

EUROPEAN INFLUENZA SURVEILLANCE NETWORK



Weekly electronic bulletin

Week 30: 20 July 2009 - 26 July 2009

31 July 2009

Pandemic influenza activity increases in Ireland, while across Europe the total number of pandemic virus detections continues to increase

Summary: During week 30/2009, Ireland reported medium activity for the first time. Ireland and the UK (England) are the only two countries that reported influenza activity above their national baseline levels since the pandemic was declared. Increased infection rates continued to be reported, especially amongst children younger than 15 years of age. The proportion of sentinel specimens that tested positive for influenza increased to 27%. Of the 186 influenza viruses detected by sentinel networks, 96% were A(H1N1)v in week 30.

Epidemiological situation - week 30/2009: For the intensity indicator, the national network levels for influenza-like illness (ILI) and/or acute respiratory infection (ARI), the UK (England) reported high activity and medium activity was reported in Ireland. The highest consultation rates in the UK (England) were observed among individuals aged 0–4 years, followed by those aged 5–14 years. In Ireland, the highest consultation rates were observed among individuals aged 5–14 years, followed by those aged 15–64 years. For the geographical spread indicator, widespread activity was reported in the UK (England) and local activity was reported in Spain. The remaining countries reported either sporadic (Belgium, Czech Republic, Hungary, Ireland, Latvia and Portugal) or no activity (Bulgaria, Denmark, Estonia, France, Germany, Greece, Lithuania, Romania, Slovakia, Slovenia and Sweden).

Cumulative epidemiological situation - weeks 16–30/2009: Since week 16/2009, two countries reported influenza activity above seasonal baseline levels: the UK (England) since week 27/2009 and Ireland since week 30/2009. Influenza activity continued to increase in the UK (England) and was reported to be high in weeks 28–30. Influenza activity remained low in all of the other countries reporting to ECDC since week 16/2009.

Virological situation - week 30/2009: The total number of respiratory specimens collected by sentinel physicians in week 29/2009 was 684, of which 186 (27%) were positive for influenza virus: 179 (96%) were subtype A(H1N1)v, five A untyped and two A(H3).

The highest proportions of sentinel specimens positive for influenza were observed in the UK (England) (32%), Spain (40.7%) and the Netherlands (27%).

In addition, 2456 non-sentinel source specimens (e.g. specimens collected for diagnostic purposes in hospitals) were reported positive for influenza virus. Of these, 2451 were type A (1379 subtype (H1N1)v, one subtype H3, two subtype H3N2, four subtype H1, one subtype H1N1 and 1064 not subtyped) and five type B.

Cumulative virological situation - weeks 16–30/2009: Of the 12109 virus detections (sentinel and non-sentinel) since week 16/2009, 11656 (96%) were type A (5736 subtype (H1N1)v, 153 subtype H3, 104 subtype H3N2, 50 subtype H1, 38 subtype H1N1 and 5575 not subtyped) and 453 (4%) were type B. During week 30/2009, the proportion of sentinel specimens positive for influenza (27%) was the highest since the beginning of surveillance of the pandemic (week 16). Prior to that, it varied between 11% in week 28/2009 and 19% in week 27/2009. In week 30/2009, 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 7077 influenza viruses reported from week 20/2008 to week 30/2009, 5178 (73%) were reported as A/Brisbane/10/2007 (H3N2)-like, 294 (4%) as A/Brisbane/59/2007 (H1N1)-like, 58 (1%) as B/Florida/4/2006-like (B/Yamagata/16/88 lineage), 1486 (21%) as B/Malaysia/2506/2004-like (B/Victoria/2/87 lineage) and 61 (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 so far 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: Increased influenza activity is now being reported in the UK (England) and Ireland while two other EU countries (the Netherlands and Spain) are detecting the pandemic virus in a high proportion of their sentinel specimens. The

increased influenza activity reported in two neighbouring countries is not surprising, and possible reasons for this focal pandemic activity were mentioned in the previous week's bulletin. Therefore, it is unpredictable which EU countries will be affected next and when.

The number of pandemic virus detections from both sentinel and non-sentinel sources markedly increased during week 30 when compared to the previous week. In addition, there were very few seasonal influenza subtypes identified. This would indicate that the pandemic virus is the predominant circulating influenza virus. This does not, however, preclude the co-circulation of seasonal and pandemic influenza viruses during the winter period as circulation of seasonal strains during the summer is uncommon.

Background: The Weekly Electronic Bulletin presents and comments on influenza activity in the European Union and Norway. Of these countries, 13 reported both clinical and virological data, two reported virological data only and six reported clinical data only in week 30/2009. 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.

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 Prosenč (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 30, 2009

No country has provided comments

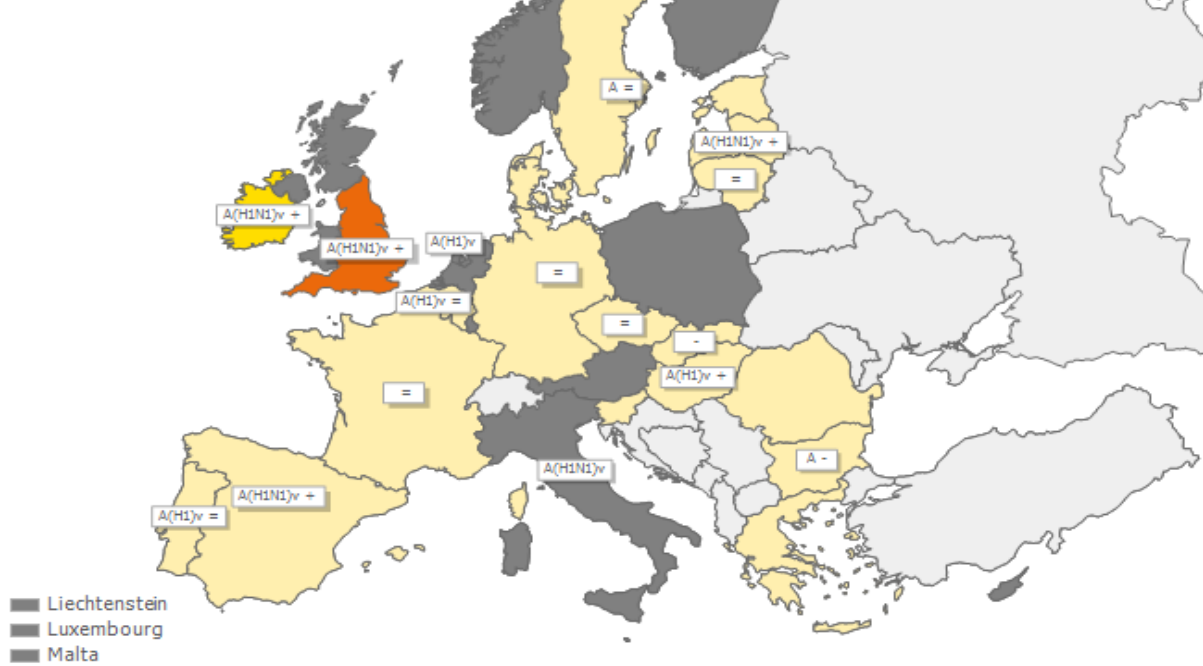
Comments on Virological Data provided by countries in week 30, 2009**Network comments**

Latvia 0

Influenza Intensity in Week 30, 2009

Intensity

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



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

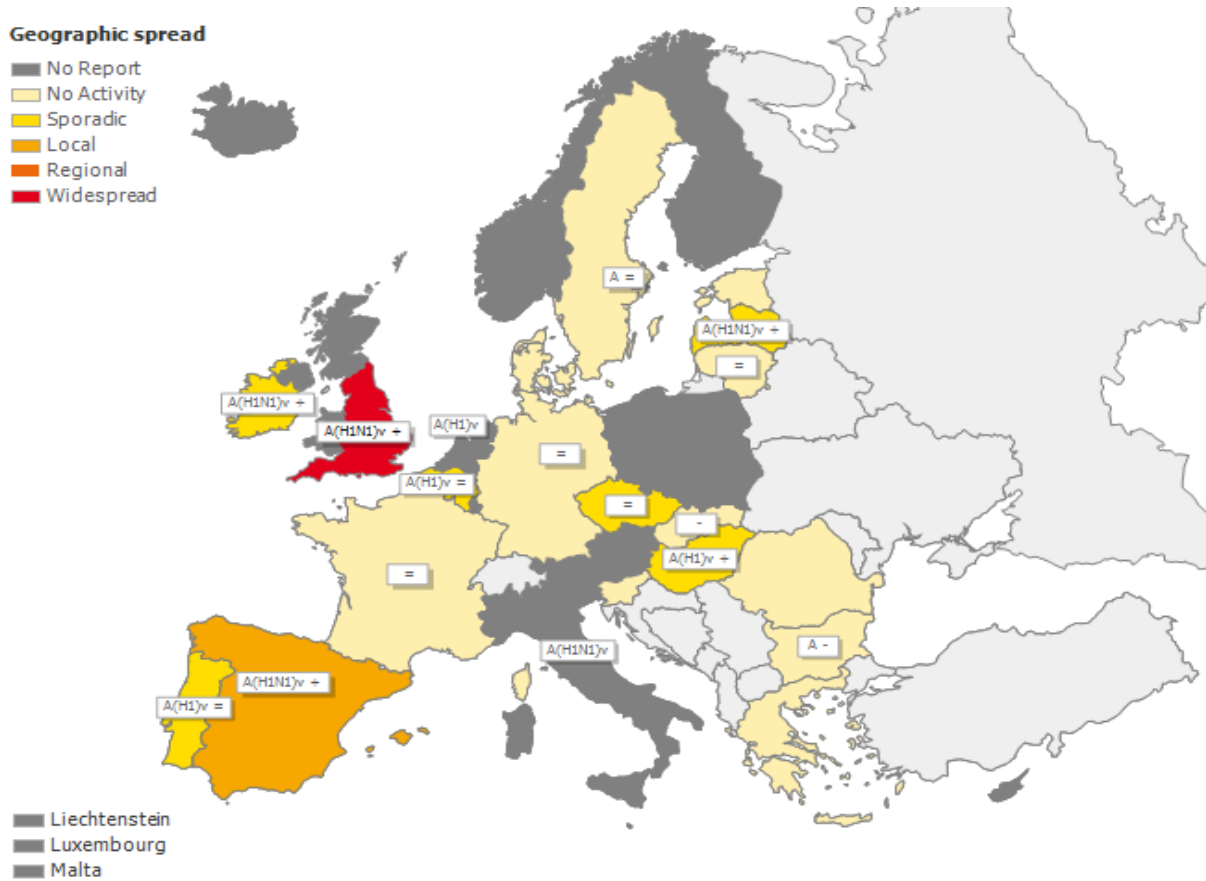
Legend:

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 30, 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 30, 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
Belgium	Low	Sporadic	34	5.9	A(H1)v			graphs	graphs
Bulgaria	Low	No activity	0	0.0	A			graphs	graphs
Czech Republic	Low	Sporadic		0.0		5.6	390.8	graphs	graphs
Denmark	Low	No activity		0.0		27.6	0.0	graphs	graphs
Estonia	Low	No activity	0	0.0	None	0.2	57.3	graphs	graphs
France	Low	No activity		0.0			759.6	graphs	graphs
Germany	Low	No activity		0.0			408.2	graphs	graphs
Greece	Low	No activity	3	0.0	None	36.3		graphs	graphs
Hungary	Low	Sporadic	3	0.0	A(H1)v	13.1		graphs	graphs
Ireland	Medium	Sporadic	16	0.0	A(H1N1)v	37.0		graphs	graphs
Italy			0	0.0	A(H1N1)v			graphs	graphs
Latvia	Low	Sporadic	0	0.0	A(H1N1)v	0.0	162.8	graphs	graphs
Lithuania	Low	No activity		0.0		0.1	76.8	graphs	graphs
Netherlands			11	27.3	A(H1)v			graphs	graphs
Portugal	Low	Sporadic	0	0.0	A(H1)v	3.5		graphs	graphs
Romania	Low	No activity	0	0.0	None	9.2	461.8	graphs	graphs
Slovakia	Low	No activity		0.0		47.2	528.3	graphs	graphs
Slovenia	Low	No activity	3	0.0	None	0.0	560.3	graphs	graphs
Spain	Low	Local	167	40.7	A(H1N1)v	41.8		graphs	graphs
Sweden	Low	No activity	32	0.0	A			graphs	graphs
UK - England	High	Widespread	415	31.8	A(H1N1)v			graphs	graphs
Europe			684	27.2					graphs

* Based on sentinel data