



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.

Report contents:

| [Summary](#) | [Community surveillance](#) | [GP consultation rates](#) | [Hospitalisations](#) | [All-cause mortality](#) | [Microbiological surveillance](#) | [Vaccination](#) | [International](#) | [Acknowledgements](#) | [Related links](#) |

Summary

In week 50 2014 (ending 14 December), across indicators influenza activity increased nationally and is now at low intensity levels. The Department of Health have now issued an [alert](#) on the prescription of antiviral medicines by GPs.

- [Community influenza surveillance](#)
 - In week 50 syndromic surveillance indicators for influenza-like illness continued to increase across all systems.
 - 45 new acute respiratory outbreaks have been reported in the past seven days, 25 in schools (two flu A(H3), one A(not subtyped) and 22 not tested), 15 in care homes (1 flu A(H3), 5 flu A(untyped), 1 RSV and 8 not tested) and five in hospitals (3 flu A(untyped), 1 rhinovirus and 1 not tested).
 - The FluSurvey project, internet-based surveillance of influenza in the general population, is now running. For information on how to participate, please see the [website](#).
- [Overall weekly influenza GP consultation rates across the UK](#)
 - In week 50, overall weekly influenza-like illness (ILI) GP consultations increased in Wales (9.6 per 100,000) and remained low in Scotland (10.6 per 100,000) and Northern Ireland (15.5 per 100,000)).
 - The weekly ILI consultation rate per 100,000 population through the GP In Hours Syndromic Surveillance system continued to increase in week 50.
- [Influenza-confirmed hospitalisations](#)
 - 36 new admissions to ICU/HDU with confirmed influenza (30 A unknown subtype and six A(H3N2)) were reported through the USSS mandatory ICU/HDU surveillance scheme across the UK (136 Trusts in England) in week 50.
 - 44 new hospitalised confirmed influenza cases (three A(H1N1pdm09), 28 influenza A(H3N2) and 13 A unknown subtype) were reported through the USSS sentinel hospital network across England (25 Trusts).
- [All-cause mortality data](#)
 - In week 50 2014, no excess all-cause mortality by week of death was seen across the UK through the EuroMOMO algorithm.
- [Microbiological surveillance](#)
 - 29 samples were positive for influenza through the UK GP sentinel swabbing schemes in week 50 (26 A(H3), two B and one A(H1N1)pdm09, positivity of 22.5% compared to 4.3% the previous week (updated)).
 - In week 50 2014, 220 influenza positive detections were recorded through the DataMart scheme (182 A(H3), 36 A(not subtyped) and one B, a positivity of 15.4% compared to 9.4% the previous week, with the highest positivity by age group in 65+ year olds at 30.4%). RSV positivity was elevated at 49.1% in week 50 in children <5 years of age.
 - The majority of influenza A(H3N2) viruses isolated and characterised by the PHE Respiratory Virus Unit were similar to the Northern Hemisphere 2014/15 vaccine strain, however three (19%) showed reduced reactivity and were similar to the H3N2 virus selected for the 2015 Southern Hemisphere influenza vaccine. PHE is continuing to monitor the situation.
- [Vaccination](#)
 - Up to week 50 2014 in 94% 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: 70.6% in 65+ year olds, 47.1% in under 65 years in a clinical risk group, 41.6% in pregnant women, 34.8% in all 2 year olds, 37.3% in all 3 year olds and 29.3% in all 4 year olds.
 - Provisional data from the second monthly collection of influenza vaccine uptake by frontline healthcare workers show 48.2% were vaccinated by 30 November 2014 from 97.0% of Trusts, compared to 48.6% vaccinated the previous season by 30 November 2013.
- [International situation](#)
 - Globally, influenza activity continued to increase in North America but remained low in other regions, with the exception of several Pacific Islands where ILI activity remained high.
 - In the European Region, sporadic influenza virus detections are being reported in an increasing number of countries, though there is no indication that the influenza season has started.

In week 50 syndromic indicators for influenza-like illness continued to increase and 45 new acute respiratory outbreaks were reported in the last seven days.

- PHE Real-time Syndromic Surveillance

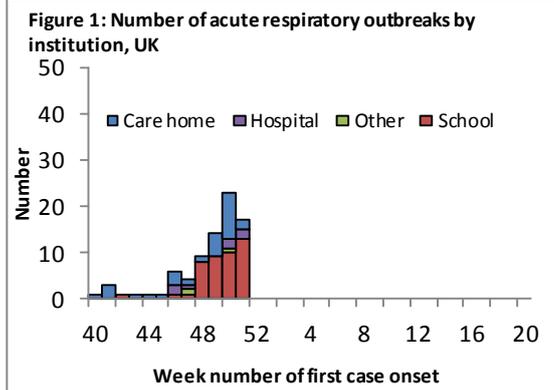
-In week 50 syndromic surveillance indicators for influenza-like illness have continued to increase across all systems. This includes cold/flu calls through NHS 111, influenza-like illness consultation rates through the GP In Hours scheme (see page 3) and influenza-like illness consultation rates through the GP Out of Hours scheme.

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

- Acute respiratory disease outbreaks

45 new acute respiratory outbreaks have been reported in the past seven days, 25 in schools (2 flu A(H3), 1 flu A(untyped) and 22 not tested), 15 in care homes (1 flu A(H3), 5 flu A(untyped), 1 RSV and 8 not tested) and five in hospitals (3 flu A(untyped), 1 rhinovirus and 1 not tested). So far in the 2014/15 flu season, 83 outbreaks (30 in care homes, 44 in schools, seven in hospitals and two in nurseries) have been reported in the UK (13 flu A(H3), 11 flu A (untyped), one flu B, five rhinovirus, two RSV, one parainfluenza, one adenovirus/parainfluenza, one enterovirus and 48 with no test results available, Figure 1).

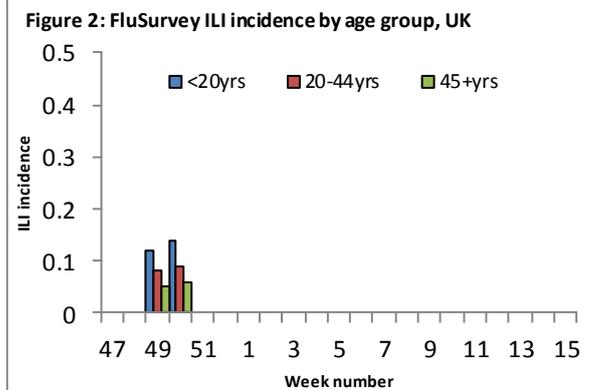
-Outbreaks should be recorded on HPZone and reported to the local Health Protection Teams and Respscidsc@phe.gov.uk.



- PHE Real-time Syndromic Surveillance

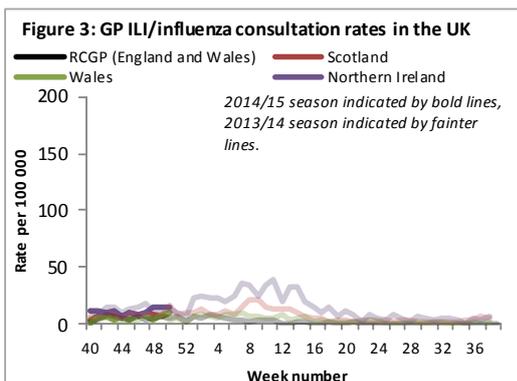
-Internet-based surveillance of influenza in the general population is undertaken through the FluSurvey project (<http://flusurvey.org.uk>) run by the London School of Hygiene and Tropical Medicine. Please see the website for information on how to register.

-In week 50, the incidence of ILI reports by age group was highest in <20 year olds (Figure 2).



In week 50 overall weekly influenza-like illness GP consultations increased in England and Wales, but remained low in Scotland and Northern Ireland.

- Influenza/Influenza-Like-Illness (ILI)



Northern Ireland

-The Northern Ireland influenza rate remained low at 15.5 per 100,000 in week 50 (Figure 3).

-The highest rates were seen in <1 year olds (256.8 per 100,000, NB there was a small denominator in this age group), 75+ year olds (37.0 per 100,000) and 65-74 year olds (18.2 per 100,000).

Wales

-The Welsh influenza rate increased slightly from 8.6 to 9.6 per 100,000 in week 50 (Figure 3).

-The highest rates were seen in 5-14 year olds (12.1 per 100,000), 45-64 year olds (10.9 per 100,000) and 15-44 year olds (10.4 per 100,000).

Scotland

-The Scottish ILI rate increased from 6.9 to 10.6 per 100,000 in week 50 but remained low (Figure 3).

-The highest rates were seen in 15-44 year olds (13.3 per 100,000), 45-64 year olds (10.9 per 100,000) and under one year olds (9.8 per 100,000).

RCGP (England and Wales)

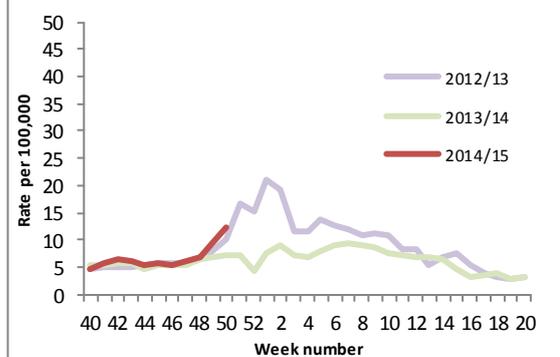
-There is no RCGP weekly data available this week because of continuing data quality issues. Work is being done to resolve these problems and it is hoped a normal service will resume in the coming weeks.

GP In Hours Syndromic Surveillance System (England)

-The weekly ILI consultation rate per 100,000 population through the GP In Hours Syndromic Surveillance system has continued to increase in week 50 (Figure 4). By age group, ILI rates continue to increase in over five year olds with the highest rates in the 5-14 and 15-44 year age groups.

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

Figure 4: GP in hours ILI consultation rate, England



Influenza confirmed hospitalisations

[| Back to top |](#)

In week 50, 36 new admissions of confirmed influenza cases (30 A unknown subtype and six A(H3N2)) to ICU/HDU were reported through the national USISS mandatory ICU scheme across the UK (136 Trusts in England). 44 new hospitalised confirmed influenza cases (three A(H1N1pmd09), 28 influenza A(H3N2) and 13 A unknown subtype) have been reported through the USISS sentinel hospital network across England (25 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 50)

-In week 50, 36 new admissions to ICU/HDU with confirmed influenza infection (30 A unknown subtype and six A(H3N2)) were reported across the UK (136/156 Trusts in England) through the USISS mandatory ICU scheme (Figures 5 and 6) compared to 13 in week 49. Two new confirmed influenza deaths were reported in week 50 2014. A total of 77 admissions (57 A unknown subtype, A(H3) and seven B) and six confirmed influenza deaths have been reported since week 40 2014.

Figure 5: Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population, England, since week 40 2014

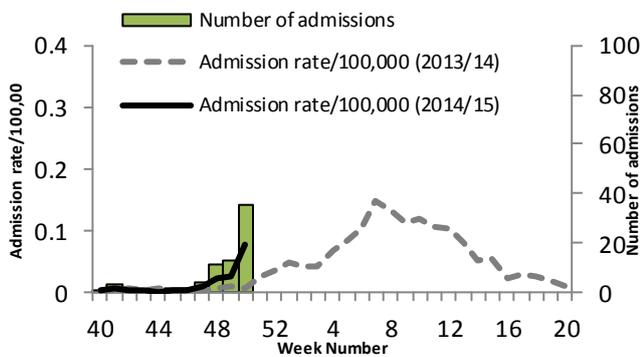
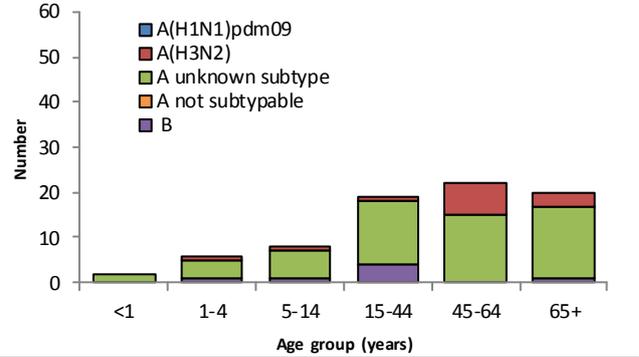


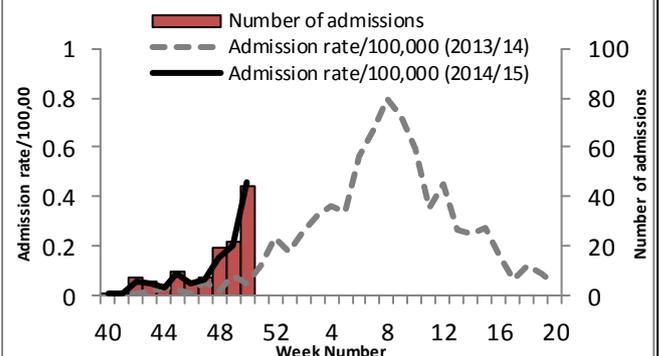
Figure 6: Cumulative ICU influenza admissions (USISS mandatory) by age group and flu type, UK, since week 40 2014



- USISS sentinel weekly hospitalised confirmed influenza cases, England (week 50)

-In week 50, 44 new hospitalised confirmed influenza cases (three A(H1N1pdm09), 28 influenza A(H3N2) and 13 A unknown subtype) were reported through the USISS sentinel hospital network from 25 NHS Trusts across England (Figure 7). A total of 127 hospitalised confirmed influenza admissions (77 A(H3N2), 30 A unknown subtype, 15 B and three A(H1N1pdm09)) have been reported since week 40.

Figure 7: Weekly hospitalised influenza case rate per 100,000 trust catchment population, England, since week 40 2014



All-cause mortality data

[| Back to top |](#)

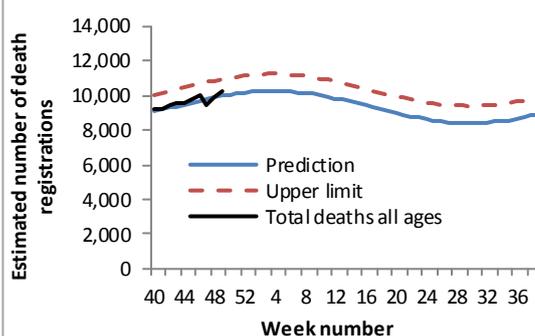
In week 50 2014, no excess all-cause mortality by week of death was seen in England through the EuroMOMO algorithm.

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 49 2014, an estimated 10,267 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is slightly more than the 9,928 estimated death registrations in week 48 but remains below the 95% upper limit of expected death registrations for this time of year as calculated by PHE (Figure 8).

Figure 8: Observed & predicted all-cause death registrations, E&W



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

-In week 50 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 9, 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 50 (Table 2).

Table 1: Excess mortality by age group, England*

Age group (years)	Excess detected in week 50 2014?	Weeks with excess in 2014/15
<5	x	NA
5-14	x	NA
15-64	x	NA
65+	x	NA

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

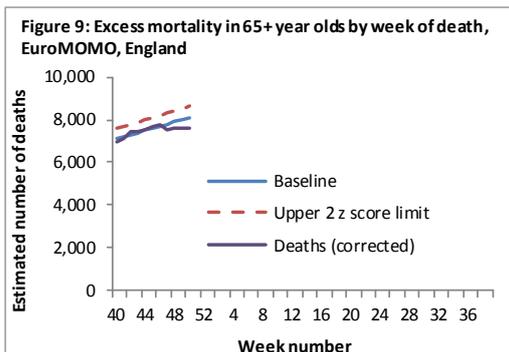


Table 2: Excess mortality by UK country*

Country	Excess detected in week 50 2014?	Weeks with excess in 2014/15
England	x	NA
Wales	x	NA
Scotland	x	NA
Northern Ireland	x	NA

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

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

Microbiological surveillance

[Back to top](#)

In week 50 2014, 29 samples were positive for influenza through the UK GP sentinel schemes (26 A(H3), two B and one A(H1N1)pdm09, positivity of 22.5%). 220 influenza positive detections were recorded through the DataMart scheme (182 A(H3), 36 A(not subtyped) and one B, positivity of 15.4%).

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

-In week 50, 28 samples were positive for influenza in England (25 A(H3), two B and one A(H1N1)pdm09) and one in Wales (one A(H3)). No samples in Scotland or Northern Ireland were positive for influenza (Table 3).

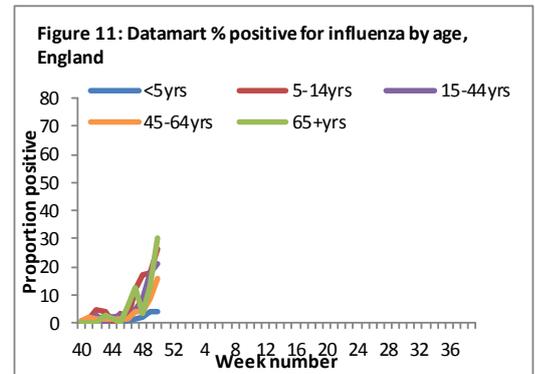
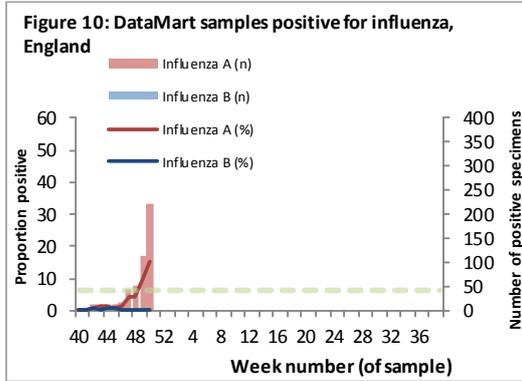
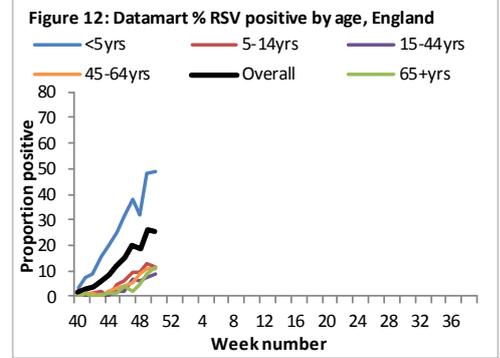
Table 3: Sentinel influenza surveillance in the UK

Week	England	Scotland	Northern Ireland	Wales
47	5/66 (7.6%)	2/62 (3.2%)	0/3 (-)	0/0 (-)
48	4/71 (5.6%)	3/63 (4.8%)	0/3 (-)	0/5 (-)
49	4/71 (5.6%)	0/58 (0.0%)	0/4 (-)	2/6 (-)
50	28/95 (29.5%)	0/29 (0.0%)	0/0 (-)	1/5 (-)

NB. Proportion positive omitted when fewer than 10 specimen tested

- Respiratory DataMart System (England)

In week 50 2014, out of the 1,431 respiratory specimens reported through the Respiratory DataMart System, 220 (15.4%) were positive for influenza (182 A(H3), 36 A(not subtyped) and 1 B, Figure 10*). The highest positivity by age group was reported in 65+ year olds (30.4%, Figure 11). The overall positivity for RSV was 25.6% in week 50, with the highest positivity reported in the <5 years (49.1%, Figure 12). Positivity for rhinovirus decreased to 10.2% in week 50, while other respiratory viruses remained at low levels (adenovirus 2.9%, parainfluenza 2.9% and hMPV 3.4%).



*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 6%.

- Virus characterisation

Since week 40 2014, the PHE Respiratory Virus Unit (RVU) has isolated and antigenically characterised 16 influenza A(H3N2) viruses. Of these, the majority were similar to the A/Texas/50/2012 H3N2 Northern Hemisphere 2014/15 vaccine strain, however 3 showed reduced reactivity in antigenic tests with A/Texas/50/2012 antiserum. These three isolates are antigenically similar to A/Switzerland/9715293/2013, the H3N2 virus selected for the 2015 Southern Hemisphere influenza vaccine. Further characterization of these isolates by genetic analysis is ongoing.

- Antiviral susceptibility

Since week 40 2014, 14 influenza viruses (7 A(H3N2), 4 A(H1N1)pdm09 and 3 B) have been tested for oseltamivir susceptibility in the UK and all are sensitive. The seven flu A(H3N2) and the three flu B were also tested against zanamivir and are all sensitive.

- Antimicrobial susceptibility

-Table 4 shows in the 12 weeks up to 7 December 2014, 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 7 Dec 2014, E&W

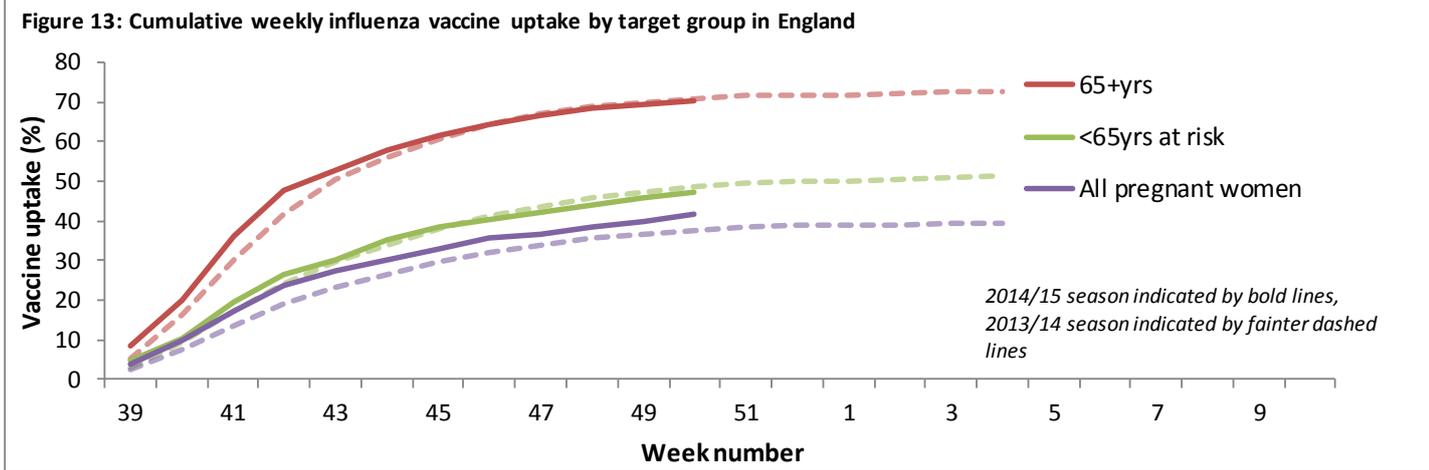
Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)
<i>S. pneumoniae</i>	Penicillin	2,259	90
	Macrolides	2,373	80
	Tetracycline	2,264	83
<i>H. influenzae</i>	Amoxicillin/ampicillin	8,810	73
	Co-amoxiclav	8,269	92
	Macrolides	3,372	19
<i>S. aureus</i>	Tetracycline	8,965	98
	Methicillin	3,379	90
	Macrolides	3,261	69
MRSA	Clindamycin	251	37
	Tetracycline	315	80
MSSA	Clindamycin	1,604	79
	Tetracycline	2,535	92

*Macrolides = erythromycin, azithromycin and clarithromycin

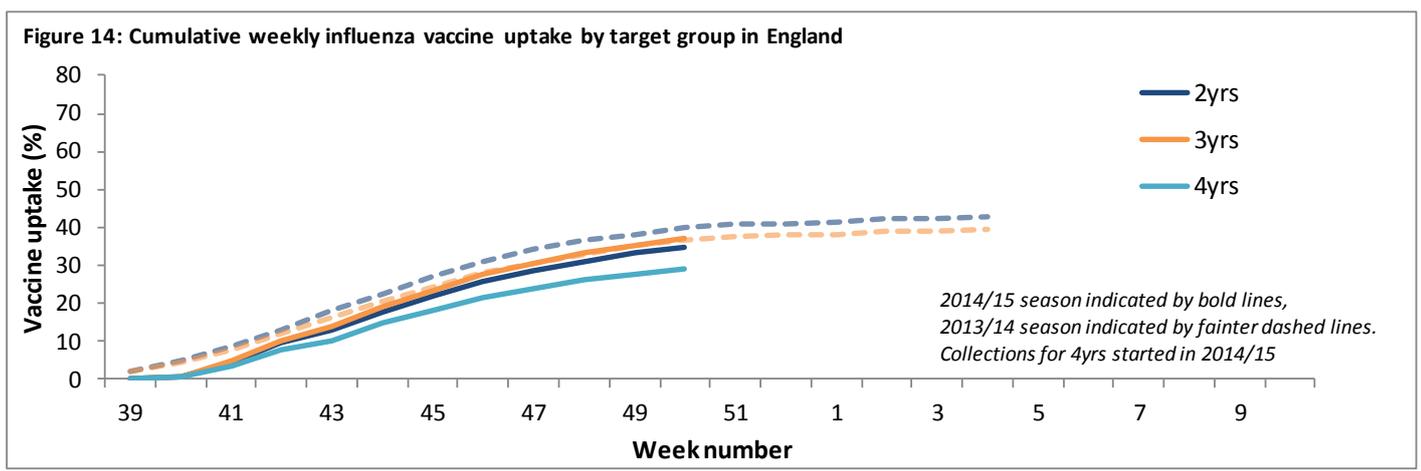
Vaccination

[| Back to top |](#)

- Up to week 50 2014 in 94% 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):
 - 47.1% in under 65 years in a clinical risk group
 - 41.6% in pregnant women
 - 70.6% 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 50 2014 in 94% 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 14):
 - 34.8% in all 2 year olds
 - 37.3% in all 3 year olds
 - 29.3% in all 4 year olds
 -



- Provisional data from the second monthly collection of influenza vaccine uptake by frontline healthcare workers show 48.2% were vaccinated by 30 November 2014 from 97.0% of Trusts, compared to 48.6% vaccinated the previous season by 30 November 2013. The [report](#) 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 [report](#) provides uptake at national, area team and CCG level.

International Situation | [Back to top](#) |

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

- [Europe](#) 12 December 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.

Thirty-nine of the 40 countries submitting data on qualitative indicators reported low intensity of influenza activity for week 49/2014; one (Malta) reported medium intensity. Twenty countries reported sporadic

influenza activity, while the Netherlands and the United Kingdom (England) reported regional spread. Nine countries reported increasing influenza activity, while the remainder reported stable or decreasing trends: Bulgaria, Lithuania, Luxembourg, Malta, Poland, Portugal, the Republic of Moldova, the United Kingdom (England and Northern Ireland) and Uzbekistan.

In week 49/2014, 848 sentinel specimens were tested across 31 countries, with 34 (4%) in 14 countries being positive for influenza virus; 27 were of type A and seven of type B. Eighteen of the influenza A viruses were subtyped; six were A(H1N1)pdm09 and 12 were A(H3N2). The lineage of three of the seven B viruses was determined; all were of the B/Yamagata lineage.

Over the first 10 weeks of the weekly reporting period for the 2014–2015 influenza season, influenza viruses have been detected in 170 (3%) of 6348 sentinel specimens: 111 (65%) were positive for type A influenza virus and 59 (35%) for type B. Of the A viruses, 67 (60%) were A(H3N2), 18 (16%) A(H1N1)pdm09 and 26 (24%) unsubtyped. The lineage of 13 B viruses was determined: two were B/Victoria lineage and 11 B/Yamagata lineage. Among sentinel specimens collected in week 49/2014 and tested for respiratory syncytial virus (RSV), 35 across six countries were positive, and 855 specimens from other sources were found to be positive in 11 countries. This represents a slight increase from the previous week. Among sentinel specimens collected in week 49/2014 and tested for respiratory syncytial virus (RSV), 35 across six countries were positive, and 855 specimens from other sources were found to be positive in 11 countries. This represents a slight increase from the previous week.

Viruses that have been characterized to date, by laboratories reporting to The European Surveillance System (TESSy), as A(H1N1)pdm09 and influenza type B are similar to those included in the current vaccines recommended by WHO. Of the genetically characterized A(H3N2) viruses, eight (six A/Texas/50/2012 subgroup 3C.1 and two A/Samara/73/2013 3C.3) are in genetic groups containing viruses that have antigenic properties similar to the vaccine virus, but 25 (21 A/Hong Kong/5738/2014 3C.2a and four A/Switzerland/9715293/2013 3C.3a) are in genetic groups containing viruses that show antigenic drift from the vaccine virus. In summary, 76% of the genetically characterized A(H3N2) viruses are in subgroups containing antigenic drift variants compared to A/Texas/50/2012 (the vaccine component for the northern hemisphere 2014–2015 season). 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](#) 12 December 2014 (Centre for Disease Control report)

During week 49 (November 30–December 6, 2014), influenza activity continued to increase in the United States. The proportion of outpatient visits for influenza-like illness (ILI) was 2.5%, above the national baseline of 2.0%. Eight of 10 regions reported ILI at or above region-specific baseline levels. Puerto Rico and six states experienced high ILI activity; two states experienced moderate ILI activity; seven states experienced low ILI activity; New York City and 35 states experienced minimal ILI activity; and the District of Columbia had insufficient data. The geographic spread of influenza in 14 states was reported as widespread; Guam, Puerto Rico and 25 states reported regional activity; the U.S. Virgin Islands and seven states reported local activity; and the District of Columbia and four states reported sporadic activity. During week 49, 6.0% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 6.6% for week 49.

Of 16,093 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 49, 3,415 (21.2%) were positive for influenza. (1,991 influenza A subtype not performed, 1,254 influenza A (H3), 163 influenza B and 7 influenza A(H1N1)pdm09).

Two influenza-associated pediatric deaths were reported to CDC during week 49. One death was associated with an influenza A (H3) virus and one was associated an influenza A virus for which no subtyping was performed. Both deaths occurred during week 48 (week ending November 29, 2014). To date, seven influenza-associated pediatric deaths have been reported for the 2014-2015 season.

[Influenza viral characterization data](#) indicates that 48% of the influenza A (H3N2) viruses collected and analyzed in the United States from October 1 through November 22, 2014 were antigenically "like" the 2014-2015 influenza A (H3N2) vaccine component, but that 52% were antigenically different (drifted) from the H3N2 vaccine virus. In past seasons during which predominant circulating influenza viruses have been antigenically drifted, decreased vaccine effectiveness has been observed. However, vaccination has been found to provide some protection against drifted viruses. Though reduced, this cross-protection might reduce the likelihood of severe outcomes such as hospitalization and death. In addition, vaccination will offer protection against circulating influenza strains that have not undergone significant antigenic drift from the vaccine viruses (such as influenza A (H1N1) and B viruses).

- [Canada](#) 12 December 2014 (Public Health Agency report)

In week 49, laboratory detections of influenza increased sharply for the third consecutive week. 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. Similar to the previous week, there were a large number of newly-reported laboratory-confirmed outbreaks of influenza: 37 influenza A outbreaks in 6 provinces, of which 32 were in long-term care facilities (LTCF). Among the outbreaks with known subtype all were due to A(H3N2). The rate of antiviral prescriptions among seniors increased significantly in week 49.

In week 49, the number of positive influenza tests increased sharply for the third week in a row, to 1,011 influenza detections (19.5% of tests), predominantly due to influenza A. To date, 95% of influenza detections have been influenza A, and 99.5% of those subtyped have been A(H3). The timing of the season and predominant A(H3N2) subtype is similar to the pattern observed during the 2012-13 influenza season when percent positive for influenza peaked in week 52 (35%). To date, among the cases of influenza with reported age, the largest proportion was in adults ≥ 65 years of age (52.2%).

The national influenza-like-illness (ILI) consultation rate increased in week 49 to 44.3 consultations per 1,000, which is above expected levels for week 49. This week, the rates were highest among the 20 to 64 years of age group. In previous weeks, the ILI consultation rates of this group have been among the lowest.

In week 49, 28 laboratory-confirmed influenza-associated paediatric (≤ 16 years of age) hospitalizations were reported by the Immunization Monitoring Program Active (IMPACT) network: 26 cases of influenza A and two cases of influenza B. Among the cases with known age, 57% were 2 to 9 years of age. To date this season, 95 hospitalizations have been reported by the IMPACT network, 82 (86%) of which were cases of influenza A. Among cases for which the influenza A subtype was reported, 96% (55/57) were A(H3N2). Children 2 to 9 years of age represented 60% of cases. To date, nine 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) 10 December 2014

From mid-August to 20 November 2014, CDC or state public health laboratories have confirmed a total of [1,149 persons](#) in 48 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 [rapid risk assessment](#). 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 33 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 meningoencephalitis.

- [Avian Influenza](#) 10 December 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 4 December 2014, 676 human cases of H5N1 avian influenza have been officially reported to [WHO](#) from 16 countries, of which 398 (59%) died.

- Novel coronavirus 2 December 2014

Up to 2 December 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 923 confirmed cases have been reported internationally, resulting in a current global total of 927 cases, with the most recent cases reported from [Kingdom of Saudi Arabia](#). Further information on management and guidance of possible cases is available [online](#).

Acknowledgements

[| Back to top |](#)

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