

SURVEILLANCE REPORT

Bi-weekly influenza surveillance overview

17 June 2011

Main surveillance developments in weeks 21–23, 2011 (23 May – 12 June 2011)

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

- The influenza season has come to an end in Europe with all countries reporting low intensity and only three countries reporting sporadic activity.
- For the fifth consecutive week, no influenza virus was detected from sentinel sources. Five influenza A and four influenza B viruses were detected in non-sentinel specimens over the three-week period.
- Five SARI cases were reported, one of which tested positive for influenza virus.

Sentinel surveillance of influenza-like illness (ILI)/acute respiratory infection (ARI): Low influenza activity was reported by 21 countries, associated with sporadic cases or no geographic spread. For more information, [click here](#).

Virological surveillance: No influenza virus was detected in specimens collected by sentinel practitioners. Only nine influenza viruses were detected from non-sentinel sources during the three weeks. For more information, [click here](#).

Hospital surveillance of severe acute respiratory infection (SARI): Five SARI cases were reported, one of which tested positive for influenza virus. For more information, [click here](#).

Sentinel surveillance (ILI/ARI)

Weekly analysis – epidemiology

During weeks 21–23/2011, all 21 reporting countries experienced low-intensity influenza activity (Table 1, Map 1).

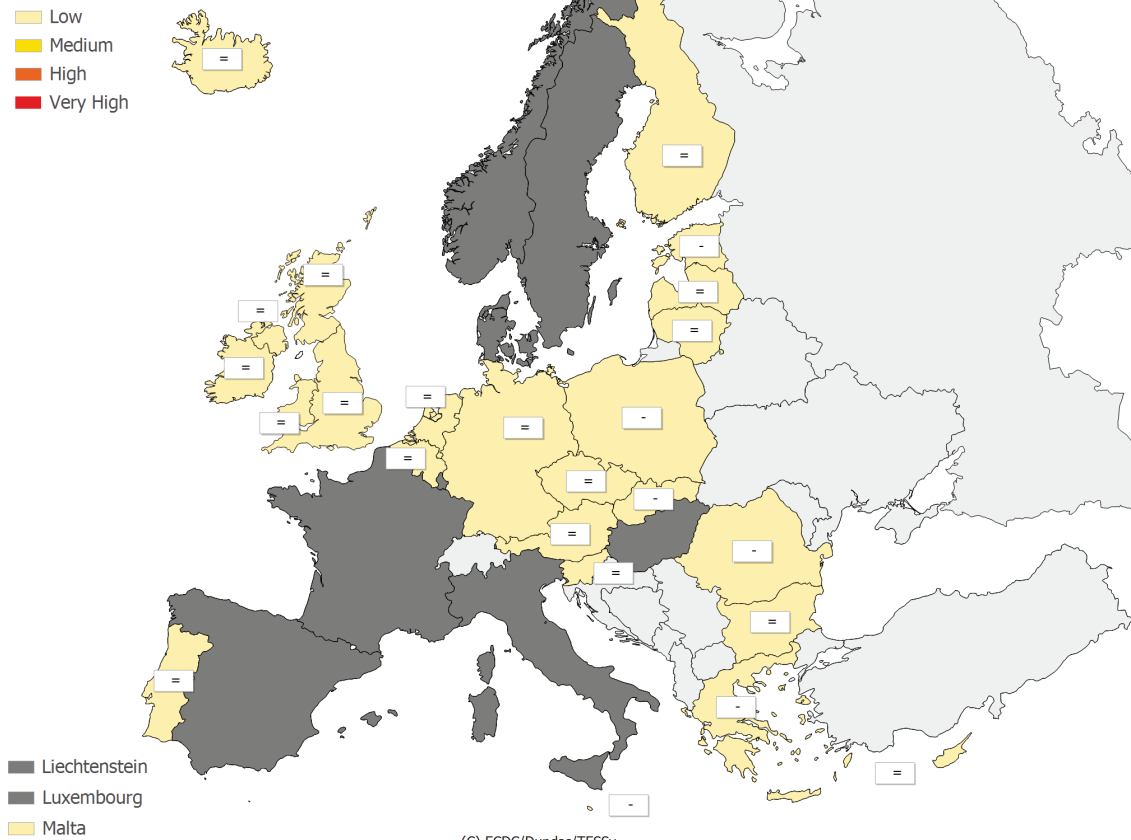
In terms of geographic spread, sporadic activity was reported by Cyprus, Lithuania, Malta and the UK (Scotland). No activity was reported by the other 17 countries and the UK (England, Northern Ireland and Wales).

Stable or decreasing trends were reported by all 21 countries (Table 1, Map 2).

Map 1: Intensity for weeks 21-23 2011*

Intensity

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



(C) ECDC/Dundas/TESSy

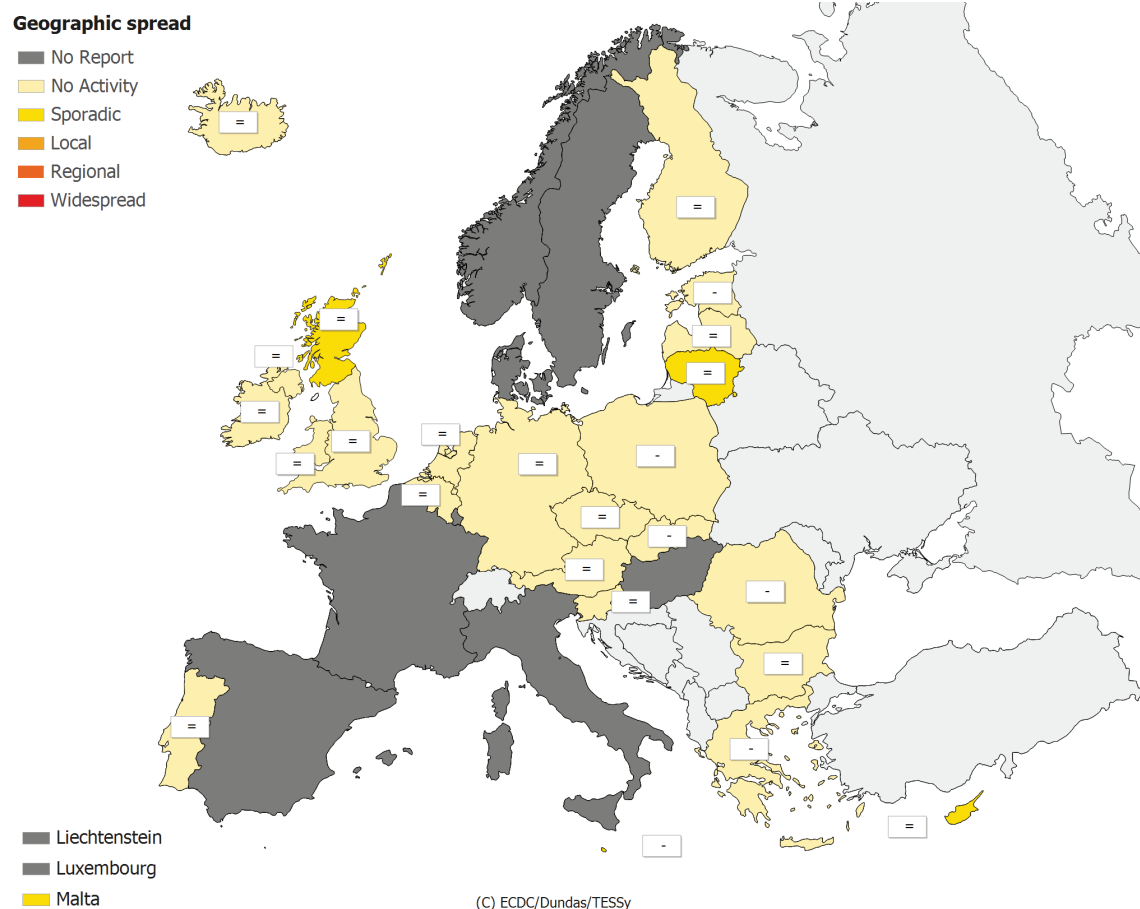
* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

Legend:

No report	Intensity level was not reported	+	Increasing clinical activity
Low	No influenza activity or influenza at baseline levels	-	Decreasing clinical activity
Medium	Usual levels of influenza activity	=	Stable clinical activity
High	Higher than usual levels of influenza activity		
Very high	Particularly severe levels of influenza activity		

**Note: the map only displays data for the most recent reported week of the three-week surveillance period (weeks 21-23/2011). For information on the other weeks please consult the weekly "Influenza activity maps" [here](#).*

Map 2: Geographic spread for weeks 21-23 2011*



* 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 report	Activity level was not reported	+	Increasing clinical activity
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	=	Stable 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)		
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)		

**Note: the map only displays data for the most recent reported week of the three-week surveillance period (weeks 21-23/2011). For information on the other weeks' please consult the weekly "Influenza activity maps" [here](#).*

Table 1: Epidemiological and virological overview by country, weeks 21–23 2011 *

Country	Intensity	Geographic spread	Trend	No. of sentinel specimens	Dominant type	Percentage positive*	ILI per 100 000	ARI per 100 000	Epidemiological overview	Virological overview
Austria	Low	No activity	Stable	0	None	0.0	-	-	Graphs	Graphs
Belgium	Low	No activity	Stable	3	None	0.0	12.2	1049.6	Graphs	Graphs
Bulgaria	Low	No activity	Stable	0	None	0.0	-	396.2	Graphs	Graphs
Cyprus	Low	Sporadic	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Czech Republic	Low	No activity	Stable	-	-	0.0	9.9	550.2	Graphs	Graphs
Denmark				3	None	0.0	-	-	Graphs	Graphs
Estonia	Low	No activity	Decreasing	5	None	0.0	2.9	164.9	Graphs	Graphs
Finland	Low	No activity	Stable	24	None	0.0	-	-	Graphs	Graphs
France				-	-	0.0	-	-		
Germany	Low	No activity	Stable	15	None	0.0	-	441.3	Graphs	Graphs
Greece	Low	No activity	Decreasing	0	-	0.0	43.0	-	Graphs	Graphs
Hungary				-	-	0.0	-	-		
Iceland	Low	No activity	Stable	0	-	0.0	0.6	-	Graphs	Graphs
Ireland	Low	No activity	Stable	4	None	0.0	2.8	-	Graphs	Graphs
Italy				-	-	0.0	-	-		
Latvia	Low	No activity	Stable	0	None	0.0	-*	-*	Graphs	Graphs
Lithuania	Low	Sporadic	Stable	0	None	0.0	0.1	200.2	Graphs	Graphs
Luxembourg				-	-	0.0	-	-		
Malta	Low	Sporadic	Decreasing	-	-	0.0	-*	-*	Graphs	Graphs
Netherlands	Low	No activity	Stable	1	None	0.0	7.5	-	Graphs	Graphs
Norway				0	None	0.0	-	-	Graphs	Graphs
Poland	Low	No activity	Decreasing	0	None	0.0	13.2	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	0.0	0.0	-	Graphs	Graphs
Romania	Low	No activity	Decreasing	4	None	0.0	0.1	546.5	Graphs	Graphs
Slovakia	Low	No activity	Decreasing	0	None	0.0	79.5	984.4	Graphs	Graphs
Slovenia	Low	No activity	Stable	0	None	0.0	0.0	616.1	Graphs	Graphs
Spain				-	-	0.0	-	-		
Sweden				0	None	0.0	-	-	Graphs	Graphs
UK - England	Low	No activity	Stable	21	None	0.0	3.9	266.4	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	2	-	0.0	9.0	248.8	Graphs	Graphs
UK - Scotland	Low	Sporadic	Stable	-	-	0.0	3.7	133.0	Graphs	Graphs
UK - Wales	Low	No activity	Stable	-	-	0.0	3.0	-	Graphs	Graphs
Europe				82		0.0				Graphs

*Incidence per 100 000 is not calculated for these countries as no population denominator is provided.

Note: Liechtenstein does not report to the European Influenza Surveillance Network

Note: for intensity, geographic spread and trend, the table only displays data for the most recently reported week of the three-week surveillance period (weeks 21–23/2011).

Description of the system

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) participate. 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

In weeks 21–23/2011, 19 countries reported virological data. None of the 82 sentinel specimens tested were positive for influenza virus. Of the non-sentinel source specimens (i.e. specimens collected for diagnostic purposes in hospitals), nine were reported positive for influenza virus, five of type A and four of type B. Two of the type A viruses were sub-typed and both were A(H3N2) viruses.

Since week 40/2010, of the 58 493 influenza detections in sentinel and non-sentinel specimens, 38 666 (66.1%) were influenza A and 19 827 (33.9%) were influenza B viruses. Of 27 678 sub-typed influenza A viruses, 26 954 (97.4%) were A(H1)2009 and 724 (2.6%) were A(H3) viruses (Table 2).

Since week 40/2010, 4 677 influenza viruses from sentinel and non-sentinel specimens have been characterised antigenically (Figure 1): 2 337 as A/California/7/2009 (H1N1)-like; 2 002 as B/Brisbane/60/2008-like (Victoria lineage); 184 as B/Florida/4/2006-like (Yamagata lineage); 148 as A/Perth/16/2009 (H3N2)-like and six as B/Bangladesh/3333/2007-like (Yamagata lineage).

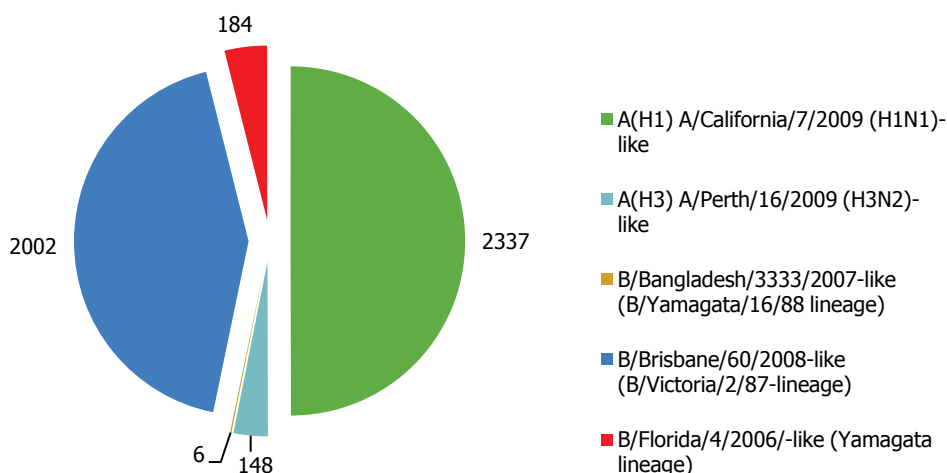
More details on characterisation of circulating viruses can be found in the [April report](#) prepared by the Community Network of Reference Laboratories (CNRL) coordination team. The viruses circulating this season remain well-matched with the 2010/11 season vaccine viruses.

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2010–23/2011

Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	0	5	8374	30292
A(H1)2009	0	0	7452	19502
A (subtyping not performed)	0	3	694	10294
A (not subtypable)	0	0	0	0
A (H3)	0	2	228	496
A (H1)	0	0	0	0
Influenza B	0	4	5687	14140
Total Influenza	0	9	14061	44432

Note: A(H1)2009, A(H3) and A(H1) includes both N-subtyped and non-N-subtyped viruses

Figure 1: Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40/2010–23/2011



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 21–23/2011, five SARI cases were reported, one of which was related to influenza virus infection.

Since week 40/2010, 5 081 SARI cases and 488 related fatalities have been reported by ten countries (Table 3). Of the 3 695 hospitalised cases with confirmed influenza virus infection, 3 379 (91.4%) were type A and 316 (8.6%) were type B. Of the 2 976 sub-typed influenza A viruses, 2 953 (99.2%) were A(H1)2009 and 23 (0.8%) were A(H3) (Table 4). Since week 40/2011, of 2 038 SARI cases admitted to ICU, at least 1 029 (50.5%) required ventilation (Table 5).

Table 3: Cumulative number of SARI cases, weeks 40/2010 - 23/2011

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
Finland	89		24		
Romania	449	7	30	0.47	6413821
Austria	373		12		
France	790		144		
Ireland	122		23		
Portugal	418		45		
Belgium	952				
Spain	1616		188		
Malta	55	13.3	1	0.24	413609
Slovakia	217	3.99	21	0.39	5435273
Total	5081		488		

Table 4: Number of SARI cases by influenza type and subtype, week 23/2011 and cumulative for weeks 40/2010–23/2011

Virus type/subtype	Number of cases during current week	Cumulative for weeks 40/2010 - 23/2011
Influenza A	1	3379
A(H1)2009	1	2953
A(subtyping not performed)		403
A(H1)		
A(H3)		23
A(H5)		
Influenza B		316
Other Pathogen		39
Unknown	4	1347
Total	5	5081

Table 5: Number of SARI cases by level of care and respiratory support, weeks 40/2010–23/2011

Respiratory support	ICU	Inpatient ward	Other	Unknown
No respiratory support available		1		
No respiratory support necessary	173	471	449	
Oxygen therapy	144	205	395	
Respiratory support given unknown	692	325	880	241
Ventilator	1029	17	6	53

This report was written by an editorial team at the European Centre for Disease Prevention and Control (ECDC): Eeva Broberg, Flaviu Plata, Phillip Zucs, and René Snacken. 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 Bianca Snijders (RIVM Bilthoven, Netherlands) and Thedi Ziegler (National Institute for Health and Welfare, Finland). In addition, the report is reviewed by experts of WHO Regional Office for Europe.

Maps and commentary published in this Weekly Influenza Surveillance Overview (WISO) do not represent a statement on the part of ECDC or its partners on the legal or border status of the countries and territories shown.

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 databases.

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