

PHE Weekly National Influenza Report

Summary of UK surveillance of influenza and other seasonal respiratory illnesses

4 December 2014 – Week 49 report (up to week 48 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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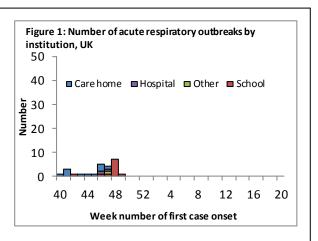
Summary

Although overall influenza activity is at low levels in week 48 2014 (ending 30 November), there are signs of increasing activity with influenza-confirmed outbreaks reported in the community and the number of influenza-confirmed hospitalisations increasing. RSV continues to circulate, predominantly in under five year olds.

- Community influenza surveillance
 - In week 48 there were further increases in syndromic surveillance respiratory indicators. Of particular note is the
 increase in GP consultations for asthma and ED attendances for asthma/wheeze/difficulty breathing, both in the 514 years age group.
 - Nine new acute respiratory outbreaks have been reported in the past seven days, seven in schools (one flu A(H3), one RSV and five not tested), one in a care home (flu B) and one in a nursery (not tested).
- Overall weekly influenza GP consultation rates across the UK
 - o In week 48, overall weekly influenza-like illness GP consultations remained low in Wales (3.7 per 100,000), Scotland (7.4 per 100,000) and Northern Ireland (14.3 per 100,000)).
 - Weekly GP In Hours influenza-like illness consultation rates are low in week 48.
 - There is no RCGP weekly data available because of continuing data quality issues. Work is being done to resolve these problems and it is hoped a normal service will resume in the coming weeks.
- Influenza-confirmed hospitalisations
 - Eleven new admissions to ICU/HDU with confirmed influenza (two A(H3N2), five A unknown subtype and four B) were reported through the USISS mandatory ICU/HDU surveillance scheme across the UK (135 Trusts in England) in week 48.
 - o 19 new hospitalised confirmed influenza cases (one A(H1N1pdm09), 12 A(H3N2), five A unknown subtype and one B) were reported through the USISS sentinel hospital network across England (22 Trusts).
- All-cause mortality data
 - o In week 48 2014, no excess all-cause mortality by week of death was seen across the UK through the EuroMOMO algorithm.
- Microbiological surveillance
 - Two samples were positive for influenza through the UK GP sentinel swabbing schemes in week 48 (two B), positivity of 2.2% compared to 3.9% the previous week (updated)).
 - In week 48 2014, 42 influenza positive detections were recorded through the DataMart scheme (34 A(H3), six A(not subtyped) and two B, a similar positivity of 4.0% compared to 4.7% the previous week). RSV positivity was elevated at 32.0% in week 48 in children <5 years of age, though this has decreased compared to the previous week (37.1%).</p>
- Vaccination
 - Up to week 48 2014 in 91% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2014/15 influenza vaccine in targeted groups was as follows: 68.4% in 65+ year olds, 44.2% in under 65 years in a clinical risk group, 38.3% in pregnant women, 30.9% in all 2 year olds, 33.1% in all 3 year olds and 26.0% in all 4 year olds.
 - Provisional data from the first monthly collection of influenza vaccine uptake by frontline healthcare workers show 36.8% were vaccinated by 31 October 2014 from 96.6% of Trusts, compared to 35.0% vaccinated the previous season by 31 October 2013.
 - Provisional data from the first monthly collection of influenza vaccine uptake up to 31 October 2014 by targeted groups has been published. The report provides uptake at national, area team and CCG level.
- International situation
 - OGlobally, influenza activity remained low, with the exception of some Pacific Islands, although activity in North America continued to increase.
 - o In the European Region, although sporadic influenza virus detections are being reported in an increasing number of countries, there is no indication that the influenza season has started.

In week 48 influenza syndromic indicators remained low and nine new acute respiratory outbreaks were reported in the last seven days.

- PHE Real-time Syndromic Surveillance
- -In week 48 syndromic surveillance indicators for influenza remained low. There were further increases in respiratory indicators. Of particular note is the increase in GP consultations for asthma and ED attendances for asthma/wheeze/difficulty breathing, both in the 5-14 years age group.
- -For further information, please see the syndromic surveillance webpage.
 - Acute respiratory disease outbreaks
- -Nine new acute respiratory outbreaks have been reported in the past seven days, seven in schools (one flu A(H3), one RSV and five not tested), one in a care home (flu B) and one in a nursery (not tested). So far in the 2014/15 flu season, 26 outbreaks (11 in care homes, 12 in schools, two in hospitals and one in a nursery) have been reported in the UK (six flu A(H3), one flu A (untyped), three rhinovirus, one parainfluenza, one adenovirus/parainfluenza, one enterovirus and 11 not tested).
- -Outbreaks should be recorded on HPZone and reported to the local Health Protection Teams and Respscidsc@phe.gov.uk.

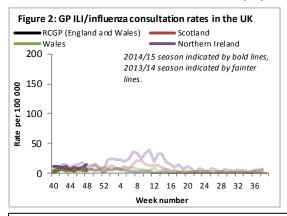


Weekly consultation rates in national sentinel schemes

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In week 48 overall weekly influenza-like illness GP consultations remained low in England, Wales, Scotland and Northern Ireland.

Influenza/Influenza-Like-Illness (ILI)



Wales

- -The Welsh influenza rate was low at 3.7 per 100,000 in week 48 (Figure 2).
- -ILI activity was seen in 5-14 year olds (9.7 per 100,000), 15-44 year olds (4.3 per 100,000) and 45-64 year olds (3.9 per 100,000).

Northern Ireland

- -The Northern Ireland influenza rate increased from 9.6 to 14.3 per 100,000 in week 48 but remains low (Figure 2).
- -The highest rates were seen in under one year olds (99.0 per 100,000), 45-64 year olds (23.0 per 100,000) and 1-4 year olds (19.0 per 100,000).

Scotland

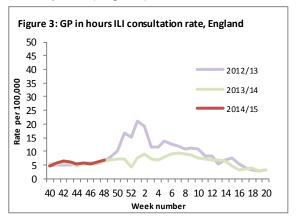
- -The Scottish ILI rate was low at 7.4 per 100,000 in week 48 (Figure 2).
- -The highest rates were seen in 15-44 year olds (8.8 per 100,000), 45-64 year olds (8.3 per 100,000) and 65-74 year olds (7.4 per 100,000).

RCGP (England and Wales)

-There is no RCGP weekly data available this week because of continuing data quality issues. Work is being done to resolve these problems and it is hoped a normal service will resume in the coming weeks.

GP In Hours Syndromic Surveillance System (England)

- -The weekly ILI consultation rate per 100,000 population through the GP In Hours Syndromic Surveillance system remained low in week 48 and similar to levels in previous years for the time of year (Figure 3).
- -For further information, please see the syndromic surveillance webpage.



Influenza confirmed hospitalisations

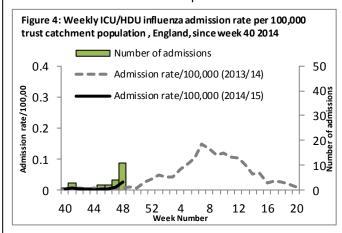
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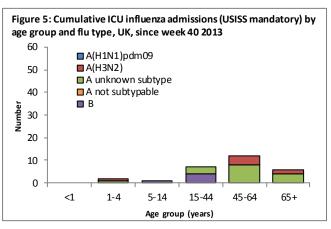
In week 48, 11 new admissions of confirmed influenza cases (two influenza A(H3N2), five A unknown subtype and four B) to ICU/HDU were reported through the national USISS mandatory ICU scheme across the UK (135 Trusts in England). 19 new hospitalised confirmed influenza cases (one influenza A(H1N1pdm09), 12 influenza A(H3N2), five A unknown subtype and one B) have been reported through the USISS sentinel hospital network across England (22 Trusts).

A national mandatory collection (USISS mandatory ICU scheme) is operating in cooperation with the Department of Health to report the number of confirmed influenza cases admitted to Intensive Care Units (ICU) and High Dependency Units (HDU) and number of confirmed influenza deaths in ICU/HDU across the UK. A confirmed case is defined as an individual with a laboratory confirmed influenza infection admitted to ICU/HDU. In addition a sentinel network (USISS sentinel hospital network) of acute NHS trusts has been established in England to report weekly laboratory confirmed hospital admissions. Further information on these systems is available through the website. Please note data in previously reported weeks are updated and so may vary by week of reporting.

Number of new admissions and fatal confirmed influenza cases in ICU/HDU (USISS mandatory ICU scheme), UK (week 48)

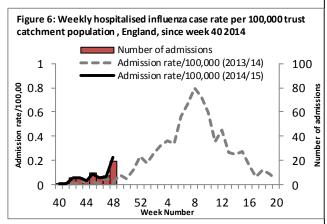
-In week 48, 11 new admissions to ICU/HDU with confirmed influenza infection (two A(H3N2), five A unknown subtype and four B) were reported across the UK (135/156 Trusts in England) through the USISS mandatory ICU scheme (Figures 4 and 5) compared to four in week 47. No new confirmed influenza deaths were reported in week 48 2014. A total of 28 admissions (16 A unknown subtype, seven A(H3) and five B) and two confirmed influenza deaths have been reported since week 40 2014.





 USISS sentinel weekly hospitalised confirmed influenza cases, England (week 48)

-In week 48, 19 new hospitalised confirmed influenza cases (one influenza A(H1N1pdm09), 12 influenza A(H3N2), five A unknown subtype and one B) were reported through the USISS sentinel hospital network from 22 NHS Trusts across England (Figure 6). A total of 60 hospitalised confirmed influenza admissions (31 A(H3N2), 14 A unknown subtype, 13 B and two A(H1N1pdm09)) have been reported since week 40



All-cause mortality data

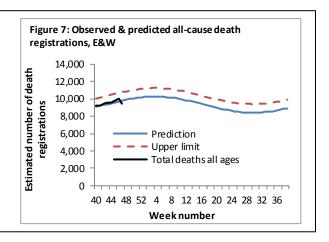
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In week 48 2014, no excess all-cause mortality by week of death was seen in England through the EuroMOMO algorithm.

Seasonal mortality is seen each year in the UK, with a higher number of deaths in winter months compared to the summer. Additionally, peaks of mortality above this expected higher level typically occur in winter, most commonly the result of factors such as cold snaps and increased circulation of respiratory viruses, in particular influenza. Weekly mortality surveillance presented here aims to detect and report acute significant weekly excess mortality above normal seasonal levels in a timely fashion. Excess mortality is defined as a significant number of deaths reported over that expected for a given point in the year, allowing for weekly variation in the number of deaths. The aim is not to assess general mortality trends or precisely estimate the excess attributable to different factors, although some end-of-winter estimates and more in-depth analyses (by age, geography etc.) are undertaken.

Excess overall all-cause mortality, England and Wales

-In week 47 2014, an estimated 9,472 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is less than the 10,036 estimated death registrations in week 46 and remains below the 95% upper limit of expected death registrations for this time of year as calculated by PHE (Figure 7).



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

-In week 48 2014, no excess mortality by date of death above the upper 2 z-score threshold was seen in 65+ year olds in England after correcting ONS disaggregate data for reporting delay with the standardised EuroMOMO algorithm (Figure 8, Table 1), in other age groups or by PHE region. This data is provisional due to the time delay in registration; numbers may vary from week to week.

-No excess mortality above the threshold through the same standardised algorithm was seen across Wales, Scotland or Northern Ireland in week 48 (Table 2).

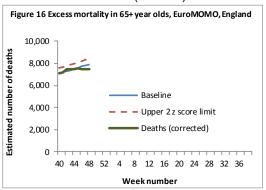


Table 1: Excess mortality by age group, England*

Age group	Excess detected	Weeks with excess in	
(years)	in week 48 2014?	2014/15	
<5	×	NA	
5-14	×	NA	
15-64	×	NA	
65+	×	NA	

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

Table 2: Excess mortality by UK country*

Country	Excess detected in week 48 2014?	Weeks with excess in 2014/15
England	×	NA
Wales	*	NA
Scotland	*	NA
Northern Ireland	*	NA
* Excess mortality is	s calculated as the ob	served minus the

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

Microbiological surveillance

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In week 48 2014, two samples were positive for influenza through the UK GP sentinel schemes (two B, positivity of 2.2%). 42 influenza positive detections were recorded through the DataMart scheme (34 A(H3), six A(not subtyped) and two B).

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

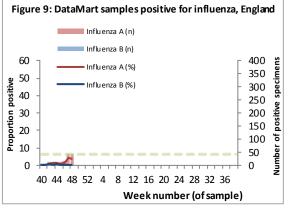
-In week 48, no samples were positive for influenza in England. Two samples were positive in Scotland (two B) and no samples in Northern Ireland or Wales were positive for influenza (Table 3).

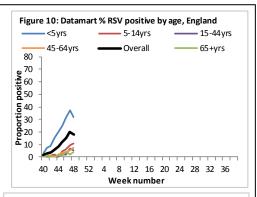
Table 3: Sentinel influenza surveillance in the UK					
Week	England	Scotland	Northern Ireland	Wales	
45	0/63 (0.0%)	0/60 (0.0%)	0/1 (-)	0/0 (-)	
46	3/46 (6.5%)	3/58 (5.2%)	0/1 (-)	0/0 (-)	
47	4/63 (6.3%)	1/61 (1.6%)	0/3 (-)	0/0 (-)	
48	0/55 (0.0%)	2/37 (5.4%)	0/1 (-)	0/0 (-)	
NB. Proportion positive omitted when fewer than 10 specimens tested					

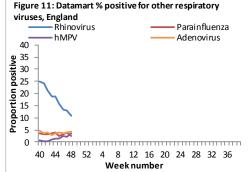
Respiratory DataMart System (England)

In week 48 2014, out of the 1,038 respiratory specimens reported through the Respiratory DataMart System, 42 samples (4.0%) were positive for influenza (34 A(H3), six A(not subtyped) and 2 B, (Figure 9*)). The overall positivity for RSV was 18.1% in week 48, with the highest positivity reported in the <5 years (with a decrease from 37.1% to 32.0% in week 48, Figure 10). Positivity for rhinovirus decreased to 11.0% in week 48, while other respiratory viruses remained at low levels: adenovirus 4.3%, parainfluenza 2.6% and a slight increase in hMPV positivity to 3.5%,









^{*}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 circulation for Datamart % positive as calculated through the Moving Epidemic Method is 6%.

NB. Separate total and age-specific models are run for England which may lead to discrepancies between Tables 1 + 2

Virus characterisation

Since week 40 2014, the PHE Respiratory Virus Unit (RVU) has isolated and antigenically characterised thirteen influenza A(H3N2) viruses, all of which were similar to the A/Texas/50/2012 H3N2 Northern Hemisphere 2014/15 vaccine strain. One influenza B virus was also isolated and antigencially characterised as similar to the B/Massachusetts/02/2012 B Yamagata Northern Hemisphere 2014/15 vaccine strain

• Antiviral susceptibility
Since week 40 2014, seven influenza
viruses (3 A(H3N2), 3 A(H1N1)pdm09
and 1B) have been tested for
oseltamivir susceptibility in the UK and
all are sensitive. The three flu A(H3N2)
and the flu B virus were also tested
against zanamivir and are all sensitive.

Antimicrobial susceptibility

-Table 4 shows in the 12 weeks up to 23 November 2014, the proportion of all lower respiratory tract isolates of *Streptococcus pneumoniae*, *Haemophilus influenza*, *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.

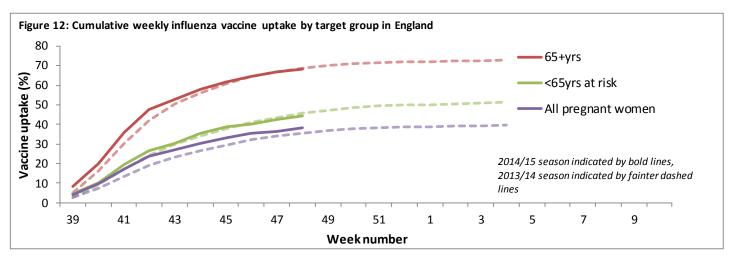
Table 4: Antimicrobial susceptibility surveillance in lower respiratory tract isolates, 12 weeks up to 23 Nov 2014, E&W

Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)	
S. pneumoniae	Penicillin	2,173	i	90
	Macrolides	2,267	•	79
	Tetracycline	2,154	<u>;</u>	82
H. influenzae	Amoxicillin/ampicillin	8,613		73
	Co-amoxiclav	8,129)	92
	Macrolides	3,232	!	19
	Tetracycline	8,796	i	98
S. aureus	Methicillin	3,477	,	90
	Macrolides	3,328	J.	70
MRSA	Clindamycin	238		38
	Tetracycline	305	;	83
MSSA	Clindamycin	1,573		80
	Tetracycline	2,580)	92

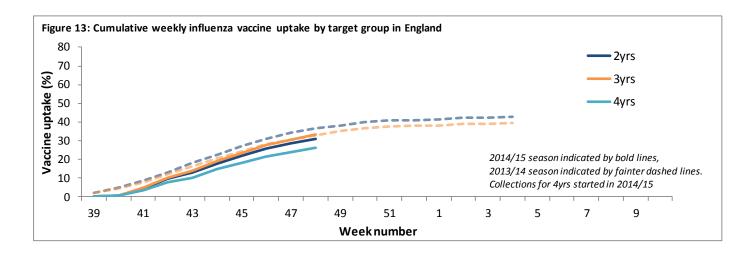
*Macrolides = erythromycin, azithromycin and clarithromycin

Vaccination | Back to top

- Up to week 48 2014 in 91% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2014/15 influenza vaccine in targeted groups was as follows (Figure 12):
 - o 44.2% in under 65 years in a clinical risk group
 - o 38.3% in pregnant women
 - o 68.4% in 65+ year olds



- The childhood universal influenza vaccination programme has extended from 2-3 year olds in 2013/14 to 2-4 year olds in 2014/15. Up to week 48 2014 in 91% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2014/15 influenza vaccine in targeted groups was as follows (Figure 13):
 - o 30.9% in all 2 year olds
 - o 33.1% in all 3 year olds
 - o 26.0% in all 4 year olds



- Provisional data from the first monthly collection of influenza vaccine uptake by frontline healthcare
 workers show 36.8% were vaccinated by 31 October 2014 from 96.6% of Trusts, compared to 35.0%
 vaccinated the previous season by 31 October 2013. The <u>report</u> provides uptake at national,
 geographical area, area team (on behalf of primary care and independent sector healthcare
 providers) and individual Trust level.
- Provisional data from the first monthly collection of influenza vaccine uptake up to 31 October 2014 by targeted groups has been published. The <u>report</u> provides uptake at national, area team and CCG level.

International Situation | Back to top

Globally, influenza activity remained low, with the exception of some Pacific Islands, although activity in North America continued to increase. In the European Region, although sporadic influenza virus detections are being reported in an increasing number of countries, there is no indication that the influenza season has started.

• Europe 28 November 2014 (Joint ECDC-WHO Influenza weekly update)

Although sporadic influenza virus detections are being reported in an increasing number of countries, there is no indication that the influenza season has started in the Region, which is normal for this time of year.

In week 47/2014, influenza activity remained low across the WHO European Region. Sixteen countries reported sporadic influenza activity and six reported increasing trends in consultations for influenza-like illness (ILI) and acute respiratory infection (ARI). Of the 760 sentinel ILI and ARI specimens tested across 33 countries, only 20 (3%) from eight countries tested positive for influenza virus. Currently circulating viruses include A(H1N1)pdm09, A(H3N2) and influenza B viruses. The number of hospitalized laboratory-confirmed cases remained low and stable, with two countries reporting four such cases for week 47/2014. Three of the four were admitted to intensive care units. Thirty-nine of the 46 countries submitting data for week 47/2014 reported low intensity of influenza activity; one (Malta) reported medium intensity, and six did not report on the intensity. Sixteen countries reported sporadic influenza activity. Six countries (Albania, Azerbaijan, Belarus, Georgia, the United Kingdom (Northern Ireland), and the Russian Federation), mostly in the eastern part of the Region, reported increasing activity while the remainder reported stable or decreasing trends.

In week 47/2014, 760 sentinel specimens were tested across 33 countries, with 20 influenza virus detections (3%) reported by eight countries; eight were of type A and 12 of type B. Five of the influenza A viruses were subtyped; two were A(H1N1)pdm09 and three were A(H3N2). One of the twelve B viruses was shown to be of the B/Victoria lineage.

Over the first eight weeks of the weekly reporting period, influenza viruses have been detected in 95 (2%) of 4 400 sentinel system specimens. Fifty-eight (61%) were positive for type A influenza virus: 40 A(H3N2), seven A(H1N1)pdm09 and eleven unsubtyped (Fig. 1). Thirty-seven (39%) were positive for type B influenza virus; the lineage was determined for seven of these viruses; two were B/Victoria lineage and five B/Yamagata lineage.

No indications of increased mortality due to influenza have been reported through the European monitoring of excess mortality for public health action (EuroMOMO – http://www.euromomo.eu).

United States of America 21 November 2014 (Centre for Disease Control report)

During week 47 (November 16-22, 2014), influenza activity increased slightly in the United States. The proportion of outpatient visits for influenza-like illness (ILI) was 2.0%, which is at the national baseline. Four of 10 regions reported ILI at or above region-specific baseline levels. Puerto Rico and one state experienced high ILI activity; two states experienced moderate ILI activity; five states experienced low ILI activity; New York City and 42 states experienced minimal ILI activity; and the District of Columbia had insufficient data. The geographic spread of influenza in two states was reported as widespread; Puerto Rico and nine states reported regional activity; 20 states reported local activity; the District of Columbia, the U.S. Virgin Islands, and 17 states reported sporadic activity; two states reported no influenza activity; and Guam did not report.

During week 47, 5.3% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 6.4% for week 47.

Of 9,710 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 47, 1,228 (12.6%) were positive for influenza. (769 influenza A subtype not performed, 105 influenza B, 353 influenza A (H3) and one influenza A(H1N1)pdm09).

Four influenza-associated paediatric deaths were reported to CDC during week 47. Two deaths were associated with an influenza A(H3) virus and occurred during week 46 (week ending November 15, 2014). One death was associated with an influenza A virus for which no subtyping was performed and occurred during week 43 (week ending October 25, 2014). One death was associated with an influenza B virus and occurred during week 46.

• Canada 28 November 2014 (Public Health Agency report)

In week 47, overall influenza activity increased compared to the previous week with localized activity reported in six provinces, and a sharp increase in laboratory detections in western and central provinces. A(H3N2) continues to be the most common type of influenza affecting Canadians. In both laboratory detections and hospitalizations, the majority of cases have been among seniors ≥65 years of age. In week 47, 16 new outbreaks of influenza in long-term care facilities were reported.

The number of positive influenza tests increased sharply to 106 influenza detections (3.5% of tests) in week 45. To date, 85% of influenza detections have been influenza A, and the vast majority of those subtyped have been A (H3). Among of cases of influenza A with reported age, the largest proportion was in adults ≥65 years of age (44%). Cases of influenza B have been reported among younger age-groups, with 28% being children <5 years of age. In week 47, 11 regions reported localised activity and 15 regions reported sporadic activity.

The national influenza-like-illness (ILI) consultation rate decreased in week 47 to 26.8 consultations per 1,000 (Figure 5). To date this season, the rates have been highest among those <20 years of age.

In week 47, nine new laboratory-confirmed influenza-associated paediatric (≤16 years of age) hospitalizations were reported by the Immunization Monitoring Program Active (IMPACT) network: 8 cases of influenza A and one case of influenza B. To date this season, 38 hospitalizations have been reported by the IMPACT network, 34 (90%) of which were cases of influenza A, of these 71% were A(H3N2). The majority of cases (55%) were in children <5 years of age. To date, five cases were admitted to the ICU. Further data is available here.

Global influenza update 1 December 2014 (WHO website)

In North America, influenza activity continued to increase.

In Europe overall influenza activity increased slightly but remained low.

In tropical countries of the Americas, influenza detections remained low with respiratory syncytial virus (RSV) causing most influenza-like illness (ILI) and severe acute respiratory infections (SARI).

In Africa and western Asia, influenza activity was low.

In eastern Asia, influenza activity in most countries remained low.

In tropical Asia, influenza activity was low with influenza B predominant in Viet Nam.

In the southern hemisphere, influenza activity remained low except in several Pacific Islands where ILI activity remained high.

Enterovirus D68 (EV-D68) 3 December 2014

From mid-August to 20 November 2014, CDC or state public health laboratories have confirmed a total of 1,121 persons in 47 states and the District of Columbia with respiratory illness caused by EV-D68. Reports from most states over the last couple months have indicated reduced EV-D68-like illness activity. However, EV-D68 infections could continue through late fall. Over the last two weeks that CDC obtained reports, some states reported increasing respiratory illness activity. However, since other seasonal respiratory viruses, such as influenza and respiratory syncytial virus, are starting to circulate now, we are not sure if this increase is caused by these seasonal viruses or EV-D68.

ECDC have published an updated <u>rapid risk assessment</u>. Based on information currently available to ECDC, the risk of increased severe cases of EV-D68 in EU/EEA countries is assessed as moderate, in light of recent reports of such cases and because the circulation of this strain in the population seems to be geographically widespread in the EU.

The UK has an enhanced enterovirus surveillance system established as part of poliovirus elimination. Samples from individuals who present with neurological symptoms (such as acute flaccid paralysis or meningitis) and in whom enterovirus is detected should be sent for sub-typing at the reference laboratory. From 2012 to 1 September 2014, a total of 12 EV-D68 cases had been diagnosed, mainly in children. Following the reports from North America, guidance was developed highlighting that EV-D68 should be considered as a possible cause of disease in children with severe acute respiratory infections and/or with unexplained neurological symptoms, when all other respiratory virus screens are negative and if a rhinovirus/enterovirus positive PCR is initially detected. Although no unexplained clusters of severe respiratory or neurological disease have been reported, since September 2014, a total of 15 sporadic cases have been detected in children and adults. From the information available to date, the majority seem to have presented with respiratory symptoms with one child presenting with symptoms of viral meningitis.

• Avian Influenza 15 November 2014 (WHO website)

Influenza A(H7N9)

The most recent human infections with influenza A(H7N9) were reported by WHO on 15 November 2014 (three cases). So far, the overall risk associated with the H7N9 virus has not changed. WHO does not advise special screening at points of entry with regard to this event, nor does it currently recommend any travel or trade restrictions. For further updates please see the WHO website and for advice on clinical management please see information available online.

Influenza A (H5N1)

From 2003 through 2 October 2014, 668 human cases of H5N1 avian influenza have been officially reported to WHO from 16 countries, of which 393 (59%) died.

Novel coronavirus 21 November 2014

Up to 5 November 2014, a total of four cases of Middle East respiratory syndrome coronavirus, MERS-CoV, (two imported and two linked cases) have been confirmed in England. On-going surveillance has identified 224 suspect cases in the UK that have been investigated for MERS-CoV and tested negative.

A further 914 confirmed cases have been reported internationally, resulting in a current global total of <u>914 cases</u>, with the most recent cases reported from Kingdom of Saudi Arabia. Further information on management and guidance of possible cases is available online.

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This report was prepared by the Influenza section, Respiratory Diseases Department, Centre for Infectious Disease Surveillance and Control, Public Health England. We are grateful to all who provided data for this report including the RCGP Research and Surveillance Centre, the PHE Real-time Syndromic Surveillance team, the PHE Respiratory Virus Unit, the PHE Modelling and Statistics unit, the PHE Dept. of Healthcare Associated Infection & Antimicrobial Resistance, PHE regional microbiology laboratories, NHS Direct, Office for National Statistics, the Department of Health, Health Protection Scotland, National Public Health Service (Wales), the Public Health Agency Northern Ireland, the Northern Ireland Statistics and Research Agency, QSurveillance® and EMIS and EMIS practices contributing to the QSurveillance® database.

Related links

Weekly consultation rates in national sentinel schemes

- Sentinel schemes operating across the UK
- RCGP scheme

- Northern Ireland surveillance (Public Health Agency)
- Scotland surveillance (Health Protection Scotland)
- Wales surveillance (Public Health Wales)
- Real time syndromic surveillance
- MEM threshold methodology paper and UK pilot paper

Community surveillance

- Outbreak reporting
- FluSurvey
- MOSA

Disease severity and mortality data

- USISS system
- <u>EuroMOMO</u> mortality project

Vaccination

- Seasonal influenza vaccine programme (<u>Department of Health Book</u>)
- Childhood flu programme information for healthcare practitioners (Public Health England)
- 2014/15 Northern Hemisphere seasonal influenza vaccine recommendations (<u>WHO</u>)