

SURVEILLANCE REPORT

Weekly influenza surveillance overview

4 March 2011

Main surveillance developments in week 08/2011 (21 Feb 2011 – 27 Feb 2011)

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

- Most European Union/European Economic Area countries are reporting regional or widespread influenza activity, with medium influenza-like illness (ILI)/acute respiratory infection (ARI) consultation rates and widespread activity. Decreasing ILI/ARI trends were reported by the majority of countries.
- The proportion of influenza virus-positive sentinel specimens has gradually decreased to 36%, after peaking in week 52/2010 at around 56%.
- An increasing proportion of B viruses has been reported. In week 08/2011, 58% of influenza virus detections were type A, and 42% were type B. The latter are reported to be dominant now in a number of countries. Of the 1139 subtyped influenza A viruses, 99% were A(H1N1)2009.
- In week 08/2011, eleven countries reported 149 all-cause severe acute respiratory infection (SARI) and hospitalised confirmed influenza cases. The latter were mostly due to influenza virus A(H1N1)2009 infection.
- Numbers of influenza infections with severe outcome have decreased in western European Union countries that report these. However, the number of cases remains high in Greece. Apart from the Czech Republic, Romania and Slovakia, there is considerable uncertainty about cases with severe respiratory disease due to influenza in a number of other countries in central and eastern European Union countries because of limited hospital surveillance for influenza-associated cases.

Sentinel surveillance of influenza-like illness (ILI)/acute respiratory infection (ARI): During week 08/2011, three countries observed high intensity levels of ILI/ARI. Nineteen countries reported decreasing trends. For more information, [click here](#).

Virological surveillance: Sentinel physicians collected 1 451 specimens, 525 (36.2%) of which tested positive for influenza virus. For more information, [click here](#).

Hospital surveillance of severe acute respiratory infection (SARI): Belgium, Romania and Slovakia reported 90 all-cause SARI cases, while Austria France and Portugal reported 59 hospitalised confirmed influenza cases. For more information, [click here](#).

Sentinel surveillance (ILI/ARI)

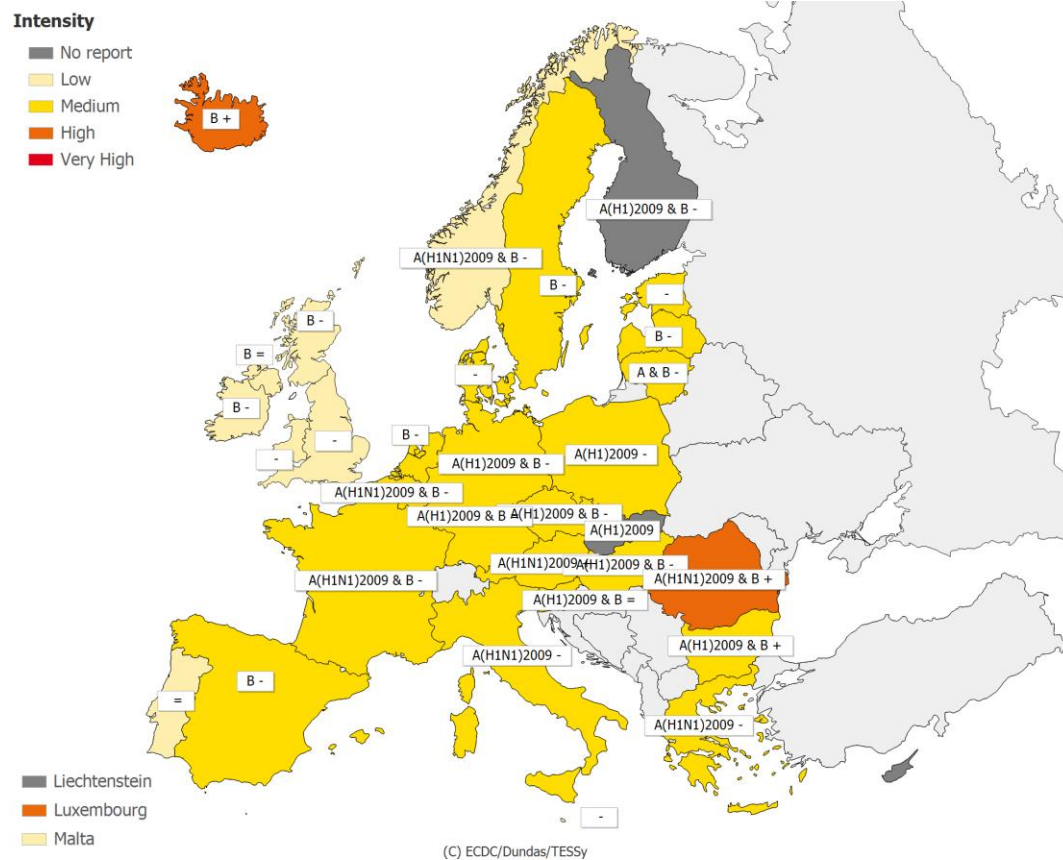
Weekly analysis – epidemiology

During week 08/2011, 27 countries reported clinical data. Three countries (Iceland, Luxembourg and Romania) observed high intensity levels of ILI/ARI. Eighteen countries reported medium intensity, while low intensity was reported by Ireland, Malta, Norway, Portugal, and the UK (Map 1, Table 1).

Seventeen countries across Europe reported widespread activity, four countries reported regional activity, while six reported sporadic or local activity (Map 2, Table 1).

In addition to the three countries (Austria, Iceland and Romania) reporting increasing trends last week, Bulgaria also reported an increasing trend during week 08/2011. Unchanging trends were seen in four countries. Nineteen countries and the UK (England, Scotland and Wales), three more than in week 7/2011, reported decreasing trends (Map 1 and 2, Table 1).

Map 1: Intensity for week 08/2011



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

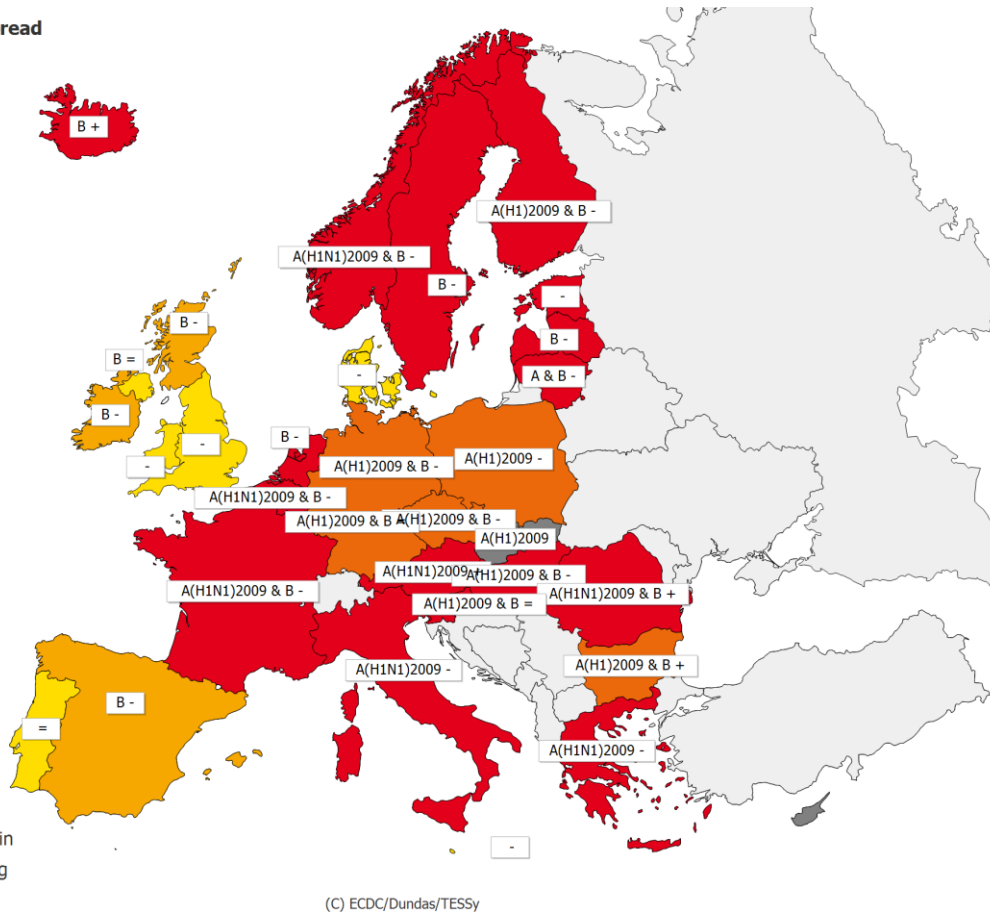
Legend:

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
		A(H1)2009	Type A, Subtype (H1)2009
		A(H1)2009 & B	Type B and Type A, Subtype (H1)2009
		A(H1N1)2009	Type A, Subtype (H1N1)2009
		A(H1N1)2009 & B	Type B and Type A, Subtype (H1N1)2009
		B	Type B

Map 2: Geographic spread for week 08/2011

Geographic spread

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



(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)	A & B	Type A and B
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)	A(H1)2009	Type A, Subtype (H1)2009
		A(H1)2009 & B	Type B and Type A, Subtype (H1)2009
		A(H1N1)2009	Type A, Subtype (H1N1)2009
		A(H1N1)2009 & B	Type B and Type A, Subtype (H1N1)2009
		B	Type B

Table 1: Epidemiological and virological overview by country, **week 08/2011**

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	Medium	Widespread	Increasing	35	A(H1N1)2009	68.6	4.5	23.4	Graphs	Graphs
Belgium	Medium	Widespread	Decreasing	40	BA(H1N1)2009	45.0	181.7	1585.0	Graphs	Graphs
Bulgaria	Medium	Regional	Increasing	22	BA(H1N1)2009	54.5	-	1403.3	Graphs	Graphs
Cyprus				-	-	0.0	-	-		
Czech Republic	Medium	Regional	Decreasing	23	BA(H1N1)2009	43.5	182.8	1314.7	Graphs	Graphs
Denmark	Medium	Sporadic	Decreasing	14	None	42.9	-	-	Graphs	Graphs
Estonia	Medium	Widespread	Decreasing	36	None	11.1	14.4	367.3	Graphs	Graphs
Finland	No information available	Widespread	Decreasing	59	BA(H1N1)2009	35.6	-	-	Graphs	Graphs
France	Medium	Widespread	Decreasing	129	BA(H1N1)2009	37.2	-	1970.0	Graphs	Graphs
Germany	Medium	Regional	Decreasing	196	BA(H1N1)2009	53.1	-	1167.1	Graphs	Graphs
Greece	Medium	Widespread	Decreasing	31	A(H1N1)2009	35.5	211.1	-	Graphs	Graphs
Hungary	Medium	Widespread	Decreasing	117	BA(H1N1)2009	20.5	325.9	-	Graphs	Graphs
Iceland	High	Widespread	Increasing	0	B	0.0	89.0	-	Graphs	Graphs
Ireland	Low	Local	Decreasing	18	B	22.2	23.2	-	Graphs	Graphs
Italy	Medium	Widespread	Decreasing	81	A(H1N1)2009	30.9	512.0	-	Graphs	Graphs
Latvia	Medium	Widespread	Decreasing	12	B	41.7	.*	.*	Graphs	Graphs
Lithuania	Medium	Widespread	Decreasing	14	AB	64.3	71.6	633.6	Graphs	Graphs
Luxembourg	High	Widespread	Stable	22	BA(H1N1)2009	40.9	.*	.*	Graphs	Graphs
Malta	Low	Sporadic	Decreasing	-	-	0.0	.*	.*	Graphs	Graphs
Netherlands	Medium	Widespread	Decreasing	27	B	29.6	52.0	-	Graphs	Graphs
Norway	Low	Widespread	Decreasing	16	BA(H1N1)2009	81.3	105.0	-	Graphs	Graphs
Poland	Medium	Regional	Decreasing	100	A(H1N1)2009	27.0	121.5	-	Graphs	Graphs
Portugal	Low	Sporadic	Stable	3	None	0.0	47.5	-	Graphs	Graphs
Romania	High	Widespread	Increasing	45	BA(H1N1)2009	64.4	71.0	1459.2	Graphs	Graphs
Slovakia				15	A(H1N1)2009	53.3	-	-	Graphs	Graphs
Slovenia	Medium	Widespread	Stable	18	BA(H1N1)2009	88.9	30.8	1057.1	Graphs	Graphs
Spain	Medium	Local	Decreasing	218	B	30.7	81.1	-	Graphs	Graphs
Sweden	Medium	Widespread	Decreasing	43	B	32.6	23.4	-	Graphs	Graphs
UK: England	Low	Sporadic	Decreasing	76	None	1.3	9.1	376.1	Graphs	Graphs
UK: Northern Ireland	Low	Sporadic	Stable	6	B	33.3	30.8	336.0	Graphs	Graphs
UK: Scotland	Low	Local	Decreasing	35	B	17.1	5.7	245.9	Graphs	Graphs
UK: Wales	Low	Sporadic	Decreasing	-	-	0.0	5.7	-	Graphs	Graphs
Europe				1451		36.2			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

Surveillance is based on nationally organised sentinel networks of physicians, mostly general practitioners (GPs), covering at least 1 to 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 08/2011, 27 countries reported virological data. Sentinel physicians collected 1451 specimens, 525 (36.2%) of which tested positive for influenza virus, continuing the decreasing trend seen since week 52/2010 (Table 1, Figure 3). National detection rates increased in ten countries, but decreased in most reporting countries (Table 1). In addition, 1968 non-sentinel source specimens (i.e. specimens collected for diagnostic purposes in hospitals) were reported positive for influenza virus (Table 2).

Of the 2493 influenza viruses detected during week 08/2011, 1 444 (57.9%) were type A and 1 049 (42.1%) were type B. Iceland, Ireland, Latvia, the Netherlands, Spain, Sweden and the UK (Northern Ireland and Scotland) reported influenza B as the dominant type (Table 1). Of the 1139 influenza A viruses that were subtyped, 1 127 (98.9%) were A(H1)2009 and 12 (1.0%) were A(H3) (Table 2).

Since week 40/2010, 34 848 (68.9%) of the 50 616 influenza virus detections in sentinel and non-sentinel specimens were influenza A and 15 768 (31.2%) were influenza B viruses. Of 24 928 influenza A viruses subtyped, 24 400 (97.9%) were A(H1)2009 and 528 (2.1%) were A(H3) (Table 2). Trends of virological detections since week 40/2010 are shown in Figures 1–3.

Since week 40/2010, 2454 influenza viruses from sentinel and non-sentinel specimens have been characterised antigenically (Figure 4): 1 242 (50.6%) as A/California/7/2009 (H1N1)-like; 97 (3.9%) as A/Perth/16/2009 (H3N2)-like; 1 037 (42.3%) as B/Brisbane/60/2008-like (Victoria lineage); and 78 (3.2%) as B/Florida/4/2006-like (Yamagata lineage).

Since week 40/2010, Germany, Ireland, Italy, Norway, Spain, and the UK have reported antiviral resistance data to TESSy. A summary is shown in Table 3. Thirty-two of 849 (4.0%) influenza A(H1)2009 viruses tested for susceptibility to neuraminidase inhibitors were resistant to oseltamivir, but remained sensitive to zanamivir. All the resistant viruses carried the neuraminidase H275Y substitution. Eight of 28 resistant viruses, from patients for whom exposure to antivirals was known, were from patients who had not been treated with oseltamivir.

More details on circulating viruses can be found in the [February 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.

In week 08/2011 fourteen countries reported 822 respiratory syncytial virus detections, a number decreasing for the seventh consecutive week (Figure 5).

Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system; weeks 40/2010–08/2011

Virus type/subtype	Current Period		Season		
	Sentinel	Non-sentinel	Sentinel	Non-sentinel	
Influenza A		195	1249	7884	26964
A(H1)2009		164	963	7038	17362
A (subtyping not performed)		27	278	649	9271
A (not subtypable)		0	0	0	0
A (H3)		4	8	197	331
A (H1)		0	0	0	0
Influenza B		330	719	4639	11129
Total Influenza		525	1968	12523	38093

Note: A(H1)2009, A(H3) and A(H1) includes both N-subtyped and non-N-subtyped viruses.

Figure 1: Number of sentinel specimens positive for influenza, by type, subtype and by week of report; weeks 40/2010–08/2011

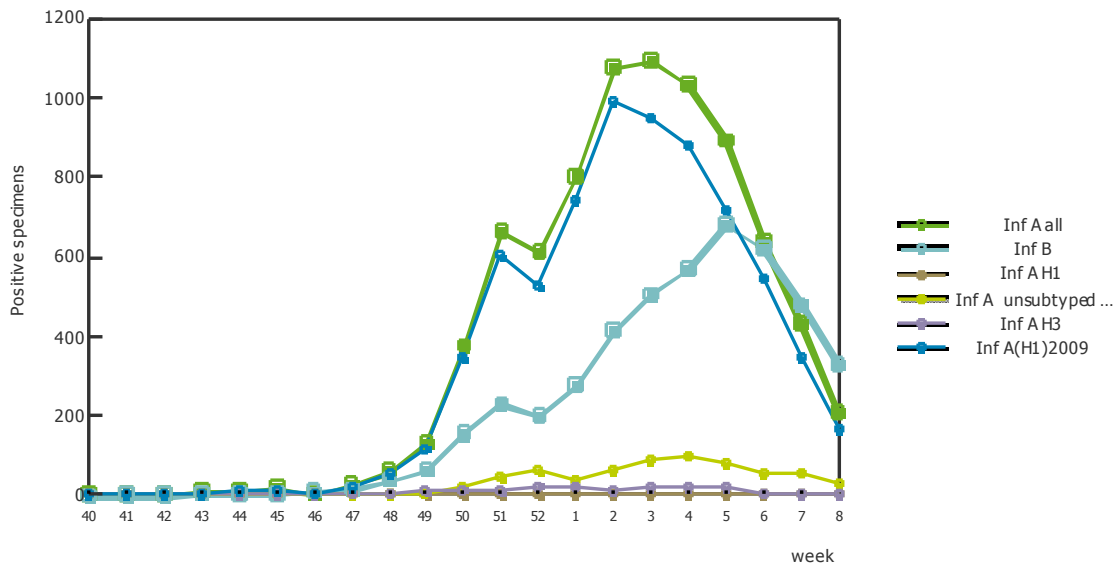


Figure 2: Number of non-sentinel specimens positive for influenza by type, subtype and week of report; weeks 40/2010–08/2011

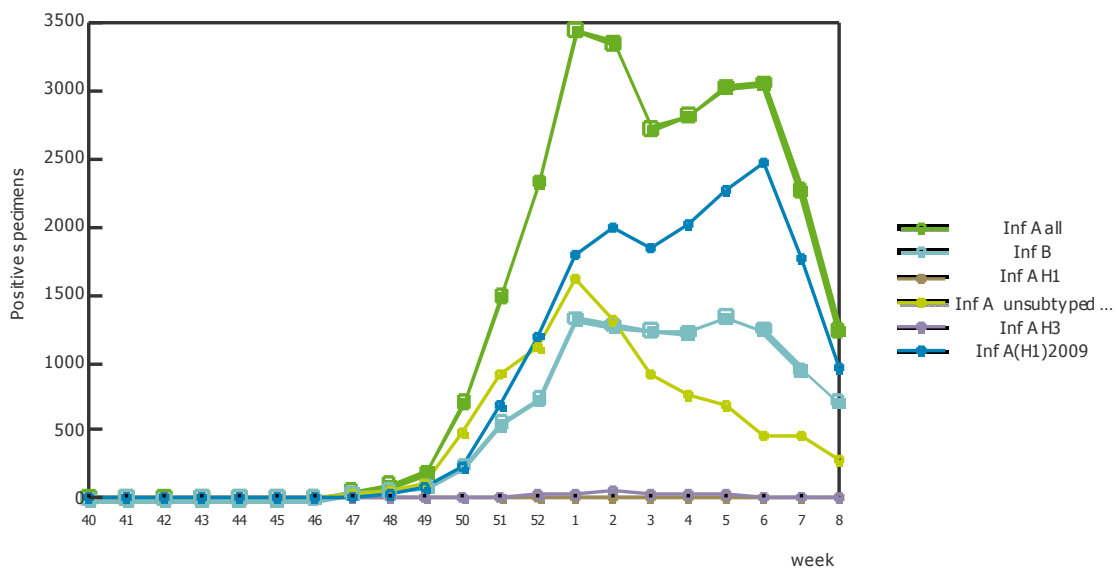


Figure 3: Proportion of sentinel samples positive for influenza, weeks 40/2010–08/2011

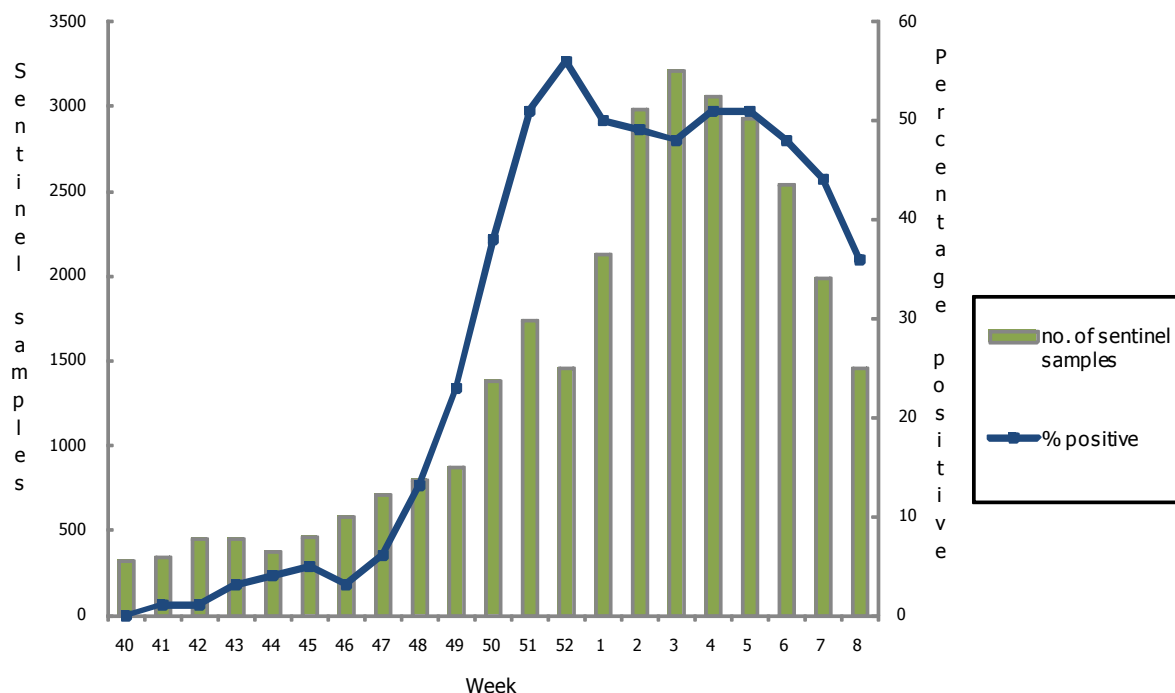


Figure 4: Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40/2010–08/2011

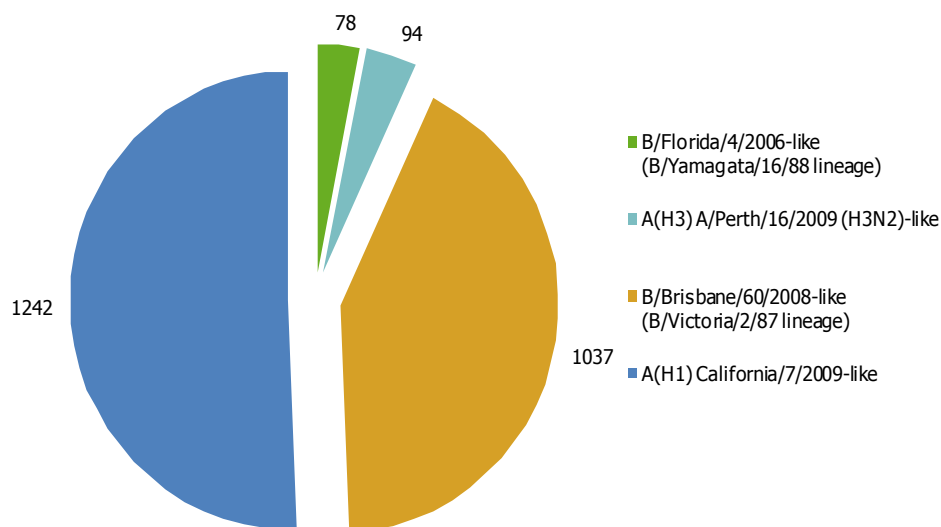


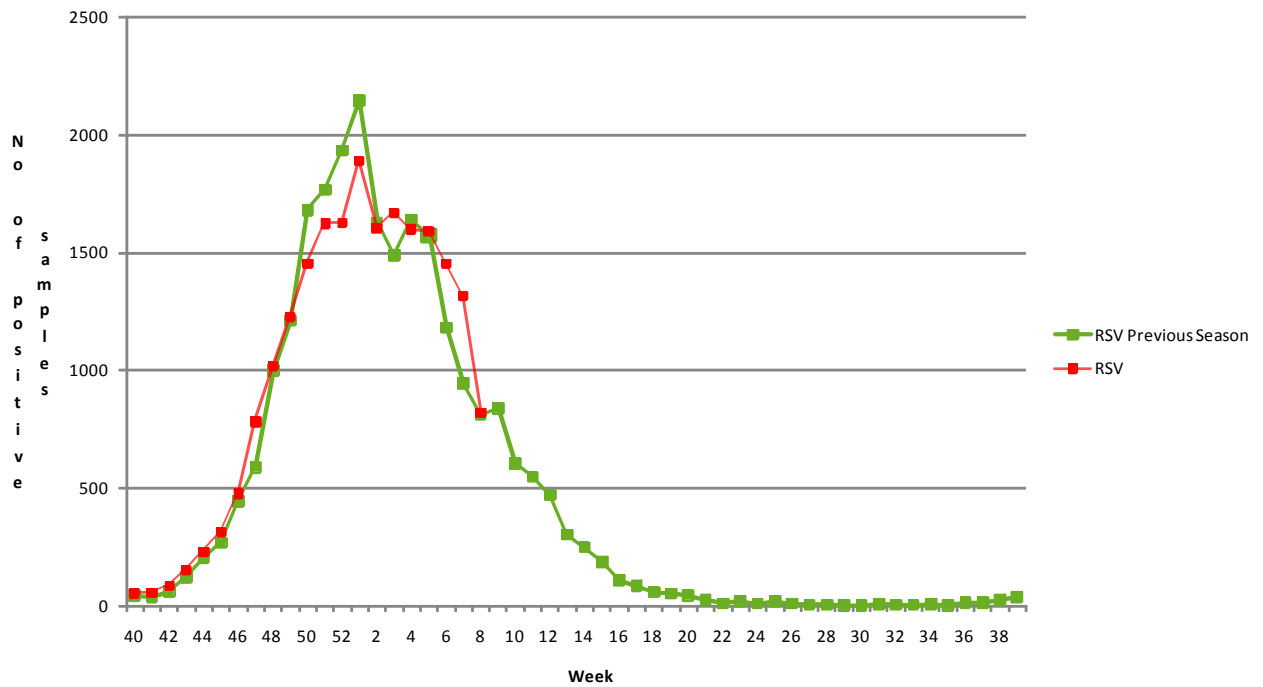
Table 3: Antiviral resistance by influenza virus type and subtype, weeks 40/2010–08/2011

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)	3	0	3	0	0	0
A(H1N1)	0	0	0	0	0	0
A(H1N1)2009	849	32(4)	848	0	115	115 (100%)
B	62	0	63	0	NA*	NA*

* NA - not applicable, as M2 inhibitors do not act against influenza B viruses.

Data are from single location (e.g. H275Y only) or multiple location mutation analysis (full sequencing) and/or phenotypic characterisation (IC50 determination), and therefore data should be interpreted in this context.

Figure 5: Respiratory syncytial virus (RSV) detections, sentinel and non-sentinel, weeks 40/2010–08/2011



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

Since week 40/2010, three countries have reported all-cause SARI cases (irrespective of the causative pathogen) (Table 4), and eight countries notified severe influenza cases admitted to hospital (Table 5), with France and Ireland reporting only cases admitted to intensive care (ICU).

In week 08/2011, Belgium, Romania, and Slovakia reported 52 all-cause SARI cases, including four deaths, while eight countries reported 97 hospitalised confirmed cases of influenza virus infection, including ten deaths.

Since week 40/2010, ten countries have reported 3897 all-cause SARI and hospitalised confirmed cases of influenza virus infection, including 322 deaths (Tables 4 and 5). The epidemic curve peaked in week 52/2010 (Figure 6).

Of 2 584 influenza virus detections since week 40/2010, 2 487 (96.2%) were type A, and 97 (3.8%) were type B. Of 2 360 influenza A viruses subtyped, 2 341 (99.2%) were A(H1)2009, and 19 (0.8%) were A(H3) (Table 6). The percentage of influenza B virus detections is ten times higher (weeks 40/2010–8/2011, 31.2%) in the outpatient sentinel samples (Table 2) than it is for the SARI or for the severe influenza cases admitted to hospital.

Overall, ICU admission was reported for 1 624 patients, 990 (61.0%) of whom were known to have required ventilation (Table 7). In patients for whom information was available, obesity was the most frequent underlying condition, but 1 184 (42.0%) of 2 817 all-cause SARI and hospitalised confirmed influenza-cases had no known prior underlying condition (Figure 7).

Table 4: Cumulative number of SARI cases, weeks 40/2010–08/2011

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
Belgium	773				
Romania	284	4.43	16	0.25	6413821
Slovakia	90	1.66	9	0.17	5433385
Total	1147		25		

Table 5: Cumulative number of hospitalised influenza cases, weeks 40/2010–8/2011

Country	Number of cases	Number of fatal cases reported
Austria	337	11
Spain	1089	112
Finland	46	6
France	718	108
Ireland	120	20
Malta	49	1
Portugal	391	39
Total	2750	297

Figure 6: Number of SARI cases by week of onset, weeks 40/2010–08/2011

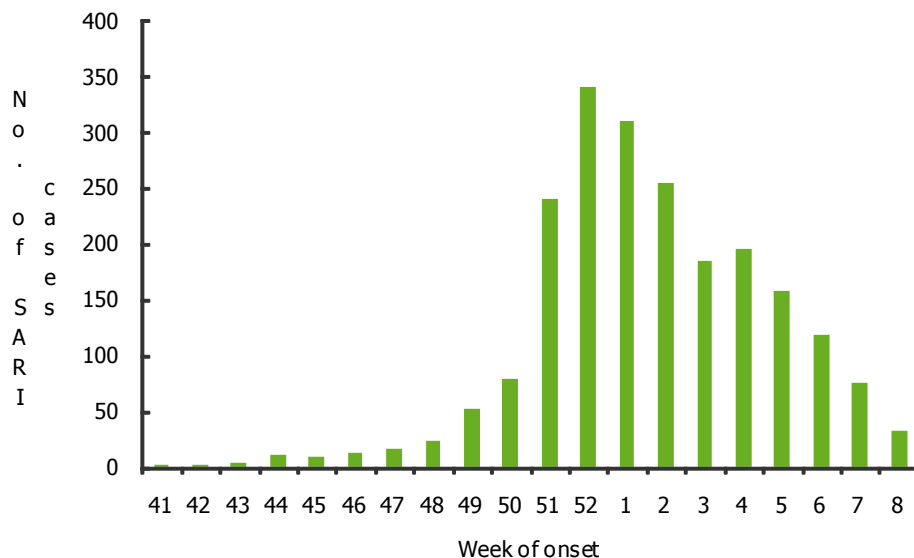
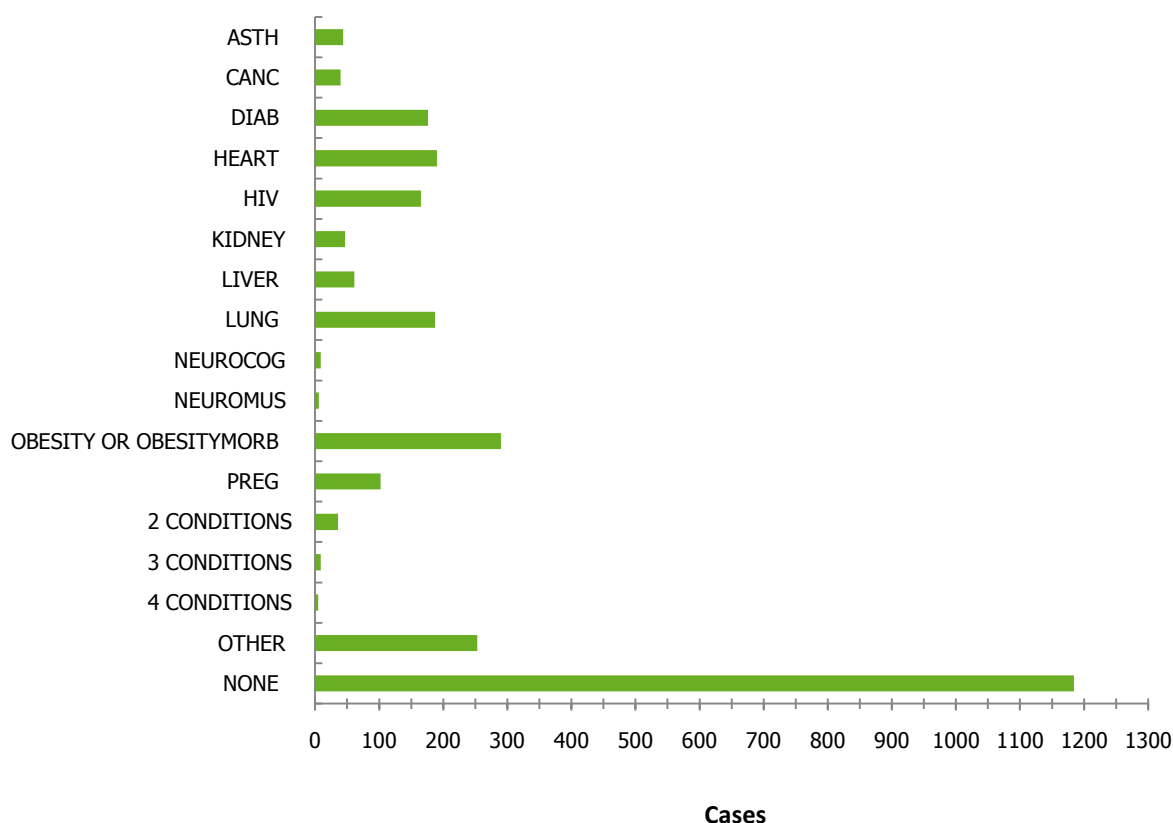


Table 6: Number of SARI cases by influenza type and subtype, week 08/2011

Virus type/subtype	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A	79	2487
A(H1)2009	73	2341
A(subtyping not performed)	6	127
A(H3)		19
Influenza B	13	97
Other Pathogen		33
Unknown	57	1280
Total	149	3897

Table 7: Number of SARI cases by level of care and respiratory support, weeks 40/2010–8/2011

Respiratory support	ICU	Inpatient ward	Other	Unknown
No respiratory support available			1	
No respiratory support necessary	159	406	380	
Oxygen therapy	86	143	309	
Respiratory support given unknown	475	248	559	176
Ventilator	904	16	6	29

Figure 7: Number of SARI cases by underlying condition, weeks 40/2010–8/2011

Note: 'Other' represents any other underlying condition than: asthma (ASTH), cancer (CANC), diabetes (DIAB), chronic heart disease (HEART), HIV/other immune deficiency (HIV), kidney-related conditions (KIDNEY), liver-related conditions (LIVER), chronic lung disease (LUNG), neurocognitive disorder (including seizure; NEUROCOG), neuromuscular disorder (NEUROMUS), obesity (BMI between 30 and 40; OBESITY), morbid obesity (BMI above 40; OBESITYMORB) or pregnancy (PREG). NONE is reported if there were no underlying conditions.

Country comments and specific information concerning hospitalised cases and mortality

This section is compiled from specific comments and published reports available from national website (if so indicated). They are intended to provide additional information on influenza-associated hospitalisations (including emergency hospital consultations), higher-level care load, and mortality.

Czech Republic: [Link here](#). Up to the end of week 08/2011, a total of 136 SARI patients with laboratory-confirmed influenza have been reported by intensive care units. There were 24 deaths. Of those, four SARI cases were caused by Flu B, including the death of a 10-year-old boy.

France: [INVS link here](#). By week 8, the *Oscour* sentinel network of hospitals (2 March 2011) has reported 1 595 emergency consultations for influenza-like illness (including 37 hospitalisations), which is a further decrease in hospitalisations from week 7. In the national network of paediatric and adult ICUs, numbers have been decreasing since week 01/2011. Cumulatively, 719 influenza cases have been reported from ICUs, with influenza A(H1N1)2009 predominating. Around 80% of cases are between 15 and 64 years of age. A clinical risk factor is reported for most cases, but 37% of the severe cases had no identified risk factor. The network reported 108 deaths, which represents 15% of all reported cases.

Greece: [KEEL \(Hellenic Centre\) for Disease Control and Prevention; influenza link here](#). As of 01 March 2011, a total of 332 laboratory-confirmed cases have been admitted to an ICU, all A(H1N1)2009, while 129 deaths have been reported to the Hellenic Centre for Disease Control and Prevention. Of those, 94 deaths were in an ICU, while another 35 fatal cases were hospitalised in regular wards. On 1 March 2011, 102 patients remain hospitalised in an ICU. This corresponds to an approximate 16% usage rate for the total number of ICU beds in the country. 63.3% of the 332 cases fall in one of the high-risk clinical groups where influenza vaccination is recommended (chronic respiratory/cardiological/ liver/renal/ neuromuscular/metabolic disease, immunosuppression, pregnancy, or morbid obesity), but only 12 (3.6%) patients were reported as vaccinated with the seasonal vaccine 2010/11.

Ireland: [HPSC influenza link here](#). For the 2010/2011 season to date (2 March 2011), 922 confirmed influenza cases have been hospitalised, and 121 of these cases were admitted to intensive care units. 23 deaths were reported to HPSC. At the peak, this represented $1.1/10^5$ population cases requiring higher-level (intensive) care but figures have declined considerably since then. As of 2 March, 13 of the hospitalised cases remained in intensive care. Ninety of the 121 intensive-care cases (74%) had underlying medical conditions. The underlying medical conditions include chronic respiratory disease, chronic heart disease, immunosuppression, pregnancy, metabolic disorders, and morbid obesity. HPSC has been informed of 23 influenza-associated deaths to date this season (as of 2 March). The following breakdown of the deaths was given: 18 had influenza A(H1N1)2009, one combined influenza A and B infections, and three influenza B. Twenty-one of the 23 deaths occurred in patients with medical conditions.

Malta: [Link here](#). Situation unchanged.

Romania: [Link here](#). Since the start of the season, influenza A(H1N1)2009 virus was detected in 58 of the 271 reported cases (11 cases during week 08/2011). Influenza B virus was detected in 36 cases, 13 of which during week 08/2011. From week 40/2010 to week 08/2011, 18 deaths among SARI cases were reported: ten were positive for A(H1N1)2009 virus, one for B virus, and one for *Streptococcus pneumoniae*. During week 08/2011 no deaths were reported. None of the influenza-positive SARI cases reported during the season were vaccinated for influenza.

Netherlands: [RIVM influenza link here](#). Since 4 October 2010, a total of 631 hospital admissions due to laboratory-confirmed influenza A(H1N1)2009 infections were reported. There were also 37 influenza-related deaths. The largest group of patients is children between 0 and 5 years. Almost half of the hospitalised patients had an underlying condition. There are still patients hospitalised because of influenza A(H1N1)2009, but numbers have been decreasing over the last weeks.

Spain: [ISCIH influenza link here](#). Information on severe illness due to influenza infection with associated admission to hospitals is provided by a dedicated surveillance system developed during the 2009/2010 pandemic. Between weeks 40/2010 and 08/2011, 1271 severe hospitalised confirmed influenza cases were reported. Severely affected cases were mostly in the group aged 15 to 64 year (63%), with 15% under five years of age; 18% were older than 64 years. Of these, 25% had no known risk factors. Of 1134 cases with outcome information, 128 have died (12% with no known risk factors). Of the severe cases, 834 came with information on their vaccination status for the 2010/2011 season: only 117 (14%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received by only 9% of hospitalised cases. Eighty per cent of these cases were in groups which were recommended for influenza vaccination (chronic diseases, pregnancy, obesity)

UK: [HPA influenza link](#). Up to 24 February 2011, 523 deaths have been reported in individual influenza cases from across the UK. Ninety-three per cent of the cases with additional information were associated with A(H1N1)2009, 1% with untyped influenza A, and 6% with influenza B infection. Reported deaths associated with influenza have been mainly among younger adults and children. Among cases with information on age, 4% have been less than few years old; 4% between five and 14 years old; 72% between 15 and 64 years old, and 20% were 65 years or older. Of those with available information, 70% were in one of the clinical risk groups for whom vaccination is recommended, which includes pregnant women. The most numerous reported clinical risk factors were underlying respiratory disease, including asthma and immunosuppression. Of cases with information on immunisation history, 71% had not received the 2010 trivalent vaccine, and 95% had not received the monovalent pandemic vaccine last season.

This report 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, 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. Past this date, however, published data should not be used for longitudinal comparisons as countries tend to retrospectively update their database.

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