



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

Report contents:

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

Summary

The majority of indicators of influenza activity are at similar levels in week 5 compared to week 4. A [letter](#) has been issued recommending the use of antivirals where appropriate.

- Overall weekly influenza GP consultation rates across the UK
 - In week 5 (ending 2 February 2014), overall weekly influenza GP consultations remained low in England (5.8 per 100,000), Wales (8.1 per 100,000), Scotland (12.5 per 100,000) and Northern Ireland (19.8 per 100,000).
 - Nationally, there have been further slight increases in selected respiratory indicators during week 5 including acute respiratory and upper respiratory tract infections. Indicators for influenza-like illness remained stable during week 5 and below seasonally expected levels.
 - Five new acute respiratory outbreaks have been reported in the past seven days across the UK (two in care homes, two in hospitals and one in a primary school). Where tested, one was positive for parainfluenza/hMPV, one influenza A (not subtyped) and one RSV.
- Virology
 - In week 5 2014, 66 influenza positive detections were recorded through the DataMart scheme (27 A(H1N1)pdm09, seven A(H3), 31 A(not subtyped) and one B, a positivity of 8.5% compared to 8.2% in week 4).
 - Fifteen samples were positive for influenza through the English GP sentinel schemes (12 A(H1N1)pdm09 and three A(H3), positivity of 19%).
- Disease severity and mortality
 - 33 new admissions to ICU/HDU with confirmed influenza (17 A unknown subtype, 14 A(H1N1)pdm09, two A(H3N2)) and two confirmed influenza deaths were reported through the USISS mandatory ICU surveillance scheme across the UK (134 Trusts in England) in week 5. 30 new hospitalised confirmed influenza cases were reported through the USISS sentinel hospital network across England (25 Trusts).
 - In week 5 2014, no excess all-cause mortality by week of death was seen across the UK through the EuroMOMO algorithm and none has been reported since week 40 2013.
- Vaccination
 - Up to week 4 2014 in 71.3% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2013/14 influenza vaccine in targeted groups was as follows: 42.6% in all 2 year olds, 39.3% in all 3 year olds, 51.3% in under 65 years in a clinical risk group, 39.6% in all pregnant women and 72.9% in 65+ year olds.
 - Provisional data from the third monthly collection of influenza vaccine uptake in health care workers show 53.1% were vaccinated by 31 December 2013 from 95.2% of Trusts, compared to 44.0% vaccinated the previous season by 30 December 2012.
- International situation
 - Overall influenza activity in North America remains high.
 - Influenza transmission is continuing to increase across the EU/EEA region.

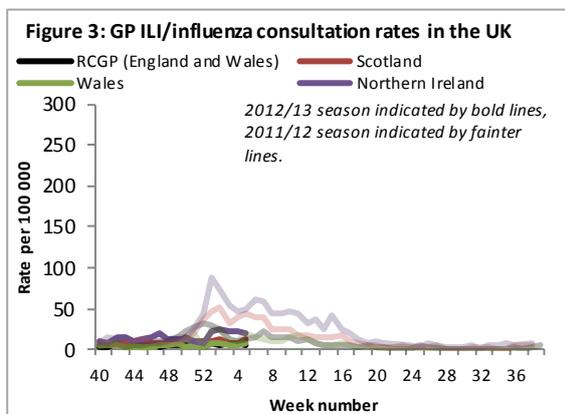
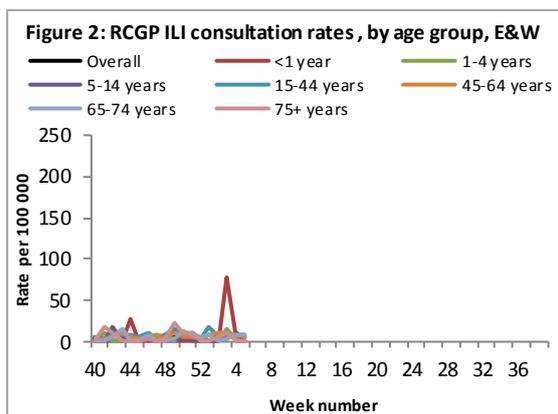
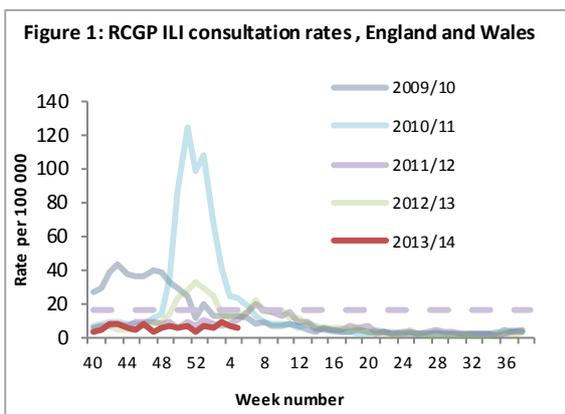
In week 5 (ending 2 February 2014), overall weekly influenza GP consultations remained low in England, Wales, Scotland and Northern Ireland.

- Influenza/Influenza-Like-Illness (ILI)

RCGP (England and Wales)

-The overall ILI consultation rate from RCGP for England and Wales remained stable at 5.8 per 100,000 in week 5 (Figure 1*). ILI rates increased in the North (from 0.0 to 6.0 per 100,000) decreased in Central (from 11.1 to 1.2 per 100,000) and remained stable in South region (from 8.7 to 9.8 per 100,000).

-In week 5 2014, the highest ILI consultations were reported in 1-4 year olds (rate of 8.9 per 100,000), 65-74 year olds (8.6 per 100,000) and 15-44 year olds (8.4 per 100,000).



Northern Ireland

-The Northern Ireland influenza rate decreased from 22.9 per 100,000 in week 4 to 19.8 per 100,000 in week 5 (Figure 3).

-In week 5 2014, the highest rates were seen in <1 year olds (50.2 per 100,000) and 65-74 year olds (33.3 per 100,000).

Wales

-The Welsh influenza rate remained stable at 8.1 per 100,000 in week 5 (Figure 3).

-The highest rate was seen in 15-44 year olds (12.0 per 100,000) followed by 45-64 year olds (8.7 per 100,000).

Scotland

-The Scottish ILI rate increased from 8.3 per 100,000 in week 4 to 12.5 per 100,000 in week 5 (Figure 3).

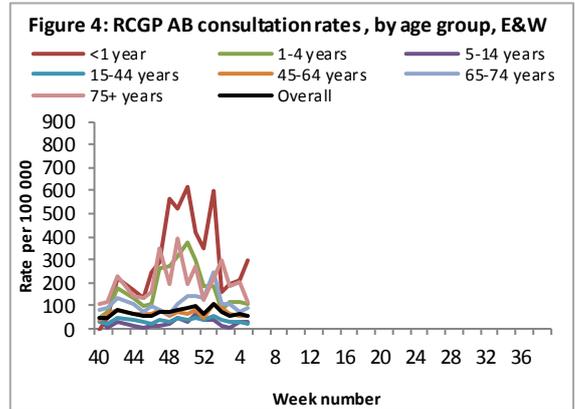
-The highest rate was seen in 45-64 year olds (15.4 per 100,000) followed by 15-44 year olds (14.1 per 100,000).

*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 calculated for RCGP ILI consultation rates for 2013/14 is 15.6 per 100,000.

- Other respiratory indicators

Acute bronchitis (AB)

The overall weekly consultation rate for acute bronchitis (AB) in England and Wales through the RCGP scheme decreased from 62.6 per 100,000 in week 4 to 53.8 per 100,000 in week 5 (Figure 4). The highest rates were seen in <1 year olds (294.2 per 100,000) and 75+ year olds (120.0 per 100,000).



Community surveillance | [Back to top](#) |

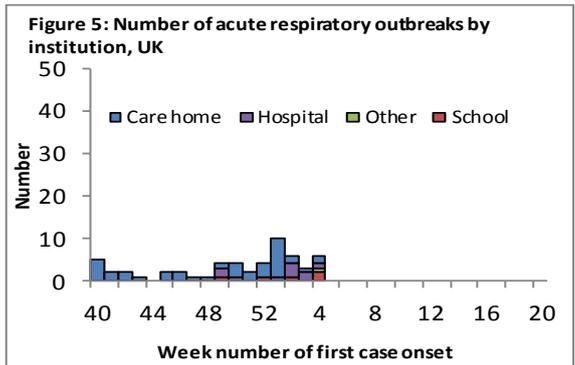
In week 5 further slight increases in selected respiratory indicators have been seen and five new acute respiratory outbreaks have been reported in the last seven days.

- PHE Real-time Syndromic Surveillance

-Nationally, there have been further slight increases in selected respiratory indicators during week 5 including acute respiratory and upper respiratory tract infections. Indicators for influenza-like illness remained stable during week 5 and below seasonally expected levels.
 -For further information, please see the syndromic surveillance [webpage](#).

- Acute respiratory disease outbreaks

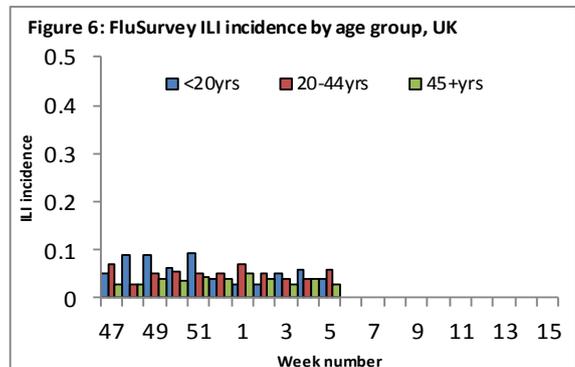
-Five new acute respiratory outbreaks were reported in the last 7 days; three in the Midlands and East of England (two from care homes and one from a hospital), one from a primary school in the North of England and one from Scotland in a hospital. Where tested, one was positive for influenza A (not subtyped), one was positive for RSV and one was positive for parainfluenza/hMPV. So far this season, 40 outbreaks have been reported in care homes, 11 in hospitals, five in schools and one in a nursery (where tested, four influenza A(H1N1)pdm09, seven influenza A(not subtyped), nine RSV, nine rhinovirus, three parainfluenza, one parainfluenza/RSV, one parainfluenza/rhinovirus and one parainfluenza/hMPV).



-Outbreaks should be recorded on HPZone and reported to the local Health Protection Teams and Respcidsc@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 5, the incidence of ILI reports was low, with the highest value in 20-44 year olds (Figure 6).



In week 5 2014, 66 influenza positive detections were recorded through the DataMart scheme (27 A(H1N1)pdm09, seven A(H3), 31 A(not subtyped) and one B), with the highest positivity reported in 15-44 year olds. Fifteen samples were positive for influenza through the English sentinel schemes (12 A(H1N1)pdm09 and three A(H3)).

• Respiratory DataMart System (England)

In week 5 2014, out of the 781 respiratory specimens reported through the Respiratory Datamart System, 27 (3.5%) were positive for flu A(H1N1)pdm09, seven (0.9%) positive for influenza A(H3), 31 (4.0%) positive for flu A(not subtyped) and one sample was positive for influenza B (Figure 7). with the highest influenza positivity in 15-44 year olds (12.4%, Figure 8). The overall positivity for RSV continued to decrease from 11.2% in week 4 to 6.2% in week 5 with the highest positivity remained in the <5 years (decrease from 21.2% in week 4 to 13.0% in week 5, Figure 9). Positivity for rhinovirus was stable at 13.5% in week 5. Other respiratory viruses remained at low levels (adenovirus 4.7%, parainfluenza 1.8% and hMPV 3.1%).

Figure 7: DataMart samples positive for influenza, England

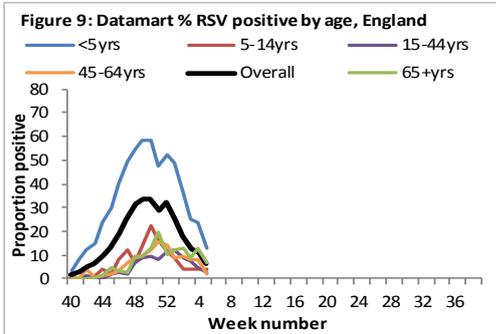
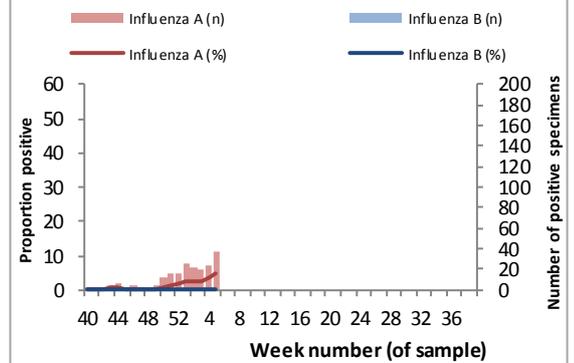
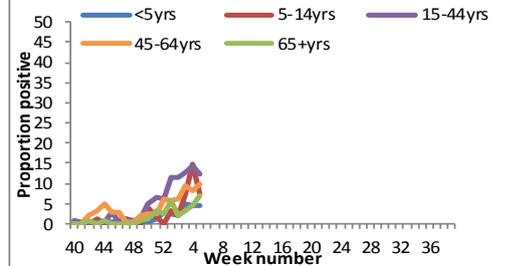


Figure 8: Datamart % positive for influenza by age, England



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

-In week 5, 15 samples from England were positive for influenza (12 A(H1N1)pdm09 and three A(H3)). Four samples were positive from Scotland for influenza A(H1N1)pdm09, one sample was positive from Northern Ireland for A(H3) and one sample was positive through the Welsh scheme for influenza A(H1N1)pdm09 (Table 1).

Table 1: Sentinel influenza surveillance in the UK

Week	England	Scotland	Northern Ireland	Wales
02	14/96 (14.6%)	4/44 (9.1%)	4/10 (40.0%)	0/1 (-)
03	12/55 (21.8%)	2/36 (5.6%)	5/12 (41.7%)	0/0 (-)
04	10/62 (16.1%)	4/56 (7.1%)	7/15 (46.7%)	0/4 (-)
05	15/80 (18.8%)	4/21 (19%)	1/6 (-)	1/5 (-)

NB. Proportion positive omitted when fewer than 10 specimens tested

• Virus characterisation

Since week 40 2013, the PHE Respiratory Virus Unit (RVU) has isolated and antigenically characterised 36 influenza A(H3N2) viruses, all similar to the A/Texas/50/2012 H3N2 2013/14 vaccine strain, and 71 influenza A(H1N1)pdm09 viruses similar to the A/California/07/2009 vaccine strain for 2013/14. Three influenza B isolates, belonging to the B-Yamagata lineage have been characterised, and one from the B-Victoria lineage.

• Antiviral susceptibility

Since week 40 2013, 193 and 47 influenza viruses have been tested for Osetamivir and Zanamivir susceptibility, respectively, in the UK. Two (1.2%) of 171 flu A(H1N1)pdm09 and one (5.6%) of 18 flu A(H3) viruses have been found to be resistant to oseltamivir. No viruses were found to be resistant to Zanamivir.

• Antimicrobial susceptibility

-In the 12 weeks up to 26 January 2014, 83% or greater of all lower respiratory tract isolates of *Staphylococcus aureus*, *Streptococcus pneumoniae* and *Haemophilus influenzae* reported as tested were susceptible to the antibiotics tetracycline and co-amoxiclav (Table 2). There have been no significant changes in susceptibility in recent years.

Table 2: Antimicrobial susceptibility surveillance in lower respiratory tract isolates, 12 weeks up to 26 Jan 2014, E&W

Organism	Tetracyclines		Co-amoxiclav	
	Specimens tested (N)	Specimens susceptible (%)	Specimens tested (N)	Specimens susceptible (%)
<i>S. aureus</i>	3,175	92	214	91
<i>S. pneumoniae</i>	2,310	83	2428*	90*
<i>H. influenzae</i>	9,250	99	8,828	93

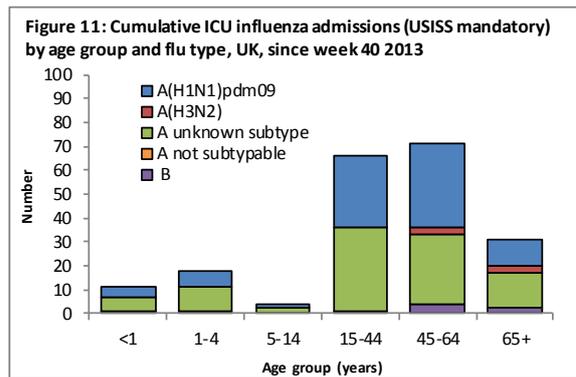
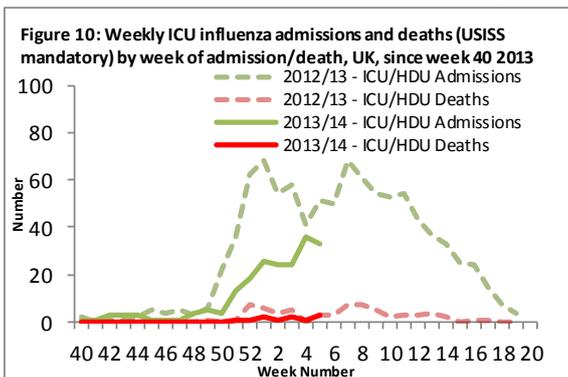
* *S. pneumoniae* isolates are not routinely tested for susceptibility to co-amoxiclav, however laboratory results for benzyl-penicillin are extrapolated to determine sensitivity to other beta-lactams such as co-amoxiclav.

In week 5, 33 new admissions of confirmed influenza cases to ICU/HDU (17 A unknown subtype, 14 A(H1N1)pdm09 and two A(H3N2)) and two confirmed influenza deaths in ICU/HDU have been reported through the national USISS mandatory ICU scheme across the UK (134 Trusts in England). 30 new hospitalised confirmed influenza cases 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.

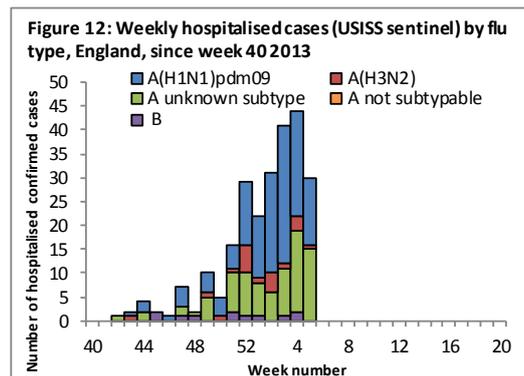
- Number of new admissions and fatal confirmed influenza cases in ICU/HDU (USISS mandatory ICU scheme), UK (week 5)

-In week 5, 33 new admissions to ICU/HDU with confirmed influenza infection (17 A unknown subtype, 14 A(H1N1)pdm09 and two A(H3N2)) were reported across the UK (134/156 Trusts in England) through the USISS mandatory ICU scheme (Figures 10 and 11) compared to 36 in week 4. Two new confirmed influenza deaths were reported in week 5 2013. A total of 201 admissions (89 A(H1N1)pdm09, 97 A(unknown), nine B and six A(H3N2)) and 11 confirmed influenza deaths have been reported since week 40 2013.



- USISS sentinel weekly hospitalised confirmed influenza cases, England (week 5)

-In week 5, 30 new hospitalised confirmed influenza case were reported through the USISS sentinel hospital network from 25 NHS Trusts across England (Figure 12) compared to 44 in week 4. A total of 247 hospitalised confirmed influenza admissions (133 A(H1N1)pdm09, 83 A unknown, 20 A(H3N2), 11 B) have been reported since week 40 2013.



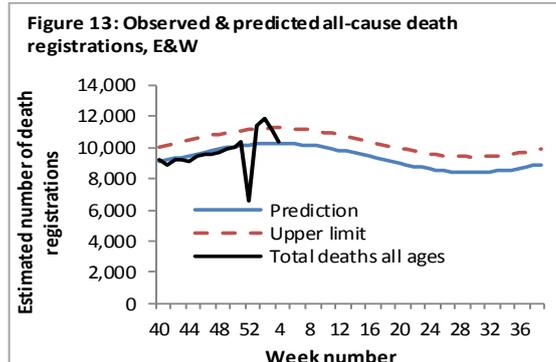
In week 5 2014, no excess all-cause mortality by week of death was seen across the UK through the EuroMOMO algorithm and none has been reported since week 40 2013.

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 4 2013, an estimated 10,374 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is less than the 11,061 estimated death registrations in week 3 and is below 95% upper limit of expected death registrations for this time of year as calculated by PHE (Figure 13). The sharp drop in number of deaths correspond to weeks when there were bank holidays and fewer days when deaths were registered and so is likely to be artificial.



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

-In week 5 2013, 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 14, Table 3). This data is provisional due to the time delay in registration and so numbers may vary from week to week.

-No excess mortality above the threshold through the same standardised algorithm was seen by age group, subnationally or in the devolved administrations (Table 4).

Table 3: Excess mortality by age group, England*

Age group (years)	Excess detected in week 5 2014?	Weeks with excess in 2013/14
<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

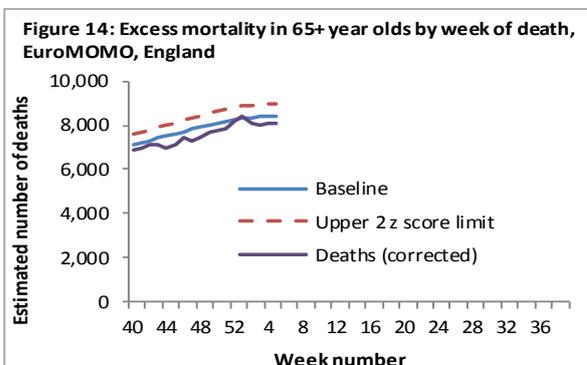


Table 4: Excess mortality by UK country*

Country	Excess detected in week 5 2014?	Weeks with excess in 2013/14
England	NA	NA
Wales	NA	NA
Scotland	x	NA
Northern Ireland	x	NA

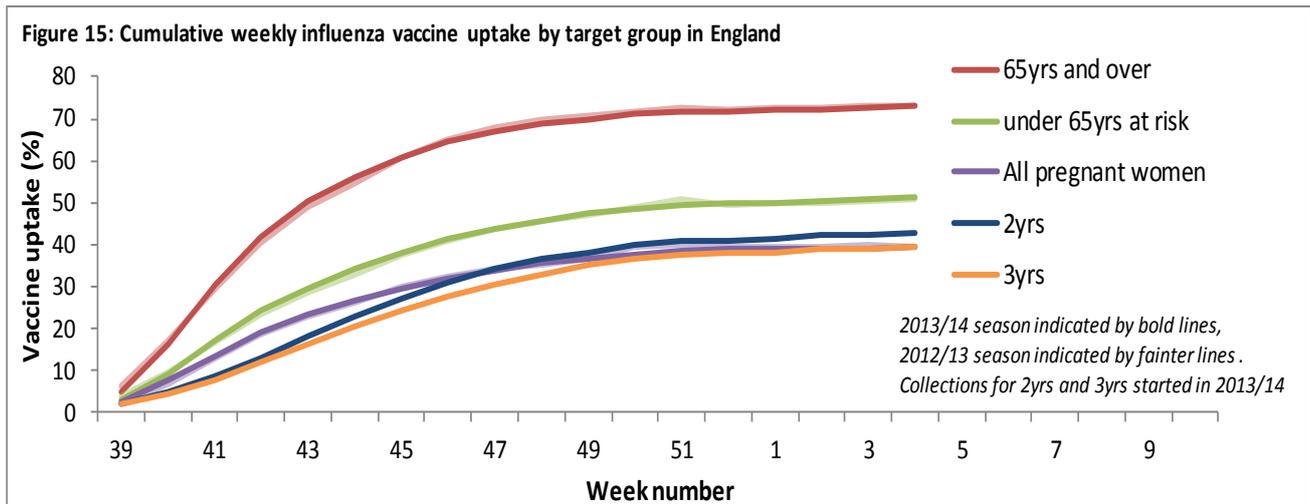
* Excess mortality is calculated as the observed minus the expected number of deaths in weeks above threshold

NB. Separate total and age-specific models are run for England which may lead to discrepancies between Tables 3 + 4

Vaccination

[Back to top](#)

- Up to week 4 2014 in 71.3% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2013/14 influenza vaccine in targeted groups was as follows (Figure 15):
 - 42.6% in all 2 year olds
 - 39.3% in all 3 year olds
 - 51.3% in under 65 years in a clinical risk group
 - 39.6% in all pregnant women
 - 72.9% in 65+ year olds



- In the third monthly collection up to 31 December 2013, provisional cumulative seasonal influenza vaccine uptake from 98.5% of GP practices was 72.0% in 65 years and over, 50.2% in under 65 year olds at risk, 38.9% in all pregnant women, 41.2% in all 2 year olds and 38.1% in all 3 year olds. The [report](#) provides uptake to Area Team level, CCG level and in key targeted groups.
- Provisional data from the third monthly collection of influenza vaccine uptake by frontline healthcare workers show 53.1% were vaccinated by 31 December 2013 from 95.2% of Trusts, compared to 44.0% vaccinated the previous season by 31 December 2012. The [report](#) provides uptake to Trust level.

International Situation

[Back to top](#)

Overall influenza activity in North America remains high. Influenza transmission is continuing to increase across the EU/EEA region.

- [Europe](#) 31 January 2014 (European Centre for Disease Prevention and Control report)

For week 4/2014, clinical data were reported by 28 countries. Bulgaria reported high intensity and Greece, Luxembourg, Portugal and Spain reported medium intensity, while all other countries experienced low-intensity influenza, which is the lowest category of reporting. Geographic patterns of influenza activity were reported as widespread by Bulgaria, Greece, Luxembourg and Spain, regional or local by eight countries and sporadic by 12 countries. No geographic spread was reported by Cyprus, Slovakia and the UK (Wales). Increasing trends were reported by 16 countries while stable trends were reported by 12 countries. Influenza activity continued to increase in the EU/EEA, with more countries reporting increasing trends and greater geographic spread. In week 4/2014, ILI rates reached (Portugal) or exceeded (Bulgaria, Greece and Spain) peak rates reported in 2013.

For week 4/2014, 24 countries tested a total of 1 495 sentinel specimens, of which 450 (30%) were positive for influenza virus, a slight decrease against the previous week, possibly due to reporting delays (Tables 1–2, Figures 1–2). Influenza A(H1)pdm09 virus was reported as dominant by Bulgaria, Greece, Latvia, Norway, Spain and the UK (Scotland) while A(H3) was reported as dominant in Ireland and Slovenia. Both virus subtypes circulated evenly in France and Italy. For week 4/2014, of 450 sentinel influenza viruses detected, 444 (99%) were type A and six (1%) were type B. Of the 329 influenza A viruses subtyped, 181 (55%) were A(H1)pdm09 and 148 (45%) were A(H3).

Since week 40/2013, 203 A(H1)pdm09 viruses, 64 A(H3N2) and 21 influenza B viruses have been tested for susceptibility to neuraminidase inhibitors (NAIs) by genetic and/or phenotypic methods, and reported on by the Netherlands, Norway, Portugal, Spain, Sweden, and the United Kingdom. Two A(H1)pdm09 viruses carried the NA-H275Y amino acid substitution associated with highly reduced inhibition by oseltamivir. One A(H3N2) virus carrying the NA-E119V amino acid substitution showed reduced inhibition by oseltamivir on phenotypic testing and normal inhibition by zanamivir. Despite treatment with oseltamivir, the patient died. None of the test results of the other viruses showed evidence for reduced or highly reduced inhibition by NAIs.

For week 4/2014, 14 countries reported 866 RSV detections, a substantial decrease since the peak observed in week 1/2014.

For week 4/2014, 217 hospitalised, laboratory-confirmed influenza cases were reported by five countries (France, Ireland, Spain, Sweden and the UK). Of these, 105 (48%) were related to A(H1)pdm09, 16 (7 %) to A(H3), 95 (44%) to non-subtyped influenza A viruses and one to an influenza B virus. Since week 40/2013, six countries have reported 1 177 hospitalised laboratory-confirmed influenza cases: 1 160 (99%) were related to influenza type A and 17 (1%) to type B. Of 785 subtyped influenza A viruses, 633 (81%) were A(H1)pdm09 and 152 (19%) were A(H3) viruses. In patients with known vaccination status, 77% were unvaccinated. In addition, 387 (38%) of 1 016 hospitalised cases with reported age were in the age group 40-64 years and 334 (33%) were 65 years and older. Of 563 patients with known age and infected by A(H1)pdm09, 243 (43%) were middle-aged adults (40-64 years). Since week 40/2013, France, Spain and Ireland have reported 71 fatal cases (Table 6). All fatal cases were associated with influenza type A infection and 50 were subtyped: 39 (78%) as A(H1)pdm09 and 11 (22%) as A(H3).

- [United States of America](#) 31 January 2013 (Centre for Disease Control report)

During week 4 (January 19-25, 2014), influenza activity remained high in the United States.

Nationwide during week 4, 3.3% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is above the national baseline of 2.0%. On a regional level, the percentage of outpatient visits for ILI ranged from 2.1% to 5.2% during week 4. All 10 regions reported a proportion of outpatient visits for ILI above their region-specific baseline level.

During week 4, 8.8% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was above the epidemic threshold of 7.3% for week 4. Nine influenza-associated pediatric deaths were reported to CDC during week 4. Four of the nine deaths were associated with a 2009 H1N1 virus and occurred during weeks 52, 2, 3, and 4 (weeks ending December 28, 2013, January 11, and January 18, and January 25, 2014). Three deaths were associated with an influenza A virus for which no subtyping was performed and occurred during weeks 3 and 4 (weeks ending January 18 and January 25, 2014) and one death was associated with an influenza B virus and occurred during week 3 (week ending January 18, 2014). One death was associated with an influenza virus for which the type was not determined and occurred during week 1 (week ending January 4, 2014). A total of 37 influenza-associated pediatric deaths have been reported during the 2013-2014 season from New York City [1] and 18 states (AR [2], CA [3], FL [3], GA [1], IA [1], KY [1], LA [2], MA [1], MI [1], MS [1], NC [1], OK [2], OR [1], TN [4], TX [9], UT [1], VA [1], and WV [1]).

Of 9,514 specimens tested and reported during week 4 by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories, 2,006 (21.1%) were positive for influenza. By type, 1,906 (95.0%) were influenza A (1,116 (58.6%) A(H1N1)pdm09, 759 subtyping not performed and 31 (1.6%) A(H3)) and 100 (5.0%) were influenza B.

- [Canada](#) 31 January 2013 (Public Health Agency report)

In week 04, Prince Edward Island reported widespread activity, and 22 regions (in AB(5), ON(7), QC(3), NB(5), NS(1) and NL(1)) reported localized activity ([Figure 1](#)). Compared to week 03, activity was stable or decreased in regions in BC, AB, SK, ON and NT; stable in MB and YT; and stable or increased in regions in QC, NS, NB, NL. A mixed pattern of activity was reported among regions in NU. The national influenza-like-illness (ILI) consultation rate decreased from 65.4/1,000 in week 03 to 39.8/1,000 in week 04; which is within the expected range for week 04. In week 04, 51 new laboratory-confirmed influenza-associated paediatric (≤ 16 years of age) hospitalizations were reported by the Immunization Monitoring Program Active (IMPACT) network, compared to 62 in week 03. All but three of the hospitalizations in week 04 were cases with influenza A ([Figure 8a](#)). Thirty-two (63%) of the cases were <5 years of age. Eleven ICU admissions were reported in week 04, one child under 6 months of age, two children 6-23 months of age, two 2-4 years of age, and six 5-9 years of age; all but one with influenza A. No deaths were reported.

- [Global influenza update](#) 27 January 2014 (WHO website)

In North America influenza activity remained high in recent weeks with A(H1N1)pdm09 predominant. In Europe, a slight increase in influenza activity has been observed, which may indicate the start of the influenza season. In China influenza activity continued to increase with influenza (H1N1)pdm09, A(H3N2) and influenza B co-circulating. In the southern hemisphere influenza activity remained low.

In countries of tropical areas variable influenza activity was reported.

Based on FluNet reporting (as of 23 January 2014), during weeks 1 to 2 (29 December 2013 to 11 January 2014), National Influenza Centres (NICs) and other national influenza laboratories from 72 countries, areas or territories reported data. The WHO GISRS laboratories tested more than 81 261 specimens. 24 494 were positive for influenza viruses, of which 22 425 (91.6%) were typed as influenza A and 2069 (8.4%) as influenza B. Of the sub-typed influenza A viruses, 11 033 (80.5%) were influenza A(H1N1)pdm09 and 2669 (19.5%) were influenza A(H3N2). Of the characterized B viruses, 220 (84%) belonged to the B-Yamagata lineage and 42 (16%) to the B-Victoria lineage were influenza A(H3N2). Of the characterized B viruses, 352 (81.1%) belong to the B-Yamagata lineage and 82 (18.9%) to the B-Victoria lineage.

- [Avian Influenza](#) 4 February 2014 (WHO website)

Influenza A(H7N9)

Since 23 January 2014, 77 hospitalised cases of human infection with influenza A(H7N9) in China have been reported by [WHO](#), including five deaths, compared to 29 the previous week. The source of infection is still under investigation. So far, there is no evidence of sustained human-to-human transmission. 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.

Influenza A(H5N1)

From 2003 through to 20 December 2013, 649 human cases of H5N1 avian influenza have been officially reported to [WHO](#) from 15 countries, of which 385 (59%) died.

- Novel coronavirus 4 February 2014

Up to 4 February 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 108 suspect cases in the UK that have been investigated for MERS-CoV and tested negative. A further 176 confirmed cases have been reported internationally. This results in a current global total of [181 cases](#), 79 of which have died (case fatality ratio=44%). Two recent fatal cases were reported from Saudi Arabia and Jordan, both with underlying health conditions. Further information on management and guidance of possible cases is available [online](#).

Acknowledgements

[| Back to top |](#)

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[| Back to top |](#)

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- [USISS](#) system
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- 2012/13 seasonal influenza vaccine programme ([Department of Health Book](#))
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- 2013/14 Northern Hemisphere seasonal influenza vaccine recommendations ([WHO](#))