

SURVEILLANCE REPORT

Bi-weekly influenza surveillance overview

10 September 2010

Main surveillance developments in Weeks 34–35/2010 (23 Aug 2010 – 05 Sep 2010)

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

- During weeks 34 & 35/2010, low influenza activity was notified by all 16 reporting countries; sporadic activity was only reported by Cyprus and the UK (Wales). An increasing trend was observed by Estonia, Hungary and Poland.
- During weeks 34 & 35/2010, one influenza B virus was detected from sentinel specimens (the Netherlands) and three 2009 pandemic A(H1N1) viruses were isolated from non-sentinel specimens in Spain and in Poland.
- No SARI cases were reported during this period.

Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI): All notifying countries reported low influenza activity and sporadic activity was reported by Cyprus and UK (Wales). For more information, [click here](#).

Virological surveillance: Sentinel physicians collected 39 respiratory specimens, of which one (2.5%) was influenza B virus. Three 2009 pandemic A(H1N1) viruses were detected from non-sentinel specimens. For more information, [click here](#).

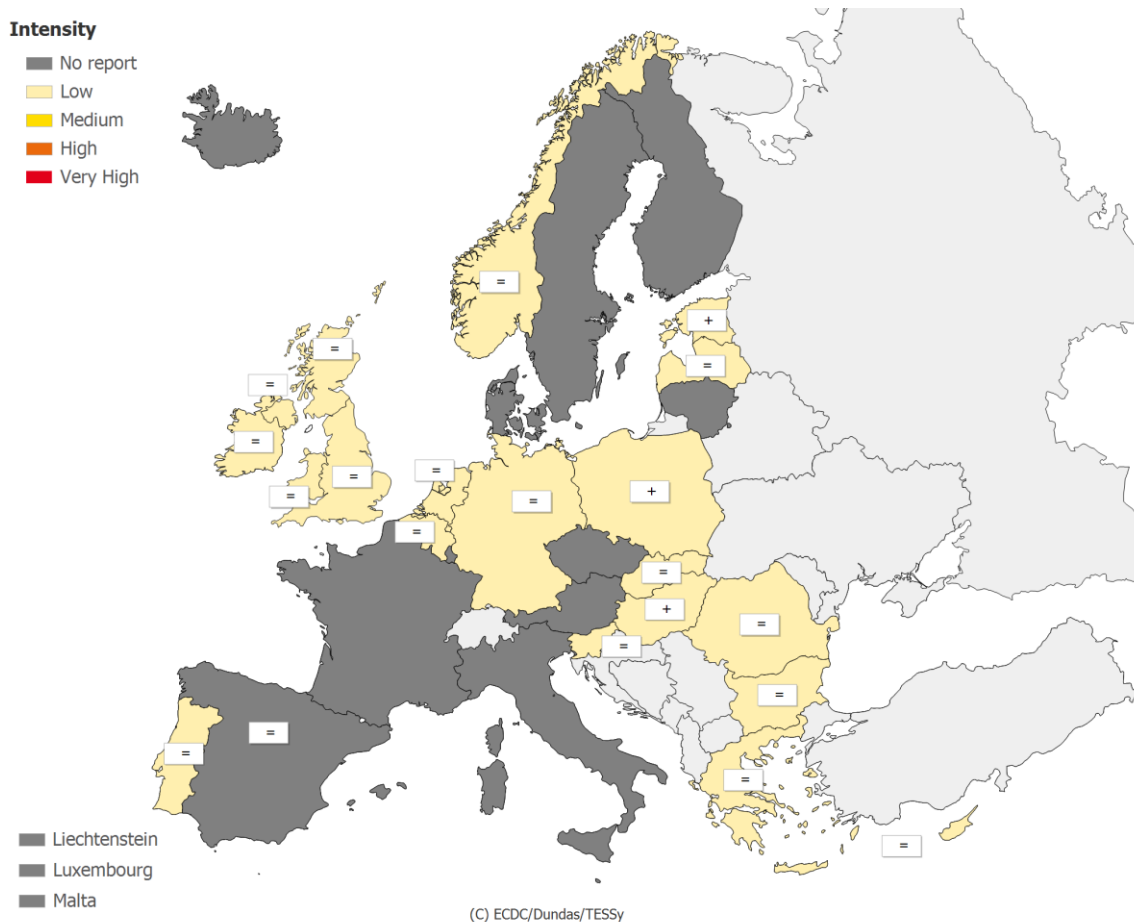
Hospital surveillance of severe acute respiratory infection (SARI): During weeks 34 & 35/2010, no SARI cases were reported. For more information, [click here](#).

Sentinel surveillance (ILI/ARI)

Weekly analysis – epidemiology

During weeks 34-35/2010, 16 of 29 countries reported the intensity indicator. For the 25th consecutive week, all reporting countries experienced low intensity (Map1, Table 1). The geographic spread was reported by 17 countries for these weeks: Cyprus and the UK (Wales) reported sporadic activity while no activity was reported by all 15 other countries. Only Estonia, Hungary and Poland reported an increasing trend.

Map 1: Intensity for weeks 34 & 35/2010



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

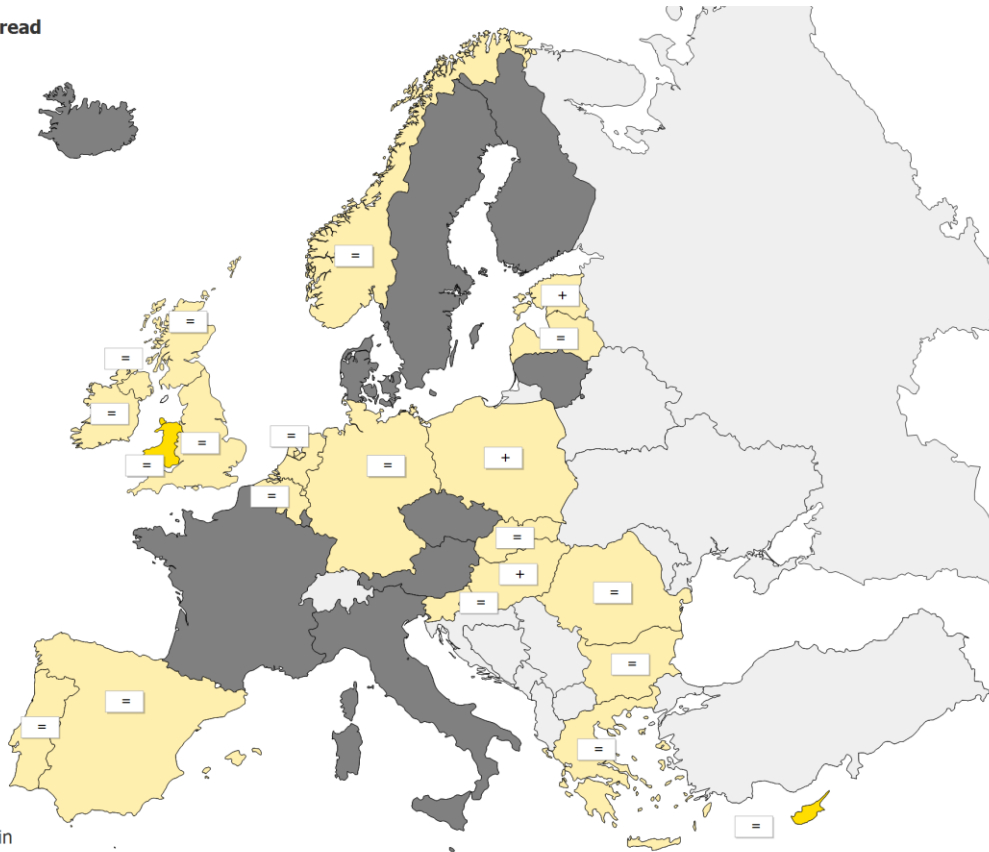
Legend:

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 34 & 35/2010

Geographic spread

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



- Liechtenstein
- Luxembourg
- Malta

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* 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)		
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)		

Table 1: Epidemiological and virological overview by country for weeks 34 & 35/2010

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	-	-	-	23.0	592.2	Graphs	Graphs
Bulgaria	Low	No activity	Stable	0	None	-	-	229.8	Graphs	Graphs
Cyprus	Low	Sporadic	Stable	-	-	-	-*	-*	Graphs	Graphs
Czech Republic				-	-	-	-	-		
Denmark				0	None	-	-	-	Graphs	Graphs
Estonia	Low	No activity	Increasing	1	None	0.0	1.2	89.0	Graphs	Graphs
Finland				-	-	-	-	-		
France				-	-	-	-	-		
Germany	Low	No activity	Stable	7	None	0.0	-	524.7	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	-	38.2	-	Graphs	Graphs
Hungary	Low	No activity	Increasing	5	None	0.0	9.4	-	Graphs	Graphs
Iceland				-	-	-	-	-		
Ireland	Low	No activity	Stable	0	None	-	2.7	-	Graphs	Graphs
Italy				-	-	-	-	-		
Latvia	Low	No activity	Stable	0	None	-	0.0	293.1	Graphs	Graphs
Lithuania				-	-	-	-	-		
Luxembourg				-	-	-	-	-		
Malta				-	-	-	-	-		
Netherlands	Low	No activity	Stable	5	None	33.3	7.9	-	Graphs	Graphs
Norway				0	None	-	15.2	-	Graphs	Graphs
Poland	Low	No activity	Increasing	0	None	-	10.8	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	-	2.4	-	Graphs	Graphs
Romania	Low	No activity	Stable	0	None	-	0.0	490.8	Graphs	Graphs
Slovakia	Low	No activity	Stable	1	-	0.0	42.9	602.4	Graphs	Graphs
Slovenia	Low	No activity	Stable	0	None	-	0.0	465.8	Graphs	Graphs
Spain	Unknown (no information available)	No activity	Stable	2	None	0.0	-	-	Graphs	Graphs
Sweden				0	None	-	-	-	Graphs	Graphs
UK - England	Low	No activity	Stable	5	None	0.0	2.0	199.1	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	0	None	-	9.0	180.5	Graphs	Graphs
UK - Scotland	Low	No activity	Stable	13	None	0.0	1.1	172.9	Graphs	Graphs
UK - Wales	Low	Sporadic	Stable	-	-	-	1.8	-	Graphs	Graphs
Europe				39		2.6				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 34 and 35/2010, 16 countries and the UK (England, Northern Ireland and Scotland) reported virological data. Table 2 shows the distribution of both sentinel and non-sentinel specimens by type and subtype. Sentinel physicians collected 39 specimens, one (2.5%) of which was positive for influenza B virus in the Netherlands. Four non-sentinel source specimens (e.g., specimens collected for diagnostic purposes in hospital settings) tested positive for influenza A, of which three were sub-typed as 2009 pandemic A(H1N1) viruses in Spain and Poland (Table 2). Cumulative data since week 40/2009 show that subtyping was performed on 16 203 type A influenza viruses detected in samples from sentinel practices. Of these, 99.6% (16 145) were identified as the 2009 pandemic A(H1N1) virus (Table 2).

An update from CNRL on influenza virus characterisation can be found here: [Surveillance report \(August 2010\)](#).

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 40/2009–35/2010

Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	0	4	16886	90799
A (pandemic H1N1)	0	3	16145	79435
A (subtyping not performed)	0	1	683	11210
A (not subtypable)	0	0	14	50
A (H3)	0	0	8	53
A (H1)	0	0	36	51
Influenza B	1	0	194	457
Total Influenza	1	4	17080	91256

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 40/2009–35/2010

Strain name	Number of strains
A(H1)v California/7/2009-like	3353
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

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 34 and 35/2010, no SARI cases were reported to TESSy. Since the beginning of SARI surveillance, eleven countries reported 11 461 cases and 576 related fatalities (Table 4). In SARI cases where influenza virus was detected, 99.7% were 2009 pandemic A(H1N1) viruses (Table 5).

Table 4: Cumulative number of SARI cases, weeks 40/2009–week 35/2010

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	215	16.95	16	1.26	1268418
Slovakia	365		40		
Total	11461		576		73701844

Table 5: Number of SARI cases by influenza type and subtype, weeks 34 & 35/2010

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		2277
Total	0	11461

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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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