

HPS Weekly National Seasonal Respiratory Report

Week ending 31 December 2017 – week 52
(Revised on 15 January 2018)

1 Overall assessment

In week 52, overall assessment is yellow (normal season activity). Seasonal influenza is having a moderate impact on the population. There is continuing evidence of increasing secondary care pressure based on virological detections of influenza.

Community circulation of influenza prompted the issue of a [CMO letter](#) in week 50 advising that GPs may prescribe antivirals.

2 Summary

Indicator	Data	Comment	Change from previous week
Community Influenza Transmission	GP consultations	ILI rates have increased and have just achieved a moderate activity level (46.3 per 100,000 population).	↑
	NHS24 calls	Slight increase in call proportions: colds/flu (2.2%), coughs (11.6%), difficulty breathing (9.6%) and fever (8.7%). Change over from legacy to new IT system limits comparability with historic data.	
	Primary care virology	Swab positivity was 69.2% (9/13). Majority of new detections were influenza A(not subtyped).	
Influenza in Closed Settings	Outbreaks	Eight new acute respiratory illness outbreaks reported this week. Cumulative total of 42.	↑
	Secondary care virology (ECOSS)	Swab positivity was 35.8%. Majority of detections were influenza A(not subtyped). A minority of NHS boards are reporting significant ward pressure from influenza through HAIORT assessment.	
	SARI (Severe Acute Respiratory Illness)	Four new cases of laboratory confirmed influenza cases requiring ICU management reported in week 52. Cumulative total of 23. This is lower than the observed in the last 2 seasons.	
Influenza Associated Mortality	SARI mortality	SARI case fatality rate is low: 17.4% (4/23)	↔
	Excess all-cause mortality	There was an excess seen over all and in 65 years and above age group for the last four weeks. This should be interpreted with caution as data, especially for the last two weeks, are still provisional.	
Non-flu respiratory pathogens	Non-flu respiratory pathogens	RSV and Adenovirus detections remained high and are above previous seasons 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.

Community circulation of influenza has prompted the issue of a [CMO letter](#) in week 50 advising that GPs may prescribe antivirals.

Please note that due to the reduced number of working days in week 52, data in this report must be interpreted with caution.

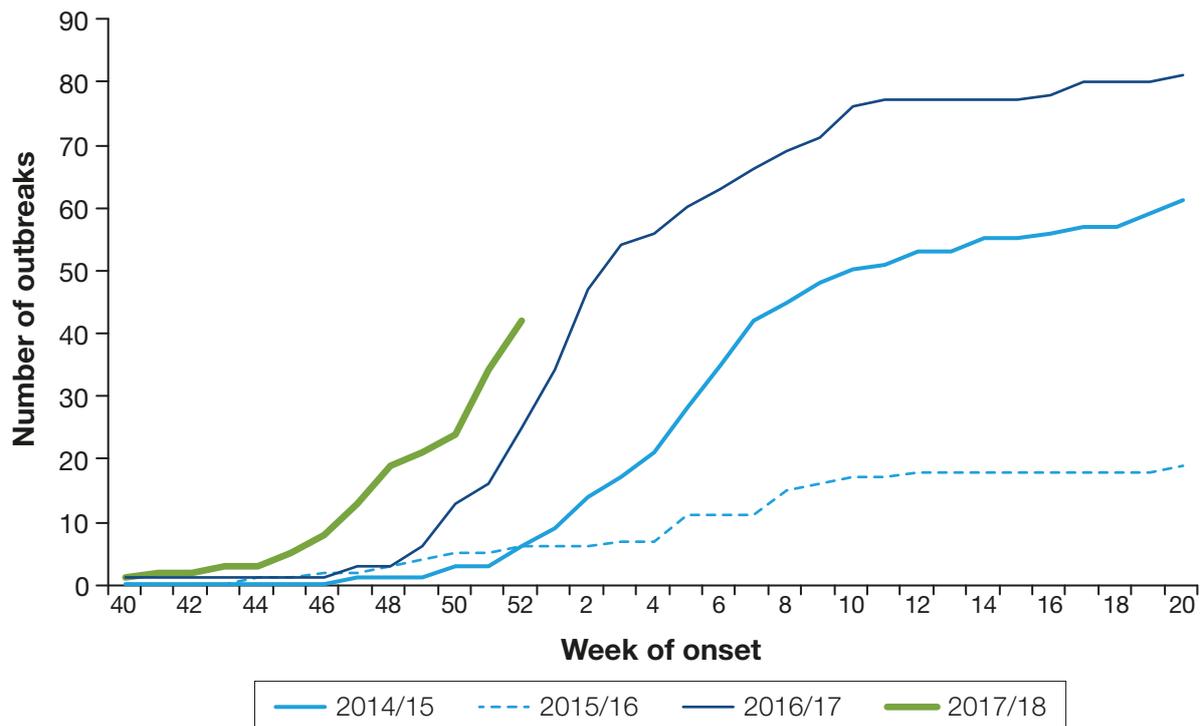
Summary table colour interpretation:

- **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).

Acute Respiratory Illness (ARI) outbreaks

Compared with the same period in previous seasons, in 2017/18 we are observing a earlier increase and higher number of ARI outbreaks reported to HPS (Figure 1). Forty two closed setting outbreaks have been reported since week 40. These were geographically spread throughout Scotland and most have occurred in care homes (61.9%, 26/42). The majority of outbreaks have been caused by influenza (78.6%, 33/42) with 16 caused by influenza A(not subtyped), 14 by influenza A(H3N2), three by influenza B, two non-flu respiratory pathogens and 7 unknown pathogens.

Figure 1: Cumulative number of respiratory outbreaks in 2017/18 season compared to seasons 2014/15 to 2016/17.



Note: Where week of onset is not available, week of report has been used instead. This may change retrospectively for the current season as updates are received.

ERRATUM: Please note that the legend of the Figure 1 was incorrect and this has now been amended.

GP consultations for influenza-like illness (ILI)

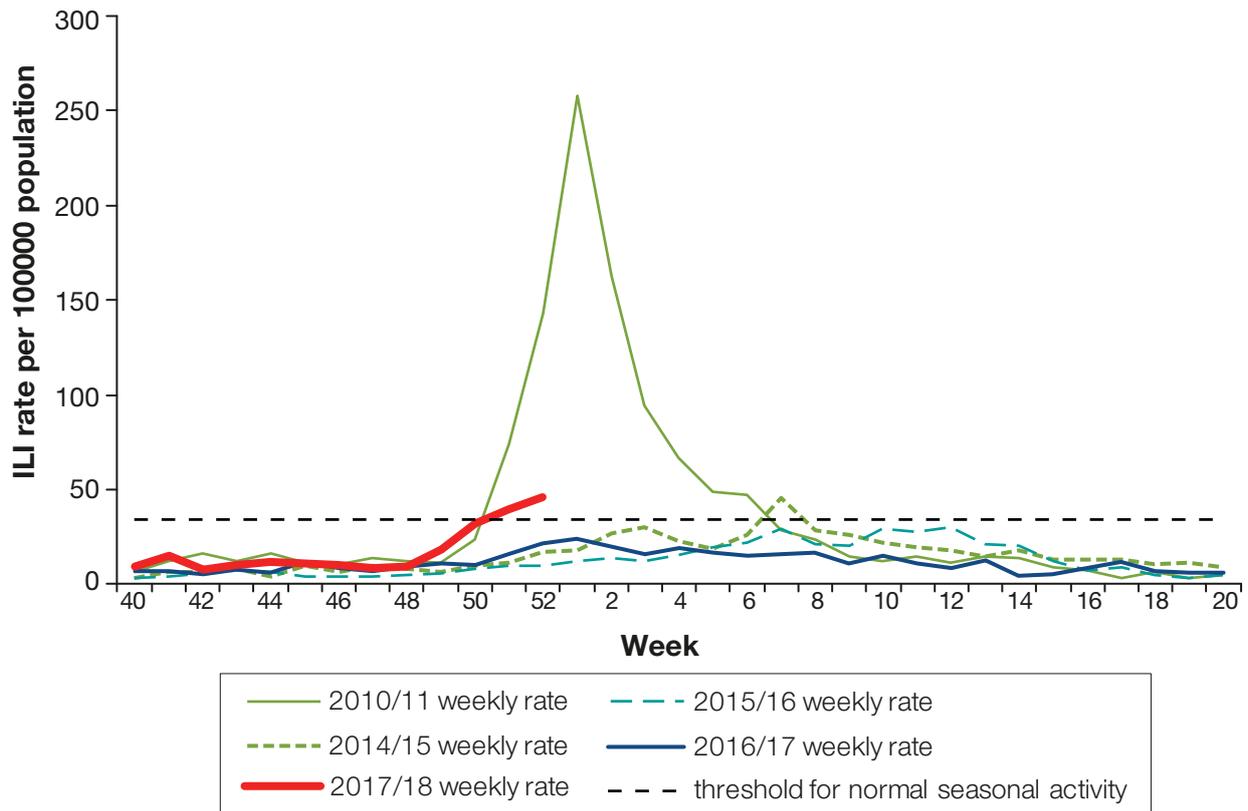
GP consultations for influenza-like illness (ILI) have increased and passed from low to moderate activity levels¹ (46.3 per 100,000 population). This value is higher than previous seasons with exception of season 2010/11 (Figure 2). The age-specific rates have also increased and are above baseline levels for the 15-44, 45-64, 65-74 and 75+ age groups.

Caveats:

- Consultation rates data is currently based only on EMIS practices which cover around 50% of GP practices in Scotland. We are working with INPS to overcome issues with their data and therefore INPS practices have been excluded from this reporting.
- All the GP consultation data depends on GPs using the appropriate Read codes and this is variable between practices.

¹ The moderate activity range is from 45.9 up to 212.7 consultations per 100,000 population.

Figure 2: GP consultation rates for ILI in Scotland; weekly rates per 100,000 population, week 40 2017 to week 20 2018, compared to last 3 seasons and 2010/11 season.



Virological activity

Virology data for week 52 may be incomplete due to reporting delays following public holidays. This data should therefore, be interpreted with caution.

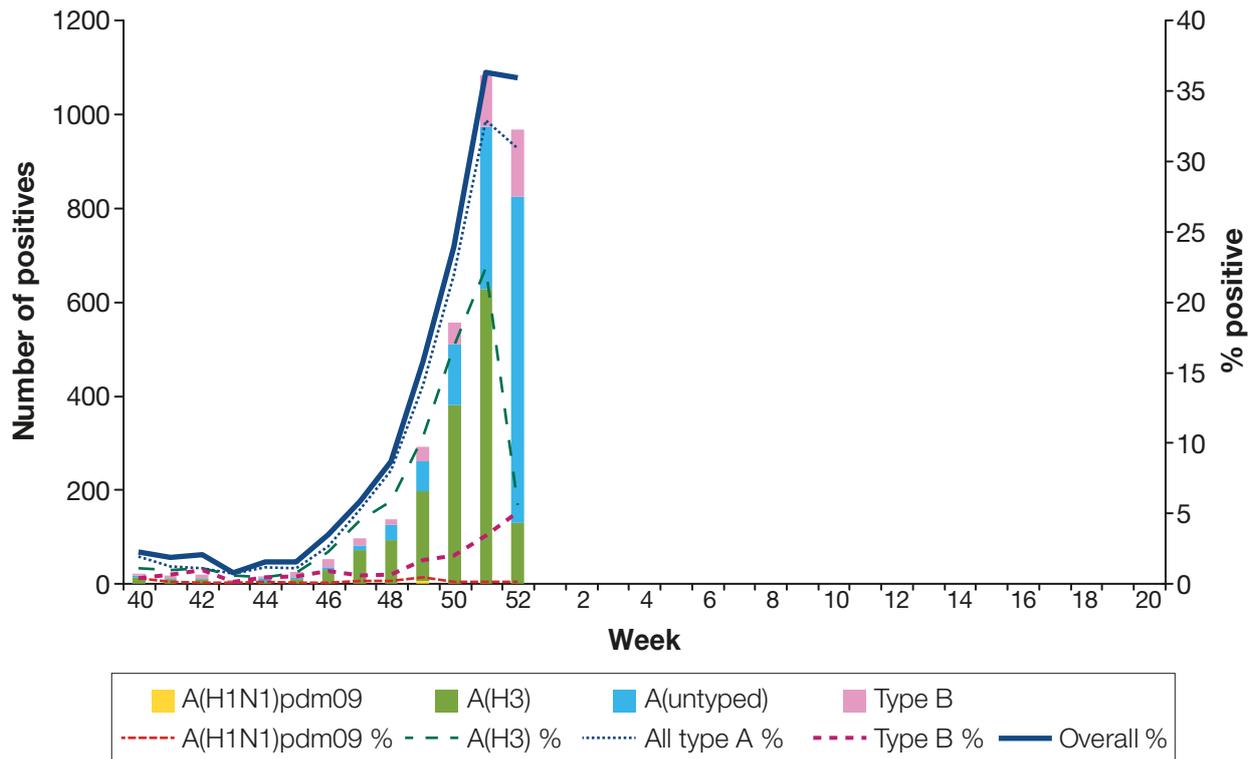
Virological influenza activity is increasing and swab positivity is higher than the last four previous seasons for the same period in both GP sentinel (69.2%, 9/13) and non-sentinel sources (ECOSS) (35.8%). So far this season, of the influenza viruses that have been subtyped, H3N2 is predominating and influenza B swab positivity is increasing earlier than previous seasons.

- In week 52, from non-sentinel sources (ECOSS), 815 samples were positive for influenza A (687 (not subtyped), 127 (H3N2) and two (H1N1)), 138 were positive for influenza B and 5 were co-infections of influenza A and B (Figure 3). From GP Sentinel sources, 8 samples were positive for influenza A(not subtyped) and 1 sample positive for influenza B.

So far, this season is being dominated by influenza A(H3N2) viruses which usually means a disproportionate burden borne by the elderly. For secondary care, this is a particular challenge as multi-morbidity in this age groups means that this poses particular difficulty for patient management. This may explain why there are differences in perception of the impact of the season by different parts of the NHS.

A minority of NHS boards are reporting significant ward pressure from influenza through HAIORT assessment.

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



As of the 22 December 2017, the West Of Scotland Specialist Virology Centre (WoSSVC) has detected 78 influenza viruses for season 2017/18 by sequencing.

- Of the 3 A(H1N1)pdm09 influenza viruses that have been characterised, all belong in the genetic subgroup 6B.1(A/Michigan/45/2015) which match the 2017/18 vaccine strain.
- Of the 60 A(H3N2) influenza viruses sequenced, 34 belong to the genetic subclade 3C.2a (A/Hong Kong/4801/2014) which are closely matched to 2017/18 season vaccine; 22 belong to the genetic subclade 3C.2a.1(A/Singapore/IFIMH-16-0019/2016) which is the A/H3N2 virus recommended for inclusion in vaccines for the Southern Hemisphere 2018 season i.e. are not closely matched to this seasons vaccine and have been labelled by the media as “Australian flu”; and 4 belong to the genetic subclade 3C.3a (A/Switzerland/9715293/2013) which matches the vaccine strain from 2015-2016 i.e. are not closely matched to the vaccine this season but match previous vaccine used in 2015/16.
- Of the 15 influenza B viruses sequenced, all belong to B/Yamagata lineage (B/Phuket/3073/2013) which is not present in the trivalent vaccine, but matches the quadrivalent vaccine. An extra 25 influenza B viruses have been detected by real-time PCR, of which 22 belong to B/Yamagata lineage and 3 to B/Victoria lineage. The B/Victoria lineage is present in both trivalent and quadrivalent vaccine types.

4 Vaccine uptake

Provisional data to week 51 suggests uptake rates of:

- 71.0% in people aged 65 years and over, (compared with 71.0% in 2016-17)
- 41.3% in under 65's at-risk, (compared with 42.2% in 2016-17)
- 57.5% in pregnant women (with other risk factors), compared with 54.4% in 2016-17
- 44.0% in pregnant women (without other risk factors), compared with 43.8% in 2016-17
- 52.6% in preschool children (2 to under 5 year olds), compared with 54.8% in 2016-17
- 71.0% in primary school children, compared with 71.0% in 2016-17

The next update of influenza vaccine uptake will be published in week 03.

5 Links for more information

Further information for the Scottish 2017/18 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](#)

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