

Current level of influenza activity: *Inter-seasonal levels.*

Trend: *Stable*

Confirmed cases since 2019 week 40: **32** (91% influenza A and 9% influenza B. Of the influenza A cases, 28% were A(H1N1)pdm09, 48% were A(H3N2) and 24% were A(not typed).

Key points – Wales

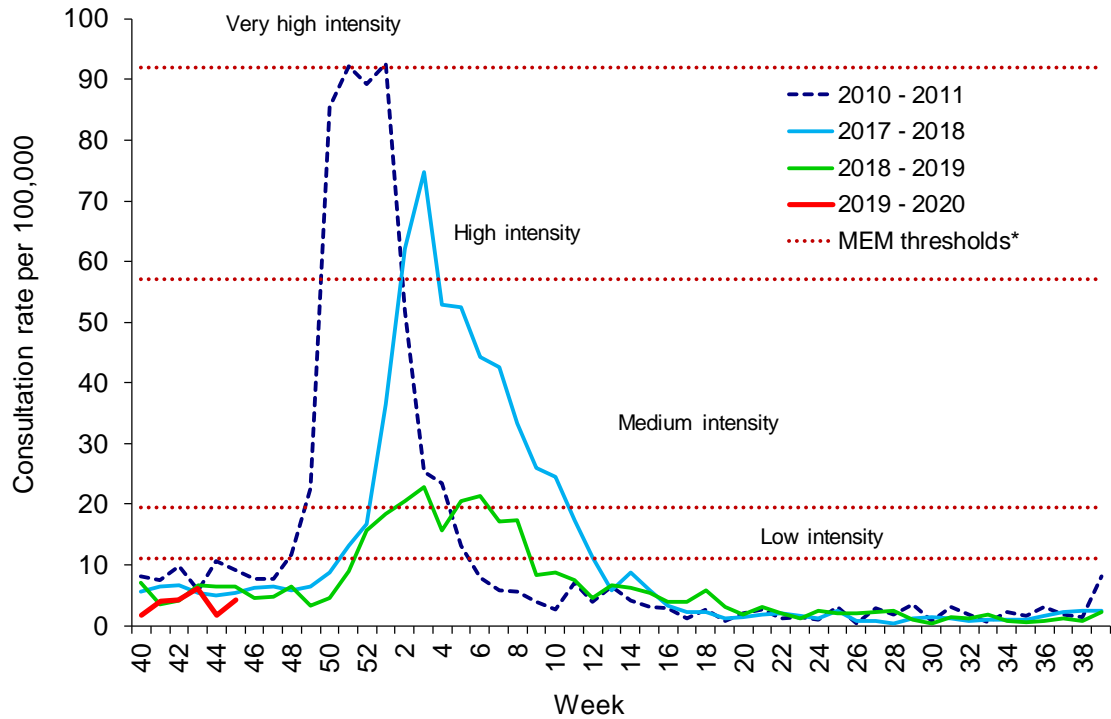
Surveillance indicators suggest that influenza is not circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) remained below baseline levels during week 45 (ending 10/11/2019). During week 45, nine cases of influenza were confirmed but Respiratory Syncytial Virus (RSV) and rhinovirus remain the most commonly detected cause of Acute Respiratory Infection (ARI). Other causes of ARI continue to be detected. Confirmed cases of RSV in children under five years of age increased and remain above baseline seasonal threshold this week.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 45 was 4.2 consultations per 100,000 practice population (Table 1).
- The ILI consultation rate increased compared to week 44 (1.7 per 100,000 practice population), but remains below baseline levels (Figure 1). The consultation rate was highest in patients aged 35-44 years (8.3 per 100,000 practice population) (Table 1).
- The total number of consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 45 was 11,589. The proportion of respiratory-related consultations with OOH doctors decreased to 17.0% (Figure 7). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 44 decreased to 14.6% (Figure 8).
- Six surveillance samples from patients with ILI, collected by sentinel GPs during week 45, had been received by Public Health Wales Microbiology as at 13/11/2019, one sample tested positive for influenza A(H1N1)pdm09 (a patient aged 45-64 years old), four samples tested positive for rhinovirus and one sample tested positive coronavirus (Figure 3).
- During week 45, 259 specimens were tested by Public Health Wales Microbiology from hospitalised and non-sentinel GP patients with acute respiratory symptoms. The following numbers of patients tested positive: Two influenza A(H1N1)pdm09, five influenza A(H3N2), one influenza A(not subtyped), 51 RSV, 50 rhinovirus, 12 parainfluenza, 11 enterovirus, 11 human metapneumovirus, seven adenovirus and three mycoplasma (Figure 4). The proportion of samples from hospital patients positive for influenza was 3.1% (Figure 4). 30 specimens were from patients in intensive care units (ICU), none of which were positive for influenza (Figure 5).
- Surveillance data suggest that the RSV season is underway. Forty-two (58%) of 72 samples from children aged younger than five years with acute respiratory illness tested positive for RSV during week 45 and confirmed cases increased to 24.6 per 100,000 in this age-group (Figure 6). The provisional MEM threshold in Wales which predicts the start of the annual RSV season in children younger than five years is 6.3 confirmed cases per 100,000. The average duration of seasonal activity is 11-13 weeks (based on confirmed case data from 2011 to 2018) and week 45 was the third week of the current season.
- During week 45, there were no outbreaks of acute respiratory illnesses (ARI) reported to Public Health Wales Health Protection teams.
- At the end of week 45, uptake of influenza vaccine was: 55.5% in those aged 65 years and older, 23.4% in patients aged six months to 64 years at clinical risk, and 9.5% in children aged two and three years old. In the 454 primary schools visited as part of the universal childhood influenza programme, uptake was 71.0%.

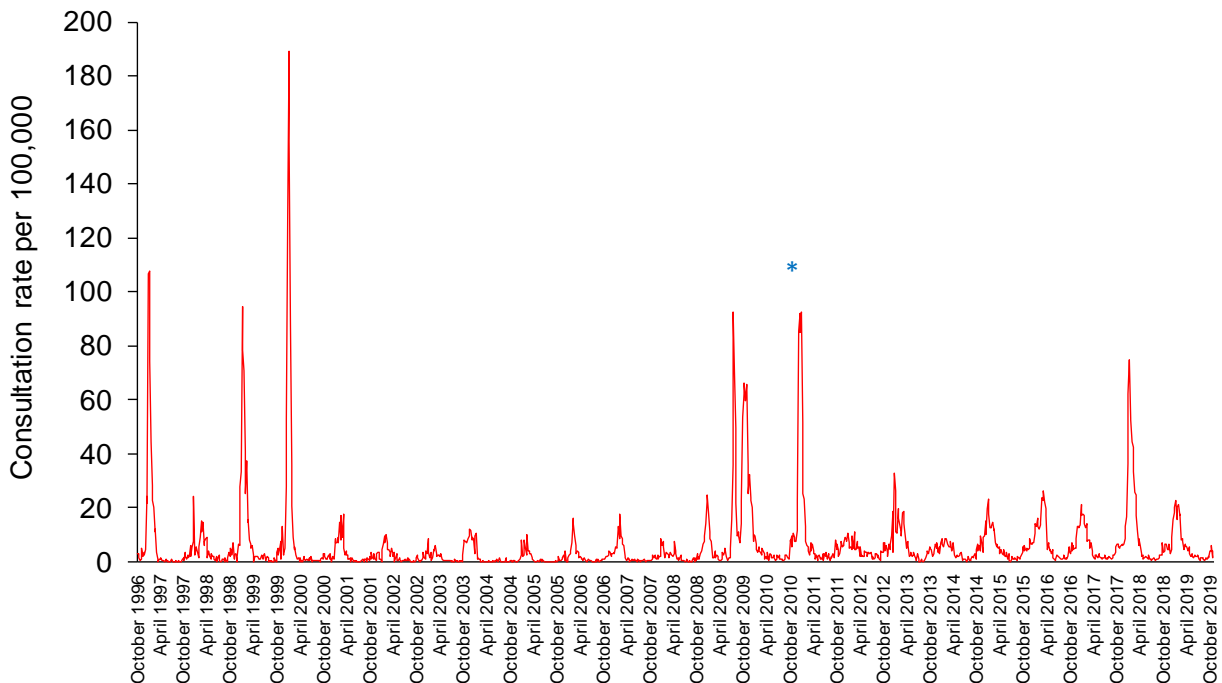
Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 10/11/2019).



* 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 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 47 1996 – week 45 2019).

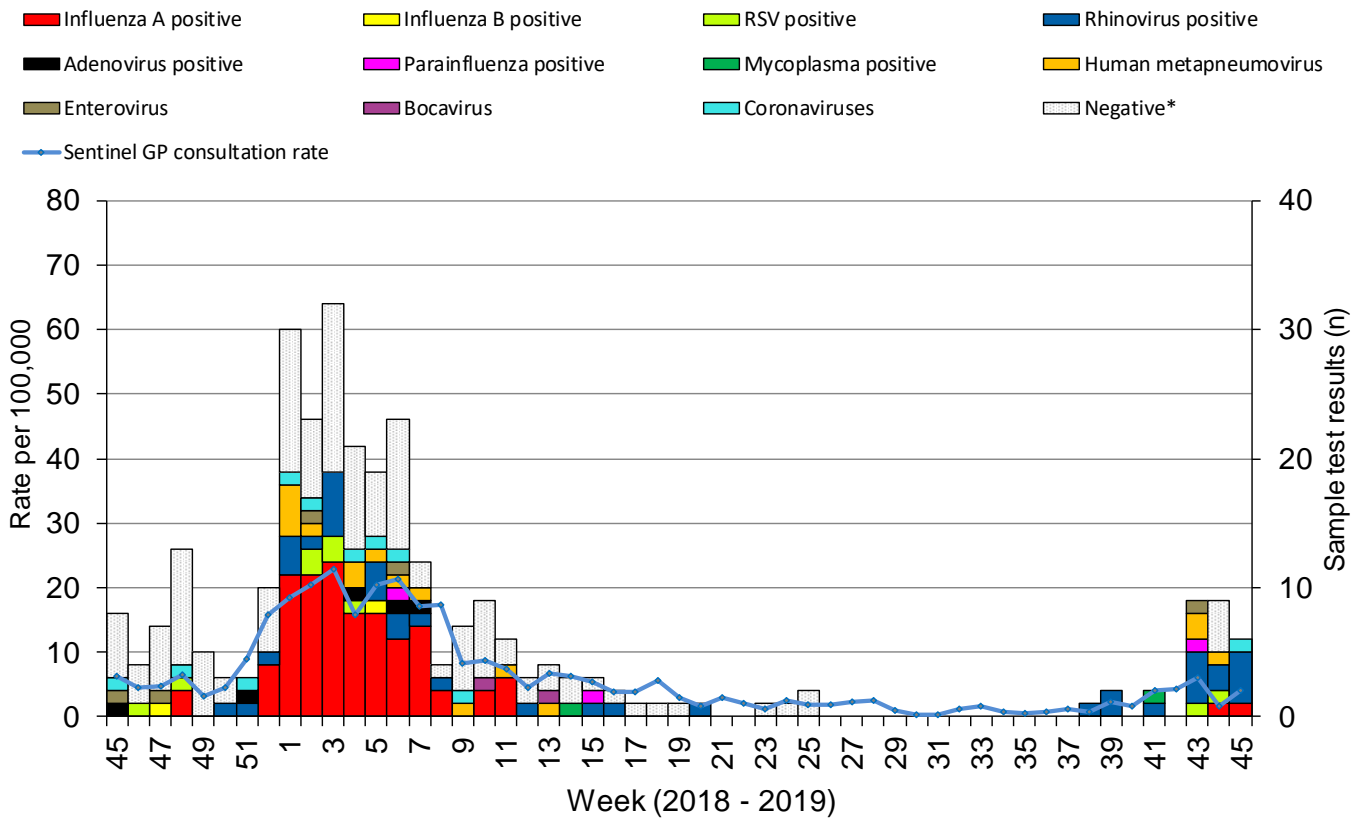


* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 40 – week 45 2019 (as of 10/11/2019).

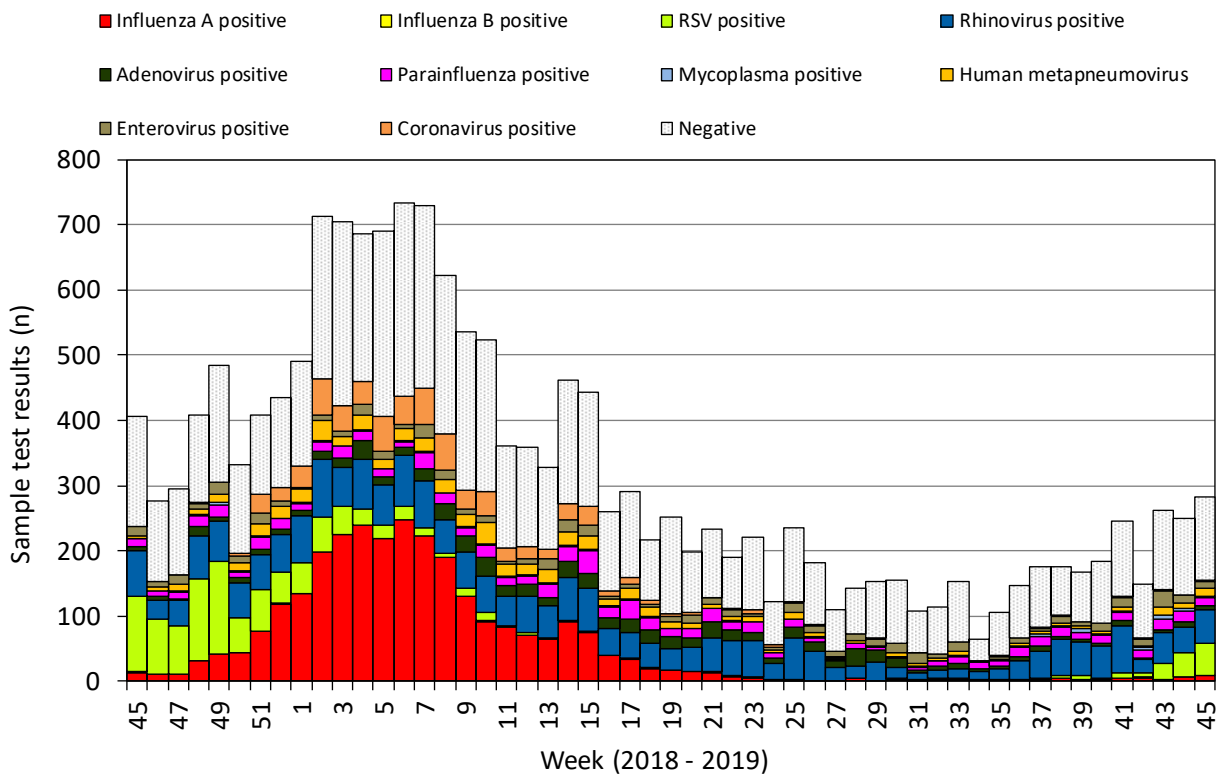
Age group	40	41	42	43	44	45
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	6.3	0.0	0.0	0.0	0.0
5 - 14	0.0	2.3	0.0	2.3	2.3	2.3
15 - 24	0.0	10.8	6.4	4.2	2.1	2.1
25 - 34	0.0	0.0	9.8	2.0	0.0	7.9
35 - 44	0.0	4.2	2.1	14.5	0.0	8.3
45 - 64	4.6	3.8	2.8	10.2	1.8	4.6
65 - 74	4.3	2.2	2.1	4.3	4.3	2.1
75+	0.0	5.1	9.8	2.4	2.4	2.4
Total	1.7	4.0	4.2	6.2	1.7	4.2

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 10/11/2019, by week of sample collection, week 45 2018 - week 45 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 10/11/2019 by week of sample collection, week 45 2018 – week 45 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 45 2018 to week 45 2019.

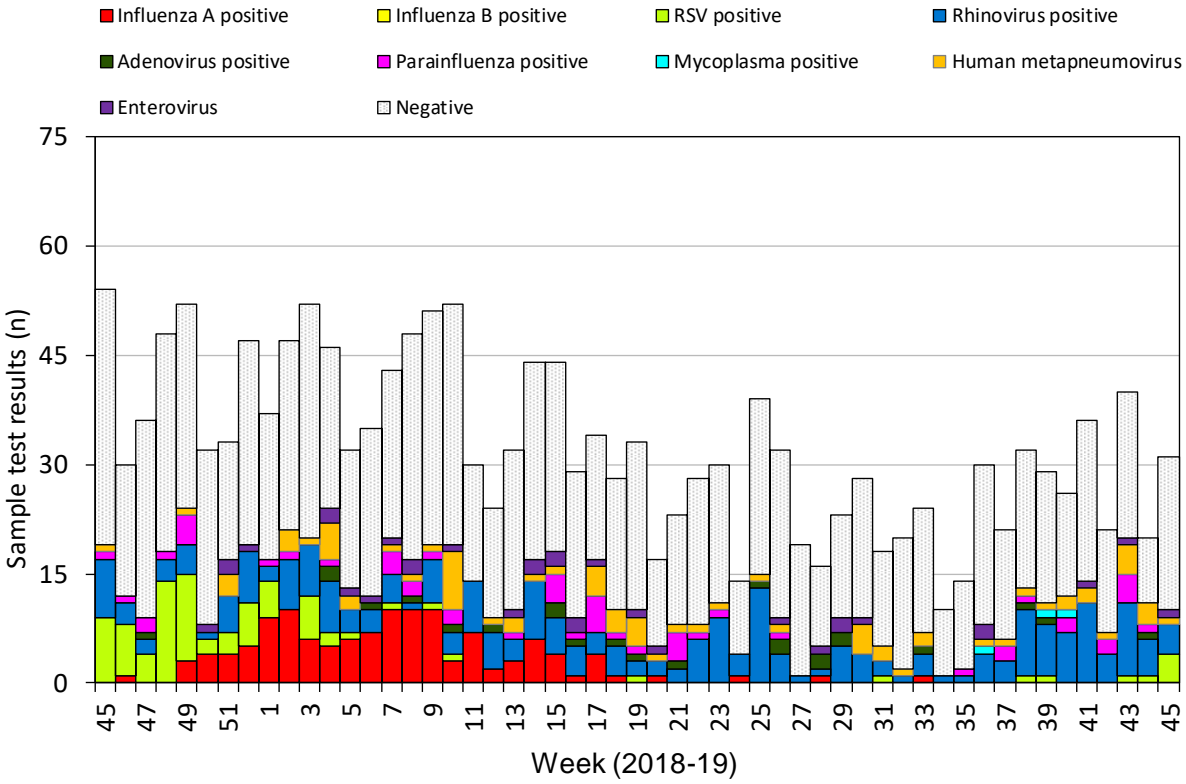
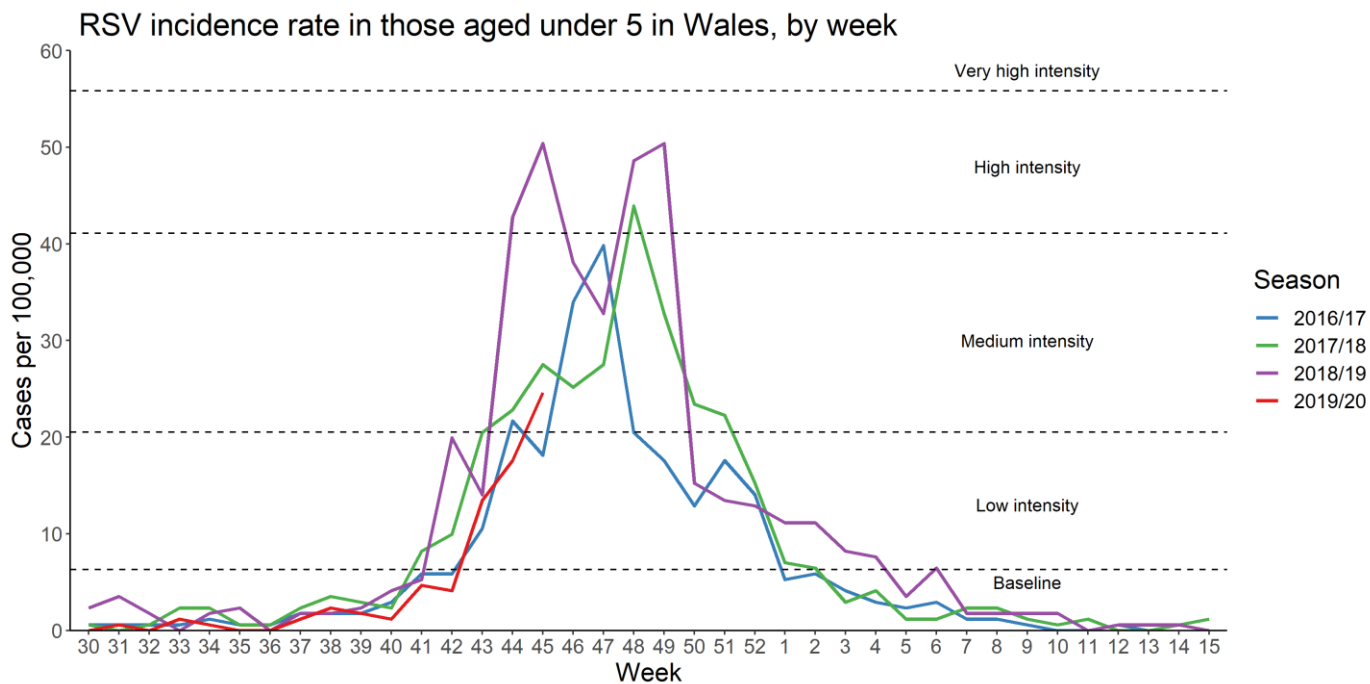


Figure 6. RSV incidence rate per 100,000 population aged under five years, week 30 2016 to week 45 2019.



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 10/11/2019).

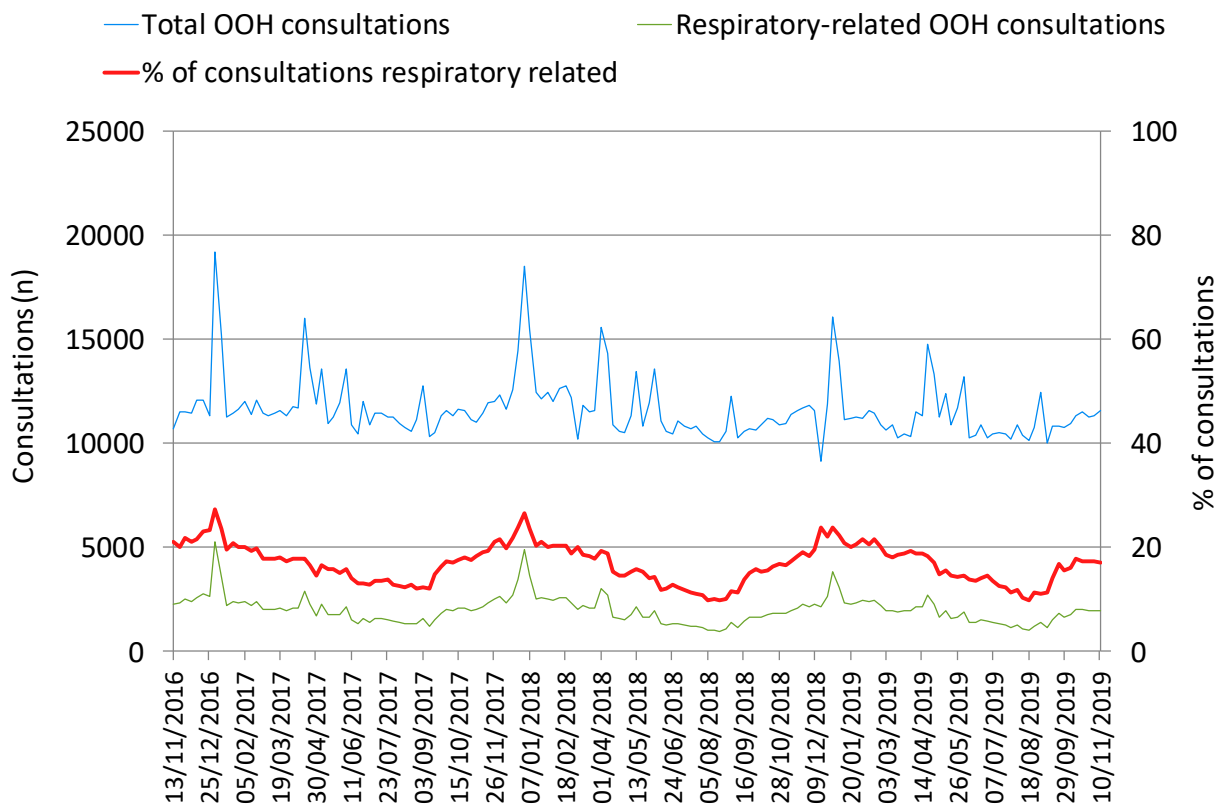
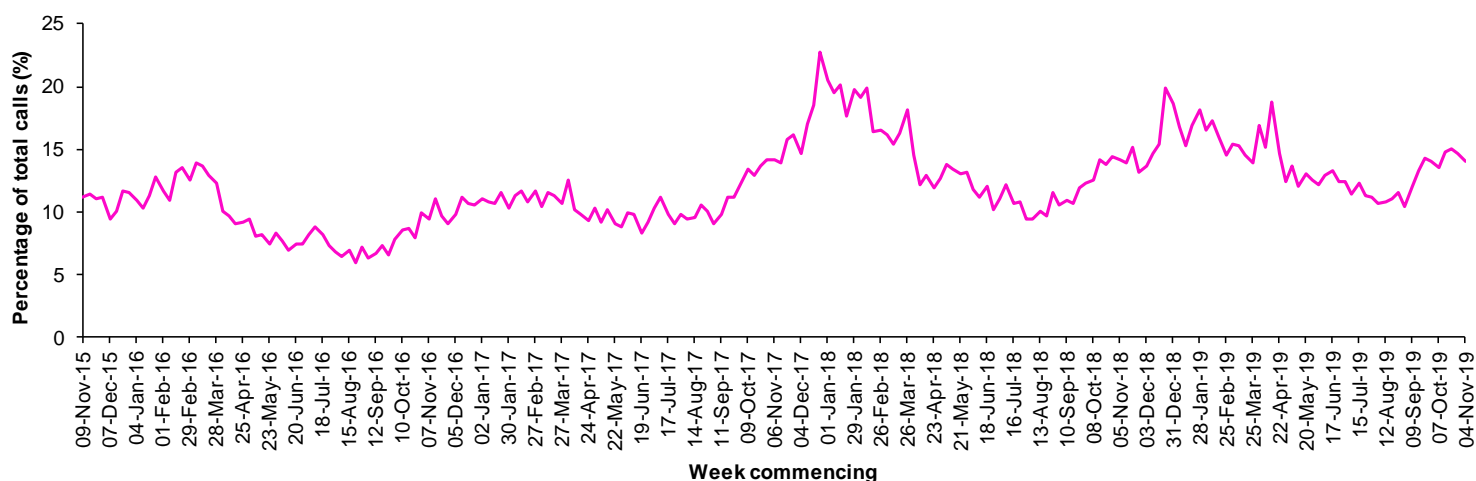


Figure 8. Influenza related calls to NHS Direct Wales¹ (as a percentage of total calls) from week 45 2015 - week 45 2019 (as of 10/11/2019).



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 10/11/2019).

Influenza immunisation uptake in the 2019/20 season	
People aged 65y and older	55.5%
People younger than 65y in a clinical risk group	23.4%
Children aged two & three years	9.5%
Children aged four to ten years*	71.0%
NHS staff	-
NHS staff who have direct patient contact	-

* 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 44, influenza activity indicators were below baseline in the UK. Influenza GP consultations increased in Northern Ireland to 6.5 per 100,000 and in Scotland to 7.5 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 4.5 per 100,000, and remains below the MEM threshold for baseline activity (12.7 per 100,000). Syndromic surveillance indicators for influenza reported through the GP In Hours Syndromic Surveillance system was 4.1 per 100,000 in week 43.
- During week 44, eight samples tested positive for influenza (six influenza A(H3), one influenza A(unknown subtype) one influenza B) through UK GP sentinel swabbing schemes. Sixty-eight (3.7%) of the 1,834 respiratory test results reported through Public Health England's DataMart scheme tested positive for influenza (five influenza A(H1N1)pdm09, 27 influenza A(H3), 32 influenza A(not subtyped) and four 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 44, influenza activity was low throughout the WHO European Region. During week 44, a total of 626 sentinel specimens were tested for influenza, 17 of which were positive (five influenza A(H1N1)pdm09, eight influenza A(H3N2) 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 11/11/2019 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. In Central American countries, influenza activity was elevated 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. In South East Asia, influenza activity continued to be reported in Laos PDR. In the temperate zone of the southern hemisphere influenza activity was low in most countries. Worldwide, seasonal influenza A viruses accounted for the majority of detections.
- Based on FluNet reporting (as of 08/11/2019), during the time period from 14/10/2019 – 27/10/2019, National Influenza Centres and other national influenza laboratories from 106 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 77,099 specimens during that time period, 4,227 were positive for influenza viruses, of which 2,939 were typed as influenza A (924 influenza A(H1N1)pdm09, 1,239 influenza A(H3N2) and 776 influenza A(not subtyped)) and 1,288 influenza B (of the characterised influenza B viruses 27 belonged to the B-Yamagata lineage and 534 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 44 (ending 02/11/19) influenza activity remains low but is increasing in the United States. Nationally, 582 (3.2%) out of 18,126 specimens have tested positive for influenza in week 44, of these positives 143 (24.6%) were influenza A and 439 (75.4%) were influenza B. Further characterisation has been carried out on 766 specimens by public health laboratories, and 117 tested positive for influenza, 54 (46.2%) were influenza A (22 influenza A(H1N1)pdm09 (41.5%), 31 influenza (H3N2) (58.5%), and subtyping was not performed on one specimen) and 63 influenza B (53.8%).

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

- The Public Health Agency of Canada reported that during week 44, influenza activity remains at interseasonal levels. The percentage of visits to healthcare professionals that were due to ILI was 1.0% in week 44, which is slightly below the average for this time of year. The percentage of tests positive for influenza increased but remains at interseasonal levels, at 2.3% in week 44.

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