

SURVEILLANCE REPORT

Weekly influenza surveillance overview

12 November 2010

Main surveillance developments in week 44/2010 (01 Nov 2010 – 07 Nov 2010)

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

- Epidemiological indicators show no or only sporadic influenza activity in 24 of the 25 reporting EU countries. Malta reported local spread and Bulgaria reported medium intensity of acute respiratory infection.
- During week 44, fifteen (4.9%) of 309 sentinel specimens tested positive for influenza virus. Twenty-seven of 41 influenza viruses detected in sentinel and non-sentinel specimens were type A, and 14 were type B. Of the 16 viruses subtyped influenza A viruses, 15 were 2009 pandemic A(H1) and one was A(H3).
- Since week 40/2010, influenza A(H3), 2009 pandemic A(H1) as well as influenza B viruses of the Yamagata- and the Victoria-lineages have been detected.
- Three SARI cases, not related to influenza, were reported during week 44/2010.
- 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.

Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI): Bulgaria reported medium activity based on consultations for ARI. The other 24 countries reported low activity of ILI/ARI and most of them observed unchanging trends. Malta reported local geographic spread. For more information, [click here](#).

Virological surveillance: Sentinel physicians collected 309 specimens, fifteen (4.9%) of which were positive for influenza virus. Of the 41 influenza viruses detected from sentinel and non-sentinel sources during week 44/2010, 27 were type A and 14 were type B. During the current season, influenza A(H3), 2009 pandemic A(H1) as well as influenza B viruses of the Yamagata- and the Victoria-lineages have been detected. For more information, [click here](#).

Hospital surveillance of severe acute respiratory infection (SARI): Three SARI cases were reported during week 44/2010; no influenza virus was detected from these patients. For more information, [click here](#).

Sentinel surveillance (ILI/ARI)

Weekly analysis – epidemiology

During week 44/2010, 25 of 29 countries reported epidemiological data. Twenty-four countries continued to experience low intensity (Map 1, Table 1), and one, Bulgaria, reported medium intensity based on consultations for ARI.

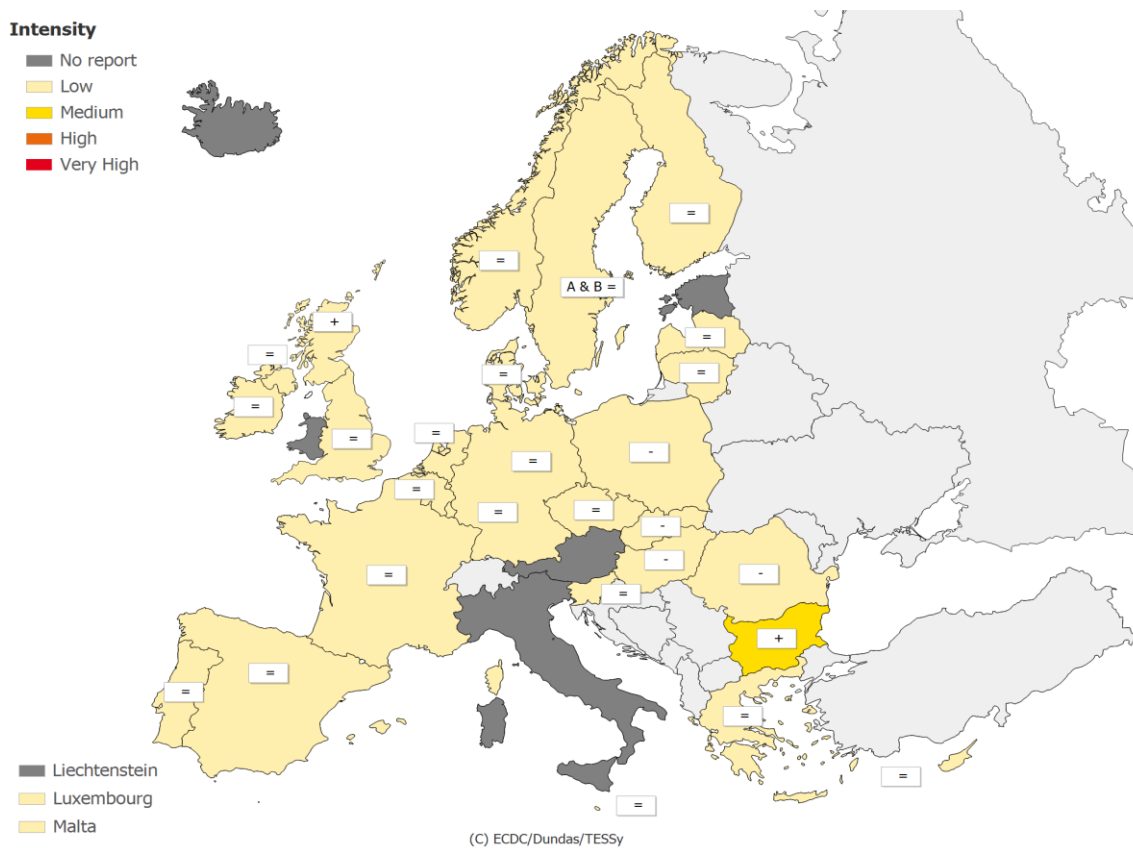
For the geographic spread indicator, Malta reported local spread, and Cyprus, Czech Republic, France, Norway, and the UK reported sporadic cases. All other countries reported no activity (Map 2, Table 1).

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 or below national baseline levels for all countries that reported.

For comparison with the 2009-2010 season, please refer to the ECDC special report on the 2009 influenza A(H1N1) pandemic:

http://ecdc.europa.eu/en/publications/Publications/101108_SPR_pandemic_experience.pdf

Map 1: Intensity for week 44/2010



* 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	A & B	Type A and B

Map 2: Geographic spread for week 44/2010

Geographic spread

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

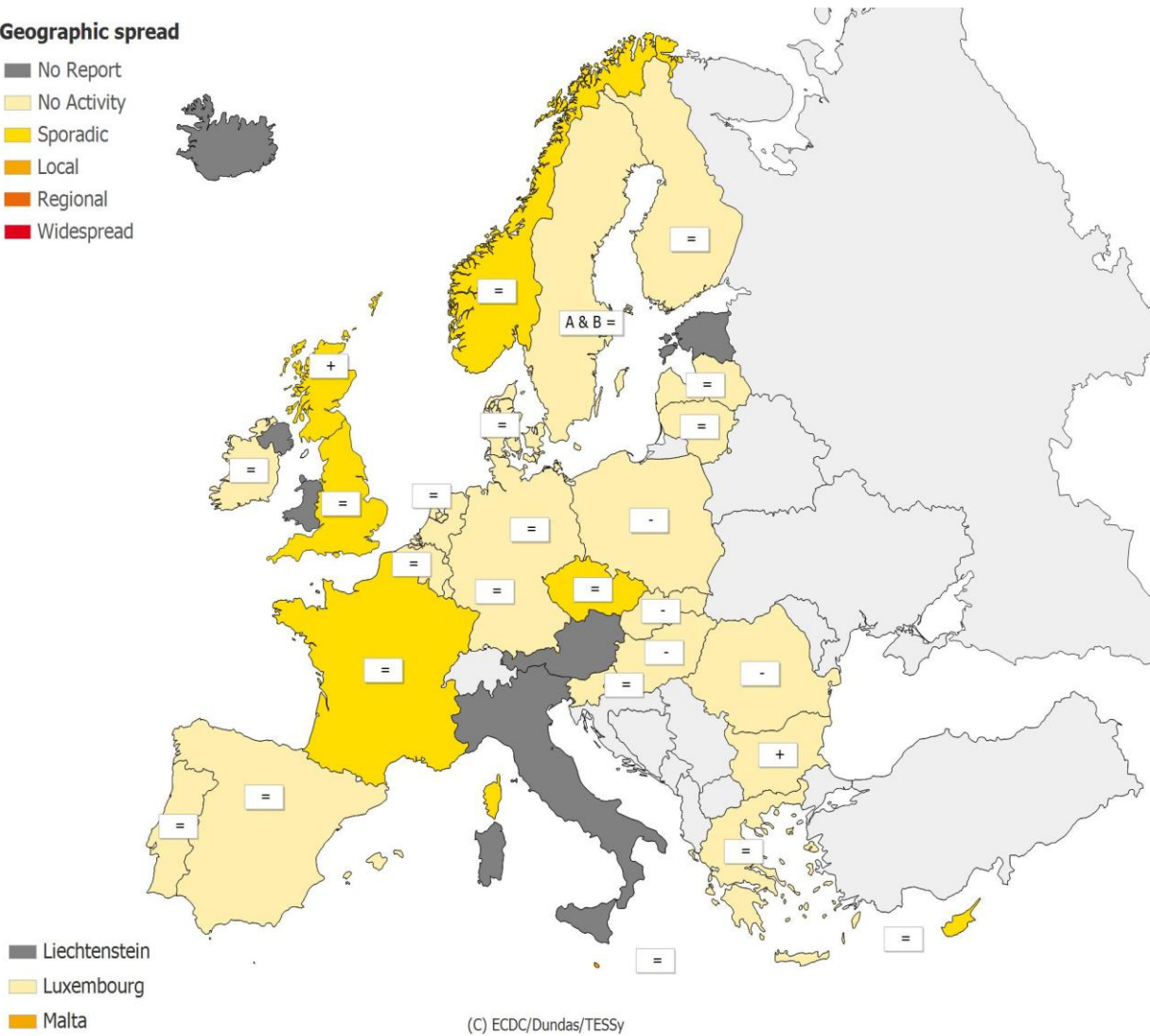


Table 1: Epidemiological and virological overview by country, week 44/2010

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	13	None	0.0	31.3	827.5	Graphs	Graphs
Bulgaria	Medium	No activity	Increasing	0	None	0.0	-	876.1	Graphs	Graphs
Cyprus	Low	Sporadic	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Czech Republic	Low	Sporadic	Stable	14	None	14.3	17.8	810.9	Graphs	Graphs
Denmark	Low	No activity	Stable	2	None	0.0	64.8	0.0	Graphs	Graphs
Estonia				6	None	0.0	-	-	Graphs	Graphs
Finland	Low	No activity	Stable	8	None	0.0	-	-	Graphs	Graphs
France	Low	Sporadic	Stable	9	None	11.1	-	1206.8	Graphs	Graphs
Germany	Low	No activity	Stable	15	None	0.0	-	826.0	Graphs	Graphs
Greece	Low	No activity	Stable	0	None	0.0	56.8	-	Graphs	Graphs
Hungary	Low	No activity	Decreasing	18	None	0.0	62.2	-	Graphs	Graphs
Iceland				-	-	0.0	-	-		
Ireland	Low	No activity	Stable	7	None	0.0	6.8	-	Graphs	Graphs
Italy				-	-	0.0	-	-		
Latvia	Low	No activity	Stable	0	None	0.0	0.0	809.7	Graphs	Graphs
Lithuania	Low	No activity	Stable	-	-	0.0	0.4	335.6	Graphs	Graphs
Luxembourg	Low	No activity	Stable	1	None	0.0	-*	-*	Graphs	Graphs
Malta	Low	Local	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Netherlands	Low	No activity	Stable	8	None	0.0	27.0	-	Graphs	Graphs
Norway	Low	Sporadic	Stable	1	None	100.0	25.6	-	Graphs	Graphs
Poland	Low	No activity	Decreasing	3	None	0.0	34.6	-	Graphs	Graphs
Portugal	Low	No activity	Stable	1	None	0.0	7.4	-	Graphs	Graphs
Romania	Low	No activity	Decreasing	16	None	0.0	13.6	756.0	Graphs	Graphs
Slovakia	Low	No activity	Decreasing	5	None	0.0	152.0	1373.8	Graphs	Graphs
Slovenia	Low	No activity	Stable	5	None	0.0	0.0	696.4	Graphs	Graphs
Spain	Low	No activity	Stable	61	None	3.3	15.0	-	Graphs	Graphs
Sweden	Low	No activity	Stable	2	AB	0.0	2.5	-	Graphs	Graphs
UK - England	Low	Sporadic	Stable	96	None	8.3	8.0	393.6	Graphs	Graphs
UK - Northern Ireland	Low	Sporadic	Stable	5	None	20.0	29.1	289.0	Graphs	Graphs
UK - Scotland	Low	Sporadic	Increasing	13	None	0.0	1.7	248.7	Graphs	Graphs
UK - Wales				-	-	0.0	-	-		
Europe				309		4.9				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 44/2010, 24 countries reported virological data. Sentinel physicians collected 309 specimens, fifteen (4.9%) of which were positive for influenza virus (Tables 1 and 2). In addition, 26 non-sentinel source specimens (e.g., specimens collected for diagnostic purpose in hospitals) were reported positive for influenza virus. Of the 41 influenza viruses detected from sentinel and non-sentinel sources during week 44/2010, twenty-seven (66%) were type A and fourteen (34%) were type B. These detections were reported by the Czech Republic, France, Norway, Portugal, Spain, Sweden and the UK (England, Northern Ireland and Scotland).

Sixteen of the 27 influenza A viruses detected in week 44/2010 were subtyped: fifteen as the 2009 pandemic influenza A(H1N1) virus and one 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, twenty-three viruses from sentinel and non-sentinel specimens were characterised antigenically (Table 3), 15 (65.2%) of which were A/California/7/2009 (H1N1)-like virus. Among the five influenza B viruses characterised so far, 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 44/2010, 185 detections of respiratory syncytial virus were reported; this number is within the range of the previous season for this time of the year (Figure 4).

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2010–44/2010

Virus type/subtype	Current period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	9	18	29	52
A (pandemic H1N1)	9	6	19	16
A (subtyping not performed)	0	11	3	30
A (H3)	0	1	7	6
A (H1)	0	0	0	0
Influenza B	6	8	18	19
Total Influenza	15	26	47	71

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 40/2010–44/2010

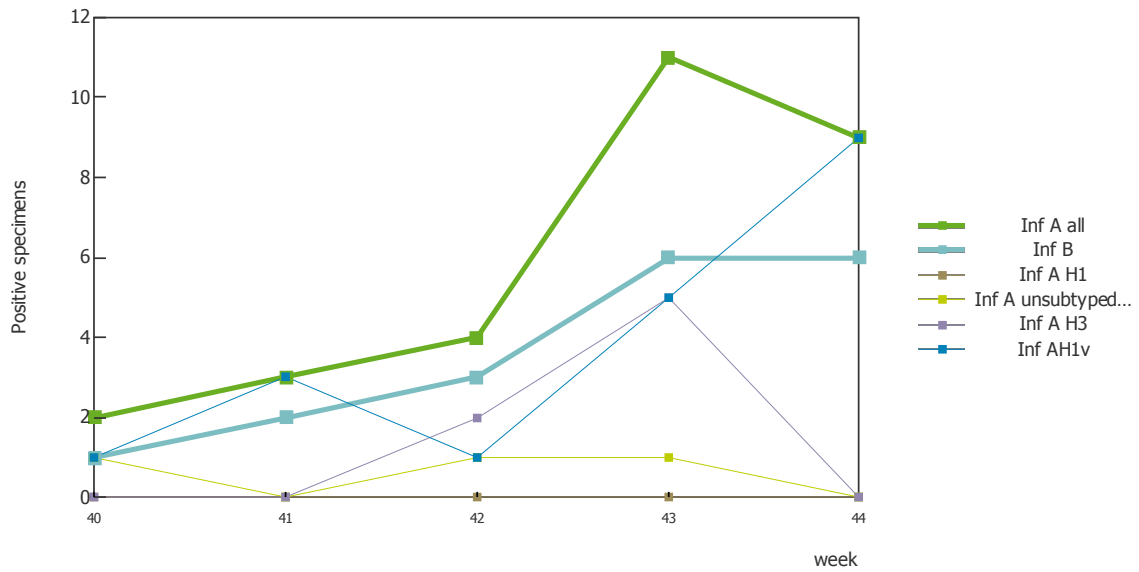


Figure 2: Number of non-sentinel specimens positive for influenza by type, subtype and week of report, weeks 40/2010–44/2010

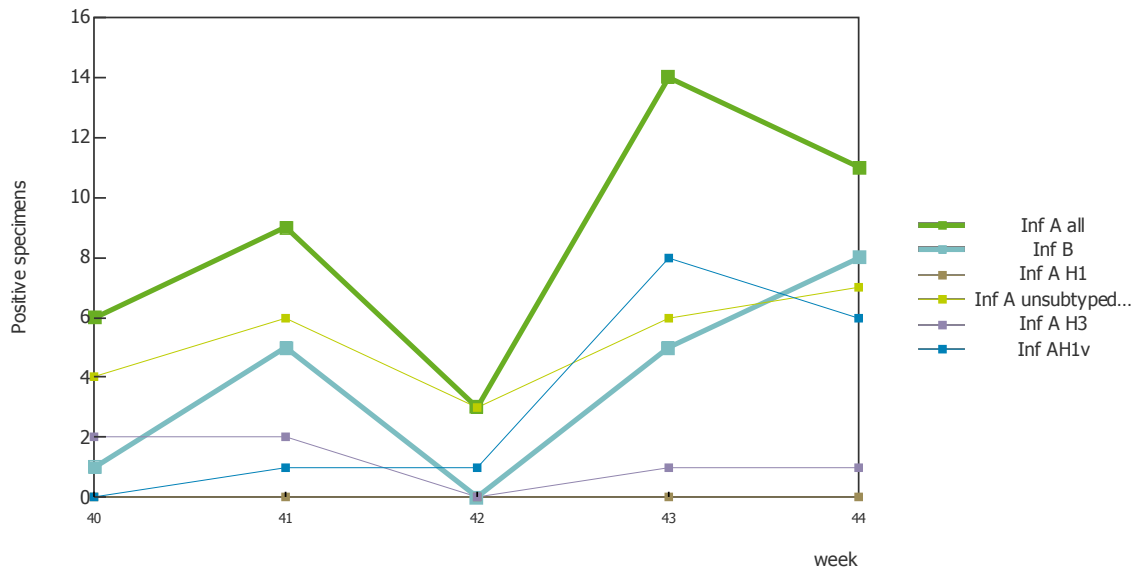


Figure 3: Proportion of sentinel samples positive for influenza, weeks 40/2010–44/2010

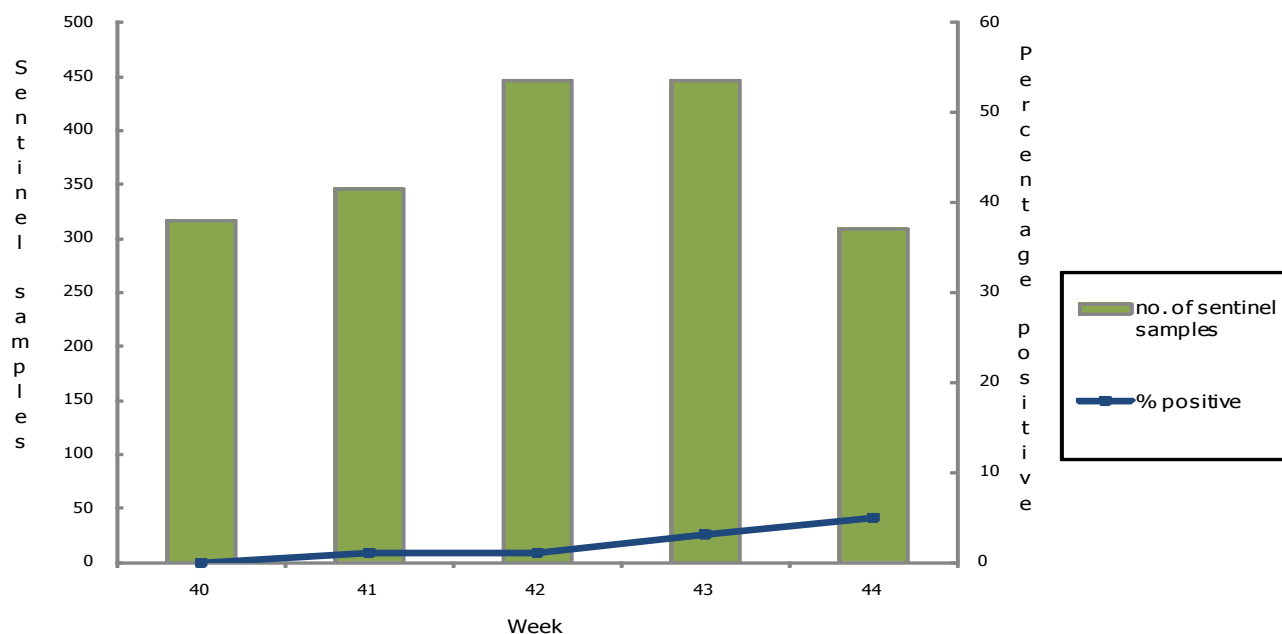
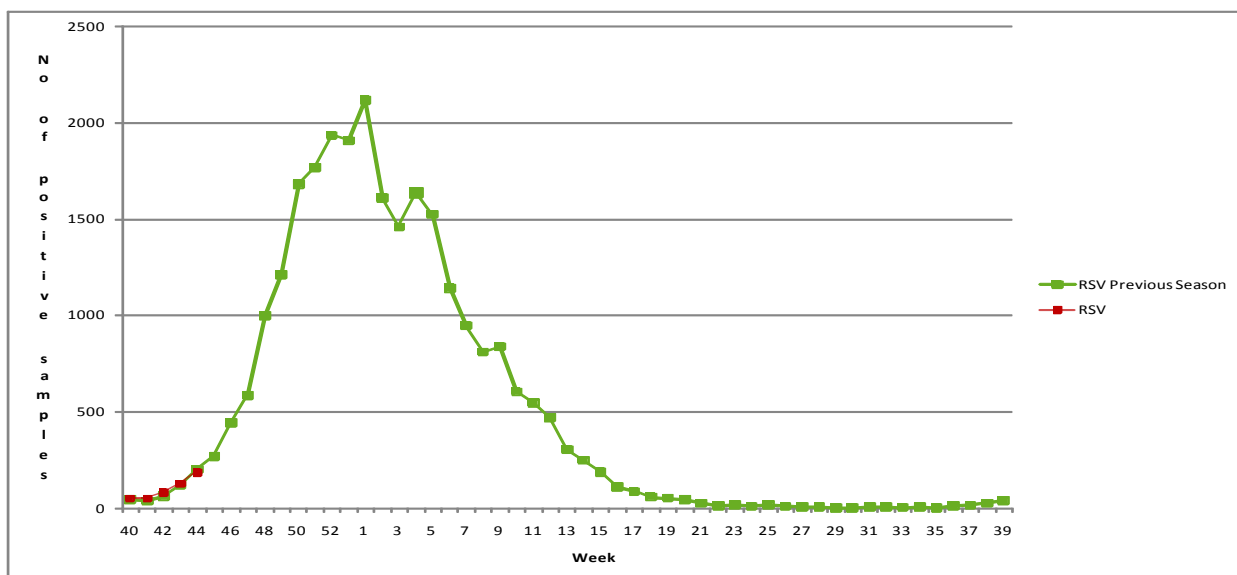


Table 3: Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40/2010–44/2010

Strain name	Number of strains
A(H1)v California/7/2009-like	15
A(H3) A/Brisbane/10/2007 (H3N2)-like	0
A(H3) A/Perth/16/2009 (H3N2)-like	3
B/Brisbane/60/2008-like (B/Victoria/2/87 lineage)	4
B/Florida/4/2006-like (B/Yamagata/16/88 lineage)	1

Figure 4: Respiratory syncytial virus detections, sentinel and non-sentinel, weeks 40/2010–44/2010



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

Country comments

In the Netherlands in week 43, sentinel surveillance detected the first influenza viruses of this season. Two type B influenza viruses were detected: one in a patient with ILI and one in a patient with another acute respiratory infection. The viral load was too low for determination of the lineage. Both patients did not report travel abroad in the weeks before they became ill.

Description of the system

According to the nationally defined sampling strategy, sentinel physicians take nasal or pharyngeal swabs from patients with ILI, 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 44/2010, three sentinel SARI cases were reported in Romania. Since week 40/2010, seven sentinel 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 44/2010

Age groups	Male	Female
Under 2	1	
2-17	2	
Total	3	

Table 5: Number of SARI cases by influenza type and subtype, week 44/2010

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(subtyping not performed)		
A(H3)		
A(H1)		
Influenza B		
Unknown	3	7
Total	3	7

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 44/2010

Vaccination Status	Number Of Cases	Percentage of cases
Vaccinated	0	0
Not vaccinated	3	100
TOTAL	3	

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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