

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

**Trend:** *Increasing*

**Confirmed cases since 2018 week 40:** 537 (77% influenza A(H1N1)pdm09, 5% influenza A(H3), 17% influenza A(not typed), 1% influenza B)

## Key points – Wales

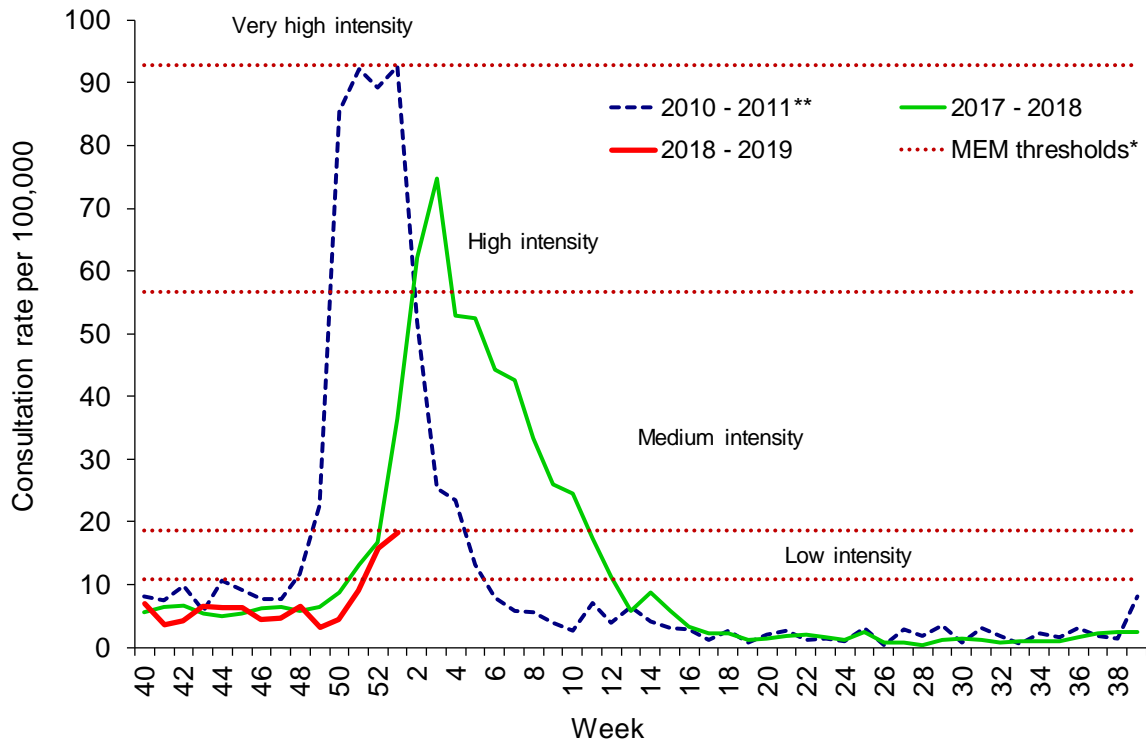
### Surveillance indicators suggest that influenza is now circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) increased during week 01 (ending 06/01/2019) remaining above the threshold for seasonal levels of activity. Influenza was the most commonly detected cause of Acute Respiratory Infection (ARI) in hospital and non-sentinel GP patients during week 01, with 134 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 crude Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 01 was 14.7 consultations per 100,000 practice population. General practices were open for four days during this week, compared to the usual five. When adjusted for the reduced general practice opening hours, the consultation rate was 18.4 per 100,000. The consultation rate was highest in patients aged 25-34 years (32.3 per 100,000 practice population) (Table 1).
- The adjusted ILI consultation rate increased compared to the previous week (15.8 consultations per 100,000). This exceeds the Moving Epidemic Method (MEM) threshold for seasonal activity (10.8 per 100,000) (Figure 1), and is just below the medium intensity threshold (18.6 per 100,000).
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 01 was 13,962. The proportion of respiratory-related consultations with OOH doctors decreased to 22.3% from 23.9% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 01 decreased to 18.6% (Figure 6).
- During week 01, seven surveillance samples from patients with influenza-like illness were submitted by sentinel GPs for testing, six samples tested positive for influenza A(H1N1)pdm09 (two patients aged 15-24 years, two patients aged 35-44 years and a patient aged 45-64 years from South East Wales, and a patient aged 35-44 years from North Wales) and one sample for rhinovirus (Figure 3).
- During week 01, 458 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, four influenza A(H3N2), 17 influenza A (not typed), 75 for rhinovirus, 47 for RSV, 20 for coronavirus, 19 for human metapneumovirus, 11 for parainfluenza, 10 for adenovirus, four for enterovirus and two for mycoplasma (Figure 4). The proportion of samples from hospital patients positive for influenza decreased slightly to 29.3%.
- In those aged under five, the number of confirmed RSV cases per 100,000 population decreased to 11.7 during 2019, week 01; and 20 out of 80 samples (25%) 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 01 was the 12th week since baseline activity thresholds were exceeded.
- During week 01, one outbreak of an acute respiratory illness (ARI) was reported to a Public Health Wales Health Protection team, the outbreak was in a hospital and was confirmed as influenza A.
- At the end of week 01, uptake of influenza vaccine was: 66.0% in those aged 65 year and older, 40.7% in patients aged six months to 64 years at clinical risk and 45.2% in children aged two and three years. In the 1,175 primary schools visited so far as part of the universal childhood influenza programme, uptake was 69.8%.

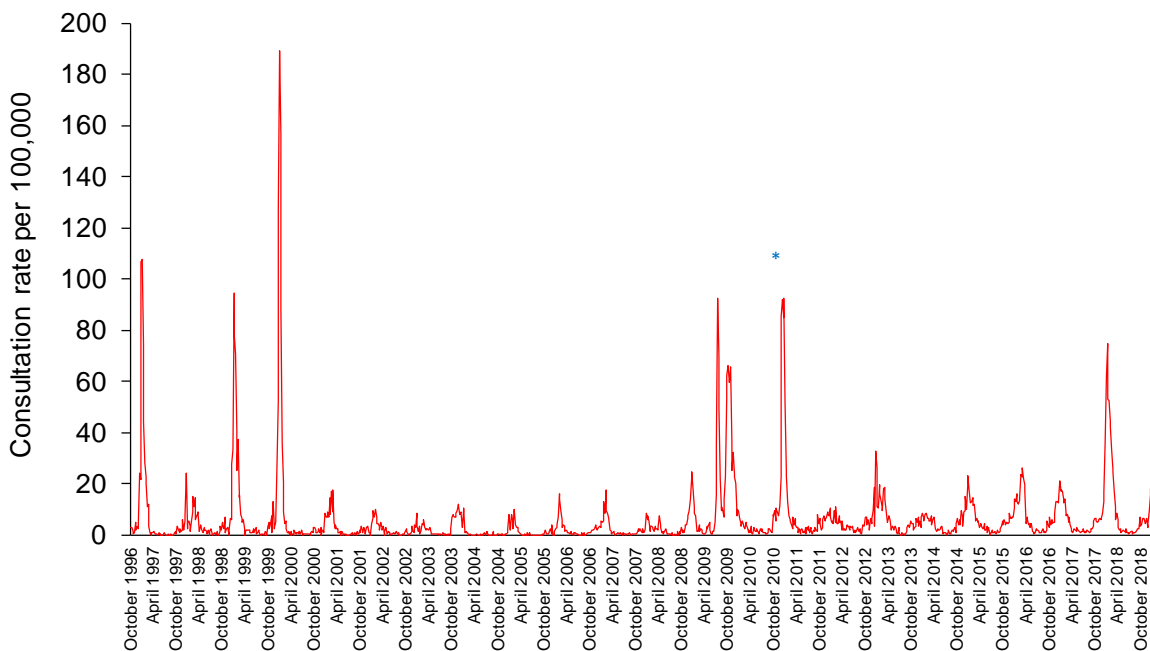
## Influenza activity in Wales

**Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 10/01/2019).**



\* 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 01 2019).**

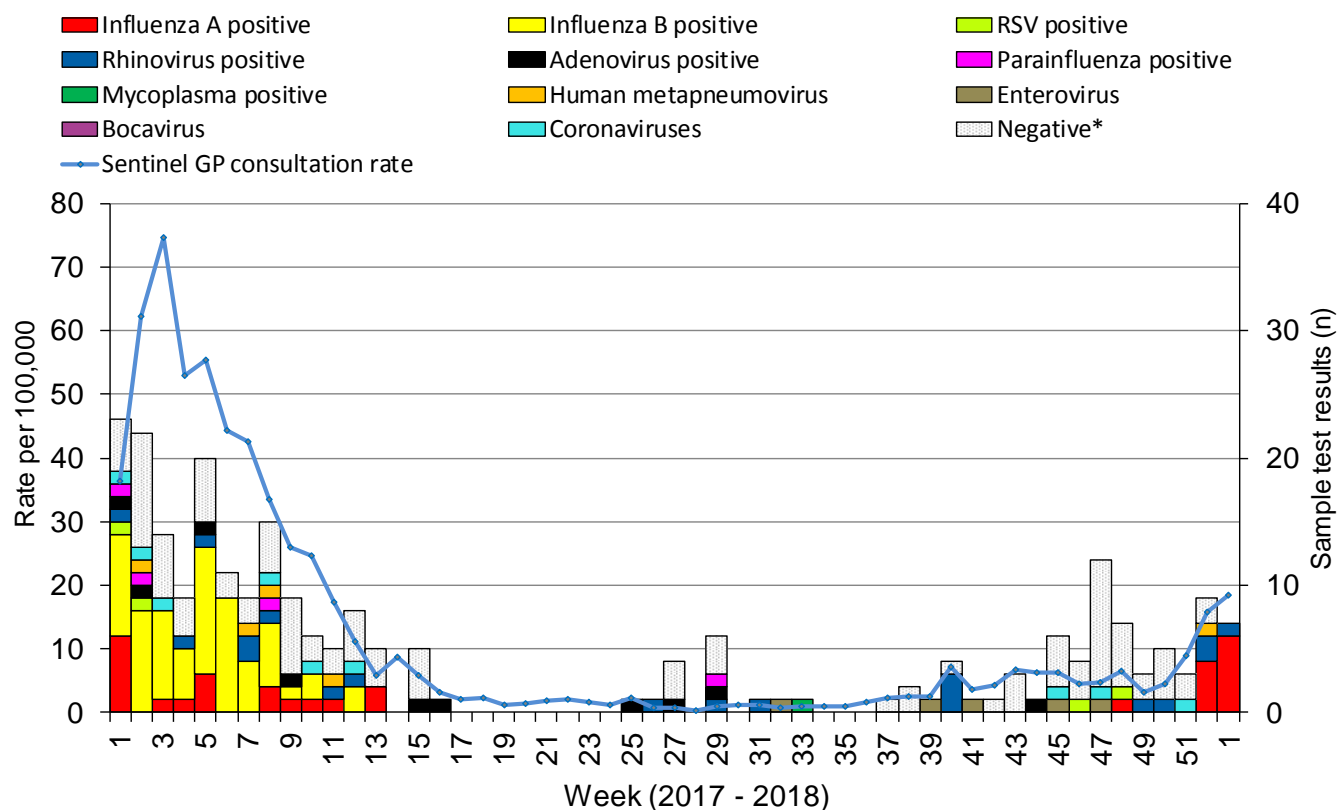


\* Reporting changed to Audit+ surveillance system

**Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 48 2018 – week 01 2019 (as of 10/01/2019).**

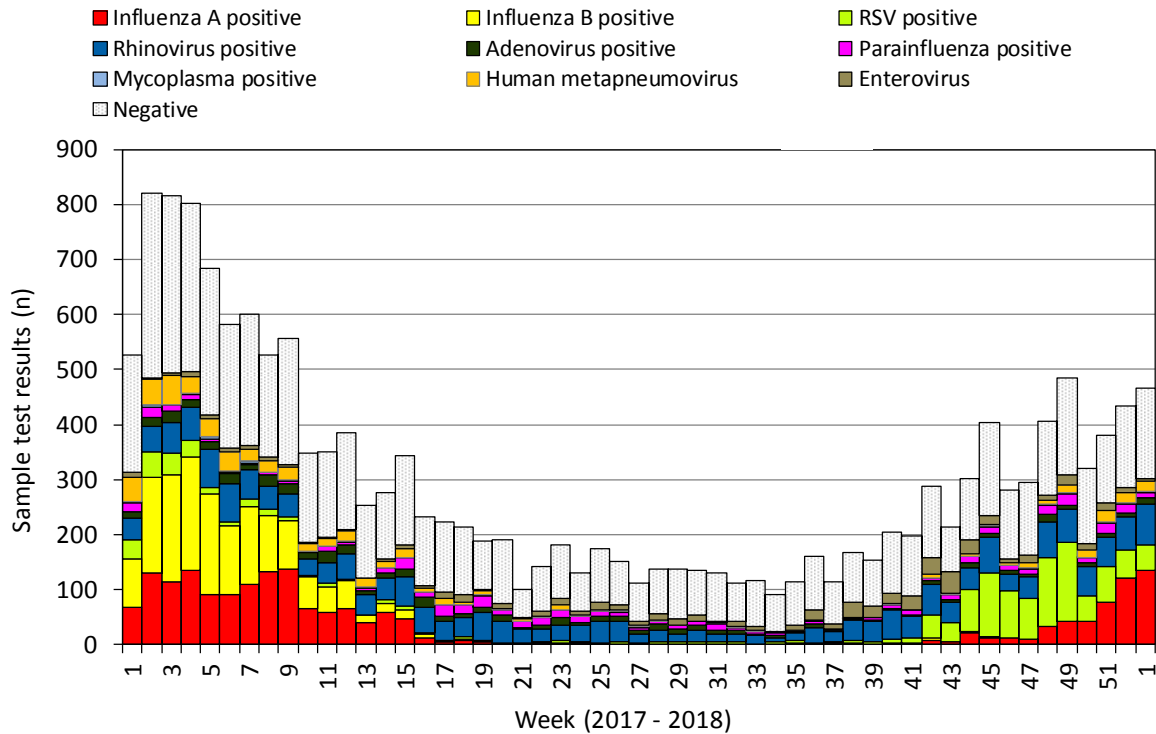
Age group	48	49	50	51	52	1
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	6.2	0.0	0.0	6.2	0.0	0.0
5 - 14	2.3	0.0	4.6	4.6	3.8	2.9
15 - 24	4.2	2.1	2.1	10.6	7.1	18.6
25 - 34	6.0	6.0	4.0	13.9	19.9	32.3
35 - 44	14.7	4.2	8.4	4.2	17.0	26.3
45 - 64	6.5	4.7	5.6	14.9	31.0	25.6
65 - 74	2.2	2.2	4.3	6.5	14.4	13.5
75+	10.1	2.5	2.5	0.0	0.0	3.2
<b>Total</b>	<b>6.5</b>	<b>3.2</b>	<b>4.5</b>	<b>9.0</b>	<b>15.8</b>	<b>18.4</b>

**Figure 3. Specimens submitted for virological testing by sentinel GPs as of 10/01/2019, by week of sample collection, week 01 2018 - week 01 2019 .**



\* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus, enterovirus, bocavirus and coronaviruses.

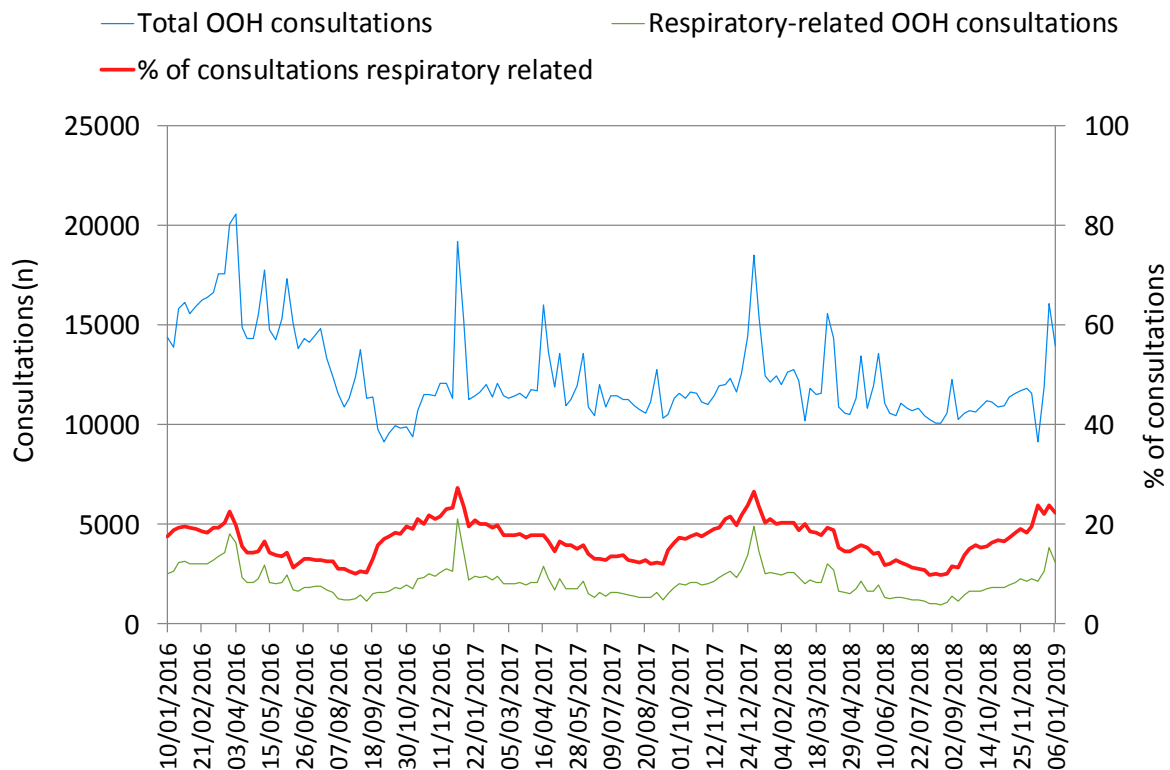
**Figure 4. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 10/01/2019 by week of sample collection, week 01 2018 – week 01 2019.**



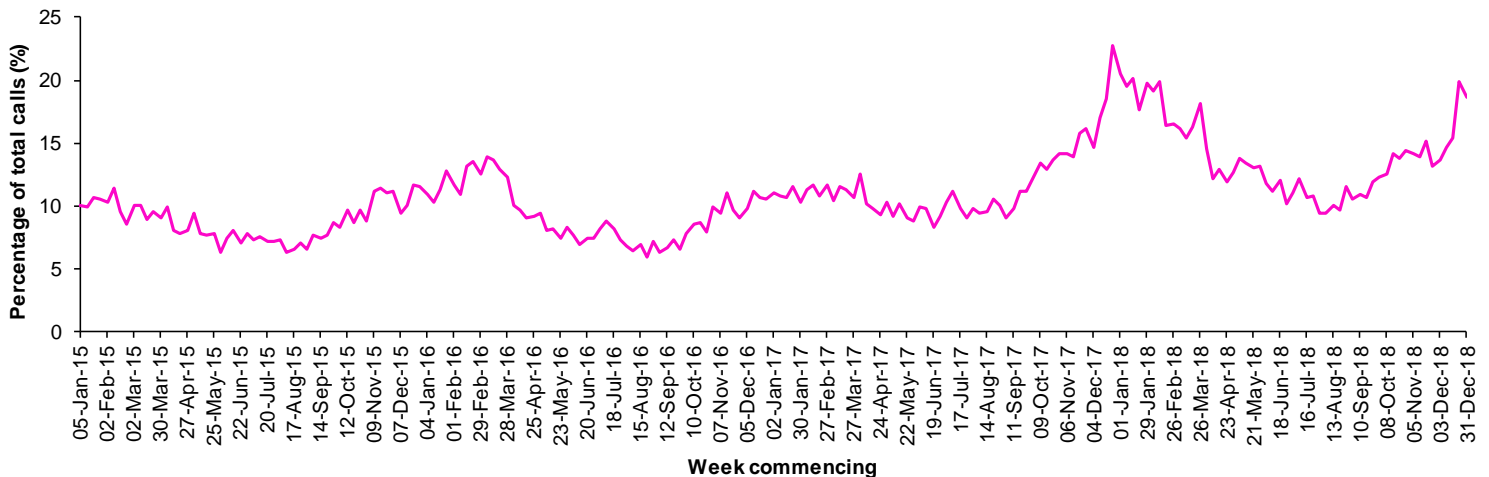
Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre.

### 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 10/01/2019).**



**Figure 6. Influenza related calls to NHS Direct Wales<sup>1</sup> (as a percentage of total calls) from week 01 2015 - week 01 2019 (as of 06/01/2019).**



<sup>1</sup> 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 08/01/2019).**

Influenza immunisation uptake in the 2018/19 season	
People aged 65y and older	66.0%
People younger than 65y in a clinical risk group	40.7%
Children aged two & three years	45.2%
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 52, allowing for Christmas reporting breaks, there is evidence that influenza is starting to circulate in the community as activity indicators approach baseline threshold levels. Influenza GP consultations decreased in [Scotland](#) to 7.1 per 100,000 and increased in [Northern Ireland](#) to 9.0 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 8.4 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 was at 10.2 per 100,000 during week 52.
- During week 52, one sample tested positive for influenza (one influenza A(H1N1)pdm09) through the UK GP sentinel swabbing scheme. Of the 2,115 respiratory test results reported through Public Health England's DataMart scheme, there were 368 (17.4%) positive for influenza (160 influenza A(H1N1)pdm09, 70 influenza A(H3), 135 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 52, influenza activity continued to increase throughout the WHO European Region. During week 52, a total of 629 sentinel specimens were tested for influenza, 233 (37.0%) of which were positive (53 influenza A(H1N1)pdm09, 59 influenza A(H3N2), 120 influenza A not subtyped and one 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/](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 52 (ending 29/12/18) influenza activity is increasing in the United States. Nationally, 18,096 (5.9%) out of 308,266 specimens have tested positive for influenza since week 40, of these positives 16,776 (92.7%) were influenza A and 1,320 (7.3%) were influenza B. Further characterisation has been carried out on 16,255 specimens by public health laboratories, and 4,091 tested positive for influenza, 3,902 (95.4%) were influenza A (3,019 influenza A(H1N1)pdm09 (81.4%), 689 influenza (H3N2) (18.6%), and subtyping was not performed on 194 specimens) and 189 influenza B (4.6%).

**Source:** CDC Weekly US Influenza Surveillance Report

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

- The Public Health Agency of Canada reported that during weeks 51 and 52 overall influenza activity continued to increase. During week 50 the percentage of visits to healthcare professionals that were due to ILI remained within expected levels at 1.5%, an insufficient number of sentinels reported ILI activity. The percentage of tests positive for influenza continued to increase from 25.1% in week 51 to 29.4% in week 52.

**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.who.int/influenza/human_animal_interface/HAI_Risk_Assessment/en/)  
[http://www.fao.org/ag/aq/againfo/programmes/en/empres/H7N9/Situation\\_update.html](http://www.fao.org/ag/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](mailto:surveillance.requests@wales.nhs.uk)