

Current level of influenza activity: *Low seasonal activity*

Trend: *Increasing*

Confirmed cases since 2019 week 40: 83 (96% influenza A and 4% influenza B. Of the influenza A cases, 15% were A(H1N1)pdm09, 69% were A(H3N2) and 16% were A(not typed).

Key points – Wales

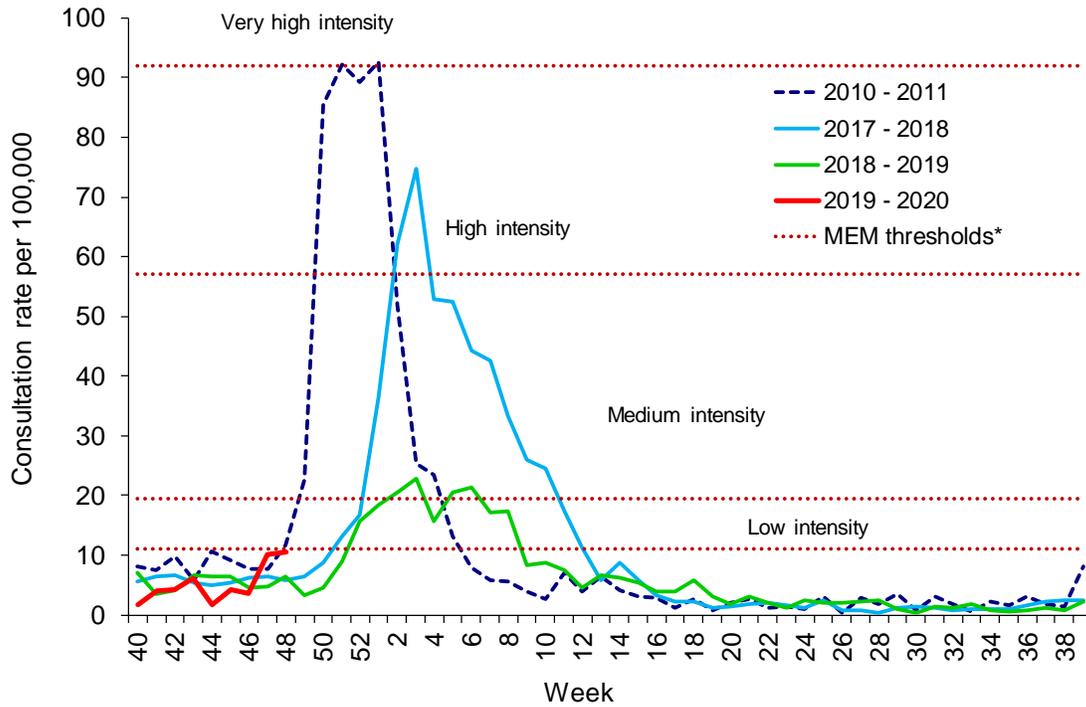
Surveillance indicators suggest that influenza is circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) reached the threshold for seasonal activity during week 48 (ending 01/12/2019). During week 48, 35 cases of influenza were confirmed but Respiratory Syncytial Virus (RSV) and rhinovirus remained more commonly detected causes of Acute Respiratory Infection (ARI). Other causes of ARI continue to be detected. Confirmed cases of RSV in children under five years of age remained above seasonal baseline threshold this week.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 48 was 10.6 consultations per 100,000 practice population (Table 1).
- The ILI consultation rate increased compared to week 47 (10.1 per 100,000 practice population) and has reached the baseline threshold indicating the start of seasonal activity (Figure 1).
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 48 was 11,860. The proportion of respiratory-related consultations with OOH doctors increased to 21.0% (Figure 7). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 48 decreased to 17.2% (Figure 8).
- Eleven surveillance samples from patients with ILI, collected by sentinel GPs during week 48, had been received by Public Health Wales Microbiology as at 04/12/2019, one sample tested positive for both influenza A(H3N2) and human metapneumovirus (a patient aged 35-44 years), three samples for rhinovirus, one sample for human metapneumovirus, one sample for coronavirus and five samples were negative for all routinely tested respiratory pathogens (Figure 3).
- During week 48, 336 specimens were tested by Public Health Wales Microbiology from hospitalised and non-sentinel GP patients with ARI. The following numbers of patients tested positive: Three influenza A(H1N1)pdm09, 28 influenza A(H3N2), three influenza A(not subtyped), 79 RSV, 59 rhinovirus, 14 parainfluenza, 14 enterovirus, 23 human metapneumovirus, 10 adenovirus and nine mycoplasma (Figure 4). The proportion of samples from hospital patients positive for influenza was 10.1%, which is above the MEM threshold indicating the start of seasonal activity. 35 respiratory specimens were from patients in intensive care units (ICU), no specimens were positive for influenza (Figure 5).
- The RSV season continues at medium intensity levels. Fifty-eight (56%) of 104 samples from children younger than five years with ARI tested positive for RSV during week 48 and there were 34.0 confirmed cases per 100,000 in this age-group (Figure 6). The average duration of seasonal activity is 11-13 weeks and week 48 was the sixth week of the current season.
- During week 48, there were three ARI outbreaks reported to the Public Health Wales Health Protection team, all three outbreaks were in a school/nursery setting.
- At the end of week 48, uptake of influenza vaccine was: 63.6% in those aged 65 years and older, 33.7% in patients aged six months to 64 years at clinical risk, and 28.0% in children aged two and three years old. In the 465 primary schools visited thus far as part of the universal childhood influenza programme, uptake was 70.9%.

Influenza activity in Wales

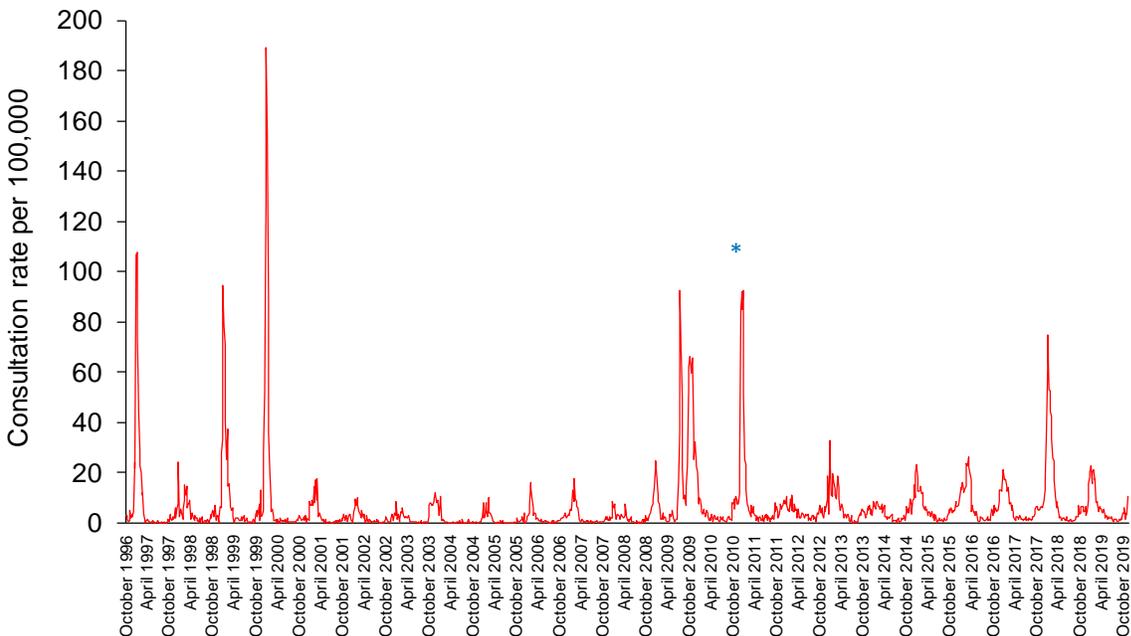
Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 01/12/2019).



A technical issue is currently affecting data submitted from sentinel practices utilising a specific brand of GP software. As a result, since week 47, data from affected practices has been excluded from calculations of the weekly ILI consultation rate. Weekly rates from week 47 onwards are based on data from approximately 20 practices.

* The Moving Epidemic Method (MEM) threshold calculated for Wales ILI consultation rates is 11.1 per 100,000. MEM thresholds used in this chart are based on influenza from 2010-11 to 2018-19 seasons.

Figure 2. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (week 48 1996 – week 48 2019).



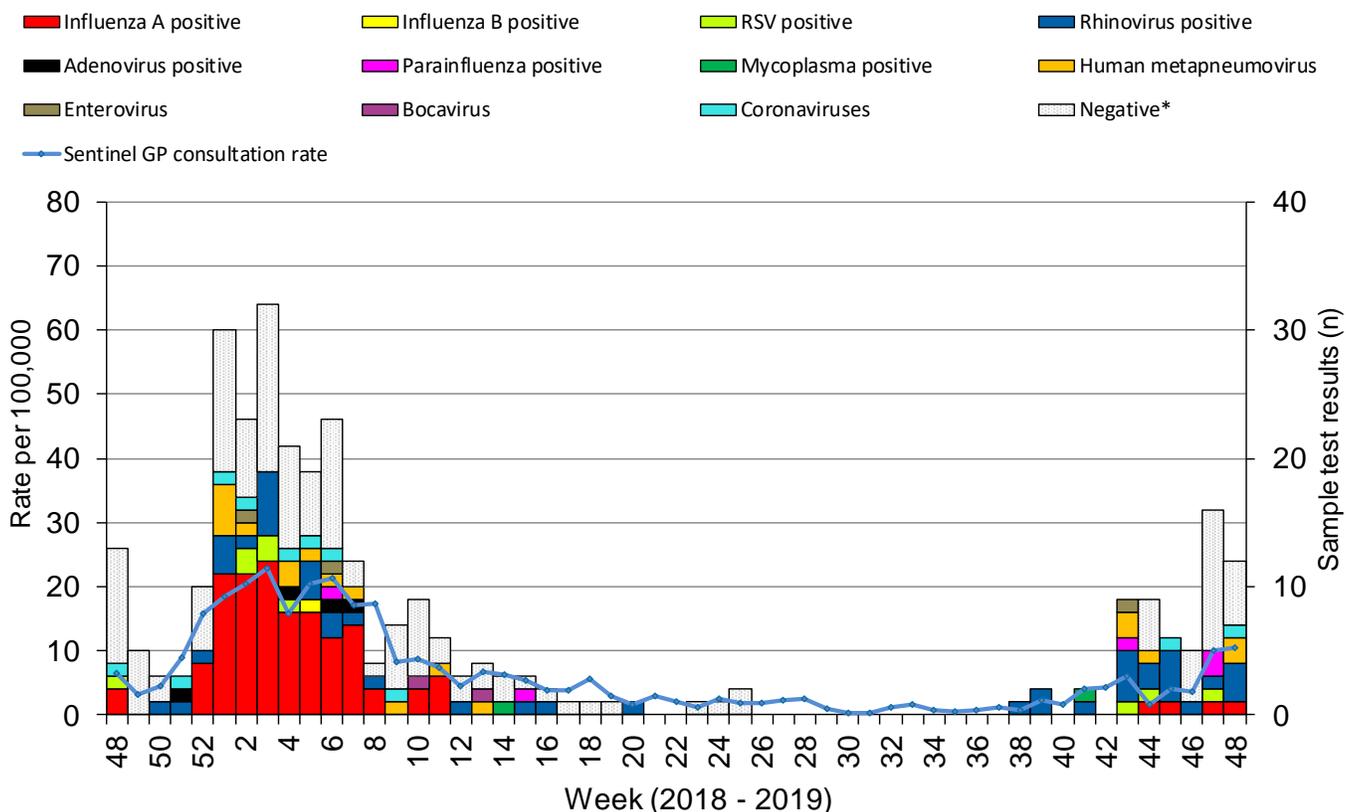
* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 43 – week 48 2019 (as of 01/12/2019).

Age group	43	44	45	46	47	48
< 1	0.0	0.0	0.0	0.0	-	-
1 - 4	0.0	0.0	0.0	0.0	-	-
5 - 14	2.3	2.3	2.3	0.0	-	-
15 - 24	4.2	2.1	2.1	0.0	-	-
25 - 34	2.0	0.0	7.9	3.9	-	-
35 - 44	14.5	0.0	8.3	4.1	-	-
45 - 64	10.2	1.8	4.6	3.7	-	-
65 - 74	4.3	4.3	2.1	6.4	-	-
75+	2.4	2.4	2.4	9.8	-	-
Total	6.2	1.7	4.2	3.7	10.1	10.6

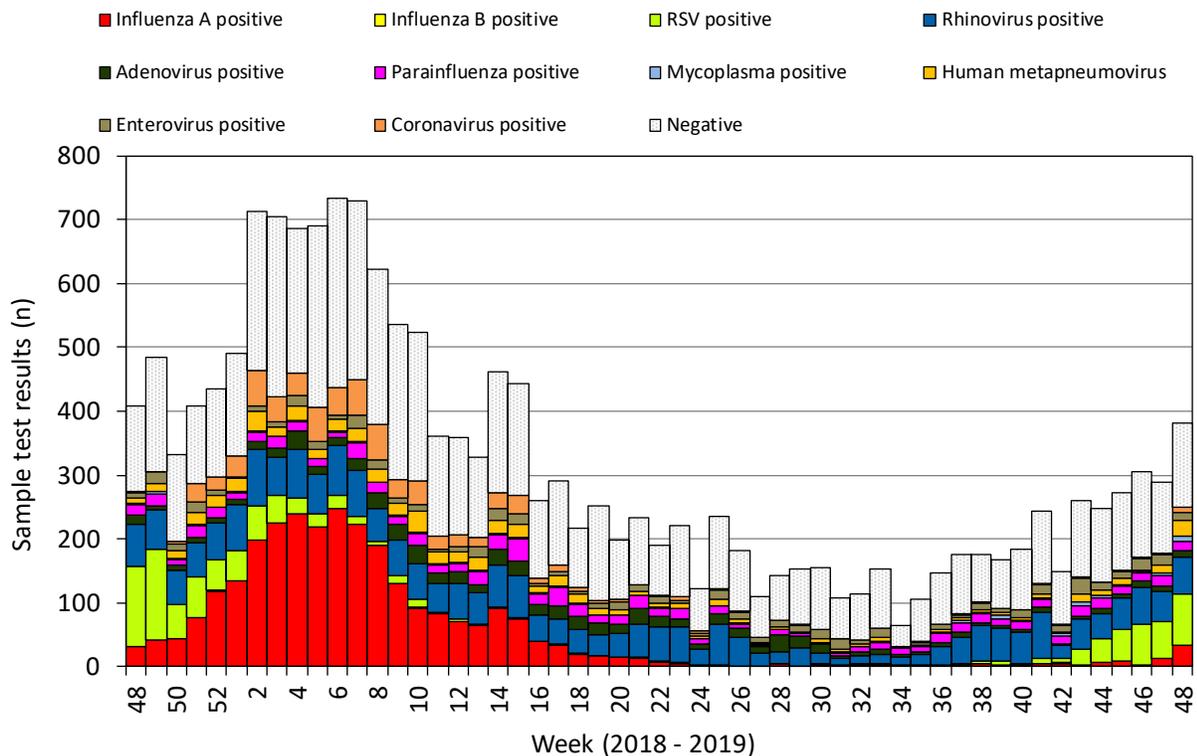
Due to the technical issue currently affecting data submitted from sentinel practices utilising a specific brand of GP software, no age breakdown is available for weeks 47 and 48.

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 01/12/2019, by week of sample collection, week 48 2018 - week 48 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 01/12/2019 by week of sample collection, week 48 2018 – week 48 2019.



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

Figure 5. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 48 2018 to week 48 2019.

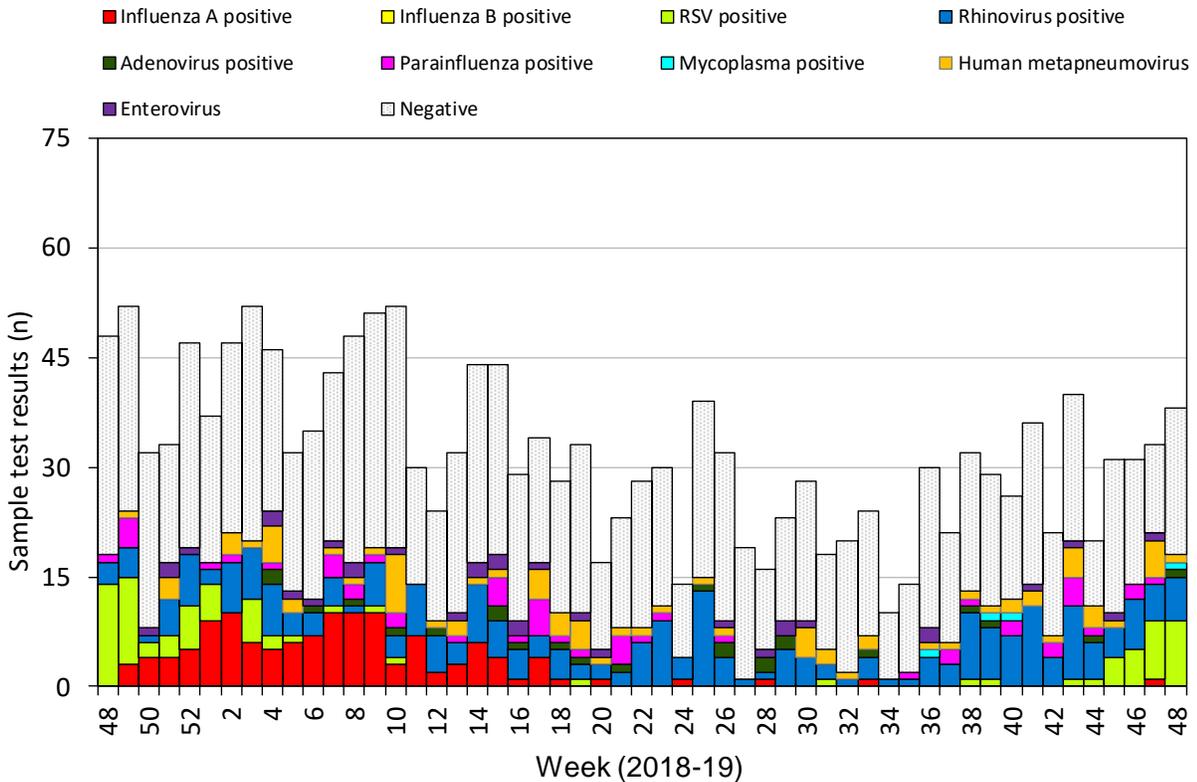
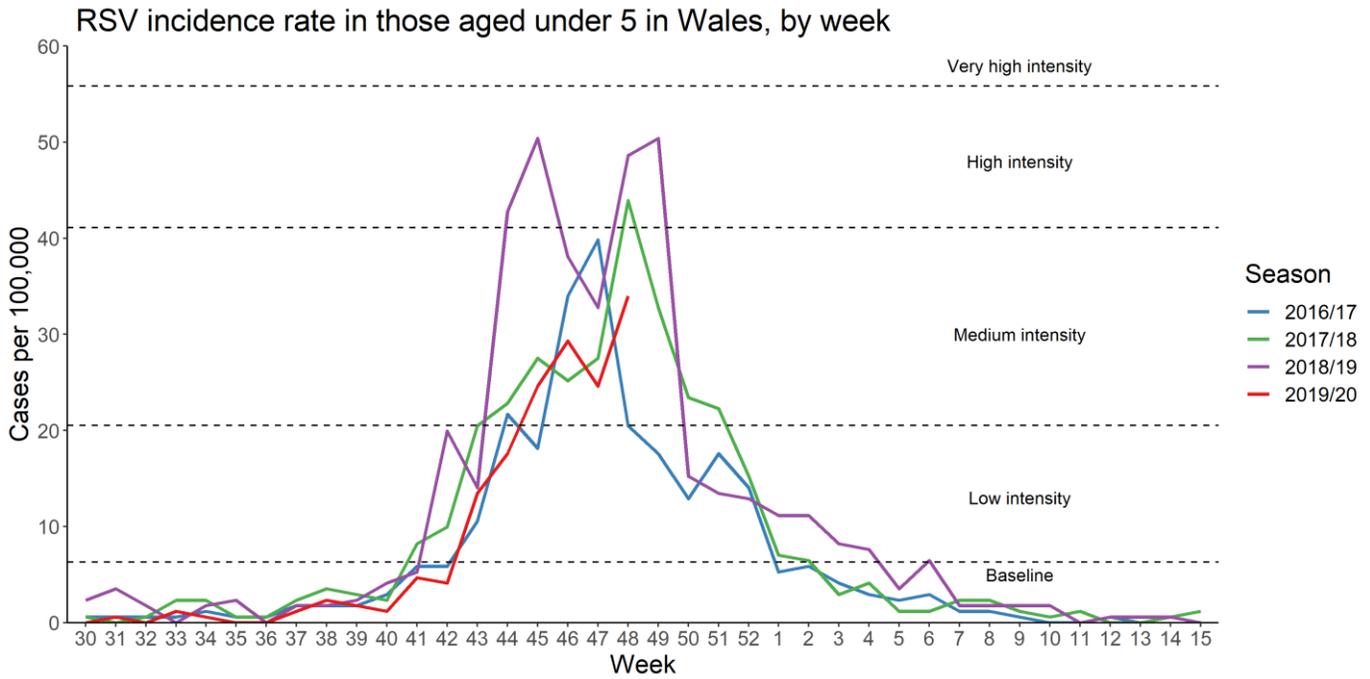


Figure 6. RSV incidence rate per 100,000 population aged under five years, week 30 2016 to week 48 2019.



Out of Hours consultations and calls to NHS Direct Wales

Figure 7. Weekly total consultations to Out of Hours services in Wales and numbers of respiratory-related diagnoses (as of 01/12/2019).

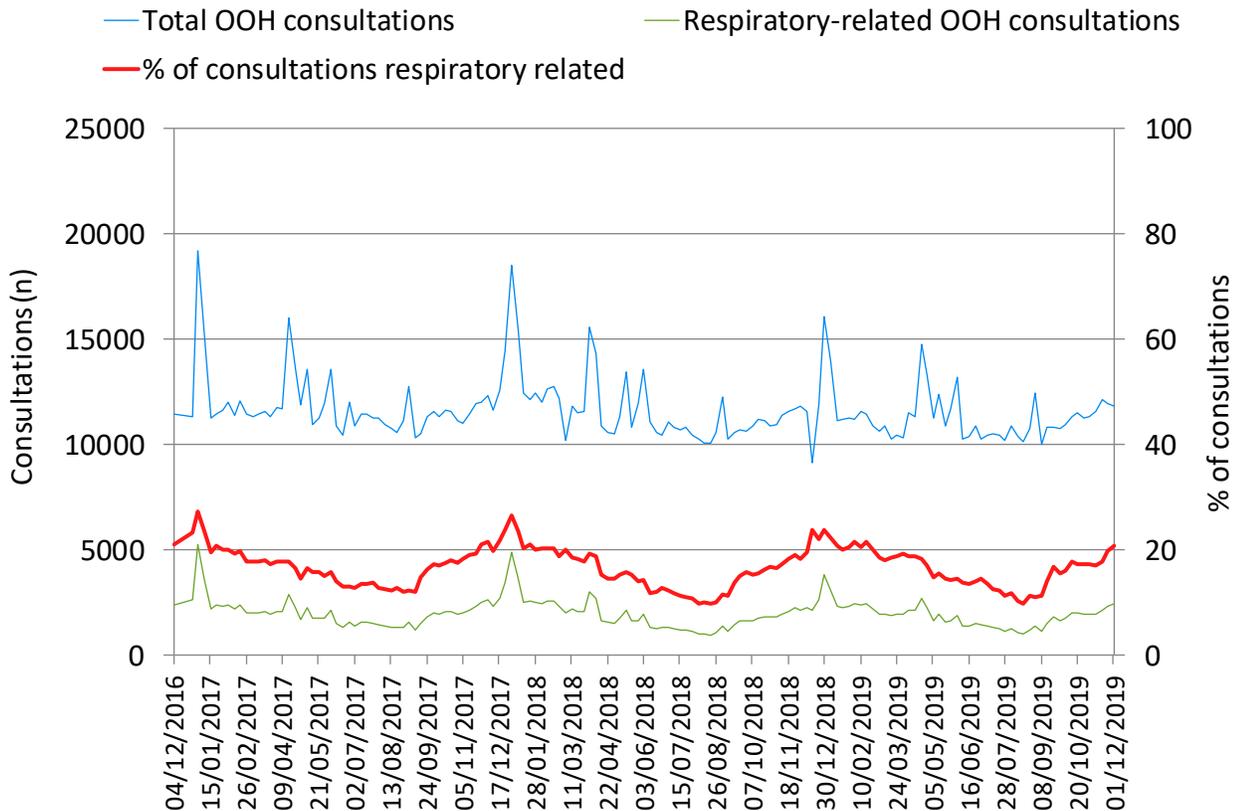
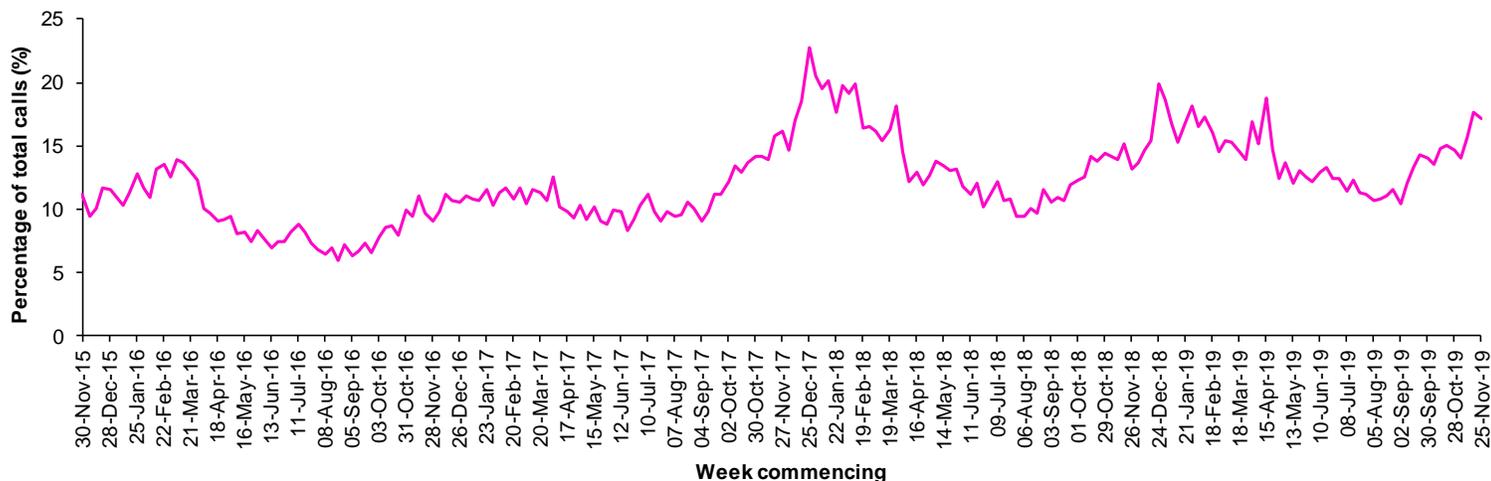


Figure 8. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 48 2015 - week 48 2019 (as of 01/12/2019).



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 2019/20 (as of 01/12/2019).

Influenza immunisation uptake in the 2019/20 season	
People aged 65y and older	63.6%
People younger than 65y in a clinical risk group	33.7%
Children aged two & three years	28.0%
Children aged four to ten years*	70.9%
NHS staff	32.2%
NHS staff who have direct patient contact	34.2%

* In school sessions carried out so far.

The end of season report Influenza in Wales 2018/19 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 47, influenza activity has continued to increase for several indicators in the UK. Influenza GP consultations increased in Scotland to 12.4 per 100,000 and in Northern Ireland to 14.2 per 100,000, but remain below baseline activity in both countries. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 6.5 per 100,000, but remains below the MEM threshold for baseline activity (12.7 per 100,000). The syndromic surveillance indicator for influenza reported through the GP In Hours Syndromic Surveillance system was 6.4 per 100,000 in week 47.
- During week 47, 51 samples tested positive for influenza (one influenza A(H1N1)pdm09, 41 influenza A(H3), seven influenza A(unknown subtype), one influenza B and one co-infection of influenza A(unknown subtype) and B) through UK GP sentinel swabbing schemes. Three hundred and twenty-eight (14.5%) of the 2,259 respiratory test results reported through Public Health England's DataMart scheme tested positive for influenza (11 influenza A(H1N1)pdm09, 193 influenza A(H3), 116 influenza A(not subtyped) and eight 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 47, influenza activity remained at baseline or low levels throughout the WHO European Region. During week 47, a total of 1,039 sentinel specimens were tested for influenza, 117 of which were positive (24 influenza A(H1N1)pdm09, 54 influenza A(H3N2), five influenza A(not typed) and 34 influenza B).

Source: Flu News Europe: <http://www.flunewseurope.org/>

World update

- The WHO reported on 25/11/2019 that in the temperate zones of the northern hemisphere, influenza activity remained at interseasonal levels in most countries. Activity was low overall in the Caribbean and tropical South American countries, except for Cuba. In Central American countries, influenza activity decreased in El Salvador and Nicaragua. In tropical Africa, influenza activity remained elevated in some countries of Western Africa. In Southern Asia influenza activity was low across most reporting countries, but continued to increase in Iran. In South East Asia, influenza activity continued to be reported in Lao PDR. In the temperate zone of the southern hemisphere influenza activity returned to inter-seasonal levels in most countries. Worldwide, seasonal influenza A viruses accounted for the majority of detections.
- Based on FluNet reporting (as of 22/11/2019), during the time period from 28/10/2019 – 10/11/2019, National Influenza Centres and other national influenza laboratories from 112 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 85,126 specimens during that time period, 6,187 were positive for influenza viruses, of which 4,608 were typed as influenza A (1,473 influenza A(H1N1)pdm09, 1,664 influenza A(H3N2) and 1,471 influenza A(not subtyped)) and 1,579 influenza B (of the characterised influenza B viruses 43 belonged to the B-Yamagata lineage and 650 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 47 (ending 23/11/19) influenza activity continues to increase in the United States. Nationally, 1,702 (8.0%) out of 21,367 specimens have tested positive for influenza in week 47, of these positives 504 (29.6%) were influenza A and 1,198 (70.4%) were influenza B. Further characterisation has been carried out on 1,193 specimens by public health laboratories, and 412 tested positive for influenza, 163 (39.6%) were influenza A (110 influenza A(H1N1)pdm09 (75.9%), 35 influenza A(H3N2) (24.1%), and subtyping was not performed on 18 specimens) and 249 influenza B (60.4%).

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

- The Public Health Agency of Canada reported that during week 47, influenza activity was at the seasonal threshold, indicating the beginning of the influenza season. The percentage of visits to

healthcare professionals due to ILI was 1.6%, which is the average for this time of year. The percentage of tests positive for influenza increased and is at the seasonal threshold of 5.0%.

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 31/10/19 WHO reported one additional case of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in UAE, the first case in UAE since May 2018. Globally, 2,470 laboratory confirmed cases of human infection with MERS-CoV, including 851 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 (25/06/2019 to 27/09/2019) reports that no new cases of avian influenza A(H7N9) were reported. Since February 2013, a total of 1,568 laboratory-confirmed cases of human infection with avian influenza A(H7N9), including at least 616 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:

<https://www.hps.scot.nhs.uk/a-to-z-of-topics/influenza/#data>

Northern Ireland influenza surveillance:

<https://www.publichealth.hscni.net/directorate-public-health/health-protection/seasonal-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