

## SURVEILLANCE REPORT



# Bi-weekly influenza surveillance overview

9 September 2011

## Main surveillance developments in weeks 34–35 2011 (22 Aug–4 Sep 2011)

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

- During weeks 34–35/2011, 16 of 17 reporting countries experienced low intensity of influenza activity.
- Sentinel specimens yielded no influenza virus detections while four type A and three type B influenza viruses were detected in non-sentinel specimens. One type A influenza virus was subtyped as A(H3).
- During weeks 34–35/2011, two cases of SARI were reported.

**Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI):** During weeks 34–35/2011, 16 of 17 reporting countries experienced low intensity of influenza activity. For more information, [click here](#).

**Virological surveillance:** Of 53 sentinel specimens, none yielded influenza virus detections while four type A and three type B influenza viruses were detected in non-sentinel specimens. For more information, [click here](#).

**Hospital surveillance of severe acute respiratory infection (SARI):** Two cases of SARI were reported during weeks 34–35/2011. For more information, [click here](#).

# Sentinel surveillance (ILI/ARI)

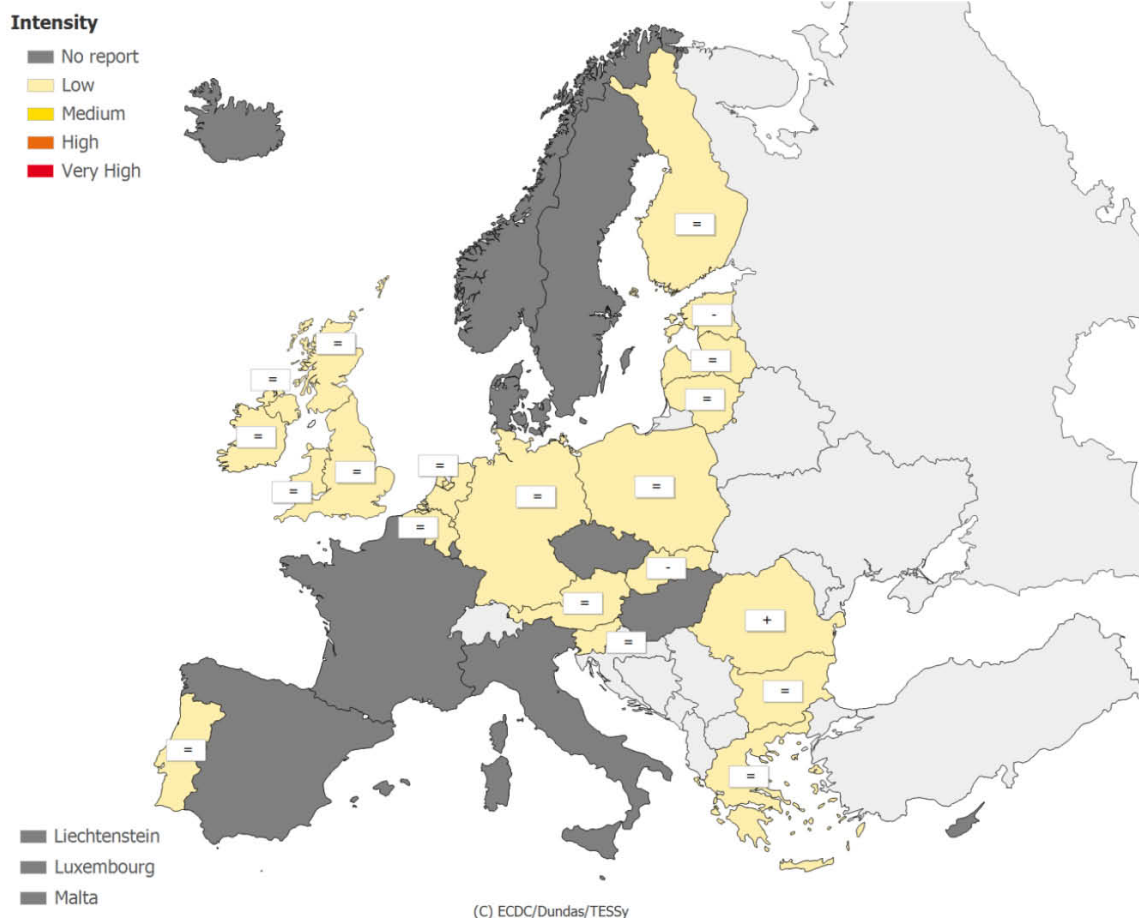
## Weekly analysis – epidemiology

During weeks 34–35/2011, 16 of 17 reporting countries experienced low intensity of influenza activity (Table 1, Map 1).

In terms of geographic spread, sporadic activity was reported by Poland and the UK (Scotland). No activity was reported by the remaining 15 countries and the UK (England, Northern Ireland and Wales) (Table 1, Map 2).

An increasing trend was reported by Romania while stable or decreasing trends were reported by 15 countries (Table 1, Map 2).

**Map 1: Intensity for Weeks 34–35/2011\***



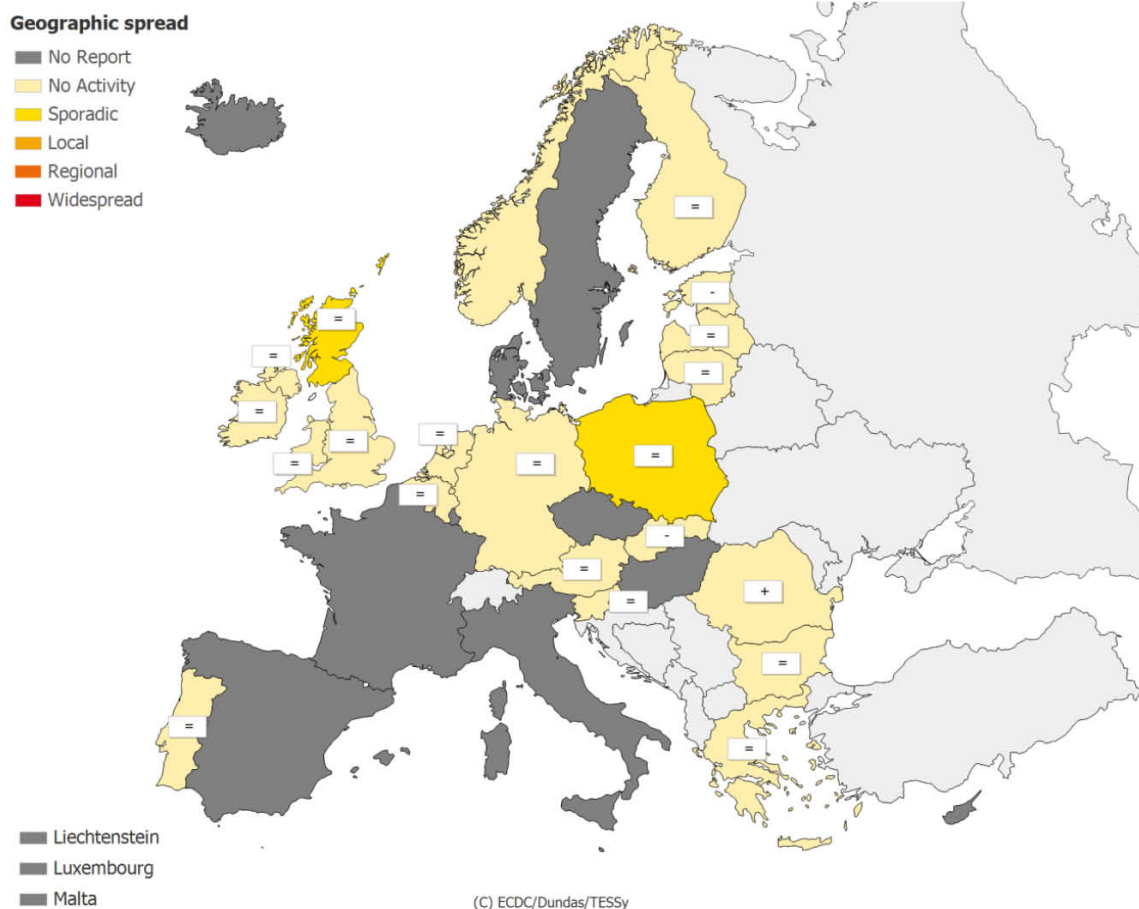
\* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

Legend:

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

*\*The map only displays data for the most recent reported week of the two-week surveillance period. For information on the other week, please consult the weekly 'Influenza activity maps' [here](#).*

**Map 2: Geographic spread for weeks 34–35/2011\***



\* 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:

<b>No report</b>	Activity level was not reported	+	Increasing clinical activity
<b>No activity</b>	No evidence of influenza virus activity (clinical activity remains at baseline levels)	-	Decreasing clinical activity
		=	Stable clinical activity
<b>Sporadic</b>	Isolated cases of laboratory confirmed influenza infection		
<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)		
<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>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)		

\*The map only displays data for the most recent reported week of the two-week surveillance period. For information on the other week please consult the weekly 'Influenza activity maps' [here](#).

**Table 1: Epidemiological and virological overview by country, weeks 34–35/2011 \***

Country	In-tensity	Geo-graphic 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	4	None	0.0	19.7	719.8	Graphs	Graphs
Bulgaria	Low	No activity	Stable	0	None	0.0	-	256.0	Graphs	Graphs
Cyprus				-	-	0.0	-	-		
Czech Republic				-	-	0.0	-	-		
Denmark				0	None	0.0	-	-	Graphs	Graphs
Estonia	Low	No activity	Decreasing	0	None	0.0	2.2	97.8	Graphs	Graphs
Finland	Low	No activity	Stable	26	None	0.0	-	-	Graphs	Graphs
France				-	-	0.0	-	-		
Germany	Low	No activity	Stable	7	None	0.0	-	370.3	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	0.0	19.3	-	Graphs	Graphs
Hungary				-	-	0.0	-	-		
Iceland				0	-	0.0	-	-	Graphs	Graphs
Ireland	Low	No activity	Stable	0	None	0.0	1.3	-	Graphs	Graphs
Italy				-	-	0.0	-	-		
Latvia	Low	No activity	Stable	0	None	0.0	0.0	299.6	Graphs	Graphs
Lithuania	Low	No activity	Stable	0	None	0.0	0.0	91.0	Graphs	Graphs
Luxembourg				-	-	0.0	-	-		
Malta				-	-	0.0	-	-		
Netherlands				5	None	0.0	8.5	-	Graphs	Graphs
Norway	-	No activity	-	4	None	0.0	-	-	Graphs	Graphs
Poland	Low	Sporadic	Stable	0	None	0.0	3.7	-	Graphs	Graphs
Portugal	Low	No activity	Stable	-	-	0.0	0.0	-	Graphs	Graphs
Romania	Low	No activity	Increasing	0	None	0.0	0.0	436.8	Graphs	Graphs
Slovakia	Low	No activity	Decreasing	0	None	0.0	27.7	418.4	Graphs	Graphs
Slovenia	Low	No activity	Stable	0	None	0.0	0.0	413.7	Graphs	Graphs
Spain				0	None	0.0	-	-	Graphs	Graphs
Sweden				-	-	0.0	-	-		
UK - England	Low	No activity	Stable	7	None	0.0	2.6	187.7	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	-	-	0.0	6.6	180.7	Graphs	Graphs
UK - Scotland	Low	Sporadic	Stable	0	None	0.0	0.0	159.4	Graphs	Graphs
UK - Wales	Low	No activity	Stable	0	None	0.0	2.4	-	Graphs	Graphs
Europe				53		0.0				Graphs

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

Liechtenstein is not reporting to the European Influenza Surveillance Network.

For intensity, geographic spread and trend, the table only displays data for the most recent reported week of the two-week surveillance period.

## 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) 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

In weeks 34–35/2011, 19 countries reported virological data. None of the 53 sentinel specimens tested were positive for influenza virus. Of the non-sentinel source specimens, e.g. specimens collected for diagnostic purposes in hospitals, seven were positive for influenza virus: four were type A and three were type B. One type A influenza virus was subtyped as A(H3).

Of the 58 935 influenza viruses detected since week 40/2010 in sentinel and non-sentinel specimens, 38 969 (66.1%) were influenza A and 19 966 (33.9%) were influenza B viruses. Of 28 016 influenza A viruses subtyped, 27 233 (97.2%) were A(H1)2009 and 783 (2.8%) were A(H3) viruses (Table 2).

Since week 40/2010, 4 707 influenza viruses from sentinel and non-sentinel specimens have been characterised antigenically (Figure 1): 2 350 as A/California/7/2009 (H1N1)-like; 2 010 as B/Brisbane/60/2008-like (Victoria lineage), 185 as B/Florida/4/2006-like (Yamagata lineage), 149 as A/Perth/16/2009 (H3N2)-like and 13 as B/Bangladesh/3333/2007-like (Yamagata lineage).

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

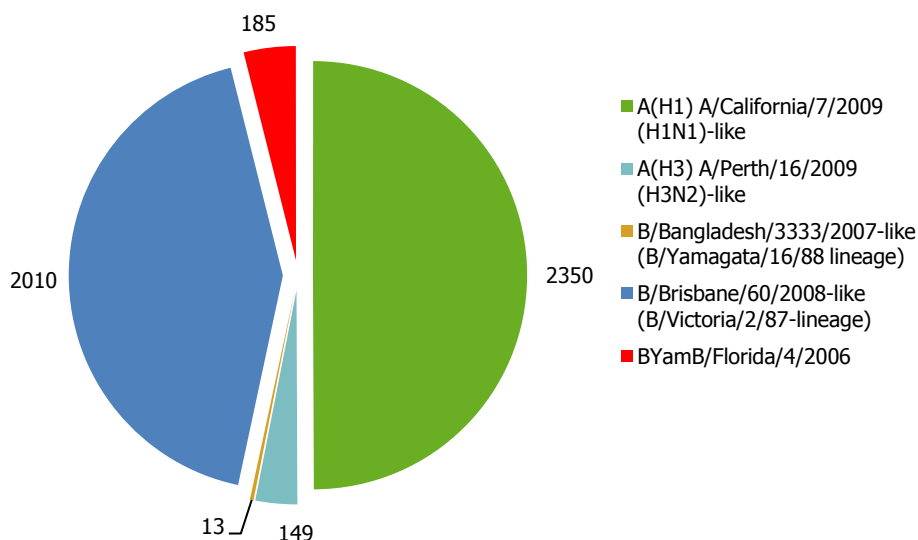
Overall, since week 40/2010, 2504 A(H1)2009, 112 A(H3) and 521 influenza B viruses have been screened for oseltamivir resistance. Of these, 114 A(H1)2009 viruses were resistant, with the bulk being detected in the UK (58), Denmark (27) and France (12). All viruses tested remained sensitive to zanamivir. In terms of adamantane sensitivity, all A(H1)2009 and A(H3) viruses (263 and 71 screened, respectively) were resistant.

**Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2010–35/2011**

Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	0	4	8445	30524
A(H1)2009	0	0	7589	19644
A (subtyping not performed)	0	3	593	10360
A (not subtypable)	0	0	0	0
A (H3)	0	1	263	520
A (H1)	0	0	0	0
Influenza B	0	3	5741	14225
<b>Total Influenza</b>	<b>0</b>	<b>7</b>	<b>14186</b>	<b>44749</b>

*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 40/2010–35/2011**



### 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 34–35/2011, two cases of SARI were reported.

Since week 40/2010, 5 240 SARI cases, including 513 related fatalities, have been reported by 10 countries (Table 3). Of the 3 843 hospitalised cases with confirmed influenza virus infection, 3 527 (91.8%) were type A and 316 (8.2%) were type B. Of the 3 119 subtyped influenza A viruses, 3 096 (99.3%) were A(H1)2009 and 23 (0.7%) were A(H3) (Table 4). Since week 40/2010, of 2 062 SARI cases admitted to ICU, at least 1 042 (50.5%) required ventilation (Table 5).

**Table 3: Cumulative number of SARI cases, weeks 40/2010–week 35/2011**

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	94		30		
Portugal	418		45		
Belgium	952				
Spain	1621		192		
Malta	55	13.3	1	0.2	413609
Slovakia	234	4.3	22	0.4	5435273
Austria	505		26		
France	790		144		
Ireland	122		23		
Romania	449	7	30	0.4	6413821
Total	5240		513		

**Table 4: Number of SARI cases by influenza type and subtype, week 35/2011 and cumulative for the season**

Virus type/subtype	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A		3527
A(H1)2009		3096
A(subtyping not performed)		408
A(H3)		23
Influenza B		316
Other Pathogen		39
Unknown	2	1358
Total	2	5240

**Table 5: Number of SARI cases by level of care and respiratory support, weeks 40/2010–35/2011**

Respiratory support	ICU	Inpatient ward	Other	Unknown
No respiratory support necessary	178	573	449	
Oxygen therapy	144	205	395	
Respiratory support given unknown	698	340	882	252
Ventilator	1042	22	6	54

*This report was written by an editorial team at the European Centre for Disease Prevention and Control (ECDC): Eeva Broberg, Flaviu Plata, 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. However, after this date published data should not be used for longitudinal comparisons as countries tend to retrospectively update their databases.*

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