



SURVEILLANCE REPORT

Weekly influenza surveillance overview

3 January 2014

Main surveillance developments in week 52/2013 (23–29 December 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.

For week 52/2013:

- All 11 reporting countries recorded low-intensity influenza activity and all but one reported stable or decreasing trends.
- Of 46 sentinel specimens tested across seven countries, six (13%) were positive for influenza virus.

Since the start of weekly reporting on influenza surveillance for the 2013–2014 season in week 40/2013, there has been no evidence of sustained influenza activity in Europe. Due to the low level of reporting during the Christmas/New Year holidays, a comprehensive report on influenza activity in Europe cannot be provided.

Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI): Low-intensity influenza activity was reported by all 11 reporting countries. For more information, [click here](#).

Virological surveillance: Seven countries tested sentinel specimens, of which 13% were positive for influenza virus. For more information, [click here](#).

Hospital surveillance of laboratory-confirmed influenza cases. Spain reported one fatal case. For more information, [click here](#).

Sentinel surveillance (ILI/ARI)

Weekly analysis – epidemiology

For week 52/2013, clinical data (ILI or ARI) were reported by 11 countries. All of them reported low-intensity influenza activity, the lowest category of reporting (Table 1, Map1).

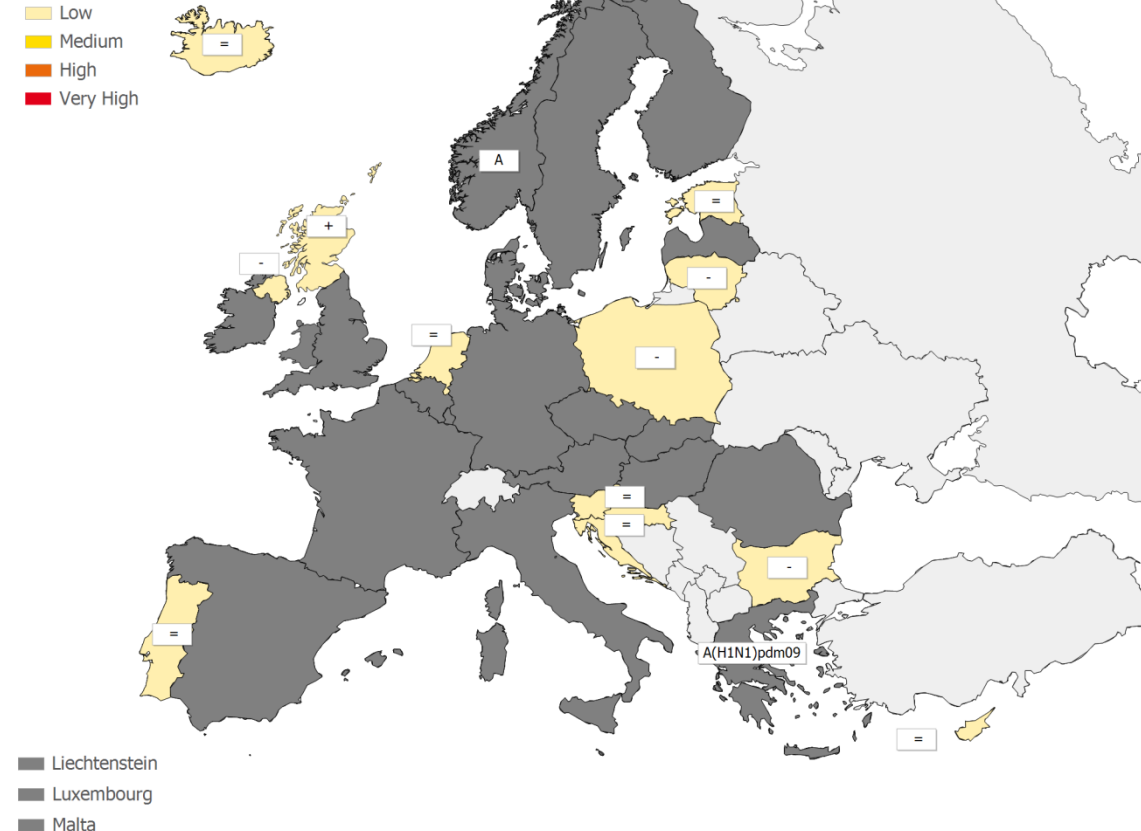
Geographic patterns of influenza activity were reported as local by Iceland and as sporadic by three countries and the UK (Scotland). All other countries reported no activity (Table 1, Map 2).

An increasing trend was reported by the UK (Scotland), all other countries reported stable or decreasing trends (Table 1, Map 2). In Scotland, ARI incidence rates have increased continuously since week 49, accompanied by influenza virus detections.

Map 1. Intensity for week 52/2013

Intensity

- No report
- Low
- Medium
- High
- Very High

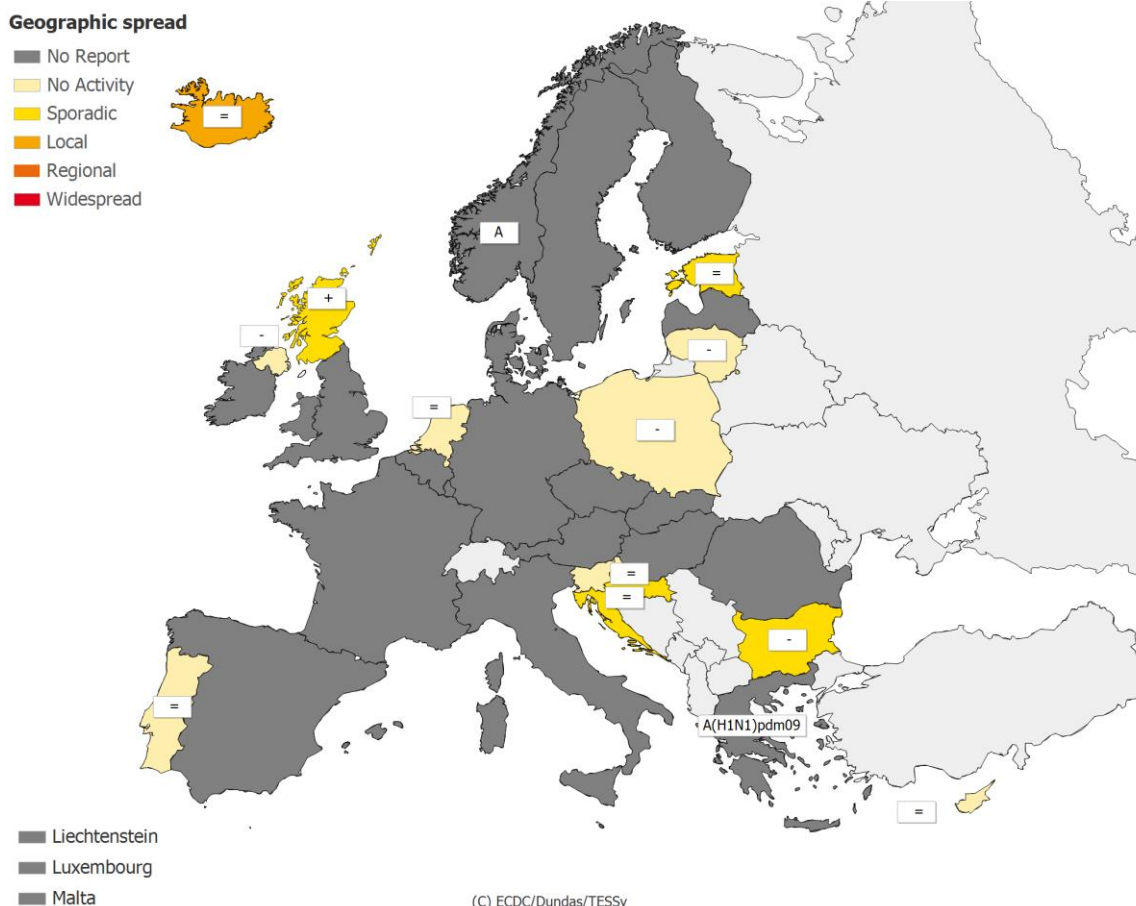


(C) ECDC/Dundas/TESSy

* 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 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	A	Type A
Very high	Particularly severe levels of influenza activity	A (H1N1)pdm09	Type A, Subtype (H1N1)pdm09

Map 2. Geographic spread for week 52/2013



* 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
Sporadic	Isolated cases of laboratory confirmed influenza infection	=	Stable 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)	A	Type A
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 (H1N1)pdm09	Type A, Subtype (H1N1)pdm09
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 52/2013

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				-	-	0.0	-	-		
Belgium				-	-	0.0	-	-		
Bulgaria	Low	Sporadic	Decreasing	0	None	0.0	-	345.5	Graphs	Graphs
Croatia	Low	Sporadic	Stable	-	-	0.0	-	-	Graphs	Graphs
Cyprus	Low	No activity	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Czech Republic				-	-	0.0	-	-		
Denmark				0	None	0.0	-	-	Graphs	Graphs
Estonia	Low	Sporadic	Stable	-	-	0.0	4.7	126.1	Graphs	Graphs
Finland				-	-	0.0	-	-		
France				-	-	0.0	-	-		
Germany				20	None	0.0	-	-	Graphs	Graphs
Greece				2	A(H1N1)pdm09	50.0	-	-	Graphs	Graphs
Hungary				-	-	0.0	-	-		
Iceland	Low	Local	Stable	-	-	0.0	3.4	-	Graphs	Graphs
Ireland				-	-	0.0	-	-		
Italy				-	-	0.0	-	-		
Latvia				-	-	0.0	-	-		
Lithuania	Low	No activity	Decreasing	0	None	0.0	0.3	244.2	Graphs	Graphs
Luxembourg				-	-	0.0	-	-		
Malta				-	-	0.0	-	-		
Netherlands	Low	No activity	Stable	4	None	0.0	15.7	-	Graphs	Graphs
Norway				5	A	40.0	-	-	Graphs	Graphs
Poland	Low	No activity	Decreasing	4	None	25.0	161.1	-	Graphs	Graphs
Portugal	Low	No activity	Stable	0	None	0.0	0.0	-	Graphs	Graphs
Romania				-	-	0.0	-	-		
Slovakia				-	-	0.0	-	-		
Slovenia	Low	No activity	Stable	4	None	50.0	0.0	654.4	Graphs	Graphs
Spain				-	-	0.0	-	-		
Sweden				-	-	0.0	-	-		
UK - England				-	-	0.0	-	-		
UK - Northern Ireland	Low	No activity	Decreasing	0	None	0.0	7.6	322.4	Graphs	Graphs
UK - Scotland	Low	Sporadic	Increasing	7	None	0.0	10.3	547.5	Graphs	Graphs
UK - Wales				-	-	0.0	-	-		
Europe				46		13.0			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

Weekly analysis – virology

For week 52/2013, seven countries tested a total of 46 sentinel specimens, six (13%) of which (from four of the countries) were positive for influenza virus (Tables 1–2, Figures 1–2).

Since week 40/2013, of 191 sentinel specimens positive for influenza virus, 170 (89%) were type A and 21 (11%) were type B. Of 132 subtyped influenza A viruses, 73 (55%) were A(H3) and 59 (45%) were A(H1)pdm09.

Non-sentinel virus detections are summarised in Table 2.

The results of antigenic and genetic characterisation of sentinel and non-sentinel viruses are displayed in Tables 3 and 4.

Since week 40/2013, 35 A(H1)pdm09, 20 A(H3) viruses and two B viruses have been tested for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir; none showed genetic or phenotypic (IC₅₀) evidence for reduced inhibition.

In week 52/2013, six countries reported 314 respiratory syncytial virus (RSV) detections (Figure 3), a lot less than in previous weeks. This decrease very likely results from fewer countries reporting during the Christmas/New Year holiday period.

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

Table 2. Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40–52/2013

Virus type/subtype	Current period Sentinel	Current period Non-sentinel	Season Sentinel	Season Non-sentinel
Influenza A	5	28	170	541
A(H1)pdm09	2	4	59	175
A(H3)	3	3	73	98
A(subtype unknown)	0	21	38	268
Influenza B	1	4	21	106
B(Vic) lineage	0	0	0	1
B(Yam) lineage	1	0	4	11
Unknown lineage	0	4	17	94
Total influenza	6	32	191	647

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

Figure 1. Proportion of sentinel specimens positive for influenza virus, weeks 40–52/2013

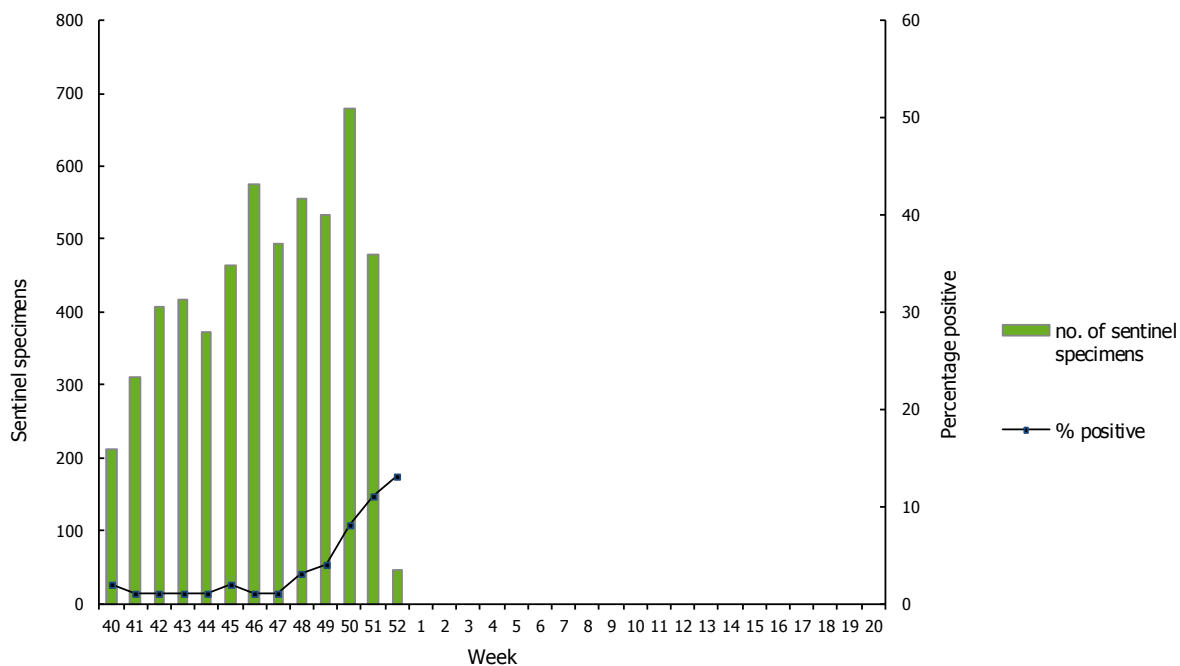


Figure 2. Number of sentinel specimens positive for influenza virus, by type, subtype and by week of report, weeks 40–52/2013

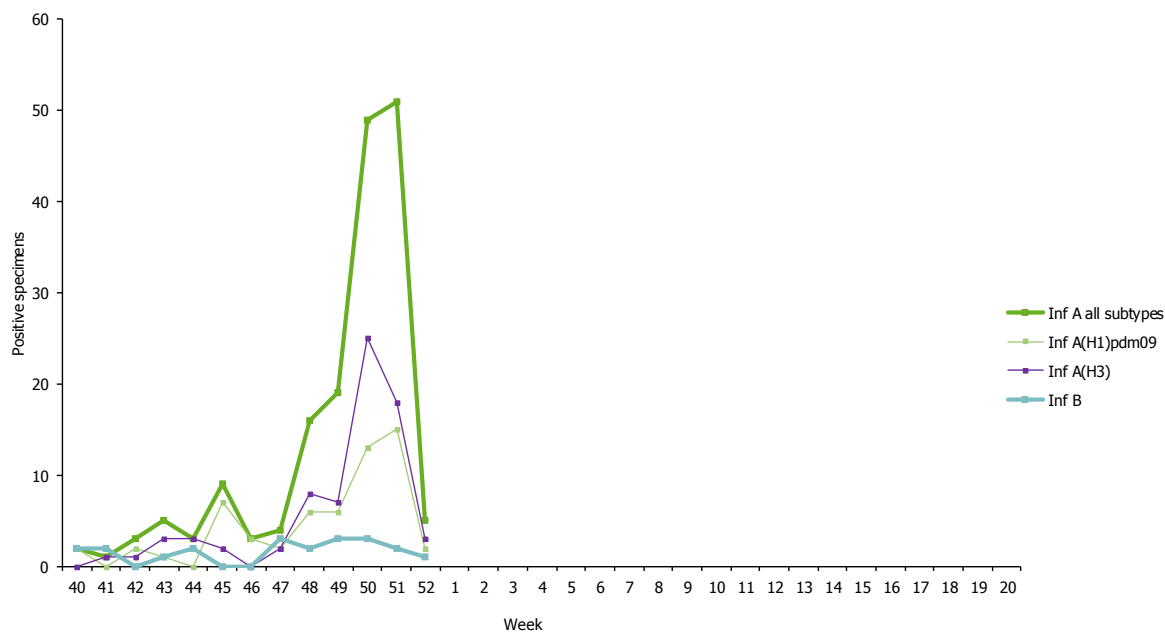


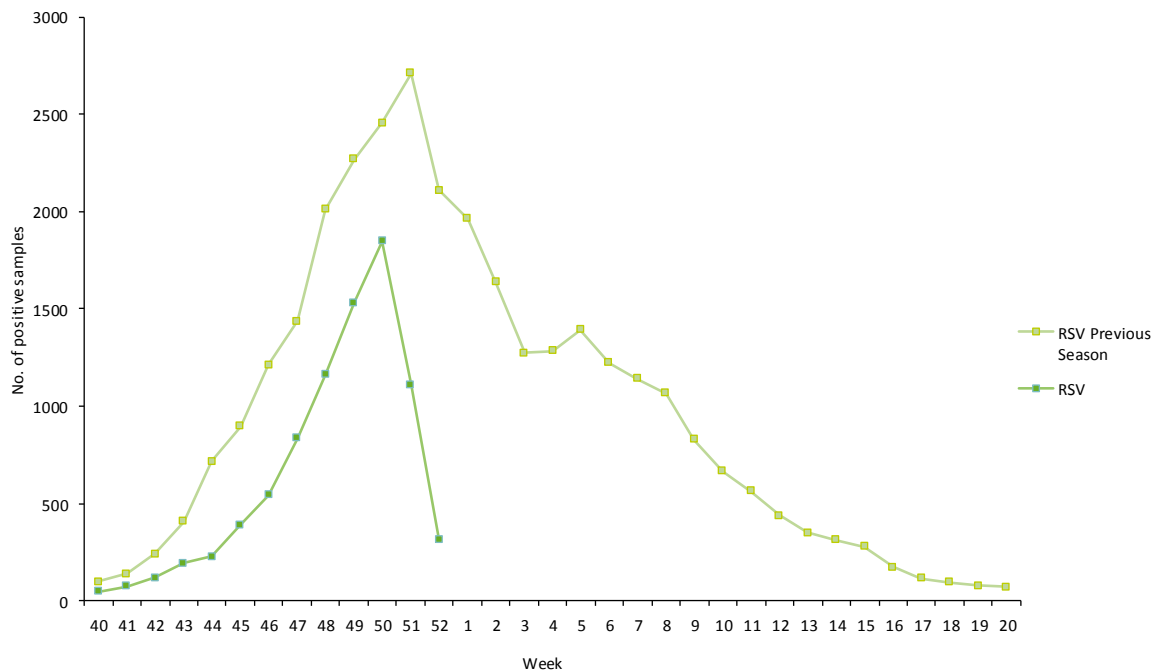
Table 3. Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40–52/2013

Antigenic group	Number of viruses
A(H1)pdm09 A/California/7/2009 (H1N1)-like	9
A(H3) A/Texas/50/2012 (H3N2)-like	22
B/Brisbane/60/2008-like (B/Victoria/2/87 lineage)	1
B/Massachusetts/02/2012-like (B/Yamagata/16/88-lineage)	2
B/Wisconsin/1/2010-like (B/Yamagata/16/88-lineage)	1

Table 4. Results of genetic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40–52/2013

Phylogenetic group	Number of viruses
A(H1)pdm09 group 6 representative A/St Petersburg/27/2011	29
A(H3)subgroup 3C repr, A/Texas/50/2012	39
B(Vic) lineage - clade representative B/Brisbane/60/2008	1
B(Yam)-lineage clade repr. B/Wisconsin/1/2010	3
B(Yam)-lineage clade 2 representative B/Massachusetts/02/2012	6

Figure 3. Respiratory syncytial virus (RSV) detections, sentinel and non-sentinel, weeks 40–52/2013



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.

Hospital surveillance – severe influenza disease

Weekly analysis of hospitalised laboratory-confirmed influenza cases

Since week 40/2013, five countries have reported 59 hospitalised laboratory-confirmed influenza cases (Table 5). France reported four hospitalised cases in week 52/2013. Two fatal cases have been reported, one by France for week 49/2013 and one by Spain for week 50/2013.

Of the 59 hospitalised laboratory-confirmed influenza cases reported since week 40/2013, 47 (80%) were related to infection with influenza virus type A and 12 (20%) to infection with influenza virus type B. Sixteen (80%) of the 20 subtyped influenza A viruses were characterized as A(H1)pdm09 (Table 6).

Table 5. Cumulative number of hospitalised laboratory-confirmed influenza cases, weeks 40–52/2013

Country	Number of cases	Incidence of cases per 100 000 population	Number of fatal cases reported	Incidence of fatal cases per 100 000 population	Estimated population covered
France	15		1		
Ireland	3				
Spain	14		1		
Sweden	2				
United Kingdom	25	0.04			63705030
Total	59		2		

Table 6. Number of hospitalised laboratory-confirmed influenza cases by influenza type and subtype, week 52/2013 and cumulative for the season since week 40/2013

Pathogen	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A	4	47
A(H1)pdm09		16
A(H3)		4
A(subtyping not performed)	4	27
Influenza B		12
Total	4	59

The EuroMOMO mortality monitoring system

The next EuroMOMO bulletin will be published on 10 January 2014. Further details are available on <http://www.euromomo.eu/>

This report was written by an editorial team at the European Centre for Disease Prevention and Control (ECDC): Cornelia Adlhoch, Eeva Broberg, Julien Beauté and René Snacken. The bulletin text was reviewed by 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 Maja Sočan (Inštitut za varovanje zdravja), Allison Waters (University College Dublin) and Tyra Grove Krause (Statens Serum Institut, Copenhagen). In addition, the report is reviewed by experts of WHO Regional Office for Europe.

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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 database.

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