

SURVEILLANCE REPORT

Weekly influenza surveillance overview

5 November 2010

Main surveillance developments in week 43/2010 (25 Oct 2010 – 31 Oct 2010)

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

- The large majority of countries continue to report low rates and unchanging trends in sentinel physician consultations for influenza-like illness and acute respiratory infection.
- During week 43/2010, nine (2.6%) of 344 sentinel specimens tested positive for influenza virus. Sixteen of 18 influenza viruses detected in sentinel and non-sentinel specimens were type A, and the other two were type B. Of the 10 subtyped, eight were A(H1)2009 and two were A(H3).
- Rare detections of influenza virus along with sporadic detections of respiratory syncytial virus in a number of European countries suggest that the low influenza-like illness and acute respiratory infection activity currently observed is likely due to respiratory pathogens other than influenza.
- One SARI case considered not to be related to flu was reported during week 43/2010.

Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI): All of the 22 countries reporting for week 43 continued to report low activity and most of them observed unchanging trends. For more information, [click here](#).

Virological surveillance: Sentinel physicians collected 344 specimens, nine (2.6%) of which were positive for influenza virus. Of the 18 influenza viruses detected from sentinel and non-sentinel sources during week 43/2010, 16 were type A and two were type B. To date this season, both influenza A(H3), A (H1) 2009 and influenza B viruses (Yamagata- and the Victoria-lineage) have been detected by laboratories, though all in small numbers. For more information, [click here](#).

Hospital surveillance of severe acute respiratory infection (SARI): One SARI case was reported during week 43/2010; no influenza virus was detected from this patient. For more information, [click here](#).

Sentinel surveillance (ILI/ARI)

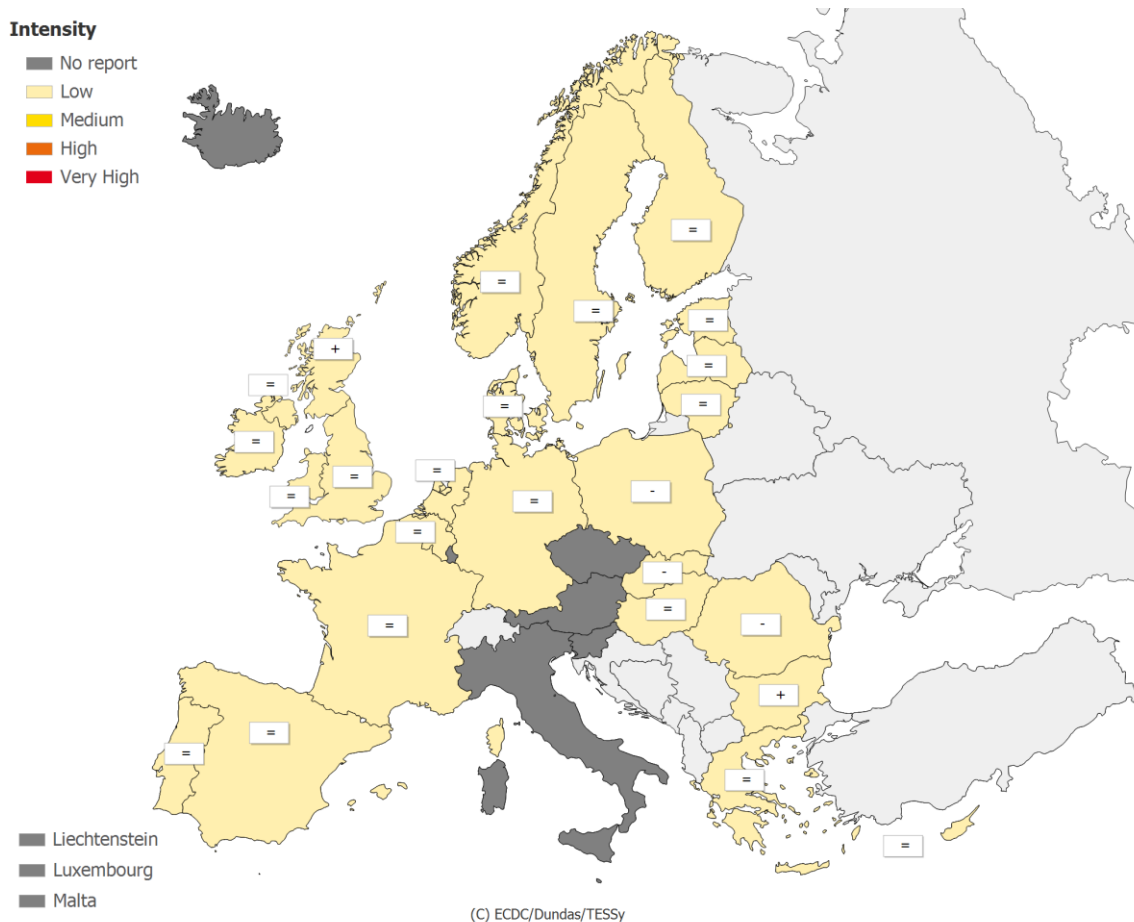
Weekly analysis – epidemiology

During week 43/2010, 22 of 29 countries reported epidemiological data. All countries continued to experience low intensity (Map 1, Table 1).

For the geographic spread indicator, Cyprus, Estonia, France, Germany, and the UK reported sporadic cases, while all other countries reported no activity (Map 2, Table 1).

Bulgaria and UK (Scotland) reported an increase in consultation rates for ILI/ARI compared to the previous week. The remaining countries reported stable or decreasing trends (Map 1 and Table 1). Consultation rates continue to be at national baseline levels for all reporting countries.

Map 1: Intensity for week 43/2010



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

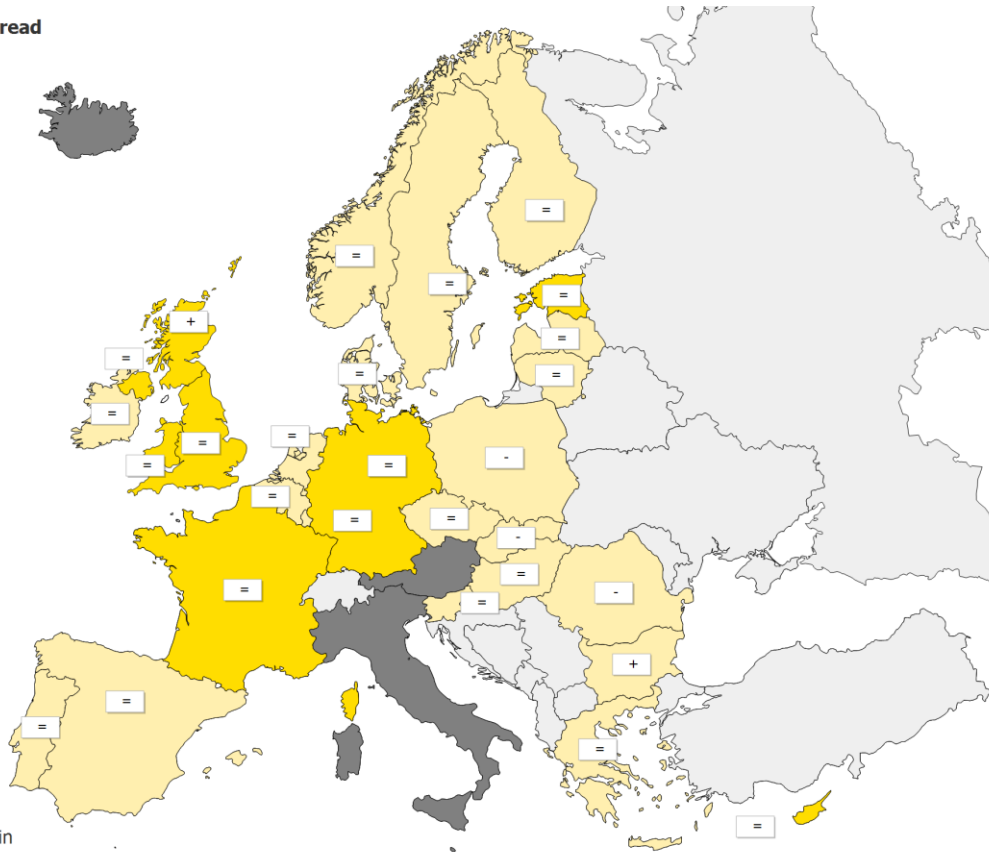
Legend:

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 week 43/2010

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:

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, week 43/2010

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	0.0	-	-	Graphs	Graphs
Belgium	Low	No activity	Stable	6	-	0.0	26.5	741.9	Graphs	Graphs
Bulgaria	Low	No activity	Increasing	0	None	0.0	-	673.5	Graphs	Graphs
Cyprus	Low	Sporadic	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Czech Republic				16	None	0.0	-	-	Graphs	Graphs
Denmark	Low	No activity	Stable	0	None	0.0	58.0	0.0	Graphs	Graphs
Estonia	Low	Sporadic	Stable	8	None	0.0	4.9	288.0	Graphs	Graphs
Finland	Low	No activity	Stable	15	None	0.0	-	-	Graphs	Graphs
France	Low	Sporadic	Stable	24	None	0.0	-	1469.4	Graphs	Graphs
Germany	Low	Sporadic	Stable	19	None	10.5	-	907.4	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	0.0	63.2	-	Graphs	Graphs
Hungary	Low	No activity	Stable	35	None	0.0	90.4	-	Graphs	Graphs
Iceland				-	-	0.0	-	-		
Ireland	Low	No activity	Stable	2	None	0.0	5.7	-	Graphs	Graphs
Italy				-	-	0.0	-	-		
Latvia	Low	No activity	Stable	0	None	0.0	0.0	870.9	Graphs	Graphs
Lithuania	Low	No activity	Stable	-	-	0.0	0.3	342.3	Graphs	Graphs
Luxembourg				-	-	0.0	-	-		
Malta				-	-	0.0	-	-		
Netherlands	Low	No activity	Stable	13	None	0.0	23.8	-	Graphs	Graphs
Norway	Low	No activity	Stable	-	-	0.0	23.6	-	Graphs	Graphs
Poland	Low	No activity	Decreasing	19	None	0.0	48.2	-	Graphs	Graphs
Portugal	Low	No activity	Stable	1	None	0.0	9.4	-	Graphs	Graphs
Romania	Low	No activity	Decreasing	10	None	0.0	9.3	829.2	Graphs	Graphs
Slovakia	Low	No activity	Decreasing	4	None	0.0	175.7	1516.8	Graphs	Graphs
Slovenia				2	None	0.0	-	-	Graphs	Graphs
Spain	Low	No activity	Stable	71	None	2.8	16.4	-	Graphs	Graphs
Sweden	Low	No activity	Stable	0	None	0.0	4.2	-	Graphs	Graphs
UK - England	Low	Sporadic	Stable	78	None	5.1	8.8	388.4	Graphs	Graphs
UK - Northern Ireland	Low	Sporadic	Stable	0	None	0.0	21.4	336.1	Graphs	Graphs
UK - Scotland	Low	Sporadic	Increasing	21	None	4.8	2.6	256.5	Graphs	Graphs
UK - Wales	Low	Sporadic	Stable	-	-	0.0	5.9	-	Graphs	Graphs
Europe				344		2.6				Graphs

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

In week 43/2010, 20 countries reported virological data. Sentinel physicians collected 344 specimens, nine (2.6%) of which were positive for influenza virus (Tables 1 and 2). In addition, nine non-sentinel source specimens (e.g., specimens collected for diagnostic purpose in hospitals) were reported positive for influenza virus. Of the 18 influenza viruses detected from sentinel and non-sentinel sources during week 43/2010, 16 (88.9%) were type A and two (11.1%) were type B. These detections were reported by Germany, Spain, and the UK (England, Northern Ireland and Scotland).

Ten of the 16 influenza A viruses detected in week 43/2010 were subtyped: eight as pandemic influenza A(H1)2009 virus and two as A(H3). Table 2 shows the distribution of both sentinel and non-sentinel specimens by type and subtype. Figures 1–3 show the trends of virological detections since week 40/2010.

Since week 40/2010, six viruses from sentinel and non-sentinel samples were characterised antigenically (Table 3); three of these were A/California/7/2009 (H1N1)-like virus. Among the characterised influenza B viruses, both, the Yamagata- and the Victoria-lineage were represented.

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

In week 43/2010, 11 countries reported 89 detections of respiratory syncytial virus, a number within the range of the previous season (Figure 4).

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2010–43/2010

Virus type/subtype	Current Period		Season		
	Sentinel	Non-sentinel	Sentinel	Non-sentinel	
Influenza A		8	8	17	27
A (pandemic H1N1)		5	3	10	5
A (subtyping not performed)		1	5	3	18
A (not subtypable)		0	0	0	1
A (H3)		2	0	4	3
A (H1)		0	0	0	0
Influenza B		1	1	7	4
Total Influenza		9	9	24	31

Note: A(pandemic H1), A(H3) and A(H1) includes both N-subtyped and not N-subtyped viruses

Figure 1: Number of sentinel specimens positive for influenza, by type, subtype and by week of report, weeks 40/2010–43/2010

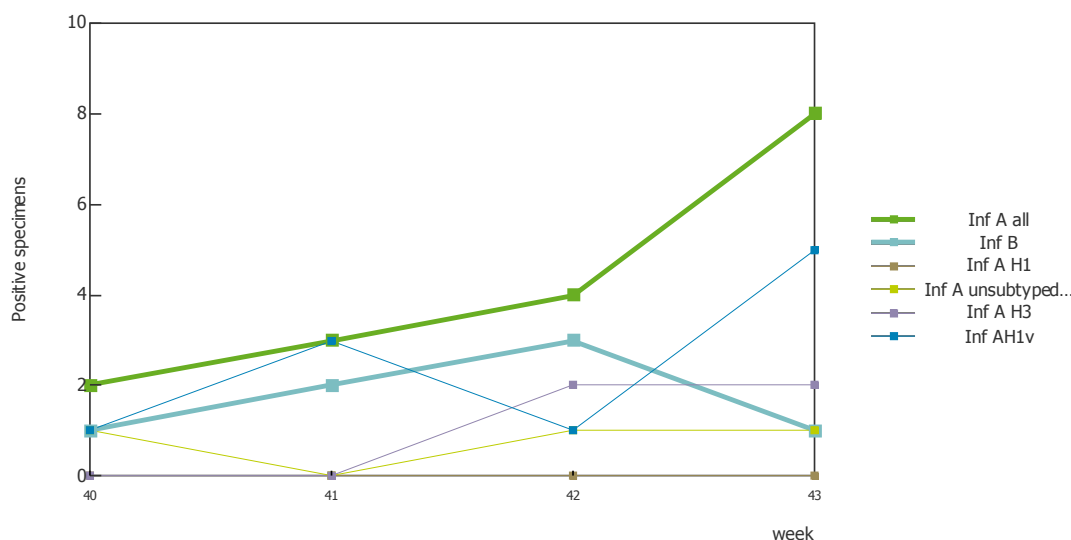


Figure 2: Number of non-sentinel specimens positive for influenza by type, subtype and week of report, weeks 40/2010–43/2010

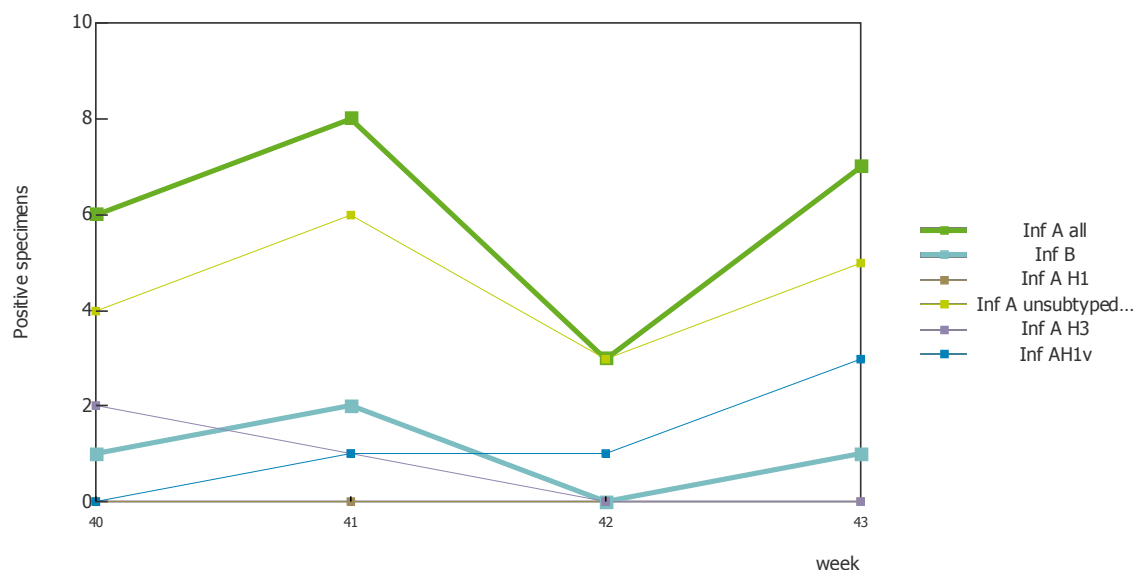


Figure 3: Proportion of sentinel samples positive for influenza, weeks 40/2010–43/2010

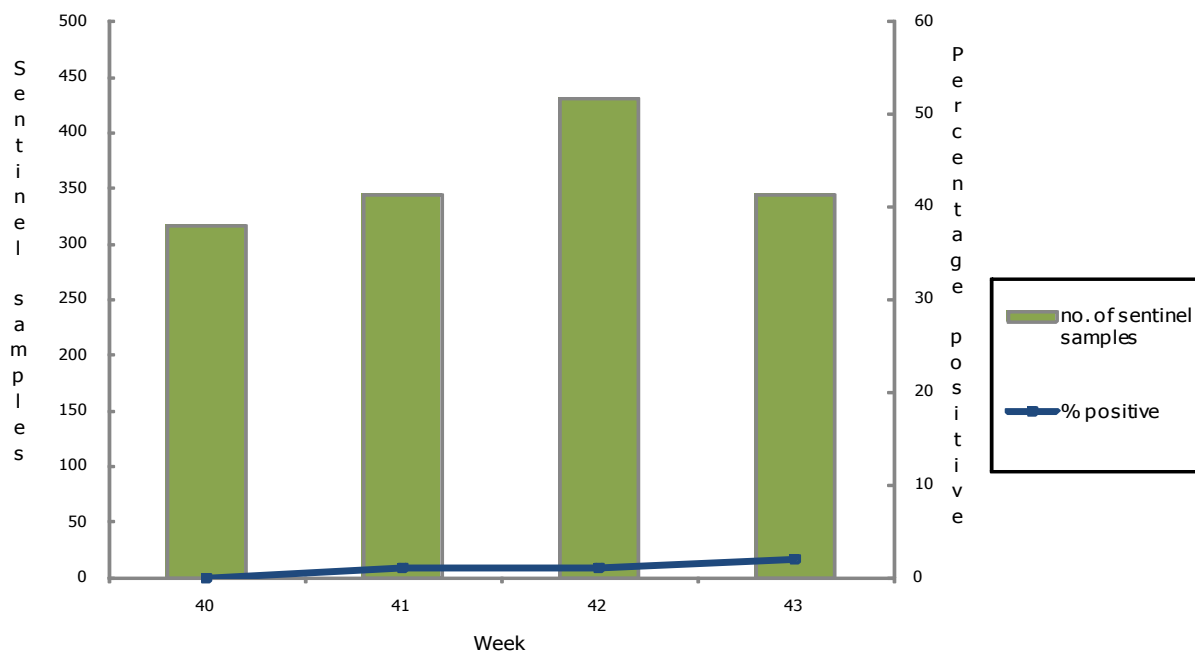
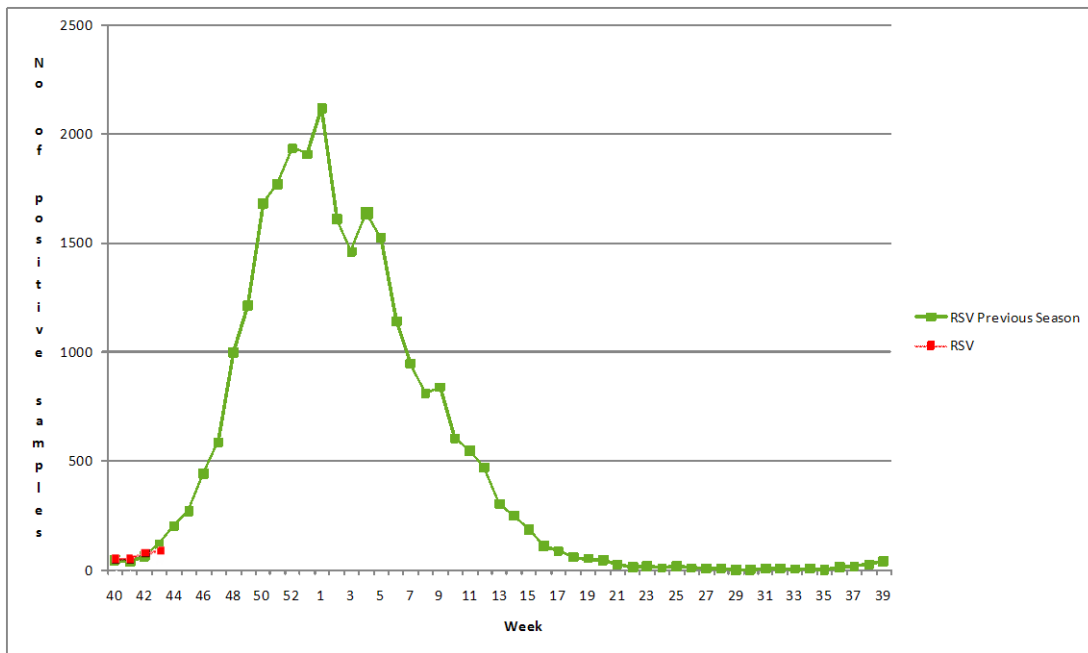


Table 3: Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40/2010–43/2010

Strain name	Number of strains
A(H1)v California/7/2009-like	3
A(H3) A/Brisbane/10/2007 (H3N2)-like	0
A(H3) A/Perth/16/2009 (H3N2)-like	0
B/Brisbane/60/2008-like (B/Victoria/2/87 lineage)	3
B/Florida/4/2006-like (B/Yamagata/16/88 lineage)	1

Figure 4: Respiratory syncytial virus detections, sentinel and non-sentinel, weeks 40/2010–43/2010



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

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 week 43/2010, one SARI case was reported in Romania. Since week 40/2010 four SARI cases have been reported. Influenza virus was not detected in any of these cases and none of the individuals had been vaccinated against influenza (Tables 4, 5 and 6).

Table 4: Number of SARI cases by age and gender, week 43/2010

Age groups	Male	Female
18-44	1	
Total	1	

Table 5: Number of SARI cases by influenza type and subtype, week 43/2010

Virus type/subtype	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A		
A (pandemic H1N1)		
A(H3)		
A(H1)		
Influenza B		
Unknown	1	4
Total	1	4

Note: A(pandemic H1), A(H3) and A(H1) includes both N-subtyped and not N-subtyped viruses

Table 6: Number of SARI cases by vaccination status, week 43/2010

Vaccination Status	Number Of Cases	Percentage of cases
Not full pandemic vaccination	0	0
Not vaccinated	1	100
TOTAL	1	

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): Eva Broberg, Flaviu Plata, Phillip Zucs 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, The Netherlands) and Thedi Ziegler (National Institute for Health and Welfare, Finland)

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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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