

HPS Weekly National Seasonal Respiratory Report

Week ending 24 March 2019 – week 12



1 Overall assessment

In week 12, the rate of GP consultations remains below the baseline threshold for normal seasonal activity.

Influenza laboratory detections are at low activity levels in secondary care and in general practices. Influenza A(H1N1) is the dominant influenza strain thus far this season and is affecting a younger age group than observed last season which was dominated by influenza A(H3N2).

A Scottish addendum to the Public Health England guidance on use of antiviral agents for the treatment and prophylaxis of seasonal influenza has been published on the [HPS website](#).

An increase in community circulation of influenza prompted the issue of a [CMO letter](#) in week 2 advising that GPs may prescribe antivirals.

2 Summary

Indicator	Data	Comment	Change from previous week
Community Influenza Transmission	GP consultations	The ILI rate increased slightly to 7.6 per 100,000 in week 12 from 6.6 in week 11 and is below the baseline threshold for normal seasonal activity (31.3 per 100,000 population).	↔
	NHS24 calls	The proportion of NHS24 calls for respiratory infection remained stable compared to the previous week (16.3% in week 12 and 16.2% in week 11). The proportion for week 12 is lower compared to the same week last season (19.1%).	
	Primary care virology	Swab positivity was 33.3% (1/3) in week 12. No swabs were positive for influenza (0/3) in week 11. This should be interpreted with caution due to the low number of samples received in week 12.	
Influenza in Closed Settings	Outbreaks	One new acute respiratory illness outbreak was reported in week 12. The cumulative number of outbreaks since week 40 is 46, which is lower than the previous two seasons.	↔
	Secondary care virology (ECOSS)	In week 12, the swab positivity was 9.1% (65/711) and remained at the low seasonal activity level (range 6.3% - 17.8%). This compares to a swab positivity of 9.0% (82/910) in week 11.	
	Severe Acute Respiratory Illness (SARI)	Eight new cases of laboratory confirmed influenza requiring ICU management were reported in week 12. The cumulative number of cases since week 40 is 161.	
Influenza Associated Mortality	SARI mortality	No new SARI death were reported in week 12. The cumulative number of SARI deaths since week 40 is 28. The SARI case-fatality rate (CFR) is 17.4% (28/161) and is below expected seasonal levels (range 22.9% - 35.6%).	↔
	Excess all-cause mortality	There was no statistically significant all cause mortality excess observed in week 10. For the 2018/19 season, HPS will only publish information on all-cause mortality two weeks after the week of the occurrence of the deaths to allow for reporting delay.	
Non-flu respiratory pathogens	Non-flu respiratory pathogens	All non-flu respiratory pathogens reported through secondary care remained within expected or below seasonal levels.	↓

3 Supporting data

Supporting data and further information is published in this section if any of the respiratory surveillance systems show a significant increase.

Summary table colour interpretation:

- Green – below baseline activity;
- Yellow – normal season activity;
- Amber – moderate activity (above normal activity);
- Red – high activity (above moderate activity);
- Dark red – very high activity (above high activity);

For detailed caveats and notes explaining the data and the methodologies used in this report, please see [HPS Weekly National Seasonal Respiratory Report – Notes and Caveats](#).

A. Community Influenza Transmission

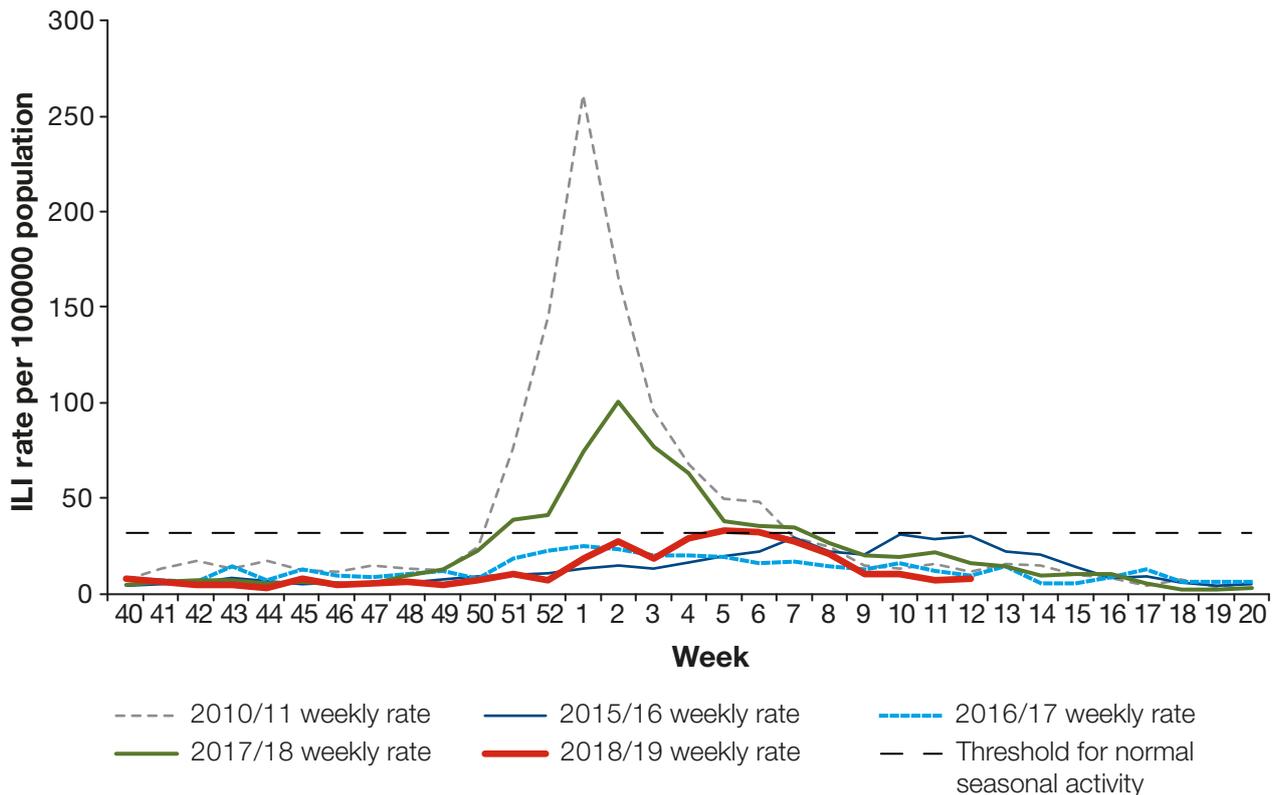
A.1 GP consultations for influenza-like illness (ILI):

GP consultation rate for influenza-like illness (ILI) has increased slightly (7.6 per 100,000 population in week 12 compared to 6.6 per 100,000 population in week 11) and is below baseline activity^{1,2}. This value is lower than previous seasons at the same period (Figure 1). The age-specific rates are below baseline levels for all age groups in week 12.

1 The baseline threshold for influenza-like illness consultation data is 31.3 consultations per 100,000 population.

2 This influenza activity threshold is based on the Moving Epidemic Method (MEM), a standardised method of reporting influenza activity adopted by the UK and the European Centre for Disease Prevention and Control.

Figure 1: GP consultation rates for ILI in Scotland; weekly rates per 100,000 population, week 40 2018 to week 20 2019, compared to last 3 seasons and 2010/11 season.



B. Influenza in Closed Settings

B.1 Acute Respiratory Illness (ARI) outbreaks

In week 12, one new ARI outbreak was reported to HPS. The cumulative number of outbreaks since week 40 is 46, which is lower than the previous two seasons (Figure 2).

Of all outbreaks reported to date where a pathogen was identified, the majority were due to influenza alone (45.7%, 21/46) with 4 caused by influenza A(H1N1), 2 caused by influenza A(H3N2) and 14 caused by influenza A(not subtyped). Of the remaining outbreaks, these were either due to non-influenza pathogens (11), a co-infection between respiratory pathogens (8), or pathogen unknown (7).

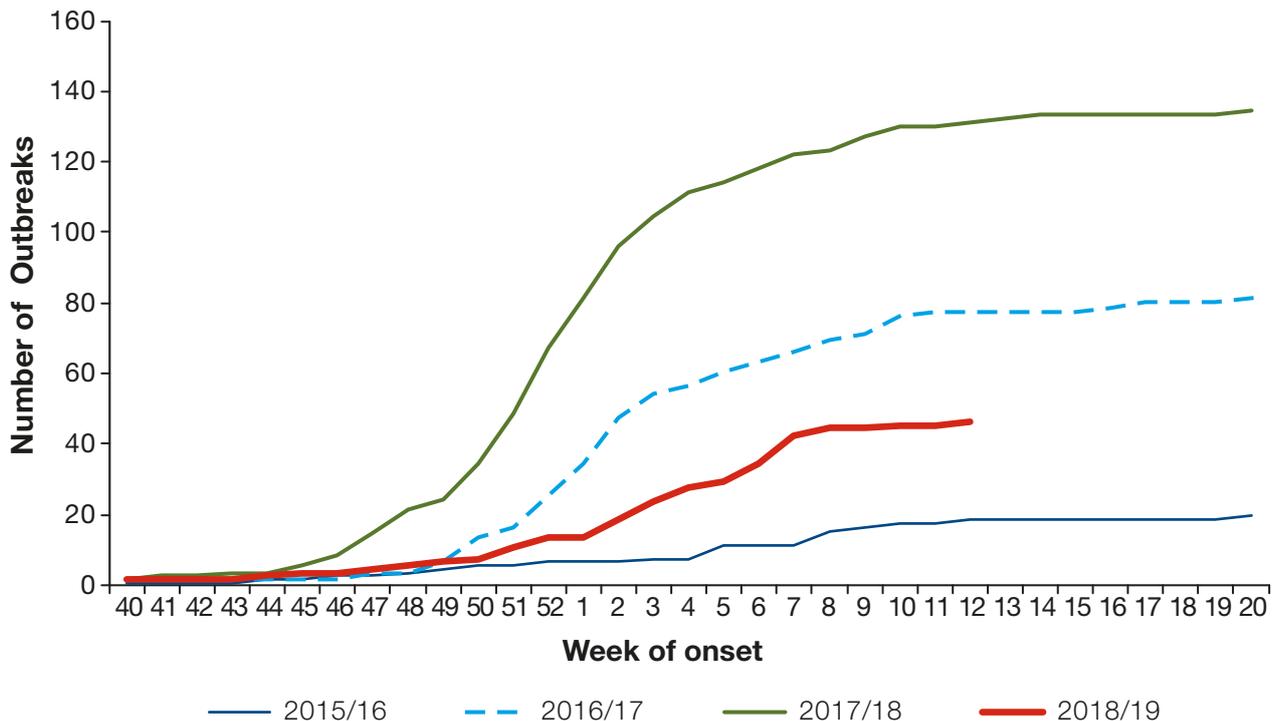
Since week 40:

- 18 outbreaks were reported from care homes, of which 3 were due to influenza (1 A(H1N1), 1 A(H3N2) and 1 A(not subtyped));
- 23 outbreaks were reported from hospitals, of which 17 were due to influenza (2 A(H1N1), 1 A(H3N2) and 14 A(not subtyped));
- 3 outbreaks were reported from schools, of which 1 was due to influenza A(H1N1);
- 1 outbreak was reported from other setting type (non-influenza pathogen).

These were geographically spread throughout Scotland: 21.7% in the North, 50% in the East and 28.3% in the West³.

³ North: Western Isles, Shetland, Orkney, Highland, Grampian, Tayside. East: Fife, Lothian, Borders, Forth

Figure 2: Cumulative number of acute respiratory illness (ARI) outbreaks in 2018/19 season compared to seasons 2015/16 to 2017/18.

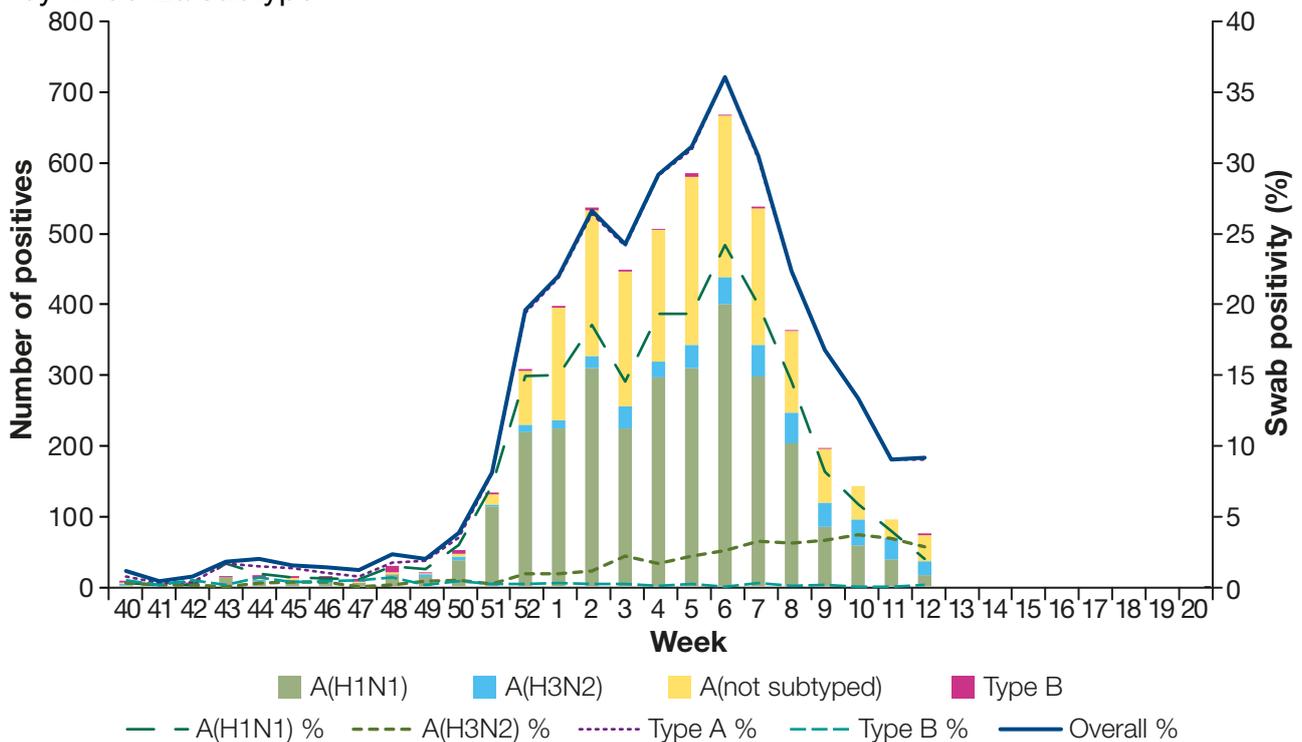


B.2 Secondary Care Virology (ECOSS)

In week 12 there were 75 influenza detections (16 influenza A(H1N1), 20 influenza A(H3N2) and 37 influenza A(not subtyped)). Swab positivity was 9.1% (65/711) and remained at the low seasonal activity level (range 6.3% - 17.8%).

The number of influenza detections decreased slightly but swab positivity remained stable compared to the previous week (Figure 3). Influenza A(H1N1) is the dominant subtype this season and similar to previous H1N1 dominated seasons, the majority of detections have been in younger and working age groups (15-64 years).

Figure 3: Weekly summary of ECOSS swab positivity (number and percentage positive) by influenza subtype.



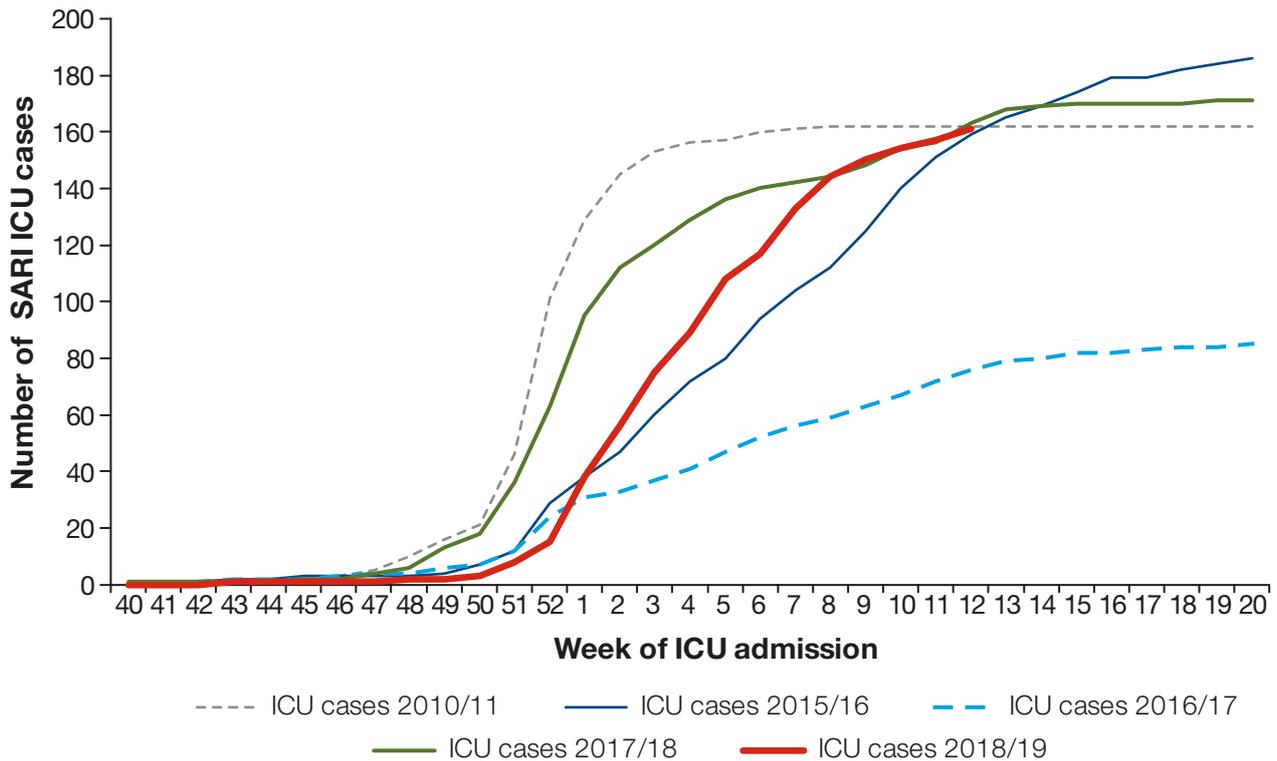
B.3 Severe Acute Respiratory Illness (SARI)

Eight new influenza cases with severe infection requiring intensive care management were reported to HPS in week 12. Half of these were retrospective reports. The cumulative number of cases since week 40 2018 is 161, which is similar to those reported in the same period for season 2015/16 and 2017/18 but higher than season 2016/17 (Figure 4).

Since week 40, there were 110 cases with influenza A(H1N1), 4 with influenza A(H3N2), 44 with influenza A(not subtyped) and 3 with influenza B. So far, the majority of SARI cases have been due to influenza A infection (98.1%, 158/161) and, of those subtyped, influenza A(H1N1) is predominant (97.4%, 114/117).

These were geographically spread throughout Scotland: 23.6% in the North, 28.6% in the East and 47.8% in the West³.

Figure 4: Cumulative number of influenza cases with severe infection requiring intensive care management by week of hospital admission, week 40 2018 to week 20 2019, compared to previous seasons.



4 Vaccine uptake

A software issue affecting the vaccine uptake submission from EMIS practices has now been resolved and the vaccine uptake estimates below have been derived from both EMIS and INPS Vision practices (accounting for > 95% of Scottish GP practices).

Provisional data for week 11 suggests uptake rates of:

- 73.8% in people aged 65 years and over, compared with 73.7% in 2017-18
- 42.4% in under 65's at-risk, compared with 44.9% in 2017-18
- 57.7% in pregnant women (with other risk factors), compared with 61.8% in 2017-18
- 45.6% in pregnant women (without other risk factors), compared with 47.8% in 2017-18
- 55.3% in preschool children (2 to under 5 year olds), compared with 56.9% in 2017-18
- 72.9% in primary school children, compared with 71.3% in 2017-18

The next update of influenza vaccine uptake will be published in the report of week 15.

5 International situation

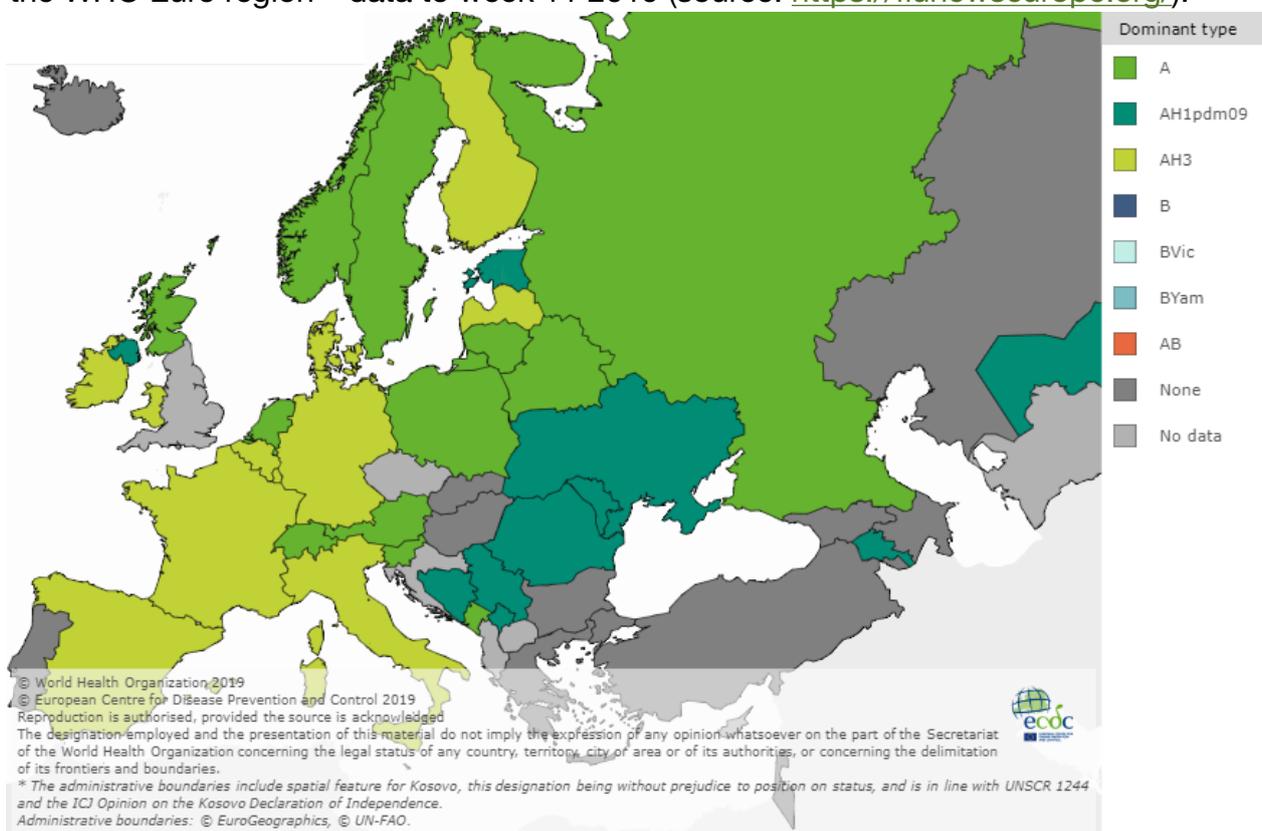
UK – week 11:

- During week 11, influenza continued to circulate in the community with activity indicators decreasing and Below Baseline.
- The impact of flu on healthcare services is at Medium impact for hospitalisations and low for ICU/HDU influenza admissions.
- Influenza A(H1N1)pdm09 and influenza A(H3N2) are co-circulating. The Department of Health & Social Care has issued an alert on the prescription of antiviral medicines by GPs.

Europe – week 11:

- Influenza activity was widespread in one-third of the countries of the European Region. Widespread activity was located in northern, southern and western areas of the European Region. Specimens collected from individuals presenting with ILI or ARI to sentinel primary health care sites yielded an influenza virus positivity rate of 34%.
- Influenza type A virus detections dominated with slightly more A(H1N1)pdm09 than A(H3N2) viruses. Very few influenza B viruses were detected.
- 31% of specimens from patients with severe acute respiratory infection (SARI) collected in week 11/2019 tested positive for influenza virus, and almost all were type A.
- Pooled data from 24 Member States and areas reporting to the EuroMOMO project indicated that the excess mortality observed in previous weeks continued to decline. Excess mortality was seen in persons aged 65 years and above and, to a lesser extent, in persons 15-64 years.

Figure 5: Geographical spread of influenza virus type/subtype among countries from the WHO Euro region – data to week 11 2019 (source: <https://flunewseurope.org/>).



6 Links for more information

- A summary of the provisional end-of-season results for 2017/18 influenza seasonal vaccine effectiveness has been published on the [PHE website](#).
- [WHO](#) have recommended that quadrivalent vaccines for use in the 2019-2020 northern hemisphere influenza season contain the following:
 - an A/Brisbane/02/2018 (H1N1)pdm09-like virus;
 - an A/Kansas/14/2017 (H3N2)-like virus;
 - a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage); and
 - a B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage).
- It is recommended that the influenza B virus component of trivalent vaccines for use in the 2018-2019 northern hemisphere influenza season be a B/Colorado/06/2017-like virus of the B/Victoria/2/87-lineage.
- The technical document on **Reporting rates of influenza-like illness (ILI) consultations from General Practitioners in Scotland** has been published on [HPS Website](#). This report provides background to reporting of primary care consultation rates for ILI in Scotland plus 1) a description of the 2017/18 data issues and end of season revision of ILI consultation rates; and 2) the application of the Moving Epidemic Method (MEM) to Scottish ILI consultation rate data.

Further information for the Scottish 2018/19 season

- [HPS seasonal influenza web page](#)
- [Scottish Vaccine Update](#)
- [Historical end of season influenza vaccine uptake](#)

UK and international influenza reports

- [PHE Weekly national flu report](#)
- [Flu News Europe website](#)
- [WHO influenza update](#)
- [EuroMOMO website](#)

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