

## SURVEILLANCE REPORT

### Bi-weekly influenza surveillance overview

2 July 2010

## Main surveillance developments in Weeks 24-25 2010 (14 Jun 2010 – 27 Jun 2010)

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

- Low intensity was reported by 18 countries during weeks 24 and 25/2010.
- Four (6.9%) sentinel specimens were positive for influenza during week 24 all of whom were of type B. No sentinel specimen was positive in week 25.
- Two SARI cases were reported by two countries.

**Sentinel surveillance of influenza like-illness (ILI)/ acute respiratory illness (ARI):** During weeks 24 and 25/2010, of the 18 countries reporting, all reported low intensity. With regards to geographic spread there was no activity, except UK (Wales) which reported sporadic activity. For more information, [click here](#).

**Virological surveillance:** Sentinel physicians collected 96 respiratory specimens, four of which were positive for influenza virus. Of the 16 sentinel and non-sentinel detected viruses, 10 (63%) were type B influenza virus. For more information, [click here](#).

**Hospital surveillance of severe acute respiratory infection (SARI):** During weeks 24 and 25, two SARI cases were reported; the pandemic 2009 virus was detected in one case. For more information, [click here](#).

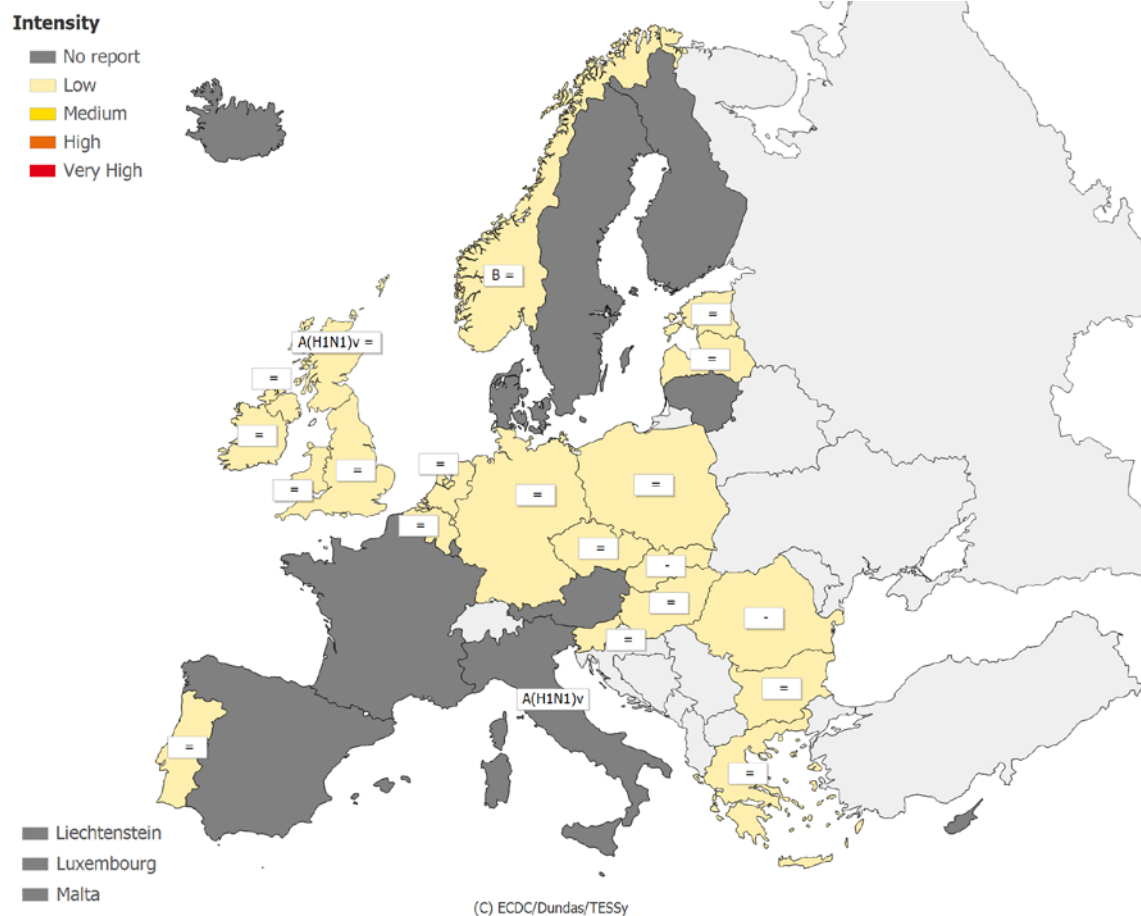
# Sentinel surveillance (ILI/ARI)

## Weekly analysis – epidemiology

During weeks 24 and 25/2010, 18 of 29 countries reported epidemiological data. For the 17<sup>th</sup> consecutive week, all reporting countries experienced low intensity (Map 1, Table1).

The UK (Wales) reported sporadic activity during weeks 24 and 25, 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 24-25 2010**

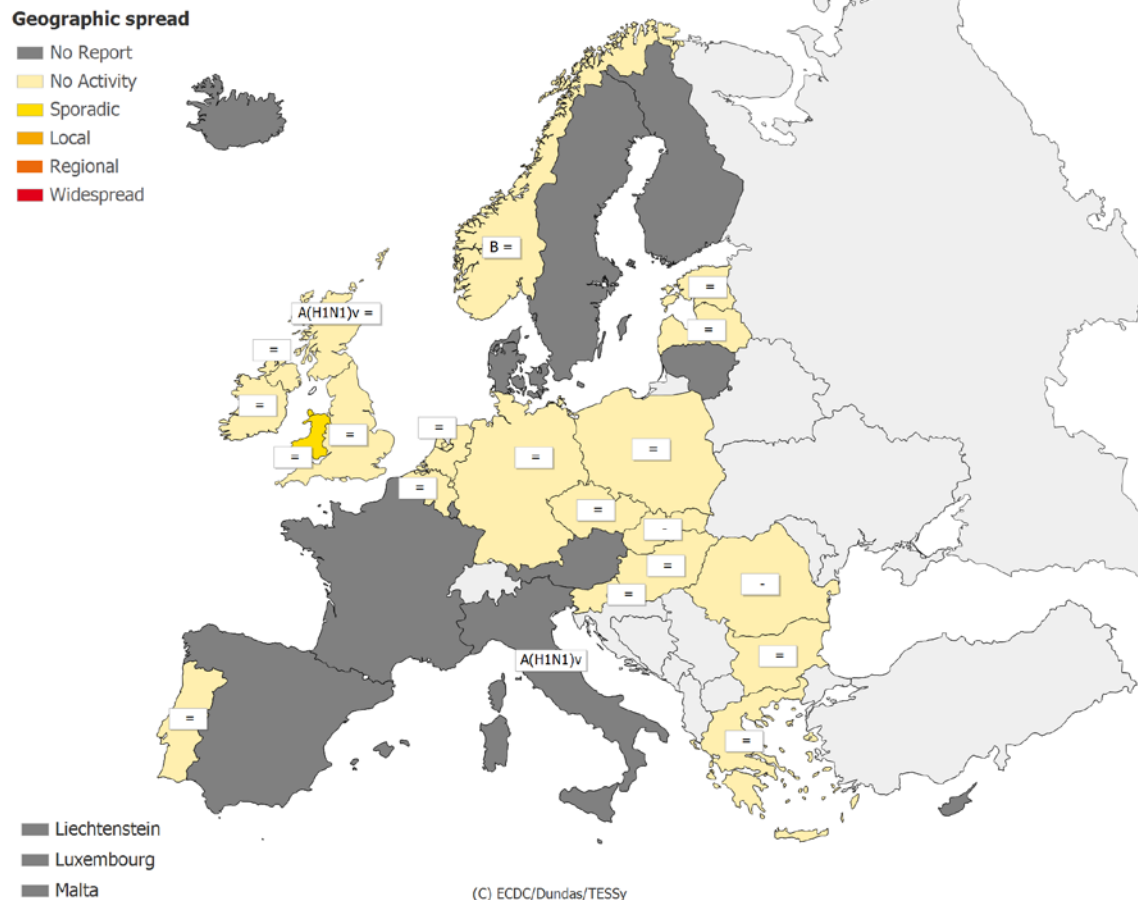


\* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

**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	<b>A(H1N1)v</b>	Type A, Subtype H1N1v
		<b>B</b>	Type B

**Map 2: Geographic spread for weeks 24–25 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:

<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)	<b>A(H1N1)v</b>	Type A, Subtype H1N1v
<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)	<b>B</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	0	-	-	25.6	609.0	Graphs	Graphs
Bulgaria	Low	No activity	Stable	0	None	-	-	311.5	Graphs	Graphs
Cyprus				-	-	-	-	-		
Czech Republic	Low	No activity	Stable	-	-	-	9.3	575.1	Graphs	Graphs
Denmark				0	None	-	-	-	Graphs	Graphs
Estonia	Low	No activity	Stable	2	None	0.0	1.0	88.2	Graphs	Graphs
Finland				-	-	-	-	-		
France				-	-	-	-	-		
Germany	Low	No activity	Stable	19	None	0.0	-	480.4	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	-	26.5	-	Graphs	Graphs
Hungary	Low	No activity	Stable	17	None	0.0	10.9	-	Graphs	Graphs
Iceland				-	-	-	-	-		
Ireland	Low	No activity	Stable	2	None	0.0	1.1	-	Graphs	Graphs
Italy				0	swoAH1N1	-	-	-	Graphs	Graphs
Latvia	Low	No activity	Stable	0	None	-	0.0	299.9	Graphs	Graphs
Lithuania				2	None	0.0	-	-	Graphs	Graphs
Luxembourg				-	-	-	-	-		
Malta	Low	No activity	Stable	-	-	-	-*	-*	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Netherlands	Low	No activity	Stable	5	None	0.0	12.7	-	Graphs	Graphs
Norway	Low	No activity	Stable	0	B	-	12.1	-	Graphs	Graphs
Poland	Low	No activity	Stable	1	None	0.0	17.1	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	-	0.0	-	Graphs	Graphs
Romania	Low	No activity	Decreasing	0	None	-	0.0	495.3	Graphs	Graphs
Slovakia	Low	No activity	Decreasing	0	-	-	71.6	949.3	Graphs	Graphs
Slovenia	Low	No activity	Stable	1	None	0.0	0.9	469.6	Graphs	Graphs
Spain				11	None	27.3	-	-	Graphs	Graphs
Sweden				0	None	-	-	-	Graphs	Graphs
UK - England	Low	No activity	Stable	17	None	20.0	1.6	336.4	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	3	None	0.0	10.2	269.3	Graphs	Graphs
UK - Scotland	Low	No activity	Stable	16	swoAH1N1	0.0	0.3	159.2	Graphs	Graphs
UK - Wales	Low	Sporadic	Stable	-	-	-	0.7	-	Graphs	Graphs
Europe				96		4.2				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 24 and 25/2010, 19 countries reported virological data. Sentinel physicians collected 96 specimens, four of which (4.1%) were positive for influenza virus (Table 2). Influenza type B viruses were detected in Spain and the UK (England). In addition, 12 non-sentinel source specimens (i.e. specimens collected for diagnostic purpose in hospitals) were reported positive for influenza virus. Of the 16 influenza viruses detected from both sentinel and non-sentinel sources during weeks 24 and 25, six (37%) were influenza type A viruses and 10 (63%) 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 remains at low levels since week 07/2010.

From week 40/2009 to week 25/2010, 3228 influenza viruses from sentinel and non-sentinel specimens were characterised antigenically (Table3). 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 40/2009–25/2010**

Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	0	6	16880	89698
A (pandemic H1N1)	0	3	16141	78315
A (subtyping not performed)	0	2	681	11231
A (not subtypable)	0	0	14	50
A (H3)	0	1	8	51
A (H1)	0	0	36	51
Influenza B	4	6	176	413
<b>Total Influenza</b>	<b>4</b>	<b>12</b>	<b>17056</b>	<b>90111</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 40/2009–25/2010**

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

**Table 4: Antiviral resistance by influenza virus type and subtype, weeks 40/2009–25/2010**

Virus type and subtype	Resistance to neuraminidase inhibitors				Resistance to M2 inhibitors	
	Oseltamivir		Zanamivir		Isolates tested	Resistant n (%)
	Isolates tested	Resistant n (%)	Isolates tested	Resistant n (%)		
A(H3N2)	0	0	0	0	0	0
A(H1N1)	0	0	0	0	0	0
A(H1N1)v	1453	37 (2.5%)	1447	0	205	205(100%)
B	0	0	0	0	NA*	NA*

## 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 24 and 25, two SARI cases were reported, one in Austria and one in Malta. The 2009 pandemic A(H1N1) virus was detected in one case.

Since the beginning of SARI surveillance, eleven countries reported 11 489 cases and 570 related-fatalities. In cases where influenza virus was detected, 99.9% were 2009 pandemic A(H1N1) viruses.

**Table 5: Cumulative number of SARI cases, weeks 40/2009 - week 25/2010**

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	2915		40		
Belgium	1880	17.62			10668666
Cyprus	26		9		
Finland	1422	26.7	56	1.05	5326314
France	1350		301		
United Kingdom	1633	4.13	65	0.16	39503332
Ireland	903		17		
Malta	181	43.76	1	0.24	413609
Netherlands	645	3.9	28	0.17	16521505
Romania	201	15.85	13	1.02	1268418
Slovakia	333		40		
Total	11489		570		73701844

**Table 6: Number of SARI cases by influenza type and subtype, weeks 24-25/2010**

Virus type/subtype	Number of cases during current weeks	Cumulative number of cases since the start of the season
Influenza A	1	9062
A (pandemic H1N1)	1	9030
A(subtyping not performed)		25
A(H3)		
A(H1)		7
A(H5)		
Influenza B		
Unknown	1	2250
Total	2	11312

## 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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