

Current level of influenza activity: Low

Influenza activity trend: Increasing

Confirmed influenza cases since 2022 week 40: 956 (423 influenza A(H3N2), 245 influenza A(H1N1)pdm09, 261 influenza A(not subtyped) and 27 influenza B)

Key points – Wales

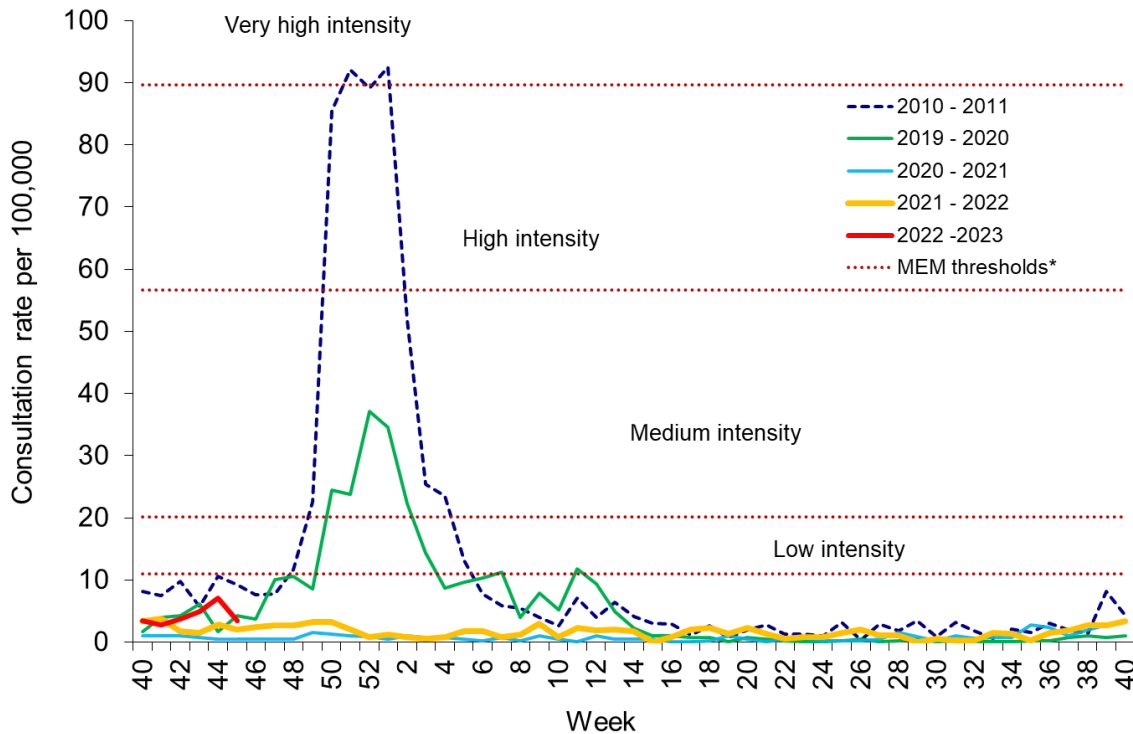
Influenza is beginning to circulate in Wales and confirmed cases of RSV remain at very high intensity levels.

During Week 46 (ending 20/11/2022) there were 156 cases of influenza (an increase from the previous week), with a further 143 samples from previous weeks. This total now includes a number of samples from children who tested positive for flu that were previously excluded whilst their LAIV record was checked. 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 very high levels of activity (compared to the 10 seasons leading up to 2020). Rhinovirus, RSV and adenovirus 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 46, was 3.5 consultations per 100,000 practice population (Table 1). This is a decrease compared to the previous week (7.0 consultations per 100,000) and remains 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 228.9 per 100,000 practice population during Week 46, this is an increase compared to the previous week (217.9 per 100,000) (Table 2 and Figure 3). Weekly consultations for both Lower Respiratory Tract Infections and Upper Respiratory Tract Infections 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 46 increased to 21.6% (Figure 9).
- During Week 46, 1,486 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 119 samples positive for influenza of which 44 were A(H1N1), 66 were A(H3N2), three were A(not typed), and six were influenza B. Overall influenza positivity was 8% across all age groups; 7.8% in those aged 18 years and over; and 8.5% in those aged under 18 years. In addition there were 197 RSV, 41 parainfluenza, 285 rhinovirus, 38 human metapneumovirus, 131 adenovirus, 44 enterovirus, 18 seasonal coronavirus and 154 SARS-CoV2 positive samples in Week 46 (Figure 5). Additionally, 857 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 857 samples, 32 were positive for influenza A and two for influenza B, 29 were positive for RSV and 84 were positive for SARS-CoV2 (Figure 6). Eighty-two respiratory specimens were tested from patients in intensive care units (ICU) of which none were positive for influenza (Figure 7). For the latest COVID-19/ SARS-CoV2 surveillance data please see the [PHW daily dashboard](#)
- There were 40 surveillance samples from patients with ILI symptoms collected by **sentinel GPs and community pharmacies** during Week 46. Of the 40 samples, three samples tested positive for influenza (one A(H3N2), one A(H1N1) and one influenza B), four for RSV, eight for rhinovirus, two for adenovirus, two for parainfluenza, two for human metapneumovirus, one for enterovirus and one for SARS-CoV (as at 23/11/2022) (Figure 4).
- **Confirmed RSV case incidence in children aged under 5 has decreased but remains at very high intensity levels.** In week 46 there were 75.6 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 46, 16 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, 12 of them were reported as COVID-19, one as influenza A and two as influenza like illness. Fourteen of these **ARI outbreaks** were reported in residential care homes, and two were reported in school settings.
- According to [EuroMoMo](#) analysis, all-cause deaths in Wales were not significantly in excess during week 45.

Respiratory infection activity in Wales

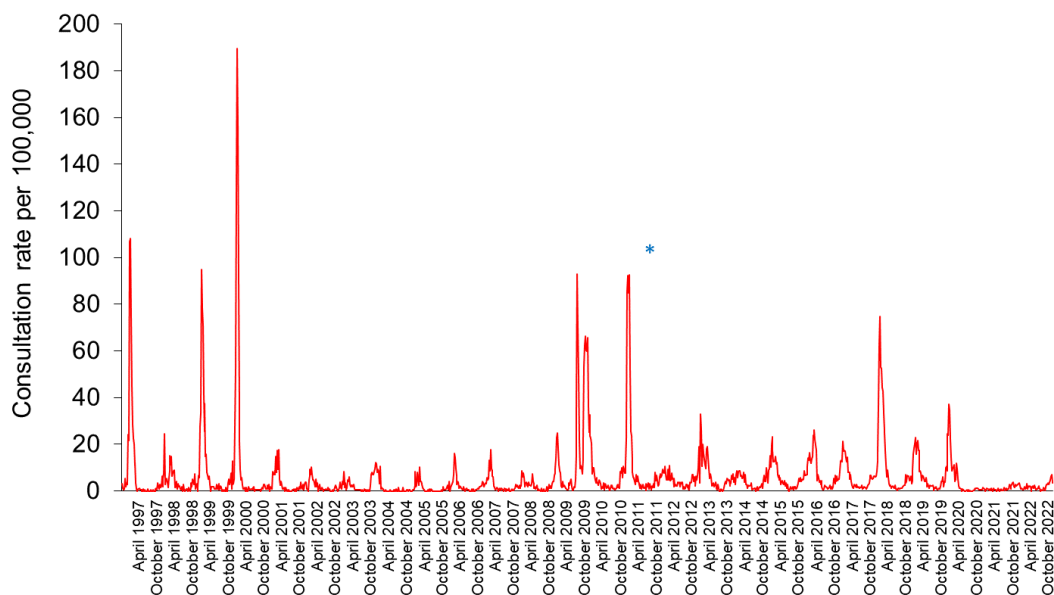
Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 20/11/2022).



* 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 46 2022).



* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 41 – week 46 2022 (as of 20/11/2022).

Age group	41	42	43	44	45	46
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	13.6	6.8	6.8	6.8	7.6
5 - 14	2.3	4.5	2.2	2.2	2.2	0.0
15 - 24	2.3	0.0	0.0	6.5	2.2	0.0
25 - 34	2.0	2.0	9.7	5.8	9.7	6.5
35 - 44	4.0	5.8	11.5	15.4	17.3	4.3
45 - 64	4.8	3.7	4.6	3.7	7.3	4.0
65 - 74	2.3	4.4	2.2	4.3	6.5	4.7
75+	0.0	2.3	2.3	9.0	2.2	2.4
Total	2.8	3.7	4.9	6.3	7.0	3.5

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 41 – week 46 2022 (as of 20/11/2022).

Age group	41	42	43	44	45	46
< 1	1249.6	1209.7	1330.9	1616.4	2022.4	1862.3
1 - 4	902.9	1043.8	1076.2	1143.6	1006.1	1129.3
5 - 14	265.7	302.7	333.63	230.65	302.4	298.83
15 - 24	160.1	146.7	180.24	206.08	177.95	185.51
25 - 34	136.9	179.4	170.05	171.9	170.12	213.4
35 - 44	162.3	176.5	207.52	178.53	185.99	167.22
45 - 64	178.0	155.0	162.98	162.08	134.66	148.67
65 - 74	145.9	107.0	164.55	175.33	149.38	160.87
75+	184.5	192.1	195.46	181.95	150.4	159.83
Total	210.0	214.6	235.4	227.9	217.9	228.9

Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 1 – week 46 2022 (as of 20/11/2022).

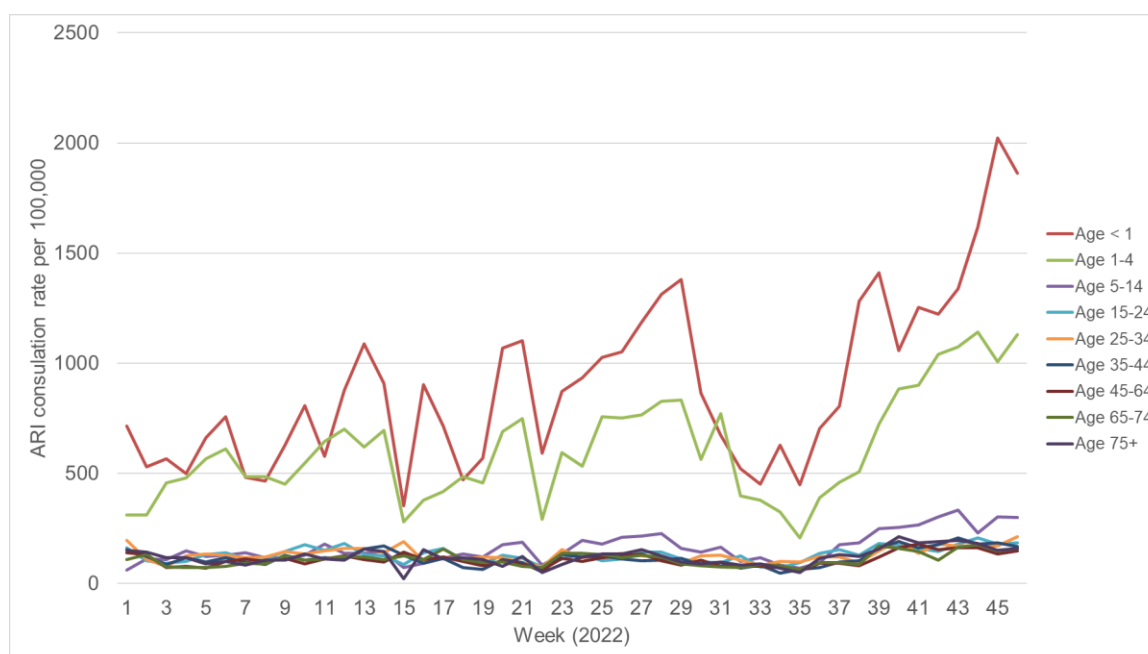
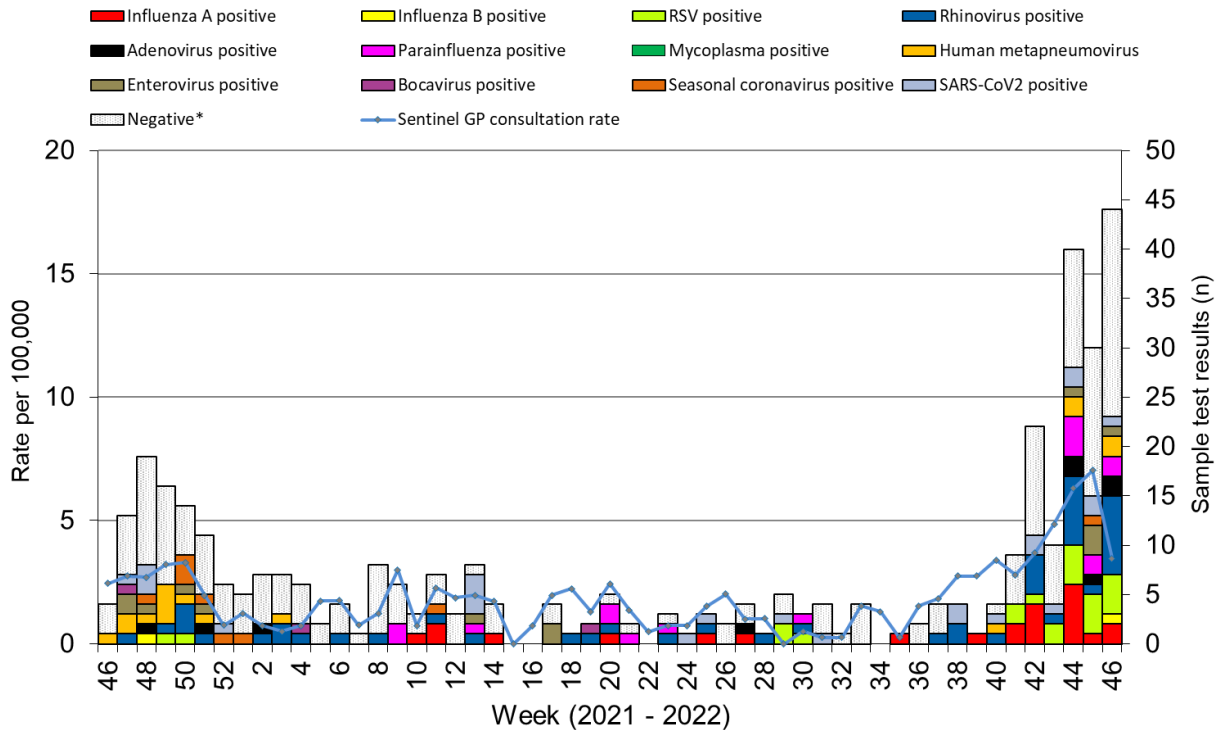
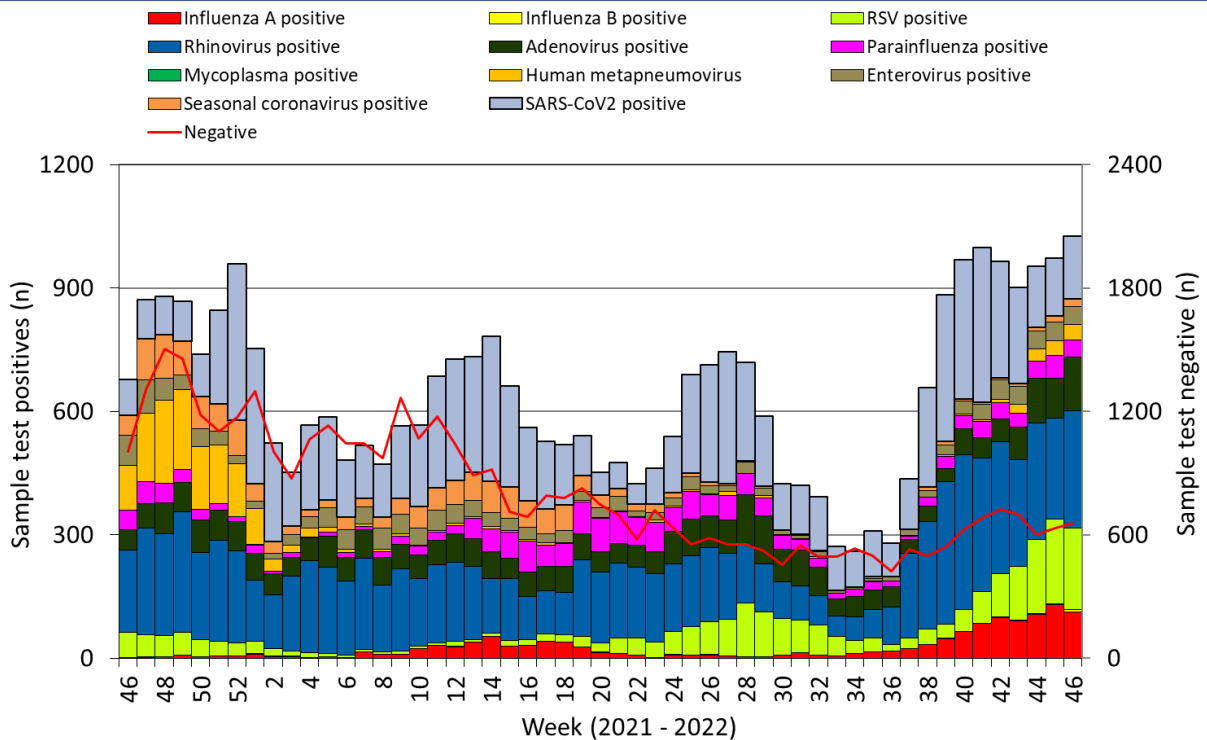


Figure 4. Specimens submitted for virological testing by sentinel GPs as of 20/11/2022, by week of sample collection, week 46 2021 to week 46 2022.



* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus, enterovirus, bocavirus and coronaviruses. Samples which test positive for more than one 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 20/11/2022 by week of sample collection, week 46 2021 to week 46 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 one 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 20/11/2022 by week of sample collection, week 46 2021 to week 46 2022.

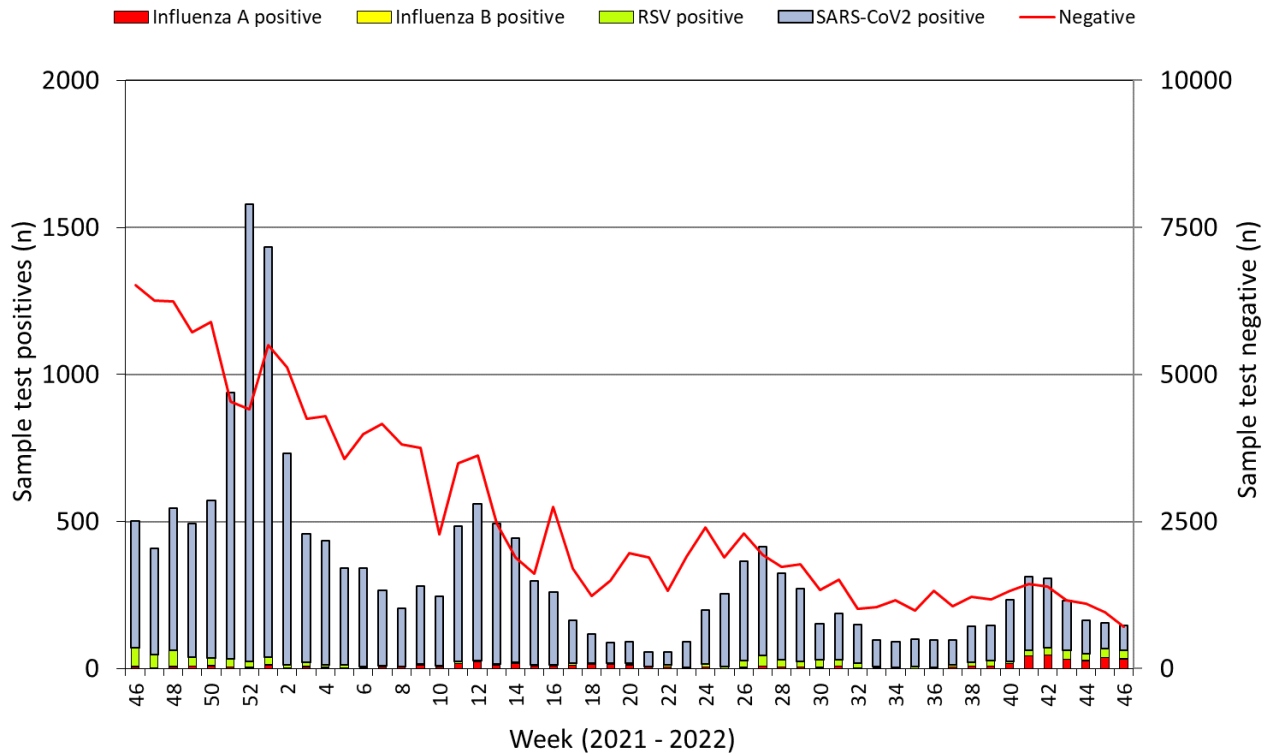
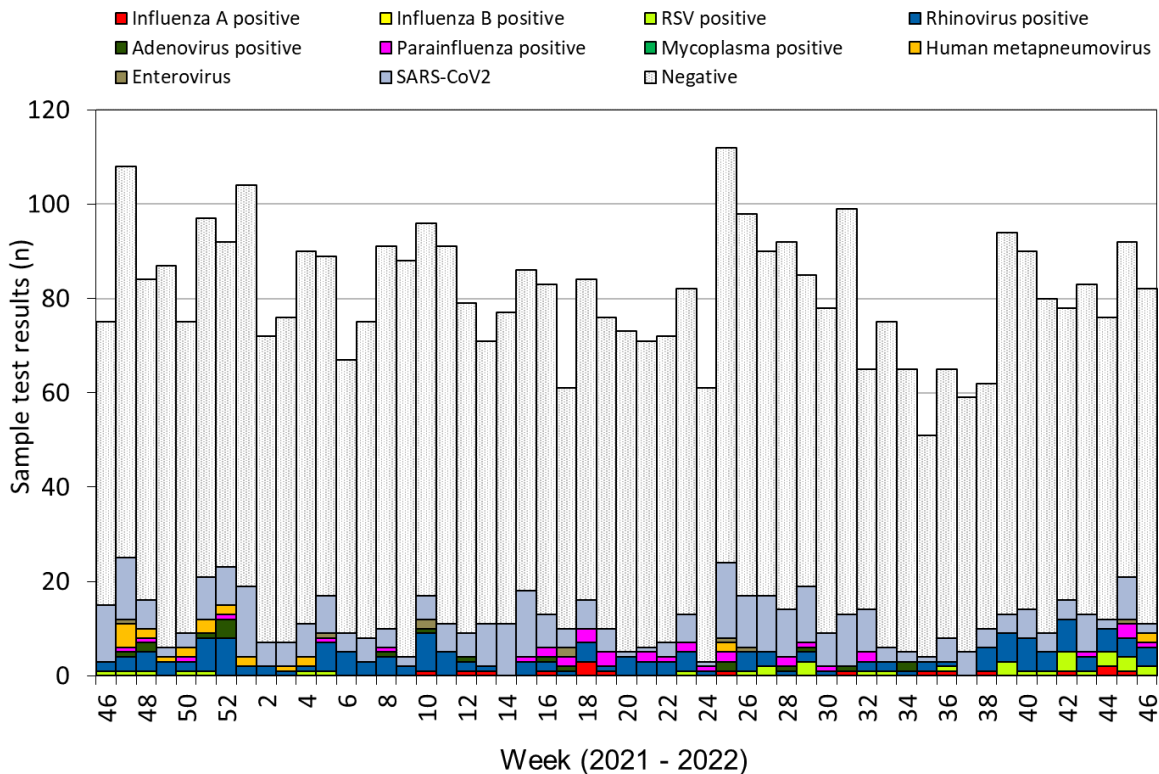
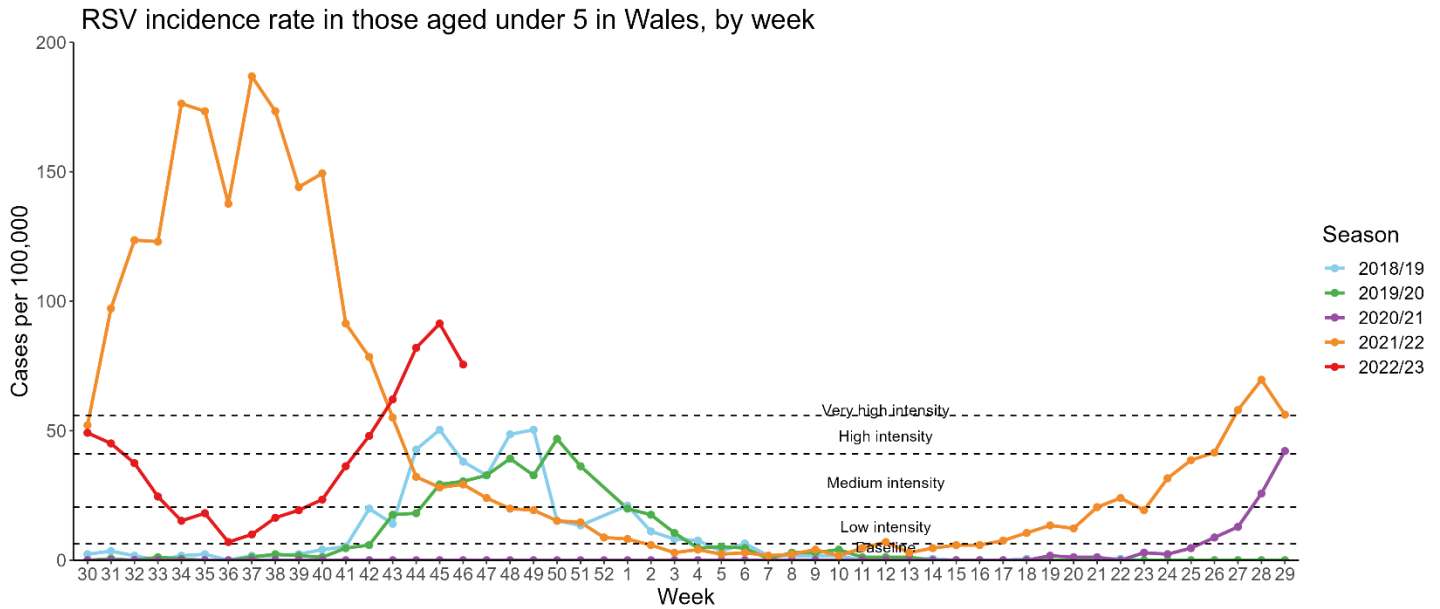


Figure 7. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 46 2021 to Week 46 2022.



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.

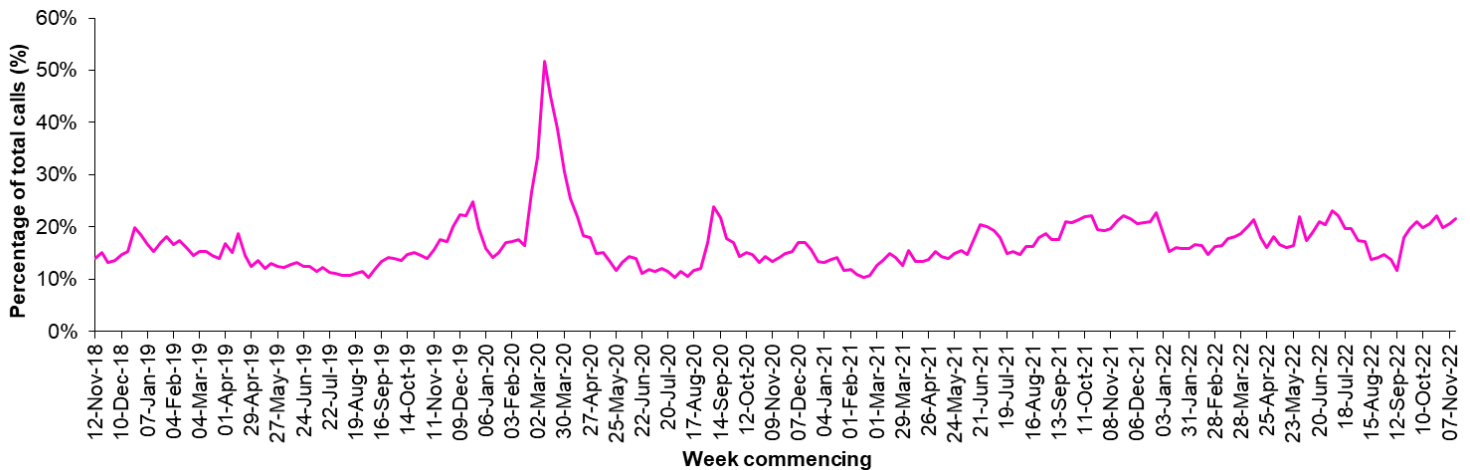
Figure 8. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 46 2022.



*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 46 2018 - Week 46 2022 (as of 20/11/2022).



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 in Wales 2022/23 (as of 15/11/2022).

Influenza immunisation uptake in the 2022/23 season	
People aged 65y and older	66.0%
People younger than 65y in a clinical risk group	32.4%
Children aged two & three years	27.5%
Children aged between four & ten years	49.4%
Children aged between 11 & 15 years	35.4%
Total NHS staff	32.8%
NHS staff with direct patient contact	32.8%

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/flu vaccine/annual-influenza-surveillance-and-influenza-vaccination-uptake-reports/>

Influenza activity – UK and international summary

- As of week 45, community and syndromic influenza indicators remained below baseline levels in the UK. Most recent data for Scotland from week 44 showed that GP ILI consultations decreased to 3.6 per 100,000. During week 45, GP ILI consultations increased in Northern Ireland to 3.7 per 100,000 - well below the baseline intensity threshold. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 4.5 per 100,000, below the MEM threshold for baseline activity (12.2 per 100,000).
- During week 45, 171 samples tested positive for influenza in England (including 10 A(H1N1)pdm09, 41 A(H3N2), 103 A(not subtyped) and 17 influenza B). Overall influenza positivity remained fairly stable at 6.9%. 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) report in its weekly influenza update that during week 45, 24 countries reported baseline-intensity, 13 reported low-intensity, one reported medium-intensity (Kazakhstan) and one reported high-intensity (Malta). 10 out of 39 reporting countries reported no influenza activity across the region, 18 reported sporadic spread, four reported local spread (Lithuania, Malta, Norway and United Kingdom (Northern Ireland)), five reported regional spread (Albania, Finland, France, Kazakhstan and Republic of Moldova), and two reported widespread activity (Germany and Portugal). During week 45, 222 of 1,746 (13%) samples from patients presenting to all sentinel primary care centres with ILI or ARI symptoms were tested positive for influenza. This is an increase of 6% from the previous week and has risen to above the threshold for epidemic activity (10%). Above-threshold positivity has been reported in Kazakhstan at 100%, Portugal at 42%, Germany at 30%, Georgia at 12% and United Kingdom (Scotland) at 12%. Of sentinel specimens that tested positive for influenza for the season to date, 62% were influenza A (88% H3, 12% A(H1N1)pdm09) and 38% were influenza B. **Source:** Flu News Europe: <http://www.flunewseurope.org/>
- The WHO reported on 14/11/2022, based on data up to 30/10/2022, that globally, influenza activity remains low, although an increasing trend has been observed in the northern hemisphere.
- In the temperate zones of the southern hemisphere, overall influenza activity has now plateaued.
- In temperate South America, influenza detections continued to increase, of predominately A(H3N2) in Chile and Uruguay, and influenza B followed by A(H1N1)pdm09 in Argentina.
- In tropical South America, influenza detections remained low with A(H3N2) viruses predominating.
- In the Caribbean and Central American countries, influenza detections of predominantly A(H3N2) virus were reported but remained low, however influenza activity in Puerto Rico, Guatemala and Nicaragua was reportedly above levels expected for this time of year.
- In Western Africa, influenza activity remained low and stable with influenza B/Victoria detections increasing and A(H3N2) detections decreasing. In Northern and Middle Africa, no detections were reported. In Eastern Africa, influenza A and B detections decreased.
- In Southern Asia, influenza detections of predominately A(H3N2) viruses increased steeply mainly due to an increase in activity reported in Iran. Detections of A(H1N1)pdm09 and influenza B viruses were also reported. In South-East Asia, influenza activity decreased. In East Asia, influenza activity of predominantly influenza A(H3N2) continue to be reported. In Western Asia, influenza detections continued to increase in some countries of the Arab Peninsula. In Central Asia, high influenza activity was reported of predominantly influenza B viruses with widespread activity with positivity above 10% 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 14/11/2022), during the time period from 17/10/2022 – 30/10/2022, 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 229,940 specimens during that time period, of which 15,723 were positive for influenza viruses. 14,589 (92.8%) of those positive for influenza were typed as influenza A (of the subtyped influenza A viruses, 1,424 (21.2%) were influenza A(H1N1)pdm09 and 5,284 (78.8%) were influenza A(H3N2)) and 1,134 (7.2%) influenza B (of the 300 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 45 (ending 12/11/2022). Nationally, 15,308 (14.7%) out of 103,830 specimens have tested positive for influenza in week 45 in clinical laboratories nationwide, of these positives 15,185 (99.2%) were influenza A and 123 (0.8%) were influenza B. Further characterisation has been carried out on 7,575 specimens by public health laboratories, and 912 samples tested positive for influenza; 121

influenza A(H1N1)pdm09 (24.6%), 370 influenza A(H3N2) (75.4%), 420 influenza A(not subtyped) and one 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 45, influenza activity remained above the seasonal positivity threshold. During week 45, 3,909 influenza detections were reported: 3,897 influenza A (predominantly A(H3N2) at 97%), and 12 influenza B. The percentage of ILI visits rose to 2.6% in week 45.

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 and detections both decreased in the week beginning 12/11/2022.

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

COVID-19 – UK and international summary

- As of 16/11/2022, the new positive PCR episodes for the most recent 7-day reporting period decreased to 9 per 100,000 population in Wales. There were 15 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period, reported to Public Health Wales. There were 44 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 16/11/22 WHO reported four laboratory-confirmed cases of locally acquired Middle East Respiratory Syndrome coronavirus (MERS-CoV) in the Kingdom of Saudi Arabia from 29/12/2021 to 31/10/2022. This follows on from one laboratory-confirmed case in Oman reported on 28/04/2022, and two (including 1 death) reported from Qatar between 22/03/2022 to 03/04/2022. Since the beginning of 2022 and as of 22/11/2022 there have been six reported cases of MERS-CoV, with an additional case reported from 29/12/2022. As of 16/11/2022, 2,600 laboratory confirmed cases of human infection with MERS-CoV, including 935 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/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