



**Current level of influenza activity: Low**

**Influenza activity trend: Increasing**

**Confirmed influenza cases since 2022 week 42: 312** (114 influenza A(H3N2), 70 influenza A(H1N1)pdm09, 122 influenza A(not subtyped) and 6 influenza B)

### Key points – Wales

**Confirmed influenza cases continue to be seen at low levels, whereas RSV confirmed cases are at high levels.** During Week 42 (ending 23/10/2022) there were 106 cases of influenza (a decrease from the previous weeks), with a further four cases from previous weeks. COVID-19 cases continue to be detected in symptomatic patients in hospitals and in the community. RSV incidence in children under 5 years of age is currently at levels that would indicate high levels of activity (compared to the 10 seasons leading up to 2020). Rhinovirus, influenza A and RSV are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI).

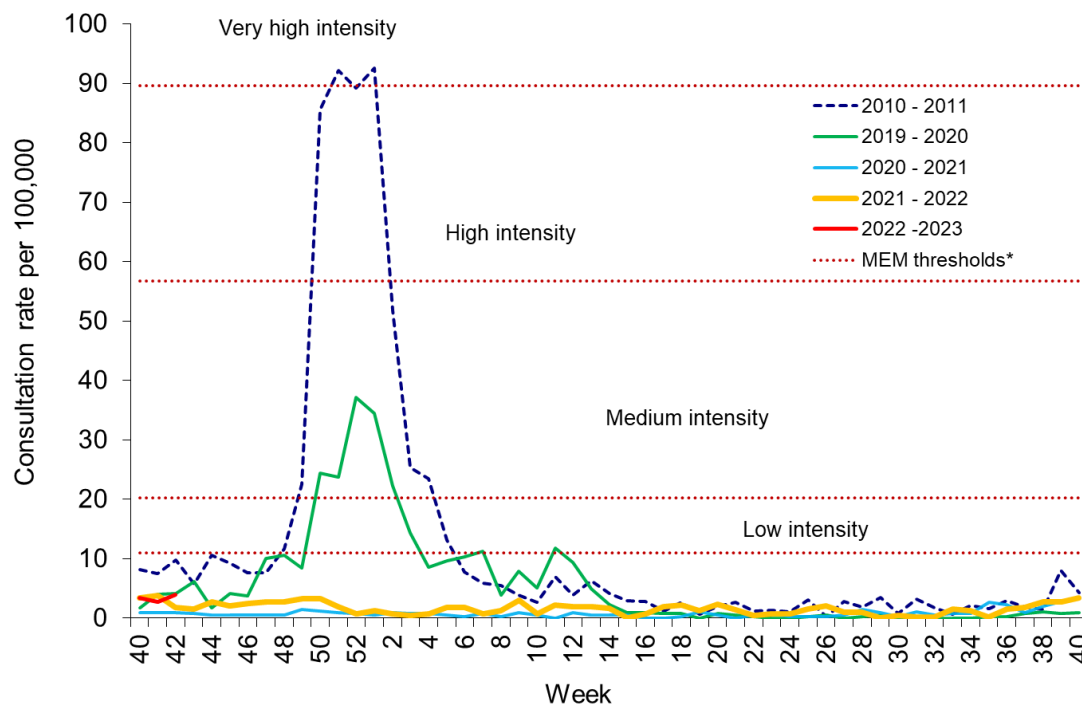
- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during week 42, was 3.9 consultations per 100,000 practice population (Table 1). It increased compared to the previous week (2.8 consultations per 100,000) but remains well below the baseline threshold for seasonal influenza activity (11.0 per 100,000 practice population) (Figure 1). 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.
- The **Sentinel GP consultation rate for Acute Respiratory Infections (ARI)** was 218.4 per 100,000 practice population during Week 42, this is an increase compared to the previous week (210.0 per 100,000) (Table 2 and Figure 3). Weekly consultations decreased for Lower Respiratory Tract Infections, but increased for Upper Respiratory Tract Infections 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 42 increased to 20.7% (Figure 9).

During Week 42, 1,589 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There were 58 influenza (24 A(H1N1), 30 A(H3N2), three A(not typed), and one influenza B), 104 RSV, 41 parainfluenza, 333 rhinoviruses, eight human metapneumovirus, 54 adenoviruses, 35 enteroviruses, five seasonal coronaviruses and 284 SARS-CoV2 detected in Week 42 (Figure 5). Additionally, 1,408 samples from patients were tested for influenza, RSV and SARS-CoV2 only, many of these tests may be associated with screening activities rather than diagnostic testing for patients presenting with ARI symptoms. Of these 1,408 samples, 45 were positive for influenza A, 26 were positive for RSV and 236 were positive for SARS-CoV2 (Figure 6). Seventy six respiratory specimens were tested from patients in intensive care units (ICU) and one was positive for influenza A (Figure 7). For the latest COVID-19/ SARS-CoV2 surveillance data please see the [PHW daily dashboard](#)

- There were 13 surveillance samples from patients with ILI collected by **sentinel GPs** during Week 42, of which 3 samples tested positive for influenza (as at 26/10/2022) (Figure 4).
- **Confirmed RSV case incidence in children aged under 5 has increased, and is now at high intensity levels.** In week 42 there were 40.8 confirmed cases per 100,000 in this age group (Figure 7). The provisional MEM threshold in Wales which predicts the start of the annual RSV season in children younger than five years is 6.3 confirmed cases per 100,000.
- During Week 42, 25 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, 24 of them were reported as COVID-19 and one as influenza A. From the 25 **ARI outbreaks**, all were reported in residential care homes.
- According to [EuroMoMo](#) analysis, all-cause deaths in Wales were not significantly in excess during week 41.

## Respiratory infection activity in Wales

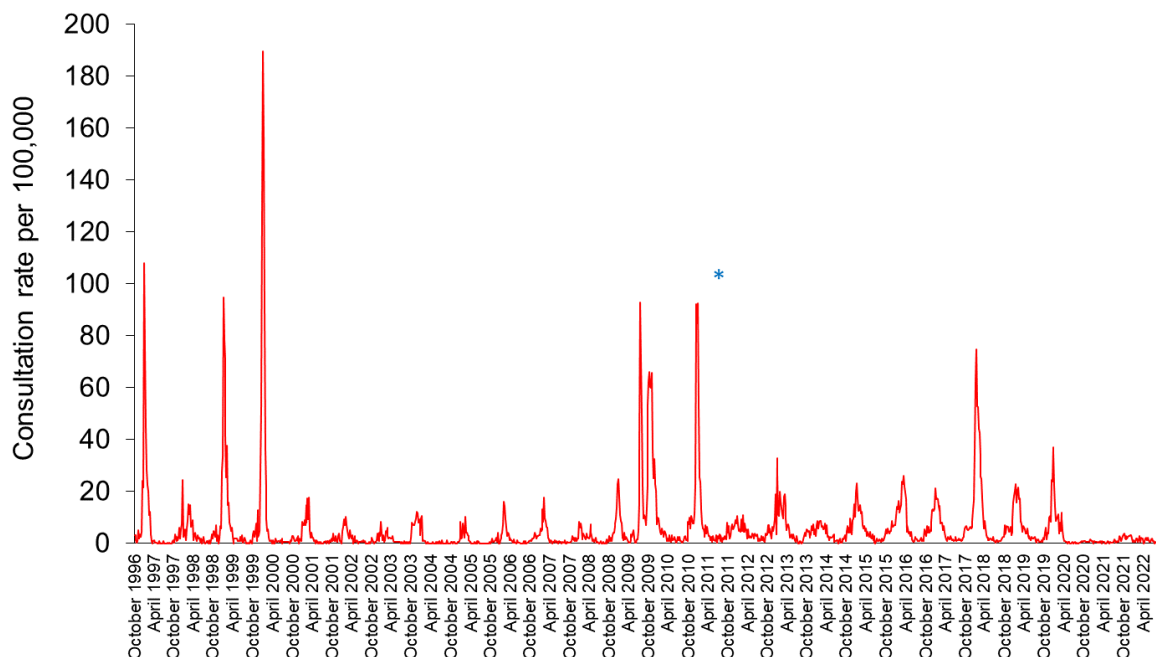
**Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 23/10/2022).**



\* 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 42 2022).**



\* Reporting changed to Audit+ surveillance system

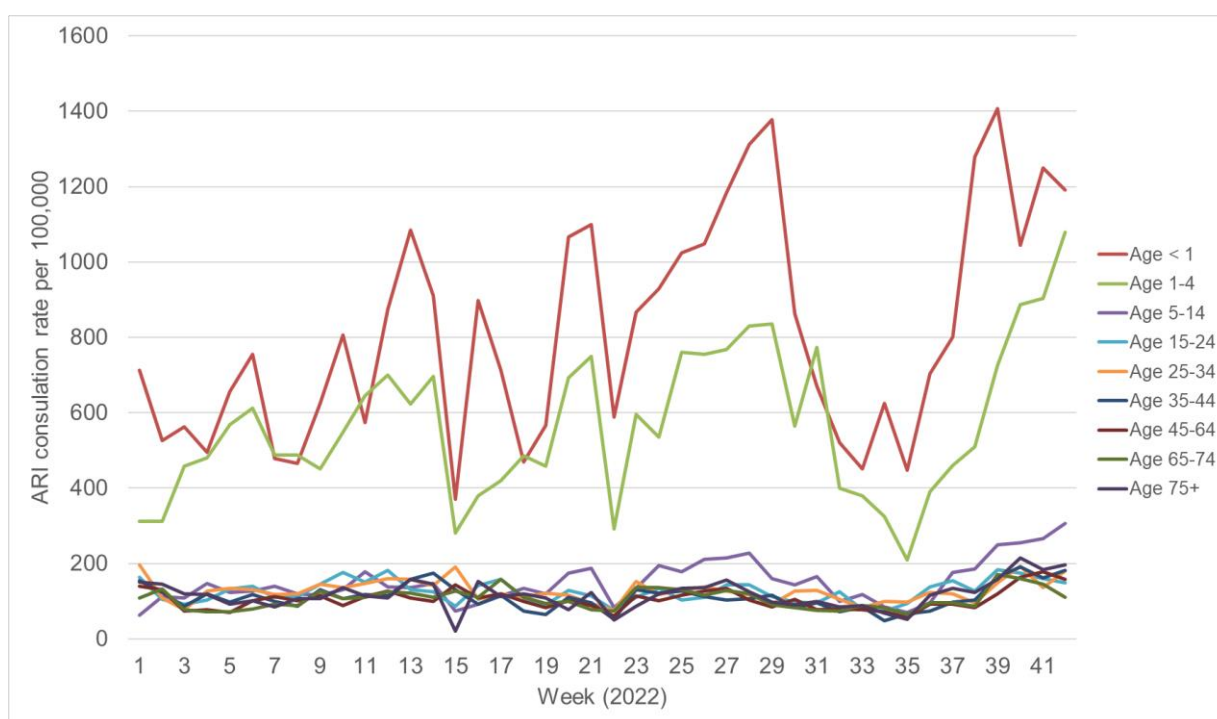
**Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 37 – week 42 2022 (as of 23/10/2022).**

| Age group    | 37         | 38         | 39         | 40         | 41         | 42         |
|--------------|------------|------------|------------|------------|------------|------------|
| < 1          | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        |
| 1 - 4        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 7.9        |
| 5 - 14       | 0.0        | 0.0        | 4.6        | 0.0        | 2.3        | 5.3        |
| 15 - 24      | 7.2        | 4.5        | 0.0        | 4.3        | 2.3        | 0.0        |
| 25 - 34      | 4.2        | 2.0        | 2.0        | 5.8        | 2.0        | 2.2        |
| 35 - 44      | 2.1        | 4.0        | 0.0        | 7.7        | 4.0        | 6.7        |
| 45 - 64      | 0.0        | 2.5        | 5.7        | 2.8        | 4.8        | 4.3        |
| 65 - 74      | 2.3        | 4.5        | 2.2        | 0.0        | 2.3        | 5.0        |
| 75+          | 0.0        | 2.3        | 2.3        | 4.5        | 0.0        | 2.6        |
| <b>Total</b> | <b>1.8</b> | <b>2.8</b> | <b>2.8</b> | <b>3.4</b> | <b>2.8</b> | <b>3.9</b> |

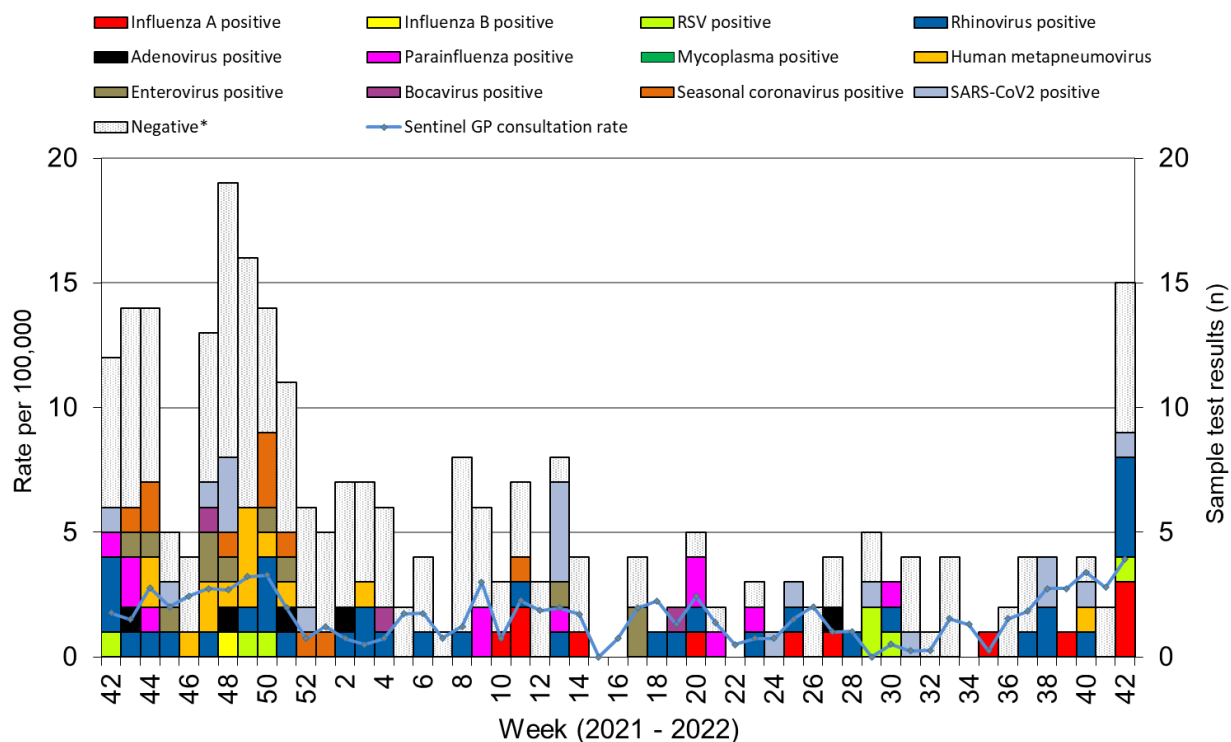
**Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 37 – week 42 2022 (as of 23/10/2022).**

| Age group    | 37           | 38           | 39           | 40           | 41           | 42           |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| < 1          | 814.1        | 1279.2       | 1407.1       | 1048.7       | 1249.6       | 1191.3       |
| 1 - 4        | 466.7        | 509.1        | 725.3        | 886.5        | 902.9        | 1079.9       |
| 5 - 14       | 179.5        | 185.5        | 250.4        | 255.3        | 265.7        | 307.1        |
| 15 - 24      | 159.6        | 127.5        | 183.5        | 173.8        | 160.1        | 149.3        |
| 25 - 34      | 121.6        | 95.5         | 149.2        | 193.5        | 136.9        | 180.8        |
| 35 - 44      | 98.8         | 103.6        | 163.4        | 191.0        | 162.3        | 181.3        |
| 45 - 64      | 93.5         | 82.3         | 119.2        | 163.0        | 178.0        | 157.2        |
| 65 - 74      | 96.2         | 86.8         | 171.4        | 160.2        | 145.9        | 110.6        |
| 75+          | 134.8        | 122.9        | 157.6        | 213.8        | 184.5        | 195.8        |
| <b>Total</b> | <b>137.7</b> | <b>132.4</b> | <b>191.7</b> | <b>219.6</b> | <b>210.0</b> | <b>218.4</b> |

**Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 1 – week 42 2022 (as of 23/10/2022).**

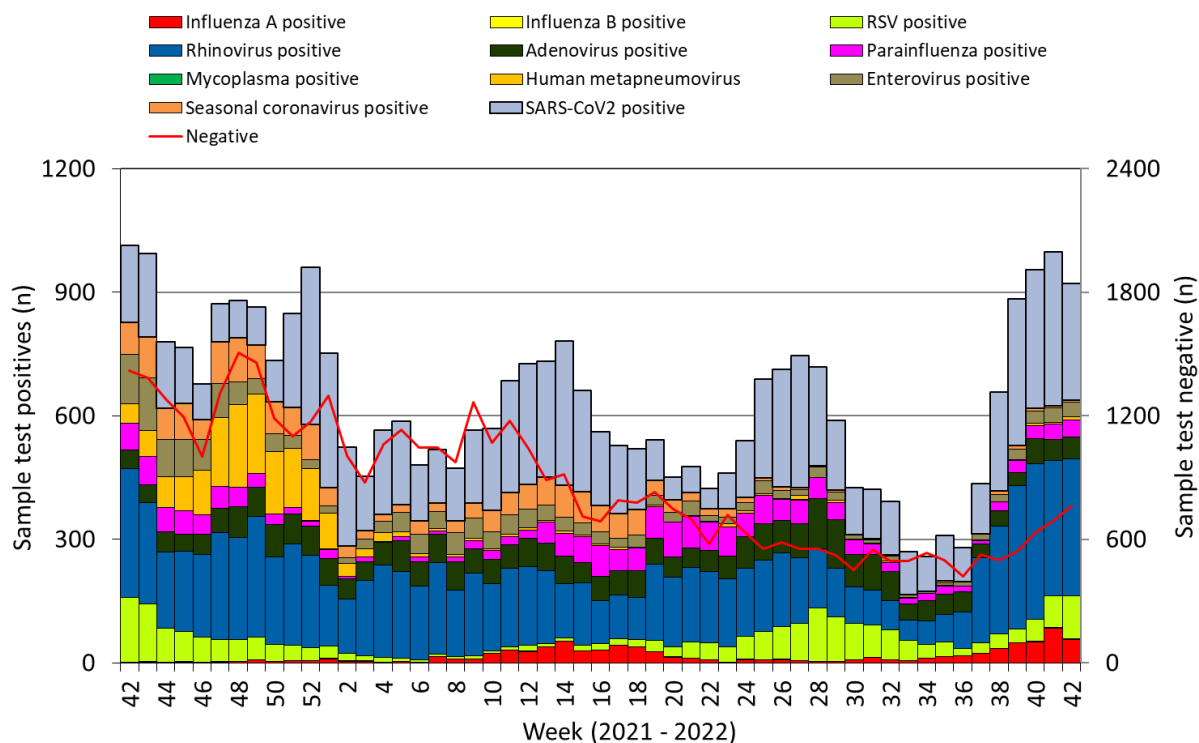


**Figure 4. Specimens submitted for virological testing by sentinel GPs as of 23/10/2022, by week of sample collection, week 42 2021 to week 42 2022.**



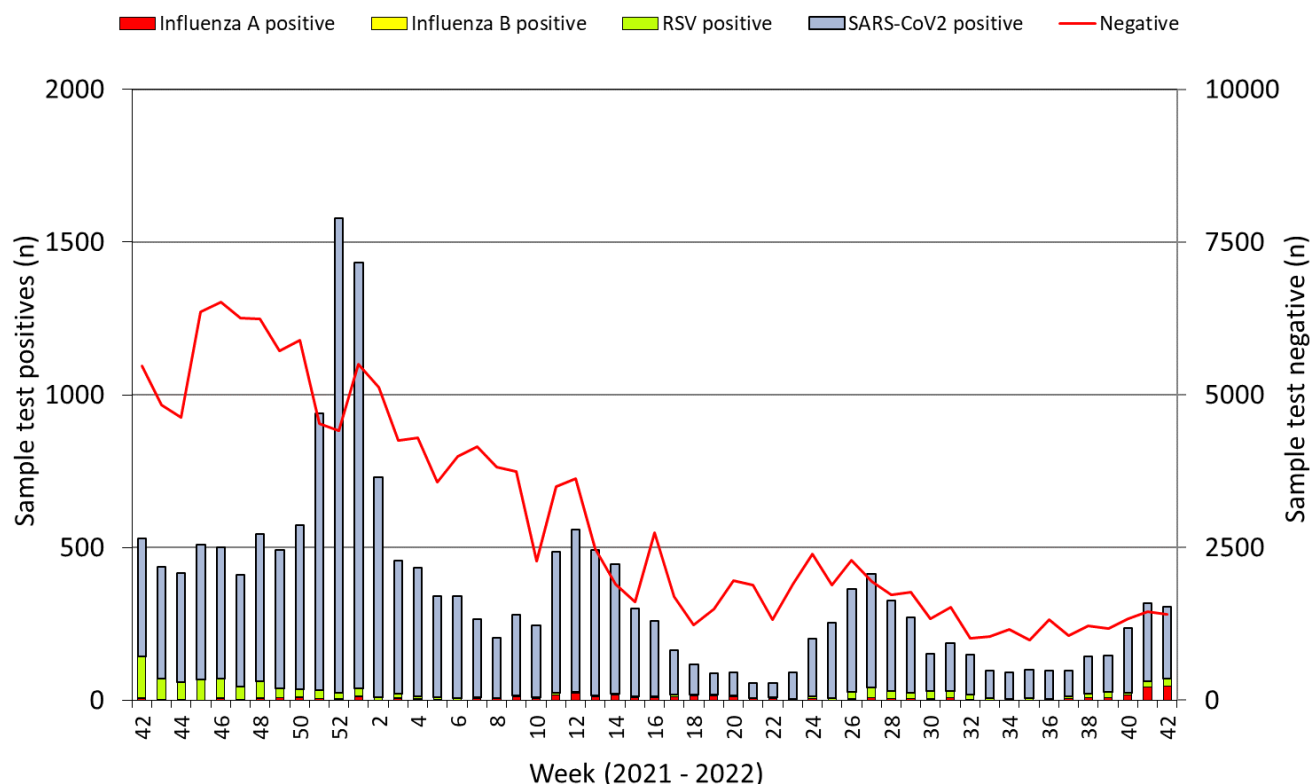
\* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus, enterovirus, bocavirus and coronaviruses. Samples which test positive for more than on pathogen will appear more than once in the chart.

**Figure 5. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 23/10/2022 by week of sample collection, week 42 2021 to week 42 2022.**

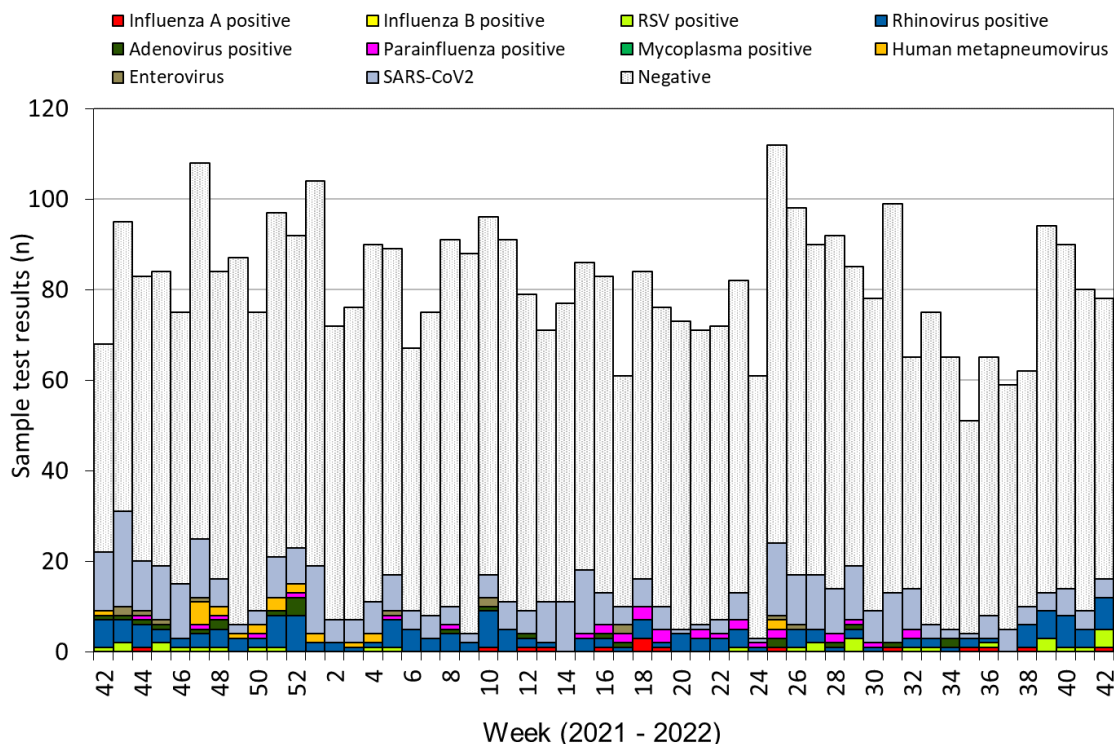


This chart summarises respiratory panel test data and does not include data for patients tested SOLEY for SARS-CoV2. Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre. This chart 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 23/10/2022 by week of sample collection, week 42 2021 to week 42 2022.**

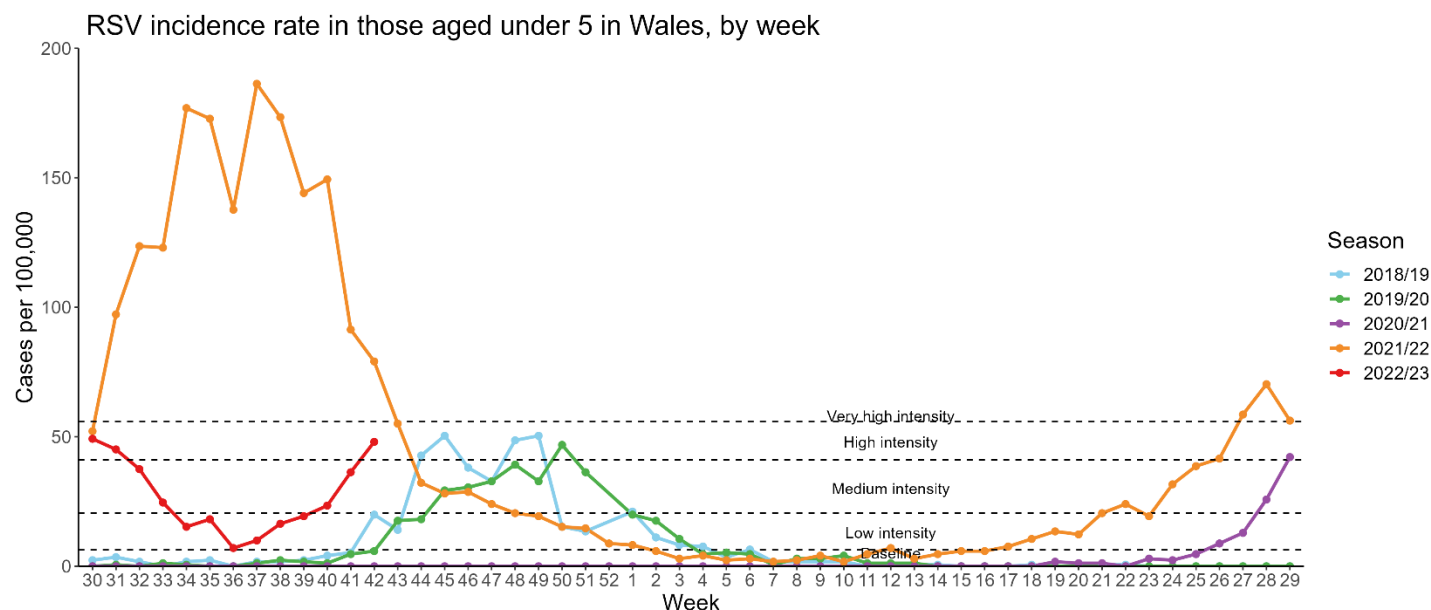


**Figure 7. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 42 2021 to Week 42 2022.**



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 one pathogen will appear more than once in the chart.

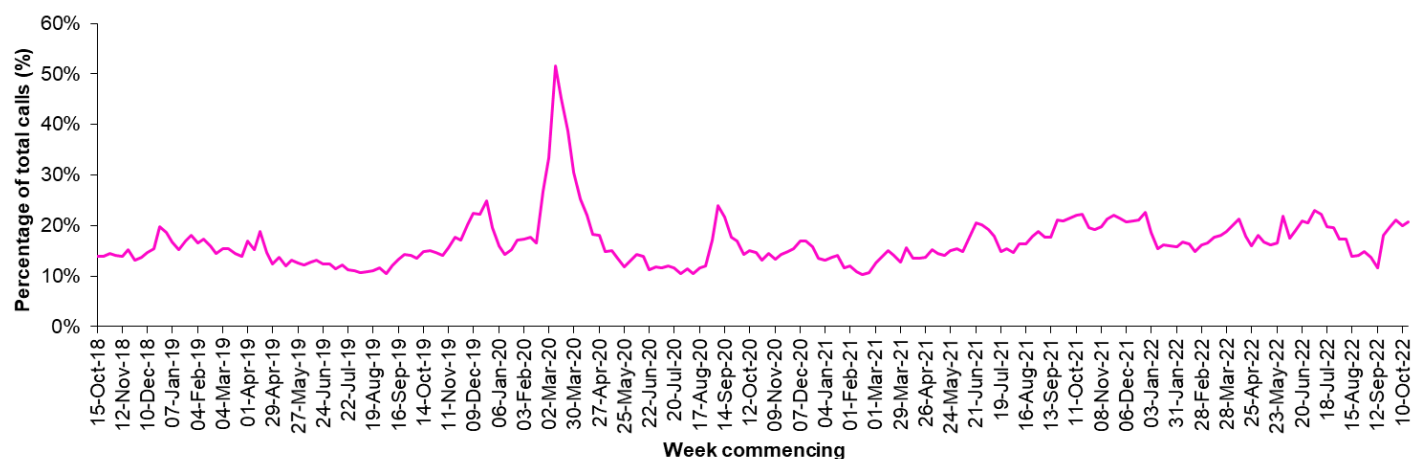
**Figure 8. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 42 2022.**



\*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<sup>1</sup> (as a percentage of total calls) from week 42 2018 - Week 42 2022 (as of 23/10/2022).**



<sup>1</sup> 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.

## Influenza Vaccine Uptake in Wales

**Table 3. Uptake of influenza immunisations in GP Practice patients, school children and NHS staff in Wales 2021/22 (as of 26/04/2022).**

| <b>Influenza immunisation uptake in the 2021/22 season</b> |       |
|--|-------|
| People aged 65y and older                                  | 78.0% |
| People younger than 65y in a clinical risk group           | 48.2% |
| Children aged two & three years                            | 47.6% |
| Children aged four to ten years*                           | 68.7% |
| Children aged 11 to 15 years*                              | 58.2% |
| NHS staff  | 56.0% |
| NHS staff who have direct patient contact                  | 57.2% |

\* In school sessions carried out so far.

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: <http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=55714>



## Influenza activity – UK and international summary

- As of week 41 community and syndromic influenza indicators remained low in the UK. GP ILI consultations decreased in Scotland to 1.8 per 100,000, and increased in Northern Ireland to 2.2 per 100,000 - well below the baseline intensity threshold. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 3.7 per 100,000, below the MEM threshold for baseline activity (12.2 per 100,000).
- During week 41, 131 samples tested positive for influenza (including 3 A(H1N1)pdm09, 7 A(H3N2), 112 A(not subtyped) and 9 influenza B). 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 its second weekly analysis of the season 2022-2023. Two countries have reported regional influenza activity. During week 41, 30 out of 41 reporting countries reported baseline-intensity, 9 reported low-intensity, 1 reported medium intensity (Kazakhstan), and 1 reported high-intensity (Malta). 20 out of 41 reporting countries reported no influenza activity across the region, 17 reported sporadic spread, 1 reported local spread (Malta), 2 reported regional spread (UK–Scotland and Germany), and 1 reported widespread activity (Kazakhstan). During week 41, 41 of 956 (4%) samples from patients presenting to all sentinel primary care centres with ILI or ARI symptoms. This is an increase of 1% from the previous week, but remains below the threshold for epidemic activity (10%). Above-threshold positivity has been reported in Germany at 13%. Of sentinel specimens that tested positive for influenza 98% were influenza A (85% H3, 15% A(H1N1)pdm09) and 2% were influenza B.

**Source:** Flu News Europe: <http://www.flunewseurope.org/>

- The WHO reported on 17/10/2022, based on data up to 02/10/2022, that globally, influenza activity remains low.
- In the temperate zones of the southern hemisphere, overall influenza activity has continued to decrease, with the exception of temperate South America where activity increased. RSV and other respiratory virus activity that had increased in previous weeks appeared to have stabilised or began decreasing in Western Australia.
- In temperate South America, influenza detections increased due to increased activity in Argentina of predominately A(H1N1)pdm09 among subtyped virus. Other countries in the temperate South American region reported mostly A(H3N2), with a slight increase in detections reported in Brazil at subthreshold levels. RSV activity increased in Uruguay and Brazil, with low or decreasing activity reported in other countries in the subregion. In tropical South America, influenza detections of predominantly A(H3N2) virus were reported but remained low.
- In the Caribbean, and Central American countries, low influenza activity, predominately A(H3N2), was reported. Mexico continued to report low, but higher than average, influenza intensity for this time of year. RSV activity increased in Panama and Guatemala.
- In tropical Africa, influenza activity remained low with predominantly influenza B/Victoria lineage and A(H3N2) viruses, although detections of A(H1N1)pdm09 were reported in a few countries. In South Africa, influenza detections decreased. No influenza detections were reported in Northern Africa. Cameroon in Middle Africa continued to report influenza A(H3N2) detections.
- In Southern Asia, influenza detections of predominantly A(H3N2) viruses, were low or generally decreasing. Detections of A(H1N1)pdm09 and influenza B viruses were also reported. In Central Asia, Kazakhstan reported a few influenza B virus detections along with increases in ILI and SARI activity. In East Asia, influenza activity of predominantly influenza A(H3N2) remained stable. In Western Asia, influenza detections increased slightly in some countries of the Arab Peninsula. Influenza activity of majority A(H3N2) continued to be reported in South-East Asia with varying trends across countries. Detections of A(H1N1)pdm09 and influenza B viruses were also reported.
- In North America, influenza activity remained low, at levels typically observed at this time of year. Influenza A(H3N2) predominated amongst the few subtyped viruses. In Europe, overall influenza activity remained at inter-seasonal levels, with slight increases in influenza detections and ILI activity in only a few countries. Influenza A viruses predominated among reported detections, A(H3N2) accounting for the majority of subtyped detections. RSV activity remained low overall in the USA and Canada, but detections increased in the USA.

**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 24/10/2022), during the time period from 19/09/2022 – 02/10/2022, National Influenza Centres and other national influenza laboratories from 105 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 133,934 specimens during that time period, of which 5,323 were positive for influenza viruses. 4,706 (88.4%) of those positive for influenza were typed as influenza A (of the subtyped influenza A viruses, 630 (18.3%) were influenza A(H1N1)pdm09 and 2,808 (81.7%) were influenza A(H3N2)) and 617 (11.6%) influenza B (of the 208 characterised influenza B viruses, all belonged to the B-Victoria lineage).

**Source:** FluNet: <https://www.who.int/tools/flunet>



### **Update on influenza activity in North America**

- The USA Centers for Disease Control and Prevention (CDC) report that there have been early increases in seasonal influenza activity in the United States during week 41 (ending 18/10/2022). Nationally, 2,712 (4.4%) out of 61,813 specimens have tested positive for influenza in week 41 in clinical laboratories nationwide, of these positives 2,639 (97.3%) were influenza A and 73 (2.7%) were influenza B. Further characterisation has been carried out on 6,854 specimens by public health laboratories, and 137 samples tested positive for influenza; 20 influenza A(H1N1)pdm09, 69 influenza A(H3N2), 46 influenza A(not subtyped) and two influenza B.

**Source:** CDC Weekly US Influenza Surveillance Report: <http://www.cdc.gov/flu/weekly/>

- The Public Health Agency of Canada reported that between weeks 40-41, influenza activity was increasing but remained at interseasonal levels. The percentage of visits to healthcare professionals that were due to ILI was 1.7% in week 41, which is typical of this time of year. During weeks 40-41, 394 influenza detections were confirmed; 380 influenza A (predominantly A(H3N2) at 77%), and 14 influenza B.

**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 an out of season increase in RSV activity, beginning in February 2022. This followed out-of-season activity also reported during 2021. RSV positivity rate has increased again in the week beginning 15/10/2022, the number of detections also increased (most recent data).

**Source:** CDC RSV national trends: <https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html>

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

- As of 20/10/2022, the new positive PCR episodes for the most recent 7-day reporting period were 25 per 100,000 population in Wales. There were 27 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period, reported to Public Health Wales. There were 28 COVID-19 death registrations in the last reporting period provided 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 28/04/2022 WHO reported an additional case of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in Oman, this follows on from two laboratory-confirmed cases (including 1 death) reported from Qatar between 22/03/2022 to 03/04/2022. Since the beginning of 2022 and as of 03/10/2022 there have been three reported cases of MERS-CoV. As of 15/05/2022, 2,591 laboratory confirmed cases of human infection with MERS-CoV, including 894 associated deaths, from across the globe have officially been reported to WHO since 2012.  
**Source:** WHO Global Alert and Response website: <https://www.who.int/emergencies/disease-outbreak-news>
- The majority 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 (31/08/2022 – 05/10/2022) reports that there have been no publicly available reports from China or other countries on influenza A(H7N9) in recent months. Since February 2013, a total of 1,568 laboratory-confirmed cases of human infection with avian influenza A(H7N9), including at least 616 deaths, have been reported to the global influenza programme: <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/>

**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/flu vaccine/>

**Advice on influenza immunisation (for intranet users)**

[Influenza \(sharepoint.com\)](#)

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

[surveillance.requests@wales.nhs.uk](mailto:surveillance.requests@wales.nhs.uk)