

## SURVEILLANCE REPORT

### Bi-weekly influenza surveillance overview

8 October 2010

## Main surveillance developments in weeks 38 & 39/2010 (20 Sep 2010—03 Oct 2010)

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

- Sporadic ILI/ARI activity was reported in Cyprus, France and the UK (England and Wales).
- In sentinel practices, no influenza viruses were detected. Non-sentinel specimens yielded 12 influenza detections: 11 influenza A and one influenza B. Only three influenza A viruses were sub-typed, one 2009 pandemic A(H1N1) virus and two A(H3).
- No SARI cases were reported during weeks 38 and 39/2010.

**Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI):** Three countries reported sporadic activity, while the other 13 reporting countries had no ILI/ARI activity. For more information, [click here](#).

**Virological surveillance:** In sentinel practices, no influenza viruses were detected. From non-sentinel source specimens, one was sub-typed as the 2009 pandemic A/H1N1 virus, two were A(H3) viruses and one was an influenza B virus. For more information, [click here](#).

**Hospital surveillance of severe acute respiratory infection (SARI):** During weeks 38 and 39/2010, no SARI cases were reported. For more information, [click here](#).

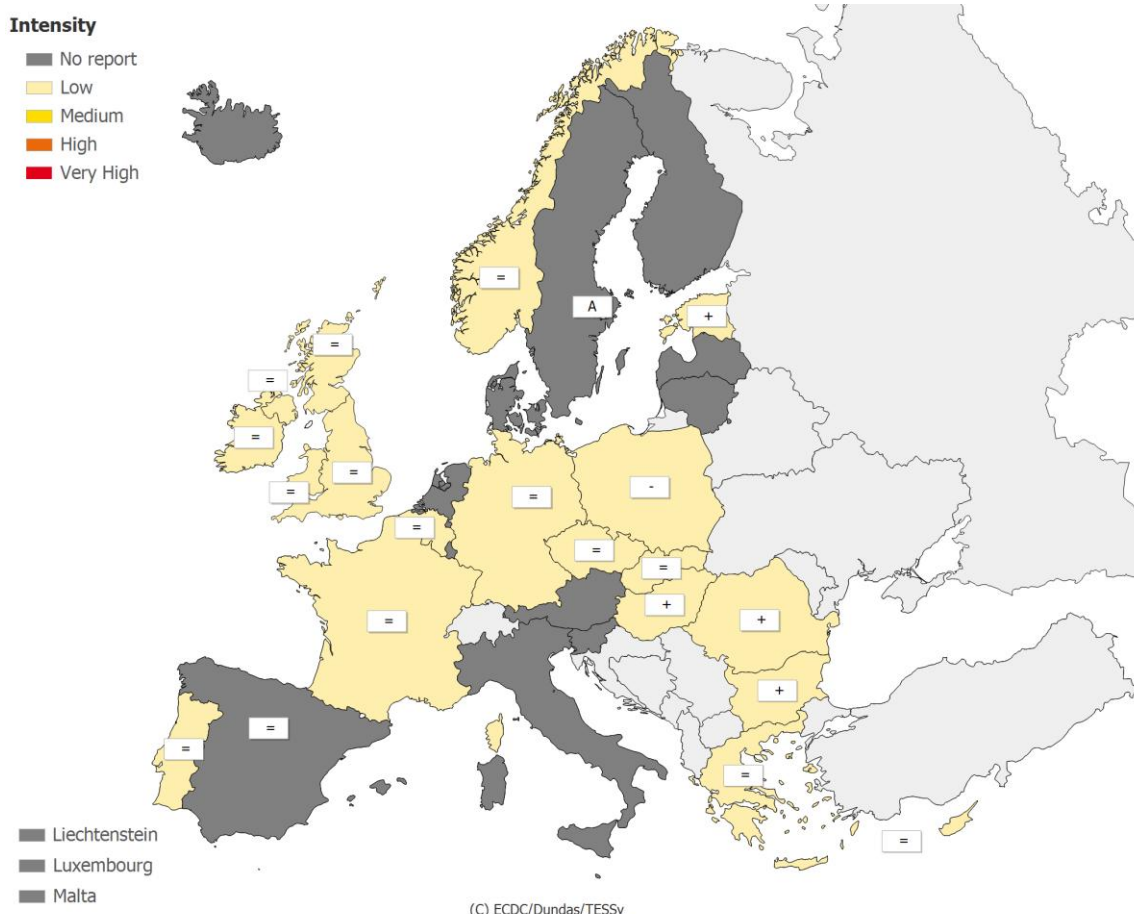
# Sentinel surveillance (ILI/ARI)

## Weekly analysis—epidemiology

During weeks 38 and 39/2010, 15 of 29 countries reported the intensity indicator. Low intensity has been experienced by all countries reporting since week 09/2010 (Map1, Table 1).

Of the 16 countries reporting geographic spread indicators, three reported sporadic activity (Cyprus, France and the UK (England, Wales)), while the others reported no ILI/ARI activity (Map 2, Table 1). Regarding the trend indicator, three countries (Cyprus, France and Romania) reported an increasing trend, 12 countries reported a stable trend and one country (Poland) reported a decreasing trend (Table1).

**Map 1: Intensity for weeks 38 & 39 2010**



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

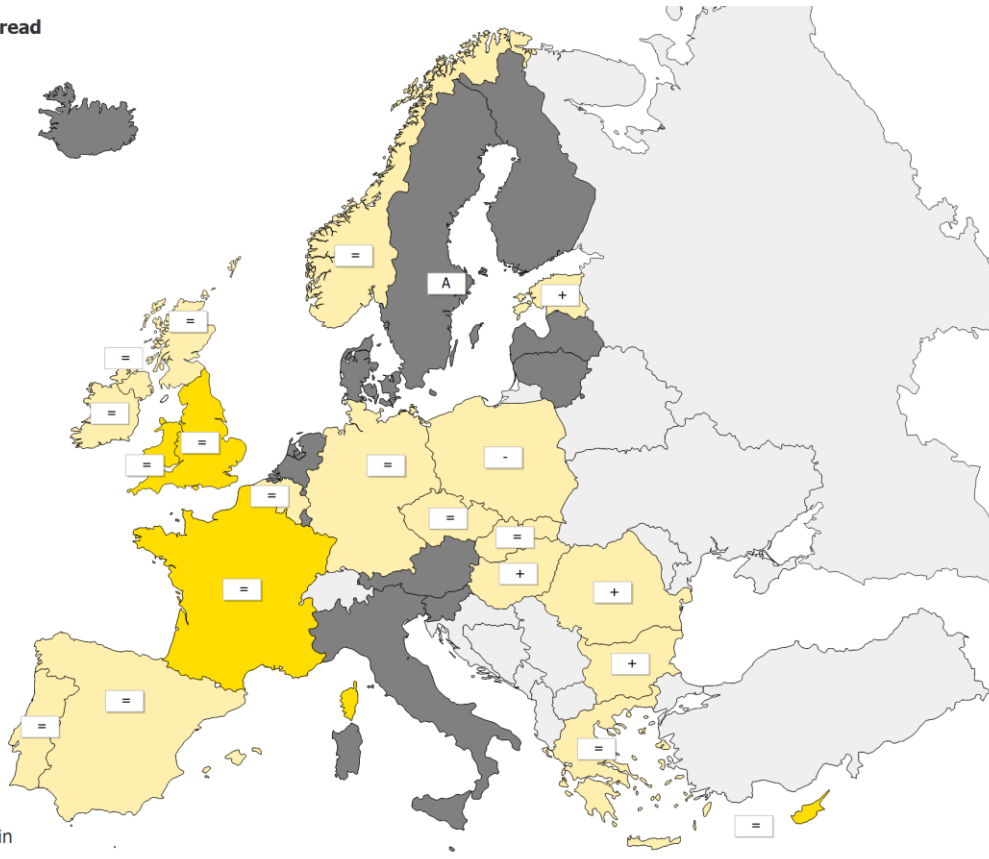
Legend:

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

**Map 2: Geographic spread for weeks 38 & 39 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:**

<b>No activity</b>	No evidence of influenza virus activity (clinical activity remains at baseline levels)	-	Decreasing clinical activity
<b>Sporadic</b>	Isolated cases of laboratory confirmed influenza infection	+	Increasing clinical activity
<b>Local outbreak</b>	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
<b>Regional activity</b>	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	Type A
<b>Widespread</b>	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**

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	-	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Belgium	Low	No activity	Stable	44	None	0.0	47.9	1791.4	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Bulgaria	Low	No activity	Increasing	0	None	-	-	401.7	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Cyprus	Low	Sporadic	Stable	-	-	-	-*	-*	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Czech Republic	Low	No activity	Stable	-	-	-	16.9	732.4	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Denmark				0	None	-	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Estonia	Low	No activity	Increasing	0	None	-	3.6	320.1	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Finland				41	None	0.0	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
France	Low	Sporadic	Stable	97	None	0.0	-	1643.7	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Germany	Low	No activity	Stable	20	None	0.0	-	919.7	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Greece	Low	No activity	Stable	-	-	-	45.3	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Hungary				20	None	0.0	62.6	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Iceland				-	-	-	-	-		
Ireland	Low	No activity	Stable	15	None	0.0	9.8	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Italy				-	-	-	-	-		
Latvia				0	None	-	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Lithuania				-	-	-	-	-		
Luxembourg				1	None	0.0	-*	-*	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Malta				-	-	-	-	-		
Netherlands				9	None	0.0	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Norway	Low	No activity	Stable	1	None	0.0	22.0	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Poland	Low	No activity	Decreasing	4	None	0.0	47.3	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Portugal	Low	No activity	Stable	0	None	-	2.9	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Romania	Low	No activity	Increasing	0	None	-	0.0	771.0	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Slovakia	Low	No activity	Stable	1	None	0.0	165.3	1689.5	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Slovenia				7	None	0.0	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Spain	Unknown (no information available)	No activity	Stable	15	None	0.0	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Sweden				0	A	-	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
UK - England	Low	Sporadic	Stable	35	None	0.0	4.5	339.3	<a href="#">Graphs</a>	<a href="#">Graphs</a>
UK - Northern Ireland	Low	No activity	Stable	0	-	-	18.1	273.9	<a href="#">Graphs</a>	<a href="#">Graphs</a>
UK - Scotland	Low	No activity	Stable	18	None	0.0	3.6	177.8	<a href="#">Graphs</a>	<a href="#">Graphs</a>
UK - Wales	Low	Sporadic	Stable	-	-	-	1.3	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Europe				328		0.0			<a href="#">Graphs</a>	<a href="#">Graphs</a>

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 38 and 39/2010, 21 countries and the UK (England, Scotland) reported virological data. In sentinel practices, 328 specimens were collected, none of which were positive for influenza virus.

Twelve of the 2058 non-sentinel source specimens (e.g., specimens collected for diagnostic purposes in hospital settings) tested positive for influenza, 11 of which were influenza A viruses and one was a B virus. Of the 11 influenza A viruses, one was sub-typed as the 2009 pandemic A(H1N1) virus, two were A(H3) viruses and eight were not sub-typed (Table 2).

Since week 40/2009, cumulative data shows that subtyping was performed on 16 232 type A influenza viruses in sentinel samples. Of these, 16 674 (99.6%) 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 \(September 2010\)](#). In summary, all 2009 pandemic A(H1N1) viruses received from EU countries have been antigenically similar and closely related genetically to the vaccine virus A/California/7/2009. In addition, most of the circulating influenza B viruses have been closely related to the 2009-2010 vaccine strain B/Brisbane/60/2008 (Victoria lineage; Table 3).

For details on the current virus strains recommended by WHO for vaccine preparation for the 2010-2011 season [click here](#).

**Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2009–39/2010**

Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	0	11	16914	90800
A (pandemic H1N1)	0	1	16174	79431
A (subtyping not performed)	0	8	682	11210
A (not subtypable)	0	0	14	50
A (H3)	0	2	8	58
A (H1)	0	0	36	51
Influenza B	0	1	199	482
<b>Total Influenza</b>	<b>0</b>	<b>12</b>	<b>17113</b>	<b>91282</b>

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 40/2009–39/2010**

Strain name	Number of strains
A(H1)v California/7/2009-like	3354
A(H3) A/Brisbane/10/2007 (H3N2)-like	9
A(H3) A/Perth/16/2009 (H3N2)-like	36
B/Brisbane/60/2008-like (B/Victoria/2/87 lineage)	20
B/Florida/4/2006-like (B/Yamagata/16/88 lineage)	5

## Country comments

Both Finland and Slovenia reported substantial detections of adenoviruses. Slovenia also reported an increased number of respiratory specimens positive for enteroviruses among hospitalised children.

## 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 38 and 39/2010, 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 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 39/2010**

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, week 39/2010**

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		11461

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).

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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