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



Wednesday 22nd March 2023 (covering Week 11 2023)

Current level of influenza activity: Baseline Influenza activity trend: Decreasing

Confirmed influenza cases since 2022 Week 40: 7636 (3045 influenza A(H3N2), 1618 influenza A(H1N1)pdm09,

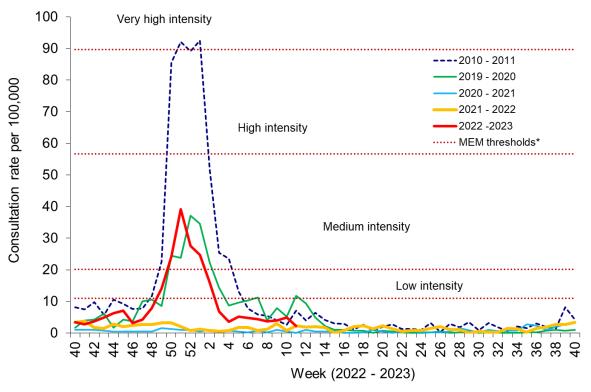
2644 influenza A(not subtyped) and 329 influenza B)

During Week 11 (ending 19/03/2023) there were 51 cases of influenza, with 1 further case from previous weeks. This is an increase compared to the previous week, although overall activity has decreased since February. COVID-19 cases also continue to be detected in patients in hospitals and in the community and have increased in the previous fortnight. RSV incidence in children under five years of age has decreased from peak levels seen in December and is currently at baseline levels. SARS-CoV-2, Rhinovirus, seasonal coronaviruses, parainfluenza, 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 11, was 2.2 consultations per 100,000 practice population (Table 1). This is a decrease compared to the previous Week (4.9 consultations per 100,000, Figure 1).
- The Sentinel GP consultation rate for Acute Respiratory Infections (ARI) was 199.22 per 100,000 practice population during Week 11 (Table 2 and Figure 3). This is a decrease compared to the previous week (202.67 per 100,000). Weekly consultations for Lower Respiratory Tract Infections (at 64.73 per 100,000) increased and Upper Respiratory Tract Infections (139.51 per 100,000) decreased 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 11 decreased to 15.0% (Figure 9).
- During Week 11, 1,624 specimens received multiplex respiratory panel testing mainly from patients attending hospitals. These results do not include samples tested solely for SARS-CoV-2. There were 25 samples positive for influenza, of which five were A(H3N2), one was A(H1N1), and 19 were influenza B. Overall influenza positivity decreased to 1.3% across all age groups; 1.2% in those aged 18 years and over; and to 2.4% in those aged under 18 years. In addition, there were 320 SARS-CoV-2, 246 rhinovirus, 114 seasonal coronaviruses, 110 parainfluenza, 98 adenovirus, 40 human metapneumovirus, 29 enterovirus, and 23 RSV positive samples (Figure 5). Additionally, 941 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 941 samples, 302 were positive for SARS-CoV-2, 12 were positive for RSV, 18 for influenza B, and four were positive for influenza A (Figure 6). Furthermore, during Week 11, 78 respiratory specimens were tested from patients in intensive care units (ICU) of which none were positive for influenza (Figure 7).
- There were 74 surveillance samples from patients with ILI symptoms collected by sentinel GPs and community pharmacies during Week 11. Of the 74 samples, ten tested positive for parainfluenza, ten for rhinovirus, five for seasonal coronaviruses, five for SARS-CoV-2, four for human metapneumovirus, four for enterovirus, four for influenza B, three for adenovirus and two for RSV (as at 22/03/2023) (Figure 4).
- In Week 11 there were 5.0 confirmed cases per 100,000 in those aged under five years (Figure 7). This an decrease from the previous week and activity is now at baseline levels. The baseline MEM threshold in Wales for RSV activity in children younger than five years is 6.3 confirmed cases per 100,000.
- The 7-day rolling sum of cases hospitalised within 28 days of an influenza positive test result in the community (or up to two days post-admission) increased to nine during Week 11, from two during the previous week. (Figures 10 & 11).
- During week 11, 23 ARI outbreaks were reported to the Public Health Wales Health Protection team. All 23 outbreaks were reported as COVID-19. 22 ARI outbreaks were reported in residential care homes and two in community settings or other settings.
- According to <u>EuroMoMo</u> analysis, all-cause deaths in Wales were not significantly in excess during week 10.

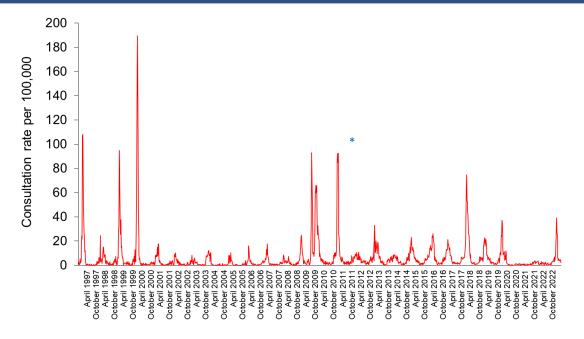
Respiratory infection activity in Wales

Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 19/03/2023).



^{*} 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.

Figure 2. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (Week 48 1996 – Week 11 2023).



^{*} Reporting changed to Audit+ surveillance system

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

Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, Week 06 – Week 11 2023 (as of 19/03/2023).

Age						
group	6	7	8	9	10	11
< 1	0	0	0	0.0	0	41.77
1 - 4	6.7	0	0	6.5	0	0
5 - 14	0	2.22	0	0.0	2.38	0
15 - 24	2.15	8.62	8.38	6.3	4.57	0
25 - 34	5.71	13.33	3.7	3.7	0	5
35 - 44	7.54	1.89	5.48	1.8	10.11	0
45 - 64	7.3	1.83	4.42	5.3	6.82	2.4
65 - 74	2.18	4.36	0	6.3	2.31	0
75+	4.46	2.23	4.29	2.1	7.01	5.71
Total	4.8	4.3	3.7	4.0	4.9	2.2

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 06 – Week 11 2023 (as of 19/03/2023).

Age						
group	6	7	8	9	10	11
< 1	1560.0	1480.8	1128.1	1309.4	1085.5	1127.8
1 - 4	1057.6	877.3	988.8	812.5	762.64	754.82
5 - 14	296.3	286.6	196.0	206.7	268.86	289.97
15 - 24	202.3	155.1	144.6	142.4	139.27	128.89
25 - 34	212.9	148.5	188.5	158.8	201.97	190.16
35 - 44	189.6	175.4	157.0	156.8	159.77	186.46
45 - 64	140.6	157.0	146.7	153.8	154.91	134.55
65 - 74	154.7	176.4	189.2	193.4	143.35	143.42
75+	198.5	222.8	208.1	220.7	184.71	177.16
Total	230.8	217.3	207.4	203.4	202.7	199.2

Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 11 2022 – Week 11 2023 (as of 19/03/2023).

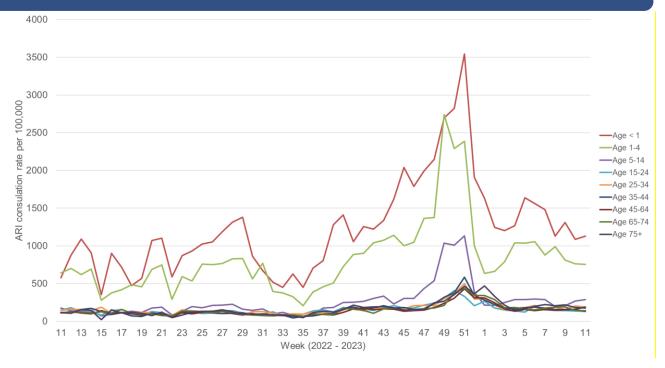
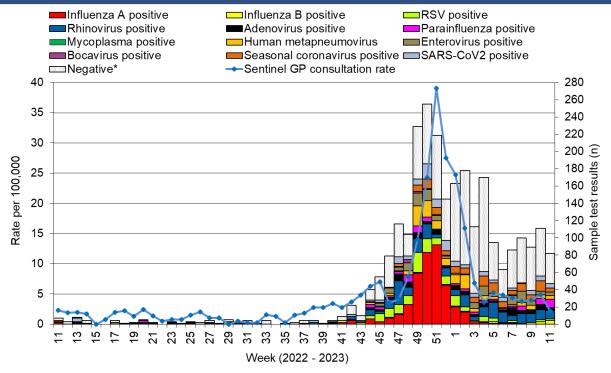


Figure 4. Specimens submitted for virological testing by sentinel GPs and community pharmacies as of 19/03/2023, by week of sample collection, Week 11 2022 to Week 11 2023.



^{*} 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

Figure 5. Specimens submitted for virological testing for hospital patients and non-sentinel

GPs as of 19/03/2023 by week of sample collection, Week 11 2022 to Week 11 2023. ■Influenza A positive Influenza B positive RSV positive Rhinovirus positive ■ Adenovirus positive Parainfluenza positive Enterovirus positive Mycoplasma positive ■ Human metapneumovirus Seasonal coronavirus positive SARS-CoV2 positive Negative 3000 3000 2500 2400 Sample test negative (n) Sample test positives (n) 2000 1800 1500 1200

1000

500

0

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.

Week (2022 - 2023)

23 25 27 27 27 29 33 33 33 34 41 45 47

600

0

Figure 6. Specimens from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, as of 19/03/2023 by week of sample collection, Week 11 2022 to Week 11 2023.

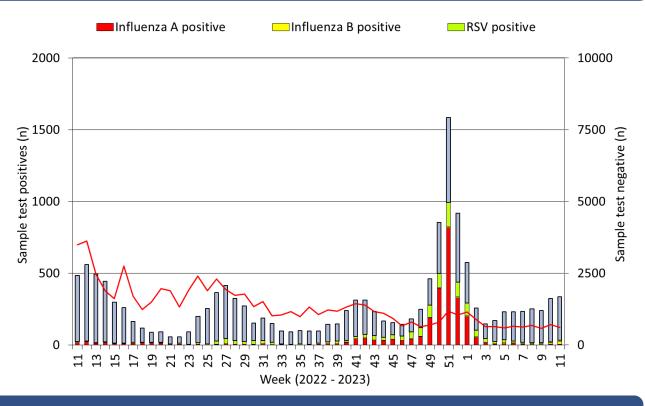
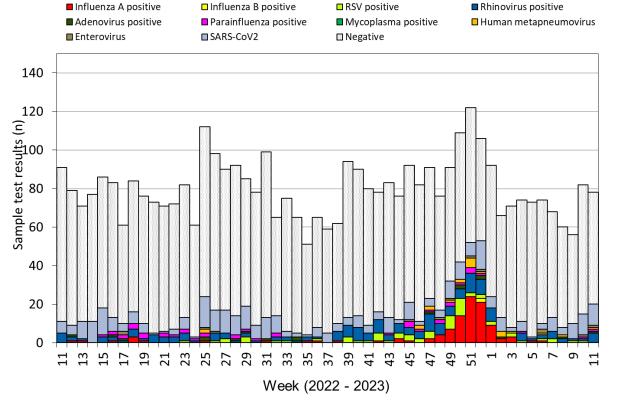
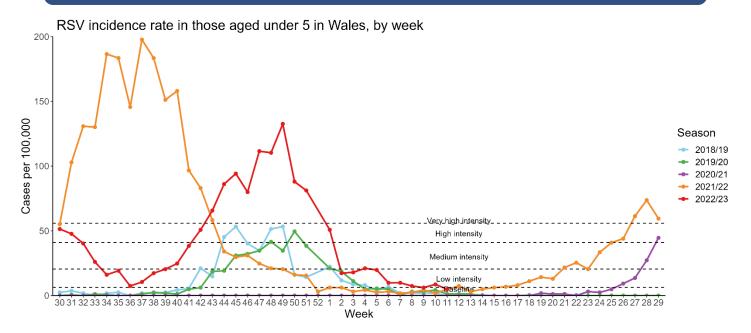


Figure 7. Specimens submitted for virological testing for ICU patients, by week of sample collection, Week 11 2022 to Week 11 2023.



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.

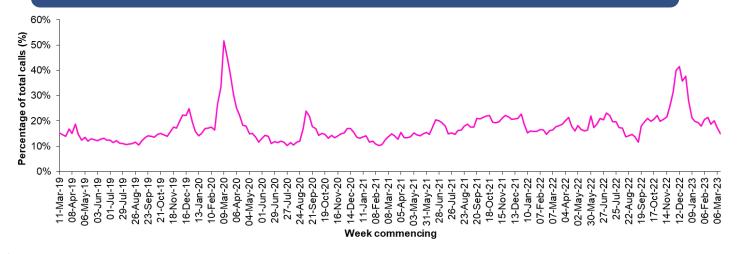
Figure 8. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 11 2023.



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

Calls to NHS Direct Wales

Figure 9. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from Week 11 2019 - Week 11 2023 (as of 19/03/2023).



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.

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 19/03/2023).

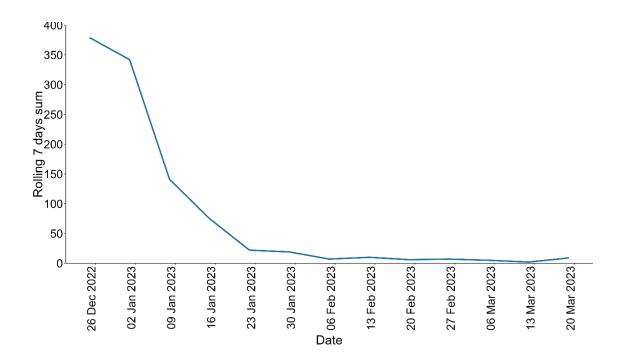
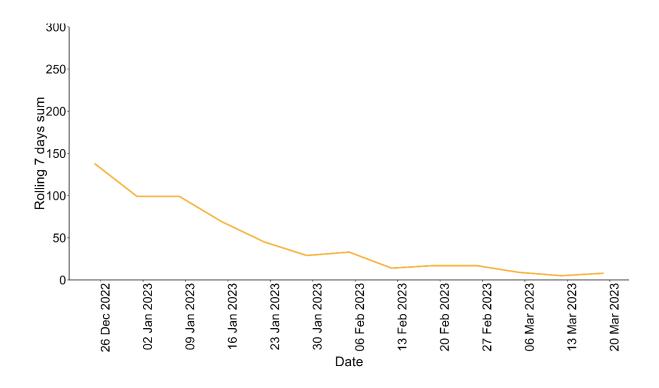


Figure 11. Seven day rolling sum of cases hospitalised in Wales within 28 days of an RSV positive test result in the community (or up to 2 days post-admission), as of 19/03/2023).



Influenza Vaccine Uptake in Wales

Table 3. Uptake of influenza immunisations in GP Practice patients in Wales 2022/23 (as of 14/03/2023).

Influenza immunisation uptake in the 2022/23 season				
People aged 65y and older	76.2%			
People younger than 65y in a clinical risk group	44.1%			
Children aged two & three years	44.1%			
Children aged between four & ten years	62.7%			
Children aged between 11 & 15 years	52.4%			
Total NHS staff	45.2%			
NHS staff with direct patient contact	45.4%			

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 10, GP ILI consultations increased in Northern Ireland to 3.0 per 100,000, and in Scotland to 3.9 and remained stable in England at 3.8 per 100,000.
- During Week 10, 138 samples testing positive for influenza were reported in England (including 5 A(H3), 19 A(not subtyped) and 114 influenza B. Overall influenza positivity remained decreased to 1.9% in Week 10. 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) reported in their weekly joint influenza update, that during Week 10, six countries reported baseline activity, 15 countries reported low-intensity, 18 reported medium-intensity, and one reported high-intensity. From the 39 countries reporting, one reported no activity, seven reported sporadic spread, four reported local spread, seven reported regional spread, and 20 reported widespread activity (across the Region). During Week 10, 939 (26%) of samples from patients presenting to all sentinel primary care centres with ILI or ARI symptoms tested positive for influenza. This is an increase from the previous week and remains above the threshold for epidemic activity (10%). Of sentinel specimens that tested positive for influenza for the season to date, 78% were influenza A (66% H3, and 34% A(H1N1)pdm09) and 22% were influenza B. **Source:** Flu News Europe: http://www.flunewseurope.org/
- The WHO reported on 20/03/2023, based on data up to 05/03/2023, that globally, influenza has decreased followed a peak in late 2022, with influenza A predominating, with a slightly larger proportion of Influenza A(H1N1pdm09) viruses detected among the subtyped influenza A viruses. The proportion of influenza B virus detections increased.
- In the temperate zones of the southern hemisphere, influenza remained at interseasonal levels. Most detections were influenza B.
- In tropical Central and South America, influenza detections remained low across the subregion. Of the influenza detected, B/Victoria virus was predominant. In Mexico, RSV and SARS-CoV-2 were elevated. Pneumonia cases continued to increase in Jamaica. In Bolivia, influenza and SARI activity decreased but remained at moderate levels. In Ecuador, pneumonia cases remained at moderate levels.
- In Western Africa, influenza activity remained low and continues to decrease. Burkina Faso, Ghana, Niger, and Cote D'Ivoire reported few detections of influenza A(H1N1)pdm09. In Middle and Eastern Africa countries, sporadic detections of all influenza subtypes were reported.
- In Southern Asia, influenza activity remained low. There was a slight increase in influenza A(H3N2 detections in Sri Lanka, and influenza B/Victoria in India. Influenza like illness detections continue to be elevated in Bangladesh and Nepal. Influenza detections were elevated in Malaysia, Singapore and Thailand.
- In Northern Africa, influenza activity decreased. In Western and Middle Africa, influenza activity remained low, although sporadic detections of influenza B were reported by Cameroon and Gabon. In Eastern Africa, all seasonal subtypes decreased but remained elevated.
- In Central Asia, influenza activity decreased overall. In Kyrgyzstan, and Tajikistan, influenza B detections predominated, while influenza A detections predominate in Kazakhstan.
 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 21/03/2023), during the period from 20/02/2023 06/03/2023, National Influenza Centres and other national influenza laboratories from 115 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 354,698 specimens during that period, of which 42,459 were positive for influenza viruses, 29,522 (69.5%) of those positive for influenza were typed as influenza A (of the subtyped influenza A viruses, 16,188 (74.5%) were influenza A(H1N1)pdm09 and 5,549 (33.8%) were influenza A(H3N2)). Of the 42,459 samples tested positive for influenza viruses, 12,937 tested positive for Influenza B (30.5%) and of the characterised B viruses, 1411 (100%) was B-Victoria lineage. 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 seasonal influenza activity is at low levels across the country during Week 10 (ending 11/03/2023). Nationally, 666 (1.0%) out of 66,138 specimens, tested positive for influenza in Week 10 in clinical laboratories nationwide. Of these, 441 (66.2%) were influenza A and 225 (33.8%) were influenza B. Further testing has been carried out on 6,258 specimens by public health laboratories, with 79 samples testing positive for influenza; 23 influenza A(H1N1)pdm09 (65.7%), 12 influenza A(H3N2) (34.3%), 23 samples where subtyping was not performed, and 21 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 9, influenza activity remains at low levels typically observed in late spring/early summer. During Week 9, 326 influenza detections were reported: 153 influenza A and 124 influenza B. The proportion of influenza B detections has risen in recent weeks and is running at similar levels to influenza A. The percentage of ILI visits reduced to 0.7% in week 9.

Source: Public Health Agency of Canada: https://www.canada.ca/en/public-health/services/diseases/flu-influenza-surveillance/weekly-influenza-reports.html

Respiratory syncytial virus (RSV) in North America

The USA CDC reported RSV positivity rate and detections both decreased in the week beginning 18/03/2023.
 Source: CDC RSV national trends: https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html

COVID-19 - UK and international summary

- As of 15/03/2023, there were 20 new positive PCR episodes per 100,000 population in Wales, for the most recent
 7-day reporting period. There were 19 suspected COVID-19 deaths with a date of death in the most recent 7-day
 reporting period, reported to Public Health Wales. There were 14 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 08/02/2023, WHO reported an additional case of MERS. In total, 2,603 laboratory-confirmed cases of locally acquired Middle East Respiratory Syndrome coronavirus (MERS-CoV) worldwide, including 935 deaths. No further cases or deaths were reported during week 9. WHO Global Alert and Response website: https://www.who.int/emergencies/disease-outbreak-news
- Most of the MERS cases continue to be reported from Middle Eastern countries within the Arabian Peninsula, 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 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