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

Wednesday 9th August 2023 (covering Week 31 2023)

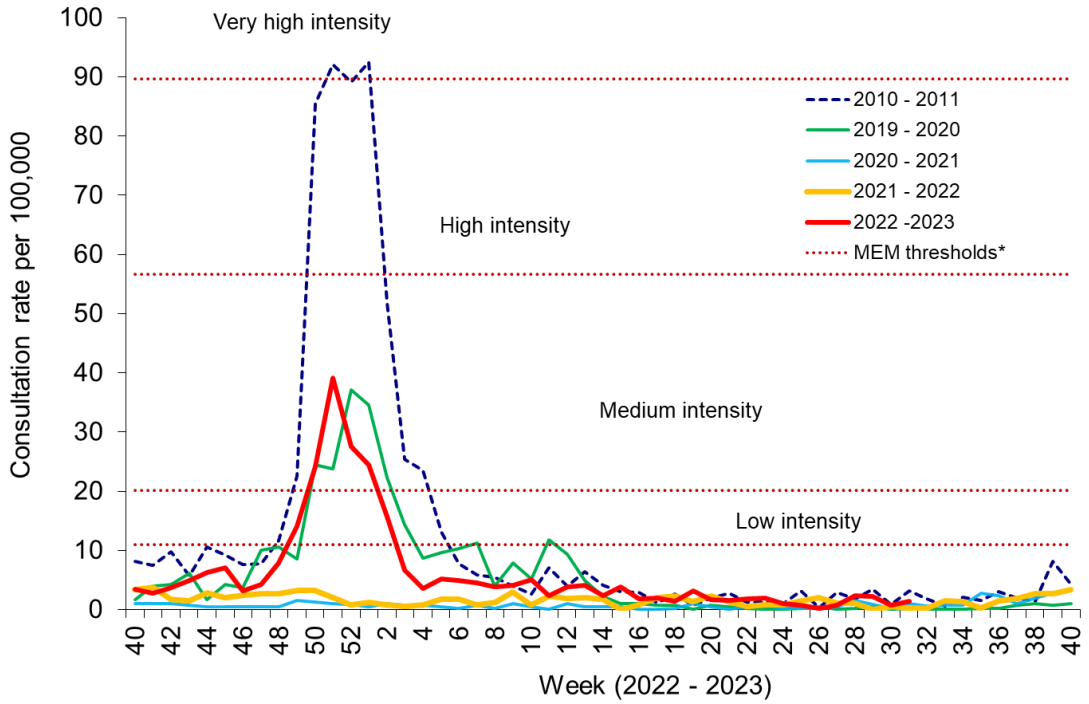
Current level of influenza activity: Baseline
Influenza activity trend: Stable
Confirmed influenza cases since 2022 Week 40: **7859** *(3064 influenza A(H3N2), 1633 influenza A(H1N1)pdm09, 2672 influenza A(not subtyped) and 490 influenza B)*

During Week 31 (ending 06/07/2023) there were seven 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 incidence in children younger than five has increased above the baseline threshold in recent weeks and may represent a start to seasonal activity. Rhinovirus, SARS-CoV-2, parainfluenza, adenovirus, RSV, enterovirus and HMPV are the most commonly detected causes of Acute Respiratory Infection (ARI). Recent weeks have seen an increase in COVID-19 confirmed cases.

- The **Sentinel GP consultation rate for influenza-like illness (ILI)** in Wales during Week 31, was 1.5 consultations per 100,000 practice population (Table 1). This is an increase compared to the previous Week (0.7 consultations per 100,000. Figure 1).
- The **Sentinel GP consultation rate for Acute Respiratory Infections (ARI)** was 136.9 per 100,000 practice population during Week 31 (Table 2 and Figure 3). This is an increase compared to the previous week (131.4 per 100,000). Weekly consultations for Lower Respiratory Tract Infections increased to 50.25 per 100,000 and Upper Respiratory Tract Infections (88.79 per 100,000) increased 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 31 decreased to 13.8% (Figure 12).
- During Week 31, 1,129 specimens received multiplex respiratory panel testing, from patients attending hospitals. These results do not include samples tested solely for SARS-CoV-2. **Four samples tested positive for influenza (three influenza A(H3) and one influenza A(H1N1)pdm09).** Overall influenza test-positivity decreased to <0.1% In addition, there were 196 rhinovirus, 169 SARS-CoV-2, 49 parainfluenza, 36 adenovirus, 25 RSV, 19 enterovirus, 12 HMPV, 7 seasonal coronaviruses and one mycoplasma positive samples (Figure 5). Additionally, 134 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 for patients presenting with ARI symptoms. Of these 134 samples, 31 were positive for SARS-CoV-2 (Figure 7). Furthermore, during week 31, 49 respiratory specimens were tested from patients in intensive care units (ICU) of which none was positive for influenza (Figure 8).
- There were 31 surveillance samples from patients with ILI symptoms collected by **sentinel GPs and community pharmacies** during Week 31. Of the 31 samples, four tested positive for parainfluenza, four for SARS-CoV2, two for rhinovirus and one for RSV (as at 06/08/2023) (Figure 4).
- From all samples where influenza subtyping information was available during week 31 (specimens receiving multiplex respiratory panel testing, from patients attending hospitals, and surveillance samples collected by sentinel GPs and community pharmacies) three were influenza A(H3N2) and one was influenza A(H1(pdm09)) (Figure 6).
- **Confirmed RSV case incidence in children aged under 5 has increased but remains at low intensity levels.** In week 31 there were 14.3 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 0 and 1 respectively during Week 31 (figures 10 & 11).
- During week 31, eight **ARI outbreaks** were reported to the Public Health Wales Health Protection team. All eight outbreaks were reported as COVID-19. Seven in a residential home, and one in a hospital/healthcare facility.
- According to **EuroMoMo** analysis, all-cause deaths in Wales were not in excess during week 30.

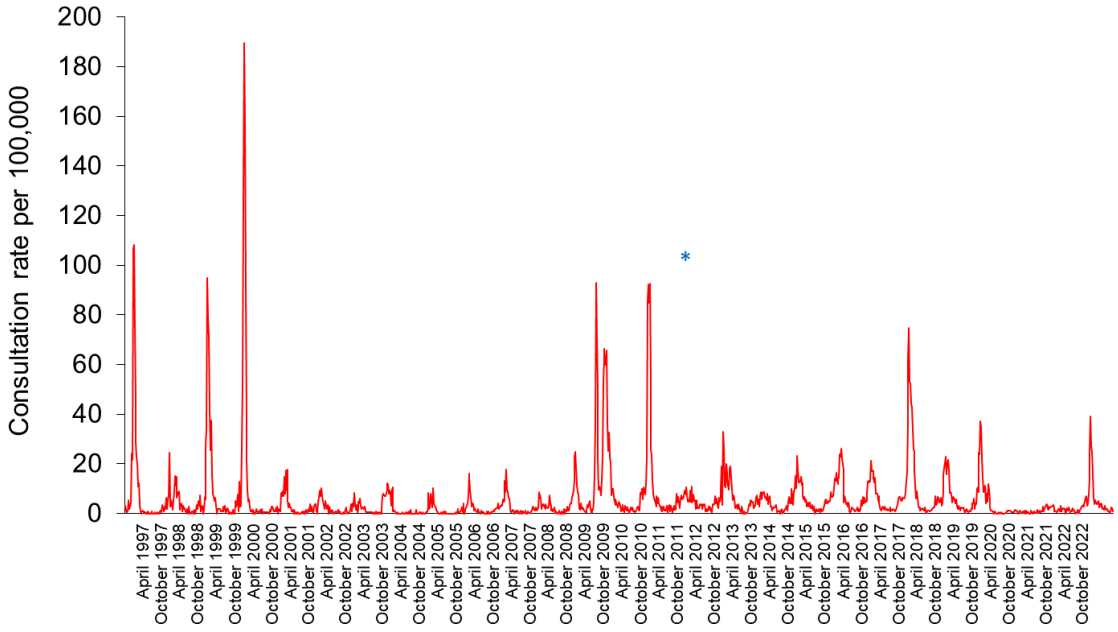
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 06/08/2023)



* 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 31 2023)



* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, Week 26– Week 31 2023 (as of 06/08/2023)

Age group	26	27	28	29	30	31
< 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	0.0	6.5	0.0	2.2	2.2
25 - 34	0.0	0.0	3.8	1.9	0.0	3.9
35 - 44	0.0	1.9	5.6	3.7	1.9	3.8
45 - 64	0.9	0.0	0.9	2.7	0.0	0.9
65 - 74	0.0	4.3	2.2	2.2	2.2	0.0
75+	0.0	0.0	0.0	4.4	0.0	0.0
Total	**0.2**	**0.7**	**2.4**	**2.2**	**0.7**	**1.5**

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 26 – Week 31 2023 (as of 06/08/2023)

Age group	26	27	28	29	30	31
< 1	523.4	556.1	845.0	886.1	1345.6	1133.3
1 - 4	342.0	462.7	510.0	556.5	543.1	415.5
5 - 14	133.0	170.7	195.0	210.5	139.6	112.7
15 - 24	110.2	116.7	125.4	110.7	97.7	130.3
25 - 34	67.1	103.5	115.0	118.9	109.3	124.7
35 - 44	66.8	98.4	102.1	118.8	100.2	113.2
45 - 64	64.7	74.7	102.1	82.9	92.0	106.7
65 - 74	58.2	69.0	86.3	107.8	97.0	101.1
75+	80.8	74.3	107.0	109.0	133.0	160.1
Total	**92.0**	**113.1**	**135.2**	**137.3**	**131.4**	**136.9**

Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 31 2022 – Week 31 2023 (as of 06/08/2023).

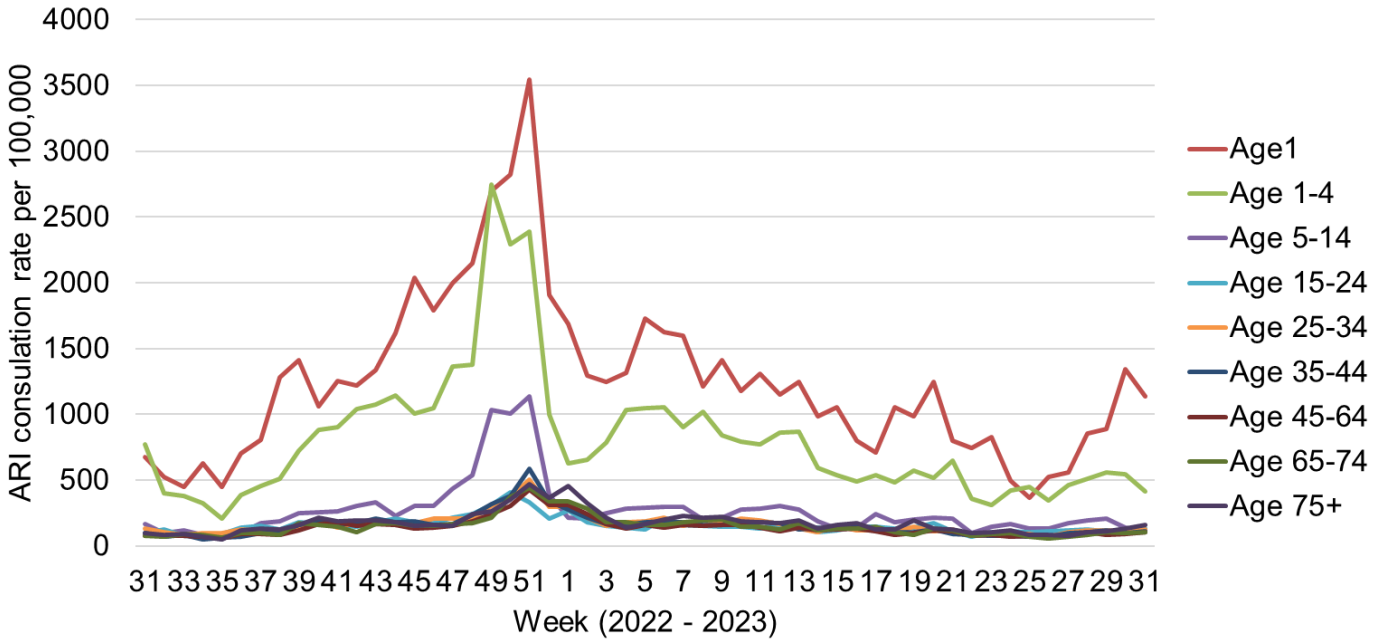
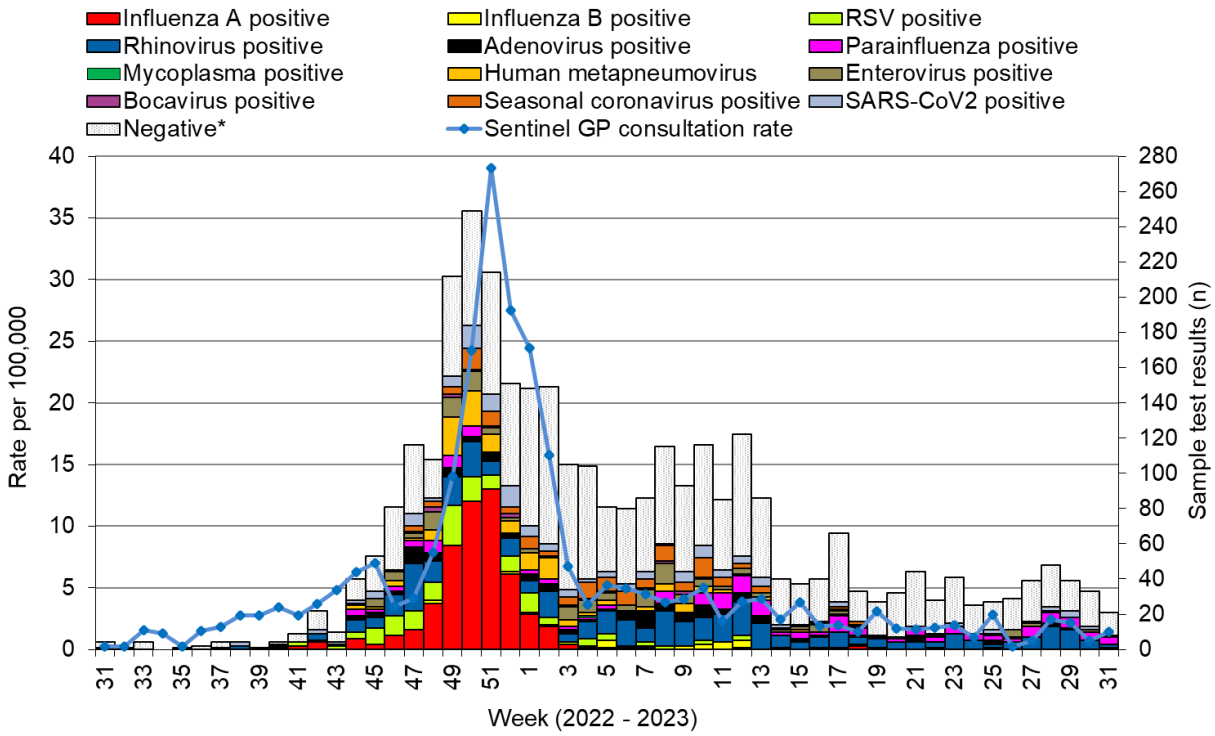
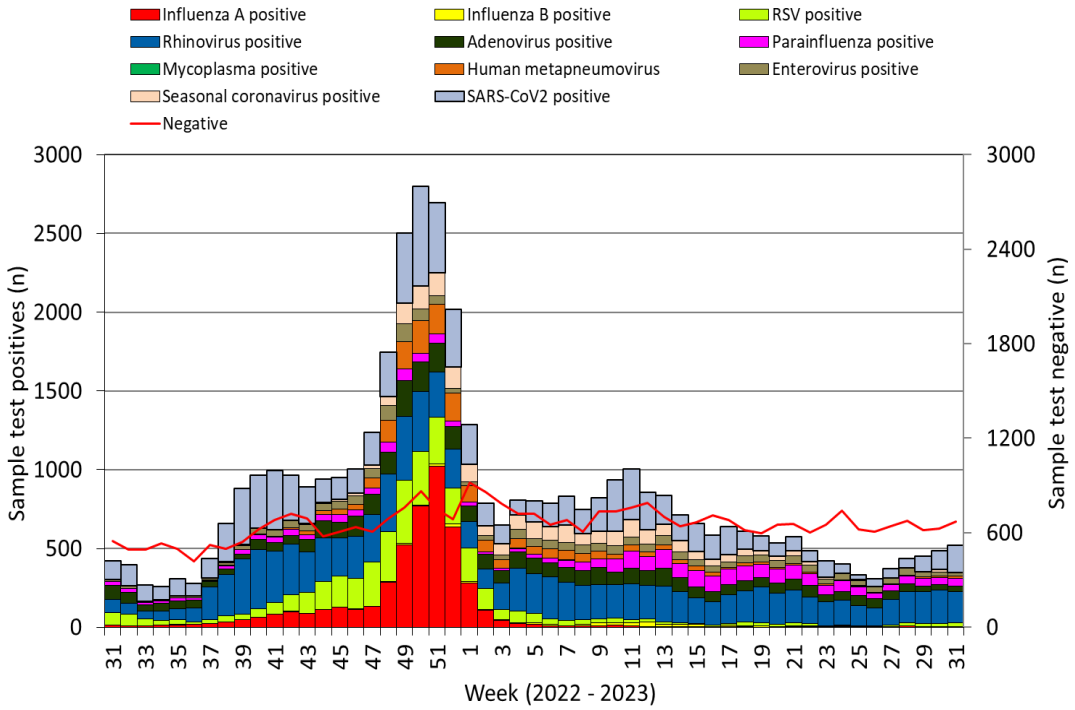


Figure 4. Specimens submitted for virological testing by sentinel GPs and community pharmacies as of 06/08/2023, by week of sample collection, Week 31 2022 to Week 31 2023.



* 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 06/08/2023 by week of sample collection, Week 31 2022 to Week 31 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 06/08/2023 by week of sample collection, Week 40 2022 to Week 31 2023.

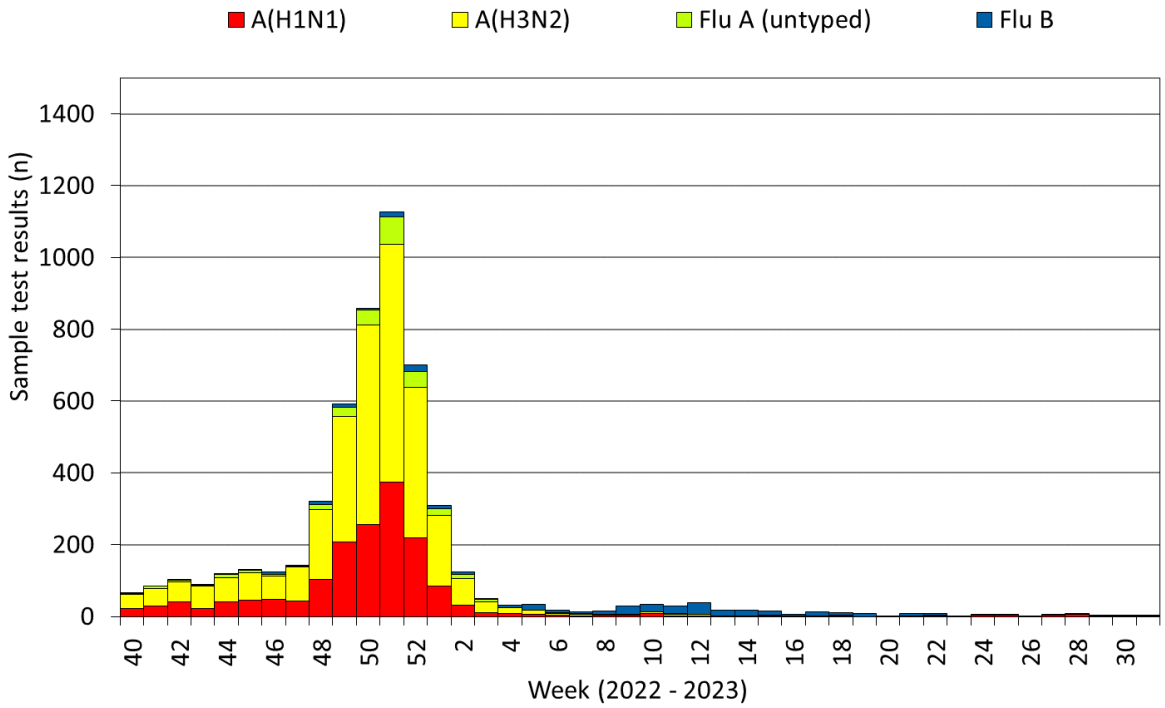


Figure 7. Specimens from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, as of 06/08/2023 by week of sample collection, Week 31 2022 to Week 31 2023.

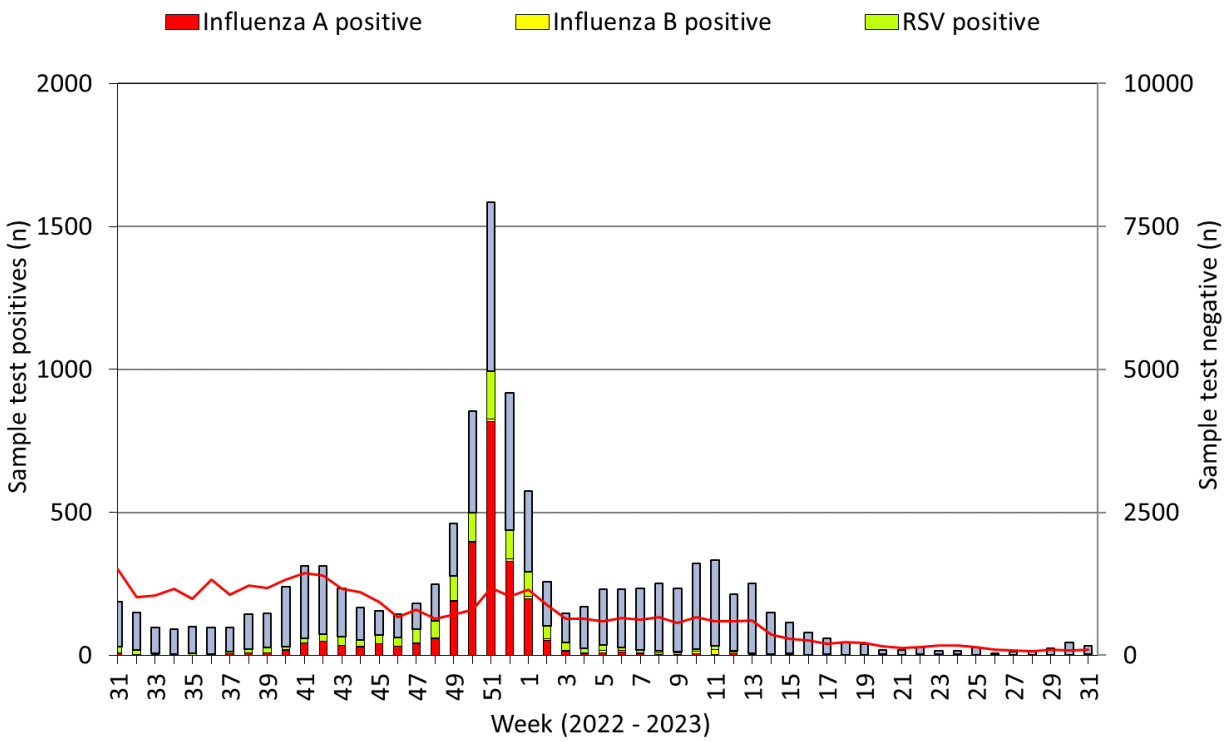
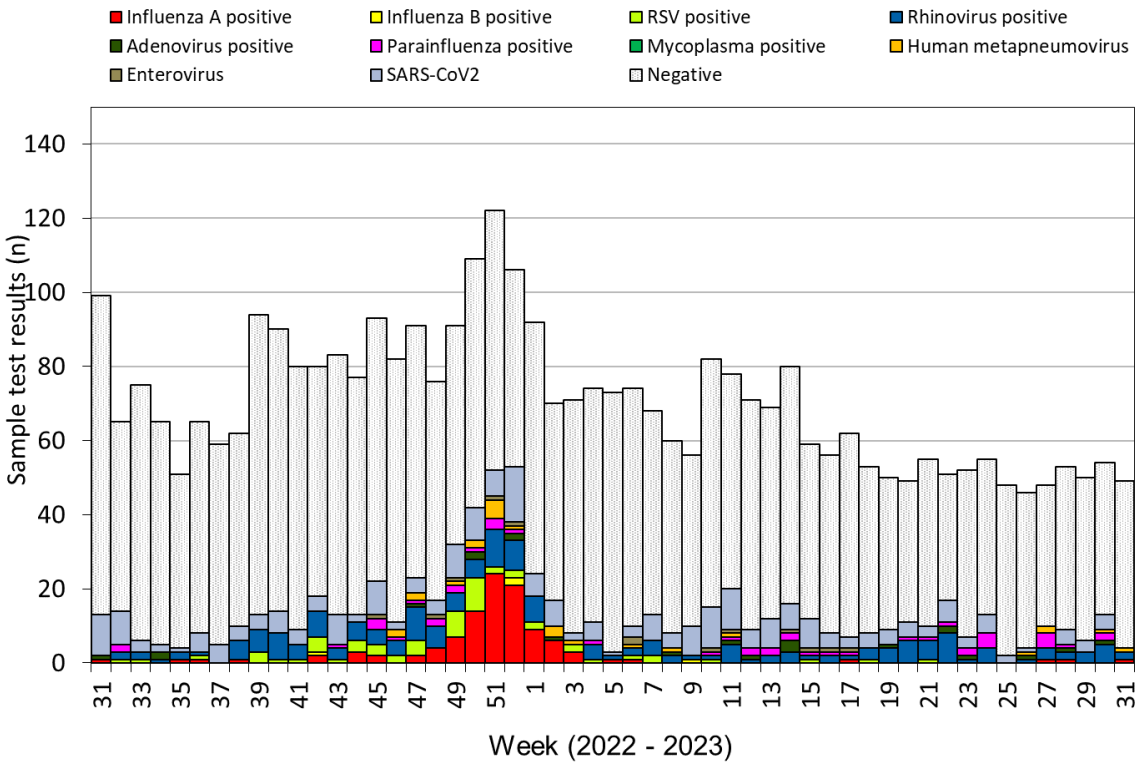
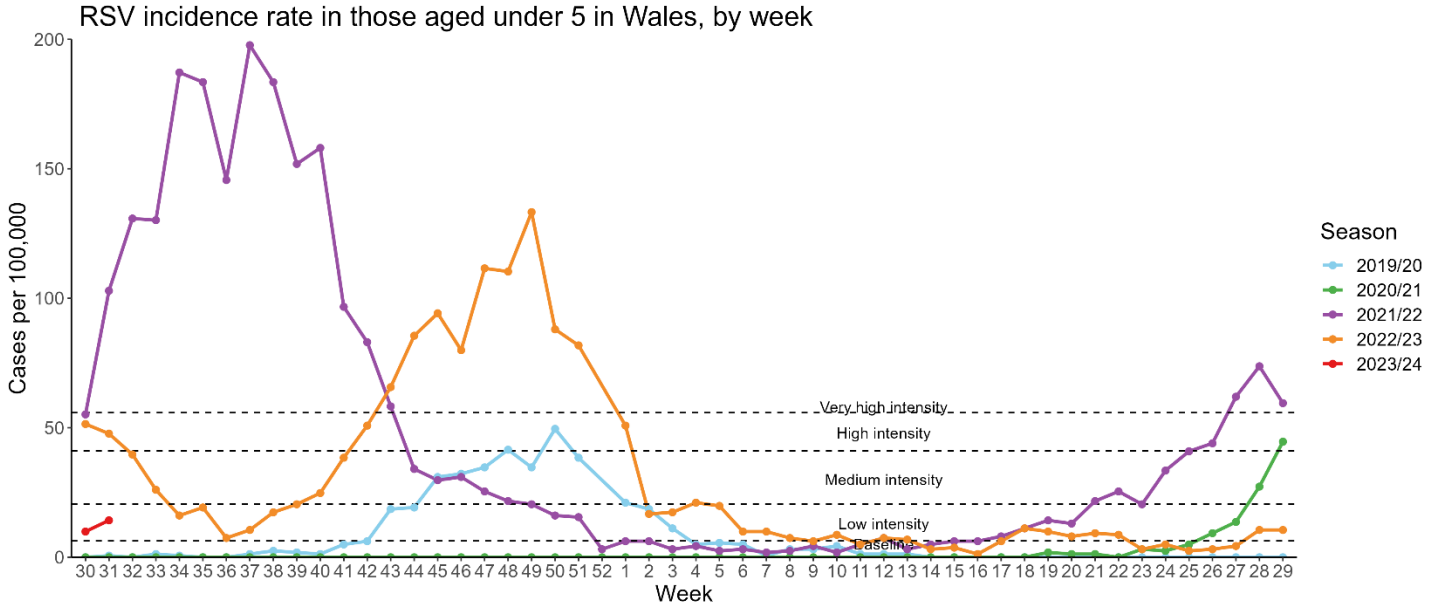


Figure 8. Specimens submitted for virological testing for ICU patients, by week of sample collection, Week 31 2022 to Week 31 2023.



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 31 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 06/08/2023.

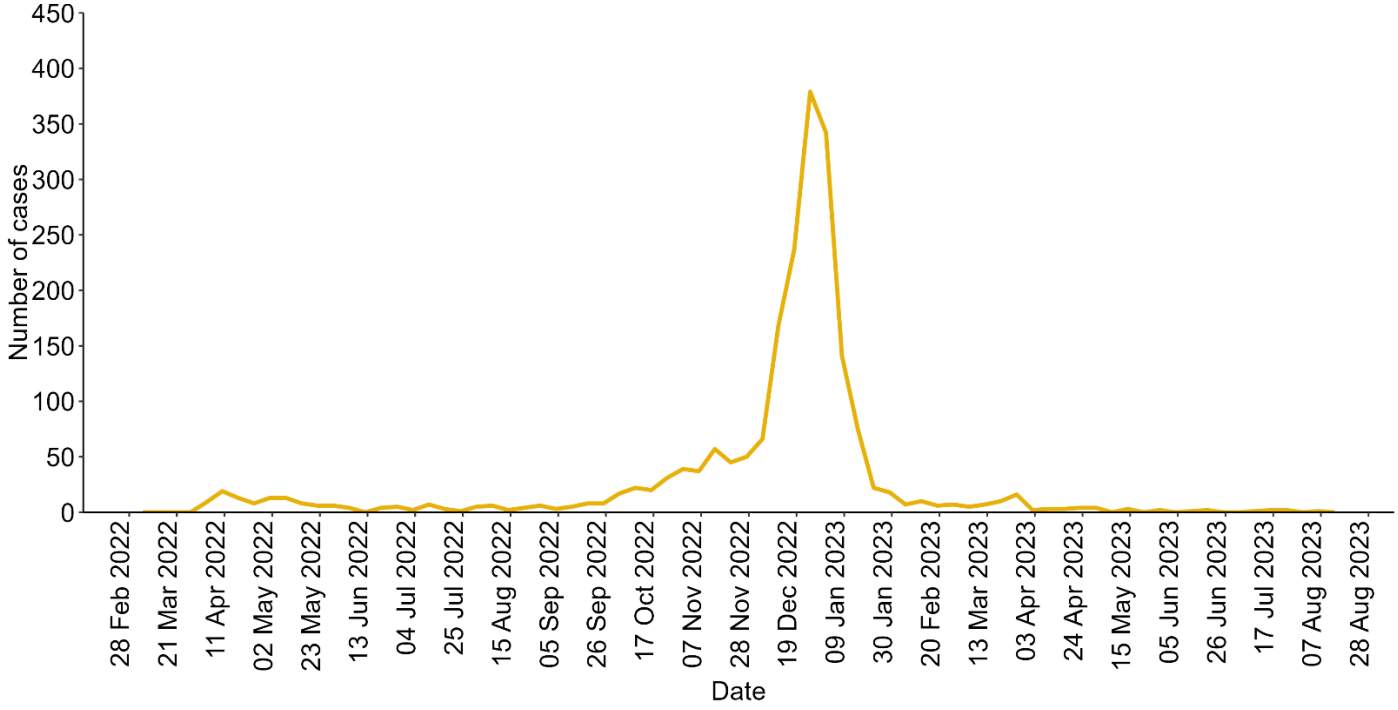
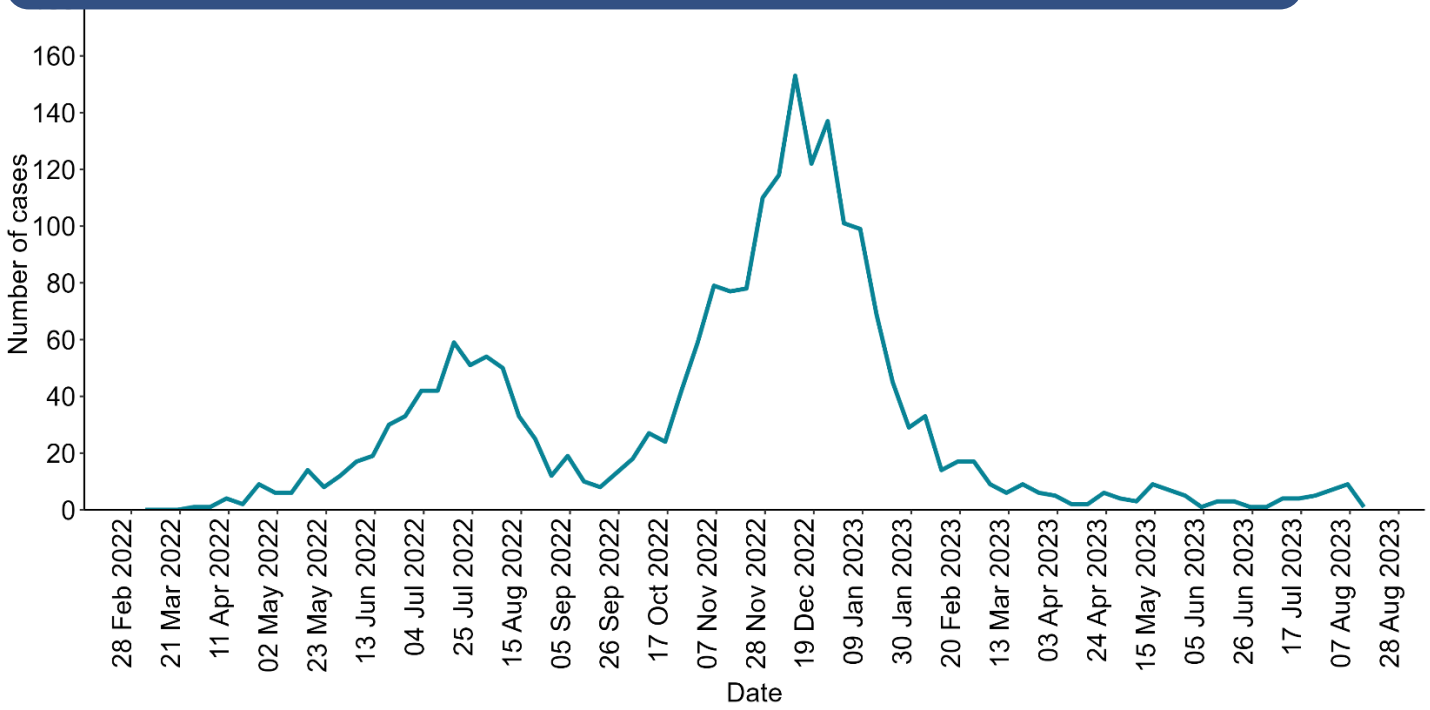
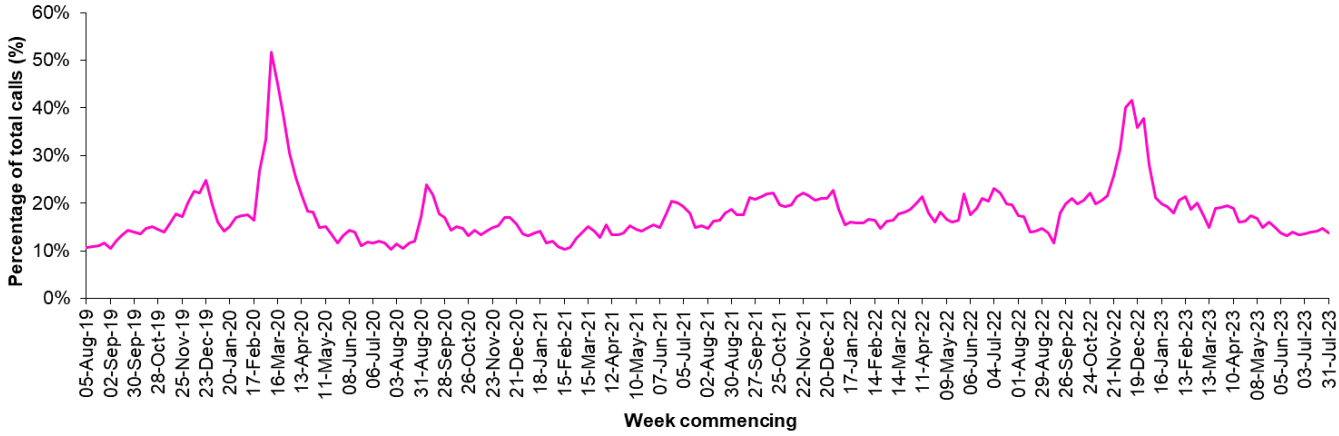


Figure 11. Seven day rolling sum of cases hospitalised in Wales within 28 days of an RSV positive test result in the community (or up to 2 days post-admission), as of 06/08/2023.



Calls to NHS Direct Wales

Figure 12. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from Week 31 2019 - Week 31 2023 (as of 06/08/2023).



[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 30, GP ILI consultations increased to 1.7 per 100,000, in England (latest data available).
- During Week 30, 22 samples testing positive for influenza were reported in England (nine A(not subtyped), nine A(H3), one A(H1N1) and four influenza B). Overall influenza positivity remained low at 0.9%. 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. **Source:** Flu News Europe: http://www.flunewseurope.org/

- The WHO reported on 07/08/2023, based on data up to 23/07/2023 that globally, influenza detections remain low, with activity in many countries hemisphere now decreasing having peaked in recent weeks.
- In the countries of North America, influenza indicators were mostly at low levels typically observed between influenza seasons.
- Countries in the temperate zones of the southern hemisphere influenza activity decreased, with influenza A predominant. Influenza decreased across all jurisdictions in Australia, with the majority of detections being influenza A followed by influenza B. Influenza detections decreased in New Zealand.
- In tropical South America, influenza detections continued to decrease, and activity was low with detections of influenza A(H1N1(pdm09) and influenza B viruses reported across the region.
- In the Caribbean countries influenza activity remained low overall with influenza B lineage viruses predominant.
- In Western Africa, influenza detections were low and continued to decrease in reporting countries.
- In Middle Africa, the Central African Republic reported sporadic influenza A(H1N1(pdm09). Other countries reported no influenza despite ongoing testing.
- In Southern Asia, influenza activity remained low across reporting countries except for Bangladesh where all influenza subtypes were detected. Detections Influenza A(H3) and Influenza A(H1N1(pdm09) increased in the Maldives.
- Influenza activity in South-East Asia remained stable in most reporting countries. However, there was a slight increase in detection in Singapore and Thailand. Influenza A(H1N1(pdm09) was predominant across the region.
- In Northern Africa, no detections were reported among those reporting ongoing testing.
- In Central Asia, no influenza detections were reported.
  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 08/08/2023), during the period from 10/07/2023 – 23/08/2023 National Influenza Centres and other national influenza laboratories from 106 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 215,359 specimens during that period, of which 5,532 were positive for influenza viruses, 3,999 (72.3%) of those positive for influenza were typed as influenza A (of the subtyped influenza A viruses, 1,346 (51.2%) were influenza A(H1N1)pdm09 and 1,285 (48.84%) were influenza A(H3N2). Of the 5,532 samples testing positive for influenza viruses, 1,533 tested positive for Influenza B (27.7%). **Source:** Flu Net: https://www.who.int/tools/flunet

Australia and New Zealand update

- In New Zealand, during the week ending 30/07/2023, community influenza-like illness activity (ILI) GP consultations slightly decreased to 12.99 per 100,000. The SARI hospitalisation rate decreased to 5.18 per 100,000 and is now at low activity levels.
- In New Zealand, the weekly RSV positivity rate through sentinel hospital SARI sampling decreased to 16.7% in the week ending 30/07/2023.
  Source: Institute of Environmental Science & Research, New Zealand

- In Australia, according to the latest available update (fortnight ending 23/07/2023), influenza-like illness (ILI) activity in the community decreased to 7.82 per 1,000 this reporting period. To date, the majority of nationally reported laboratory-confirmed influenza cases were influenza A (63%).
  Source: Australian Influenza Surveillance Report and Activity Updates.

COVID-19 – UK and international summary

- As of 02/08/2023, there were 5.0 new positive PCR episodes per 100,000 population in Wales, for the most recent 7-day reporting period. There were two suspected COVID-19 deaths with a date of death in the most recent 7-day reporting period, reported to Public Health Wales. There were nine COVID-19 death registrations in the last reporting period reported 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 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 936 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-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