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

Wednesday 5th December 2018 (covering week 48 2018)

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

Current level of influenza activity: *Weekly cases of influenza confirmed, currently below seasonal activity threshold*
Trend: *Increasing*
Confirmed cases since 2018 week 40: **155** *(70% influenza A(H1N1)pdm09, 6% influenza A(H3), 19% influenza A(not typed), 5% influenza B)*

Key points – Wales

Cases of influenza are being confirmed each week in hospitals and the number of acute respiratory infection (ARI) outbreaks reported in recent weeks has increased, however surveillance data do not currently suggest influenza is circulating at seasonally expected levels in the community. During week 49 (ending 09/12/2018) 44 cases of influenza were detected in Wales, but RSV is still the most commonly detected ARI cause.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 49 was 3.2 consultations per 100,000 practice population. The consultation rate was highest in patients aged 25-34 years (6.0 per 100,000 practice population) (Table 1).

- The ILI consultation rate has decreased compared to the previous week (6.5 consultations per 100,000), and 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 49 was 11,602. The proportion of respiratory-related consultations with OOH doctors increased to 19.5% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) increased from 13.2% to 13.7% (Figure 6).

- During week 49, one surveillance sample from a patient with influenza-like illness was submitted by sentinel GPs for testing, the sample was negative for all routinely tested respiratory pathogens. One sample from week 48 tested positive for influenza A(H1N1)pdm09 (a patient aged 35-44 years from North Wales) (Figure 3).

- During week 49, 459 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: twenty-seven for influenza A(H1N1)pdm09, three for influenza A(H3N2), 12 for influenza A (not typed), 144 for RSV, 63 for rhinovirus, 21 for enterovirus, 19 for parainfluenza, 14 for human metapneumovirus, seven adenovirus, three for mycoplasma and one for coronavirus (Figure 4). The proportion of samples from hospital patients positive for influenza was 6.5%.

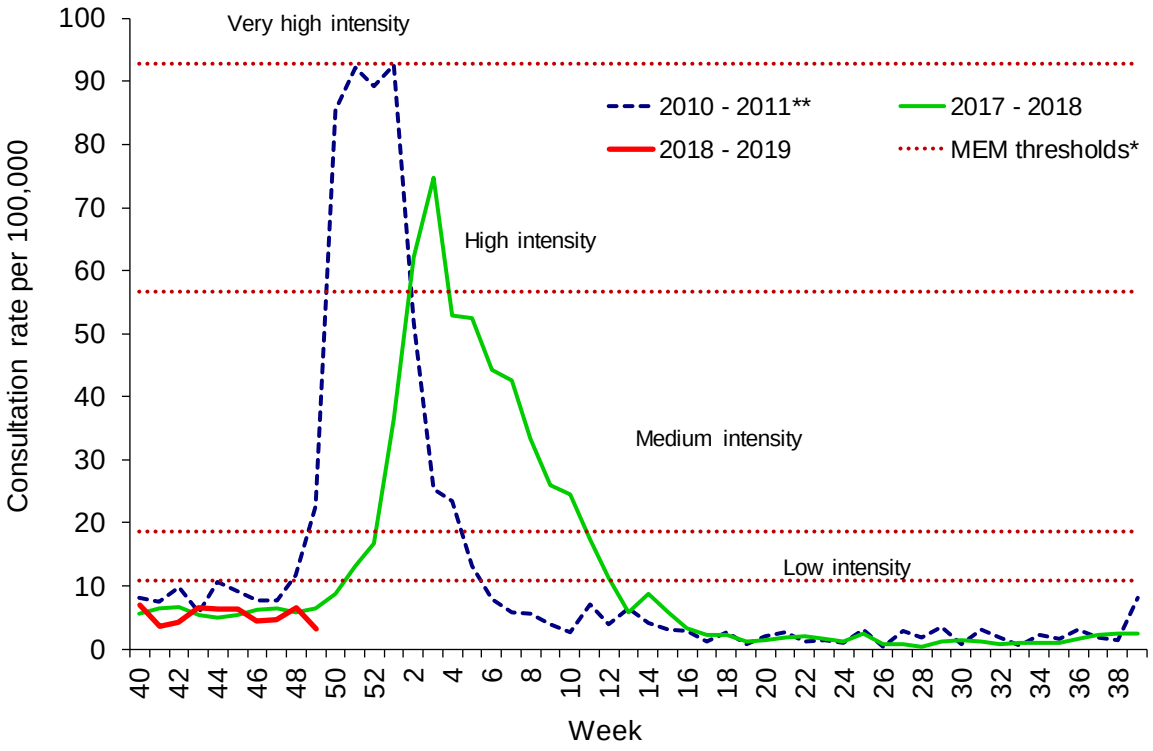
- In those aged under five, the number of confirmed RSV cases per 100,000 population was 50.4 during week 49; and 86 out of 151 samples (57%) tested positive in this age group. Surveillance data suggest that there is a now second peak in the RSV season. The average duration of seasonal activity is 12 weeks (based on confirmed case data from 2011 to 2017) and week 49 was the 8th week since baseline activity thresholds were exceeded.

- During week 49, no outbreaks of acute respiratory illnesses (ARI) were reported to a Public Health Wales Health Protection team.

- At the end of week 49, uptake of influenza vaccine was: 63.0% in those aged 65 year and older, 37.9% in patients aged six months to 64 years at clinical risk and 41.1% in children aged two and three years. In the 996 primary schools visited so far as part of the universal childhood influenza programme, uptake was 69.6%.

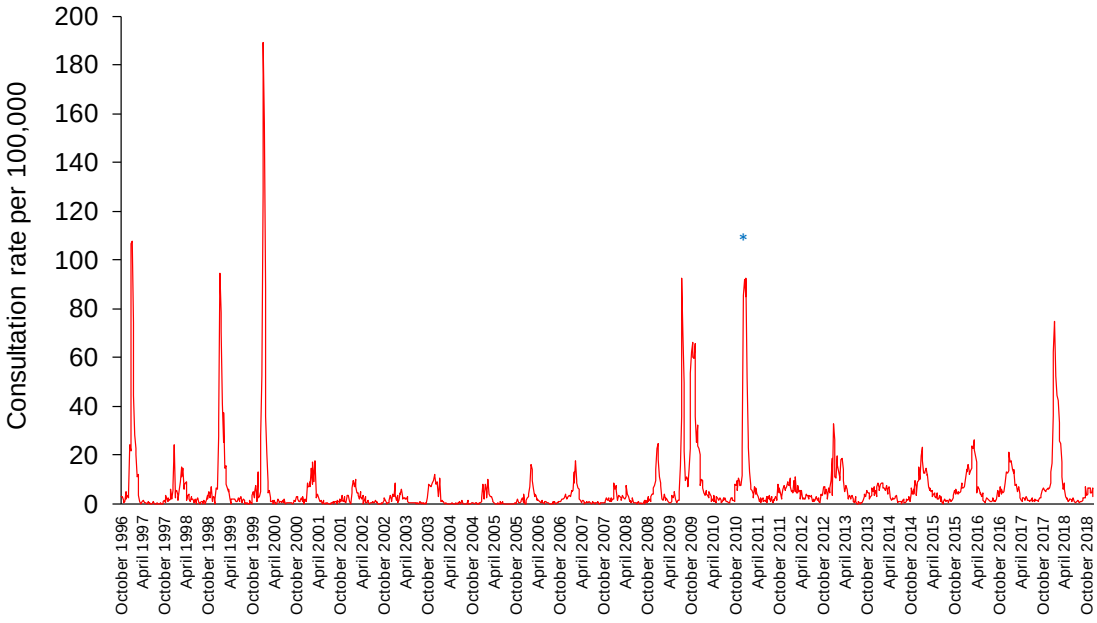
Influenza activity in Wales

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



* 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 49 2018).

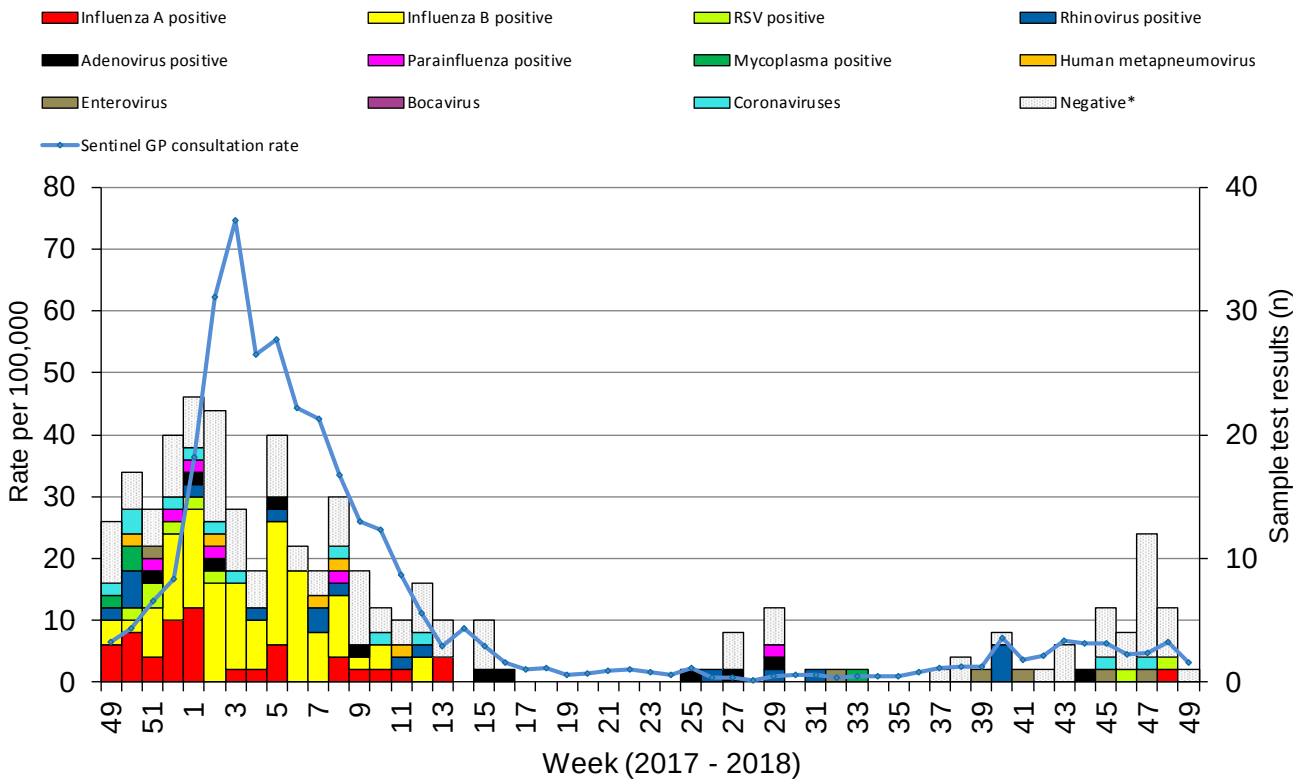


* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 43 – week 48 2018 (as of 12/12/2018).

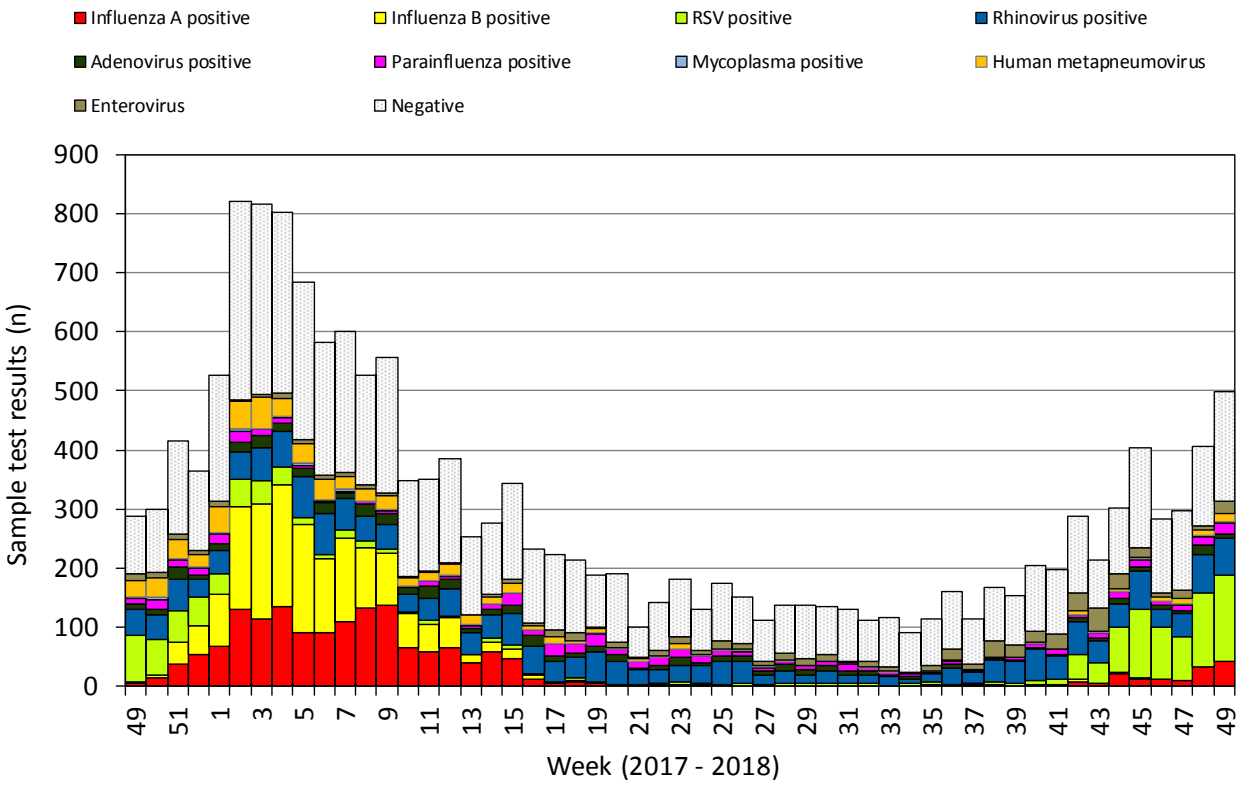
Age group	44	45	46	47	48	49
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	0.0	0.0	0.0	6.2	0.0
5 - 14	0.0	0.0	0.0	4.6	2.3	0.0
15 - 24	17.3	6.9	8.5	0.0	4.2	2.1
25 - 34	8.9	7.0	2.0	4.0	6.0	6.0
35 - 44	9.9	15.4	12.6	10.5	14.7	4.2
45 - 64	6.7	7.1	4.7	4.7	6.5	4.7
65 - 74	0.0	4.1	0.0	0.0	2.2	2.2
75+	0.0	4.9	5.1	12.7	10.1	2.5
Total	**6.3**	**6.4**	**4.5**	**4.7**	**6.5**	**3.2**

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 09/12/2018, by week of sample collection, week 47 2017 - week 47 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 09/12/2018 by week of sample collection, week 49 2017 – week 49 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 09/12/2018).

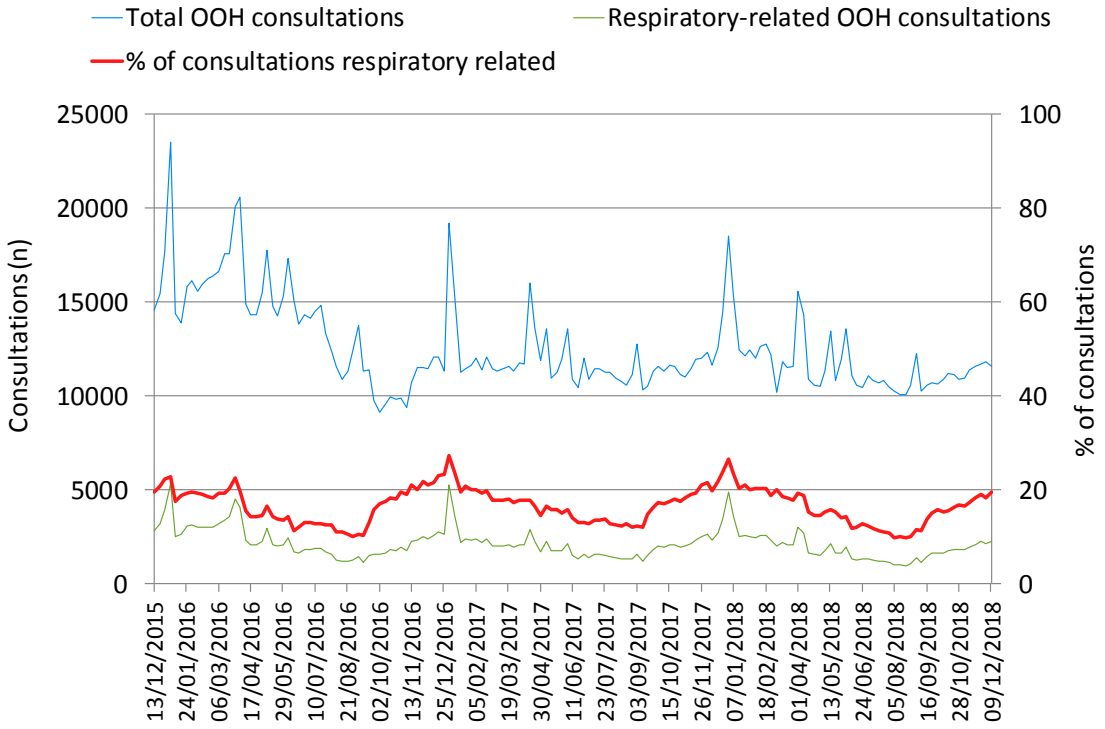
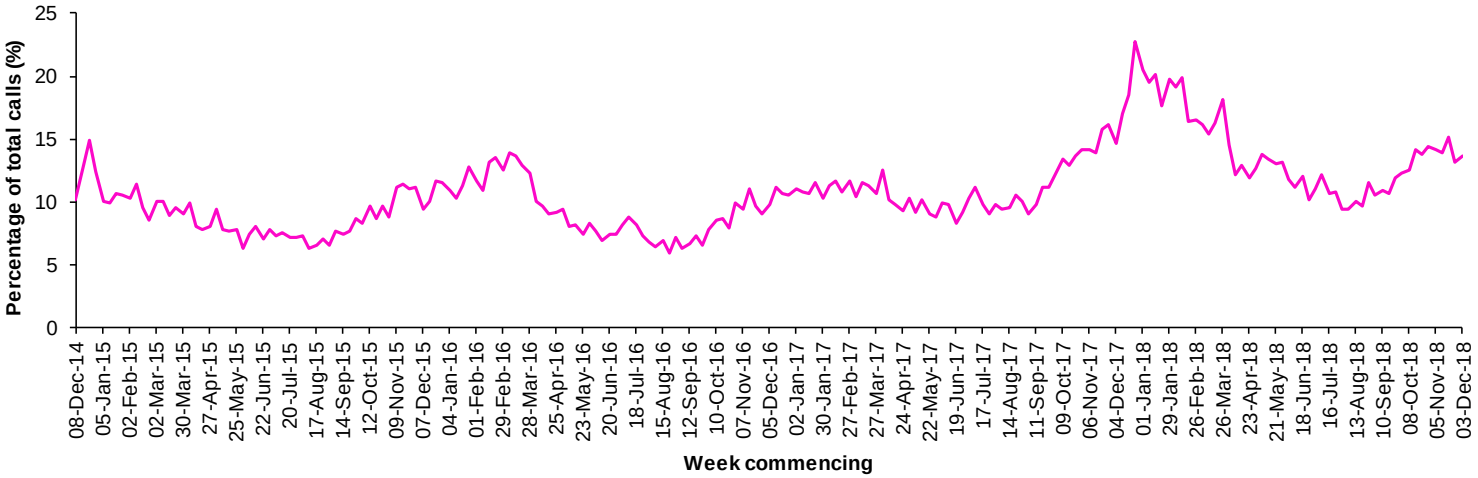


Figure 6. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 49 2014 - week 49 2018 (as of 09/12/2018).



[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 11/12/2018).

Influenza immunisation uptake in the 2018/19 season	
People aged 65y and older	63.0%
People younger than 65y in a clinical risk group	37.9%
Children aged two & three years	41.1%
Children aged four to ten years*	69.6%
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 48, 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 5.9 per 100,000 and increased in Northern Ireland to 5.6 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 decreased to 6.2 per 100,000 and 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 is at 5.2 per 100,000 in week 48.
- During week 48, two samples tested positive for influenza (2 influenza A(H1N1)pdm09) through the UK GP sentinel swabbing scheme. Of the 2,085 respiratory test results reported through Public Health England's DataMart scheme, there were 80 influenza positives (34 influenza A(H1N1)pdm09, nine influenza A(H3), 34 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 48, influenza activity was low throughout the WHO European Region. During week 48, a total of 799 sentinel specimens were tested for influenza, 48 of which were positive (19 influenza A(H1N1)pdm09, 28 influenza A(H3N2) and one influenza A not subtyped). For more information on European level influenza surveillance see Flu News Europe: http://www.flunewseurope.org/

World update

- The WHO reported on 10/12/18 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 07/12/2018), during the time period from 12/11/18 – 25/11/18, National Influenza Centres and other national influenza laboratories from 110 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 118,399 specimens during that time period, 6,596 were positive for influenza viruses, of which 5,995 were typed as influenza A (3,019 influenza A(H1N1)pdm09, 511 influenza A(H3N2) and 2,465 influenza A(not subtyped)) and 601 influenza B (of the characterised influenza B viruses 39 belonged to the B-Yamagata lineage and 62 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 48 (ending 01/12/18) influenza activity increased slightly in the United States. Nationally, 5,059 (2.7%) out of 186,197 specimens have tested positive for influenza since week 40, of these positives 4,303 (85.1%) were influenza A and 756 (14.9%) were influenza B. Further characterisation has been carried out on 7,809 specimens by public health laboratories, and 1,111 tested positive for influenza, 1,008 (90.7%) were influenza A (740 influenza A(H1N1)pdm09 (80.8%), 176 influenza (H3N2) (19.2%), and subtyping was not performed on 92 specimens) and 103 influenza B (9.3%).
  Source: CDC Weekly US Influenza Surveillance Report
  http://www.cdc.gov/flu/weekly/

- The Public Health Agency of Canada reported that during week 48, influenza activity continued to increase. The percentage of visits to healthcare professionals that were due to ILI was slightly above expected levels at 2.3%. The percentage of tests positive for influenza continued to increase to 18.1% of tests positive.
  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 (22/09/2018 to 01/11/2018) 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