

**Current level of influenza activity:** *Circulation at low levels.*

**Trend:** *Decreasing*

**Confirmed cases since 2018 week 40: 2,682** (99.6% influenza A and 0.4% influenza B. Of influenza A cases, 50.3% were A(H1N1)pdm09, 22.1% were A(H3) and 27.5% were untyped)

## Key points – Wales

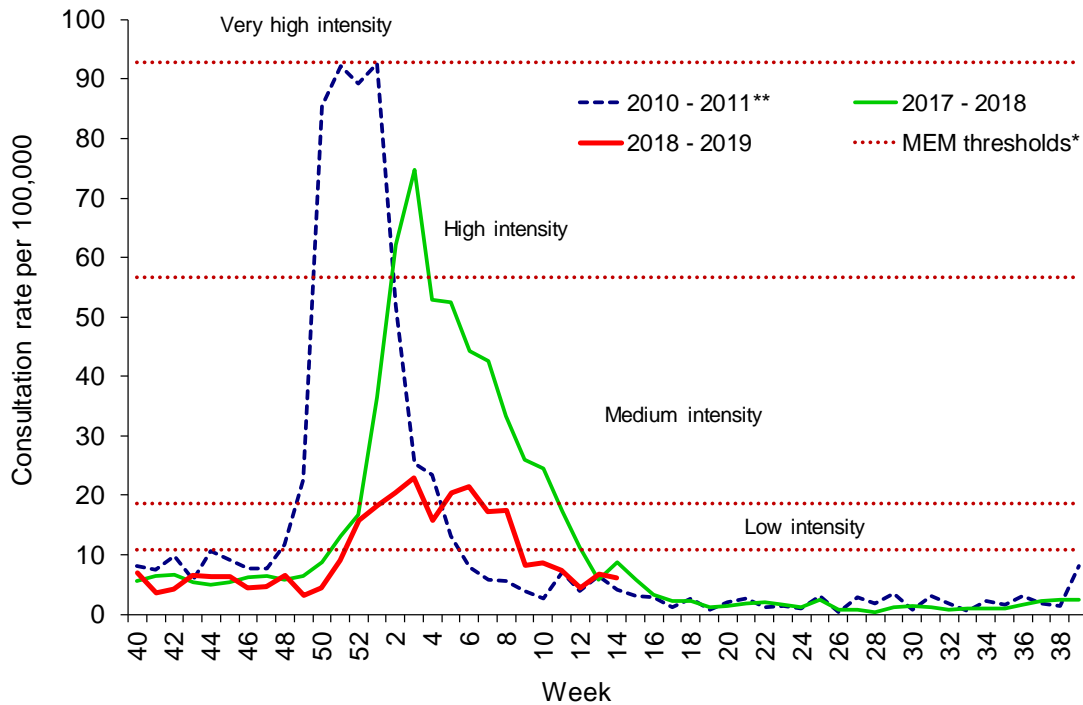
### Surveillance indicators suggest that influenza is circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) remains at baseline levels during week 14 (ending 07/04/2019). Influenza continues to be confirmed in patients with ILI, particularly those attending hospitals. Influenza was the most commonly detected cause of Acute Respiratory Infection (ARI) in hospital and non-sentinel GP patients, with 94 confirmed cases. Influenza A(H3N2) was dominant during week 14, although A(H1N1)pdm09 remains dominant for the season overall. Other causes of ARI, including rhinovirus, coronavirus, adenovirus, parainfluenza, human metapneumovirus and enterovirus, also continue to be detected.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 14 was 6.2 consultations per 100,000 practice population. The consultation rate was highest in patients aged 15-24 years (12.7 per 100,000 practice population) (Table 1).
- The ILI consultation rate decreased compared to week 13 (6.7 per 100,000), and remains below baseline levels (Figure 1).
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 14 was 11,512. The proportion of respiratory-related consultations with OOH doctors decreased from 19.2% to 18.9% (Figure 5). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 13 increased to 16.9% (Figure 6).
- Four surveillance samples from patients with ILI, collected by sentinel GPs during week 14, had been received by Public Health Wales Microbiology as at 10/04/2019, one sample tested positive for mycoplasma and three samples were negative for all routinely tested respiratory pathogens (Figure 3).
- During week 14, 437 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: 78 influenza A(H3N2), three influenza A(H1N1)pdm09, 13 influenza A (not typed), 66 rhinovirus, 26 coronavirus, 26 adenovirus, 22 for parainfluenza, 21 human metapneumovirus, 20 for enterovirus, two for mycoplasma and one for RSV (Figure 4). The proportion of samples from hospital patients positive for influenza increased to 21.5%.
- During week 14, there were two outbreak of acute respiratory illnesses (ARI) reported to Public Health Wales Health Protection teams, an outbreak in a school/nursery and an outbreak in a residential home.
- At the end of week 14, uptake of influenza vaccine was: 68.3% in those aged 65 year and older, 44.0% in patients aged six months to 64 years at clinical risk, and 49.3% in children aged two and three years. In the 1,373 primary schools visited so far as part of the universal childhood influenza programme, uptake was 69.9%.

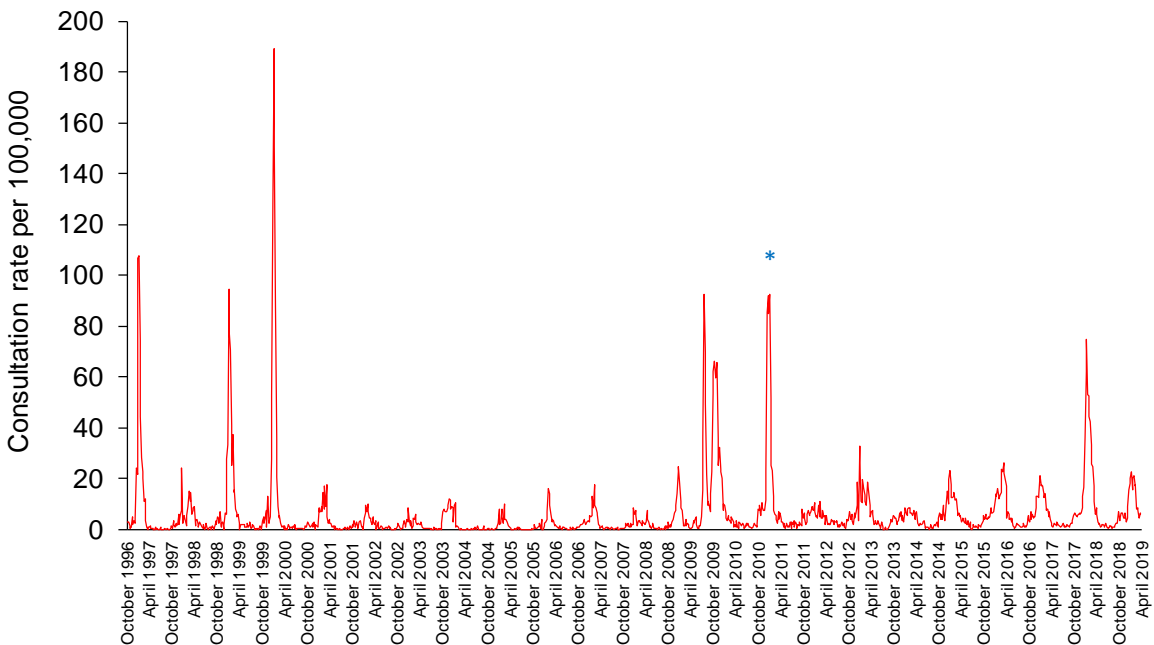
## Influenza activity in Wales

**Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 10/04/2019).**



\* 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 14 2019).**

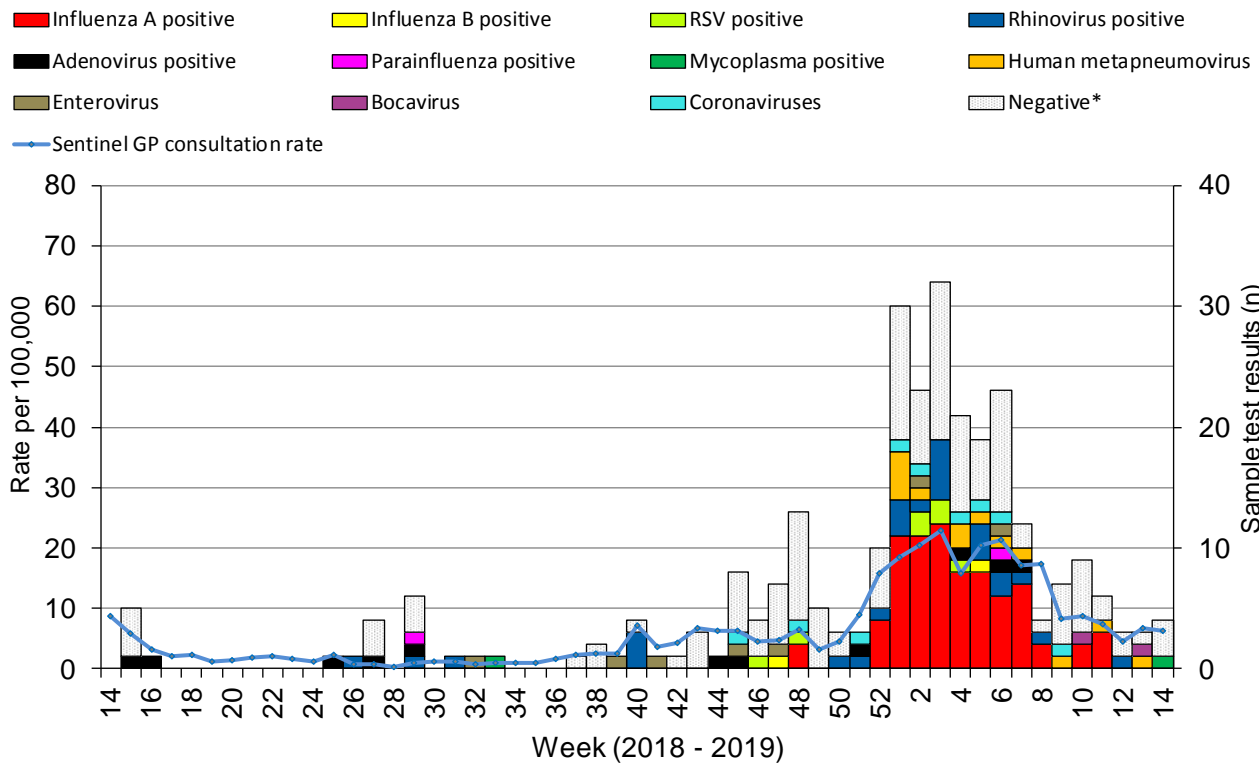


\* Reporting changed to Audit+ surveillance system

**Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 09 – week 14 2019 (as of 10/04/2019).**

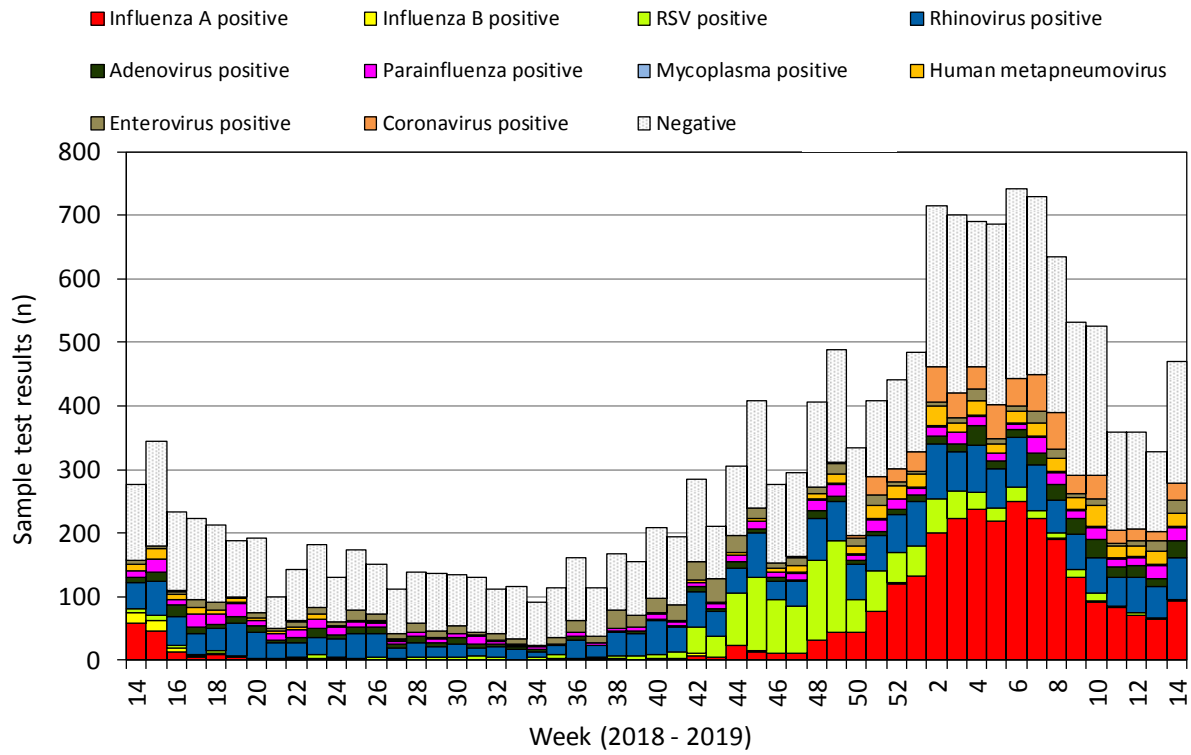
Age group	9	10	11	12	13	14
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	6.2	0.0	0.0	0.0	0.0
5 - 14	0.0	0.0	2.3	2.3	4.6	4.6
15 - 24	6.4	10.7	8.6	4.3	0.0	12.7
25 - 34	10.0	13.9	11.9	5.9	17.8	5.9
35 - 44	14.7	8.4	10.5	4.2	10.4	6.3
45 - 64	14.0	13.0	6.5	3.7	7.4	8.3
65 - 74	4.3	6.5	8.6	6.4	4.3	2.1
75+	2.5	2.5	7.6	7.5	2.5	2.5
<b>Total</b>	<b>8.2</b>	<b>8.7</b>	<b>7.5</b>	<b>4.5</b>	<b>6.7</b>	<b>6.2</b>

**Figure 3. Specimens submitted for virological testing by sentinel GPs as of 10/04/2019, by week of sample collection, week 14 2018 - week 14 2019.**



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

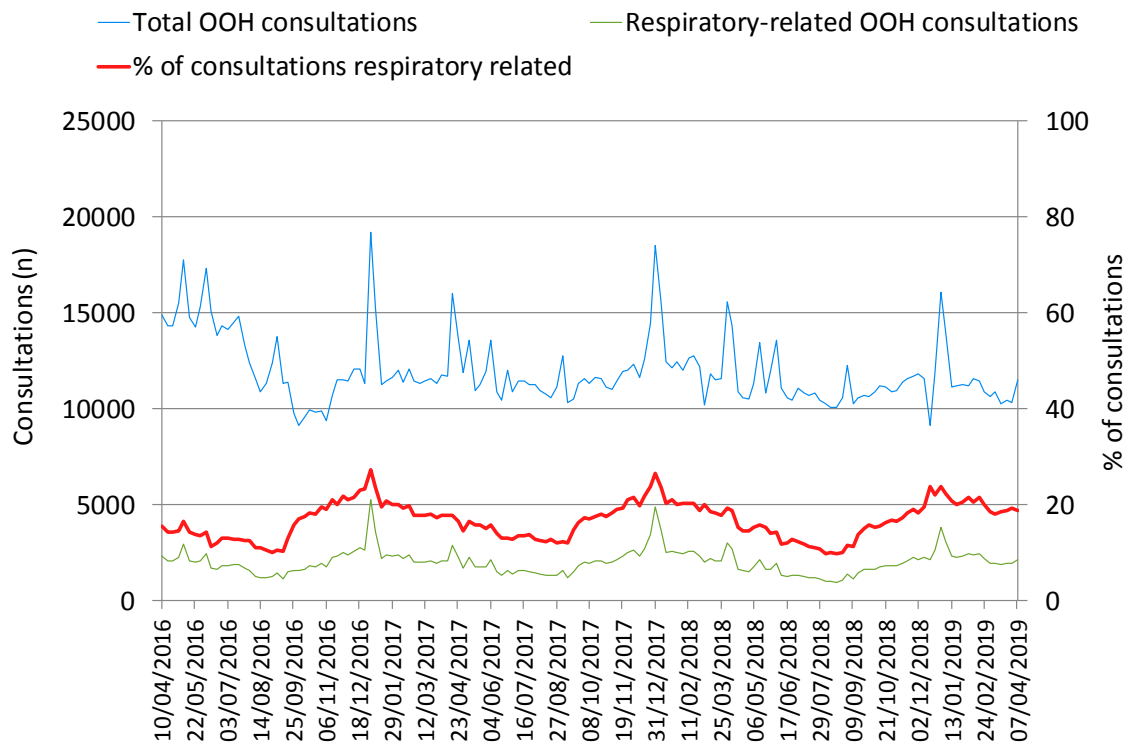
**Figure 4. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 10/04/2019 by week of sample collection, week 14 2018 – week 14 2019.**



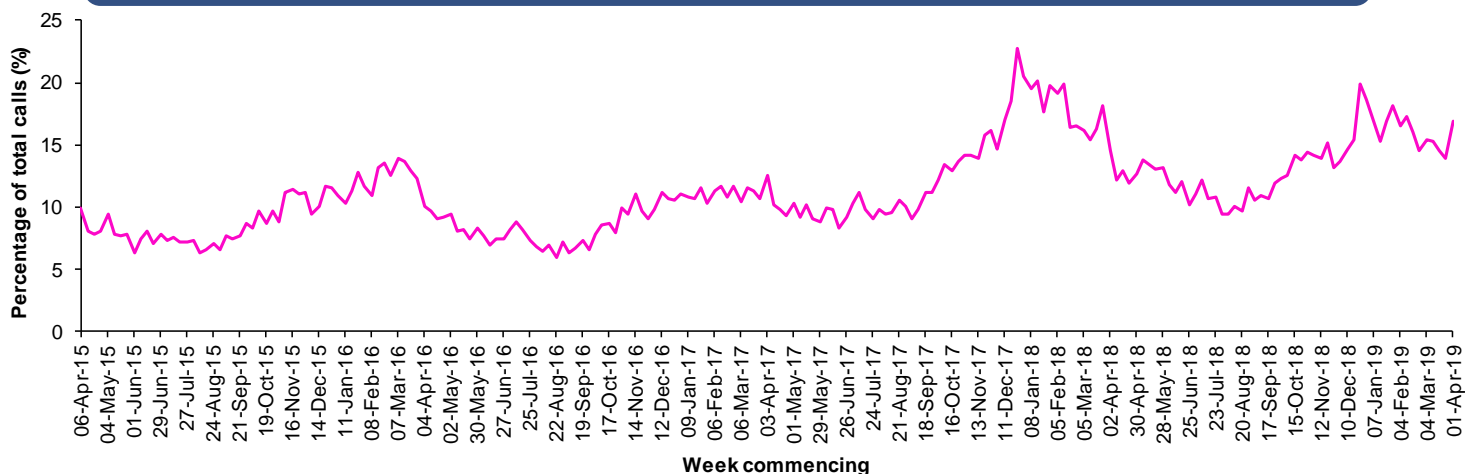
Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre.

### 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 10/04/2019).**



**Figure 6. Influenza related calls to NHS Direct Wales<sup>1</sup> (as a percentage of total calls) from week 14 2015 - week 14 2019 (as of 10/04/2019).**



<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 09/04/2019).**

Influenza immunisation uptake in the 2018/19 season	
People aged 65y and older	68.3%
People younger than 65y in a clinical risk group	44.0%
Children aged two & three years	49.3%
Children aged four to ten years*	69.9%
NHS staff	52.3%
NHS staff who have direct patient contact	54.0%

\* 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 13, influenza continued to circulate in the community with activity indicators decreasing and below baseline in the UK. Influenza GP consultations decreased in Scotland to 4.7 per 100,000 and increased in Northern Ireland to 5.7 per 100,000, but remain below baseline activity in both countries. The weekly ILI GP consultation rate in England reported through the RCGP system decreased to 6.0 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 4.4 per 100,000 during week 13.
- During week 13, eleven samples tested positive for influenza (nine influenza A(H3N2), one influenza A(unknown subtype) and one influenza B) through UK GP sentinel swabbing schemes. Of the 2,054 respiratory test results reported through Public Health England's DataMart scheme, there were 192 (9.3%) positive for influenza (12 influenza A(H1N1)pdm09, 129 influenza A(H3), 48 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 13, influenza activity is widespread in only a small number of northern, southern and western areas of the WHO European Region. During week 13, a total of 911 sentinel specimens were tested for influenza, 287 (31.5%) of which were positive (52 influenza A(H1N1)pdm09, 86 influenza A(H3N2), 145 influenza A not subtyped and four influenza B). For more information on European level influenza surveillance see Flu News Europe: <http://www.flunewseurope.org/>

## World update

- The WHO reported on 01/04/19 that in the temperate zones of the northern hemisphere, influenza activity decreased overall. In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels. Worldwide, seasonal influenza subtype A accounted for the majority of influenza detections.
- Based on FluNet reporting (as of 29/03/2019), during the time period from 04/03/19 – 17/03/19, National Influenza Centres and other national influenza laboratories from 115 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 176,726 specimens during that time period, 43,084 were positive for influenza viruses, of which 39,652 were typed as influenza A (8,769 influenza A(H1N1)pdm09, 8,795 influenza A(H3N2) and 22,088 influenza A(not subtyped)) and 3,432 influenza B (of the characterised influenza B viruses 119 belonged to the B-Yamagata lineage and 2,193 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 13 (ending 30/03/19) influenza activity decreased but remains elevated in the United States. Nationally, 154,262 (16.4%) out of 939,381 specimens have tested positive for influenza since week 40, of these positives 148,056 (96.0%) were influenza A and 6,206 (4.0%) were influenza B. Further characterisation has been carried out on 66,266 specimens by public health laboratories, and 35,344 tested positive for influenza, 34,388 (97.3%) were influenza A (20,015 influenza A(H1N1)pdm09 (60.5%), 13,042 influenza (H3N2) (39.5%), and subtyping was not performed on 1,331 specimens) and 956 influenza B (2.7%).

**Source:** CDC Weekly US Influenza Surveillance Report <http://www.cdc.gov/flu/weekly/>

- The Public Health Agency of Canada reported that during week 13, influenza activity continues to be reported in most regions in Canada. During week 13 the percentage of visits to healthcare professionals that were due to ILI was 1.6%. The percentage of tests positive for influenza increased slightly to 22.0% in week 13.

**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 29/03/19 WHO reported 68 additional cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in Saudi Arabia, including 10 deaths. Globally, 2,374 laboratory confirmed cases of human infection with MERS-CoV, including 823 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 (22/01/2019 to 12/02/2019) 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.who.int/influenza/human_animal_interface/HAI_Risk_Assessment/en/) [http://www.fao.org/ag/againfo/programmes/en/empres/H7N9/Situation\\_update.html](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](mailto:surveillance.requests@wales.nhs.uk)