

Current level of influenza activity: *Baseline activity*

Influenza activity trend: *Stable*

Confirmed influenza cases since 2021 week 40: 91 (17 influenza A(H3N2), one influenza A(H1N1)pdm09, 47 influenza A(not subtyped) and 26 influenza B).

Key points – Wales

Surveillance indicators suggest that although influenza is not yet circulating widely, confirmed case numbers have increased in recent weeks.

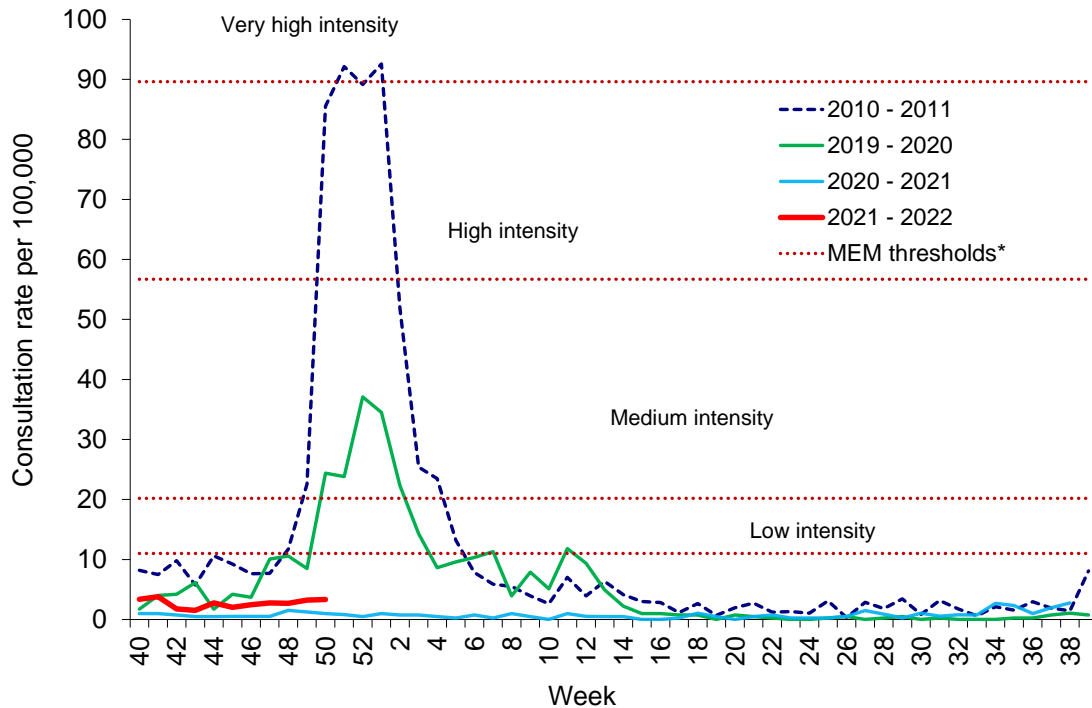
During Week 50 (ending 19/12/2021) there were 12 cases of influenza confirmed. Confirmed cases of Respiratory Syncytial Virus (RSV) in children aged under 5 years continued to decrease and remain at low intensity levels. COVID-19 cases continue to be detected in symptomatic patients in hospital and in the community. Rhinovirus and human metapneumovirus 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 50 was 3.3 consultations per 100,000 practice population (Table 1). This increased compared to the previous week (3.2 consultations per 100,000) but remains well below 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 192.3 per 100,000 practice population during Week 50, this is a decrease compared to the previous week (205.8 per 100,000) (Table 2). Weekly consultations for Upper Respiratory Tract Infections and Lower Respiratory Tract Infections decreased compared to the previous week. The age-group specific consultation rate for ARI during Week 50 was highest in under one year olds (907.9 per 100,000 practice population). **In recent weeks ARI consultations have increased in children aged under 5 years.**
- The percentage of calls to **NHS Direct Wales** which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during Week 50 increased to 20.9% (Figure 8).
- During Week 50, 1,732 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There were four influenza A (one influenza A(H1N1)pdm09 and three influenza A(H3N2)), 41 RSV, 76 SARS-CoV2, 223 rhinoviruses, 153 human metapneumoviruses, 79 adenoviruses, 32 enteroviruses and 26 parainfluenza detected in Week 49 (Figure 4). Additionally, 6,684 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 6,684 samples, seven were positive for influenza A (untyped), one was positive for influenza B, 26 were positive for RSV and 537 were positive for SARS-CoV2 (Figure 5). Seventy-three respiratory specimens were tested from patients in intensive care units (ICU) and none were positive for influenza (Figure 6). For the latest COVID-19/ SARS-CoV2 surveillance data please see the [PHW daily dashboard](#)
- There were 10 surveillance samples from patients with ILI collected by **sentinel GPs** during Week 50 (as at 22/12/2021), one was positive for RSV, one for rhinovirus, one for human metapneumovirus, three for seasonal coronaviruses and four were negative for all routinely tested respiratory pathogens.
- **Confirmed RSV cases in children aged under 5 decreased, and remains at the threshold that would usually indicate low levels of circulation.** In week 50 there were 15.2 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 50, 22 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, all were reported as COVID-19 outbreaks. nineteen were in residential homes and three were in a community, mixed or other settings.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not significantly in excess during week 49 (latest data).

NOTE: During week commencing 27th December, this report will be published on Thurs 30th Dec.

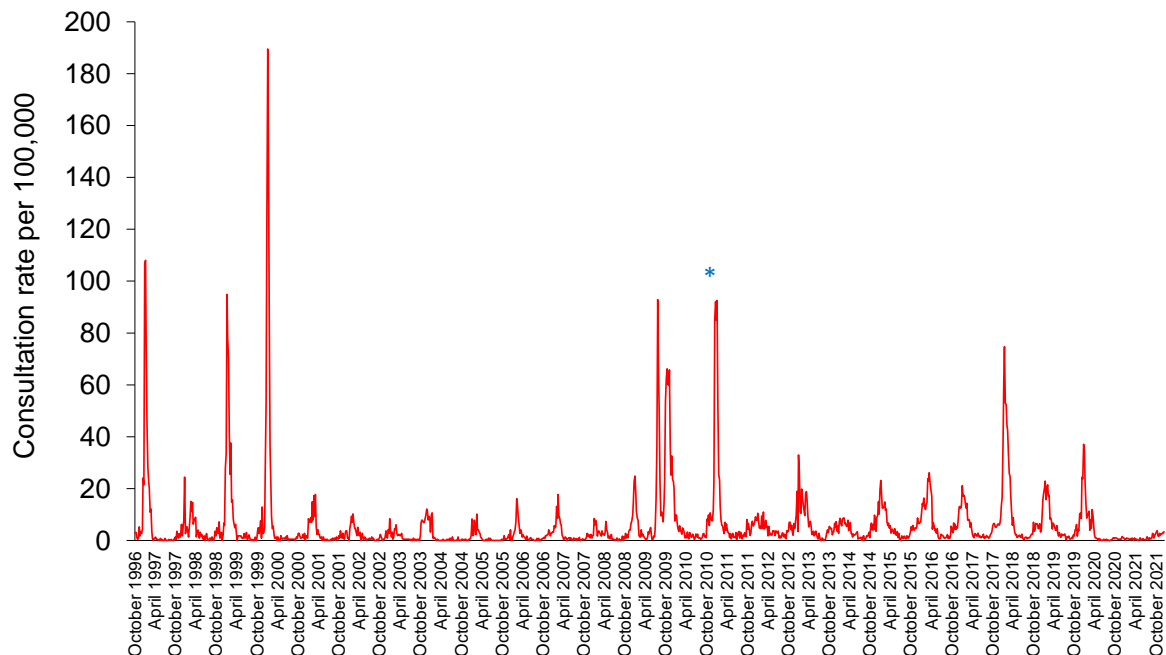
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 19/12/2021).



* 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 50 2021).



* Reporting changed to Audit+ surveillance system

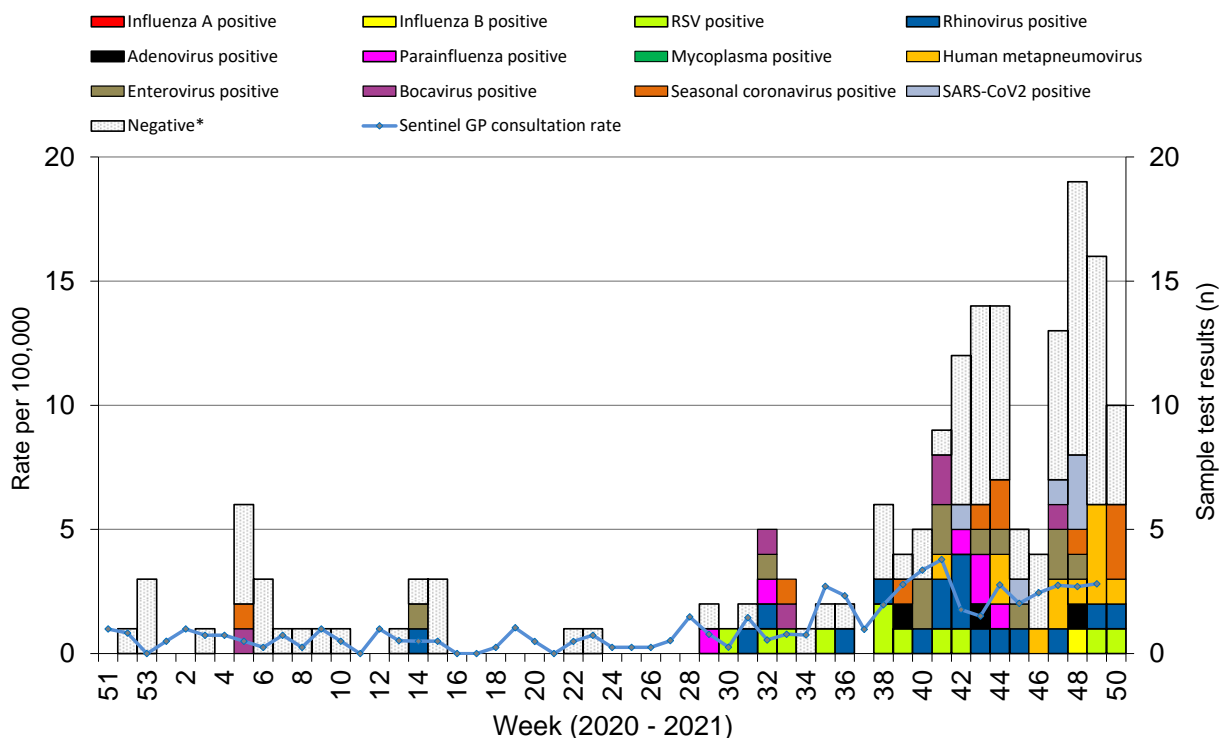
Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 45 – Week 50 2021 (as of 19/12/2021).

Age group	45	46	47	48	49	50
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	6.7	6.8	6.7	0.0	0.0
5 - 14	0.0	0.0	0.0	4.5	2.3	2.4
15 - 24	2.3	0.0	2.2	4.4	0.0	4.6
25 - 34	0.0	1.9	4.0	0.0	2.0	6.0
35 - 44	2.0	4.0	2.0	2.0	10.0	6.2
45 - 64	4.7	2.8	4.7	2.8	1.9	3.0
65 - 74	0.0	2.2	2.2	2.2	4.4	0.0
75+	2.4	4.6	0.0	2.3	4.7	2.5
Total	2.0	2.5	2.8	2.7	3.2	3.3

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 45 – Week 50 2021 (as of 19/12/2021).

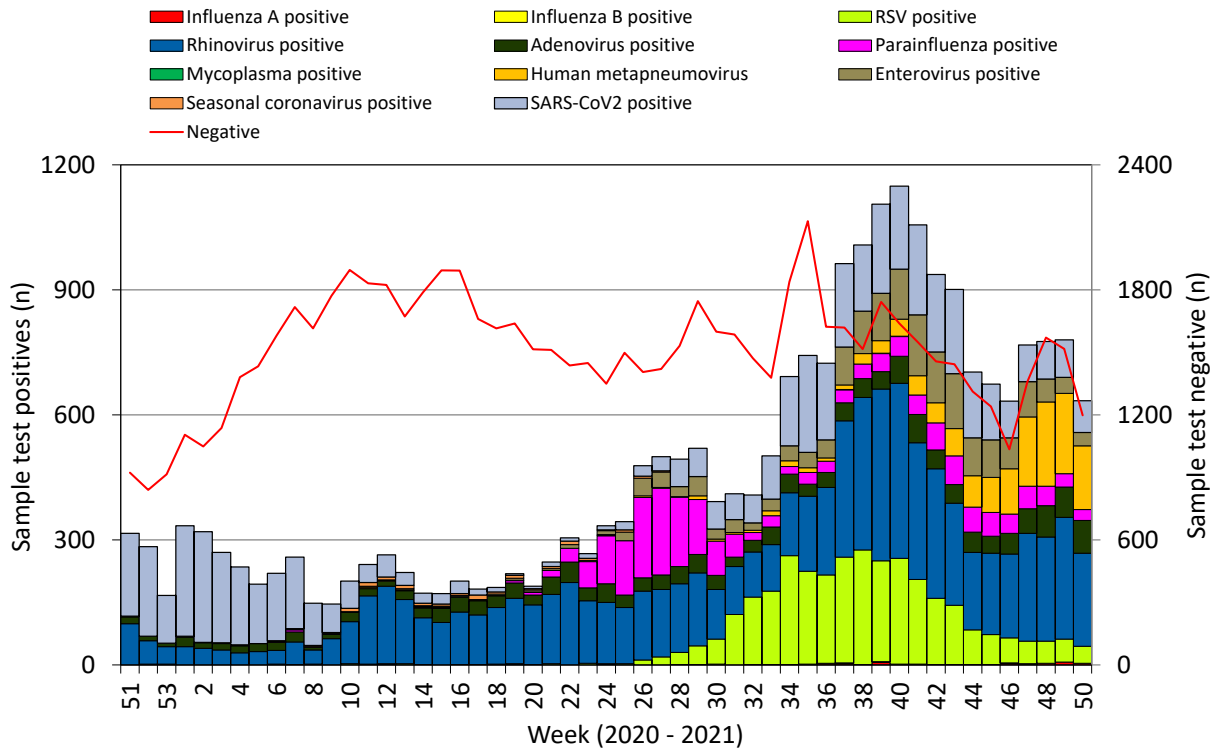
Age group	45	46	47	48	49	50
< 1	1052.6	1333.8	1488.9	1390.6	1345.1	907.9
1 - 4	759.2	966.4	1201.6	899.8	971.6	861.5
5 - 14	177.8	222.8	246.2	244.1	245.6	187.6
15 - 24	161.1	153.6	161.2	184.4	189.0	136.7
25 - 34	121.0	151.0	165.9	229.0	206.8	168.8
35 - 44	134.5	133.7	188.2	197.0	186.4	187.5
45 - 64	130.1	126.2	128.4	160.5	131.2	151.5
65 - 74	114.4	104.1	125.9	144.4	121.9	150.7
75+	153.0	95.2	108.4	150.1	130.5	149.4
Total	168.8	177.9	205.1	219.2	205.8	192.3

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 19/12/2021, by week of sample collection, week 51 2020 to Week 50 2021.



* 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 4. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 19/12/2021 by week of sample collection, week 51 2020 to Week 50 2021.



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 5. Specimens from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, as of 19/12/2021 by week of sample collection, week 51 2020 to Week 50 2021.

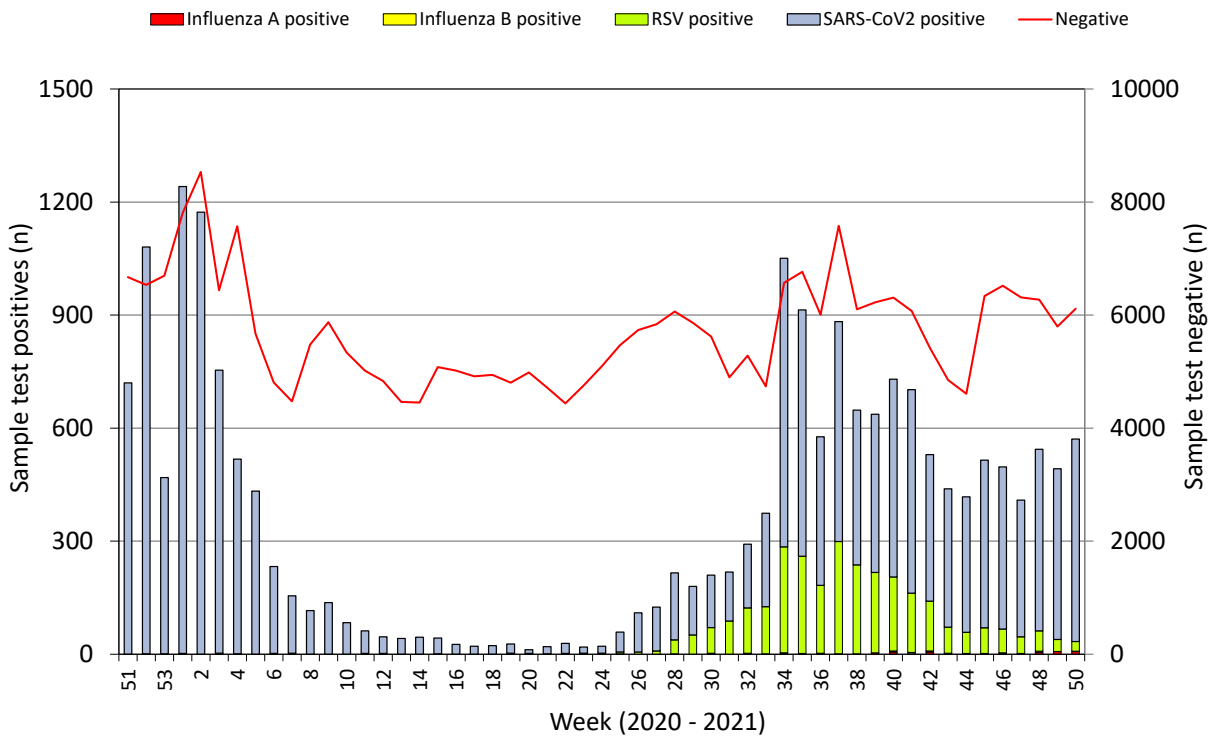
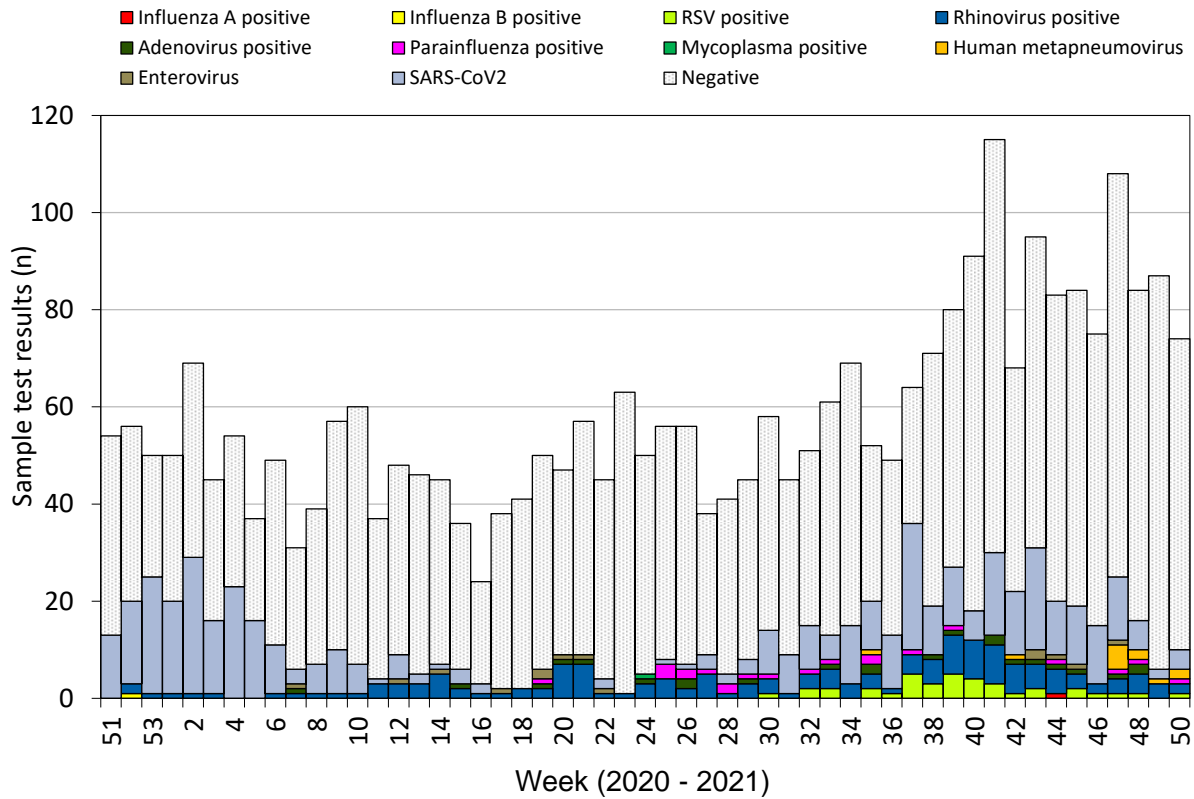
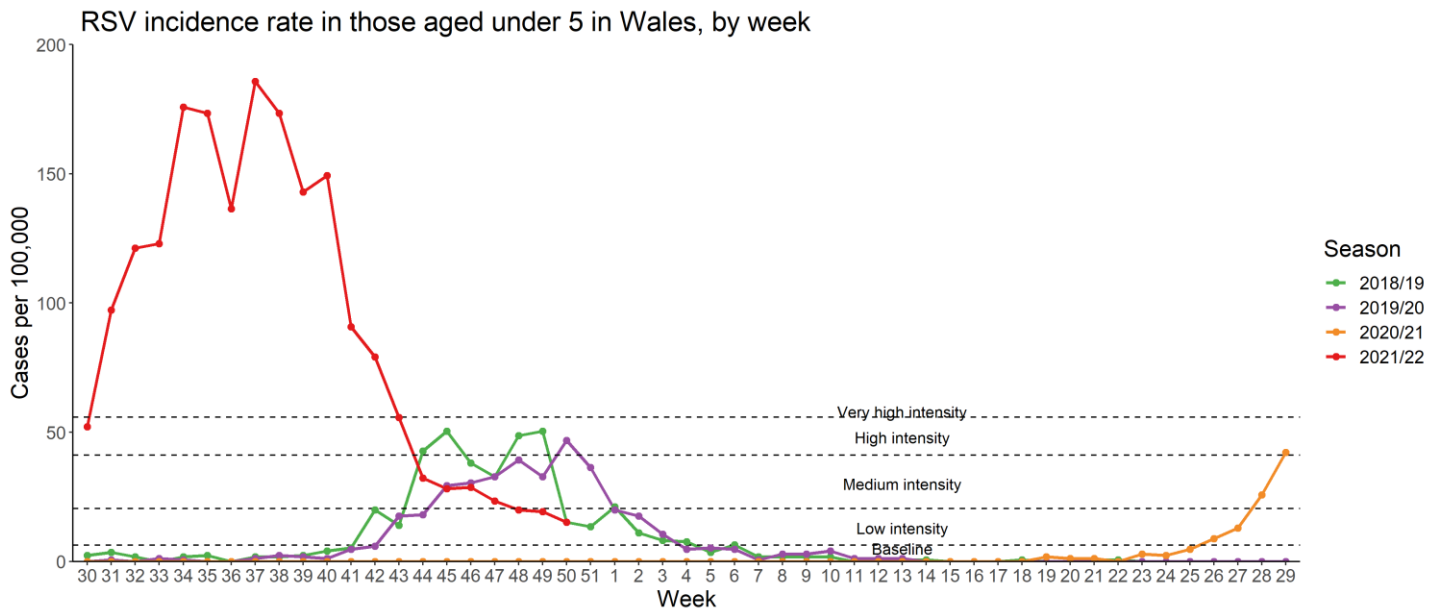


Figure 6. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 51 2020 to Week 50 2021.



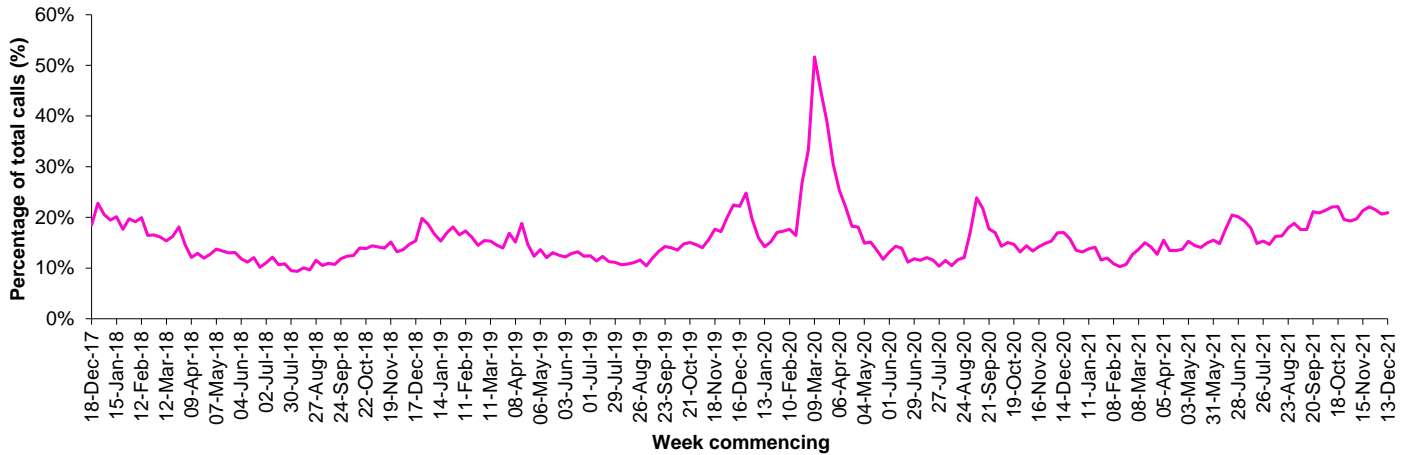
This chart summarises respiratory panel test data and does not include data for patients tested SOLELY for SARS-CoV2. Samples which test positive for more than one pathogen will appear more than once in the chart.

Figure 7. RSV incidence rate per 100,000 population aged under five years, week 30 2017 to Week 50 2021.



Calls to NHS Direct Wales

Figure 8. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 51 2017 - Week 50 2021 (as of 19/12/2021).



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 (ie 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 12/12/2021).

Influenza immunisation uptake in the 2021/22 season	
People aged 65y and older	75.0%
People younger than 65y in a clinical risk group	42.5%
Children aged two & three years	42.0%
Children aged four to ten years*	67.0%
Children aged 11 to 15 years*	55.9%
NHS staff	51.7%
NHS staff who have direct patient contact	51.9%

* 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 49, community and syndromic influenza indicators remain very low in the UK. GP ILI consultations increased in Scotland to 4.8 per 100,000 and decreased in Northern Ireland to 1.5 per 100,000, remaining well below the baseline intensity thresholds. The weekly ILI GP consultation rate in England reported through the RCGP system decreased to 3.0 per 100,000, well below the MEM threshold for baseline activity (12.2 per 100,000). During week 49, 68 of the 5,772 samples tested positive for influenza (including 26 influenza A(H3N2), 35 influenza A(not subtyped) and 7 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 during week 49, influenza activity has increased throughout the WHO European Region. During week 49, a total of 1,650 sentinel specimens were tested for influenza, 185 of which were positive (182 influenza A (65 influenza A(H3N2) and 2 influenza A(H1N1)pdm09), and 3 influenza B.
Source: Flu News Europe: <http://www.flunewseurope.org/>
- The WHO reported on 06/12/2021 that globally, influenza activity remains low, but in comparison with last year there has continued to be an increase in influenza detections. In the temperate zones of the northern hemisphere, influenza activity remained at inter-seasonal levels. Both influenza A and B were detected. In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels, with the exception of South Africa where increased out of season influenza activity was reported. In the Caribbean and Central American countries, sporadic influenza A and B virus detections, as well as elevated RSV activity were reported in some countries. In tropical South America, influenza A(H3N2) detections were reported from Brazil. RSV activity continued to be elevated in some countries. In tropical Africa, influenza detections remained within inter-seasonal levels with influenza A predominating alongwith some detections of influenza B. In Southern Asia, the number of influenza virus detections reported continued on a decreasing trend, with detections of both influenza A and B viruses reported. In South-East Asia, no new influenza detections were reported.
- Based on FluNet reporting (as of 06/12/2021), during the time period from 08/11/2021 – 21/11/2021, National Influenza Centres and other national influenza laboratories from 102 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 335,864 specimens during that time period, 3,844 were positive for influenza viruses, of which 1,658 were typed as influenza A (of the subtyped influenza A viruses, 109 were influenza A(H1N1)pdm09 and 909 were influenza A(H3N2)) and 2,186 influenza B (of the characterised influenza B viruses 0 belonged to B-Yamagata lineage and 2,186 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 49 (ending 11/12/2021) influenza activity remains low in the United States but continues to increase, particularly in the eastern and central parts of the country. Nationally, 2,438 (3.5%) out of 70,157 specimens have tested positive for influenza in week 49, of these positives 2,405 (98.6%) were influenza A and 33 (1.4%) were influenza B. Further characterisation has been carried out on 23,849 specimens by public health laboratories, and 485 samples tested positive for influenza, 279 influenza A(H3N2), 206 influenza A(not subtyped) and 0 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 49, influenza activity remains low. The percentage of visits to healthcare professionals that were due to ILI was 0.9% in week 49 and remains stable and below expected levels. The percentage of tests positive for influenza was 0.38% during week 49.
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 has reported an out of season increase in RSV activity, with an increase in sample positivity since early March 2021 but has seen a downward trend in recent weeks.
Source: CDC RSV national trends: <https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html>

Coronavirus disease 2019 (COVID-19) – UK and international summary

- The number of confirmed cases in Wales reported as at 22/12/2021 is 566,995 with 4,662 newly reported in the previous 24 hours. The cumulative number of suspected COVID-19 deaths in confirmed cases in hospitals and care homes reported to Public Health Wales is 6,525 with 3 new deaths reported in the previous 24 hours. The cumulative number of registered deaths in Welsh residents where COVID-19 was mentioned in the death certificate as at 2021 week 48 was 9,043. Latest COVID-19 data from Public Health Wales is available from: <https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/RapidCOVID-19virology-Public/Headlinesummary>
- As at 21/12/2021, there have been 11,542,143 reported confirmed cases of COVID-19 in the UK, of which 90,629 were newly reported in the previous 24 hours. The total deaths within 28 days of a positive test was 147,433, with 172 reported in the previous 24 hours. Latest UK data is available from: <https://coronavirus.data.gov.uk/>
- As at 21/12/2021, WHO have reported 274,628,461 confirmed COVID-19 cases globally, with 543,414 reported in the previous 24 hours. There have been 5,358,978 deaths, of which 6,488 were reported in the previous 24 hours. Daily WHO situation updates are available from: <https://covid19.who.int/>

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

- On 13/12/2021 WHO reported an additional case of Middle East Respiratory Syndrome coronavirus (MERS-CoV). Globally, 2,583 laboratory confirmed cases of human infection with MERS-CoV, including 888 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 (09/08/2021 to 01/10/2021) 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>
http://www.fao.org/ag/againfo/programmes/en/empres/H7N9/Situation_update.html
- 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://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary>

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>

Wales influenza information:

<https://phw.nhs.wales/topics/flu/>

England influenza and COVID-19 surveillance:

<https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports>

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 (for NHS Wales users)

<http://nww.immunisation.wales.nhs.uk/home>

For further information on this report, please email Public Health Wales using: surveillance.requests@wales.nhs.uk