



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

Influenza activity remains at low levels in week 50 (ending 13 December 2015)

- [Community influenza surveillance](#)
 - In week 50, there were decreases in a number of respiratory indicators in infants aged <1 year across all syndromic surveillance systems. These decreases may signal that respiratory syncytial virus (RSV) activity has peaked.
 - Five new acute respiratory outbreaks have been reported in the past 7 days. Three of them were in care homes (one tested positive for hMPV and the other two were not tested/test results not available). Two were in hospitals (one tested positive for RSV while the other was not tested/test results not available).
- [Overall weekly influenza GP consultation rates across the UK](#)
 - In week 50, overall weekly influenza-like illness GP consultations was low in England (9.8 per 100,000), Wales (6.6 per 100,000), Scotland (8.5 per 100,000) and Northern Ireland (18.4 per 100,000).
 - Weekly influenza-like illness consultations rates also remain low in week 50 through the GP In Hours Surveillance system.
- [Influenza-confirmed hospitalisations](#)
 - Fourteen new admissions to ICU/HDU with confirmed influenza (six influenza A(H1N1)pdm09, seven A(unknown subtype) and one B) were reported through the USSS mandatory ICU/HDU surveillance scheme across the UK (134 Trusts in England) in week 50, a rate of 0.02 compared to 0.03 per 100,000 the previous week and one confirmed death.
 - Fourteen new hospitalised confirmed influenza cases (seven influenza A(H1N1)pdm09, two influenza A (H3N2), one influenza A(not subtyped) and four influenza B) were reported through the USSS sentinel hospital network across England (21 Trusts), a rate of 0.18 compared to 0.11 per 100,000 the previous week.
 - Since week 40, three confirmed influenza admissions have been reported (two influenza A(H1N1)pdm09 and one influenza A(unknown subtype) from the five Severe Respiratory Failure centres in England.
- [All-cause mortality data](#)
 - In week 50 2015, no statistically significant excess all-cause mortality by week of death was seen through the EuroMoMo algorithm in England overall and by age group and across the devolved administrations.
- [Microbiological surveillance](#)
 - Eleven samples tested positive for influenza (5 A(H1N1)pdm09, 5 A(untyped) and 1 B) through GP sentinel schemes across the UK.
 - Fifty-four influenza positive detections were recorded through the DataMart scheme (thirty-six influenza A(H1N1)pdm09, one A(H3), twelve A(not subtyped) and five influenza B). A positivity of 3.6% was seen in week 50, an increase from 3.5% seen in week 49, with the highest positivity in 15-44 year olds (6.8%).
- [Vaccination](#)
 - Up to week 50 2015 in 92.8% GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2015/16 influenza vaccine in targeted groups was as follows: 41.9% in under 65 years in a clinical risk group, 40.1% in pregnant women, 68.8% in 65+ year olds, 32.3% in all 2 year olds, 33.7% in all 3 year olds and 27.2% in all 4 year olds.
 - Provisional data from the second monthly collection of influenza vaccine uptake by frontline healthcare workers show 44.1% were vaccinated by 30 November 2015 from 97.0% of Trusts, compared to 48.2% vaccinated in the previous season by 30 November 2014. The report is available [here](#).
- [International situation](#)
 - Globally, influenza activity generally remained low in both hemispheres, with A(H3N2) detections predominating in the United States and Canada.
 - Influenza activity in Europe remains low and there is no indication that the influenza season has started. There has been more A(H1N1)pdm09 detections than A(H3N2) detections.

In week 50, there were decreases in a number of respiratory indicators in infants aged <1 year across all syndromic surveillance systems. Five new acute respiratory outbreaks were reported in the past 7 days.

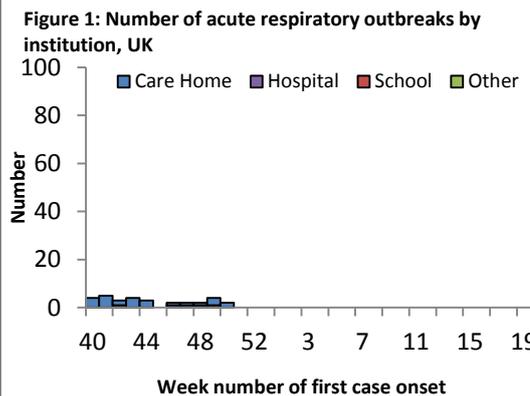
- PHE Real-time Syndromic Surveillance

-During week 50 there were decreases in a number of respiratory indicators in infants aged <1 year across, all syndromic surveillance systems. These decreases may signal that respiratory syncytial virus (RSV) activity has peaked.

- Acute respiratory disease outbreaks

- Five new acute respiratory outbreaks have been reported in the past 7 days. Two of them were in care homes (one tested positive for hMPV while the other two were not tested/test results not available). Two were in hospitals (one tested positive for RSV while the other was not tested/test results not available).

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

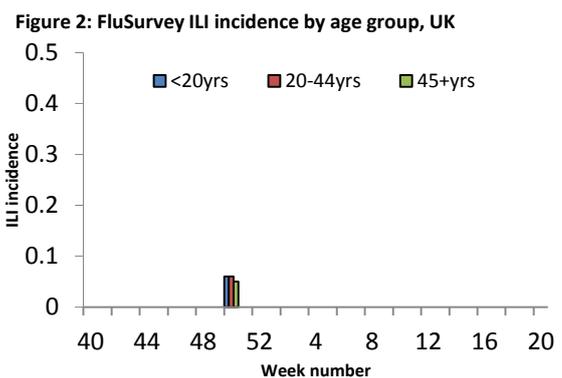


- FluSurvey

- Internet-based surveillance of influenza in the general population is undertaken through the FluSurvey. A project run jointly by PHE and the London School of Hygiene and Tropical Medicine.

- The overall ILI rate (all age groups) for week 50 was 0.05 (128 / 2,362 people reported at least 1 ILI).

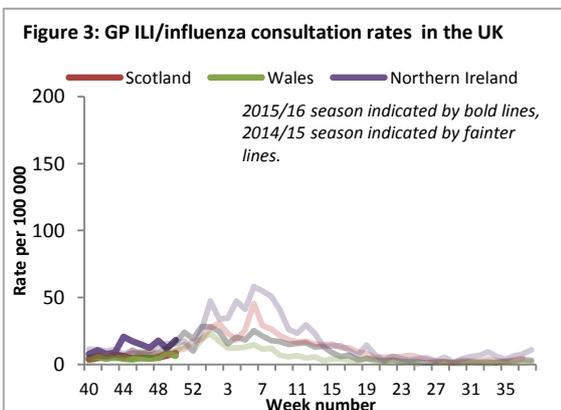
- If you would like to become a participant of the FluSurvey project please do so by visiting the <http://flusurvey.org.uk> website for more information



Weekly consultation rates in national sentinel schemes

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

- Influenza/Influenza-Like-Illness (ILI)



Northern Ireland

-The Northern Ireland influenza consultation rate was low at 18.4 per 100,000 in week 50 (Figure 3) and below the pre-epidemic threshold (49 per 100,000).

-The highest rates were seen in the <1 year olds (54.0 per 100,000), 75+ year olds (23.6 per 100,000) and 45-64 year olds (23.0 per 100,000).

Wales

- The Welsh influenza rate was low at 6.6 per 100,000 in week 50 (Figure 3).
- The highest rates were seen in 45-64 year olds (8.68 per 100,000) and 15-44 year olds (8.37 per 100,000).

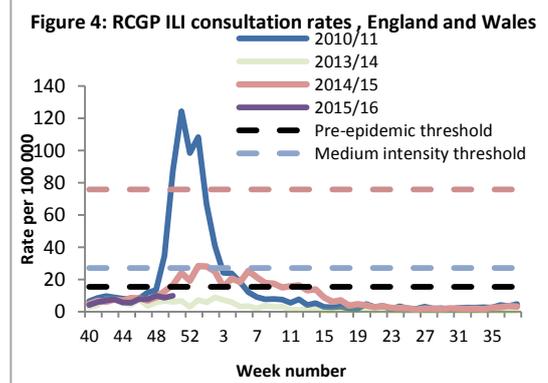
Scotland

- The Scottish ILI rate was low at 8.5 per 100,000 in week 50 (Figure 3) and below the pre-epidemic threshold (37 per 100,000).
- The highest rates were seen in 45-64 year olds (10.9 per 100,000), 15-44 year olds (9.7 per 100,000) and 75+ year olds (9.2 per 100,000).

RCGP (England and Wales)

-The weekly ILI consultation rate through the RCGP surveillance system was low at 9.8 in week 50 and below the pre-epidemic threshold (15.4 per 100,000) (Figure 4*). By age group, the highest rates were seen in 15-44 year olds (13.8 per 100,000) and 45-64 year olds (10.1 per 100,000).

**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 as calculated through the Moving Epidemic Method is 15.4 per 100,000.*



GP In Hours Syndromic Surveillance System (England)

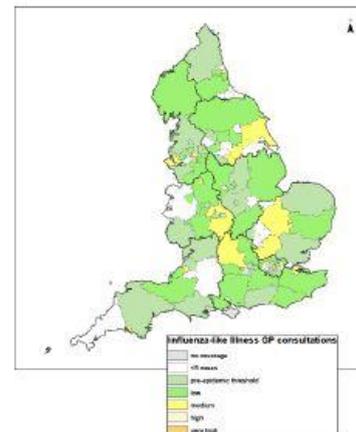
-The weekly ILI consultation rate through the GP In Hours Syndromic Surveillance system was low at 7.4 per 100,000 in week 50 (Figure 5).

Figure 5 represents a map of GP ILI consultation rates in Week 50 across England by Local Authorities, using influenza-like illness surveillance thresholds.

Thresholds are calculated using a standard methodology for setting ILI thresholds across Europe (the "Moving Epidemic Method" (MEM)) and are based on six previous influenza seasons (excluding the 2009/10 H1N1 pandemic)

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

Figure 5: Map of GP ILI consultation rates in Week 50



Influenza confirmed hospitalisations

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In week 50, fourteen new admissions to ICU/HDU with confirmed influenza (six influenza A(H1N1pdm09), seven A(unknown subtype) and one B) were reported through the national USISS mandatory ICU scheme across the UK (134 Trusts in England). Fourteen new hospitalised confirmed influenza cases (seven influenza A(H1N1pdm09, two influenza A (H3N2), one influenza A(not subtyped) and four influenza B) were reported through the USISS sentinel hospital network across England (21 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 is 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, fourteen new admissions to ICU/HDU with confirmed influenza were reported across the UK (134/156 Trusts in England) through the USISS mandatory ICU scheme (Figures 6 and 7), a rate of 0.02 per 100,000 compared to 0.03 per 100,000 the previous week and one new confirmed influenza death was reported in week 50 2015. A total of 63 admissions (17 influenza A(H1N1)pdm09, two influenza A(H3N2), 30 influenza A unknown subtype and seven influenza B) and three confirmed influenza deaths have been reported since week 40 2015.

Figure 6: Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population, England, since week 40 2015

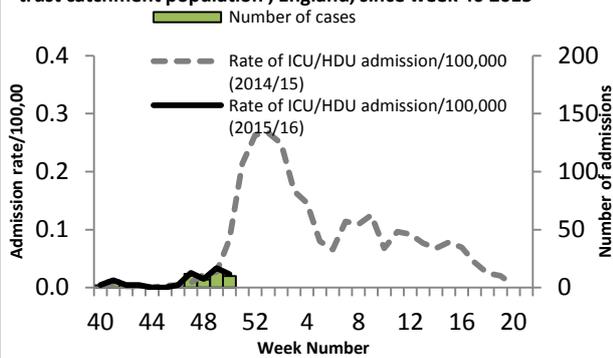
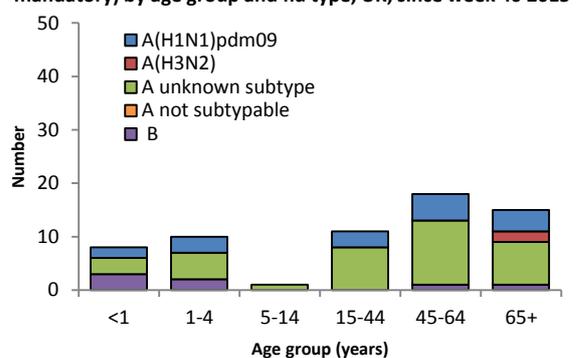


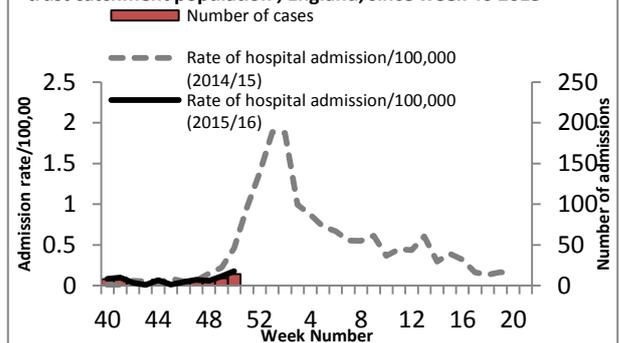
Figure 7: Cumulative ICU influenza admissions (USISS mandatory) by age group and flu type, UK, since week 40 2015



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

-In week 50, fourteen new hospitalised confirmed influenza cases (seven influenza A(H1N1)pdm09), two influenza A(H3N2), one influenza A(not subtyped) and four influenza B) were reported through the USISS sentinel hospital network from 21 NHS Trusts across England (Figure 8), a rate of 0.18 per 100,000 compared to 0.11 per 100,000 the previous week. A total of 71 hospitalised confirmed influenza admissions (45 A(H1N1)pdm09), eight A(H3N2), six A unknown subtype and 12 B) have been reported since week 40.

Figure 8: Weekly hospitalised influenza case rate per 100,000 trust catchment population, England, since week 40 2015



- USISS Severe Respiratory Failure Centre confirmed influenza admissions, England (week 50)

-In week 50, one new confirmed influenza admissions to the five Severe Respiratory Failure Centres in England were reported. Since week 40, three confirmed influenza admissions have been reported (two influenza A(H1N1)pdm09 and one influenza A unknown subtype)

All-cause mortality data

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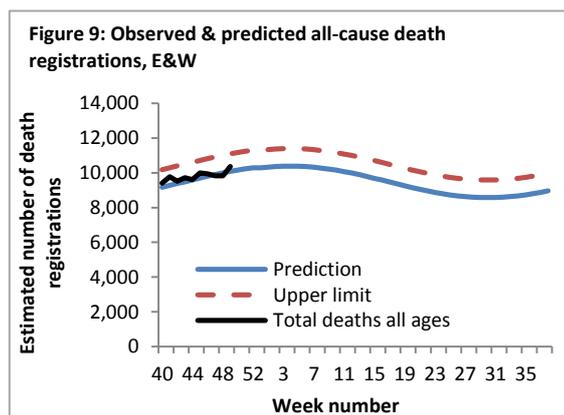
In week 50 2015, no statistically significant excess all-cause mortality by week of death was seen through the EuroMoMo algorithm in England overall and by age group and across the devolved administrations.

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 2015, an estimated 10,365 all-cause deaths were registered in England and Wales (source: [Office for National Statistics](#)). This is an increase compared to the 9,822 estimated death registrations in week 48, and is below the 95% upper limit of expected death registrations for the time of year as calculated by PHE (Figure 1).



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

-In week 50 2015, no excess mortality by date of death above the upper 2 z-score threshold was seen in England after correcting ONS disaggregate data for reporting delay with the standardised EuroMoMo algorithm (Figure 2, Table 1), in any age group or subnationally. 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 the Devolved Administrations in week 50 (Table 2).

Table 1: Excess mortality by age group, England*

Age group (years)	Excess detected in week 50 2015?	Weeks with excess in 2015/16
<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

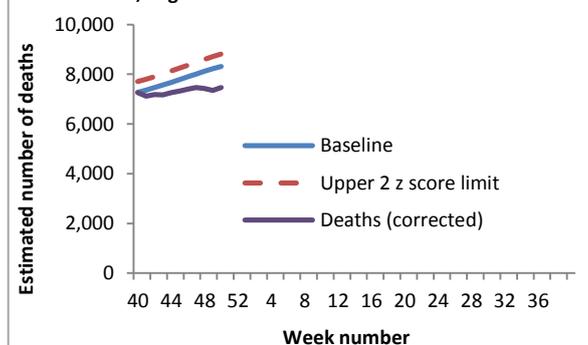
Table 2: Excess mortality by UK country*

Country	Excess detected in week 50 2015?	Weeks with excess in 2015/16
England	x	NA
Wales	x	NA
Scotland	x	48
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

Figure 10: Excess mortality in 65+ year olds by week of death, EuroMOMO, England



Microbiological surveillance

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In week 50 2015, eleven samples tested for influenza through the UK GP sentinel schemes were positive. Fifty-four influenza positive detections were recorded through the DataMart scheme (thirty-six influenza A(H1N1)pdm09, one A(H3), twelve A(not subtyped) and five influenza B).

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

-In week 50, eleven samples were positive for influenza. Eight positive samples in England (5 A(H1N1)pdm09, 2 A(untyped) and 1 B) and three positive samples in Scotland (3 A(untyped)). No samples tested positive for influenza in Wales and Northern Ireland (Table 3).

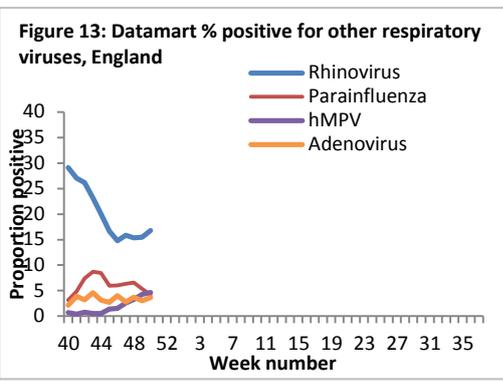
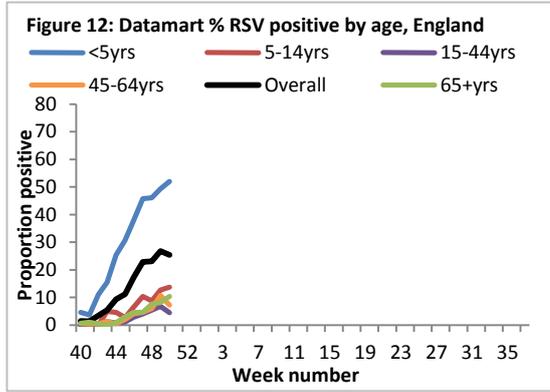
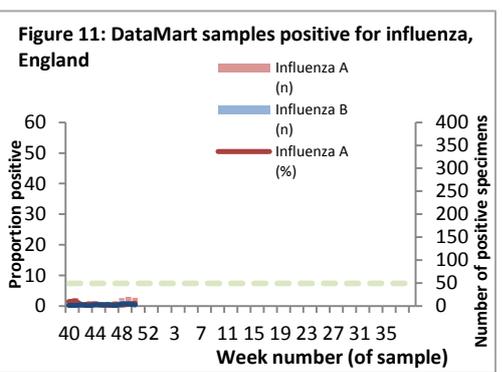
Table 3: Sentinel influenza surveillance in the UK

Week	England	Scotland	Northern Ireland	Wales
46	0/49 (0%)	1/63 (1.6%)	0/6 (-)	1/2 (-)
47	5/74 (6.8%)	1/76 (1.3%)	0/2 (-)	0/1 (-)
48	3/83 (3.6%)	0/85 (0%)	0/1 (-)	0/1 (-)
49	3/64 (4.7%)	1/74 (1.4%)	0/0 (-)	0/3 (-)
50	8/66 (12.1%)	3/54 (5.6%)	0/3 (-)	0/3 (-)

NB. Proportion positive omitted when fewer than 10 specimens tested

- Respiratory DataMart System (England)

In week 50 2015, out of the 1492 respiratory specimens reported through the Respiratory DataMart System, 54 samples (3.6%) were positive for influenza (36 A(H1N1)pdm09, 1 influenza A(H3), 12 A(not subtyped) and 5 B, Figure 9). The highest positivity was in the 15-44 years, 6.8%. The overall positivity for RSV started to decrease but positivity in children aged under 5 years continued to increase (increased from 49.3% in week 49 to 52.0% in week 50). (Figure 10). Positivity for parainfluenza decreased to 4.2% in week 49. Positivity for rhinovirus increased to 16.8%. hMPV increased slightly to 4.7%. Adenovirus remained low at 3.7% (Figure 11).



*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 7.4% in 2015/16.

- Virus characterisation

The PHE Respiratory Virus Unit has isolated and antigenically characterised thirty-two A(H1N1)pdm09 influenza viruses since the start of the 2015/16 winter influenza season in week 40 2015. These 32 viruses were antigenically similar to the A/California/7/2009 Northern Hemisphere 2015/16 (H1N1)pdm09 vaccine strain.

Four A(H3N2) influenza viruses have been isolated and antigenically characterised since week 38 2015. These four viruses were antigenically similar to the A/Switzerland/9715293/2013 H3N2 Northern Hemisphere 2015/16 vaccine strain. Genetic characterisation of six A(H3N2) influenza viruses since week 38 showed that they belong to genetic group 3C.2a, and are genetically similar to the majority of A(H3N2) viruses circulating in the 2014/15 season.

Two influenza B virus has been isolated and antigenically characterised since week 40 2015. These viruses were characterised as belonging to the B/Victoria/2/87 lineage and were antigenically similar to B/Brisbane/60/2008, the influenza B/Victoria-lineage component of 2015/16 Northern Hemisphere quadrivalent vaccines.

- Antiviral susceptibility

Since week 40 2014, 37 influenza A(H1N1)pdm09 and one influenza B have been tested for oseltamivir susceptibility, and 12 influenza A(H1N1)pdm09 and one influenza B have been tested for zanamivir susceptibility in the UK, and all were found to be sensitive.

- Antimicrobial susceptibility

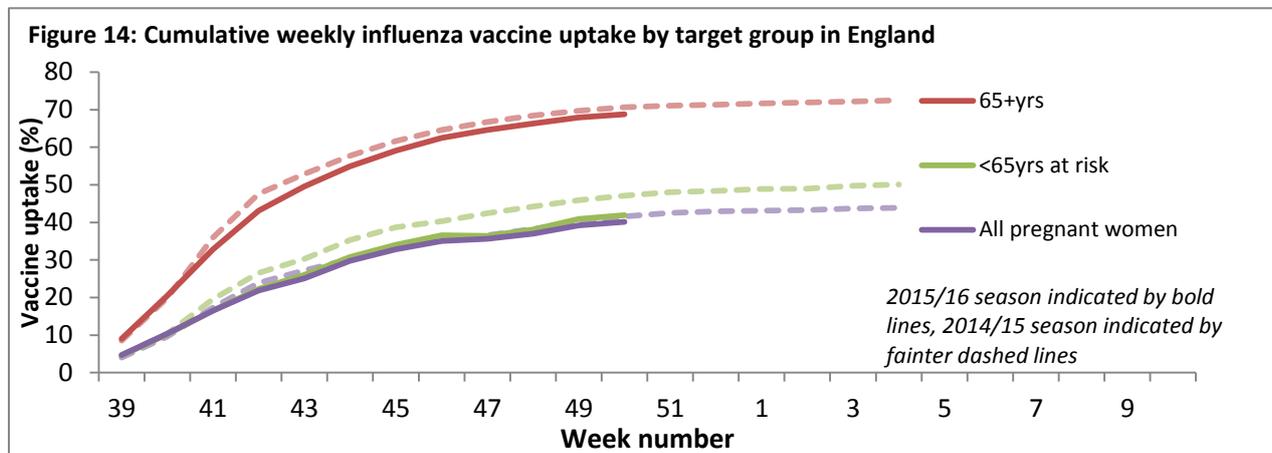
-Table 4 shows in the 12 weeks up to 13 December 2015, the proportion of all lower respiratory tract isolates of *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Staphylococcus aureus*, MRSA and MSSA tested and susceptible to antibiotics. These organisms are the key causes of community acquired 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 13 December 2015, E&W

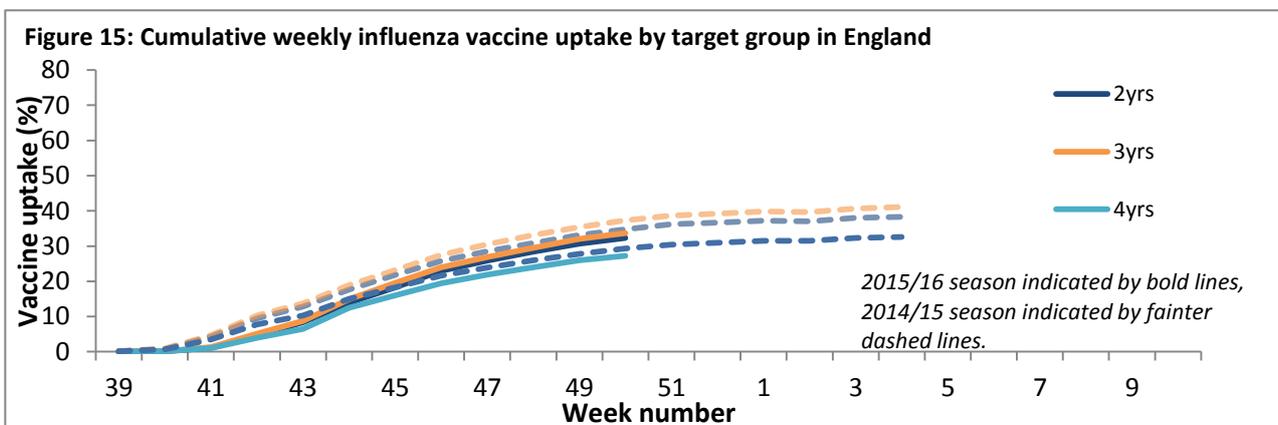
Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)
<i>S. pneumoniae</i>	Penicillin	2,468	91
	Macrolides	2,830	82
	Tetracycline	2,729	83
<i>H. influenzae</i>	Amoxicillin/ampicillin	9,993	72
	Co-amoxiclav	9,550	92
	Macrolides	3,448	18
<i>S. aureus</i>	Tetracycline	9,723	98
	Methicillin	3,895	88
MRSA	Macrolides	3,827	72
	Clindamycin	399	47
MSSA	Tetracycline	449	89
	Clindamycin	2,110	77
	Tetracycline	3,187	93

*Macrolides = erythromycin, azithromycin and clarithromycin

- Up to week 50 2015 in 92.8% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2015/16 influenza vaccine in targeted groups was as follows (Figure 14)
 - 41.9% in under 65 years in a clinical risk group
 - 40.1% in pregnant women
 - 68.8% in 65+ year olds



- In 2015/16, all two-, three- and four-year-olds continue to be eligible for flu vaccination. In addition, the programme has been extended to children of school years 1 and 2 age. Up to week 50 2015 in 92.8% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2015/16 influenza vaccine in targeted groups was as follows (Figure 15)
 - 32.3% in all 2 year olds
 - 33.7% in all 3 year olds
 - 27.2% in all 4 year olds



- Provisional data from the second monthly collection of influenza vaccine uptake by frontline healthcare workers show 44.1% were vaccinated by 30 November 2015 from 97.0% of Trusts, compared to 48.2% vaccinated in the previous season by 30 November 2014. The [report](#) provides uptake at national, area team and CCG level.
- Provisional data from the first monthly collection of influenza vaccine uptake in children of school years 1 & 2 show the proportion of children in England who received the 2015/16 live attenuated intranasal vaccine (LAIV) by 31 October 2015, as follows 11.8% of children of school year 1 (5-6 year olds) and 11.4% of children school year 2 (6-7 year olds).
- Provisional data from the first monthly collection of influenza vaccine uptake in GP patients up to 31 October 2015 has been published. The [report](#) provides uptake at national, area team and CCG level.

Globally, influenza activity generally remained low in both hemispheres.

- [Europe](#) updated on 11 December 2015 (Joint ECDC-WHO Influenza weekly update)

For week 49, influenza activity was at low levels in the 42 countries which reported, 20 countries reported sporadic geographic spread.

For week 49/2015, 4% of specimens from sentinel sources, and increase from 3% in the previous week.

4% of specimens from non-sentinel sources tested positive for influenza virus.

For the 2015-2016 season so far, low numbers of viruses have been subtyped (type A) or ascribed to lineage (type B), A(H1N1)pdm09 viruses have been detected more often than A(H3N2) and B/Victoria lineage, more often than B/Yamagata in both sentinel and non-sentinel specimens than in the same period during the 2014–2015 season.

- [United States of America](#) Updated on 11 December 2015 (Centre for Disease Control report)

During week 48, influenza activity increased slightly in the United States but remained low overall. The most frequently identified type reported to be influenza A with influenza A(H3) viruses predominating.

Nationwide during week 48, the proportion of outpatient visits for influenza-like illness (ILI) was 1.8%, which is below the national baseline of 2.1%. Four of 10 regions reported ILI at or above region-specific baseline levels.

During week 48, 6.1% 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 48. No influenza-associated paediatric death was reported in week 48. One influenza B associated paediatric death was reported in week 48. A total of three influenza associated paediatric deaths have been reported during the 2015-2016 season.

- [Canada](#) Updated on 11 December 2015 (Public Health Agency report)

In week 48, overall influenza activity in Canada remained low. So far this season, influenza A(H3N2) has been the most common subtype affecting Canadians.

The percent positive for influenza detections decreased from 1.44% in week 47 to 0.85% in week 48. To date, 90% of influenza detections have been influenza A and the majority of those subtyped have been A(H3) (86%).

The national influenza-like-illness (ILI) consultation rate has decreased slightly from 23.0 per 1,000 visits in week 47 to 16.7 per 1,000 visits in week 48. In week 47, the highest ILI consultation rate was found in the 5-19 age group and the lowest was found in the 65+ years of age group.

To date this season, eleven laboratory-confirmed influenza-associated paediatric (≤ 16 years of age) hospitalizations have been reported by the Immunization Monitoring Program Active (IMPACT) network. Since the start of the 2015-16 season, 79 laboratory-confirmed influenza-associated hospitalizations were reported from participating provinces and territories. The majority (54%) of patients were ≥ 65 years of age.

- [Global influenza update](#) Updated on 14 December 2015 (WHO website)

Globally, influenza activity generally remained low in both hemispheres.

In a few countries in Central Asia and Northern Europe, there were slight increases in influenza detections in recent weeks.

In Eastern Asia, the rest of Europe, North Africa and North America, influenza activity continued at low, inter-seasonal levels.

In western Asia, Oman reported increased influenza activity, predominantly due to influenza A(H1N1)pdm09 and influenza B viruses, while Bahrain reported a decline in influenza activity.

Few influenza virus detections were reported by countries in tropical Africa.

In tropical countries of the Americas, Central America and the Caribbean, respiratory virus activity remained at low levels, with the exception of Colombia, Costa Rica and Nicaragua.

In tropical Asia, countries in Southern and South East Asia reported low influenza activity overall except Thailand where activity mainly due to B viruses continued to be reported. Iran reported elevated influenza activity, predominantly influenza A(H1N1)pdm09.

In the temperate countries of the southern hemisphere, respiratory virus activity was generally low in recent weeks, with low levels of influenza A(H3N2) and B virus detections reported.

Based on FluNet reporting, the WHO GISRS laboratories tested more than 75,360 specimens between 16 November 2015 and 29 November 2015. 1,615 were positive for influenza viruses, of which 1,162 (72%) were typed as influenza A and 453 (28%) as influenza B. Of the sub-typed influenza A viruses, 408 (42.7%) were influenza A(H1N1)pdm09 and 548 (57.3%) were influenza A(H3N2). Of the characterized B viruses, 182 (74.9%) belonged to the B-Yamagata lineage and 61 (25.1%) to the B-Victoria lineage.

- [Avian Influenza](#) latest update on 13 November 2015 (WHO website)

Influenza A(H7N9) latest update on 13 November 2015

On [11 November 2015](#) the National Health and Family Planning Commission (NHFP) of China notified WHO of 2 additional laboratory-confirmed cases of human infection with avian influenza A (H7N9) virus. For further updates and WHO travel and clinical management advice, please see the [WHO website](#).

Influenza A(H5N1)

From 2003 through 13 November 2015, 844 laboratory-confirmed human cases of H5N1 avian influenza have been officially reported to [WHO](#) from 16 countries, of which 449 (53.2%) have died. Since the last WHO Influenza update on 15 October 2015, no new laboratory-confirmed human cases of avian influenza A(H5N1) virus infection were reported to WHO. Various influenza A(H5) subtypes, such as influenza A(H5N1), A(H5N2), A(H5N3), A(H5N6) and A(H5N8), continue to be detected in birds in West Africa, and Asia, according to recent reports received by OIE. Although these influenza A(H5) viruses might have the potential to cause disease in humans, so far no human cases of infection have been reported, with exception of the human infections with influenza A(H5N1) viruses and the four human infections with influenza A(H5N6) virus detected in China since 2014. Overall, the public health risk assessment for avian influenza A(H5) viruses remains unchanged since the assessment of [17 July 2015](#).

Highly pathogenic avian influenza (HPAI) of the subtypes A(H5N1) and A(H5N2) have been detected in birds in a backyard and in two poultry farms in the Dordogne region of France ([ECDC](#)).

The HPAI A(H5N1) virus detected in France is not related to the A(H5N1) viruses circulating in other parts of the world, but appears to have evolved from a low pathogenic avian influenza virus circulating in Europe.

- [Middle East respiratory syndrome coronavirus \(MERS-CoV\)](#) latest update on 04 December 2015

Between [02 and 27 November 2015](#), the National IHR Focal Point for the Kingdom of Saudi Arabia notified WHO of 3 additional cases of Middle East Respiratory Syndrome-Coronavirus (MERS-CoV) infection, including two deaths.

On [12 October 2015](#), the National IHR Focal Point for the Republic of Korea provided follow-up information on a previously reported case of Middle East respiratory syndrome coronavirus (MERS-CoV) infection. The patient, who was diagnosed from hospital on 3 October following two consecutive negative PCR tests for MERS-CoV, was readmitted to hospital with fever on 11 October and tested positive again for MERS-CoV on 12 October. On [26 November 2015](#), the Korean Ministry of Health and Welfare announced the death of the readmitted patient.

Up to 16 December 2015, 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 501 suspect cases in the UK that have been investigated for MERS-CoV and tested negative.

Globally, since September 2012, WHO has been notified of 1,621 laboratory-confirmed cases of infection with MERS-CoV, including at least 584 related deaths. Further information on management and guidance of possible cases is available [online](#). The latest ECDC MERS-CoV risk assessment can be found [here](#), where it is highlighted that risk of widespread transmission of MERS-CoV remains low.

Acknowledgements

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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
- [EuroMOMO](#) mortality project

Vaccination

- Seasonal influenza vaccine programme ([Department of Health Book](#))
- Childhood flu programme information for healthcare practitioners ([Public Health England](#))
- 2015/16 Northern Hemisphere seasonal influenza vaccine recommendations ([WHO](#))