

Science Evidence Advice

Weekly Surveillance Report

9 October 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 slightly in the most recent week.
- COVID-19 hospital admissions **increased** in the most recent week.
- RSV activity in children under 5 years has increased in the most recent week.
- Influenza cases have **remained stable** and remain at low levels in the latest week.
- Whooping Cough notifications have increased slightly in the most recent week.
- Scarlet Fever notifications increased in the most recent week.
- Norovirus confirmed cases have **decreased** in the most recent week (week 38).

B. Acute Respiratory Infections Situation Update

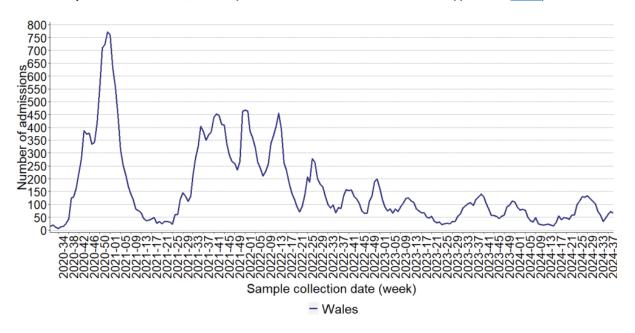
B.1 COVID-19 Situation Update

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

- At a national level, the weekly number of confirmed case admissions to hospital decreased slightly and the number of cases who are inpatients have increased in week 39.
- As at 29 September 2024, **285** people currently in hospital have had a positive COVID-19 test, with **9** currently in ICU. (compared to **243** and **5** in the previous week (week 38).
- The all-Wales incidence as estimated using PCR episodes has decreased and remained at low levels in week 39.
- The number of deaths from any cause has decreased in the latest reported data available from ONS.
- Between weeks 30 and 35, KP.3* from the Pango lineage was the most dominant variant in Wales, accounting for **77.2%** of all sequenced cases.
- There were 8 new respiratory incidents reported in week 39 2024 recorded in the health protection case and incident management system (Tarian). Of the 8 respiratory incidents, 7 were in residential homes and 1 was in a hospital setting. The average numbers of Acute respiratory and COVID-confirmed incidents in care homes (recorded on Tarian) have decreased in week 39 when looking at these by the date of onset of the first case.

- In week 39, GP consultations for any Acute Respiratory Infection (ARI) have remained stable and consultations for suspected COVID are also stable at low levels.
- The overall number of ambulance calls related to COVID-19 have increased slightly and the proportion of incidents has also slightly decreased in week 39.

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

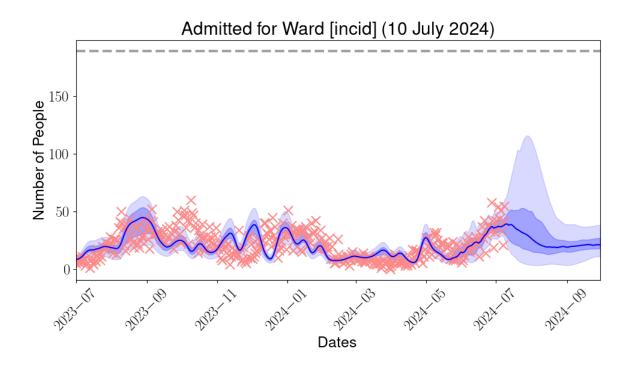
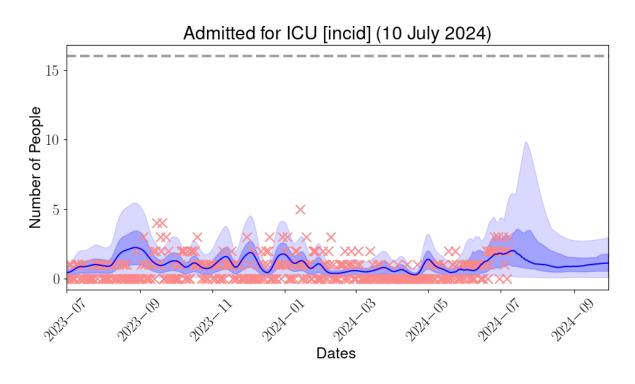


Figure 3: Daily COVID-19 ICU admissions, projected to September 2024



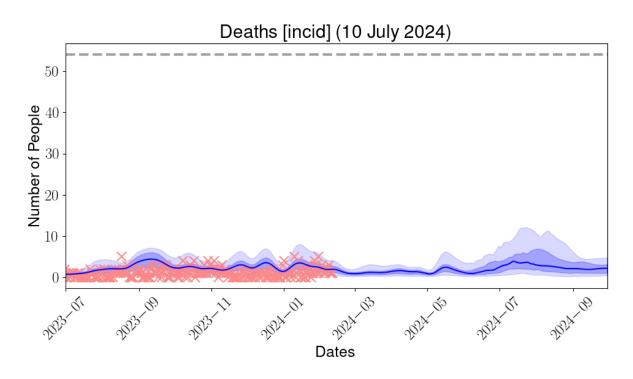


Figure 4: Daily COVID-19 deaths, projected to projected to September 2024

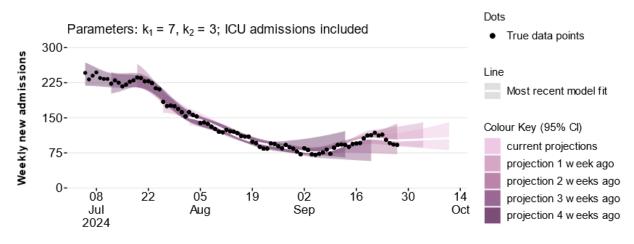
Notes: In the charts above, red crosses represent actual COVID-19 cases data. The blue line represents the central modelling estimate. The blue ribbon represents the confidence intervals, with the darker blue ribbon indicating the 25th to 75th percentiles, and the 95% confidence limits in the lighter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

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 are based on using generalised additive models to 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.

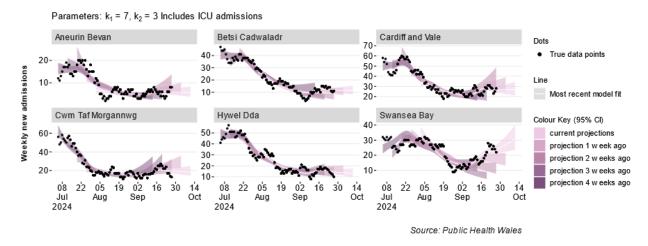
The COVID-19 STPs uses admissions data from PHW until 27 September 2024 to make short term projections for COVID-19 weeks forward (11 October 2024). The black dots show the actual data points while the white line is the best fit from the most recent projection. The colour shadings represent the 95% confidence 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 increase slightly over the next two week period (Figure 5). Figure 6 shows that COVID-19 admissions are projected to increase in Swansea Bay and Cardiff and Vale health boards over the next two weeks.

Figure 5: Short Term Projections for COVID-19 hospital admissions in Wales (data until 27 September 2024)



Source: Public Health Wales

Figure 6: Short Term Projections for COVID-19 hospital admissions in Wales Health Boards (data until 27 September 2024)



B.2 Influenza Situation Update

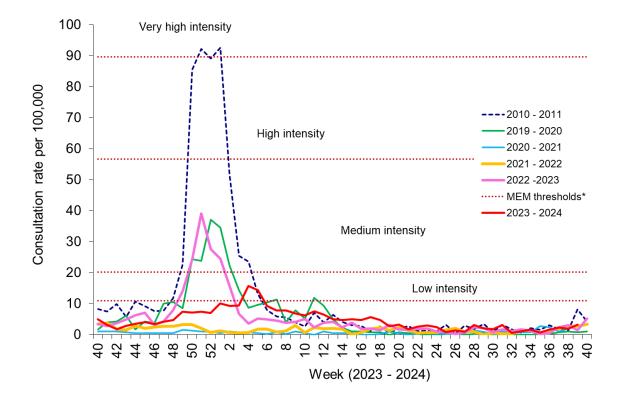
Current levels of influenza are low, and have remained stable in the latest week. During week 39 (ending 29/09/2024) there were 17 confirmed cases of influenza in Wales: 12 influenza A (not subtyped), 2 for influenza A(H1N1), and 3 for influenza B. Case admissions have increased slightly but remain at low levels.

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



There has been an increase in syndromic surveillance of influenza like illness (ILI) in recent weeks following a stable period. The figure below shows this increase in week 39 in the 2023-2024 series (the bright red line is the 2023-2024 influenza like illness season) but this is still below the low intensity level threshold.

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 activity in children under 5 years has seen an increase in the most recent week and is at baseline levels. The red line on the chart denotes the 2024-2025 season which began in week 30 hence the short series.

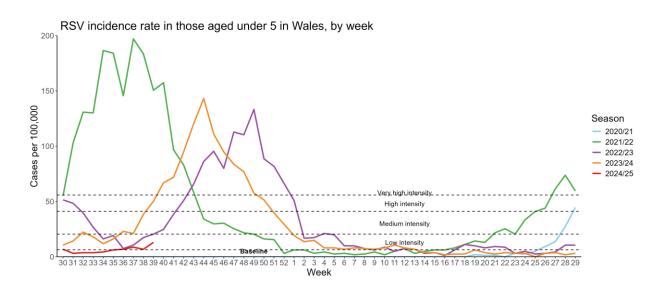


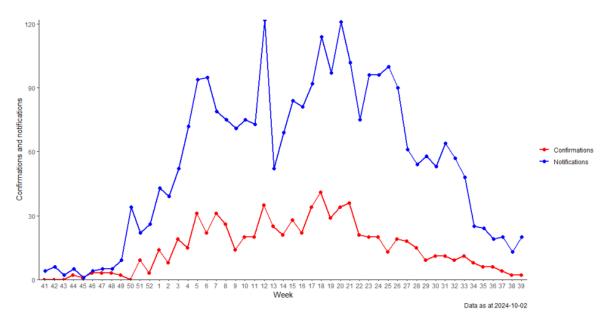
Figure 9: RSV Incidence Rate per 100,000 population under 5 years (source: PHW)

B.4 Whooping Cough (Pertussis)

Whooping cough has waves of increased infection every 3-4 years and in the last few months, notifications of whooping cough have risen sharply. Following reduced circulation in 2020-2022, this whooping cough season has seen notifications at levels not seen since 2012 and 2015.

Figure 10 below shows that whooping cough notifications up to the end of week 39 increased slightly but remain at low levels. Lab confirmations continue to be at very low levels and have also decreased in the latest week.

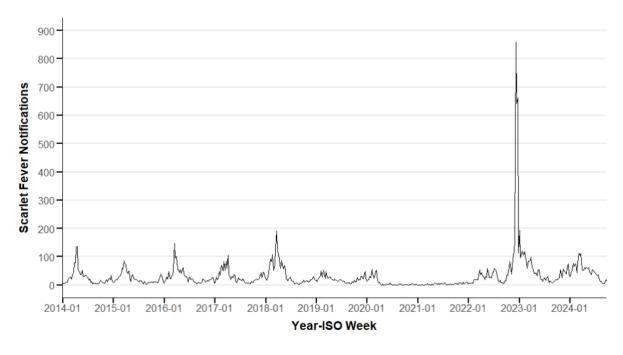
Figure 10: Weekly notifications and confirmations of Pertussis/Whooping Cough in Wales. (Source: PHW)



B.5 iGAS and Scarlet Fever

The number of iGAS notifications are currently low, remaining at seasonally expected levels. Scarlet Fever notifications have slightly increased in the most recent week (week 39) as shown in the figures below (up to 29 September 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)



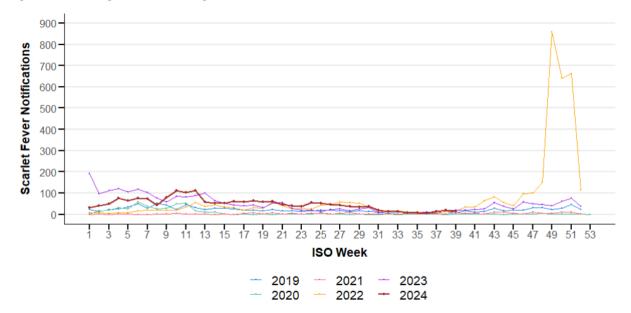


Figure 12: Rolling 3 Week Average Scarlet Fever Notifications, 2019-2024, Wales (Source: PHW)

C. Communicable Disease Situation Update (non-respiratory)

C.1 Norovirus

In the latest reporting week (week 38 2024), a total of **16** Norovirus confirmed cases were reported in Welsh residents. This is a decrease (-**30.4%**) in reported cases compared to the previous reporting week (week 37 2024), where **23** Norovirus confirmed cases were reported.

In the last 12 week period (01/07/2024 to 22/09/2024) a total of **320** Norovirus confirmed cases were reported in Welsh residents. This is an increase (**138.8%**) in reported cases compared to the same 12 week period in the previous year (01/07/2023 to 22/09/2023) where **134** Norovirus confirmed cases were reported.

In the last 12 weeks (01/07/2024 to 22/09/2024) **165** (51.6%) confirmed cases were female and **155** (48.4%) confirmed cases were male. The age groups with the most cases were the 70+ (172 cases) and 60-69 (42 cases) age groups.

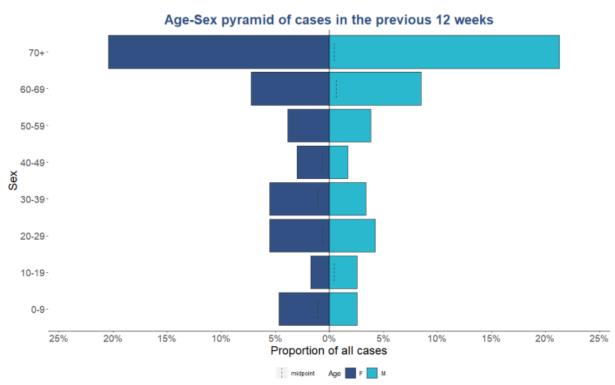


Figure 13: Age and sex distribution of confirmed Norovirus cases in the last 12 weeks (01/07/2024 to 22/09/2024)

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 36 2024 (01/07/2024 to 22/09/2024). 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.

D. International Surveillance Update

D.1 Mpox Clade 1 (UKHSA Update)

On 14th August the World Health Organisation (WHO) determined that the upsurge of mpox in the DRC and a growing number of countries in Africa constitutes a public health emergency of international concern (PHEIC) under the International Health Regulations (2005) (IHR).

Mpox is an infectious disease that is caused by infection with monkeypox virus (MPXV). There are 2 major genetic groups (clades) of MPXV, Clade I (formerly known as Central African or Congo basin clade) and Clade II (formerly known as West African clade). Clade I is split into Clade Ia and Clade Ib.

Historically, Clade I mpox was known to circulate in 5 Central African Region countries:

- Cameroon
- Central African Republic (CAR)

- the Democratic Republic of the Congo (DRC)
- Gabon
- the Republic of the Congo

In 2024, Clade I mpox cases were reported from countries in Africa beyond these 5 Central African Region countries. This is likely to be because of multiple factors including waning population immunity from the discontinued smallpox vaccine and changing environmental and social factors, but the full aetiology remains unclear.

Clade I MPXV has previously been intermittently transmitted from animals to humans, with small mammals and primates acting as hosts. Clade I MPXV can also spread via human-to-human transmission and had previously been associated with close contact. However, in March 2023, infections linked to sexual contact and international travel were reported in the DRC for the first time. Two cases of Clade 1b have been detected outside of Africa in recent weeks, one in Sweden and one in Thailand. On 23 September 2024, media reports citing government and health officials stated that a case of mpox in Malappuram District, Kerala State, India has been confirmed as a clade Ib mpox infection. No official statements have been made by the Indian Government on this case. No cases of Clade I mpox have ever been detected in the UK.

D.2 Communicable Disease Centre (CDC) USA – Avian Flu case in Missouri

September 27, 2024: 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

Since April 2024, 14 human cases of avian influenza A(H5) virus 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) virus-infected poultry. The source of the exposure in the most recent case, which was reported by Missouri on September 6, has not been determined. The immediate risk to the general public from H5 bird flu remains low.

On the animal health side, USDA is reporting that 238 dairy herds in 14 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 36 commercial flocks and 23 backyard flocks, for a total of 18.75 million birds affected.

Among other activities previously reported in past spotlights and ongoing, recent highlights of CDC's response to this include:

Missouri Case Update

Missouri continues to lead the investigation into that state's only reported H5 case with technical assistance from CDC in Atlanta. As CDC learns new information from Missouri about

its investigation, we are sharing it as quickly as possible in this space to help keep the public up to date. The Missouri Department of Health and Senior Services has not, to date, identified ongoing transmission among close contacts of the case, first reported on September 6, 2024. Missouri identified two health care workers who were exposed to the hospitalized case before droplet precautions were instituted (i.e., higher risk exposure) and subsequently developed mild respiratory symptoms (among 18 workers with this higher risk exposure); one tested negative for influenza by PCR, as previously reported, and the second provided a blood specimen for testing by CDC for potential influenza A(H5N1) antibodies.

Missouri has since identified four additional health care workers who later developed mild respiratory symptoms. One of these workers was in the higher risk category and provided a blood specimen for H5 antibody testing. Three of these workers are among 94 workers who were exposed to the hospitalized case of avian influenza A(H5) after droplet precautions were instituted (i.e., lower risk exposure); blood specimens for those who became symptomatic have been collected for H5 antibody testing at CDC. Aside from the one health care worker reported to have tested negative for influenza by PCR, the five remaining exposed health care workers had only mild symptoms and were not tested by PCR for respiratory infections. PCR testing would have been unreliable at the time of discovery of these individuals' prior symptoms. The health care worker monitoring effort has been part of the ongoing investigation as previously reported. Results of serology testing at CDC on the positive case and their previously identified household contact are still pending. To date, only one case of influenza A(H5N1) has been detected in Missouri. No contacts of that case have tested positive for influenza A(H5N1). CDC continues to closely monitor available data from influenza surveillance systems, particularly in affected states, and there has been no sign of unusual influenza activity in people, including in Missouri.

D.3 <u>European Communicable Disease Centre</u> (ECDC) – Mpox Clade I update and Influenza A(H5N1) human cases – Multi-Country – 2024

Mpox Update:

There have been no major changes to the global epidemiological trends in mpox during the past week. On a global basis, MPXV clade I and clade II are circulating in different countries. Global epidemiological data are being updated weekly by the World Health Organization (WHO), with the most recent updates from Africa highlighting the recent expansion of clade I cases (2022-24 Mpox (Monkeypox) Outbreak: Global Trends). No secondary cases of mpox due to MPXV clade I have been reported by Sweden, Thailand, or India. Overall, since monitoring began in 2022, 106 310 confirmed mpox cases (MPXV clade I and clade II), including 234 deaths, have been reported from 123 countries (2022-24 Mpox (Monkeypox) Outbreak: Global Trends and WHO Mpox Multi-country external situation report n. 37, published 22 September 2024).

D.4 Marburg Virus Disease (MVD) Rwanda

On 27 September 2024, the Ministry of Health of Rwanda reported the first outbreak of Marburg virus disease (MVD) in the country. As of 3 October 2024, a total 36 cases, including 11 deaths, have been reported in the county. According to the Africa CDC Special Press Briefing of 3 October 2024 reporting on data available as of 2 October 2024, cases were reported from eight districts of 30 in Rwanda and over 80% were in healthcare workers. Epidemiological investigations, contact tracing, strengthening of infection prevention and control protocols and other measures are being implemented by the government of Rwanda to control the outbreak. Among the contacts investigated in Rwanda, one who had travelled to Belgium has completed the monitoring period (21 days) and is not considered a public health risk. On 2 October 2024, Germany reported that two travellers returning from Rwanda were isolated in Hamburg as one of the two had been working in a medical facility where Marburg virus disease patients were being treated. ECDC has been in close contact with German public health authorities. Negative test results were reported on 3 October. The traveller who had been exposed is currently in quarantine.

ECDC Assessment

Since person-to-person transmission of Marburg virus requires contact with body secretions from a symptomatic case, the likelihood of exposure and infection for EU/EEA citizens travelling or residing in the affected areas in Rwanda is currently considered low. Since several cases have occurred among healthcare workers in hospitals in the Kigali area, EU/EEA citizens working care in healthcare settings in Rwanda should be made aware of the situation. Based on the available information, the likelihood of exposure to MVD in a healthcare setting is moderate. However, infection prevention and control measures are being implemented, including the monitoring of healthcare workers and awareness raising campaigns, which reduce the risk of infection. In the event of an MVD case being imported into the EU/EEA, the likelihood of further transmission is considered to be very low if appropriate measures are taken (e.g. early detection, isolation of suspected cases and contact tracing.) Travellers to Rwanda should be made aware of the ongoing outbreak in Rwanda and the affected areas and follow the advice of the local health authorities. They should be advised to:

- avoid contact with persons exhibiting MVD symptoms (such as fever, vomiting, diarrhoea or bleeding) or contact with fomites contaminated with the body fluids of infected persons. This includes avoiding funerals and the burial processes for deceased persons;
- avoid visiting healthcare facilities in the MVD-affected areas for non-urgent medical care or for non-medical reasons;
- avoid habitats that may be populated by bats, such as caves or mines, as well as any form of close contact with wild animals, including monkeys, forest antelopes, rodents, and bats, both alive and dead, and manipulation or consumption of any type of bushmeat.