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



Wednesday 28th September 2022 (covering week 38 2022)

Current level of influenza activity: Low

Influenza activity trend: Stable

Confirmed influenza cases since 2021 week 40: 1017 (494 influenza A(H3N2), 92 influenza A(H1N1)pdm09, 367

influenza A(not subtyped) and 64 influenza B)

Key points - Wales

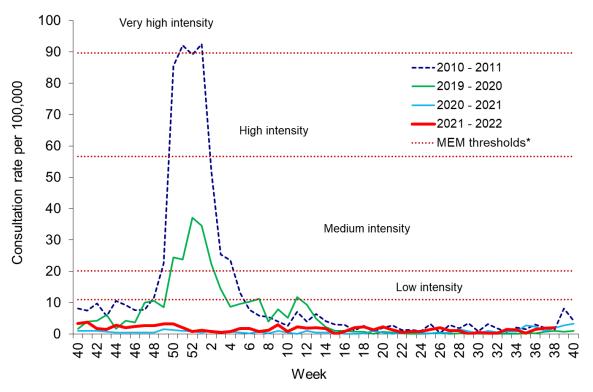
Confirmed influenza cases continue to be seen at low levels, likewise RSV confirmed cases are at low levels.

During Week 38 (ending 25/09/2022) there were 39 cases of influenza (an increase from the previous weeks), with one further case reported late from samples in a preceding week. 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 low levels of activity (compared to the 10 seasons leading up to 2020). Rhinovirus, adenovirus and RSV are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI). Rhinovirus detection have markedly increased during Week 38.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 38, was 2.0 consultations per 100,000 practice population (Table 1). This is an increase compared to the previous week (1.8 consultations per 100,000) but 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 122.5 per 100,000 practice
 population during Week 38, this is a decrease compared to the previous week (137.7 per 100,000) (Table 2).
 Weekly consultations decreased for 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 38 increased to 18% (Figure 8).
- During Week 38, 1,092 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There were 31 influenza (11 A(H1N1) and 20 A(H3N2)), 37 RSV, 21 parainfluenza, 267 rhinoviruses, one human metapneumonovirus, 37 adenoviruses, twelve enteroviruses, eight seasonal coronaviruses and 239 SARS-CoV2 detected in Week 38 (Figure 4). Additionally, 1,394 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 1,394 samples, eight were positive for influenza, twelve were positive for RSV and 126 were positive for SARS-CoV2 (Figure 5). Sixty-two respiratory specimens were tested from patients in intensive care units (ICU) and one was positive for influenza (Figure 6). For the latest COVID-19/ SARS-CoV2 surveillance data please see the PHW daily dashboard
- There were two surveillance samples from patients with ILI collected by **sentinel GPs** during Week 38, one sample tested positive for rhinovirus and one for both rhinovirus and SARS-CoV2 (as at 28/09/2022) (Figure 3).
- Confirmed RSV case incidence in children aged under 5 has increased, but remains at low intensity levels, and above the baseline threshold. In week 38 there were 16.4 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 37, 13 **ARI outbreaks** were reported to the Public Health Wales Health Protection team, and all of them were reported as COVID-19. All of the 13 **ARI outbreaks** were reported in residential care homes.
- According to EuroMoMo analysis, all-cause deaths in Wales were not significantly in excess during week 37.

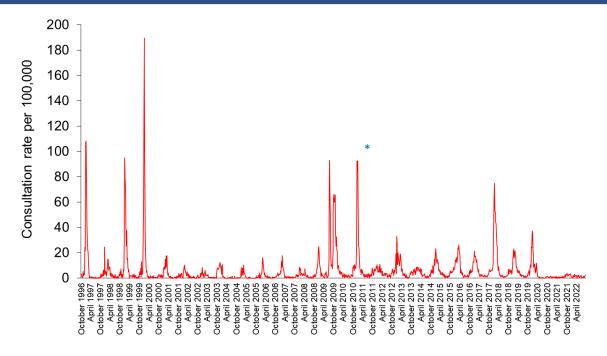
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 25/09/2022).



^{*} 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 38 2022).



^{*} Reporting changed to Audit+ surveillance system

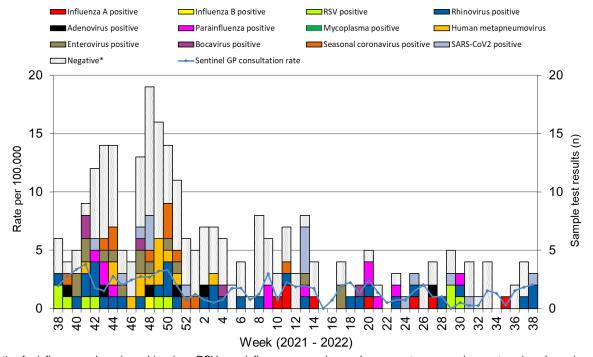
Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 33 – week 38 2022 (as of 25/09/2022).

Age						
group	33	34	35	36	37	38
< 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	2.4	0.0	0.0	0.0	0.0
15 - 24	4.6	2.4	0.0	0.0	7.2	2.6
25 - 34	0.0	0.0	0.0	6.1	4.2	2.3
35 - 44	4.1	0.0	0.0	0.0	2.1	2.3
45 - 64	1.9	1.0	1.0	1.0	0.0	2.2
65 - 74	0.0	2.3	0.0	4.5	2.3	2.6
75+	0.0	2.4	0.0	0.0	0.0	2.6
Total	1.5	1.3	0.3	1.5	1.8	2.0

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 33 – week 38 2022 (as of 25/09/2022).

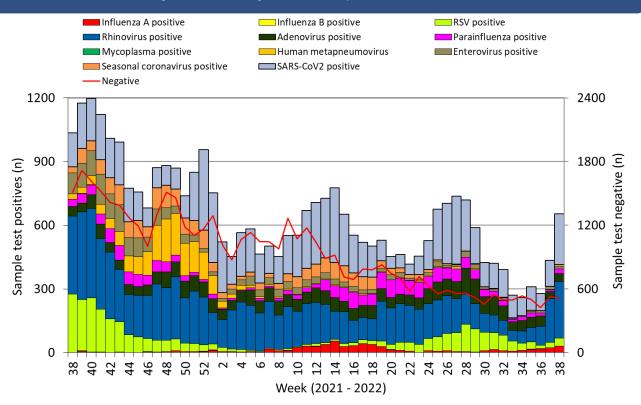
Age						
group	33	34	35	36	37	38
< 1	450.9	625.8	448.4	710.4	814.1	1188.7
1 - 4	385.8	330.5	212.4	396.3	466.7	521.7
5 - 14	118.9	85.4	70.7	96.6	179.5	186.8
15 - 24	78.9	75.8	97.0	143.2	159.6	109.9
25 - 34	83.6	101.9	99.2	125.4	121.6	82.9
35 - 44	85.9	48.3	66.8	74.9	98.8	97.6
45 - 64	78.3	72.9	57.5	92.9	93.5	73.6
65 - 74	88.6	83.1	65.3	96.9	96.2	66.7
75+	89.8	70.1	51.7	117.2	134.8	115.9
Total	100.8	89.6	78.6	119.5	137.7	122.5

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 25/09/2022, by week of sample collection, week 38 2021 to week 38 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 25/09/2022 by week of sample collection, week 38 2021 to week 38 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 25/09/2022 by week of sample collection, week 38 2021 to week 38 2022.

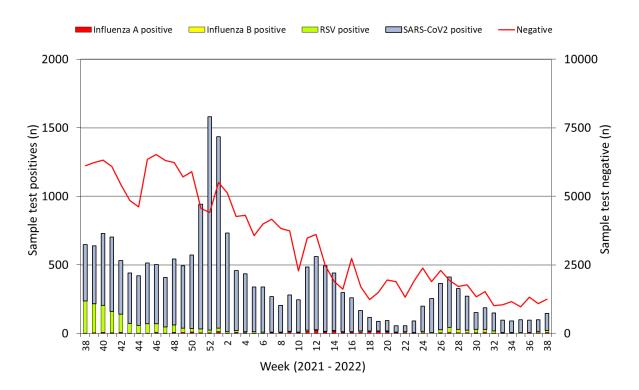
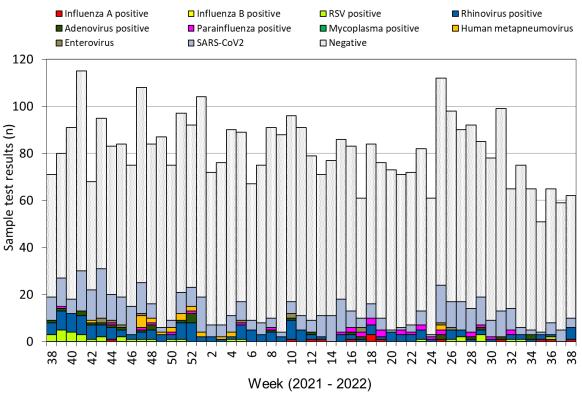
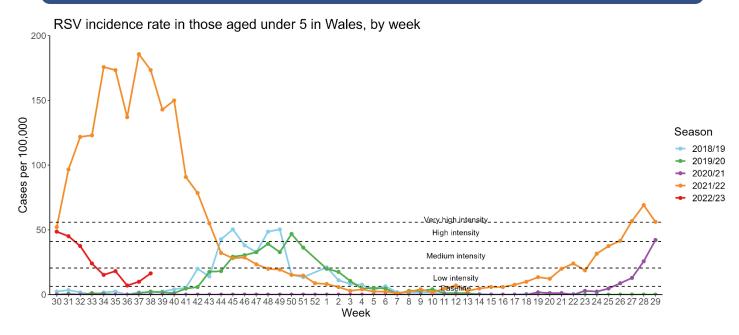


Figure 6. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 38 2021 to Week 38 2022.



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 on pathogen will appear more than once in the chart.

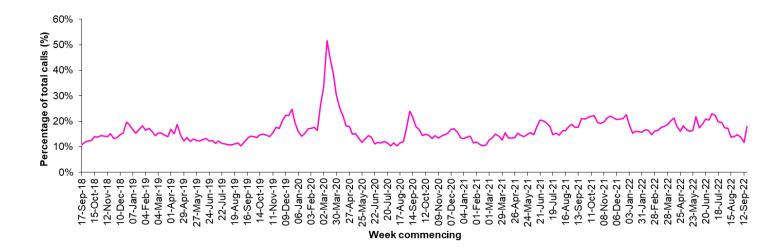
Figure 7. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 38 2022.



^{*}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 Wales¹ (as a percentage of total calls) from week 38 2018 - Week 38 2022 (as of 25/09/2022).



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 37, community and syndromic influenza indicators remained low in the UK. GP ILI consultations remained the same in Scotland at 1.3 per 100,000 well below the baseline intensity threshold. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 1.2 per 100,000, well below the MEM threshold for baseline activity (12.2 per 100,000). The weekly ILI GP consultation rate in Northern Ireland was 0.8 per 100,000 in week 36 (latest data available).
- During week 37, 38 samples tested positive for influenza (including 2 A(H1N1)pdm09, 34 A(not subtyped) and 2 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 31-35. During week 35, a total of 671 sentinel specimens were tested for influenza, 50 of which were positive, all were influenza A (41 influenza A(H3), eight influenza A(H1)pdm09 and one influenza A(not subtyped)).

Source: Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 19/09/2022, based on data up to 04/09/2022, that globally, influenza activity remains low.
- In the temperate zones of the southern hemisphere, overall influenza activity, has continued to decrease, with the exemption of South Africa. RSV activity continued to increase in Western Australia.
- In temperate South America, influenza detections, predominately A(H3N2), increased slightly but remained low. RSV activity increased in Uruguay.
- In the Caribbean, and Central American countries, low influenza activity, predominately A(H3N2), was reported. RSV activity increased in Dominican Republic.
- In tropical Africa, influenza activity remained low. In Southern Asia, influenza cases, predominately A(H3N2), decreased. There was an increase in influenza detections in Lao People's Democratic Republic and Thailand.
- In North America, influenza activity remained at interseasonal levels, typically observed at this time of the year. Similarly, in Europe, influenza activity remained at inter-seasonal levels. RSV activity remained low in the USA and Canada. In Northern Africa and Central Asia no influenza detections were reported. In Western Asia, few detections of influenza A(H1N1)pdm09 and A(H3N2) and B were reported.
- Based on FluNet reporting (as of 16/09/2022), during the time period from 22/08/2022 04/09/2022, 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 112,017 specimens during that time period, of which 3,879 were positive for influenza viruses, of which 3,585 were typed as influenza A (of the subtyped influenza A viruses, 361 were influenza A(H1N1)pdm09 and 2,578 were influenza A(H3N2)) and 131 influenza B (of the characterised influenza B viruses 85 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, in the week to 16/09/2022, community influenza-like illness activity (ILI) has plateaued. ILI consultations have been relatively stable following a decline from the peak observed in mid-June. There were three cases of metapneumonovirus, two cases of rhinovirus/enterovirus and one case of adenovirus, SARS-CoV-2 and parainfluenza virus respectively, identified at sentinel practices during the week to 18/09/2022. The trend of RSV detections is at moderate levels.

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 11/09/2022), 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 (82.5%). The impact for the season as reported by sentinel hospitals, is low to moderate.

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. RSV activity has increased 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 21/09/2022, the new positive PCR episodes for the most recent 7-day reporting period were 9.1 per 100,000 population. There were 10 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period, reported to Public Health Wales. There were 17 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 (28/06/2022 30/08/2022) 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://phw.nhs.wales/topics/latest-information-on-novel-coronavirus-covid-19/

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

England influenza and COVID-19 surveillance:

https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2022-to-2023-season

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

https://phw.nhs.wales/topics/immunisation-and-vaccines/fluvaccine/

Advice on influenza immunisation (for intranet users)

Influenza (sharepoint.com)

For further information on this report, please email Public Health Wales using:

surveillance.requests@wales.nhs.uk