# Public Health Wales CDSC Weekly Influenza & Acute Respiratory Infection Surveillance Report

**Wednesday 08th February 2023 (covering week 05 2023)**

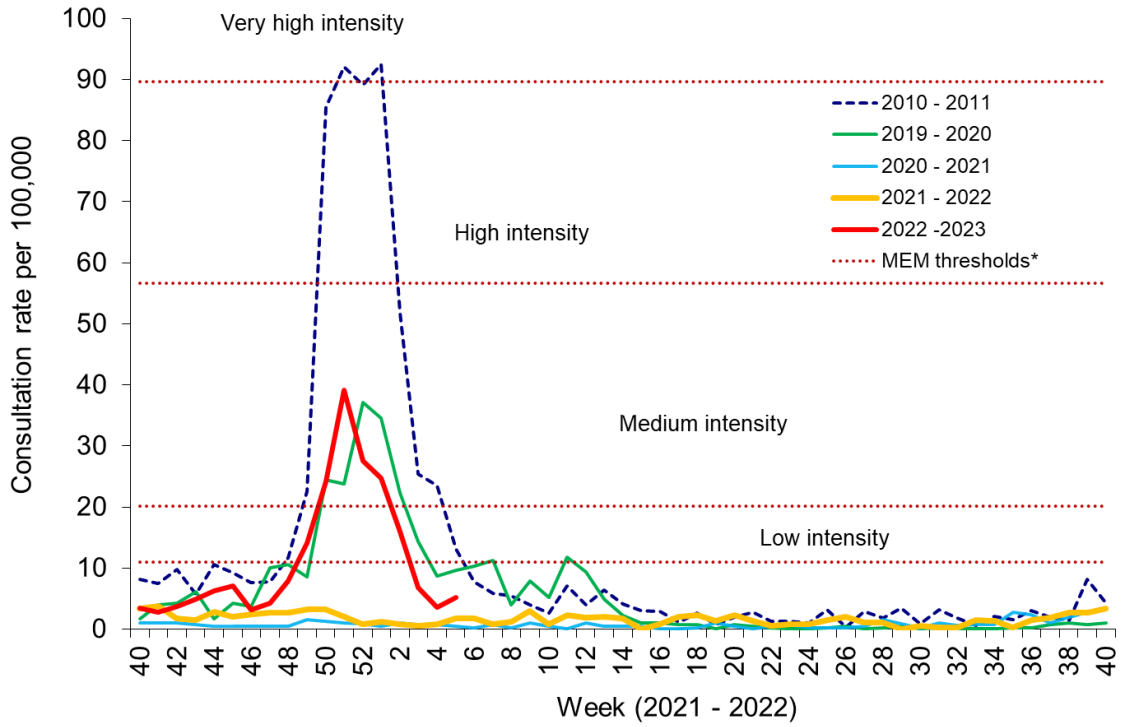
**Current level of influenza activity: Low**
**Influenza activity trend: Decreasing**
**Confirmed influenza cases since 2022 week 40**: **7406** *(3008 influenza A(H3N2), 1596 influenza A(H1N1)pdm09, 2613 influenza A(not subtyped) and 189 influenza B)*

**During Week 05 (ending 05/02/2023) there were 50 cases of influenza (an increase from the previous week), Influenza continues to circulate in Wales, although overall activity is decreasing. COVID-19 cases also continue to be detected in symptomatic patients in hospitals and in the community. RSV incidence in children under five years of age has decreased from peak levels seen in December and is currently at the threshold between low and medium intensity. SARS-CoV-2, rhinovirus, adenovirus, seasonal coronaviruses, and RSV are the most commonly detected causes of Acute Respiratory Infection (ARI).**

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during week 05, was 5.2 consultations per 100,000 practice population (Table 1). This is an increase compared to the previous week (3.6 consultations per 100,000, Figure 1). Consultation rates were highest in those aged 35-44.
- The **Sentinel GP consultation rate for Acute Respiratory Infections (ARI)** was 210.7 per 100,000 practice population during Week 05 (Table 2 and Figure 3). Weekly consultations for Lower Respiratory Tract Infections and Upper Respiratory Tract Infections has increased compared to the previous week.
- The percentage of calls to **NHS Direct Wales** which were 'influenza-related' (cold/flu, cough, fever, headache, and sore throat) during Week 05 decreased to 17.9% (Figure 9).
- During Week 05 2023, 1,390 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV-2. There were **29** samples positive for influenza of which six were A(H1N1), eleven were A(H3N2) and twelve were Flu B). Overall influenza positivity was 2.1% across all age groups; 2.4% in those aged 18 years and over; and 1.4% in those aged under 18 years. In addition, there were 270 rhinovirus, 134 SARS-CoV-2, 106 seasonal coronavirus, 99 adenovirus, 57 RSV, 50 human metapneumovirus, 33 enterovirus, 24 parainfluenza and one human bocavirus positive samples (Figure 5). Additionally, 841 samples from patients were tested for influenza, RSV and SARS-CoV-2 only, many of these tests may be associated with screening activities rather than diagnostic testing for patients presenting with ARI symptoms. Of these 841 samples, 195 were positive for SARS-CoV-2, 19 were positive for RSV, nine were positive for influenza A and nine for influenza B (Figure 6). Furthermore, 73 respiratory specimens were tested from patients in intensive care units (ICU) of which one was positive for influenza (Figure 7).
- There were 51 surveillance samples from patients with ILI symptoms collected by **sentinel GPs and community pharmacies** during Week 05. Of the 51 samples ten tested positive for rhinovirus, nine seasonal coronaviruses, four enterovirus, three for RSV, two Human Metapnuemovirus, two SARS-CoV2, two influenza B, one influenza A(H1), one Parainfluenza and 21 were negative (as at 08/02/2023) (Figure 4).
- **Confirmed RSV case incidence in children aged under five was at the low intensity threshold.** In week 5 there were 19.8 confirmed cases per 100,000 in this age group (Figure 8). The MEM threshold in Wales which predicts the start of RSV seasons in children younger than five years is 6.3 confirmed cases per 100,000.
- The 7-day rolling sum of cases hospitalised within 28 days of an influenza positive test result in the community (or up to two days post-admission) decreased to 4 during week 05 2023 from 19 during the previous week. (figure 10).
- During Week 05 2023, 15 **ARI outbreaks** were reported to the Public Health Wales Health Protection team. Of the 15 outbreaks, all were reported as COVID-19. Thirteen **ARI outbreaks** were reported in residential care homes and two in community settings.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not significantly in excess during week 04.

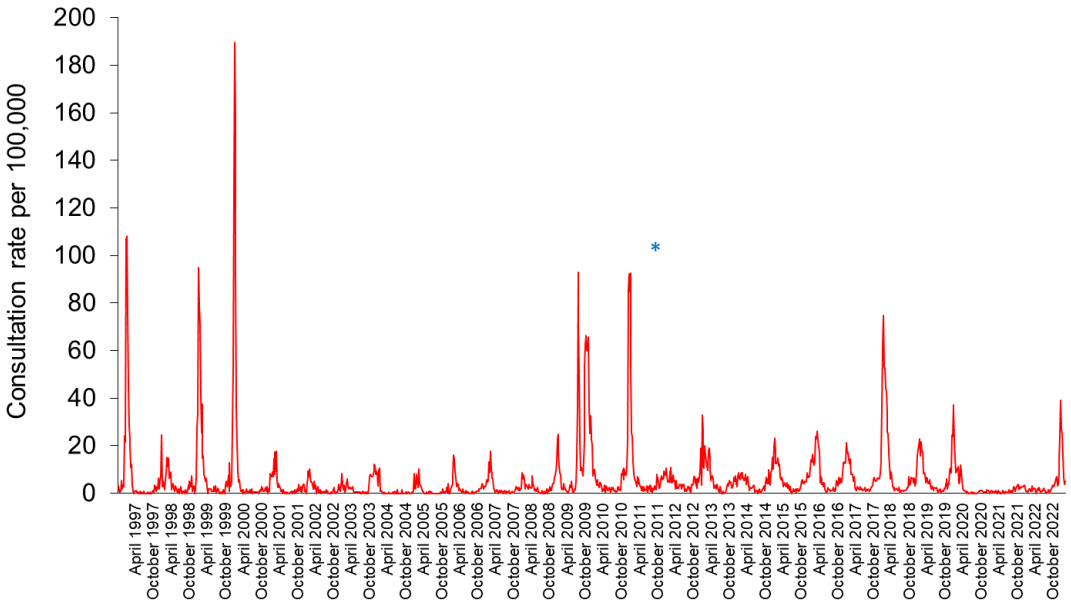
## Respiratory infection activity in Wales

**Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 05/02/2023).**




* The Moving Epidemic Method (MEM) threshold calculated for Wales ILI consultation rates is 11.1 per 100,000. MEM thresholds used in this chart are based on influenza from 2010-11 to 2018-19 seasons. Caution should be used when comparing consultation rates from March 2020 onwards to previous periods due to the changes in health-seeking behaviours brought about by the COVID-19 pandemic.
**Clinical consultations for ILI seasons are monitored from W40 to W40, the most recent data is presented in red.

**Figure 2. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (week 48 1996 – week 05 2023).**




* Reporting changed to Audit+ surveillance system

**Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 52 – week 05 2023 (as of 05/02/2023).**

| Age group | 52 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| < 1 | 0.0 | 0.0 | 0.0 | 31.7 | 0.0 | 0.0 |
| 1 - 4 | 8.9 | 13.9 | 0.0 | 6.8 | 0.0 | 0.0 |
| 5 - 14 | 11.9 | 4.6 | 2.3 | 2.2 | 0.0 | 0.0 |
| 15 - 24 | 30.6 | 11.2 | 6.8 | 4.3 | 2.2 | 4.9 |
| 25 - 34 | 39.9 | 47.6 | 16.1 | 3.9 | 3.9 | 4.4 |
| 35 - 44 | 42.7 | 23.6 | 13.9 | 11.4 | 3.8 | 13.0 |
| 45 - 64 | 25.8 | 31.3 | 28.7 | 8.3 | 2.8 | 8.2 |
| 65 - 74 | 23.3 | 11.2 | 6.8 | 4.3 | 6.5 | 0.0 |
| 75+ | 23.7 | 36.8 | 25.7 | 8.9 | 8.9 | 2.5 |
| **Total** | **27.5** | **24.7** | **15.9** | **8.9** | **3.6** | **5.2** |

**Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 52 – week 05 2023 (as of 05/02/2023).**

| Age group | 52 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| < 1 | 1909.8 | 1630.3 | 1246.3 | 1203.3 | 1266.6 | 1625.7 |
| 1 - 4 | 1000.5 | 633.7 | 660.5 | 791.2 | 1041.5 | 1020.3 |
| 5 - 14 | 385.2 | 215.2 | 212.2 | 248.3 | 288.6 | 265.5 |
| 15 - 24 | 206.0 | 266.6 | 178.0 | 149.8 | 138.9 | 116.5 |
| 25 - 34 | 296.5 | 297.6 | 217.0 | 152.5 | 179.5 | 179.1 |
| 35 - 44 | 341.5 | 280.9 | 222.8 | 171.4 | 163.8 | 180.2 |
| 45 - 64 | 312.1 | 310.8 | 245.7 | 164.1 | 132.9 | 154.3 |
| 65 - 74 | 340.6 | 343.4 | 288.5 | 180.2 | 184.6 | 154.0 |
| 75+ | 364.8 | 468.0 | 331.4 | 216.2 | 144.9 | 162.5 |
| **Total** | **355.7** | **322.5** | **264.6** | **216.2** | **208.5** | **210.7** |

**Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 05 2022 – week 05 2023 (as of 05/02/2023).**

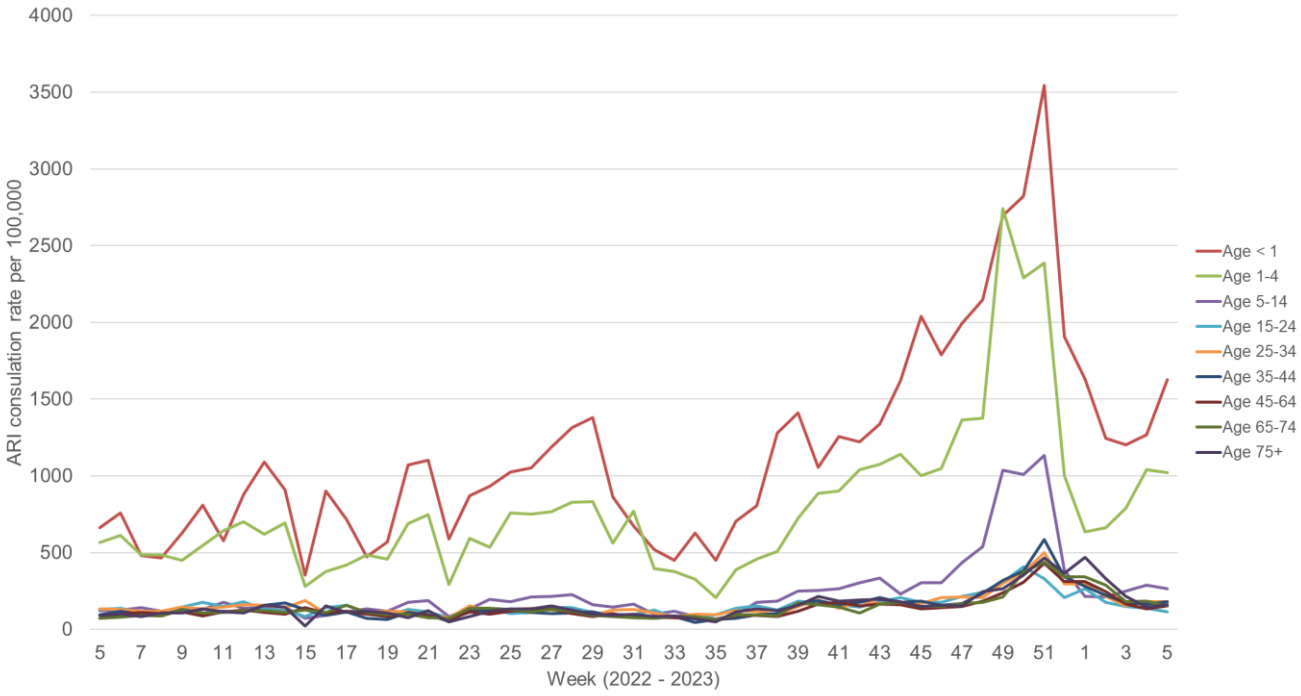
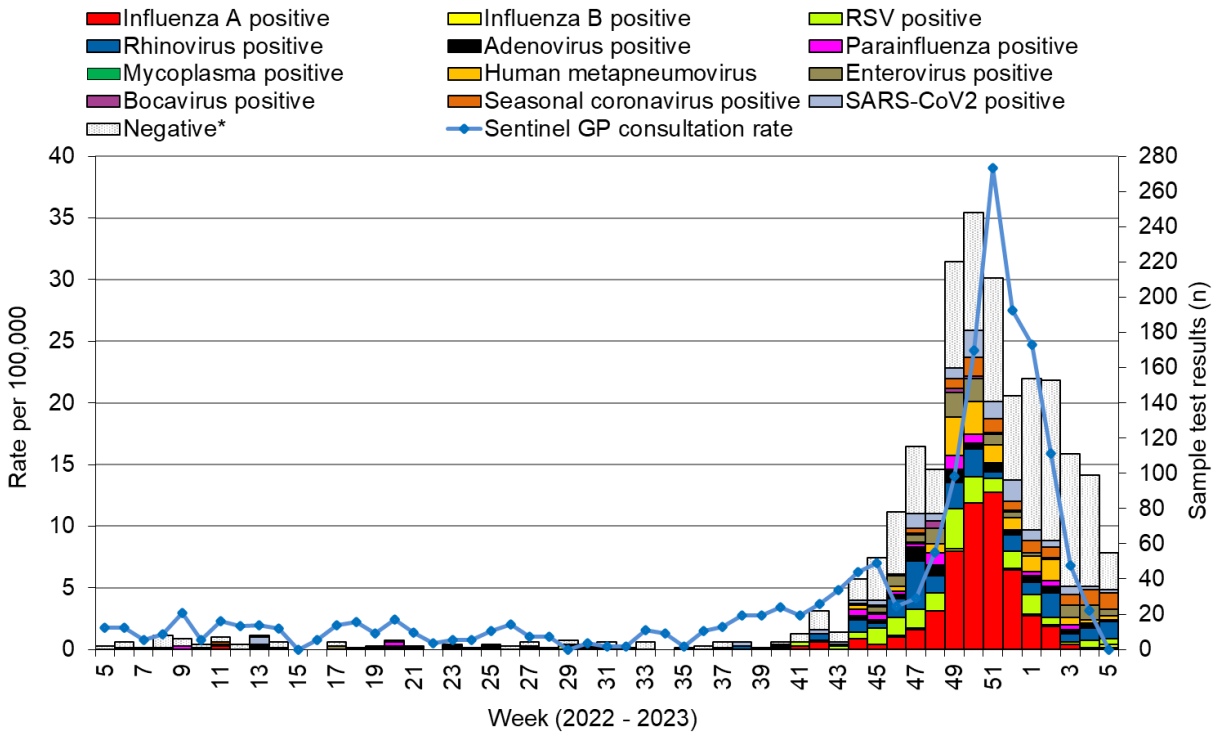
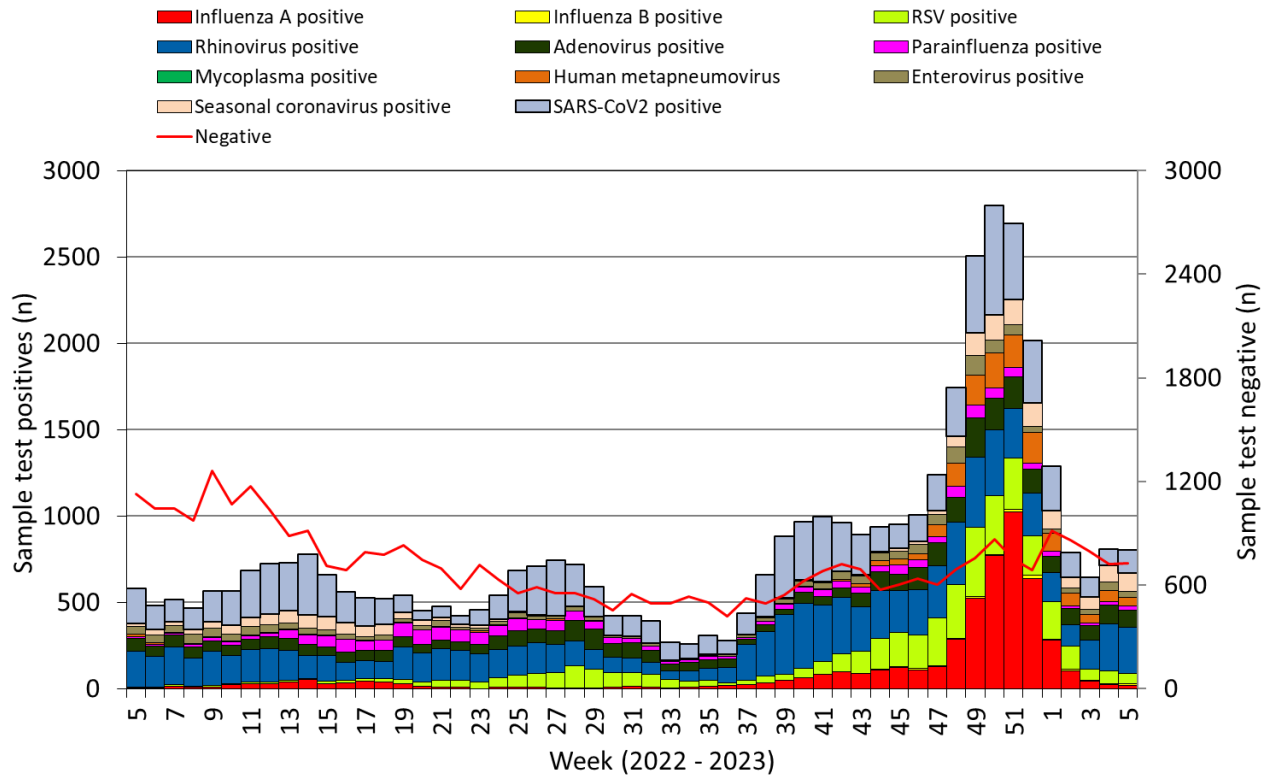


**Figure 4. Specimens submitted for virological testing by sentinel GPs and community pharmacies as of 05/02/2023, by week of sample collection, week 05 2022 to week 05 2023.**




* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus, enterovirus, bocavirus and coronaviruses. Samples which test positive for more than on pathogen will appear more than once in the chart

**Figure 5. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 05/02/2023 by week of sample collection, week 05 2022 to week 05 2023.**




This chart summarises respiratory panel test data and does not include data for patients tested SOLEY for SARS-CoV2. Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre. This chart summarises individual test results, patients who are positive for multiple infections within a given week will appear multiple times. Samples which test positive for more than on pathogen will appear more than once in the chart.

**Figure 6. Specimens from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, as of 05/02/2023 by week of sample collection, week 05 2022 to week 05 2023.**

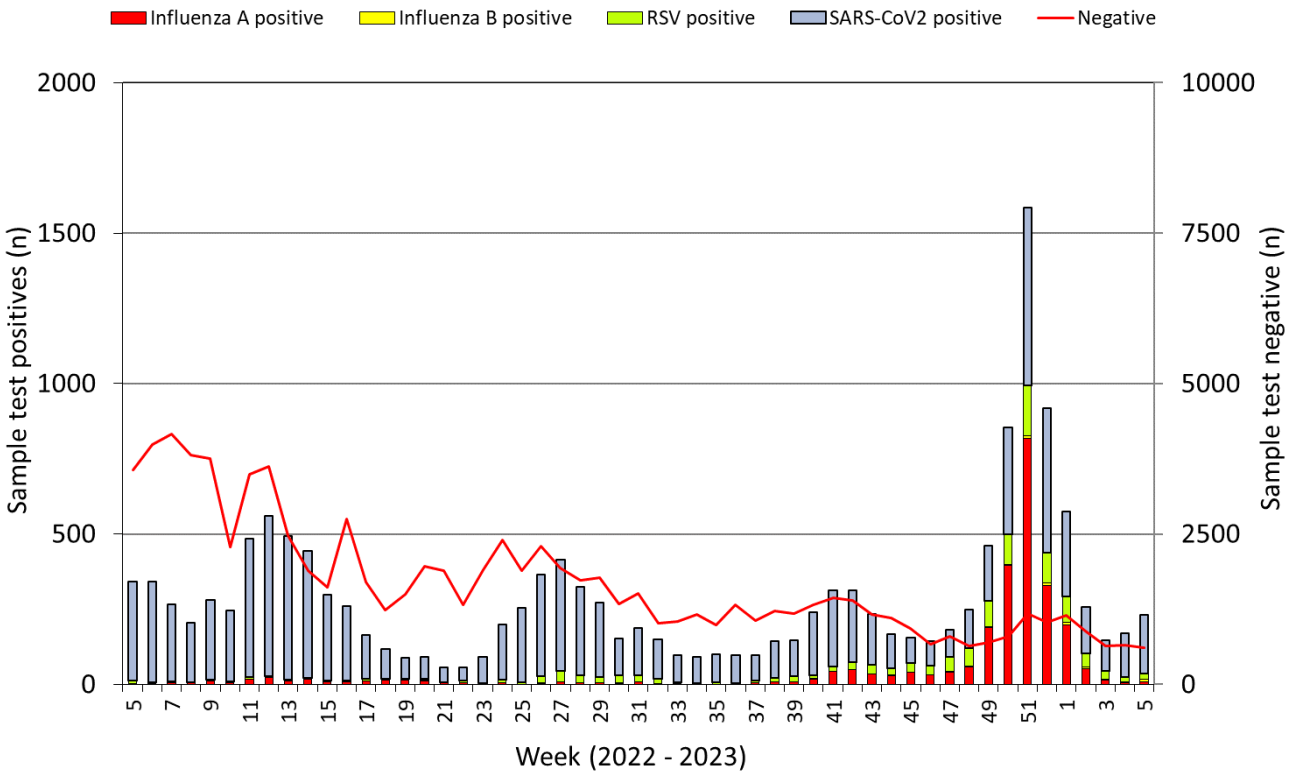
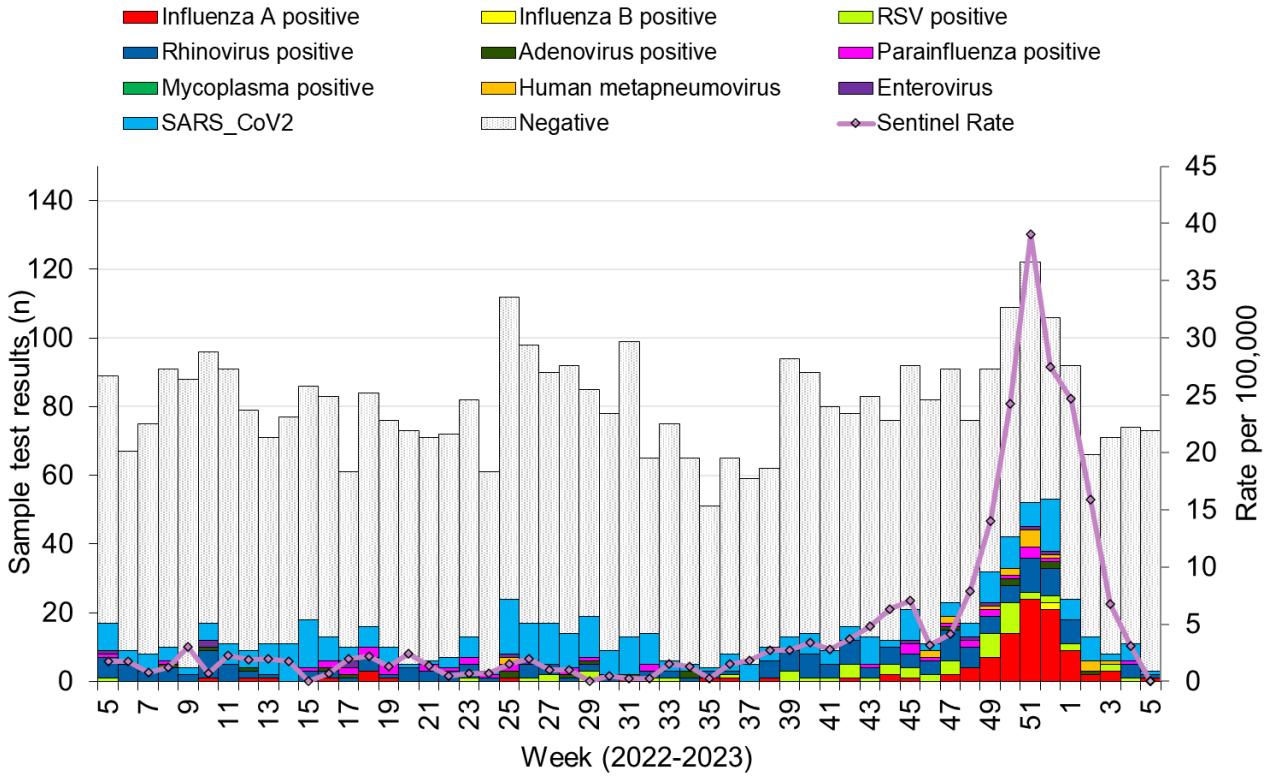
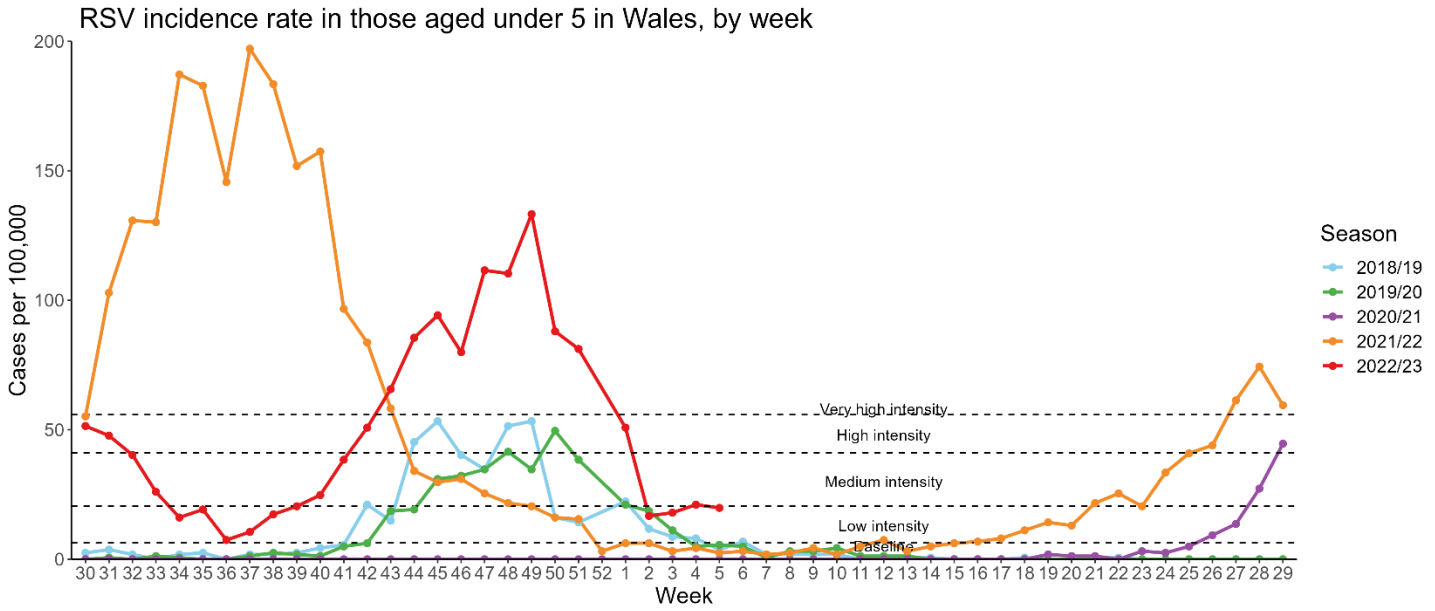



**Figure 7. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 5 2022 to Week 05 2023.**




This chart summarises respiratory panel test data and does not include data for patients tested SOLELY for SARS-CoV2. Samples which test positive for more than on pathogen will appear more than once in the chart.

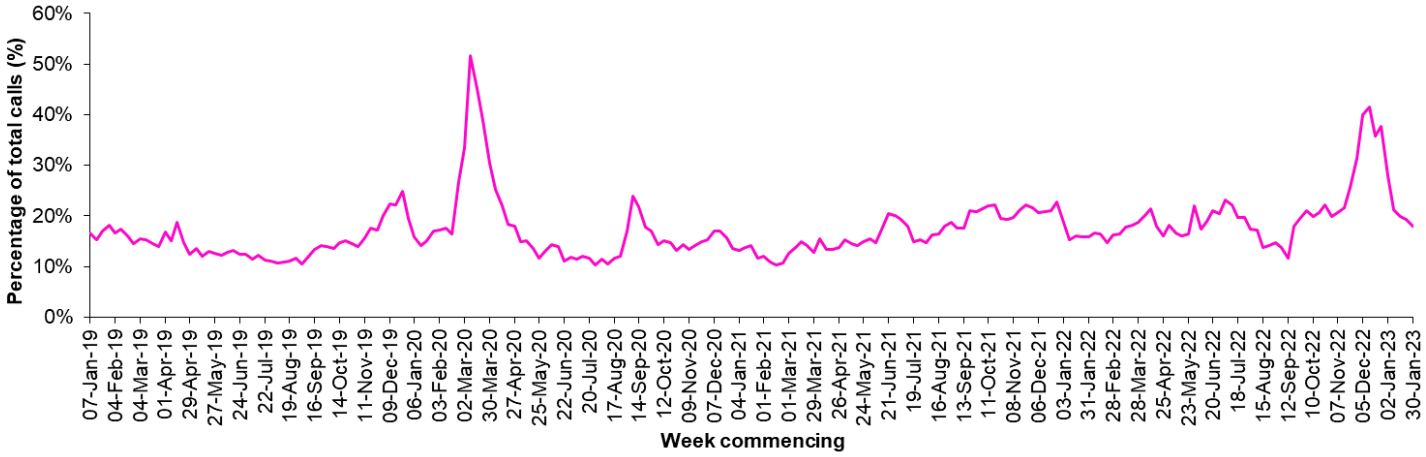
**Figure 8. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 05 2023.**




*RSV seasons are monitored from W30 to W29, the most recent data is presented in red

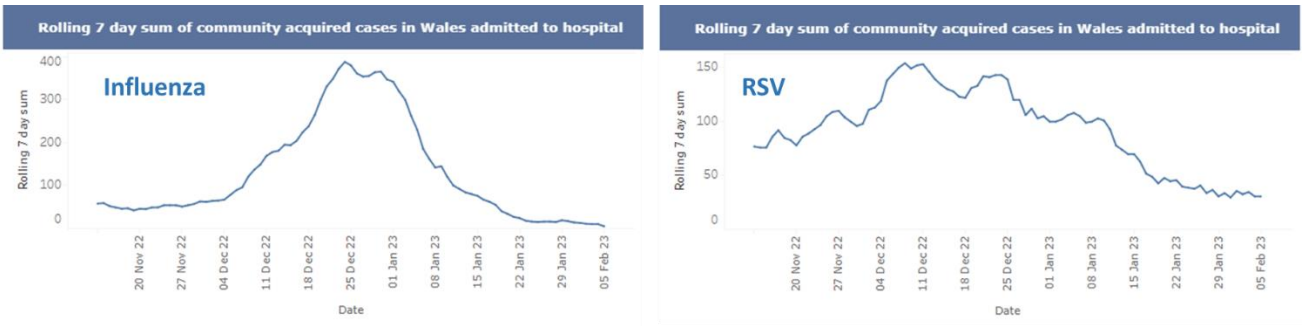
## Calls to NHS Direct Wales

**Figure 9. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 02 2019 - Week 05 2023 (as of 05/02/2023).**




***[1] Data supplied by Health Statistics and Analysis Unit, Welsh Government.***
***Flu related calls are the sum of calls recorded as 'cold/flu', 'cough', 'headache', 'fever' and 'sore throat'. Following changes to the NHS Direct calls system, including the start of the 111 pilot, there has been a change in the way in which denominator data are calculated for this chart, NHS Direct Wales now count the total number of nurse triaged calls (i.e. calls which could have symptom data recorded against them), note that 111 includes out-of-hours calls.***

**Figure 10. Seven day rolling sum of cases hospitalised in Wales within 28 days of an influenza or RSV positive test result in the community (or up to 2 days post-admission), as of 05/02/2023).**




## Influenza Vaccine Uptake in Wales

**Table 3. Uptake of influenza immunisations in GP Practice patients in Wales 2022/23 (as of 02/02/2023).**

| Influenza immunisation uptake in the 2022/23 season | |
|---|---|
| People aged 65y and older | 77.3% |
| People younger than 65y in a clinical risk group | 47.2% |
| Children aged two & three years | 46.6% |
| Children aged between four & ten years | 67.0% |
| Children aged between 11 & 15 years | 57.1% |
| Total NHS staff | 54.1% |
| NHS staff with direct patient contact | 55.3% |

Uptake in other eligible groups will be available in the coming weeks.
The end of season report Influenza in Wales 2019/20 is available to download and contains a full breakdown of vaccination uptake amongst eligible groups.
Link to report: https://phw.nhs.wales/topics/immunisation-and-vaccines/fluvaccine/annual-influenza-surveillance-and-influenza-vaccination-uptake-reports/

**Influenza activity – UK and international summary**

- As of week 4, GP ILI consultations decreased in Northern Ireland to 3.3 per 100,000, 5.7 per 100,000 in Scotland and 5.5 per 100,000 in England.
- During week 4, 220 samples tested positive for influenza were reported in England (including 42 A(H3), 4 A(H1N1)pdm09,108 A(not subtyped) and 66 influenza B). Overall influenza positivity decreased to to 2.7%. UK summary data are available from the UKHSA Influenza and COVID-19 Surveillance Report.

- The WHO and the European Centre for Disease Prevention and Control (ECDC) reported in its weekly influenza update, that during week 4, seven countries reported baseline activity, seven countries reported low-intensity, sixteen reported medium-intensity and eight reported high-intensity. From the 38 countries reporting, one reported no activity, two reported sporadic spread, three reported local spread, five reported regional spread, and twenty-seven reported widespread activity (across the Region). During week 4, 679 (21%) of 3,264 samples from patients presenting to all sentinel primary care centres with ILI or ARI symptoms tested positive for influenza. This is a small descrease from the previous week but remains above the threshold for epidemic activity (10%). Of sentinel specimens that tested positive for influenza for the season to date, 91% were influenza A (71% H3, and 29% A(H1N1)pdm09) and 9% were influenza B. **Source:** Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 23/01/2023, based on data up to 08/01/2022, that globally, influenza has decreased but remains elevated due to activity in the Northern Hemisphere with influenza A predominating with a slightly larger proportion of Influenza A(H3N2) viruses detected among the subtypes
- In the temperate zones of the southern hemisphere, influenza decreased to low levels. The majority of detections were influenza A(H3N2) or A(H1N1)pdm09. RSV activity in South Africa remains low.
- In tropical South America, influenza detections decreased across the subregion. Of the influenza detected A(H3N2) virus was predominant. ILI and SARI were at baseline levels in Argentina and below seasonal threshold in Uruguay. Influenza, ILI and SAI remained above average in Chile and Paraguay. RSV increased in Chile. SARS-CoV-2 increased in several countries.
- In Western Africa, influenza activity remained low and continues to decrease. Burkina Faso, Ghana, and Cote D'Ivoire reported few detections of influenza A(H1N1)pdm09. Small amount of Influenza B/Victoria detections were seen across the region. Cote D'Ivoire and Ghana reported few detections of influenza A(H3N2)
- In Southeast Asia, influenza activity remains low and continues to decrease in all reporting countries except in Nepal and Sri Lanka with influenza A(H1N1)pdm09 predominant. Influenza activity in Pakistan remains elevated.
- In Eastern Africa, all seasonal subtypes decreased but fewer Influenza A(H3N2) and influenza B viruses. Elsewhere, detections where stable amongst reporting countries. Influenza epidemics continued in the French territories continue with decreasing activity in Mayotte and Reunion.
- In Southeast Asia, influenza detections increased overall due to an increase of influenza B(Victoria) and a slight increase in influenza A activity. The majority of detections were found in Malaysia where detections remained elevated. Cambodia, Lao People's Democratic Republic and the Philippines reported a decrease in detections. Thailand and Singapore reported stable detections across all lineages.
- In Central Asia, influenza activity decreased overall but remains relatively high with positivity above 22%. Influenza activity remained stable, and ILI increased in Kazakhstan, Kyrgyzstan, and Tajikistan. Influenza activity and ILI decreased Kyrgyzstan and Uzbekistan. An increased proportion of influenza A(H1N1)pdm09 among subtyped viruses was reported in Kazakhstan
  **Source:** WHO influenza update:https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update

- Based on FluNet reporting (as of 25/01/2023), during the period from 26/12/2022 – 08/01/2023, National Influenza Centres and other national influenza laboratories from 122 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 563,948 specimens during that period, of which 84,596 were positive for influenza viruses 79,268 (93.7%) of those positive for influenza were typed as influenza A (of the subtyped influenza A viruses, 8225 (51.9%) were influenza A(H1N1)pdm09 and 7621 (48.1%) were influenza A(H3N2)) and all 394 characterised influenza B viruses belonged to the B-Victoria lineage. **Source:** Flu Net: https://www.who.int/tools/flunet

**Update on influenza activity in North America**

- The USA Centers for Disease Control and Prevention (CDC) report that seasonal influenza activity is continuing to decline across the country during week 04 (ending 28/01/2023). Nationally, 1,483 (2.1%) out of 69,223 specimens tested positive for influenza in week 04 in clinical laboratories nationwide.Of these, 1,396 (94.1%) were influenza A and 87 (5.9%) were influenza B. Further testing has been carried out on 5,495 specimens by public health laboratories, with 165 samples testing positive for influenza; 44 influenza A(H1N1)pdm09 (37.6%), 73 influenza A(H3N2) (62.4%), 48 samples where subtyping was not peformed and 1 influenza B.
  **Source:** CDC Weekly US Influenza Surveillance Report: http://www.cdc.gov/flu/weekly/

- The Public Health Agency of Canada reported that during week 4, influenza activity continued to decline, and activity is now at levels typically seen in late spring/early summer. During week 4, 290 influenza detections were reported: 249 influenza A (predominantly A(H3N2) at 54%), and 41 influenza B. The percentage of ILI visits reduced to 1.2% in week 4.
  **Source:** Public Health Agency of Canada: https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-influenza-reports.html

**Respiratory syncytial virus (RSV) in North America**

- The USA CDC reported RSV positivity rate and detections both decreased in the week beginning 28/01/2023.
  **Source:** CDC RSV national trends: https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html

**COVID-19 – UK and international summary**

- As of 01/02/2023, there were 8 new positive PCR episodes per 100,000 population in Wales, for the most recent 7-day reporting period. There were 13 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period, reported to Public Health Wales. There were 69 COVID-19 death registrations in the last reporting period reported by ONS. Latest COVID-19 data from Public Health Wales is available from: https://phw.nhs.wales/topics/latest-information-on-novel-coronavirus-covid-19/
- The latest UKHSA COVID-19 data summary is available from: https://coronavirus.data.gov.uk/
- WHO situation updates on COVID-19 are available from:https://covid19.who.int/

**Middle East respiratory syndrome coronavirus (MERS-CoV) – latest update from WHO and ECDC**

- On 16/01/2023 2521 laboratory-confirmed cases of locally acquired Middle East Respiratory Syndrome coronavirus (MERS-CoV) worldwide, including 919 deaths. WHO Global Alert and Response website: https://www.who.int/emergencies/disease-outbreak-news
- Most of the MERS cases continue to be reported from Middle Eastern countries within the Arabian Peninsula, and specifically from Saudi Arabia. Rapid risk assessments of the situation from ECDC, which contain epidemiological updates and advice for travellers and healthcare workers, are available from: https://ecdc.europa.eu/en/middle-east-respiratory-syndrome-coronavirus
- Further updates and advice for healthcare workers and travellers are available from WHO: http://www.who.int/emergencies/mers-cov/en/ and from NaTHNaC: https://travelhealthpro.org.uk/news/237/mers-cov-update-travelhealthpro-country-pages

**Human infection with avian influenza A(H7N9), China**

- The latest WHO Influenza at Human-Animal Interface summary reports that there have been no publicly available reports from China or other countries on influenza A(H7N9) in recent months, but overall risk assessments are unchanged. Previous reports are available from:
  https://www.who.int/teams/global-influenza-programme/avian-influenza/monthly-risk-assessment-summary
  The risk of international spread of avian influenza A(H7N9) is considered to be low at present. However, it is important that clinicians are aware of the possibility of human infection with animal influenza, in persons presenting with severe acute respiratory disease, while travelling or soon after returning from an area where avian influenza is a concern. WHO Global Alert & Response updates: https://www.who.int/emergencies/disease-outbreak-news

**Links:**

**Public Health Wales influenza surveillance webpage:**
**http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=25480**

**Public Health Wales COVID-19 data dashboard:**
**https://phw.nhs.wales/topics/latest-information-on-novel-coronavirus-covid-19/**

**Public Health Wales interactive report on hospitalisations in influenza and RSV cases:**
**https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/ARI-Hospitaladmissionsdashboard/ARIhospitaladmissionsdashboard?publish=yes**

**GP Sentinel Surveillance of Infections Scheme:**
**http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=27918**

**NICE influenza antiviral usage guidance:**
**http://www.nice.org.uk/Guidance/TA158**

**England influenza and COVID-19 surveillance:**
**https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2022-to-2023-season**

**Scotland seasonal respiratory surveillance:**
**https://beta.isdscotland.org/find-publications-and-data/population-health/covid-19/weekly-national-seasonal-respiratory-report/**

**Northern Ireland influenza surveillance:**
**https://www.publichealth.hscni.net/directorate-public-health/health-protection/seasonal-influenza**

**European Centre for Communicable Disease:**
**http://ecdc.europa.eu/**

**European influenza information:**
**http://flunewseurope.org/**

**Advice on influenza immunisation**
**https://phw.nhs.wales/topics/immunisation-and-vaccines/fluvaccine/**

**Advice on influenza immunisation (for intranet users)**
**Influenza (sharepoint.com)**

**For further information on this report, please email Public Health Wales using:**
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