

SURVEILLANCE REPORT

Bi-weekly influenza surveillance overview

19 July 2010

Main surveillance developments in weeks 26 & 27/2010 (28 Jun 2010–11 Jul 2010)

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

- Of the 16 countries reporting intensity during weeks 26 and 27/2010, all reported low intensity
- Four (8.2%) of the 49 sentinel specimens were positive for influenza during weeks 26 and 27/2010
- No SARI cases were reported

Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory illness (ARI): During weeks 26 and 27/2010, all 16 reporting countries indicated low intensity. With regards to geographic spread (17 reporting countries) Estonia, Norway and UK (Wales) reported sporadic activity. The other 14 reporting countries reported no activity. For more information, [click here](#).

Virological surveillance: Sentinel physicians collected 49 respiratory specimens, four of which were positive for influenza virus. Of the 10 sentinel and non-sentinel viruses detected, four (40%) were type B influenza virus. For more information, [click here](#).

Hospital surveillance of severe acute respiratory infection (SARI): During weeks 26 and 27/2010, no SARI cases were reported. For more information, [click here](#).

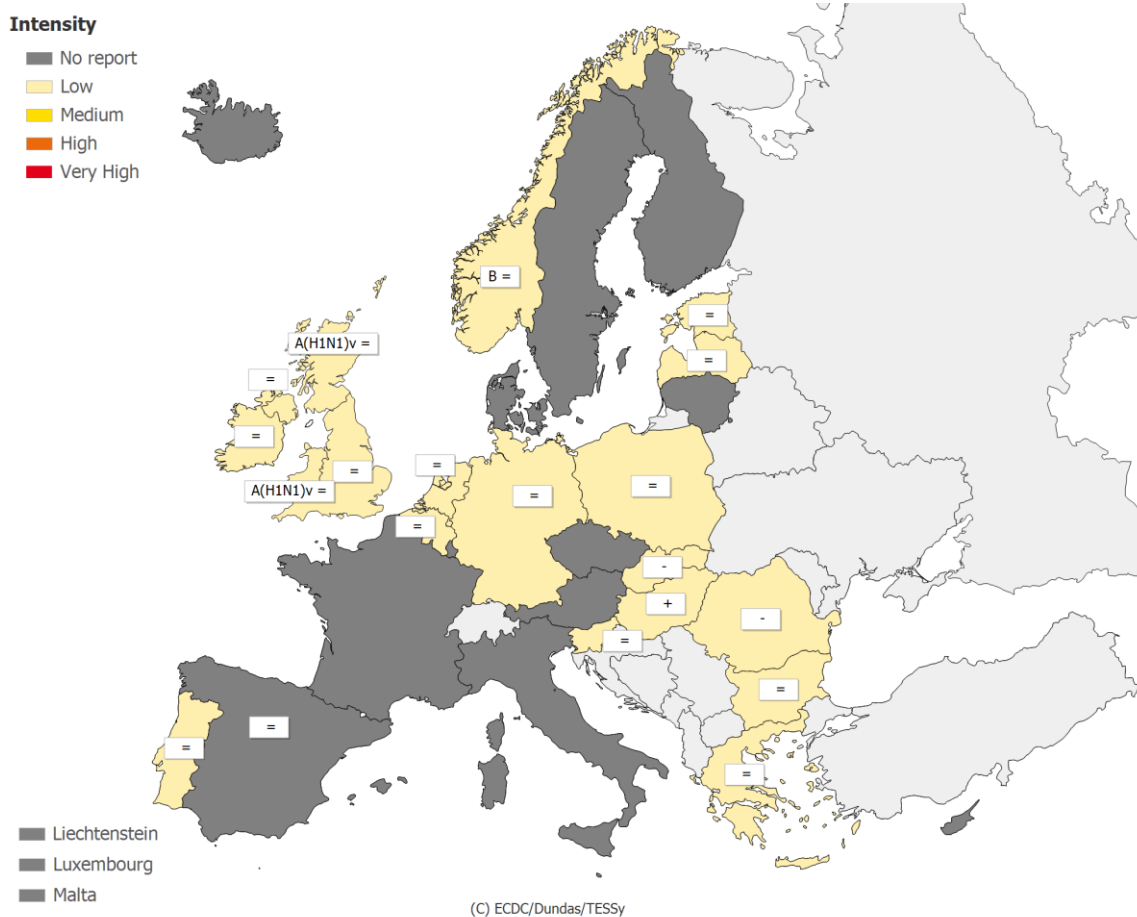
Sentinel surveillance (ILI/ARI)

Weekly analysis – epidemiology

During weeks 26 and 27/2010, 16 of 29 (55%) countries reported the intensity indicator. For the 19th consecutive week, all reporting countries experienced low intensity (Map 1, Table1).

The geographic spread indicator was reported by 17 countries during current weeks. Estonia, Norway and UK (Wales) reported sporadic activity; all other 14 reporting countries reported no activity (Map 2, Table 1). For the trend indicator, Hungary reported an increasing trend while all other countries reported a decreasing or stable trend (Table 1).

Map 1: Intensity for weeks 26-27 2010



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

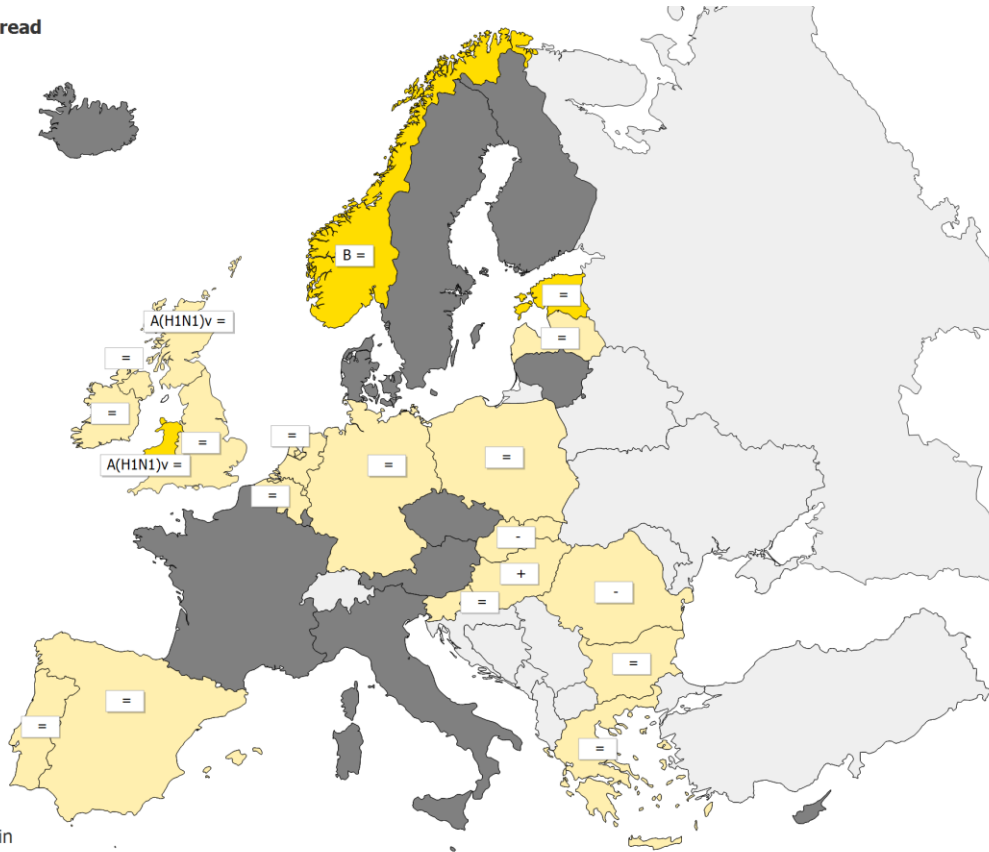
Legend:

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	A(H1N1)v	Type A, Subtype H1N1v
		B	Type B

Map 2: Geographic spread for weeks 26-27 2010

Geographic spread

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



- Liechtenstein
- Luxembourg
- Malta

(C) ECDC/Dundas/TESSy

* 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)	-	Decreasing clinical activity
Sporadic	Isolated cases of laboratory confirmed influenza infection	+	Increasing clinical activity
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)	=	Stable clinical activity
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
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)	B	Type B

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	-	-	-	21.0	418.6	Graphs	Graphs
Bulgaria	Low	No activity	Stable	-	None	-	-	277.2	Graphs	Graphs
Cyprus				-	-	-	-	-		
Czech Republic				-	-	-	-	-		
Denmark				0	None	-	-	-	Graphs	Graphs
Estonia	Low	Sporadic	Stable	0	None	-	1.3	70.0	Graphs	Graphs
Finland				-	-	-	-	-		
France				-	-	-	-	-		
Germany	Low	No activity	Stable	2	None	0.0	-	424.4	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	-	17.3	-	Graphs	Graphs
Hungary	Low	No activity	Increasing	9	None	0.0	9.4	-	Graphs	Graphs
Iceland				-	-	-	-	-		
Ireland	Low	No activity	Stable	3	None	0.0	2.1	-	Graphs	Graphs
Italy				0	None	-	-	-	Graphs	Graphs
Latvia	Low	No activity	Stable	0	None	-	0.0	215.0	Graphs	Graphs
Lithuania				0	None	-	-	-	Graphs	Graphs
Luxembourg				-	-	-	-	-		
Malta				-	-	-	-	-		
Netherlands	Low	No activity	Stable	2	None	50.0	13.5	-	Graphs	Graphs
Norway	Low	Sporadic	Stable	4	B	50.0	11.4	-	Graphs	Graphs
Poland	Low	No activity	Stable	0	None	-	10.8	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	-	0.0	0.0	Graphs	Graphs
Romania	Low	No activity	Decreasing	0	None	-	0.0	407.5	Graphs	Graphs
Slovakia	Low	No activity	Decreasing	0	None	-	52.2	782.3	Graphs	Graphs
Slovenia	Low	No activity	Stable	0	None	-	1.0	651.4	Graphs	Graphs
Spain		No activity	Stable	4	None	25.0	-	-	Graphs	Graphs
Sweden				2	None	50.0	-	-	Graphs	Graphs
UK - England	Low	No activity	Stable	16	None	0.0	2.0	282.8	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	0	None	-	13.4	228.8	Graphs	Graphs
UK - Scotland	Low	No activity	Stable	0	-	-	0.0	136.5	Graphs	Graphs
UK - Wales	Low	Sporadic	Stable	7	swoAH1N1	0.0	2.0	-	Graphs	Graphs
Europe				49		8.2				Graphs

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

Description of the system

This surveillance is based on nationally organised 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 26 and 27/2010, 20 countries reported virological data. Sentinel physicians collected 49 specimens, four (8.2%) of which were positive for influenza virus (Table 2). Influenza type B viruses were detected in Norway, the Netherlands, Spain and Sweden. In addition, six non-sentinel source specimens (e.g., specimens collected for diagnostic purpose in hospitals) were reported positive for influenza virus. Of the 10 influenza viruses detected from both sentinel and non-sentinel sources during weeks 26 and 27, six were influenza type A viruses and 4 were type B viruses.

Since week 40/2009, subtyping was performed on 16 199 type A influenza viruses detected in samples from sentinel practices. Of those subtyped viruses, 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 sub-type. The proportion of positive sentinel samples has remained at low levels since week 07/2010.

From week 40/2009 to week 27/2010, 3228 influenza viruses from sentinel and non-sentinel specimens were characterised antigenically (Table 3) and 1313 were characterised genetically. Of the former, 3172 (98.3%) were antigenically pandemic A/California/7/2009 (H1N1)-like, and of the latter, 1281 (97.6%) belonged to the phylogenetic cluster represented by A/California/7/2009.

More details on circulating viruses can be found in the [report](#) prepared by the Community Network of Reference Laboratories coordination team.

During weeks 26 and 27/2010 no antiviral updates were received.

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2009–27/2010

Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	0	6	16880	89705
A (pandemic H1N1)	0	1	16141	78316
A (subtyping not performed)	0	5	681	11236
A (not subtypable)	0	0	14	50
A (H3)	0	0	8	52
A (H1)	0	0	36	51
Influenza B	4	0	184	425
Total Influenza	4	6	17064	90130

Note: pandemic A(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 40/2009–27/2010

Strain name	Number of strains
A(H1)v California/7/2009-like	3172
A(H3) A/Brisbane/10/2007 (H3N2)-like	6
A(H3) A/Perth/16/2009 (H3N2)-like	26
B/Brisbane/60/2008-like (B/Victoria/2/87 lineage)	19
B/Florida/4/2006-like (B/Yamagata/16/88 lineage)	5

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.

For details on the current virus strains recommended by WHO for vaccine preparation [click here](#).

Hospital surveillance – severe acute respiratory infection (SARI)

Weekly analysis – SARI

During weeks 26 and 27/2010, no SARI cases were reported.

Since the beginning of SARI surveillance, eleven countries reported 11 455 cases and 573 related-fatalities. In cases where influenza virus was detected, 99.9% were 2009 pandemic A(H1N1) viruses.

Table 4: Cumulative number of SARI cases, weeks 40/2009–week 27/2010

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	2917		41		
Belgium	1749	16.39			10668666
Cyprus	26		9		
Finland	1422	26.7	56	1.05	5326314
France	1357		302		
United Kingdom	1639	4.15	65	0.16	39503332
Ireland	903		17		
Malta	216	52.22	1	0.24	413609
Netherlands	652	3.95	29	0.18	16521505
Romania	210	16.56	13	1.02	1268418
Slovakia	364		40		
Total	11455		573		73701844

Table 5: Number of SARI cases by influenza type and subtype, weeks 26-27/2010

Virus type/subtype	Number of cases during current weeks	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		2271
Total		11455

Description of the system

A number of Member States carry out hospital-based surveillance of severe acute respiratory infection (SARI) exhaustively or at selected sentinel sites. SARI surveillance serves to monitor the trends in the severity of influenza and potential risk factors for severe disease to help guide preventive measures and health care resource allocation.

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, 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 Prosenc (National Institute of Public Health, Slovenia).

Maps and commentary used in this Weekly Influenza Surveillance Overview (WISO) 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.

All data published in the WISO are up-to-date on the day of publication. Past this date, however, published data should not be used for longitudinal comparisons as countries tend to retrospectively update their numbers in the database.

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