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## Summary

### GP consultation rates remain low and indicators of influenza activity have decreased or remained stable.

- Weekly influenza GP consultation rates remain low in England, Wales, Scotland and Northern Ireland.
  - In week 13 (ending 1 April 2012), the weekly primary care ILI consultation rate remained low in England (8.9 per 100,000), Scotland (11.6 per 100,000), Northern Ireland (21.2 per 100,000) and Wales (5.5 per 100,000).
  - The weekly proportion of NHS Direct calls for cold/flu and fever (5-14yrs) remain below the early warning thresholds for influenza in week 13.
  - Seven new acute respiratory disease outbreaks were reported in week 13 2012 compared to five in week 12.
- Virology
  - 62 (11.7%) of the 532 respiratory specimens reported to Data Mart (England) tested positive for influenza in week 13, a slight decrease in positivity compared to week 12. The majority of positive samples were influenza A(H3) (50 A(H3), four A (subtype not known), one A(H1N1)pdm09 and seven B). The proportion of samples positive for RSV increased slightly, with the highest positivity remaining in under five year olds. The proportion of samples positive decreased for rhinovirus, and increased slightly for hMPV, parainfluenza and adenovirus.
  - Nine influenza A(H3) were recorded in the UK sentinel GP schemes in week 13 2012, an overall positivity of 13.6% compared to 28.7% in week 12.
  - The majority of A(H3N2) viruses are antigenically similar to the 2011/12 A(H3N2) vaccine component.
- Disease severity and mortality
  - Twelve new admissions to ICU/HDU with confirmed influenza were reported through the USISS mandatory scheme across the UK in week 13 compared to 10 in week 12.
  - Two new ICU/HDU confirmed influenza deaths have been reported through the USISS mandatory scheme across the UK in week 13.
  - Excess all-cause mortality was seen in 65+ year olds and by region in London in week 13 as calculated by the HPA with the EuroMOMO algorithm. No excess mortality was seen in Scotland in week 13 2012.
- Influenza vaccination
  - Following a WHO consultation, it is recommended that vaccines for use in the 2012/13 northern hemisphere influenza season contain the following viruses: an A/California/7/2009 (H1N1)pdm09-like virus, an A/Victoria/361/2011 (H3N2)-like virus and a B/Wisconsin/1/2010-like virus.
- International situation
  - In Europe, the decrease in the proportion of influenza-positive sentinel specimens and the growing number of countries reporting continuously decreasing trends in ILI/ARI notifications indicate that the epidemic has passed its peak in most countries. As often observed late in the season, the proportion of type B virus influenza detections has been increasing over the past six weeks. A proportion of A(H3) viruses characterised have not perfectly matched the current vaccine strain, which is consistent with the decision of WHO to recommend a change of A(H3N2) strain in the vaccine in 2012/13.
  - Elsewhere in the temperate regions of the Northern hemisphere influenza activity appears to be reaching its peak or decreasing in most countries and it is mainly dominated by A(H3) viruses.
  - Countries in the tropical zone are mostly reporting low levels of activity and transmission in the temperate countries of the southern hemisphere is at low levels.
- HPA guidance on infection control and the use of antiviral agents for the treatment and prophylaxis of influenza this season is available on the HPA [website](#).

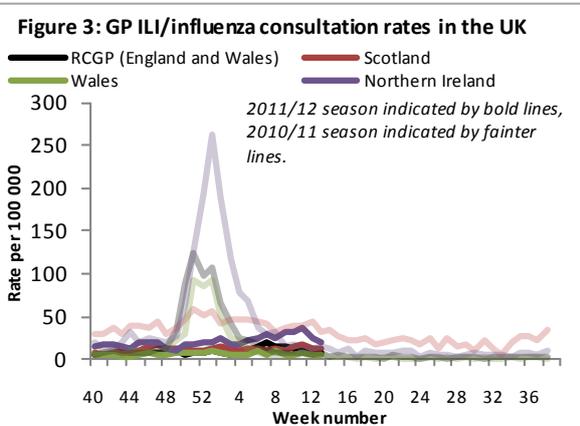
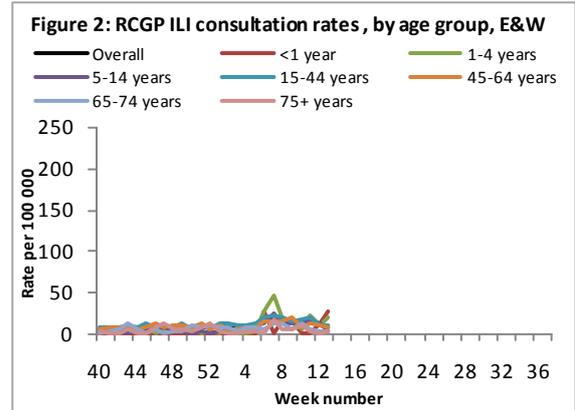
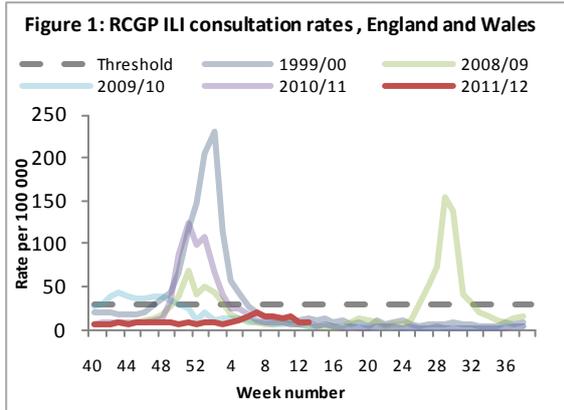
In week 13 (ending 1 April 2012), weekly influenza GP consultation rates in England, Wales, Scotland and Northern Ireland remained low.

- Influenza/Influenza-Like-Illness (ILI)

RCGP (England and Wales)

-The overall ILI consultation rate from RCGP for England and Wales remained below baseline threshold (from 9.4 to 8.9 per 100,000 in week 13) (Figure 1). ILI rates remained stable in the North (from 3.4 to 3.8 per 100,000), Central region (from 6.1 to 5.2 per 100,000) and in the South (from 13.1 to 12.4 per 100,000).

-The rate increased in the under one year olds who continue to have the highest rate (from 13.6 to 28.3 per 100,000), the 1-4 year group (from 9.5 to 19.6 per 100,000) and 75+ year olds (from 2.0 to 4.2 per 100,000). The rate decreased or remained stable in the other age groups (Figure 2).



Northern Ireland

-The combined influenza/ILI rate in Northern Ireland remained below the baseline threshold (from 24.7 to 21.2 per 100,000 in week 13) (Figure 3).

-The rate increased in the 65-74 year group which now has the highest rate (from 25.2 to 31.5 per 100,000) and remained stable or decreased in the other age groups. The highest rate remains in the 45-64 year group (from 38.3 to 32.2 per 100,000).

Wales

-The Welsh influenza rate remained below the baseline threshold (from 5.2 to 5.5 per 100,000 in week 13) (Figure 3).

-The rate increased in the 1-4 year group which continues to have the highest rate (from 7.0 to 21.1 per 100,000), the 5-14 year group (from 2.9 to 5.8 per 100,000) and the 65-74 year group (from 3.0 to 5.9 per 100,000). The rate remained stable in the other age groups.

Scotland

-The Scottish ILI rate remained low (from 12.3 to 11.6 per 100,000 in week 13) (Figure 3).

-The rate increased in the under one year olds (from 0.0 to 3.7 per 100,000) and 75+ year olds (from 5.2 to 9.5 per 100,000) and remained stable or decreased in the other age groups. The 15-44 year group continues to have the highest rate (from 15.9 to 15.4 per 100,000).

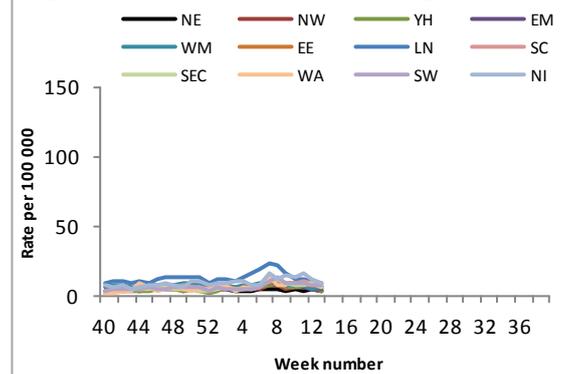
HPA/QSurveillance System (England, Wales and Northern Ireland)

-In the HPA/QSurveillance system, the overall ILI consultation rate remained low (from 7.9 to 7.0 per 100,000 in week 13).

-The rate increased in the 75+ year group (from 5.5 to 7.0 per 100,000) and decreased or remained stable in the other age groups. The 15-44 year group continues to have the highest rate (from 10.0 to 7.8 per 100,000).

-The rate decreased or remained stable in all regions in week 13 and the highest rate was seen in London (from 10.2 to 9.8 per 100,000).

**Figure 4: QSurv ILI consultation rates, by region, E,W&NI**



- Other respiratory indicators

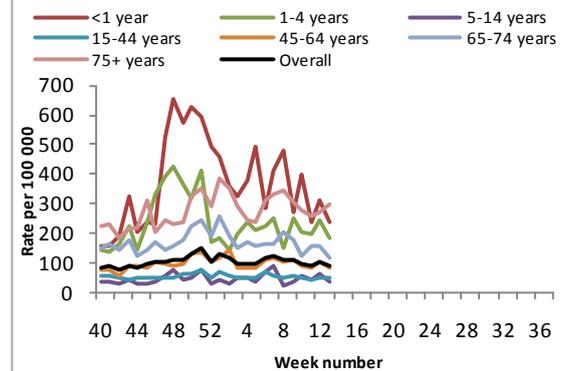
Acute bronchitis (AB)

The overall weekly consultation rate for acute bronchitis (AB) in England and Wales through the RCGP scheme decreased slightly in week 13 (from 104.4 to 92.6 per 100,000) (Figure 5). The rate decreased or remained stable in all age groups except for 75+ year olds who now have the highest rate (from 274.9 to 295.9 per 100,000).

Pneumonia

The overall weekly consultation rate for pneumonia from the HPA/QSurveillance system remained stable in week 13 (from 1.2 to 1.0 per 100,000).

**Figure 5: RCGP AB consultation rates, by age group, E&W**



**Community surveillance**

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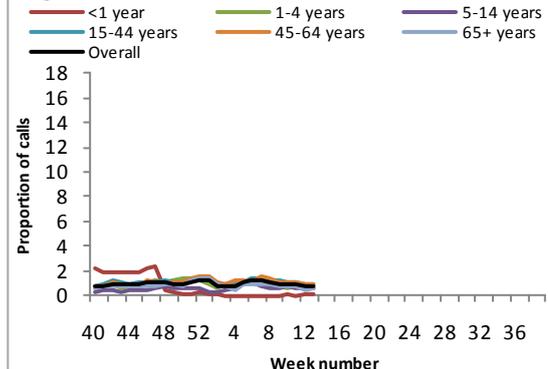
**In week 13 2012, the weekly proportion of NHS Direct calls for cold/flu and for fever (5-14 yrs) remain below the early warning thresholds of 1.6% and 11.7% respectively. Seven new acute respiratory disease outbreaks were reported.**

- HPA/NHS Direct syndromic surveillance system

-The weekly national proportion of NHS Direct calls for cold/flu remained below the early warning threshold level for influenza of 1.6% (remained at 0.7% in week 13) (Figure 6). All age groups remained stable. It should be noted that because of the current issues with syndromic call data in the under one year age group, as an interim measure the national daily call proportions have been crudely adjusted to allow for the lack of syndromic call data from this age group. These data should therefore be interpreted with caution.

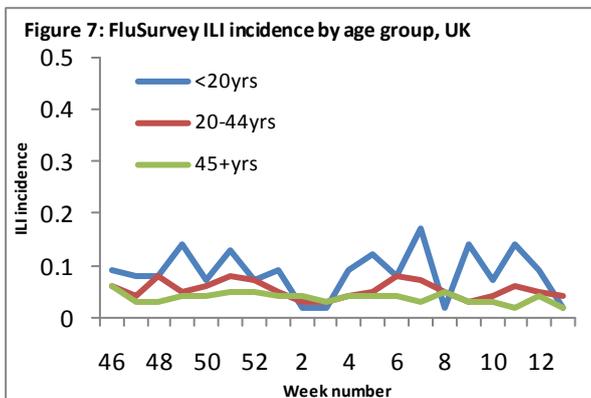
-The weekly proportion of calls for fever in the 5-14 year group has decreased slightly over the past week and is below the influenza threshold of 11.7% (from 9.0% to 8.5% in week 13).

**Figure 6: NHS Direct % calls for colds/flu, E&W**



- FluSurvey

-Internet-based surveillance of influenza in the general population has been run this season through the [FluSurvey](#) project run by the London School of Hygiene and Tropical Medicine with over 1,000 regular participants. In week 13 the incidence of ILI reports was low in all age groups (Figure 7). The survey has now closed for the 2011/12 season.



- Acute respiratory disease outbreaks

Seven new acute respiratory outbreaks were reported in week 13 2012 (compared to five in week 12 2012): one in Scotland (A(H3)), two in the East of England (two unknown), two in the North West (two A(H3)), one in the South East (one A(subtype not known)) and one in the West Midlands (one unknown).

-A total of 142 respiratory outbreaks have been reported since week 40 2011 (78 (54.9%) in care homes, 43 (30.3%) in schools and 15 (10.6%) in hospitals). Eighty-eight had virology results available (38 A(H3), 36 A(subtype not known), one A (subtype not known)/B, one A(H3)/adenovirus, one A(H3)/rhinovirus, one A(subtype not known)/RSV, five RSV, one hMPV, one parainfluenza, two rhinovirus and one coronavirus).

-Outbreaks should be reported to the local HPA Health Protection Unit and [Respcdsc@hpa.org.uk](mailto:Respcdsc@hpa.org.uk).

### Microbiological surveillance

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In week 13 2012, 62 influenza positive detections (50 A(H3), four A (subtype not known), one A(H1N1)pdm09 and seven B) were recorded through the Data Mart scheme (positivity of 11.7%). Six influenza positive detections (16.7%) were recorded through the two English GP-based sentinel schemes (six A(H3)).

- English Data Mart

-62 (11.7%) of the 532 respiratory specimens reported to the English Data Mart virological surveillance system as taken in week 13 were positive for influenza (50 A(H3), four A (subtype not known), one A(H1N1)pdm09 and seven B) (Figure 8) compared to 13.2% in week 12.

-The proportion of respiratory specimens positive for respiratory syncytial virus (RSV) (18/502, 3.6%) increased slightly compared to week 12 (2.4%) with the highest positivity rate remaining in the under five year group (from 5.0% to 8.2% in week 13) (Figure 9). Positivity decreased for rhinovirus (from 16.4% to 14.6%), and slightly increased for hMPV (from 5.8% to 6.6%), adenovirus (from 5.1% to 6.9%) and parainfluenza (from 3.0 to 3.9%)

Figure 8: DataMart samples positive for influenza, England

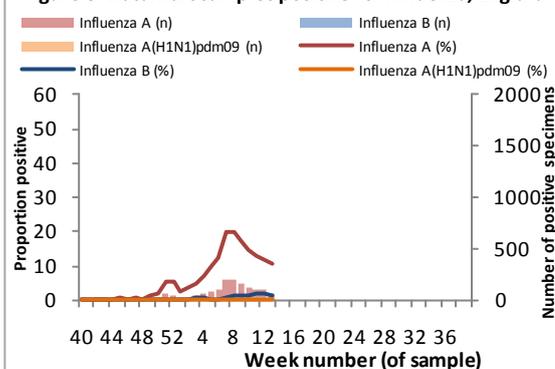


Figure 9: Datamart % RSV positive by age, England

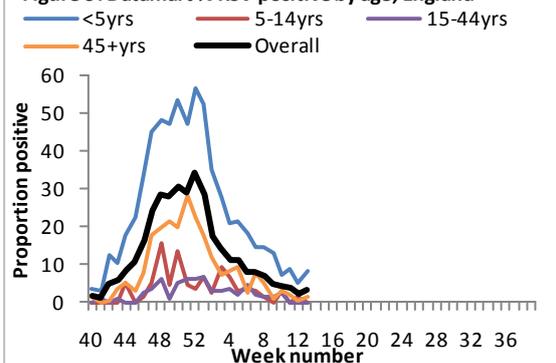
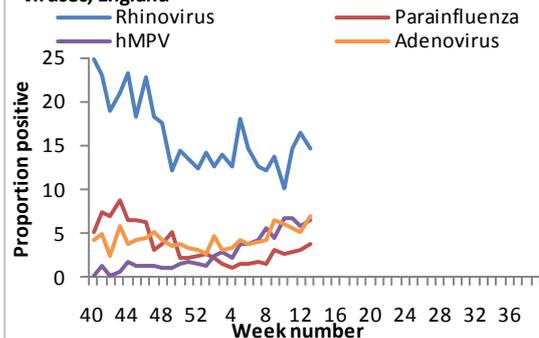


Figure 10: Datamart % positive for other respiratory viruses, England



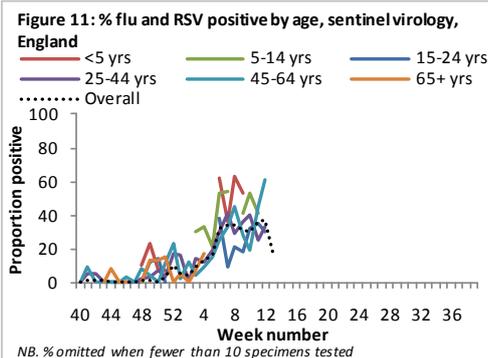
- RCGP/RMN sentinel swabbing schemes

-Six of the 36 samples (16.7%) tested via the two English GP-based sentinel schemes in week 13 were positive for influenza (six A(H3)) (Table 1, Figure 11). Three samples were positive for influenza in Scotland (three A(H3)).

**Table 1: Sentinel virological surveillance in the UK**

Week	England	Scotland	Northern Ireland	Wales
09	33/105 (31.4%)	14/58 (24.1%)	0/4 (-)	0/0 (-)
10	32/107 (29.9%)	11/62 (17.7%)	1/5 (-)	0/2 (-)
11	25/68 (36.8%)	19/64 (29.7%)	1/6 (-)	1/3 (-)
12	22/59 (37.3%)	6/38 (15.8%)	0/7 (-)	3/4 (-)
13	6/36 (16.7%)	3/27 (11.1%)	0/2 (-)	0/1 (-)

NB. Proportion positive omitted when fewer than 10 specimens tested



- Virus characterisation

-Since week 40 2011, the HPA Respiratory Virus Unit (RVU) has isolated and antigenically characterised 424 influenza A(H3N2) viruses, three A(H1N1)pdm09 viruses, eight influenza B viruses which belong to the B-Victoria lineage and nine influenza B viruses belonging to the B-Yamagata lineage. The majority of A(H3N2) viruses are antigenically similar to the A/Perth/16/2009 2011/12 vaccine component, with some A(H3N2) viruses showing reduced reactivity with antiserum raised against A/Perth/16/2009 in antigenic characterisation assays, and a small proportion (1%) showing significant antigenic drift from the A(H3N2) vaccine strain. The A(H1N1)pdm09 viruses, detected sporadically since week 40 2011, are antigenically similar to the A/California/7/2009 A(H1N1)pdm09 vaccine component.

- Antiviral susceptibility

-Of six influenza A(H1N1)pdm09 viruses tested for antiviral susceptibility at RVU and regional laboratories since week 40 2011, none have been found to carry the H275Y mutation which confers resistance to the antiviral drug oseltamivir. 140 influenza A(H3) viruses and seven influenza B viruses have been fully tested for susceptibility and found to be sensitive to oseltamivir and zanamivir.

- Antimicrobial susceptibility

-In the 12 weeks up to 18 March 2012, 86% 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 18 March 2012, E&W**

Organism	Tetracyclines		Co-amoxiclav	
	Specimens tested (N)	Specimens susceptible (%)	Specimens tested (N)	Specimens susceptible (%)
<i>S. aureus</i>	2,932	93	227	86
<i>S. pneumoniae</i>	2,408	86	2471*	92*
<i>H. influenzae</i>	9,963	99	9,631	92

\* *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.

**Disease severity and mortality data**

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**In week 13, 12 new admissions of confirmed influenza cases to ICU/HDU and two confirmed influenza deaths in ICU/HDU have been reported through the national USISS mandatory scheme across the UK. 28 new hospitalised confirmed influenza cases have been reported through the USISS sentinel network across England.**

A national mandatory collection (USISS mandatory) has been established 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) 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 [HPA website](#). Please note data in previously reported weeks are updated and so may vary by week of reporting.

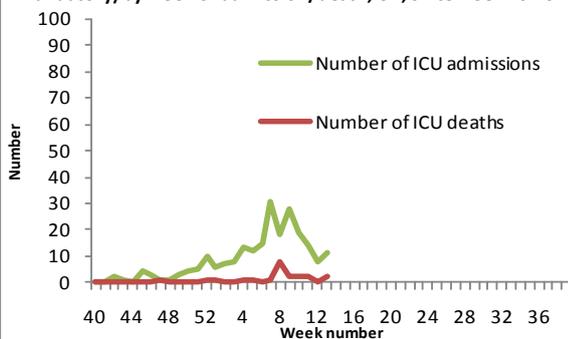
- Number of new admissions and fatal confirmed influenza cases in ICU/HDU (USISS mandatory scheme), UK (week 13)

-In week 13, 12 new admissions to ICU/HDU with confirmed influenza infection (three A(H3N2), seven A (subtype not known) and two A(H1N1)pdm09) were reported across the UK (148/163 Trusts in England) through the USISS mandatory scheme compared to 10 in week 12 (Figure 12). Two new confirmed influenza deaths were reported across the UK in ICU/HDU in week 13 (one A(H3N2) and one A (subtype not known) (Figure 12).

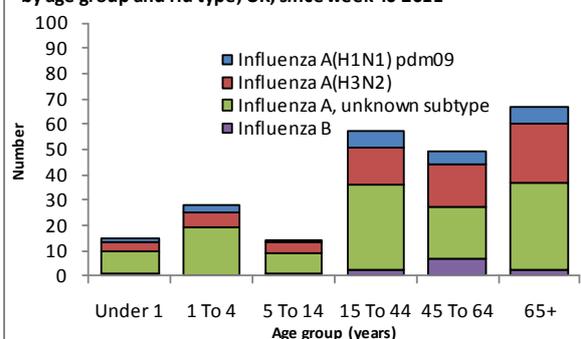
-Since week 40 2011, there have been a total of 230 ICU/HDU influenza admissions across the UK reported through the USISS mandatory scheme with 24 (10.4%) resulting from influenza A(H1N1)pdm09, 68 (29.6%) from influenza A(H3N2), 125 from A (subtype not known) and 13 (5.7%) from influenza B (Figure 13).

-Since week 40 2011, 22 ICU/HDU influenza deaths across the UK have been reported through the USISS mandatory scheme (13 A(H3N2), six A(subtype not known) and three B).

**Figure 12: Weekly ICU influenza admissions and deaths (USISS mandatory) by week of admission/death, UK, since week 40 2011**



**Figure 13: Cumulative ICU influenza admissions (USISS mandatory) by age group and flu type, UK, since week 40 2011**

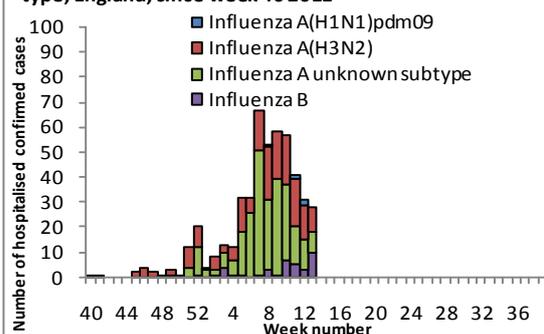


- USISS sentinel weekly hospitalised confirmed influenza cases, England (week 13)

-In week 13, 28 new hospitalised confirmed influenza cases (10 A(H3N2), eight A (subtype not known), and 10 B) were reported from the USISS sentinel network of 29 NHS Trusts across England (Figure 14) compared to 31 cases in week 12.

-There have been a total of 486 laboratory confirmed hospital admissions since week 40 2011 through the USISS sentinel network with 184 (37.9%) resulting from A(H3N2), 256 from A (subtype not known), seven (1.4%) from A(H1N1)pdm09 and 39 (8.0%) from influenza B infection.

**Figure 14: Weekly hospitalised cases (USISS sentinel) by flu type, England, since week 40 2011**

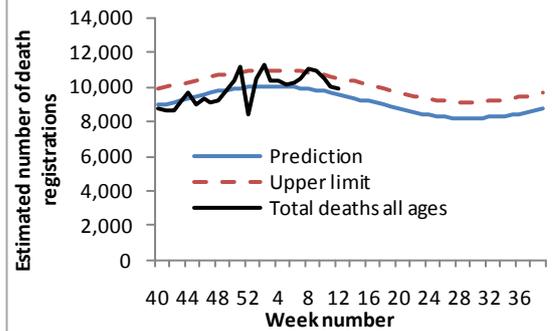


-36 (7.0%) of the hospitalised cases from the USISS sentinel network were reported to have been admitted to HDU/ICU (21 resulting from A(H3N2), 12 from A (subtype not known), one from A(H1N1)pdm09 and two from influenza B infection), four of whom later died. Out of cases with available information, 17/28 (61%) had an underlying clinical risk factor. Out of 19 cases with available information, 11 (58%) had not received the 2011/12 seasonal vaccination.

- Excess overall all-cause mortality, England and Wales

-In week 12, an estimated 9,864 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This has decreased slightly from 10,041 estimated death registrations in week 11 and remains below the 95% upper limit of expected death registrations for this time of year as calculated by the HPA (Figure 15).

Figure 15: Observed & predicted all-cause death registrations, E&W



- Excess all-cause mortality by age group and HPA region, England, Wales and Scotland

-In week 13 2012, excess mortality by date of death above the 2 z-score threshold was seen in 65+ year olds (Figure 16) in England and Wales after correcting ONS disaggregate data for reporting delay with the standardised [EuroMOMO algorithm](#) (Table 3). This data is provisional due to the time delay in registration and so numbers may vary from week to week.

-Excess mortality was reported in London in week 13.

-Since week 40, excess mortality has been reported in 5-14 year olds in week 5 2012 and in 65+ year olds in weeks 50 2011, 51 2011, 7 2012, 8 2012, and 13 2012.

-No excess mortality was seen overall or by age group in Scotland in the last four weeks.

Figure 16 Excess mortality in 65+ year olds by week of death, EuroMOMO, E&W

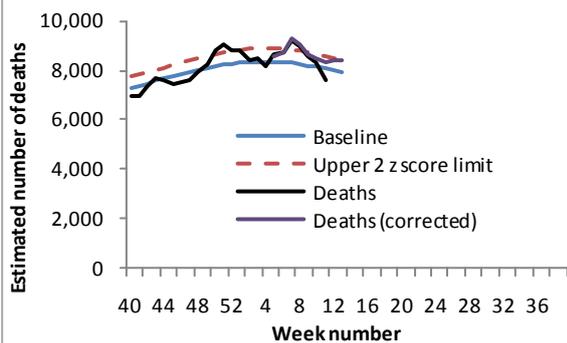


Table 3: Excess mortality by age group, E&W\*

Age group (years)	Excess detected in week 13 2012	Cumulative excess since week 40 2011
<5	*	0
5-14	*	8
15-64	*	0
65+	486	3,716

\* Excess mortality is calculated as the observed minus the expected number of deaths that week

## Vaccination

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- In the [final monthly GP collection](#) up to 31 January 2012, provisional cumulative seasonal influenza vaccine uptake was 74.0% in 65 years and over and 51.6% in under 65 year olds at risk from 99.5% of GP practices. Amongst [pregnant women](#), the provisional cumulative uptake was 27.4% (though this data needs to be interpreted with caution, please see [here](#) for more details).
- Provisional data from the [final monthly collection](#) of influenza vaccine uptake by frontline healthcare workers show 44.7% were vaccinated by 31 January 2012 from 99.0% of Trusts (including PCTs).
- Following a WHO consultation, it is recommended that vaccines for use in the 2012/13 northern hemisphere influenza season contain the following viruses: an A/California/7/2009 (H1N1)pdm09-like virus, an A/Victoria/361/2011 (H3N2)-like virus and a B/Wisconsin/1/2010-like virus. For further information please see the [full report](#).

## International Situation

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In Europe, the decrease in the proportion of influenza-positive sentinel specimens and the growing number of countries reporting continuously decreasing trends in ILI/ARI notifications indicate that the epidemic has passed its peak in most countries. As often observed late in the season, the proportion of type B virus influenza detections has been increasing over the past six weeks. A

**proportion of A(H3) viruses characterised have not perfectly matched the current vaccine strain, which is consistent with the decision of WHO to recommend a change of A(H3N2) strain in the vaccine in 2012/13. Elsewhere in the temperate regions of the Northern hemisphere influenza activity appears to be reaching its peak or decreasing in most countries and it is mainly dominated by A(H3) viruses. Countries in the tropical zone are mostly reporting low levels of activity and transmission in the temperate countries of the southern hemisphere is at low levels.**

- [Europe](#) 30 March 2012 (European Centre for Disease Prevention and Control report)

During week 12 2012, 28 countries reported clinical data. For the first time since week 7 2012, no country reported high intensity whereas 13 reported low intensity and 15 reported medium intensity. Thirteen countries have reported medium or higher intensity for at least three consecutive weeks. Geographic spread was reported as widespread by 11 countries (Austria, Belgium, Estonia, France, Greece, Hungary, Latvia, Norway, Portugal, Slovenia and Sweden), regional by four, local by nine, and sporadic by three. Poland reported no activity. Decreasing trends were reported by 21 countries of which 14 countries (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Malta, the Netherlands, Norway, Portugal, Spain and Sweden) have reported decreasing trends for at least two consecutive weeks, suggesting that their influenza seasons have peaked. Increasing trends in clinical activity were reported by three countries (Lithuania, Poland and Slovakia) and stable trends by four (the Czech Republic, Denmark, Hungary and Slovenia).

In week 12 2012, 27 countries reported virological data. Of 940 sentinel specimens tested, 403 (42.9%) were positive for influenza virus, of which 75.2% were type A and 24.8% type B. This proportion was unchanged compared to week 11 after steadily declining from a peak of 58% in week 8. The proportion of influenza B viruses reported has continued to increase over the past three weeks (8.6% in week 9 2012). Of the 1,921 influenza viruses detected from sentinel and non-sentinel sources during week 12 2012, 1,720 (89.5%) were type A and 201 (10.5%) were type B. Of 554 influenza A viruses subtyped, 26 (4.7%) were A(H1N1)pdm09 and 528 (95.3%) were of the A(H3) subtype. Of the 27,631 influenza virus detections from sentinel and non-sentinel specimens since week 40 2011, 26,195 (94.8%) were influenza type A and 1,436 (5.2%) were type B viruses. Of 12,589 influenza A viruses subtyped, 323 (2.6%) were A(H1)pdm09 and 12,266 (97.4%) were A(H3) viruses. The lineage of 191 influenza B viruses has been determined; 82 (42.9%) were B Yamagata and 109 (57.1%) were B Victoria lineage viruses.

Since week 40/2011, 929 genetic characterisations of viruses have been reported, 787 (86.9%) of which have been A(H3) viruses; 511 (64.9%) were A(H3) viruses falling within the A/Victoria/208/2009 clade, genetic group 3 represented by A/Stockholm/18/2011. Viruses falling within this genetic group are antigenically diverse and therefore, there is an imperfect match with current vaccine virus A/Perth/16/2009. More details on the antigenic and genetic characteristics of circulating viruses can be found in the [report](#) prepared by the Community Network of Reference Laboratories (CNRL) coordination team.

No zoonotic influenza infections of humans (i.e. viruses not usually infecting and circulating among humans) within EU/EAA countries have been reported to ECDC this week.

In week 12 2012, 14 countries reported 465 respiratory syncytial virus (RSV) detections. The number of RSV detections has been decreasing continuously since week 52 2011.

Since week 40 2011, a total of 1,513 SARI cases, including 79 fatalities, have been reported to TESSy by seven countries. Of 1,309 patients for whom information was available, 711 (54.3%) were male. Of the 1,513 cumulative cases, 1,120 (74.0%) were influenza-related with 1,084 confirmed as type A virus infections. Of these 695 were type A viruses that have been subtyped, revealing that 654 (94.1%) were associated with A(H3) infection and 41 (5.9%) with A(H1N1)pdm09. Thirty-six (3.2%) influenza-related SARI cases were infected with influenza B virus. Of 635 influenza confirmed SARI cases for whom the vaccination status was available, 203 (31.9%) were vaccinated against seasonal influenza.

- [United States of America](#) 30 March 2012 (Centre for Disease Control report)

During week 12 2012, influenza activity was elevated in some areas in the United States, but remained relatively low nationally. Nationwide, 2.0% of patient visits reported through the US Outpatient Influenza-Like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is below the national baseline of 2.4%. Out of 10 regions, two reported ILI at or above region-specific baseline levels. Three states experienced moderate ILI activity, six states experienced low ILI activity, New York City and 41 states experienced minimal ILI activity, and the District of Columbia had insufficient data to calculate ILI activity. Sixteen states reported widespread geographic activity; 21 states reported regional activity; nine states reported local influenza activity; the District of Columbia, Guam, Puerto Rico, and four states reported sporadic activity, and the U.S. Virgin Islands did not report.

Of the 4,624 specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division in week 12 2012, 908 (19.6%) were positive for influenza; 809 (89.1%) influenza A (135 (16.7%) A(H1N1)pdm09, 296 unknown subtype and 378 (46.7%) A(H3)) and 99 (10.9%) influenza B.

The proportion of deaths attributed to pneumonia and influenza (P&I) (7.8%) was below the epidemic threshold of 7.9% for week 12 2012. Four influenza-associated paediatric deaths were reported to CDC during week 12 2012 (one A(H1N1)pdm09 and three A subtype not known). The deaths reported during week 12 2012 occurred during weeks 9 and 10 2012. The total number of influenza-associated paediatric deaths reported during the 2011/12 season is currently 12.

- [Canada](#) 30 March 2012 (Public Health Agency report)

Influenza activity in Canada continues to increase overall compared to the previous week; most indicators (such as laboratory detections, outbreaks, hospitalisations and ILI) showed higher levels in week 12 compared to the previous week. Certain regions in the country (in ON, the Prairies and the Atlantic Region) are showing higher levels of activity compared to the other regions.

In week 12 2012, one region reported widespread influenza activity (NL), 12 surveillance regions (within AB, SK, MB, ON, NS, NL and NT) reported localised activity and 29 regions (within all provinces and territories) reported sporadic influenza activity. Fifty-five outbreaks of influenza or ILI were reported this week: 29 in long-term care facilities, three in schools, seven in hospitals and 16 others. 124 influenza-associated hospitalizations were reported this week (43 paediatric through IMPACT surveillance and 81 adult through aggregate surveillance). In addition 10 influenza-associated deaths were reported, nine of which were associated with influenza B infection. 794 cases overall have been reported this season to date. The national ILI consultation rate increased from the previous week (36.7 ILI consultations per 1,000 patient visits in week 12) and remains within the expected levels for this time of year. The highest consultation rates this week were observed in those 5 to 19 years old and children under five. In week 12 2012, 5,363 influenza tests were conducted of which 1,309 (24.4%) were positive for influenza, increasing from the previous week. The proportion of positive detections for influenza B continued to increase while the proportion positive for influenza A continued to decline in week 12. The proportion of influenza virus detections by type/subtype this season to date is as follows: 52.8% influenza A (40.5% A(H3); 18.8% A(H1N1)pdm09; 40.7% untyped) and 47.2% influenza B.

- [Global influenza update](#) 30 March 2012 (WHO website)

This influenza season started late but seems to be reaching the peak or is decreasing in most countries of the northern hemisphere temperate regions. Severe acute respiratory infections were mainly observed in the age group above 65 years. In some countries, included the United States of America and the United Kingdom, the season was mild in comparison to previous years. Other countries in Europe and northern Asia have reached influenza activity levels similar to previous years.

Most countries of the tropical zone report low levels of influenza activity.

In the Southern Hemisphere, influenza activity continued to remain low. The temperate areas of South America reported influenza activity at inter-seasonal levels.

The most commonly detected virus type or subtype throughout most of the temperate areas of northern hemisphere temperate zone has been influenza A(H3N2), although the proportion of influenza B detections is increasing. In Mexico influenza A(H1N1)pdm09 is the predominant subtype circulating and China and the surrounding countries are still reporting a predominance of influenza type B virus.

Increasing genetic and antigenic diversity has been noted in H3N2 viruses in the later part of the influenza season.

No significant change in antiviral resistance has been reported so far this season.

- [Avian Influenza](#) 2 April 2012 (WHO website)

Since 2003, 600 human cases of H5N1 avian influenza have been reported to WHO from 15 countries. Of these, 353 (59%) have reportedly died (13 of 22, 59% in 2012).

The latest confirmed cases reported by the WHO are from Egypt, one who is currently under treatment in hospital (a two year old girl who developed symptoms on 19 March 2012) and one who died on 31 March 2012 (a 15 year old female who developed symptoms on 25 March 2012).

## Acknowledgements

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This report was prepared by Helen Green and Richard Pebody. We are grateful to all who provided data for this report including the RCGP Research and Surveillance Centre, the HPA Real-time Syndromic Surveillance team, the HPA Respiratory Virus Unit, the HPA Modelling and Statistics unit, the HPA Dept. of Healthcare Associated Infection & Antimicrobial Resistance, HPA regional microbiology laboratories, NHS Direct, ONS, the Department of Health, Health Protection Scotland, National Public Health Service (Wales), the Public Health Agency Northern Ireland, the Northern Ireland Statistics and Research Agency, QSurveillance<sup>®</sup> and EMIS and EMIS practices contributing to the QSurveillance<sup>®</sup> database.

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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](#) (including QSurveillance scheme, NHS Direct)

### Community surveillance

- [Outbreak reporting](#)
- [FluSurvey](#)
- [MOSA](#)

### Disease severity and mortality data

- [USISS](#) system
- Influenza-related death systems in [Scotland](#), [Wales](#) and [Northern Ireland](#)
- [EuroMOMO](#) mortality project

### Vaccination

- 2011/12 seasonal influenza vaccine programme ([Department of Health Green Book](#))
- WHO 2011/12 [vaccine recommendations](#)