

Current level of influenza activity: *Low*

Trend: *Increasing*

Confirmed cases since 2018 week 40: 396 (74% influenza A(H1N1)pdm09, 5% influenza A(H3), 18% influenza A(not typed), 2% influenza B)

Key points – Wales

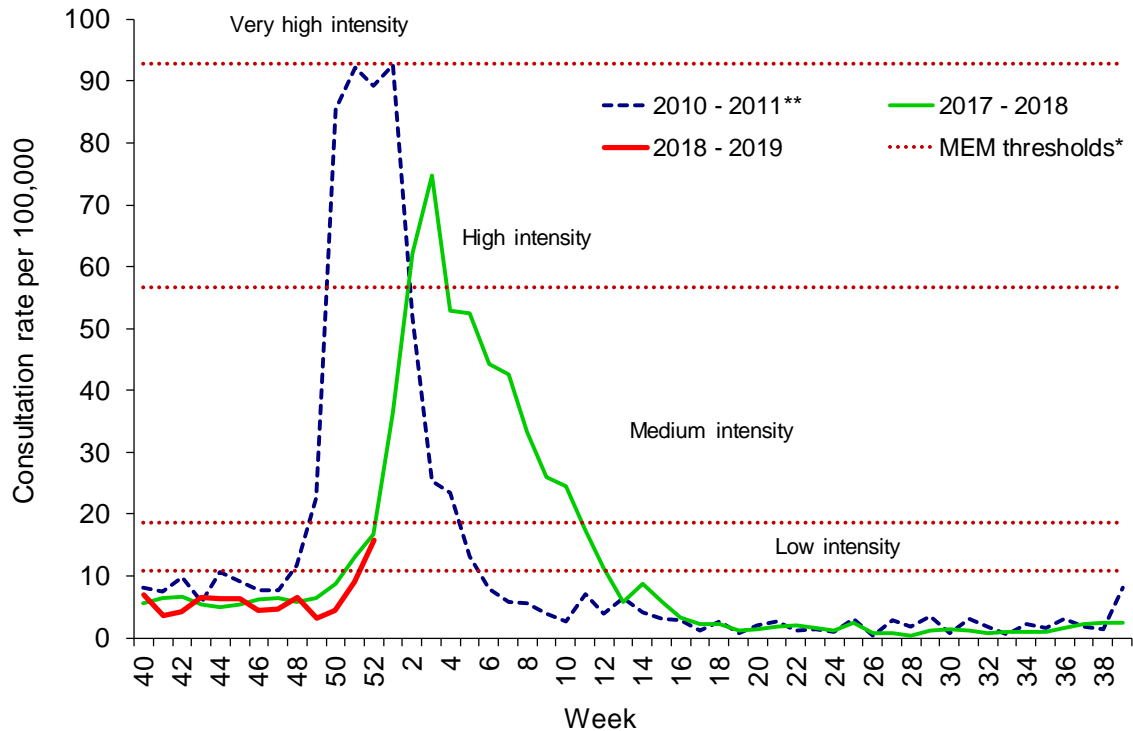
Surveillance indicators suggest that influenza is now circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) increased during week 52 (ending 30/12/2018) and when adjusted for reduced general practice opening hours, it is above the threshold for seasonal levels of activity. Influenza was the most commonly detected cause of Acute Respiratory Infection (ARI) in hospital and non-sentinel GP patients during week 52, with 121 confirmed cases. Influenza A(H1N1)pdm09 is currently dominant, small numbers of influenza A(H3N2) and influenza B cases have also been confirmed in recent weeks. Other causes of ARI, including RSV, rhinovirus and coronavirus continue to be detected in addition to influenza.

- The crude Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 52 was 9.5 consultations per 100,000 practice population. General practices were open for three days during this week, compared to the usual five. When adjusted for the reduced general practice opening hours, the consultation rate was 15.8 per 100,000. The consultation rate was highest in patients aged 45-64 years (31.0 per 100,000 practice population) (Table 1).
- The adjusted ILI consultation rate increased compared to the previous week (9.0 consultations per 100,000). This exceeds the Moving Epidemic Method (MEM) threshold for seasonal activity (10.8 consultations per 100,000) (Figure 1), but remains below the medium intensity threshold.
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 52 was 16,050. The proportion of respiratory-related consultations with OOH doctors increased to 23.9% from 22.0% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 52 increased to 19.8% (Figure 6).
- During week 52, no surveillance samples from patients with influenza-like illness were submitted by sentinel GPs for testing (Figure 3).
- During week 52, 412 specimens were received and tested by Public Health Wales Microbiology from hospitalised and non-sentinel GP patients with acute respiratory symptoms. The following numbers of patients tested positive: 94 influenza A(H1N1)pdm09, seven influenza A(H3N2), 20 influenza A (not typed), one influenza B, 60 for rhinovirus, 49 for RSV, 21 for coronavirus, 20 for human metapneumovirus, 16 for parainfluenza, nine for enterovirus, nine for adenovirus and one for mycoplasma (Figure 4). The proportion of samples from hospital patients positive for influenza was 20.8%, an increase from 13.8% in week 50.
- In those aged under five, the number of confirmed RSV cases per 100,000 population decreased to 12.9 during week 52; and 22 out of 88 samples (25%) tested positive in this age group. Surveillance data suggest that the RSV season continues to decline. The average duration of seasonal activity is 12 weeks (based on confirmed case data from 2011 to 2017) and week 52 was the 11th week since baseline activity thresholds were exceeded.
- During week 52, one outbreak of an acute respiratory illnesses (ARI) was reported to a Public Health Wales Health Protection team, the outbreak was in a hospital and was confirmed as influenza A.
- At the end of week 52, uptake of influenza vaccine was: 65.7% in those aged 65 year and older, 40.4% in patients aged six months to 64 years at clinical risk and 44.6% in children aged two and three years. In the 1,175 primary schools visited so far as part of the universal childhood influenza programme, uptake was 69.8%.

Influenza activity in Wales

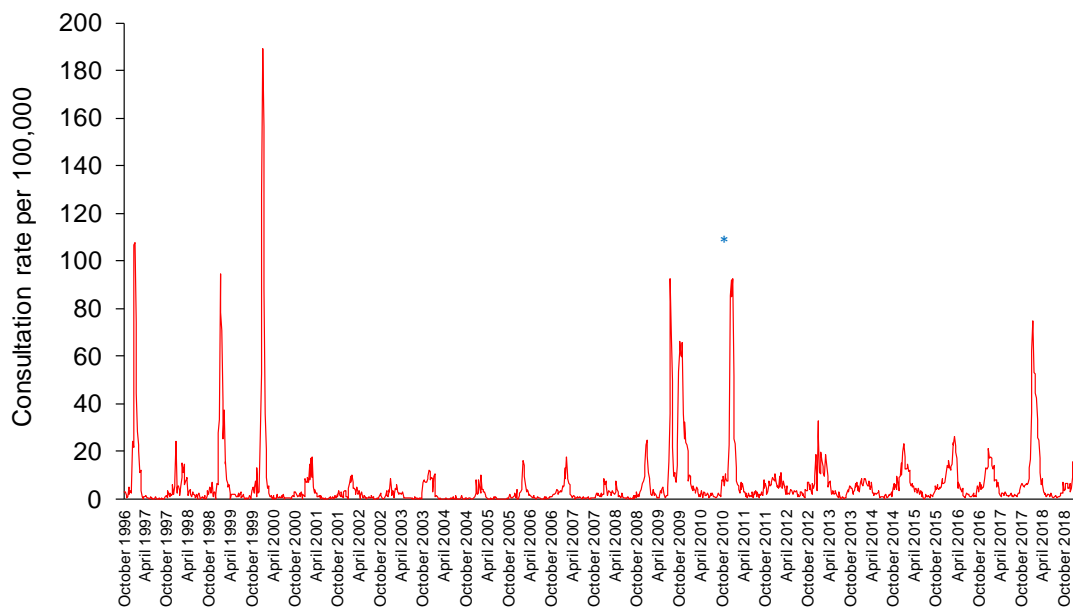
Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 03/01/2019).



Week 52 consultation rate adjusted for the reduced general practice opening hours.

* The Moving Epidemic Method has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for GP ILI consultations for seasonally expected influenza activity in a standardised approach across Europe. The threshold calculated for Wales ILI consultation rates is 10.8 per 100,000. MEM thresholds used in this chart are based on influenza from 2010-11 to 2017-18 seasons.

Figure 2. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (week 47 1996 – week 52 2018).



Week 52 consultation rate adjusted for the reduced general practice opening hours.

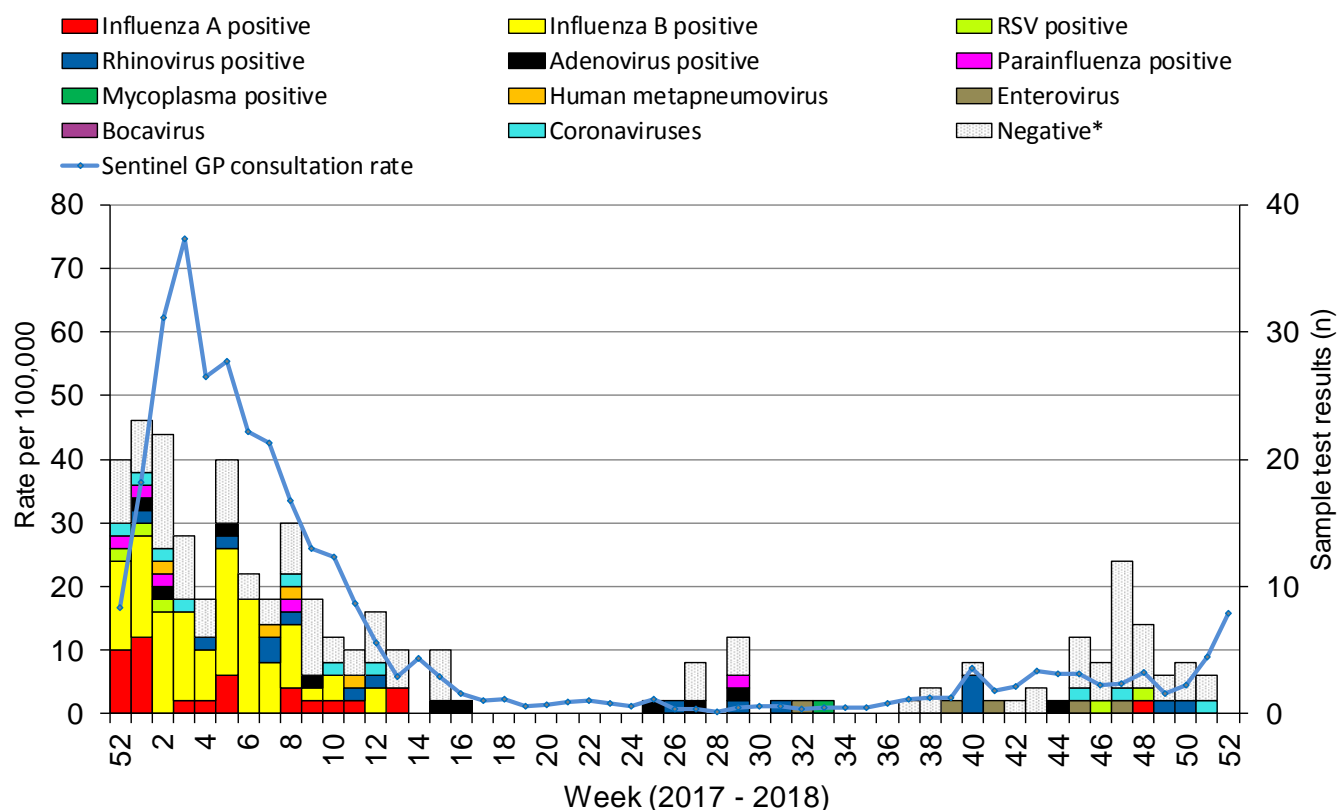
* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 47 – week 52 2018 (as of 03/01/2019).

Age group	47	48	49	50	51	52
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	6.2	0.0	0.0	6.2	0.0
5 - 14	4.6	2.3	0.0	4.6	4.6	3.8
15 - 24	0.0	4.2	2.1	2.1	10.6	7.1
25 - 34	4.0	6.0	6.0	4.0	13.9	19.9
35 - 44	10.5	14.7	4.2	8.4	4.2	17.0
45 - 64	4.7	6.5	4.7	5.6	14.9	31.0
65 - 74	0.0	2.2	2.2	4.3	6.5	14.4
75+	12.7	10.1	2.5	2.5	0.0	0.0
Total	4.7	6.5	3.2	4.5	9.0	15.8

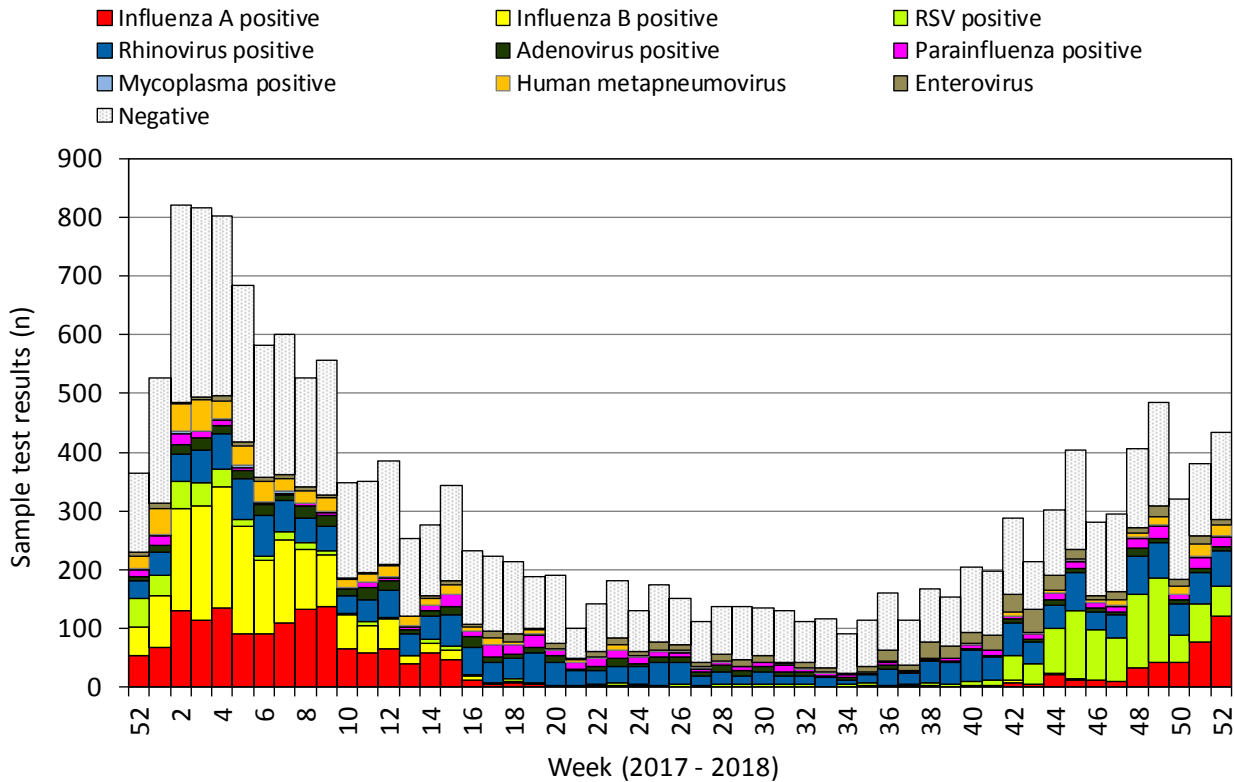
Week 52 consultation rate adjusted for the reduced general practice opening hours.

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 03/01/2019, by week of sample collection, week 52 2017 - week 52 2018 .



* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus, enterovirus, bocavirus and coronaviruses.

Figure 4. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 03/01/2019 by week of sample collection, week 52 2017 – week 52 2018.



Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre.

Out of Hours consultations and calls to NHS Direct Wales

Figure 5. Weekly total consultations to Out of Hours services in Wales and numbers of respiratory-related diagnoses (as of 03/01/2019).

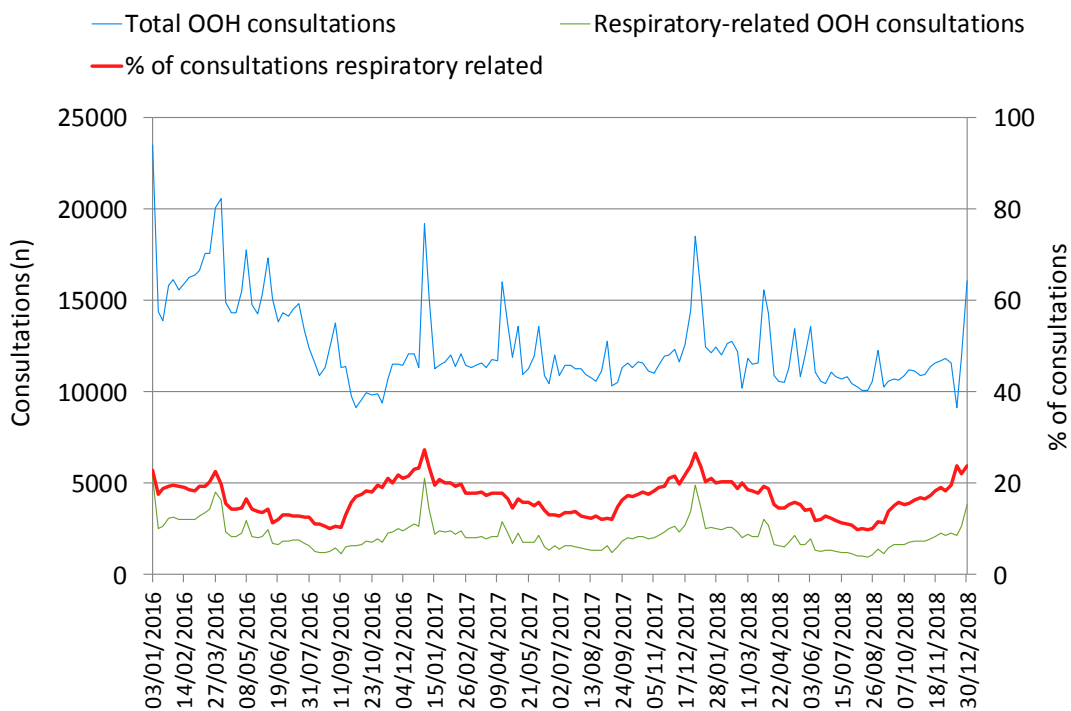
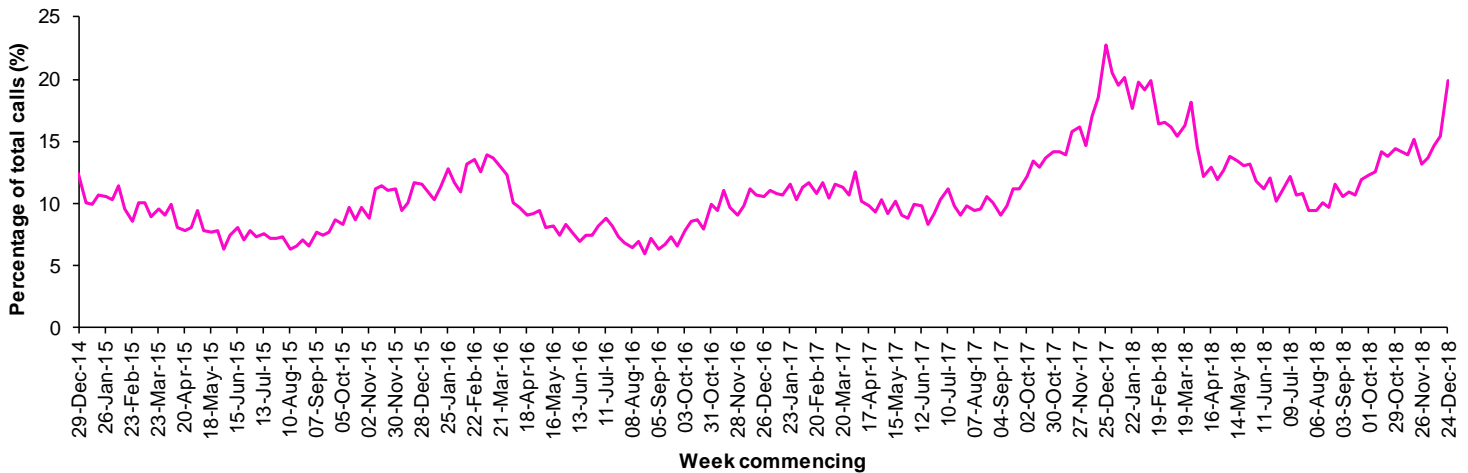


Figure 6. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 52 2014 - week 52 2018 (as of 30/12/2018).



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 (ie calls which could have symptom data recorded against them), note that 111 includes out-of-hours calls.

Influenza Vaccine Uptake in Wales

Table 2. Uptake of influenza immunisations in GP Practice patients, school children and NHS staff in Wales 2018/19 (as of 01/01/2019).

Influenza immunisation uptake in the 2018/19 season	
People aged 65y and older	65.7%
People younger than 65y in a clinical risk group	40.4%
Children aged two & three years	44.6%
Children aged four to ten years*	69.8%
NHS staff	49.0%
NHS staff who have direct patient contact	48.7%

* In school sessions carried out so far.

The end of season report Influenza in Wales 2017/18 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>

Key points – Influenza activity in the UK and Europe

- As of week 51, influenza activity continues to increase, with influenza starting to circulate in the community and indicators approaching baseline threshold levels. Influenza GP consultations increased in [Scotland](#) to 10.5 per 100,000 and in [Northern Ireland](#) to 8.9 per 100,000, but were below MEM thresholds for baseline activity in both countries as at week 51. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 9.4 per 100,000 and was below the MEM threshold for baseline activity (13.1 per 100,000) as at week 51. The weekly ILI consultation rate through the GP In Hours Syndromic Surveillance system was at 6.6 per 100,000 during week 51.
- During week 51, eight samples tested positive for influenza (five influenza A(H1N1)pdm09, one influenza A(H3N2) and two influenza A(unknown subtype)) through the UK GP sentinel swabbing scheme. Of the 1,826 respiratory test results reported through Public Health England's DataMart scheme, there were 215 (11.8%) positive for influenza (89 influenza A(H1N1)pdm09, 35 influenza A(H3), 89 influenza A(unknown subtype) and two influenza B). UK summary data are available from the [Public Health England National Influenza Report](#).
- The WHO and the European Centre for Disease Prevention and Control (ECDC) reported that as of week 51, influenza activity continued to increase throughout the WHO European Region. During week 51, a total of 614 sentinel specimens were tested for influenza, 134 (21.8%) of which were positive (60 influenza A(H1N1)pdm09, 48 influenza A(H3N2), 25 influenza A not subtyped and one influenza B). For more information on European level influenza surveillance see Flu News Europe: <http://www.flunewseurope.org/>

World update

- The WHO reported on 24/12/18 that in the temperate zones of the northern hemisphere, influenza activity continued to increase but remained low overall. Increased influenza detections were reported in some countries of Southern and South-East Asia. In the temperate zones of the southern hemisphere, influenza activity returned to inter-seasonal levels. Worldwide, seasonal influenza subtype A accounted for the majority of influenza detections.
- Based on FluNet reporting (as of 24/12/2018), during the time period from 26/11/18 – 09/12/18, 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 139,511 specimens during that time period, 10,520 were positive for influenza viruses, of which 9,970 were typed as influenza A (4,961 influenza A(H1N1)pdm09, 936 influenza A(H3N2) and 4,073 influenza A(not subtyped)) and 550 influenza B (of the characterised influenza B viruses 85 belonged to the B-Yamagata lineage and 50 to the B-Victoria lineage).

Source: WHO influenza update:

http://www.who.int/influenza/surveillance_monitoring/updates/en/

Update on influenza activity in North America

- The USA Centers for Disease Control and Prevention (CDC) report that during week 51 (ending 22/12/18) influenza activity is increasing in the United States. Nationally, 13,611 (5.1%) out of 269,244 specimens have tested positive for influenza since week 40, of these positives 12,434 (91.4%) were influenza A and 1,177 (8.6%) were influenza B. Further characterisation has been carried out on 14,166 specimens by public health laboratories, and 3,052 tested positive for influenza, 2,892 (94.8%) were influenza A (2,242 influenza A(H1N1)pdm09 (81.6%), 505 influenza (H3N2) (18.4%), and subtyping was not performed on 145 specimens) and 160 influenza B (5.2%).

Source: CDC Weekly US Influenza Surveillance Report

<http://www.cdc.gov/flu/weekly/>

- The Public Health Agency of Canada reported that during week 50 overall influenza activity continued to increase. The percentage of visits to healthcare professionals that were due to ILI remained within expected levels at 1.5%. The percentage of tests positive for influenza continued to increase to 22.8%.

Source: Public Health Agency of Canada

<https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-influenza-reports.html>

Middle East respiratory syndrome coronavirus (MERS-CoV) – latest update from WHO and ECDC

- On 28/12/18 WHO reported eight cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in Saudi Arabia, including two deaths. Globally, 2,274 laboratory confirmed cases of human infection with MERS-CoV, including 806 associated deaths, have officially been reported to WHO since September 2012.
Source: WHO Global Alert and Response website: <http://www.who.int/csr/don/archive/year/2018/en/>
- 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/publications-data/rapid-risk-assessment-severe-respiratory-disease-associated-middle-east-11>
- 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 – latest update from WHO

- The latest WHO Influenza at Human-Animal Interface summary (02/11/2018 to 13/12/2018) reports that avian influenza A(H7N9) continues to be detected in China but at lower levels compared to previous years. Since February 2013, a total of 1,567 laboratory-confirmed cases of human infection with avian influenza A(H7N9), including at least 615 deaths, have been reported: http://www.who.int/influenza/human_animal_interface/HAI_Risk_Assessment/en/
http://www.fao.org/ag/againfo/programmes/en/empres/H7N9/Situation_update.html
- 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. Updates are available from the WHO Global Alert and Response website: <http://www.who.int/csr/don/en/>

Links:

Public Health Wales influenza surveillance webpage:

<http://www.publichealthwales.org/flu-activity>

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>

Wales influenza information:

<http://www.wales.nhs.uk/sitesplus/888/page/43745>

England influenza surveillance:

<https://www.gov.uk/government/collections/seasonal-influenza-guidance-data-and-analysis>

Scotland influenza surveillance:

<http://www.hps.scot.nhs.uk/resp/seasonalinfluenza.aspx>

Northern Ireland influenza surveillance:

<http://www.fluawareni.info/>

European Centre for Communicable Disease:

<http://ecdc.europa.eu/>

European influenza information:

<http://flunewseurope.org/>

Advice on influenza immunisation (for NHS Wales users)

<http://nww.immunisation.wales.nhs.uk/home>

For further information on this report, please email Public Health Wales using:

surveillance.requests@wales.nhs.uk