

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

Trend: *Increasing*

Confirmed cases since 2018 week 40: 966 (72% influenza A(H1N1)pdm09, 6% influenza A(H3), 21% influenza A(not typed), 1% influenza B)

Key points – Wales

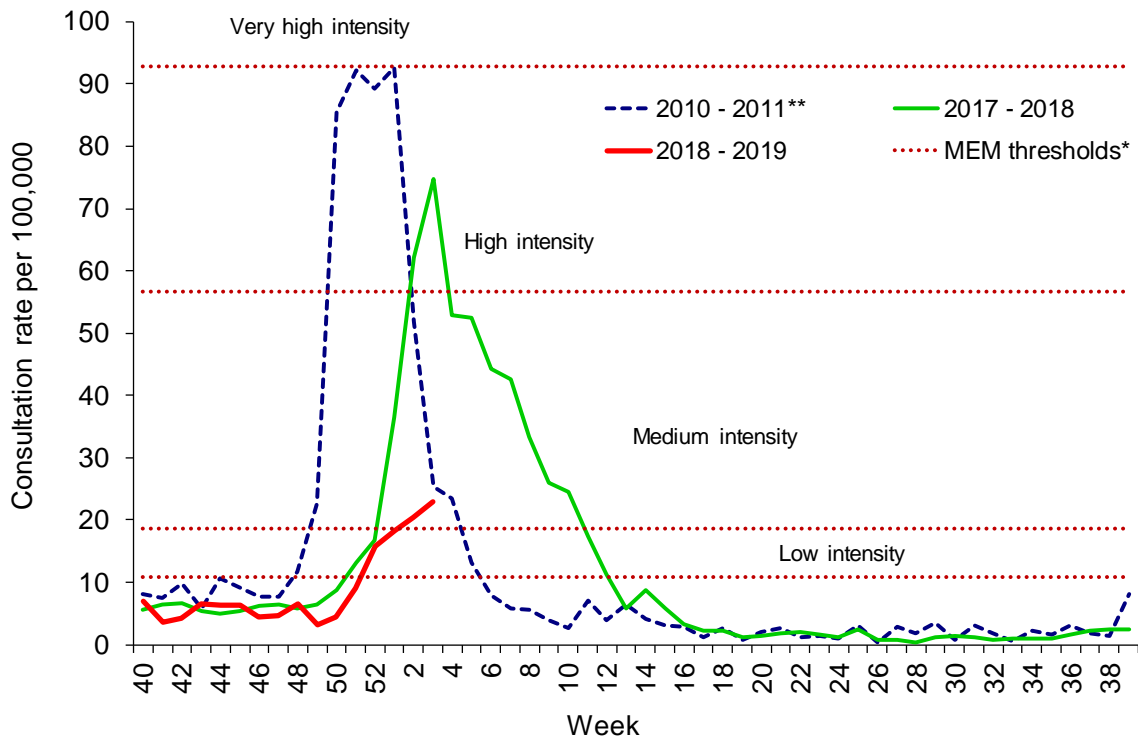
Surveillance indicators suggest that influenza is circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) increased during week 03 (ending 20/01/2019) and remains at medium intensity levels. Influenza was the most commonly detected cause of Acute Respiratory Infection (ARI) in hospital and non-sentinel GP patients during week 03, with 224 confirmed cases. Influenza A(H1N1)pdm09 is currently dominant. A small, but increasing, number of influenza A(H3N2) 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 03 was 22.9 consultations per 100,000 practice population. The consultation rate was highest in patients aged 25-34 years (35.8 per 100,000 practice population) (Table 1).
- The ILI consultation rate increased compared to week 02 (20.4 per 100,000) and remains above the Moving Epidemic Method (MEM) threshold for medium level activity (18.6 per 100,000) (Figure 1). Based on sentinel ILI consultation data from 2010 to 2018, an average influenza season in Wales lasts 14 weeks and 2019 week 02 was the 4th week of the season.
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 03 was 11,175. The proportion of respiratory-related consultations with OOH doctors decreased to 20.1% from 20.8% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 03 decreased to 15.3% (Figure 6).
- No surveillance samples from patients with ILI, collected by sentinel GPs during week 03, have been received by Public Health Wales Microbiology as at today.
- During week 03, 680 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: 135 influenza A(H1N1)pdm09, 22 influenza A(H3N2), 67 influenza A (not typed), 60 for rhinovirus, 39 for coronavirus, 45 for RSV, 16 for human metapneumovirus, 17 for parainfluenza, 16 for adenovirus and eight for enterovirus (Figure 4). The proportion of samples from hospital patients positive for influenza increased to 32.9%.
- In those aged under five, the number of confirmed RSV cases per 100,000 population decreased to 8.2 during week 03; and 14 out of 125 samples (11%) tested positive in this age group. Surveillance data suggest that the RSV season is drawing to a close. The average duration of seasonal activity is 12 weeks (based on confirmed case data from 2011 to 2017) and week 02 was the 14th week since baseline activity thresholds were exceeded.
- During week 03, seven outbreaks of an acute respiratory illnesses (ARI) were reported to a Public Health Wales Health Protection team, all outbreaks were in hospitals, six were confirmed as influenza (not typed) and one was influenza A (not typed).
- At the end of week 03, uptake of influenza vaccine was: 66.9% in those aged 65 year and older, 41.8% in patients aged six months to 64 years at clinical risk and 46.5% 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%.

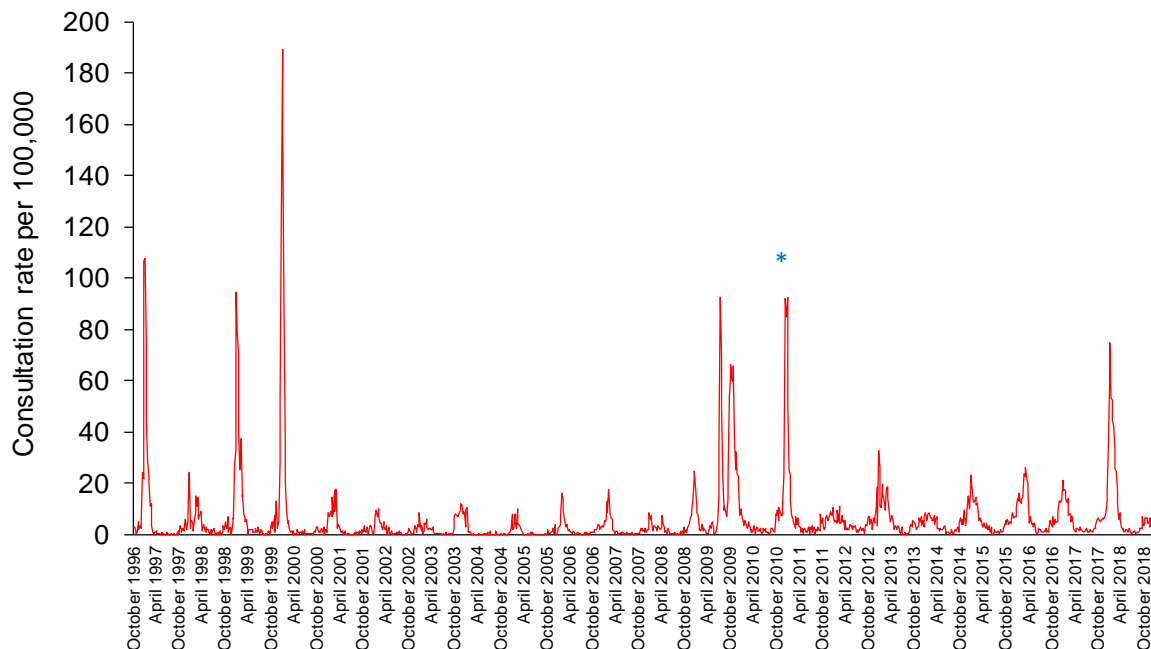
Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 23/01/2019).



* 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 03 2019).

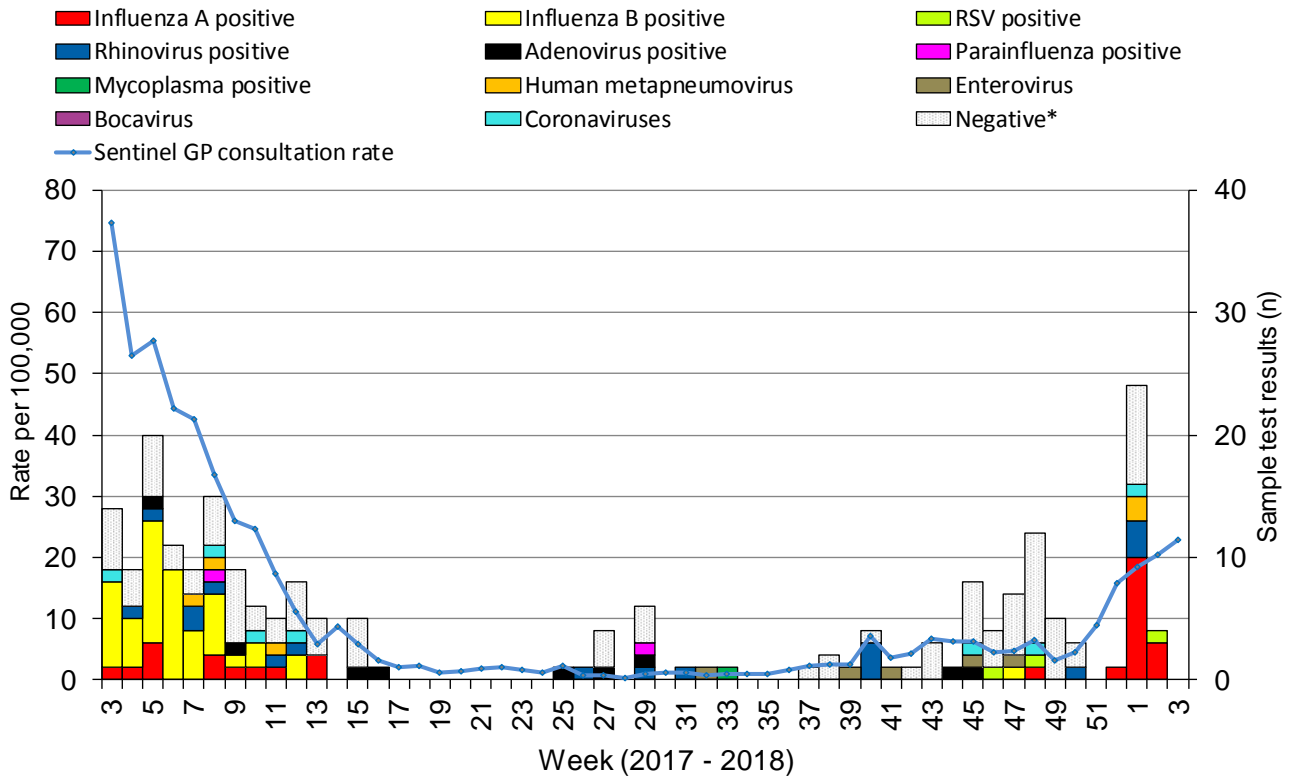


* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 50 2018 – week 03 2019 (as of 23/01/2019).

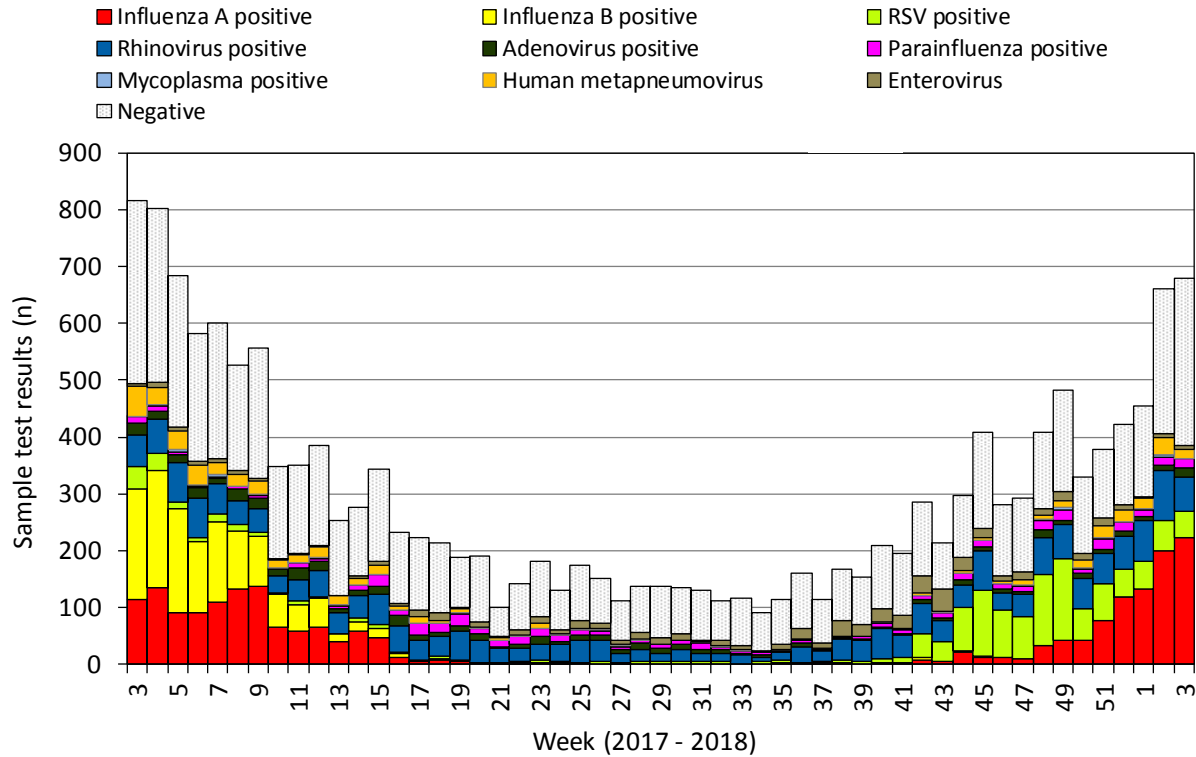
| Age group | 50 | 51 | 52 | 1 | 2 | 3 |
|--------------|------------|------------|-------------|-------------|-------------|-------------|
| < 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1 - 4 | 0.0 | 6.2 | 0.0 | 0.0 | 18.5 | 12.3 |
| 5 - 14 | 4.6 | 4.6 | 3.8 | 2.9 | 2.3 | 13.8 |
| 15 - 24 | 2.1 | 10.6 | 7.1 | 18.6 | 17.0 | 19.1 |
| 25 - 34 | 4.0 | 13.9 | 19.9 | 32.3 | 27.9 | 35.8 |
| 35 - 44 | 8.4 | 4.2 | 17.0 | 26.3 | 29.4 | 29.4 |
| 45 - 64 | 5.6 | 14.9 | 31.0 | 25.6 | 31.7 | 29.8 |
| 65 - 74 | 4.3 | 6.5 | 14.4 | 13.5 | 12.9 | 15.1 |
| 75+ | 2.5 | 0.0 | 0.0 | 3.2 | 5.1 | 10.1 |
| Total | 4.5 | 9.0 | 15.8 | 18.4 | 20.4 | 22.9 |

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 23/01/2019, by week of sample collection, week 03 2018 - week 03 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 23/01/2019 by week of sample collection, week 03 2018 – week 03 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 23/01/2019).

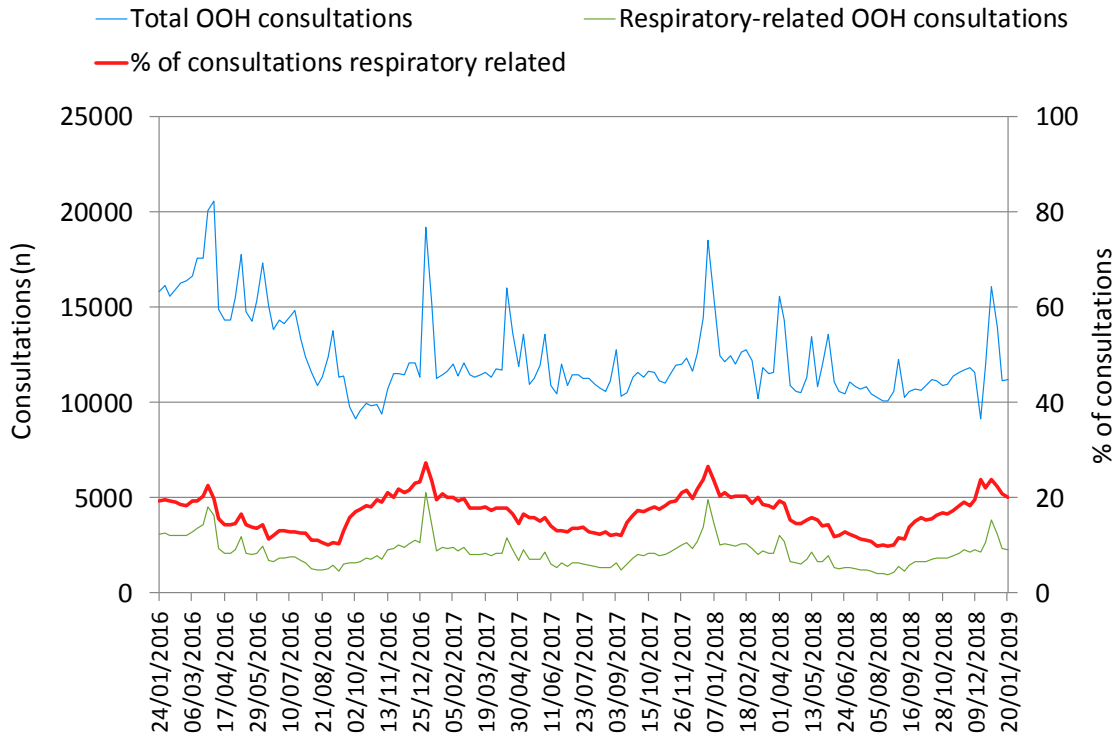
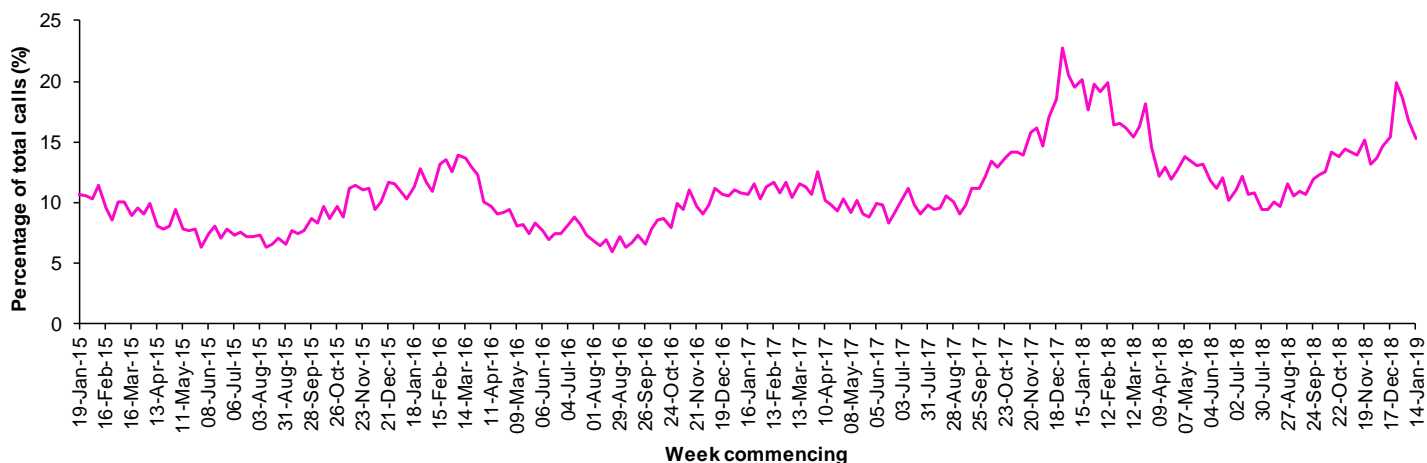


Figure 6. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 03 2015 - week 03 2019 (as of 20/01/2019).



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 22/01/2019).

| Influenza immunisation uptake in the 2018/19 season | |
|-----------------------------------------------------|-------|
| People aged 65y and older | 66.9% |
| People younger than 65y in a clinical risk group | 41.8% |
| Children aged two & three years | 46.5% |
| 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 02, influenza is now circulating in the community with activity indicators above baseline threshold levels at low intensity. Influenza GP consultations increased in [Scotland](#) to 25.6 per 100,000 but remain below MEM thresholds for baseline activity; and increased in [Northern Ireland](#) to 19.2 per 100,000 which is above MEM thresholds for baseline activity. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 19.2 per 100,000 and remains 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 15.2 per 100,000 during week 02.
- During week 02, 26 samples tested positive for influenza (15 influenza A(H1N1)pdm09), seven influenza A(H3) and four influenza A(not subtyped)) through the UK GP sentinel swabbing scheme. Of the 3,131 respiratory test results reported through Public Health England's DataMart scheme, there were 640 (20.4%) positive for influenza (268 influenza A(H1N1)pdm09, 109 influenza A(H3), 260 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 02, influenza activity continued to increase throughout the WHO European Region. During week 02, a total of 2,788 sentinel specimens were tested for influenza, 1,177 (42.2%) of which were positive (398 influenza A(H1N1)pdm09, 339 influenza A(H3N2), 426 influenza A not subtyped and 14 influenza B). For more information on European level influenza surveillance see Flu News Europe: <http://www.flunewseurope.org/>

World update

- The WHO reported on 21/01/19 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 18/01/2019), during the time period from 24/12/18 – 06/01/19, National Influenza Centres and other national influenza laboratories from 104 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 191,778 specimens during that time period, 39,161 were positive for influenza viruses, of which 38,493 were typed as influenza A (13,313 influenza A(H1N1)pdm09, 3,446 influenza A(H3N2) and 21,734 influenza A(not subtyped)) and 668 influenza B (of the characterised influenza B viruses 45 belonged to the B-Yamagata lineage and 73 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 02 (ending 12/01/19) influenza activity remains elevated in the United States. Nationally, 31,780 (7.8%) out of 407,503 specimens have tested positive for influenza since week 40, of these positives 30,028 (94.5%) were influenza A and 1,752 (5.5%) were influenza B. Further characterisation has been carried out on 21,296 specimens by public health laboratories, and 7,035 tested positive for influenza, 6,789 (96.6%) were influenza A (5,214 influenza A(H1N1)pdm09 (81.6%), 1,173 influenza (H3N2) (18.4%), and subtyping was not performed on 411 specimens) and 237 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 02, laboratory detections continued to decline confirming that the influenza season reached peak levels in the last week of December. During week 02 the percentage of visits to healthcare professionals that were due to ILI remained within expected levels at 2.5%. The percentage of tests positive for influenza decreased from 25.6% in week 01 to 20.5% in week 02.

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/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