



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

In week 52 2014 (ending 28 December), allowing for Christmas reporting breaks, across indicators influenza activity remained at broadly similar levels to those reported the previous week. Overall, levels remain similar to the peak of flu activity observed in the last three seasons, but have not reached the levels seen in the last notable seasons of 2010/11 and 2008/09. The Department of Health have issued an [alert](#) on the prescription of antiviral medicines by GPs.

- [Community influenza surveillance](#)
 - In week 52 syndromic surveillance indicators for respiratory infections, including influenza-like illness, continued to increase across all systems.
 - 14 new acute respiratory outbreaks were reported in the last seven days: 10 in care homes (one flu A(untyped) and nine not tested), three in hospitals (two flu A(untyped) and one no result available), and one in a school (not tested).
- [Overall weekly influenza GP consultation rates across the UK](#)
 - Due to bank holidays in week 52 (ending 28 December 2014), GP surgeries were only open for three days – data should therefore be interpreted with caution.
 - In week 52, overall weekly influenza-like illness (ILI) GP consultations remained elevated in Wales (11.4 per 100,000) and low in Scotland (17.4 per 100,000) and Northern Ireland (10.4 per 100,000)).
 - The weekly ILI consultation rate through the GP In Hours Syndromic Surveillance system remained elevated in week 52 at 11.4 per 100,000.
- [Influenza-confirmed hospitalisations](#)
 - 45 new admissions to ICU/HDU with confirmed influenza (28 A unknown subtype, 13 A(H3N2), 3 influenza A(H1N1)pdm09 and 1 influenza B) were reported through the USISS mandatory ICU/HDU surveillance scheme across the UK (82 Trusts in England) in week 52, a rate of 0.18 per 100,000 compared to 0.21 per 100,000 the previous week.
 - 97 new hospitalised confirmed influenza cases (55 influenza A(H3N2), 38 A unknown subtype, 2 influenza A(H1N1)pdm09 and 2 influenza B) were reported through the USISS sentinel hospital network across England (14 Trusts), a rate of 0.90 per 100,000 compared to 0.77 per 100,000 the previous week.
- [All-cause mortality data](#)
 - In week 51 2014, where data was available no excess all-cause mortality by week of death was seen across the UK through the EuroMOMO algorithm.
- [Microbiological surveillance](#)
 - 31 samples were positive for influenza through the UK GP sentinel swabbing schemes in week 52 (29 A(H3), one A(H1N1)pdm09 and one B, positivity of 37.3% compared to 28.9% the previous week (updated)).
 - In week 52 2014, 328 influenza positive detections were recorded through the DataMart scheme (239 A(H3), 88 A(not subtyped), one A(H1N1)pdm09 and five B, positivity of 30.8% compared to 28.1% the previous week, with the highest positivity by age group in 65+ year olds at 41.3%).
 - 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 (14%) 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 52 2014 in 92% 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: 71.3% in 65+ year olds, 48.4% in under 65 years in a clinical risk group, 42.9% in pregnant women, 36.7% in all 2 year olds, 39.2% in all 3 year olds and 31.0% 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.
- [International situation](#)
 - Globally, influenza activity continued to increase in the northern hemisphere with influenza A(H3N2) predominating so far. In the European Region, influenza activity remained low but continued to increase.

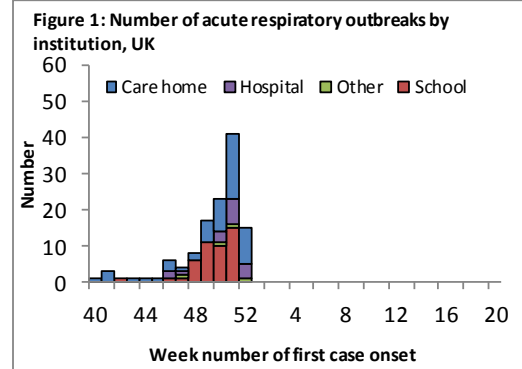
In week 52 syndromic indicators for respiratory infections continued to increase and 14 new acute respiratory outbreaks were reported in the last seven days.

- PHE Real-time Syndromic Surveillance

-In week 52 syndromic surveillance indicators for respiratory infections, including influenza-like illness, have continued to increase across all systems.
 -For further information, please see the syndromic surveillance [webpage](#).

- Acute respiratory disease outbreaks

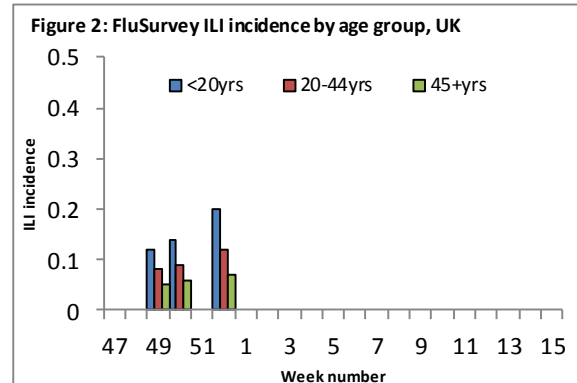
14 new acute respiratory outbreaks have been reported in the past seven days, 10 in care homes (1 flu A(untyped) and the rest not tested), three in hospitals (2 flu A(untyped), and the other one no results yet), and 1 in schools (not tested). So far in the 2014/15 flu season, 126 outbreaks (56 in care homes, 50 in schools, 17 in hospitals and 2 in other settings) have been reported in the UK including 19 with flu A(H3) infection, 22 flu A (untyped), one flu B, five rhinovirus, two RSV, one parainfluenza, one adenovirus/parainfluenza, one enterovirus and 74 not tested or test results not yet available.



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

- FluSurvey

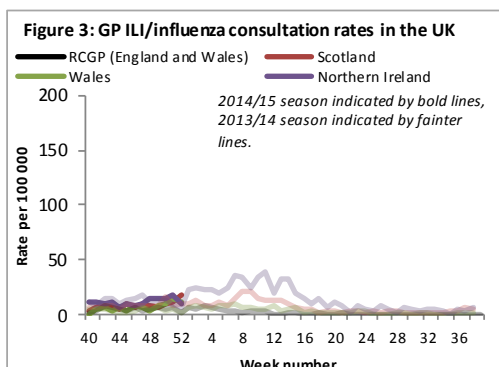
-Internet-based surveillance of influenza in the general population is undertaken through the FluSurvey project (<http://flusurvey.org.uk>) run by the London School of Hygiene and Tropical Medicine. Please see the website for information on how to register.
 -In week 52, the incidence of ILI reports by age group was highest in <20 year olds (Figure 2, NB. No data is currently available for week 51).



Weekly consultation rates in national sentinel schemes

In week 52 overall weekly influenza-like illness GP consultations remained elevated in England and Wales, but remained low in Scotland and Northern Ireland. Due to bank holidays in week 52, GP surgeries were only open for three days – data should therefore be interpreted with caution.

- Influenza/Influenza-Like-Illness (ILI)



Northern Ireland

-The Northern Ireland influenza rate remained low at 10.4 per 100,000 in week 52 (Figure 3).

-The highest rates were seen in 65-74 year olds (18.1 per 100,000), 45-64 year olds (12.1 per 100,000) and 15-44 year olds (10.4 per 100,000).

Wales

-The Welsh influenza rate decreased from 15.0 to 11.4 per 100,000 in week 52 (Figure 3).

-The highest rates were seen in 45-64 year olds (15.3 per 100,000), 5-14 year olds (15.2 per 100,000) and 15-44 year olds (11.3 per 100,000).

Scotland

-The Scottish ILI rate increased from 11.6 to 17.4 per 100,000 in week 52 but remained low (Figure 3).

-The highest rates were seen in 15-44 year olds (23.4 per 100,000), 45-64 year olds (18.5 per 100,000) and 65-74 year olds (12.1 per 100,000).

RCGP (England and Wales)

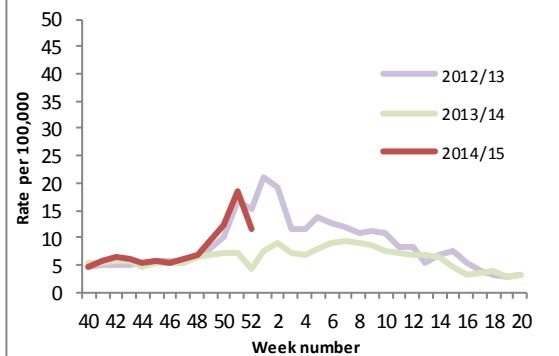
-There is no RCGP weekly data available this week because of continuing data quality issues. Work is being done to resolve these problems and it is hoped a normal service will resume in the coming weeks.

GP In Hours Syndromic Surveillance System (England)

-The weekly ILI consultation rate through the GP In Hours Syndromic Surveillance system remained elevated at 11.4 per 100,000 population in week 52 (Figure 4). Due to bank holidays, GP surgeries were only open for three days – data should therefore be interpreted with caution.

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

Figure 4: GP in hours ILI consultation rate, England



Influenza confirmed hospitalisations

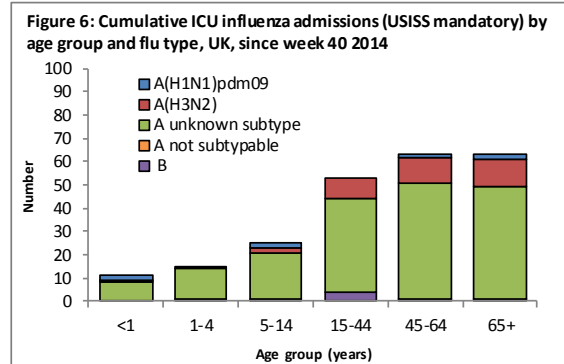
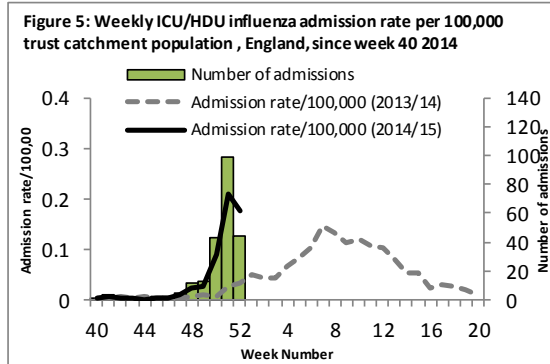
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In week 52, 45 new admissions of confirmed influenza cases (28 A unknown subtype and 13 A(H3N2), 3 influenza A(H1N1)pdm09 and 1 influenza B) to ICU/HDU were reported through the national USSS mandatory ICU scheme across the UK (82 Trusts in England). 97 new hospitalised confirmed influenza cases (55 influenza A(H3N2), 38 A unknown subtype, 2 influenza A(H1N1)pdm09 and 2 influenza B) have been reported through the USSS sentinel hospital network across England (14 Trusts).

A national mandatory collection (USSS 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 (USSS 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.

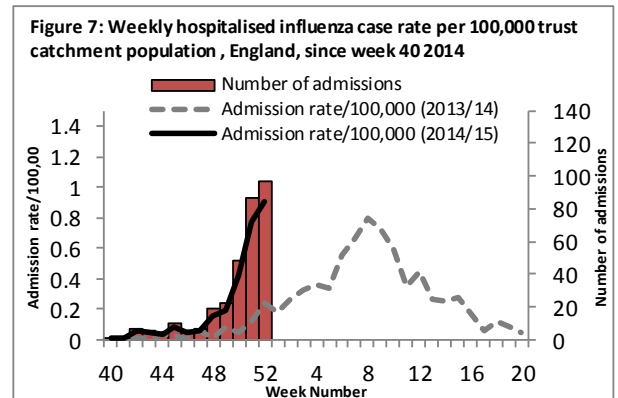
- Number of new admissions and fatal confirmed influenza cases in ICU/HDU (USISS mandatory ICU scheme), UK (week 52)

-In week 52, 45 new admissions to ICU/HDU with confirmed influenza infection (28 A unknown subtype, 13 A(H3N2), 3 influenza A(H1N1)pdm09 and 1 influenza B) were reported across the UK (82/156 Trusts in England) through the USISS mandatory ICU scheme (Figures 5 and 6), a rate of 0.18 per 100,000 compared to 0.21 per 100,000 the previous week. Two new confirmed influenza deaths were reported in week 52 2014. A total of 230 admissions (179 A unknown subtype, 35 A(H3), 8 B and 8 A(H1N1)pdm09) and 17 confirmed influenza deaths have been reported since week 40 2014.



- USISS sentinel weekly hospitalised confirmed influenza cases, England (week 52)

-In week 52, 97 new hospitalised confirmed influenza cases (55 influenza A(H3N2), 38 A unknown subtype, two A(H1N1)pdm09 and two influenza B) were reported through the USISS sentinel hospital network from 14 NHS Trusts across England (Figure 7), a rate of 0.90 per 100,000 compared to 0.77 per 100,000 the previous week. A total of 317 hospitalised confirmed influenza admissions (212 A(H3N2), 81 A unknown subtype, 17 B and seven A(H1N1)pdm09)) have been reported since week 40.



All-cause mortality data

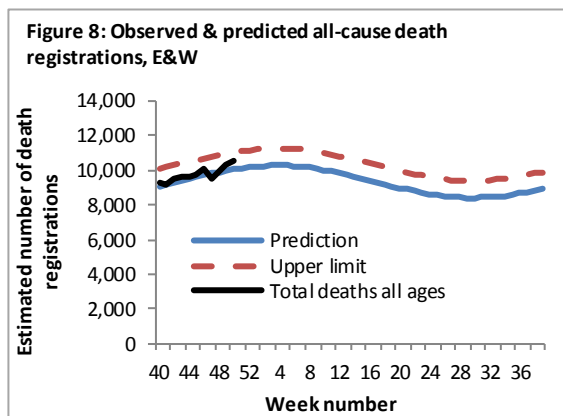
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In week 51 2014, no excess all-cause mortality by week of death was seen in England through the EuroMOMO algorithm.

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 50 2014, an estimated 10,550 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is slightly more than the 10,267 estimated death registrations in week 49 but remains below the 95% upper limit of expected death registrations for this time of year as calculated by PHE (Figure 8).



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

-In week 51 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 in week 51. Data was not available for Scotland or Northern Ireland (Table 2).

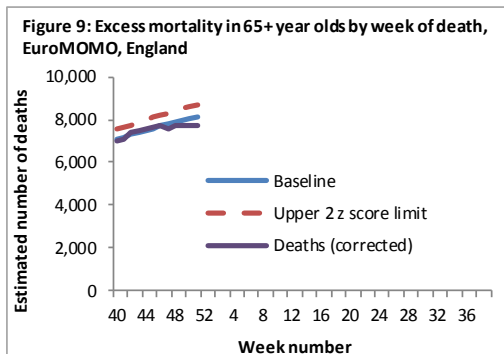


Table 1: Excess mortality by age group, England*

Age group (years)	Excess detected in week 51 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 51 2014?	Weeks with excess in 2014/15
England	x	NA
Wales	x	NA
Scotland	NA	NA
Northern Ireland	NA	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

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In week 52 2014, 31 samples were positive for influenza through the UK GP sentinel schemes (29 A(H3), one A(H1N1)pdm09 and one B, positivity of 37.3%). 328 influenza positive detections were recorded through the DataMart scheme (239 A(H3), 88 A(not subtyped) one A(H1N1)pdm09 and five B, positivity of 30.8%).

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

-In week 52, 25 samples were positive for influenza in England (24 A(H3) and one A(H1N1)pdm09) and six in Scotland (five A(H3) and one B). No samples in Wales or Northern Ireland were positive for influenza (Table 3).

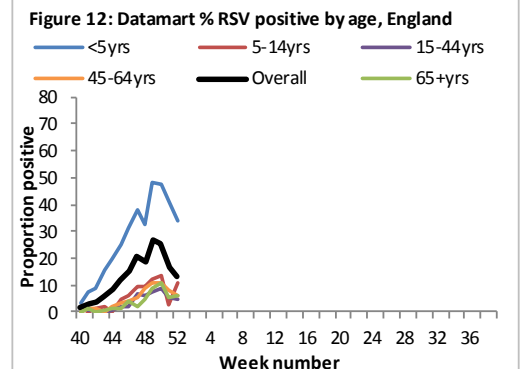
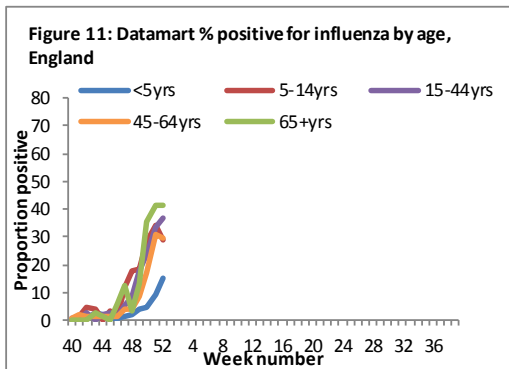
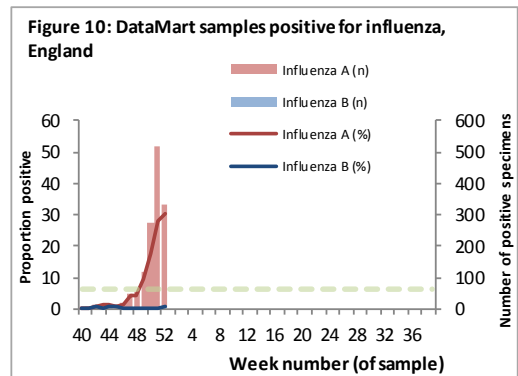
Table 3: Sentinel influenza surveillance in the UK

Week	England	Scotland	Northern Ireland	Wales
49	10/80 (12.5%)	0/58 (0.0%)	0/4 (-)	2/6 (-)
50	33/106 (31.1%)	3/60 (5.0%)	0/0 (-)	1/5(-)
51	42/98 (42.9%)	8/73 (11.0%)	0/2 (-)	0/0 (-)
52	25/58 (43.1%)	6/25 (24.0%)	0/0 (-)	0/0 (-)

NB. Proportion positive omitted when fewer than 10 specimens tested

- Respiratory DataMart System (England)

In week 52 2014, out of the 1,080 respiratory specimens reported through the Respiratory DataMart System, 328 samples (30.8%) were positive for influenza (239 A(H3), 88 A(not subtyped), one influenza A(H1N1)pdm09 and five B (Figure 10*)). The highest positivity by age group was reported in 65+ year olds (41.3%, Figure 11). The overall positivity for RSV continued to decrease from 16.7% in week 51 to 13.2% in week 52, with the highest positivity reported in the <5 years (34.2%, Figure 12). Positivity for other respiratory viruses remained at low levels: rhinovirus 7.5%, adenovirus 3.9%, parainfluenza 1.8% and hMPV 3.6%.



*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 22 influenza A(H3N2) viruses. Of these, the majority were similar to the A/Texas/50/2012 H3N2 Northern Hemisphere 2014/15 vaccine strain, however three 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.

Two influenza B viruses have been isolated and antigenically characterised as belonging to B/Yamagata/16/88 lineage, the influenza B component of the 2014-2015 Northern Hemisphere trivalent and quadrivalent vaccines.

- Antiviral susceptibility

Since week 40 2014, 24 influenza viruses (9 A(H3N2), 5 A(H1N1)pdm09 and 8 B) have been tested for oseltamivir susceptibility in the UK and all but one H3N2 are sensitive. The eight flu A(H3N2) and the three flu B were also tested against zanamivir and all but one H3N2 are sensitive. The resistant H3N2 influenza virus has an R292K amino acid substitution in the neuraminidase. This sample was taken from a child who had received oseltamivir treatment. The R292K substitution is known to cause resistance to oseltamivir and also reduces susceptibility to zanamivir.

- Antimicrobial susceptibility

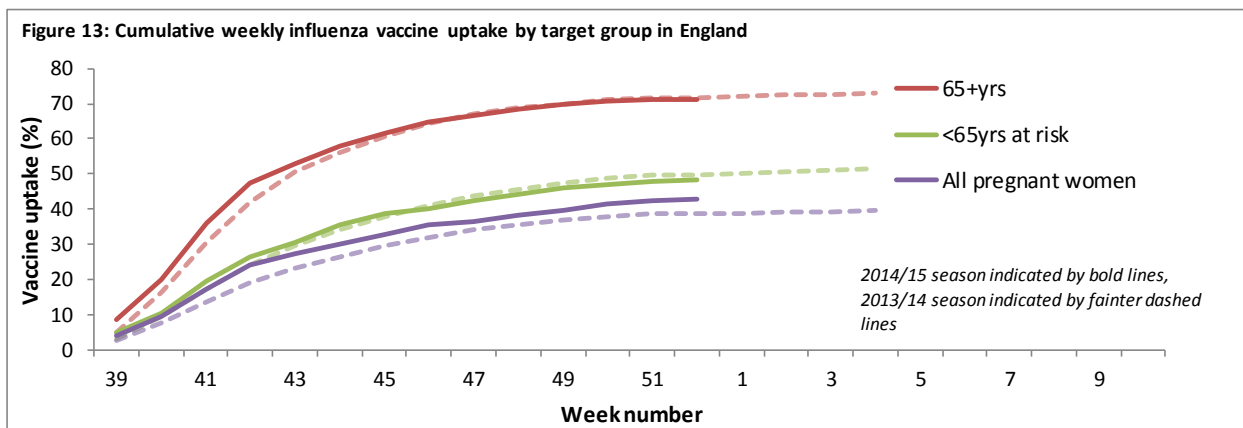
-Table 4 shows in the 12 weeks up to 21 December 2014, the proportion of all lower respiratory tract isolates of *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Staphylococcus aureus*, MRSA and MSSA tested and susceptible to antibiotics. These organisms are the key causes of community acquired 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 21 Dec 2014, E&W

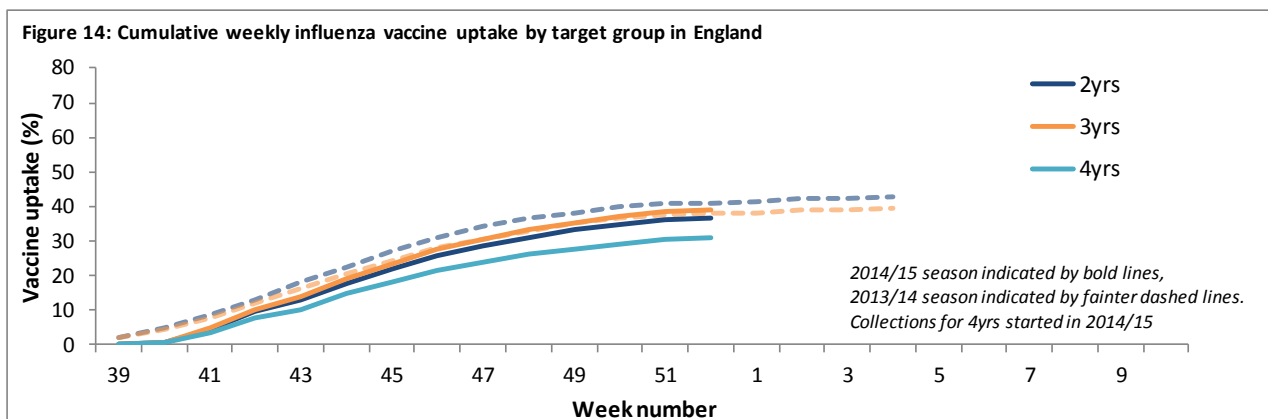
Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)
<i>S. pneumoniae</i>	Penicillin	2,405	90
	Macrolides	2,558	81
	Tetracycline	2,456	83
<i>H. influenzae</i>	Amoxicillin/ampicillin	9,182	73
	Co-amoxiclav	8,469	93
	Macrolides	3,307	17
<i>S. aureus</i>	Tetracycline	9,223	98
	Methicillin	3,445	90
MRSA	Macrolides	3,350	71
	Clindamycin	236	40
MSSA	Tetracycline	308	81
	Clindamycin	1,649	80
	Tetracycline	2,680	92

*Macrolides = erythromycin, azithromycin and clarithromycin

- Up to week 52 2014 in 92% 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):
 - 48.4% in under 65 years in a clinical risk group
 - 42.9% in pregnant women
 - 71.3% 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 52 2014 in 92% 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):
 - 36.7% in all 2 year olds
 - 39.2% in all 3 year olds
 - 31.0% 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 second 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.

Globally, influenza activity continued to increase in the northern hemisphere with influenza A(H3N2) predominating so far. In the European Region, influenza activity remained low but continued to increase.

- [Europe](#) 30 December 2014 (Joint ECDC-WHO Influenza weekly update)

In week 51/2014, influenza activity in the WHO European Region remained low but continued to increase in comparison with previous weeks. More countries are reporting detection of influenza virus. Influenza A(H3N2) has so far been the predominant virus found in both primary care and other settings and in hospitalized influenza cases. Circulating A(H3N2) viruses appear to have drifted antigenically from the virus used in the vaccine. Although this does not change the recommendation to vaccinate groups at risk, the situation should be monitored carefully, and treatment guidelines must be disseminated to clinicians, including on use of antivirals. A(H3N2) is susceptible to the antivirals oseltamivir and zanamivir currently licensed in Europe.

Thirty-one countries reported low or baseline influenza activity in week 51/2014, and 23 countries reported sporadic cases of influenza. Two (Malta and the Netherlands), however, reported medium influenza activity: the Netherlands reported laboratory-confirmed influenza infections in 50% or more of the administrative units of the country (or reporting sites). Nine countries (Belarus, Estonia, Finland, France, the Netherlands, Slovenia, Spain, Uzbekistan and the United Kingdom (England and Wales)) reported increasing influenza activity, while the remainder reported stable or decreasing trends. Stable ILI and ARI rates were observed in most countries in the Region after the increase seen last week, and 9% (100) of 1085 sentinel specimens tested in 27 countries were positive for influenza virus.

In week 51/2014, influenza A viruses predominated (86 positive specimens, and 14 of influenza virus B). Of the 74 type A viruses subtyped, 54 were A(H3N2) and 20 H1N1pdm09. The lineage of six type-B viruses was determined; five were of the B/Yamagata lineage, which was recommended for inclusion in trivalent influenza vaccine, and one was of the B/Victoria lineage.

Since week 40/2014, five countries (France, Ireland, Spain, Sweden and the United Kingdom) have reported a total of 149 laboratory-confirmed, hospitalized influenza cases, 132 of which were in intensive care units (120 cases reported in the United Kingdom, six in France, five in Spain and one in Sweden). Of these, 120 were positive for influenza A virus (25 subtyped: 20 A(H3N2) and 5 A(H1N1)pdm09) and 12 for influenza B virus. France and Spain also each reported one fatal case due to influenza A.

- [United States of America](#) 29 December 2014 (Centre for Disease Control report)

During week 51 (December 14-20, 2014), influenza activity continued to increase in the United States. The proportion of outpatient visits for influenza-like illness (ILI) was 5.5%, above the national baseline of 2.0%. All 10 regions reported ILI at or above region-specific baseline levels. Puerto Rico and 22 states experienced high ILI activity; six states experienced moderate ILI activity; New York City and eight states experienced low ILI activity; 14 states experienced minimal ILI activity; and the District of Columbia had insufficient data. The geographic spread of influenza in 36 states was reported as widespread; Guam, Puerto Rico and 10 states reported regional activity; the District of Columbia, the U.S. Virgin Islands and two states reported local activity; and two states reported sporadic activity. During week 51, 6.8% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was at the epidemic threshold of 6.8% for week 51.

Of 21,858 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 51, 6,152 (28.1%) were positive for influenza. (3,964 influenza A subtype not performed, 2,022 influenza A (H3), 165 influenza B and one influenza A(H1N1)pdm09).

Four influenza-associated pediatric deaths were reported to CDC during week 51. Three deaths were associated with an influenza A (H3) virus and occurred during weeks 49 and 50. One death was associated with an influenza B virus and occurred during week 51. A total of 15 influenza-associated deaths have been reported during the 2014-2015 season from nine states.

CDC has characterized 305 influenza viruses. All 10 H1N1 viruses tested were characterized as A/California/7/2009-like, the A(H1N1) component of the 2014-2015 Northern Hemisphere influenza vaccine. Seventy-eight (32.6%) of the 239 H3N2 viruses tested have been characterized as A/Texas/50/2012-like, the A(H3N2) component of the 2014-2015 Northern Hemisphere influenza vaccine. One hundred sixty-one (67.4%) of the 239 viruses tested showed either reduced titers with antiserum produced against A/Texas/50/2012 or belonged to a genetic group that typically shows reduced titers to A/Texas/50/2012. Among viruses that showed reduced titers with antiserum raised against A/Texas/50/2012, most were antigenically similar to A/Switzerland/9715293/2013, the H3N2 virus selected for the 2015 Southern Hemisphere influenza vaccine. A/Switzerland/9715293/2013 is related to, but antigenically and genetically

distinguishable, from the A/Texas/50/2012 vaccine virus. Thirty-nine (70%) of the influenza B viruses tested belong to B/Yamagata/16/88 lineage and the remaining 17 (30%) influenza B viruses tested belong to B/Victoria/02/87 lineage.

- [Canada](#) 19 December 2014 (Public Health Agency report)

In week 50, laboratory detections of influenza increased sharply for the fourth 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: 72 influenza A outbreaks in 8 provinces, of which 57 were in long-term care facilities (LTCF). To date, the NML has found that the majority H3N2 influenza specimens are not optimally matched to the vaccine strain which may result in reduced vaccine effectiveness against the H3N2 influenza virus. However, the vaccine can still provide some protection against H3N2 influenza illness and can offer protection against other influenza strains such as A(H1N1) and B.

In week 50, the number of positive influenza tests increased sharply for the fourth week in a row, to 1,963 influenza detections (25.9% of tests), predominantly due to influenza A. To date, 96% of influenza detections have been influenza A, and 99.6% 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 (56%). 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 50, 113 laboratory-confirmed influenza-associated hospitalizations were reported from participating provinces and territories, all but four with influenza A, and 65% were patients ≥ 65 years of age. Since the start of the 2014-15 season, 492 hospitalizations have been reported; 476 (97%) with influenza A. Among cases for which the subtype of influenza A was reported, 99% (374/376) were A(H3N2). The majority of cases (59%) were ≥ 65 years of age. Ten ICU admissions have been reported in adults ≥ 65 years of age with influenza A. Twenty-seven deaths with influenza A have been reported: one child < 5 years of age, one adult 45-64 years and 25 adults ≥ 65 years of age. Detailed clinical information (e.g. underlying medical conditions) is not known for these cases. Further data is available [here](#).

- [Global influenza update](#) 23 December 2014 (WHO website)

Globally influenza activity continued to increase in the northern hemisphere with influenza A(H3N2) viruses predominating so far. The antigenic characterization of most recent A(H3N2) viruses so far indicated differences from the A(H3N2) virus used in the influenza vaccines for the northern hemisphere 2014-2015.

In North America, the levels of influenza activity continued to increase and had passed the seasonal thresholds. Influenza A(H3N2) virus predominated.

In Europe overall influenza activity mainly associated with A(H3N2) virus continued to increase, but remained at low levels.

In eastern Asia, influenza activity continued to increase with influenza A(H3N2) virus predominating.

In northern Africa influenza activity increased with influenza B virus predominating, except for Egypt where influenza activity was low.

In eastern and western Africa influenza activity was low or decreasing, except for the United Republic of Tanzania where increased detections of influenza A(H3N2) were reported.

In tropical countries of the Americas, influenza activity was low with the exception of Costa Rica and Cuba where an increase of influenza detections was reported.

In tropical Asia, influenza activity was low.

In the southern hemisphere, influenza activity was at inter-seasonal level.

- Enterovirus D68 (EV-D68) 30 December 2014

From mid-August to 18 December 2014, CDC or state public health laboratories have confirmed a total of [1,152 persons](#) in 49 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 a [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 two children presenting with neurological symptoms.

- [Avian Influenza](#) 30 December 2014 (WHO website)

Influenza A(H7N9)

The most recent human infections with influenza A(H7N9) were reported by WHO on [16 December 2014](#) (11 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 30 December 2014

Up to 22 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 937 confirmed cases have been reported internationally, resulting in a current global total of 941 cases, with the most recent cases reported on 26 December from [Kingdom of Saudi Arabia](#). Further information on management and guidance of possible cases is available [online](#).

Acknowledgements

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- 2014/15 Northern Hemisphere seasonal influenza vaccine recommendations ([WHO](#))