

SURVEILLANCE REPORT

Bi-weekly influenza surveillance overview

22 June 2010

Main surveillance developments in weeks 22–23 2010 (31 May 2010–13 Jun 2010)*

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

- During weeks 22 and 23/2010, low intensity was reported by 17 countries.
- Five (4.8%) sentinel specimens were positive for influenza and four (80%) were type B.
- Six SARI cases were reported by two countries. In all cases, the influenza virus was not detected

Sentinel surveillance of influenza like-illness (ILI)/ acute respiratory illness (ARI): Of the 17 countries reporting during weeks 22 and 23/2010, all reported low intensity. Regarding geographic spread, 15 reported no activity and two reported sporadic activity. For more information, [click here](#).

Virological surveillance: Sentinel physicians collected 104 respiratory specimens, of which five (4.8%) were positive for influenza virus. Of the 23 sentinel and non-sentinel collected specimens, 16 (70%) were of type B influenza virus. For more information, [click here](#).

Hospital surveillance of severe acute respiratory infection (SARI): During weeks 22 and 23/2010, six SARI cases were reported by two countries. In all cases, the influenza virus was not detected. For more information, [click here](#).

* From this point (week 23/2010) until week 40/2010, the influenza overview will be reported on a bi-weekly basis.

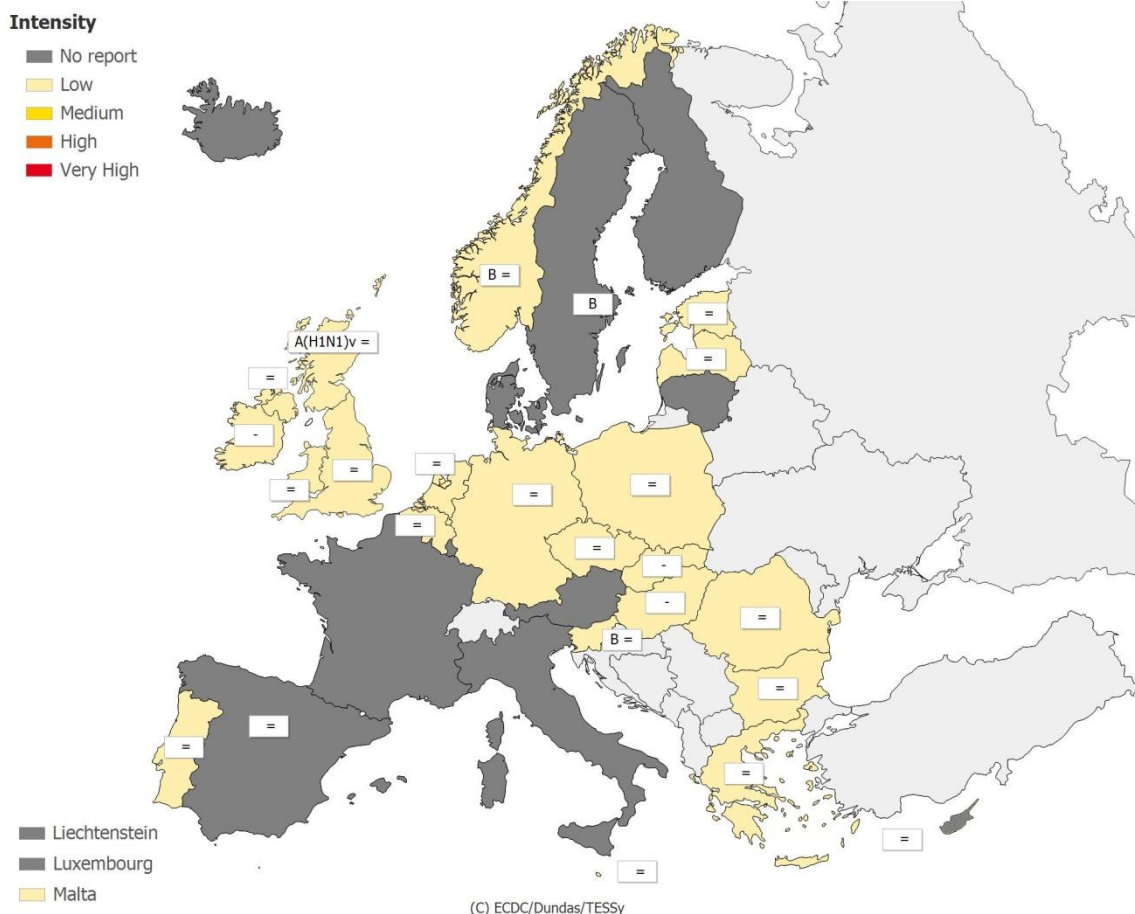
Sentinel surveillance (ILI/ARI)

Weekly analysis – epidemiology

During weeks 22 and 23/2010, 17 of 29 countries reported epidemiological data. For the 15th consecutive week, all reporting countries experienced low intensity (Map 1, Table1).

Similar to week 21, only Norway and UK (Wales) reported sporadic activity during weeks 22 and 23/2010, while all other countries reported no activity (Map 2, Table 1). All countries reported a decreasing or stable trend (Table 1).

Map 1: Intensity for Weeks 22-23/2010

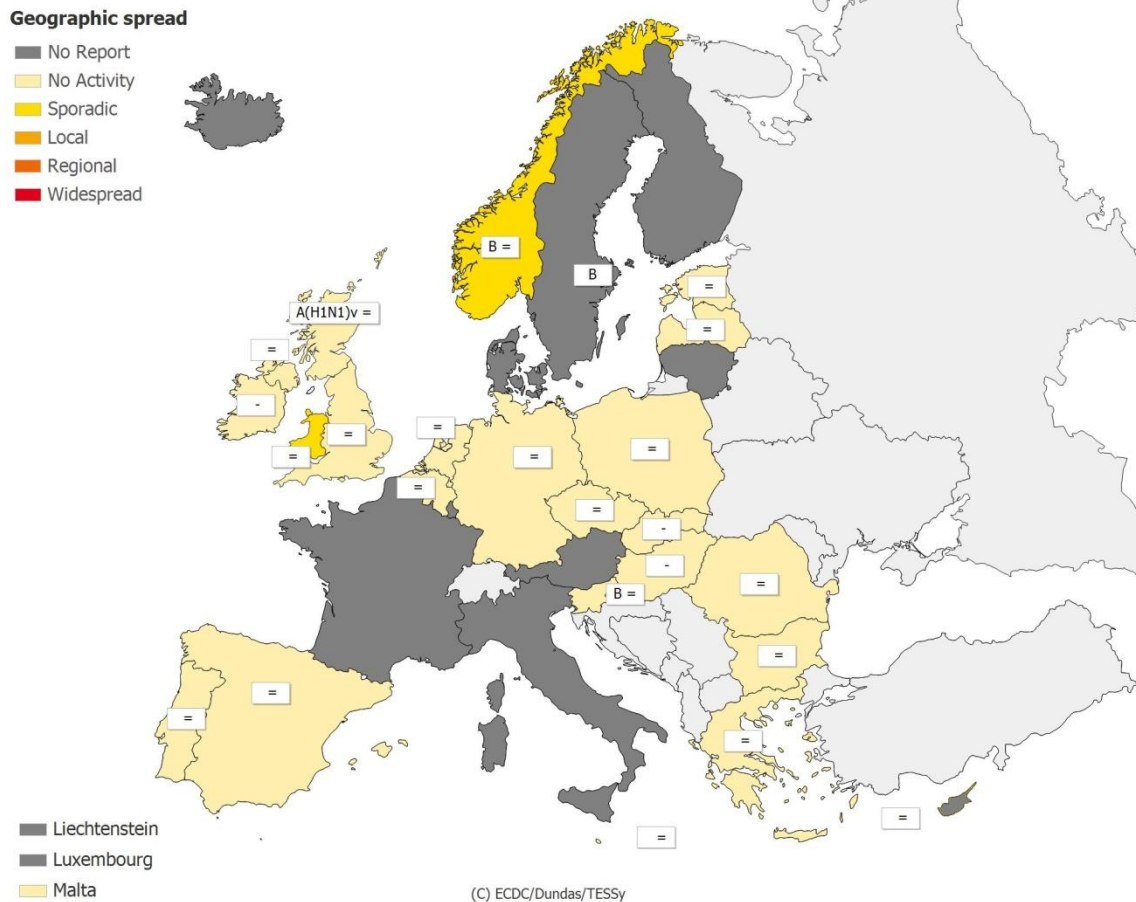


* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

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 22-23 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)	-	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	1	None	100.0	9.4	363.0	Graphs	Graphs
Bulgaria	Low	No activity	Stable	0	None	-	-	172.4	Graphs	Graphs
Cyprus				-	-	-	-	-		
Czech Republic	Low	No activity	Stable	-	-	-	5.7	314.1	Graphs	Graphs
Denmark				0	None	-	-	-	Graphs	Graphs
Estonia	Low	No activity	Stable	1	None	0.0	0.8	55.9	Graphs	Graphs
Finland				-	-	-	-	-		
France				-	-	-	-	-		
Germany	Low	No activity	Stable	10	None	20.0	-	265.3	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	-	23.4	-	Graphs	Graphs
Hungary	Low	No activity	Decreasing	22	None	0.0	7.8	-	Graphs	Graphs
Iceland				-	-	-	-	-		
Ireland	Low	No activity	Decreasing	4	None	0.0	0.8	-	Graphs	Graphs
Italy				0	None	-	-	-	Graphs	Graphs
Latvia	Low	No activity	Stable	0	None	-	0.0	230.2	Graphs	Graphs
Lithuania				2	None	0.0	-	-	Graphs	Graphs
Luxembourg				-	-	-	-	-		
Malta	Low	No activity	Stable	-	-	-	-*	-*	Graphs	Graphs
Netherlands				8	None	0.0	17.5	-	Graphs	Graphs
Norway	Low	Sporadic	Stable	1	-	0.0	7.5	-	Graphs	Graphs
Poland	Low	No activity	Stable	0	None	-	10.0	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	-	2.2	-	Graphs	Graphs
Romania	Low	No activity	Stable	0	None	-	0.0	253.6	Graphs	Graphs
Slovakia	Low	No activity	Decreasing	0	None	-	47.0	554.5	Graphs	Graphs
Slovenia	Low	No activity	Stable	5	B	50.0	1.6	341.1	Graphs	Graphs
Spain		No activity	Stable	14	None	14.3	-	-	Graphs	Graphs
Sweden				0	B	-	-	-	Graphs	Graphs
UK - England	Low	No activity	Stable	8	None	0.0	1.4	136.9	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	0	None	-	4.4	118.5	Graphs	Graphs
UK - Scotland	Low	No activity	Stable	28	None	0.0	0.5	80.3	Graphs	Graphs
UK - Wales	Low	Sporadic	Stable	-	-	-	0.9	-	Graphs	Graphs
Europe				104		4.8				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 22 and 23/2010, 19 countries reported virological data. Sentinel physicians collected 104 specimens of which five (4.8%) were positive for influenza virus (Table 2). Four B strains were isolated in Belgium, Spain and Slovenia and one 2009 pandemic A(H1N1) virus was isolated in Germany. In addition, 18 non-sentinel source specimens (i.e. specimens collected for diagnostic purpose in hospitals) were reported positive for influenza virus. Of the 23 influenza viruses detected from sentinel and non-sentinel sources during weeks 22 and 23/2010, seven (30%) were influenza type A viruses and 16 (70%) were type B viruses.

Of the 16 199 type A influenza viruses detected by sentinel practices for which subtyping was performed since week 40/2009, 16 141 (99.6%) 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 40/2010 to week 23/2010, 3228 influenza viruses from sentinel and non-sentinel specimens were characterised antigenically (Table 3). Among these characterised specimens, 3172 (98.3%) belonged to the phylogenetic cluster represented by A/California/7/2009 H1N1)-like virus.

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

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2009–23/2010

Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	1	6	16880	89692
A (pandemic H1N1)	1	5	16141	78309
A (subtyping not performed)	0	1	681	11232
A (not subtypable)	0	0	14	50
A (H3)	0	0	8	50
A (H1)	0	0	36	51
Influenza B	4	12	171	389
Total Influenza	5	18	17051	90081

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 40/2009–23/2010

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)

Bi-weekly analysis – SARI

During weeks 22 and 23/2010, six SARI cases were reported, one in Malta and five in Slovakia. The causative pathogen is unknown in all six cases.

Since the beginning of SARI surveillance, eleven countries reported 11 577 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 23/2010

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	2916		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	214	51.74	1	0.24	413609
Netherlands	652	3.95	29	0.18	16521505
Romania	210	16.56	13	1.02	1268418
Slovakia	364		40		
Total	11452		573		73701844

Table 5: Number of SARI cases by influenza type and subtype, week 23/2010

Virus type/subtype	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A		9061
A (pandemic H1N1)		9029
A(subtyping not performed)		25
A(H3)		
A(H1)		7
A(H5)		
Influenza B		
Unknown	6	2248
Total	6	11309

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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