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

Wednesday 27th July 2022 (covering week 29 2022)

Current level of influenza activity: *Low*
Influenza activity trend: *Stable*
Confirmed influenza cases since 2021 week 40: 843 *(406 influenza A(H3N2), 55 influenza A(H1N1)pdm09, 323 influenza A(not subtyped) and 59 influenza B)*

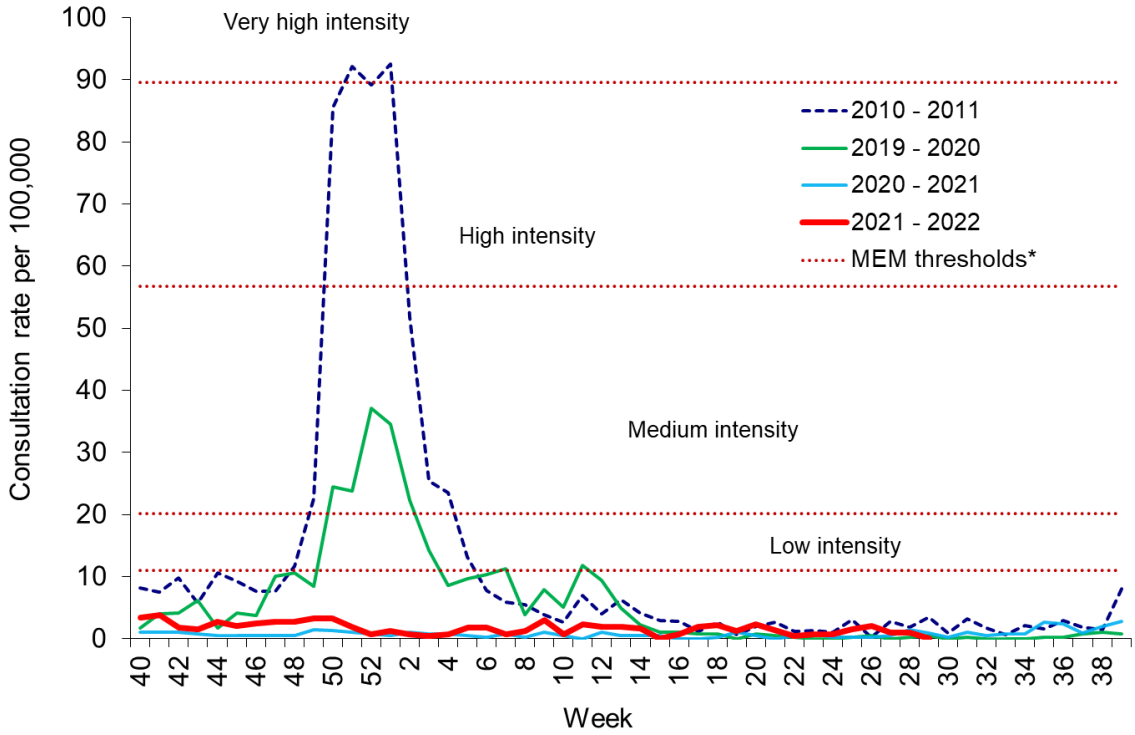
Key points – Wales

Confirmed influenza cases continue to be seen at low levels, while RSV confirmed cases remain at high/ very high levels. During Week 29 (ending 24/07/2022) there were 7 cases of influenza. COVID-19 cases continue to be detected in symptomatic patients in hospital 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), with increasing confirmed cases in recent weeks.

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during week 29, was 0 consultations per 100,000 practice population (Table 1). This is a decrease compared to the previous week (1.0 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 Respiratory Infections (ARI)** was 143.7 per 100,00 practice population during Week 29, this is a decrease compared to the previous week (164.4 per 100,000) (Table 2). Weekly consultations decreased 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 29 decreased to 19.8% (Figure 8).
- During Week 29, 999 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There were three influenza (2 A(H1N1) and 1 A(H3N2)), 109 RSV, 168 SARS-CoV2, 125 rhinoviruses, 43 parainfluenza, 118 adenoviruses, and 11 enteroviruses detected in Week 29 (Figure 4). Additionally, 2,072 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 2,072 samples, four were positive for influenza A, 20 were positive for RSV and 250 were positive for SARS-CoV2 (Figure 5). 85 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 29 (as at 27/07/2022), of which two samples tested positive for RSV and one for SARS-CoV2 (Figure 3).
- **Confirmed RSV case incidence in children aged under 5 has decreased but remains at very high-intensity levels. Although there has been a genuinely early start to the RSV season this year, it is possible that higher numbers of cases are being detected this season, in part, due to increased testing activities.** In week 29 there were 56.2 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 29, 39 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, and all of them were reported as COVID-19. Thirty-seven outbreaks were in residential homes, and two in hospitals.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not significantly in excess during week 28.

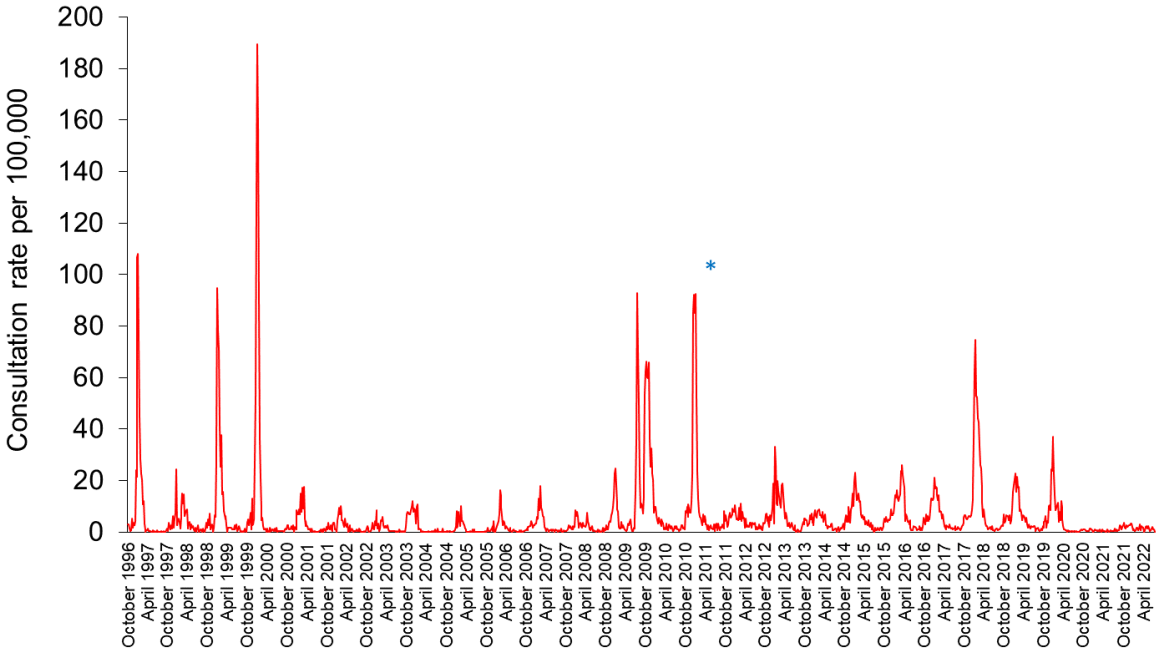
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 24/07/2022).



* 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 29 2022).



* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 24 – week 29 2022 (as of 24/07/2022).

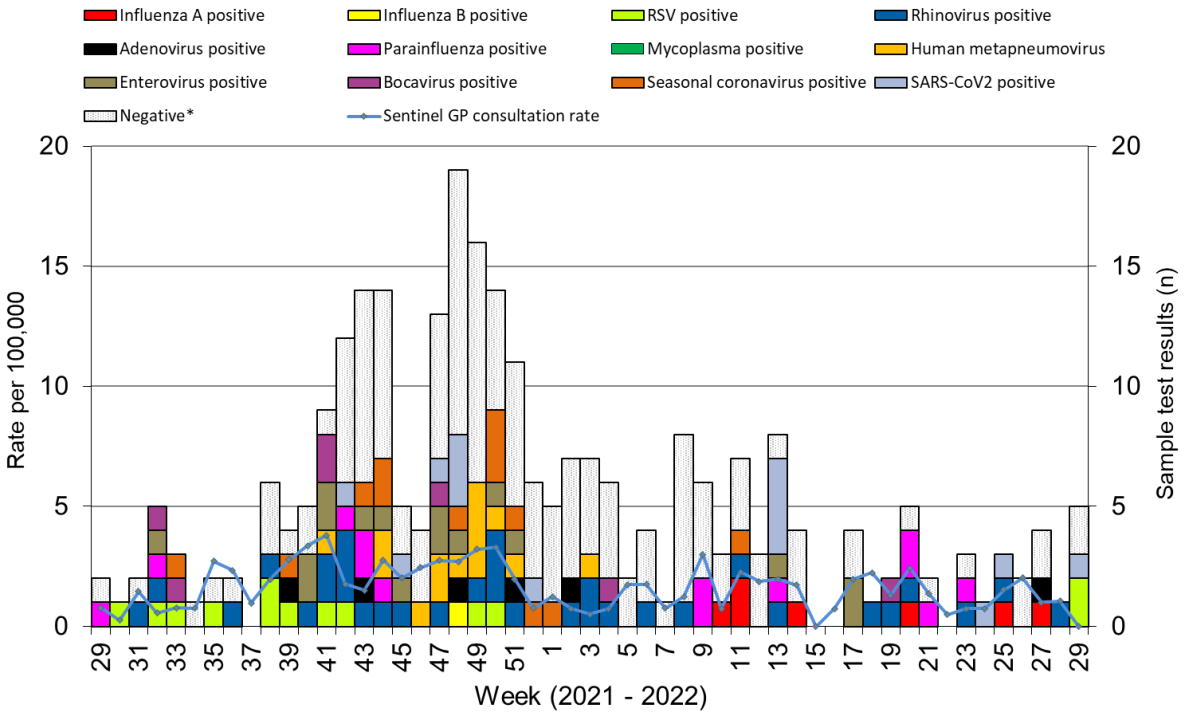
Age group	24	25	26	27	28	29
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	0.0	0.0	0.0	0.0	0.0
5 - 14	0.0	0.0	0.0	0.0	0.0	0.0
15 - 24	0.0	2.3	0.0	0.0	4.6	0.0
25 - 34	4.0	2.0	2.0	0.0	2.0	0.0
35 - 44	0.0	0.0	2.0	0.0	0.0	0.0
45 - 64	1.0	1.9	4.7	2.9	1.0	0.0
65 - 74	0.0	4.5	2.3	0.0	0.0	0.0
75+	0.0	0.0	0.0	2.3	0.0	0.0
Total	**0.7**	**1.5**	**2.0**	**1.0**	**1.0**	**0.0**

*No data reported on week 29

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 24 – week 29 2022 (as of 24/07/2022).

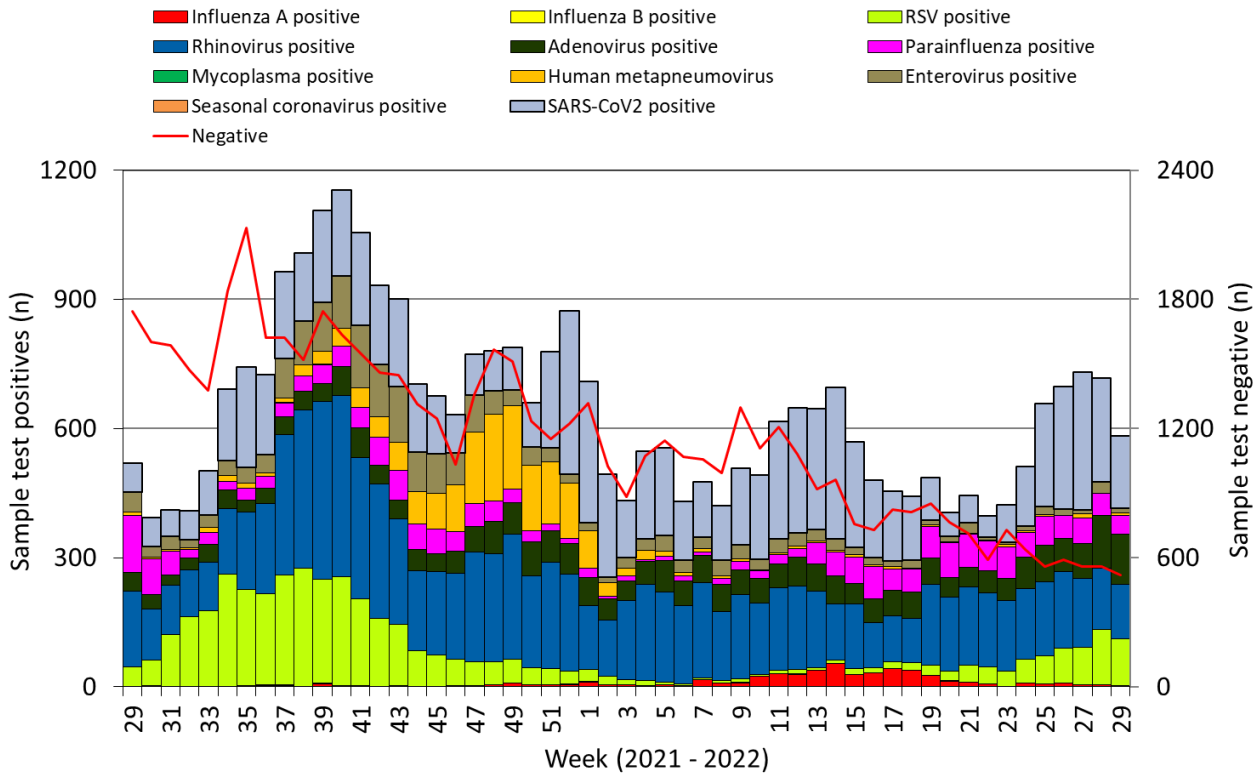
Age group	24	25	26	27	28	29
< 1	960.0	1020.1	1041.3	1184.0	1314.1	1382.3
1 - 4	533.3	762.3	755.5	767.1	830.0	863.3
5 - 14	198.9	180.1	213.1	217.5	229.2	172.0
15 - 24	134.1	105.0	113.3	146.7	146.6	115.4
25 - 34	119.1	128.0	138.9	127.8	117.8	90.9
35 - 44	126.4	129.3	114.0	104.8	108.9	122.7
45 - 64	100.9	117.6	127.1	135.4	103.0	86.0
65 - 74	142.0	131.8	117.1	129.9	120.9	89.8
75+	123.5	135.1	136.6	156.4	125.9	104.6
Total	**150.3**	**159.8**	**164.8**	**173.5**	**164.4**	**143.7**

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 24/07/2022, by week of sample collection, week 29 2021 to week 29 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 24/07/2022 by week of sample collection, week 29 2021 to week 29 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 24/07/2022 by week of sample collection, week 29 2021 to week 29 2022.

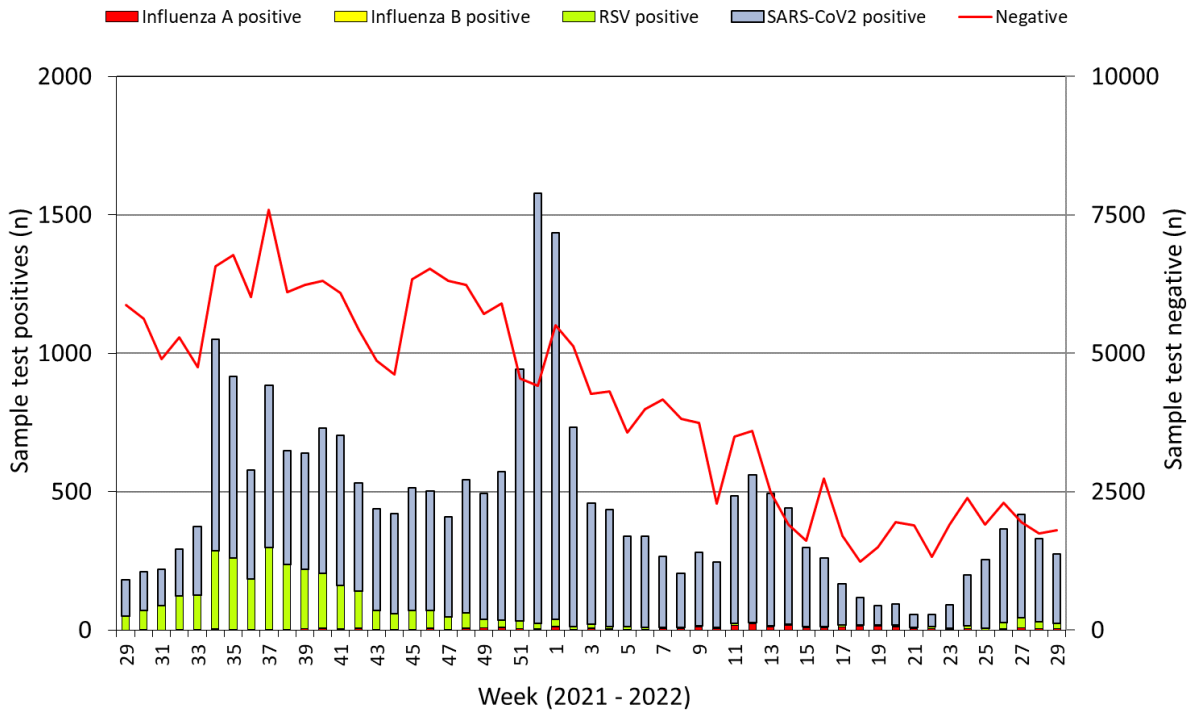
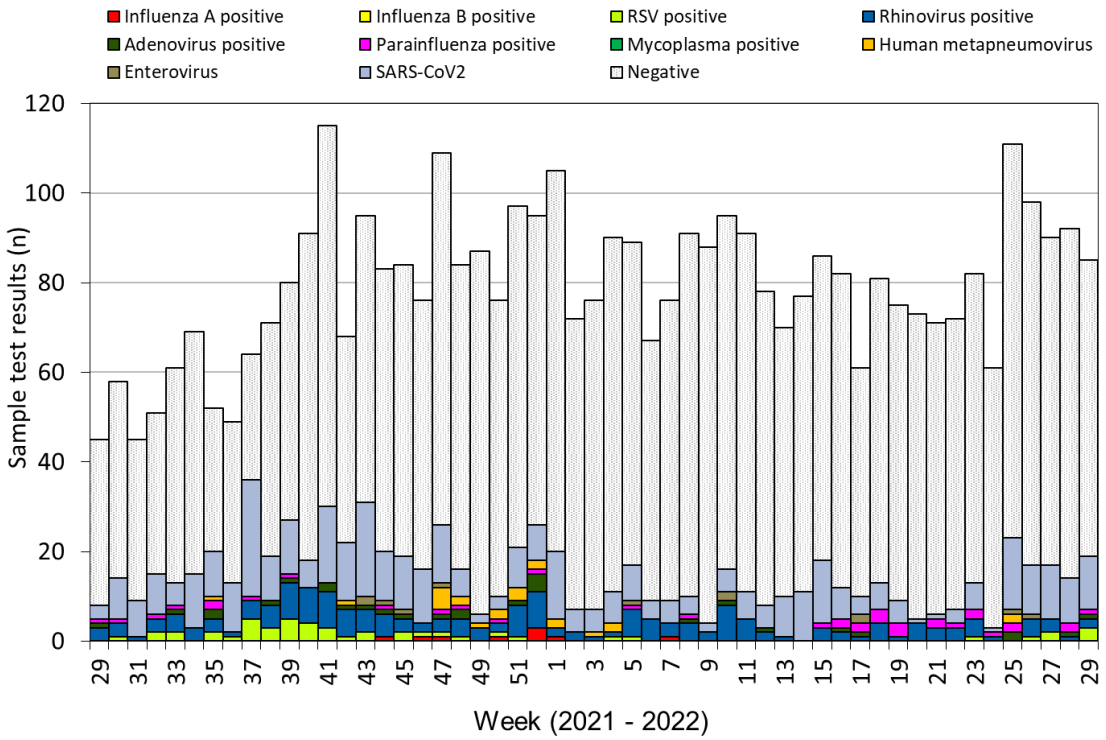
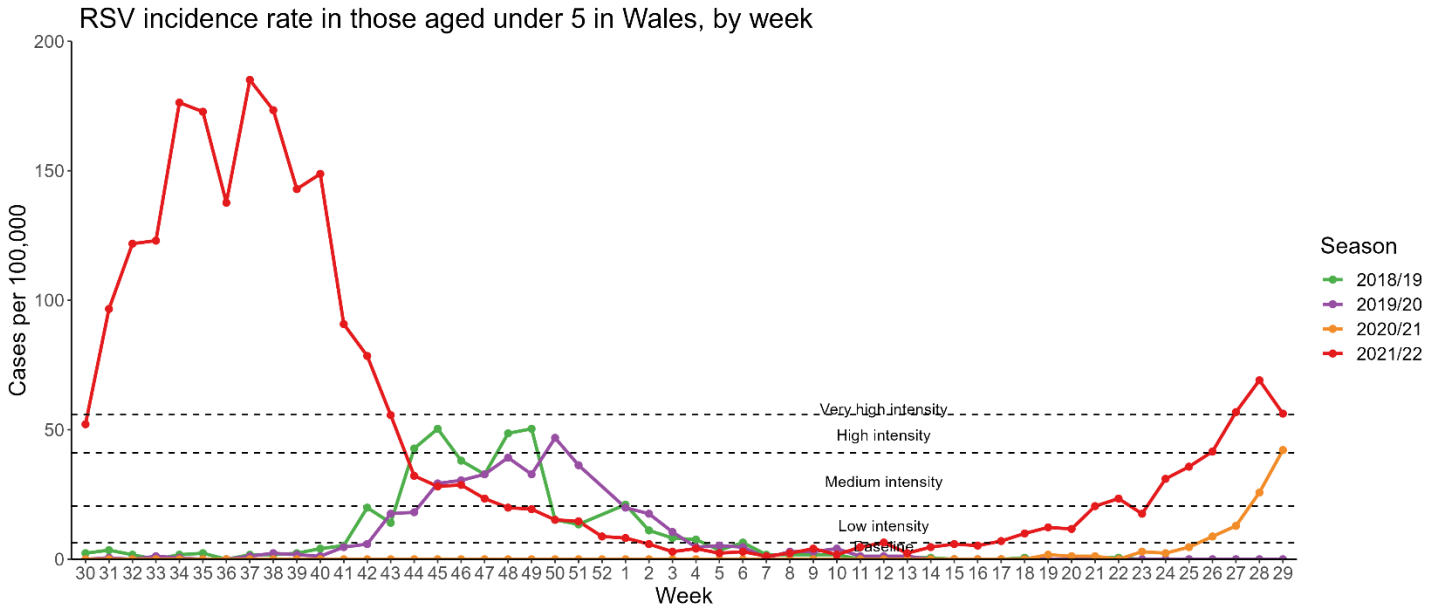


Figure 6. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 29 2021 to Week 29 2022.



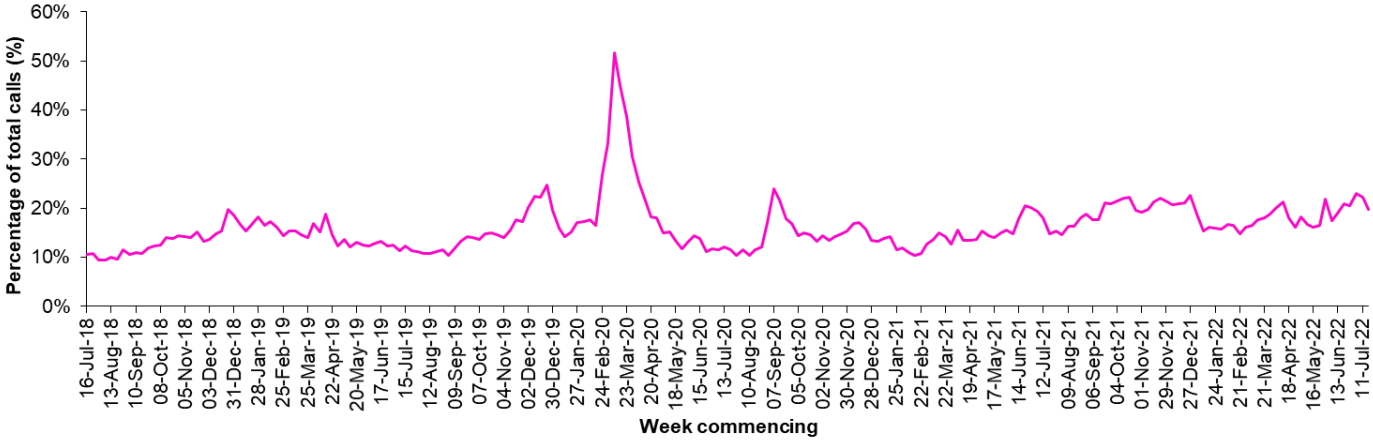
This chart summarises respiratory panel test data and does not include data for patients tested SOLEY for SARS-CoV2. Samples which test positive for more than on pathogen will appear more than once in the chart.

Figure 7. RSV incidence rate per 100,000 population aged under five years, week 30 2017 to Week 29 2022.



Calls to NHS Direct Wales

Figure 8. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 29 2018 - Week 29 2022 (as of 24/07/2022).



[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 28, community and syndromic influenza indicators remain low in the UK. GP ILI consultations decreased in Scotland to 0.6 per 100,000 and in Northern Ireland to 0.4 per 100,000 - well below the baseline intensity thresholds. The weekly ILI GP consultation rate in England reported through the RCGP system decreased to 0.9 per 100,000, well below the MEM threshold for baseline activity (12.2 per 100,000).
- During week 28, 26 samples tested positive for influenza (including 10 influenza A(H3N2), 1 A(H1N1), 14 influenza A(not subtyped) and 1 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) have entered a monthly reporting cycle for influenza and reported that activity across Europe remained at interseasonal levels during weeks 21-25. During week 25, a total of 1,002 sentinel specimens were tested for influenza, 28 of which were positive, all influenza A (23 influenza A(H3), two influenza A(H1)pdm09 and three influenza A(not subtyped)).
  Source: Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 10/07/2022 that globally, influenza activity continued to decrease, following a peak in March 2022. In the temperate zones of the southern hemisphere, overall influenza activity, predominately A, appeared to decrease. Respiratory syncytial virus (RSV) detections have now decreased in Australia and South Africa.
- In temperate South America, influenza activity of predominately influenza A(H3N2) decreased. ILI activity remained low in Chile, at moderate level in Paraguay while increased in Uruguay. The RSV detection rate increased in Chile, remained elevated in Argentina but remained low in Paraguay and Uruguay.
- In the Caribbean and Central American countries, low influenza activity was reported with influenza A(H3N2) predominant. RSV activity was low in most countries apart from Dominican Republic and Nicaragua. A number of pneumonia cases was observed and was above the average level expected at this time of year. In tropical South America, low influenza activity was reported with influenza A(H3N2) predominant. In tropical Africa, influenza activity decreased, except in Côte d'Ivoire where there was an increase in detections of influenza A(H3N2) and influenza B/Victoria lineage. In tropical Asia, specifically, Nepal, Bangladesh, Malaysia, Singapore and Thailand there was an increase of A(H3N2) influenza.
- In North America, influenza activity continued to decrease, and is at levels typically observed at this time of the year. In Canada, influenza activity decreased and remained below the seasonal threshold. RSV detections remained low in most regions of the USA and Canada. In Europe, influenza activity remained at low levels, with influenza A(H3N2) predominant. In Northern Africa and Central Asia no influenza detections were reported. In Western Asia, there were few detections of influenza reported by Oman, and Saudi Arabia and there was a slight increase of influenza A(H1N1)pdm09 and A(H3N2) in United Arab Emirates.
- Based on FluNet reporting (as of 25/07/2022), during the time period from 27/06//2022 – 10/07/2022, 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 89,819 specimens during that time period, of which 4,386 were positive for influenza viruses., of which 4,323 were typed as influenza A (of the subtyped influenza A viruses, 95 were influenza A(H1N1)pdm09 and 2,587 were influenza A(H3N2)) and 63 influenza B (of the characterised influenza B viruses 19 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

Australia and New Zealand update

- In New Zealand, during the week ending 15/07/2022, community influenza-like illness activity (ILI) remained elevated, and activity remained higher than historical rates for this time of year. Through seasonal sentinel community influenza surveillance, 7 influenza cases were identified at sentinel practices during the week ending 17/07/2022.
  Source: Institute of Environmental Science & Research, New Zealand
  https://www.esr.cri.nz/our-services/consultancy/flu-surveillance-and-research
- In Australia, according to the latest available update (fortnight ending 17/07/2021), influenza-like illness (ILI) activity in the community this year peaked in May and June. The weekly number of laboratory confirmed influenza cases has surpassed the 5 year average. To date, the majority of nationally reported laboratory-confirmed influenza cases were influenza A (82.7%). Although numbers of confirmed cases are elevated compared to previous seasons, the impact as reported by FluCAN sentinel hospitals is described as minimal.
  Source: Australian Influenza Surveillance Report and Activity Updates.

https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm#current

Respiratory syncytial virus (RSV) in North America

- The USA CDC reported an out of season increase in RSV activity, beginning in February 2022. This follows out-of-season activity also reported during 2021.
  Source: CDC RSV national trends: https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html

COVID-19 – UK and international summary

- As of 20/07/2022, the new positive PCR episodes for the most recent 7-day reporting period were 35 per 100,000 population. There were 36 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period reported to Public Health Wales. There were 22 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 (14/05/2022 – 27/06/2022) 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://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**