SURVEILLANCE REPORT

Fortnightly influenza surveillance overview

7 June 2013

Main surveillance developments in weeks 21–22/2013 (20 May–2 June 2013)

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

Week 21/2013 was the first week of inter-season influenza surveillance and ECDC will be producing the overview on every fortnight.

- For weeks 21 and 22/2013, all participating countries reported low-intensity transmission and almost all reported stable trends.
- For weeks 21 and 22/2013, six countries tested 19 sentinel specimens, two of which were positive for influenza A(H1N1)pdm09 virus.
- In addition, 45 non-sentinel source specimens were found to be positive for influenza virus, 19 of which (42%) were type A and 26 (58%) type B.
- No laboratory-confirmed severe influenza cases have been reported since week 21/2013.

During the first influenza inter-season weeks of 2012–2013, influenza activity was low in Europe.

Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI): During the two-week reporting period, all reporting countries experienced low-intensity influenza activity. For more information, click here.

Virological surveillance: Six countries tested 19 sentinel specimens, two of which were positive for influenza virus. For more information, click here.

Hospital surveillance of influenza laboratory-confirmed cases: Since week 21/2013, no laboratory-confirmed severe cases of influenza have been reported. For more information, click here.

Sentinel surveillance (ILI/ARI)

Epidemiology

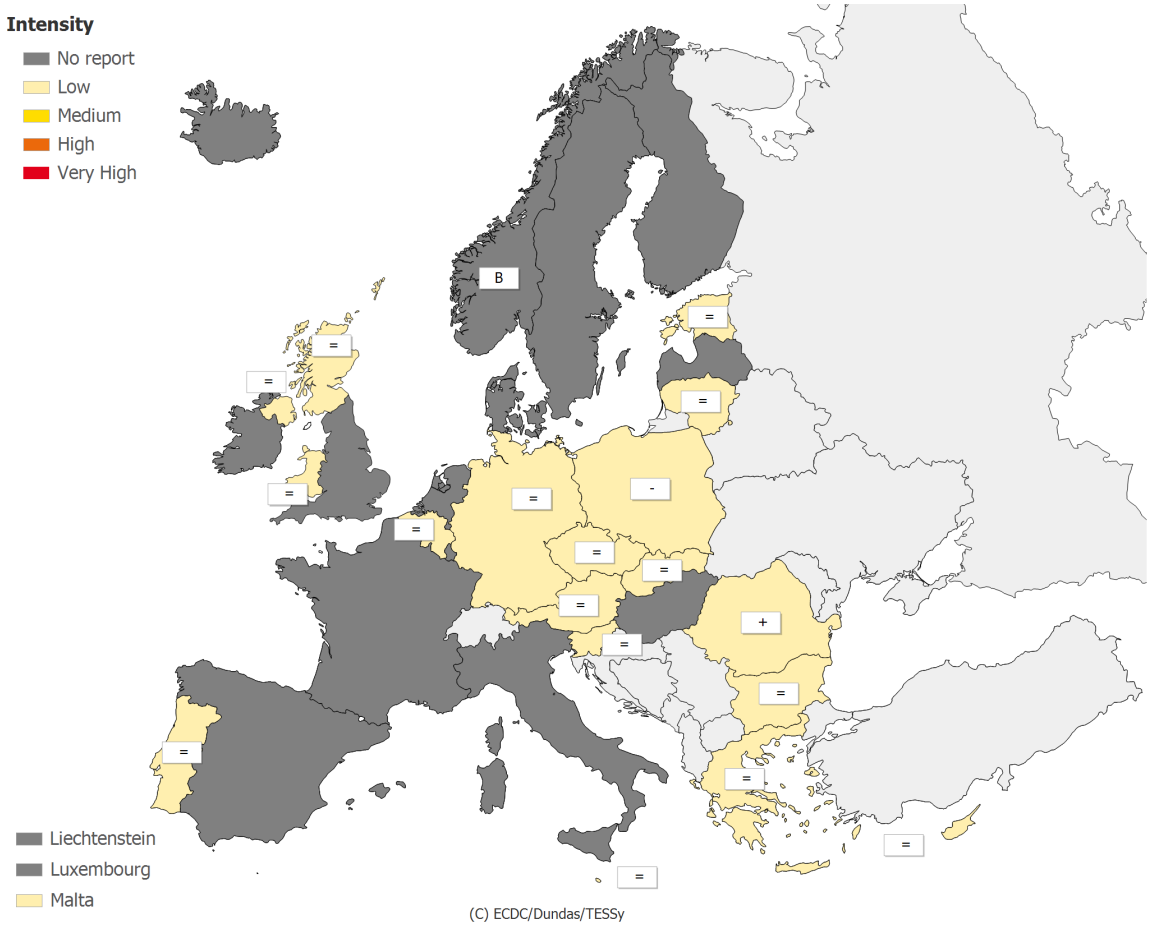
For weeks 21 and 22/2013, seventeen countries reported clinical data. During the two weeks, all reporting countries experienced low-intensity influenza activity, the lowest category of reporting (Table 1, Map 1).

For weeks 21 and 22, geographic patterns of influenza activity were reported as sporadic by Norway and parts of the UK (Northern Ireland and Scotland) and local by Malta. All other countries reported no activity (Table 1, Map 2).

For weeks 21 and 22, most countries reported stable trends. Poland reported a decreasing trend and Romania an increasing one for week 22 (Table 1, Map 2).

Since week 21/2013, all reporting countries have indicated declining rates or have already reached baseline levels after the 2012-2013 influenza season.

Map 1. Intensity for week 22/2013

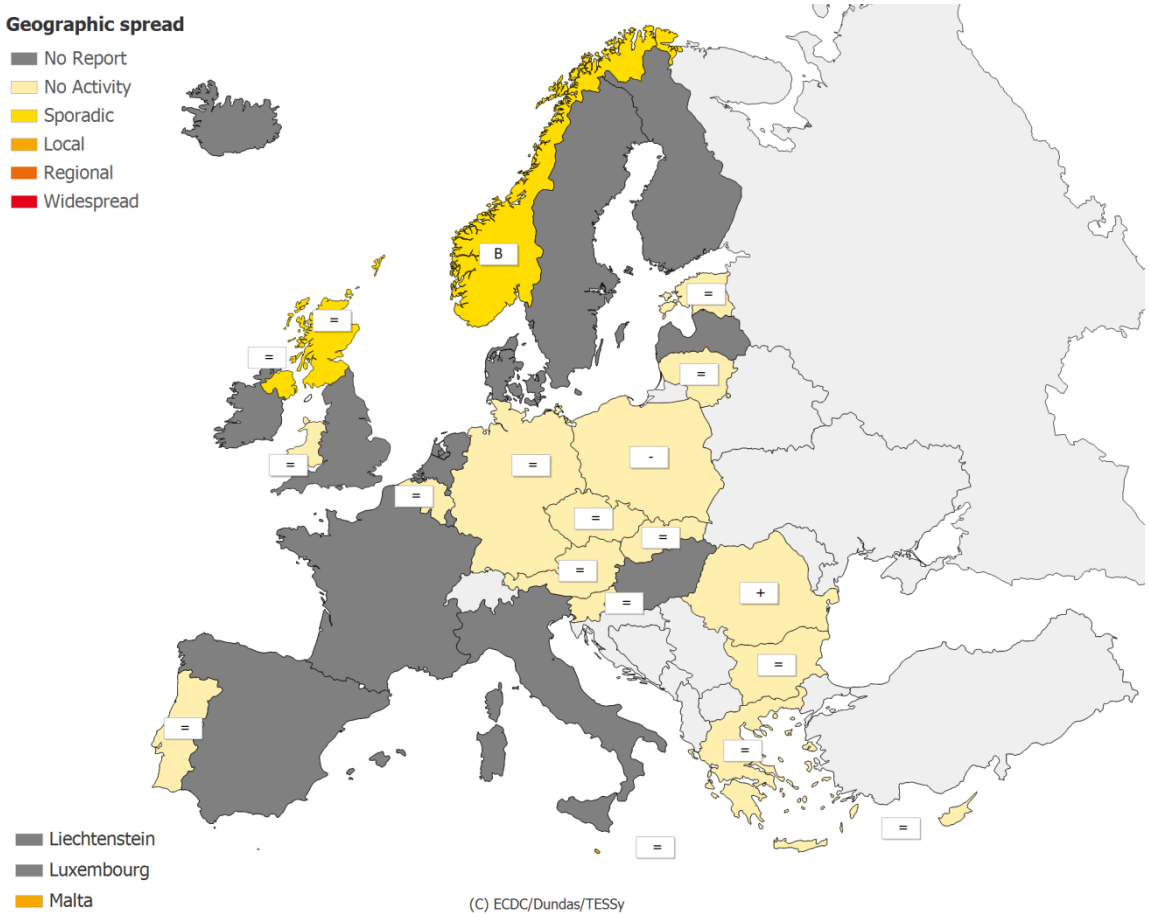


* A type/subtype is reported as dominant when at least ten samples have been detected as influenza positive in the country and of those > 40 % are positive for the type/subtype.

Legend:

No report	Intensity level was not reported	**+**	Increasing clinical activity
Low	No influenza activity or influenza at baseline levels	**-**	Decreasing clinical activity
Medium	Usual levels of influenza activity	**=**	Stable clinical activity
High	Higher than usual levels of influenza activity	**B**	Type B
Very high	Particularly severe levels of influenza activity		

Map 2. Geographic spread for week 22/2013



* 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 report	Activity level was not reported	+	Increasing clinical activity
No activity	No evidence of influenza virus activity (clinical activity remains at baseline levels)	-	Decreasing clinical activity
		=	Stable clinical activity
Sporadic	Isolated cases of laboratory confirmed influenza infection	**B**	Type B
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)		
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, weeks 21-22/2013

Country	Intensity	Geographic spread	Trend	No. of sentinel specimens	Dominant type	Percentage positive	ILI per 100 000	ARI per 100 000	Epidemiological overview	Virological overview
Austria	Low	No activity	Stable	1	None	100.0	-	-	Graphs	Graphs
Belgium	Low	No activity	Stable	-	-	0.0	12.9	1255.6	Graphs	Graphs
Bulgaria	Low	No activity	Stable	0	None	0.0	-	335.6	Graphs	Graphs
Cyprus	Low	No activity	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Czech Republic	Low	No activity	Stable	-	-	0.0	15.1	591.6	Graphs	Graphs
Denmark				0	None	0.0	-	-	Graphs	Graphs
Estonia	Low	No activity	Stable	-	-	0.0	4.2	156.0	Graphs	Graphs
Finland				2	None	0.0	-	-	Graphs	Graphs
France				-	-	0.0	-	-		
Germany	Low	No activity	Stable	-	-	0.0	-	610.3	Graphs	Graphs
Greece	Low	No activity	Stable	0	None	0.0	26.8	-	Graphs	Graphs
Hungary				-	-	0.0	-	-		
Iceland				0	-	0.0	-	-	Graphs	Graphs
Ireland				4	None	25.0	-	-	Graphs	Graphs
Italy				-	-	0.0	-	-		
Latvia				0	None	0.0	-	-	Graphs	Graphs
Lithuania	Low	No activity	Stable	2	None	0.0	0.2	256.2	Graphs	Graphs
Luxembourg				-	-	0.0	-	-		
Malta	Low	Local	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Netherlands				8	None	0.0	-	-	Graphs	Graphs
Norway		Sporadic		0	B	0.0	-	-	Graphs	Graphs
Poland	Low	No activity	Decreasing	0	None	0.0	106.8	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	0.0	0.0	-	Graphs	Graphs
Romania	Low	No activity	Increasing	0	None	0.0	0.0	476.9	Graphs	Graphs
Slovakia	Low	No activity	Stable	0	None	0.0	67.3	1044.3	Graphs	Graphs
Slovenia	Low	No activity	Stable	0	None	0.0	0.0	649.9	Graphs	Graphs
Spain				-	-	0.0	-	-		
Sweden				0	None	0.0	-	-	Graphs	Graphs
UK - England				-	-	0.0	-	-		
UK - Northern Ireland	Low	Sporadic	Stable	2	None	0.0	7.4	278.3	Graphs	Graphs
UK - Scotland	Low	Sporadic	Stable	-	None	0.0	3.2	309.9	Graphs	Graphs
UK - Wales	Low	No activity	Stable	-	-	0.0	1.8	-	Graphs	Graphs
Europe				**19**		**10.5**				Graphs

** Incidence per 100 000 is not calculated for these countries as no population denominator is provided.*
Liechtenstein does not report 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) participate. Depending on their country's choice, each sentinel physician reports the weekly number of patients seen with ILI, 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

For weeks 21 and 22/2013, six countries tested 19 sentinel specimens, two of which were positive for influenza virus. Both viruses were subtyped as influenza A(H1N1)pdm09 (Tables 1–2, Figure 1).

In addition, 45 non-sentinel source specimens (e.g. specimens collected for diagnostic purposes in hospitals) were found to be positive for influenza virus, 19 of which (42%) were type A and 26 (58%) type B (Table 2, Figure 2). Of nine influenza A viruses subtyped, three (33%) were A(H1)pdm09 and six (66%) were A(H3) viruses. The lineage was determined for five influenza B viruses as B(Yamagata) (Table 2).

Since week 21/2013, twenty-three antigenic characterisations of influenza viruses have been reported for sentinel and non-sentinel specimens. Of the ten antigenic characterisations of influenza A viruses reported, two have been characterised as A/Victoria/361/2011(H3N2)-like and eight as A(H1)pdm09 A/California/7/2009 (H1N1)-like. Of the thirteen antigenic characterisations of influenza B viruses reported, all have been characterised as B/Estonia/55669/2011-like (B/Yamagata/16/88-lineage) (Table 3).

Since week 21/2013, no genetic characterisations of influenza viruses have been reported.

More details on circulating viruses can be found in the April report prepared by the European Reference Laboratory Network for Human Influenza (ERLI-Net) coordination team. The viruses circulating this inter-season remain well-matched with the vaccine viruses for the 2012–13 season.

Since week 21/2013, no reduced neuraminidase inhibitor or M2-blocker susceptibility was reported.

For weeks 21 and 22/2013, thirteen countries reported 25 respiratory syncytial virus detections, continuing the decline observed since week 52/2012 towards the baseline level (Figure 3).

Table 2. Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 21/2013–22/2013

Virus type/subtype	Current period Sentinel	Current period Non-sentinel	Inter-season Sentinel	Inter-season Non-sentinel
Influenza A	2	19	2	19
A(H1)pdm09	2	3	2	3
A(H3)	0	6	0	6
A(sub-type unknown)	0	10	0	10
Influenza B	0	26	0	26
B(Vic) lineage	0	0	0	0
B(Yam) lineage	0	5	0	5
Unknown lineage	0	21	0	21
Total influenza	**2**	**45**	**2**	**45**

Note: A(H1)pdm09 and A(H3) include both N-subtyped and non-N-subtyped viruses

Figure 1. Number of sentinel specimens positive for influenza virus, by type, subtype and week of report, weeks 40/2012–22/2013

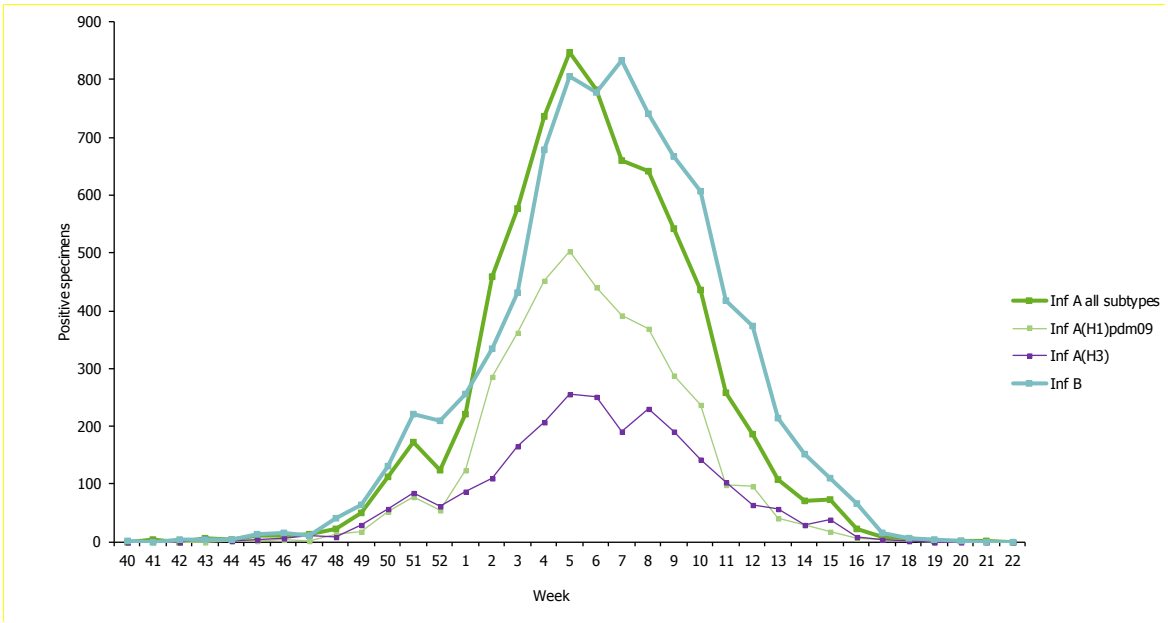


Figure 2. Number of non-sentinel specimens positive for influenza virus by type, subtype and week of report, weeks 40/2012–22/2013

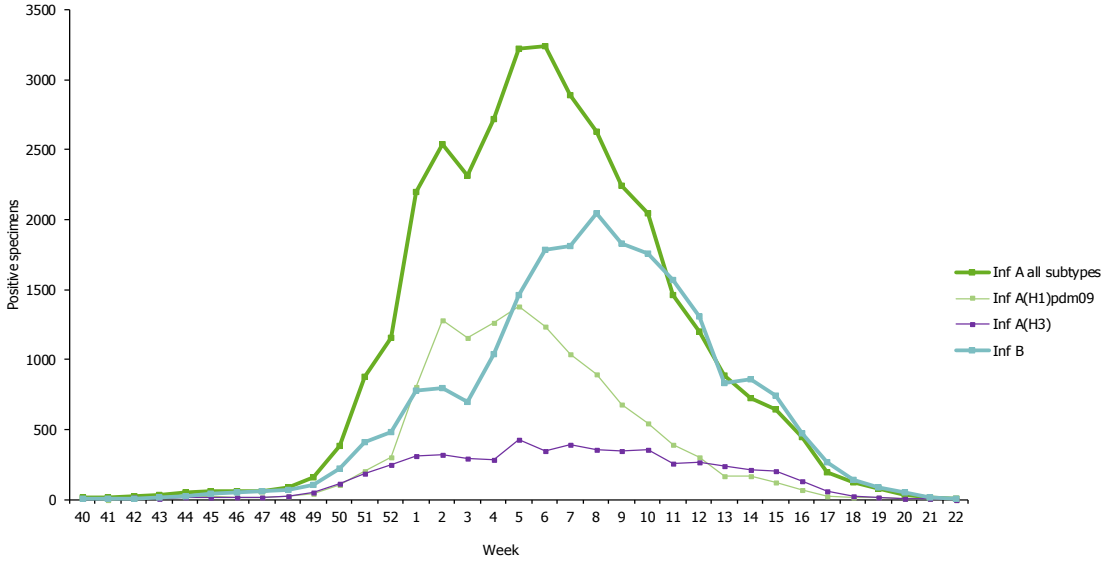
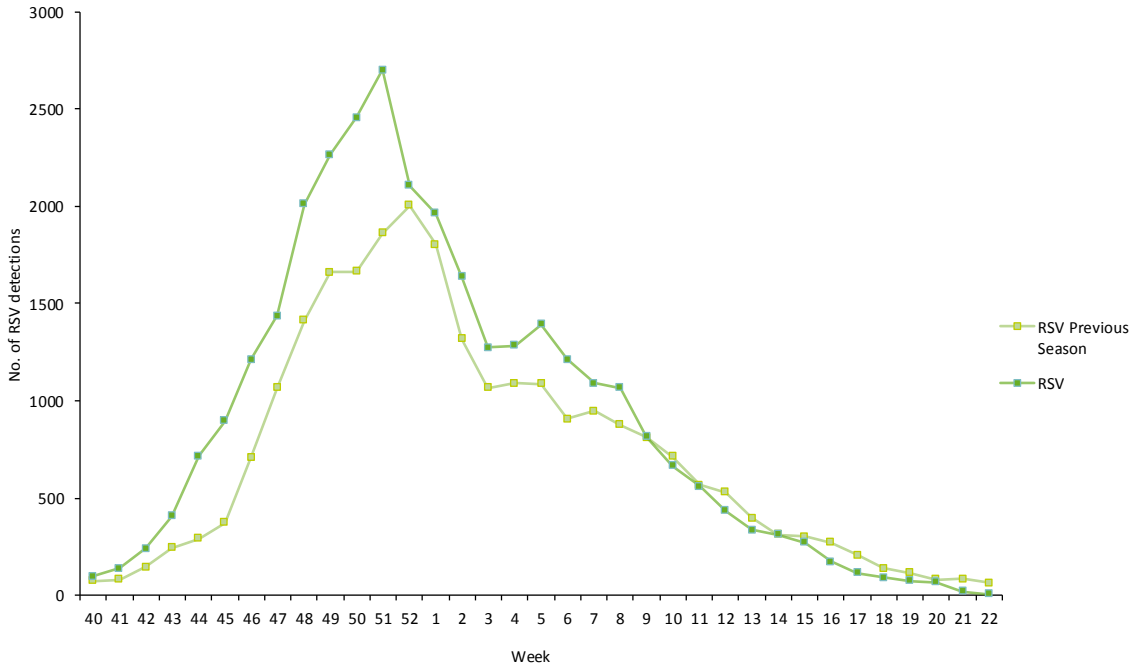


Table 3. Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 21–22/2013

Antigenic group	Number of viruses
A(H1)pdm09 A/California/7/2009 (H1N1)-like	8
A(H3) A/Victoria/361/2011 (H3N2)-like	2
B/Estonia/55669/2011-like (B/Yamagata/16/88-lineage)	13
Total	**23**

Figure 3. Respiratory syncytial virus (RSV) detections, sentinel and non-sentinel, weeks 40/2012–22/2013



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.

For details of the current virus strains recommended by WHO for vaccine preparation **click here**.

Hospital surveillance – severe influenza disease

Weekly analysis of hospitalised laboratory-confirmed influenza cases

For weeks 21–22/2013, no hospitalised laboratory-confirmed influenza cases were reported.

The EuroMOMO mortality monitoring system

Analysis of pooled data from 13 countries or regions in week 22/2013 showed that all-cause mortality has been at normal levels since week 17/2013.

Further details are available on http://www.euromomo.eu/results/pooled.html

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This report was written by an editorial team at the European Centre for Disease Prevention and Control (ECDC): Eeva Broberg, Julien Beauté and René Snacken. The bulletin text was reviewed by the European Reference Laboratory Network for Human Influenza (ERLI-Net) coordination team: Adam Meijer, Rod Daniels, John McCauley and Maria Zambon. On behalf of the EISN members, the bulletin text was reviewed by Amparo Larrauri Cámara (Instituto de Salud Carlos III, Spain), Vincent Enouf (Institut Pasteur, France) and Anne Mazick (Statens Serum Institut, Copenhagen). In addition, the report is reviewed by experts of WHO Regional Office for Europe.