

PHE Weekly National Influenza Report

Summary of UK surveillance of influenza and other seasonal respiratory illnesses

17 April 2014 – Week 16 report (up to week 15 data)

This report is published weekly on the <u>website</u>. For further information on the surveillance schemes mentioned in this report, please see the <u>website</u> and the <u>related links</u> at the end of this document.

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Summary

Influenza activity is continuing to decline.

- Overall weekly influenza GP consultation rates across the UK
 - o In week 15 (ending 13 April 2014), overall weekly influenza GP consultations remained low in England (1.4 per 100,000), Wales (6.4 per 100,000), Scotland (7.5 per 100,000) and Northern Ireland (19.3 per 100,000)).
 - o In week 15, syndromic surveillance indicators for influenza remain low.
 - Three new acute respiratory outbreaks have been reported in the past seven days across the UK: two in care homes (no result available) and one in a hospital (influenza A(H1N1)pdm09).

Virology

- o In week 15 2014, 45 influenza positive detections were recorded through the DataMart scheme (24 A(H1N1)pdm09, 8 A(H3), 12 A(not subtyped) and one B, a positivity of 5.6% compared to 8.2% in week 14), with the highest positivity reported in 15-44 year olds (10.1%).
- No samples were positive for influenza through the English GP sentinel schemes (positivity of 0% compared to 15% the previous week).
- Disease severity and mortality
 - 16 new admissions to ICU/HDU with confirmed influenza (10 A(H1N1)pdm09, three A(H3N2) and three A unknown subtype) and one confirmed influenza death were reported through the USISS mandatory ICU surveillance scheme across the UK (128 Trusts in England) in week 15. 19 new hospitalised confirmed influenza cases were reported through the USISS sentinel hospital network across England (24 Trusts).
 - In week 15 2014, no excess all-cause mortality by week of death was seen across the UK through the EuroMOMO algorithm.

Vaccination

- o In the final monthly collection up to 31 January 2014, provisional cumulative seasonal influenza vaccine uptake from 99.8% of GP practices was 73.2% in 65 years and over (73.4% in 2012/13), 52.3% in under 65 year olds at risk (51.3% in 2012/13), 39.8% in all pregnant women (40.3% in 2012/13), 42.6% in all 2 year olds and 39.6% in all 3 year olds.
- Provisional data from the final monthly collection of influenza vaccine uptake by frontline healthcare workers show 54.8% were vaccinated by 31 January 2014 from 99.3% of Trusts, compared to 45.9% in 2012/13.
- WHO has published recommendations for the <u>composition</u> of influenza virus vaccines for use in the 2014/15 northern hemisphere influenza season.

International situation

- Overall influenza activity in North America continues to decrease.
- Across Europe, influenza activity is declining but influenza is still being detected in the vast majority of reporting countries.

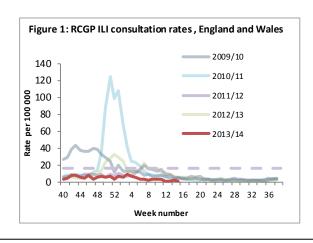
In week 15 (ending 13 April 2014), overall weekly influenza GP consultations remained low in England, Wales, Scotland and Northern Ireland.

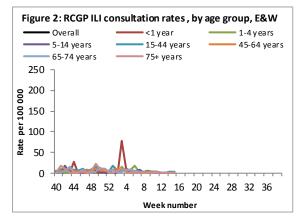
Influenza/Influenza-Like-Illness (ILI)

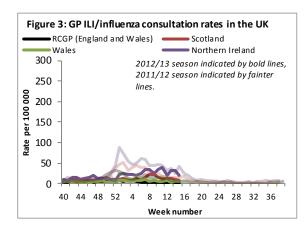
RCGP (England and Wales)

-The overall ILI consultation rate from RCGP for England and Wales remained stable at 1.4 per 100,000 in week 15 (Figure 1*). ILI rates remained stable in the North at 0.7 per 100,000, Central at 3.0 per 100,000 and South region at 0.5 per 100,000.

-In week 15 2014, ILI consultations were reported in 15-44 year olds (2.6 per 100,000), 45-64 year olds (1.0 per 100,000) and 75+ year olds (1.6 per 100,000).







Northern Ireland

- -The Northern Ireland influenza rate decreased from 32.1 per 100,000 in week 14 to 19.3 per 100,000 in week 15 (Figure 3).
- -In week 15 2014, the highest rates were seen in 65-74 year olds (30.0 per 100,000), 5-14 year olds (24.7 per 100,000) and 45-64 year olds (24.0 per 100,000).

Wales

- -The Welsh influenza rate remained stable at 6.4 per 100,000 in week 15 (Figure 3).
- -The highest rate was seen in 15-44 year olds (12.6 per 100,000) and 65-74 year olds (6.0 per 100,000).

Scotland

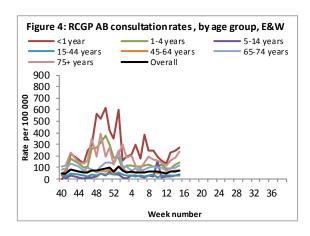
- -The Scottish ILI rate remained stable at 7.5 per 100,000 in week 15 (Figure 3).
- -The highest rate was seen in 45-64 year olds (9.1 per 100,000) and 15-44 year olds (8.7 per 100,000).

^{*}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 68.5 per 100,000 in week 14 to 75.2 per 100,000 in week 15 (Figure 4). The highest rates were seen in <1 year olds (271.8 per 100,000) and 75+ year olds (239.7 per 100,000).

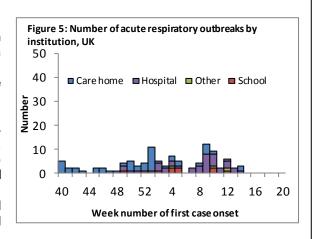


Community surveillance

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In week 15 influenza syndromic indicators remained low and three new acute respiratory outbreak has been reported in the last seven days.

- PHE Real-time Syndromic Surveillance
- -In week 15 syndromic surveillance indicators for influenza remain low.
- -For further information, please see the syndromic surveillance webpage.
 - Acute respiratory disease outbreaks
- Three new acute respiratory outbreaks were reported in the last seven days: two from South of England (one in care home (influenza negative) and one from a hospital (influenza A(H1N1)pdm09)), and one from a care home in North of England (no test result available). So far this season, 52 outbreaks have been reported in care homes, 40 in hospitals, 10 in schools and three in other settings (where tested, 26 influenza A(H1N1)pdm09, 19 influenza A (not subtyped), four influenza A(H3), nine RSV, nine rhinovirus, three parainfluenza, and seven mixed infections of various pathogens.
- -Outbreaks should be recorded on HPZone and reported to the local Health Protection Teams and Respcidsc@phe.gov.uk.

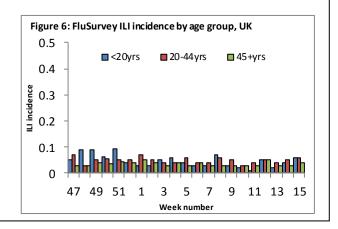


FluSurvey

-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.

In week 15, the incidence of ILI reports was low across age groups (Figure 6).

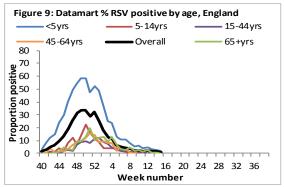
This is the last week of reporting for FluSurvey.

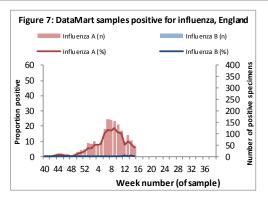


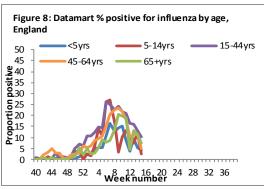
In week 15 2014, 45 influenza positive detections were recorded through the DataMart scheme (24 A(H1N1)pdm09, 8 A(H3), 12 A(not subtyped) and one B), with the highest positivity reported in 15-44 year olds. No samples were positive for influenza through the English sentinel schemes.

Respiratory DataMart System (England)

In week 15 2014, out of the 799 respiratory specimens reported through the Respiratory Datamart System, 24 (3.1%) were positive for flu A(H1N1)pdm09, 8 (1.0%) positive for influenza A(H3), 12 (1.5%) 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 (10.1%, Figure 8). The overall positivity for RSV remained low (0.8%) in week 15 (Figure 9). Rhinovirus positivity decreased slightly from 15.2% in week 14 to 12.6% in week 15. Positivity remained stable for adenovirus (5.7%), parainfluenza (4.0%) and human metapneumovirus (hMPV, 5.6%) which remained at a slightly increased level.







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

-In week 15, two samples from Wales were positive Table 1: Sentinel influenza surveillance in the UK for influenza A(H1N1)pdm09. No samples from England, Scotland and Northern Ireland scheme was positive for influenza (Table 1).

Week	England	Scotland	Northern Ireland	Wales	
12	11/47 (23.4%)	5/41 (12.2%)	1/5 (-%)	0/2 (-%)	
13	10/48 (20.8%)	4/40 (10%)	2/6 (-%)	0/2 (-%)	
14	6/40 (15%)	3/32 (9.4%)	2/5 (-%)	1/6 (-%)	
15	0/17 (0%)	0/16 (0%)	0/5 (-%)	2/4 (-%)	

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 59 influenza A(H3N2) viruses, all similar to the A/Texas/50/2012 H3N2 2013/14 vaccine strain, and 193 influenza A(H1N1)pdm09 viruses similar to the A/California/07/2009 vaccine strain for 2013/14. Of the few influenza B viruses isolated and characterised, 4 belong to the B-Yamagata lineage as does the 2013/14 influenza B vaccine strain, whilst 6 belong to the B-Victoria lineage.

Antiviral susceptibility Since week 40 2013, 845 and 133 influenza viruses have been tested for Osetamivir and Zanamivir susceptibility respectively in the UK. Eighteen (2.1%) of 839 flu A(H1N1)pdm09 and one (4.5%) of 22 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 6 April 2014, 84% 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, 23 weeks up to 6 April 2014, E&W

	Tetracyclines		Co-amoxiclav	
Organism	Specimens tested (N)	Specimens susceptible (%)	Specimens tested (N)	Specimens susceptible (%)
S. aureus	3,295	92	234	86
S. pneumoniae	2,642	84	2816*	92*
H. influenzae	11,014	99	10,497	. 94

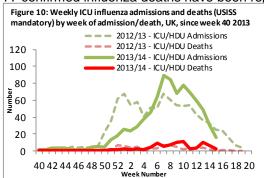
5. pneumoniae isolates are not routinely tested for susceptibility to co-amoxic laboratory results for benzyl-penicillin are extrapolated to determine sensitivity to other betalactams such as co-amoxiclav.

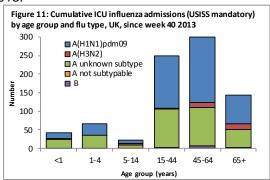
16 new admissions to ICU/HDU with confirmed influenza (10 A(H1N1)pdm09, three A(H3N2) and three A unknown subtype) and one confirmed influenza death were reported through the USISS mandatory ICU surveillance scheme across the UK (128 Trusts in England) in week 15. 19 new hospitalised confirmed influenza cases were 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 15)

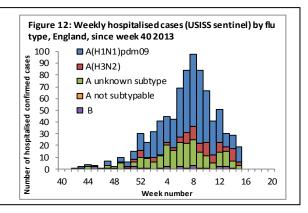
- In week 15, 16 new admissions to ICU/HDU with confirmed influenza infection (10 A(H1N1)pdm09, three A(H3N2) and three A unknown subtype) were reported across the UK (137/156 Trusts in England) through the USISS mandatory ICU scheme (Figures 10 and 11) compared to 30 in week 14. One new confirmed influenza death was reported in week 15 2014. A total of 825 admissions (453 A(H1N1)pdm09, 323 A(unknown), 35 A(H3N2) and 14 B) and 77 confirmed influenza deaths have been reported since week 40 2013.





 USISS sentinel weekly hospitalised confirmed influenza cases, England (week 15)

-In week 15, 19 new hospitalised confirmed influenza case were reported through the USISS sentinel hospital network from 24 NHS Trusts across England (Figure 12) compared to 29 in week 14. A total of 836 hospitalised confirmed influenza admissions (504 A(H1N1)pdm09, 209 A unknown, 99 A(H3N2) and 24 B) have been reported since week 40 2013.



All-cause mortality data

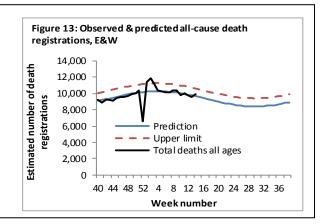
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In week 15 2014, no excess all-cause mortality by week of death was seen in England through the EuroMOMO algorithm and none has been reported since week 40 2013.

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 14 2014, an estimated 9.944 all-cause deaths were registered in England and Wales (source: Office for National Statistics). This is slightly more than the 9,622 estimated death registrations in week 13 but remains below the 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

-In week 15 2014, 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), in other age groups or subnationally. This data is provisional due to the time delay in registration; numbers may vary from week to week.

-No excess mortality above the threshold through the same standardised algorithm was seen across Wales, Scotland or *Excess mortality is calculated as the observed minus the Northern Ireland in week 15 (Table 4).

Figure 14: Excess mortality in 65+ year olds by week of death, EuroMOMO, England 10,000 Estimated number of deaths 8,000 6,000 Baseline 4,000 Upper 2z score limit Deaths (corrected) 2,000 40 44 48 52 4 8 12 16 20 24 28 32 36 Week number

Table 3: Excess mortality by age group, England*

Age group (years)	Excess detected in week 15 2014?	Weeks with excess in 2013/14
<5	×	NA
5-14	×	NA
15-64	×	NA
65+	×	NA

expected number of deaths in weeks above threshold

Table 4: Excess mortality by UK country*

Country	Excess detected	Weeks with excess in			
Country	in week 15 2014?	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

Vaccination I Back to top I

- In the final monthly collection up to 31 January 2014, provisional cumulative seasonal influenza vaccine uptake from 99.8% of GP practices was 73.2% in 65 years and over (73.4% in 2012/13), 52.3% in under 65 year olds at risk (51.3% in 2012/13), 39.8% in all pregnant women (40.3% in 2012/13), 42.6% in all 2 year olds and 39.6% in all 3 year olds. The report provides uptake to Area Team level, CCG level and in key targeted groups.
- Provisional data from the final monthly collection of influenza vaccine uptake by frontline healthcare workers show 54.8% were vaccinated by 31 January 2014 from 99.3% of Trusts, compared to 45.9% in 2012/13. The report provides uptake to Trust level.
- WHO has recommended the composition of influenza virus vaccines for use in the 2014/15 northern hemisphere influenza season. The same viruses are recommended as for the 2013-2014 northern hemisphere influenza season and 2014 southern hemisphere season (an A/California/7/2009 (H1N1)pdm09-like virus; an A/Texas/50/2012 (H3N2)-like virus; a B/Massachusetts/2/2012-like virus (Yamagata lineage) and for quadrivalent vaccines containing two influenza B viruses, to additionally include a B/Brisbane/60/2008-like virus (Victoria lineage). For further information, please see the full report.

International Situation | Back to top |

Overall influenza activity in North America continues to decrease. Across Europe, influenza activity is declining but influenza is still being detected in the vast majority of reporting countries.

<u>Europe</u> 11 April 2014 (European Centre for Disease Prevention and Control report)

Low intensity was reported by all reporting countries except UK (Northern Ireland) which reported medium intensity with ILI rates remaining at a high level. Geographic patterns of influenza activity varied across Europe: widespread activity was reported by Croatia, and regional activity by Austria, Germany, Greece, the Netherlands and the UK (England). Local or sporadic activity was reported by 17 countries and the UK (Northern Ireland, Scotland and Wales). Bulgaria, Cyprus, Italy and Malta reported no influenza activity. Increasing trends were reported by the Netherlands and the UK (Wales). Fourteen countries and the UK (Northern Ireland) reported stable trends, while 13 countries and the UK (England and Scotland) reported decreasing trends.

For week 14/2014, 404 sentinel specimens were tested across 23 countries and 126 (31%) were positive for influenza virus (Tables 1–2, Figures 1–2). This is an increase on last week, but with approximately half the number of specimens tested (Figure 1). Of the positive specimens, 120 (95%) were type A and six (5%) were type B. Of 95 type A viruses subtyped, 64 (67%) were A(H3) and 31 (33%) A(H1)pdm09. Since week 40/2013, of 6 841 sentinel specimens testing positive for influenza virus, 6 688 (98%) were type A and 153 (2%) were type B. Of the 6 199 subtyped influenza viruses, 3 351 (54%) were A(H1)pdm09 and 2 848 (46%) were A(H3). Countries have reported variable patterns of A(H1)pdm09 and A(H3) as the dominant subtype.

Since week 40/2013, none of the 1 420 antigenically characterised viruses have differed significantly from the current vaccine viruses recommended by WHO. A total of 10 were reported to be non-attributable to a category.

For week 14/2014, 15 countries reported 269 respiratory syncytial virus detections, maintaining the downward trend since week 1/2014 (Figure 3).

For week 14/2014, 76 hospitalised laboratory-confirmed influenza cases were reported by six countries (France, Ireland, Romania, Slovakia, Spain and the UK). Influenza A virus was detected in 74 cases and influenza B virus in two patients. Of the 76 hospitalised cases, 28 were admitted to intensive care units (ICU).

Since week 40/2013, seven countries have reported 4 525 hospitalised, laboratory-confirmed influenza cases: 4 472 (99%) were related to influenza virus type A infection and 53 (1%) to type B virus infection. Of 3 047 subtyped influenza A viruses, 2 269 (74%) were A(H1)pdm09 and 778 (26%) were A(H3). A higher proportion of A(H1)pdm09 viruses has been detected in patients in ICUs (1 308 out of 1 527 subtyped, 86%) than in patients on regular wards (961 out of 1 521 subtyped, 63%).

Of the 3 710 hospitalised cases with reported age, 1 388 (38%) were 40–64 years old and 1 372 (37%) were over 64 years of age - the same distributions as in the previous week.

Five countries reported a total of 384 fatal cases (Table 6): 381 (99%) were associated with influenza virus type A infection and three (1%) with type B virus. Of 280 influenza A viruses subtyped from fatal cases, 227 (81%) were A(H1)pdm09 and 53 (19%) were A(H3). Patient age was reported for 380 of the fatal cases: 203 (53%) were 65 years or older.

United States of America 11 April 2014 (Centre for Disease Control report)

During week 14 (March 30-April 5, 2014), influenza activity continued to decrease in most regions of the United States.

Nationwide during week 14, 1.6% 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%.

During week 14, 6.8% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 7.3% for week 14. Three influenza-associated pediatric deaths were reported to CDC during week 14. One death was associated with an influenza A virus for which no subtyping was performed and occurred during week 52 (week ending December 28, 2013). Two deaths were associated with influenza B viruses and occurred during week 13 (week ending March 29, 2014). A total of 85 influenza-associated pediatric deaths have been reported during the 2013-2014 season from Chicago [1], New York City [3] and 29 states (AR [4]; AZ [1]; CA [8]; FL [4]; GA [1]; IA [1]; IL [1]; KS [2]; KY [1]; LA [5]; MA [2]; MD [1]; ME [1]; MI [2]; MS [1]; NC [6]; NE [1]; NJ [1]; NV [1]; OK [2]; OR [1]; PA [3]; SC [2]; TN [4]; TX [18]; UT [2]; VA [1]; WI [2]; and WV [2]).

Of 5,127 specimens tested and reported during week 14 by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories, 685 (13.4%) were positive for influenza. By type, 302 (44.1%) were influenza A (57 (18.9%) A(H1N1)pdm09, 121 subtyping not performed and 124 (41.1%) A(H3)) and 383 (55.9%) were influenza B.

• Canada 11 April 2014 (Public Health Agency report)

In week 14, one region in Ontario reported widespread activity and five regions (ON(4) and QC(1)) reported localized activity. The national influenza-like-illness (ILI) consultation rate increased from 22.8/1,000 in week 13 to 32.0/1,000 in week 14; but was still within the expected range for week 14. In week 14, 11 new laboratory-confirmed influenza-associated paediatric (≤16 years of age) hospitalizations were reported by the Immunization Monitoring Program Active (IMPACT) network, compared to 16 in week 13. Influenza B was reported in 9 of the 11 cases in week 14. Although the number of cases is small, a greater proportion of cases with influenza B this season have been children between 2 and 10 years of age compared to A(H1N1)pdm09. No ICU admissions or deaths were reported in week 14.

Global influenza update 7 April 2014 (WHO website)

Globally, the northern hemisphere influenza season appeared to be approaching interseasonal levels in most countries. The proportion of influenza B detections however increased slightly in many regions, especially Asia, the Middle East, and North America

In North America, influenza levels continued to decline and the season was coming to its end. Late season circulation of influenza B continued, however, the overall levels of influenza remained low.

In North America, influenza levels continued to decline and the season was coming to its end. Late season circulation of influenza B continued, however, the overall levels of influenza remained low.

In Eastern Asia, influenza activity was approaching interseasonal levels, with influenza B emerging as the current predominant virus. This timing aligns with previous seasonal influenza trends in the region. Mongolia continues to experience elevated influenza activity, despite levels beginning to decline.

In Tropical Asia, influenza activity continued to decline, aligning with global seasonal trends. While in Thailand influenza activity remained elevated, small decreases were seen.

In Northern Africa and Western Asia, influenza activity remained low despite the increasing proportion of influenza B positive samples.

In the Caribbean, influenza activity remained low and at interseasonal levels in most countries, however ILI activity and influenza detections increased in Guyana and Guadeloupe.

In the Southern Hemisphere, influenza activity remained low and detections were sporadic.

Based on FluNet reporting (as of 3 April 2014, 12:35 UTC), during weeks 11 to 12 (9 March 2014 to 22 March 2014), National Influenza Centres (NICs) and other national influenza laboratories from 96 countries, areas or territories reported data. The WHO GISRS laboratories tested more than 65 498 specimens. 10 986 were positive for influenza viruses, of which 7407 (67.4%) were typed as influenza A and 3579 (32.6%) as influenza B. Of the sub-typed influenza A viruses, 2747 (57%) were influenza A(H1N1)pdm09 and 2072 (43%) were influenza A(H3N2). Of the characterized B viruses, 222 (87.1%) belong to the B-Yamagata lineage and 33 (12.9%) to the B-Victoria lineage.

• Avian Influenza 15 April 2014 (WHO website)

Influenza A(H7N9)

In the past week, ten new hospitalised cases of human infection with influenza A(H7N9) in China have been reported by <u>WHO</u>. 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 14 April 2014

Up to 14 April 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 133 suspect cases in the UK that have been investigated for MERS-CoV and tested negative. A further 224 confirmed cases have been reported internationally. This results in a current global total of <u>228 cases</u>, 92 of which have died (case fatality ratio=40%). 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

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 Book)
- Childhood flu programme Q&A for healthcare professionals (Public Health England)
- 2013/14 Northern Hemisphere seasonal influenza vaccine recommendations (WHO)