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

Wednesday 25th October 2023 (covering Week 42 2023)

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

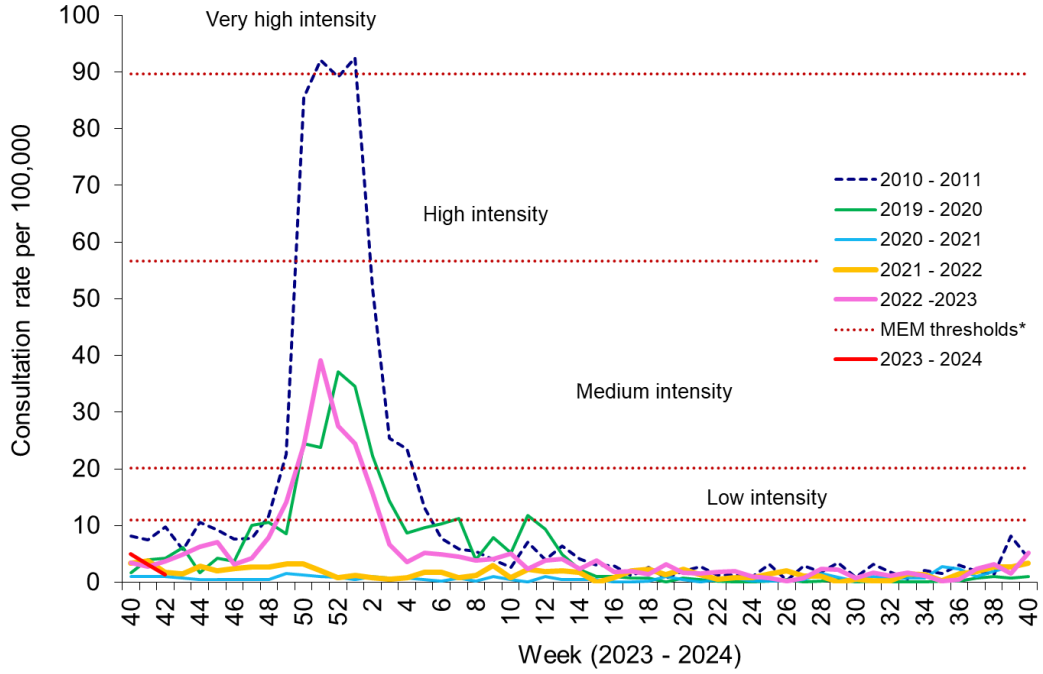
Current level of influenza activity: Baseline
Influenza activity trend: Stable
Confirmed influenza cases since 2023 Week 40: **18** *(3 influenza A(H3N2), 2 influenza A(H1N1)pdm09, 3 influenza A untyped and 10 influenza B)*

During Week 42 (ending 22/10/2023) there were four cases of influenza. Overall influenza activity remains at baseline levels, but small numbers of cases continue to be detected. COVID-19 cases continue to be detected in patients in hospitals. RSV activity in children under 5 years increased and is now at 'very high' intensity levels. Rhinovirus, SARS-CoV-2, enterovirus, and adenovirus are the most commonly detected causes of Acute Respiratory Infection (ARI).

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during Week 42, was 1.4 consultations per 100,000 practice population (Table 1). This is a decrease compared to the previous week (3.1 consultations per 100,000. Figure 1).
- The **Sentinel GP consultation rate for Acute Respiratory Infections (ARI)** was 173.2 per 100,000 practice population during Week 42 (Table 2 and Figure 3). This is a decrease compared to the previous week (182.2 per 100,000). Weekly consultations for Lower Respiratory Tract Infections increased (73.1 per 100,000) and Upper Respiratory Tract Infections decreased (103.5 per 100,000) 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 42 increased to 17.1% (Figure 13).
- During Week 42, 781 specimens received multiplex respiratory panel testing from patients attending hospitals. **Two tested positive for influenza (two influenza B).** Overall influenza test-positivity decreased to 0.3%. In addition, there were: 227 rhinovirus, 158 RSV, 60 Sars-CoV2, 54 enterovirus, 40 adenovirus, 18 parainfluenza, ten human metapneumovirus, nine mycoplasma and three seasonal coronavirus positive samples (Figure 5). Additionally, 849 samples from patients were tested for influenza, RSV and SARS-CoV-2 only. Many of these tests may be associated with screening activities rather than diagnostic testing. Of the 849 samples, 159 were positive for SARS-CoV-2, 46 RSV and one for Flu A (Figure 7). Furthermore, during week 42, 70 respiratory specimens were tested from patients in intensive care units (ICU) of which none were positive for influenza (Figure 8).
- There were 83 surveillance samples from patients with ILI symptoms collected by **sentinel GPs and community pharmacies** during Week 42. Of the 83 samples, 11 tested positive for rhinovirus, eight for enterovirus, six for SARS-CoV-2, nine for RSV, three for mycoplasma, three for adenovirus, one for bocavirus, one for human metapneumovirus, one for influenza A(untyped) and one for parainfluenza (as at 18/10/2023) (Figure 4).
- From all samples where influenza subtyping information was available during week 42 (specimens receiving multiplex respiratory panel testing, from patients attending hospitals, and surveillance samples collected by sentinel GPs and community pharmacies) two were influenza B, and one was influenza A untyped (Figure 6).
- **Confirmed RSV case incidence in children aged under 5 further increased in the most recent week and is now at very high intensity levels (compared to historic levels before 2021).** In week 42 there were 100.4 confirmed cases per 100,000 in this age group. 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 (Figure 9).
- The 7-day rolling sums of cases hospitalised within 28 days of an influenza or RSV positive test result in the community (or up to two days post-admission) were two and 79 respectively during Week 42 (Figures 10 & 11) and 69 for SARS-CoV-2 during week 41 (Figure 12).
- During week 42, 8 **ARI outbreaks** were reported to the Public Health Wales Health Protection team. All outbreaks were reported as COVID-19; seven were in residential homes and one in school/nursery settings.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not in excess during week 41.
- As at 22/10/2023, uptake of influenza vaccination was 47.4% in adults aged 65 years and older, 19.2% in those aged 6 months to 64 years at clinical risk, 18.9% in two and three year old children, 62.9% in children aged four to 10 years and 45.7% in children aged 11 to 15 years.

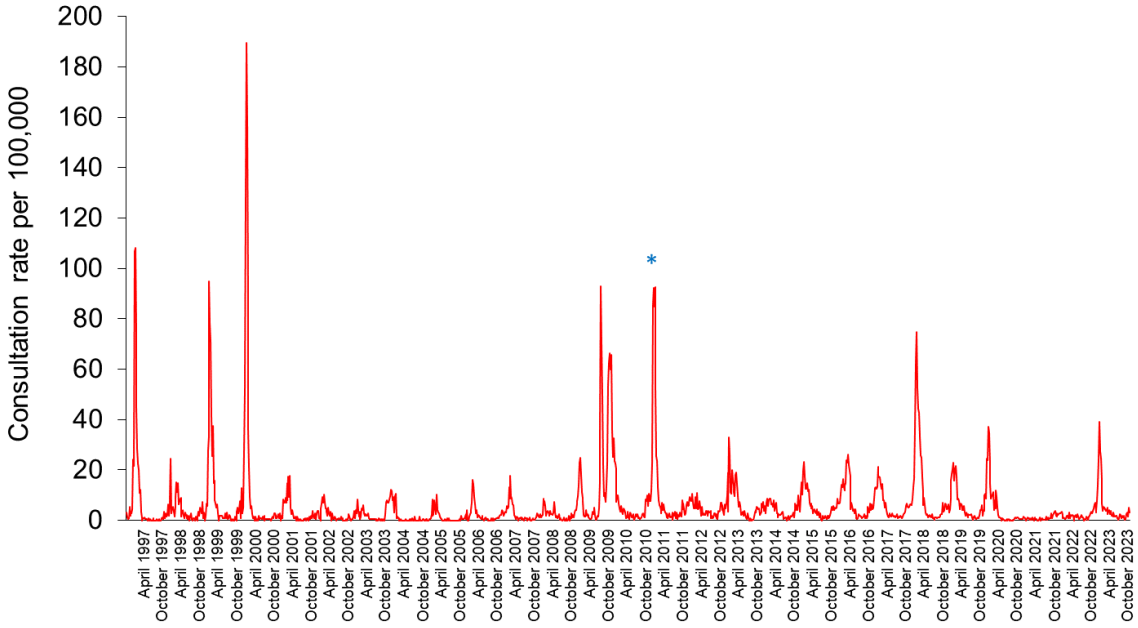
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 22/10/2023)



* 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.
**Clinical consultations for ILI seasons are monitored from W40 to W40, the most recent data is presented in red.

Figure 2. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (Week 48 1996 – Week 42 2023)



* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, Week 37 – Week 42 2023 (as of 22/10/2023)

Age group	37	38	39	40	41	42
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	6.7	6.9	6.7	0.0	0.0
5 - 14	0.0	0.0	4.6	0.0	0.0	0.0
15 - 24	2.2	2.1	0.0	6.4	4.3	0.0
25 - 34	5.8	3.8	0.0	1.9	3.8	0.0
35 - 44	3.7	1.8	0.0	11.1	1.8	6.5
45 - 64	0.9	6.4	0.9	5.5	5.5	1.1
65 - 74	4.4	0.0	4.4	2.2	2.2	0.0
75+	2.2	2.2	0.0	6.5	2.2	2.4
Total	**2.4**	**3.1**	**1.5**	**5.0**	**3.1**	**1.4**

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 37 – Week 42 2023 (as of 22/10/2023)

Age group	37	38	39	40	41	42
< 1	602.2	831.4	1441.3	1730.5	1534.4	1239.0
1 - 4	458.8	482.5	780.2	913.7	881.3	842.0
5 - 14	105.2	164.2	203.2	223.9	212.7	197.0
15 - 24	120.3	140.7	132.5	151.5	136.3	130.2
25 - 34	77.1	84.2	138.1	135.8	158.7	127.5
35 - 44	98.4	77.5	100.8	132.6	138.0	130.3
45 - 64	85.6	79.2	83.8	123.7	115.5	111.8
65 - 74	85.5	109.9	84.0	133.7	122.9	154.7
75+	116.9	90.9	102.4	185.8	183.5	184.1
Total	**112.7**	**120.1**	**147.9**	**187.8**	**182.2**	**173.2**

Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 42 – Week 42 2023 (as of 22/10/2023)

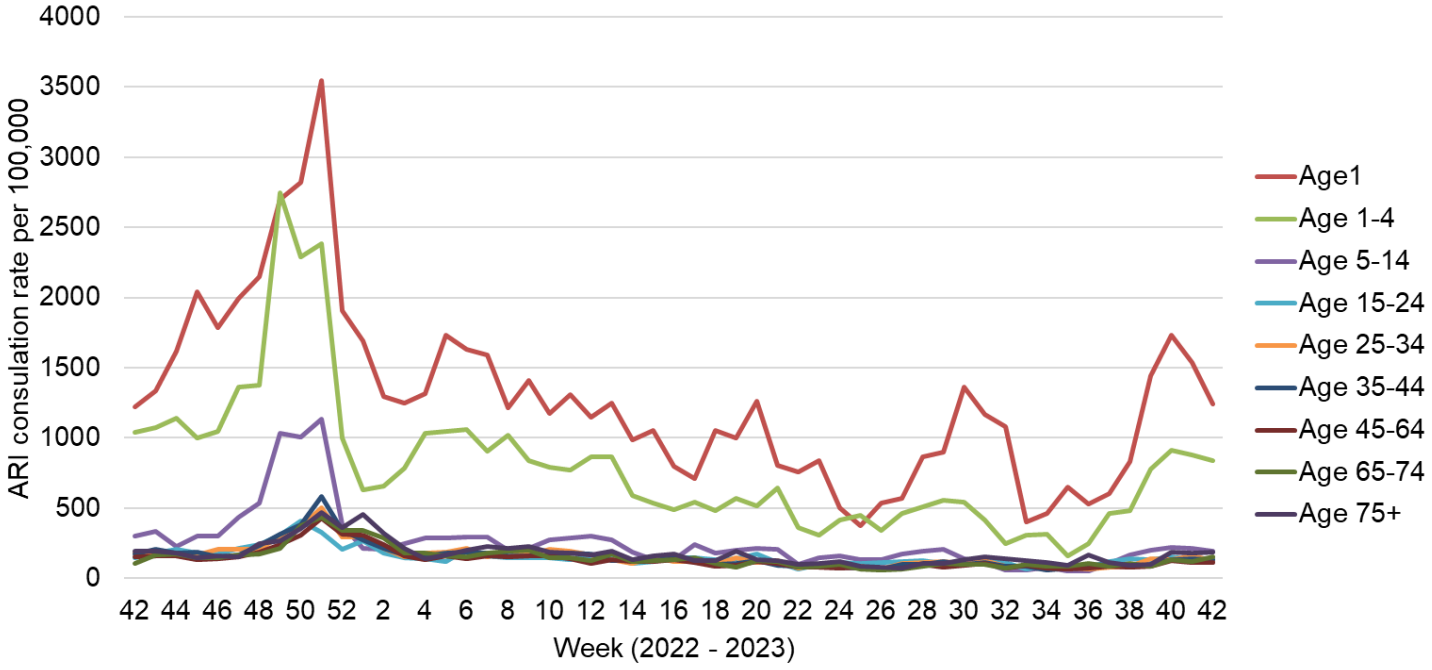
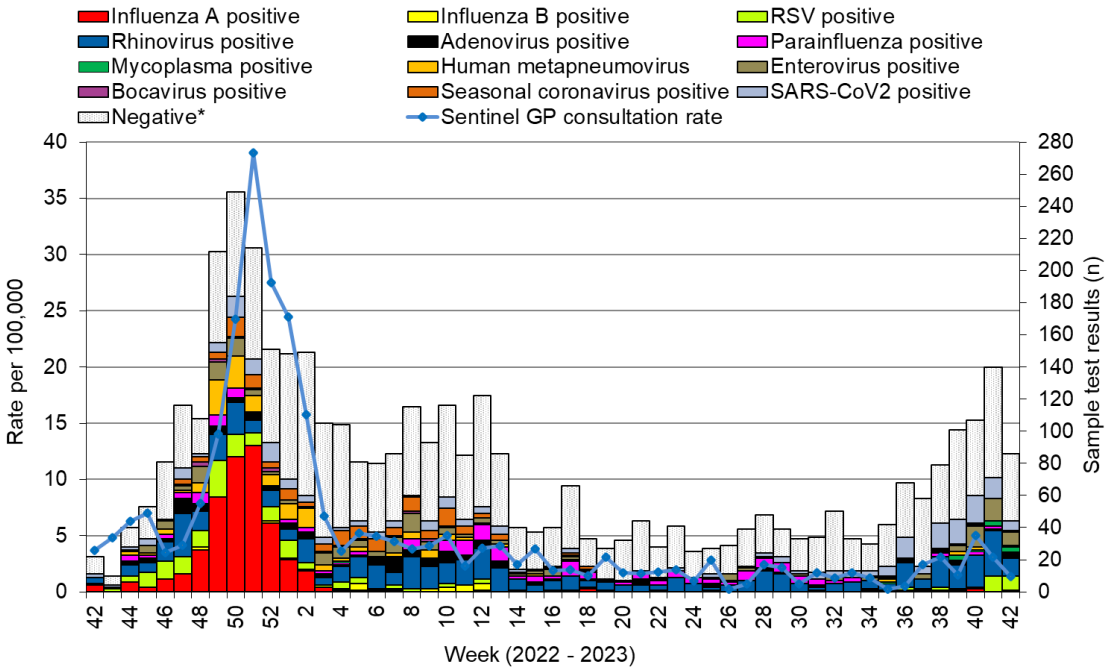
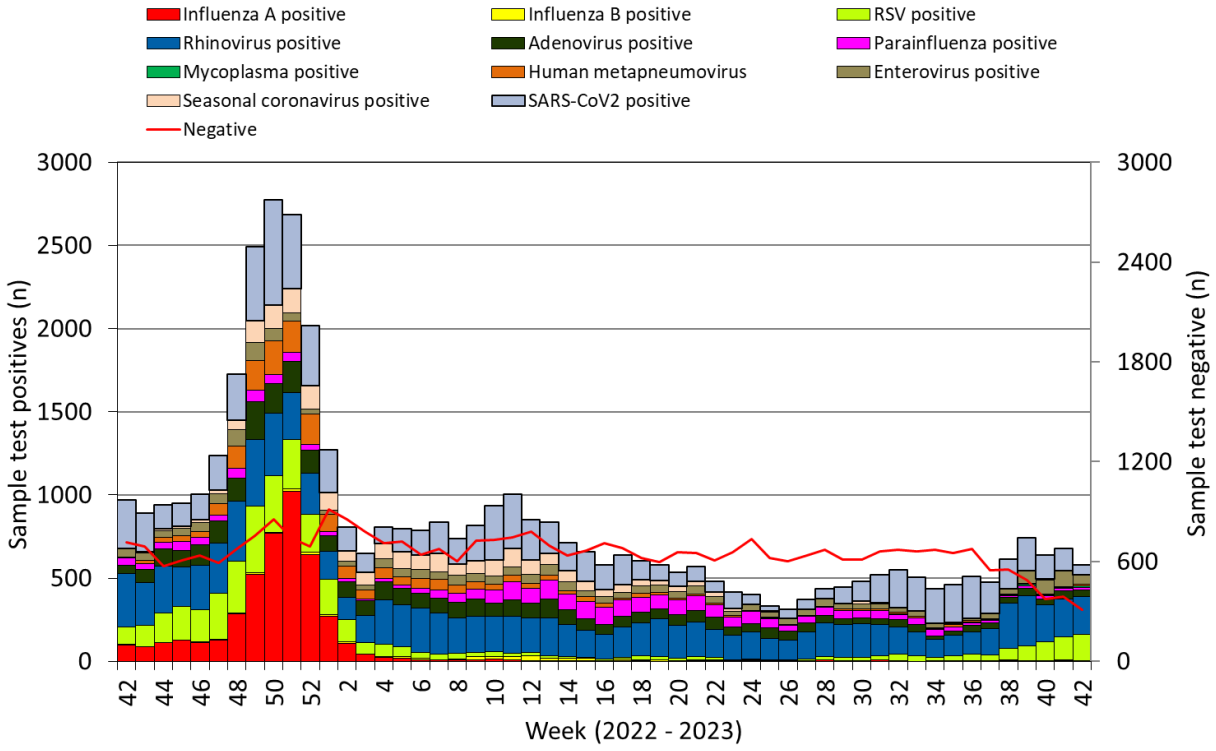


Figure 4. Specimens submitted for virological testing by sentinel GPs and community pharmacies as of 22/10/2023, by week of sample collection, Week 42 2022 to Week 42 2023



* 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. **Results for the latest week will underestimate activity as not all samples will have been received, tested and authorised at time of writing this report.**

Figure 5. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 22/10/2023 by week of sample collection, Week 42 2022 to Week 42 2023.



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 6. Flu subtypes based on specimens submitted for virological testing by sentinel GPs and community pharmacies, hospital patients, and non-sentinel GPs, as of 22/10/2023 by week of sample collection, Week 42 2022 to Week 42 2023.

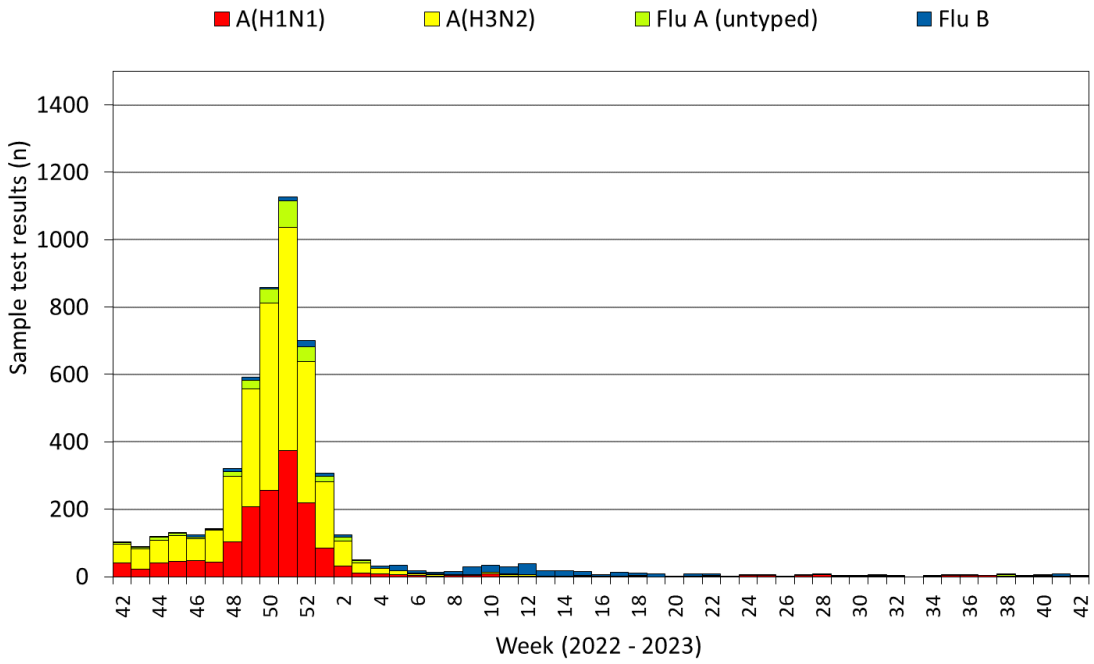


Figure 7. Specimens from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, as of 15/10/2023 by week of sample collection, Week 42 2022 to Week 42 2023.

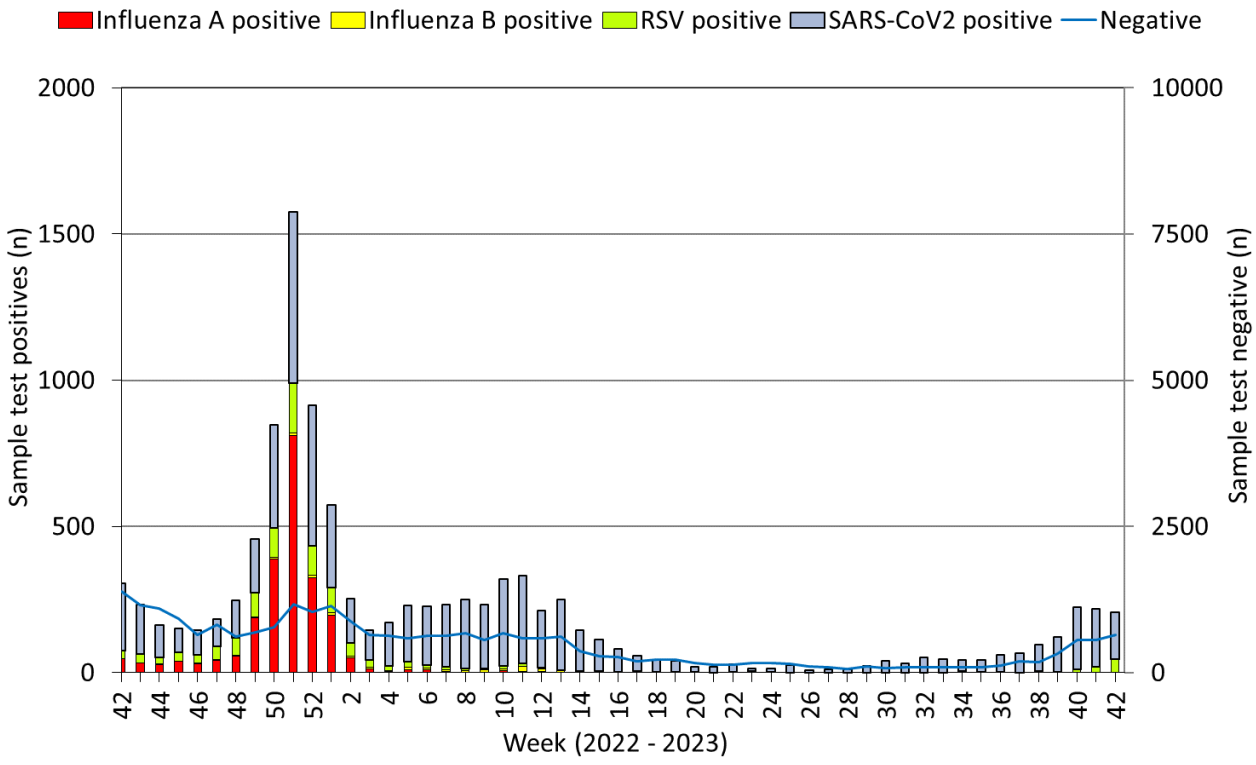
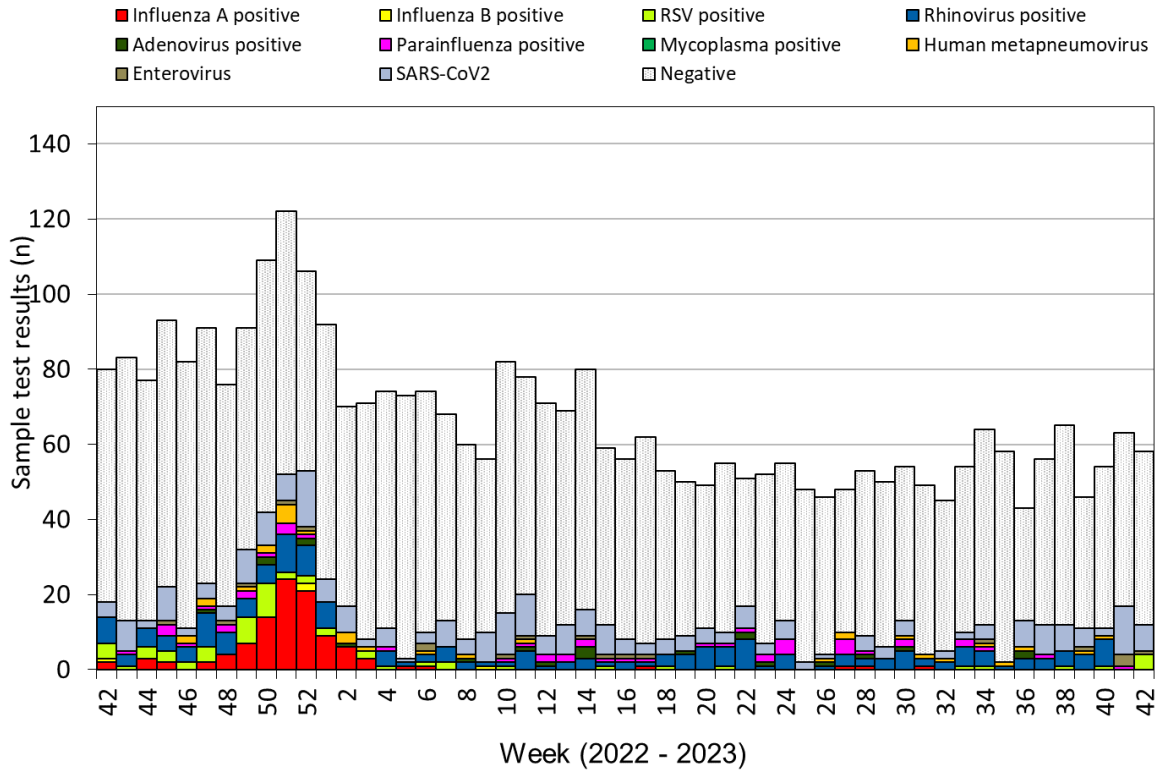
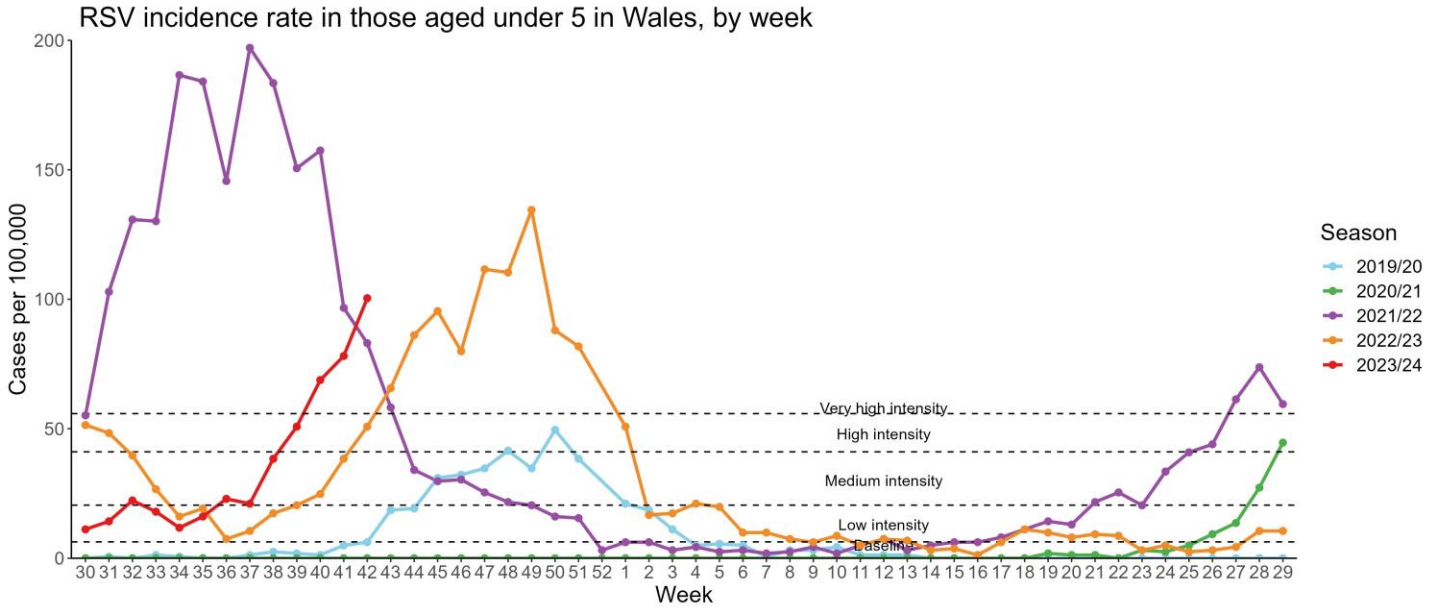


Figure 8. Specimens submitted for virological testing for ICU patients, by week of sample collection, Week 42 2022 to Week 42 2023.



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 9. RSV incidence rate per 100,000 population aged under five years, week 30 2019 to Week 42 2023.



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

ARI – Hospital admissions

Figure 10. Seven day rolling sum of cases hospitalised in Wales within 28 days of an influenza positive test result in the community (or up to 2 days post-admission), as of 22/10/2023.

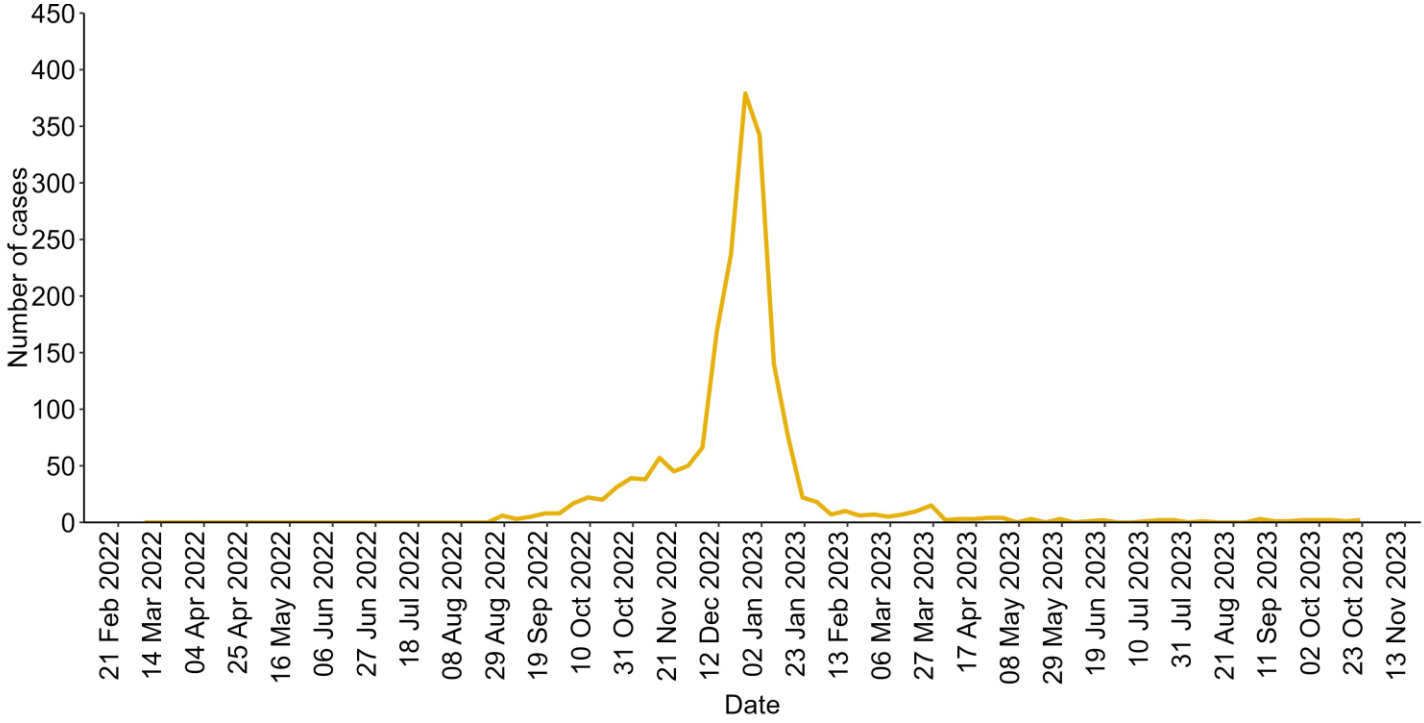


Figure 11. Seven day rolling sum of cases hospitalised in Wales within 28 days of an RSV positive test result in the community (or up to 2 days post-admission), as of 22/10/2023.

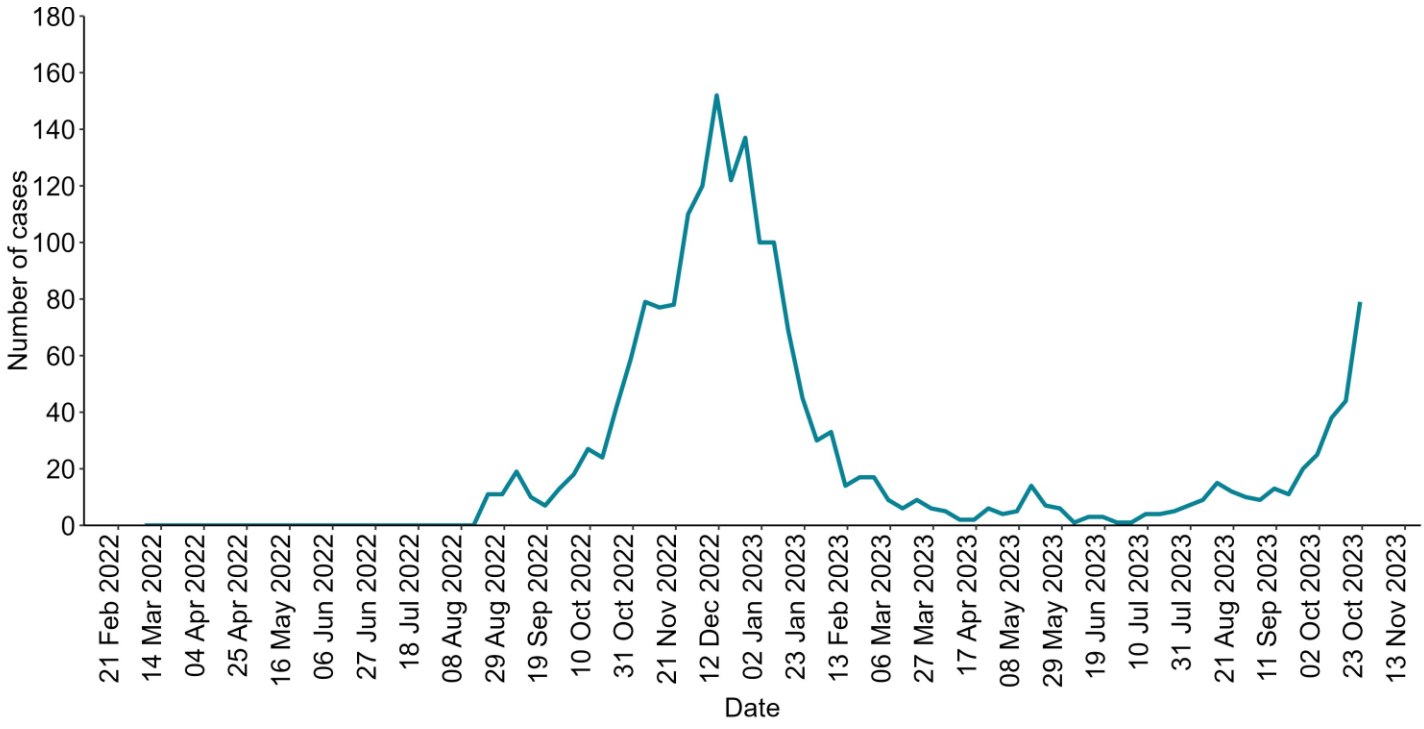
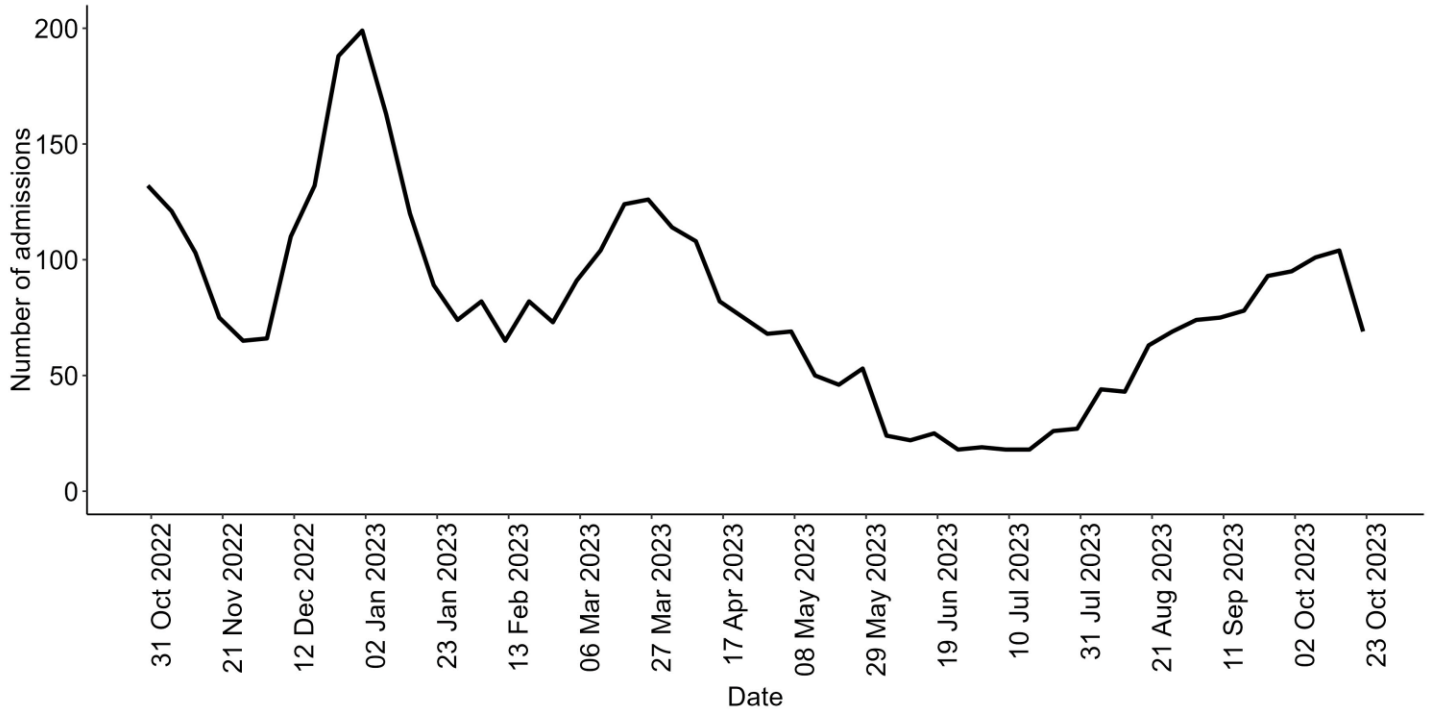
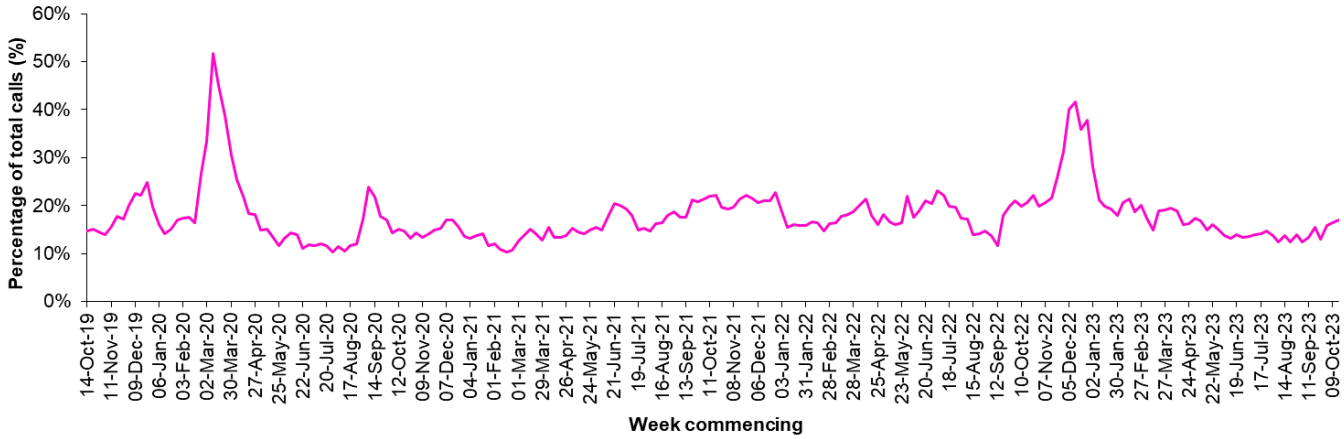


Figure 12. Seven day rolling sum of cases hospitalised in Wales within 28 days of an Covid-19 positive test result in the community (or up to 2 days post-admission), as of 22/10/2023.



Calls to NHS Direct Wales

Figure 13. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from Week 42 2019 - Week 42 2023.



[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 in Wales 2022/23 (as of 25/04/2023).

Influenza immunisation uptake in the 2022/23 season	
People aged 65y and older	76.3%
People younger than 65y in a clinical risk group	44.2%
Children aged two & three years	44.0%
Children aged between four & ten years	63.9%
Children aged between 11 & 15 years	54.4%
Total NHS staff	46.2%
NHS staff with direct patient contact	46.7%

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: https://phw.nhs.wales/topics/immunisation-and-vaccines/fluvaccine/annual-influenza-surveillance-and-influenza-vaccination-uptake-reports/

Influenza activity – UK and international summary

- As of Week 41, GP ILI consultations decreased to 3.2 per 100,000, in England, and decreased to 0.6 per 100,000 in Scotland.
- During Week 41, 53 samples testing positive for influenza were reported in England (32 A(not subtyped), 6 A(H3N2), and 15 influenza B). Overall influenza positivity slightly decreased to 1.3%.
- In England, RSV hospitalisations in the under 5 year olds was 10.6 per 100,000 in week 41. In Scotland, RSV hospitalisations in the under 1-year olds was 149.6 per 100,000. UK summary data are available from the UKHSA Influenza and COVID-19 Surveillance Report and Viral respiratory diseases (including influenza and COVID-19) in Scotland.

- 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 36-39, with just one country reporting regional influenza activity. **Source:** Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 16/10/2023, based on data up to 01/10/2023 that globally, influenza detections remained low, although increased activity was reported in the Northern Hemisphere, Western and Eastern Asia.
- In Oceania influenza activity decreased with influenza A predominating.
- In South Africa, influenza activity remained below the seasonal threshold.
- In the temperate zones of South America influenza detection remained low overall with influenza A and B viruses co-circulating.
- In the Caribbean countries influenza activity remained low overall.
- In the countries of Central America, influenza activity decreased overall. Influenza B and influenza A(H1N1)pdm09 viruses were predominant.
- In tropical South America, influenza detections of primarily influenza B viruses were low. SARS-CoV-2 activity increased in Brazil.
- In tropical Africa, all seasonal influenza subtypes co-circulated. Influenza detections remained low in Middle, Eastern Africa and Western Africa.
- In Southern Asia, influenza activity increased overall specifically in Bhutan and India.
- In South-East Asia, influenza activity remained elevated overall, with continued reporting of predominantly influenza A(H1N1)pdm09 and A(H3N2) virus detections.
- In the temperate zones of the northern hemisphere, indicators of influenza activity were reported at low levels. There was an increase in the percentage of deaths attributed to influenza, SARS-CoV-2 and pneumonia. **Source:** WHO influenza update:https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update

- Based on FluNet reporting (as of 13/10/2023), during the period from 18/09/2023 – 01/10/2023 National Influenza Centres and other national influenza laboratories from 118 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 336,169 specimens during that period, of which 10,167 were positive for influenza viruses, 8,316 (81.8%) of those positive for influenza were typed as influenza A (of the subtyped influenza A viruses, 1,957 (31.2%) were influenza A(H1N1)pdm09 and 4,355 (68.8%) were influenza A(H3N2). Of the 8,316 samples testing positive for influenza viruses, 1,851 tested positive for Influenza B (18.2%). **Source:** Flu Net: https://www.who.int/tools/flunet

Update on influenza activity in North America

- The USA Centers for Disease Control and Prevention (CDC) report that influenza activity remained low at national levels during week 41 (ending 14/10/2023). Nationally, 661 (1.3%) out of 49,312 specimens have tested positive for influenza in week 41 in clinical laboratories nationwide, of these positives 457 (69.1%) were influenza A and 204 (30.9%) were influenza B. Further characterisation has been carried out on 2,374 specimens by public health laboratories, and 124 samples tested positive for influenza; 93 influenza A(H1N1)pdm09, six influenza A(H3N2), 25 influenza A(not subtyped) and 35 influenza B.
  Source: CDC Weekly US Influenza Surveillance Report: http://www.cdc.gov/flu/weekly/

- The Public Health Agency of Canada reported that during week 40-41, influenza activity is stable and at interseasonal levels. During week 39, 118 influenza detections were reported; 99 influenza A, and 19 influenza B. The percentage of ILI visits was 1.1%. **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 reported that the RSV positivity rate increased in the week beginning 1410/2023. **Source:** CDC RSV national trends: https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html

COVID-19 – UK and international summary

- As of 18/10/2023, there were 11.02 new positive PCR episodes per 100,000 population in Wales, for the most recent 7-day reporting period. 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 25 COVID-19 death registrations recorded in ONS data for the latest data period reported (Week 39 data). 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 the 10/07/2023 WHO were notified by the United Arab Emirates (UAE) of a case of MERS-CoV. In total, 2,605 laboratory-confirmed cases of locally acquired Middle East Respiratory Syndrome coronavirus (MERS-CoV) worldwide, including 937 deaths. WHO Global Alert and Response website: https://www.who.int/emergencies/disease-outbreak-news
- 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 reports that there have been no publicly available reports from China or other countries on influenza A(H7N9) in recent months, but overall risk assessments are unchanged. Previous reports are available from: 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/

Public Health Wales interactive report on hospitalisations in influenza and RSV cases:
https://public.tableau.com/app/profile/public.health.wales.health.protection/viz/ARI-Hospitaladmissionsdashboard/ARIhospitaladmissionsdashboard?publish=yes

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-2023-to-2024-season

Scotland seasonal respiratory surveillance:
https://www.publichealthscotland.scot/publications

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