner organisations. All contacts will be offered testing and vaccination as needed and advised on any necessary further care if they have symptoms or test positive.

**30 October:** The UK Health Security Agency (UKHSA) has detected a single confirmed human case of Clade Ib mpox. The risk to the UK population remains low.

This is the first detection of this Clade of mpox in the UK. It is different from mpox Clade II that has been circulating at low levels in the UK since 2022, primarily among gay, bisexual and other men-who-have-sex-with-men (GBMSM).

UKHSA, the NHS and partner organisations have well tested capabilities to detect, contain and treat novel infectious diseases, and while this is the first confirmed case of mpox Clade Ib in the UK, there has been extensive planning underway to ensure healthcare professionals are equipped and prepared to respond to any confirmed cases.

The case was detected in London and the individual has been transferred to the Royal Free Hospital High Consequence Infectious Diseases unit. They had recently travelled to countries in Africa that are seeing community cases of Clade Ib mpox. The UKHSA and NHS will not be disclosing any further details about the individual.

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

UKHSA is working closely with the NHS and academic partners to determine the characteristics of the pathogen and further assess the risk to human health. While the existing evidence suggests mpox Clade Ib causes more severe disease than Clade II, we will continue

to monitor and learn more about the severity, transmission and control measures. We will initially manage Clade Ib as a high consequence infectious disease (HCID) whilst we are learning more about the virus.

### E.2 Mpox Clade 1b confirmed case in Canada

On November 22, 2024, the Public Health Agency of Canada (PHAC) confirmed the first case of clade I mpox in Canada in an individual in Manitoba. This travel-related case is associated with an ongoing outbreak of clade I mpox in central and eastern Africa. The individual sought medical care for mpox symptoms in Canada shortly after their return and is currently isolating. A public health investigation, including contact tracing, is ongoing.

PHAC is working closely with public health authorities in Manitoba. The National Microbiology Laboratory (NML) notified the province on November 22 that the sample tested positive for mpox clade Ib. While clade II mpox has been circulating in Canada since 2022, this is the first case of clade I mpox confirmed in Canada.

The risk to the general population in Canada remains low at this time. PHAC continues to actively monitor the situation and will provide updated information as it becomes available.

### E.3 Mpox Clade 1b confirmed case in USA: CDC Update

The California Department of Public Health confirmed, through laboratory testing, the first known case of clade I mpox in the United States. This case is related to an ongoing outbreak of clade I mpox in Central and Eastern Africa. The risk of clade I mpox to the public remains low, and there continue to be sporadic clade II mpox cases in the United States.

The case was diagnosed in a person who recently travelled from Eastern Africa. The individual was treated shortly after returning to the United States at a local medical facility and released. Since then, the person has isolated at home, is not on treatment specific for mpox, and symptoms are improving. Based on their travel history and symptoms, patient specimens were tested and confirmed for the presence of clade I monkeypox virus. Specimens are being sent to CDC for additional viral characterization. Additionally, CDC is working with the state to identify and follow up with potential contacts.

### E.4 Communicable Disease Centre (CDC) USA – Avian Flu in a Child in California

The Center for Disease Control and Prevention (CDC) has confirmed a human infection with avian influenza A(H5N1) (H5N1 bird flu) in a child in California. This is the first reported avian influenza H5 virus infection in a child in the United States. Consistent with previously identified human cases in the United States, the child reportedly experienced mild symptoms and received flu antivirals. There were low levels of viral material detected in the initial specimen collected, and follow-up testing of the child several days later was negative for H5 bird flu but was positive for other common respiratory viruses. The child is recovering from

their illness. An investigation by the California Department of Public Health (CDPH) into the child's possible H5N1 exposure source is ongoing.

During CDPH's investigation, all household members reported having symptoms and specimens were collected from those people. All test results from members of the household were negative for H5 bird flu, and some family members were positive for the same common respiratory viruses as the child. Contact tracing continues, but there is currently no evidence of person-to-person spread of H5N1 bird flu from this child to others. To date, there has been no person-to-person spread identified associated with any of the H5N1 bird flu cases reported in the United States.

**E.5 Communicable Disease Centre (CDC) USA – Avian Flu update**

**18 November, 2024**: Since April 2024, CDC, working with state public health departments, has confirmed avian influenza A(H5) virus infections in 52 people in the United States. Twenty-one of these cases were associated with exposure to avian influenza A(H5N1) virus -infected poultry and 30 were associated with exposure to infected dairy cows [A][B]. The source of the exposure in one case, which was reported by Missouri on September 6, could not be determined.

The 52 cases include 26 cases among dairy farm workers in California, five of which were confirmed by CDC on November 13 and 14, and one additional case in a poultry farm worker in Oregon. This is the first human case of H5N1 bird flu reported in Oregon. All recent cases have occurred in workers on affected farms. All available data so far suggest sporadic instances of animal-to-human spread. These farm workers all described mild symptoms, many with eye redness or discharge (conjunctivitis). Some workers who tested positive in Washington reported some mild upper respiratory symptoms. None of the workers were hospitalized.

CDC is aware of the human case of H5N1 bird flu reported in Canada and is in communication with the Public Health Agency of Canada (PHAC), which has confirmed that the case was caused by an H5N1 virus that is different than those causing outbreaks in dairy cows and other animals in the United States.