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

Wednesday 12th February 2020 (covering week 06 2020)

Current level of influenza activity: *Baseline activity*
Trend: *Decreasing*
Confirmed cases since 2019 week 40: **1,494** *(97% influenza A and 3% influenza B. Of the influenza A cases, 14% were A(H1N1)pdm09, 71% were A(H3N2) and 16% were A(not typed).*

Key points – Wales

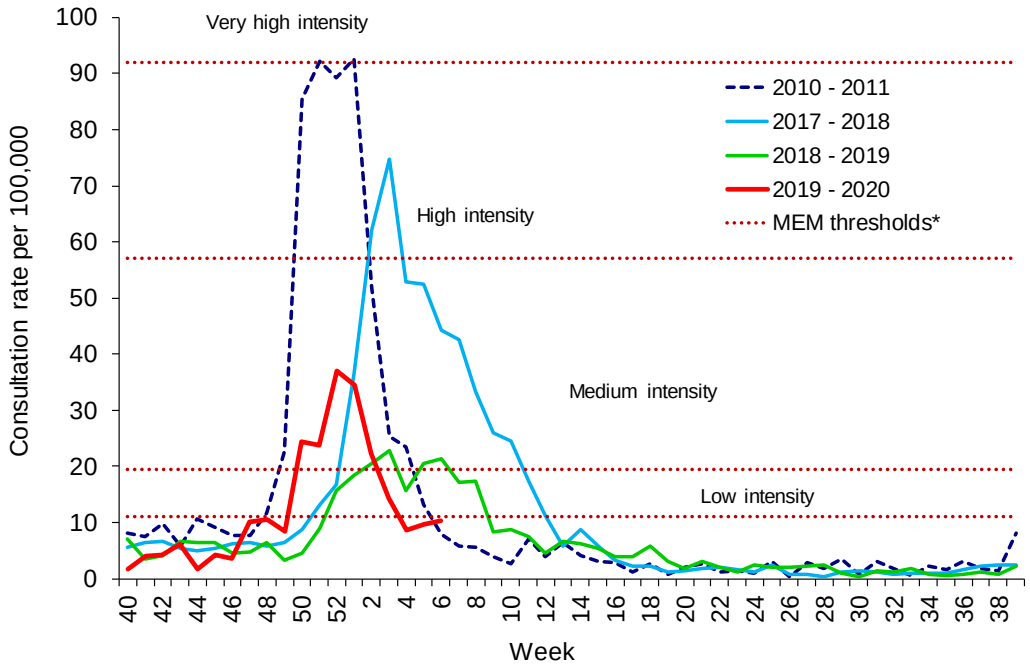
Surveillance indicators suggest that influenza is circulating in Wales.

The sentinel GP consultation rate for influenza-like illness (ILI) increased during week 06 (ending 09/02/2020) but remains below baseline levels. During week 06, 28 cases of influenza were confirmed. Rhinovirus was the most commonly detected cause of Acute Respiratory Infection (ARI) but other causes of ARI continue to be detected. Respiratory Syncytial Virus (RSV) activity in children under five years of age increased this week but remains at baseline levels.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 06 was 10.4 consultations per 100,000 practice population (Table 1).
- The ILI consultation rate increased compared to week 05 (9.6 per 100,000 practice population) but remains below baseline levels (Figure 1). The consultation rate was highest in patients aged 25-34 years (21.6 per 100,000 practice population) (Table 1).
- The total number of respiratory-related consultations with Out of Hours (OOH) doctors in Wales reported to Public Health Wales during week 02 (**latest data available**) was 1,875. This represents 16.8% of all 11,163 reported consultations with OOH doctors and is a decrease in the number and the proportion reported last week (Figure 7). The percentage of calls to NHS Direct Wales which were 'influenza-related' (cold/flu, cough, fever, headache and sore throat) during week 06 increased to 17.3% (Figure 8).
- Sixteen surveillance samples from patients with ILI, collected by sentinel GPs during week 06, had been received by Public Health Wales Microbiology as at 12/02/2020. One sample tested positive for influenza A(H3N2) (a patient aged 45-64 years), five samples tested positive for rhinovirus, one sample tested positive for seasonal coronavirus, one sample tested positive for mycoplasma and eight samples were negative for all routinely tested pathogens.
- During week 06, 405 specimens were tested by Public Health Wales Microbiology from hospitalised and non-sentinel GP patients with ARI. These figures do not include local influenza 'point of care test' results. The following numbers of patients tested positive: 11 influenza A(H1N1)pdm09, 12 influenza A(H3N2), three influenza A(not subtyped), one influenza B, 55 rhinovirus, 39 seasonal coronaviruses, 25 human metapneumovirus, 23 adenovirus, 14 RSV, 10 mycoplasma, nine enterovirus and nine parainfluenza (Figure 4). The proportion of samples from hospital patients positive for influenza was 7%. Thirty-seven respiratory specimens were tested from patients in intensive care units (ICU), one specimen was positive for influenza (Figure 5).
- RSV seasonal activity decreased and remained at baseline levels during week 06. Six (7.5%) of 80 samples from children younger than five years with ARI tested positive for RSV during week 06 and there were 3.5 confirmed cases per 100,000 in this age-group (Figure 6). The average duration of seasonal activity is 11-13 weeks and the current season lasted 12 weeks.
- During week 06, no ARI outbreaks were reported to the Public Health Wales Health Protection team.
- At the end of week 06, uptake of influenza vaccine was: 68.8% in those aged 65 years and older, 43.2% in patients aged six months to 64 years at clinical risk, and 48.9% in children aged two and three years old. In the 1,295 primary schools visited thus far as part of the universal childhood influenza programme, uptake was 68.3%.

Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 09/02/2020).

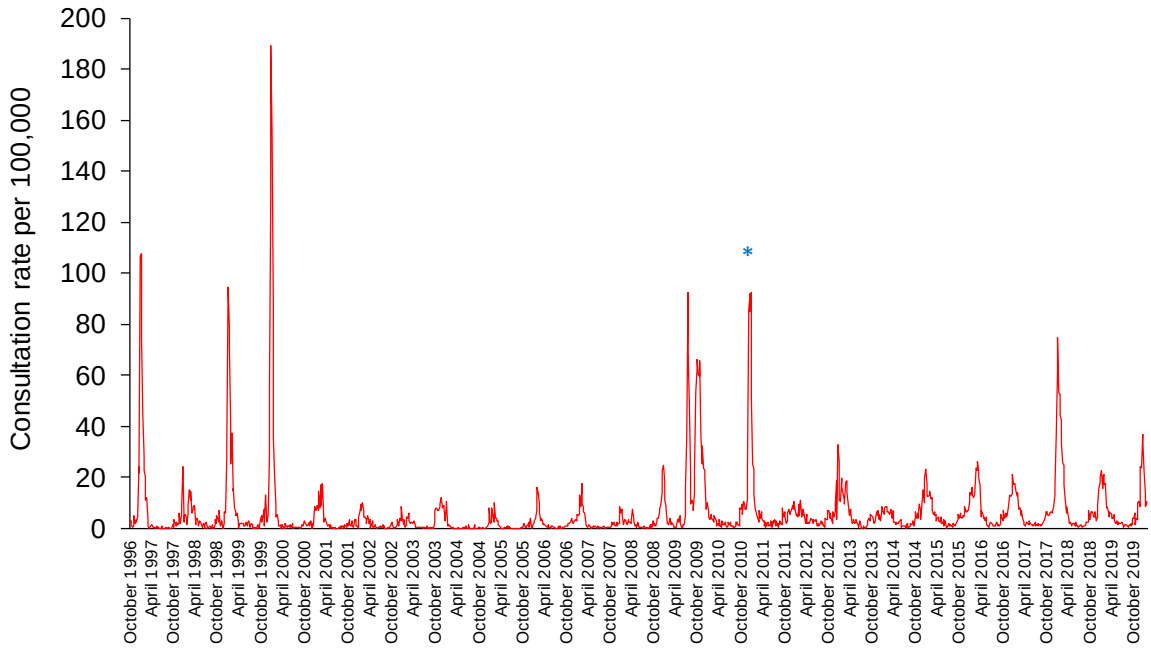


A technical issue affected data submitted from sentinel practices utilising a specific brand of GP software. As a result, between week 47 2019 and week 03 2020, data from affected practices has been excluded from calculations of the weekly ILI consultation rate. Weekly rates from week 47 2019 to week 03 2020 are based on data from approximately 20 practices.

Week 52 and week 01 consultation rates adjusted for the reduced general practice opening hours.

* 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 06 2020).



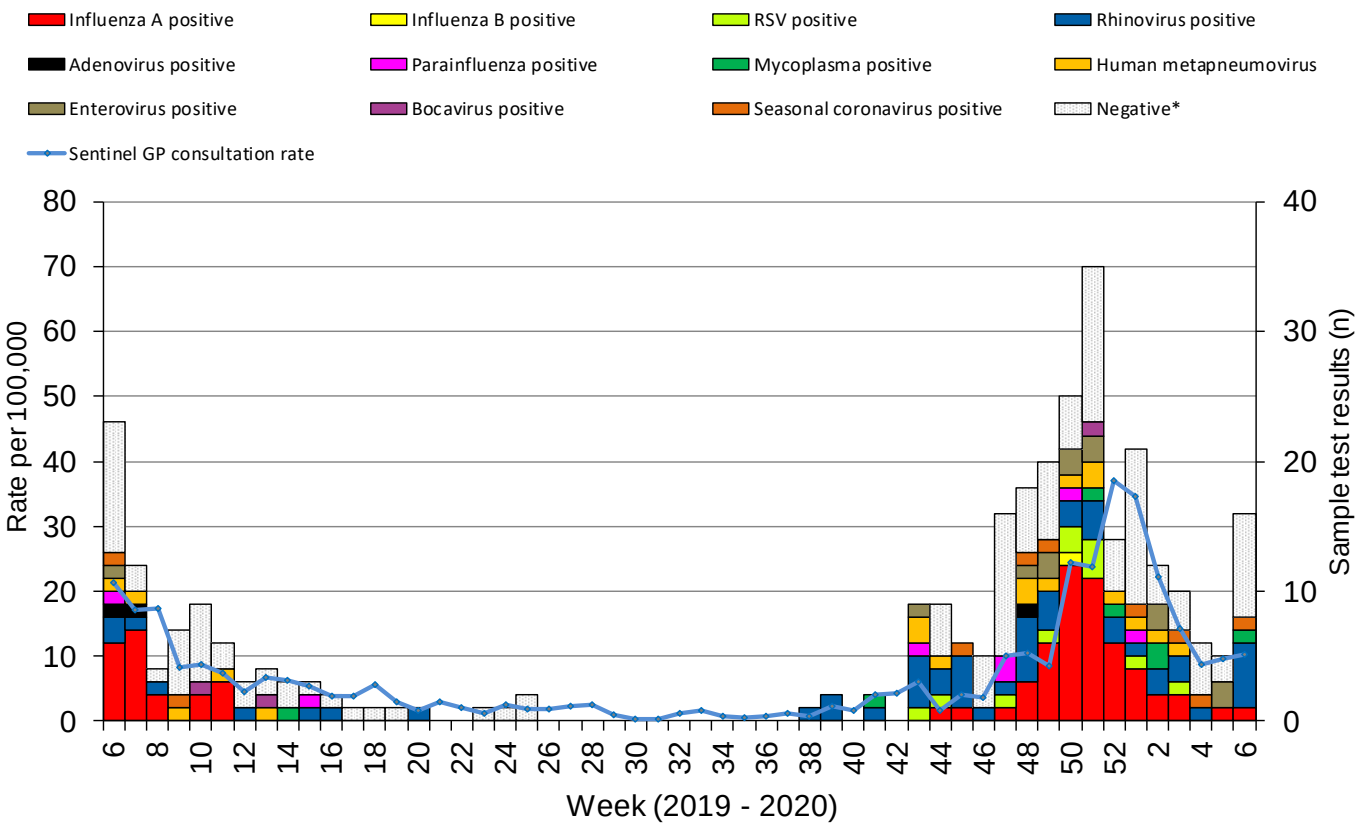
* Reporting changed to Audit+ surveillance system

Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 01 – week 06 2020 (as of 09/02/2020).

Age group	1	2	3	4	5	6
< 1	-	-	-	0.0	0.0	0.0
1 - 4	-	-	-	0.0	0.0	0.0
5 - 14	-	-	-	6.8	6.8	6.8
15 - 24	-	-	-	6.4	19.3	15.0
25 - 34	-	-	-	13.8	11.8	21.6
35 - 44	-	-	-	6.2	12.4	6.2
45 - 64	-	-	-	13.8	11.0	13.8
65 - 74	-	-	-	4.3	2.1	4.3
75+	-	-	-	4.9	4.9	2.4
Total	**34.5**	**22.3**	**14.3**	**8.6**	**9.6**	**10.4**

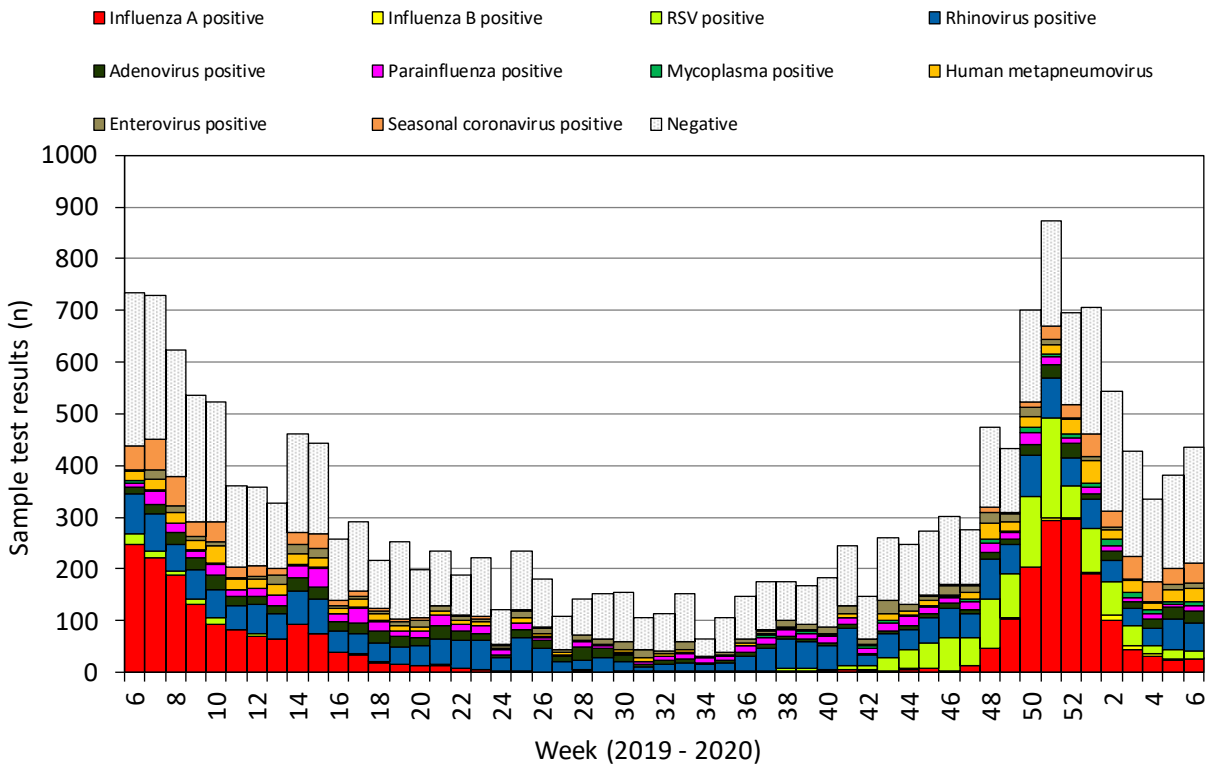
Due to the technical issue currently affecting data submitted from sentinel practices utilising a specific brand of GP software, no age breakdown is available for weeks 01 to 03.

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 09/02/2020, by week of sample collection, week 06 2019 - week 06 2020.



* 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 09/02/2020 by week of sample collection, week 06 2019 to week 06 2020.



Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre. This chart summarises individual test results, patients who are positive for multiple infections within a given week will appear multiple times.

Figure 5. Specimens submitted for virological testing for ICU patients, by week of sample collection, week 06 2019 to week 06 2020.

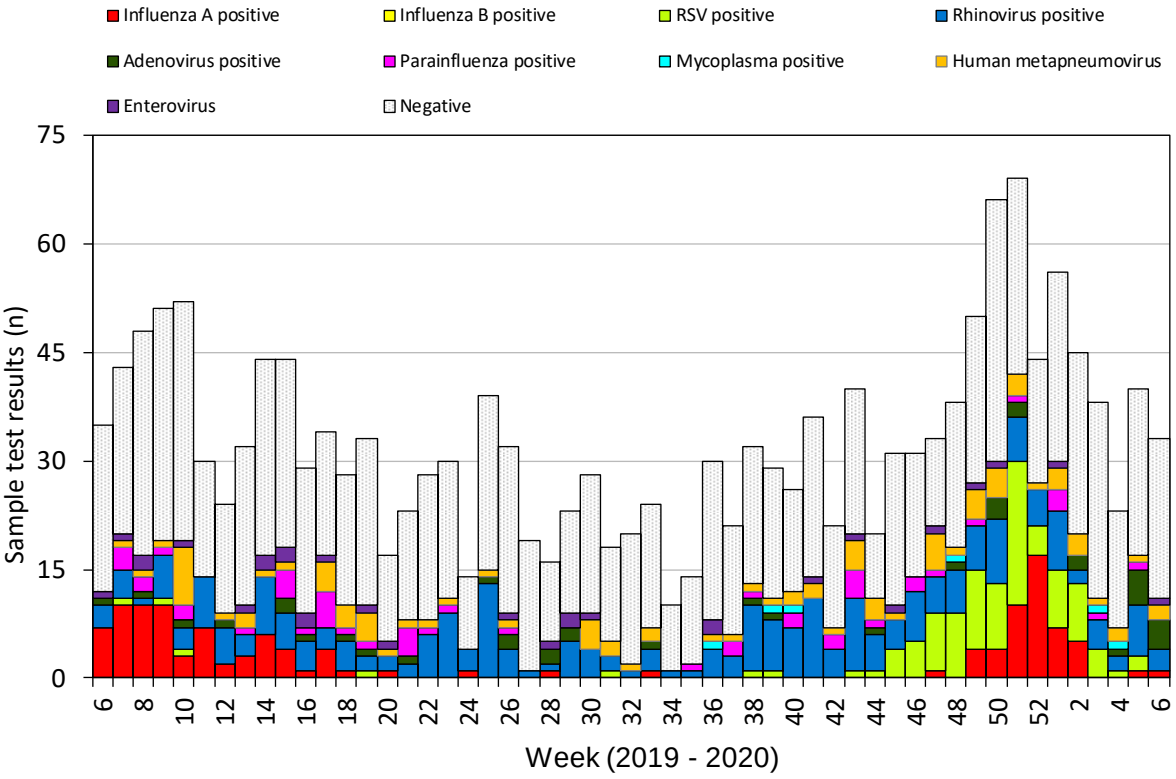
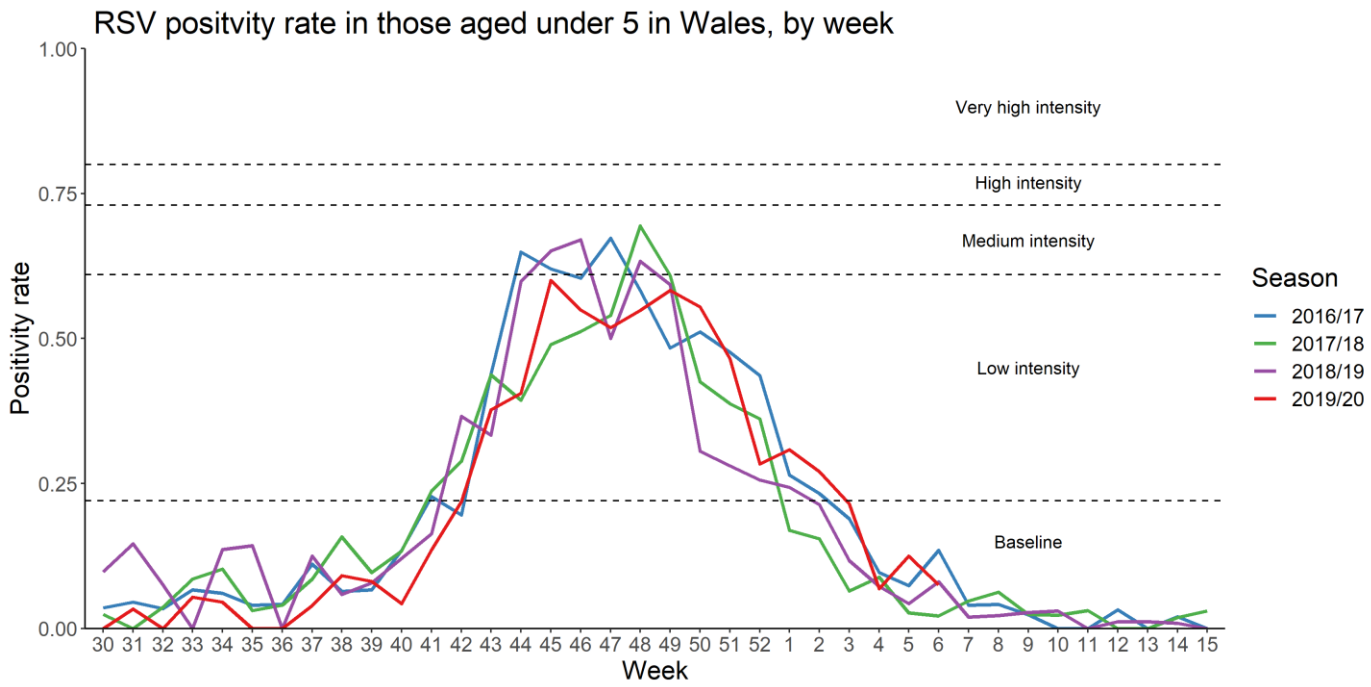


Figure 6. RSV incidence rate per 100,000 population aged under five years, week 30 2016 to week 06 2020.



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 12/01/2020) (latest data available).

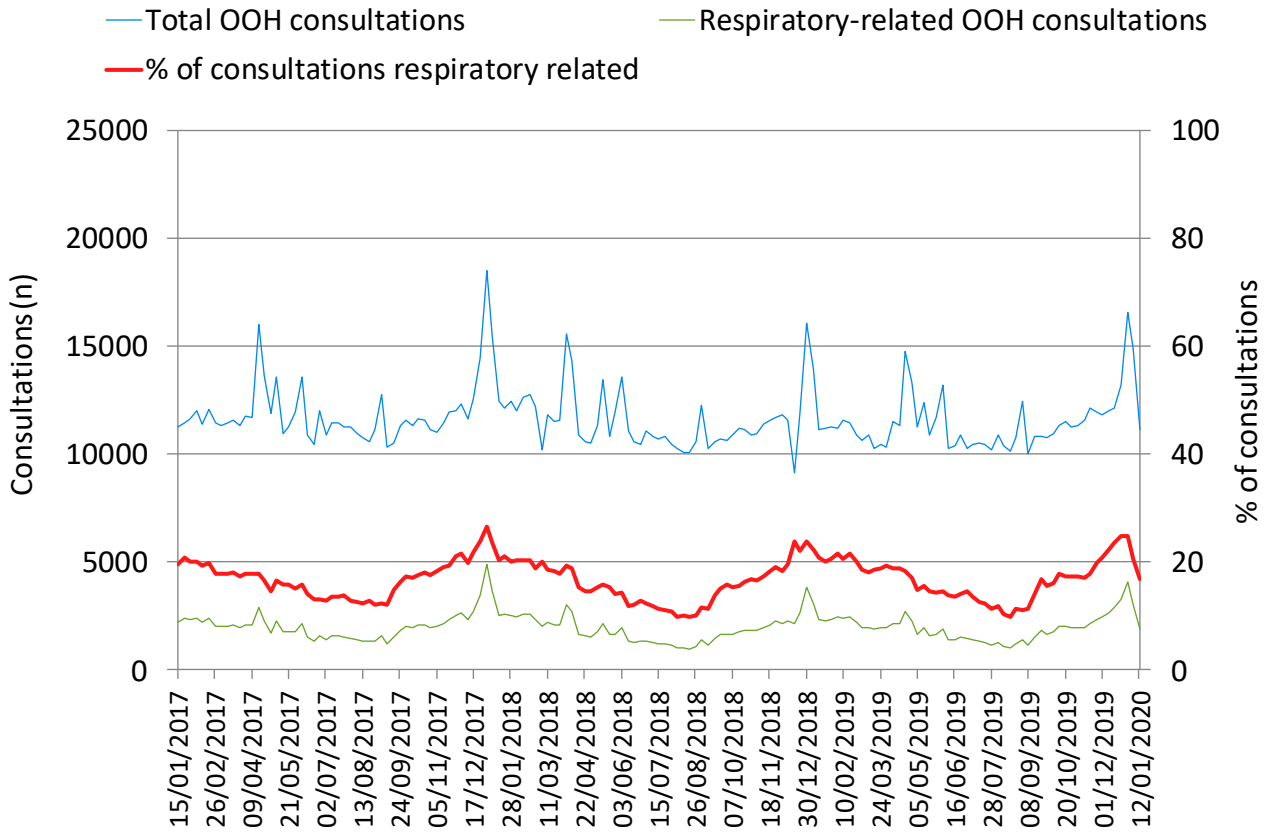
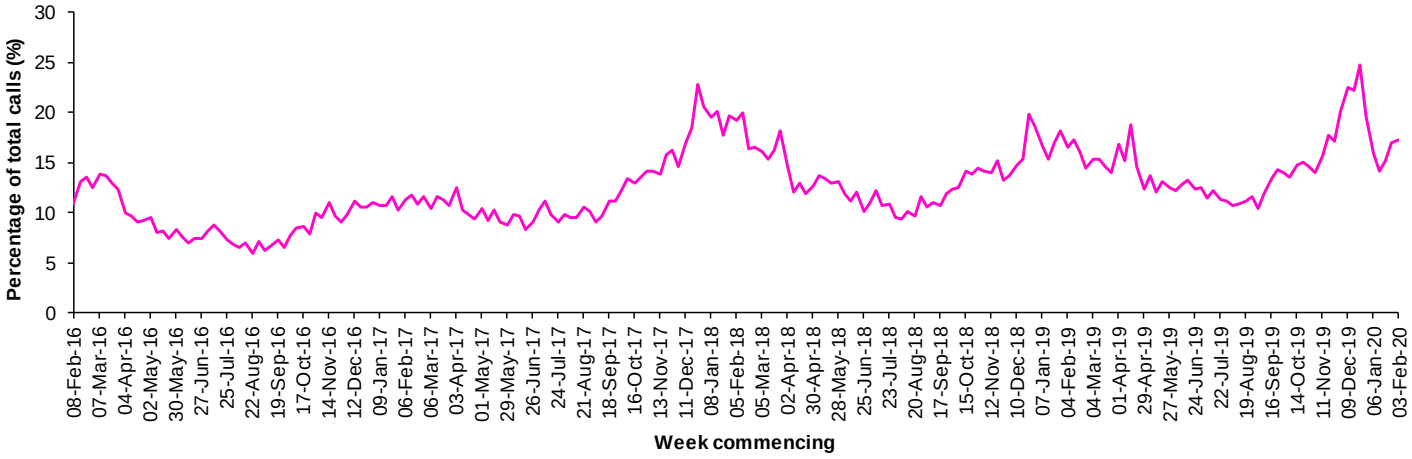


Figure 8. Influenza related calls to NHS Direct Wales[1] (as a percentage of total calls) from week 06 2016 - week 06 2020 (as of 09/02/2020).



[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 09/02/2020).

Influenza immunisation uptake in the 2019/20 season	
People aged 65y and older	68.8%
People younger than 65y in a clinical risk group	43.2%
Children aged two & three years	48.9%
Children aged four to ten years*	68.3%
NHS staff	52.9%
NHS staff who have direct patient contact	55.4%

* 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 05, influenza activity continues to decrease with several indicators remaining below baseline levels in the UK. GP ILI consultations increased slightly in Northern Ireland to 9.1 per 100,000 and in Scotland to 11.4 per 100,000, but remains below baseline activity in both countries. The weekly ILI GP consultation rate in England reported through the RCGP system increased to 10.3 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 8.8 per 100,000 in week 05.
- During week 05, seven samples tested positive for influenza (two influenza A(H1N1)pdm09, three influenza A(H3), one influenza A(unknown subtype) and one influenza B) through the UK GP sentinel swabbing schemes, an overall positivity of 25.0%. One hundred and ninety-four (7.1%) of the 2,732 respiratory test results reported through Public Health England's DataMart scheme tested positive for influenza (30 influenza A(H1N1)pdm09, 62 influenza A(H3), 60 influenza A(not subtyped) and 42 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 05, activity continued to increase, with widespread influenza activity reported by the majority of countries across the WHO European Region. During week 05, a total of 3,077 sentinel specimens were tested for influenza, 1,664 of which were positive (562 influenza A(H1N1)pdm09, 323 influenza A(H3N2), 199 influenza A(not typed) and 580 influenza B).
  Source: Flu News Europe: http://www.flunewseurope.org/

World update

- The WHO reported on 03/02/2020 that in the temperate zones of the northern hemisphere, respiratory illness indicators and influenza activity remained elevated overall. In North America, influenza activity remained elevated. In Europe, influenza activity continued to increase across the region. In Central Asia, influenza activity decreased with influenza B viruses predominant. In Northern Africa, influenza activity appeared to decrease in Egypt after peaking in recent weeks. In Western Asia, influenza activity remained elevated overall. In East Asia, influenza-like illness (ILI) and influenza activity remained elevated overall. Influenza activity was low across reporting Caribbean and Central American countries. In tropical South American countries, increased influenza activity was reported in Peru. In tropical Africa, influenza activity was low across most reporting countries. In Southern Asia influenza activity was low across most reporting countries. In South East Asia, influenza activity continued to be reported in Lao PDR and Malaysia, and increased in Singapore. In the temperate zone of the southern hemisphere, influenza activity remained at inter-seasonal levels. Worldwide, seasonal influenza A viruses accounted for the majority of detections.
- Based on FluNet reporting (as of 31/01/2020), during the time period from 06/01/2020 – 19/01/2020, National Influenza Centres and other national influenza laboratories from 111 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 130,830 specimens during that time period, 33,190 were positive for influenza viruses, of which 23,283 were typed as influenza A (7,834 influenza A(H1N1)pdm09, 5,478 influenza A(H3N2) and 9,971 influenza A(not subtyped)) and 9,907 influenza B (of the characterised influenza B viruses 42 belonged to the B-Yamagata lineage and 2,925 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 05 (ending 01/02/2020) influenza activity increased and remains high. Nationally, 15,875 (29.8%) out of 53,247 specimens have tested positive for influenza in week 05, of these positives 8,637 (54.4%) were influenza A and 7,238 (45.6%) were influenza B. Further characterisation has been carried out on 2,129 specimens by public health laboratories, and 1,365 tested positive for influenza, 898 (65.8%) were influenza A (810 influenza A(H1N1)pdm09 (95.7%), 36 influenza A(H3N2) (4.3%), and subtyping was not performed on 52 specimens) and 467 influenza B (34.2%).
  Source: CDC Weekly US Influenza Surveillance Report: http://www.cdc.gov/flu/weekly/
- The Public Health Agency of Canada reported that during week 05, influenza activity remained high, with almost all indicators increasing from the previous week. The percentage of visits to healthcare professionals due to ILI was 1.6%, which is below the average for this time of year. The percentage of tests positive for influenza is 30%, up from 28% in the previous week.
  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 31/01/2020 WHO reported an additional two cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV). Globally, 2,506 laboratory confirmed cases of human infection with MERS-CoV, including 862 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/2020/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 (26/11/2019 to 20/01/2020) 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/statistics/weekly-national-flu-reports-2019-to-2020-season
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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