

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

Trend: *Decreasing*

Confirmed cases since 2018 week 40: **1,229** (68% influenza A(H1N1)pdm09, 6% influenza A(H3), 25% influenza A(not typed), 1% influenza B)

Key points – Wales

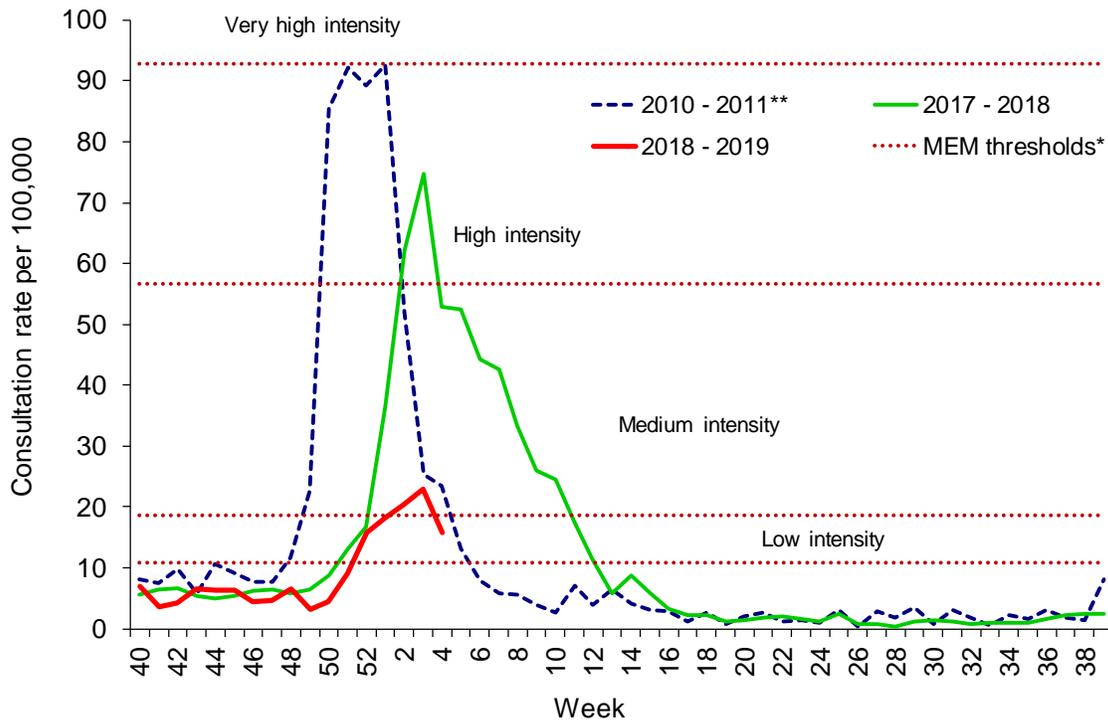
Surveillance indicators suggest that influenza is circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) decreased during week 04 (ending 27/01/2019) and is now at low intensity levels. Influenza was the most commonly detected cause of Acute Respiratory Infection (ARI) in hospital and non-sentinel GP patients during week 04, with 239 confirmed cases. Influenza A(H1N1)pdm09 is currently dominant. A small number of influenza A(H3N2) cases have also been confirmed in recent weeks. Other causes of ARI, including rhinovirus, coronavirus and RSV continue to be detected in addition to influenza.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 04 was 15.7 consultations per 100,000 practice population. The consultation rate was highest in patients aged 1-4 years (43.1 per 100,000 practice population) (Table 1).
- The ILI consultation rate decreased compared to week 03 (22.9 per 100,000) and has now returned to low level activity (10.8 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 04 was the 5th week of the season.
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 04 was 11,244. The proportion of respiratory-related consultations with OOH doctors increased to 20.7% from 20.1% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 04 increased to 16.9% (Figure 6).
- Two surveillance samples from patients with ILI, collected by sentinel GPs during week 04, had been received by Public Health Wales Microbiology as at today, the final total will likely be higher. One sample was positive for influenza A(H1N1)pdm09 (a patient aged 45-64 years from South East Wales), and one sample was negative for all routinely tested respiratory pathogens (Figure 3). Updated figures for week 03 suggest that 11 out of 23 sentinel samples collected that week were positive for influenza A(H1N1)pdm09.
- During week 04, 644 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: 113 influenza A(H1N1)pdm09, 15 influenza A(H3N2), 111 influenza A (not typed), 76 for rhinovirus, 36 for coronavirus, 31 for adenovirus, 25 for RSV, 23 for human metapneumovirus, 18 for enterovirus, 13 for parainfluenza and two for mycoplasma (Figure 4). The proportion of samples from hospital patients positive for influenza increased to 37.1%.
- In those aged under five, the number of confirmed RSV cases per 100,000 population decreased to 7.6 during week 04; and 13 out of 166 samples (7%) tested positive in this age group. Surveillance data suggest that the RSV season is likely to be over, although small numbers of cases continue to be detected in patients with ILI/ARI.
- During week 04, four outbreaks of an acute respiratory illnesses (ARI) were reported to a Public Health Wales Health Protection team, two outbreaks were in hospitals and two were in schools/nurseries, with one in each setting confirmed as influenza influenza A (not typed).
- At the end of week 04, uptake of influenza vaccine was: 67.2% in those aged 65 year and older, 42.3% in patients aged six months to 64 years at clinical risk, and 47.2% in children aged two and three years. In the 1,296 primary schools visited so far as part of the universal childhood influenza programme, uptake was 69.9%.

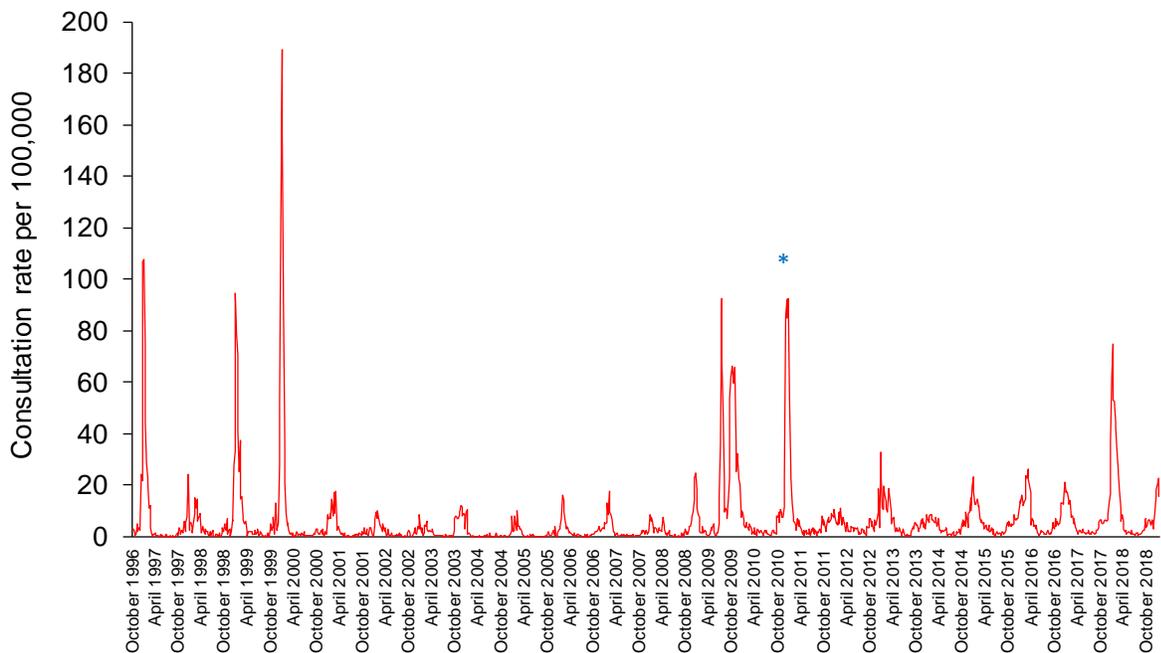
Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 30/01/2019).



* 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 04 2019).

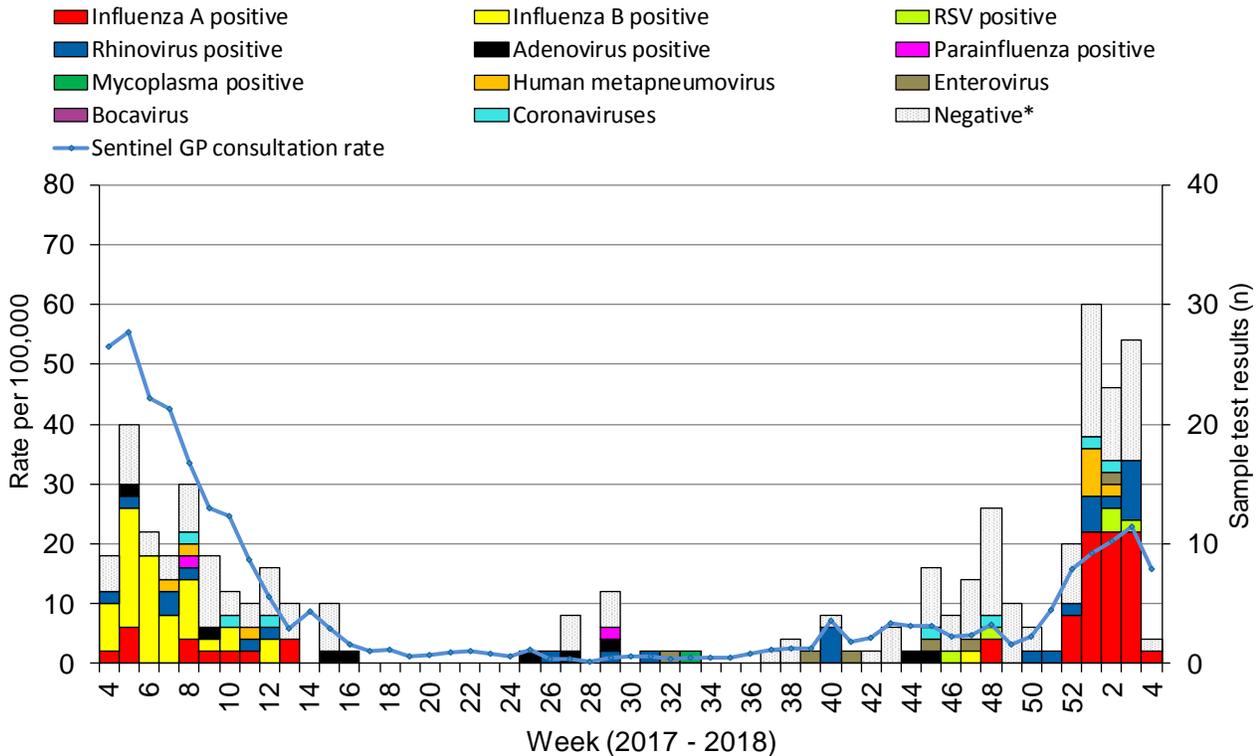


* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 51 2018 – week 04 2019 (as of 30/01/2019).

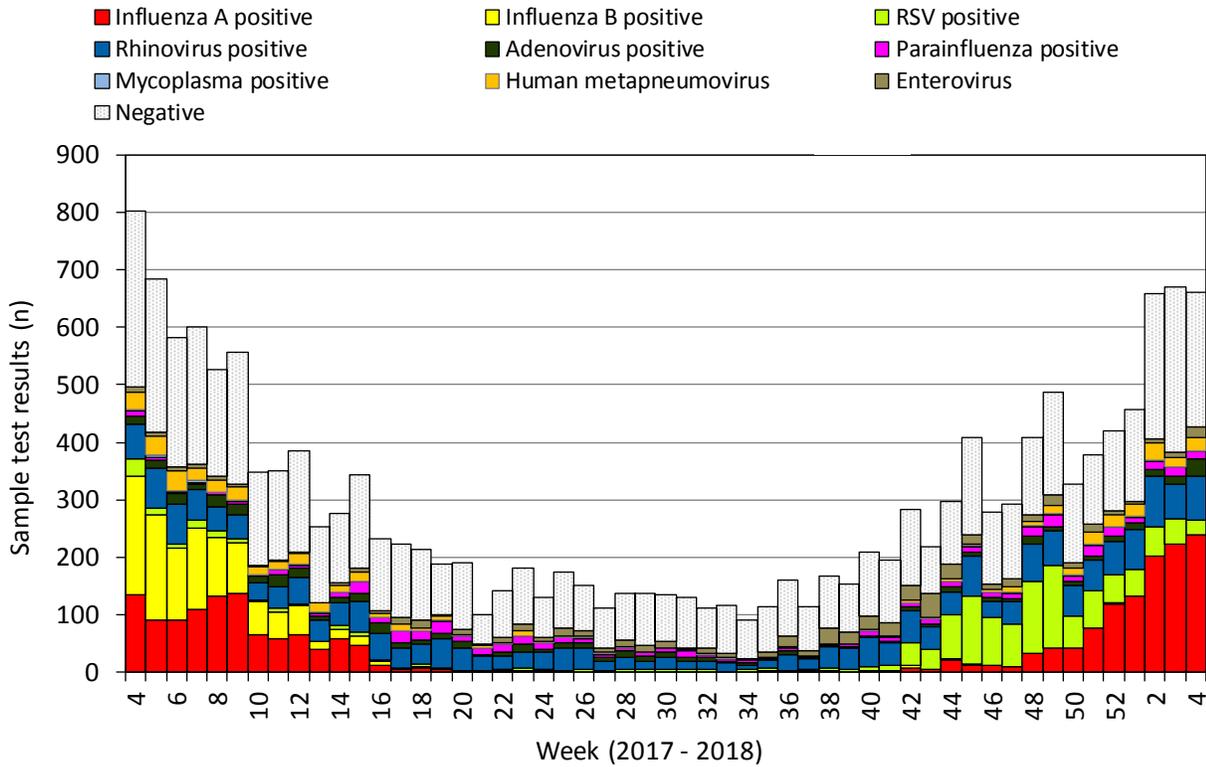
Age group	51	52	1	2	3	4
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	6.2	0.0	0.0	18.5	12.3	43.1
5 - 14	4.6	3.8	2.9	2.3	13.8	4.6
15 - 24	10.6	7.1	18.6	17.0	19.1	8.5
25 - 34	13.9	19.9	32.3	27.9	35.8	21.9
35 - 44	4.2	17.0	26.3	29.4	29.4	27.3
45 - 64	14.9	31.0	25.6	31.7	29.8	18.6
65 - 74	6.5	14.4	13.5	12.9	15.1	4.3
75+	0.0	0.0	3.2	5.1	10.1	10.1
Total	9.0	15.8	18.4	20.4	22.9	15.7

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 30/01/2019, by week of sample collection, week 04 2018 - week 04 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 30/01/2019 by week of sample collection, week 04 2018 – week 04 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 30/01/2019).

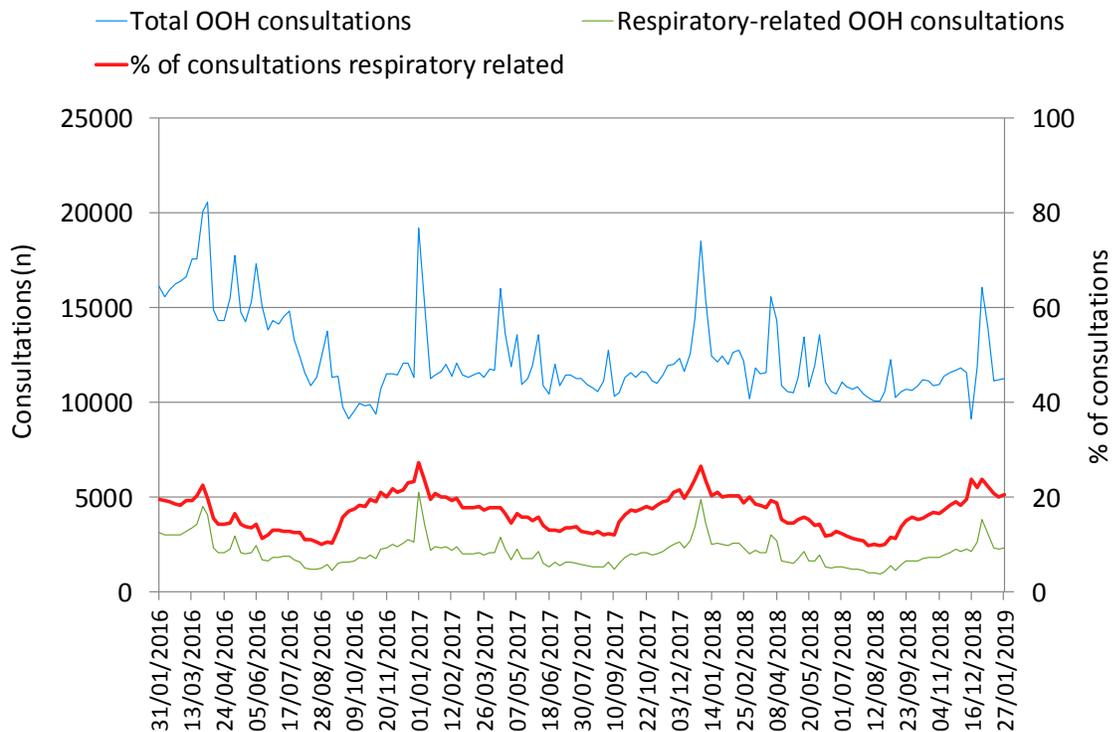
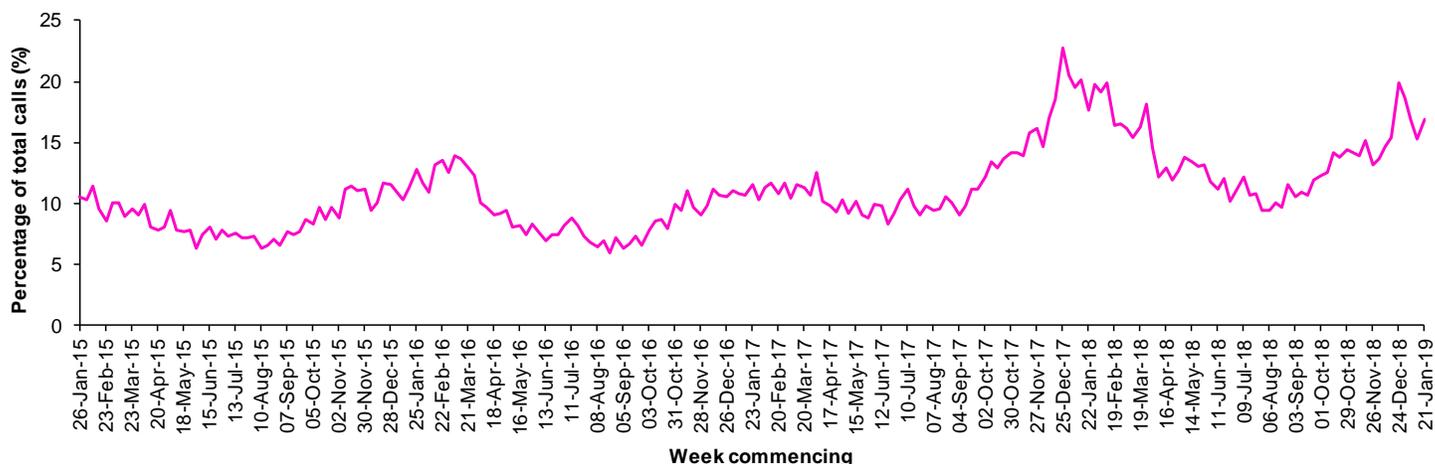


Figure 6. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 04 2015 - week 04 2019 (as of 27/01/2019).



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 29/01/2019).

Influenza immunisation uptake in the 2018/19 season	
People aged 65y and older	67.2%
People younger than 65y in a clinical risk group	42.3%
Children aged two & three years	47.2%
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 03, influenza continued to circulate in the community with activity indicators above baseline threshold levels at low intensity. Influenza GP consultations decreased in [Scotland](#) to 19.5 per 100,000 and remain below MEM thresholds for baseline activity; and decreased in [Northern Ireland](#) to 19.2 per 100,000, which is now below baseline activity. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 19.6 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 13.6 per 100,000 during week 03.
- During week 03, 54 samples tested positive for influenza (44 influenza A(H1N1)pdm09), four influenza A(H3) and six influenza A(not subtyped)) through the UK GP sentinel swabbing scheme. Of the 3,260 respiratory test results reported through Public Health England's DataMart scheme, there were 676 (20.7%) positive for influenza (326 influenza A(H1N1)pdm09, 99 influenza A(H3), 250 influenza A(unknown subtype) and one 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 03, influenza activity continued to increase throughout the WHO European Region. During week 03, a total of 3,569 sentinel specimens were tested for influenza, 1,742 (48.8%) of which were positive (673 influenza A(H1N1)pdm09, 384 influenza A(H3N2), 660 influenza A not subtyped and 25 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 03 (ending 19/01/19) influenza activity increased in the United States. Nationally, 38,276 (8.4%) out of 453,354 specimens have tested positive for influenza since week 40, of these positives 36,293 (94.8%) were influenza A and 1,983 (5.2%) were influenza B. Further characterisation has been carried out on 24,430 specimens by public health laboratories, and 8,677 tested positive for influenza, 8,416 (97.0%) were influenza A (6,593 influenza A(H1N1)pdm09 (81.9%), 1,455 influenza (H3N2) (18.1%), and subtyping was not performed on 368 specimens) and 261 influenza B (3.0%).

Source: CDC Weekly US Influenza Surveillance Report

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

- The Public Health Agency of Canada reported that during week 03, laboratory detections continued to decline but influenza continues to circulate across Canada. During week 03 the percentage of visits to healthcare professionals that were due to ILI remained within expected levels at 1.4%. The percentage of tests positive for influenza decreased to 20.8% in week 03.

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 16/01/19 WHO reported five additional cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in Saudi Arabia. Globally, 2,279 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/2019/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 (14/12/2018 to 21/01/2019) reports that no new cases of avian influenza A(H7N9) were reported and the risk assessment has not changed. 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.publichealth.hscni.net/directorate-public-health/health-protection/influenza>

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