



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.

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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 42 (ending 20 October 2013), overall weekly influenza GP consultations remained low in England (8.1 per 100,000), Wales (4.5 per 100,000), Scotland (7.6 per 100,000) and Northern Ireland (15.6 per 100,000)).
 - Through various syndromic indicators, there is nothing of significance to report in week 42 2013.
 - Four new acute respiratory outbreaks have been reported in the past seven days in care homes (where tested, one influenza A not sub-typed, one rhinovirus and one parainfluenza).
- Virology
 - In week 42 2013, three influenza positive detections were recorded through the DataMart scheme (two B and one A unsubtype, positivity of 0.5%). No samples were positive through the UK sentinel schemes.
- Disease severity and mortality
 - Two new admissions to ICU/HDU with confirmed influenza B were reported through the USSS mandatory ICU surveillance scheme across the UK (131 Trusts in England) in week 42. No new hospitalised confirmed influenza cases have been reported through the USSS sentinel hospital network across England (24 Trusts).
 - In week 42 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 42 2013 in 70.1% 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: 13.1% in all 2 year olds, 12.0% in all 3 year olds, 24.1% in under 65 years in a clinical risk group, 18.9% in pregnant women and 41.9% in 65+ year olds
- International situation
 - Influenza activity in the northern hemisphere temperate zones remains at inter-seasonal levels.

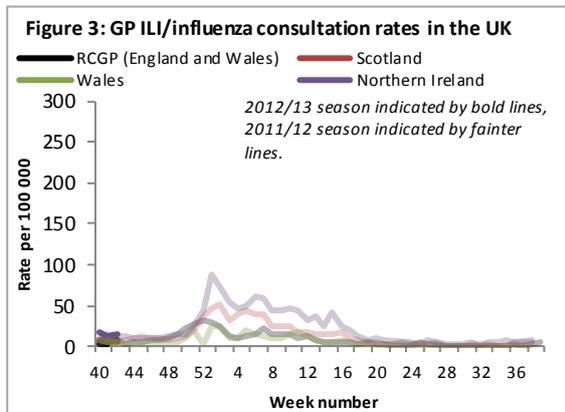
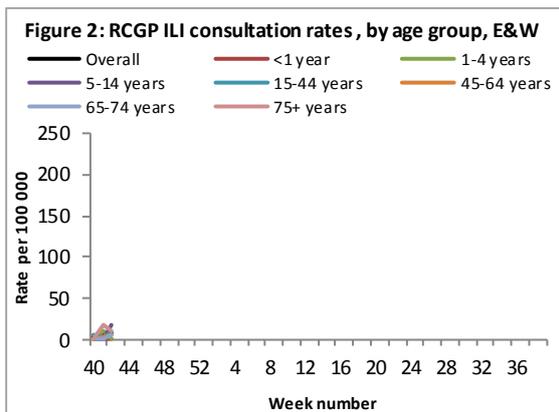
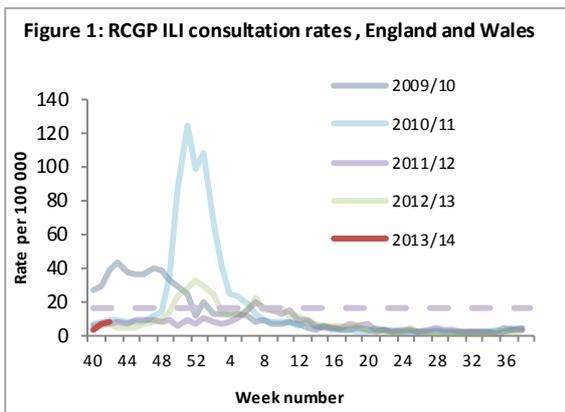
In week 42 (ending 20 October 2013), overall weekly influenza GP consultations remained low in England Wales, Scotland and Northern Ireland.

- Influenza/Influenza-Like-Illness (ILI)

RCGP (England and Wales)

-The overall ILI consultation rate from RCGP for England and Wales remained stable in week 42 2013 (8.1 per 100,000) compared to week 41 (6.2 per 100,000) (Figure 1*). ILI rates increased in the North (from 3.5 to 7.5 per 100,000), and the Central region (from 6.0 to 8.9 per 100,000) and remained stable in the South (from 8.8 to 7.8 per 100,000).

-In week 42 2013, the highest rates were seen in 5-14 year olds (16.8 per 100,000), 75+ year olds (10.9 per 100,000) and 15-44 yr olds (8.8 per 100,000).



Northern Ireland

-The Northern Ireland influenza rate increased from 8.4 per 100,000 in week 41 to 15.6 per 100,000 in week 42 (Figure 3).

-In week 42 2013, the highest rates were seen in 1-4 year olds (from 0.0 to 29.7 per 100,000) and 45-64 year olds (from 10.3 to 18.4 per 100,000).

Wales

-The Welsh influenza rate remained stable from 5.1 per 100,000 in week 41 to 4.5 per 100,000 in week 42 (Figure 3).

-The highest rate was seen in 15-44 year olds (from 4.7 to 6.3 per 100,000) followed by 65-74 year olds (from 8.6 to 5.7 per 100,000).

Scotland

-The Scottish ILI rate remained stable from 6.8 per 100,000 in week 41 to 7.6 per 100,000 in week 42 (Figure 3).

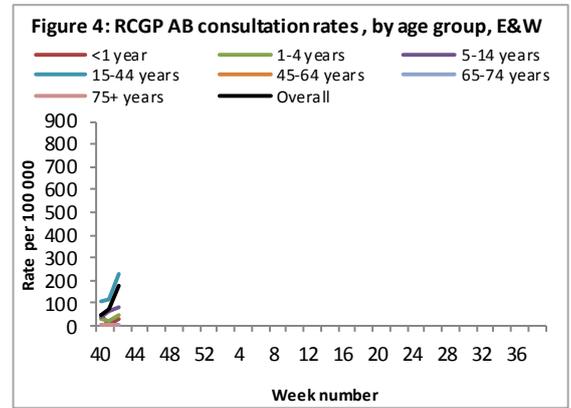
-The highest rate was seen in 1-4 year olds (from 6.8 to 25.7 per 100,000) followed by 15-44 year olds (from 7.8 to 8.7 per 100,000).

*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 increased from 67.6 per 100,000 in week 41 to 86.1 per 100,000 in week 42 (Figure 4). The highest rates were seen in 75+ year olds (230.1 per 100,000), <1 year olds (223.1 per 100,000) and 1-4 year olds (175.5 per 100,000).



Community surveillance

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Through various syndromic indicators, there is nothing of significance to report in week 42 2013 and four 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 in week 42 2013.

-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

-Four new acute respiratory outbreaks were reported in the last 7 days in England in care home settings (two in the South of England PHE region and two in the Midlands and East of England PHE region). Three outbreaks had laboratory confirmation (one influenza A not sub-typed, one rhinovirus and one parainfluenza). So far this season, eight outbreaks have been reported in care homes (where tested, one influenza A not sub-typed, two rhinovirus, one RSV and one parainfluenza)

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

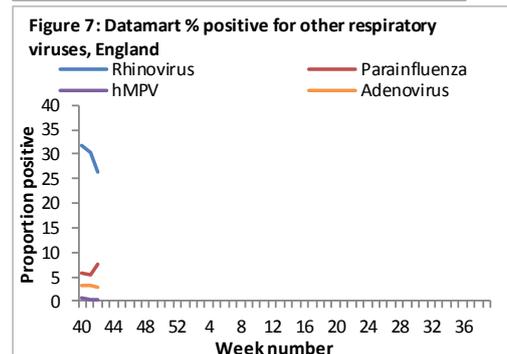
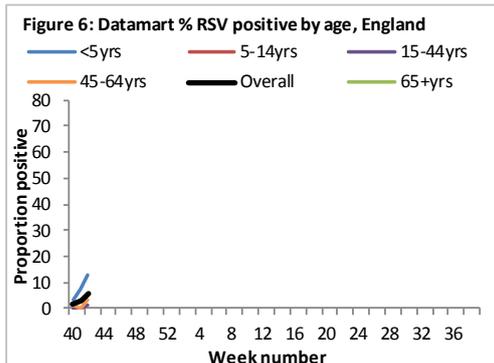
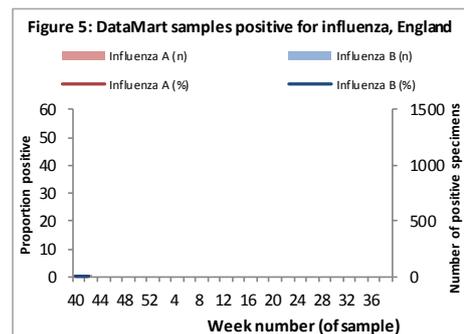
Microbiological surveillance

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In week 42 2013, three influenza positive detections were recorded through the DataMart scheme (two B and one A(not sub-typed)) and no samples were positive through the UK sentinel schemes.

- Respiratory DataMart System (England)

-In week 42 2013, out of the 571 respiratory specimens reported through the Respiratory Datamart System, one (0.2%) was positive for influenza A(not sub-typed) and two positive for influenza B (0.4%) (Figure 5). Positivity remained high for rhinovirus (27.0%); positivity increased slightly for parainfluenza (from 5.3% to 7.4%); positivity increased slightly for RSV (from 2.6% to 5.4%) and other respiratory viruses remained at low levels: (adenovirus 2.8% and hMPV 0.2%) (Figures 6 and 7).



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

-No samples from England and Scotland GP-based sentinel schemes were positive for influenza in week 42 (Table 1). No samples were tested through the Northern Ireland and Welsh scheme.

Table 1: Sentinel influenza surveillance in the UK

Week	England	Scotland	Northern Ireland	Wales
40	0/16 (0%)	0/39 (0%)	0/3 (-)	0/0 (-)
41	0/23 (0%)	1/44 (2.3%)	0/1 (-)	0/0 (-)
42	0/28 (0%)	0/21 (0%)	0/0 (-)	0/0 (-)

NB. Proportion positive omitted when fewer than 10 specimens tested

- Virus characterisation

-In week 42 2013, no influenza viruses were isolated or antigenically characterised by PHE Respiratory Virus Unit (RVU).

- Antiviral susceptibility

-In week 42 2013, no influenza viruses were tested for antiviral susceptibility by PHE RVU.

- Antimicrobial susceptibility

-In the 12 weeks up to 13 October 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 13 Oct 2013, E&W

Organism	Tetracyclines		Co-amoxiclav	
	Specimens tested (N)	Specimens susceptible (%)	Specimens tested (N)	Specimens susceptible (%)
<i>S. aureus</i>	2,976	93	187	90
<i>S. pneumoniae</i>	1,532	81	1587*	91*
<i>H. influenzae</i>	7,090	99	6,649	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

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In week 42, two new admissions of confirmed influenza cases to ICU/HDU (two influenza B) and no confirmed influenza deaths in ICU/HDU have been reported through the national USISS mandatory ICU scheme across the UK (131 Trusts in England). No new hospitalised confirmed influenza cases have been reported through the USISS sentinel hospital network across England (24 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 42)

-In week 42, two new admissions to ICU/HDU with confirmed influenza infection (two B) were reported across the UK (131/163 Trusts in England) through the USISS mandatory ICU scheme (Figures 12 and 13). No new confirmed influenza deaths were reported in week 42 2013. A total of four admissions have been reported since week 40 2013 all in 45+ year olds (two B, one A(unknown subtype) and one A(H1N1)pdm09).

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

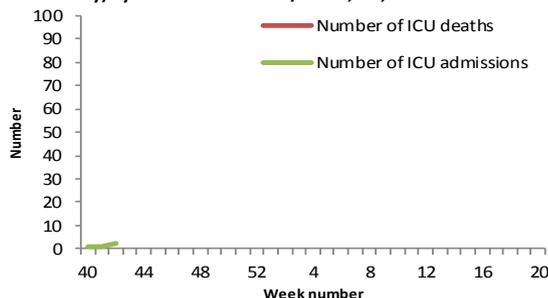
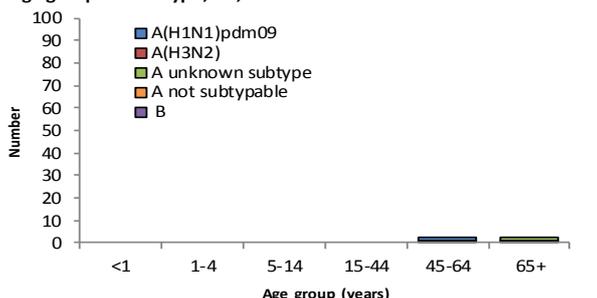


Figure 9: Cumulative ICU influenza admissions (USISS mandatory) by age group and flu type, UK, since week 40 2013



- USISS sentinel weekly hospitalised confirmed influenza cases, England (week 42)

-In week 42 2013, no new hospitalised confirmed influenza cases were reported from the USISS sentinel hospital network from 24 NHS Trusts across England. No hospitalised confirmed influenza cases have been reported since week 40 2013.

All-cause mortality data

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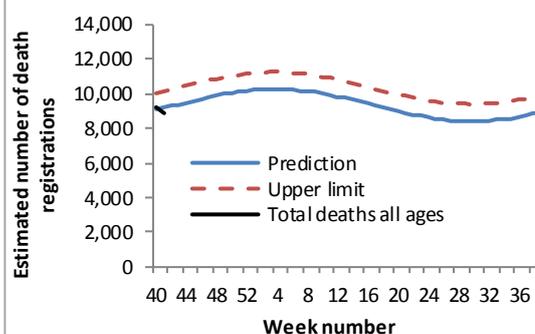
In week 42, no excess in all-cause mortality was seen across the UK overall, by age group or by region.

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 41 2013, an estimated 8,939 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is slightly less than the 9,191 estimated death registrations in week 40 and is below the 95% upper limit of expected death registrations for this time of year as calculated by PHE (Figure 15).

Figure 10: 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 42 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).

Table 3: Excess mortality by age group, England*

Age group (years)	Excess detected in week 42 2013?	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

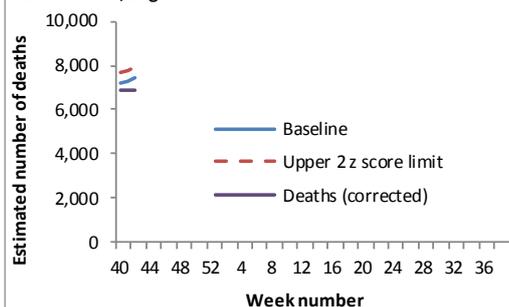
Table 4: Excess mortality by UK country*

Country	Excess detected in week 42 2013?	Weeks with excess in 2013/14
England	x	NA
Wales	x	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

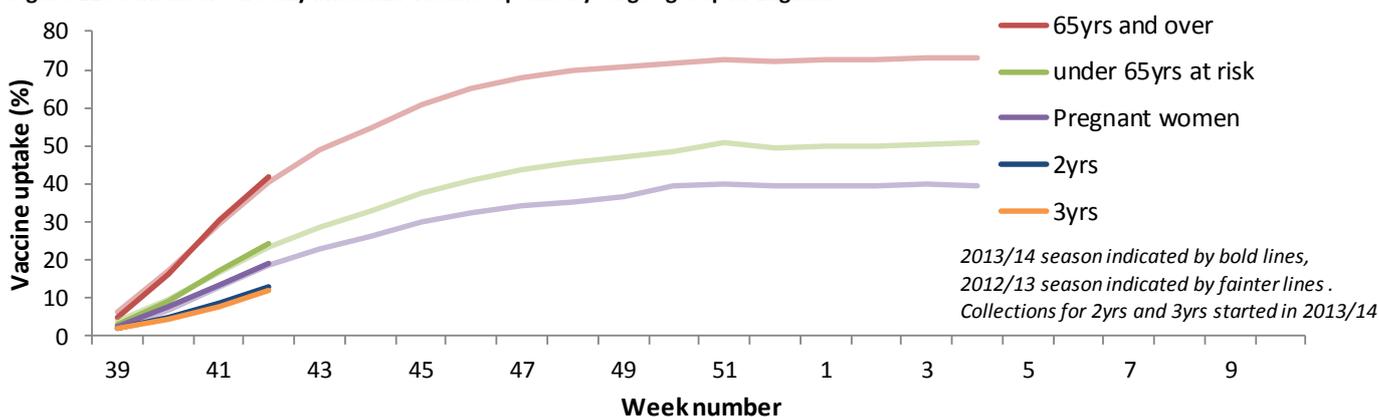
NB. Separate total and age-specific models are run for England which may lead to discrepancies between Tables 3 + 4

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



- Up to week 42 2013 in 70.1% 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 12):
 - 13.1% in all 2 year olds
 - 12.0% in all 3 year olds
 - 24.1% in under 65 years in a clinical risk group
 - 18.9% in pregnant women
 - 41.9% in 65+ year olds

Figure 12: Cumulative weekly influenza vaccine uptake by target group in England



International Situation

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

- [Europe](#) 18 October 2013 (European Centre for Disease Prevention and Control report)

During week 41/2013, clinical data were reported by 24 countries, all of which experienced low-intensity influenza activity, the lowest category of reporting. Geographic patterns of influenza activity were reported as local or sporadic by Finland, France, Malta, Norway and the UK (Scotland). All other countries reported no activity. An increasing trend was reported by Bulgaria while all other countries reported stable or decreasing trends.

For week 41/2013, 16 countries tested 220 sentinel specimens, one (0.5%) of which from Spain was positive for influenza virus A. In addition, 14 non-sentinel source specimens from six countries (e.g. specimens collected for diagnostic purposes in hospitals) were found to be positive for influenza virus, 10 type A and four type B. Of eight influenza A viruses subtyped, five were A(H3) and three were A(H1)pdm09. Of the six countries with positive non-sentinel specimens, four reported sporadic or local activity (Finland, France, Norway and the UK (Scotland)).

Since week 41/2012, three hospitalised laboratory-confirmed influenza cases have been reported by Ireland and the UK. Two patients were infected by influenza A virus, one of which was subtyped as A(H1)pdm09, and one by a B virus.

- [United States of America](#) 18 October 2013 (Centre for Disease Control report)

Nationwide during week 41, 1.1% 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 below the national baseline of 2.0%. (ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat.). The proportion of deaths attributed to pneumonia and influenza (P&I), 5.6%, was below the epidemic threshold of 6.1% for week 41 2013. No new influenza-associated paediatric deaths were reported to CDC during week 41 2013. A total of 165 influenza-associated paediatric deaths have been reported during the 2012-2013 season.

- [Canada](#) 18 October 2013 (Public Health Agency report)

Influenza activity remained at inter-seasonal levels for week 40 and 41 2013. Six regions reported sporadic activity. No new influenza outbreaks were reported in weeks 39 and 40 2013. The national influenza-like-illness (ILI) consultation rate decreased from 30.4/1,000 visits in week 40 to 24.3/1,000 in week 41, while maintaining a general upward trend in recent weeks.

- [Global influenza update](#) 14 October 2013 (WHO website)

Influenza activity in the northern hemisphere temperate zones remained at inter-seasonal levels. In most regions of tropical Asia influenza activity was at a low level, with the exception of Hong Kong Special Administrative Region, China, where influenza transmission increased due to influenza A(H3N2).

In the Caribbean region of Central America and tropical South America countries, cases of influenza decreased. While acute respiratory illness remained stable in the Caribbean and Central America. Respiratory syncytial virus (RSV) predominated but the RSV activity remained within expected seasonal levels.

Influenza activity peaked in the temperate countries of South America and in South Africa in late June. Temperate South American countries reported acute respiratory disease activity within expected seasonal levels, and RSV activity largely declined.

In Australia and New Zealand, numbers of influenza viruses detected and rates of influenza-like illness seemed to have peaked. Co-circulation of influenza A(H1N1)pdm09, A(H3N2) and B viruses was reported in both countries.

- [Avian Influenza](#) 7 October 2013 (WHO website)

Influenza A(H7N9)

Up to 123 October 2013, [135](#) cases of human infection with influenza A(H7N9) from China have been reported by WHO, including 45 deaths (case fatality ratio=33%). The most recent case was admitted to hospital on 8 October 2013 and is the first new confirmed case of human infection with avian influenza A(H7N9) since 11 August 2013. So far there is no evidence of sustainable human-to-human transmission. 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 7 October 2013, 641 human cases of H5N1 avian influenza have been officially reported to WHO from 15 countries, of which 380 (59%) died.

- Novel coronavirus 23 October 2013

Up to 18 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 134 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 [139 cases](#), 60 of which have died (case fatality ratio=43%). Further information on management and guidance of possible cases is available [online](#).

Acknowledgements

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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.

Related links

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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 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](#))