

Current level of influenza activity: *Influenza is circulating at **medium** levels*

Trend: *Increasing*

Confirmed cases since 2018 week 40: 743 (75% influenza A(H1N1)pdm09, 5% influenza A(H3), 19% influenza A(not typed), 1% influenza B)

Key points – Wales

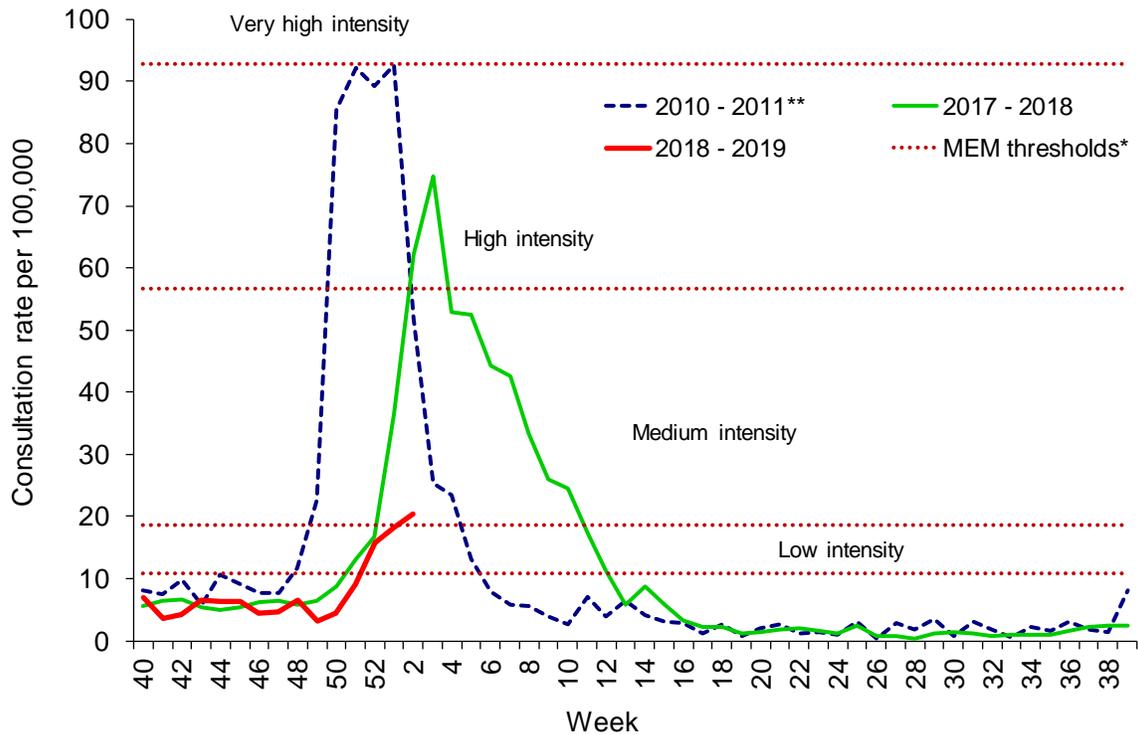
Surveillance indicators suggest that influenza is now circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) increased during week 02 (ending 13/01/2019) to medium intensity levels. Influenza was the most commonly detected cause of Acute Respiratory Infection (ARI) in hospital and non-sentinel GP patients during week 02, with 203 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 Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 02 was 20.4 consultations per 100,000 practice population. The consultation rate was highest in patients aged 45-64 years (31.7 per 100,000 practice population) (Table 1).
- The ILI consultation rate increased compared to week 01 (18.4 per 100,000) and exceeds the Moving Epidemic Method (MEM) threshold for medium level activity (18.6 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 02 was 11,161. The proportion of respiratory-related consultations with OOH doctors decreased to 20.8% from 22.3% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 02 decreased to 16.7% (Figure 6).
- Three surveillance samples from patients with ILI, collected by sentinel GPs during week 02, had been received by Public Health Wales Microbiology as at today, the final total will likely be higher. One was positive for influenza A(H1N1)pdm09 (a patient aged 45-64 years from North Wales), one was positive for both influenza A(H1N1)pdm09 and RSV (a patient aged 15-24 years from West Wales) and one was positive both influenza A(H1N1)pdm09 and human metapneumovirus (a patient aged 15-24 years from Mid Wales) (Figure 3). Updated figures for week 01 suggest that 10 out of 24 sentinel samples collected that week were positive for influenza A.
- During week 02, 659 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: 139 influenza A(H1N1)pdm09, nine influenza A(H3N2), 52 influenza A (not typed), 89 for rhinovirus, 55 for coronavirus, 54 for RSV, 31 for human metapneumovirus, 14 for parainfluenza, 12 for adenovirus, nine for enterovirus and three for mycoplasma (Figure 4). The proportion of samples from hospital patients positive for influenza increased slightly to 30.3%.
- In those aged under five, the number of confirmed RSV cases per 100,000 population decreased to 11.1 during week 02; and 19 out of 94 samples (20%) tested positive in this age group. Surveillance data suggest that the RSV season is reaching its end, but small numbers of cases are still being detected. The average duration of seasonal activity is 12 weeks (based on confirmed case data from 2011 to 2017) and week 02 was the 13th week since baseline activity thresholds were exceeded.
- During week 02, five outbreaks of acute respiratory illnesses (ARI) were reported to a Public Health Wales Health Protection team, two outbreaks were in a hospital, one in a prison and two in residential homes, and all were confirmed as influenza A.
- At the end of week 02, uptake of influenza vaccine was: 66.5% in those aged 65 year and older, 41.3% in patients aged six months to 64 years at clinical risk and 45.9% in children aged two and three years. In the 1,295 primary schools visited so far as part of the universal childhood influenza programme, uptake was 69.9%.

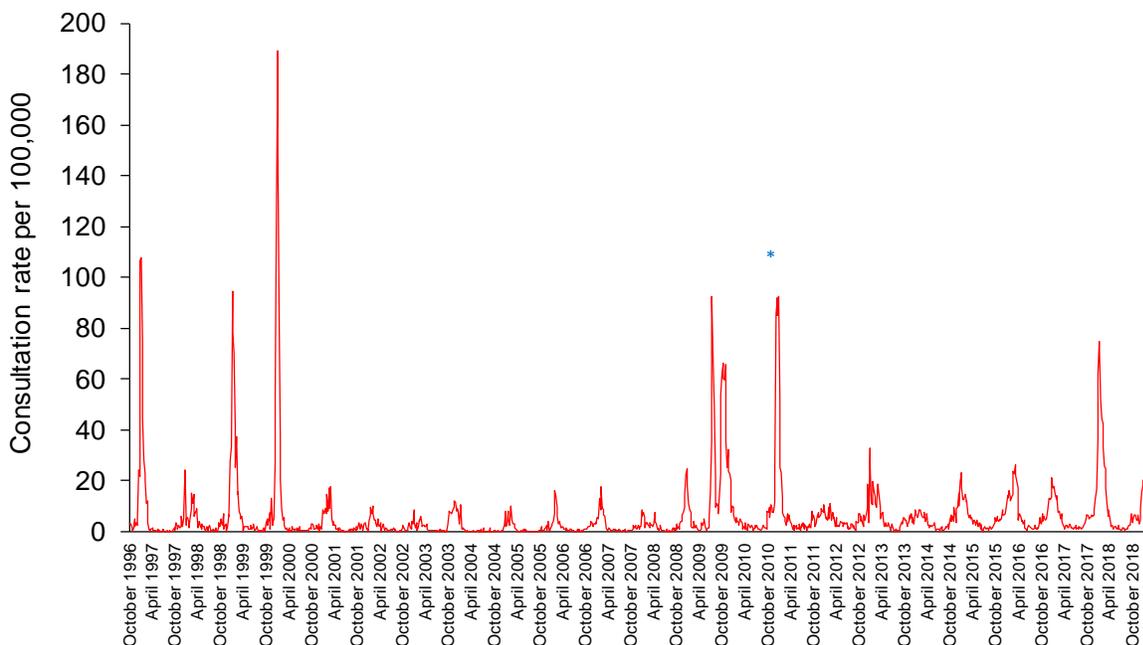
Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 16/01/2019).



* 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 02 2019).

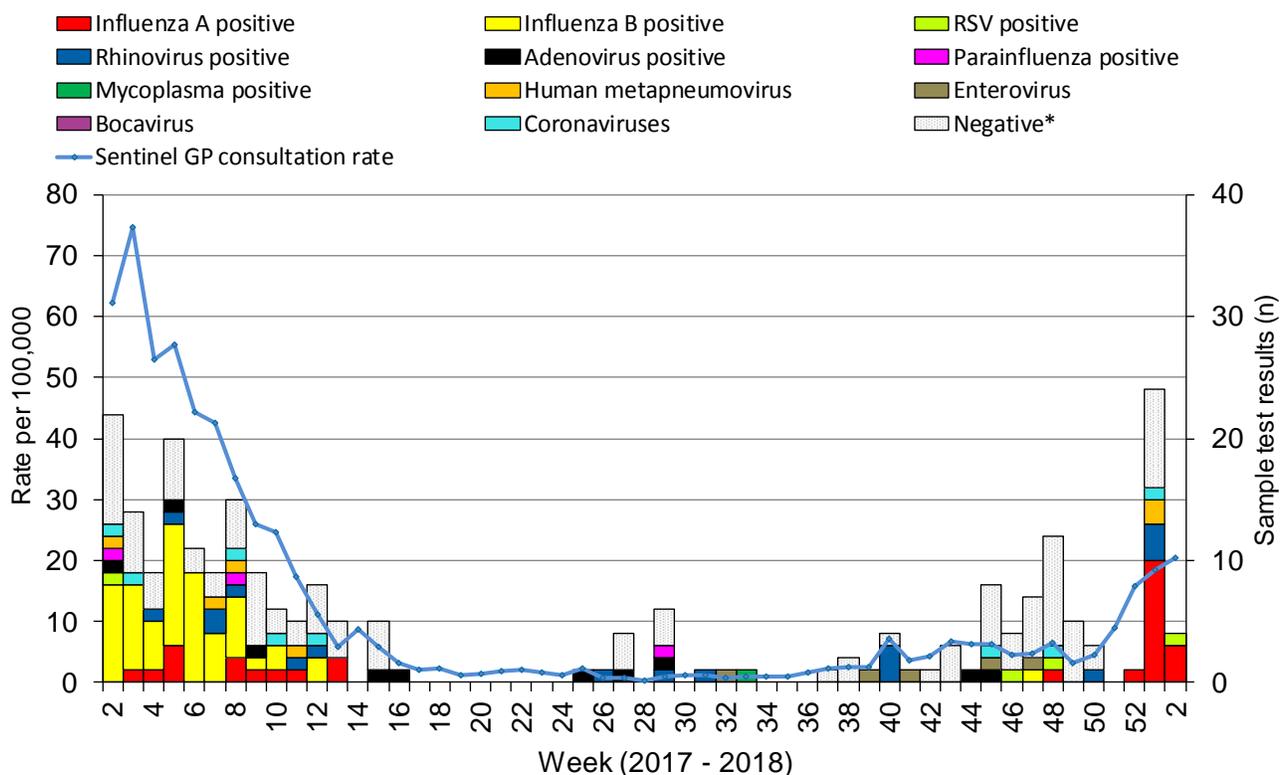


* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 49 2018 – week 02 2019 (as of 16/01/2019).

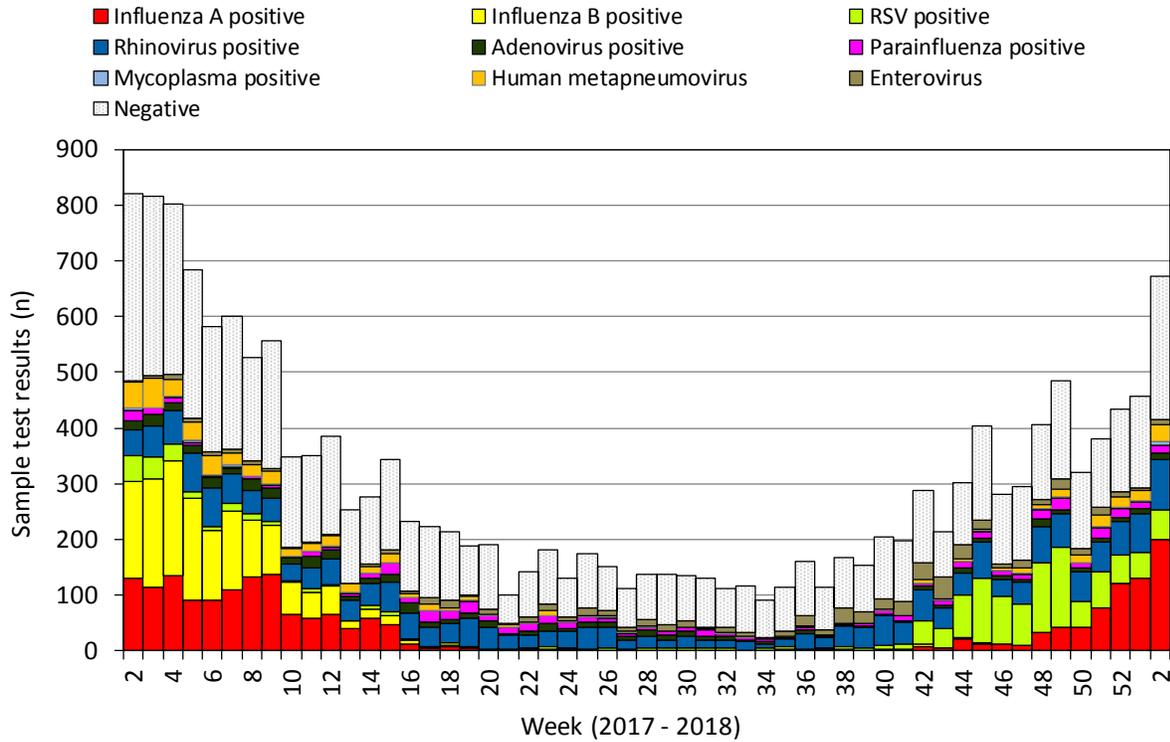
Age group	49	50	51	52	1	2
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	0.0	6.2	0.0	0.0	18.5
5 - 14	0.0	4.6	4.6	3.8	2.9	2.3
15 - 24	2.1	2.1	10.6	7.1	18.6	17.0
25 - 34	6.0	4.0	13.9	19.9	32.3	27.9
35 - 44	4.2	8.4	4.2	17.0	26.3	29.4
45 - 64	4.7	5.6	14.9	31.0	25.6	31.7
65 - 74	2.2	4.3	6.5	14.4	13.5	12.9
75+	2.5	2.5	0.0	0.0	3.2	5.1
Total	3.2	4.5	9.0	15.8	18.4	20.4

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 16/01/2019, by week of sample collection, week 02 2018 - week 02 2019 .



* 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 16/01/2019 by week of sample collection, week 02 2018 – week 02 2019.



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 16/01/2019).

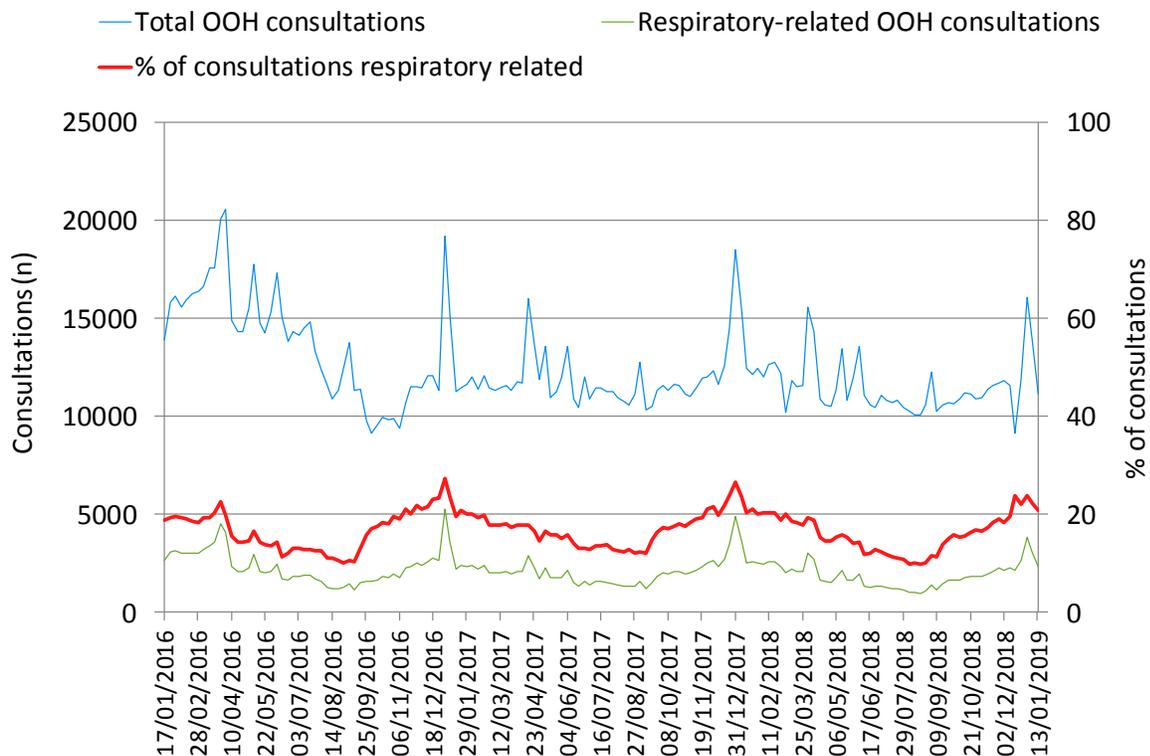
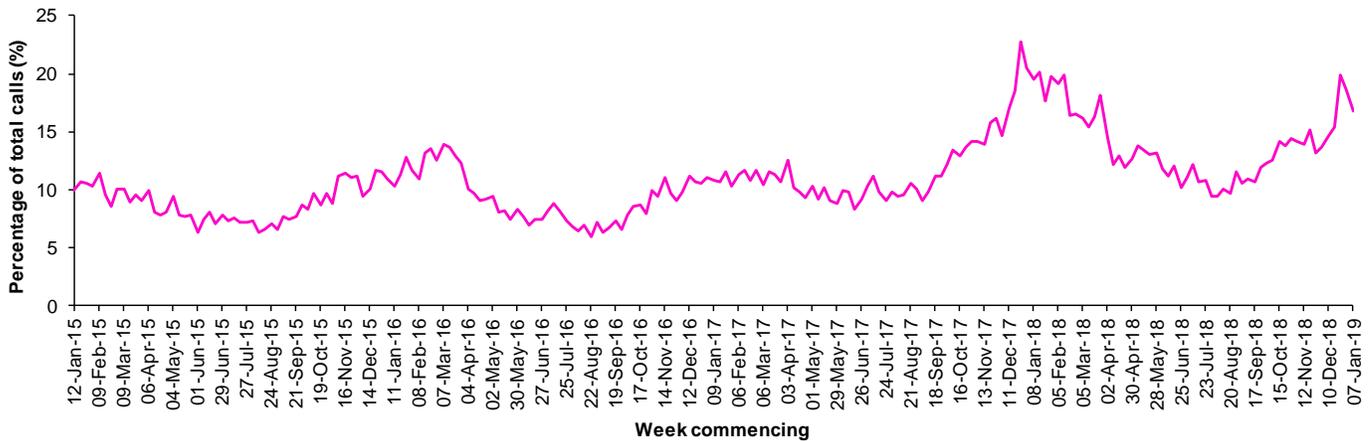


Figure 6. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 02 2015 - week 02 2019 (as of 13/01/2019).



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 15/01/2019).

Influenza immunisation uptake in the 2018/19 season	
People aged 65y and older	66.5%
People younger than 65y in a clinical risk group	41.3%
Children aged two & three years	45.9%
Children aged four to ten years*	69.9%
NHS staff	50.7%
NHS staff who have direct patient contact	52.1%

* 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 01, allowing for Christmas and New Year reporting breaks, there is evidence that influenza is now circulating in the community as activity indicators breach baseline threshold levels at low intensity. Influenza GP consultations increased in [Scotland](#) to 17.0 per 100,000 and increased in [Northern Ireland](#) to 13.5 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 14.8 per 100,000 and is now above 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 13.8 per 100,000 during week 01.
- During week 01, 25 samples tested positive for influenza (15 influenza A(H1N1)pdm09), three influenza A(H3), six influenza A(not subtyped) and one influenza B) through the UK GP sentinel swabbing scheme. Of the 2,554 respiratory test results reported through Public Health England's DataMart scheme, there were 418 (16.4%) positive for influenza (233 influenza A(H1N1)pdm09, 53 influenza A(H3), 128 influenza A(unknown subtype) and four 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 01, influenza activity continued to increase throughout the WHO European Region. During week 01, a total of 1,356 sentinel specimens were tested for influenza, 605 (44.6%) of which were positive (166 influenza A(H1N1)pdm09, 180 influenza A(H3N2), 250 influenza A not subtyped and nine influenza B). For more information on European level influenza surveillance see Flu News Europe: <http://www.flunewseurope.org/>

World update

- The WHO reported on 07/01/19 that in the temperate zones of the northern hemisphere, influenza activity continued to increase slowly. In the temperate zones of the southern hemisphere, influenza activity returned to inter-seasonal levels, with the exception of some parts of Australia. Worldwide, seasonal influenza subtype A accounted for the majority of influenza detections.
- Based on FluNet reporting (as of 04/01/2019), during the time period from 10/12/18 – 23/12/18, National Influenza Centres and other national influenza laboratories from 102 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 97,188 specimens during that time period, 12,945 were positive for influenza viruses, of which 12,148 were typed as influenza A (5,823 influenza A(H1N1)pdm09, 1,739 influenza A(H3N2) and 4,586 influenza A(not subtyped)) and 797 influenza B (of the characterised influenza B viruses 40 belonged to the B-Yamagata lineage and 59 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 01 (ending 05/01/19) influenza activity is increasing in the United States. Nationally, 26,430 (7.3%) out of 363,555 specimens have tested positive for influenza since week 40, of these positives 24,867 (94.1%) were influenza A and 1,563 (5.9%) were influenza B. Further characterisation has been carried out on 18,125 specimens by public health laboratories, and 5,131 tested positive for influenza, 4,918 (95.8%) were influenza A (3,772 influenza A(H1N1)pdm09 (81.4%), 864 influenza (H3N2) (18.6%), and subtyping was not performed on 282 specimens) and 213 influenza B (4.2%).

Source: CDC Weekly US Influenza Surveillance Report

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

- The Public Health Agency of Canada reported that during week 01 overall influenza activity remains high. During week 01 the percentage of visits to healthcare professionals that were due to ILI remained within expected levels at 3.9%. The percentage of tests positive for influenza decreased from 29.4% in week 52 to 25.6% in week 01.

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/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 – 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/aq/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