

Weekly electronic bulletin

Week 29: 13 July 2009 - 19 July 2009

31 July 2009

Continued high and widespread pandemic influenza activity in the UK (England), especially among children. Sporadic activity in some other countries

Summary: During week 29/2009, the UK (England) continued to report high and widespread pandemic influenza activity, especially among children. Spain started to report local activity, meaning that sporadic outbreaks are occurring in the community. None of the remaining countries reported increased activity. The proportion of sentinel specimens that tested positive for influenza increased from 11% in the previous week to 18.5%. Of the 104 influenza viruses detected by sentinel networks in week 29, 76% were influenza A(H1N1)v. However, the majority of pandemic virus detections came from specimens collected from non-sentinel sources (677 influenza A(H1N1)v virus positive specimens).

Epidemiological situation - week 29/2009: For the intensity indicator, the national network levels for influenza-like illness (ILI) and/or acute respiratory infection (ARI) were low in all countries that reported this indicator except for the UK (England), which reported high intensity. For the geographical spread indicator, the UK (England) reported widespread activity and Spain reported local activity. The remaining countries reported either sporadic (Hungary, Ireland, Latvia and Portugal) or no activity (Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Lithuania, Romania, Slovakia, Slovenia and Sweden).

Cumulative epidemiological situation - weeks 16–29/2009: The UK (England) started to report medium levels of ILI activity since week 27/2009. During the following two weeks, influenza activity continued to increase and was reported to be high in weeks 28 and 29. The highest consultation rates (above 250 ILI cases/100 000 population) are being observed among individuals younger than five and five to 14 year-olds, followed by those aged 15–64 years (150 ILI cases/100 000 population). Influenza activity remained low in all of the other countries reporting to ECDC since week 16/2009.

Virological situation - week 29/2009: The total number of respiratory specimens collected by sentinel physicians in week 29/2009 was 562, of which 104 (18.5%) were positive for influenza virus: 79 (76%) were subtype A(H1N1)v, 23 A untyped and two A(H3).

The A(H1N1)v virus was detected in sentinel specimens from Greece, Hungary, Ireland, Latvia, Slovenia, Spain, Sweden and the UK (England).

In addition, 1227 non-sentinel source specimens (e.g. specimens collected for diagnostic purposes in hospitals) were reported positive for influenza virus. Of these, 1223 were type A (677 subtype (H1N1)v, three subtype H3, one subtype H3N2 and 542 not subtyped) and four type B.

Cumulative virological situation - weeks 16–29/2009: Of the 8786 virus detections (sentinel and non-sentinel) since week 16/2009, 8345 (95%) were type A (3503 subtype (H1N1)v, 150 subtype H3, 99 subtype H3N2, 46 subtype H1, 36 subtype H1N1 and 4511 not subtyped) and 441 (5%) were type B. Overall, the proportion of sentinel specimens positive for influenza viruses ranged between 19% in week 27 to 11% in week 28. Among sentinel specimens that were positive for influenza viruses between week 26/2009 and 28/2009, more than 90% were influenza A(H1N1)v. In week 29/2009, the total number of sentinel virus detections almost doubled and there was a relatively high proportion (22%) of influenza A viruses that were still untyped.

Based on the antigenic and/or genetic characterisation of 6983 influenza viruses reported from week 20/2008 to week 29/2009, 5109 (73%) were reported as A/Brisbane/10/2007 (H3N2)-like, 282 (4%) as A/Brisbane/59/2007 (H1N1)-like, 52 (1%) as B/Florida/4/2006-like (B/Yamagata/16/88 lineage), 1482 (21%) as B/Malaysia/2506/2004-like (B/Victoria/2/87 lineage) and 58 (1%) as A/California/4/2009 (H1N1)v-like. For the current virus strains recommended by WHO for vaccine preparation, [click here](#).

All A(H1N1)v viruses tested have been sensitive to oseltamivir and zanamivir—except for one specimen isolated in Denmark

in a patient on oseltamivir treatment—but resistant to M2 inhibitors. For ECDC threat assessment on this [click here](#)

Comment: Although increased influenza activity has been so far observed in the UK (England) only, sentinel specimens positive for influenza A(H1N1)v virus are also being progressively detected in other countries. Consistent with the information available from individual case report analyses in Europe and elsewhere, the most intense activity in the UK (England) has been observed in individuals younger than 15 years of age. The vast majority of all influenza viruses detected in the UK (England) have been either A(H1N1)v or type A not further subtyped, meaning that there is probably very limited co-circulation of the pandemic strain with other seasonal influenza strains.

There is now extensive transmission of the pandemic strain in parts of the UK, mostly in England.[1] Such large scale transmission has yet to be seen in other countries through these surveillance systems, although this is expected later in the year.[2] Likely reasons for this focal pandemic activity include chance (outbreaks and pandemics have to start somewhere), the relatively slow movement of even pandemic influenza during the summer months and the particular international connections and dense population of UK urban areas. As schools are closing in the UK next week it would be possible to observe whether this has any effect on the trend of influenza activity.

Background: The Weekly Electronic Bulletin presents and comments on influenza activity in the European Union and Norway. Of these countries, 12 reported both clinical and virological data, two reported virological data only and five reported clinical data only in week 29/2009. The spread of influenza viruses and their epidemiological impact in Europe are being monitored by the network under the aegis of [the European Centre for Disease Prevention and Control](#) in Stockholm (Sweden) in collaboration with the [WHO Collaborating Centre for Reference and Research on Influenza](#) in London (UK).

Other bulletins: The EISN bulletin is prepared using reports from GP consultations and other sources, depending on individual country arrangements. It is important to recognise that different health care systems and types of measurement should also be considered when assessing the impact of influenza.

[1] Health Protection Agency (HPA). Weekly pandemic flu update. 23 July 2009. Available from: http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1247816558780?p=1231252394302

[2] Jakab Z. Pandemic 2009-10. ECDC's future look and risk assessment. Briefing to the Swedish Presidency Informal Council, Jonkoping, Sweden July 6th 2009. Speaking notes and presentation http://www.ecdc.europa.eu/en/files/Ppt/ZJ_Pandemic_2009_2010_Future_Look_and_Risk_Assessment.pdf
http://www.ecdc.europa.eu/en/files/Ppt/ZJ_Presentation_on_the_2009_2010_Pandemics.ppt

[3] Nicoll A, Coulombier D Europe's initial experience with pandemic (h1n1) 2009 - mitigation and delaying policies and practices Eurosurveillance July 23rd 2009 <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19279>

This edition of the bulletin has been republished in a revised format. Minor editorial corrections have been made but the information and data contained herein have not changed.

The bulletin text was written by an editorial team at the [European Centre for Disease Prevention and Control](#) (ECDC): Flaviu Plata, Phillip Zucs and Bruno Ciancio. The bulletin text was reviewed by the Community Network of Reference Laboratories for Human Influenza in Europe (CNRL) coordination team: Adam Meijer, Rod Daniels, Alan Hay and Maria Zambon. On behalf of the EISN members the bulletin text was reviewed by Joan O'Donnell (Health Protection Surveillance Centre, Ireland) and Katarina Prosenec (National Institute of Public Health, Slovenia). Maps and commentary used in this Bulletin do not imply any opinions whatsoever of ECDC or its partners on the legal status of the countries and territories shown or concerning their borders.

Comments on Clinical Data provided by countries in week 29, 2009

No country has provided comments

Comments on Virological Data provided by countries in week 29, 2009**Network comments**

Czech Republic	0
Latvia	0

Influenza Intensity in Week 29, 2009

Intensity

- No report
- Low
- Medium
- High
- Very High



- Liechtenstein
- Luxembourg
- Malta

* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

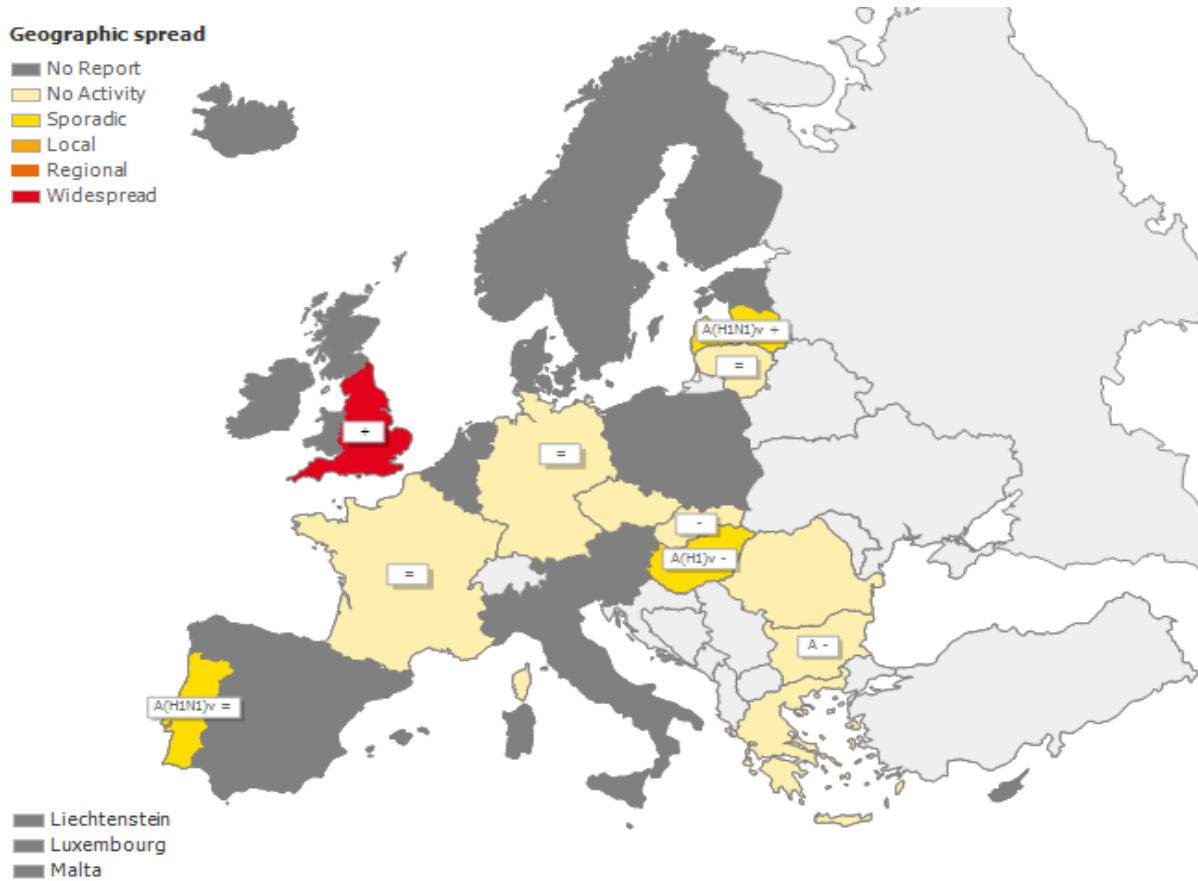
Legend:

High	Higher than usual levels of influenza activity	-	Decreasing clinical activity
Low	No influenza activity or influenza at baseline levels	+	Increasing clinical activity
Medium	Usual levels of influenza activity	=	Stable clinical activity
Very high	Particularly severe levels of influenza activity	A	Type A
		A(H1)v	Type A, Subtype H1v
		A(H1N1)v	Type A, Subtype H1N1v

Influenza Geographic Spread in Week 29, 2009

Geographic spread

- No Report
- No Activity
- Sporadic
- Local
- Regional
- Widespread



* A-type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

Legend:

Local outbreak	Increased influenza activity in local areas (e.g. a city) within a region, or outbreaks in two or more institutions (e.g. schools) within a region (laboratory confirmed)	-	Decreasing clinical activity
		+	Increasing clinical activity
		=	Stable clinical activity
No activity	No evidence of influenza virus activity (clinical activity remains at baseline levels)	A	Type A
		A(H1)v	Type A, Subtype H1v
Regional activity	Influenza activity above baseline levels in one or more regions with a population comprising less than 50% of the country's total population (laboratory confirmed)	A(H1N1)v	Type A, Subtype H1N1v
Sporadic	Isolated cases of laboratory confirmed influenza infection		
Widespread	Influenza activity above baseline levels in one or more regions with a population comprising 50% or more of the country's population (laboratory confirmed)		

Influenza Intensity in Week 29, 2009

Country	Intensity	Geographic spread	No. of sentinel swabs	Percentage positive *	Dominant Type	ILI per 100.000	ARI per 100.000	Epidemiological overview	Virological overview
Bulgaria	Low	No activity	0	0.0	A			graphs	graphs
Czech Republic	Low	No activity	1	0.0	None	6.5	411.9	graphs	graphs
Estonia			2	0.0	None			graphs	graphs
France	Low	No activity		0.0			7,439.0	graphs	graphs
Germany	Low	No activity		0.0			407.8	graphs	graphs
Greece	Low	No activity	8	50.0	None	29.9		graphs	graphs
Hungary	Low	Sporadic	2	100.0	A(H1)v	12.1		graphs	graphs
Latvia	Low	Sporadic	7	14.3	A(H1N1)v	0.0	141.9	graphs	graphs
Lithuania	Low	No activity		0.0		0.2	69.4	graphs	graphs
Poland			1	0.0	None			graphs	graphs
Portugal	Low	Sporadic	2	0.0	A(H1N1)v	2.3		graphs	graphs
Romania	Low	No activity	0	0.0	None	2.0	445.2	graphs	graphs
Slovakia	Low	No activity		0.0		45.4	582.1	graphs	graphs
Slovenia			2	50.0	None			graphs	graphs
UK - England	High	Widespread		0.0				graphs	graphs
Europe			25	24.0				graphs	graphs

* Based on sentinel data