SURVEILLANCE REPORT

Bi-weekly influenza surveillance overview

13 August 2010

Main surveillance developments in Weeks 30–31 2010 (26 Jul 2010 – 08 Aug 2010)

This first page contains the main developments this week and can be printed separately or together with the more detailed information following.

- Epidemiological indicators show no influenza activity in the 19 reporting EU countries
- Influenza B and A(H3) viruses were sporadically detected in sentinel and non-sentinel specimens during weeks 30–31/2010
- WHO has declared the world to be in the post-pandemic period

Sentinel surveillance of influenza-like illness (ILI) / acute respiratory infection (ARI): Low intensity, no or sporadic geographic activity and stable trends were reported by 19 countries. For more information, **click here…**

Virological surveillance: Sentinel physicians collected 41 respiratory specimens, of which only one was positive for influenza virus type B. Of four influenza positive non-sentinel source specimens, two were influenza B viruses and two were influenza A(H3) viruses. For more information, **click here…**

Hospital surveillance of severe acute respiratory infection (SARI): During weeks 30–31/2010, only one SARI case was reported without identification of the causative pathogen. For more information, **click here…**

Sentinel surveillance (ILI/ARI)

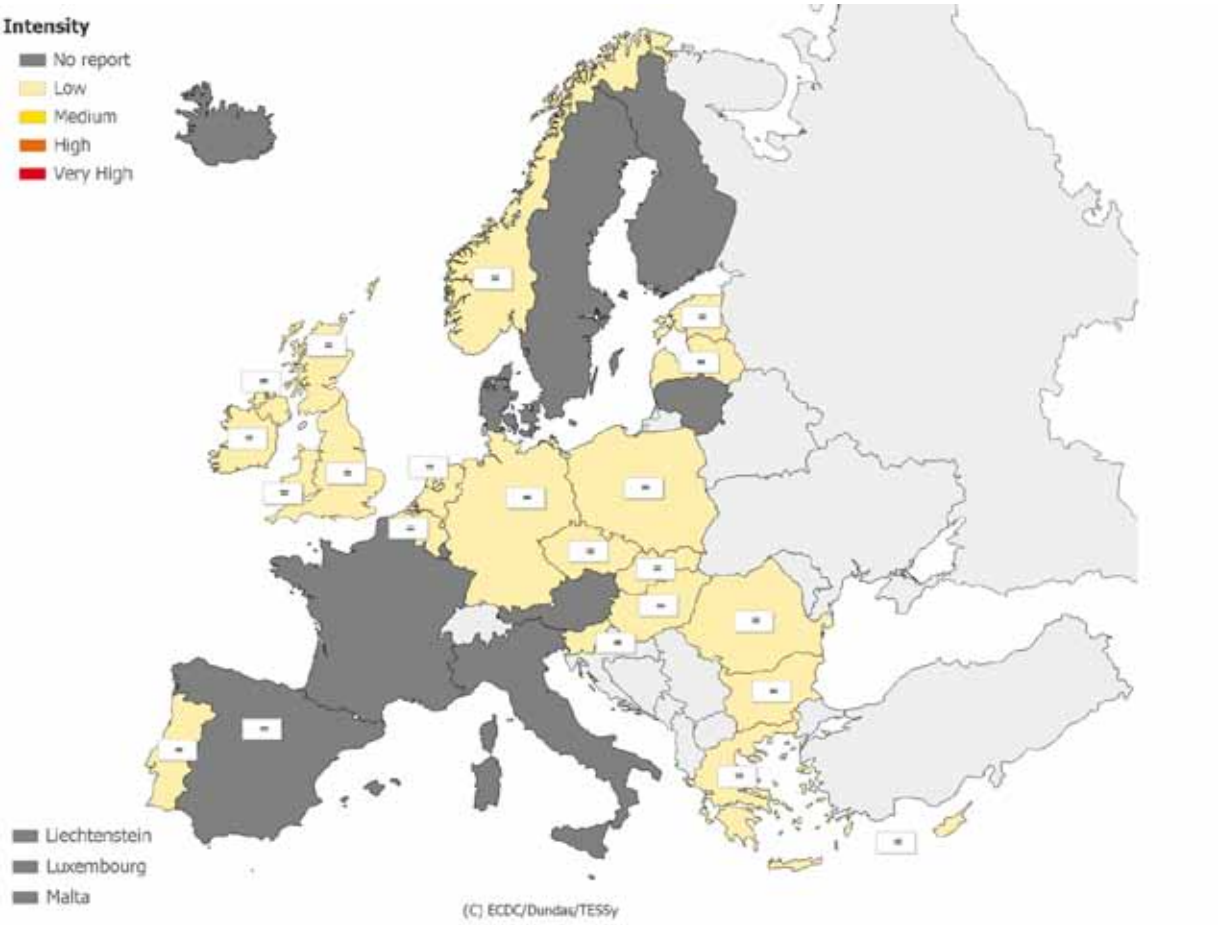
Weekly analysis – epidemiology

During weeks 30–31/2010, 18 of 29 (62%) countries reported the intensity indicator. For the 22nd consecutive week, all reporting countries experienced low intensity (Map 1, Table1).

The geographic spread indicator was reported by 19 countries for these weeks. Cyprus and UK (Wales) reported sporadic activity, but without any reported evidence of laboratory-confirmed influenza virus infections. The other 17 countries reported no activity (Map 2, Table 1). For the trend indicator, all countries reported a stable trend (Table 1).

WHO has declared the world to be in the post-pandemic period
http://www.who.int/csr/disease/swineflu/notes/briefing_20100810/en/index.html

Map 1: Intensity for Weeks 30–31 2010

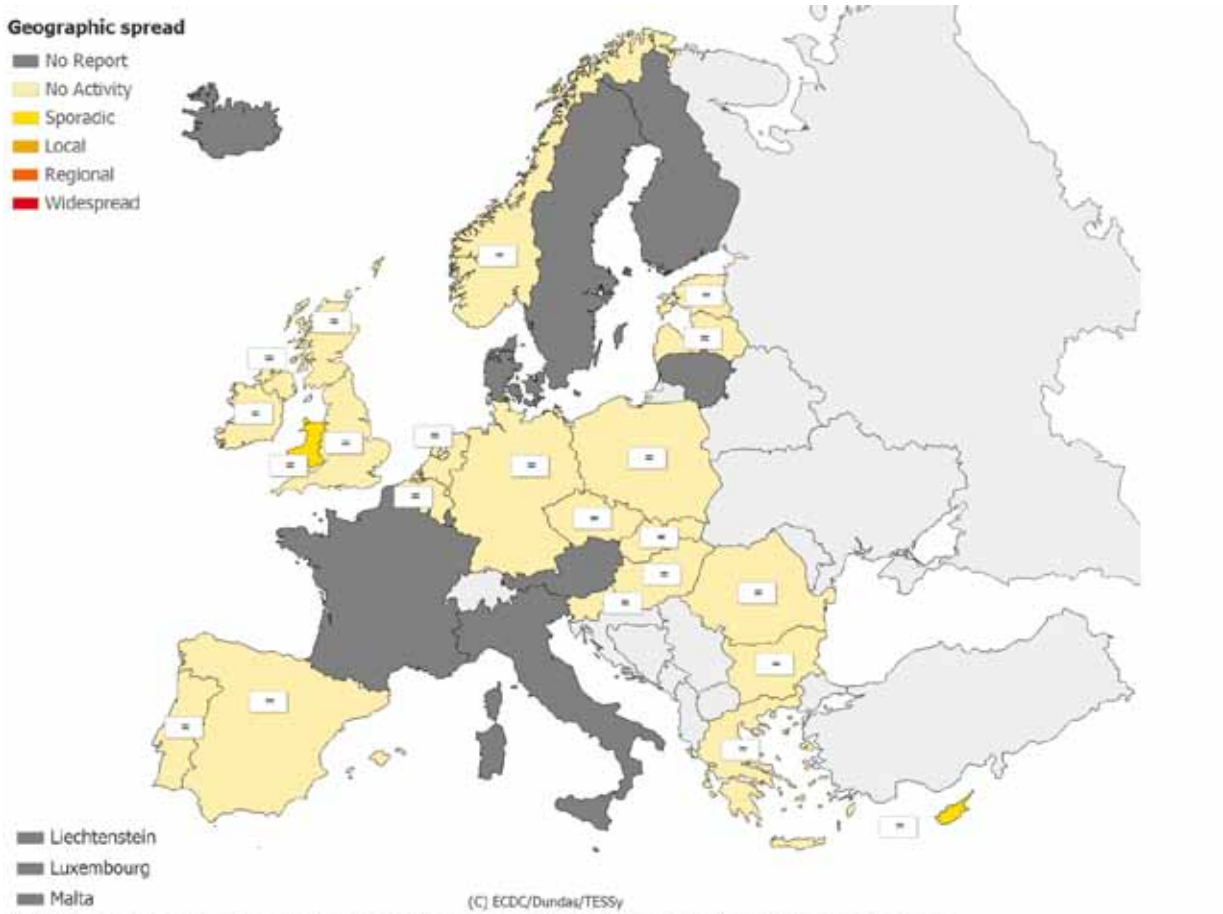


* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

Legend:

Low	No influenza activity or influenza at baseline levels	-	Decreasing clinical activity
Medium	Usual levels of influenza activity	+	Increasing clinical activity
High	Higher than usual levels of influenza activity	=	Stable clinical activity
Very high	Particularly severe levels of influenza activity		

Map 2: Geographic spread for Weeks 30–31 2010



* A type/subtype is reported as dominant when at least ten samples have been detected as influenza positive in the country and of those > 40 % are positive for the type/subtype.

Legend:

No activity	No evidence of influenza virus activity (clinical activity remains at baseline levels)
Sporadic	Isolated cases of laboratory confirmed influenza infection
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)
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)
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)

-	Decreasing clinical activity
+	Increasing clinical activity
=	Stable clinical activity

Table 1: Epidemiological and virological overview by country

Country	Intensity	Geographic spread	Trend	No. of sentinel swabs	Dominant type	Percentage positive*	ILI per 100.000	ARI per 100.000	Epidemiological overview	Virological overview
Austria				0	None	-	-	-	Graphs	Graphs
Belgium	Low	No activity	Stable	-	-	-	7.3	327.1	Graphs	Graphs
Bulgaria	Low	No activity	Stable	1	-	0.0	-	271.1	Graphs	Graphs
Cyprus	Low	Sporadic	Stable	-	-	-	-*	-*	Graphs	Graphs
Czech Republic	Low	No activity	Stable	-	-	-	4.9	333.3	Graphs	Graphs
Denmark				0	None	-	-	-	Graphs	Graphs
Estonia	Low	No activity	Stable	0	None	-	0.7	51.9	Graphs	Graphs
Finland				-	-	-	-	-		
France				-	-	-	-	-		
Germany	Low	No activity	Stable	5	None	0.0	-	365.3	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	-	31.4	-	Graphs	Graphs
Hungary	Low	No activity	Stable	4	None	0.0	6.2	-	Graphs	Graphs
Iceland				-	-	-	-	-		
Ireland	Low	No activity	Stable	0	None	-	0.9	-	Graphs	Graphs
Italy				-	-	-	-	-		
Latvia	Low	No activity	Stable	0	None	-	0.0	229.7	Graphs	Graphs
Lithuania				0	None	-	-	-	Graphs	Graphs
Luxembourg				-	-	-	-	-		
Malta				-	-	-	-	-		
Netherlands	Low	No activity	Stable	0	None	-	7.8	-	Graphs	Graphs
Norway	Low	No activity	Stable	0	None	-	6.4	-	Graphs	Graphs
Poland	Low	No activity	Stable	0	None	-	8.5	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	-	0.0	-	Graphs	Graphs
Romania	Low	No activity	Stable	0	None	-	0.0	436.5	Graphs	Graphs
Slovakia	Low	No activity	Stable	0	-	-	38.3	582.7	Graphs	Graphs
Slovenia	Low	No activity	Stable	0	None	-	0.0	517.4	Graphs	Graphs
Spain	Unknown (no information available)	No activity	Stable	6	None	16.7	-	-	Graphs	Graphs
Sweden				-	-	-	-	-		
UK - England	Low	No activity	Stable	13	None	0.0	2.0	209.6	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	0	None	-	8.4	170.9	Graphs	Graphs
UK - Scotland	Low	No activity	Stable	12	None	0.0	1.0	95.0	Graphs	Graphs
UK - Wales	Low	Sporadic	Stable	-	-	-	1.0	-	Graphs	Graphs
Europe				41		2.4				Graphs

Note: Liechtenstein is not reporting to the European Influenza Surveillance Network

Description of the system

This surveillance is based on nationally organized sentinel networks of physicians, mostly general practitioners (GPs), covering at least 1–5% of the population in their countries. All EU/EEA Member States (except Liechtenstein) are participating. Depending on their country's choice, each sentinel physician reports the weekly number of patients seen with influenza-like illness (ILI), acute respiratory infection (ARI) or both to a national focal point. From the national level, both numerator and denominator data are then reported to the European Surveillance System (TESSy) database. Additional semi-quantitative indicators of intensity, geographic spread and trend of influenza activity at the national level are also reported.

Virological surveillance

Weekly analysis – virology

During weeks 30 and 31/2010, 17 countries reported virological data. Sentinel physicians collected 41 specimens of which one (2.4%) was positive for influenza B virus (Table 2). Two non-sentinel source specimens (e.g, specimens collected for diagnostic purposes in hospital settings) tested positive for influenza B virus and two for influenza A(H3) virus.

Cumulative data since week 40/2009 show that subtyping was performed on 16 199 type A influenza viruses detected in samples from sentinel practices. Of these, 99.6% (16 141) were identified as the 2009 pandemic A(H1N1) virus. Table 2 shows the distribution of both sentinel and non-sentinel specimens by type and subtype. The proportion of positive sentinel samples has remained at low levels since week 07/2010.

An update from CNRL on influenza virus characterisation can be found here: Surveillance report (July 2010).
In summary, all 2009 pandemic A(H1N1) viruses received from EU countries have been antigenically similar and genetically closely related to the vaccine virus A/California/7/2009. In addition, most of the circulating influenza B viruses have been closely related to the current vaccine strain B/Brisbane/60/2008 (Victoria lineage; Table 3).

For details on the current virus strains recommended by WHO for vaccine preparation click here.

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2009–31/2010

	Current Period		Season	
Virus type/subtype	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	0	2	16880	91020
A (pandemic H1N1)	0	0	16141	79408
A (subtyping not performed)	0	0	681	11459
A (not subtypable)	0	0	14	50
A (H3)	0	2	8	52
A (H1)	0	0	36	51
Influenza B	1	2	188	439
Total Influenza	**1**	**4**	**17068**	**91459**

Note: A(pandemic H1N1), A(H3) and A(H1) includes both N-subtyped and not N-subtyped viruses

Table 3: Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40/2009–31/2010

Strain name	Number of strains
A(H1)v California/7/2009-like	3349
A(H3) A/Brisbane/10/2007 (H3N2)-like	9
A(H3) A/Perth/16/2009 (H3N2)-like	35
B/Brisbane/60/2008-like (B/Victoria/2/87 lineage)	19
B/Florida/4/2006-like (B/Yamagata/16/88 lineage)	5

Country comments

Norway, week 30: The two A(H3N2) viruses detected in Norway in week 30 were both from members of the same family who had travelled to south-east Asia.

Description of the system

According to the nationally defined sampling strategy, sentinel physicians take nasal or pharyngeal swabs from patients with influenza-like illness (ILI), acute respiratory infection (ARI) or both and send the specimens to influenza-specific reference laboratories for virus detection, (sub)typing, antigenic or genetic characterisation and antiviral susceptibility testing.

Hospital surveillance – severe acute respiratory infection (SARI)

Weekly analysis – SARI

During weeks 30 and 31/2010, one SARI case unrelated to influenza was reported to TESSy.

Since the beginning of SARI surveillance, eleven countries reported 11 217 cases and 553 related fatalities. In cases where influenza virus was detected, 99.7% were 2009 pandemic A(H1N1) viruses.

Table 4: Cumulative number of SARI cases, weeks 40/2009 – week 31/2010

Country	Number of cases	Incidence of SARI cases per 100,000 population	Number of fatal cases reported	Incidence of fatal cases per 100,000 population	Estimated population covered
Austria	2907		35		
Belgium	1700	15.93			10668666
Cyprus	26		9		
Finland	1422	26.7	56	1.05	5326314
France	1333		291		
United Kingdom	1623	4.11	65	0.16	39503332
Ireland	902		17		
Malta	156	37.72	1	0.24	413609
Netherlands	644	3.9	28	0.17	16521505
Romania	192	15.14	13	1.02	1268418
Slovakia	312		38		
Total	11217		553		73701844

Table 5: Number of SARI cases reported, weeks 40/2009 – week 31/2010

Virus type/subtype	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A		9184
A (pandemic H1N1)		9152
A(subtyping not performed)		25
A(H3)		
A(H1)		7
A(H5)		
Influenza B		
Unknown	1	2276
Total	1	11460

The report text was written by an editorial team at the European Centre for Disease Prevention and Control (ECDC): Flaviu Plata, Phillip Zucs, Bruno Ciancio, Rene Snacken and Eeva Broberg. The bulletin text was reviewed by the Community Network of Reference Laboratories for Human Influenza in Europe (CNRL) coordination team: Adam Meijer, Rod Daniels, John McCauley 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 Prosenc (National Institute of Public Health, Slovenia).