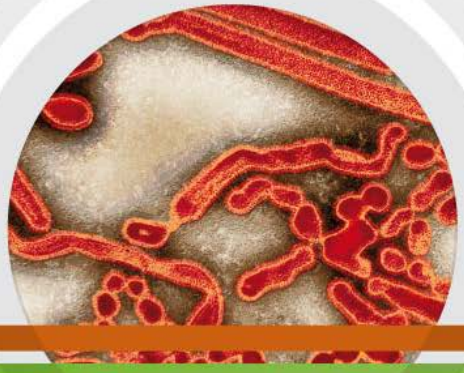


SURVEILLANCE REPORT

Weekly influenza surveillance overview

22 November 2013

Main surveillance developments in week 46/2013 (11–17 November 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.

During week 46/2013:

- All 28 reporting countries experienced low intensity influenza activity.
- Of 459 sentinel specimens tested across 20 countries, one was positive for influenza A virus.
- One hospitalised laboratory-confirmed influenza A case was reported by the UK.

During the first weeks of the 2013–2014 influenza season, there has been no evidence of sustained influenza activity in Europe.

Sentinel surveillance of influenza-like illness (ILI)/ acute respiratory infection (ARI): Low intensity was reported by all 28 reporting countries. For more information, **click here**.

Virological surveillance: Cumulatively, twenty countries tested 459 sentinel specimens, of which one was positive for influenza A virus. For more information, **click here**.

Hospital surveillance of laboratory-confirmed influenza cases. The UK reported one hospitalised patient infected with an influenza A virus. For more information, **click here**.

Sentinel surveillance (ILI/ARI)

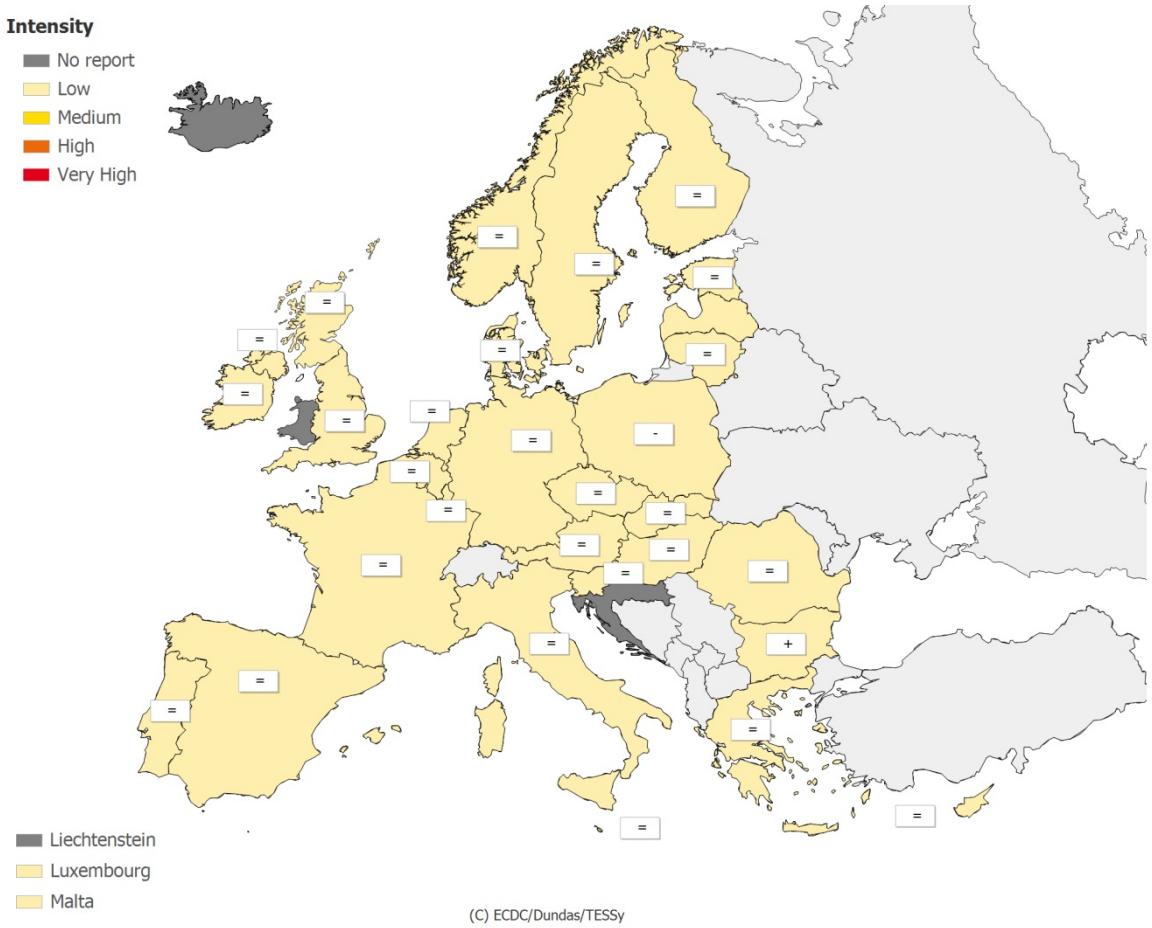
Weekly analysis – epidemiology

For week 46/2013**,** clinical data were reported by 28 countries, all of which experienced low-intensity influenza activity, the lowest category of reporting (Table 1, Map1).

Geographic patterns of influenza activity were reported as sporadic by Denmark, France, Norway, Sweden and the UK (Scotland). All other countries reported no activity (Table 1, Map 2).

Increasing trends were reported by Bulgaria and decreasing by Poland, while all other countries reported stable trends (Table 1, Map 2). The incidence of ILI/ARI was below epidemic thresholds in all countries.

Map 1. Intensity for week 46/2013

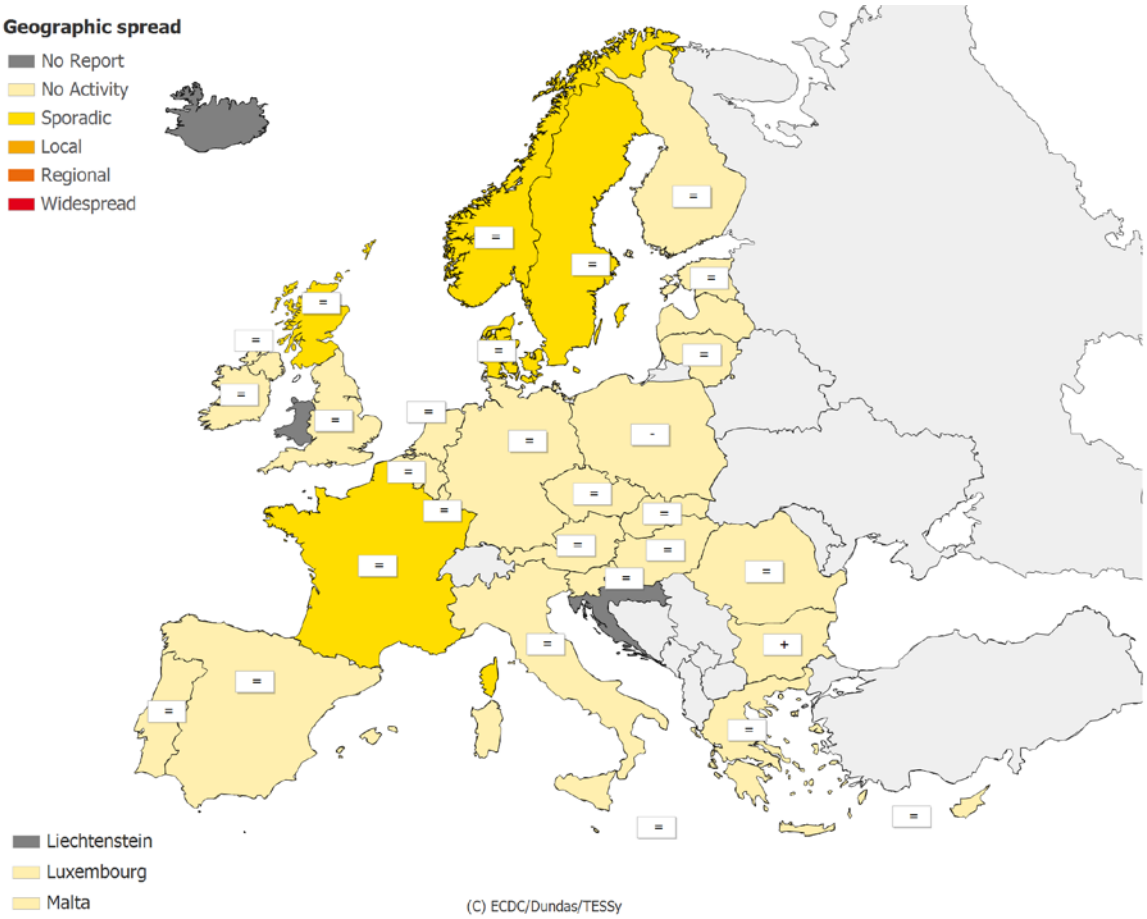


* A type/subtype is reported as dominant when at least ten samples have been detected as influenza positive in the country and of those > 40 % are positive for the type/subtype.

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		
Very high	Particularly severe levels of influenza activity		

Map 2. Geographic spread for week 46/2013



* 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
No activity	No evidence of influenza virus activity (clinical activity remains at baseline levels)
Sporadic	Isolated cases of laboratory confirmed influenza infection
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)

+	Increasing clinical activity
-	Decreasing clinical activity
=	Stable clinical activity

Table 1. Epidemiological and virological overview by country, week 46/2013

Country	Intensity	Geographic spread	Trend	No. of sentinel specimens	Dominant type	Percentage positive	ILI per 100 000	ARI per 100 000	Epidemio-logical overview	Virological overview
Austria	Low	No activity	Stable	2	None	0.0	887.0	-	Graphs	Graphs
Belgium	Low	No activity	Stable	14	None	0.0	23.3	1342.1	Graphs	Graphs
Bulgaria	Low	No activity	Increasing	0	None	0.0	-	903.6	Graphs	Graphs
Croatia				-	-	0.0	-	-		
Cyprus	Low	No activity	Stable	-	-	0.0	-*	-*	Graphs	Graphs
Czech Republic	Low	No activity	Stable	-	-	0.0	22.6	806.8	Graphs	Graphs
Denmark	Low	Sporadic	Stable	3	None	0.0	26.7	-	Graphs	Graphs
Estonia	Low	No activity	Stable	1	None	0.0	4.4	223.0	Graphs	Graphs
Finland	Low	No activity	Stable	12	None	0.0	-	-	Graphs	Graphs
France	Low	Sporadic	Stable	43	None	0.0	-	1239.0	Graphs	Graphs
Germany	Low	No activity	Stable	48	None	0.0	-	996.4	Graphs	Graphs
Greece	Low	No activity	Stable	0	None	0.0	62.1	-	Graphs	Graphs
Hungary	Low	No activity	Stable	14	None	0.0	46.0	-	Graphs	Graphs
Iceland				0	-	0.0	-	-	Graphs	Graphs
Ireland	Low	No activity	Stable	7	None	0.0	6.1	-	Graphs	Graphs
Italy	Low	No activity	Stable	75	None	0.0	68.2	-	Graphs	Graphs
Latvia	Low	No activity	No information available	0	None	0.0	0.0	815.1	Graphs	Graphs
Lithuania	Low	No activity	Stable	9	None	0.0	0.8	466.3	Graphs	Graphs
Luxembourg	Low	No activity	Stable	7	-	0.0	-*	-*	Graphs	Graphs
Malta	Low	No activity	Stable	0	None	0.0	-*	-*	Graphs	Graphs
Netherlands	Low	No activity	Stable	8	None	0.0	17.5	-	Graphs	Graphs
Norway	Low	Sporadic	Stable	6	None	0.0	20.7	-	Graphs	Graphs
Poland	Low	No activity	Decreasing	4	None	0.0	144.3	-	Graphs	Graphs
Portugal	Low	No activity	Stable	-	-	0.0	0.0	-	Graphs	Graphs
Romania	Low	No activity	Stable	3	-	0.0	1.5	605.7	Graphs	Graphs
Slovakia	Low	No activity	Stable	0	None	0.0	119.7	1367.9	Graphs	Graphs
Slovenia	Low	No activity	Stable	11	None	0.0	0.0	809.1	Graphs	Graphs
Spain	Low	No activity	Stable	65	None	0.0	12.3	-	Graphs	Graphs
Sweden	Low	Sporadic	Stable	40	None	2.5	5.2	-	Graphs	Graphs
UK - England	Low	No activity	Stable	67	None	0.0	4.7	174.6	Graphs	Graphs
UK - Northern Ireland	Low	No activity	Stable	2	None	0.0	14.4	362.0	Graphs	Graphs
UK - Scotland	Low	Sporadic	Stable	18	None	0.0	8.2	382.5	Graphs	Graphs
UK - Wales				-	-	0.0	-	-		
Europe				**459**		**0.2**				**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 46/2013, 20 countries tested a total of 459 sentinel specimens, of which one (0.2%) was positive for influenza A(H1N1)pdm09 virus (Tables 1–2).

In addition, 34 non-sentinel source specimens (e.g. specimens collected for diagnostic purposes in hospitals) were found to be positive for influenza virus, 26 were type A and eight were type B viruses. Of 15 subtyped influenza A viruses, 11 were A(H1)pdm09 and four A(H3) (Table 2).

Of the nine antigenic characterisations of influenza A viruses reported as sentinel and non-sentinel specimens since week 40/2013, eight have been characterised as A(H1)pdm09 A/California/7/2009 (H1N1)-like, and one B(Yamagata) lineage virus could not be attributed to any of the reportable categories (Table 3).

Since week 40/2013, 16 genetic characterisations of influenza viruses have been reported for sentinel and non-sentinel specimens. Of these, six clustered with A(H1)pdm09 genetic group 6 represented by A/St Petersburg/27/2011, nine with A(H3) the A/Victoria/208/2009 clade, falling within genetic group 3C, represented by A/Texas/50/2012, and one with B(Yamagata)-lineage clade 2 represented by B/Massachusetts/02/2012 (Table 4). For details of the current virus strains recommended by WHO for vaccine preparation click here.

More details on viruses that circulated between 1 January and 31 May 2013 can be found in the September report prepared by the European Reference Laboratory Network for Human Influenza (ERLI-Net) coordination team.

Since week 40/2013, eight A(H1)pdm09, eight A(H3) viruses and one B virus have been tested for susceptibility to neuraminidase inhibitors, oseltamivir and zanamivir, but none showed genetic or phenotypic (IC_{50}) evidence for reduced inhibition.

For week 46/2013, ten countries reported 323 respiratory syncytial virus detections. RSV detections are at low levels compared to this time last season (Figure 3).

Table 2. Weekly and cumulative influenza virus detections by type, subtype and surveillance system, weeks 40–46/2013

Virus type/subtype	Current period Sentinel	Current period Non-sentinel	Season Sentinel	Season Non-sentinel
Influenza A	1	26	24	175
A(H1)pdm09	1	11	13	54
A(H3)	0	4	10	39
A(sub-type unknown)	0	11	1	82
Influenza B	0	8	6	40
B(Vic) lineage	0	0	0	0
B(Yam) lineage	0	0	0	5
Unknown lineage	0	8	6	35
Total influenza	**1**	**34**	**30**	**215**

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 40–46/2013

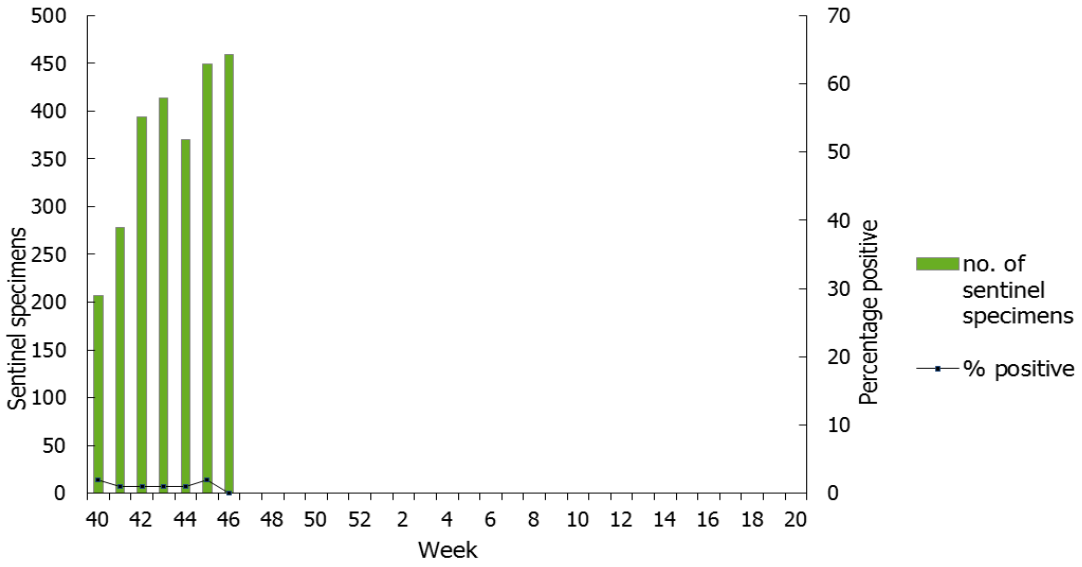


Figure 2. Number of sentinel specimens positive for influenza virus, by type, subtype and week of report, weeks 40–46/2013

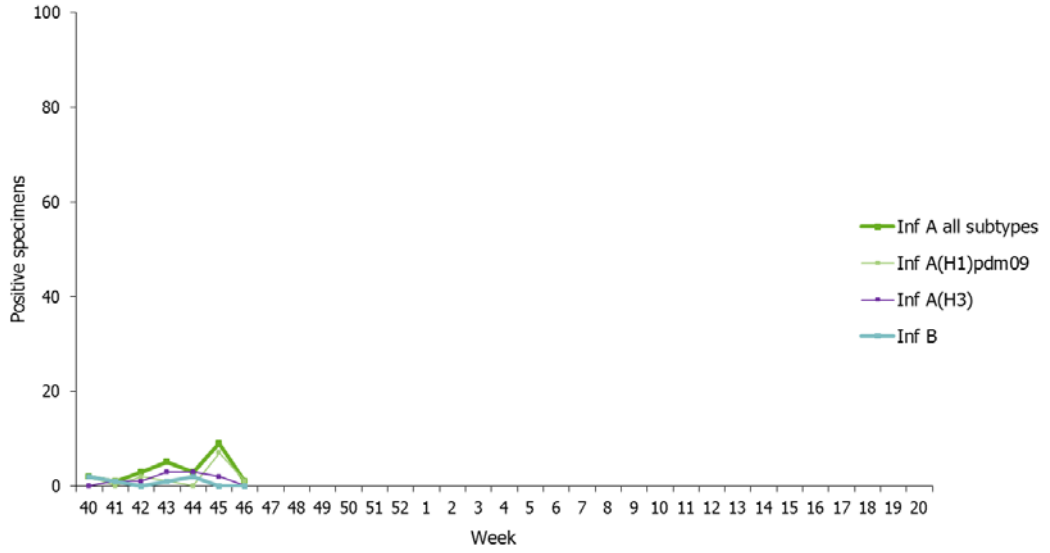


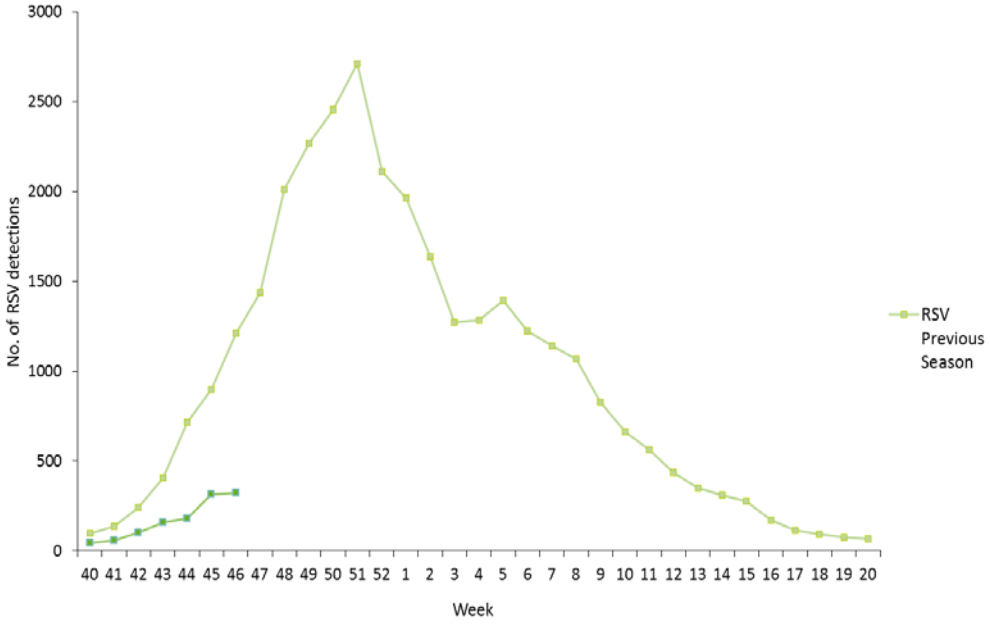
Table 3. Results of antigenic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40–46/2013

Antigenic group	Number of viruses
A(H1)pdm09 A/California/7/2009 (H1N1)-like	8
B(Yam) lineage not attributed to category	1

Table 4. Results of genetic characterisations of sentinel and non-sentinel influenza virus isolates, weeks 40–46/2013

Phylogenetic group	Number of viruses
A(H1)pdm09 group 6 representative A/St Petersburg/27/2011	6
A(H3) clade representative A/Victoria/208/2009 – A/Texas/50/2012 subgroup (3C)	9
B(Yam)-lineage clade 2 representative B/Massachusetts/02/2012	1

Figure 3. Respiratory syncytial virus (RSV) detections, sentinel and non-sentinel, weeks 40–46/2013



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

Since week 40/2013, three countries have reported 15 hospitalised laboratory-confirmed influenza cases (Table 5).

For week 46/2013, one hospitalised laboratory-confirmed influenza A case was reported by the UK (Table 6).

Of the 15 hospitalised laboratory-confirmed influenza cases reported since week 40/2013, eight cases were related to influenza type A infection and seven to type B (Table 6).

Table 5. Cumulative number of hospitalised laboratory-confirmed influenza cases, week 40–46/2013

Country	Number of cases	Incidence of cases per 100 000 population	Number of fatal cases reported	Estimated population covered
Ireland	1			
Sweden	1			
United Kingdom	13	0.02		63 705 030
Total	**15**		**0**	

Table 6. Number of hospitalised laboratory-confirmed influenza cases by influenza type and subtype, week 46/2013 and cumulative for the season

Pathogen	Number of cases during current week	Cumulative number of cases since the start of the season
Influenza A	1	8
A(H1)pdm09		3
A(H3)		
A(sub-typing not performed)	1	5
Influenza B		7
Total	**1**	**15**

The EuroMOMO mortality monitoring system

Week 46: All-cause mortality has been within the normal range for all reporting countries. 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.