Public Health Wales CDSC Weekly Influenza & Acute Respiratory Infection Surveillance Report

Wednesday 30th October 2019 (covering week 43 2019)

Current level of influenza activity: *Inter-seasonal levels.*
Trend: *Stable*
Confirmed cases since 2019 week 40: **15** *(87% influenza A and 13% influenza B. Of the influenza A cases, 38% were A(H1N1)pdm09, 31% were (H3N2) and 31% were (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 43 (ending 27/10/2019). During week 43, two cases of influenza were confirmed but rhinovirus remains the most commonly detected cause of Acute Respiratory Infection (ARI). Cases of Respiratory Syncytial Virus (RSV) in children younger than five years of age increased this week and have crossed baseline thresholds, suggesting the RSV season has now started. Other causes of ARI continue to be detected.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 43 was 6.8 consultations per 100,000 practice population (Table 1).

- The ILI consultation rate increased compared to week 42 (4.2 per 100,000 practice population), but remains below baseline levels (Figure 1). The consultation rate was highest in patients aged 35-44 years (15.4 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 43 was 11,293. The proportion of respiratory-related consultations with OOH doctors decreased to 17.2% (Figure 7). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 43 increased to 15.1% (Figure 8).

- Five surveillance samples from patients with ILI, collected by sentinel GPs during week 43, had been received by Public Health Wales Microbiology as at 30/10/2019, three samples tested positive for rhinovirus, one sample tested positive for parainfluenza and one sample tested positive for both human metapneumovirus and rhinovirus (Figure 3).

- During week 43, 242 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(H3N2), 48 rhinovirus, 26 RSV, 25 enterovirus, 17 parainfluenza, 13 human metapneumovirus, five mycoplasma and four adenovirus (Figure 4). The proportion of samples from hospital patients positive for influenza was 0.8% (Figure 4). 38 specimens were from patients in intensive care units (ICU), none of which were positive for influenza (Figure 5).

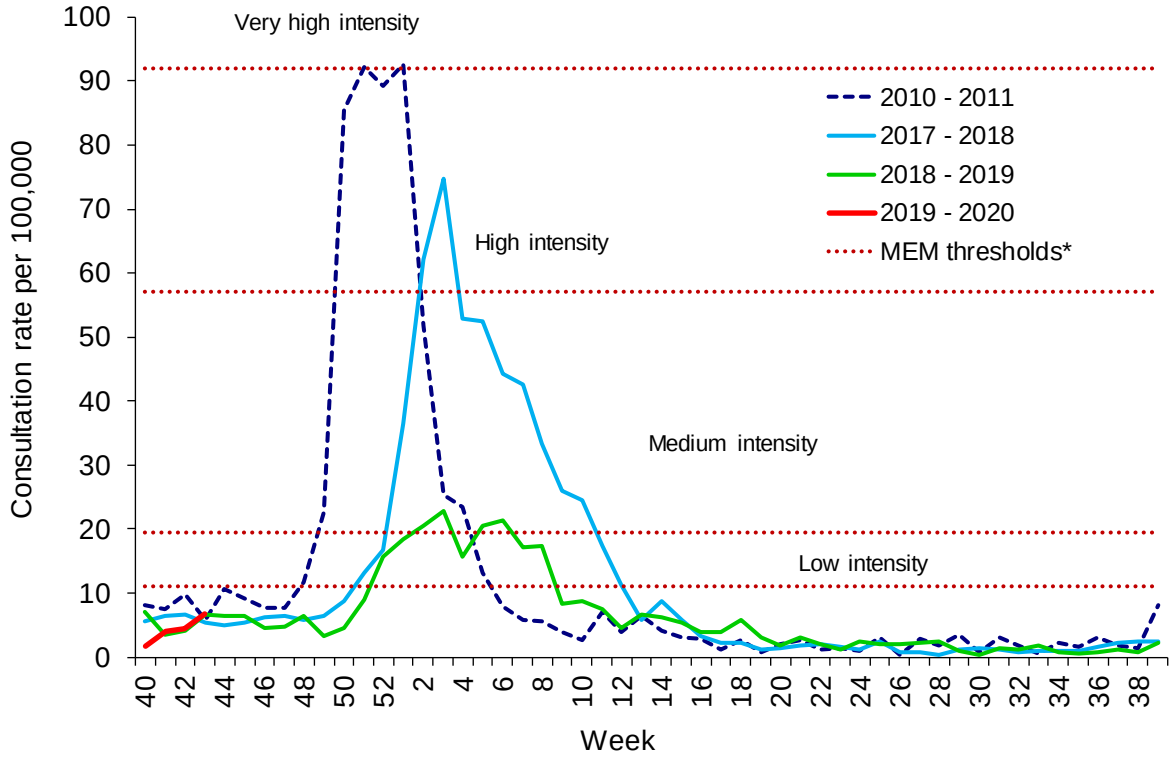
- Surveillance data suggest that the RSV season has now started. Twenty-three (38%) of 61 samples from children younger than five years with acute respiratory illness tested positive for RSV during week 43 and there were 13.5 confirmed cases per 100,000 in this age-group (Figure 6). The provisional MEM 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).

- During week 43, there were no outbreaks of acute respiratory illnesses (ARI) reported to Public Health Wales Health Protection teams.

- At the end of week 43, uptake of influenza vaccine was: 46.5% in those aged 65 years and older, 14.7% in patients aged six months to 64 years at clinical risk, and 0.8% in children aged two and three years old. In the 169 primary schools visited as part of the universal childhood influenza programme, uptake was 71.6%.

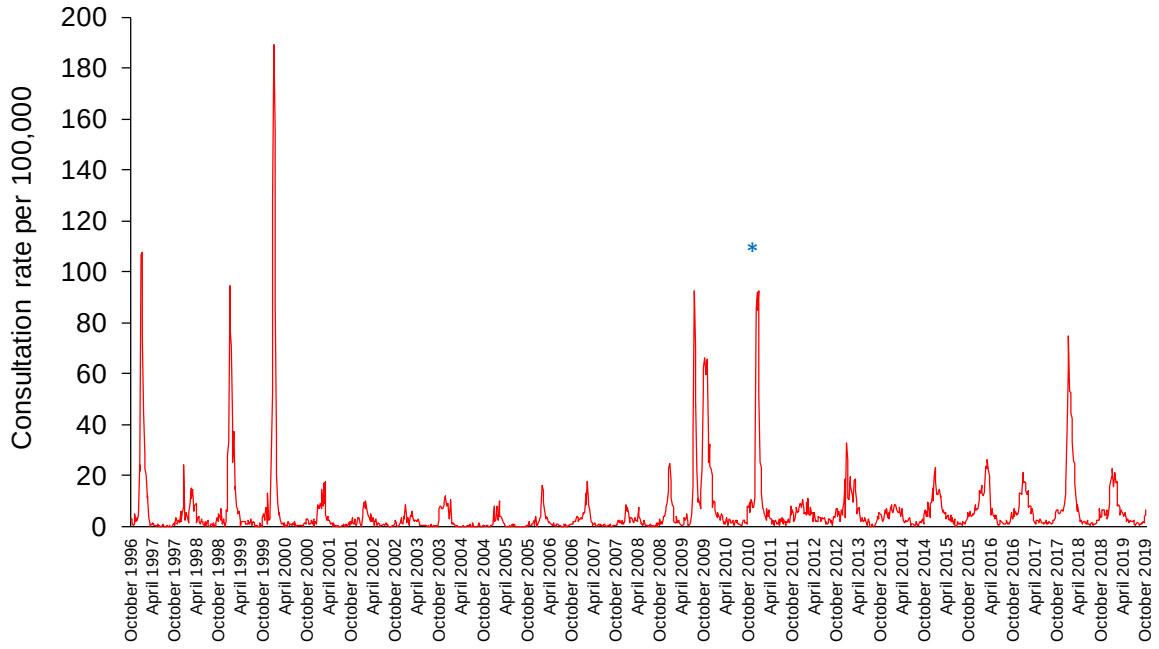
Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 27/10/2019).



* 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 43 2019).

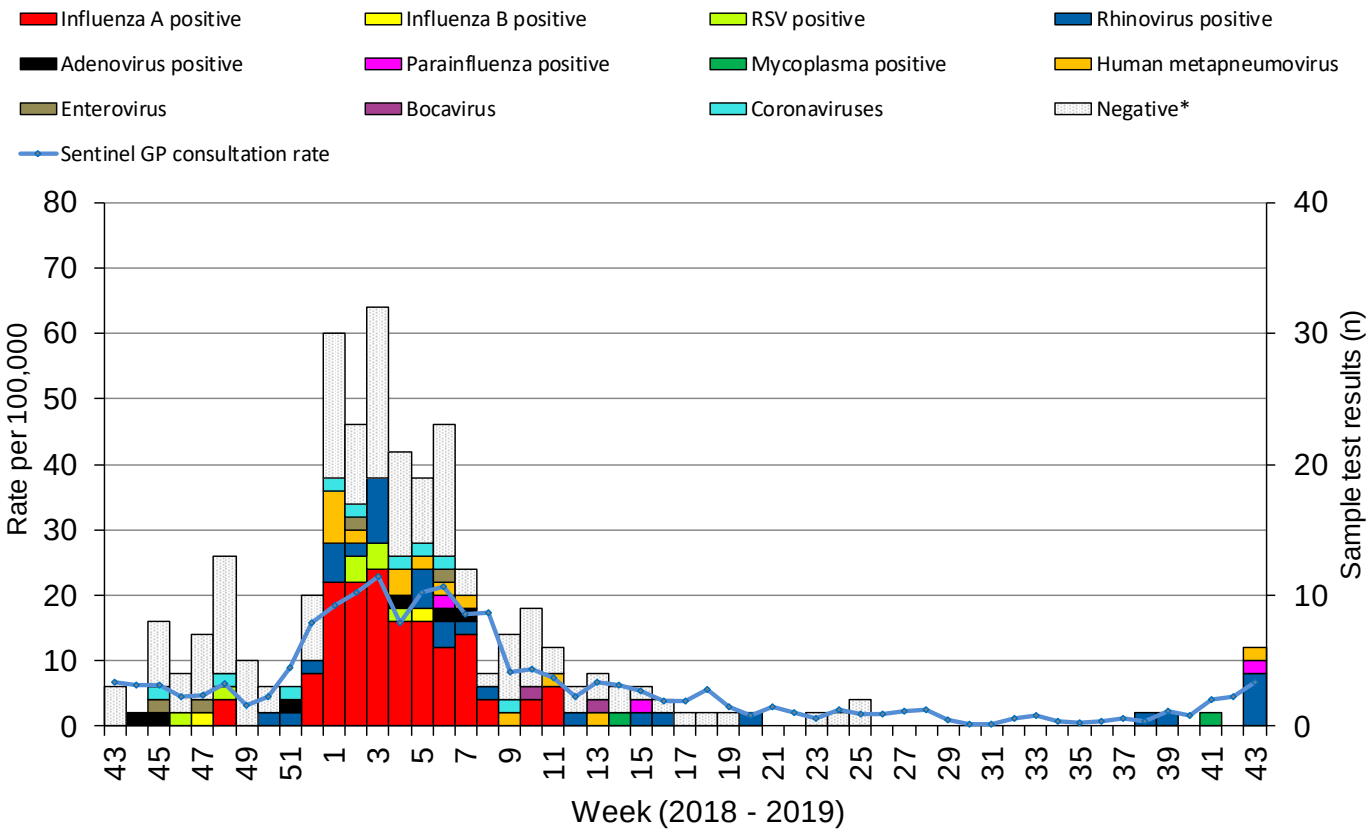


* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 38 – week 43 2019 (as of 27/10/2019).

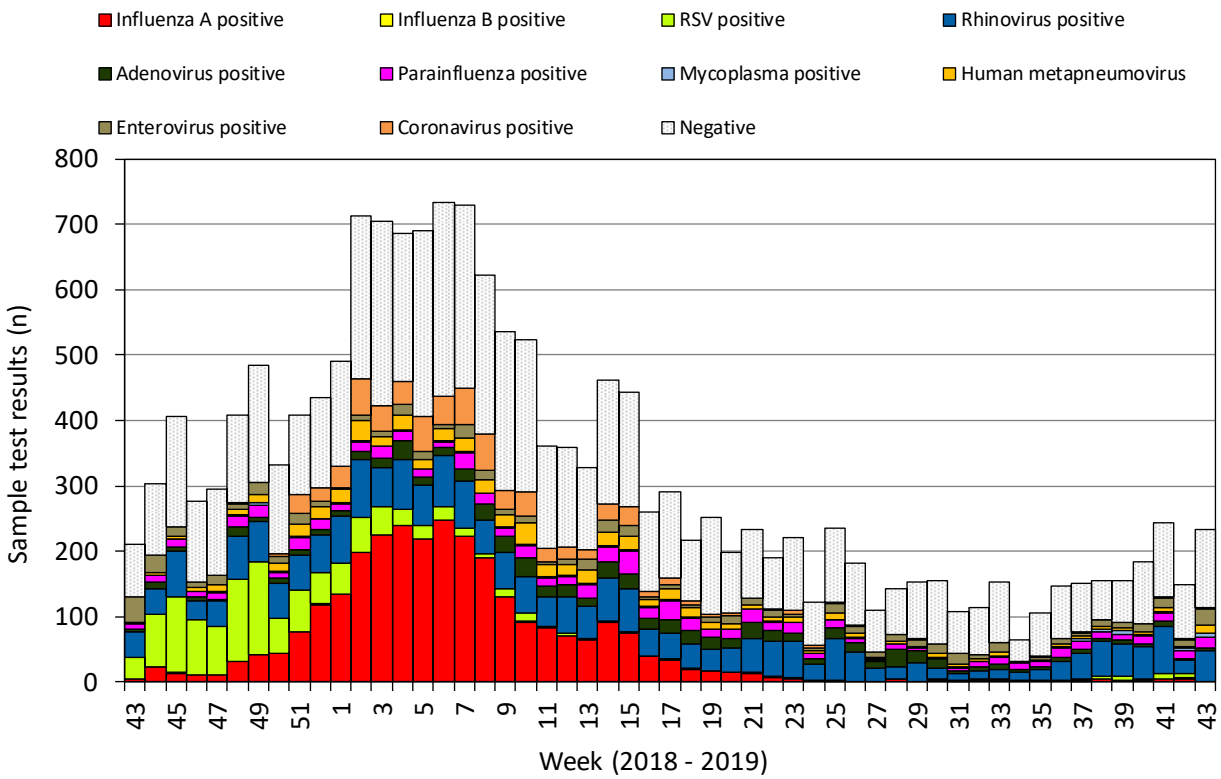
Age group	38	39	40	41	42	43
< 1	0.0	0.0	0.0	0.0	0.0	0.0
1 - 4	0.0	0.0	0.0	6.3	0.0	0.0
5 - 14	0.0	0.0	0.0	2.3	0.0	2.8
15 - 24	0.0	2.2	0.0	10.8	6.4	2.6
25 - 34	2.0	2.1	0.0	0.0	9.8	2.4
35 - 44	2.1	6.5	0.0	4.2	2.1	15.4
45 - 64	0.0	3.9	4.6	3.8	2.8	11.6
65 - 74	0.0	0.0	4.3	2.2	2.1	5.4
75+	0.0	0.0	0.0	5.1	9.8	3.1
Total	**0.8**	**2.3**	**1.7**	**4.0**	**4.2**	**6.8**

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 27/10/2019, by week of sample collection, week 43 2018 - week 43 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 27/10/2019 by week of sample collection, week 43 2018 – week 43 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 43 2018 to week 43 2019.

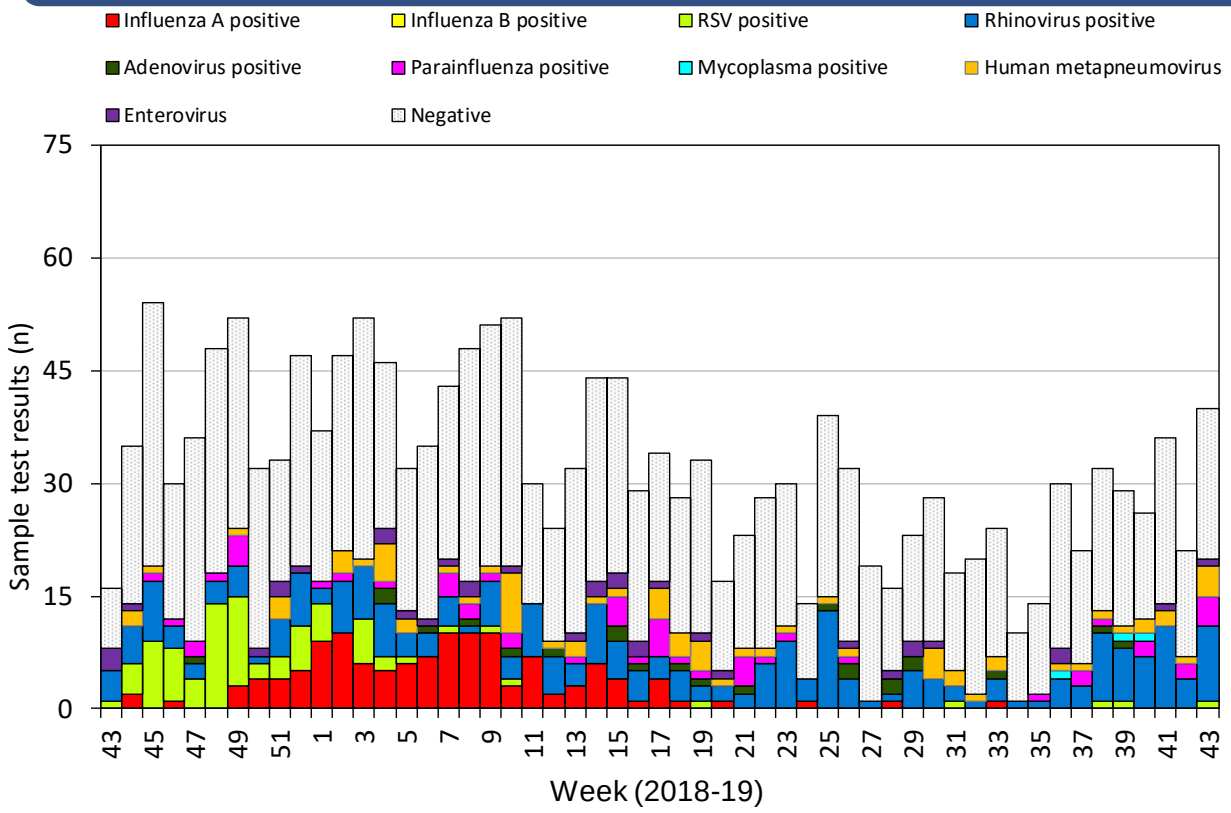
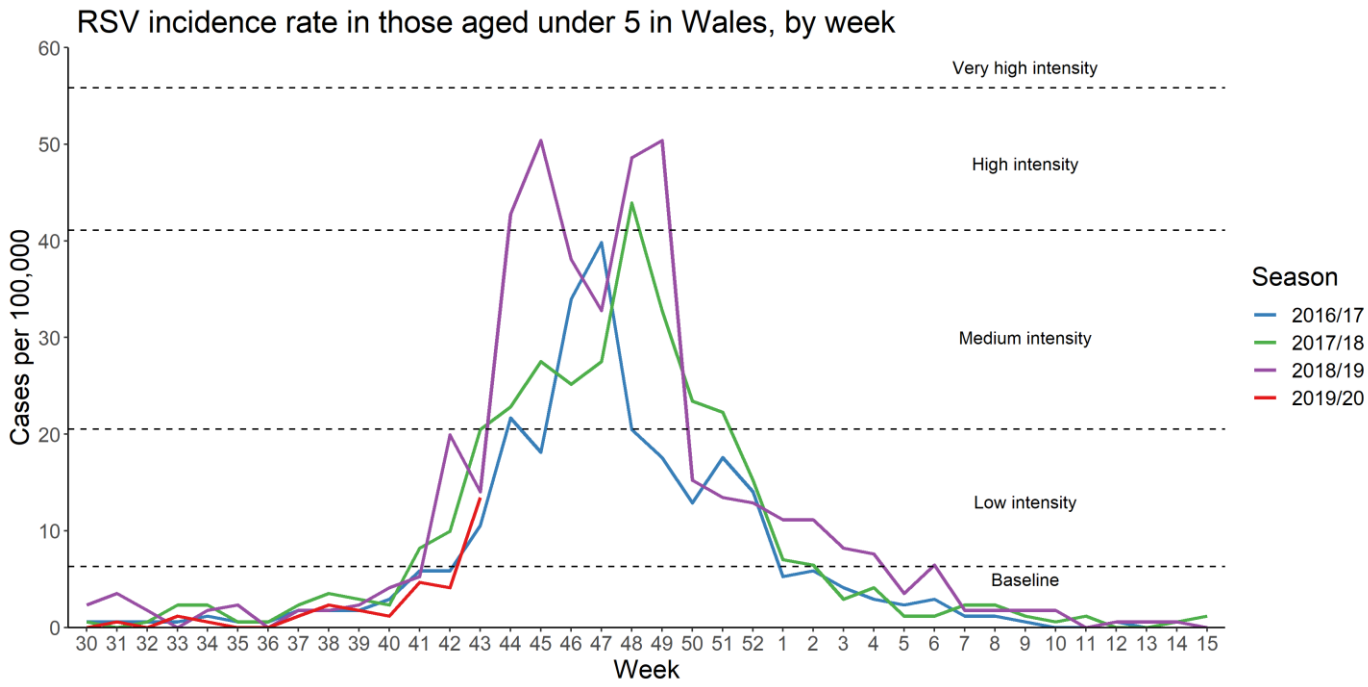


Figure 6. RSV incidence rate per 100,000 population aged under five years, week 30 2016 to week 43 2019.



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 27/10/2019).

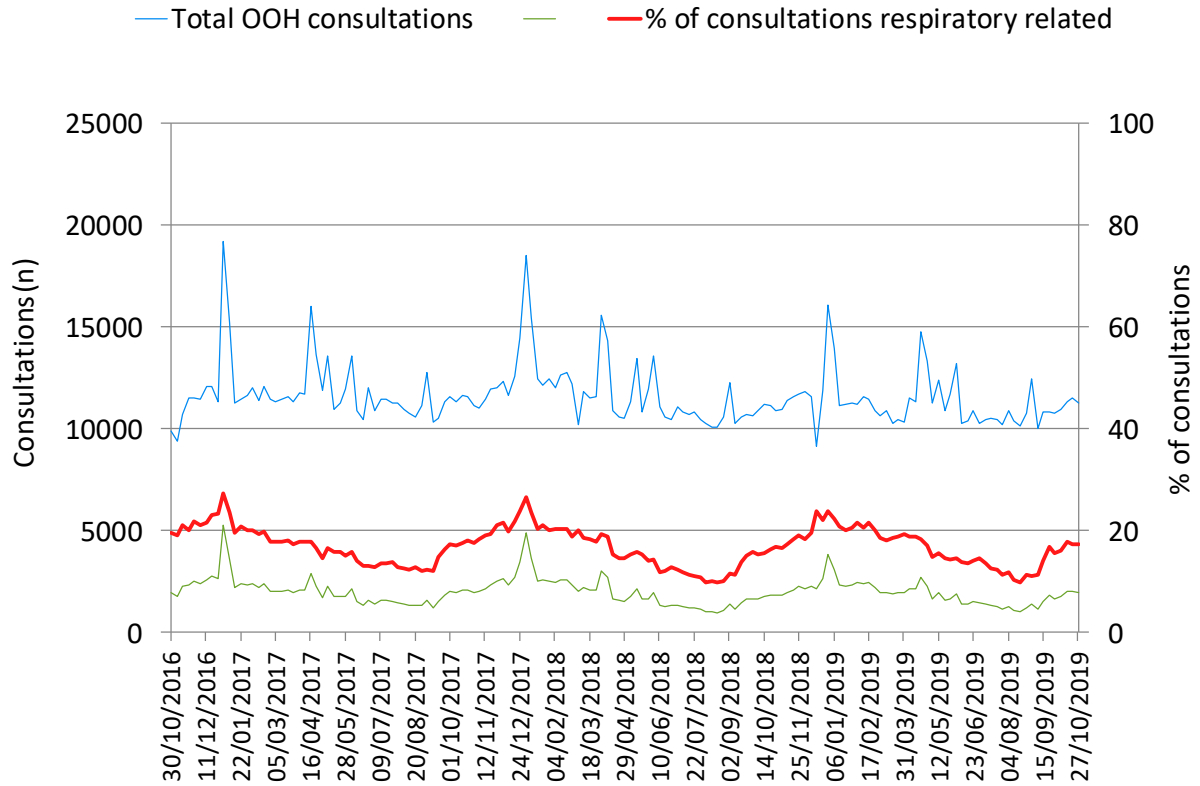
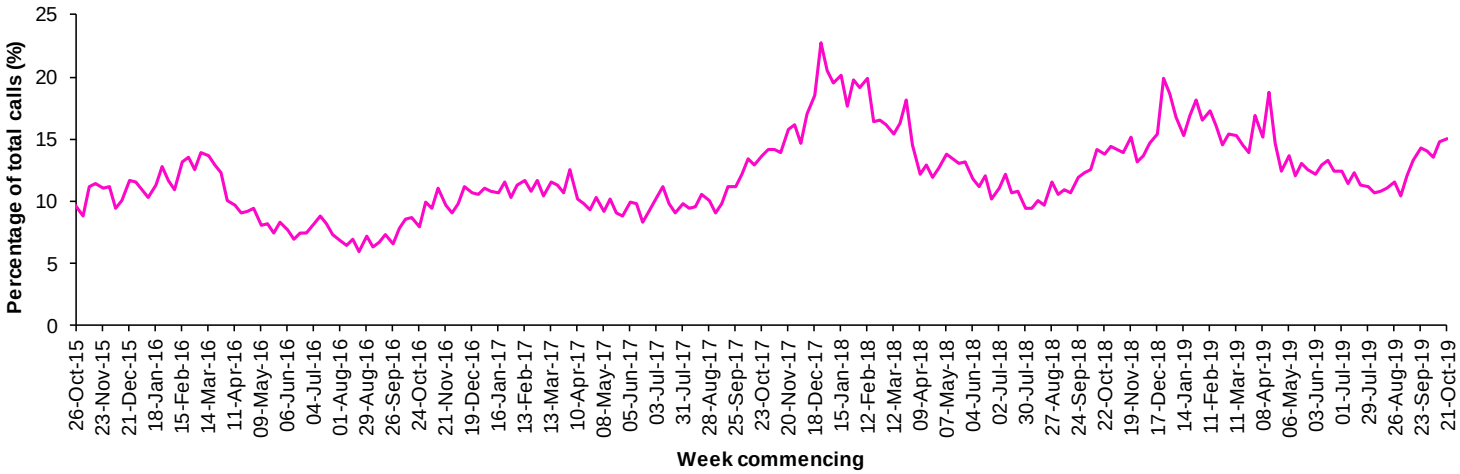


Figure 8. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 43 2015 - week 43 2019 (as of 27/10/2019).



[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 27/10/2019).

Influenza immunisation uptake in the 2019/20 season	
People aged 65y and older	46.5%
People younger than 65y in a clinical risk group	14.7%
Children aged two & three years	0.8%
Children aged four to ten years*	71.6%
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 42, influenza activity indicators are below baseline in the UK. Influenza GP consultations decreased in Scotland to 4.4 per 100,000 and in Northern Ireland to 4.6 per 100,000, and remain below baseline activity in both countries. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 5.5 per 100,000, but 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 4.3 per 100,000 in week 42.
- During week 41, three samples tested positive for influenza (one influenza A(H1N1)pdm09, one influenza A(H3) and one influenza A(unknown subtype)) through the UK GP sentinel swabbing scheme. Thirty-eight (2.2%) of the 1,761 respiratory test results reported through Public Health England's DataMart scheme tested positive for influenza (two influenza A(H1N1)pdm09, 15 influenza A(H3) and 21 influenza A(not subtyped)). 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 42, influenza activity was low throughout the WHO European Region. During week 42, a total of 403 sentinel specimens were tested for influenza, 11 of which were positive (three influenza A(H1N1)pdm09, six influenza A(H3N2) and two influenza B). For more information on European level influenza surveillance see Flu News Europe: http://www.flunewseurope.org/

World update

- The WHO reported on 28/10/2019 that in the temperate zones of the northern hemisphere, influenza activity remained at interseasonal levels in most countries. Activity was low in the Caribbean and tropical South American countries. In Central American countries, influenza activity increased in El Salvador and Nicaragua. In tropical Africa influenza activity, increased influenz activity was reported from Western Africa. In Southern Asia influenza activity was low across most reporting countries. In South East Asia, influenza activity increased in Laos PDR and the Phillipines in recent weeks. In the temperate zone of the southern hemisphere influenza activity was low in most countries. Worldwide, seasonal influenza A viruses continued to account for the majority of detections, though the proportion of influenza B viruses increased in recenty weeks.
- Based on FluNet reporting (as of 11/10/2019), during the time period from 16/09/2019 – 29/09/2019, National Influenza Centres and other national influenza laboratories from 94 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 63,162 specimens during that time period, 3,494 were positive for influenza viruses, of which 1,946 were typed as influenza A (447 influenza A(H1N1)pdm09, 813 influenza A(H3N2) and 686 influenza A(not subtyped)) and 1,548 influenza B (of the characterised influenza B viruses 56 belonged to the B-Yamagata lineage and 336 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 42 (ending 19/10/19) influenza activity increased slightly, but remains low in the United States. Nationally, 395 (2.4%) out of 16,270 specimens have tested positive for influenza in week 42, of these positives 126 (31.9%) were influenza A and 269 (68.1%) were influenza B. Further characterisation has been carried out on 521 specimens by public health laboratories, and 79 tested positive for influenza, 49 (62.0%) were influenza A (14 influenza A(H1N1)pdm09 (33.3%), 28 influenza (H3N2) (66.7%), and subtyping was not performed on seven specimens) and 30 influenza B (38.0%).
  Source: CDC Weekly US Influenza Surveillance Report
  http://www.cdc.gov/flu/weekly/

- The Public Health Agency of Canada reported that during week 42, influenza activity remains at interseasonal levels. The percentage of visits to healthcare professionals that were due to ILI was 1.4% in week 42, which is similar to the average for this time of year. The percentage of tests positive for influenza increased but remains at intereasonal levels, at 1.9% in week 42.
  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 18/10/19 WHO reported four additional cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in Saudi Arabia, including one associated death. Globally, 2,468 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:
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