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



Wednesday 8th March 2023 (covering Week 09 2023)

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

Confirmed influenza cases since 2022 Week 40: 7538 (3035 influenza A(H3N2), 1610 influenza A(H1N1)pdm09,

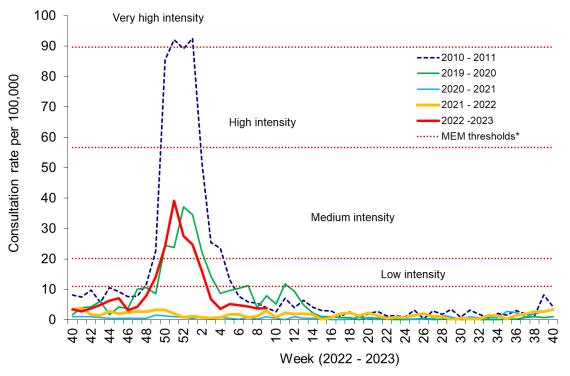
2634 influenza A(not subtyped) and 259 influenza B)

During Week 9 (ending 05/03/2023) there were 36 cases of influenza, with 1 further case from previous weeks. Influenza continues to be confirmed in Wales, although overall activity has decreased. COVID-19 cases also continue to be detected in symptomatic patients in hospitals and in the community. RSV incidence in children under five years of age has decreased from peak levels seen in December and is currently at low intensity levels. Rhinovirus, SARS-CoV-2, adenovirus, and seasonal coronaviruses 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 09, was 3.9 consultations per 100,000 practice population (Table 1). This is an increase compared to the previous Week (3.7 consultations per 100,000, Figure 1).
- The Sentinel GP consultation rate for Acute Respiratory Infections (ARI) was 205.0 per 100,000 practice population during Week 09 (Table 2 and Figure 3). This is a decrease compared to the previous week (207.4 per 100,000). Weekly consultations for Lower Respiratory Tract Infections (at 64.0 per 100,000) decreased and Upper Respiratory Tract Infections (142.2 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 09 increased to 20.1% (Figure 9).
- During Week 9, 1,445 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 27 samples positive for influenza, of which three were A(H1N1), three were A(H3N2), and twenty-one were influenza B. Overall influenza positivity increased to 1.9% across all age groups; increased to 1.6% in those aged 18 years and over; and to 2.4% in those aged under 18 years. In addition, there were 236 rhinovirus, 210 SARS-CoV-2, 107 adenovirus, 75 seasonal coronaviruses, 55 parainfluenza, 47 human metapneumovirus, 33 enterovirus, and 23 RSV positive samples (Figure 5). Additionally, 841 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 841 samples, 226 were positive for SARS-CoV-2, five were positive for RSV, seven for influenza B, and two were positive for influenza A (Figure 6). Furthermore, during Week 9, 56 respiratory specimens were tested from patients in intensive care units (ICU) of which one was positive for influenza B (Figure 7).
- There were 21 surveillance samples from patients with ILI symptoms collected by **sentinel GPs and community pharmacies** during week 9. Of the 21 samples, 13 were negative, three were positive for enterovirus, two for human metapneumovirus, and one for seasonal coronaviruses, rhinovirus, and adenovirus respectively (as at 08/03/2023) (Figure 4).
- In Week 09 there were 6.2 confirmed cases per 100,000 in those aged under five years (Figure 7). This a decrease from the previous week and activity is now at baseline levels. 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.
- 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) decreased to three during Week 9, from five during the previous week. (Figures 10 & 11).
- During week 9, 21 **ARI outbreaks** were reported to the Public Health Wales Health Protection team. All 21 were reported as COVID-19. 19 **ARI outbreaks** were reported in residential care homes and two in community settings.
- According to <u>EuroMoMo</u> analysis, all-cause deaths in Wales were not significantly in excess during week 8.

# Respiratory infection activity in Wales

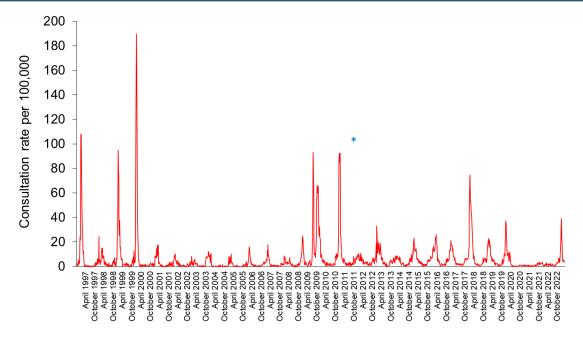
Figure 1. Clinical consultation rate for ILI per 100,000 practice population in Welsh sentinel practices (as of 05/03/2023).



<sup>\*</sup> 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 09 2023).



<sup>\*</sup> Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for ILI in Welsh sentinel practices, Week 04 – Week 09 2023 (as of 05/03/2023).

Age						
group	4	5	6	7	8	9
< 1	0.0	0.0	0	0	0	0
1 - 4	0.0	0.0	6.7	0	0	6.75
5 - 14	0.0	0.0	0	2.22	0	0
15 - 24	2.2	4.6	2.15	8.62	8.38	6.51
25 - 34	3.9	4.2	5.71	13.33	3.7	3.84
35 - 44	3.8	12.3	7.54	1.89	5.48	1.9
45 - 64	2.8	7.9	7.3	1.83	4.42	5.52
65 - 74	6.5	0.0	2.18	4.36	0	4.39
75+	8.9	4.8	4.46	2.23	4.29	2.24
Total	3.6	5.2	4.8	4.3	3.7	3.9

Table 2. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 04 – Week 09 2023 (as of 05/03/2023).

Age						
group	4	5	6	7	8	9
< 1	1266.6	1637.1	1560.0	1480.8	1128.1	1331.6
1 - 4	1041.5	1038.1	1057.6	877.3	988.8	809.9
5 - 14	288.6	286.6	296.3	286.6	196.0	206.3
15 - 24	138.9	120.6	202.3	155.1	144.6	147.5
25 - 34	179.5	183.0	212.9	148.5	188.5	163.2
35 - 44	163.8	181.0	189.6	175.4	157.0	157.9
45 - 64	132.9	156.8	140.6	157.0	146.7	155.4
65 - 74	184.6	160.9	154.7	176.4	189.2	197.7
75+	144.9	168.2	198.5	222.8	208.1	215.1
Total	208.5	217.7	230.8	217.3	207.4	205.0

Figure 3. Age-specific consultations (per 100,000) for ARI in Welsh sentinel practices, Week 09 2022 – Week 09 2023 (as of 05/03/2023).

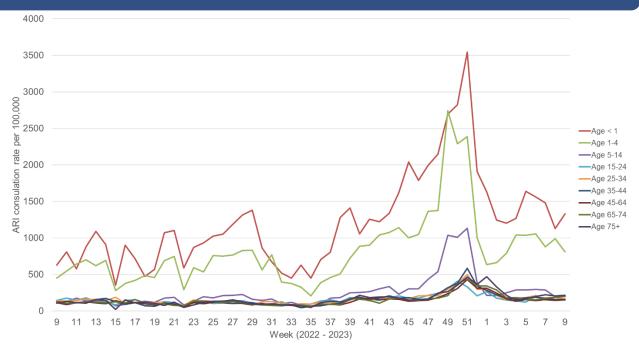
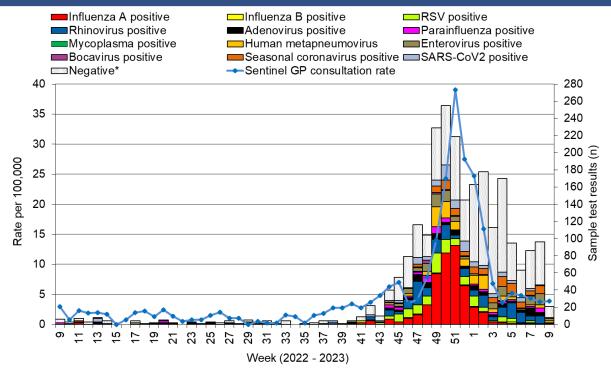
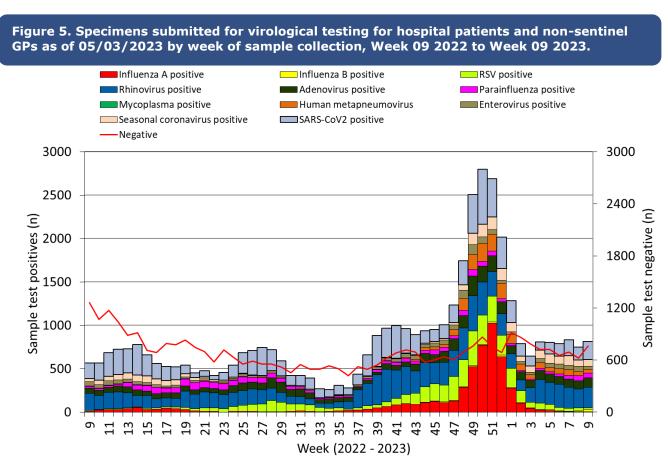


Figure 4. Specimens submitted for virological testing by sentinel GPs and community pharmacies as of 05/03/2023, by week of sample collection, Week 09 2022 to Week 09 2023.



<sup>\*</sup> 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



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. Specimens from hospital patients submitted for RSV, Influenza and SARS-CoV2 testing only, as of 05/03/2023 by week of sample collection, Week 09 2022 to Week

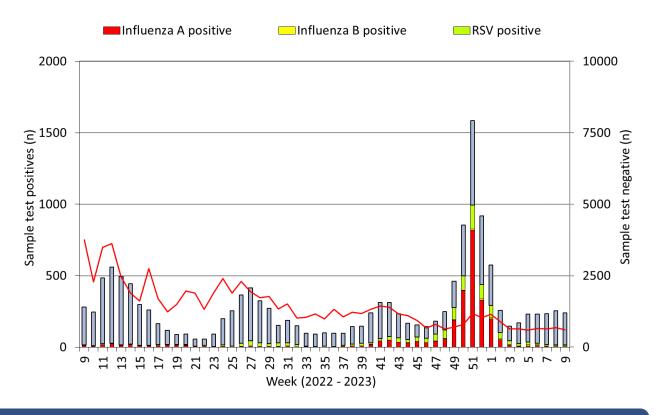
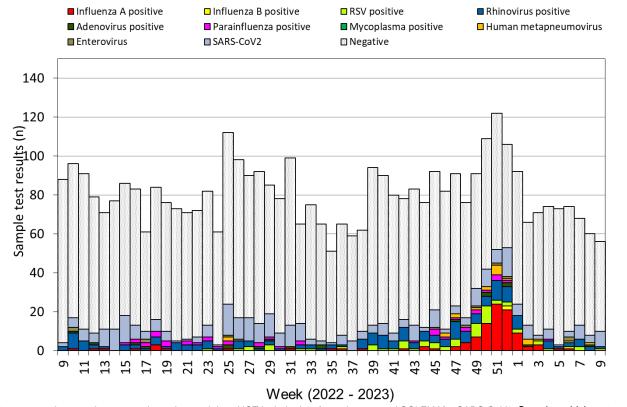
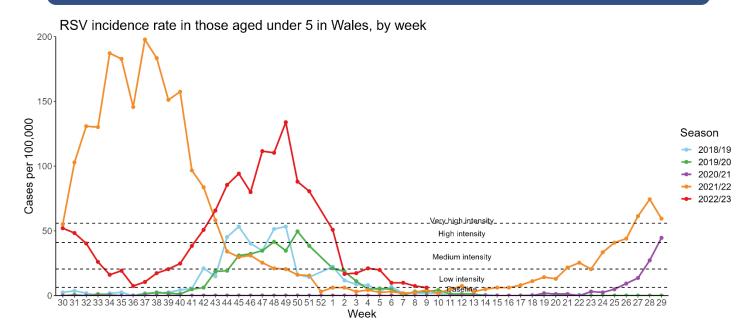


Figure 7. Specimens submitted for virological testing for ICU patients, by week of sample collection, Week 09 2022 to Week 09 2023.



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.

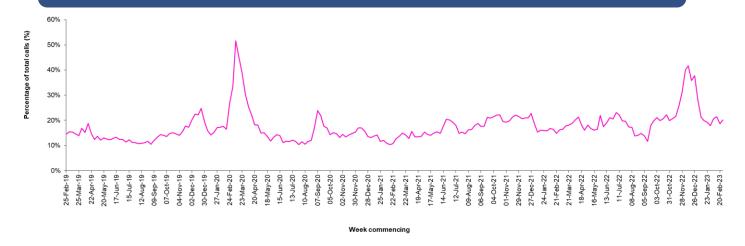
Figure 8. RSV incidence rate per 100,000 population aged under five years, week 30 2018 to Week 09 2023.



<sup>\*</sup>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 Wales<sup>1</sup> (as a percentage of total calls) from Week 09 2019 - Week 09 2023 (as of 05/03/2023).



<sup>&</sup>lt;sup>1</sup> 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 05/03/2023).

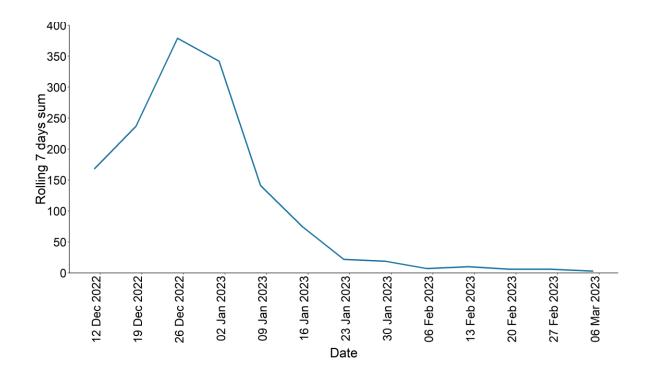
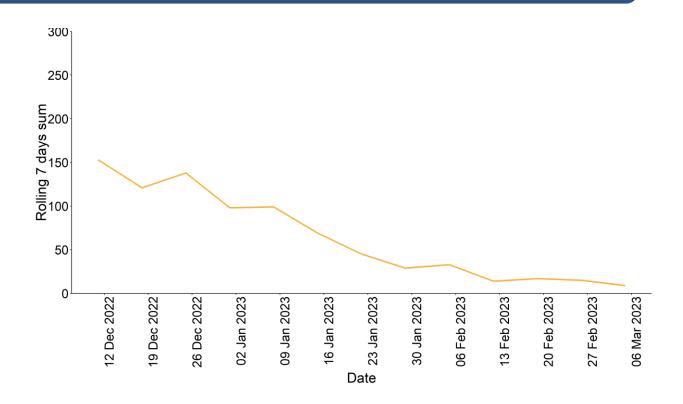


Figure 11. Seven day rolling sum of cases hospitalised in Wales within 28 days of an RSV positive test result in the community (or up to 2 days post-admission), as of 05/03/2023).



# Influenza Vaccine Uptake in Wales

Table 3. Uptake of influenza immunisations in GP Practice patients in Wales 2022/23 (as of 01/03/2023).

Influenza immunisation uptake in the 2022/23 season				
People aged 65y and older	76.2%			
People younger than 65y in a clinical risk group	43.9%			
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: <a href="https://phw.nhs.wales/topics/immunisation-and-vaccines/fluvaccine/annual-influenza-surveillance-and-influenza-vaccination-uptake-reports/">https://phw.nhs.wales/topics/immunisation-and-vaccines/fluvaccine/annual-influenza-surveillance-and-influenza-vaccination-uptake-reports/</a>

#### Influenza activity – UK and international summary

- As of Week 8, GP ILI consultations increased in Northern Ireland to 3.3 per 100,000, in Scotland to 5.9 and in England to 4.6 per 100,000.
- During Week 8, 172 samples testing positive for influenza were reported in England (including 14 A(H3), 45 A(not subtyped) and 113 influenza B; no samples tested positive for A(H1N1)pdm09). Overall influenza positivity remained stable at 2.4% in Week 8. UK summary data are available from the <a href="UKHSA Influenza and COVID-19">UKHSA Influenza and COVID-19</a>
   Surveillance Report.
- The WHO and the European Centre for Disease Prevention and Control (ECDC) reported in their weekly joint influenza update, that during Week 8, six countries reported baseline activity, eleven countries reported low-intensity, 19 reported medium-intensity, and two reported high-intensity. From the 37 countries reporting, eight reported sporadic spread, four reported local spread, eight reported regional spread, and 21 reported widespread activity (across the Region). During Week 8, 836 (25%) of samples from patients presenting to all sentinel primary care centres with ILI or ARI symptoms tested positive for influenza. This is a decrease 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, 83% were influenza A (68% H3, and 32% A(H1N1)pdm09) and 17% were influenza B. **Source:** Flu News Europe: <a href="http://www.flunewseurope.org/">http://www.flunewseurope.org/</a>
- The WHO reported on 06/03/2023, based on data up to 19/02/2023, 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. The majority of detections were influenza A(H3N2).
- In tropical Central and South America, influenza detections decreased across the subregion. Of the influenza detected, B/Victoria virus was predominant. Pneumonia cases increased in Jamaica. ILI rates decreased but remained high in Guadalupe and Saint Martin. In Honduras moderate influenza activity was reported. Overall RSV activity was low, except Mexico, Costa Rica and Panama.
- In Western Africa, influenza activity remained low and continues to decrease. Burkina Faso, Ghana, 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 detections in Sri Lanka, and influenza B/Victoria in Bhutan. Influenza detections continue to be elevated in Malaysia and increased in Singapore and Thailand.
- In Northern Africa, influenza activity decreased. In Western and Middle Africa, influenza activity remained low. 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.
  - **Source:** WHO influenza update: <a href="https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update">https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update</a>
- Based on FluNet reporting (as of 06/03/2023), during the period from 06/02/2023 19/02/2023, National Influenza Centres and other national influenza laboratories from 112 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 452,053 specimens during that period, of which 31,912 were positive for influenza viruses, 18,760 (58.8%) of those positive for influenza were typed as influenza A (of the subtyped influenza A viruses, 4,159 (66.2%) were influenza A(H1N1)pdm09 and 2,144 (33.8%) were influenza A(H3N2)). Of the 31,912 samples tested positive for influenza viruses, 13,152 tested positive for Influenza B,(41.2%) and of the characterised B viruses, 1094 (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 08 (ending 25/02/2023). Nationally, 682 (1.0%) out of 70,339 specimens, tested positive for influenza in Week 08 in clinical laboratories nationwide. Of these, 538 (78.9%) were influenza A and 144 (21.1%) were influenza B. Further testing has been carried out on 5,944 specimens by public health laboratories, with 73 samples testing positive for influenza; 18 influenza A(H1N1)pdm09 (36.7%), 31 influenza A(H3N2) (63.3%), 18 samples where subtyping was not performed, and 6 influenza B.
  - Source: CDC Weekly US Influenza Surveillance Report: <a href="http://www.cdc.gov/flu/weekly/">http://www.cdc.gov/flu/weekly/</a>
- The Public Health Agency of Canada reported that during Week 8, influenza activity remains at low levels typically observed in late spring/early summer. During Week 8, 268 influenza detections were reported: 144 influenza A (predominantly A(H1N1) at 54%), and 124 influenza B. The proportion of influenza B detections (46%) has risen in recent weeks. The percentage of ILI visits reduced to 0.8% in week 8.

**Source:** Public Health Agency of Canada: <a href="https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-influenza-reports.html">https://www.canada.ca/en/public-health/services/diseases/flu-influenza-surveillance/weekly-influenza-reports.html</a>

# Respiratory syncytial virus (RSV) in North America

The USA CDC reported RSV positivity rate and detections both decreased in the week beginning 04/03/2023.
 Source: CDC RSV national trends: https://www.cdc.gov/surveillance/nrevss/rsv/natl-trend.html

#### COVID-19 - UK and international summary

- As of 01/03/2023, there were 13 new positive PCR episodes per 100,000 population in Wales, for the most recent
  7-day reporting period. There were six suspected COVID-19 deaths with a date of death in the most recent 7-day
  reporting period, reported to Public Health Wales. There were 13 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: <a href="https://coronavirus.data.gov.uk/">https://coronavirus.data.gov.uk/</a>
- 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: <a href="https://ecdc.europa.eu/en/middle-east-respiratory-syndrome-coronavirus">https://ecdc.europa.eu/en/middle-east-respiratory-syndrome-coronavirus</a>
- Further updates and advice for healthcare workers and travellers are available from WHO: <a href="http://www.who.int/emergencies/mers-cov/en/">http://www.who.int/emergencies/mers-cov/en/</a> and from NaTHNaC: <a href="https://travelhealthpro.org.uk/news/237/mers-cov-update-travelhealthpro-country-pages">https://travelhealthpro.org.uk/news/237/mers-cov-update-travelhealthpro-country-pages</a>

### 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: <a href="https://www.who.int/emergencies/disease-outbreak-news">https://www.who.int/emergencies/disease-outbreak-news</a>

#### 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:

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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