

## SURVEILLANCE REPORT

### Weekly influenza surveillance overview

28 January 2011

## Main surveillance developments in week 3/2011 (17 Jan 2011 – 23 Jan 2011)

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

- During week 03/2011, 27 countries reported medium influenza activity and widespread activity was reported by 15 countries. In addition, an increasing trend of consultations was reported by 18 countries but a decreasing trend was reported in Ireland and the UK. Levels were high but unchanging in some other countries that were affected early; these were mostly in Belgium, France, Portugal and Spain.
- However, the percentage of positive specimens from sentinel practices has decreased for the third consecutive week from 55% in week 52/2010 to 44% in week 03/2011. The proportions of circulating influenza viruses were 68% for influenza A and 32% for influenza B.
- In week 03/2011, 74 SARI cases from all causes were reported by three countries and 118 hospitalised influenza cases were reported by five countries. Reported hospitalisations and intensive care admissions to influenza in Denmark, France, The Netherlands, and the UK have all declined in week 03/2011.
- Reported hospitalisations and intensive care admissions with influenza have declined in week 3/2011 in Denmark, France, Ireland, Netherlands and the UK. Severe cases and deaths continue to be mostly in persons in the 15–64 year age group with underlying health conditions.

**Sentinel surveillance of influenza-like illness (ILI)/acute respiratory infection (ARI):** During week 03/2011, medium influenza activity was reported by 27 countries, widespread activity was reported by 15 countries and increasing trends were reported by 18 countries. For more information, [click here](#).

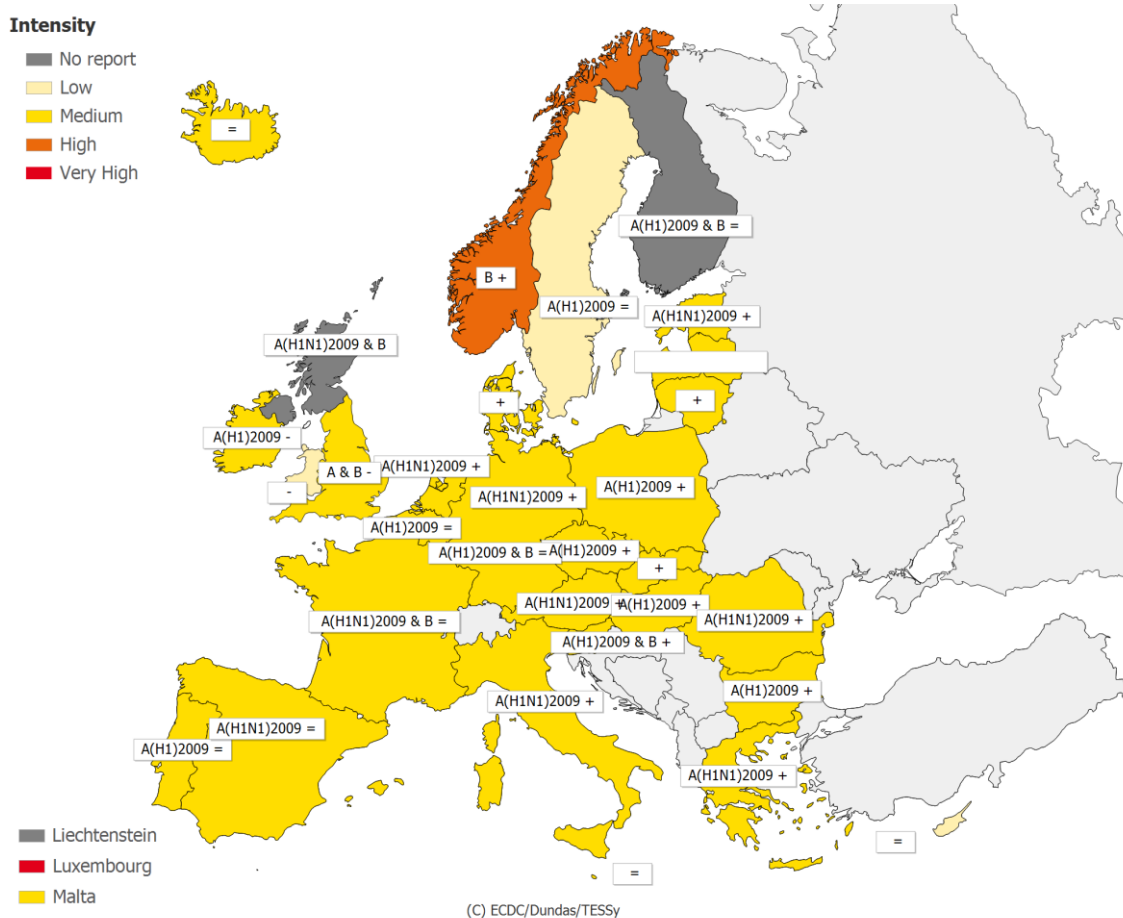
**Virological surveillance:** Compared with week 52/2010, the percentage of positive sentinel specimens has decreased for three consecutive weeks from 55% to 44%. Trends for virological detections seem to have reached a plateau. For more information, [click here](#).

**Hospital surveillance of severe acute respiratory infection (SARI):** In week 03/2011, 192 hospitalisations due to SARI from all causes and influenza infections cases were notified by eight countries. For more information, [click here](#).

## Weekly analysis – epidemiology

Of the 28 countries and the UK (England and Wales) reporting geographical spread, widespread activity was reported by 15 and the UK (England), regional activity by five, local activity by five, and sporadic activity was notified by three (Slovakia, Sweden and UK Wales).

**Map 1: Intensity for week 3/2011**



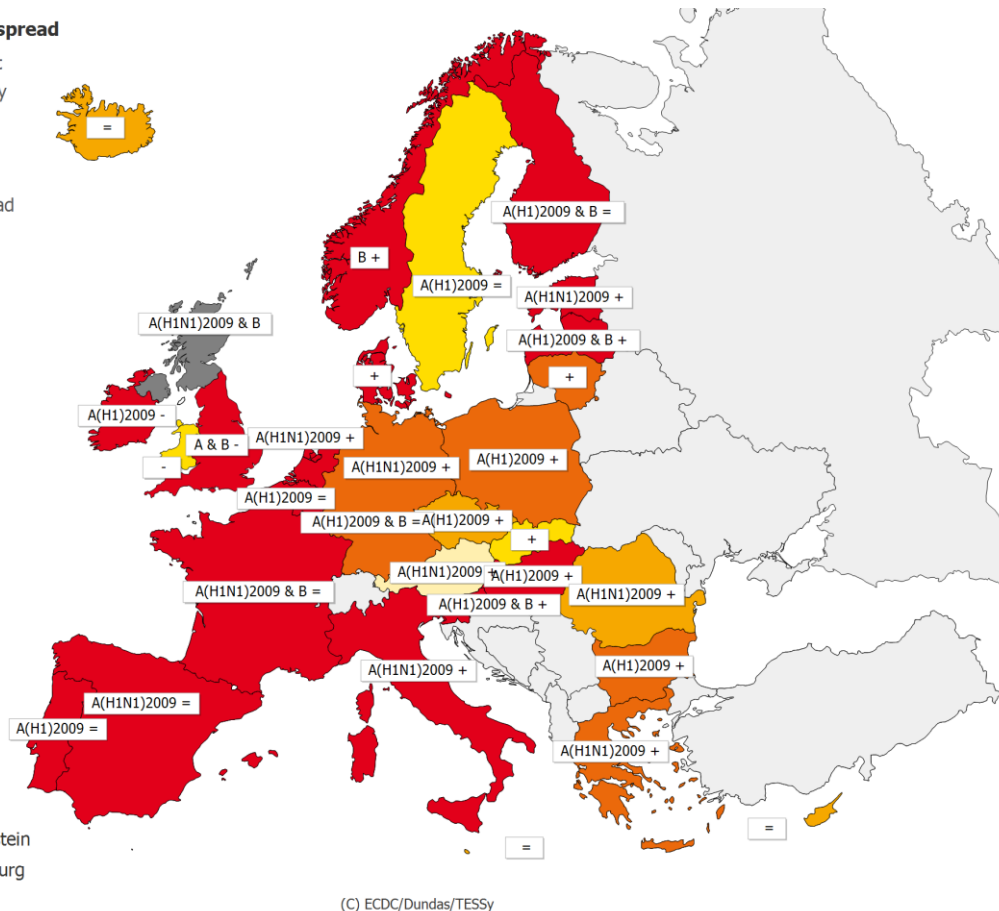
\* A type/subtype is reported as dominant when > 40 % of all samples are positive for the type/subtype.

Legend:

<b>Low</b>	No influenza activity or influenza at baseline levels	-	Decreasing clinical activity
<b>Medium</b>	Usual levels of influenza activity	+	Increasing clinical activity
<b>High</b>	Higher than usual levels of influenza activity	=	Stable clinical activity
<b>Very high</b>	Particularly severe levels of influenza activity	<b>A &amp; B</b>	Type A and B
		<b>A(H1)2009</b>	Type A, Subtype (H1)2009
		<b>A(H1)2009 &amp; B</b>	Type B and Type A, Subtype (H1)2009
		<b>A(H1N1) 2009</b>	Type A, Subtype (H1N1)2009
		<b>A(H1N1) 2009 &amp; B</b>	Type B and Type A, Subtype (H1N1)2009
		<b>B</b>	Type B

**Map 2: Geographic spread for week 3/2011****Geographic spread**

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



\* 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 activity</b>	No evidence of influenza virus activity (clinical activity remains at baseline levels)	-	Decreasing clinical activity
<b>Sporadic</b>	Isolated cases of laboratory confirmed influenza infection	+	Increasing clinical activity
		=	Stable clinical activity
<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>A &amp; B</b>	Type A and B
		<b>A(H1)2009</b>	Type A, Subtype (H1)2009
<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>A(H1)2009 &amp; B</b>	Type B and Type A, Subtype (H1)2009
		<b>A(H1N1) 2009</b>	Type A, Subtype (H1N1)2009
<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)	<b>A(H1N1) 2009 &amp; B</b>	Type B and Type A, Subtype (H1N1)2009
		<b>B</b>	Type B

**Table 1: Epidemiological and virological overview by country, week 3/2011**

Country	Intensity	Geographic spread	Trend	No. of sentinel swabs	Dominant type	Percentage positive*	ILI per 100.000	ARI per 100.000	Epidemiol. overview	Virological overview
Austria	Medium	No activity	Increasing	69	A(H1N1)2009	53.6	6.5	39.2	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Belgium	Medium	Widespread	Stable	101	A(H1N1)2009	72.3	422.4	1399.0	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Bulgaria	Medium	Regional	Increasing	2	A(H1N1)2009	50.0	-	2178.8	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Cyprus	Low	Local	Stable	-	-	0.0	-*	-*	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Czech Republic	Medium	Local	Increasing	28	A(H1N1)2009	50.0	76.9	1187.6	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Denmark	Medium	Widespread	Increasing	26	None	46.2	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Estonia	Medium	Widespread	Increasing	102	A(H1N1)2009	23.5	23.7	480.5	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Finland	No information available	Widespread	Stable	81	A(H1N1)2009 / B	77.8	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
France	Medium	Widespread	Stable	294	A(H1N1)2009 /B	52.0	-	2619.0	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Germany	Medium	Regional	Increasing	229	A(H1N1)2009	59.4	-	1192.6	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Greece	Medium	Regional	Increasing	35	A(H1N1)2009	74.3	220.8	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Hungary	Medium	Widespread	Increasing	173	A(H1N1)2009	12.7	280.4	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Iceland	Medium	Local	Stable	-	-	0.0	18.2	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Ireland	Medium	Widespread	Decreasing	92	A(H1N1)2009	35.9	110.4	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Italy	Medium	Widespread	Increasing	205	A(H1N1)2009	36.1	751.9	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Latvia	Medium	Widespread	Increasing	7	A(H1N1)2009 /B	57.1	164.8	1382.2	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Lithuania	Medium	Regional	Increasing	-	-	0.0	137.5	827.2	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Luxembourg	Very High	Widespread	Stable	97	A(H1N1)2009 / B	61.9	-*	-*	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Malta	Medium	Local	Stable	-	-	0.0	-*	-*	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Netherlands	Medium	Widespread	Increasing	59	A(H1N1)2009	71.2	102.9	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Norway	High	Widespread	Increasing	25	B	48.0	217.1	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Poland	Medium	Regional	Increasing	140	A(H1N1)2009	31.4	167.2	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Portugal	Medium	Widespread	Stable	16	A(H1N1)2009	56.3	90.7	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Romania	Medium	Local	Increasing	80	A(H1N1)2009	31.3	23.7	918.6	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Slovakia	Medium	Sporadic	Increasing	1	None	0.0	156.6	1309.2	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Slovenia	Medium	Widespread	Increasing	69	A(H1N1)2009	69.6	65.4	1954.5	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Spain	Medium	Widespread	Stable	536	A(H1N1)2009	47.9	226.0	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Sweden	Low	Sporadic	Stable	47	A(H1N1)2009	57.4	14.5	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
UK - England	Medium	Widespread	Decreasing	341	A / B	18.8	40.7	410.5	<a href="#">Graphs</a>	<a href="#">Graphs</a>
UK - Northern Ireland				-	-	0.0	-	-		
UK - Scotland				99	A(H1N1)2009 / B	51.5	-	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
UK - Wales	Low	Sporadic	Decreasing	-	-	0.0	25.9	-	<a href="#">Graphs</a>	<a href="#">Graphs</a>
Europe				2954		44.4				<a href="#">Graphs</a>

\*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.

# Virological surveillance

## Weekly analysis – virology

In week 03/2010, 23 countries and the UK (England and Scotland) reported virological data. Sentinel physicians collected 2954 specimens, of which 1311 (44.4%) were influenza positive. This percentage represents a decrease for the third consecutive week. It is noteworthy to mention that in countries with more than 100 sentinel specimens, this percentage varied from 13% to 72%. In addition, 3415 non-sentinel source specimens (i.e., specimens collected for diagnostic purpose in hospitals) were reported positive for influenza virus.

Of the 4726 influenza viruses detected during week 03/2011, 3215 (68%) were type A and 1511 (32%) were type B. In sentinel specimens, of 761 sub-typed influenza viruses, 748 (98.3%) were A(H1N1) 2009 and 13 (1.7%) were A(H3).

Since week 40/2010, of the 25 165 influenza detections in sentinel and non-sentinel specimens, 17 992 (71.5%) were influenza A and 7173 (28.5%) were influenza B viruses. Of 11 056 influenza A viruses sub-typed, 10 732 (97.1%) were A(H1N1) 2009 and 324 (2.9%) were A(H3) viruses (Table 2). Trends of virological detections since week 40/2010 are shown in Figures 1–3.

Since week 40/2010, 730 influenza viruses from sentinel and non-sentinel specimens have been characterised antigenically (Figure 4): 401 as A/California/7/2009 (H1N1)-like; 66 as A/Perth/16/2009 (H3N2)-like; 248 as B/Brisbane/60/2008-like (Victoria lineage); and 15 as B/Florida/4/2006-like (Yamagata lineage).

Since week 40/2010, Italy, Norway and the UK have reported antiviral resistance data to TESSy. A total of 684 influenza A(H1N1) 2009 and 61 influenza B viruses have been tested for susceptibility to oseltamivir, and 683 A(H1N1) 2009 viruses and 62 B viruses for susceptibility to zanamivir (Table 3). Twenty-six (3.8%) of influenza A(H1N1) 2009 viruses were resistant to oseltamivir but remained sensitive for zanamivir. All the resistant viruses carried the H275Y mutation. Seven of the 26 resistant viruses were from patients for whom no exposure to oseltamivir was reported. Data are based on single location (e.g., pyrosequencing to check for H275Y) or multiple location mutation analysis (full gene sequencing) and/or phenotypic characterisation (IC<sub>50</sub> determination). Data should be interpreted in this context.

More details on circulating viruses can be found in the [December report](#) prepared by the Community Network of Reference Laboratories (CNRL) coordination team. Also, a detailed analysis of the viruses isolated in the UK was published in [Eurosurveillance](#) indicating no evidence of any antigenic changes in the A(H1N1) 2009 and type B viruses in that country and a good match with the seasonal vaccine viruses.

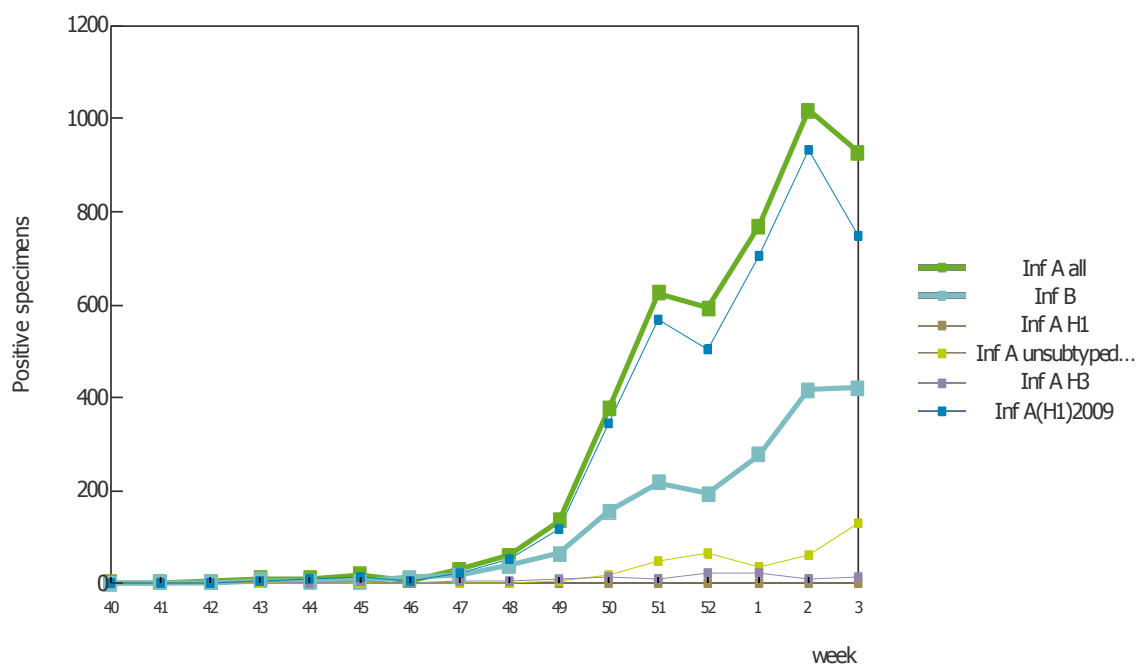
In week 03/2011, respiratory syncytial virus detections continued decreasing since their peak in week 01/2011 (Figure 5).

**Table 2: Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40/2010–3/2011**

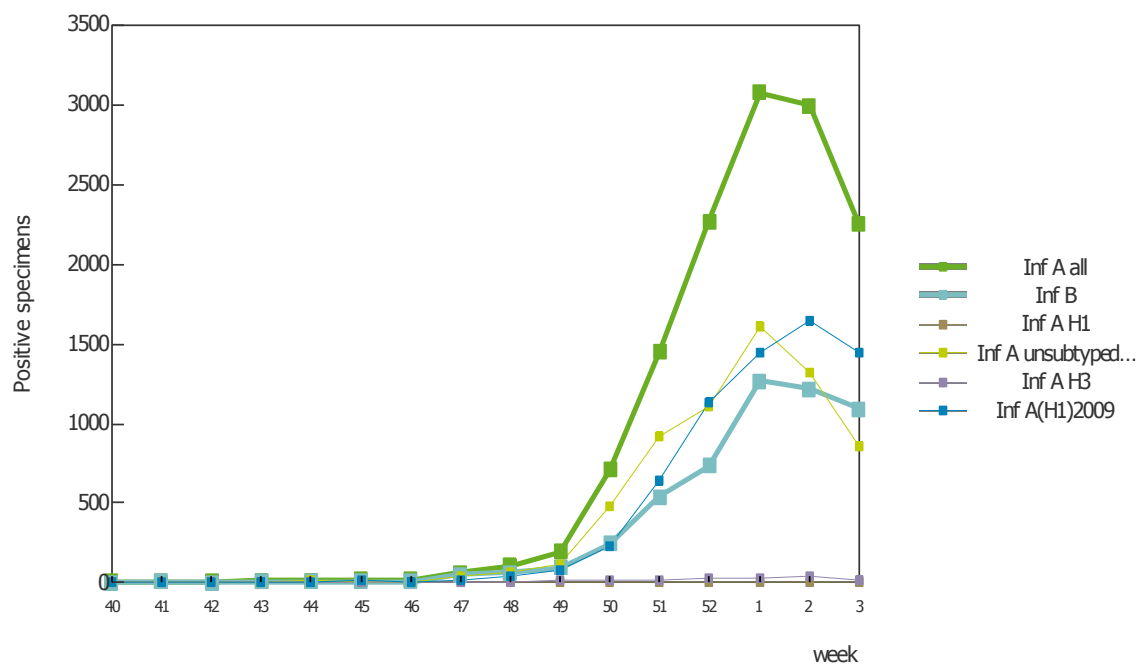
Virus type/subtype	Current Period		Season	
	Sentinel	Non-sentinel	Sentinel	Non-sentinel
Influenza A	890	2325	4540	13452
A(H1)2009	748	1441	4036	6696
A (subtyping not performed)	129	862	370	6566
A (not subtypable)	0	0	0	0
A (H3)	13	22	134	190
A (H1)	0	0	0	0
Influenza B	421	1090	1839	5334
<b>Total Influenza</b>	<b>1311</b>	<b>3415</b>	<b>6379</b>	<b>18786</b>

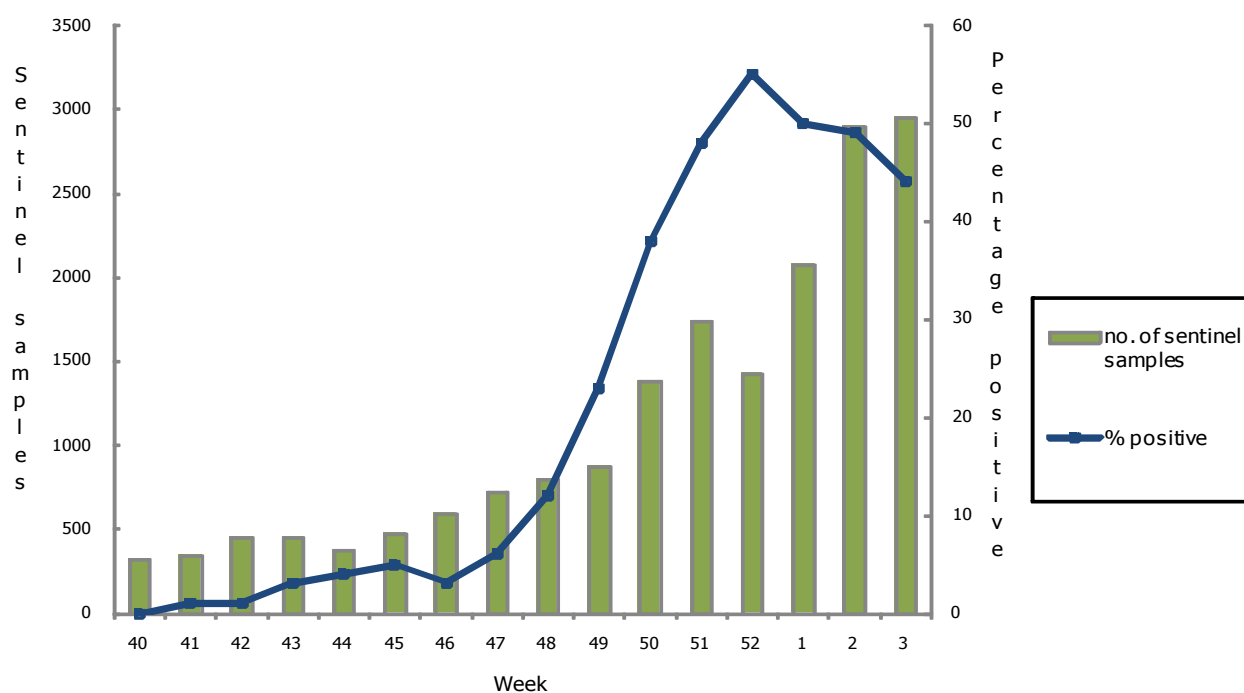
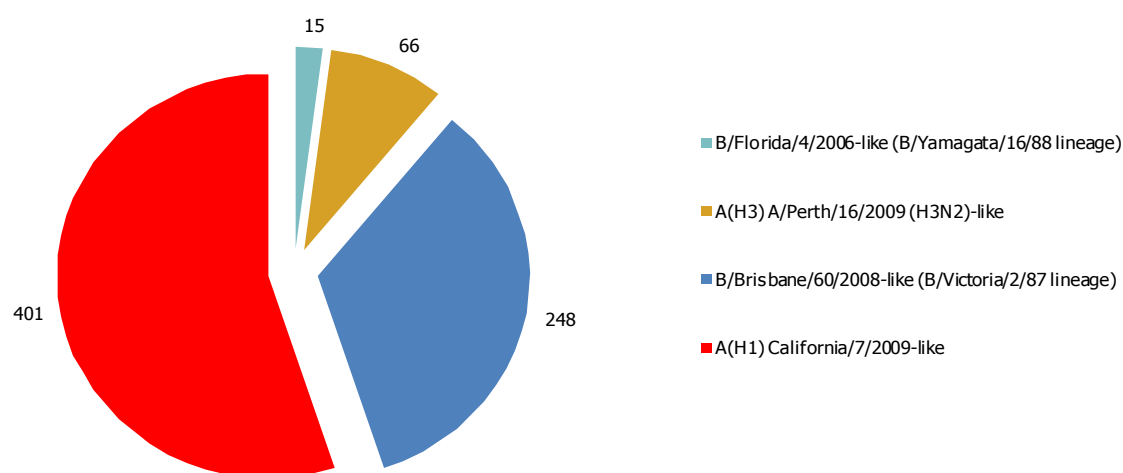
*Note:* A(H1)2009, A(H3) and A(H1) includes both N-subtyped and non-N-subtyped viruses

**Figure 1: Number of sentinel specimens positive for influenza, by type, subtype and by week of report, weeks 40/2010–3/2011**



**Figure 2: Number of non-sentinel specimens positive for influenza by type, subtype and week of report, weeks 40/2010–3/2011**

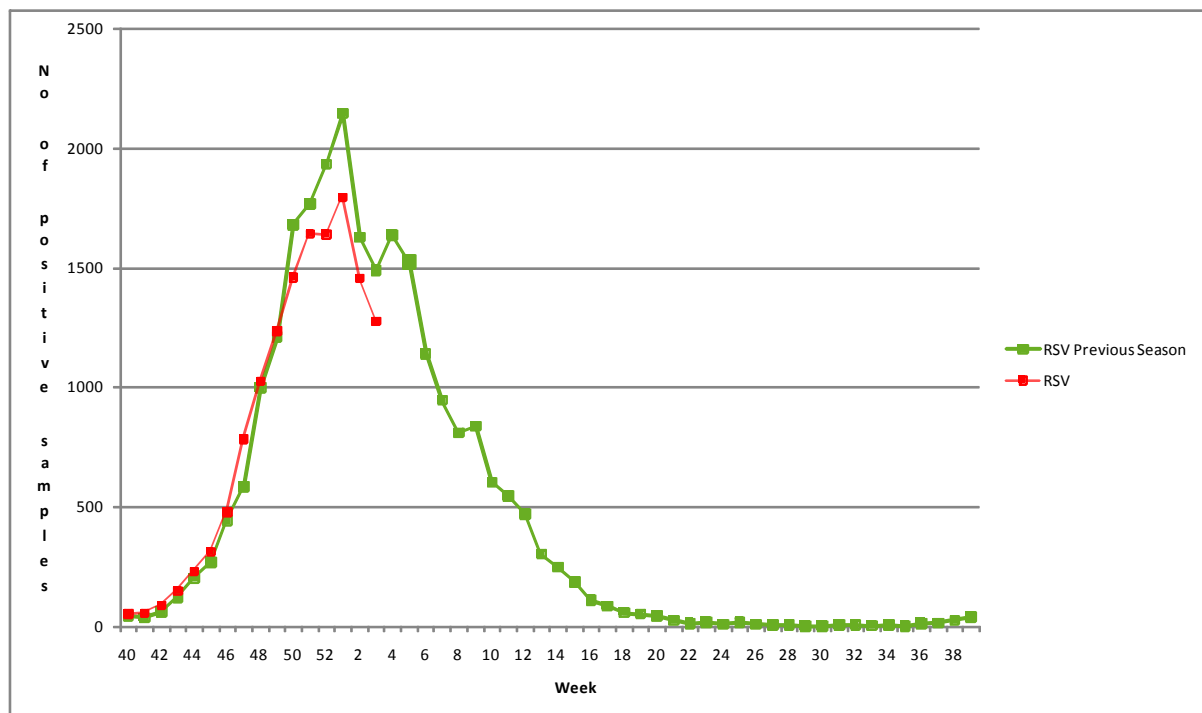


**Figure 3: Proportion of sentinel samples positive for influenza, weeks 40/2010–3/2011****Figure 4: Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40/2010–3/2011****Table 3: Antiviral resistance by influenza virus type and subtype, weeks 40/2010–3/2011**

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(H3)	1	0	1	0	0	0
A(H1)	0	0	0	0	0	0
A(H1)2009	684	26 (3.8)	683	0	0	0
B	61	0	62	0	NA*	NA*

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



**Figure 5: Respiratory syncytial virus detections, sentinel and non-sentinel, weeks 40/2010–3/2011**

## 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 and influenza confirmed cases

Since week 40/2010, a total of 2208 SARI cases and hospitalised influenza confirmed cases were reported to TESSy (Tables 4 and 5). Three countries reported SARI cases from all causes; i.e., irrespective of the causative pathogen (Table 4) and five countries notified severe influenza cases admitted to hospital (Table 5). In this latter type of reporting, only France and Ireland reported cases admitted to ICU. In week 03/2011, 74 SARI from all causes and 118 hospitalised influenza cases were reported. Since week 40/2010, 1470 severe influenza cases were hospitalised and 122 related fatalities were reported. Of the 1241 influenza viruses sub-typed, 1206 (97.2%) were A(H1N1)2009, eight (0.6%) were A(H3) and 27 (2.2%) were B viruses (Table 6). Of the 573 patients admitted to ICU with available information, 427 (74.5%) needed ventilation (Table 7). In patients for whom information was available, 40% had no prior underlying condition and obesity, morbid or not, represented the most important underlying condition (Table 7).

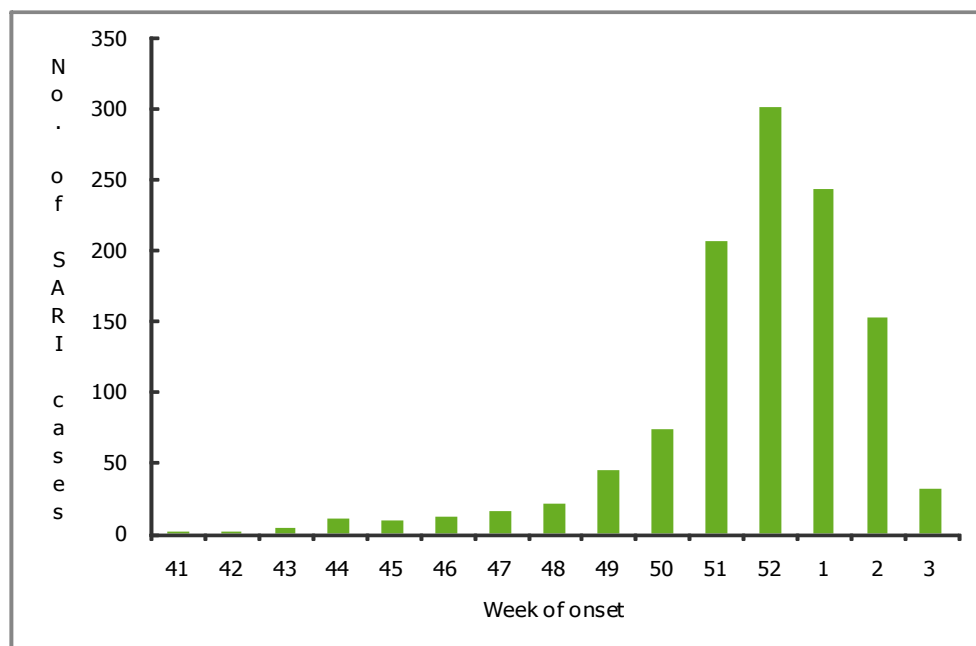
**Table 4: Cumulative number of SARI cases from all causes, weeks 40/2010–3/2011**

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	602				
Romania	122	1.9	6	0.09	6413821
Slovakia	14				
Total	738		6		

**Table 5: Cumulative number of hospitalised influenza cases, weeks 40/2010–3/2011**

Country	Number of cases	Number of fatal cases reported
Austria	60	4
Spain	777	54
France	395	43
Ireland	98	8
Portugal	140	13
Total	1470	122

*Note: France and Ireland only reported influenza cases admitted to ICU*

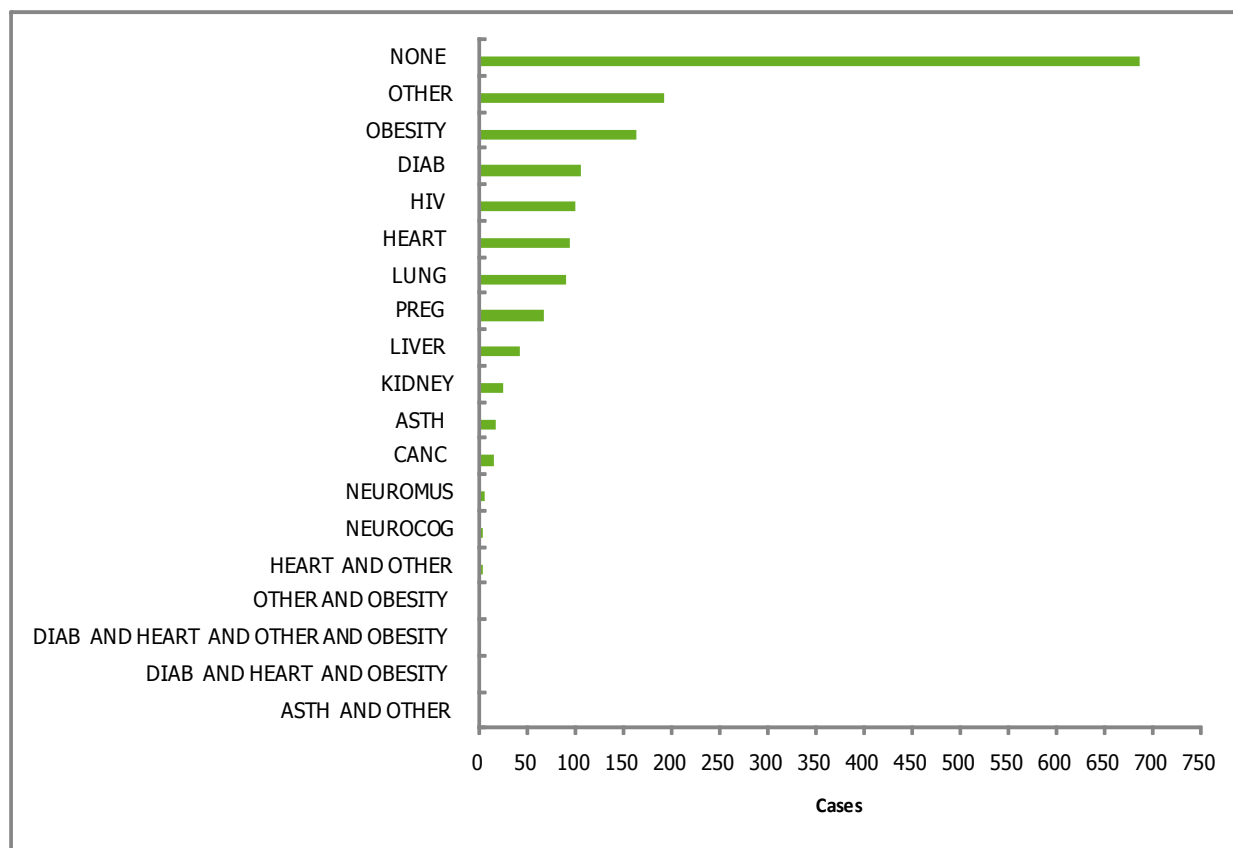
**Figure 6: Number of SARI cases and hospitalised influenza confirmed cases by week of onset, weeks 40/2010- week 3/2011****Table 6: Number of SARI from all causes and hospitalised influenza confirmed cases by influenza type and subtype, week 3/2011**

Virus type/subtype	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A	101	1273
A(H1)2009	100	1206
A(subtyping not performed)	1	59
A(H1)		
A(H3)		8
Influenza B	4	27
Other Pathogen		33
Unknown	87	875
Total	192	2208

**Table 7: Number of SARI cases and hospitalised influenza confirmed cases by level of care and respiratory support, weeks 40/2010–3/2011**

Respiratory support	ICU	Inpatient ward	Other	Unknown
No respiratory support available		1		
No respiratory support necessary	93	102	281	
Oxygen therapy	53	55	253	
Respiratory support given unknown	314	39	372	126
Ventilator	504	8	6	1

**Figure 7: Number of SARI cases and hospitalised influenza confirmed cases by underlying condition, weeks 40/2010–3/2011**



*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), 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 on the website where these are indicated by reporters. They are structured to represent influenza associated hospitalisations (and some emergency hospital consultations), use of higher level care and mortality.**

**Czech Republic:** During the last week (week 3/2011), three more SARI cases with laboratory-confirmed A(H1N1)2009 were reported. All were males aged 56, 57 and 60 years and each had underlying conditions.

**Denmark:** Up to 24 January (week 3/2011), a cumulative total of 61 influenza patients have been reported by intensive care units (ICUs) in Denmark with a median age of 54 years (range 15 months to 83 years). Thirteen patients were admitted to an ICU in week 3/2011 compared with 19 new admissions in week 2. There is, however, still an increasing pressure on the wards, reflected by the increasing proportion of ICU beds used for influenza patients. On Monday 24 January 2011 at 8:00 am, 33 influenza patients were in ICUs, corresponding with 9.5% of the total number of occupied ICU beds in the country, compared with 7.5% in the week before. Of the ICU patients, 53 were diagnosed with influenza A, 20 of whom were reported to be further subtyped as subtype H1N1. Eight patients had an influenza B infection. Five patients with influenza A and one patient with Influenza B received extracorporeal membrane oxygenation (ECMO). Seven patients, all with confirmed influenza A died. Ten patients were reported to be previously healthy people and for another 14 patients no underlying condition was reported. For 37 patients one or more underlying conditions were described. No influenza patients were reported to be pregnant. Initial alignment with the Danish Vaccination Registry showed that 12 of the 61 patients had received the 2010/2011 seasonal influenza vaccine between week 39 and 46 of 2010. The other 49 patients were either not vaccinated between week 39 and 46 of 2010 or had not been reported to the registry.

**France:** By week 3/2011 in the sentinel network of hospitals Oscore, 1439 emergency consultations for influenza-like illness had been reported with 91 hospitalizations. The overall number of consultations and hospitalizations for influenza continued to decrease as it has been doing since week 01/2011, although the

numbers in the 5 to 14 year age group have continued to increase. In the national network of paediatric and adult intensive care units (ICUs), the numbers have also been decreasing since week 01/2011. Considered cumulatively, 395 ICU influenza cases have been reported from ICUs, with influenza A (H1N1)2009 predominating (around seventy percent of cases being between 15 and 64 years of age). A clinical risk factor is reported in most cases; conversely, 38% of these severe cases were reported to have no identified risk factor. In this network there had been 43 deaths reported representing 11% of reports.

**Iceland:** There are few hospital admissions as of yet.

**Ireland:** For the 2010/2011 season to date (January 26th 2011), 749 confirmed influenza cases have been hospitalised, 98 cases have been admitted to ICU and 12 deaths have been reported to HPSC. At the peak this represented 1.1/105 population cases requiring higher level care

**Malta:** Situation unchanged.

**The Netherlands:** As of week 3/2011 and since October 4th 2010, 399 hospital patients were reported as infected with A(H1N1)2009 influenza virus and 20 fatalities were notified. The largest numbers of hospitalised admissions with influenza were patients in the 0–5 year-old agegroup. Underlying conditions were reported in 50% of hospitalised patients. In week 1/2011 all-cause mortality in all ages declined.

**Norway:** Total hospitalised: 82 (24 in ICU). Age 0–4, 14 hospitalised (one in ICU); age 5–14, one hospitalised (none in ICU); age 15–29, 14 hospitalised (none in ICU); age 30–64, 49 hospitalised (22 in ICU: 22); Age 65+, four hospitalised (one in ICU).

**Spain:** Information concerning severe illness due to influenza infection and admitted to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. From week 40/2010 to week 03/2011, 777 severe hospitalised confirmed influenza cases have been reported. Severely affected cases are mostly in the 15–44 and 45–64 year age groups (30% and 39%, respectively). Of the total, 26% were reported to be without any underlying conditions. Most of the severe cases and deaths have been associated with A(H1N1)2009 and are in people who have not previously been vaccinated.

**UK (HPA and DH-England):** In week 3/2011, the number of patients in England with confirmed or suspected influenza in critical care beds have declined from a peak of nearly 800 three weeks ago (equivalent to 1.4 per 105 population) to around 250 cases on January 27 2011. Over 80% of these are in the age group 16 to 64 years. Up to 19 January 2011, 338 deaths have been reported in influenza cases from across the UK. Ninety two per cent of the 214 cases were associated with A(H1N1)2009, 2% with untyped influenza A and 6% with influenza B infection. Reported deaths associated with influenza have been mainly in younger adults and children. Amongst cases with information on age, 3% have been younger than 5 years; 5% between 5 to 14 years; 71% from 15 to 64 years and 21% were 65 years or older. Of those with available information, 73% were in one of the clinical risk groups for vaccination, which includes pregnant women. Important reported clinical risk factors included underlying respiratory disease including asthma (27% of those in the clinical risk groups) and immunosuppression (23%). Of the cases with information on immunisation history, 76% had not received the 2010 trivalent vaccine and 95% had not received the pandemic vaccine.

**UK (Scotland)** An increase in influenza B is currently circulating. Scotland has continued to receive information on confirmed influenza cases in ITU but less than in previous weeks. A number of individuals with confirmed influenza have died. Both the ITU cases and deaths have been predominantly in individuals with influenza A(H1N1) 2009.

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*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). Additionally the report is reviewed by experts of WHO regional office Europe*

*Maps and commentary used in this Weekly Influenza Surveillance Overview (WISO) do not imply any opinions whatsoever of ECDC or its partners on the legal status of the countries and territories shown or concerning their borders.*

*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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