

Current level of influenza activity: *Low*

Influenza activity trend: *Increasing*

Confirmed influenza cases since 2021 week 40: 1148 (558 influenza A(H3N2), 126 influenza A(H1N1)pdm09, 398 influenza A(not subtyped) and 66 influenza B)

Key points – Wales

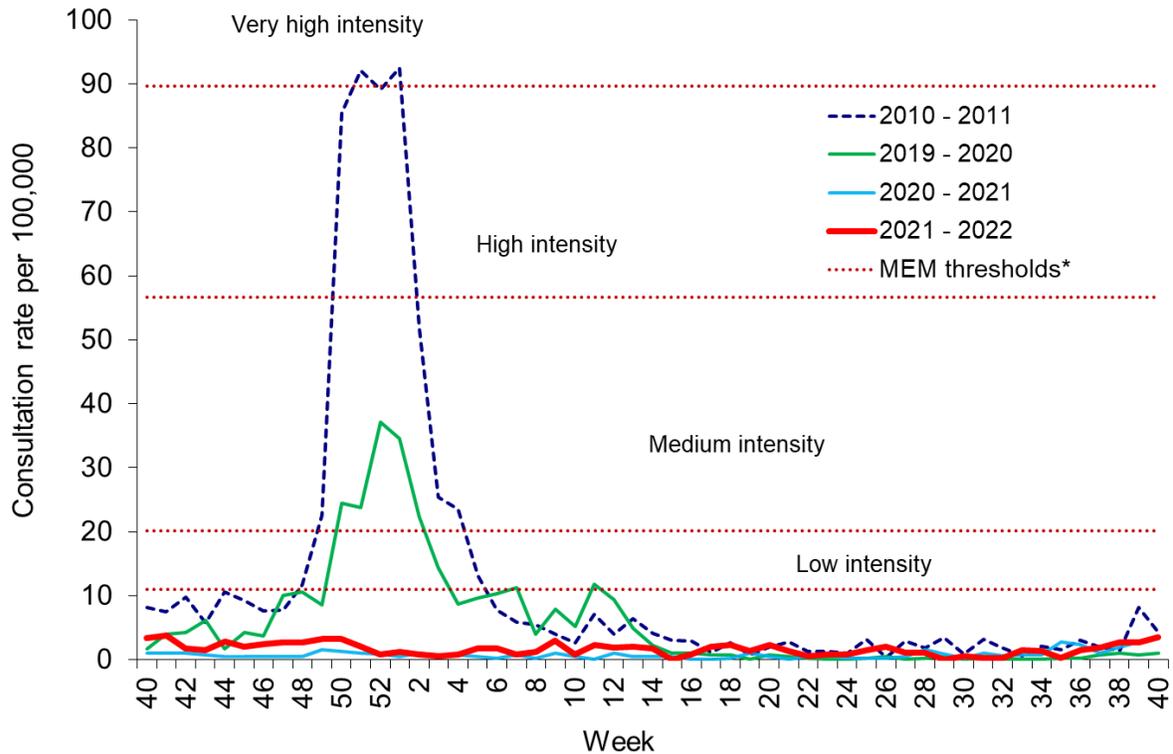
Confirmed influenza cases continue to be seen at low levels, likewise RSV confirmed cases are at low levels.

During Week 40 (ending 09/10/2022) there were 72 cases of influenza (an increase from the 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 medium levels of activity (compared to the 10 seasons leading up to 2020). Rhinovirus, influenza A and adenovirus are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI). Rhinovirus detection have markedly increased during Week 40.

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during week 40, was 3.5 consultations per 100,000 practice population (Table 1). It remained stable 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 217.67 per 100,000 practice population during Week 40, this is an increase compared to the previous week (191.65 per 100,000) (Table 2 and Figure 3). Weekly consultations increased for both Lower Respiratory Tract Infections and 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 40 increased to 21% (Figure 9).
- During Week 40, 1,487 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There were 56 influenza (19 A(H1N1), 33 A(H3N2), 3 A(not typed), and 1 influenza B), 53 RSV, 32 parainfluenza, 390 rhinoviruses, five human metapneumovirus, 62 adenoviruses, 18 enteroviruses, six seasonal coronaviruses and 336 SARS-CoV2 detected in Week 40 (Figure 5). Additionally, 1,589 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 1,589 samples, 16 were positive for influenza, nine were positive for RSV and 211 were positive for SARS-CoV2 (Figure 6). Ninety respiratory specimens were tested from patients in intensive care units (ICU) and none were positive for influenza (Figure 7). For the latest COVID-19/SARS-CoV2 surveillance data please see the [PHW daily dashboard](#)
- There were four surveillance samples from a patient with ILI collected by a **sentinel GP** during Week 40, three samples tested positive, one each for: rhinovirus, human metapneumovirus and SARS-CoV2 (as at 12/10/2022) (Figure 4).
- **Confirmed RSV case incidence in children aged under 5 has increased, and is now at medium intensity levels.** In week 40 there were 23.4 confirmed cases per 100,000 in this age group (Figure 8). 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 40, 26 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, 25 of them were reported as COVID-19 and one as influenza A. From the 26 **ARI outbreaks**, 25 were reported in residential care homes, one in a hospital.
- According to [EuroMoMo](#) analysis, all-cause deaths in Wales were not significantly in excess during week 39.

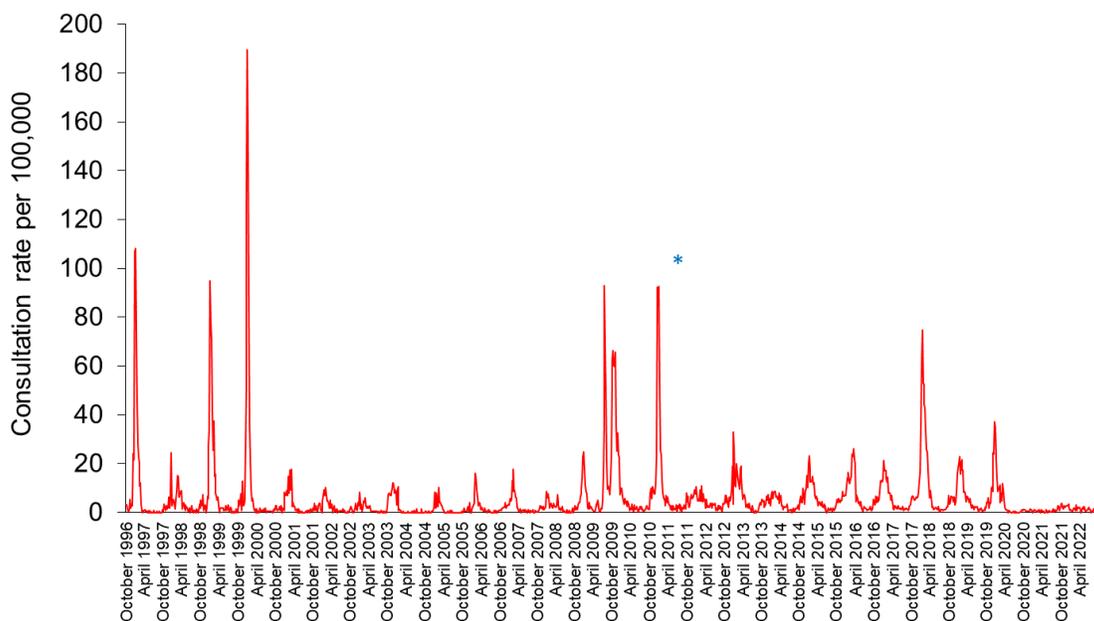
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 02/10/2022).



* 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.

Figure 2. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (week 48 1996 – week 40 2022).



* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 35 – week 40 2022 (as of 09/10/2022).

| Age group | 35 | 36 | 37 | 38 | 39 | 40 |
|--------------|------------|------------|------------|------------|------------|------------|
| < 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 | 0.0 |
| 5 - 14 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 0.0 |
| 15 - 24 | 0.0 | 0.0 | 7.2 | 4.5 | 0.0 | 4.5 |
| 25 - 34 | 0.0 | 6.1 | 4.2 | 2.0 | 2.0 | 6.0 |
| 35 - 44 | 0.0 | 0.0 | 2.1 | 4.0 | 0.0 | 8.0 |
| 45 - 64 | 1.0 | 1.0 | 0.0 | 2.5 | 5.7 | 2.8 |
| 65 - 74 | 0.0 | 4.5 | 2.3 | 4.5 | 2.2 | 0.0 |
| 75+ | 0.0 | 0.0 | 0.0 | 2.3 | 2.3 | 4.6 |
| Total | 0.3 | 1.5 | 1.8 | 2.8 | 2.8 | 3.5 |

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 35 – week 40 2022 (as of 09/10/2022).

| Age group | 35 | 36 | 37 | 38 | 39 | 40 |
|--------------|-------------|--------------|--------------|--------------|--------------|--------------|
| < 1 | 448.4 | 710.4 | 814.1 | 1279.2 | 1403.1 | 1020.4 |
| 1 - 4 | 212.4 | 396.3 | 466.7 | 509.1 | 725.6 | 851.1 |
| 5 - 14 | 70.7 | 96.6 | 179.5 | 185.5 | 250.4 | 250.4 |
| 15 - 24 | 97.0 | 143.2 | 159.6 | 127.5 | 183.5 | 174.6 |
| 25 - 34 | 99.2 | 125.4 | 121.6 | 95.5 | 149.1 | 190.8 |
| 35 - 44 | 66.8 | 74.9 | 98.8 | 103.6 | 163.2 | 185.1 |
| 45 - 64 | 57.5 | 92.9 | 93.5 | 82.3 | 119.2 | 168.4 |
| 65 - 74 | 65.3 | 96.9 | 96.2 | 86.8 | 171.4 | 158.0 |
| 75+ | 51.7 | 117.2 | 134.8 | 122.9 | 157.5 | 213.0 |
| Total | 78.6 | 119.5 | 137.7 | 132.4 | 191.7 | 217.7 |

Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 35 – week 40 2022 (as of 09/10/2022).

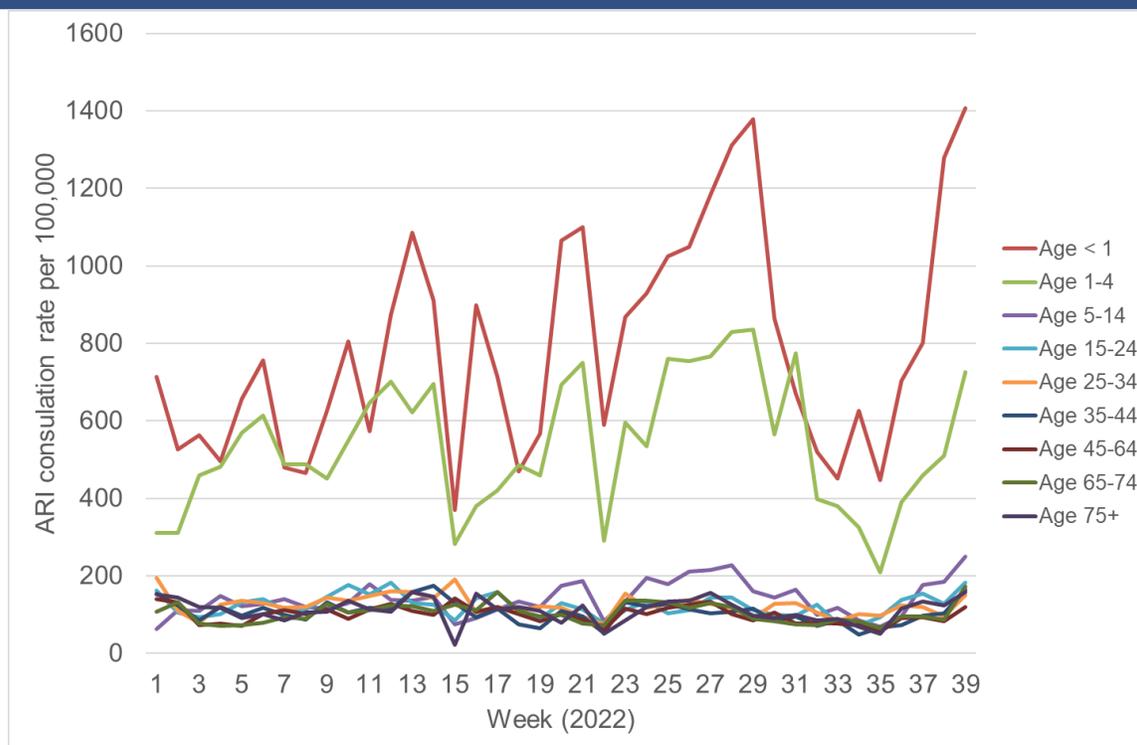
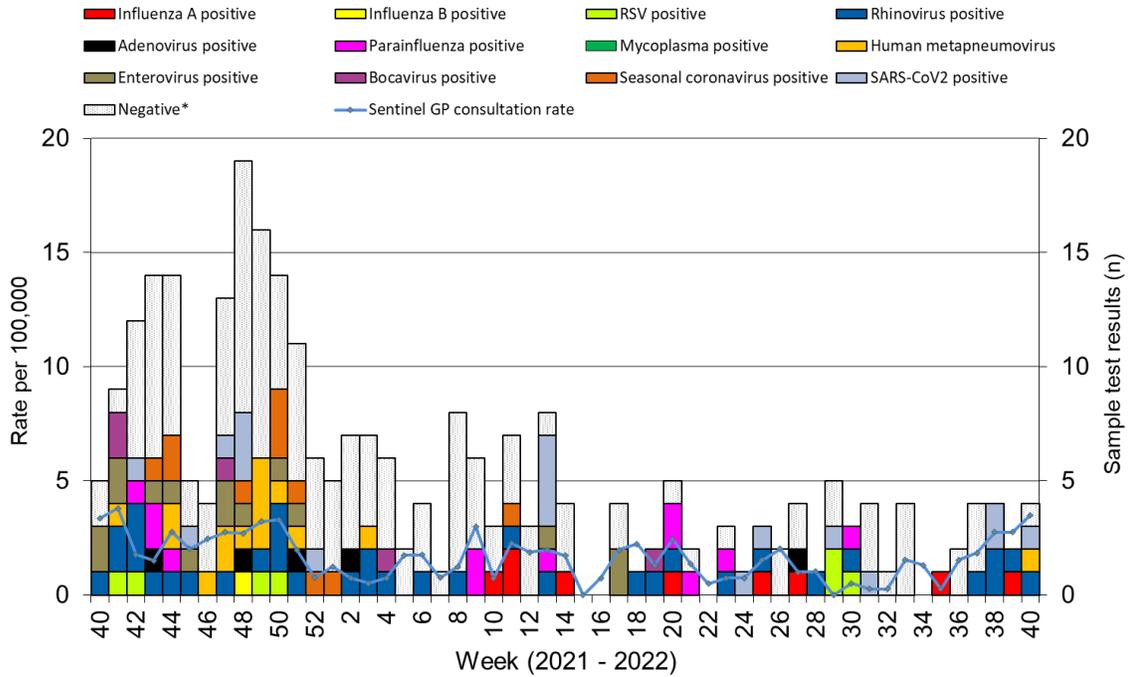
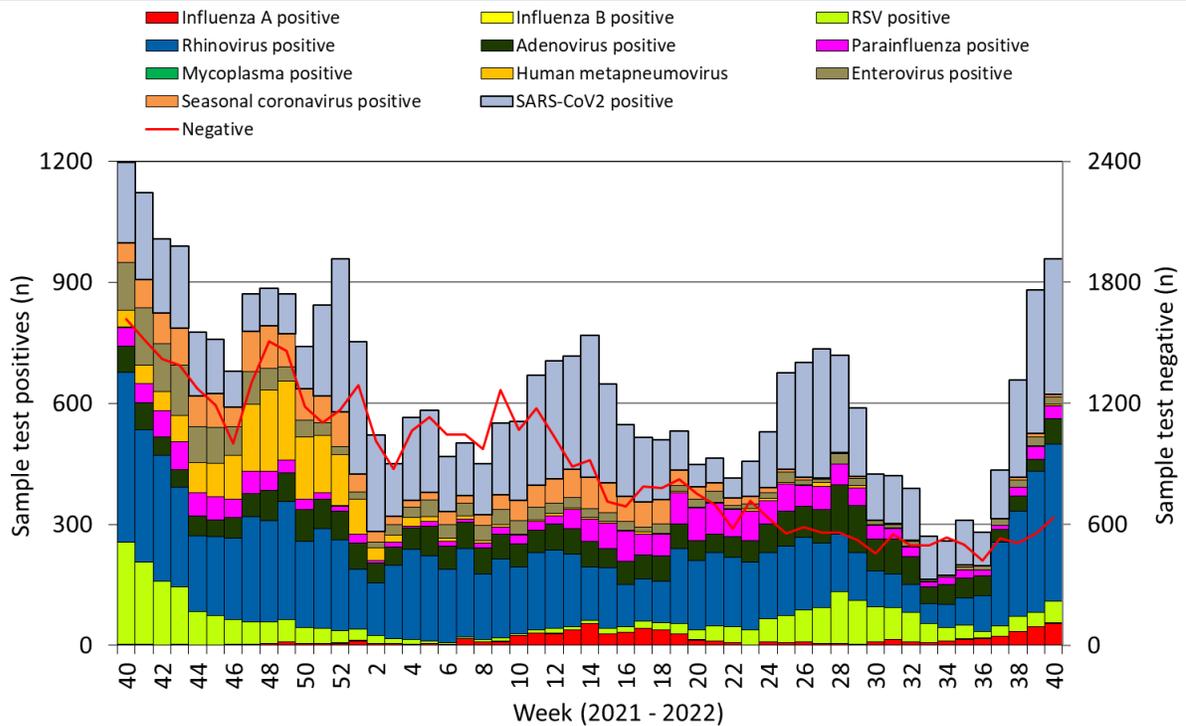


Figure 4. Specimens submitted for virological testing by sentinel GPs as of 09/10/2022, by week of sample collection, week 40 2021 to week 40 2022.



* 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 09/10/2022 by week of sample collection, week 40 2021 to week 40 2022.



This chart summarises respiratory panel test data and does not include data for patients tested SOLELY 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 09/10/2022 by week of sample collection, week 40 2021 to week 40 2022.

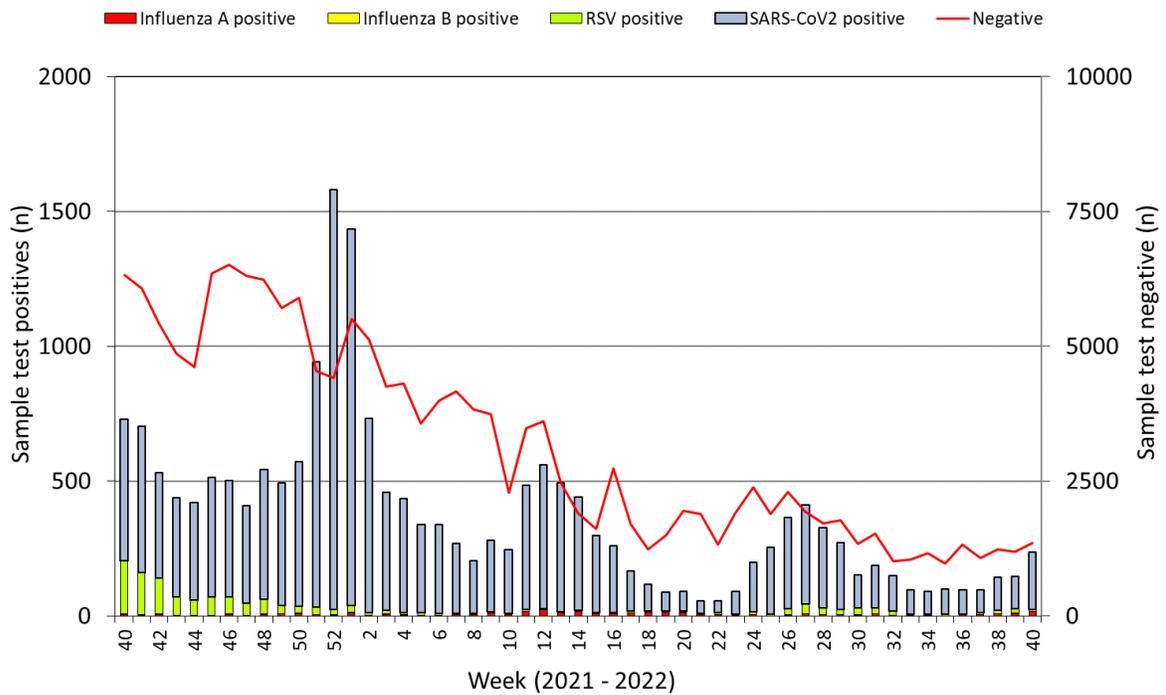
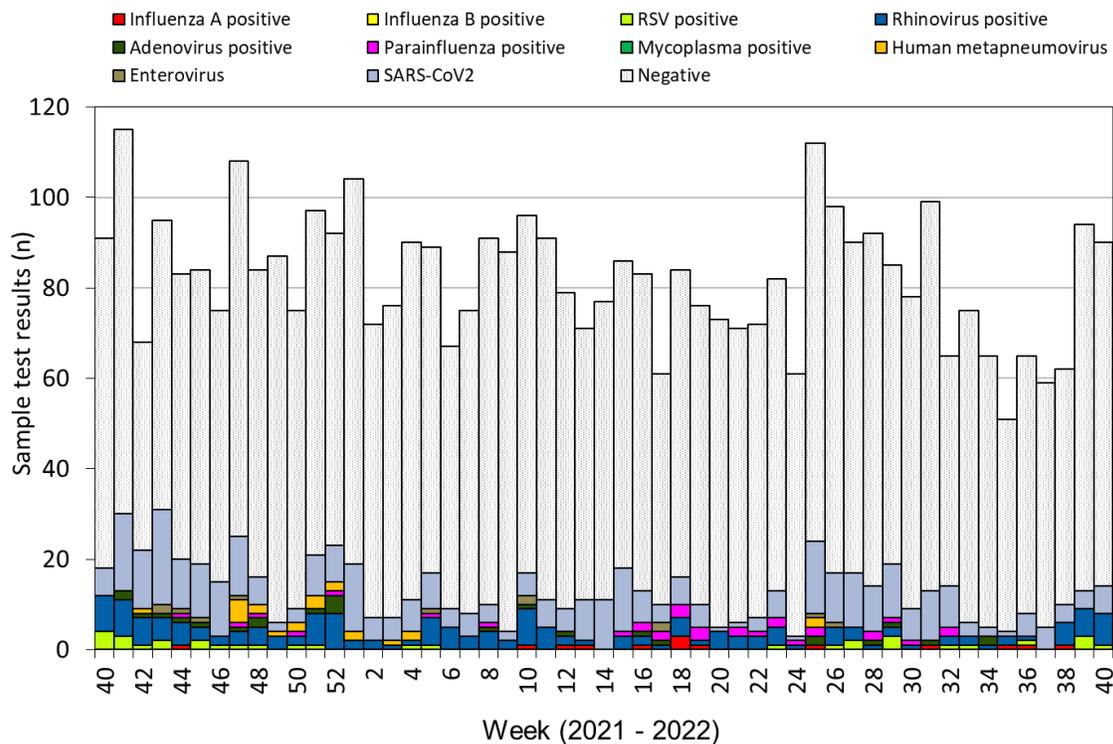
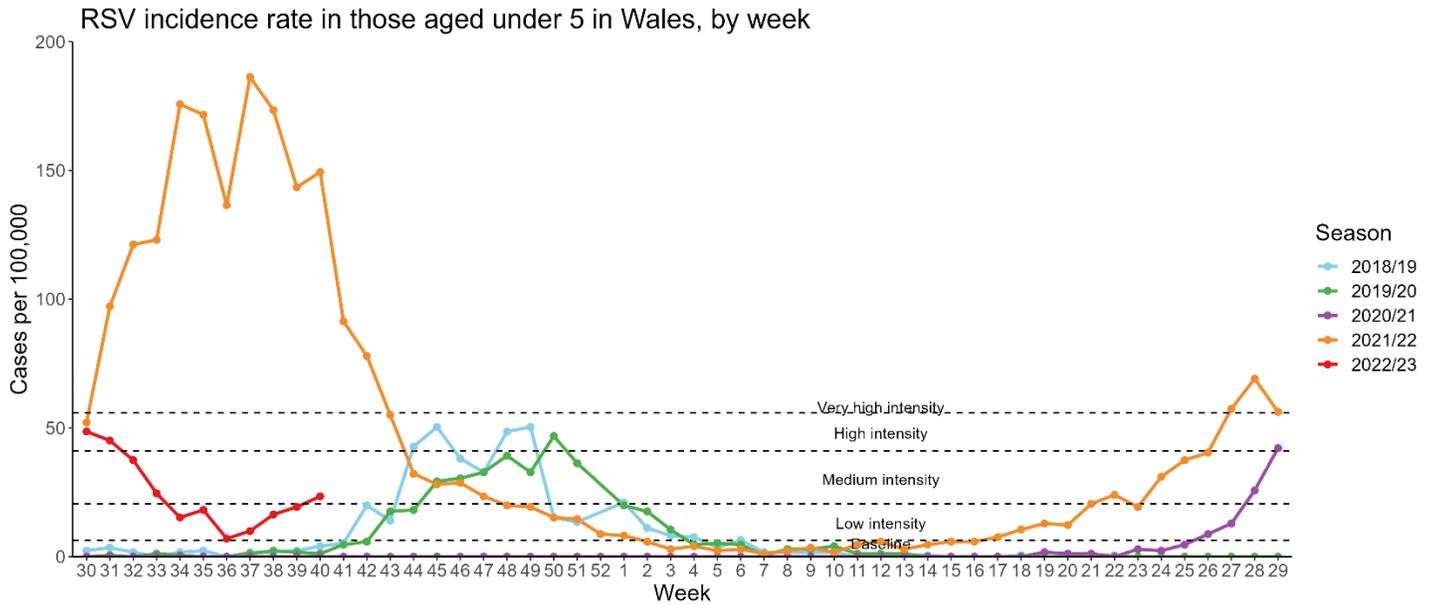


Figure 7. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 40 2021 to Week 40 2022.



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.

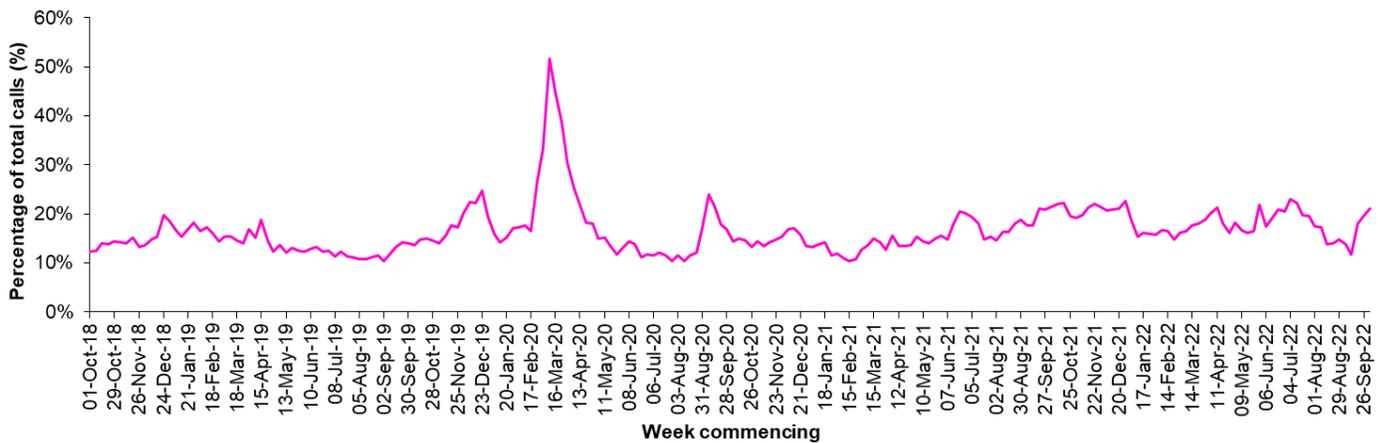
Figure 8. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 40 2022.



*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 Wales¹ (as a percentage of total calls) from week 40 2018 - Week 40 2022 (as of 09/10/2022).



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.

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).

| Influenza immunisation uptake in the 2021/22 season | |
|--|-------|
| 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 39, community and syndromic influenza indicators remained low in the UK. GP ILI consultations increased in Scotland to 3.3 per 100,000 and in Northern Ireland to 1.7 per 100,000 - well below the baseline intensity threshold. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 2.4 per 100,000, well below the MEM threshold for baseline activity (12.2 per 100,000).
- During week 39, 66 samples tested positive for influenza (including 2 A(H1N1)pdm09, 10 A(H3N2), 46 A(not subtyped) and 8 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 that activity across Europe remained at interseasonal levels during weeks 35-39. During week 39, there were zero influenza detections.

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

- The WHO reported on 03/10/2022, based on data up to 18/09/2022, 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 South Africa. RSV activity continued to increase in Western Australia.
- In temperate South America, influenza detections, predominately A(H3N2), increased slightly but remained low. RSV positivity rate increased in Uruguay, though the number of detections decreased.
- In the Caribbean, and Central American countries, low influenza activity, predominately A(H3N2), was reported. RSV activity increased in Panama.
- In tropical Africa, influenza activity remained low. In Southern Asia, influenza cases, predominately A(H1N1)pdm09, decreased slightly. Most A(H1N1)pdm09 cases were from India.
- In North America, influenza activity remained at interseasonal levels, typically observed at this time of the year. Overall in Europe, influenza activity remained at inter-seasonal levels, though there were sporadic detections of influenza A(H3N2). Increased influenza activity was reported in Portugal, Spain and the United Kingdom. RSV activity remained low in the USA and Canada. In Northern Africa and Central Asia no influenza detections were reported. In Western Asia, influenza detections increased slightly.
- Based on FluNet reporting (as of 29/09/2022), during the time period from 05/08/2022 – 18/09/2022, National Influenza Centres and other national influenza laboratories from 99 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 118,327 specimens during that time period, of which 4,123 were positive for influenza viruses, of which 3,650 were typed as influenza A (of the subtyped influenza A viruses, 369 were influenza A(H1N1)pdm09 and 2,463 were influenza A(H3N2)) and 473 influenza B (of the characterised influenza B viruses 169 belonged to the B-Victoria lineage).

Source: WHO influenza update: <https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update>

Update on influenza activity in North America

- The USA Centers for Disease Control and Prevention (CDC) report that during week 39 (ending 01/10/2022) influenza activity increased in the United States. Nationally, 1,021 (2.5%) out of 40,709 specimens have tested positive for influenza in week 39, of these positives 969 (94.9%) were influenza A and 52 (5.1%) were influenza B. Further characterisation has been carried out on 7,379 specimens by public health laboratories, and 49 samples tested positive for influenza, 7 influenza A(H1N1)pdm09, 22 influenza A(H3N2), 18 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 35-39, influenza activity remained low and at interseasonal levels. The percentage of visits to healthcare professionals that were due to ILI was 1% in week 39. During weeks 35-39, 254 influenza detections were confirmed.

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 most recent week, though the number of detections decreased (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 05/10/2022, the new positive PCR episodes for the most recent 7-day reporting period were 20 per 100,000 population. There were 14 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period, reported to Public Health Wales. There were 17 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). Globally, 2,591 laboratory confirmed cases of human infection with MERS-CoV, including 894 associated deaths, 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 the Middle East, 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 (28/06/2022 – 30/08/2022) 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:

<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/fluvaccine/>

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