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

Wednesday 24th August 2022 (covering week 33 2022)

Current level of influenza activity: *Low*
Influenza activity trend: *Stable*
Confirmed influenza cases since 2021 week 40: 862 *(407 influenza A(H3N2), 56 influenza A(H1N1)pdm09, 338 influenza A(not subtyped) and 61 influenza B)*

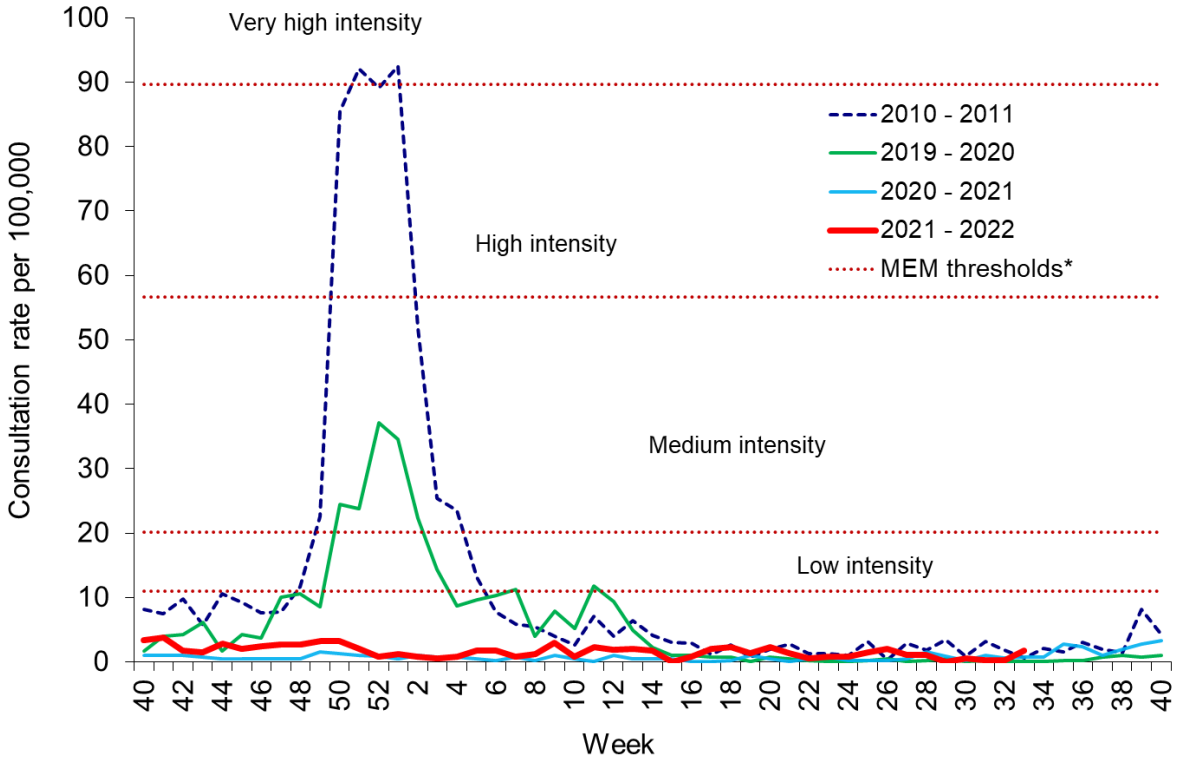
Key points – Wales

Confirmed influenza cases continue to be seen at low levels, while RSV confirmed cases are at medium levels. During Week 33 (ending 21/08/2022) there were 7 cases of influenza. 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 medium 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 decreasing confirmed cases in recent weeks.

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during week 33, was 1.81 consultations per 100,000 practice population (Table 1). This is an increase compared to the previous week (0.26 consultations per 100,000) and remains well 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 103.1 per 100,000 practice population during Week 33 (latest data available), this is a decrease compared to the previous week (105.6 per 100,000) (Table 2). Weekly consultations increased for Lower Respiratory Tract Infections and decreased 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 33 decreased to 13.9% (Figure 8).
- During Week 33, 731 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There were 6 influenza (1 A(H1N1), 4 A(H3N2) and 1 A(untypable), 48 RSV, 106 SARS-CoV2, 50 rhinoviruses, 13 parainfluenza, 41 adenoviruses, 6 enteroviruses and 1 human metapneumonoviruses detected in Week 33 (Figure 4). Additionally, 1,162 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 1,162 samples, one was positive for influenza A, six were positive for RSV and 91 were positive for SARS-CoV2 (Figure 5). Seventy five 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 was one surveillance sample from patients with ILI collected by **sentinel GPs** during Week 33 (as at 23/08/2022), which was negative (Figure 3).
- **Confirmed RSV case incidence in children aged under 5 has decreased, and remains at medium 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 33 there were 24.0 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 33, fifteen **ARI outbreaks** were reported to the Public Health Wales Health Protection team, and all of them were reported as COVID-19. All of the 15 **ARI outbreaks,** were reported in residential care homes.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not significantly in excess during week 32.

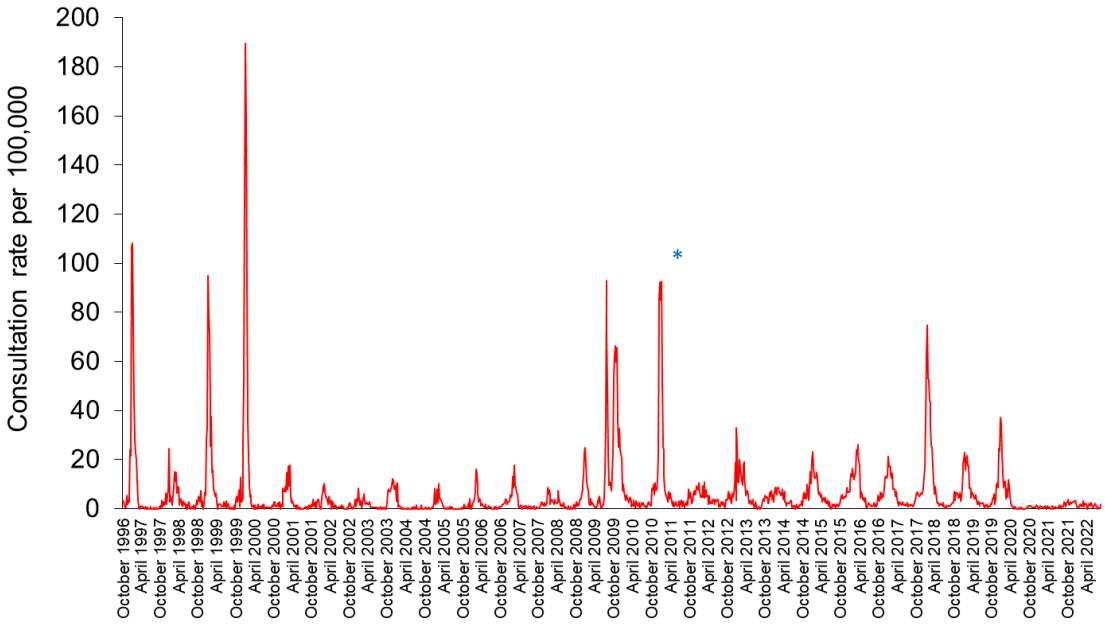
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 21/08/2022).



* 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 33 2022).



* Reporting changed to Audit+ surveillance system

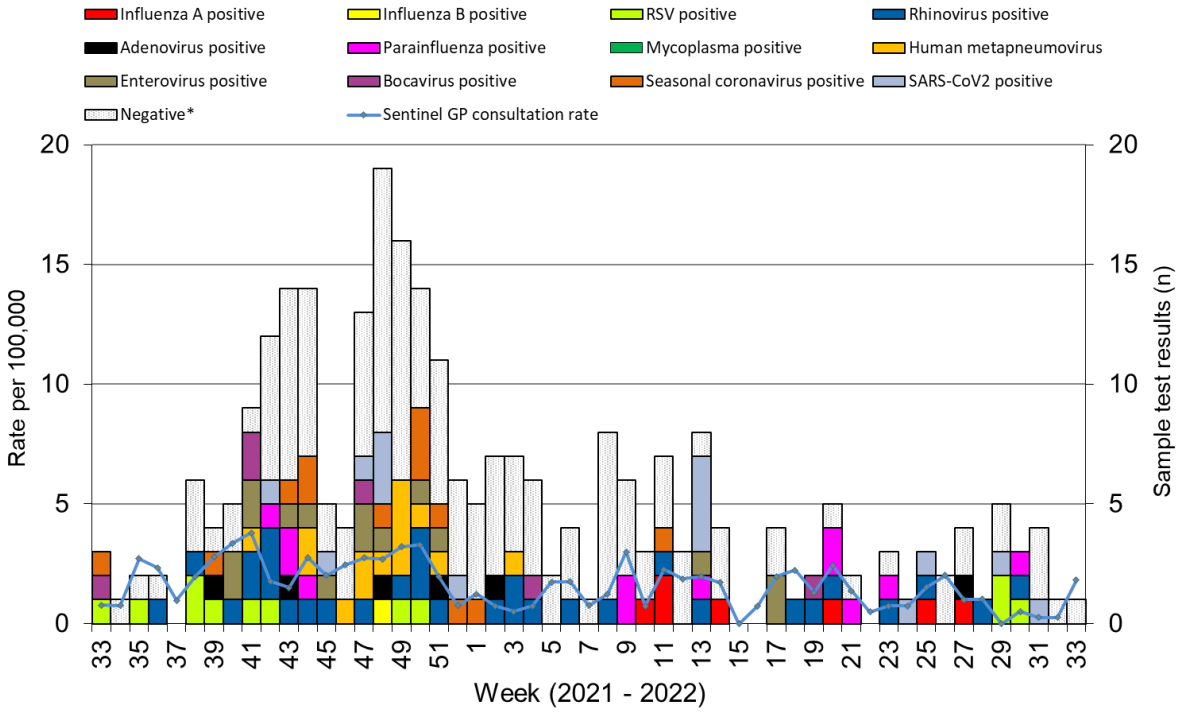
Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 28 – week 33 2022 (as of 21/08/2022).

Age group	28	29	30	31	32	33
< 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	4.6	0.0	0.0	0.0	0.0	5.4
25 - 34	2.0	0.0	2.0	0.0	0.0	0.0
35 - 44	0.0	0.0	0.0	0.0	0.0	4.8
45 - 64	1.0	0.0	0.0	1.0	1.0	2.3
65 - 74	0.0	0.0	0.0	0.0	0.0	0.0
75+	0.0	0.0	2.3	0.0	0.0	0.0
Total	**1.0**	**0.0**	**0.5**	**0.3**	**0.3**	**1.8**

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 28 – week 33 2022 (as of 21/08/2022).

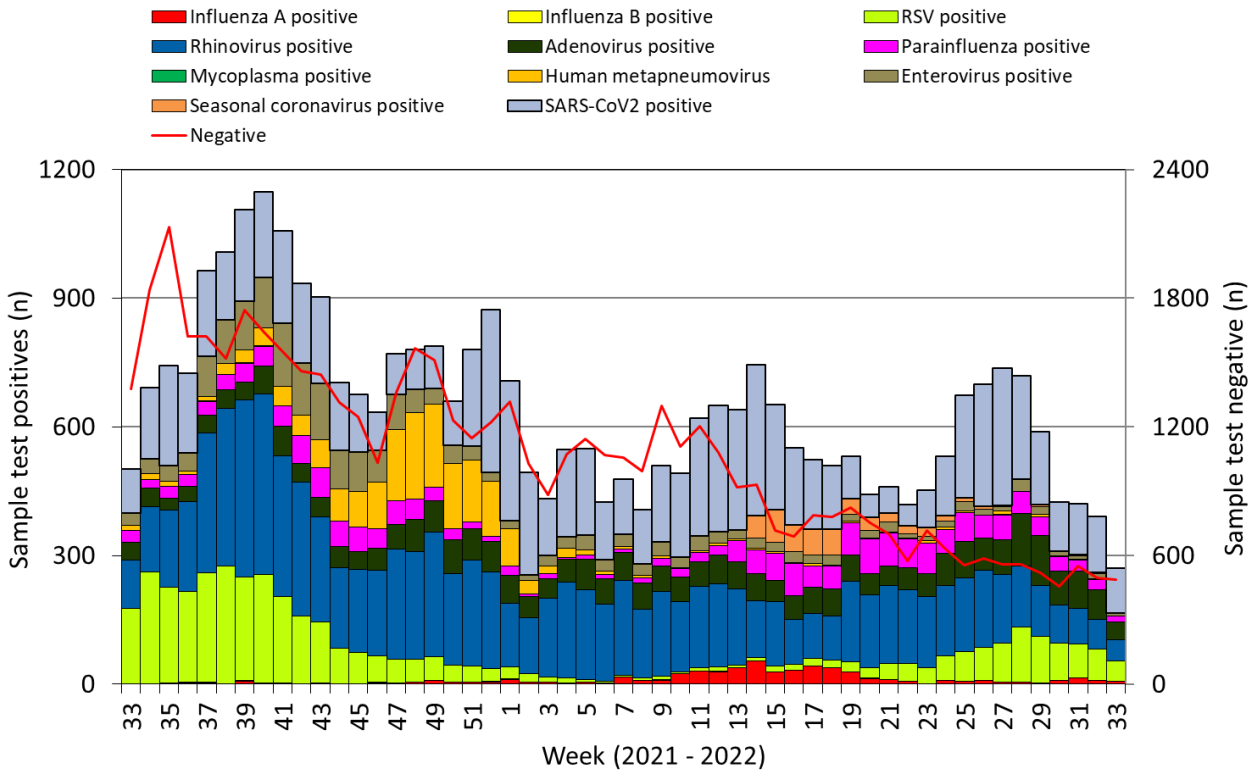
Age group	28	29	30	31	32	33
< 1	1314.1	1345.0	857.4	670.7	518.1	484.9
1 - 4	830.0	827.19	564.9	785.23	404.8	408.6
5 - 14	229.2	158.83	144.9	167.32	101.1	117.2
15 - 24	146.6	113.43	100.7	99.14	129.3	67.2
25 - 34	117.8	91.4	127.7	131.5	107.3	84.9
35 - 44	108.9	115.7	84.5	97.4	72.5	81.1
45 - 64	103.0	83.7	105.8	78.6	80.6	82.4
65 - 74	120.9	89.5	82.9	76.6	74.3	92.5
75+	125.9	98.4	91.0	101.3	85.4	104.3
Total	**164.4**	**139.0**	**128.0**	**131.8**	**105.6**	**103.1**

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 21/08/2022, by week of sample collection, week 33 2021 to week 33 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 21/08/2022 by week of sample collection, week 33 2021 to week 33 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 21/08/2022 by week of sample collection, week 33 2021 to week 33 2022.

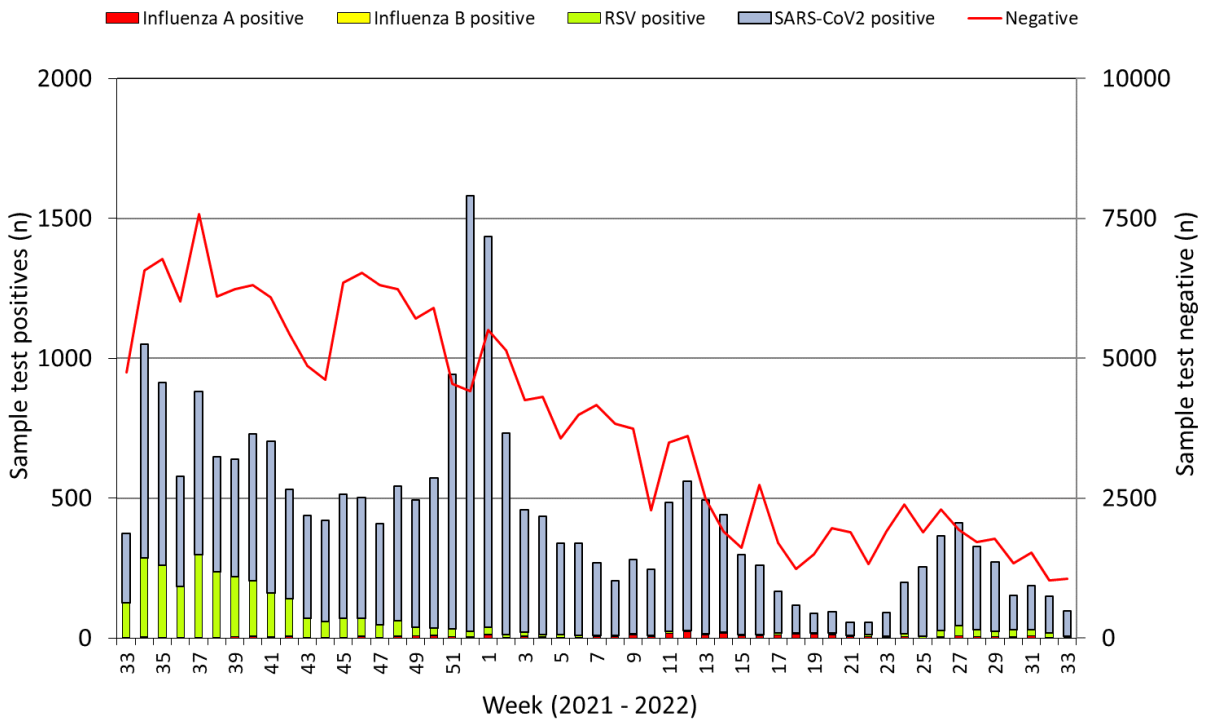
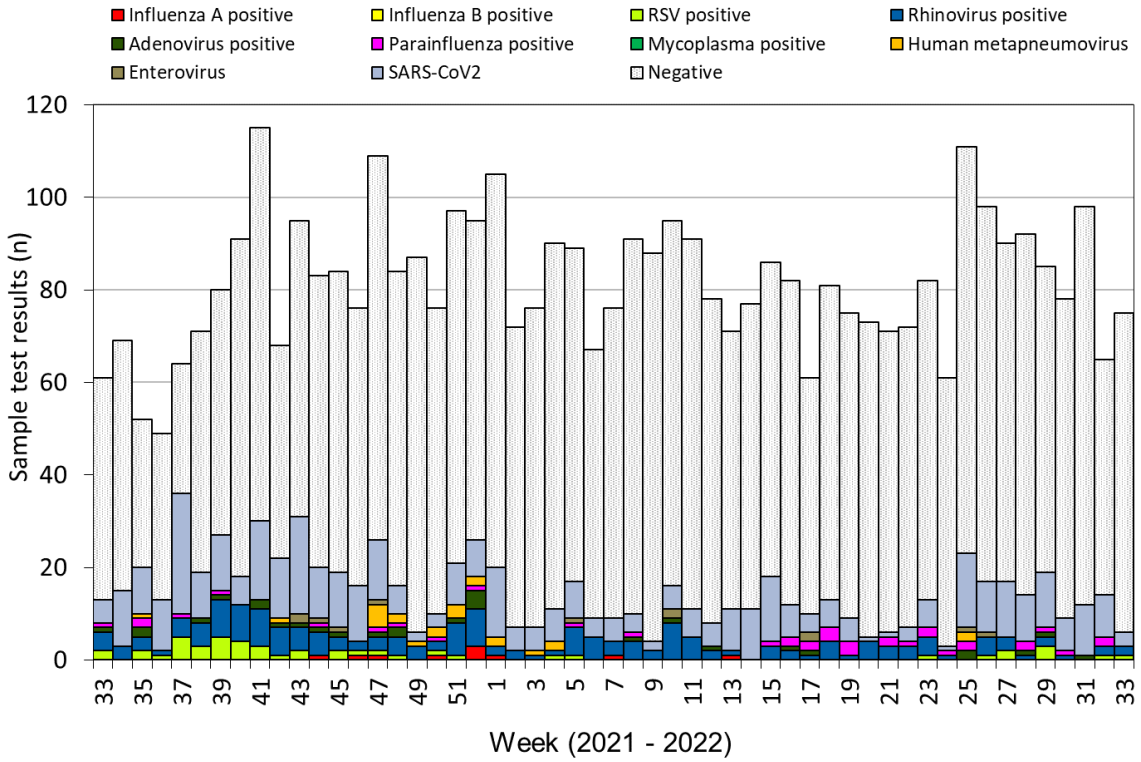
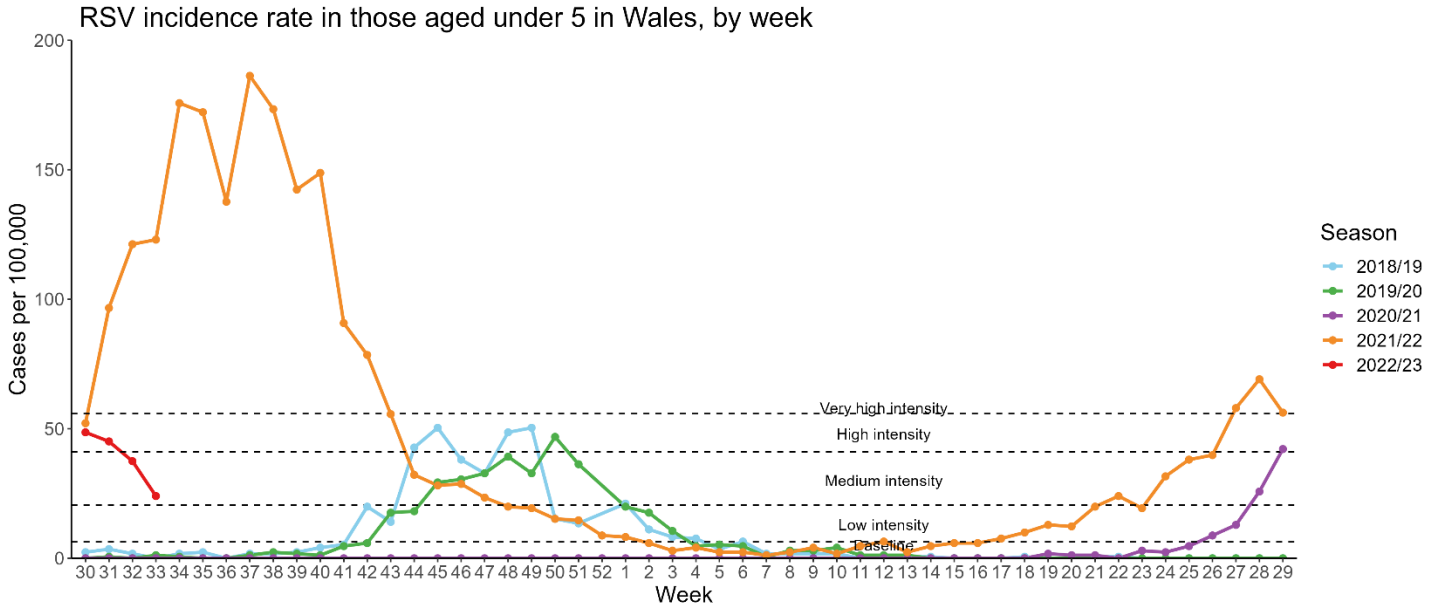


Figure 6. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 33 2021 to Week 33 2022.



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.

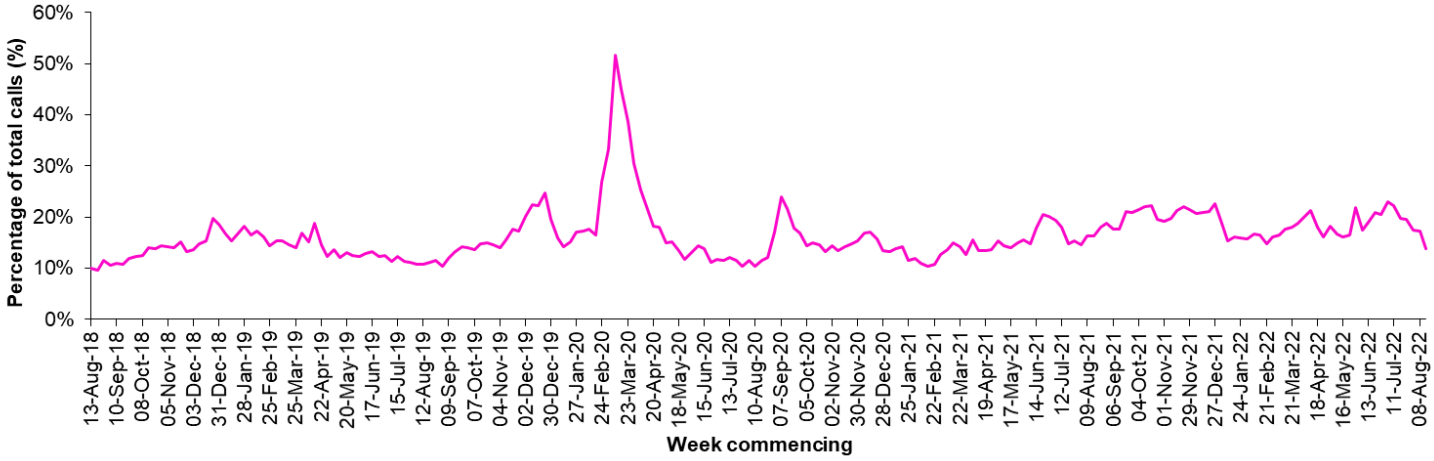
Figure 7. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 33 2022.



*RSV seasons are monitored from W30 to W29, the most recent data is presented in red

Calls to NHS Direct Wales

Figure 8. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 33 2018 - Week 33 2022 (as of 21/08/2022).



[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 32, community and syndromic influenza indicators remain low in the UK. GP ILI consultations, decreased in Northern Ireland to 0.2, and remained stable in Scotland at 0.4 per 100,000 - well below the baseline intensity threshold. 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 32, 30 samples tested positive for influenza (including 4 influenza A(H3N2), 22 A(not subtyped) and 4 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 26-30. During week 30, a total of 739 sentinel specimens were tested for influenza, 11 of which were positive, all influenza A (eight influenza A(H3), two influenza A(H1)pdm09 and one influenza A(not subtyped)).
  Source: Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 07/08/2022 that globally, influenza activity has steadily decreased, following a peak in March 2022. However, influenza detections in South East Asia have increased.
- In the temperate zones of the southern hemisphere, overall influenza activity, predominantly A, has continued to decrease.
- In South Africa, influenza detections remained stable while pneumonia and ILI surveillance in primary care decreased. In South America, influenza detections continued to decrease. SARS-CoV-2 detections increased in Argentina and Chile.
- In the Caribbean and Central American countries, low influenza activity was reported with influenza A(H3N2) predominant. SARS-CoV-2 activity increased in Costa Rica, Haiti, Honduras and Mexico. In the tropical region of South America influenza cases were low, however, SARS-CoV-2 activity was elevated.
- In tropical Africa, influenza activity decreased. There were few influenza A(H3N2) detections in Central African Republic and Ethiopia.
- In tropical Asia, specifically Southern Asia, influenza A(H1N1)pdm09 become predominant and increased in India. In South-East Asia, influenza, predominately A(H3N2), increased overall.
- In North America, influenza activity continued to decrease, and is at levels typically observed at this time of the year. RSV detections remained low in most regions of the USA and Canada. In Europe, influenza activity remained at inter-seasonal levels. In Northern Africa and Central Asia no influenza detections were reported. In Western Asia, few detections of influenza reported by Oman, and Saudi Arabia. Influenza A(H1N1)pdm09 and A(H3N2) continued to be detected in United Arab Emirates.
- Based on FluNet reporting (as of 22/08/2022), during the time period from 25/07/2022 – 07/08/2022, National Influenza Centres and other national influenza laboratories from 101 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 263,527 specimens during that time period, of which 6,193 were positive for influenza viruses, of which 5,960 were typed as influenza A (of the subtyped influenza A viruses, 292 were influenza A(H1N1)pdm09 and 4,423 were influenza A(H3N2)) and 233 influenza B (of the characterised influenza B viruses 48 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 12/08/2022, community influenza-like illness activity (ILI) increased slightly, however the rate is still below the mid-June peak and the historical rate for this time of year. There were no influenza cases identified at sentinel practices during the week ending 07/08/2022. There was no update for the week ending 14/08/2022. RSV detections have been observed in most New Zealand regions.
  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 14/08/2022), influenza-like illness (ILI) activity in the community this year peaked in May and June and has decreased since July. The weekly number of laboratory confirmed influenza cases has decreased below the weekly 5 year average since mid July. To date, the majority of nationally reported laboratory-confirmed influenza cases were influenza A (82.3%). 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. Activity has declined 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 17/08/2022, the new positive PCR episodes for the most recent 7-day reporting period were 15 per 100,000 population. There were 17 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period reported to Public Health Wales. There were 39 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**