



# PHE Weekly National Influenza Report

Summary of UK surveillance of influenza and other seasonal respiratory illnesses

21 November 2019 – Week 47 report (up to week 46 data)

This report is published weekly on the [PHE website](#). For further information on the surveillance schemes mentioned in this report, please see the [PHE website](#) and the [related links](#) at the end of this document.

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## Summary – Week 46 (ending 17 November 2019)

- During week 46, influenza activity has started to increase however all but one influenza activity indicators are **Below baseline**.
- The impact of flu on healthcare services is **Above baseline** for hospitalisations and **Below baseline** for ICU/HDU influenza admissions.
- Respiratory Syncytial Virus (RSV) continues to circulate in the <5 year olds in England.

### Community

- 122 new acute respiratory outbreaks have been reported in the past 7 days. 30 outbreaks were reported from care homes where 5 tested positive for influenza A(unknown subtype). One outbreaks was reported from a hospital with no test results. 88 outbreaks were reported from schools where 2 tested positive for influenza A(unknown subtype). The remaining 3 outbreaks were from the Other settings category, where one tested positive for influenza A(unknown subtype).

### Primary Care

- The rate of influenza-like illness (ILI) was **Below baseline** threshold levels. The overall weekly ILI GP consultation rate was 5.3 per 100,000 registered population in participating GP practices for England, similar to 4.6 per 100,000 in the previous week.
- In the devolved administrations, ILI rates were **Below baseline** threshold levels for Northern Ireland, Scotland and Wales.

GP ILI  
Consultations  
England



### Secondary Care

- Hospitalisation rate observed for laboratory confirmed influenza was **Above baseline** levels, with a rate of 1.55 per 100,000 trust catchment population for England (19 NHS Trusts) compared to 0.75 per 100,000 in the previous week.
- ICU/HDU admission rate observed for laboratory confirmed influenza was **Below baseline** levels, with a rate of 0.05 per 100,000 trust catchment population for England (141/143 NHS Trusts) compared to 0.02 per 100,000 the previous week.
- There were no laboratory confirmed influenza admissions reported from the 6 Severe Respiratory Failure centres in the UK.

Hospitalisation



ICU/HDU



### All-cause mortality

- In week 46 2019, no statistically significant excess all-cause mortality by week of death was seen overall and by age group in England. In the devolved administrations, no statistically significant excess all-cause mortality for all ages was observed in Wales and Northern Ireland in week 46 and for Scotland in week 44 2019.

### Microbiological surveillance

- **Primary care:** 18 samples tested positive for influenza (1 influenza A(H1N1)pdm09, 10 influenza A(H3), 5 influenza A(unknown subtype) and 2 influenza B), through the UK GP sentinel swabbing schemes in week 46 2019, with an overall positivity of 17.6%
- **Secondary care:** There were 129 detections recorded through the DataMart scheme (4 influenza A(H1N1)pdm09, 65 influenza A(H3), 52 influenza A(not subtyped) and 8 influenza B). The overall influenza percent positivity was 3.7% and **Below baseline** threshold level.
- **Virus Characterisation:** 34 influenza A(H3N2) viruses have been characterised since week 40, of which 24 belong to the same subclade as that in this season's vaccine. Two A(H1N1)pdm09 viruses have been antigenically characterised and are similar to that in this season's vaccine.

Secondary  
Care



### Vaccination

- **Weekly uptake:** Up to week 46 2019, in 89.4% of GP practices reporting for the main collection, the provisional proportion of people in England who had received the 2019/20 influenza vaccine in targeted groups was: 30.1% in under 65 years in a clinical risk group, 33.1% in pregnant women and 64.1% in 65+ year olds. In 88.9% of GP practices reporting for the childhood collection, the provisional proportion vaccinated was: 16.2% in 2 year olds and 15.7% in 3 year olds.
- Provisional data from the first monthly collection of influenza vaccine uptake by frontline healthcare workers show 43.6% were vaccinated by 31 October 2019, compared to 46.3% vaccinated in the previous season by 31 October 2018.
- Provisional data from the first monthly collection of influenza vaccine uptake for children of school years reception to year 6 shows 17.9% in school year reception age, 17.6% in school year 1 age, 17.3% in school year 2 age, 16.6% in school year 3 age, 16.4% in school year 4 age, 15.8% in school year 5 and 15.2% in school year 6 age were vaccinated by 31 October 2019.

### International situation

- In the temperate zone of the northern hemisphere, influenza activity remained at inter-seasonal levels in most countries; however continued to increase across the countries of the Arabian Peninsula. In the temperate zones of the southern hemisphere, influenza activity was low in most countries, with influenza B virus detections continuing to be reported by Chile. Worldwide, seasonal influenza A viruses accounted for the majority of detections.

Key	
Arrows (vs previous week):	Colour (intensity according to MEM threshold):
↑ Increase	● Below Baseline
↓ Decrease	● Above Baseline/Low
↔ Stable/No trend	● Medium
	● High
	● Very High

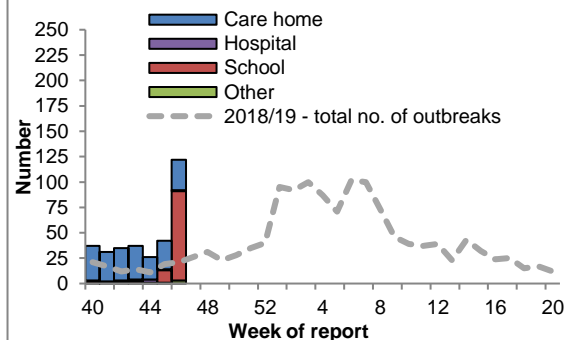
**122 new acute respiratory outbreaks were reported in the past 7 days, with 8 confirmed with influenza. ILI rates observed through internet based surveillance increased but remain low for week 46.**

- Acute respiratory disease outbreaks

- 122 new acute respiratory outbreaks have been reported in the past 7 days. 30 outbreaks were reported from care homes where 5 tested positive for influenza A(unknown subtype) and 3 tested positive for rhinovirus. One outbreak was reported from a hospital with no test results available. 88 outbreaks were reported from schools where 2 tested positive for influenza A(unknown subtype). The remaining 3 outbreaks were from the Other settings category where one tested positive for influenza A(unknown subtype). 60 out of the 122 outbreaks were reported from the North East region.

-Outbreaks should be recorded on HPZone and reported to the local Health Protection Teams and [respscids@phe.gov.uk](mailto:respscids@phe.gov.uk)

**Figure 1: Number of acute respiratory outbreaks by institution, UK**



- Medical Officers of Schools Association (MOSA) & PHE surveillance scheme

- Boarding schools in England within the MOSA network are recruited each season to report various respiratory related illnesses including influenza like illnesses (ILI). For the 2019/20 season, 17 MOSA schools have agreed to participate in the scheme, including a total of 4,000 boarders.

- The overall rate (all boarders) for week 46 was 1.1 per 1,000 boarders compared to 0.4 per 1,000 boarders in the previous week.

- If you are a MOSA school and would like to participate in this scheme, please email [mosa@phe.gov.uk](mailto:mosa@phe.gov.uk) for more information.

- FluSurvey

- Internet-based surveillance of influenza-like illness in the general population is undertaken through FluSurvey. A project run by PHE to monitor ILI activity in the community.

- The overall ILI rate (all age groups) for week 46 was 46.0 per 1,000 (73/1,513 people reported at least 1 ILI), with the highest rate seen in the 20-44 year olds (71.2 per 1,000).

- If you would like to become a participant of the FluSurvey project please do so by visiting the <https://flusurvey.net/en/accounts/register/> website for more information.

- FluDetector

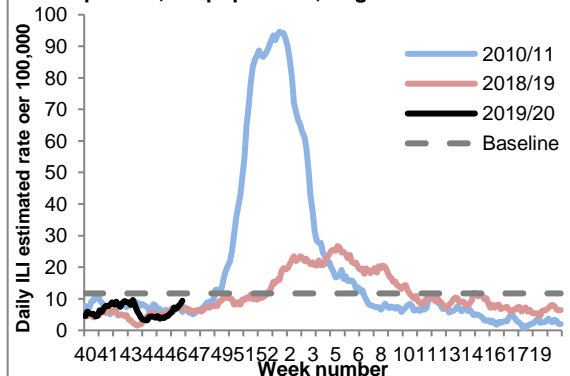
- Internet-based surveillance of influenza-like illness in the general population is also undertaken through FluDetector (<https://fludetector.cs.ucl.ac.uk>), a model assessing internet-based search queries for ILI.

- Daily ILI rate estimates are based on uniformly averaged search query frequencies for a week-long period (including the current day and the six days before it).

- The daily ILI rate estimates for week 46 increased but were below the baseline threshold of 11.7 per 100,000, with an overall weekly rate of 9.3 per 100,000 compared to 5.4 per 100,000 in week 45 (Figure 2).

-For more information on i-sense and the work carried out on early warning sensing systems for infectious disease visit <https://www.i-sense.org.uk/>

**Figure 2: Daily estimated ILI Google search query rates per 100,000 population, England**



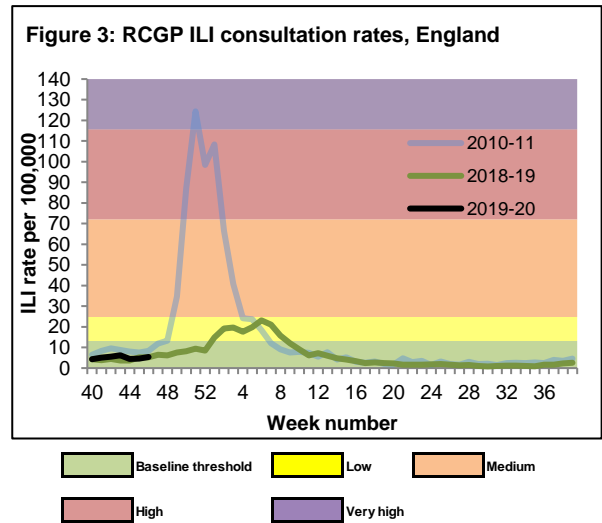
In week 46, the overall weekly influenza-like illness (ILI) GP consultation rate remained below baseline threshold levels in England. In the devolved administrations, ILI rates were below their respective baselines.

- GP ILI consultations in the UK

RCGP (England)

- The weekly ILI consultation rate through the RCGP surveillance was 5.3 per 100,000 registered population in participating GP practices in week 46 compared to 4.6 per 100,000 in week 45. This is below the baseline threshold (12.7 per 100,000) (Figure 3\*). By age group, the highest rates were seen in the 15-44 year olds (6.3 per 100,000) and in the 45-64 year olds (6.0 per 100,000).

\*The Moving Epidemic Method (MEM) has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for GP ILI consultations for the start of influenza activity (based on 10 seasons excluding 2009/10) in a standardised approach across Europe. For MEM intensity threshold values, please visit: <https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk#clinical-surveillance-through-primary-care>



UK

- In week 46, overall weekly ILI consultation rates across the countries of the UK were all below their respective baseline threshold levels (Table 1).

- By age group, the highest rates were seen in the 15-44 year olds in Scotland and Northern Ireland (9.8 and 7.8 per 100,000 ) and in the 75+ year olds in Wales (9.7 per 100,000 respectively).

**Table 1: GP ILI consultations in the UK for all ages with MEM thresholds applied\***

GP ILI consultation rates (all ages)	Week number																
	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4
England (RCGP)	4.3	5.0	5.5	6.2	4.5	4.6	5.3										
Wales	1.7	4.0	4.2	6.2	1.7	4.2	3.7										
Scotland	5.5	6.2	4.4	4.0	7.9	5.0	6.4										
Northern Ireland	3.9	4.8	4.6	5.1	6.5	7.2	6.9										

\*The Moving Epidemic Method (MEM) has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for GP ILI consultations for the start of influenza activity (based on 10 seasons excluding 2009/10), in a standardised approach across Europe. For MEM threshold values for each country, please visit: <https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk#clinical-surveillance-through-primary-care>

GP In Hours Syndromic Surveillance System (England)

The weekly ILI consultation rate through the GP In Hours Syndromic Surveillance system is 5.0 per 100,000 in week 46 2019 (Figure 4).

GP In Hours consultations for influenza-like illness remain below baseline levels in all except one region, North East where consultations have increased just above baseline thresholds for week 46.

NHS 111 calls for difficulty breathing increased further in children aged less than 1 year, line with seasonal RSV activity. Cough calls also increased in the under 1 and 1 to 4 year olds during week 46.

GP Out of Hours consultations and Emergency Department (ED) attendances for bronchitis/bronchiolitis continued to increase, particularly in young children (aged under 1 year), however were in line with increasing levels of RSV activity in the community in week 46.

- Figure 4 represents a map of GP ILI consultation rates in week 46 across England by PHE centres, with influenza-like illness surveillance MEM thresholds applied.

ILI thresholds were calculated separately for each of the nine PHE Centres to allow for differences between areas e.g. background ILI rates are historically higher in London than other areas of England and based upon previous influenza seasons from 2012/13 on wards. ILI thresholds should be interpreted with caution and reference made to other GP surveillance systems incorporating more historical data.

-For further information, please see the syndromic surveillance [webpage](#).

**Figure 4: Map of GP ILI consultation rates in week 46**

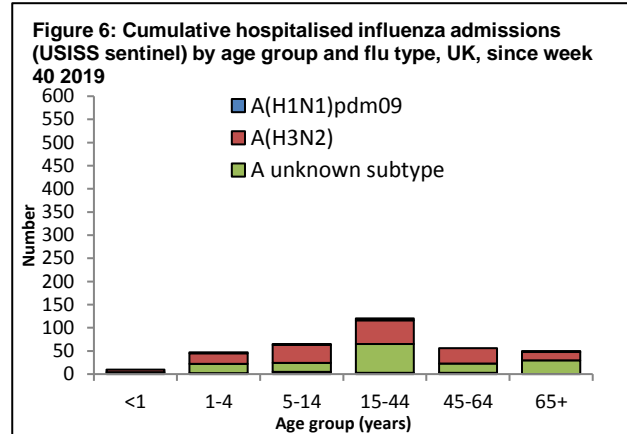
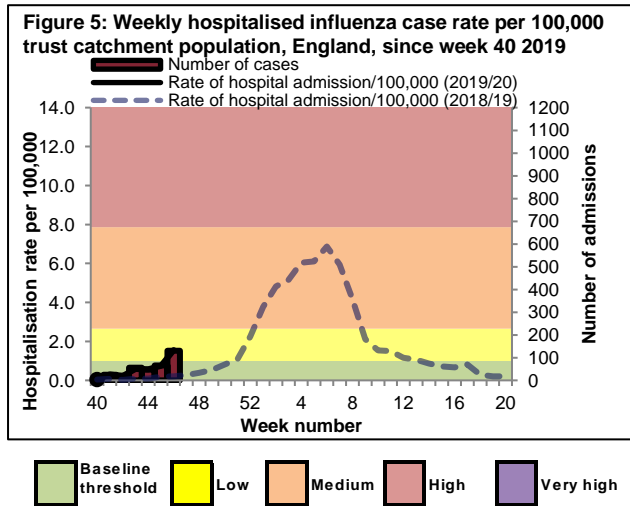


In week 46 2019, there were 131 hospitalised confirmed influenza cases (3 influenza A(H1N1)pdm09, 61 influenza A(H3N2) and 63 influenza A(unknown subtype) and 4 influenza B) reported through the USISS sentinel hospital network across England (19 Trusts). There were 28 new admissions to ICU/HDU with confirmed influenza (3 influenza A(H1N1)pdm09, 4 influenza A(H3N2), 20 influenza A(unknown subtype) and one influenza B) reported through the USISS mandatory ICU/HDU surveillance scheme across the UK (141/143 Trusts in England).

- USISS sentinel weekly hospitalised confirmed influenza cases, England (week 46)

In week 46, there were 131 hospitalised laboratory confirmed influenza cases (3 influenza A(H1N1)pdm09), 61 influenza A(H3N2), 63 influenza A(unknown subtype) and 4 influenza B) reported from 19 NHS Trusts across England through the USISS sentinel hospital network, with a rate of 1.55 per 100,000 trust catchment population (Figures 5 and 6) compared to 0.75 per 100,000 in week 45. This is above the baseline impact threshold of 0.99 per 100,000.

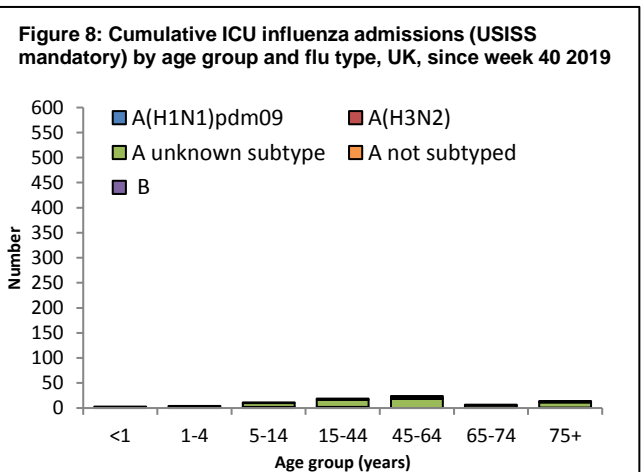
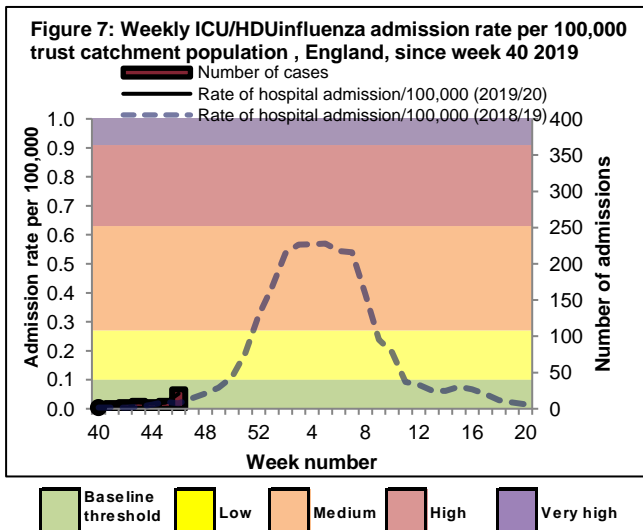
A total of 348 hospitalised confirmed influenza admissions (170 influenza A(H3N2), 155 influenza A(unknown subtype), 10 influenza A(H1N1)pdm09 and 13 influenza B) have been reported in England since week 40 2019 via the sentinel scheme.



- Number of new admissions and fatal confirmed influenza cases in ICU/HDU (USISS mandatory ICU scheme), UK (week 46)

In week 46, there were 28 new admissions to ICU/HDU with confirmed influenza (3 influenza A(H1N1)pdm09), 4 influenza A(H3N2), 20 influenza A(unknown subtype) and one influenza B) reported across the UK (141/143 Trusts in England) through the USISS mandatory ICU scheme, with a rate of 0.05 per 100,000 (Figures 7 and 8) compared to 0.02 per 100,000 in week 45. This is below the baseline impact threshold of 0.10 per 100,000. No influenza laboratory confirmed deaths were reported to have occurred in ICU/HDU week 46 in the UK.

A total of 82 new admissions (8 influenza A(H1N1)pdm09), 7 influenza A(H3N2), 61 influenza A(unknown subtype) and 6 influenza B) and one confirmed death have been reported in the UK since week 40 2019.



\*The Moving Epidemic Method (MEM) has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for ICU/HDU admission rates for the start of influenza activity (based on 7 seasons) in a standardised approach across Europe. For MEM threshold values, please visit: <https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk#disease-severity-and-mortality-data>

- USISS Severe Respiratory Failure Centre confirmed influenza admissions, UK (week 46)

- In week 46, there were no new admissions for laboratory confirmed influenza among the 6 Severe Respiratory Failure (SRF) centres in the UK.

### All-cause mortality data

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In week 46 2019, no statistically significant excess all-cause mortality by week of death was observed overall and by age group in England, through the EuroMOMO algorithm. In the devolved administrations, no statistically significant excess all-cause mortality for all ages was observed in Wales and Northern Ireland in week 46 2019 and for Scotland in week 44.

- All-cause death registrations, England and Wales

- In week 45 2019, an estimated 10,697 all-cause deaths were registered in England and Wales (source: [Office for National Statistics](#)). This is an increase compared to the 10,164 estimated death registrations in week 44 2019.

- Excess all-cause mortality by age group, England, Wales, Scotland and Northern Ireland

- In week 46 2019 in England, no statistically significant excess mortality by week of death above the upper 2 z-score threshold was seen overall, by age group and sub-nationally (all ages), after correcting ONS disaggregate data for reporting delay with the standardised [EuroMOMO](#) algorithm. This data is provisional due to the time delay in registration; numbers may vary from week to week.

- In the devolved administrations, no statistically significant excess all-cause mortality for all ages observed in Wales and Northern Ireland in week 46 2019 and for Scotland in week 44 (Table 2).

**Table 2: Excess mortality by UK country, for all ages\***

Country	Excess detected in week 46 2019?	Weeks with excess in 2019/20
England	x	NA
Wales	x	NA
Northern Ireland	x	NA

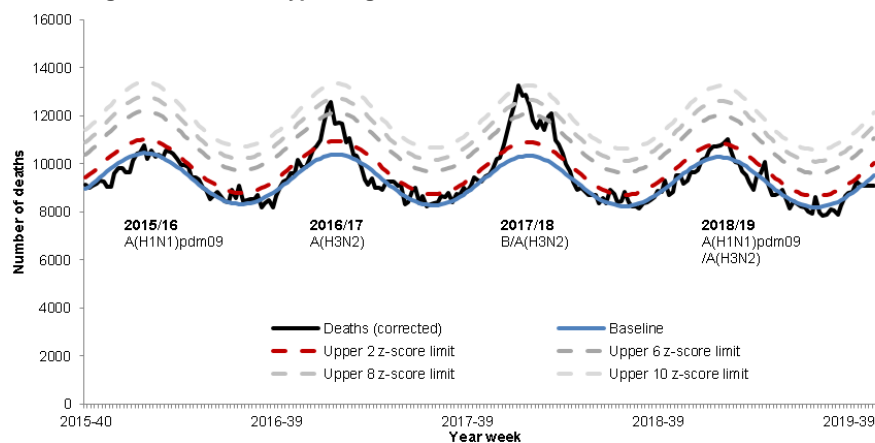
  

Country	Excess detected in week 44 2019?	Weeks with excess in 2019/20
Scotland	x	41

\* Excess mortality is calculated as the observed minus the expected number of deaths in weeks above threshold

\* NA refers to no excess seen

**Figure 9: Weekly observed and expected number of all-age all-cause deaths, with the dominant circulating influenza A subtype, England, 2015 to week 46 2019**



\*Note: Delays in receiving all registered deaths from April 2018, following changes in IT systems at ONS, may result in some delays in the model to adjust for most recent deaths.

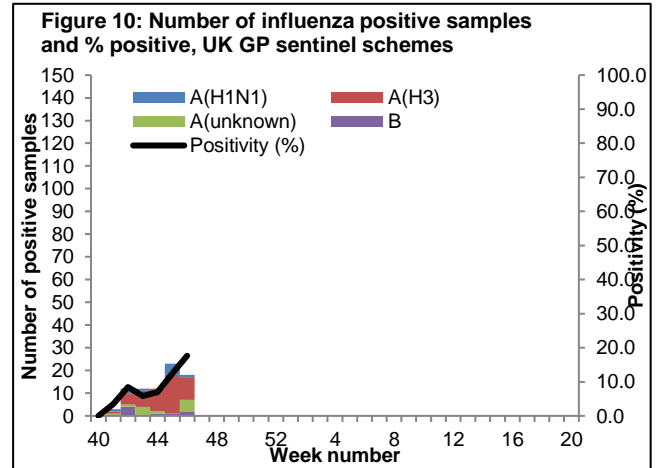


In week 46 2019, 18 samples tested positive for influenza with an overall positivity of 17.6%, through the UK GP sentinel schemes. 129 positive detections were recorded through the DataMart scheme (4 influenza A(H1N1)pdm09, 65 influenza A(H3), 52 influenza A(not subtyped) and 8 influenza B) with a positivity of 3.7%, this is below the baseline threshold of 9.7%.

- Sentinel swabbing schemes in England (RCGP) and the Devolved Administrations

In week 46 2019, 18 samples tested positive for influenza (1 influenza A(H1N1)pdm09, 10 influenza A(H3), 5 influenza A(unknown subtype) and 2 influenza B), with an overall positivity of 17.6% compared to 12.4% in the previous week, through the UK GP sentinel swabbing schemes (Figure 10).

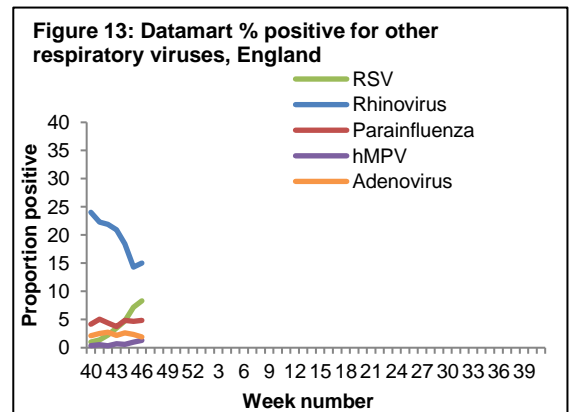
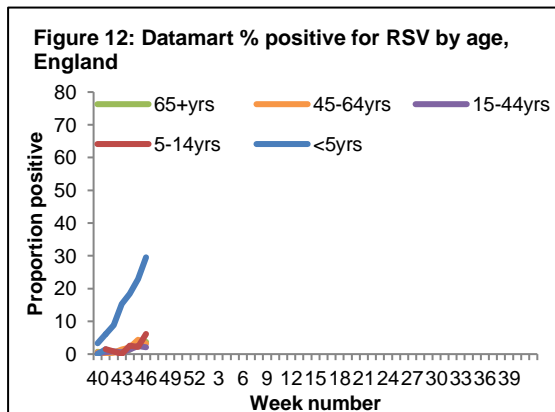
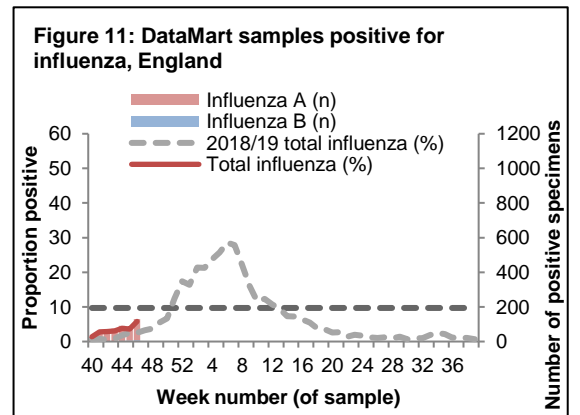
Since week 40, a total of 51 samples (8 influenza A(H1N1)pdm09, 49 influenza A(H3N2), 12 influenza A(unknown subtype), 5 influenza B, one co-infection of influenza A(H3N2) and B and two co-infections of influenza A(H1N1)pdm09 and B) tested positive for influenza through this scheme.



- Respiratory DataMart System (England)

In week 46 2019, out of the 2,226 respiratory specimens reported through the Respiratory DataMart System, 48 samples were positive for influenza (4 influenza A(H1N1)pdm09, 65 influenza A(H3), 52 influenza A(not subtyped) and 8 influenza B) (Figure 11), with an overall positivity of 3.7%, which is below the MEM baseline threshold for this season of 9.7%.

RSV positivity continued to increase from 7.2% in week 45 to 8.3% in week 46. The highest positivity for RSV by age group was seen in the <5 year olds at 29.5% in week 46 compared to 22.9% in the previous week. Rhinovirus and parainfluenza positivity remained similar to the previous week at 15.0% and 4.9% respectively in week 46. Adenovirus and human metapneumovirus (hMPV) positivity were low at 1.9% and 1.3% respectively in week 46 2019 (Figure 13).



\*The Moving Epidemic Method has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for GP ILI consultations for the start of influenza activity in a standardised approach across Europe. The threshold to indicate a likelihood of influenza community circulation for Datamart % positive as calculated through the Moving Epidemic Method is 9.7% in 2019/20.

- Virus characterisation

PHE characterises the properties of influenza viruses through one or more tests, including [genome sequencing](#) (genetic analysis) and [haemagglutination inhibition \(HI\)](#) assays (antigenic analysis). These data are used to compare how similar the currently circulating influenza viruses are to the strains included in seasonal influenza vaccines, and to monitor for changes in circulating influenza viruses. The interpretation of genetic and antigenic data sources is complex due to a number of factors, for example, not all viruses can be cultivated in sufficient quantity for antigenic characterisation, so that viruses with sequence information may not be able to be antigenically characterised as well. Occasionally, this can lead to a biased view of the properties of circulating viruses, as the viruses which can be recovered and analysed antigenically, may not be fully representative of majority variants, and genetic characterisation data does not always predict the antigenic characterisation

The PHE Respiratory Virus Unit has characterised 34 influenza A(H3N2) viruses detected since week 40. Genetic characterisation of these A(H3N2) influenza viruses shows that 24 belong to the genetic clade 3C.3a, and 10 fall into a cluster within the 3C.2a1 subclade, designated 3C.2a1b. The Northern Hemisphere 2019/20 influenza A(H3N2) vaccine strain belongs in genetic subclade 3C.3a. Two A(H1N1)pdm09 viruses have been antigenically characterised and are similar to the A/Brisbane/02/2018-like N. Hemisphere 2019/20 A(H1N1)pdm09 vaccine strain.

One influenza B virus has been characterised to date, where sequencing of the haemagglutinin (HA) gene shows this virus belongs in genetic clade 1A of the B/Victoria lineage, clustering in a subgroup within this clade characterised by deletion of three amino acids in the HA. The N. Hemisphere 2019/20 B/Victoria-lineage quadrivalent and trivalent vaccine component virus (a B/Colorado/06/2017-like virus) belongs in genetic clade 1A, clustering in a subgroup with two deletions in the HA.

At this early stage of the influenza season, it is too early to predict which lineages will dominate throughout the season, and a close watch will be kept on the proportion of different viruses circulating to assist with the evaluation of vaccine effectiveness.

- Antiviral susceptibility

Influenza positive samples are screened for mutations in the virus neuraminidase gene known to confer oseltamivir and/or zanamivir resistance. Additionally, testing of influenza A(H1N1)pdm09, A(H3N2), and influenza B virus isolates for neuraminidase inhibitor susceptibility (oseltamivir and zanamivir) is performed at PHE-RVU using a functional assay. The data summarized below combine the results of both testing methods. The samples tested are routinely obtained for surveillance purposes, but diagnostic testing of patients suspected to be infected with neuraminidase inhibitor-resistant virus is also performed.

Since week 40 2019, five influenza A (H1N1) viruses and 19 influenza A (H3N2) viruses were tested for both antiviral agents, oseltamivir and zanamivir, and all viruses are sensitive.

- Antimicrobial susceptibility

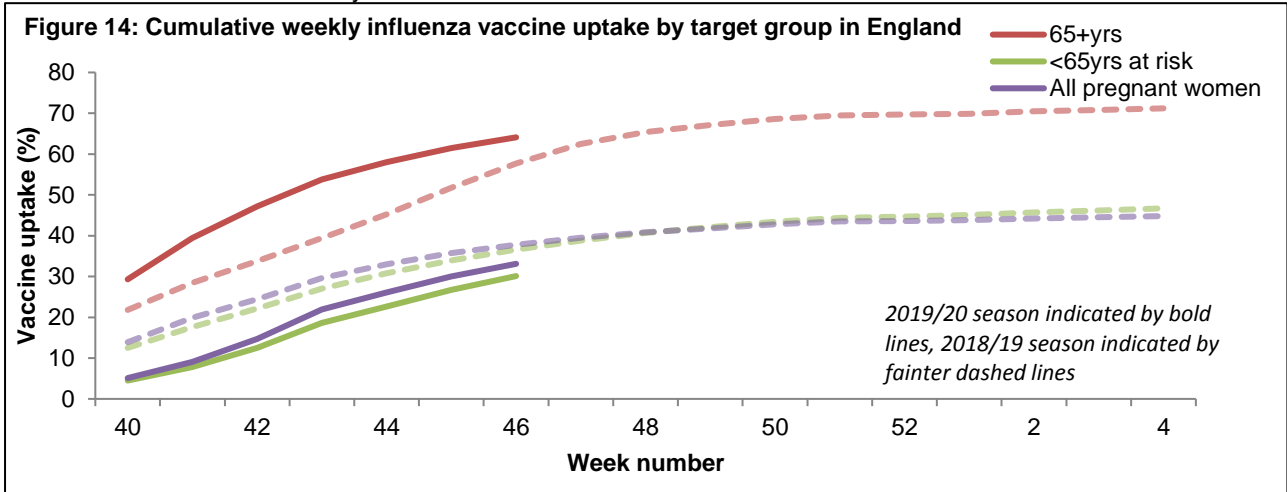
-Table 4 shows in the 12 weeks up to 17 November 2019, the proportion of all lower respiratory tract isolates of *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Staphylococcus aureus*, MRSA and MSSA tested and susceptible to antibiotics. These organisms are the key causes of community-acquired pneumonia (CAP) and the choice of antibiotics reflects the British Thoracic Society empirical guidelines for management of CAP in adults.

**Table 4: Antimicrobial susceptibility surveillance in lower respiratory tract isolates, 12 weeks up to 17 November 2019, E&W**

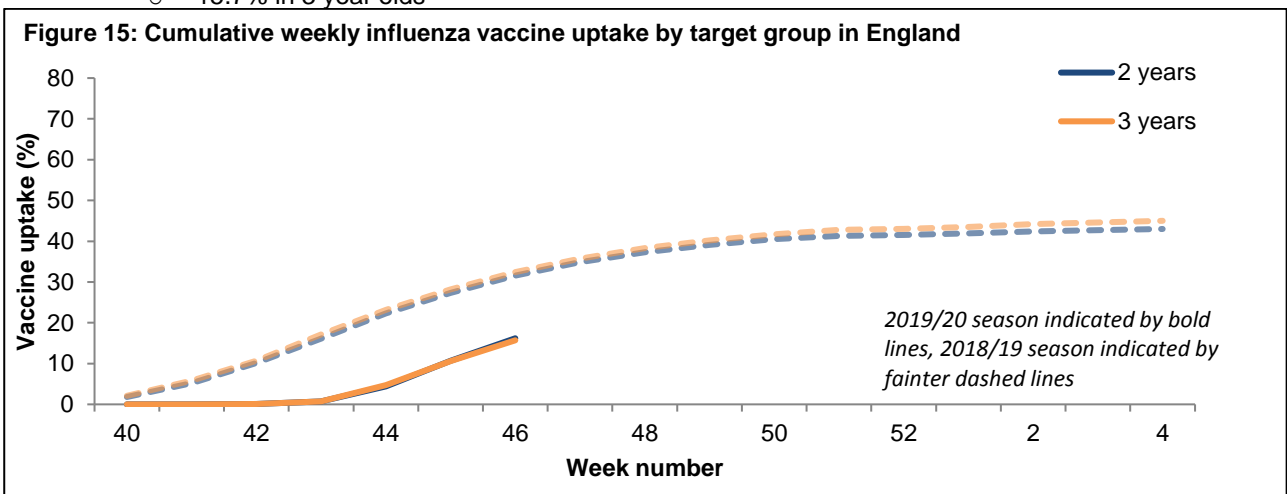
Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)
<i>S. pneumoniae</i>	Penicillin	3130	86
	Macrolides	3425	80
	Tetracycline	3373	81
<i>H. influenzae</i>	Amoxicillin/ampicillin	12283	68
	Co-amoxiclav	13690	82
	Macrolides	2379	9
	Tetracycline	13698	98
<i>S. aureus</i>	Methicillin	6777	92
	Macrolides	7621	65
MRSA	Clindamycin	366	43
	Tetracycline	480	78
MSSA	Clindamycin	4442	73
	Tetracycline	5914	92

\*Macrolides = erythromycin, azithromycin and clarithromycin

- Up to week 46 2019 in 89.4% of GP practices reporting weekly to Immform for the main collection, the provisional proportion of people in England who had received the 2019/20 influenza vaccine in targeted groups was as follows (Figure 14):
  - 30.1% in under 65 years in a clinical risk group
  - 33.1% in pregnant women
  - 64.1% in 65+ year olds



- In 2019/20, all 2 and 3 year olds continue to be eligible for influenza vaccination through their GPs. Up to week 46 2019, in 88.9% of GP practices reporting weekly to Immform for the childhood collection, the provisional proportion of children in England who had received the 2019/20 influenza vaccine in targeted groups was as follows (Figure 15):
  - 16.2% in 2 year olds
  - 15.7% in 3 year olds



- Provisional data from the first monthly collection of the influenza vaccine uptake by frontline healthcare workers show 43.6% were vaccinated by 31 October 2019 from 96.6% of all organisations, compared to 46.3% vaccinated in the previous season by 31 October 2018. The report provides uptake at national, NHS England local team and Trust-level.



- Provisional data from the first monthly collection of influenza vaccine uptake for children of school years Reception, 1, 2, 3, 4, 5 and 6 age (from a sample of 100% of all Local Authorities in England) show the provisional proportion of children in England who received the 2019/20 influenza vaccine via school, pharmacy or GP practice by 31 October 2019 in targeted groups in Table 5.

Table 5: Provisional cumulative influenza vaccine uptake (%) in children in school years Reception to Year 6, up to 31 October 2019 & 2018, England

School Year	% Vaccine uptake (up to 31 October)	
	2019/20	2018/19
Reception (4-5 years)	17.9	20.5
Year 1 (5-6 years)	17.6	20.7
Year 2 (6-7 years)	17.3	19.9
Year 3 (7-8 years)	16.6	19.7
Year 4 (8-9 years)	16.4	18.9
Year 5 (9-10 years)	15.8	18.2
Year 6 (10-11 years)	15.2	-

- : Year 6 were not part of the programme in 2018/19

## International Situation

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**In the temperate zone of the northern hemisphere, influenza activity remained at inter-seasonal levels in most countries; however continued to increase across the countries of the Arabian Peninsula. In the temperate zones of the southern hemisphere, influenza activity was low in most countries, with influenza B virus detections continuing to be reported by Chile. Worldwide, seasonal influenza A viruses accounted for the majority of detections.**

- [Europe](#) updated on 15 November 2019 (Joint ECDC-WHO Europe Influenza weekly update)

Overall in week 45, influenza activity was low throughout the European Region and both influenza A and B viruses detected.

For week 45 2019, of 45 Member States and areas reporting on intensity, 40 reported baseline and 5 reported low intensity (across the Region). Of the same Member States reporting on geographic spread, 27 reported no activity, 17 reported sporadic cases and one reported local spread.

For week 45 2019, 31 (4.0%) of 784 sentinel specimens tested positive for an influenza virus; 26 were influenza type A (8 A(H1N1)pdm09, 16 A(H3N2) and 2 influenza A(unknown subtype)), and 1 was influenza type B.

For the season overall, more influenza type A (n=98, 61.6%) than type B (n=61, 38.4%) viruses have been detected. Of 95 subtyped A viruses, 36 (37.9%) were A(H1N1)pdm09 and 59 (62.1%) were A(H3N2). Of 13 influenza type B viruses ascribed to a lineage, 12 were B/Victoria.

Since week 40/2019, 52 laboratory-confirmed influenza cases from ICUs have been reported. 47 were infected with influenza type A and 5 with influenza type B. Of 8 subtyped influenza A viruses, 5 were A(H1N1)pdm09 and 3 A(H3N2). None of the influenza B viruses were ascribed to a lineage.

Since week 40/2019, 25 laboratory-confirmed influenza cases from other wards have been reported; of these 22 were infected by influenza type A viruses, with 11 subtyped as A(H3N2), and 3 by influenza type B viruses.

For week 45 2019, pooled estimates from the EuroMOMO project of all-cause mortality from 23 countries or areas show mortality levels are within normal expected ranges.

- [United States of America](#) updated on 15 November 2019 (Centre for Disease Control report)

During week 45, influenza activity is increasing in the United States with B/Victoria viruses circulating the most nationally, however influenza A(H3N2) and A(H1N1)pdm09 viruses are also circulating widely.

Nationwide during week 45, 2.3% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI), which is below the national baseline of 2.4%.

Based on National Center for Health Statistics (NCHS) mortality surveillance data available on November 14, 2019, 4.9% of the deaths occurring during the week ending October 19, 2019 (week 44) were due to P&I. This percentage is below the epidemic threshold of 6.0% for week 44.

- [Canada](#) updated on 15 November 2019 (Public Health Agency report)

At national level, influenza activity remains at interseasonal levels across the country in week 45, with influenza A(H3N2) being the most common influenza virus circulating in Canada.

In weeks 45, a total of 147 laboratory detections of influenza were reported, of which 76% (111) were influenza A, with 30/42 subtyped influenza A detections being influenza A(H3N2). The percentage of tests positive for influenza increased but remains at interseasonal levels, at 3.1% in week 45.

In week 45, 1.0% of visits to healthcare professionals were due to ILI, respectively.

To date this season, 60 influenza-associated hospitalisations have been reported with the majority of cases being aged greater than 65 years and associated with influenza A(H3N2).

- [Global influenza update](#) updated on 11 November 2019 (based on data up to 27 October 2019) (WHO website)

In the temperate zone of the northern hemisphere, influenza activity remained at inter-seasonal levels in most countries; however continued to increase across the countries of the Arabian Peninsula. In the temperate zones of the southern hemisphere, influenza activity was low in most countries, with influenza B virus detections continuing to be reported by Chile.

Worldwide, seasonal influenza A viruses accounted for the majority of detections.

Respiratory illness indicators started to increase in some countries of the WHO European region, Eastern Asia and in North America, but influenza detections remain below seasonal thresholds.

In Western Asia, influenza activity was reported across the countries of the Arabian Peninsula. In Bahrain, Kuwait and Saudi Arabia, influenza activity continued to increase with detections of predominately influenza A(H1N1)pdm09 and B viruses. Influenza activity remained elevated in Oman and Qatar, with co-circulation of all seasonal influenza subtypes in the former and influenza A(H3N2) viruses in the latter.

In the Caribbean countries and tropical countries of South America, influenza activity remained low overall. Increased detections of influenza B and A(H3N2) viruses were reported in Cuba and Jamaica.

In Central American countries, influenza activity continued to increase in El Salvador and Nicaragua, with influenza A(H1N1)pdm09 and A(H3N2) predominately detected, respectively.

In Western Africa, influenza activity remained elevated. Increased influenza virus detections were reported in Côte d'Ivoire and Ghana, with influenza A(H3N2) and B/Victoria lineage predominating.

In Middle Africa, influenza detections of predominantly influenza B/Victoria lineage and influenza A(H1N1)pdm09 continued to be reported in Cameroon.

In Eastern Africa, influenza detections were low across reporting countries. In the French island La Réunion ILI consultations remained elevated with influenza A(H1N1)pdm09 virus most frequently detected.

In Southern Asia, influenza detections were low across reporting countries except for Iran (Islamic Republic of) where influenza season appeared to have started with increased detections of predominantly influenza A(H1N1)pdm09. South East Asia, influenza activity was reported in some countries. Influenza activity continued to be reported in Lao PDR, with detections of predominately influenza B/Victoria lineage and influenza A(H3N2) viruses. Increased influenza virus detections were reported in Malaysia in recent weeks, with influenza A(H1N1)pdm09 and B most frequently detected

The WHO GISRS laboratories tested more than 77,099 specimens between 14 October 2019 and 27 October 2019. 4,227 were positive for influenza viruses, of which 2,939 (69.5%) were typed as influenza A and 1,288 (39.05%) as influenza B. Of the sub-typed influenza A viruses, 924 (42.7%) were influenza A (H1N1)pdm09 and 1,239 (57.3%) were influenza A (H3N2). Of the characterized B viruses, 27 (4.8%) belonged to the B-Yamagata lineage and 534 (95.2%) to the B-Victoria lineage.

- [Avian Influenza](#) latest update on 27 September 2019 (WHO website)

#### **Influenza A(H5) viruses**

Between [25 June 2019 to 27 September 2019](#), one new laboratory-confirmed human case of influenza A(H5N6) virus infection was reported to WHO.

A total of 24 laboratory-confirmed cases of human infection with influenza A(H5N6) virus have been reported to WHO from China since 2014.

According to reports received by the World Organization for Animal Health (OIE), various influenza A(H5) subtypes continue to be detected in birds in Africa, Europe and Asia.

### Influenza A(H7N9)

Between [25 June 2019 and 27 September 2019](#), no new laboratory-confirmed human case of influenza A(H7N9) virus infection were reported to WHO from China. Publicly available reports from animal health authorities in China of influenza A(H7N9) virus detections in animals in recent months indicate virus detections in two provinces from samples taken in the first half of the year. Overall, the risk assessment has not changed.

For more information on A(H5), A(H7N9), A(H9N2) and A(H1)v viruses, please see the September 2019 report: [Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines.](#)

- [Middle East respiratory syndrome coronavirus \(MERS-CoV\)](#) latest update on 20 November 2019

Up to 20 November 2019, a total of five cases of Middle East respiratory syndrome coronavirus, MERS-CoV, (three imported and two linked cases) have been confirmed in the UK. On-going surveillance has identified 1,712 suspected cases in the UK since September 2012 that have been investigated for MERS-CoV and tested negative.

On [7 October 2019](#), the National IHR Focal Point of the United Arab Emirates (UAE) notified WHO of one laboratory-confirmed case of Middle East respiratory syndrome coronavirus (MERS-CoV) infection.

Between [1 and 30 September 2019](#), the National IHR Focal Point of Saudi Arabia reported 4 additional laboratory-confirmed cases of MERS-CoV infection with one associated death.

Globally, since September 2012 and up to 08 October 2019, [WHO](#) has been notified of 2,470 laboratory-confirmed cases of infection with MERS-CoV, including 851 related deaths. Further information on management and guidance of possible cases is available [online](#). The latest ECDC MERS-CoV risk assessment can be found [here](#), where it is highlighted that risk of widespread transmission of MERS-CoV remains very low.

## Acknowledgements

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## Related links

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### Sources of flu data

- [Clinical surveillance through primary care in the UK](#)
- [Outbreak reporting](#)
- [FluSurvey](#)
- [MOSA](#)
- [Real time syndromic surveillance](#)
- MEM threshold [methodology paper](#) and [UK pilot paper](#)

### Vaccination

- Seasonal influenza vaccine programme ([Department of Health Book](#))
- Childhood flu programme information for healthcare practitioners ([Public Health England](#))
- 2019/20 Northern Hemisphere seasonal influenza vaccine recommendations ([WHO](#))

### Disease severity and mortality data

- [USISS](#) system
- [EuroMOMO](#) mortality project