

Current level of influenza activity: *Weekly cases of influenza confirmed, currently below seasonal activity threshold*

Trend: *Increasing*

Confirmed cases since 2018 week 40: 275 (73% influenza A(H1N1)pdm09, 5% influenza A(H3), 19% influenza A(not typed), 3% influenza B)

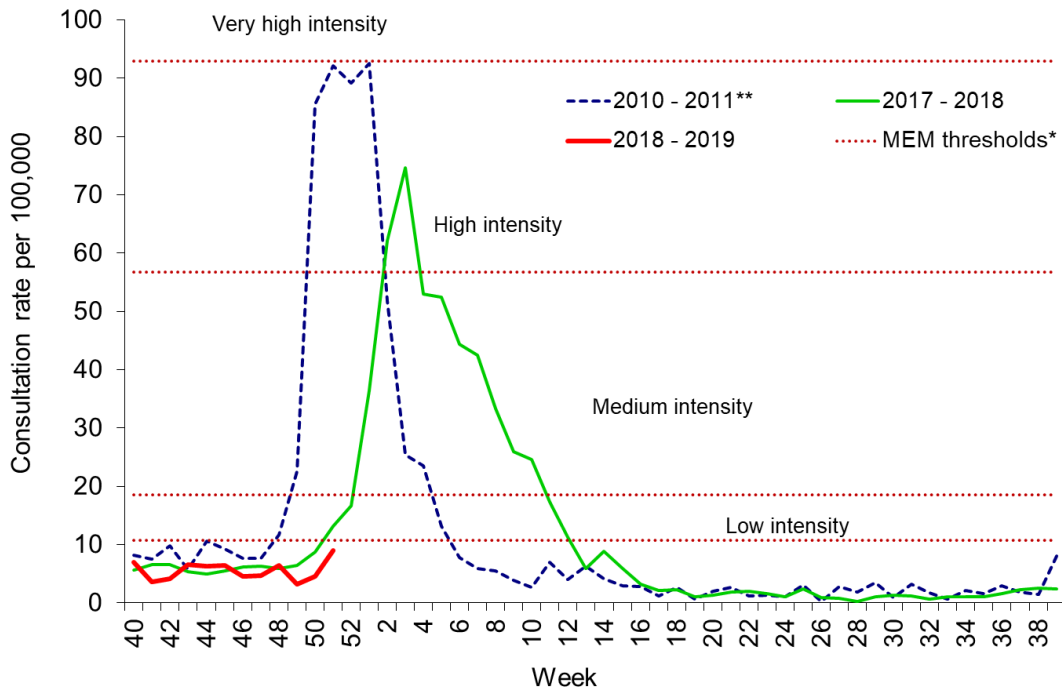
Key points – Wales

Influenza activity is increasing and approaching seasonally expected levels. The sentinel GP consultation rate for influenza-like illness (ILI) increased during week 51 (ending 23/12/2018), but remained just below the threshold for seasonal activity. Influenza was the most commonly detected cause of Acute Respiratory Infection (ARI) in hospital and non-sentinel GP patients during week 51, with 77 confirmed cases. Influenza A(H1N1)pdm09 is currently dominant, however cases of influenza A(H3N2) 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 Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 51 was 9.0 consultations per 100,000 practice population. The consultation rate was highest in patients aged 45-64 years (14.9 per 100,000 practice population) (Table 1).
- The ILI consultation rate has increased compared to the previous week (4.5 consultations per 100,000), but remains below the Moving Epidemic Method (MEM) threshold for seasonal activity (10.8 consultations per 100,000) (Figure 1).
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 51 was 11,886. The proportion of respiratory-related consultations with OOH doctors decreased to 22.0% from 23.8% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 50 (latest data available) was 14.7% (Figure 6).
- During week 50 (latest data available), three surveillance samples from patients with influenza-like illness were submitted by sentinel GPs for testing, one sample tested positive for rhinovirus and the other two samples were negative for all routinely tested respiratory pathogens (Figure 3).
- During week 51, 371 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: 56 influenza A(H1N1)pdm09, four influenza A(H3N2), 17 influenza A (not typed), 64 for RSV, 56 for rhinovirus, 29 for coronavirus, 20 for human metapneumovirus, 18 for parainfluenza, 16 for enterovirus, seven adenovirus and two 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 13.5 during week 51; and 23 out of 84 samples (27%) 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 51 was the 10th week since baseline activity thresholds were exceeded.
- During week 51, two outbreaks of acute respiratory illnesses (ARI) were reported to a Public Health Wales Health Protection team, one outbreak in a hospital and one in a residential home which was confirmed as influenza A(H3).
- At the end of week 51, uptake of influenza vaccine was: 65.5% in those aged 65 year and older, 40.1% in patients aged six months to 64 years at clinical risk and 44.3% in children aged two and three years. In the 1175 primary schools visited so far as part of the universal childhood influenza programme, uptake was 69.8%.

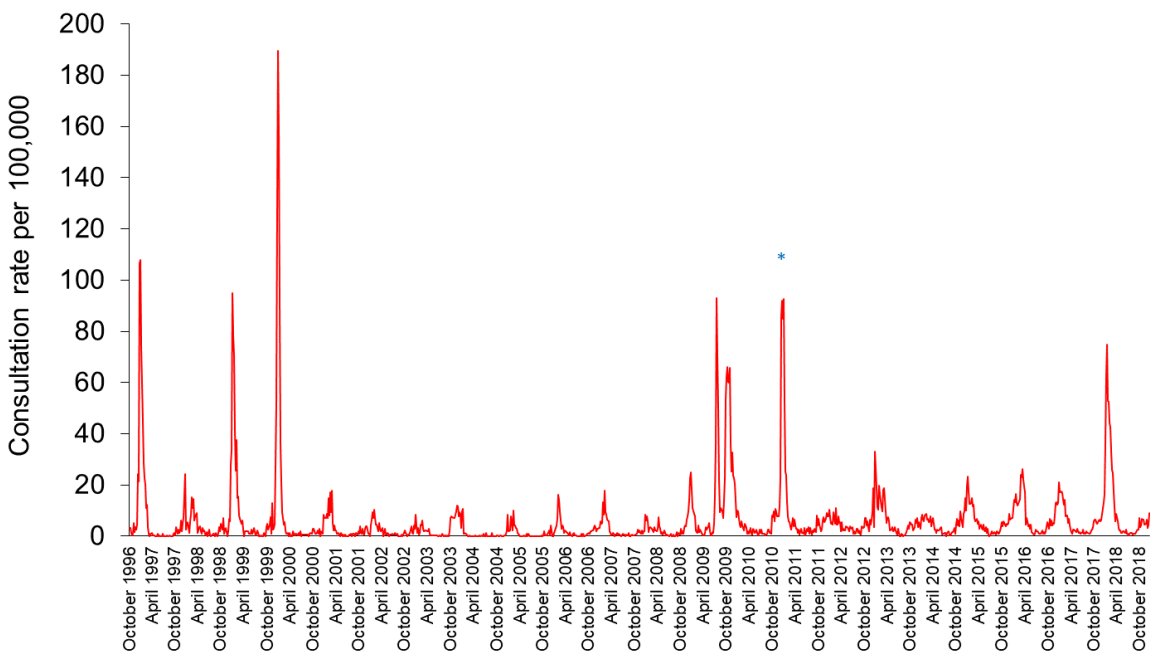
Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 27/12/2018).



* 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 51 2018).

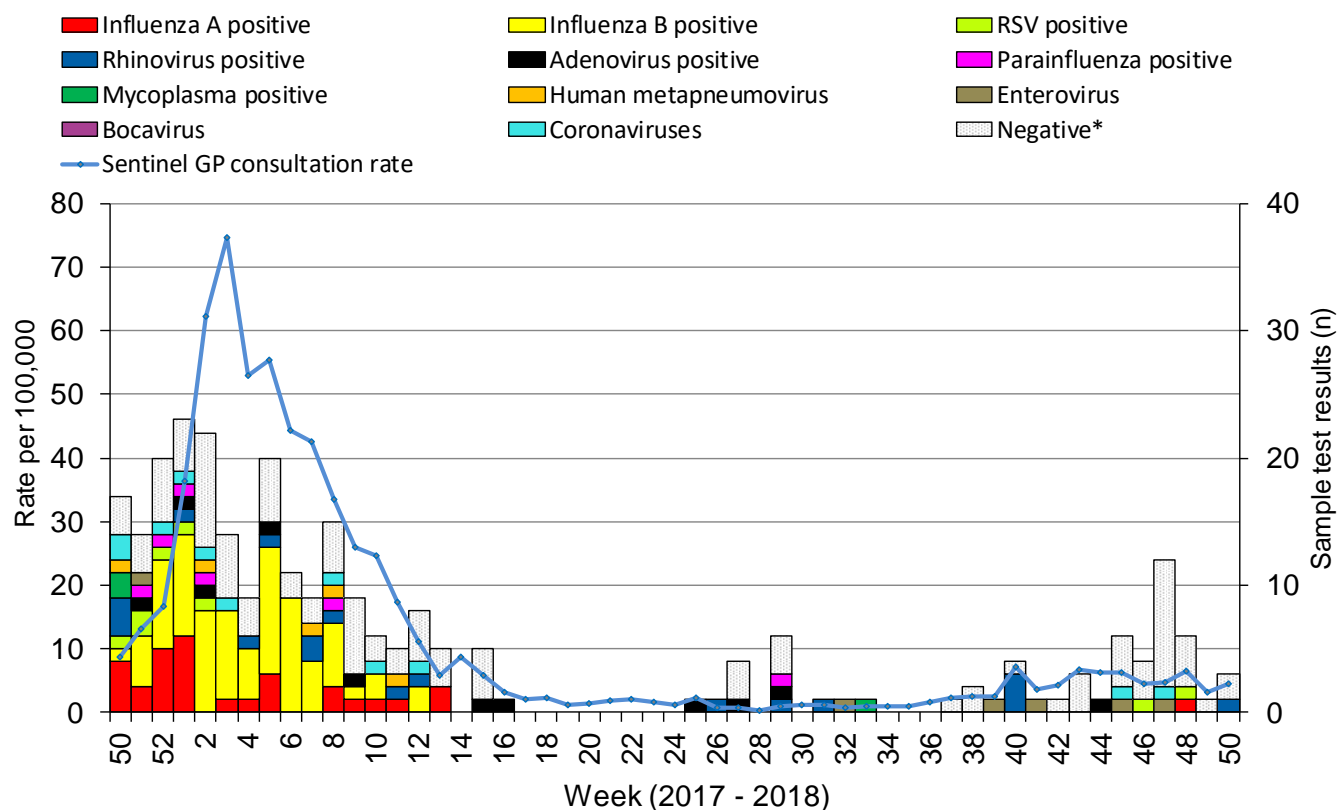


* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 46 – week 51 2018 (as of 27/12/2018).

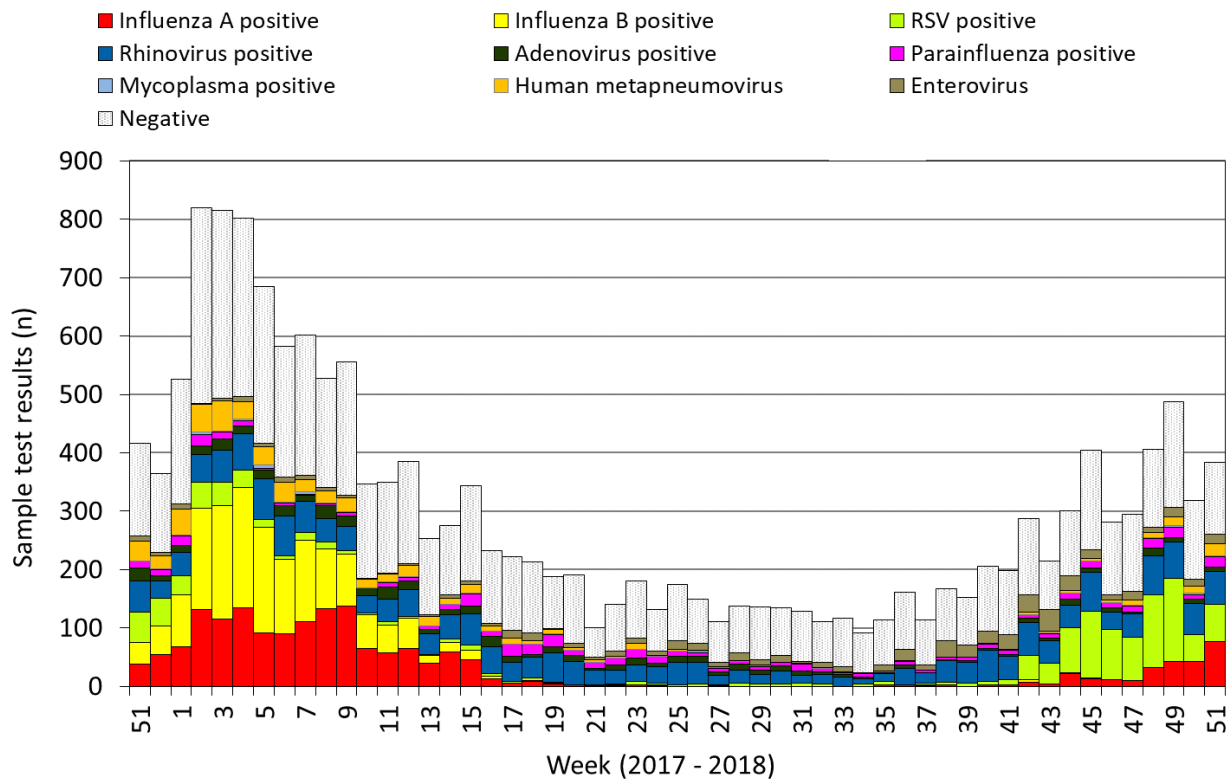
Age group	46	47	48	49	50	51
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	0.0	6.2	0.0	0.0	6.2
5 - 14	0.0	4.6	2.3	0.0	4.6	4.6
15 - 24	8.5	0.0	4.2	2.1	2.1	10.6
25 - 34	2.0	4.0	6.0	6.0	4.0	13.9
35 - 44	12.6	10.5	14.7	4.2	8.4	4.2
45 - 64	4.7	4.7	6.5	4.7	5.6	14.9
65 - 74	0.0	0.0	2.2	2.2	4.3	6.5
75+	5.1	12.7	10.1	2.5	2.5	0.0
Total	4.5	4.7	6.5	3.2	4.5	9.0

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 21/12/2018, by week of sample collection, week 50 2017 - week 50 2018 (latest data available).



* 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 28/12/2018 by week of sample collection, week 51 2017 – week 51 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 28/12/2018).

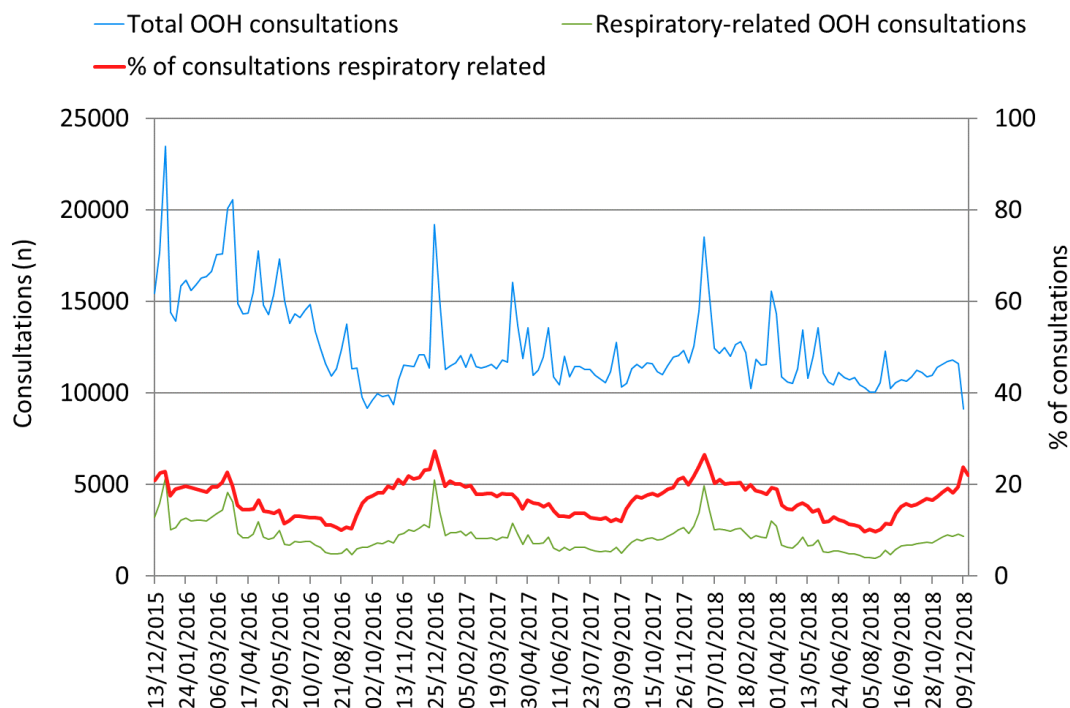
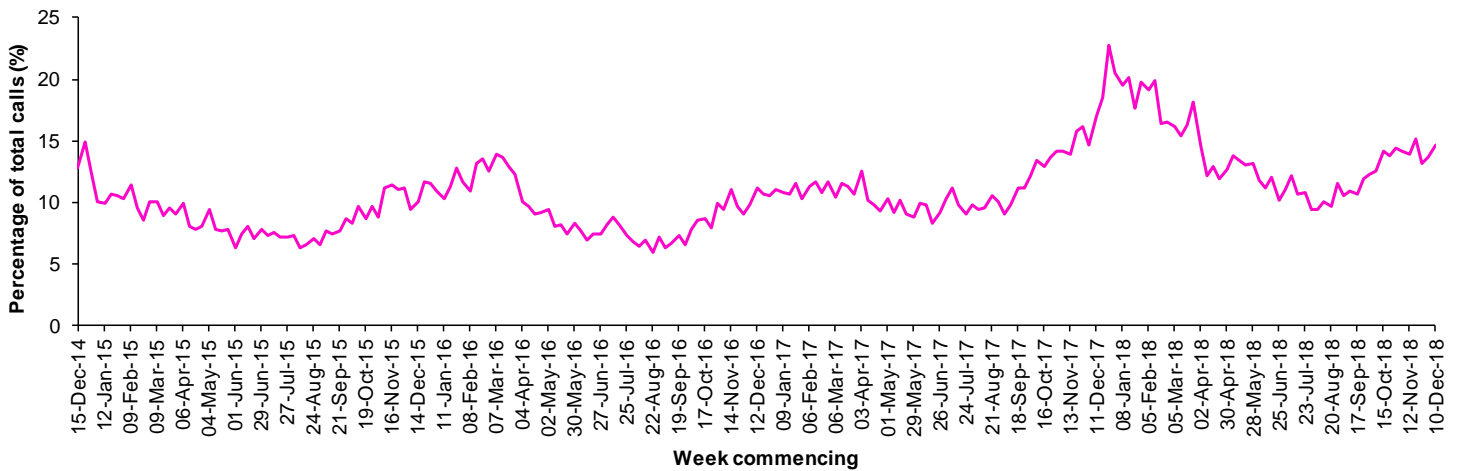


Figure 6. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 50 2014 - week 50 2018 (as of 16/12/2018, latest data available).



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 25/12/2018).

Influenza immunisation uptake in the 2018/19 season	
People aged 65y and older	65.5%
People younger than 65y in a clinical risk group	40.1%
Children aged two & three years	44.3%
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 50, influenza activity has started to increase, with sporadic cases detected in the community though all indicators remain below baseline threshold levels. Influenza GP consultations increased in [Scotland](#) to 6.8 per 100,000 and increased in [Northern Ireland](#) to 8.4 per 100,000, but remain below MEM thresholds for baseline activity in both countries. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 8.1 per 100,000 and also remains below the MEM threshold for baseline activity (13.1 per 100,000). The weekly ILI consultation rate through the GP In Hours Syndromic Surveillance system was at 5.9 per 100,000 during week 50.
- During week 50, five samples tested positive for influenza (four influenza A(H1N1)pdm09 and one influenza A(unknown subtype)) through the UK GP sentinel swabbing scheme. Of the 1,936 respiratory test results reported through Public Health England's DataMart scheme, there were 135 (7.0%) positive for influenza (79 influenza A(H1N1)pdm09, 15 influenza A(H3N2), 38 influenza A(unknown subtype) and three 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 50, influenza activity remained at baseline or low throughout the WHO European Region. During week 50, a total of 1,059 sentinel specimens were tested for influenza, 193 (18.2%) of which were positive (95 influenza A(H1N1)pdm09, 87 influenza A(H3N2), eight influenza A not subtyped and three 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 50 (ending 15/12/18) influenza activity remained slightly elevated in the United States. Nationally, 9,582 (3.9%) out of 242,938 specimens have tested positive for influenza since week 40, of these positives 8,540 (89.1%) were influenza A and 1,042 (10.9%) were influenza B. Further characterisation has been carried out on 11,587 specimens by public health laboratories, and 2,086 tested positive for influenza, 1,957 (93.8%) were influenza A (1,455 influenza A(H1N1)pdm09 (79.0%), 386 influenza (H3N2) (21.0%), and subtyping was not performed on 116 specimens) and 129 influenza B (6.2%).

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 20/11/18 WHO reported four cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in Saudi Arabia, including one death. Globally, 2,266 laboratory confirmed cases of human infection with MERS-CoV, including 804 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