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

Wednesday 2nd February 2022 (covering week 4 2022)

Current level of influenza activity: *Baseline activity*
Influenza activity trend: *Increases in recent weeks*
Confirmed influenza cases since 2021 week 40: 160 *(27 influenza A(H3N2), two influenza A(H1N1)pdm09, 91 influenza A(not subtyped) and 40 influenza B).*

Key points – Wales

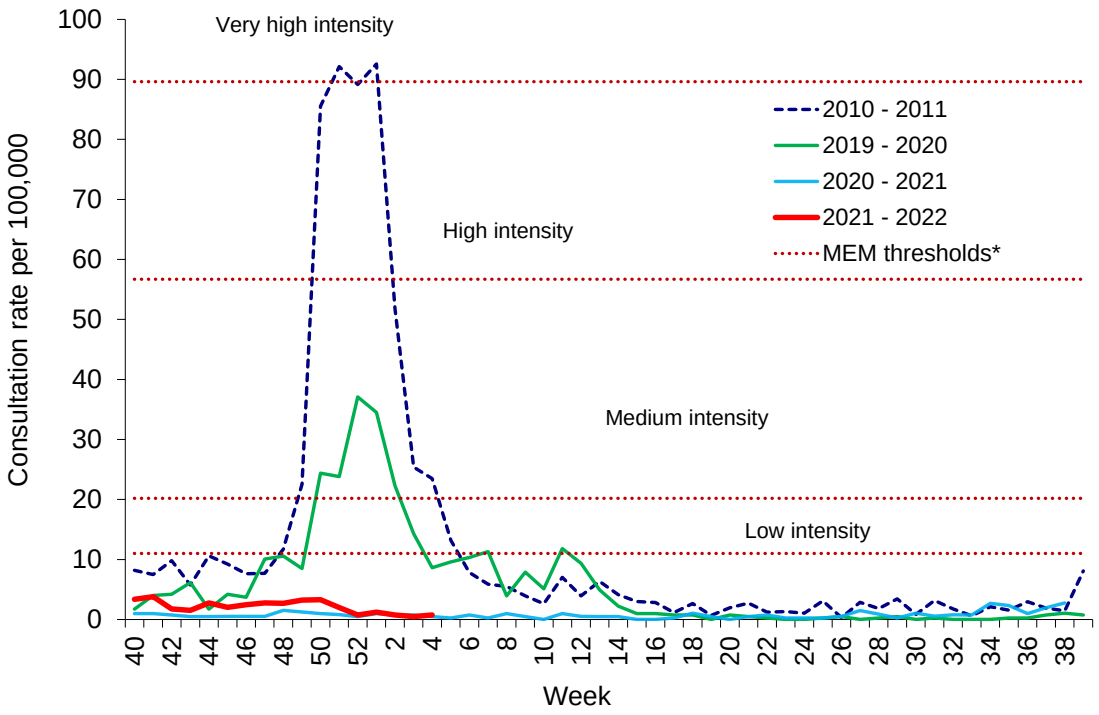
Surveillance indicators suggest that although influenza is not yet circulating widely, confirmed case numbers have increased in recent weeks.

During Week 04 (ending 30/01/2022) there were five cases of influenza confirmed. Confirmed cases of Respiratory Synctial Virus (RSV) in children aged under 5 years increased but remained at baseline levels. COVID-19 cases continue to be detected in symptomatic patients in hospital and in the community. Rhinovirus and adenovirus are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI), confirmed cases of rhinovirus have increased in recent weeks.

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during week 04 was 0.8 consultations per 100,000 practice population (Table 1). This increased compared to the previous week (0.5 consultations per 100,000) and 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 Respitatory Infections (ARI)** was 123.3 per 100,00 practice population during Week 04, this is an increase compared to the previous week (105.1 per 100,000) (Table 2). Weekly consultations for Upper Respiratory Tract Infections and Lower Respiratory Tract Infections increased compared to the previous week. The age-group specific consultation rate for ARI during Week 04 was highest in under one year olds (507.6 per 100,000 practice population).
- The percentage of calls to **NHS Direct Wales** which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during Week 04 decreased to 15.9% (Figure 8).
- During Week 04, 1,534 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There was one influenza (an influenza A(H3N2)), 12 RSV, 204 SARS-CoV2, 231 rhinoviruses, 54 adenoviruses, 21 human metapneumoviruses, 21 enteroviruses and three parainfluenza detected in Week 04 (Figure 4). Additionally, 4,857 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 4,857 samples, four were positive for influenza (three influenza A (untyped) and one influenza B), nine were positive for RSV and 440 were positive for SARS-CoV2 (Figure 5). Eighty-nine 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 five surveillance samples from patients with ILI collected by **sentinel GPs** during Week 04 (as at 02/02/2022), three was positive for rhinovirus and two were negative for all routinely tested respiratory pathogens.
- **Confirmed RSV case incidence in children aged under 5 increased, but remains at the threshold that would usually indicate baseline levels of circulation.** In week 04 there were 4.1 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 04, 33 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, all were reported as COVID-19 outbreaks. 31 were in residential homes, one was in a hospital and one was in a community, mixed or other setting.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not significantly in excess during week 03.

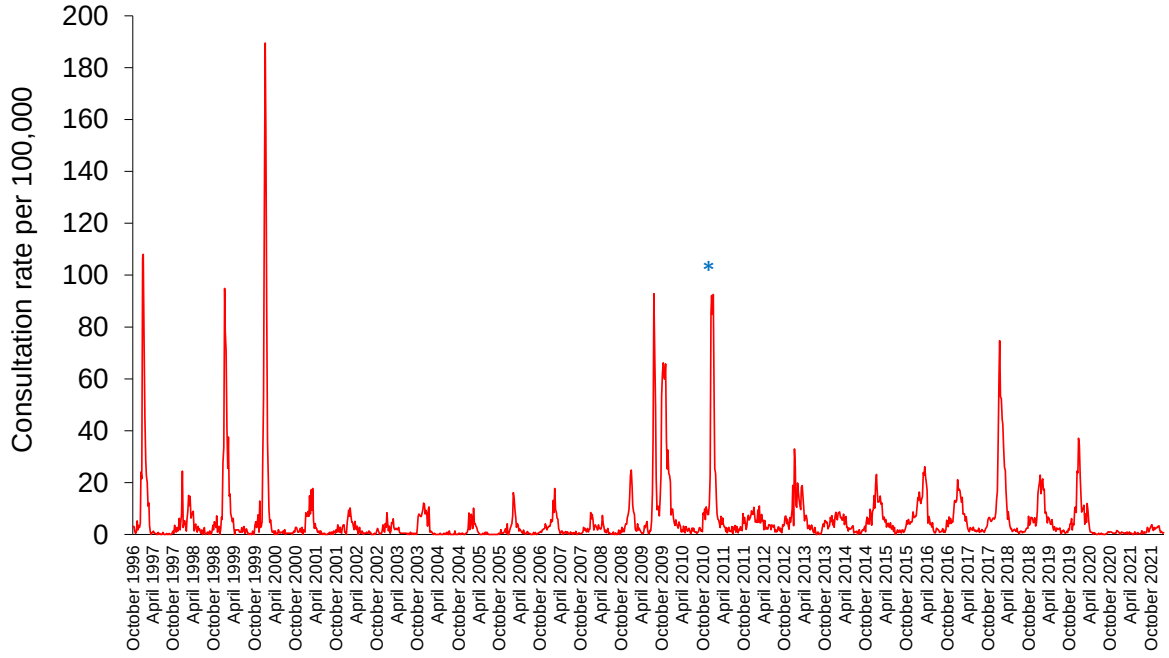
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 30/01/2022).



* 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 04 2022).



* Reporting changed to Audit+ surveillance system

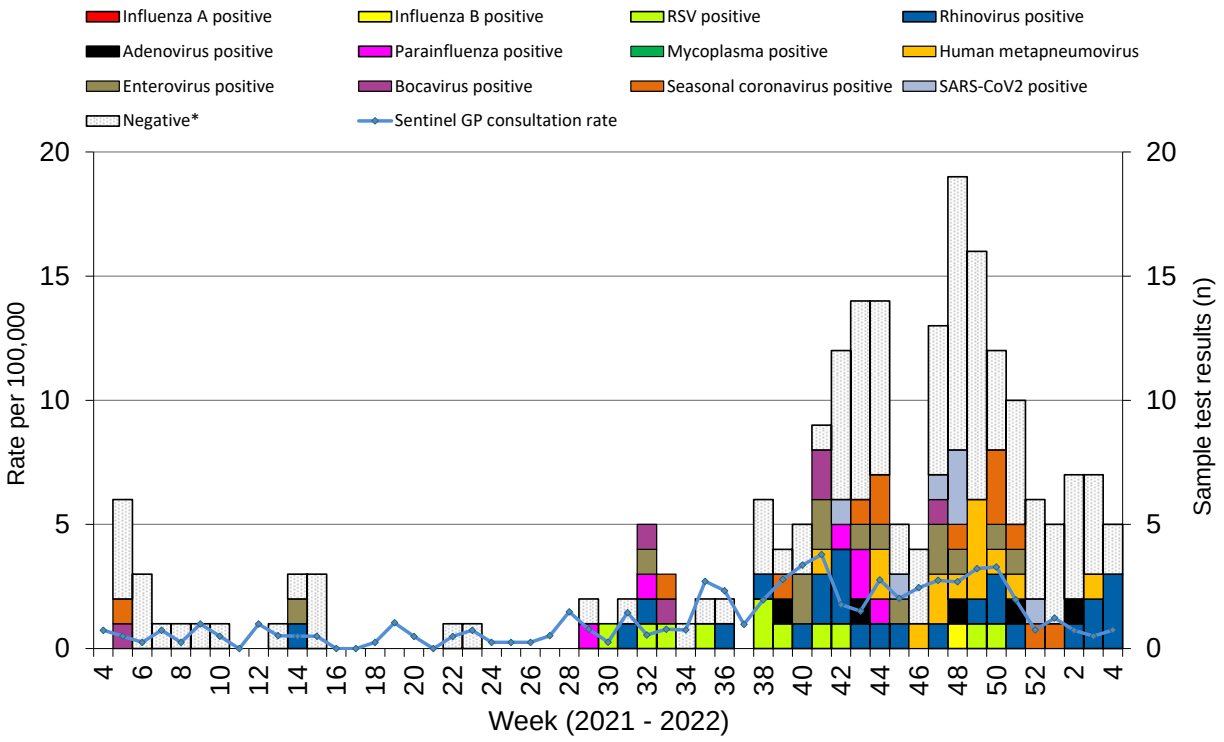
Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 51 2021 – Week 04 2022 (as of 30/01/2022).

Age group	51	52	1	2	3	4
< 1	0.0	0.0	31.4	0.0	0.0	0.0
1 - 4	0.0	6.8	0.0	0.0	0.0	6.8
5 - 14	0.0	0.0	0.0	0.0	0.0	0.0
15 - 24	0.0	0.0	0.0	0.0	0.0	0.0
25 - 34	0.0	0.0	0.0	1.9	0.0	0.0
35 - 44	0.0	0.0	4.0	0.0	0.0	0.0
45 - 64	6.4	1.9	1.8	1.9	1.9	1.9
65 - 74	2.6	0.0	0.0	0.0	0.0	0.0
75+	0.0	0.0	0.0	0.0	0.0	0.0
Total	**2.0**	**0.8**	**1.2**	**0.7**	**0.5**	**0.8**

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 51 2021 – Week 04 2022 (as of 30/01/2022).

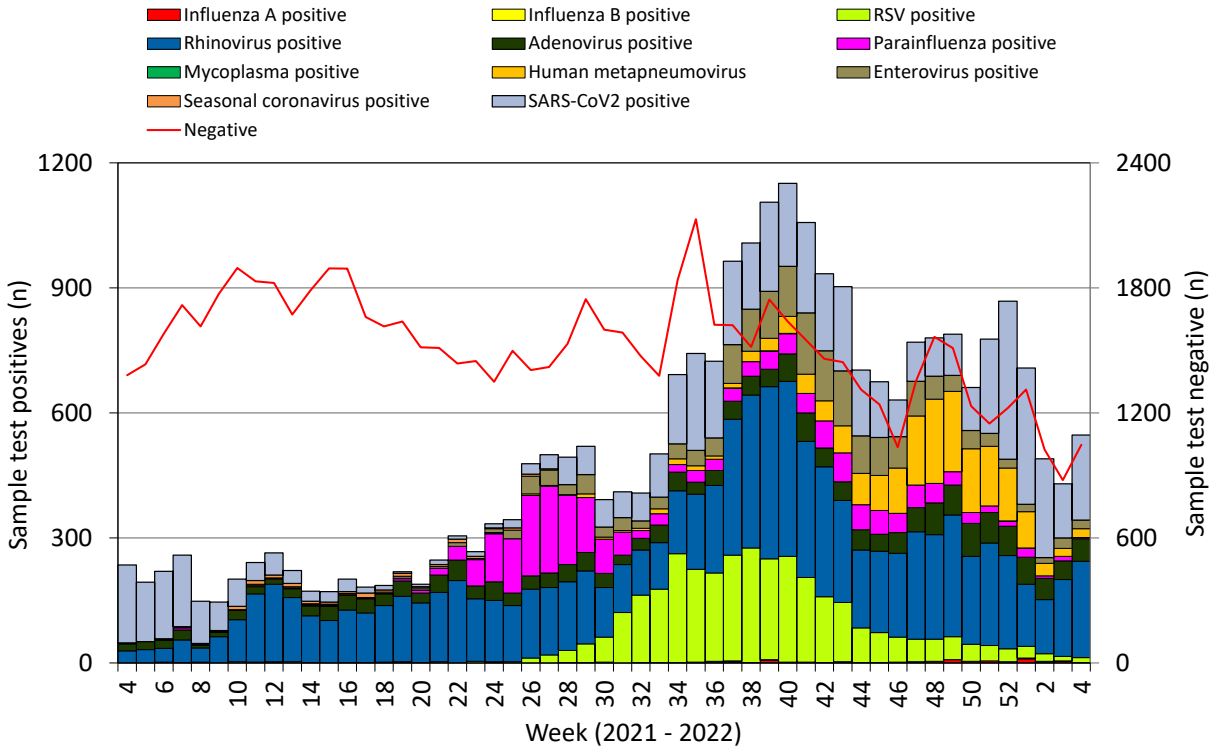
Age group	51	52	1	2	3	4
< 1	671.8	564.0	697.3	534.8	577.7	507.6
1 - 4	716.9	376.5	310.6	256.4	439.6	483.2
5 - 14	149.3	91.7	59.2	105.2	111.2	151.1
15 - 24	141.3	87.7	165.9	99.6	94.9	104.9
25 - 34	155.3	153.6	159.2	102.9	77.5	127.7
35 - 44	146.9	137.6	160.1	122.1	85.4	124.6
45 - 64	141.8	109.4	142.2	125.6	75.2	78.7
65 - 74	115.2	101.9	108.9	124.8	73.9	72.4
75+	96.7	110.6	152.5	144.9	123.0	121.1
Total	**162.6**	**126.8**	**152.6**	**127.1**	**105.1**	**123.3**

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 30/01/2022, by week of sample collection, week 04 2021 to Week 04 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 4. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 30/01/2022 by week of sample collection, week 04 2021 to Week 04 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 5. Specimens from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, as of 30/01/2022 by week of sample collection, week 04 2021 to Week 04 2022.

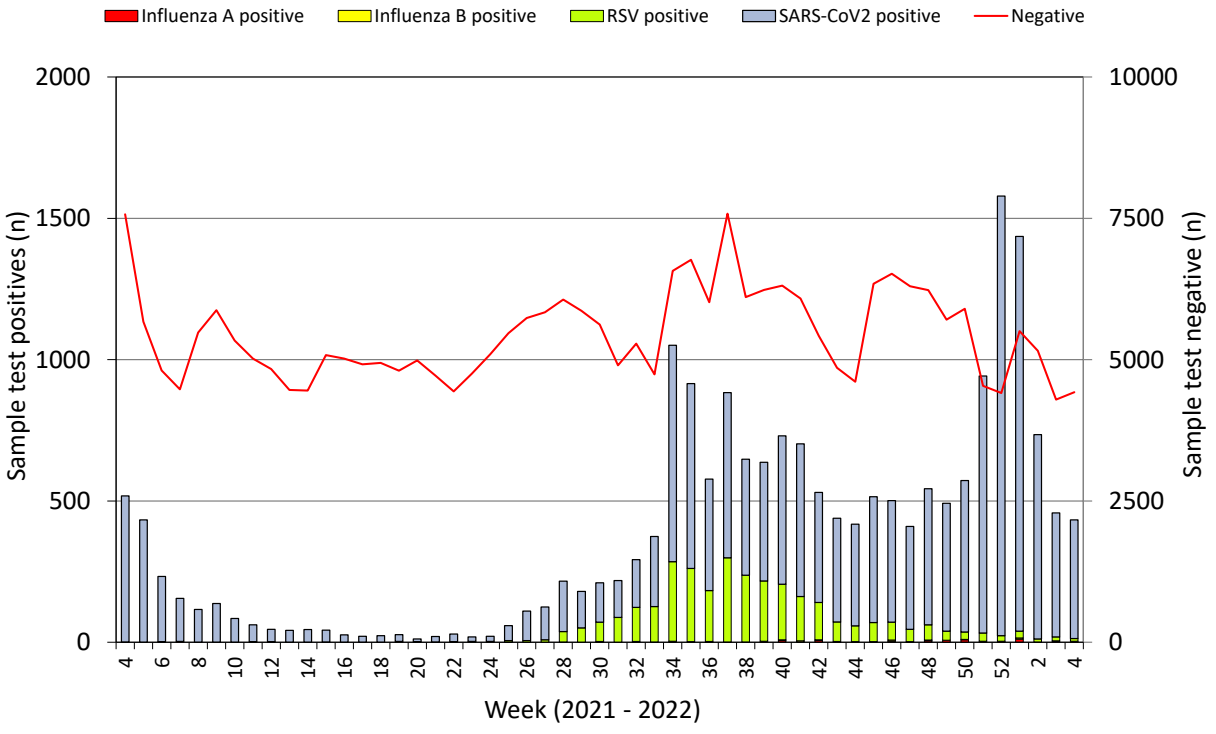
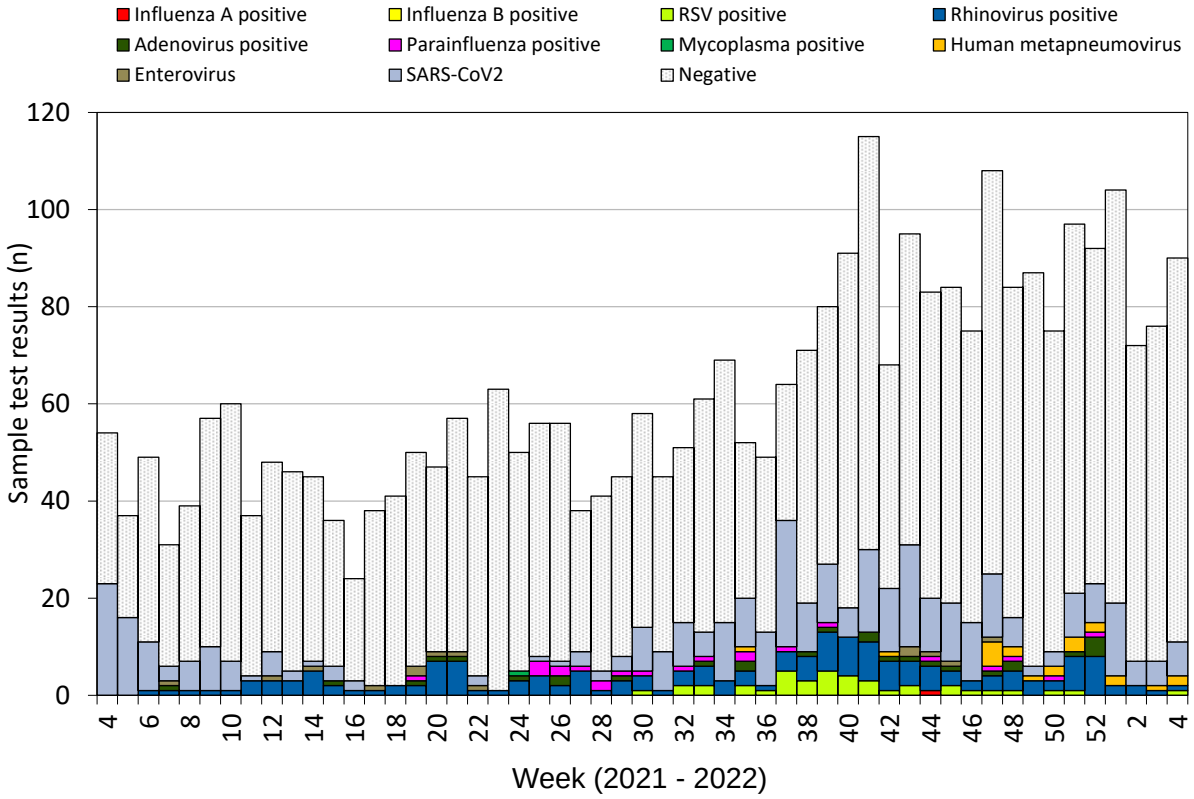
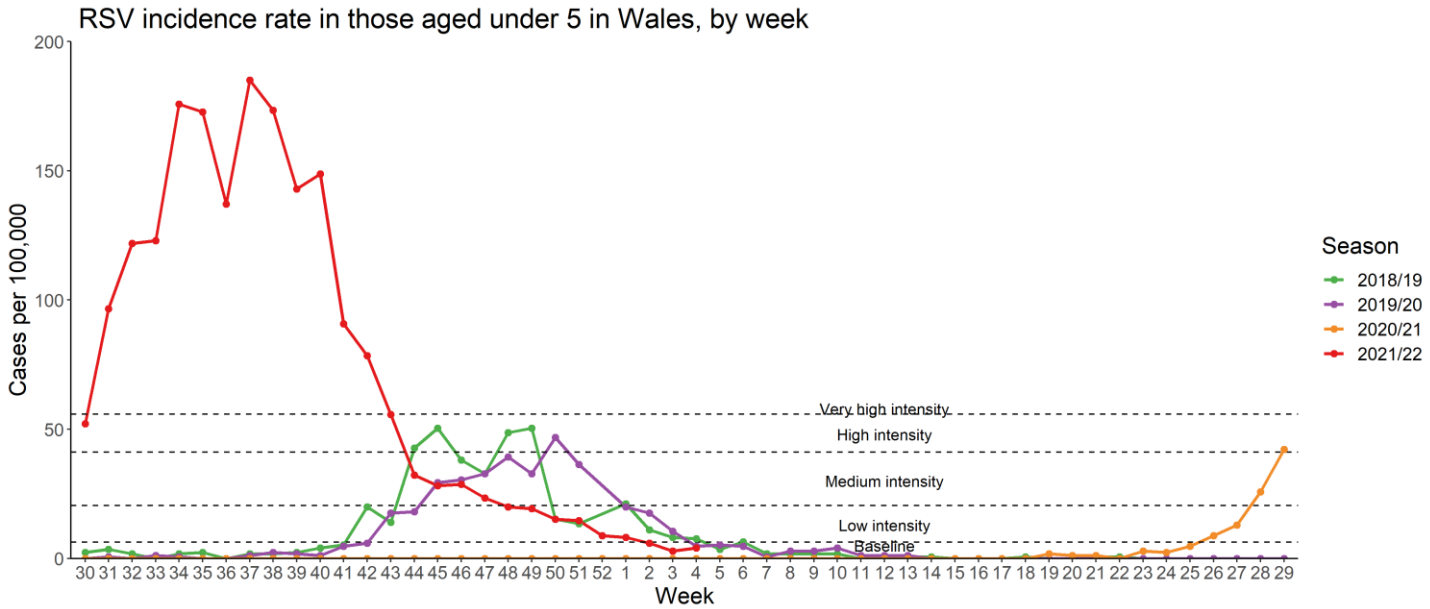


Figure 6. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 04 2021 to Week 04 2022.



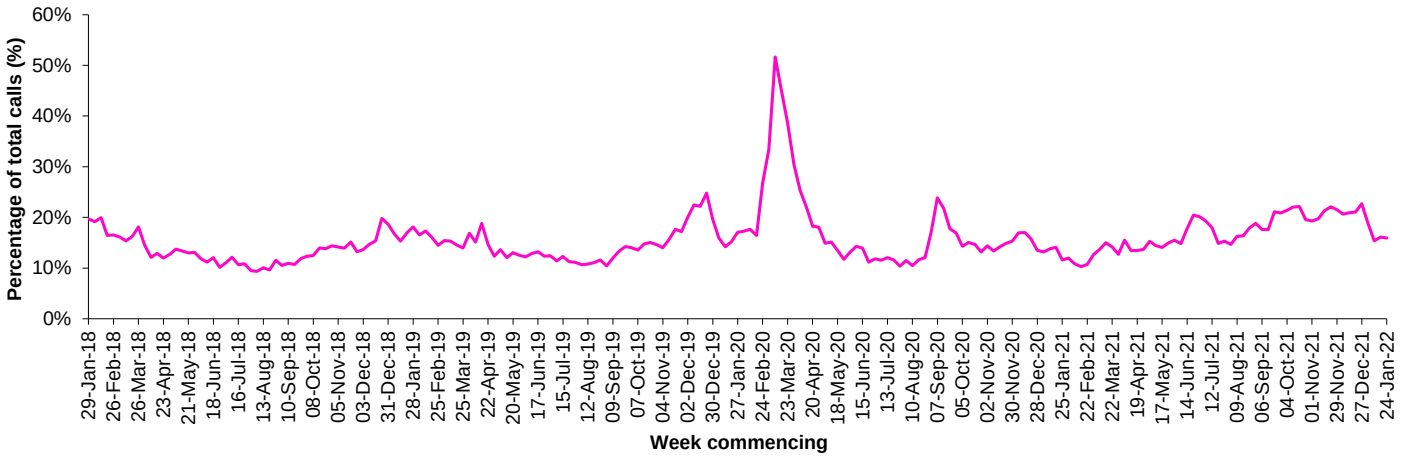
This chart summarises respiratory panel test data and does not include data for patients tested SOLEY for SARS-CoV2. Samples which test positive for more than on pathogen will appear more than once in the chart.

Figure 7. RSV incidence rate per 100,000 population aged under five years, week 30 2017 to Week 04 2022.



Calls to NHS Direct Wales

Figure 8. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 05 2018 - Week 04 2022 (as of 30/01/2022).



[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 (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 18/01/2022).

Influenza immunisation uptake in the 2021/22 season	
People aged 65y and older	77.1%
People younger than 65y in a clinical risk group	46.7%
Children aged two & three years	46.0%
Children aged four to ten years*	67.0%
Children aged 11 to 15 years*	55.9%
NHS staff	54.1%
NHS staff who have direct patient contact	55.3%

* 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 03, community and syndromic influenza indicators remain very low in the UK. GP ILI consultations decreased in Scotland to 0.6 per 100,000 and remained stable in Northern Ireland at 1.3 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 1.1 per 100,000, well below the MEM threshold for baseline activity (12.2 per 100,000). During week 03, 16 of the 5,596 samples tested positive for influenza (including seven influenza A(H3N2), one influenza A(H1N1)pdm09, six influenza A(not subtyped) and two 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 03, influenza activity continues to be reported throughout the WHO European Region. During week 03, a total of 1,674 sentinel specimens were tested for influenza, 115 of which were positive, all were influenza A (four influenza A(H1N1)pdm09, 72 influenza A(H3) and 39 influenza A(not subtyped)).
  Source: Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 24/01/2022 that globally, influenza activity remained low and appeared to decrease. In the temperate zones of the northern hemisphere, influenza activity although still low has continued to increase in some countries. In the temperate zones of the southern hemisphere, influenza activity remained low overall. In North America, influenza detections remained low. In Europe, influenza activity appeared to decrease. In East Asia, influenza activity continued to increase in China but remained low in the rest of the subregion. In Western Asia and Northern Africa, continuous influenza transmission has been reported in some countries. In the Caribbean and Central American countries, some influenza activity was reported. In tropical South America, influenza A(H3N2) detections remained elevated and severe acute respirary infection (SARI) levels were above epidemic thresholds in some countries. In tropical Africa, influenza activity continued on a decreasing trend. In Southern Asia, influenza virus detections of predominantly influenza A(H3N2) increased overall, although several countries reported declining influenza activity. In South-East Asia, sporadic influenza detections were reported in the Philippines.
- Based on FluNet reporting (as of 21/01/2022), during the time period from 27/12/2021 – 09/01/2022, 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 317,198 specimens during that time period, 16,862 were positive for influenza viruses, of which 10,744 were typed as influenza A (of the subtyped influenza A viruses, 224 were influenza A(H1N1)pdm09 and 4,930 were influenza A(H3N2)) and 6,118 influenza B (of the characterised influenza B viruses 0 belonged to B-Yamagata lineage and 5,959 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 03 (ending 22/01/2022) influenza activity remained stable in the United States. Nationally, 1,543 (1.9%) out of 79,667 specimens have tested positive for influenza in week 03, of these positives 1,503 (97.4%) were influenza A and 40 (2.6%) were influenza B. Further characterisation has been carried out on 38,977 specimens by public health laboratories, and 503 samples tested positive for influenza, 177 influenza A(H3N2), 325 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 03, influenza activity remains low for this time of year. The percentage of visits to healthcare professionals that were due to ILI was 1.6% in week 03. The percentage of tests positive for influenza was 0.1% during week 03.
  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

COVID-19 – UK and international summary

- The number of confirmed cases in Wales reported as at 02/02/2022 is 782,388 with 1,870 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 6,833 with 10 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 2022 week 02 was 9,358. 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 01/02/2022, there have been 17,428,345 reported confirmed cases of COVID-19 in the UK, of which 112,458 were newly reported in the previous 24 hours. The total deaths within 28 days of a positive test was 156,875, with 219 reported in the previous 24 hours. Latest UK data is available from: https://coronavirus.data.gov.uk/
- As at 01/02/2022, WHO have reported 376,478,335 confirmed COVID-19 cases globally, with 1,913,949 reported in the previous 24 hours. There have been 5,666,064 deaths, of which 6,331 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 (02/10/2021 to 13/12/2021) 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**