



# PHE Weekly National Influenza Report

Summary of UK surveillance of influenza and other seasonal respiratory illnesses

10 October 2013 – Week 41 report (up to week 40 data)

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

### Indicators of influenza activity are at minimal levels suggesting no community transmission at present.

- Overall weekly influenza GP consultation rates across the UK
  - In week 40 (ending 6 October 2013), overall weekly influenza GP consultations remained low in England (2.7 per 100,000), Wales (5.4 per 100,000) and Scotland (5.8 per 100,000) (no data was available for Northern Ireland).
  - Through various syndromic indicators, there is nothing of significance to report in week 40 2013.
  - No new acute respiratory outbreaks have been reported since week 40 2013.
- Virology
  - In week 40 2013, no influenza positive detections were recorded through the DataMart scheme and no samples were positive through the UK sentinel schemes.
- Disease severity and mortality
  - One new admissions to ICU/HDU with confirmed influenza (one A(subtype not known) was reported through the USISS mandatory ICU surveillance scheme across the UK (120 Trusts in England) in week 40. No new hospitalised confirmed influenza cases have been reported through the USISS sentinel hospital network across England (20 Trusts).
  - In week 40 2013, no excess all-cause mortality was seen across the UK through the EuroMOMO algorithm. This data is provisional due to the time delay in death registration.
- Vaccination
  - Up to week 40 2013 in 59.9% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2012/13 influenza vaccine in targeted groups was as follows: 4.7% in all 2 year olds, 4.4% in all 3 year olds, 9.3% in under 65 years in a clinical risk group, 7.6% in pregnant women and 16.5% in 65+ year olds.
- International situation
  - Influenza activity in the northern hemisphere temperate zones remained at inter-seasonal levels.

In week 40 (ending 6 October 2013), 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 in week 40 2013 (2.7 per 100,000) compared to week 39 (4.3 per 100,000) (Figure 1\*). ILI rates remained stable in the North (0.0 per 100,000) and South regions (from 5.1 to 3.6 per 100,000) and decreased in the Central region (from 7.7 to 0.0 per 100,000).

-In week 40 2013, the only age group with reported ILI consultations were the 15-44yr olds (6.8 per 100,000).

Figure 1: RCGP ILI consultation rates, England and Wales

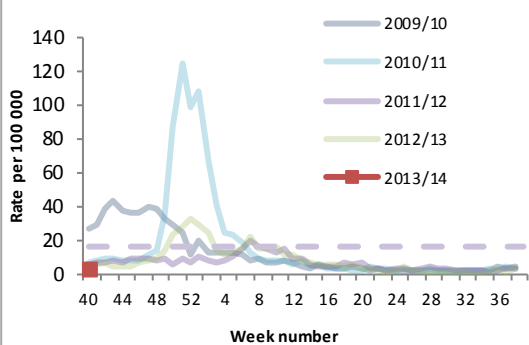


Figure 2: RCGP ILI consultation rates, by age group, E&W

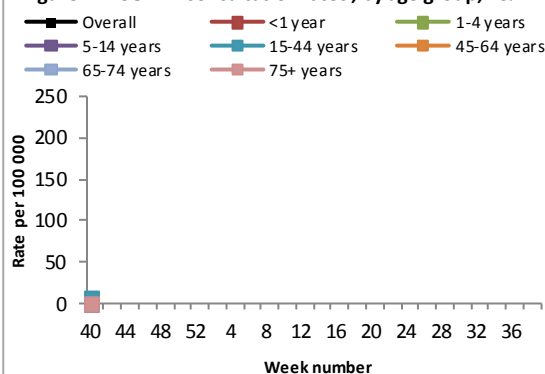
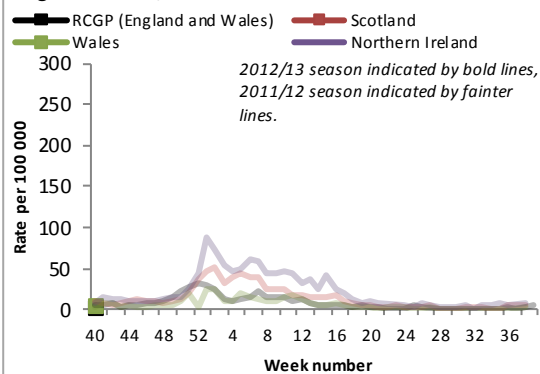


Figure 3: GP ILI/influenza consultation rates in the UK



Northern Ireland

-Due to a technical issue, there is currently no data available for week 40 2013.

Wales

-The Welsh influenza rate increased slightly from 3.1 per 100,000 in week 39 to 5.4 per 100,000 in week 40 (Figure 3).

-The highest rate was seen in 75+ year olds (9.3 per 100,000) followed by 65-74 year olds (8.0 per 100,000).

Scotland

-The Scottish ILI rate remained stable at 5.8 per 100,000 in week 40 (Figure 3).

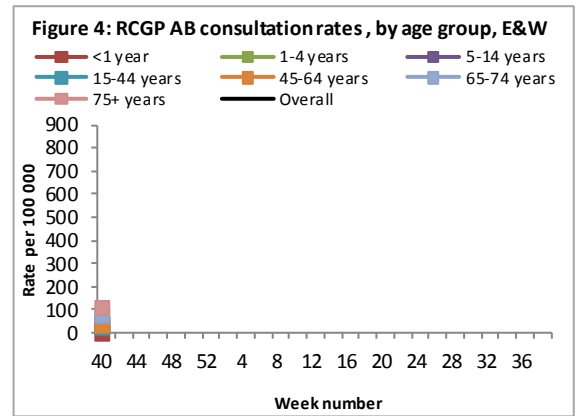
-The highest rate was seen in 15-44 year olds (7.1 per 100,000) followed by 45-64 year olds (7.0 per 100,000).

\*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 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 remained stable at 45.4 per 100,000 in week 40 (Figure 4). The highest rate was seen in 75+ year olds (111.8 per 100,000) followed by 65-74 year olds (82.1 per 100,000).



**Community surveillance**

[| Back to top |](#)

Through various syndromic indicators, there is nothing of significance to report in week 40 2013 and no new acute respiratory outbreaks have been reported.

- PHE Real-time Syndromic Surveillance

-Through various syndromic surveillance systems (NHS Direct, emergency departments, GP in-hours and GP out-of-hours schemes), there is nothing of significance to report.  
 -PLEASE NOTE that due to the on-going transition of urgent care services across England, including the introduction of NHS 111, the volume of NHS Direct calls is gradually declining, particularly in those areas where NHS 111 is fully operational. Results should therefore be interpreted with caution.  
 -For further information, please see the syndromic surveillance [webpage](#).

- Acute respiratory disease outbreaks

-No new acute respiratory outbreaks have been reported since week 40 2013 in the UK.  
 -Outbreaks should be recorded on HPZone and reported to the local Health Protection Teams and [Respcidsc@phe.gov.uk](mailto:Respcidsc@phe.gov.uk).

**Microbiological surveillance**

[| Back to top |](#)

In week 40 2013, no influenza positive detections were recorded through the DataMart scheme and no samples were positive through the UK sentinel schemes.

- Respiratory DataMart System (England)

-In week 40 2013, out of the 634 respiratory specimens reported to this virological surveillance system, none were positive for influenza (Figure 5).  
 -Positivity remains high for rhinovirus (32.0%); increased slightly for parainfluenza (6.7%); and remained at low levels for RSV, 1.3%, adenovirus, 3.1%, and hMPV, 0.3% (Figures 6 and 7).

Figure 5: DataMart samples positive for influenza, England

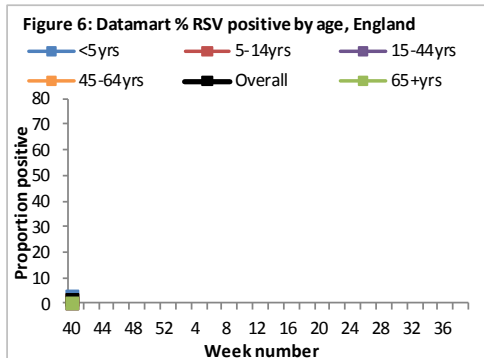
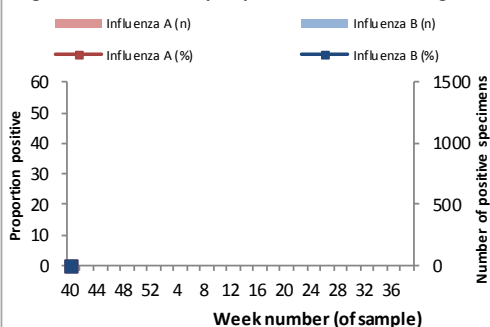
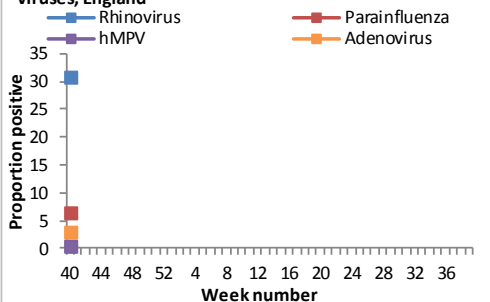


Figure 7: Datamart % positive for other respiratory viruses, England



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

-No samples were tested through the English and Welsh GP-based sentinel schemes in week 40. No samples from Scotland or Northern Ireland were positive for influenza (Table 1).

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

Week	England	Scotland	Northern Ireland	Wales
40	0/0 (-)	0/9 (-)	0/1 (-)	0/0 (-)

NB. Proportion positive omitted when fewer than 10 specimens tested

- Virus characterisation

-In week 40 2013, no influenza viruses were isolated or antigenically characterised by PHE Respiratory Virus Unit (RVU).

- Antiviral susceptibility

-In week 40 2013, no influenza viruses were tested for antiviral susceptibility by PHE RVU.

- Antimicrobial susceptibility

-In the 12 weeks up to 29 September 2013, 81% 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 29 Sept 2013, E&W**

Organism	Tetracyclines		Co-amoxiclav	
	Specimens tested (N)	Specimens susceptible (%)	Specimens tested (N)	Specimens susceptible (%)
<i>S. aureus</i>	2,884	92	177	90
<i>S. pneumoniae</i>	1,510	81	1550*	91*
<i>H. influenzae</i>	7,238	99	6,786	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.

## Influenza confirmed hospitalisations

[| Back to top |](#)

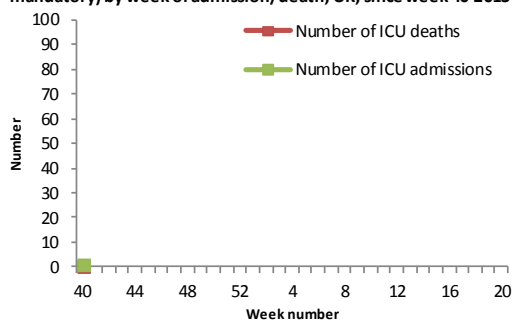
In week 40, one new admission of confirmed influenza cases to ICU/HDU (one A unknown subtype) and no confirmed influenza death in ICU/HDU have been reported through the national USISS mandatory ICU scheme across the UK (120 Trusts in England). No new hospitalised confirmed influenza cases have been reported through the USISS sentinel hospital network across England (20 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.

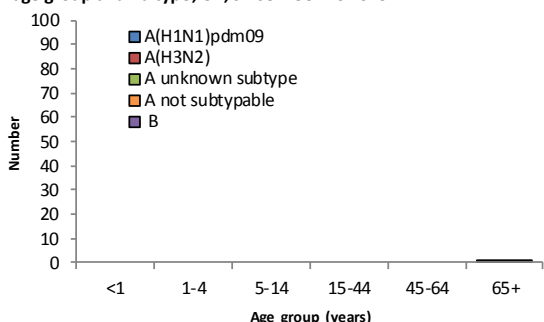
- Number of new admissions and fatal confirmed influenza cases in ICU/HDU (USISS mandatory ICU scheme), UK (week 40)

-In week 40, one new admission to ICU/HDU with confirmed influenza infection (one A unknown subtype) was reported across the UK (120/163 Trusts in England) through the USISS mandatory ICU scheme (Figures 8 and 9). No new confirmed influenza deaths were reported in week 40 2013.

**Figure 8: Weekly ICU influenza admissions and deaths (USISS mandatory) by week of admission/death, UK, since week 40 2013**



**Figure 9: Cumulative ICU influenza admissions (USISS mandatory) by age group and flu type, UK, since week 40 2013**



- USISS sentinel weekly hospitalised confirmed influenza cases, England (week 40)

-In week 40, no new hospitalised confirmed influenza cases were reported from the USISS sentinel hospital network from 20 NHS Trusts across England.

### All-cause mortality data

[Back to top](#)

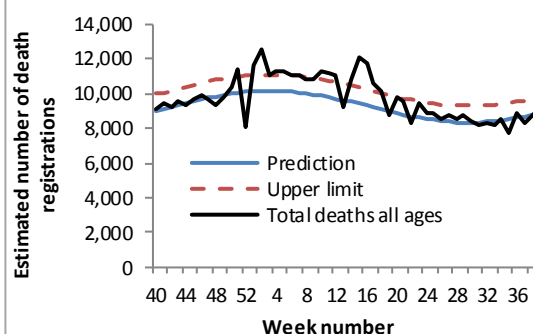
**In week 40, no excess in all-cause mortality was seen across the UK overall, by age group or by region.**

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 39 2013, an estimated 9,155 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is slightly more than the 8,635 estimated death registrations in week 38 but is below the 95% upper limit of expected death registrations for this time of year as calculated by PHE (Figure 15).

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

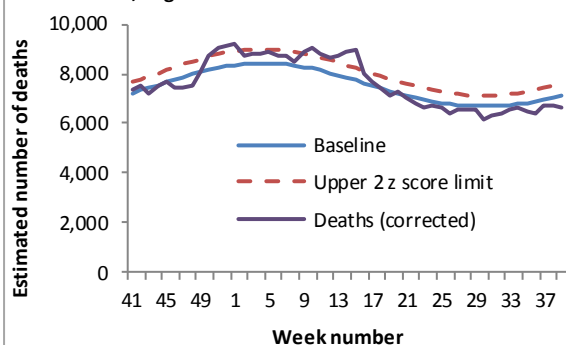


- Excess all-cause mortality by age group and HPA region, England, Wales, Scotland and Northern Ireland

-In week 40 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 16, 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 subnationally or in the devolved administrations (Table 4).

**Figure 11: Excess mortality in 65+ year olds by week of death, EuroMOMO, England**



**Table 3: Excess mortality by age group, England\***

Age group (years)	Excess detected in week 40 2013?	Weeks with excess in 2013/14
<5	×	NA
5-14	×	NA
15-64	×	NA
65+	×	NA

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

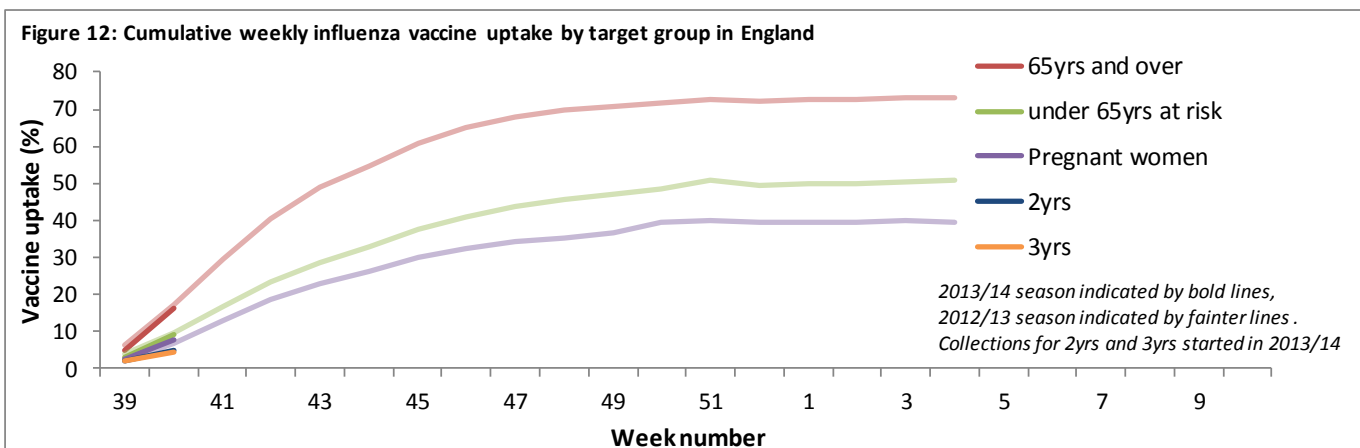
**Table 4: Excess mortality by UK country\***

Country	Excess detected in week 40 2013?	Weeks with excess in 2013/14
England	×	NA
Wales	×	NA
Scotland	×	NA
Northern Ireland	×	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

- Up to week 40 2013 in 59.9% of GP practices reporting weekly to Immform, the provisional proportion of people in England who had received the 2012/13 influenza vaccine in targeted groups was as follows (Figure 12):
  - 4.7% in all 2 year olds
  - 4.4% in all 3 year olds
  - 9.3% in under 65 years in a clinical risk group
  - 7.6% in pregnant women
  - 16.5% in 65+ year olds



**Influenza activity in the northern hemisphere temperate zones remained at inter-seasonal levels.**

- [Europe](#) 27 September 2013 (European Centre for Disease Prevention and Control report)

For weeks 37–38/2013, clinical data were reported by 19 countries, all of which experienced low-intensity influenza activity, the lowest category of reporting. Geographic patterns of influenza activity were reported as local by Finland and sporadic by France and the UK (Scotland). All other countries reported no activity. Seven countries reported increasing trends (Bulgaria, Estonia, Lithuania, Poland, Romania, Slovakia, and the UK –Northern Ireland) while all other countries reported stable trends.

For weeks 37–38/2013, seven countries tested 110 sentinel specimens, none of which was positive for influenza virus. In addition, eight non-sentinel source specimens (e.g. specimens collected for diagnostic purposes in hospitals) were found to be positive for influenza type A virus.

- [United States of America](#) 27 September 2013 (Centre for Disease Control report)

Nationwide, 1.0% of patient visits reported through the US Outpatient Influenza-Like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI) in week 38 2013 which was below the national baseline of 2.2%. The proportion of deaths attributed to pneumonia and influenza (P&I), 5.7%, was below the epidemic threshold of 6.1% for week 38 2013. No new influenza-associated paediatric deaths were reported to CDC during week 38 2013. A total of 164 influenza-associated paediatric deaths have been reported during the 2012-2013 season.

- [Canada](#) 30 August 2013 (Public Health Agency report)

Influenza activity remained at inter-seasonal levels for weeks 33 and 34 2013. Four regions reported sporadic activity. No new influenza outbreaks were reported in weeks 33 and 34 2013. The national influenza-like-illness (ILI) consultation rate was similar between weeks 15 and 29, with an average of 16.2 ILI consultations per 1,000 patient visits (range 13.9 to 24.6). The rate continued a gradual downward trend in weeks 30-34, with an average of 12.3/1,000; and was 14.5/1,000 in week 34. The majority of weekly rates observed in weeks 18 to 34 were above the average range (Figure 7). The highest consultation rate was observed in children <5 years of age (41.7/1,000 visits) in week 33 and in children 5-19 years of age in week 34 (30.6/1,000 visits).

- [Global influenza update](#) 30 September 2013 (WHO website)

Influenza activity in the northern hemisphere temperate zones remained at inter-seasonal levels. In most regions of tropical Asia influenza activity decreased, with the exception of Hong Kong Special Administrative Region, China, where influenza activity associated with A(H3N2) viruses increased.

In the Caribbean region of Central America and tropical South America the influenza season appeared to have come to an end. Acute respiratory infections continued to decline. Respiratory Syncytial Virus predominated, and influenza A(H1N1)pdm09 and influenza A(H3N2) were the main respiratory viruses reported since May of this year.

Influenza activity peaked in the temperate countries of South America and in South Africa in late June. Influenza activity in these areas was primarily associated with influenza A(H1N1)pdm09 throughout the season, but since July greater numbers of influenza A(H3N2) and influenza type B viruses were observed.

Australia and New Zealand had a late start of a season in August. Influenza activity seemed to decrease in mid-September in Australia. Co-circulation of influenza A(H3N2), influenza A(H1N1)pdm09 and type B was reported in both countries.

- [Avian Influenza](#) 30 September 2013 (WHO website)

### **Influenza A(H7N9)**

Up to 26 September 2013, 135 cases of human infection with influenza A(H7N9) from China have been reported by WHO (134 from China's National Health and Family Planning Commission, and 1 from Taipei Centers for Disease Control), 44 of the cases have died (case fatality ratio=33%) with the last case reported on 11 August 2013. The understanding of the epidemiology of the virus and this outbreak, including the main reservoirs of infection and the extent of geographic spread among animals, remains limited. So far, there is no evidence of sustainable human to human transmission. However, four small clusters suggest that limited human-to-human transmission may occur where there is close contact between cases and non-infected people, as occurs in families and in healthcare settings. Moreover, the genetic changes seen among these viruses suggest that adaptation to mammals is of concern, and further adaptation may occur. For further updates please see the WHO website and for advice on clinical management please see information available [online](#).

### **Influenza A(H5N1)**

From 2003 through to 29 August 2013, 637 human cases of H5N1 avian influenza have been officially reported to WHO from 15 countries, of which 378 (59%) died.

- Novel coronavirus 4 October 2013

Up to 9 October 2013, 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 76 suspect cases in the UK that have been investigated for MERS-CoV and tested negative. A further 132 cases have been confirmed internationally. WHO has received reports of laboratory-confirmed cases originating in the following countries in the Middle East to date: Jordan, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). France, Germany, Italy and Tunisia also reported laboratory-confirmed cases; they were either transferred there for care of the disease or returned from the Middle East and subsequently became ill. This results in a current global total of [136 cases](#), 58 of which have died (case fatality ratio=43%). Further information on management and guidance of possible cases is available [online](#).

## **Acknowledgements**

[Back to top](#)

This report was prepared by the Influenza section, Respiratory Diseases Department, Centre for Infectious Disease Surveillance and Control, Public Health England. We are grateful to all who provided data for this report including the RCGP Research and Surveillance Centre, the PHE Real-time Syndromic Surveillance team, the PHE Respiratory Virus Unit, the PHE Modelling and Statistics unit, the PHE Dept. of Healthcare Associated Infection & Antimicrobial Resistance, PHE regional microbiology laboratories, NHS Direct, Office for National Statistics, 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® and EMIS and EMIS practices contributing to the QSurveillance® database.

**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 paper](#)

**Community surveillance**

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

**Disease severity and mortality data**

- [USISS](#) system
- [EuroMOMO](#) mortality project

**Vaccination**

- 2012/13 seasonal influenza vaccine programme ([Department of Health Green Book](#))
- Childhood flu programme Q&A for healthcare professionals ([Public Health England](#))
- 2013/14 Northern Hemisphere seasonal influenza vaccine recommendations ([WHO](#))