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

Wednesday 14th September 2022 (covering week 36 2022)

Current level of influenza activity: *Low*
Influenza activity trend: *Stable*
Confirmed influenza cases since 2021 week 40: 948 *(462 influenza A(H3N2), 73 influenza A(H1N1)pdm09, 350 influenza A(not subtyped) and 63 influenza B)*

Key points – Wales

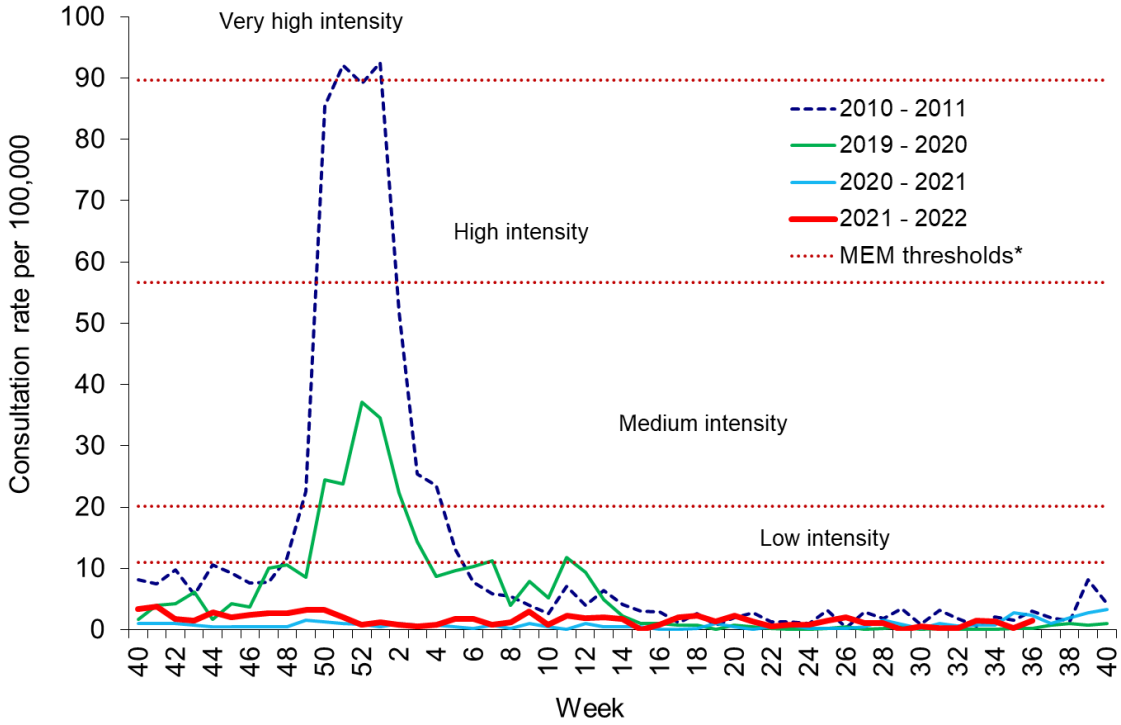
Confirmed influenza cases continue to be seen at low levels, likewise RSV confirmed cases are at low levels.

During Week 36 (ending 11/09/2022) there were 22 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 low levels of activity (compared to the 10 seasons leading up to 2020). Rhinovirus, influenza A 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 36, was 1.5 consultations per 100,000 practice population (Table 1). This is an increase compared to the previous week (0.3 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 119.6 per 100,000 practice population during Week 36, this is an increase compared to the previous week (78.6 per 100,000) (Table 2). Weekly consultations increased 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 36 decreased to 13.8% (Figure 8).
- During Week 36, 665 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV2. There were 18 influenza (5 A(H1N1), 11 A(H3N2), 1 A(not typed) and 1 influenza B), 95 rhinoviruses, 49 adenoviruses, 16 RSV, 14 parainfluenza, six enteroviruses, and 81 SARS-CoV2 detected in Week 36 (Figure 4). Additionally, 1,428 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 1,428 samples, four were positive for influenza, one were positive for RSV and 92 were positive for SARS-CoV2 (Figure 5). Sixty five 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 36, and both tested negative (as at 14/09/2022) (Figure 3).
- **Confirmed RSV case incidence in children aged under 5 has decreased, and remains at low 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 36 there were 7.0 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 36, twelve **ARI outbreaks** were reported to the Public Health Wales Health Protection team, and all of them were reported as COVID-19. All of the twelve **ARI outbreaks** were reported in residential care homes.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not significantly in excess during week 35.

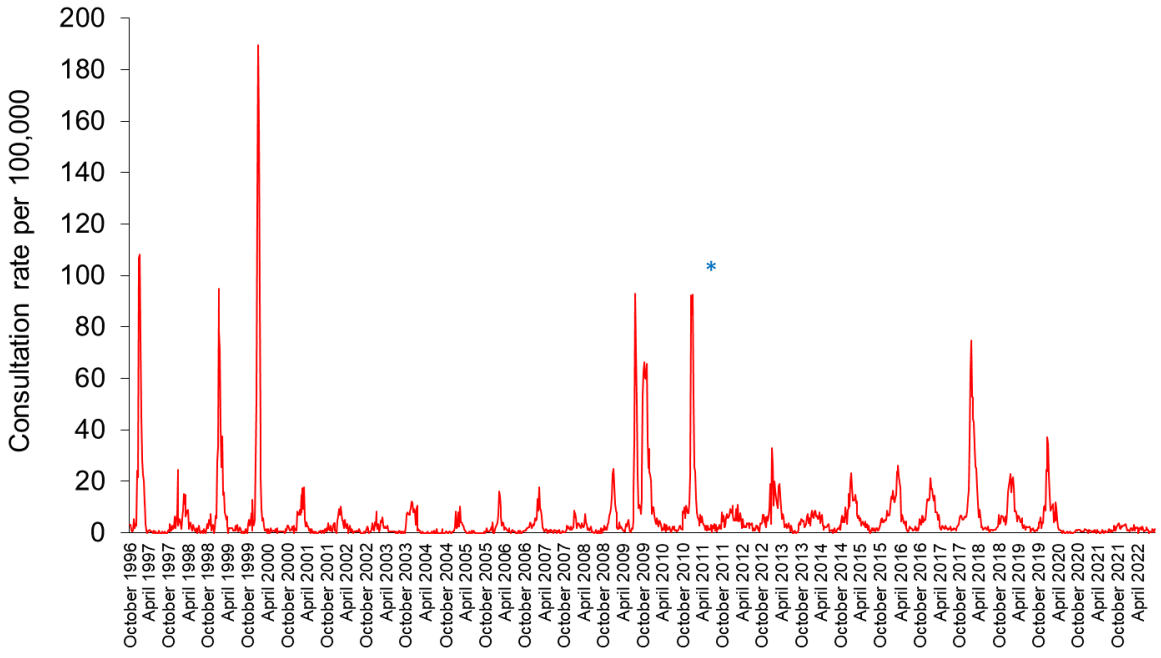
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 11/09/2022).



* 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 36 2022).



* Reporting changed to Audit+ surveillance system

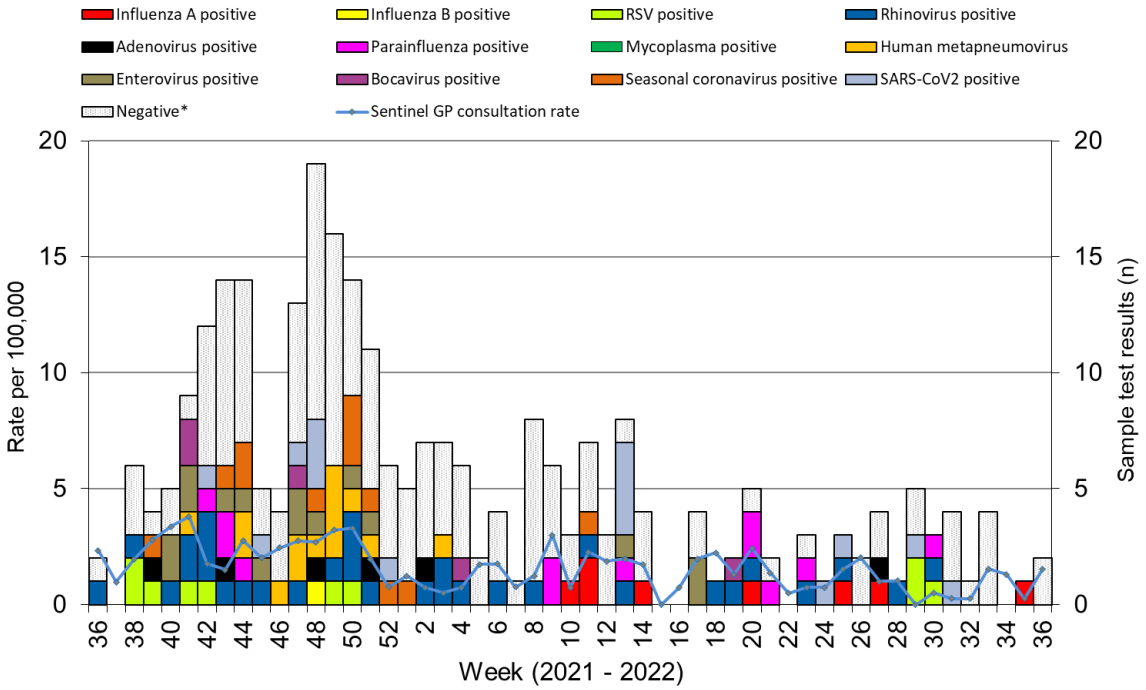
Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, week 31 – week 36 2022 (as of 11/09/2022).

Age group	31	32	33	34	35	36
< 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	2.4	0.0	0.0
15 - 24	0.0	0.0	4.6	2.4	0.0	0.0
25 - 34	0.0	0.0	0.0	0.0	0.0	6.1
35 - 44	0.0	0.0	4.1	0.0	0.0	0.0
45 - 64	1.0	1.0	1.9	1.0	1.0	1.0
65 - 74	0.0	0.0	0.0	2.3	0.0	4.5
75+	0.0	0.0	0.0	2.4	0.0	0.0
Total	**0.3**	**0.3**	**1.5**	**1.3**	**0.3**	**1.5**

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, week 31 – week 36 2022 (as of 11/09/2022).

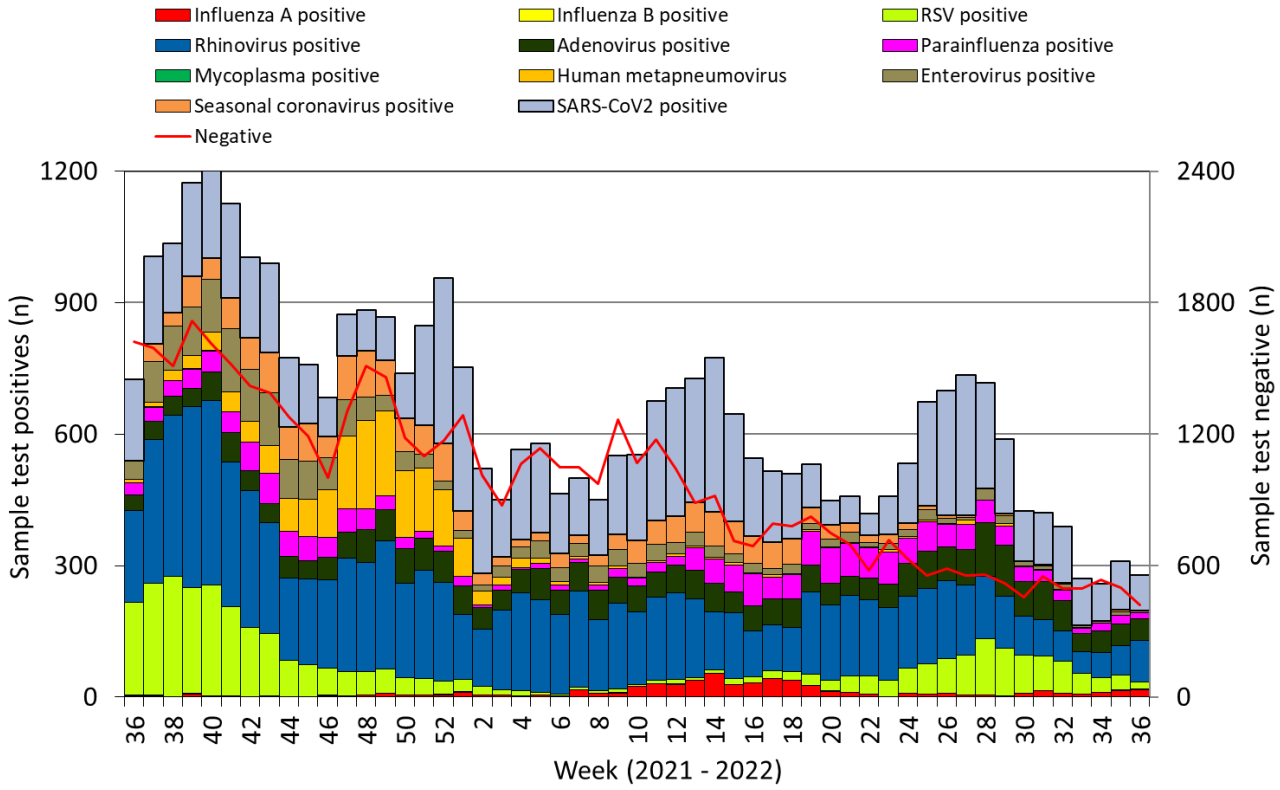
Age group	31	32	33	34	35	36
< 1	670.7	518.1	450.9	625.8	448.4	704.7
1 - 4	785.2	404.77	385.8	330.5	212.4	396.5
5 - 14	167.3	101.05	118.9	85.4	70.7	96.6
15 - 24	99.1	129.25	78.9	75.8	97.0	143.2
25 - 34	131.5	107.3	83.6	101.9	99.2	125.5
35 - 44	97.4	72.5	85.9	48.3	66.8	74.9
45 - 64	78.6	80.6	78.3	72.9	57.5	92.9
65 - 74	76.6	74.3	88.6	83.1	65.3	96.9
75+	101.3	85.4	89.8	70.1	51.7	117.4
Total	**131.8**	**105.6**	**100.8**	**89.6**	**78.6**	**119.6**

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 11/09/2022, by week of sample collection, week 36 2021 to week 36 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 11/09/2022 by week of sample collection, week 36 2021 to week 36 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 11/09/2022 by week of sample collection, week 36 2021 to week 36 2022.

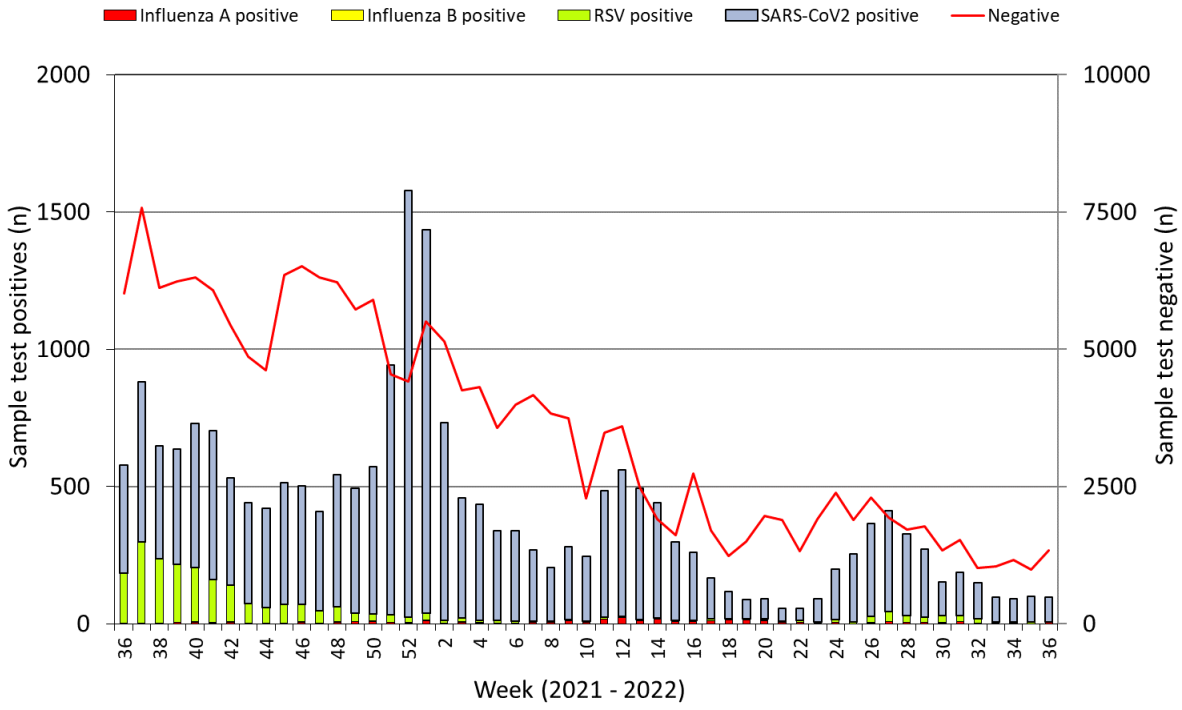
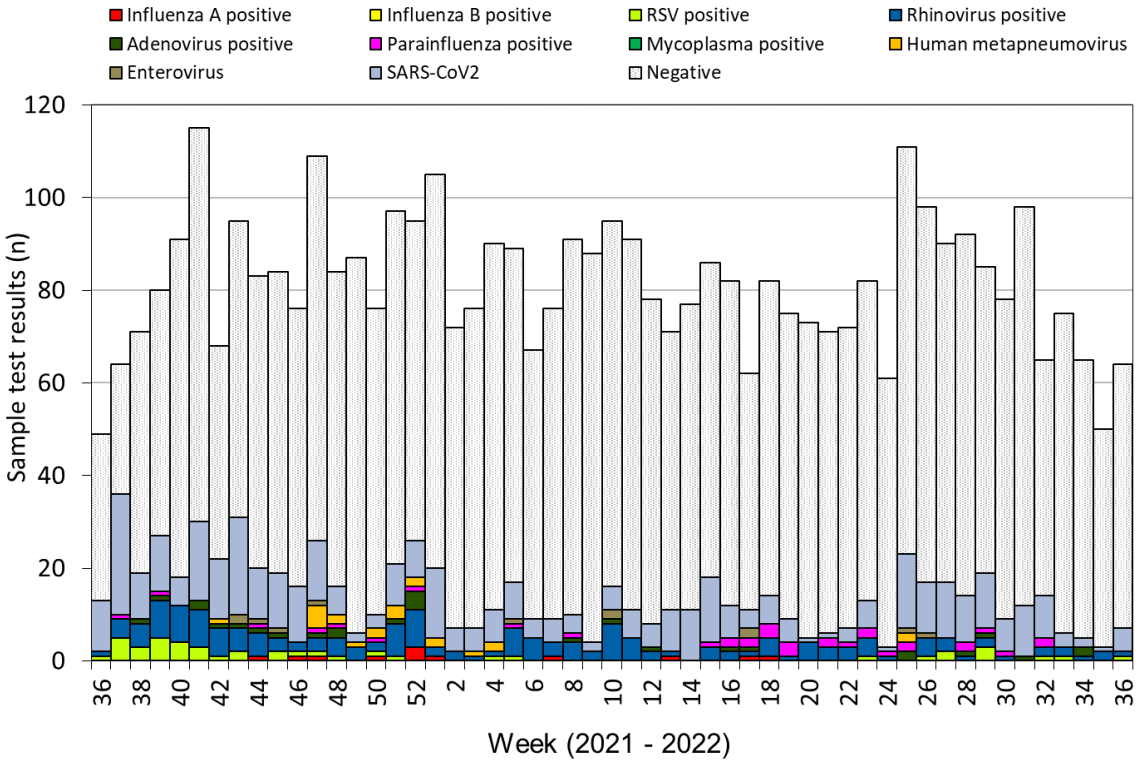
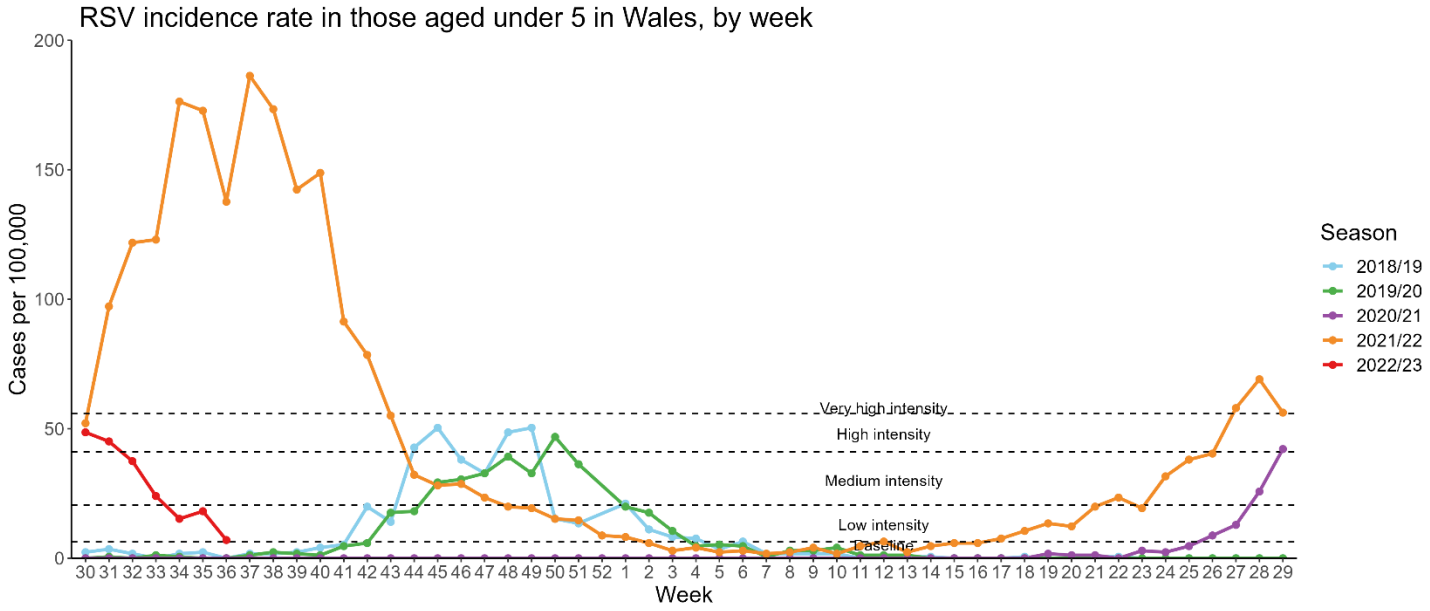


Figure 6. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 36 2021 to Week 36 2022.



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.

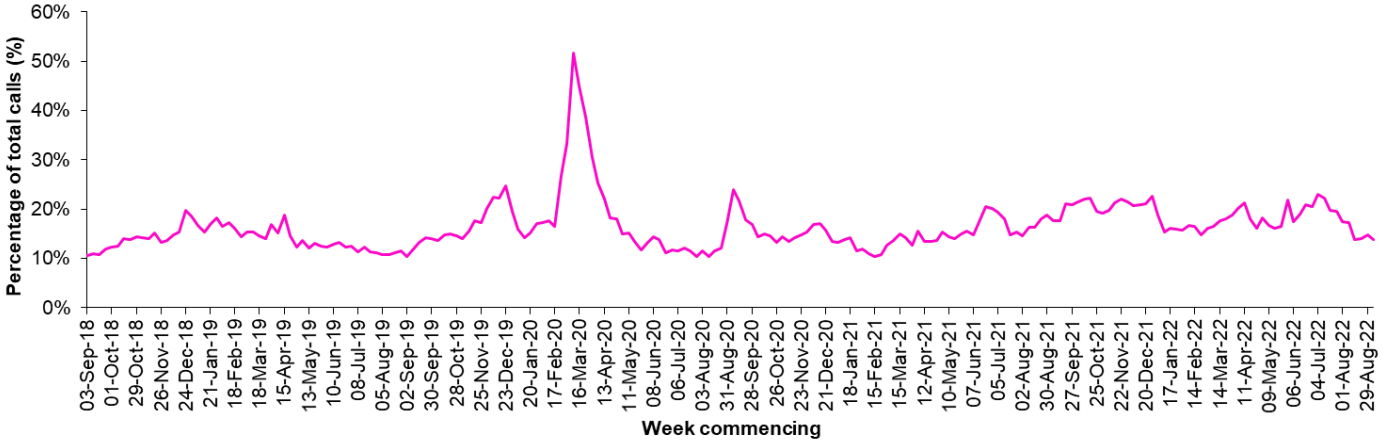
Figure 7. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 36 2022.



*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 36 2018 - Week 36 2022 (as of 11/09/2022).



[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 35, community and syndromic influenza indicators remained low in the UK. GP ILI consultations increased in Scotland to 0.8 per 100,000 and in Northern Ireland to 0.8 per 100,000 - well below the baseline intensity threshold. The weekly ILI GP consultation rate in England reported through the RCGP system was 0.7 per 100,000 in week 34 (latest data available).
- During week 35, 31 samples tested positive for influenza (including 9 A(H3N2), 1 A(H1N1)pdm09, 20 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 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 05/09/2022, based on data up to 21/08/2022, that globally, influenza activity has steadily decreased. However, influenza detections in tropical countries in Africa, Asia and Americas have increased.
- In the temperate zones of the southern hemisphere, overall influenza activity, has continued to decrease. RSV activity continued to increase in Western Australia.
- In South Africa, influenza detections remained stable while the influenza rate in pneumonia surveillance increased slightly. In temperate South America, influenza detections, predominately A(H3N2), increased slightly but remained low. SARS-CoV-2 activity decreased in most countries except Argentina and Chile. RSV activity remained elevated in Argentina and Chile and increased in Uruguay.
- In the Caribbean, Central American countries and the tropical countries of South America, low influenza activity, predominately A(H3N2), was reported. RSV activity increased in Honduras and Pamana.
- In tropical Africa, influenza activity decreased overall. A slight increase of influenza A(H3N2) repored in Ghana.
- In Southern Asia, influenza cases, predominatelyA(H3N2), decreased, while in India, detections of A(H1N1)pdm09 increased. In addition, increased activity was reported in Lao People's Democratic Republic and Thailand.
- In North America, influenza activity continued to decrease, and is at levels typically observed at this time of the year. 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 02/09/2022), during the time period from 08/08/2022 – 21/08/2022, National Influenza Centres and other national influenza laboratories from 100 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 242,539 specimens during that time period, of which 5,445 were positive for influenza viruses, of which 5,118 were typed as influenza A (of the subtyped influenza A viruses, 415 were influenza A(H1N1)pdm09 and 3,737 were influenza A(H3N2)) and 257 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 02/09/2022, community influenza-like illness activity (ILI) decreased slightly but remained higher than historical rates for this time of year. ILI consultations increased slightly but remained below the peak observed in mid-June. There were three cases of parainfluenza, three cases of metapneumonovirus, and one case of SARS-CoV-2 identified at sentinel practices during the week to 04/09/2022. The trend of RSV detections is increasing in most recent weeks.
  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 28/08/2022), 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 (82.1%). 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. Although activity has declined, there was a slight increase 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 07/09/2022, the new positive PCR episodes for the most recent 7-day reporting period were 10 per 100,000 population. There were 16 suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period, reported to Public Health Wales. There were 32 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://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:
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