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

Wednesday 15th June 2022 (covering week 23 2022)

Current level of influenza activity: *Low*
Influenza activity trend: *Stable*
Confirmed influenza cases since 2021 week 40: 781 *(381 influenza A(H3N2), 48 influenza A(H1N1)pdm09, 299 influenza A(not subtyped) and 53 influenza B).*

Key points – Wales

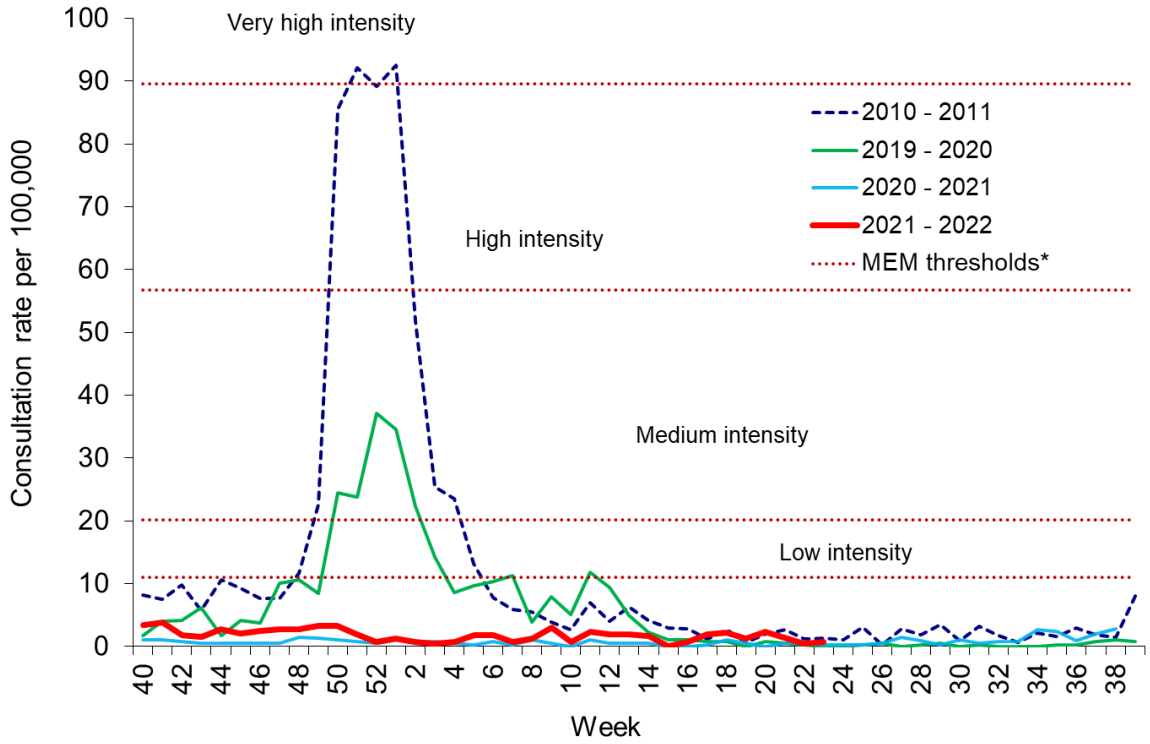
Confirmed influenza case numbers have decreased in recent weeks, while RSV confirmed cases have increased, this is unusually earlier than would be expected for the RSV season in Wales.

During Week 23 (ending 12/06/2022) there were four cases of influenza confirmed with a further three cases reported late from samples in preceding weeks . COVID-19 cases continue to be detected in symptomatic patients in hospital and in the community. There has been an earlier than usual start of seasonal RSV activity, with current incidence in children under 5 years of age at levels that would indicate medium levels of activity compared to the previous 10 years. Rhinovirus and parainfluenza are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI), with increasing confirmed cases in recent weeks.

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during week 23 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 146.4 per 100,00 practice population during Week 23, this is an increase compared to the previous week (83.1 per 100,000) (Table 2). Weekly consultations increased for Lower Respiratory Tract Infections and 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 23 decreased to 17.5% (Figure 8).
- During Week 23, 1,118 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 (one A(H3N2)), 38 RSV, 87 SARS-CoV2, 171 rhinoviruses, 72 parainfluenza, 53 adenoviruses, ten enteroviruses and six human metapneumoviruses detected in Week 23 (Figure 4). Additionally, 2,017 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 2,017 samples, three were positive for untyped influenza A, two were positive for RSV and 86 were positive for SARS-CoV2 (Figure 5). 80 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 three surveillance samples from patients with ILI collected by **sentinel GPs** during Week 23 (as at 15/06/2022), one sample was positive for rhinovirus, one for parainfluenza and one was negative for all routinely tested respiratory pathogens.
- **Confirmed RSV case incidence in children aged under 5 decreased, and is now at the threshold that would usually indicate low levels of circulation.** In week 23 there were 19.3 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 23, 18 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, all were reported as COVID-19 outbreaks. Thirteen outbreaks were in residential homes and five were in a community, mixed or other setting .
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not significantly in excess during week 22.

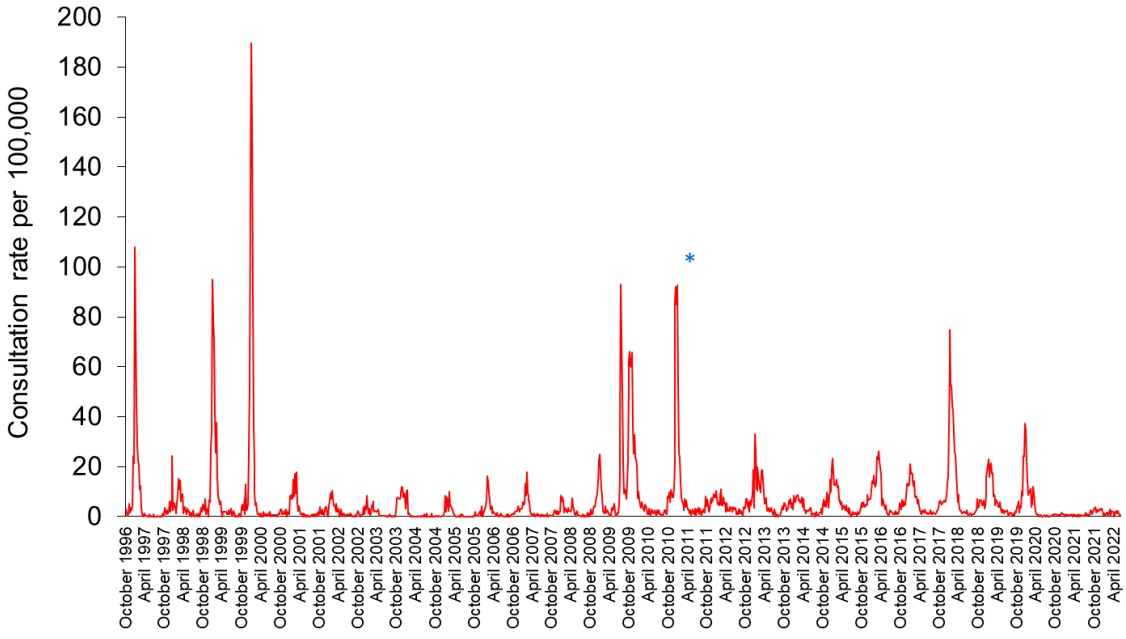
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 12/06/2022).



* 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 23 2022).



* Reporting changed to Audit+ surveillance system

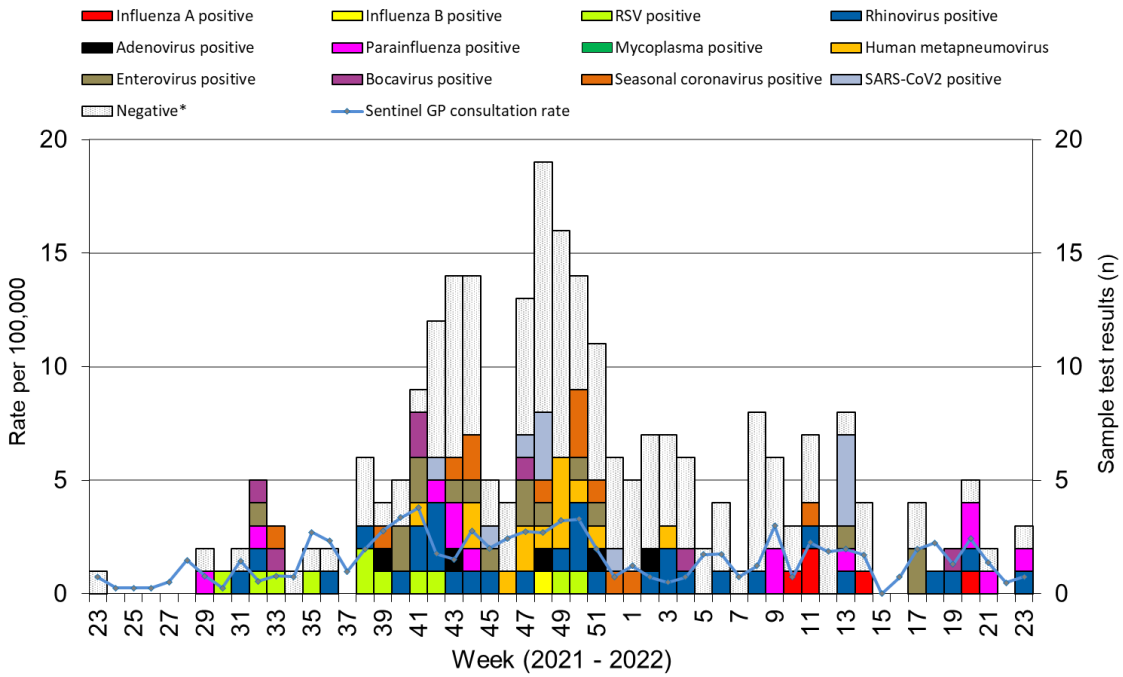
Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 18 – week 23 2022 (as of 12/06/2022).

Age group	18	19	20	21	22	23
< 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	2.5	0.0	0.0
15 - 24	2.2	4.7	2.3	0.0	0.0	0.0
25 - 34	2.0	0.0	10.3	2.2	0.0	2.0
35 - 44	0.0	2.1	4.2	2.2	0.0	2.0
45 - 64	2.8	1.0	0.0	2.1	2.0	1.0
65 - 74	6.6	2.3	0.0	0.0	0.0	0.0
75+	2.3	0.0	2.4	0.0	0.0	0.0
Total	**2.2**	**1.3**	**2.3**	**1.4**	**0.5**	**0.8**

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 18 – week 23 2022 (as of 12/06/2022).

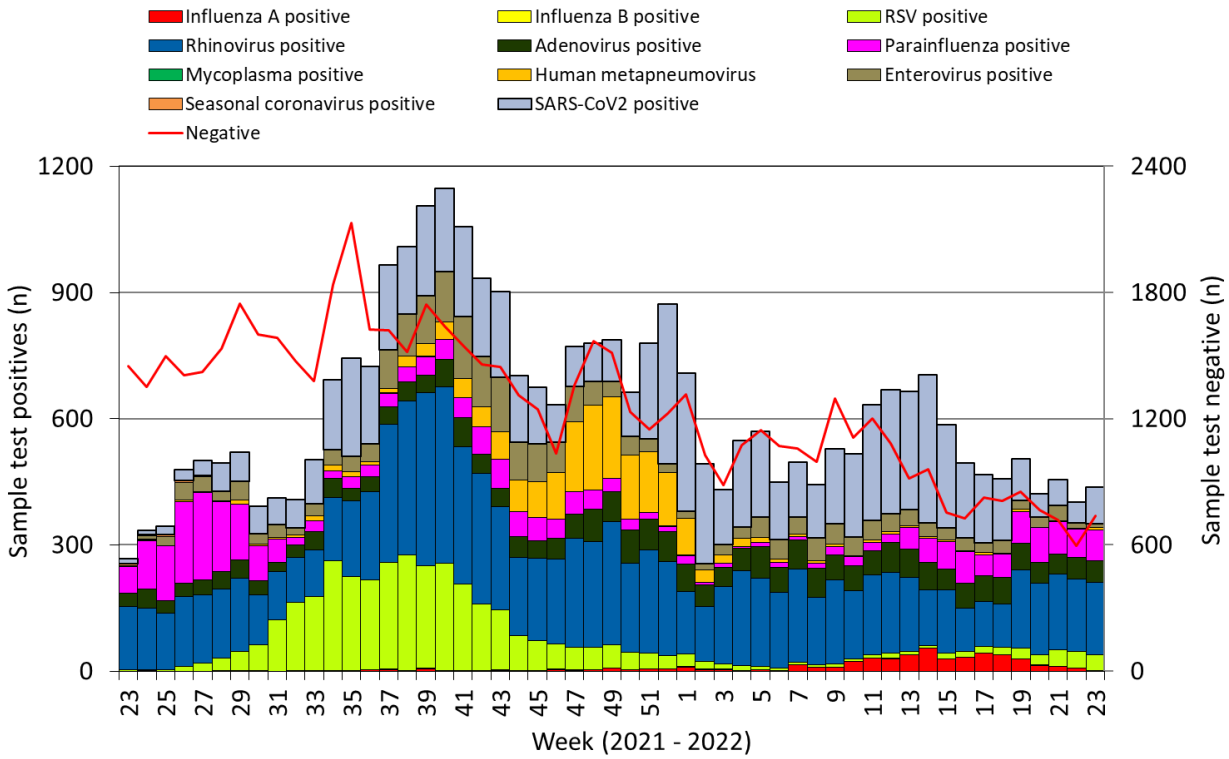
Age group	18	19	20	21	22	23
< 1	475.7	563.5	1056.8	1098.9	560.6	810.4
1 - 4	484.9	453.6	684.7	740.3	290.7	584.8
5 - 14	135.2	119.8	175.0	186.9	90.9	137.4
15 - 24	109.8	90.9	130.6	114.8	84.7	116.1
25 - 34	109.9	119.8	115.6	93.7	80.3	153.9
35 - 44	75.8	64.9	110.9	96.7	57.0	133.1
45 - 64	101.3	82.0	100.5	87.7	66.4	113.8
65 - 74	110.1	93.8	98.4	77.3	76.9	138.7
75+	120.6	110.9	79.5	124.4	53.4	86.6
Total	**123.8**	**111.3**	**141.1**	**137.3**	**83.1**	**146.4**

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 12/06/2022, by week of sample collection, week 23 2021 to week 23 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 12/06/2022 by week of sample collection, week 23 2021 to week 23 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 12/06/2022 by week of sample collection, week 23 2021 to week 23 2022.

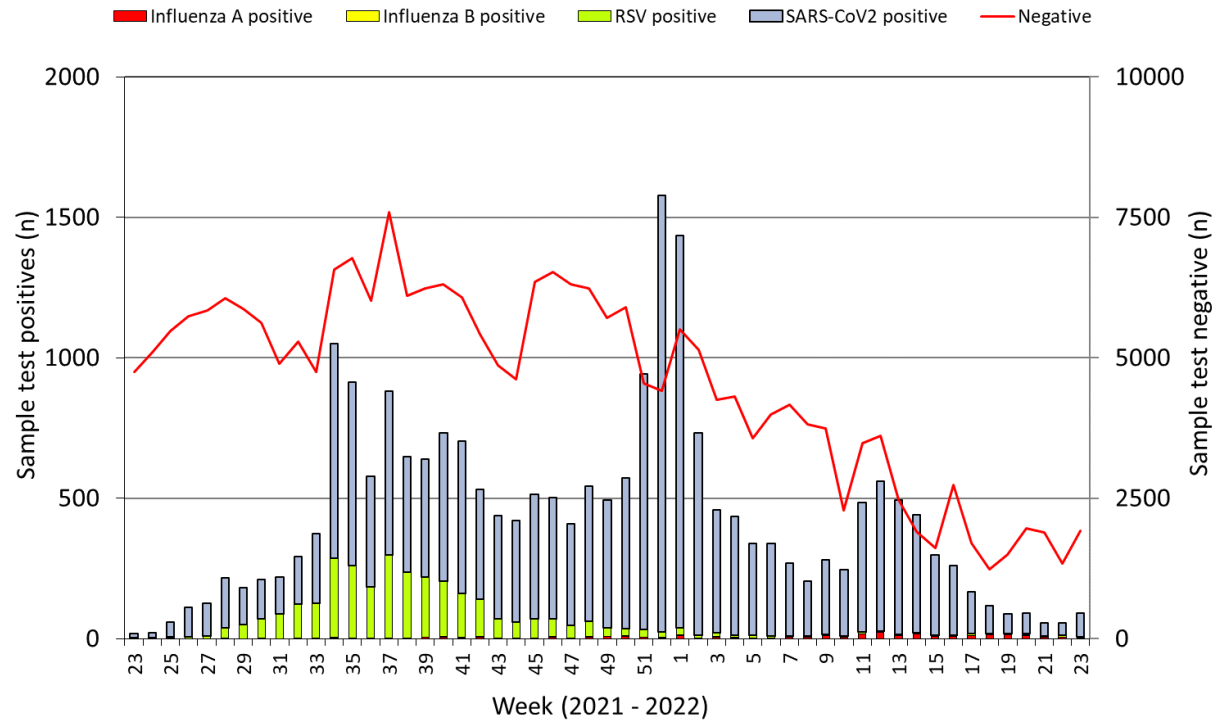
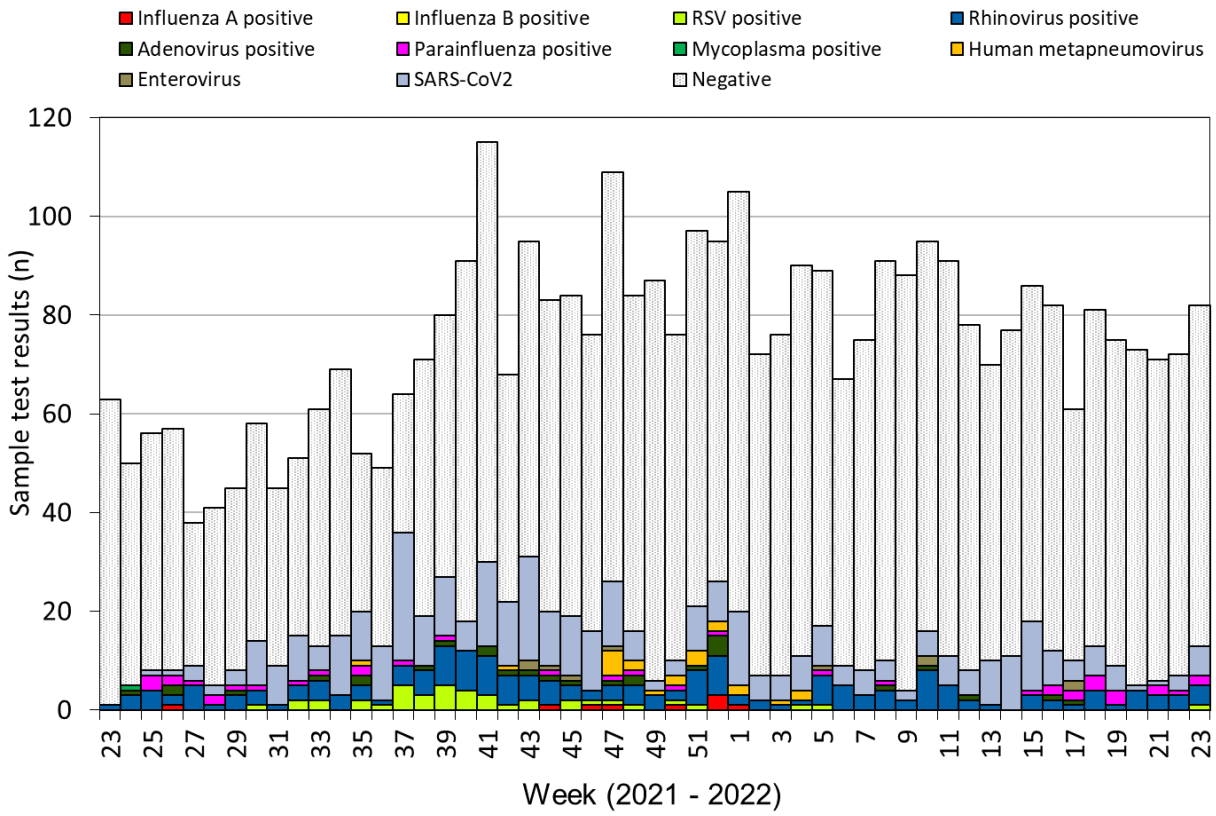
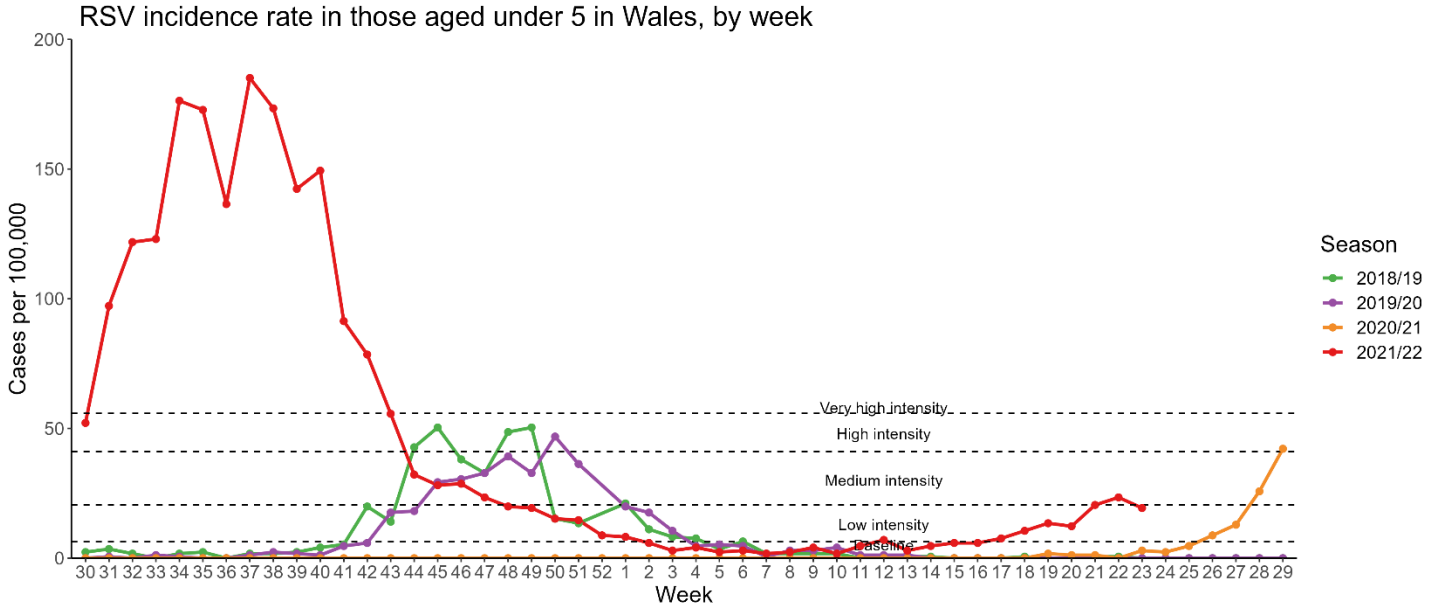


Figure 6. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 23 2021 to Week 23 2022.



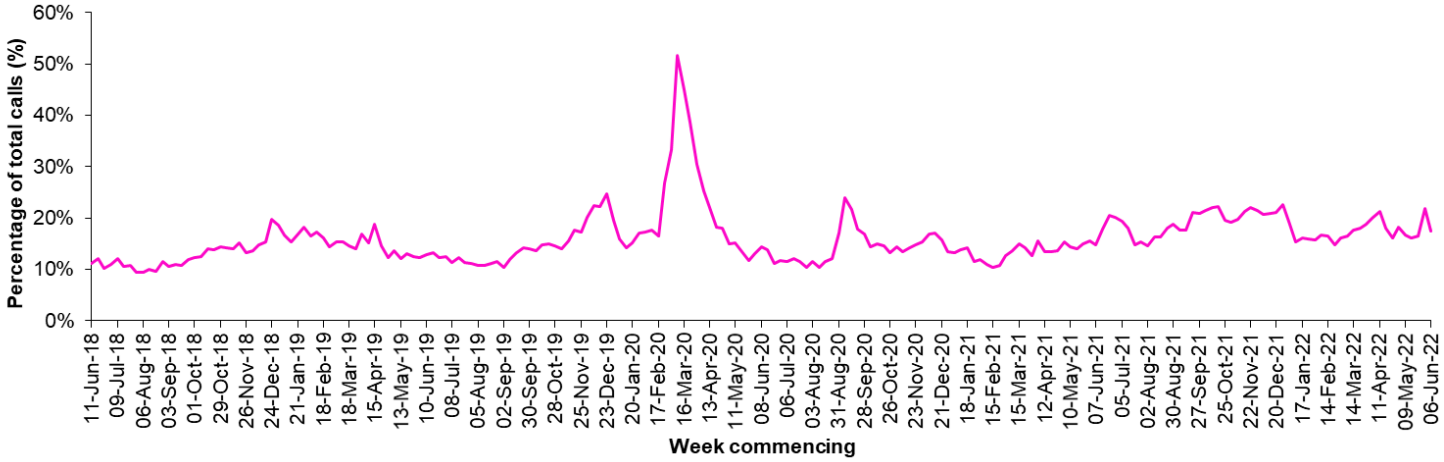
This chart summarises respiratory panel test data and does not include data for patients tested SOLEY for SARS-CoV2. Samples which test positive for more than on pathogen will appear more than once in the chart.

Figure 7. RSV incidence rate per 100,000 population aged under five years, week 30 2017 to Week 23 2022.



Calls to NHS Direct Wales

Figure 8. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 23 2018 - Week 23 2022 (as of 12/06/2022).



[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 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	55.7%
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 22, community and syndromic influenza indicators remain low in the UK. GP ILI consultations decreased in Northern Ireland to 0.2 per 100,000 and in Scotland to 0.5 per 100,000 - well below the baseline intensity thresholds. The weekly ILI GP consultation rate in England reported through the RCGP system decreased to 0.6 per 100,000, well below the MEM threshold for baseline activity (12.2 per 100,000).
- During week 22, 41 samples tested positive for influenza (including 6 influenza A(H3N2), 1 influenza A(H1N1)pdm09, 30 influenza A(not subtyped) and four 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 20, influenza activity continues to be reported in some countries in the WHO European Region. During week 20, a total of 1,034 sentinel specimens were tested for influenza, 77 of which were positive, 72 influenza A (60 influenza A(H3), two influenza A(H1)pdm09 and 10 influenza A(not subtyped)) and five influenza B.
  Source: Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 13/06/2022 that globally, influenza activity continued to decrease, following a peak in March 2022. In the temperate zones of the southern hemisphere, overall influenza activity increased slightly in recent weeks. Detections of influenza A and respiratory syncytial virus (RSV) sharply increased in some regions of Australia. Influenza detections continued to increase in South Africa though the detections rate was at low levels. In temperate South America, influenza activity of predominately influenza A(H3N2) decreased in Argentina and Paraguay but increased in Chile and Uruguay. In the Caribbean and Central American countries, low influenza activity was reported with influenza A(H3N2) predominant. In tropical South America, low influenza activity was reported with influenza A(H3N2) predominant. In tropical Africa, influenza activity remained low. In Southern and South-East Asia, influenza virus detections were at low levels overall. In North America, influenza activity continued to decrease. In Europe, influenza activity continues to decline, with influenza A(H3N2) predominant. In Northern Africa, Tunisia reported a single influenza B detection. In Western Asia, there was an increase in influenza, specifically in Qatar.
- Based on FluNet reporting (as of 10/06/2022), during the time period from 16/05/2022 – 29/05/2022, National Influenza Centres and other national influenza laboratories from 112 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 247,215 specimens during that time period, 14,614 were positive for influenza viruses, of which 14,322 were typed as influenza A (of the subtyped influenza A viruses, 154 were influenza A(H1N1)pdm09 and 3,311 were influenza A(H3N2)) and 292 influenza B (of the characterised influenza B viruses none belonged to B-Yamagata lineage and 66 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 22 (ending 04/06/2022) seasonal influenza viruses continue to circulate, and activity is increasing in some parts of the United States. Nationally, 3,365 (5.9%) out of 57,221specimens have tested positive for influenza in week 22, of these positives 3,332 (99.0%) were influenza A and 33 (1.0%) were influenza B. Further characterisation has been carried out on 12,378 specimens by public health laboratories, and 182 samples tested positive for influenza, all influenza A (110 influenza A(H3N2), 1 influenza A (H1N1)pdm09 and 71 influenza A(not subtyped).
  Source: CDC Weekly US Influenza Surveillance Report: http://www.cdc.gov/flu/weekly/

- The Public Health Agency of Canada reported that during week 22, influenza activity continues to decrease but remains above the epidemic threshold. The percentage of visits to healthcare professionals that were due to ILI was 1.1% in week 22. The percentage of tests positive for influenza decreased to 8.5% during week 22.
  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. Since then cases have decreased, although with signs of an increasing trend again in the most recent weeks.
  Source: CDC RSV national trends: https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html

COVID-19 – UK and international summary

- As of 09/06/2022, the new positive PCR episodes for the most recent 7-day reporting period were 8 per 100,000 population. There were 11 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period reported to Public Health Wales. There were 33 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/
- As at 14/06/2022, there have been 22,239,292 reported confirmed cases of COVID-19 in the UK, of which 57,629 were newly reported in the previous 7 days. The total deaths within 28 days of a positive test was 177,977. Latest UK data is available from: https://coronavirus.data.gov.uk/
- As at 14/06/2022, WHO have reported 533,816,957confirmed COVID-19 cases globally, with 258,020 reported in the previous 24 hours. There have been 6,309,633 deaths, of which 559 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 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 (08/04/2022 to 13/05/2022) 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
  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**