

SURVEILLANCE REPORT

Weekly influenza surveillance overview

19 November 2010

Main surveillance developments in week 45/2010 (08 Nov 2010–14 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 23 of the 24 EU reporting countries. Bulgaria reported medium intensity of acute respiratory infection.
- During week 45, 22 (6.0%) of 369 sentinel specimens tested positive for influenza virus. Thirty-two of 39 influenza viruses detected in sentinel and non-sentinel specimens were type A, and seven were type B. Of the 24 influenza A viruses subtyped, 20 were A(H1)2009 and four were A(H3).
- Since week 40/2010, influenza A(H3), A(H1)2009 and influenza B viruses of the Yamagata and the Victoria lineages have been detected.
- Eleven SARI cases, not related to influenza, were reported during week 45/2010.
- Rare detections of influenza viruses along with sporadic detections of respiratory syncytial viruses 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 23 countries reported low activity of ILI/ARI. Bulgaria, Czech Republic, Hungary and Lithuania reported increasing trends and other 19 reporting countries observed stable or decreasing trends. For more information, [click here...](#)

Virological surveillance: Sentinel physicians collected 369 specimens, 22 (6.0%) of which were positive for influenza virus. Of the 39 influenza viruses detected from sentinel and non-sentinel sources during week 45/2010, 32 were type A and seven were type B. For more information, [click here...](#)

Hospital surveillance of severe acute respiratory infection (SARI): Eleven SARI cases were reported during week 45/2010, but no influenza virus was detected in the patients. For more information, [click here...](#)

Sentinel surveillance (ILI/ARI)

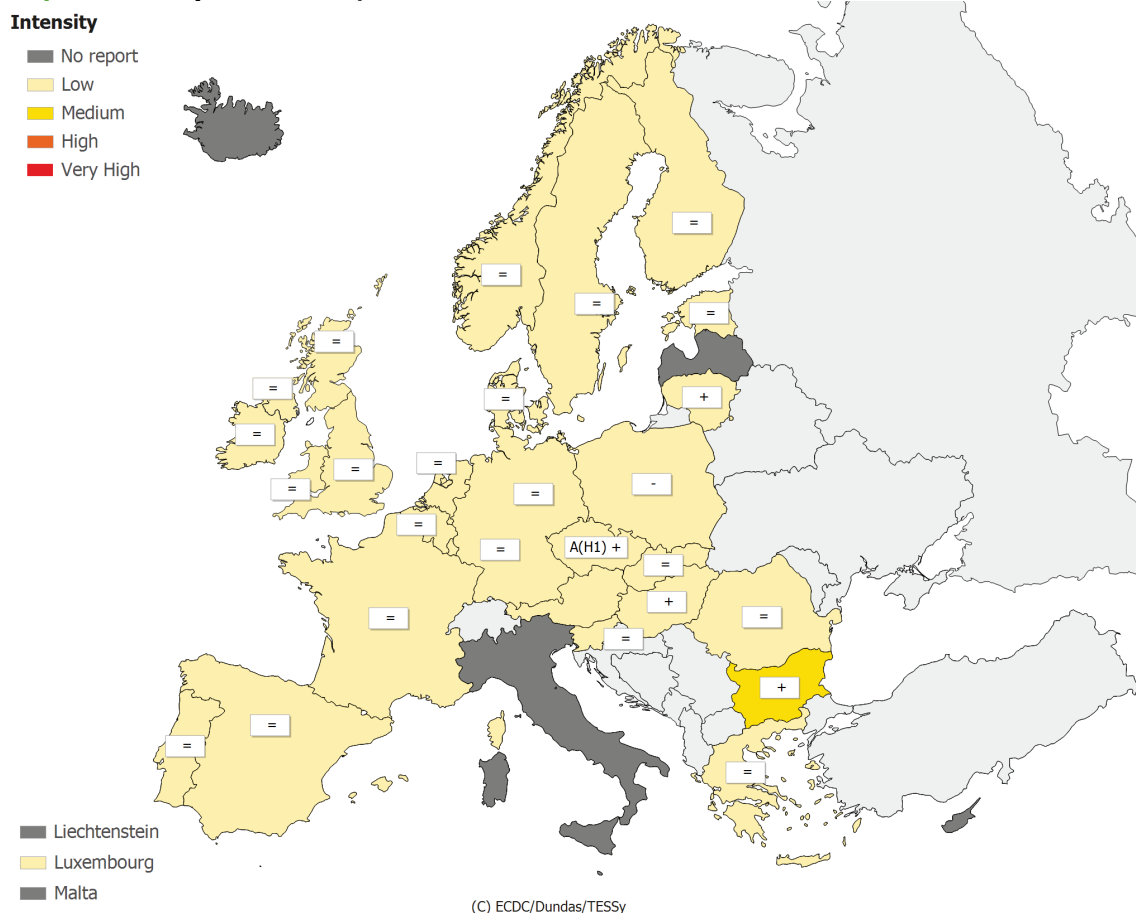
Weekly analysis – epidemiology

During week 45/2010, 24 of 29 countries reported epidemiological data. All countries except Bulgaria continued to experience low intensity (Map 1, Table 1).

For the geographic spread indicator, the Czech Republic, France, Slovenia and the UK (England, Scotland and Wales) reported sporadic cases, while all other countries reported no activity (Map 2, Table 1).

Bulgaria, the Czech Republic, Hungary and Lithuania reported increasing trends; the other 19 reporting countries observed stable or decreasing trends (Map 1 and Table 1). Consultation rates continue to be at national baseline levels in all countries that reported.

Map 1: Intensity for week 45/2010

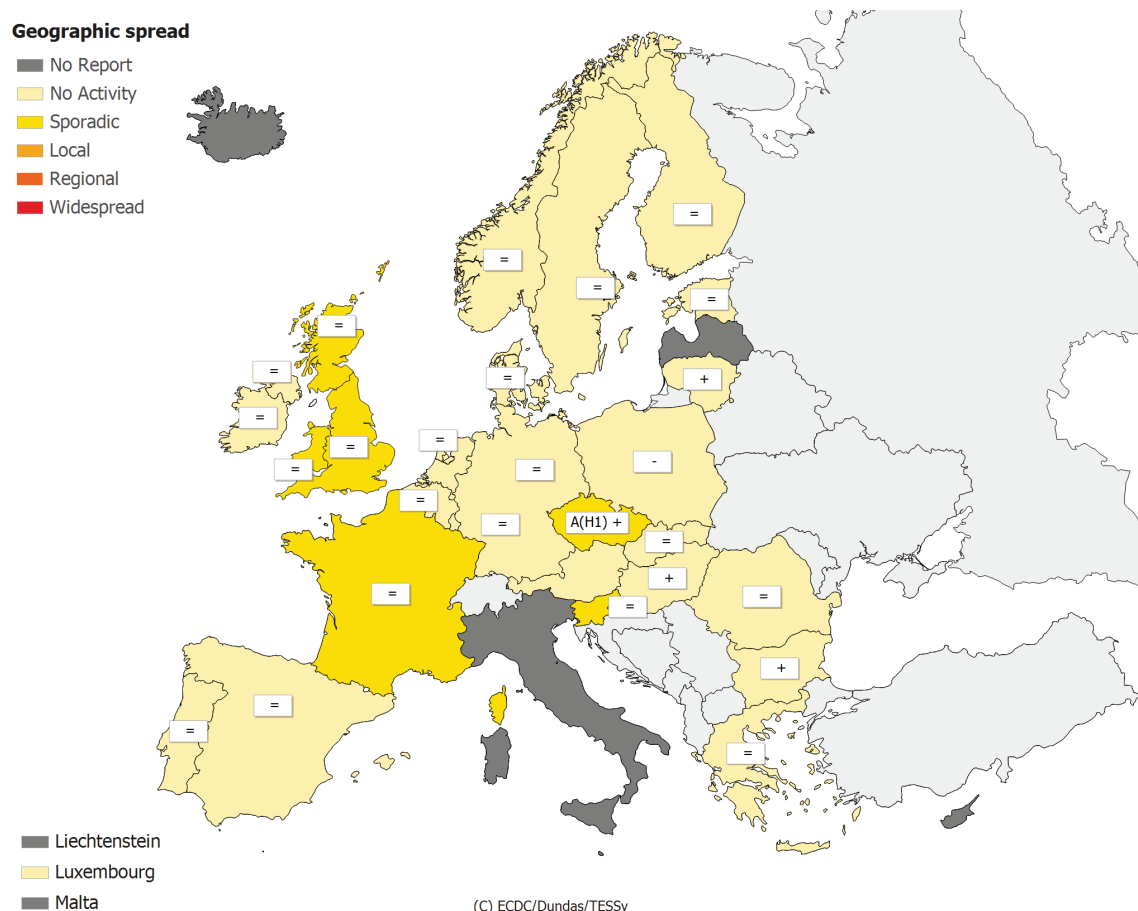


* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

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(H1)	Type A, Subtype H1

Map 2: Geographic spread for week 45/2010



* 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:

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)	A(H1)	Type A, Subtype H1
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 45/2010

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	Low	No activity	Unknown (no information available)	4	None	0.0	-	24.1	Graphs	Graphs
Belgium	Low	No activity	Stable	8	None	0.0	16.2	901.7	Graphs	Graphs
Bulgaria	Medium	No activity	Increasing	1	None	0.0	-	913.5	Graphs	Graphs
Cyprus				-	-	0.0	-	-		
Czech Republic	Low	Sporadic	Increasing	12	AH1	41.7	20.8	825.6	Graphs	Graphs
Denmark	Low	No activity	Stable	10	None	0.0	53.5	0.0	Graphs	Graphs
Estonia	Low	No activity	Stable	7	None	0.0	4.8	242.0	Graphs	Graphs
Finland	Low	No activity	Stable	16	None	0.0	-	-	Graphs	Graphs
France	Low	Sporadic	Stable	15	None	0.0	-	1094.3	Graphs	Graphs
Germany	Low	No activity	Stable	22	None	0.0	-	900.9	Graphs	Graphs
Greece	Low	No activity	Stable	-	-	0.0	51.3	-	Graphs	Graphs
Hungary	Low	No activity	Increasing	-	-	0.0	71.7	-	Graphs	Graphs
Iceland				-	-	0.0	-	-		
Ireland	Low	No activity	Stable	7	None	0.0	8.7	-	Graphs	Graphs
Italy				-	-	0.0	-	-		
Latvia				0	None	0.0	-	-	Graphs	Graphs
Lithuania	Low	No activity	Increasing	-	-	0.0	0.4	394.1	Graphs	Graphs
Luxembourg	Low	No activity	Stable	1	None	0.0	-*	-*	Graphs	Graphs
Malta				-	-	0.0	-	-		
Netherlands	Low	No activity	Stable	12	None	0.0	23.9	-	Graphs	Graphs
Norway	Low	No activity	Stable	0	None	0.0	31.5	-	Graphs	Graphs
Poland	Low	No activity	Decreasing	7	None	0.0	27.6	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	0.0	6.8	-	Graphs	Graphs
Romania	Low	No activity	Stable	17	None	5.9	9.9	732.7	Graphs	Graphs
Slovakia	Low	No activity	Stable	4	None	0.0	155.9	1418.4	Graphs	Graphs
Slovenia	Low	Sporadic	Stable	9	None	11.1	1.3	950.2	Graphs	Graphs
Spain	Low	No activity	Stable	79	None	8.9	18.7	-	Graphs	Graphs
Sweden	Low	No activity	Stable	15	None	0.0	1.7	-	Graphs	Graphs
UK - England	Low	Sporadic	Stable	108	None	7.4	7.6	382.3	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	10	None	0.0	20.7	350.6	Graphs	Graphs
UK - Scotland	Low	Sporadic	Stable	5	None	0.0	2.6	264.0	Graphs	Graphs
UK - Wales	Low	Sporadic	Stable	-	-	0.0	9.2	-	Graphs	Graphs
Europe				369		6.0				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 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. More details on the surveillance methods and case definitions can be found in the [Overview of surveillance of influenza 2009/2010 in the EU/EEA](#).

Virological surveillance

Weekly analysis – virology

In week 45/2010, 22 countries reported virological data. Sentinel physicians collected 369 specimens, 22 (6.0%) of which were positive for influenza virus (Tables 1 and 2). In addition, 17 non-sentinel source specimens (e.g., specimens collected for diagnostic purpose in hospitals) were reported positive for influenza virus. Of the 39 influenza viruses detected from sentinel and non-sentinel sources during week 45/2010, 32 (82.1%) were type A and seven (17.9%) were type B. These detections were reported by Czech Republic, Germany, the Netherlands, Portugal, Slovenia, Spain and the UK (England Northern Ireland and Scotland).

Twenty four of the 32 influenza A viruses detected in week 45/2010 were subtyped: 20 as A(H1)2009 virus and four 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 over time.

Since week 40/2010, 29 viruses from sentinel and non-sentinel samples were characterised antigenically (Table 3), 17 of them were A/California/7/2009 (H1N1)-like virus. Among the characterised influenza B viruses, both Yamagata and Victoria lineages 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 45/2010, 13 countries reported 222 detections of respiratory syncytial virus, a number within the range of that reported at the same time in the previous season (Figure 4), but clearly increasing, which suggests the start of intensified circulation of RSV.

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2010–45/2010

Virus type/subtype	Current period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	18	14	49	68
A (H1)2009	13	7	34	24
A (subtyping not performed)	1	7	4	38
A (H3)	4	0	11	6
A (H1)	0	0	0	0
Influenza B	4	3	22	23
Total influenza	22	17	71	91

Note: A(H1)2009, A(H3) and A(H1) include 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 40/2010–45/2010

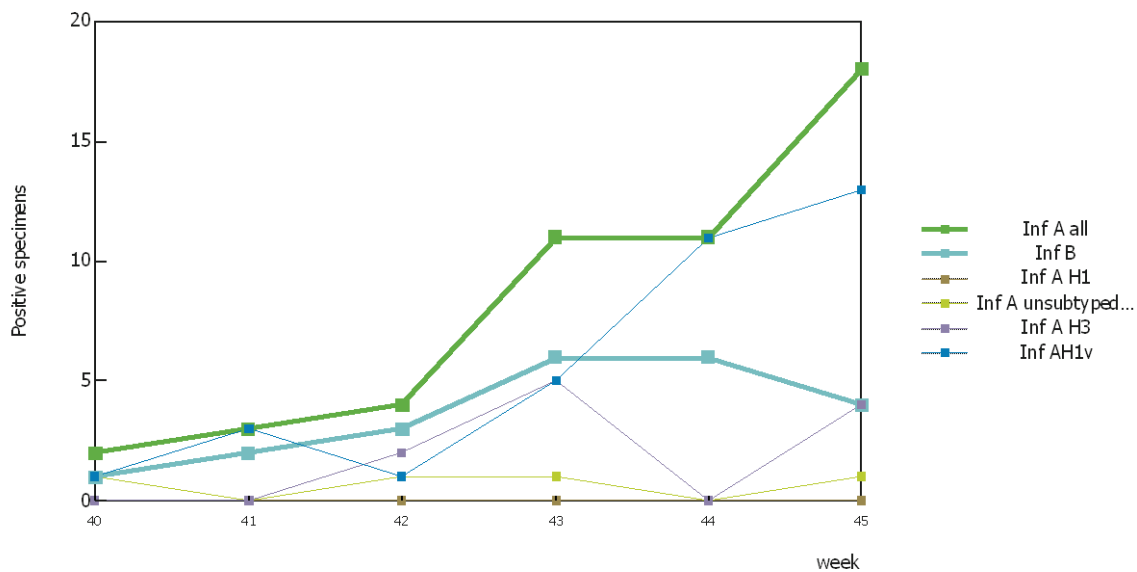


Figure 2: Number of non-sentinel specimens positive for influenza by type, subtype and week of report, weeks 40/2010–45/2010

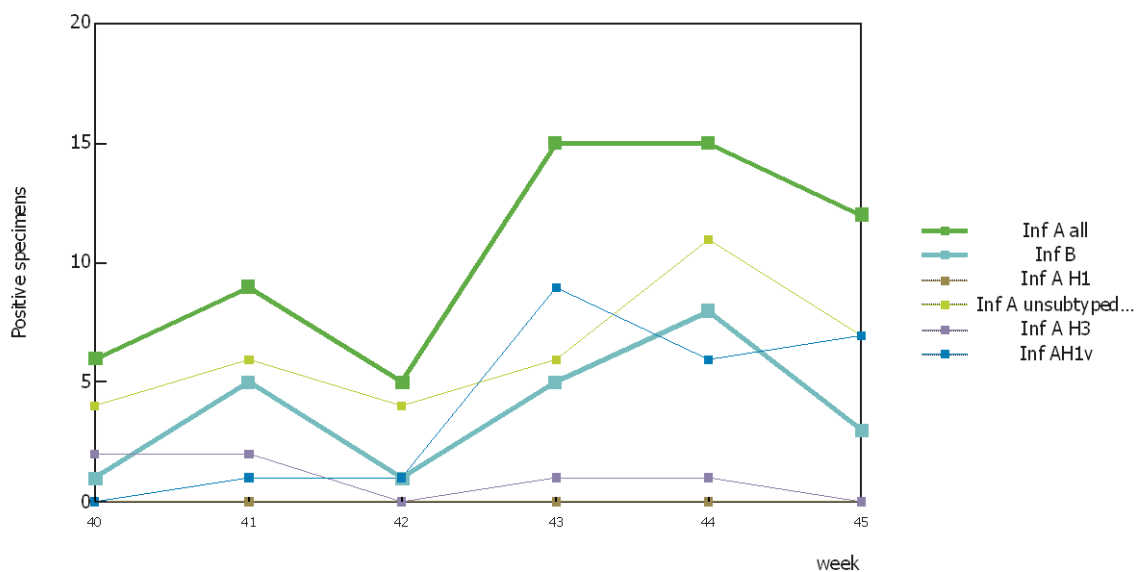


Figure 3: Proportion of sentinel samples positive for influenza, weeks 40/2010–45/2010

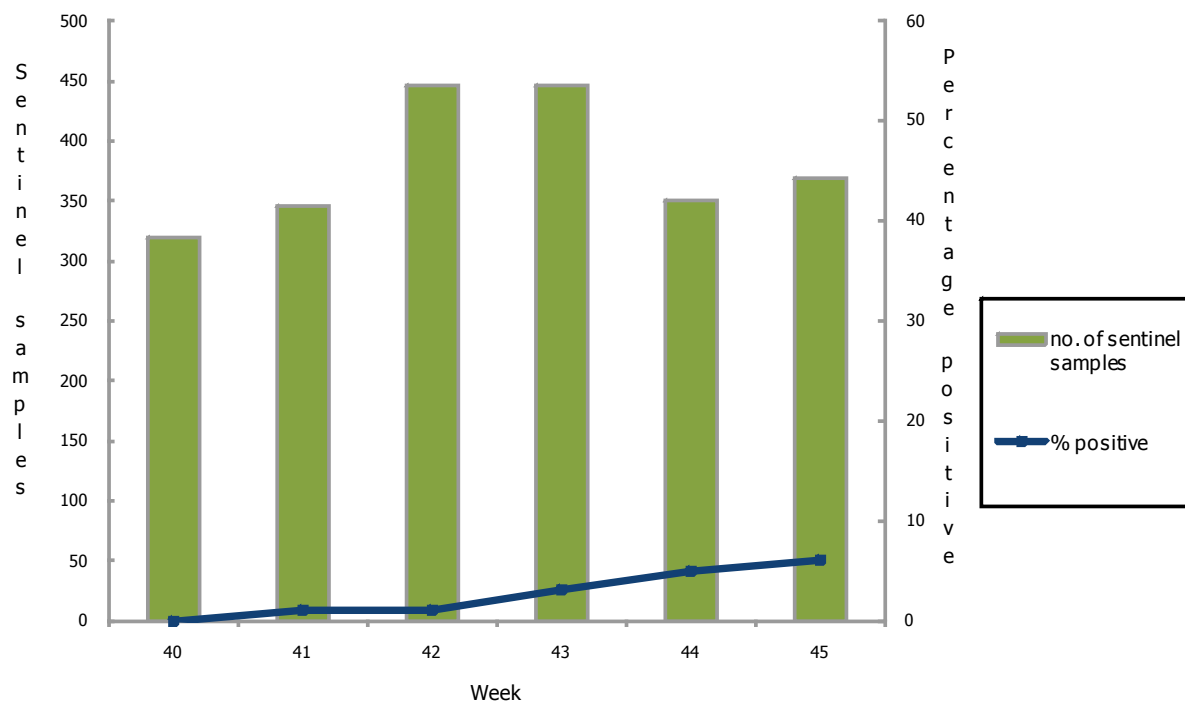
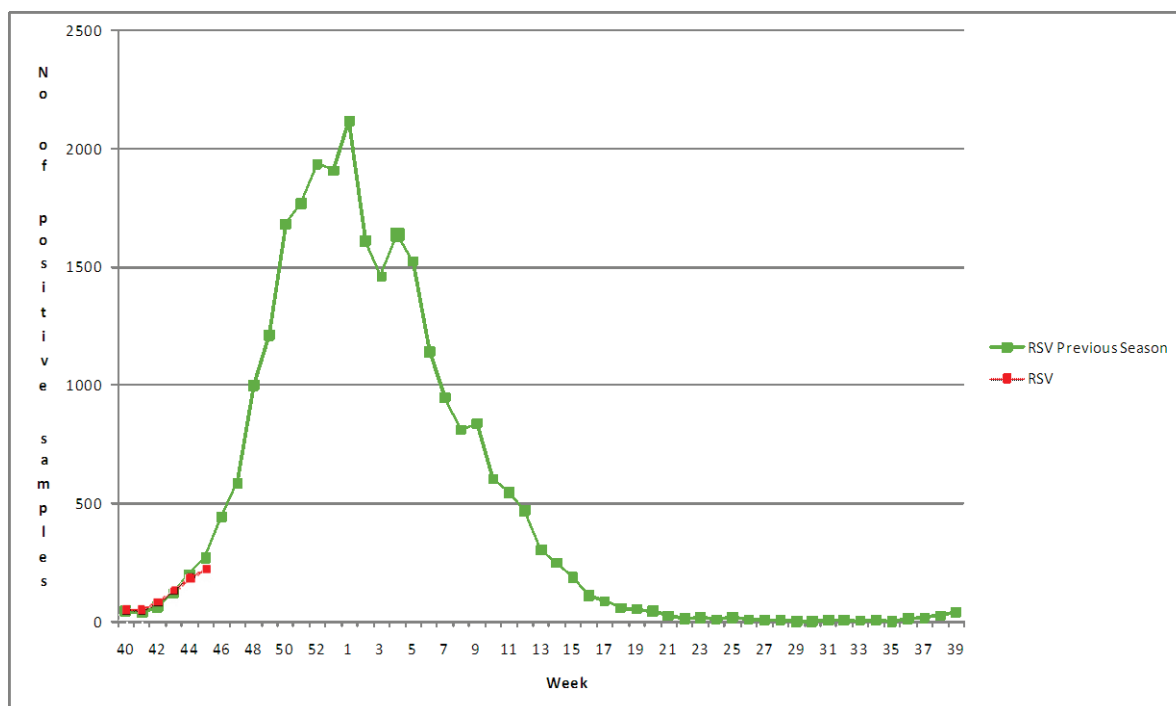


Table 3: Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40/2010–45/2010

Strain name	Number of strains
A/ California/7/2009 (H1N1)-like	17
A/Brisbane/10/2007 (H3N2)-like	0
A/Perth/16/2009 (H3N2)-like	4
B/Brisbane/60/2008-like (B/Victoria/2/87 lineage)	7
B/Florida/4/2006-like (B/Yamagata/16/88 lineage)	1

Figure 4: Respiratory syncytial virus (RSV) detections, sentinel and non-sentinel, weeks 40/2010–45/2010



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. More details on the surveillance methods and case definitions can be found in the [Overview of surveillance of influenza 2009/2010 in the EU/EEA](#).

Hospital surveillance – severe acute respiratory infection (SARI)

Weekly analysis – SARI

During week 45/2010, 11 SARI cases were reported in Romania. Since week 40/2010 a total of 18 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 45/2010

Age groups	Male	Female
Under 2	2	1
2-17	1	1
18-44	3	3
Total	6	5

Table 5: Number of SARI cases by influenza type and subtype, week 45/2010

Virus type/subtype	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A		
A (H1) 2009		
A(subtyping not performed)		
A(H3)		
A(H1)		
A(H5)		
Influenza B		
Unknown	11	18
Total	11	18

Note: A(H1) 2009, A(H3) and A(H1) include both N-subtyped and not N-subtyped viruses.

Table 6: Number of SARI cases by vaccination status, week 45/2010

Vaccination Status	Number Of Cases	Percentage of cases
Not full pandemic vaccination	0	0
Not vaccinated	11	100
TOTAL	11	

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. More details on the surveillance methods and case definitions can be found in the [Overview of surveillance of influenza 2009/2010 in the EU/EEA](#).

The report text was written by an editorial team at the European Centre for Disease Prevention and Control (ECDC): Eeva 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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