

Science Evidence Advice

Weekly Surveillance Report

5 August 2024



Science Evidence Advice (SEA)

gov.wales

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

Science Evidence Advice: Weekly Surveillance Report

A. <u>Top Line Summary</u>

- Overall, COVID-19 infections have decreased in the most recent week.
- COVID-19 hospital admissions decreased in the most recent week.
- RSV activity in children under 5 years has **increased** to baseline level in the most recent week.
- Influenza cases have remained **stable** at low levels in the latest week.
- Whooping Cough notifications have decreased in the most recent week.
- Scarlet Fever notifications have **plateaued** at a low level.

B. Acute Respiratory Infections Situation Update

B1. 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 have decreased.

- At a national level, the weekly number of confirmed case admissions to hospital decreased in week 30, and the number of cases who are inpatients has decreased. The number of admissions to ICU has increased in week 30.
- As of 28 July 2024, **566** people currently in hospital have had a positive COVID-19 test, with **5** in ICU (compared to **605** and **8** in the previous week (week 29).
- The all-Wales incidence as estimated using PCR episodes has slightly decreased in week
 30.
- The number of deaths from any cause has decreased in the latest reported data available from ONS.
- In the last six reporting weeks, KP.3* is the most dominant variant in Wales, accounting for **67.9%** of all sequenced cases.
- There were 7 new respiratory incidents reported in week 30 2024 recorded in the health protection case and incident management system (Tarian). Of these, 6 were in residential homes. Across recent reporting weeks, the average numbers of Acute respiratory and COVID-confirmed incidents in care homes (recorded on Tarian) have decreased in week 30 when looking at these by the date of onset of the first case following a steady increase in recent weeks.
- In week 30, GP consultations for any Acute Respiratory Infection (ARI) have decreased and consultations for suspected COVID have decreased and remain at low levels.
- The overall number of ambulance calls related to COVID-19 and the proportion of incidents decreased in week 30.

Sample collection date (week)

- Wales

Figure 1: Weekly number of COVID-19 admissions to all hospitals in Wales testing positive on or within 28d prior to admission, Wales (ICNET clinical surveillance software)(source: PHW)

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

The latest available Swansea University MTPs using data up to 10 July indicate a decline in COVID-19 non-ICU hospital admissions into August and a lower trajectory through September 2024. ICU admissions are projected to remain at low levels as are deaths caused by COVID-19.

Figure 2: Daily COVID-19 hospital admissions, projected to September 2024

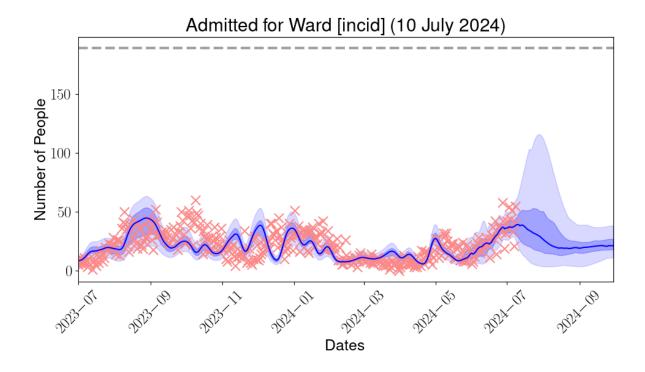


Figure 3: Daily COVID-19 ICU admissions, projected to September 2024

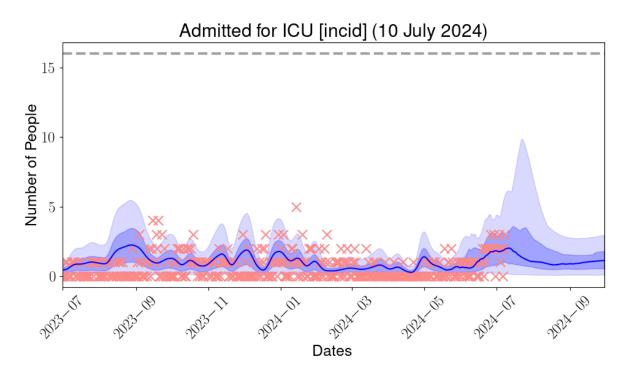
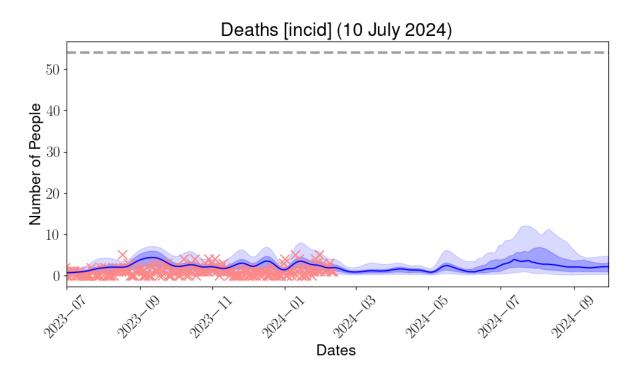


Figure 4: Daily COVID-19 deaths, projected to projected to September 2024

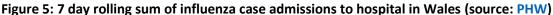


Notes: In the charts above, red crosses represent actual COVID-19 cases data. The blue line represents the central modelling estimate. The blue ribbon represents the confidence intervals, with the darker blue ribbon indicating the 25th to 75th percentiles, and the 95% confidence limits in the lighter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

B2. Influenza Situation Update

Current levels of influenza are low and the trend is stable. During week 30 (ending 28/07/2024) there were 18 confirmed cases of influenza in Wales (2 for influenza A (H1N1), 11 for influenza A (not subtyped), 2 for influenza A (H3) and 3 for influenza B).

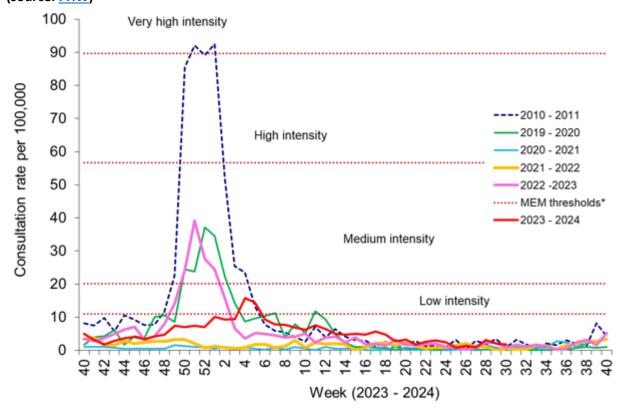
In recent weeks, detections of Parainfluenza and Enterovirus remain elevated.





The figure below shows a slight decrease in week 30 in the 2023-2024 series (the bright red line is the 2023-2024 influenza like illness season) and well below the low intensity level threshold.

Figure 6: Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (source: PHW)



B3. Whooping Cough (Pertussis)

<u>UKHSA encourages timely vaccination as whooping cough cases rise - GOV.UK (www.gov.uk)</u> (11 July 2024 update).

January 2024	555 cases
February 2024	920 cases
March 2024	1,427 cases
April 2024	2,106 cases
May 2024	2,591 cases

Sadly, there have been 9 infant deaths (UK) since the current outbreak began in November last year (one in December 2023 and 8 between January to end May 2024). Young babies are at highest risk of severe complications and death from whooping cough. Evidence from England shows that vaccination at the right time in pregnancy is highly effective, giving 92% protection against infant death.

From January to May 2024, while most cases (53.4%, 4,057 UK) were in those aged 15 years or older who usually get a mild illness, high numbers (262 UK) continue to be reported in babies under 3 months of age who are at greatest risk from the infection.

The latest uptake data for the vaccination offered to pregnant women to protect newborn infants against whooping cough continues to decline - with coverage in March 2024 at 58.9% compared to the peak coverage (72.6%) in March 2017.

Whooping Cough vaccination urged as cases rise rapidly in Wales - Public Health Wales (nhs.wales)

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 (Published: 24 January 2024) 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.

Figure 7 below shows that whooping cough notifications up to the end of week 30 decreased. Lab confirmations continue to be at low levels but have increased in the latest week.

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

B4. iGAS and Scarlet Fever

The number of iGAS notifications are currently low, remaining at seasonally expected levels. Scarlet Fever notifications have decreased slightly in the most recent week (week 30) as shown in the figures below (up to 28 July 2024) with Figure 9 showing a stable picture overall for the current season (the bright red line on the chart) with the latest plateau in notifications also visible. These notifications are now well below 100 a week compared to the peak of over 800 notifications in winter 2022-23.

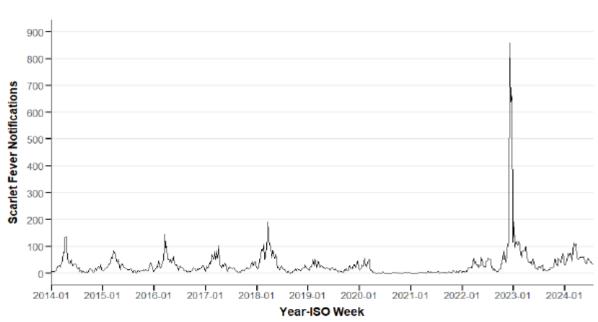


Figure 8: Rolling 3 Week Average Scarlet Fever Notifications, 2014-2024, Wales (source: PHW)

Data as at 28 July 2024

Data as at 2024-07-31

Scarlet Fever Notifications 27 29 ISO Week

Figure 9: Rolling 3 Week Average Scarlet Fever Notifications, 2019-2024, Wales (Source: PHW)

Data as at 28 July 2024

B5. Respiratory Syncytial Virus (RSV) update

RSV activity in children under 5 years has increased in the most recent week and is now at baseline level. The red dot on the chart begins the 2024-2025 season.

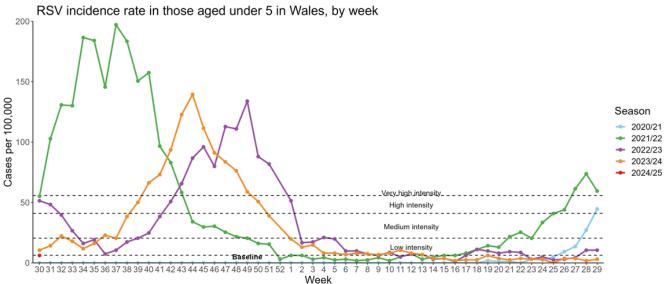


Figure 10: RSV Incidence Rate per 100,000 population under 5 years (source: PHW)

C. International Surveillance Update

C1. Communicable Disease Centre (CDC) USA – Avian Flu (H5N1) in Cattle (outbreaks reporting)

A small number of sporadic human cases of highly pathogenic avian influenza (HPAI) A(H5N1) have been identified worldwide since 2022, amidst a panzootic of these viruses in wild birds and poultry. Nearly all human cases reported globally since 2022 were associated with poultry exposures, and no cases of human-to-human transmission of HPAI A(H5N1) virus have been identified. Three human cases of HPAI A(H5N1) virus infection in dairy farm workers were reported during April and May 2024 in the United States and were attributed to exposures to dairy cattle. One previous human case was detected in the United States in 2022 during poultry culling work. In a few cases, the source of exposure to HPAI A(H5N1) virus was unknown. To date, HPAI A(H5N1) viruses currently circulating most commonly in birds and poultry, with spillover to mammals and humans, do not have the ability to efficiently bind to receptors that predominate in the human upper respiratory tract. This is a major reason why the current risk to the public from HPAI A(H5N1) viruses remains low. However, because of the potential for influenza viruses to rapidly evolve and the wide global prevalence of HPAI A(H5N1) viruses in wild birds and poultry outbreaks and following the identification and spread among dairy cattle in the United States, additional sporadic human infections are anticipated. Continued comprehensive surveillance of these viruses in wild birds, poultry, mammals, and people worldwide, and frequent reassessments are critical to determine the public health risk, along with ongoing preparedness efforts.

26th July 2024 Update: CDC continues to respond to the public health challenge posed by a multistate outbreak of avian influenza A(H5N1) virus, or "H5N1 bird flu," in dairy cows, poultry and other animals in the United States. CDC is working in collaboration with the U.S. Department of Agriculture (USDA), the Food and Drug Administration (FDA), Administration for Strategic Preparedness and Response (ASPR), state public health and animal health officials, and other partners using a One Health approach. Since April 2024, 13 human cases of avian influenza A(H5) infection have been reported in the United States. Four of these cases were associated with exposure to sick dairy cows and nine were associated with exposure to avian influenza A(H5N1)-infected poultry. This includes three additional cases in Colorado that were confirmed by CDC this week. The three new cases were in poultry workers who were working directly with infected poultry at a commercial egg layer operation that had reported an outbreak of H5 bird flu among poultry. Similar to previous cases, all of the people have mild illness. Based on the information available at this time, CDC's current assessment is that the risk to the general public from H5 bird flu remains low. On the animal health side, USDA is reporting that 171 dairy cow herds in 13 U.S. states have confirmed cases of avian influenza A(H5N1) virus infections in dairy cows as the number of infected herds continues to grow. USDA reports that since April 2024, there have been A(H5) detections in 35 commercial flocks and 19 backyard flocks, for a total of 18.37 million birds affected.

C.2 <u>European Communicable Disease Centre</u> (ECDC) - Influenza A(H5N1) human cases – United States - 2024

- On 22 July 2024, the US CDC reported six human cases of A(H5N1) avian influenza virus among workers exposed to infected poultry as part of the response to the ongoing outbreak at a commercial egg layer operation in Colorado. The cases showed mild respiratory symptoms and none have required hospitalisation to date.
- The virus was characterised as genotype B3.13 clade 2.3.4.4b HPAI A(H5N1) and it was closely related to the recent poultry outbreaks and infected dairy cattle herds.
- The virus maintains avian genetic characteristics and lacks adaptations for human infection. However, a specific change at PB2 M631L suggests mammalian adaptation.
- No markers of antiviral resistance were found and the HA sequence closely resembles to the two existing HPAI A(H5) candidate vaccine viruses.
- On 25 July 2024, the US CDC confirmed three human cases of highly pathogenic avian influenza (HPAI) A(H5) among workers exposed to infected poultry as part of the response to an outbreak at a second poultry farm in Colorado. The cases had mild symptoms and have been offered antiviral treatment.
- In 2024 and as of 25 July 2024, a total of 13 human cases of HPAI A(H5), including 10 human cases of A(H5N1), have been reported in USA. From these, four cases have been reported in workers exposed to dairy cattle infected with A(H5N1) and nine cases have been reported in workers exposed to commercial egg layer farms with outbreaks of HPAI A(H5).
- To date, there have been no confirmed cases of A(H5N1) infection in humans and no reports of A(H5N1) infection in cattle in the EU/EEA.
- The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered low. The risk to occupationally exposed groups, such as farmers and cullers, is considered low-to-moderate.