

Sporadic influenza activity in Europe at the start of the 2010/2011 influenza season



This week marks the beginning of the 2010/2011 influenza season. The EuroFlu bulletin will now be published weekly.

- This issue is based on data reported in week 40/2010 by 39 Member States in the WHO European Region.
- Levels of influenza activity in Europe are currently very low.
- There have been sporadic detections of influenza A (H3N2), pandemic influenza A(H1N1) and influenza B during the past week.



Current situation - week 40/2010

Of the 33 countries reporting clinical data on influenza-like illness (ILI) or acute respiratory infection (ARI) consultations, only 2 (Bulgaria and the United Kingdom) reported increases in consultation rates (for ARI) during each of the previous two weeks. In most countries, clinical consultation rates were highest for the group aged 0-4. The geographic spread of influenza was reported to be sporadic in 7 countries (Armenia, Belarus, Estonia, France, the Russian Federation, Ukraine, and the United Kingdom) while 29 countries reported no geographic spread. Of the 24 countries reporting on the impact of influenza on their health care systems, all reported low impact. Of the 36 countries that reported on the intensity of acute respiratory disease activity, the Russian Federation reported medium intensity and the remaining countries reported low intensity.

Virological situation - week 40/2010

Sentinel physicians collected 262 respiratory specimens this week, of which 3 (1.2%) were positive for influenza virus. Of these, 2 were influenza A and 1 was influenza B. Of the influenza A viruses, 1 was subtyped as pandemic A(H1) and 1 was not subtyped. Only 4 countries tested 20 or more sentinel specimens this week, and none reported any positive influenza detections. Among the specimens tested by non-sentinel sites, 15 were positive for influenza. Of these, 12 were influenza A and 3 were influenza B. Of the influenza A viruses, 2 were subtyped as pandemic A(H1), 1 was A(H1), 5 were influenza A(H3) and 4 were not subtyped.

No antigenic or genetic characterizations were reported to the WHO European Influenza Network (EuroFlu) this week.

Comment

Influenza activity is currently at very low levels in the European Region. There have been sporadic detections of influenza A (H3N2), pandemic influenza A(H1N1) and influenza B during the past week. Data are not available to predict which virus type or subtype will become dominant in Europe this season. WHO/Europe recommends the following viruses to be included in influenza vaccines in the northern hemisphere 2010/2011 winter season: A/California/7/2009 (H1N1)-like viruses (the pandemic influenza A(H1N1) virus); A/Perth/16/2009 (H3N2)-like viruses; and B/Brisbane/60/2008-like viruses. For more information, see WHO/Europe's [interim recommendations](#).

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Finland

15 of 35 specimens tested were adenovirus-positive

Kazakhstan

на другие не гриппозные инфекции исследовано всего -50, в том числе положительных -6 из них Аденовирус-4, РС-2.

Latvia

0

Test: E: 247

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Decreasing					345.8 (graphs)	Click here
Armenia	Low	Sporadic	Low	Increasing				(graphs)	50.7 (graphs)	Click here
Austria					0	0%	None	(graphs)		Click here
Azerbaijan	Low	None	Low	Decreasing	12	0%	None	(graphs)		Click here
Belarus	Low	Sporadic	Low	Decreasing					1035.8 (graphs)	Click here

Belgium	Low	None		Stable	16	0%	None	29.3 (graphs)	1221.7 (graphs)	Click here
Bulgaria	Low	None		Increasing	0	0%	None	(graphs)	550.5 (graphs)	Click here
Czech Republic	Low	None		Stable				17.6 (graphs)	796.4 (graphs)	Click here
Denmark	Low	None		Stable				64.1 (graphs)	(graphs)	Click here
England	Low	Sporadic		Stable	6	0%	None	6.4 (graphs)	404.5 (graphs)	Click here
Estonia	Low	Sporadic	Low	Increasing	2	0%	None	5.4 (graphs)	271.9 (graphs)	Click here
Finland					35	0%	None	(graphs)		Click here
France	Low	Sporadic	Low	Stable				(graphs)	1611.2 (graphs)	Click here
Georgia	Low	None	Low	Stable	25	0%	None	95.2 (graphs)		Click here
Germany	Low	None	Low	Stable	9	0%	None	(graphs)	974.3 (graphs)	Click here
Ireland	Low	None	Low	Stable	13	0%	None	7.1 (graphs)	(graphs)	Click here
Israel	Low	None	Low	Stable				3.4 (graphs)		Click here
Kazakhstan	Low	None	Low	Increasing	16	0%	None		(graphs)	Click here
Kyrgyzstan	Low	None	Low	Stable	5	0%	None		21.7 (graphs)	Click here
Latvia	Low	None		Stable	0	0%	None	0.0 (graphs)	1266.6 (graphs)	Click here
Lithuania					3	33.3%	None	(graphs)		Click here
Luxembourg	Low	None			1	0%	None	0.3 * (graphs)	21.3 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Netherlands	Low	None		Stable	14	0%	None	24.3 (graphs)	(graphs)	Click here
Norway	Low	None		Stable	2	0%	None	27.1 (graphs)	(graphs)	Click here
Poland	Low	None	Low	Decreasing	3	0%	None	37.0 (graphs)	(graphs)	Click here
Portugal	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	140.5 (graphs)	Click here
Romania	Low	None	Low	Increasing	9	0%		2.5 (graphs)	864.2 (graphs)	Click here
Russian Federation	Medium	Sporadic		Stable	29	0%	None		578.7 (graphs)	Click here
Scotland	Low	None	Low	Stable	5	0%	None	2.8 (graphs)	193.1 (graphs)	Click here
Serbia	Low	None	Low	Increasing				14.4 (graphs)		Click here
Slovakia	Low	None	Low	Stable	1	100.0%	None	176.5 (graphs)	1656.9 (graphs)	Click here
Slovenia	Low	None		Stable	2	0%	None	0.0 (graphs)	918.4 (graphs)	Click here
Spain	Low	None		Stable	40	0%	None	10.0 (graphs)	(graphs)	Click here
Sweden	Low	None	Low	Stable				7.8 (graphs)	(graphs)	Click here
Switzerland	Low	None	Low	Stable	14	7.1%	None	11.0 (graphs)		Click here
Turkey	Low	None	Low	Stable				6.7 (graphs)		Click here
Ukraine	Low	Sporadic	Low	Increasing				10.1 * (graphs)	507.1 (graphs)	Click here
Uzbekistan	Low	None	Low	Increasing			None		17.2 (graphs)	Click here
Europe					262	1.2%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Sporadic influenza detections in Europe

- This issue is based on data reported in week 41/2010 by 42 Member States in the WHO European Region.
- Levels of influenza activity in Europe are currently low.
- 9 out of 387 sentinel specimens (2.3%) tested positive for influenza.
- There have been sporadic detections of influenza B, influenza A(H3N2) and pandemic influenza A(H1N1) during the past week.



Current situation - week 41/2010

Consultation rates were low and generally stable in the 30 countries reporting clinical data on influenza-like illness (ILI) and/or acute respiratory infection (ARI). In most countries, clinical consultation rates were highest for the group aged 0-4 years. The geographic spread of influenza was reported to be local in 1 country (Armenia) and sporadic in 8 countries (Belarus, Cyprus, Estonia, Israel, the Russian Federation, Slovakia, Ukraine and the United Kingdom), while 25 countries reported no activity. All of the 25 countries reporting on the impact of influenza on their health care systems, reported low impact. Of the 34 countries that reported on the intensity of acute respiratory disease activity, the Russian Federation reported medium intensity and the others, low intensity.



Virological situation - week 41/2010

Sentinel physicians collected 387 respiratory specimens, of which 9 (2.3%) were positive for influenza virus: 2 were influenza A, both subtyped as pandemic A(H1), and 7 were influenza B. For the 6 countries testing 20 or more sentinel specimens this week, influenza positivity ranged from 0% (in Finland, Georgia, the Russian Federation and Spain) to 10.6% (in Israel), with a mean of 2.4%. Among the specimens tested by non-sentinel sites, 17 were positive for influenza: 8 were influenza A and 9 were influenza B. Of the influenza A viruses, 1 was subtyped as pandemic A(H1), 1 was influenza A(H3) and 6 were not subtyped.

No antigenic or genetic characterizations were reported to the WHO European Influenza Network (EuroFlu) this week.

Cumulative virological update - weeks 40-41/2010

In total, 45 influenza viruses were detected: 6 were identified as pandemic A(H1), 1 seasonal A(H1), 7 A(H3), 11 A not subtyped and 20 B. All 4 N-subtyped viruses were pandemic A(H1N1).

Comment

Influenza activity is currently at low levels in the European Region. There have been sporadic detections of influenza A (H3N2), pandemic influenza A(H1N1) and influenza B during the past weeks. Data are not available to predict which virus type or subtype will become dominant in Europe this season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Finland

9 out of 21 specimens tested positive for adenovirus

Kazakhstan

Серологический обследовано 17, из них 1 положительный (A3) Методом ПЦР обследовано 15, положительных нет. на другие не гриппозные обследовано 78, из них 16 положительных, в том числе 11 аденовирусы, РС-1.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Decreasing					352.4 (graphs)	Click here
Armenia	Low	Local	Low	Increasing	0	0%	None	(graphs)	62.5 (graphs)	Click here
Austria					0	0%	None	(graphs)		Click here
Azerbaijan					8	0%	None	(graphs)		Click here
Belarus	Low	Sporadic	Low	Stable					1035.7 (graphs)	Click here
Belgium	Low	None		Stable	16	0%		39.3 (graphs)	1065.6 (graphs)	Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	535.2 (graphs)	Click here
Cyprus	Low	Sporadic	Low					0* (graphs)	4.1* (graphs)	Click here

Czech Republic	Low	None		Stable				19.4 (graphs)	812.1 (graphs)	Click here
Denmark					0	0%	None	(graphs)		Click here
England	Low	Sporadic		Stable	80	3.8%	None	8.4 (graphs)	401.3 (graphs)	Click here
Estonia	Low	Sporadic	Low	Stable	4	0%	None	4.4 (graphs)	272.6 (graphs)	Click here
Finland	Low	None	Low	Stable	21	0%	None	0.0 (graphs)	(graphs)	Click here
France	Low	None	Low	Stable				(graphs)	1604.1 (graphs)	Click here
Georgia	Low	None	Low	Stable	24	0%	None	145.0 (graphs)		Click here
Germany	Low	None	Low	Stable	7	14.3%	None	(graphs)	983.6 (graphs)	Click here
Greece	Low	None		Stable	0	0%	None	66.6 (graphs)	(graphs)	Click here
Hungary	Low	None	Low	Decreasing	4	0%	None	92.3 (graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	8	0%	None	6.6 (graphs)	(graphs)	Click here
Israel	Low	Sporadic	Low	Increasing	47	10.6%	Type B	4.2 (graphs)		Click here
Kazakhstan	Low	None	Low	Stable	14	0%	None		(graphs)	Click here
Kyrgyzstan					4	0%	None		(graphs)	Click here
Latvia	Low	None		Stable	0	0%	None	0.0 (graphs)	991.5 (graphs)	Click here
Lithuania	Low	None	Low	Stable				0.9 (graphs)	438.3 (graphs)	Click here
Luxembourg	Low	None			6	0%	None	0.2 * (graphs)	21.7 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Netherlands					8	0%	None	(graphs)		Click here
Norway	Low	None		Stable	0	0%	None	22.9 (graphs)	(graphs)	Click here
Poland	Low	None	Low	Increasing	7	0%	None	43.9 (graphs)	(graphs)	Click here
Portugal	Low	None	Low	Stable	0	0%	None	11.7 (graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	4	0%	None	(graphs)	117.9 (graphs)	Click here
Romania	Low	None	Low	Stable	10	0%	None	9.4 (graphs)	820.6 (graphs)	Click here
Russian Federation	Medium	Sporadic		Stable	31	0%	None		597.3 (graphs)	Click here
Scotland	Low	None	Low	Stable	17	0%	None	0.9 (graphs)	196.1 (graphs)	Click here
Serbia	Low	None	Low	Increasing	2	0%	None	30.7 (graphs)		Click here
Slovakia	Low	Sporadic	Low	Stable				171.3 (graphs)	1595.7 (graphs)	Click here
Slovenia					3	0%	None	(graphs)		Click here
Spain	Low	None		Stable	33	0%	None	10.8 (graphs)	(graphs)	Click here
Sweden	Low	None	Low	Stable	16	0%	None	3.6 (graphs)	(graphs)	Click here
Switzerland	Low	None	Low	Stable	6	0%	None	6.9 (graphs)		Click here
Turkey					0	0%	None	(graphs)		Click here
Ukraine	Low	Sporadic	Low	Increasing	7	0%	None	5.7 * (graphs)	519.2 (graphs)	Click here
Uzbekistan	Low	None	Low	Increasing					17.6 (graphs)	Click here
Europe					387	2.3%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Influenza detections in Europe remain sporadic in week 42 of 2010



- This issue is based on data reported in week 42/2010 by 39 Member States in the WHO European Region.
- Influenza activity levels in Europe are currently low.
- 12 out of 633 sentinel specimens (1.9%) tested positive for influenza.
- Sporadic detections of influenza B, influenza A (H3N2) and pandemic influenza A(H1N1) were reported during the week.



Current situation - week 42/2010

Influenza-like illness (ILI) and acute respiratory infection (ARI) consultation rates continue to be low throughout the WHO European Region. Of the 35 countries reporting clinical data for week 42, increases in consultation rates during each of the previous two weeks were observed only in Armenia, Georgia and Serbia. In all 3 countries, consultation rates were highest among the group aged 0-4. 36 countries reported on geographic spread, but only 11 reports were positive: 10 countries (Azerbaijan, Belarus, Cyprus, Estonia, France, Israel, Poland, the Russian Federation, Ukraine and the United Kingdom) reported sporadic spread, while Armenia reported local spread. In all countries, except the Russian Federation, clinical consultation rates were at or below the country baseline. The impact of influenza on health care systems was low in all countries reporting on this indicator.

Virological situation - week 42/2010

Sentinel physicians collected 633 respiratory specimens in week 42, of which 12 (1.9%) were positive for influenza virus: 5 were influenza A and 7 were influenza B. Of the influenza A viruses, 2 were subtyped as pandemic A(H1), 2 as A(H3) and 1 influenza A not subtyped. Of the 7 countries testing 20 or more sentinel specimens this week, influenza-positive rates ranged from 0% (Belarus, France, Georgia and the Russian Federation) to 11.1% (Israel), with a mean of 2.1%. For the specimens tested by non-sentinel sites, 7 influenza A detections were reported: 4 subtyped as A(H3) and 3 not subtyped.

No antigenic or genetic characterizations were reported to the WHO European Influenza Network (EuroFlu) this week.

Cumulative virological update - week 40/2010-42/2010

A total of 65 influenza virus detections have been reported since week 40: 38 were influenza A (58.5%) and 27 (41.5%) influenza B. Of the influenza A viruses, 9 were subtyped as pandemic influenza A(H1), 1 as influenza A(H1), 13 as influenza A(H3) and 15 were not subtyped.

Comment

Influenza activity continues to be low in the European Region. Sentinel data, reveal that influenza A(H3), pandemic influenza A(H1) and influenza B are circulating in the Region. Nevertheless, it is too early to forecast which type or subtype will be dominant in the northern hemisphere in the 2010/2011 season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](http://www.who.int/europe), [WHO headquarters](http://www.who.int) and the [European Centre for Disease Prevention and Control](http://www.euro.who.int).

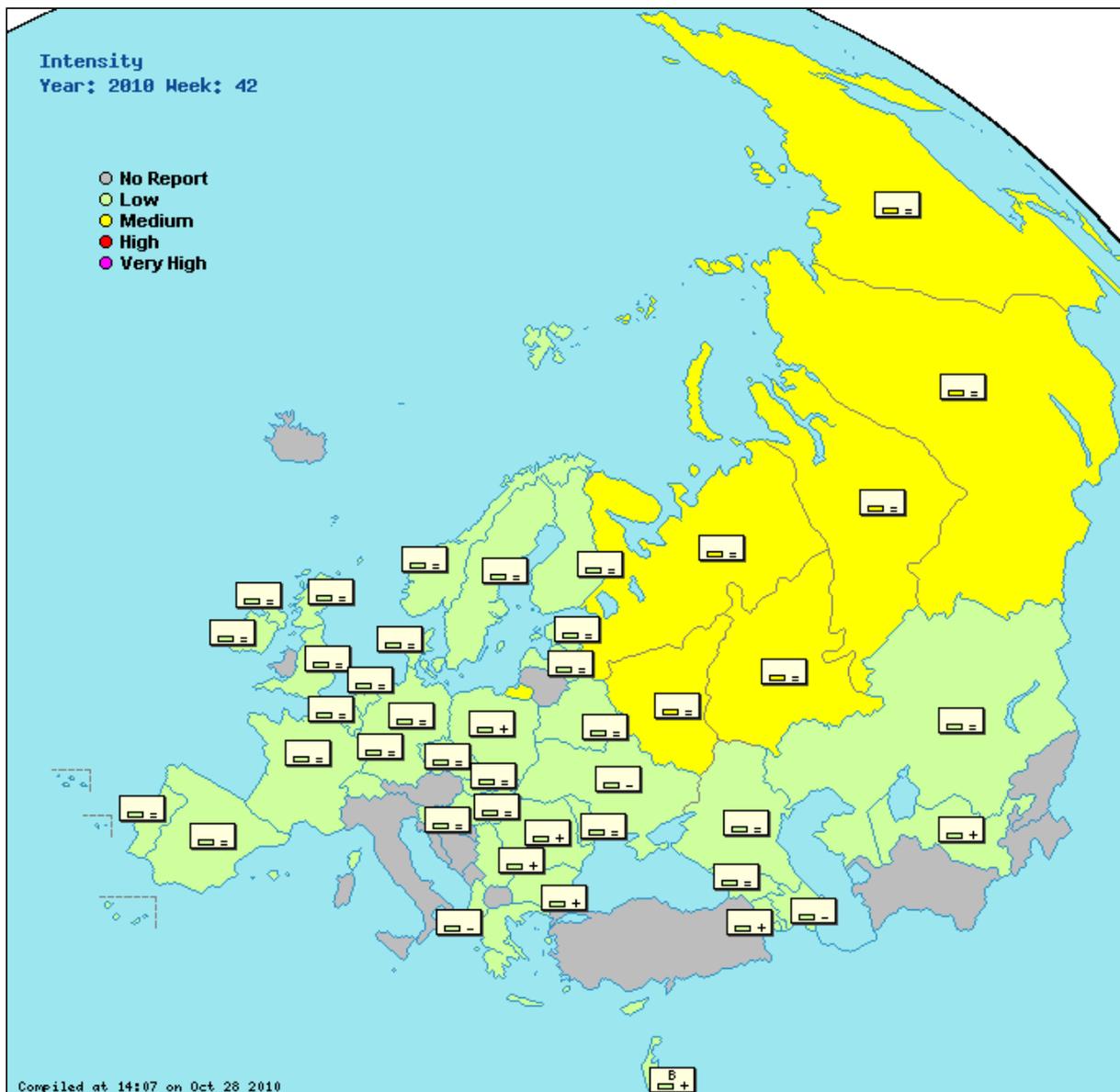
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

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 + : increasing clinical activity
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Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
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Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Czech Republic

Based on serology results, M. pneumoniae and non-flu viruses are circulated.

Finland

7 of the 19 specimens were adenovirus-positive

Kazakhstan

Другие не гриппозные инфекции. Всего - 85, из них 12 - положительных. В том числе 4- аденовирусы, 5 - РС, 2- ПГ1

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Decreasing	1	0%	None		357.0 (graphs)	Click here
Armenia	Low	Local	Low	Increasing	3	0%	None	(graphs)	66.9 (graphs)	Click here
Austria					0	0%	None	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	17	0%	None	(graphs)		Click here
Belarus	Low	Sporadic	Low	Stable	100	0%	None		1038.7 (graphs)	Click here
Belgium	Low	None		Stable	16	6.3%	None	22.5 (graphs)	1039.5 (graphs)	Click here

Bulgaria	Low	None		Increasing	0	0%	None	(graphs)	642.9	(graphs)	Click here	
Cyprus	Low	Sporadic	Low	Stable				0 *	(graphs)	3.6 *	(graphs)	Click here
Czech Republic	Low	None		Stable	16	0%	None	20.2	(graphs)	849.3	(graphs)	Click here
Denmark	Low	None		Stable	0	0%	None	55.0	(graphs)		(graphs)	Click here
England	Low	Sporadic		Stable	84	1.2%	None	9.6	(graphs)	411.8	(graphs)	Click here
Estonia	Low	Sporadic	Low	Stable	5	0%	None	4.6	(graphs)	266.9	(graphs)	Click here
Finland	Low	None	Low	Stable	19	0%	None	0.0	(graphs)		(graphs)	Click here
France	Low	Sporadic	Low	Stable	41	0%	None		(graphs)	1504.8	(graphs)	Click here
Georgia	Low	None	Low	Stable	43	0%	None	189.8	(graphs)			Click here
Germany	Low	None	Low	Stable	17	5.9%	None		(graphs)	903.3	(graphs)	Click here
Greece	Low	None		Stable				55.8	(graphs)		(graphs)	Click here
Hungary	Low	None	Low	Stable	14	0%	None	90.1	(graphs)		(graphs)	Click here
Ireland	Low	None	Low	Stable	1	0%	None	7.0	(graphs)		(graphs)	Click here
Israel	Low	Sporadic	Low	Increasing	54	11.1%	Type B	5.7	(graphs)			Click here
Kazakhstan	Low	None	Low	Stable	14	0%	None	866.3	(graphs)		(graphs)	Click here
Latvia	Low	None		Stable	0	0%	None	0.0	(graphs)	1024.1	(graphs)	Click here
Luxembourg	Low	None			3	0%	None	0 *	(graphs)	20.2 *	(graphs)	Click here
The former Yugoslav Republic of Macedonia							None		(graphs)			Click here
Netherlands	Low	None		Stable	9	0%	None	16.9	(graphs)		(graphs)	Click here
Northern Ireland	Low	Sporadic		Stable	6	0%	None	13.7	(graphs)	312.1	(graphs)	Click here
Norway	Low	None		Stable	1	0%	None	23.5	(graphs)		(graphs)	Click here
Poland	Low	Sporadic	Low	Increasing	9	11.1%	None	64.2	(graphs)		(graphs)	Click here
Portugal	Low	None	Low	Stable	1	0%	None	3.8	(graphs)		(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None		(graphs)	113.4	(graphs)	Click here
Romania	Low	None	Low	Increasing	19	0%	None	9.4	(graphs)	969.9	(graphs)	Click here
Russian Federation	Medium	Sporadic		Stable	31	0%	None			601.4	(graphs)	Click here
Scotland	Low	None	Low	Stable	12	0%	None	0.9	(graphs)	236.4	(graphs)	Click here
Serbia	Low	None	Low	Increasing	3	0%	None	39.1	(graphs)			Click here
Slovakia	Low	None	Low	Stable	1	0%	None	181.8	(graphs)	1603.0	(graphs)	Click here
Slovenia	Low	None		Stable	7	0%	None	0.0	(graphs)	936.3	(graphs)	Click here
Spain	Low	None		Stable	74	2.7%	None	17.9	(graphs)		(graphs)	Click here
Sweden	Low	None	Low	Stable	0	0%	None	1.4	(graphs)		(graphs)	Click here
Switzerland	Low	None	Low	Stable				8.6	(graphs)			Click here
Turkey					4	0%	None		(graphs)			Click here
Ukraine	Low	Sporadic	Low	Decreasing	8	0%	None	6.0 *	(graphs)	518.2	(graphs)	Click here
Uzbekistan	Low	None	Low	Increasing			None			18.0	(graphs)	Click here
Europe					633	1.9%						Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitry Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Sporadic influenza detections in Europe

- This issue is based on data reported in week 43/2010 by 40 Member States in the WHO European Region.
- Influenza activity levels in Europe are currently low.
- 12 out of 592 sentinel specimens (2.0%) tested positive for influenza.
- Sporadic detections of pandemic influenza A(H1N1), influenza A (H3N2) and influenza B were reported during the week.



Current situation - week 43/2010

Influenza-like illness (ILI) and acute respiratory infection (ARI) consultation rates continue to be low throughout the WHO European Region. Of the 36 countries reporting clinical data for week 43, increases in consultation rates during each of the previous two weeks were observed only in Bulgaria (ARI), Sweden (ILI) and the United Kingdom (both ILI and ARI in Northern Ireland and ARI in Scotland). In most countries, clinical consultation rates were highest for the group aged 0-4. Azerbaijan, Cyprus, Estonia, France, Germany, Israel, the Russian Federation, Ukraine and the United Kingdom reported sporadic geographic spread of influenza, while Armenia reported local spread. The impact of influenza on health care systems was low in all countries reporting on this indicator.

Virological situation - week 43/2010

Sentinel physicians collected 592 respiratory specimens in week 43, of which 12 (2.0%) were positive for influenza virus: 8 were influenza A and 4 were influenza B. Of the influenza A viruses, 5 were subtyped as pandemic A(H1), 2 as A(H3) and 1 influenza A was not subtyped. For the 7 countries testing 20 or more sentinel specimens, influenza-positive rates ranged from 0% (Belarus, France, Hungary and the Russian Federation) to 5.1% (England and Israel), with a mean of 1.9%. Among the specimens tested by non-sentinel sites, 15 were positive for influenza: 11 influenza A and 4 influenza B. Of the influenza A viruses, 3 were subtyped as pandemic A(H1), 2 were influenza A(H3) and 6 were not subtyped.

No antigenic or genetic characterizations were reported to the WHO European Influenza Network (EuroFlu) this week.

Cumulative virological update - weeks 40-43/2010

A total of 93 influenza virus detections were reported during weeks 40-43: 58 were influenza A (62.4%) and 35 (37.6%) influenza B. Of the influenza A viruses, 18 were subtyped as pandemic influenza A(H1), 1 as influenza A(H1), 17 as influenza A(H3) and 22 were not subtyped.

Comment

Influenza activity continues to be low in the European Region. Sentinel data reveal that pandemic influenza A(H1), influenza A(H3) and influenza B viruses are circulating in the Region. Nevertheless, it is too early to forecast which type or subtype will be dominant in the northern hemisphere in the 2010/2011 influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

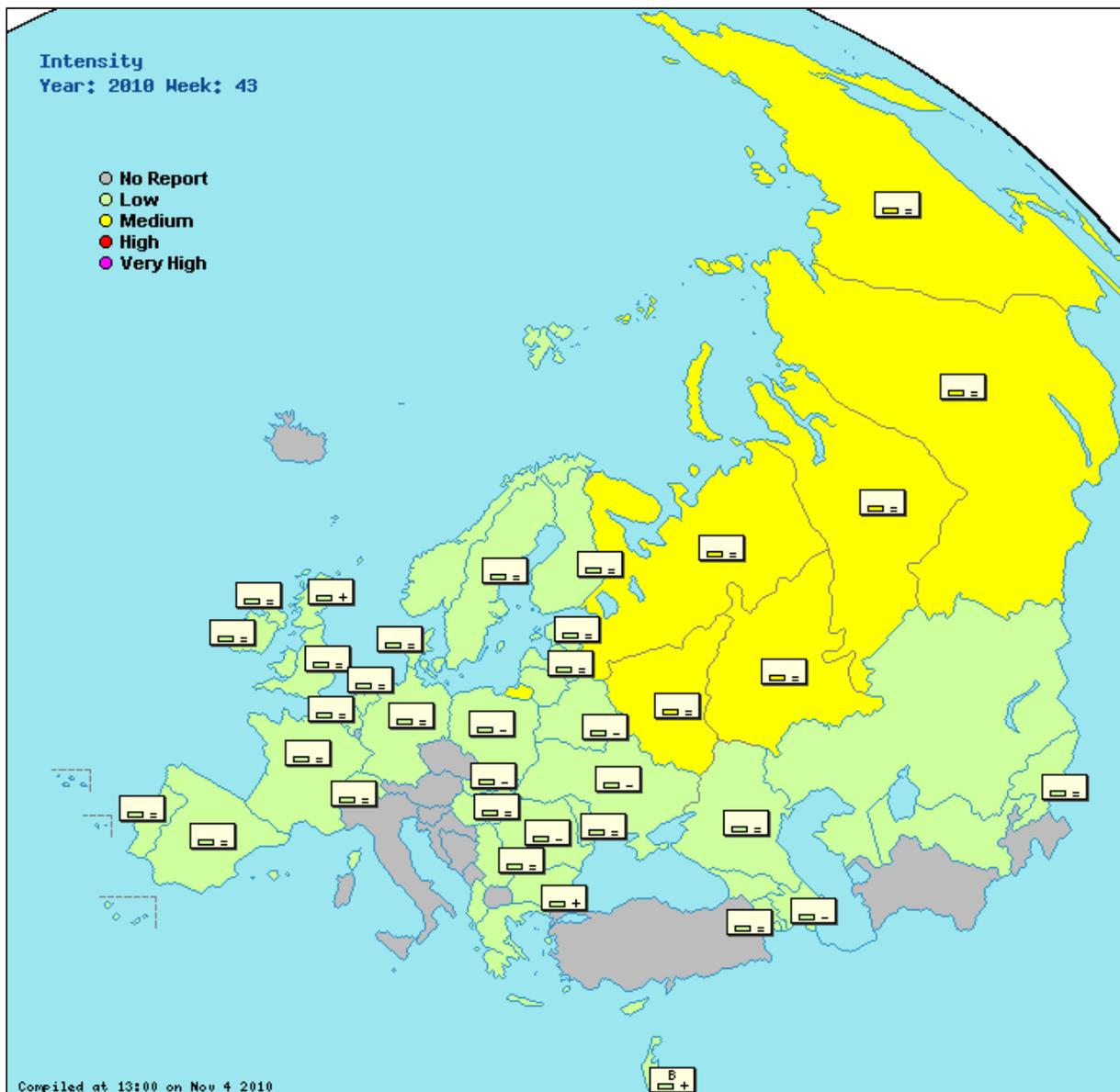
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Decreasing					361.4 (graphs)	Click here
Armenia	Low	Local	Low	Stable	0	0%	None	graphs	63.8 (graphs)	Click here
Austria					0	0%	None	graphs		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	15	0%	None	graphs		Click here
Belarus	Low	None	Low	Decreasing	111	0%	None		1003.5 (graphs)	Click here
Belgium	Low	None		Stable	6	0%		26.5 (graphs)	741.9 (graphs)	Click here
Bulgaria	Low	None		Increasing	0	0%	None	graphs	673.5 (graphs)	Click here
Cyprus	Low	Sporadic	Low	Stable				0* (graphs)	6.2* (graphs)	Click here
Czech Republic					16	0%	None		graphs	Click here
Denmark	Low	None		Stable	0	0%	None	58.0 (graphs)	graphs	Click here
England	Low	Sporadic		Stable	78	5.1%	None	8.8 (graphs)	388.4 (graphs)	Click here
Estonia	Low	Sporadic	Low	Stable	8	0%	None	4.9 (graphs)	288.0 (graphs)	Click here

Finland	Low	None	Low	Stable	15	0%	None	0.0 (graphs)	(graphs)	Click here
France	Low	Sporadic	Low	Stable	24	0%	None	(graphs)	1469.4 (graphs)	Click here
Georgia	Low	None	Low	Stable				126.6 (graphs)		Click here
Germany	Low	Sporadic	Low	Stable	19	10.5%	None	(graphs)	907.4 (graphs)	Click here
Greece	Low	None		Stable				63.3 (graphs)	(graphs)	Click here
Hungary	Low	None	Low	Stable	35	0%	None	90.4 (graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	2	0%	None	5.7 (graphs)	(graphs)	Click here
Israel	Low	Sporadic	Low	Increasing	59	5.1%	Type B	7.0 (graphs)		Click here
Kazakhstan	Low	None	Low	Stable				(graphs)		Click here
Kyrgyzstan	Low	None	Low	Stable	8	0%	None		29.5 (graphs)	Click here
Latvia	Low	None		Stable	0	0%	None	0.0 (graphs)	870.9 (graphs)	Click here
Lithuania	Low	None	Low	Stable				0.3 (graphs)	342.3 (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Netherlands	Low	None		Stable	13	0%	None	23.8 (graphs)	(graphs)	Click here
Northern Ireland	Low	Sporadic		Stable	0	0%	None	21.4 (graphs)	336.1 (graphs)	Click here
Norway	Low	None		Stable				23.6 (graphs)	(graphs)	Click here
Poland	Low	None	Low	Decreasing	19	0%	None	48.2 (graphs)	(graphs)	Click here
Portugal	Low	None	Low	Stable	1	0%	None	9.4 (graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	131.8 (graphs)	Click here
Romania	Low	None	Low	Decreasing	10	0%	None	9.3 (graphs)	829.2 (graphs)	Click here
Russian Federation	Medium	Sporadic		Stable	35	0%	None		586.0 (graphs)	Click here
Scotland	Low	Sporadic	Low	Increasing	21	4.8%	None	2.6 (graphs)	256.5 (graphs)	Click here
Serbia	Low	None	Low	Stable	2	0%	None	28.4 (graphs)		Click here
Slovakia	Low	None	Low	Decreasing	4	0%	None	175.7 (graphs)	1516.8 (graphs)	Click here
Slovenia					2	0%	None	(graphs)		Click here
Spain	Low	None		Stable	71	2.8%	None	16.4 (graphs)	(graphs)	Click here
Sweden	Low	None	Low	Stable	0	0%	None	4.2 (graphs)	(graphs)	Click here
Switzerland	Low	None	Low	Stable	14	0%	None	9.6 (graphs)		Click here
Turkey					1	0%	None	(graphs)		Click here
Ukraine	Low	Sporadic	Low	Decreasing	3	0%	None	4.6 * (graphs)	454.1 (graphs)	Click here
Uzbekistan	Low	None	Low	Decreasing					(graphs)	Click here
Wales	Low	Sporadic	Low	Stable				5.9 (graphs)	(graphs)	Click here
Europe					592	2.0%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Low levels of influenza activity in Europe

- This issue is based on data reported in week 44/2010 by 39 Member States in the WHO European Region.
- Influenza activity levels in Europe are currently low.
- 18 out of 435 sentinel specimens (4.1%) tested positive for influenza.
- Sporadic detections of pandemic influenza A(H1N1), influenza A (H3N2) and influenza B were reported during the week.



Current situation - week 44/2010

Influenza-like illness (ILI) and acute respiratory infection (ARI) consultation rates continue to be low throughout the WHO European Region. Of the 37 countries reporting clinical data for week 44, increases in consultation rates during each of the previous 2 weeks were observed in 7: Albania (ARI), Bulgaria (ARI), Israel (ILI), Luxembourg (ILI), the Netherlands (ILI), Norway (ILI) and the United Kingdom (Northern Ireland) (ILI). Although clinical consultation rates were highest for the group aged 0-4 in most countries, the group aged 65 and over had the highest rates in Belgium, Ireland, the Netherlands, Portugal and the United Kingdom (England and Northern Ireland). Azerbaijan, Belarus, Cyprus, the Czech Republic, France, Israel, Norway, the Russian Federation and the United Kingdom (England, Northern Ireland and Scotland) reported sporadic geographic spread of influenza, while Armenia reported local spread. The impact of influenza on health care systems was low in all countries reporting on this indicator.

Virological situation - week 44/2010

Sentinel physicians collected 435 respiratory specimens, of which 18 (4.1%) were positive for influenza virus: 10 were influenza A and 8 were influenza B. All influenza A viruses were subtyped as pandemic A(H1). For the 5 countries testing 20 or more sentinel specimens, influenza-positive rates ranged from 0% (Georgia, the Russian Federation) to 8.3% (United Kingdom - England), with a mean of 3.9%. Among the specimens tested from non-sentinel sources, 28 were positive for influenza: 18 influenza A and 10 influenza B. Of the influenza A viruses, 6 were subtyped as pandemic A(H1), 4 were influenza A(H3) and 8 were not subtyped.

Cumulative virological update - weeks 40-44/2010

A total of 161 influenza virus detections were reported: 97 were influenza A (60.2%) and 64 (39.8%) influenza B. Of the influenza A viruses, 39 were subtyped as pandemic influenza A(H1), 1 as influenza A(H1), 26 as influenza A(H3) and 31 were not subtyped.

Comment

Influenza activity continues to be low in the European Region. Pandemic influenza A(H1), influenza A(H3) and influenza B viruses are currently circulating in the Region.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](http://www.who.int/europe), [WHO headquarters](http://www.who.int) and the

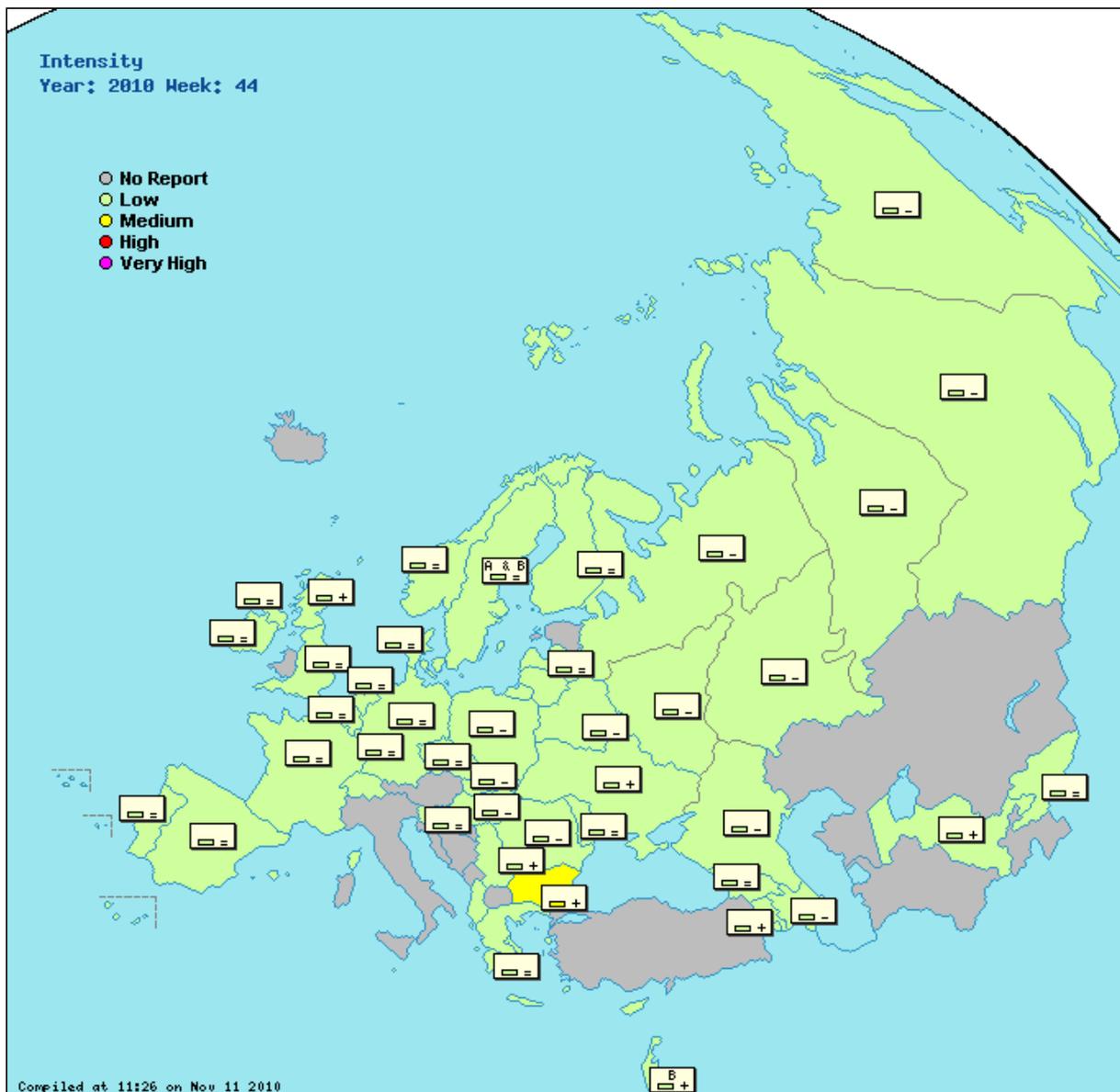
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Increasing					377.0 (graphs)	Click here
Armenia	Low	Local	Low	Increasing	2	0%	None	graphs	66.7 (graphs)	Click here
Austria					0	0%	None	graphs		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	12	0%	None	graphs		Click here
Belarus	Low	Sporadic	Low	Decreasing			None		904.7 (graphs)	Click here
Belgium	Low	None			13	0%	None	31.3 (graphs)	827.5 (graphs)	Click here
Bulgaria	Medium	None		Increasing	0	0%	None	graphs	876.1 (graphs)	Click here
Cyprus	Low	Sporadic	Low	Stable				0.2 * (graphs)	6.8 * (graphs)	Click here
Czech Republic	Low	Sporadic		Stable	14	14.3%	None	17.8 (graphs)	810.9 (graphs)	Click here
Denmark					2	0%	None	graphs		Click here
England	Low	Sporadic		Stable	96	8.3%	None	8.1 (graphs)	393.6 (graphs)	Click here
Estonia					6	0%	None	graphs		Click here

Finland	Low	None	Low	Stable	8	0%	None	0.0 (graphs)	(graphs)	Click here
France	Low	Sporadic	Low	Stable	9	11.1%	None	(graphs)	1206.8 (graphs)	Click here
Georgia	Low	None	Low	Stable	20	0%	None	151.3 (graphs)	(graphs)	Click here
Germany	Low	None	Low	Stable	15	0%	None	(graphs)	826.0 (graphs)	Click here
Greece	Low	None	Low	Stable	0	0%	None	56.8 (graphs)	(graphs)	Click here
Hungary	Low	None	Low	Decreasing				62.2 (graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	7	0%	None	6.8 (graphs)	(graphs)	Click here
Israel	Low	Sporadic	Low	Increasing	38	7.9%	Type B	8.5 (graphs)	(graphs)	Click here
Kyrgyzstan					16	0%	None	(graphs)	(graphs)	Click here
Latvia	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	809.7 (graphs)	Click here
Lithuania	Low	None	Low	Stable				0.4 (graphs)	335.6 (graphs)	Click here
Luxembourg	Low	None	Low	Stable				1.9 * (graphs)	15.1 * (graphs)	Click here
Montenegro							None	(graphs)	(graphs)	Click here
Netherlands	Low	None	Low	Stable				27.0 (graphs)	(graphs)	Click here
Northern Ireland	Low	Sporadic	Low	Stable	5	20.0%	None	29.1 (graphs)	289.1 (graphs)	Click here
Norway	Low	Sporadic	Low	Stable	1	100.0%	None	25.6 (graphs)	(graphs)	Click here
Poland	Low	None	Low	Decreasing	3	0%	None	34.6 (graphs)	(graphs)	Click here
Portugal	Low	None	Low	Stable	1	0%	None	7.4 (graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	120.2 (graphs)	Click here
Romania	Low	None	Low	Decreasing	16	0%	None	13.6 (graphs)	756.0 (graphs)	Click here
Russian Federation	Low	Sporadic	Low	Decreasing	30	0%	None	(graphs)	402.4 (graphs)	Click here
Scotland	Low	Sporadic	Low	Increasing	13	0%	None	1.7 (graphs)	248.7 (graphs)	Click here
Serbia	Low	None	Low	Increasing	2	0%	None	42.5 (graphs)	(graphs)	Click here
Slovakia	Low	None	Low	Decreasing	5	0%	None	152.0 (graphs)	1373.8 (graphs)	Click here
Slovenia	Low	None	Low	Stable	5	0%	None	0.0 (graphs)	696.4 (graphs)	Click here
Spain	Low	None	Low	Stable	61	3.3%	None	15.0 (graphs)	(graphs)	Click here
Switzerland	Low	None	Low	Stable				8.2 (graphs)	(graphs)	Click here
Turkey					6	0%	None	(graphs)	(graphs)	Click here
Ukraine	Low	None	Low	Increasing	0	0%	None	(graphs)	460.7 (graphs)	Click here
Uzbekistan	Low	None	Low	Increasing				(graphs)	(graphs)	Click here
Europe					406	4.4%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitry Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Low levels of influenza with focal activity in Europe

- This issue is based on data reported in week 45/2010 by 39 Member States in the WHO European Region.
- Influenza activity is currently low in most countries in the European Region.
- 32 out of 523 (6%) sentinel specimens tested positive for influenza.
- Pandemic influenza A(H1N1) 2009, influenza A (H3N2) and influenza B detections were reported during the week.



Current situation - week 45/2010

In the 33 countries reporting clinical data for week 45, influenza-like illness (ILI) and acute respiratory infection (ARI) consultation rates were generally low. Increasing consultation rates during the last 2 weeks were reported from 6 countries: Austria (ARI), Bulgaria (ARI), Czech Republic (ARI), Ireland (ILI), Norway (ILI) and Uzbekistan (ARI). Most of the 36 countries reporting on geographic distribution of influenza activity (27) reported no spread of influenza, while 8 reported sporadic spread and 1 country local spread. The impact of influenza on health care systems was low in all 23 countries reporting on this indicator.



Virological situation - week 45/2010

Sentinel physicians collected 523 respiratory specimens, of which 32 (6%) were positive for influenza virus: 19 (4%) were influenza A and 13 (3%) were influenza B. Among the influenza A viruses, 14 were subtyped as pandemic A(H1), 4 as influenza A(H3) and 1 was unsubtyped. In the 6 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% (Georgia, Germany, the Russian Federation) to 20% (Israel), with a mean of 6%. Among specimens tested from non-sentinel sources, 28 were positive for influenza: 16 influenza A and 12 influenza B. Of the influenza A viruses, 7 were subtyped as pandemic A(H1), 1 were influenza A(H3) and 8 were unsubtyped.

Since week 40/2010, based on the reported antigenic characterization of 29 influenza viruses, 17 were A(H1) pandemic A/California/7/2009 (H1N1)-like, 4 were A(H3) A/Perth/16/2009 (H3N2)-like, 1 was B/Florida/4/2006-like (B/Yamagata/16/88 lineage) and 7 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of 3 influenza viruses, 2 belonged to the A/California/7/2009 A(H1N1) pandemic group and 1 to the B/Florida/4/2006 (Yamagata) lineage.

Cumulative virological update - weeks 40-45/2010

A total of 230 influenza virus detections have been reported of which 140 were influenza A (61%) and 90 (39%) influenza B. Of the influenza A viruses, 63 (45%) were subtyped as pandemic influenza A(H1) 2009, 1 (1%) as influenza A(H1), 31 (22%) as influenza A(H3) and 45 (32%) were not subtyped.

Comment

Influenza activity remains low in the European Region, although there are areas of focal activity. Pandemic influenza A(H1) 2009, influenza A(H3) and influenza B viruses are circulating in the Region.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

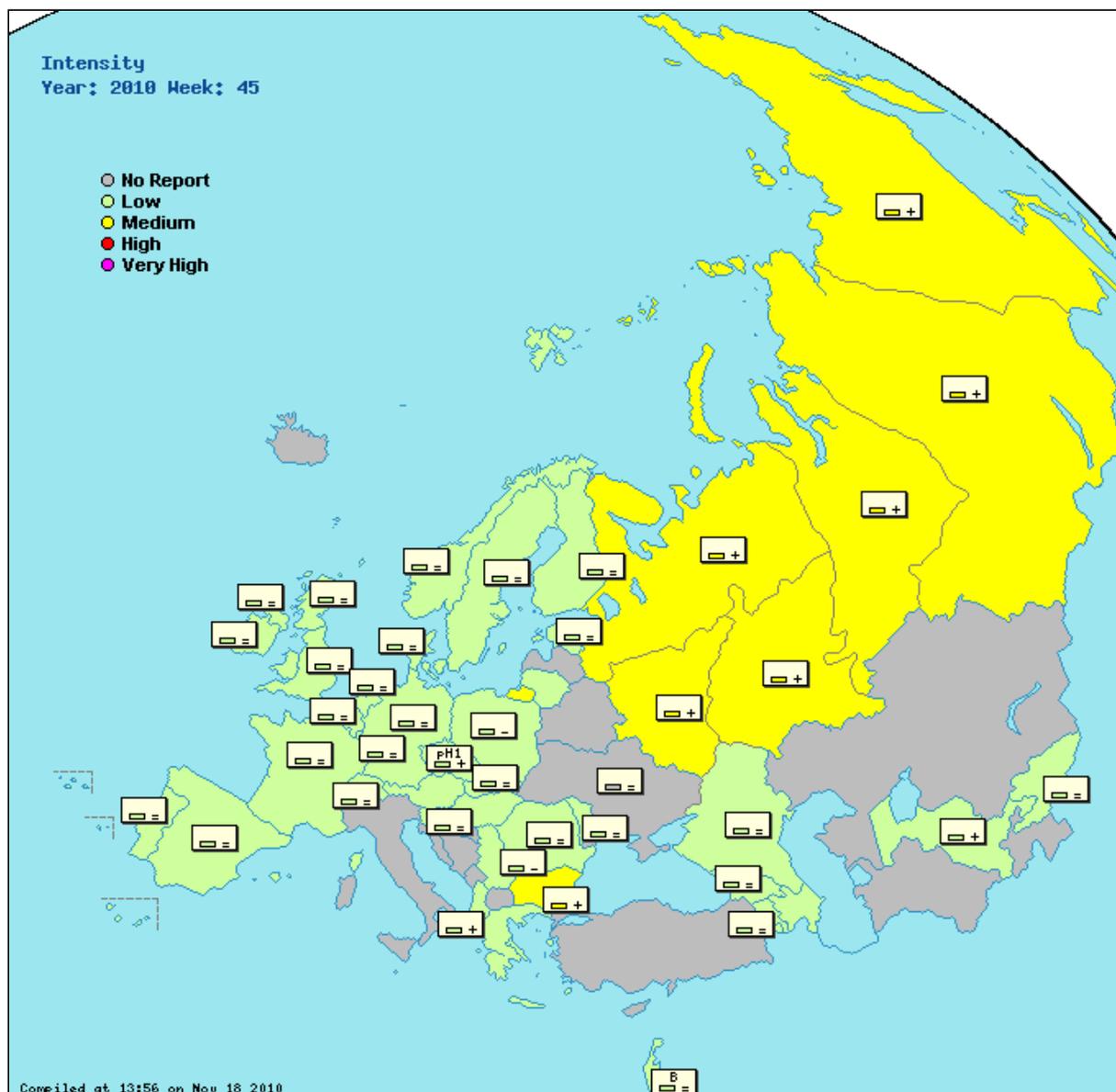
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
 H1N1 = Dominant virus A(H1N1)
 H3N2 = Dominant virus A(H3N2)
 H1N2 = Dominant virus A(H1N2)
 B = Dominant virus B
 A & B = Dominant virus A & B

Low = no influenza activity or influenza at baseline levels
 Medium = usual levels of influenza activity
 High = higher than usual levels of influenza activity
 Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
 Sporadic = isolated cases of laboratory confirmed influenza infection
 Localized = limited to one administrative unit of the country (or reporting site) only.
 Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
 Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Increasing	5	0%	None		389.1 (graphs)	Click here
Armenia	Low	Local	Low	Stable	0	0%	None	graphs	66.7 (graphs)	Click here
Austria	Low	None	Low		4	0%	None	0.0 (graphs)	24.1 (graphs)	Click here
Azerbaijan	Low	Sporadic	Low	Decreasing				graphs		Click here
Belarus							None		graphs	Click here
Belgium	Low	None		Stable	8	0%	None	16.2 (graphs)	901.7 (graphs)	Click here
Bulgaria	Medium	None		Increasing	1	0%	None	graphs	913.5 (graphs)	Click here
Czech Republic	Low	Sporadic		Increasing	12	41.7%	Type A, Subtype pH1	20.9 (graphs)	825.6 (graphs)	Click here
Denmark	Low	None		Stable	10	0%	None	53.5 (graphs)	graphs	Click here
England	Low	Sporadic		Stable	108	7.4%	None	7.6 (graphs)	382.3 (graphs)	Click here
Estonia	Low	None	Low	Stable	7	0%	None	4.9 (graphs)	242.0 (graphs)	Click here

Finland	Low	None	Low	Stable	16	0%	None	0.0 (graphs)	(graphs)	Click here
France	Low	Sporadic	Low	Stable	15	0%	None	(graphs)	1094.3 (graphs)	Click here
Georgia	Low	None	Low	Stable	30	0%	None	135.6 (graphs)	(graphs)	Click here
Germany	Low	None	Low	Stable	22	0%	None	(graphs)	900.9 (graphs)	Click here
Greece	Low	None		Stable				51.3 (graphs)	(graphs)	Click here
Hungary	Low	None	Low	Increasing				71.7 (graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	7	0%	None	8.7 (graphs)	(graphs)	Click here
Israel	Low	Sporadic	Low	Stable	51	19.6%	Type B	7.6 (graphs)	(graphs)	Click here
Kyrgyzstan	Low	None	Low	Stable	13	0%	None		(graphs)	Click here
Latvia					0	0%	None	(graphs)		Click here
Lithuania	Low	None	Low	Increasing				0.4 (graphs)	394.1 (graphs)	Click here
Luxembourg	Low	None			1	0%	None	0.6 * (graphs)	16.5 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Netherlands	Low	None		Stable	12	0%	None	23.9 (graphs)	(graphs)	Click here
Northern Ireland	Low	None		Stable	10	0%	None	20.7 (graphs)	350.6 (graphs)	Click here
Norway	Low	None		Stable	0	0%	None	31.5 (graphs)	(graphs)	Click here
Poland	Low	None	Low	Decreasing	7	0%	None	27.6 (graphs)	(graphs)	Click here
Portugal	Low	None		Stable	0	0%	None	6.8 (graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	116.0 (graphs)	Click here
Romania	Low	None	Low	Stable	17	5.9%	None	9.9 (graphs)	732.7 (graphs)	Click here
Russian Federation	Medium	Sporadic		Increasing	38	0%	None		571.3 (graphs)	Click here
Scotland	Low	Sporadic	Low	Stable	5	0%	None	2.6 (graphs)	264.0 (graphs)	Click here
Serbia	Low	None	Low	Decreasing	1	0%	None	30.5 (graphs)	(graphs)	Click here
Slovakia	Low	None	Low	Stable	4	0%	None	155.9 (graphs)	1418.4 (graphs)	Click here
Slovenia	Low	Sporadic		Stable	9	11.1%	None	1.3 (graphs)	950.2 (graphs)	Click here
Spain	Low	None		Stable	79	8.9%	None	18.7 (graphs)	(graphs)	Click here
Sweden	Low	None	Low	Stable	15	0%	None	1.7 (graphs)	(graphs)	Click here
Switzerland	Low	None	Low	Stable	12	0%	None	7.8 (graphs)	(graphs)	Click here
Ukraine		Sporadic	Low	Stable	4	0%	None	4.9 * (graphs)	469.7 (graphs)	Click here
Uzbekistan	Low	None	Low	Increasing			None		22.2 (graphs)	Click here
Wales	Low	Sporadic	Low	Stable				9.3 (graphs)	(graphs)	Click here
Europe					523	6.1%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Continued low level influenza activity in the European Region

- This issue is based on data reported in week 46/2010 by 43 Member States in the WHO European Region.
- Overall there is a low level of influenza activity in the Region.
- 3% of sentinel specimens tested positive for influenza.
- 9 countries reported influenza B detections; 4 countries, pandemic influenza A(H1N1) detections; and 3 countries, influenza A(H3N2) detections.



Current situation week 46/2010

None of the 33 countries reporting clinical data for week 46 observed noteworthy increases or decreases in clinical consultation rates for influenza-like illness (ILI) or acute respiratory infection (ARI). Of the 11 countries presenting calculated baseline thresholds, none reported clinical consultation rates above the thresholds. The intensity of respiratory disease activity was reported as low in 35 countries and medium in 2 countries (Bulgaria and the Russian Federation). Of the 37 countries that reported on the geographic distribution of influenza activity, 22 reported no spread of influenza; 14 reported sporadic spread, and 1 country reported local spread. The impact of influenza on health care systems was low in all 25 countries reporting on this indicator. Respiratory syncytial virus (RSV) also continues to circulate in the European Region, with 13 countries reporting RSV detections during week 46.

Virological situation week 46/2010

Sentinel physicians collected 562 respiratory specimens, of which 17 (3%) were positive for influenza virus: 6 were influenza A and 11 were influenza B. All 6 influenza A viruses were subtyped as pandemic A(H1). For the 10 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% (Finland, France, Germany, Hungary, Romania, the Russian Federation, Sweden) to 12.5% (Israel). Among specimens tested from non-sentinel sources, 30 were positive for influenza: 13 influenza A and 17 influenza B. Of the influenza A viruses, 5 were subtyped as pandemic A(H1), 5 were influenza A(H3) and 3 were untyped.

Since week 40/2010, the reported antigenic characterization of 29 influenza viruses has indicated that 17 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 4 were A(H3) A/Perth/16/2009 (H3N2)-like; 1 was B/Florida/4/2006-like (B/Yamagata/16/88 lineage) and 7 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of 3 influenza viruses, 2 belonged to the A/California/7/2009 A(H1N1) pandemic group and 1 to the B/Florida/4/2006 (Yamagata) lineage.

Cumulative virological update weeks 40-46/2010

A total of 286 influenza virus detections has been reported, of which 161 (56%) were influenza A and 125 (44%) influenza B. Of the influenza A viruses, 110 were subtyped, 73 (66%) as pandemic influenza A(H1), 1 (1%) as influenza A(H1) and 36 (33%) as influenza A(H3).

Comment

Influenza activity remains low in the European Region, and there have not been any notable increases in clinical consultation rates for ILI or ARI. Influenza type B, pandemic influenza A(H1) and influenza A(H3) all continue to be detected. Also, several countries report RSV detections.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](http://www.who.int/europe), [WHO headquarters](http://www.who.int) and the [European Centre for Disease Prevention and Control](http://www.euro.who.int).

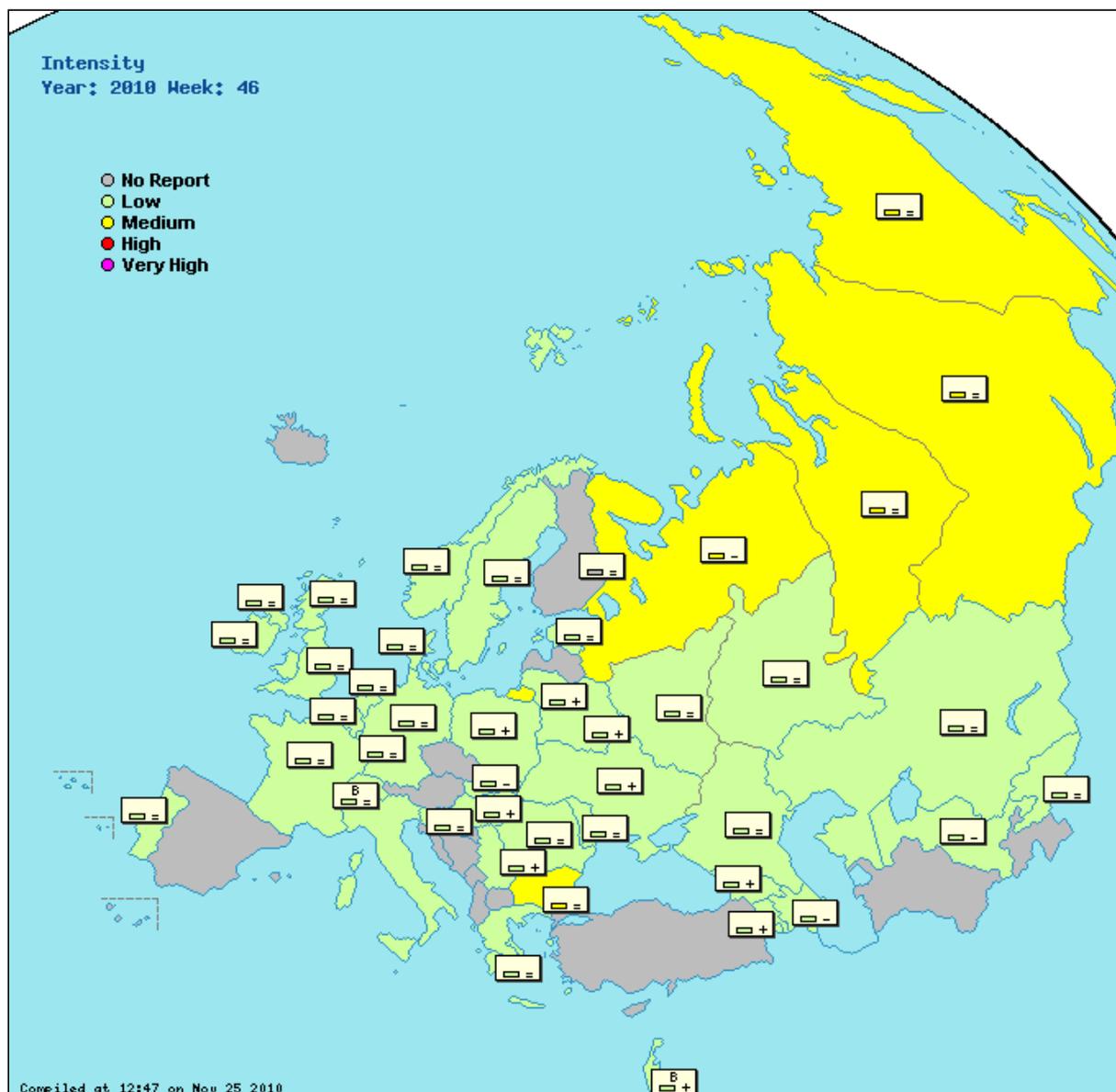
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Turkey

No data collected due to religious feast.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania					8	0%	None		(graphs)	Click here
Armenia	Low	Local	Low	Increasing	3	0%	None	(graphs)	(graphs)	Click here
Austria					0	0%	None	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	5	0%	None	(graphs)		Click here
Belarus	Low	Sporadic	Low	Increasing			None		1003.8 (graphs)	Click here
Belgium	Low	None		Stable	19	5.3%	None	31.5 (graphs)	855.7 (graphs)	Click here
Bosnia and Herzegovina							None	(graphs)		Click here
Bulgaria	Medium	None		Stable	0	0%	None	(graphs)	900.7 (graphs)	Click here
Cyprus		Sporadic	Low	Stable				0.4 * (graphs)	11.9 * (graphs)	Click here
Denmark	Low	None		Stable	7	14.3%	None	58.4 (graphs)	(graphs)	Click here
England	Low	Sporadic		Stable	111	4.5%	None	8.3 (graphs)	414.1 (graphs)	Click here

Estonia	Low	None	Low	Stable	10	0%	None	4.7 (graphs)	276.9 (graphs)	Click here
Finland		None	Low	Stable	24	0%	None	0.0 (graphs)	(graphs)	Click here
France	Low	Sporadic	Low	Stable	41	0%	None	(graphs)	1357.2 (graphs)	Click here
Georgia	Low	Sporadic	Low	Increasing	30	3.3%	None	187.3 (graphs)		Click here
Germany	Low	None	Low	Stable	21	0%	None	(graphs)	873.0 (graphs)	Click here
Greece	Low	None		Stable	0	0%	None	58.6 (graphs)	(graphs)	Click here
Hungary	Low	None	Low	Increasing	41	0%	None	80.3 (graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	13	0%	None	9.4 (graphs)	(graphs)	Click here
Israel	Low	Sporadic	Low	Increasing	40	12.5%	Type B	9.9 (graphs)		Click here
Italy	Low	None	Low	Stable				90.8 (graphs)	(graphs)	Click here
Kazakhstan	Low	None	Low	Stable	15	0%	None		(graphs)	Click here
Kyrgyzstan	Low	None	Low	Stable	2	0%	None		14.3 (graphs)	Click here
Latvia					0	0%	None	(graphs)		Click here
Lithuania	Low	None	Low	Increasing	0	0%	None	0.5 (graphs)	426.8 (graphs)	Click here
Luxembourg	Low	Sporadic			3	33.3%	None	0.4 * (graphs)	19.1 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Montenegro							None	(graphs)		Click here
Netherlands	Low	None		Stable	5	0%	None	19.0 (graphs)	(graphs)	Click here
Northern Ireland	Low	None		Stable	8	0%	None	18.9 (graphs)	335.4 (graphs)	Click here
Norway	Low	Sporadic		Stable	5	0%	None	28.5 (graphs)	(graphs)	Click here
Poland	Low	None	Low	Increasing	14	0%	None	50.1 (graphs)	(graphs)	Click here
Portugal	Low	Sporadic		Stable	1	0%	None	15.2 (graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	5	0%	None	(graphs)	112.1 (graphs)	Click here
Romania	Low	None	Low	Stable	28	0%	None	14.4 (graphs)	712.2 (graphs)	Click here
Russian Federation	Medium	Sporadic		Stable	38	0%	Type A and B		529.6 (graphs)	Click here
Scotland	Low	Local	Low	Stable	18	11.1%		1.0 (graphs)	281.8 (graphs)	Click here
Serbia	Low	None	Low	Increasing	1	0%	None	32.9 (graphs)		Click here
Slovakia	Low	None	Low	Decreasing	0	0%	None	142.7 (graphs)	1320.3 (graphs)	Click here
Slovenia	Low	Sporadic		Stable	6	0%	None	0.0 (graphs)	855.3 (graphs)	Click here
Sweden	Low	None	Low	Stable	23	0%	None	5.0 (graphs)	(graphs)	Click here
Switzerland	Low	None	Low	Stable	12	8.3%	Type B	17.1 (graphs)		Click here
Turkey					0	0%	None	(graphs)		Click here
Ukraine	Low	Sporadic	Low	Increasing	5	0%	None	5.3 * (graphs)	492.0 (graphs)	Click here
Uzbekistan	Low	Sporadic	Low	Decreasing			None	(graphs)	21.6 (graphs)	Click here
Wales	Low	Sporadic	Low	Stable				8.1 (graphs)	(graphs)	Click here
Europe					562	3.0%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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Spreading low level influenza activity in the European Region



- This issue is based on data reported in week 47/2010 by 43 Member States in the WHO European Region.
- Overall, influenza activity is at a low level in the Region.
- Only 5.9% of sentinel specimens tested positive for influenza.
- Fourteen countries reported influenza B detections; nine countries, pandemic influenza A(H1N1) detections; and seven countries, influenza A(H3N2) detections.



Current situation week 47/2010

Of the 37 countries reporting clinical data, 18 reported small increases in clinical consultation rates for influenza-like illness (ILI) or acute respiratory infection (ARI). These increases were more pronounced in trends for ARI than for ILI, and largely the result of recent increases in consultations for the groups aged 0-4 and 5-14 years. However, of the 10 countries presenting calculated baseline thresholds, none reported clinical consultation rates above their thresholds. The intensity of respiratory disease activity was reported as low in 37 countries and medium in the Russian Federation. Of the 38 countries that reported on the geographic distribution of influenza activity, 18 reported no spread of influenza; 18 reported sporadic spread, and two countries reported local spread. The impact of influenza on health care systems was low in all 24 countries reporting on this indicator. Respiratory syncytial virus (RSV) also continues to circulate in the European Region, with 15 countries reporting RSV detections during week 47.

Virological situation week 47/2010

Sentinel physicians collected 729 respiratory specimens, of which 43 (5.9%) were positive for influenza virus: 16 (37%) were influenza A and 27 (63%) were influenza B. Of the 16 influenza A viruses, 14 were subtyped as pandemic A(H1), and two as influenza A(H3). For the 10 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% (Hungary, Kazakhstan, Romania, the Russian Federation) to 27.8% (Israel) with a median of 3.4%. Among specimens tested from non-sentinel sources, 122 were positive for influenza: 66 (54%) influenza A and 56 (46%) influenza B. Of the influenza A viruses, 15 were subtyped as pandemic A(H1), 11 as A(H3) and 40 were untyped.

Since week 40/2010, 39 influenza viruses have been characterized antigenically: 21 were A(H1) pandemic A/California/7/2009 (H1N1)-like; seven were A(H3) A/Perth/16/2009 (H3N2)-like; one was B/Florida/4/2006-like (B/Yamagata/16/88 lineage) and 10 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of eight influenza viruses, four belonged to the pandemic A/California/7/2009 A(H1N1) clade; two belonged to the A(H3) clade represented by A/Perth/16/2009; one belonged to the A(H3) clade represented by the A/Victoria/208/2009  A/Hong Kong/2/2121/2010 subgroup, and one to the B/Florida/4/2006 (Yamagata) lineage.

Cumulative virological update weeks 40-47/2010

A total of 499 influenza virus detections have been reported, of which 272 (55%) were influenza A and 227 (45%) influenza B. Of the influenza A viruses, 168 were subtyped: 108 (64%) as pandemic influenza A(H1), two (1%) as influenza A(H1) and 58 (35%) as influenza A(H3).

Comment

Influenza activity remains low in the European Region but the number of countries reporting influenza detections is increasing. Influenza type B, pandemic influenza A(H1) and influenza A(H3) all continue to be detected. Many countries are also reporting RSV detections.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](http://www.who.int/europe), [WHO headquarters](http://www.who.int) and the [European Centre for Disease Prevention and Control](http://www.ecdc.europa.eu).

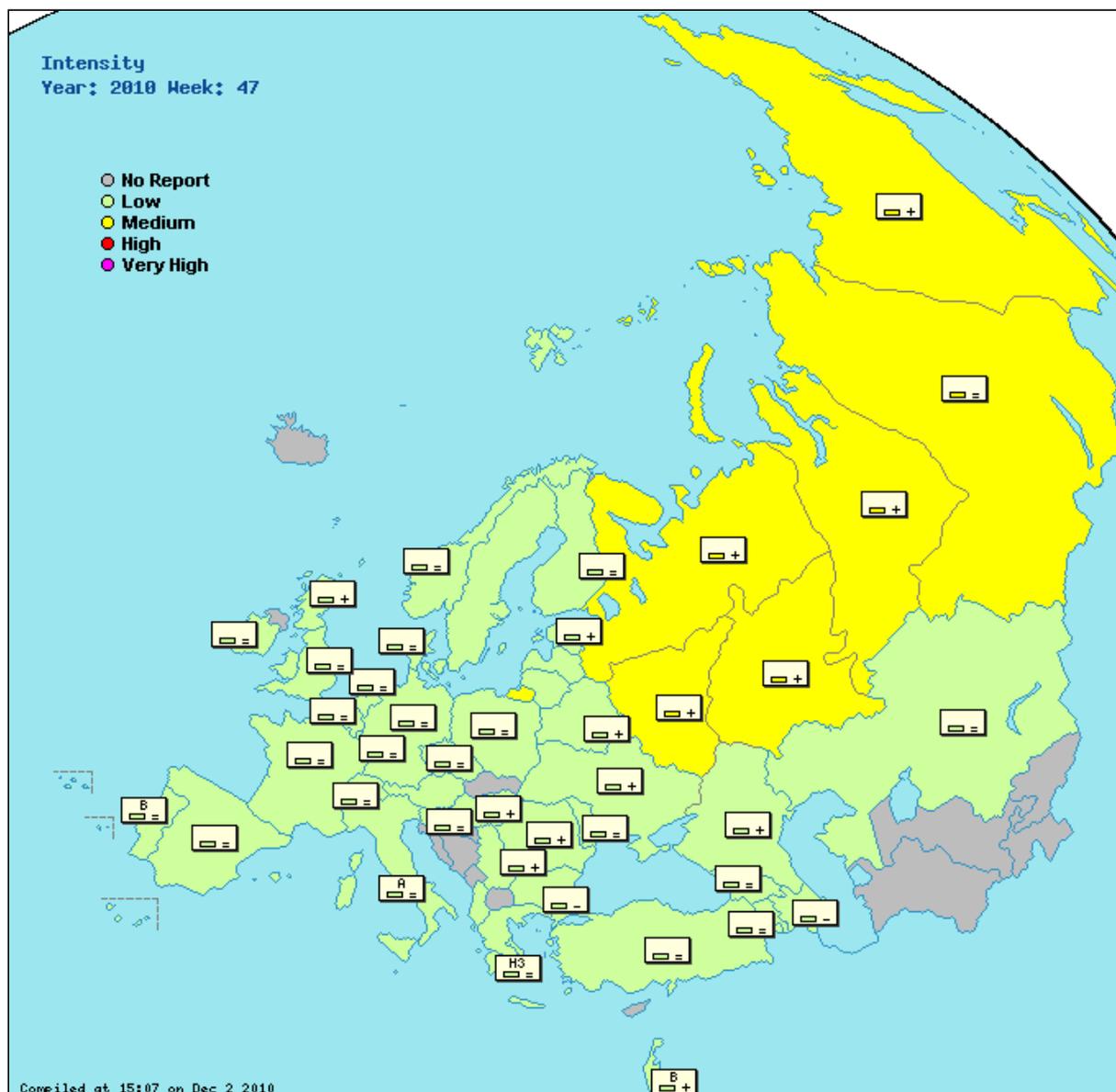
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Czech Republic

0

Netherlands

Since week 40, four influenza B viruses and no influenza A viruses were detected in sentinel specimens. Of two influenza B viruses the lineage could be identified by PCR assay. Both were Victoria-like. In addition, the National Influenza Centre so far received one influenza B virus and two influenza A(H1N1) 2009 viruses from non-sentinel sources.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Decreasing					386.5 (graphs)	Click here
Armenia	Low	Local	Low	Stable	1	0%	None	(graphs)	(graphs)	Click here
Austria	Low	None	Low		3	0%	None	0.0 (graphs)	22.6 (graphs)	Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	6	0%	None	(graphs)		Click here
Belarus	Low	Sporadic	Low	Increasing			None		1121.3 (graphs)	Click here
Belgium	Low	None		Stable	14	7.1%	None	36.4 (graphs)	1106.6 (graphs)	Click here
Bosnia and							None	(graphs)		Click here

Herzegovina													
Bulgaria	Low	None		Decreasing	0	0%	None	(graphs)	889.4	(graphs)	Click here		
Czech Republic	Low	Sporadic		Stable	15	0%	None	26.4	(graphs)	949.8	(graphs)	Click here	
Denmark	Low	None		Stable	5	0%	None	62.9	(graphs)		(graphs)	Click here	
England	Low	Sporadic		Stable	123	9.8%	None	11.8	(graphs)	462.4	(graphs)	Click here	
Estonia	Low	Sporadic	Low	Increasing	14	7.1%	None	5.2	(graphs)	304.4	(graphs)	Click here	
Finland	Low	Local	Low	Stable	12	8.3%	None	0.0	(graphs)		(graphs)	Click here	
France	Low	Sporadic	Low	Stable	64	6.3%	None		(graphs)	1566.3	(graphs)	Click here	
Georgia	Low	Sporadic	Low	Stable	27	3.7%	None	133.0	(graphs)			Click here	
Germany	Low	Sporadic	Low	Stable	36	5.6%	None		(graphs)	975.0	(graphs)	Click here	
Greece	Low	None		Stable	1	0%		84.4	(graphs)		(graphs)	Click here	
Hungary	Low	None	Low	Increasing	42	0%	None	85.9	(graphs)		(graphs)	Click here	
Ireland	Low	None	Low	Stable	12	8.3%	None	6.7	(graphs)		(graphs)	Click here	
Israel	Low	Sporadic	Low	Increasing	36	27.8%	Type B	10.5	(graphs)			Click here	
Italy	Low	None	Low	Stable	19	5.3%	Type A	110.3	(graphs)		(graphs)	Click here	
Kazakhstan	Low	None	Low	Stable	20	0%	None				(graphs)	Click here	
Latvia	Low	Sporadic		Increasing				0.9	(graphs)	967.4	(graphs)	Click here	
Lithuania	Low	None	Low	Increasing				0.7	(graphs)	473.0	(graphs)	Click here	
Luxembourg	Low	None			1	0%	None	0 *	(graphs)	21.0 *	(graphs)	Click here	
The former Yugoslav Republic of Macedonia							None		(graphs)			Click here	
Montenegro							None	2.3	(graphs)	603.4	(graphs)	Click here	
Netherlands	Low	None		Stable	13	7.7%	None	31.9	(graphs)		(graphs)	Click here	
Norway	Low	Sporadic		Stable	4	0%	None	29.7	(graphs)		(graphs)	Click here	
Poland	Low	Sporadic	Low	Stable	18	0%	None	43.1	(graphs)		(graphs)	Click here	
Portugal	Low	Sporadic		Stable	6	50.0%	Type B	9.7	(graphs)		(graphs)	Click here	
Republic of Moldova	Low	None	Low	Stable	0	0%	None		(graphs)	86.2	(graphs)	Click here	
Romania	Low	None	Low	Increasing	47	0%	None	16.6	(graphs)	785.8	(graphs)	Click here	
Russian Federation	Medium	Sporadic		Increasing	29	0%	Type A and B			596.3	(graphs)	Click here	
Scotland	Low	Sporadic	Low	Increasing	25	4.0%	None	2.1	(graphs)	287.0	(graphs)	Click here	
Serbia	Low	None	Low	Increasing	1	0%	None	37.0	(graphs)			Click here	
Slovakia					5	0%	None		(graphs)			Click here	
Slovenia	Low	Sporadic		Stable	7	0%	None	0.0	(graphs)	969.7	(graphs)	Click here	
Spain	Low	Sporadic		Stable	99	3.0%	None	20.1	(graphs)		(graphs)	Click here	
Sweden	Low	None	Low	Stable				4.3	(graphs)		(graphs)	Click here	
Switzerland	Low	None	Low	Stable	9	0%	None	15.2	(graphs)			Click here	
Turkey	Low	Sporadic	Low	Stable	13	7.7%	None		(graphs)			Click here	
Ukraine	Low	Sporadic	Low	Increasing	2	0%	None	5.0 *	(graphs)	557.0	(graphs)	Click here	
Uzbekistan							None				(graphs)	Click here	
Wales	Low	Sporadic	Low	Stable				7.7	(graphs)		(graphs)	Click here	
Europe					729	5.9%						Click here	

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Low levels but increasing influenza activity in the European Region

- This issue is based on data reported in week 48/2010 by 40 Member States in the WHO European Region.
- Overall, influenza activity is at a low level in the Region.
- 9.8% of sentinel specimens tested positive for influenza.
- Influenza B, pandemic influenza A(H1N1) and influenza A(H3N2) viruses are circulating in the Region.



Current situation - week 48/2010

Of the 32 countries reporting clinical data, 13 reported small increases in clinical consultation rates for influenza-like illness (ILI) or acute respiratory infection (ARI). These increases were most pronounced in consultations for the groups aged 0-4 and 5-14 years. Of the 11 countries presenting calculated baseline thresholds, the Russian Federation and Ukraine reported clinical consultation rates above their thresholds. The intensity of respiratory disease activity was reported as low in 32 countries and medium in the Russian Federation. Of the 34 countries that reported on the geographic distribution of influenza activity, 13 reported no spread of influenza, 16 reported sporadic spread, and five countries reported local spread. The impact of influenza on health care systems was low in all 22 countries reporting on this indicator. Respiratory syncytial virus (RSV) also continues to circulate in the European Region, with 16 countries reporting RSV detections during week 48.

Virological situation - week 48/2010

Sentinel physicians collected 674 respiratory specimens, of which 66 (9.8%) were positive for influenza virus: 32 (48%) were influenza A and 34 (52%) were influenza B. Of the 32 influenza A viruses 30 were subtyped, 27 as pandemic A(H1), and three as A(H3). For the 10 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 36.7% with a median of 3.8%. Of these countries the United Kingdom (England) (22%) and Georgia (36.7%) reported that over 20% of sentinel specimens tested positive for influenza. Among specimens tested from non-sentinel sources, 236 were positive for influenza: 126 (53%) influenza A and 110 (47%) influenza B. Sixty-eight of the influenza A viruses were subtyped, 49 as pandemic A(H1) and 19 as A(H3).

Since week 40/2010, 56 influenza viruses have been characterized antigenically: 27 were A(H1) pandemic A/California/7/2009 (H1N1)-like; eight were A(H3) A/Perth/16/2009 (H3N2)-like; one was B/Florida/4/2006-like (B/Yamagata/16/88 lineage); and 20 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of 12 influenza viruses, six belonged to the pandemic A/California/7/2009 A(H1N1) clade; two belonged to the A(H3) clade represented by A/Perth/16/2009; one belonged to the A(H3) clade represented by the A/Victoria/208/2009 - A/Hong Kong/2121/2010 subgroup; two belonged to the B/Bangladesh/333/2007 (Yamagata) lineage; and one to the B/Florida/4/2006 (Yamagata) lineage.

Cumulative virological update - weeks 40-48/2010

A total of 753 influenza virus detections have been reported, of which 411 (55%) were influenza A and 342 (45%) influenza B. Of the influenza A viruses, 251 were subtyped: 167 (67%) as pandemic influenza A(H1), one (<1%) as influenza A(H1) and 83 (33%) as influenza A(H3).

Comment

Influenza activity remains low in the European Region but the number of countries reporting influenza detections is increasing. This is also reflected in the percentage positive samples: in the current week 9.8% of samples tested positive compared to 5.9% last week. Influenza type B, pandemic influenza A(H1) and influenza A(H3) viruses have been detected. RSV is also circulating and the pattern is similar to the 2009/2010 season at this time of the year.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

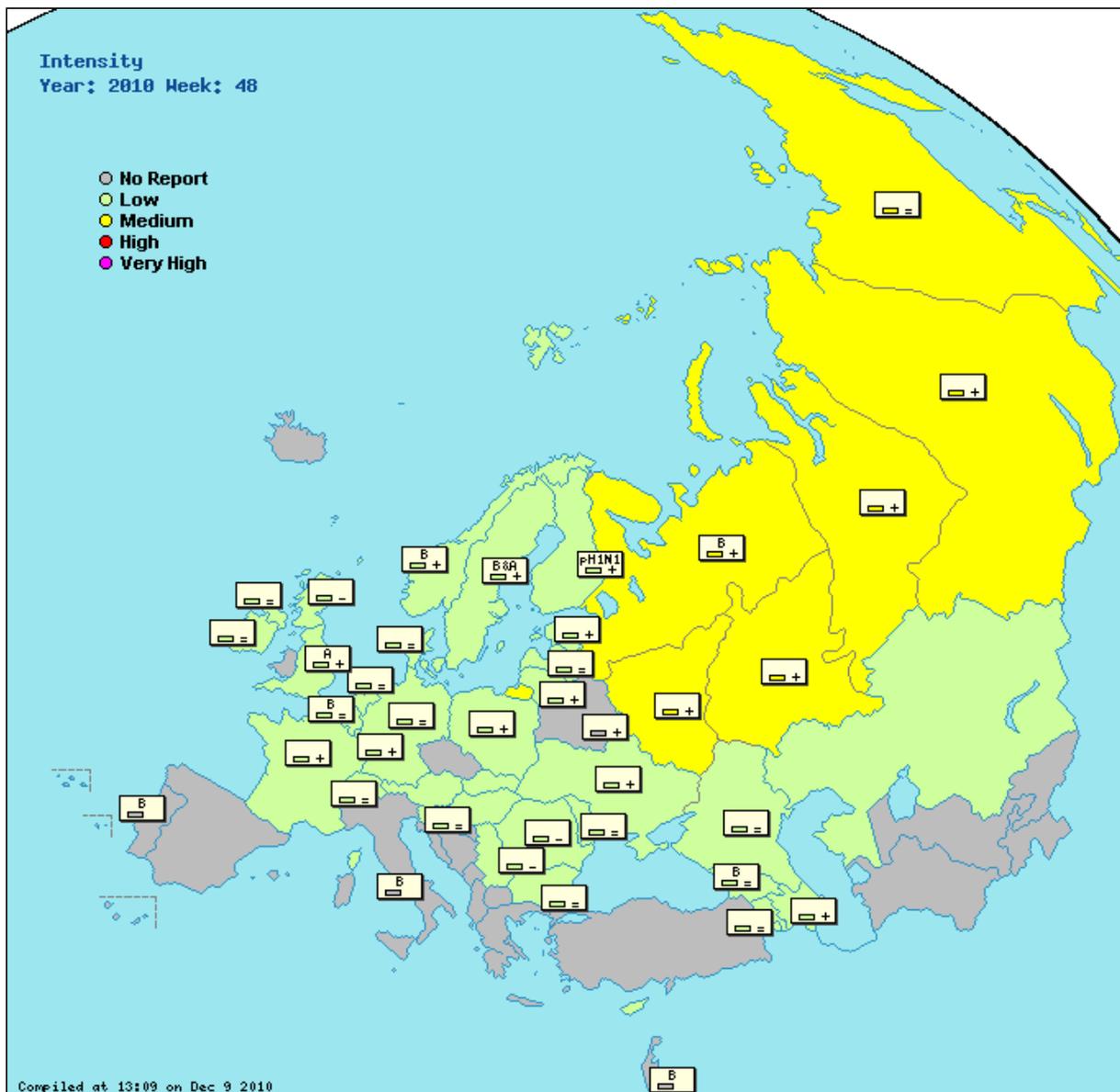
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

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Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

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+ : increasing clinical activity
- : decreasing clinical activity

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Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Kyrgyzstan

0

Norway

13 of the 17 influenza B detections in week 48 are from a single county in southeastern Norway, which may be experiencing a local outbreak

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Armenia	Low	Local	Low	Stable	2	0%	None	(graphs)	(graphs)	Click here
Austria	Low	None	Low		7	0%	None	0.0 (graphs)	30.2 (graphs)	Click here
Azerbaijan	Low	Sporadic	Low	Increasing	8	0%	None	(graphs)		Click here
Belarus		Sporadic		Increasing			None		1179.0 (graphs)	Click here
Belgium	Low	Sporadic		Stable	19	26.3%	Type B	34.2 (graphs)	854.3 (graphs)	Click here
Bosnia and Herzegovina							None	(graphs)		Click here
Bulgaria	Low	None		Stable	40	0%	None	(graphs)	864.0 (graphs)	Click here
Cyprus	Low	Sporadic	Low	Stable				0.5 * (graphs)	6.9 * (graphs)	Click here

Denmark	Low	None	Stable	13	0%	None	72.6	(graphs)	(graphs)	Click here		
England	Low	Local	Increasing	109	22.0%	Type A	13.4	(graphs)	492.5	(graphs)	Click here	
Estonia	Low	Sporadic	Low	Increasing	16	6.3%	None	5.7	(graphs)	340.6	(graphs)	Click here
Finland	Low	Sporadic	Low	Increasing	31	19.4%	Type A, Subtype pH1N1	0.0	(graphs)	(graphs)	Click here	
France	Low	Sporadic	Low	Increasing	50	4.0%	None	(graphs)	1765.9	(graphs)	Click here	
Georgia	Low	Local	Low	Stable	30	36.7%	Type B	161.3	(graphs)	(graphs)	Click here	
Germany	Low	None	Low	Stable	44	0%	None	(graphs)	1054.0	(graphs)	Click here	
Greece					1	0%		(graphs)	(graphs)	Click here		
Hungary	Low	None	Low	Increasing				99.6	(graphs)	(graphs)	Click here	
Ireland	Low	None	Low	Stable	9	0%	None	6.6	(graphs)	(graphs)	Click here	
Israel					56	7.1%	Type B	(graphs)	(graphs)	Click here		
Italy					17	5.9%	Type B	(graphs)	(graphs)	Click here		
Kazakhstan	Low	None	Low	Increasing					(graphs)	(graphs)	Click here	
Kyrgyzstan					2	0%	None		29.6	(graphs)	(graphs)	Click here
Latvia	Low	Sporadic		Stable	0	0%	None	0.9	(graphs)	950.3	(graphs)	Click here
Lithuania	Low	None	Low	Increasing	2	0%	None	1.1	(graphs)	507.1	(graphs)	Click here
Luxembourg	Low	Sporadic			10	10.0%	None	1.1 *	(graphs)	23.8 *	(graphs)	Click here
The former Yugoslav Republic of Macedonia							None	(graphs)	(graphs)	Click here		
Netherlands	Low	None	Stable	10	10.0%	None	33.5	(graphs)	(graphs)	Click here		
Northern Ireland	Low	Sporadic	Stable	8	0%		21.0	(graphs)	382.2	(graphs)	Click here	
Norway	Low	Local	Increasing	4	0%	Type B	34.9	(graphs)	(graphs)	Click here		
Poland	Low	Sporadic	Low	Increasing	12	0%	None	59.6	(graphs)	(graphs)	Click here	
Portugal					1	100.0%	Type B	(graphs)	(graphs)	Click here		
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	97.0	(graphs)	Click here	
Romania	Low	None	Low	Decreasing	44	0%	None	15.6	(graphs)	721.9	(graphs)	Click here
Russian Federation	Medium	Local	Increasing	36	2.8%	Type A and B			678.3	(graphs)	Click here	
Scotland	Low	Sporadic	Low	Decreasing	16	31.3%	None	4.3	(graphs)	222.7	(graphs)	Click here
Serbia	Low	None	Low	Decreasing	2	0%	None	31.0	(graphs)	(graphs)	Click here	
Slovakia	Low	Sporadic	Low	Increasing				194.7	(graphs)	1719.1	(graphs)	Click here
Slovenia	Low	Sporadic	Stable	14	7.1%	None	1.3	(graphs)	1041.1	(graphs)	Click here	
Sweden	Low	Sporadic	Low	Increasing	18	5.6%	Type B and Type A, Subtype pH1	3.6	(graphs)	(graphs)	Click here	
Switzerland	Low	None	Low	Stable	12	0%	None	22.5	(graphs)	(graphs)	Click here	
Turkey					28	3.6%	None	(graphs)	(graphs)	Click here		
Ukraine	Low	Sporadic	Low	Increasing	3	0%	None		653.4	(graphs)	(graphs)	Click here
Europe					674	9.8%					(graphs)	Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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Overall low levels but slowly increasing influenza activity in some countries in the European Region

- This issue is based on data reported in week 49/2010 by 41 Member States in the WHO European Region.
- Influenza activity remains low in most countries but influenza virus detections are increasing.
- 20.4% of sentinel specimens tested positive for influenza.
- Pandemic influenza A(H1N1) 2009, influenza B, and influenza A(H3N2) viruses are circulating in the Region.



Current situation - week 49/2010

Of the 34 countries submitting data on influenza-like illness (ILI) or acute respiratory infection (ARI), increasing consultation rates were reported by 11 countries, mostly in children aged 0-14. The increases were generally small, except in the United Kingdom (England) which observed more pronounced increases in both ILI and ARI consultation rates for most age groups. Of the 36 countries reporting on the geographical spread of influenza, most reported either no (13) or sporadic (16) distribution, while 3 reported local activity, 3 regional activity and 1 widespread activity. The impact of influenza on health care systems was low in all but one (Ireland) of the 22 countries reporting on this indicator. Respiratory syncytial virus (RSV) is also circulating and 19 countries reported detections during week 49.

Virological situation week 49/2010

Sentinel physicians collected 828 respiratory specimens, of which 169 (20%) were positive for influenza virus: 101 (60%) were influenza A and 68 (40%) were influenza B. Of the influenza A viruses, 86 were subtyped: 81 as pandemic A(H1) and 5 as A(H3). For the 13 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 42% with a median of 6%. Influenza positivity was highest in the UK (England, 42%), Finland (38%) and Israel (37%). Among specimens tested from non-sentinel sources, 251 were positive for influenza: 153 (61%) influenza A and 98 (39%) influenza B. Fifty-four of the non-sentinel influenza A viruses were subtyped: 44 were pandemic A(H1) and 10 A(H3).

Since week 40/2010, 79 influenza viruses have been characterized antigenically: 38 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 13 were A(H3) A/Perth/16/2009 (H3N2)-like; 1 was B/Florida/4/2006-like (B/Yamagata/16/88 lineage); 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage) and 26 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of 22 influenza viruses, 12 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 3 belonged to the A(H3) clade represented by A/Perth/16/2009; 2 belonged to the A(H3) clade represented by the A/Victoria/208/2009 - A/Hong Kong/2121/2010 subgroup, 4 belonged to the B/Bangladesh/3333/2007 (Yamagata) lineage and 1 to the B/Florida/4/2006 (Yamagata) lineage.

Cumulative virological update - weeks 40 49/2010

A total of 1 251 influenza virus detections have been reported, of which 734 (59%) were influenza A and 517 (41%) influenza B. Of the influenza A viruses, 447 have been subtyped: 339 (76%) as pandemic influenza A(H1), one (<1%) as influenza A(H1) and 107 (24%) as influenza A(H3).

Comment

Overall influenza activity remains low in most countries of the European Region. However, the number of countries reporting influenza detections and the positivity of sentinel samples are increasing. In week 49/2010, 20% of sentinel samples tested positive for influenza compared with 10% in the previous week. Pandemic A(H1N1) 2009, influenza type B, and influenza A(H3) viruses have all been detected and RSV continues to circulate.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](http://www.who.int/europe), [WHO headquarters](http://www.who.int) and the [European Centre for Disease Prevention and Control](http://www.euro.who.int).

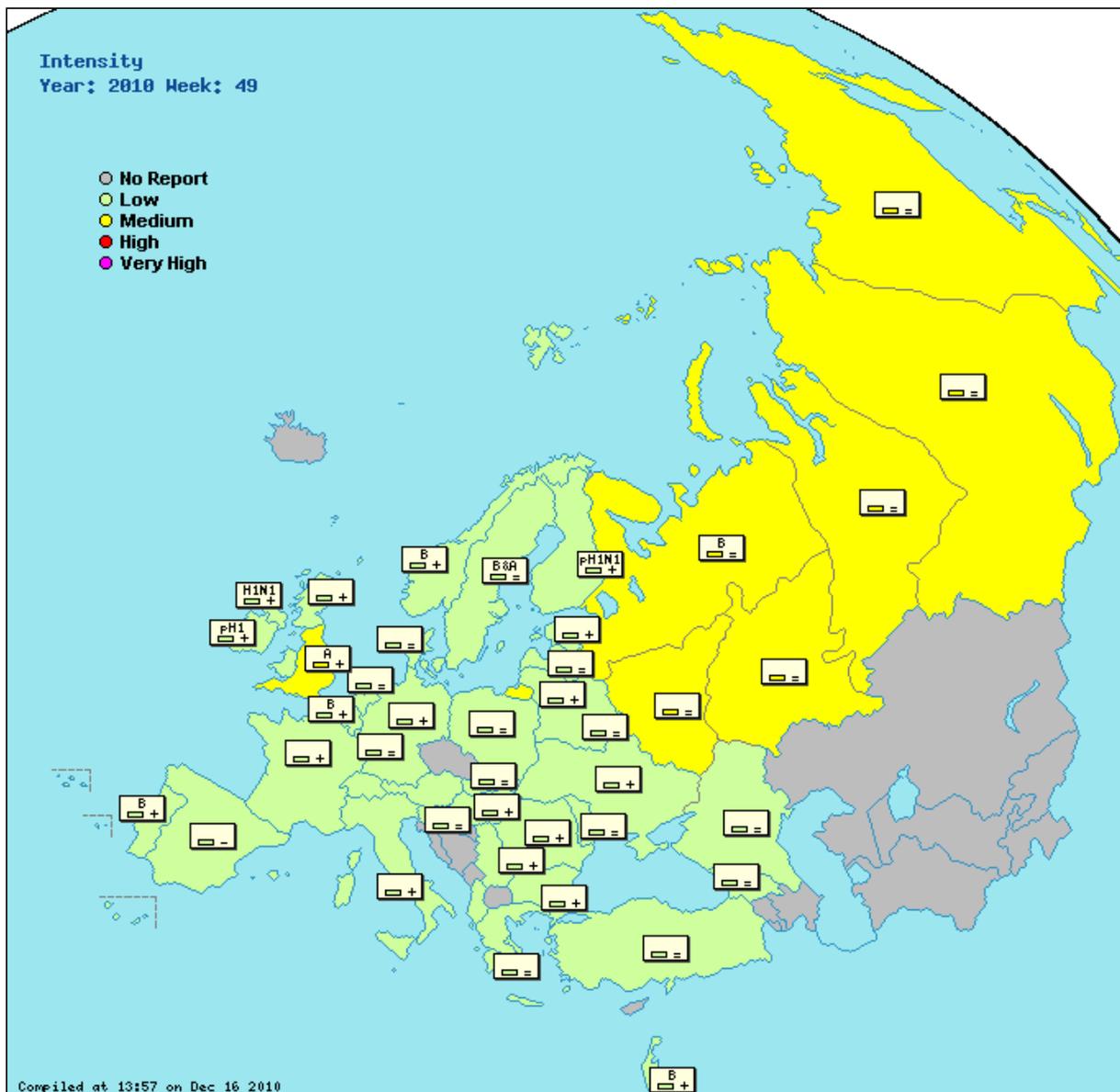
Map

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Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + virological **Geographical spread** + virological **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
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B = Dominant virus B
A & B = Dominant virus A & B

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No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

England

GP consultation rate threshold has been breached, calls to NHS Direct (nurse-led medical helpline) for flu-related illnesses are increasing and many (mainly school) outbreaks (of influenza H1N1 (2009) and influenza B) have been reported, indicating influenza transmission in the community. Several severe cases of influenza have been reported in the last three weeks resulting in an increase in ITU-bed occupancy and in the provision of beds used for Extra-Corporeal Membrane Oxygenation (ECMO). The majority of these patients are aged under 65 years. Further information can be found on the Health Protection Agency website (new report will be published Thursday afternoon): http://www.hpa.org.uk/web/HPAwebHPAwebStandard/HPAweb_C/1284475022603

Scotland

Small number of severe acute respiratory infections resulting in intensive care admission in individuals with confirmed Influenza A H1N1 2009 virus
 Small number of severe acute respiratory infections resulting in intensive care admission in individuals with confirmed Influenza A H1N1 2009 virus

Table and graphs (where available)

Intensity	Geographic Impact Spread	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
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Albania	Low	None	Low	Decreasing					368.3	(graphs)	Click here
Armenia					2	0%	None			(graphs)	Click here
Austria	Low	None	Low		6	16.7%	None	0.0	(graphs)	25.1	(graphs) Click here
Azerbaijan					7	0%	None		(graphs)		Click here
Belarus	Low	Sporadic	Low	Stable			None			1171.6	(graphs) Click here
Belgium	Low	Sporadic		Increasing	29	31.0%	Type B	67.5	(graphs)	1027.9	(graphs) Click here
Bosnia and Herzegovina							None		(graphs)		Click here
Bulgaria	Low	None		Increasing	39	0%	None		(graphs)	963.0	(graphs) Click here
Croatia		None		Stable				0.0	(graphs)		Click here
Denmark	Low	None		Stable	8	37.5%	None	78.7	(graphs)		(graphs) Click here
England	Medium	Widespread		Increasing	183	42.1%	Type A	34.6	(graphs)	666.4	(graphs) Click here
Estonia	Low	Sporadic	Low	Increasing	26	3.9%	None	6.4	(graphs)	309.5	(graphs) Click here
Finland	Low	Regional	Low	Increasing	34	38.2%	Type A, Subtype pH1N1	0.0	(graphs)		(graphs) Click here
France	Low	Sporadic	Low	Increasing	75	20.0%	None		(graphs)	1908.8	(graphs) Click here
Georgia	Low	None	Low	Stable	32	0%	None	139.5	(graphs)		Click here
Germany	Low	Sporadic	Low	Increasing	39	2.6%	None		(graphs)	1109.8	(graphs) Click here
Greece	Low	None		Stable	2	0%	None	53.4	(graphs)		(graphs) Click here
Hungary	Low	None	Low	Increasing	66	0%	None	122.5	(graphs)		(graphs) Click here
Ireland	Low	Sporadic	Moderate	Increasing	6	83.3%	Type A, Subtype pH1	14.4	(graphs)		(graphs) Click here
Israel	Low	Sporadic	Low	Increasing	45	35.6%	Type B	20.4	(graphs)		Click here
Italy	Low	Regional	Low	Increasing	6	0%	None	150.8	(graphs)		(graphs) Click here
Kyrgyzstan					3	100.0%	None				(graphs) Click here
Latvia	Low	Sporadic		Stable	0	0%	None	0.0	(graphs)	1000.1	(graphs) Click here
Lithuania	Low	None	Low	Increasing	16	0%	None	1.7	(graphs)	533.6	(graphs) Click here
Luxembourg	Low	Sporadic			6	33.3%	None	0.5 *	(graphs)	24.0 *	(graphs) Click here
The former Yugoslav Republic of Macedonia							None		(graphs)		Click here
Netherlands	Low	None		Stable	11	9.1%	None	37.6	(graphs)		(graphs) Click here
Northern Ireland	Low	Sporadic		Increasing	6	16.7%	Type A, Subtype H1N1	29.2	(graphs)	406.7	(graphs) Click here
Norway	Low	Local		Increasing	8	62.5%	Type B	41.9	(graphs)		(graphs) Click here
Poland	Low	Sporadic	Low	Stable	11	18.2%	None	62.6	(graphs)		(graphs) Click here
Portugal	Low	Sporadic		Increasing	5	40.0%	Type B	35.0	(graphs)		(graphs) Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None		(graphs)	102.0	(graphs) Click here
Romania	Low	None	Low	Increasing	35	0%	None	18.9	(graphs)	759.2	(graphs) Click here
Russian Federation	Medium	Local		Stable	19	5.3%	Type B	0.2	(graphs)	676.4	(graphs) Click here
Scotland	Low	Sporadic	Low	Increasing	6	33.3%	None	1.1	(graphs)	160.6	(graphs) Click here
Serbia	Low	None	Low	Increasing	2	0%	None	43.8	(graphs)		Click here
Slovakia	Low	Sporadic	Low	Stable	6	0%	None	199.9	(graphs)	1793.0	(graphs) Click here
Slovenia	Low	Sporadic		Stable	12	8.3%	None	1.3	(graphs)	1134.9	(graphs) Click here
Spain	Low	Sporadic		Decreasing	26	19.2%	None	13.6	(graphs)		(graphs) Click here
Sweden	Low	Sporadic	Low	Stable	15	6.7%	Type B and Type A, Subtype pH1	4.9	(graphs)		(graphs) Click here
Switzerland	Low	Local	Low	Increasing				35.1	(graphs)		Click here
Turkey	Low	Sporadic	Low	Stable	33	6.1%	None		(graphs)		Click here
Ukraine	Low	Regional	Low	Increasing	3	0%	None	5.7 *	(graphs)	766.1	(graphs) Click here
Wales	Low	Sporadic	Low	Increasing				22.5	(graphs)		(graphs) Click here
Europe					828	20.4%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitry Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Overall low levels of influenza activity in the WHO European Region but some countries reporting increased activity



- This issue is based on data reported in week 50/2010 by 42 Member States in the WHO European Region.
- Influenza activity remains low in most countries but influenza virus detections are increasing.
- 39% of sentinel specimens tested positive for influenza.
- Pandemic influenza A(H1N1) 2009, influenza B, and influenza A(H3N2) viruses are circulating in the Region.



Current situation - week 50/2010

Of the 32 countries submitting data on influenza-like illness (ILI) or acute respiratory infection (ARI), increasing consultation rates were reported by 8 countries, mostly in children aged 0-14. The increases were generally small, except in the United Kingdom (England) where ILI and ARI consultation rates continued to increase steeply. Of the 13 countries presenting calculated baseline thresholds, France, Ireland, the Russian Federation and Ukraine reported clinical consultation rates above their thresholds. Of the 33 countries reporting on the geographical spread of influenza, most reported either no (6) or sporadic (12) distribution, while 7 reported local activity, 6 regional activity and 2 widespread activity. The impact of influenza on health care systems was low in 17 of the 20 countries reporting on this indicator, with 3 countries reporting moderate impact (Finland, Ireland, Israel). Respiratory syncytial virus (RSV) is also circulating and 14 countries reported detections during week 50.

Virological situation - week 50/2010

Sentinel physicians collected 1188 respiratory specimens, of which 465 (39%) were positive for influenza virus: 318 (68%) were influenza A and 147 (32%) were influenza B. Of the influenza A viruses 291 were subtyped, 274 (94%) as pandemic A(H1) and 17 (6%) as A(H3). For the 11 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 60% with a median of 28% (mean: 26%). Influenza positivity was highest in Finland (60%), the United Kingdom (56%), and Israel (46%). Among specimens tested from non-sentinel sources, 907 were positive for influenza: 647 (71%) influenza A and 260 (29%) influenza B. Of the influenza A viruses 181 were subtyped, 161 (89%) as pandemic A(H1) and 20 (11%) as A(H3).

Since week 40/2010, 161 influenza viruses have been characterized antigenically: 90 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 15 were A(H3) A/Perth/16/2009 (H3N2)-like; 5 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); and 51 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of 30 influenza viruses: 18 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 3 belonged to the A(H3) clade represented by A/Perth/16/2009; 4 belonged to the A(H3) clade represented by the A/Victoria/208/2009 - A/Hong Kong/2121/2010 subgroup; 4 belonged to the B/Bangladesh/3333/2007 clade (Yamagata) lineage; and 1 to the B/Florida/4/2006 clade (Yamagata) lineage.

Cumulative virological update - weeks 40-50/2010

A total of 2 744 influenza virus detections have been reported, of which 1 794 (65%) were influenza A and 950 (35%) influenza B. Of the influenza A viruses, 1012 have been subtyped: 853 (84%) as pandemic influenza A(H1); one (<1%) as influenza A(H1); and 158 (16%) as influenza A(H3).

Comment

Overall, influenza activity remains low in most countries of the WHO European Region. However, the number of countries reporting influenza detections and the rates of positivity in sentinel samples are increasing. Overall in week 50/2010, 39% of sentinel samples tested positive for influenza compared with 20% in the previous week. Pandemic A(H1N1) 2009, influenza type B, and influenza A(H3) viruses have all been detected and RSV continues to circulate.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

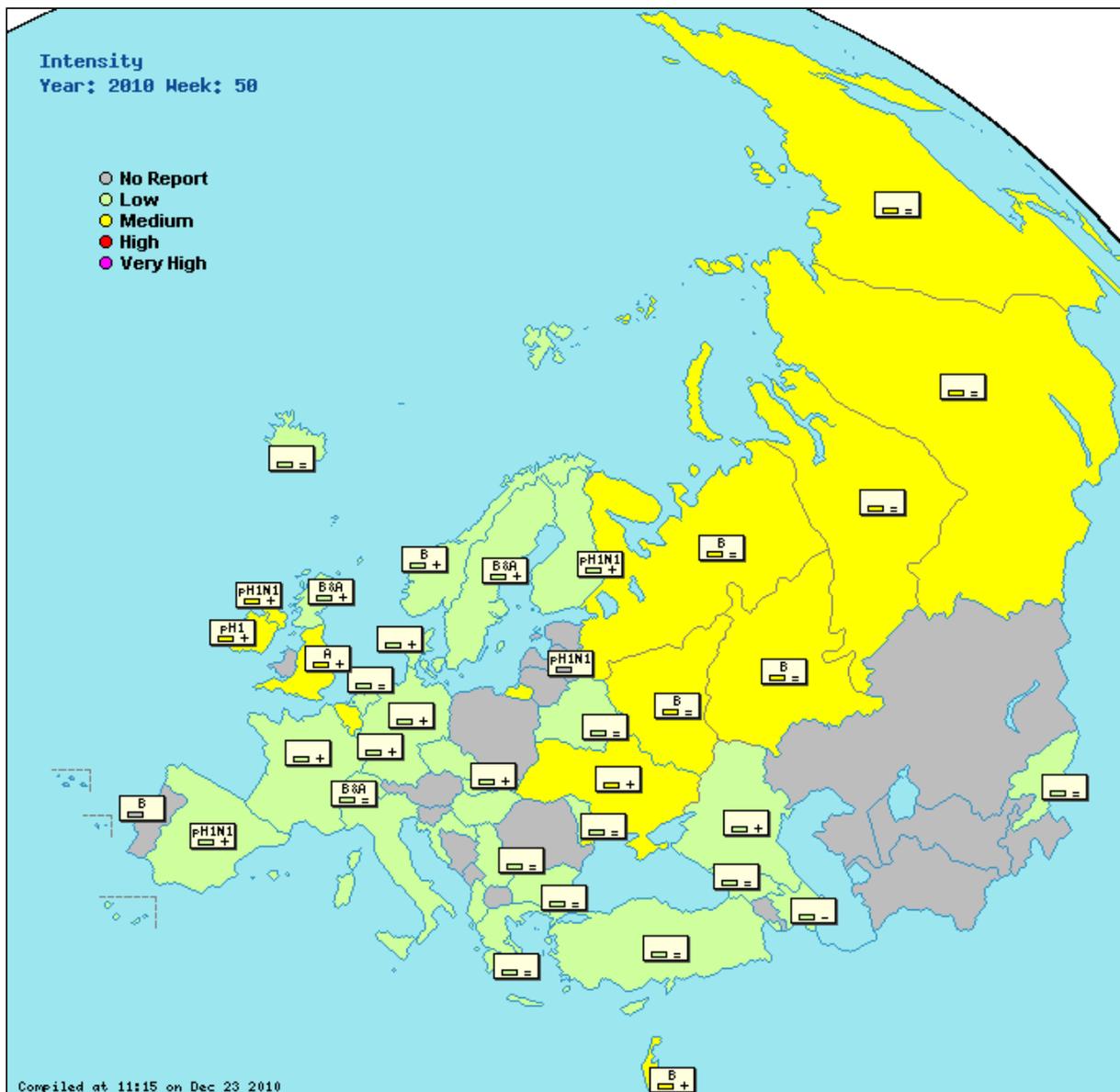
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

England

All Flu indicators continue to increase in the UK, GP consultation rate are still increasing as well as calls to NHSDirect (Nurse-led medicalhelpline) for flu related illnesses. More outbreaks of influenza H1N1 (2009) and influenza B have been reported indicating community transmission of influenza virus. Several severe cases of influenza have been reported in the last three weeks resulting in an increase in ITU-bed occupancy and in the provision of beds used for Extra-Corporeal Membrane Oxygenation (ECMO). The majority of these patients are aged under 65 years.- Further information can be found on the Health Protection Agency website (new report will be published Thursday afternoon):

Scotland

There have been an additional 5 individuals hospitalized in ICU with Infuenza A H1N1 2009 .

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Decreasing					372.4	(graphs) Click here
Armenia					2	0%	None			(graphs) Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	19	0%	None	(graphs)		Click here
Belarus	Low	Sporadic		Stable					1179.7	(graphs) Click here

Belgium	Medium	Widespread		Increasing					158.2 (graphs)	1836.2 (graphs)	Click here
Bosnia and Herzegovina							None		(graphs)		Click here
Bulgaria	Low	None		Stable	4	50.0%	None		(graphs)	946.7 (graphs)	Click here
Croatia	Low	Sporadic	Low	Increasing				0.1	(graphs)		Click here
Cyprus	Low	Sporadic	Low	Stable				1.4 *	(graphs)	6.7 * (graphs)	Click here
Czech Republic	Low	Sporadic		Stable				35.3	(graphs)	1036.4 (graphs)	Click here
Denmark	Low	Sporadic		Increasing	13	30.8%	None	96.9	(graphs)	(graphs)	Click here
England	Medium	Widespread		Increasing	365	57.5%	Type A	87.1	(graphs)	826.3 (graphs)	Click here
Estonia					12	16.7%	None		(graphs)		Click here
Finland	Low	Regional	Moderate	Increasing	101	60.4%	Type A, Subtype pH1N1	0.0	(graphs)	(graphs)	Click here
France	Low	Regional	Low	Increasing	96	17.7%	None		(graphs)	2162.8 (graphs)	Click here
Georgia	Low	None	Low	Stable	32	0%	None	143.3	(graphs)		Click here
Germany	Low	Local	Low	Increasing	42	28.6%	None		(graphs)	1102.7 (graphs)	Click here
Greece	Low	None		Stable	1	0%	None	35.8	(graphs)	(graphs)	Click here
Hungary	Low	Sporadic	Low	Decreasing				103.3	(graphs)	(graphs)	Click here
Iceland	Low	Sporadic	Low	Stable	4	25.0%		0.9	(graphs)	(graphs)	Click here
Ireland	Medium	Local	Moderate	Increasing	24	29.2%	Type A, Subtype pH1	24.1	(graphs)	(graphs)	Click here
Israel	Medium	Regional	Moderate	Increasing	98	45.9%	Type B	26.6	(graphs)		Click here
Italy	Low	Regional	Low	Increasing				205.3	(graphs)	(graphs)	Click here
Kyrgyzstan	Low	None	Low	Stable	3	0%	None	4.0	(graphs)	38.9 (graphs)	Click here
Latvia					0	0%	Type A, Subtype pH1N1		(graphs)		Click here
Lithuania					6	16.7%	None		(graphs)		Click here
Luxembourg	Low	Local			18	38.9%		0.9 *	(graphs)	21.0 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None		(graphs)		Click here
Montenegro							None	4.2	(graphs)	607.6 (graphs)	Click here
Netherlands	Low	Sporadic		Stable	17	70.6%	None	35.6	(graphs)	(graphs)	Click here
Northern Ireland	Medium	Sporadic		Increasing	17	58.8%	Type A, Subtype pH1N1	64.6	(graphs)	513.0 (graphs)	Click here
Norway	Low	Regional		Increasing	17	70.6%	Type B	51.0	(graphs)	(graphs)	Click here
Portugal					7	57.1%	Type B		(graphs)		Click here
Republic of Moldova	Low	None	Low	Stable			None		(graphs)	115.7 (graphs)	Click here
Russian Federation	Medium	Local		Stable	35	0%	Type B	0.3	(graphs)	685.1 (graphs)	Click here
Scotland	Low	Sporadic	Low	Increasing	31	38.7%	Type B and Type A, Subtype pH1N1	2.1	(graphs)	270.9 (graphs)	Click here
Serbia	Low	Sporadic	Low	Stable	1	0%	None	45.3	(graphs)		Click here
Slovakia	Low	Sporadic	Low	Increasing	12	8.3%	None	213.5	(graphs)	1905.5 (graphs)	Click here
Slovenia					14	7.1%	None		(graphs)		Click here
Spain	Low	Local		Increasing	132	28.0%	Type A, Subtype pH1N1	40.0	(graphs)	(graphs)	Click here
Sweden	Low	Local	Low	Increasing	0	0%	Type B and Type A, Subtype pH1	6.2	(graphs)	(graphs)	Click here
Switzerland	Low	Local		Stable	26	11.5%	Type B and Type A, Subtype pH1	40.4	(graphs)		Click here
Turkey	Low	Sporadic	Low	Stable	34	8.8%	None		(graphs)		Click here
Ukraine	Medium	Regional	Low	Increasing	5	40.0%	None	6.1 *	(graphs)	871.1 (graphs)	Click here
Europe					1188	39.2%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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More countries in the Region reporting influenza detections but activity generally low

- This issue is based on data reported in week 51/2010 by 42 Member States in the WHO European Region.
- Influenza activity remains low in most countries but influenza virus detections are increasing.
- 34% of sentinel specimens tested positive for influenza.
- Pandemic influenza A(H1N1) 2009, influenza B and influenza A(H3N2) viruses are circulating in the Region.



Current situation - week 51/2010

Increasing consultation rates were reported by 8 of the 32 countries submitting data on influenza-like illness (ILI) or acute respiratory infection (ARI), mostly in children aged 0-4 years. Of the 9 countries presenting calculated baseline thresholds, France, Israel, the Russian Federation and Ukraine reported clinical consultation rates above their thresholds. Of the 31 countries reporting on the geographical spread of influenza, most reported either no (7) or sporadic (12) activity, while 6 reported local, 2 regional and 4 widespread activity. The impact of influenza on health care systems was low in 17 of the 18 countries reporting on this indicator, with Israel reporting moderate impact. Respiratory syncytial virus (RSV) is also circulating, and 15 countries reported detections during week 51.

Virological situation - week 51/2010

Sentinel physicians collected 906 respiratory specimens, of which 309 (34%) were positive for influenza virus: 212 (69%) were influenza A and 97 (31%) were influenza B. Of the influenza A viruses, 165 were subtyped: 133 (81%) as pandemic A(H1) and 32 (19%) as A(H3). For the 16 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 80%, with a median of 28% (mean: 30%). Influenza positivity was highest in Belgium (80%), Finland (61%), and Israel (50%). Among specimens tested from non-sentinel sources, 698 were positive for influenza: 433 (62%) influenza A and 265 (38%) influenza B. Of the influenza A viruses, 339 were subtyped: 320 (94%) as pandemic A(H1) and 19 (6%) as A(H3).

Since week 40/2010, 182 influenza viruses have been characterized antigenically: 97 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 25 were A(H3) A/Perth/16/2009 (H3N2)-like; 6 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); and 54 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of 39 influenza viruses, 27 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 3 belonged to the A(H3) clade represented by A/Perth/16/2009; 4 belonged to the A(H3) clade represented by the A/Victoria/208/2009 - A/Hong Kong/2121/2010 subgroup; 4 belonged to the B/Bangladesh/3333/2007 clade (Yamagata) lineage; and 1 to the B/Florida/4/2006 clade (Yamagata) lineage.

Cumulative virological update - weeks 40-51/2010

A total of 3 927 influenza virus detections have been reported, of which 2 541 (65%) were influenza A and 1 386 (35%) influenza B. Of the influenza A viruses, 1 580 have been subtyped: 1 362 (86%) as pandemic influenza A(H1); 217 (14%) as influenza A(H3); and one (<1%) as influenza A(H1).

Comment

Overall, influenza activity remains low in most countries of the WHO European Region. In week 51/2010, 34% of sentinel samples tested positive for influenza compared with 39% in the previous week. This apparent drop in positivity probably relates to fewer consultations and/or lower reporting of data owing to the Christmas and New Year holidays. This interpretation is supported by the facts that the number of countries reporting influenza detections and the rates of positivity in sentinel samples observed in individual countries are increasing. Pandemic A(H1N1) 2009, influenza type B, and influenza A(H3) viruses have all been detected and RSV continues to circulate.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](http://www.who.int/europe), [WHO headquarters](http://www.who.int) and the [European Centre for Disease Prevention and Control](http://www.euro.who.int).

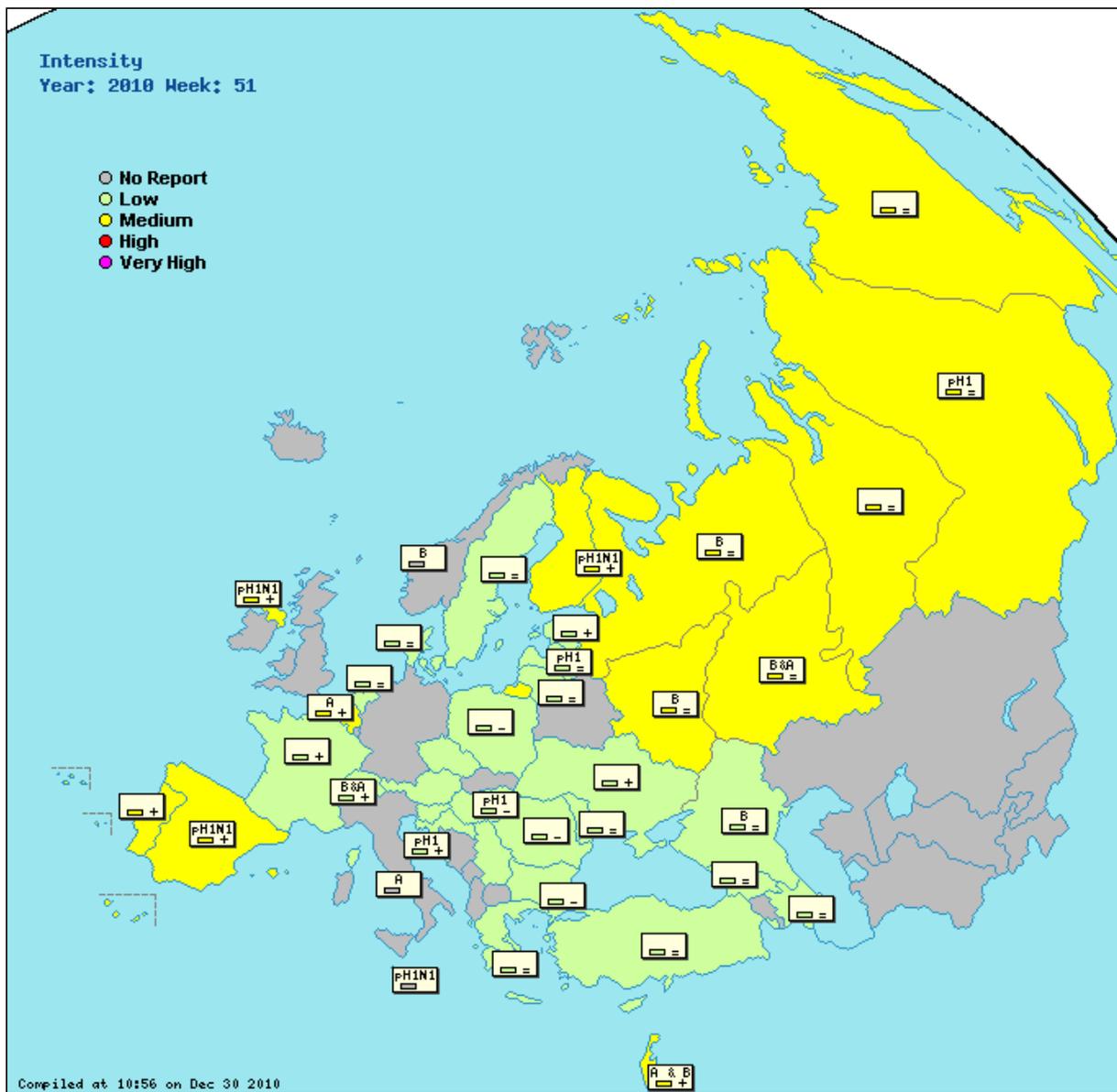
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

+ : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Armenia					2	0%	None			(graphs) Click here
Austria	Low	None	Low		8	25.0%	None	0.0 (graphs)	19.8 (graphs)	Click here
Azerbaijan	Low	Sporadic	Low	Stable	4	0%	None	247.6 (graphs)		Click here
Belarus							None			(graphs) Click here
Belgium	Medium	Widespread		Increasing	35	80.0%	Type A	267.2 (graphs)	1982.0 (graphs)	Click here
Bosnia and Herzegovina							None	(graphs)		Click here
Bulgaria	Low	None		Decreasing	0	0%	None	(graphs)	736.2 (graphs)	Click here
Croatia	Low	Local	Low	Increasing			Type A, Subtype pH1	0.5 (graphs)		Click here
Cyprus	Low	Sporadic	Low	Stable				0.8 * (graphs)	7.0 * (graphs)	Click here
Czech Republic	Low	Sporadic		Stable				23.8 (graphs)	833.6 (graphs)	Click here
Denmark	Low	Sporadic		Stable	7	14.3%	None	83.1 (graphs)		(graphs) Click here

Estonia	Low	Sporadic	Low	Increasing	21	23.8%	None	7.3 (graphs)	268.6 (graphs)	Click here
Finland	Medium	Regional	Low	Increasing	46	60.9%	Type A, Subtype pH1N1	0.0 (graphs)		Click here
France	Low	Widespread	Low	Increasing	83	34.9%	None		2158.6 (graphs)	Click here
Georgia	Low	Sporadic	Low	Stable	24	4.2%	None	114.4 (graphs)		Click here
Germany					39	28.2%	None			Click here
Greece	Low	None		Stable	6	0%	None	61.4 (graphs)		Click here
Hungary	Low	Sporadic	Low	Decreasing	27	3.7%	Type A, Subtype pH1	75.4 (graphs)		Click here
Israel	Medium	Widespread	Moderate	Increasing	121	50.4%	Type A and B	56.0 (graphs)		Click here
Italy					46	28.3%	Type A			Click here
Kyrgyzstan					0	0%	None			Click here
Latvia	Low	Sporadic		Stable	0	0%	Type A, Subtype pH1	1.8 (graphs)	733.4 (graphs)	Click here
Lithuania	Low	Sporadic	Low	Stable	4	50.0%	None	4.8 (graphs)	428.4 (graphs)	Click here
Luxembourg					13	38.5%				Click here
The former Yugoslav Republic of Macedonia							None			Click here
Malta					10	40.0%	Type A, Subtype pH1N1			Click here
Netherlands	Low	Regional		Stable	10	30.0%	None	23.4 (graphs)		Click here
Northern Ireland	Medium	Local		Increasing	26	38.5%	Type A, Subtype pH1N1	99.5 (graphs)	691.5 (graphs)	Click here
Norway					17	41.2%	Type B			Click here
Poland	Low	None	Low	Decreasing	3	0%	None	52.2 (graphs)		Click here
Portugal	Medium	Widespread		Increasing	4	100.0%	None	55.1 (graphs)		Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None		94.4 (graphs)	Click here
Romania	Low	None	Low	Decreasing	37	0%	None	17.6 (graphs)	735.5 (graphs)	Click here
Russian Federation	Medium	Local		Stable	38	7.9%	Type A and B	0.5 (graphs)	671.9 (graphs)	Click here
Serbia	Low	None	Low	Increasing				48.4 (graphs)		Click here
Slovakia					3	0%	None			Click here
Slovenia	Low	Sporadic		Stable				1.5 (graphs)	1378.1 (graphs)	Click here
Spain	Medium	Local		Increasing	151	43.7%	Type A, Subtype pH1N1	82.5 (graphs)		Click here
Sweden	Low	Sporadic	Low	Stable	24	8.3%	None	10.0 (graphs)		Click here
Switzerland	Low	Local		Increasing	24	37.5%	Type B and Type A, Subtype pH1	79.2 (graphs)		Click here
Turkey	Low	Sporadic	Low	Stable	64	18.8%	None	6.2 (graphs)		Click here
Ukraine	Low	Local	Low	Increasing	9	22.2%	None	6.1 * (graphs)	874.2 (graphs)	Click here
Europe					906	34.1%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Increasing influenza activity with highest intensity in western Europe

- This issue is based on data reported in week 52/2010 by 39 Member States in the WHO European Region.
- Influenza activity increased, particularly in western countries.
- 45% of sentinel specimens tested positive for influenza.
- Pandemic influenza A(H1N1) 2009, influenza B and influenza A(H3N2) viruses are circulating in the Region.



Current situation - week 52/2010

Increasing consultation rates were reported by 12 of the 32 countries submitting data on influenza-like illness (ILI) and/or acute respiratory infection (ARI), mostly in children aged 0-4 years. In the United Kingdom (England), the group aged 5-14 was most affected. Of the 10 countries presenting calculated baseline thresholds, 5 (France, Ireland, Israel, Luxembourg and Ukraine) reported clinical consultation rates above the thresholds. Denmark and the United Kingdom (England) reported a high intensity of influenza activity. Of the 38 countries reporting on the geographical spread of influenza, 11 reported widespread activity; 5 reported regional activity; 6 reported local activity and the remaining 16 reported no or sporadic activity. The impact of influenza on health care systems was low in 16 of the 21 countries reporting on this indicator, with Ireland, Israel, the United Kingdom (Wales and Scotland) and Turkey reporting moderate impact.

In the United Kingdom, the picture of the illness associated with influenza A(H1N1)2009 infection is consistent with that seen in the 2009 pandemic, with a similar demographic impact: particularly affecting children and young adults. The virological picture is complex, with many strains of influenza virus circulating but no antigenic change in the influenza A(H1N1) 2009 virus, and no immediately obvious genetic differences between viruses recovered from fatal cases and those causing mild illness. See a [Eurosurveillance article](#) for more information.

Virological situation - week 52/2010

Sentinel physicians collected 1072 respiratory specimens, of which 479 (45%) were positive for influenza virus: 370 (77%) were influenza A and 109 (23%) were influenza B. Of the influenza A viruses, 307 were subtyped: 262 (85%) as pandemic A(H1) and 45 (15%) as A(H3). For the 13 countries testing 20 or more sentinel specimens, influenza positivity ranged from 3% to 81%, with a median of 44% (mean: 47%). Influenza positivity was highest in the United Kingdom (Scotland) (81%), Belgium (77%), Switzerland (59%), Israel (56%) and Spain (54%). Among specimens tested from non-sentinel sources, 2865 were positive for influenza: 2055 (72%) influenza A and 810 (28%) were influenza B. Of the influenza A viruses, 971 were subtyped: 965 (99%) as pandemic A(H1) and 6 (1%) as A(H3). Respiratory syncytial virus continued to be detected.

Since week 40/2010, 238 influenza viruses had been characterized antigenically: 101 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 42 were A(H3) A/Perth/16/2009 (H3N2)-like; 6 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 89 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage). Based on the genetic characterization of 42 influenza viruses, 30 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 3 belonged to the A(H3) clade represented by A/Perth/16/2009; 4 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 4 belonged to the B/Bangladesh/3333/2007 clade (Yamagata) lineage; and 1 to the B/Florida/4/2006 clade (Yamagata) lineage.

Cumulative virological update - weeks 40-52/2010

A total of 9204 influenza virus detections were reported, of which 6500 (71%) were influenza A and 2704 (29%) influenza B. Of the influenza A viruses, 3593 were subtyped: 3285 (91%) as pandemic influenza A(H1), 307 (9%) as influenza A(H3) and 1 (less than 1%) as influenza A(H1).

Comment

Influenza activity has increased, with the highest intensity of circulation in countries of western Europe. Widespread activity was reported by Belgium, Denmark, Ireland, Israel, France, the Netherlands, Norway, Portugal, Switzerland and the United Kingdom (England and Wales). Overall, influenza activity remains low in other countries in the WHO European Region. Owing to the holidays, few countries in the eastern part of the Region reported data to EuroFlu. In week 52/2010, 45% of sentinel samples tested positive for influenza, compared with 34% and 39% in the previous two weeks. Pandemic A(H1N1) 2009, influenza B and influenza A(H3) viruses were co-circulating in the Region, with pandemic A(H1N1) 2009 being dominant in 11 countries, influenza A and B being co-dominant in 4 countries and influenza type B dominating in 4 countries. The WHO Regional Office for Europe continues to monitor the situation concerning severe influenza cases closely. Member States are advised to follow current WHO recommendations, for more information click [here](#).

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

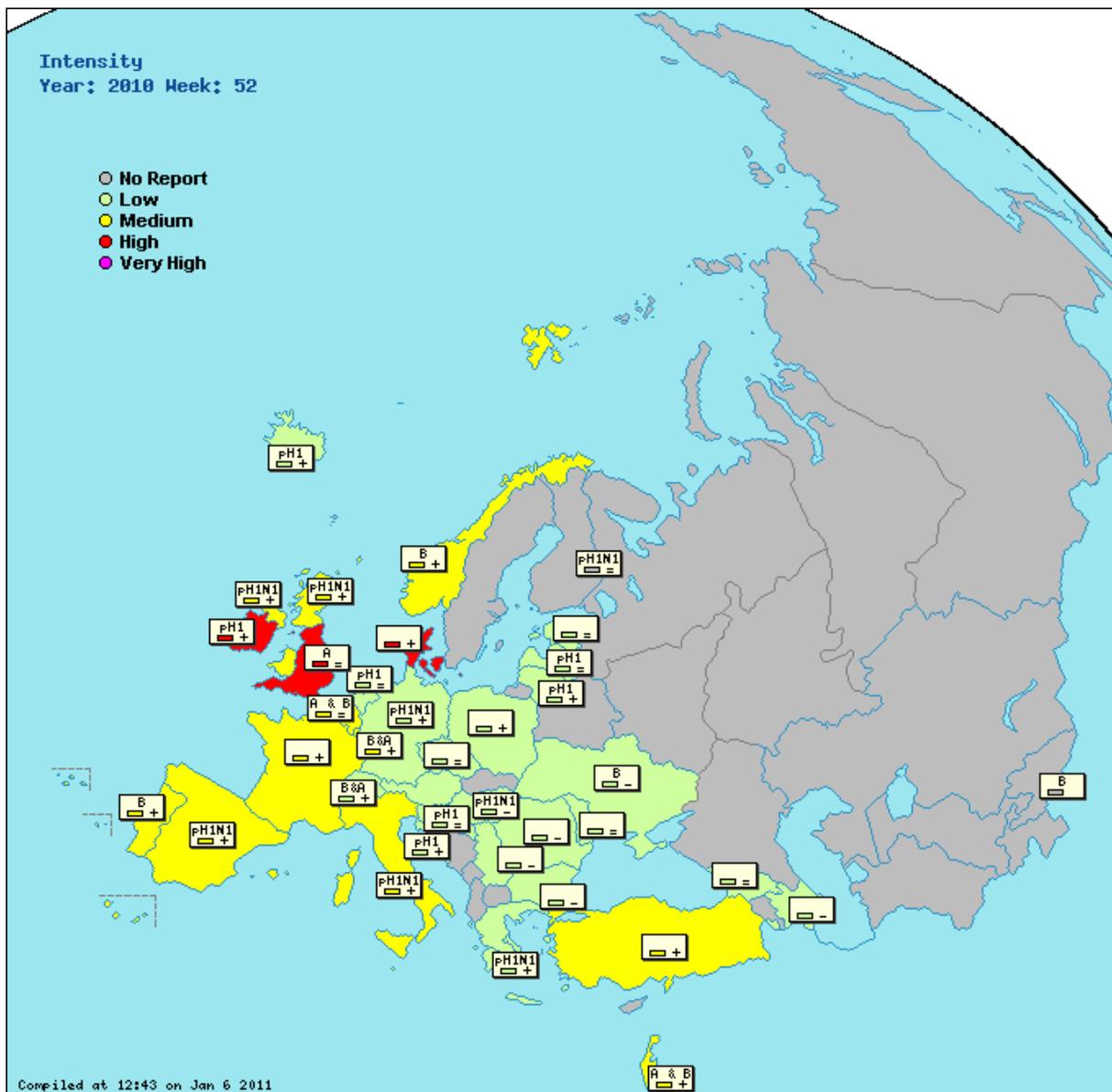
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

England

Due to bank holidays in week 52 (ending 2 January) GP surgeries were only open for three days, which will have impacted GP consultation rates so data should be interpreted cautiously. A similar 'dip' in consultation rates is often seen at this time of year.

Malta

situation stable

Scotland

Increasing number of SARI cases

Increasing number of SARI cases attributable to Influenza A H1N1 (2009 strain)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Austria	Low	None	Low		7	42.9%	None	0.0 (graphs)	7.2 (graphs)	Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	3	0%	None	242.9 (graphs)		Click here
Belgium	Medium	Widespread		Stable	30	76.7%	Type A and B	252.8 (graphs)	1543.8 (graphs)	Click here
Bosnia and Herzegovina							None	(graphs)		Click here
Bulgaria	Low	None		Decreasing	0	0%	None	(graphs)	666.9 (graphs)	Click here
Croatia	Low	Local	Low	Increasing			Type A, Subtype pH1	4.2 (graphs)		Click here
Czech Republic	Low	Sporadic		Stable	7	14.3%	None	18.1 (graphs)	673.1 (graphs)	Click here
Denmark	High	Widespread		Increasing	15	40.0%	None	121.4 (graphs)		(graphs) Click here
England	High	Widespread		Stable	0	0%	Type A	98.5 (graphs)	598.9 (graphs)	Click here
Estonia	Low	Sporadic	Low	Stable	15	20.0%	None	6.6 (graphs)	332.1 (graphs)	Click here
Finland		Regional		Stable	29	37.9%	Type A, Subtype pH1N1	0.0 (graphs)		(graphs) Click here
France	Medium	Widespread	Low	Increasing	137	43.1%	None	(graphs)	2426.7 (graphs)	Click here
Georgia	Low	Local	Low	Stable	19	15.8%	None	82.8 (graphs)		Click here
Germany	Low	Local		Increasing	37	43.2%	Type A, Subtype pH1N1	(graphs)	950.3 (graphs)	(graphs) Click here
Greece	Low	Sporadic		Increasing	1	0%	Type A, Subtype pH1N1	123.1 (graphs)		(graphs) Click here
Hungary	Low	Sporadic	Low	Decreasing	31	3.2%		66.0 (graphs)		(graphs) Click here
Iceland	Low	Sporadic	Low	Increasing	18	11.1%		4.1 (graphs)		(graphs) Click here
Ireland	High	Widespread	Moderate	Increasing	0	0%	Type A, Subtype pH1	120.6 (graphs)		(graphs) Click here
Israel	Medium	Widespread	Moderate	Increasing	119	56.3%	Type A and B	88.4 (graphs)		Click here
Italy	Medium	Regional	Low	Increasing	39	30.8%	Type A, Subtype pH1N1	378.6 (graphs)		(graphs) Click here
Kyrgyzstan					5	20.0%	Type B			(graphs) Click here
Latvia	Low	Sporadic		Stable	0	0%	Type A, Subtype pH1	0.0 (graphs)	778.0 (graphs)	Click here
Lithuania	Low	Sporadic	Low	Increasing	5	80.0%	Type A, Subtype pH1	11.7 (graphs)	479.8 (graphs)	Click here
Luxembourg	Medium	Regional			31	51.6%	Type B and Type A, Subtype pH1	5.3 * (graphs)	25.9 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Malta	Medium	Local	Low	Increasing				15.8 * (graphs)	0 * (graphs)	Click here
Netherlands	Low	Widespread		Stable	17	64.7%		36.4 (graphs)		(graphs) Click here
Northern Ireland	Medium	Local		Increasing	3	66.7%	Type A, Subtype pH1N1	179.5 (graphs)	461.7 (graphs)	Click here
Norway	Medium	Widespread		Increasing	8	62.5%	Type B	60.1 (graphs)		(graphs) Click here
Poland	Low	Sporadic	Low	Increasing	5	40.0%	None	65.1 (graphs)		(graphs) Click here
Portugal	Medium	Widespread		Increasing	5	40.0%	Type B	75.2 (graphs)		(graphs) Click here
Republic of Moldova	Low	None	Low	Stable			None	(graphs)	48.3 (graphs)	Click here
Romania	Low	None	Low	Decreasing	19	10.5%	None	13.7 (graphs)	591.3 (graphs)	Click here
Scotland	Medium	Local	Moderate	Increasing	32	81.3%	Type A, Subtype pH1N1	20.4 (graphs)	234.5 (graphs)	Click here
Serbia	Low	None	Low	Decreasing	1	0%	None	42.8 (graphs)		Click here
Slovakia					1	0%	None	(graphs)		Click here
Slovenia	Low	Sporadic		Stable	23	43.5%	Type A, Subtype pH1	15.9 (graphs)	1333.2 (graphs)	Click here
Spain	Medium	Regional		Increasing	259	53.7%	Type A, Subtype pH1N1	152.2 (graphs)		(graphs) Click here
Switzerland	Low	Widespread		Increasing	41	58.5%	Type B and Type A, Subtype pH1	83.0 (graphs)		Click here
Turkey	Medium	Regional	Moderate	Increasing	106	26.4%	None	(graphs)		Click here
Ukraine	Low	Sporadic	Low	Decreasing	4	0%	Type B	6.5 * (graphs)	680.6 (graphs)	Click here
Wales	Medium	Widespread	Moderate	Increasing				89.2 (graphs)		(graphs) Click here
Europe					1072	44.7%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitry Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Widespread influenza activity in countries of northern and western Europe

- This issue is based on data reported in week 01/2011 by 47 Member States in the WHO European Region.
- Influenza activity is increasing in north-western Europe.
- 44% of sentinel specimens tested positive for influenza.
- Pandemic influenza A(H1N1) 2009 and influenza B are the predominant viruses circulating in the Region with relatively few influenza A(H3N2) viruses being detected.
- Some countries are experiencing strains on critical care capacities due to patients with severe disease caused by influenza (see Network comments).



Current situation - week 01/2011

Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) increased in 20 out of 41 countries that reported on this indicator. The age groups affected varied between countries, but in about half the countries increases were seen in all age groups. Of the 10 countries that present a baseline, 6 reported clinical consultation rates above the national threshold (France, Ireland, Israel, Luxembourg, the Netherlands and Switzerland). Four countries reported high influenza activity: Denmark, Ireland, Norway and the United Kingdom (England). Among 43 countries for which information on geographical spread was available, 14 were experiencing widespread activity, 5 regional activity, 9 local activity, and the remaining 15 no or sporadic activity.

Virological situation - week 01/2011

This week, pandemic influenza A(H1N1) 2009 and influenza B remain the predominant viruses circulating in the Region with relatively few influenza A(H3N2) viruses being detected. Pandemic A(H1N1) 2009 dominated in 18 countries, influenza A and B co-dominated in 5 countries while influenza B was dominant in 4 countries.

Sentinel physicians collected 2005 respiratory specimens, of which 877 (44%) were positive for influenza virus: 648 (74%) were influenza A and 229 (26%) were influenza B. Of the influenza A viruses, 592 were subtyped: 536 (91%) as pandemic A(H1) and 56 (9%) as A(H3). In the 23 countries testing 20 or more sentinel specimens, influenza positivity ranged from 5% to 68%, with a median of 46% (mean: 43%). Influenza positivity was above 60% in 5 countries: Belgium, Ireland, Israel, Lithuania and the Netherlands. Among specimens tested from non-sentinel sources, 5085 were positive for influenza: 3707 (73%) influenza A and 1378 (27%) influenza B. Of the influenza A viruses, 2047 were subtyped: 1977 (97%) as pandemic A(H1) and 70 (3%) as A(H3). Respiratory syncytial virus was also reported by some countries.

Since week 40/2010, 399 influenza viruses have been characterized antigenically: 179 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 162 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 45 were A(H3) A/Perth/16/2009 (H3N2)-like; 12 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 56 influenza viruses, 41 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 5 belonged to the A(H3) clade represented by A/Perth/16/2009; 4 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 4 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage); 1 to the B/Florida/4/2006 clade (Yamagata lineage); and 1 to the B/Brisbane/60/2008 clade (Victoria lineage).

Cumulative virological update - weeks 40/2010-01/2011

A total of 15 860 influenza virus detections were reported, of which 11 244 (71%) were influenza A and 4616 (29%) influenza B. Of the influenza A viruses, 6539 were subtyped: 6104 (93%) as pandemic influenza A(H1), 433 (7%) as influenza A(H3) and 2 (less than 1%) as influenza A(H1).

Comment

ILI and ARI consultation rates have increased particularly in countries of the northern and western part of the European Region. Widespread activity has been reported by an increasing number of countries. Influenza activity is still low in other countries in the WHO European Region; but, current data may be incomplete following holidays in several countries. In week 01/2011, across the Region as a whole, 44% of sentinel samples tested positive for influenza, corroborating the widespread influenza activity. The co-circulation of influenza B with the pandemic A(H1N1) 2009 virus contrasts with the 2009/2010 season when little co-circulation of influenza B was seen.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For a current update on the influenza situation and WHO/Europe recommendations [click here](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Map

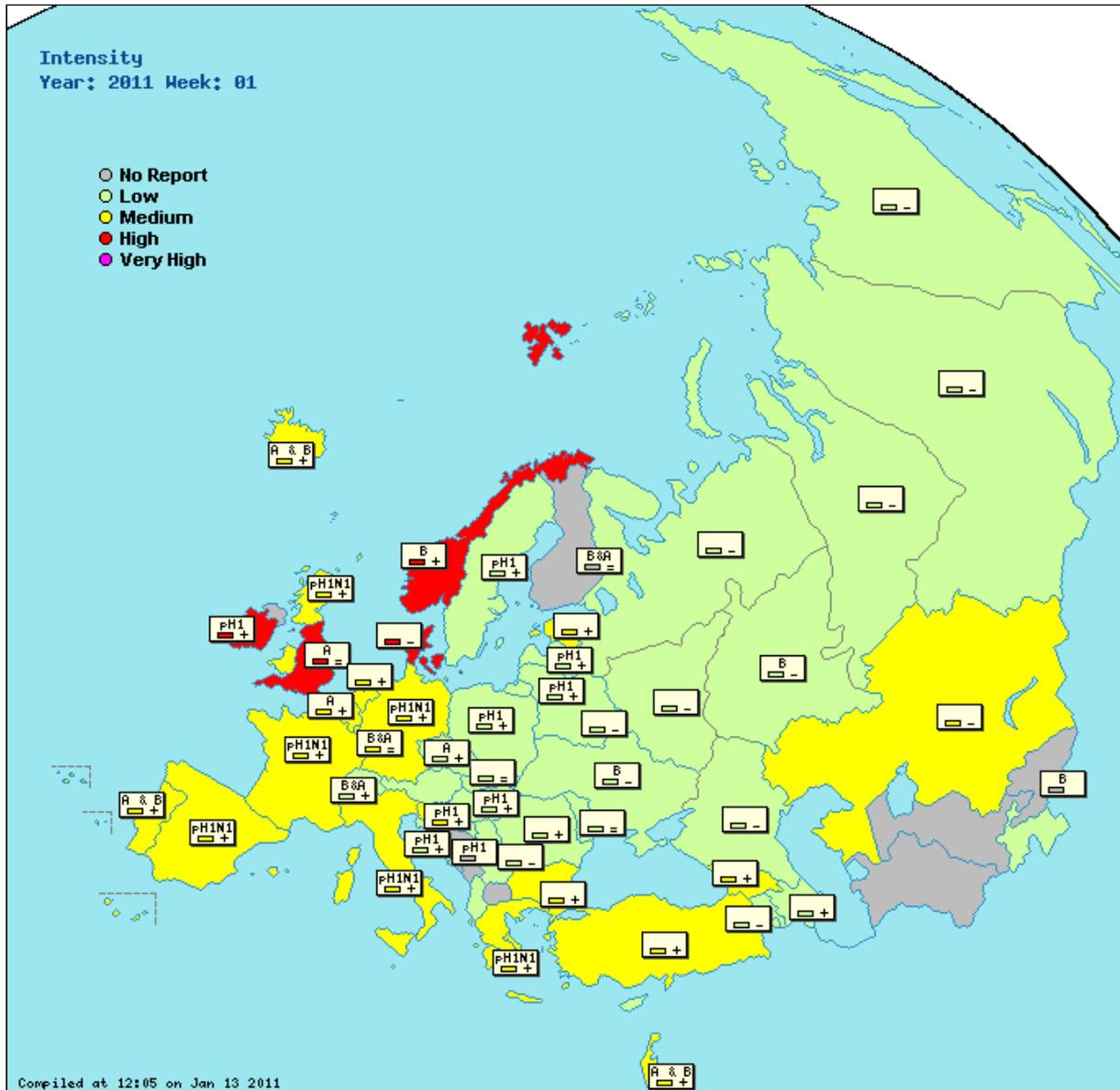
The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant

virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

England

Due to bank holidays in weeks 52 and 1 GP surgeries were only open for three and four days respectively, which will have impacted GP consultation rates so data should be interpreted cautiously. A similar dip and subsequent increase in consultation rates is often seen at this time of year. Number of patients in England with confirmed or suspected influenza in critical care beds by age of patient: week ending 15 Dec 2010 U5=10, 5-15=9, 16-64=141, 65+=22, Total=182; week ending 23 Dec 2010 U5=26, 5-15=17, 16-64=366, 65+=51, Total=460; week ending 30 Dec 2010 U5=42, 5-15=24, 16-64=586, 65+=86, Total=738; week ending 6 Jan 2010 U5=30, 5-15=17, 16-64=640, 65+=96, Total=783. The overall number of severely ill patients with confirmed or suspected flu in critical care has continued rising. As at 06 January 2011

there were 783 patients with confirmed or suspected influenza in NHS critical care beds in England these patients occupied 22.5 % of available critical care beds nationally. For further information see <http://winterwatch.dh.gov.uk/>

Czech Republic

During last week three new SARI cases with laboratory confirmed pandemic strain all at intensive and/or resuscitation care units were reported: 29-years-old male with no risk condition; 48 years-old female with diabetes and obesity; 54-years-old male with abdominal sepsis.

Malta

situation stable

Scotland

Continued increase in SARI cases.

Small number of B cases and H3 cases also identified. Continued increase in SARI cases, majority of which are influenza A (H1N1) 2009.

Spain

In Spain the information of severe illness due to influenza infection admitted to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season for reporting severe hospitalised confirmed influenza cases.

Since week 40/2010 and up to week 01/2011 245 severe hospitalised confirmed influenza cases have been reported.

Severely affected are mostly young adults some without underlying conditions (16%). Most of the severe cases and deaths have been associated with A(H1N1)2009 and have not previously been vaccinated.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	SARI per 100,000	Virology graph and pie chart
Albania	Low	None	Low	Decreasing					366.9 (graphs)	Click here
Armenia	Low	Local	Low	Decreasing	0	0%	None			graphs Click here
Austria	Low	None	Low		11	45.5%	None	0.0 (graphs)	15.5 (graphs)	Click here
Azerbaijan	Low	Sporadic	Low	Increasing	7	0%	None	102.3 (graphs)		Click here
Belarus	Low	Sporadic	Low	Decreasing	20	5.0%	None		823.5 (graphs)	Click here
Belgium	Medium	Widespread		Increasing	53	67.9%	Type A	487.8 (graphs)	1908.8 (graphs)	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	graphs		Click here
Bulgaria	Medium	Local		Increasing	1	0%	None	graphs	1227.5 (graphs)	Click here
Croatia	Low	Widespread	Low	Increasing			Type A, Subtype pH1	9.8 (graphs)		Click here
Cyprus	Low	Sporadic	Low	Stable				3.9 * (graphs)	8.8 * (graphs)	Click here
Czech Republic	Low	Sporadic		Increasing	16	37.5%	Type A	30.4 (graphs)	932.5 (graphs)	Click here
Denmark	High	Widespread		Decreasing	32	37.5%	None	graphs	graphs	Click here
England	High	Widespread		Stable	328	39.3%	Type A	108.4 (graphs)	667.4 (graphs)	Click here
Estonia	Medium	Widespread	Moderate	Increasing	41	22.0%	None	10.0 (graphs)	317.6 (graphs)	Click here
Finland	Low	Regional		Stable	25	48.0%	Type B and Type A, Subtype pH1	0.0 (graphs)	graphs	Click here
France	Medium	Widespread	Low	Increasing	219	42.0%	Type A, Subtype pH1N1	graphs	2493.1 (graphs)	Click here
Georgia	Medium	Regional	Low	Increasing	7	14.3%	None	206.9 (graphs)		Click here
Germany	Medium	Local		Increasing	112	45.5%	Type A, Subtype pH1N1	graphs	1217.4 (graphs)	Click here
Greece	Medium	Sporadic		Increasing	3	33.3%	Type A, Subtype pH1N1	106.0 (graphs)	graphs	Click here
Hungary	Low	Sporadic	Low	Increasing	90	15.6%	Type A, Subtype pH1	125.8 (graphs)	graphs	Click here
Iceland	Medium	Local	Low	Increasing	0	0%		14.8 (graphs)	graphs	Click here
Ireland	High	Widespread	Moderate	Increasing	116	62.9%	Type A, Subtype pH1	204.2 (graphs)	graphs	Click here
Israel	Medium	Widespread	Moderate	Increasing	122	66.4%	Type A and B	144.4 (graphs)		Click here
Italy	Medium	Regional	Low	Increasing	52	32.7%	Type A, Subtype pH1N1	451.3 (graphs)	graphs	Click here
Kazakhstan	Medium	Local	Low	Decreasing	9	0%	None	0.8 (graphs)	85.2 (graphs)	Click here
Kyrgyzstan		None			7	57.1%	Type B	4.7 (graphs)	28.4 (graphs)	Click here
Latvia	Low	Local		Increasing	1	0%	Type A, Subtype pH1	15.7 (graphs)	1014.4 (graphs)	Click here
Lithuania	Low	Regional	Low	Increasing	22	68.2%	Type A, Subtype pH1	41.1 (graphs)	646.9 (graphs)	Click here
Luxembourg	Medium	Widespread			34	58.8%	Type B and Type A, Subtype pH1	2.9 * (graphs)	21.9 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	graphs		Click here
Malta	Medium	Local	Low	Increasing				13.3 * (graphs)	0 * (graphs)	Click here
Netherlands	Medium	Widespread		Increasing	36	63.9%	None	87.3 (graphs)	graphs	Click here
Norway	High	Widespread		Increasing	43	53.5%	Type B	165.1 (graphs)	graphs	Click here
Poland	Low	Sporadic	Low	Increasing	22	18.2%	Type A, Subtype pH1	90.8 (graphs)	graphs	Click here
Portugal	Medium	Widespread		Increasing	16	62.5%	Type A and B	95.1 (graphs)	graphs	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	graphs	82.9 (graphs)	Click here
Romania	Low	Sporadic	Low	Increasing	48	8.3%	None	20.7 (graphs)	722.8 (graphs)	Click here
Russian Federation	Low	Local		Decreasing			Type B	1.2 (graphs)	311.9 (graphs)	Click here
Scotland	Medium	Widespread	Moderate	Increasing	48	56.3%	Type A, Subtype pH1N1	18.2 (graphs)	227.0 (graphs)	Click here
Serbia	Low	Sporadic	Low	Decreasing	1	0%	None	37.7 (graphs)		Click here
Slovakia	Low	Sporadic	Low	Stable	1	0%	None	120.8 (graphs)	1249.4 (graphs)	Click here
Slovenia	Medium	Local		Increasing	48	50.0%	Type A, Subtype pH1	30.0 (graphs)	1677.4 (graphs)	Click here
Spain	Medium	Widespread		Increasing	244	46.3%	Type A, Subtype pH1N1	208.5 (graphs)	graphs	Click here
Sweden	Low	Sporadic	Low	Increasing	17	47.1%	Type A, Subtype pH1	16.9 (graphs)	graphs	Click here
Switzerland	Low	Widespread		Increasing	68	52.9%	Type B and Type A, Subtype pH1	196.4 (graphs)		Click here
Tajikistan	Low	Sporadic	Low	Stable				graphs		Click here
Turkey	Medium	Regional	Moderate	Increasing	82	31.7%	None	graphs		Click here
Ukraine	Low	Sporadic	Low	Decreasing	3	0%	Type B	4.1 * (graphs)	473.7 (graphs)	Click here
Wales	Medium	Widespread	Moderate	Increasing				92.8 (graphs)	graphs	Click here
Europe					2005	43.7%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Continued slow increase in influenza activity across Europe

- This issue is based on data reported in week 2/2011 by 46 Member States in the WHO European Region.
- Influenza activity has progressed across the Region following a west-to-east trend.
- 44% of sentinel specimens were positive for influenza.
- Pandemic influenza A(H1N1) 2009 remains the dominant virus, particularly in the western part of the Region.
- Countries continue to report cases of severe disease caused mainly by pandemic influenza A(H1N1) 2009 virus infections (see network comments).



Current situation - week 02/2011

Of the 38 countries reporting on consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI), 20 reported increases while 2 reported decreases. In the remaining 16 countries, consultation rates were largely unchanged. In general, the highest consultation rates were reported for children aged 0-14 years. Information on the intensity of influenza activity was available for 40 countries. Most countries reported medium (24) or low (13) activity, while 1 (Luxembourg) reported very high influenza activity and 2 others (Ireland and Norway) reported high activity. Influenza was reported to be widespread in 15 countries, regional in 7 countries and local in 7 countries; 11 countries reported no or sporadic activity. Influenza levels were highest in the western part of the Region. Of the 23 countries reporting on the impact of influenza on health care systems, 19 described it as low overall. Ireland reported severe impact on its health care capacity, while 3 other countries (Estonia, Georgia and Israel) reported moderate impact.

Virological situation - week 2/2011

Pandemic influenza A(H1N1) 2009 continued to predominate in western and northern Europe, while influenza A and B mainly co-dominated in the eastern part of the Region. Influenza B was reported to be dominant in a few countries.

Sentinel physicians collected 2886 respiratory specimens, of which 1263 (44%) were positive for influenza virus: 912 (72%) were influenza A and 351 (28%) were influenza B. Of the influenza A viruses, 813 were subtyped: 769 (95%) as pandemic A(H1) and 44 (5%) as A(H3). In the 24 countries testing 20 or more sentinel specimens, influenza positivity ranged from 12% to 76%, with a median of 44% (mean: 43%). In addition, 4515 non-sentinel specimens were reported positive for influenza: 3183 (70%) influenza A and 1332 (30%) influenza B. Of the influenza A viruses, 1875 were subtyped: 1842 (98%) as pandemic A(H1) and 33 (2%) as A(H3). In addition, 20 countries reported circulation of respiratory syncytial virus.

Since week 40/2010, 620 influenza viruses have been characterized antigenically: 361 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 184 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 62 were A(H3) A/Perth/16/2009 (H3N2)-like; and 13 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 62 influenza viruses, 41 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 9 belonged to the A(H3) clade represented by A/Perth/16/2009; 5 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 1 belonged to the A(H3) clade represented by A/Victoria/208/2009; 4 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage); 1 belonged to the B/Florida/4/2006 clade (Yamagata lineage), and 1 to the B/Brisbane/60/2008 clade (Victoria lineage).

Cumulative virological update - weeks 40/2010-2/2011

A total of 22 579 influenza virus detections were reported, of which 16 055 (71%) were influenza A and 6524 (29%) influenza B. Of the influenza A viruses, 9866 were subtyped: 9327 (95%) as pandemic influenza A(H1), 537 (5%) as influenza A(H3) and 2 (less than 1%) as influenza A(H1).

Comment

ILI and ARI consultation rates continue to rise, following a west-to-east progression across the Region. However, several countries are reporting low influenza activity, mainly in the central part of the Region. In week 2/2011, 44% of sentinel samples tested positive for influenza, similarly to previous weeks. Pandemic influenza A(H1N1) 2009 remains the dominant virus in circulation in most countries.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + virological **Geographical spread** + virological **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Belgium England

Number of patients in England with confirmed or suspected influenza in critical care beds by age of patient: week ending 6 Jan 2010 U5=30, 5-15=17, 16-64=640, 65+=96, Total=783. week ending 13 Jan 2010 U5=18, 5-15=8, 16-64=534, 65+=101, Total=661. The overall number of severely ill patients with confirmed or suspected flu in critical care has reduced. As at 13 January 2011, there were 661 patients with confirmed or suspected influenza in NHS critical care beds in England ? these patients occupied 19 % of available critical care beds nationally. For further information see <http://winterwatch.dh.gov.uk/>

Czech Republic

During last week three additional SARI cases with laboratory-confirmed pandemic strain were reported - all males (56; 57 and 60 years old) with underlying conditions.

Latvia

Two firsts death cases have been confirmed .Both were associated with A(H1N1)2009 .

Luxembourg

In wk2/2011 Luxembourg detected some double infections with influenza A (H1N1) 2009 and B.

Malta

situation stable

Russian Federation

3 lethal cases from pandemic influenza were registered in Russia (PCR+)

Scotland

SARI cases continue to be reported

Small number of B cases and H3 cases also identified. SARI cases continue to be reported, most of which are associated with influenza A(2009) H1N1.

Spain

In Spain the information of severe illness due to influenza infection admitted to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season for reporting severe hospitalised confirmed influenza cases.

Since week 40/2010 and up to week 02/2011 have been reported 517 severe hospitalised confirmed influenza cases (including 24 fatal cases). Severely affected cases are mostly in the 15-64 age group (69%) some without underlying conditions (22%). Most of the severe cases and deaths have been associated with A(H1N1)2009 and have not previously been vaccinated.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Medium	Sporadic	Low	Increasing					399.9	(graphs) Click here
Armenia					0	0%	None			(graphs) Click here
Austria	Low	None	Low		39	35.9%	None	4.8	34.1	(graphs) Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	7	0%	None	81.6		(graphs) Click here
Belarus	Low	Sporadic		Increasing	19	15.8%	Type B		1123.7	(graphs) Click here
Belgium	Medium	Widespread		Stable	74	67.6%	Type A	441.7	1691.8	(graphs) Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)		Click here
Bulgaria	Medium	Regional		Increasing	13	46.2%	Type A, Subtype pH1N1	(graphs)	1529.4	(graphs) Click here
Croatia	Low	Widespread	Low	Increasing			Type A, Subtype pH1	55.8		(graphs) Click here
Cyprus	Low	Local	Low	Stable				3.9 *	6.4 *	(graphs) Click here
Czech Republic	Low	Local		Increasing	19	36.8%	Type A, Subtype pH1	41.4	1017.2	(graphs) Click here
Denmark	Medium	Widespread		Stable	27	55.6%	None	(graphs)	(graphs)	Click here
England	Medium	Widespread		Decreasing	541	27.7%	Type A	66.5	530.4	(graphs) Click here
Estonia	Medium	Widespread	Moderate	Increasing	59	50.9%	Type A, Subtype pH1N1	17.9	387.8	(graphs) Click here
Finland	Medium	Regional		Stable	50	54.0%	Type B and Type A, Subtype pH1	0.0		(graphs) Click here
France	Medium	Widespread	Low	Stable	157	56.1%	Type A, Subtype pH1N1	(graphs)	2489.0	(graphs) Click here
Georgia	Medium	Regional	Moderate	Increasing	30	26.7%	Type B and Type A, Subtype pH1	246.8		(graphs) Click here
Germany	Medium	Regional		Increasing	200	53.5%	Type A, Subtype pH1N1	(graphs)	1179.6	(graphs) Click here
Greece	Medium	Local		Stable	2	100.0%	Type A, Subtype pH1N1	147.3		(graphs) Click here
Hungary	Medium	Local	Low	Increasing	102	23.5%	Type A, Subtype pH1	184.0		(graphs) Click here
Iceland	Medium	Local	Low	Stable	0	0%		14.2		(graphs) Click here
Ireland	High	Widespread	Severe	Stable	120	20.8%	Type A, Subtype pH1	173.0		(graphs) Click here
Israel	Medium	Widespread	Moderate	Increasing	111	75.7%	Type A and B	159.9		(graphs) Click here
Italy	Medium	Regional	Low	Increasing	94	41.5%	Type A, Subtype pH1N1	582.3		(graphs) Click here
Kazakhstan	Medium	Local	Low	Increasing	18	11.1%	None	1.6	175.5	(graphs) Click here
Kyrgyzstan	Low	None	Low	Stable	9	55.6%	Type B	5.3	40.1	(graphs) Click here
Latvia	Low	Regional		Increasing	0	0%	Type A, Subtype pH1	41.0	1212.2	(graphs) Click here
Lithuania	Medium	Regional	Low	Increasing	27	63.0%	Type A, Subtype pH1	79.6	712.8	(graphs) Click here
Luxembourg	Very High	Widespread			59	130.5%	Type B and Type A, Subtype pH1	7.0 *	22.9 *	(graphs) Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Malta	Medium	Local	Low	Stable				14.9 *	0 *	(graphs) Click here
Netherlands	Medium	Widespread		Stable	40	52.5%	Type A, Subtype pH1N1	70.8		(graphs) Click here
Norway	High	Widespread		Stable	15	66.7%	Type B	181.5		(graphs) Click here
Portugal	Medium	Widespread		Stable	21	14.3%	Type A, Subtype pH1	68.8		(graphs) Click here
Republic of Moldova	Medium	Sporadic	Low	Increasing	1	100.0%	Type B and Type A, Subtype pH1	(graphs)	119.7	(graphs) Click here
Romania	Low	Sporadic	Low	Increasing	51	11.8%	Type A, Subtype pH1N1	19.7	783.6	(graphs) Click here
Russian Federation	Medium	Sporadic		Increasing	26	11.5%	Type B and Type A, Subtype pH1	2.3	597.9	(graphs) Click here
Scotland	Medium	Widespread	Moderate	Decreasing	59	88.1%	Type A, Subtype pH1N1	19.3	326.6	(graphs) Click here
Serbia	Low	Sporadic	Low	Increasing	8	25.0%	Type A, Subtype pH1N1	73.7		(graphs) Click here
Slovakia					1	0%	None	(graphs)		Click here
Slovenia	Medium	Widespread		Increasing	70	58.6%	Type A, Subtype pH1	55.3	1664.8	(graphs) Click here
Spain	Medium	Widespread		Increasing	522	44.1%	Type A, Subtype pH1N1	237.0		(graphs) Click here
Sweden	Low	Sporadic	Low	Stable	81	25.9%	Type A, Subtype pH1	25.8		(graphs) Click here
Switzerland	Low	Widespread		Increasing	53	71.7%	Type B and Type A, Subtype pH1	248.7		(graphs) Click here
Tajikistan	Low	Sporadic	Low	Stable	15	33.3%	None	(graphs)		Click here
Turkey					144	34.7%	None	(graphs)		Click here
Ukraine	Low	Sporadic	Low	Increasing	2	0%	Type B	3.8 *	616.2	(graphs) Click here
Wales	Low	Widespread	Low	Decreasing				51.5		(graphs) Click here
Europe					2886	43.8%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity;

Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in $\geq 50\%$ of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Continued slow increase in influenza activity across Europe

- This issue is based on data reported in week 3/2011 by 47 Member States in the WHO European Region.
- Influenza activity has progressed across the Region following a west-to-east trend.
- 44% of sentinel specimens were positive for influenza in week 3/2011.
- Pandemic influenza A(H1N1) 2009 remains the dominant virus in the Region.
- Countries continue to report cases of severe disease caused mainly by pandemic influenza A(H1N1) 2009 virus infections (see network comments).



Current situation week 3/2011

Of 44 countries reporting clinical data, 19 reported increasing trends in consultation rates for influenza-like illness (ILI) or acute respiratory infection (ARI). In general, the highest consultation rates were reported for children aged 0-14 years. Information on the intensity of influenza activity was available for 41 countries. Most countries reported medium (29) or low (9) activity, while 1 (Luxembourg) reported very high influenza activity and 2 others (Georgia and Norway) reported high activity. Influenza activity was reported to be widespread in 20 countries, regional in 6 countries and local in 6 countries; 11 countries reported no or sporadic activity. Of the 23 countries reporting on the impact of influenza on health care systems, 17 described it as low and 6 as moderate.

Virological situation week 3/2011

Pandemic influenza A(H1N1) 2009 continued to predominate in the Region, although both influenza A and B viruses were co-dominant in 13 countries. Influenza B was reported to be dominant in Kyrgyzstan, Norway and Ukraine.

Sentinel physicians collected 3825 respiratory specimens, of which 1674 (44%) were positive for influenza virus: 1128 (67%) were influenza A and 546 (33%) were influenza B. Of the influenza A viruses, 976 were subtyped: 889 (91%) as pandemic A(H1) and 87 (9%) as A(H3). In the 32 countries testing 20 or more sentinel specimens, influenza positivity ranged from 13% to 78%, with a median of 48% (mean: 45%). In addition, 4688 non-sentinel specimens were reported positive for influenza: 3247 (69%) influenza A and 1441 (31%) influenza B. Of the influenza A viruses, 2255 were subtyped: 2201 (98%) as pandemic A(H1) and 54 (2%) as A(H3). In addition, 20 countries reported circulation of respiratory syncytial virus.

Since week 40/2010, 793 influenza viruses have been characterized antigenically: 443 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 262 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 71 were A(H3) A/Perth/16/2009 (H3N2)-like, and 17 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 98 influenza viruses, 69 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 2 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 5 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 4 belonged to the A(H3) clade represented by A/Perth/16/2009; 8 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 2 belonged to the A(H3) clade represented by A/Victoria/208/2009; 7 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 1 to the B/Brisbane/60/2008 clade (Victoria lineage).

Cumulative virological update weeks 40/2010 3/2011

A total of 30 113 influenza virus detections were reported during this period, of which 21 355 (71%) were influenza A and 8 758 (29%) influenza B. Of the influenza A viruses, 13 924 were subtyped: 13 201 (95%) as pandemic influenza A(H1), 722 (5%) as influenza A(H3) and 1 (less than 1%) as influenza A(H1).

Comment

ILI and ARI consultation rates continue to rise, following a west-to-east progression across the Region. Influenza activity has already peaked in 3 countries in western Europe: Ireland, Spain and the United Kingdom (England). In week 3/2011, 44% of sentinel samples tested positive for influenza, similarly to previous weeks. Pandemic influenza A(H1N1) 2009 remains the dominant virus in circulation in most countries, although influenza B virus is co-dominant in 13 countries, and is the dominant virus in 3.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

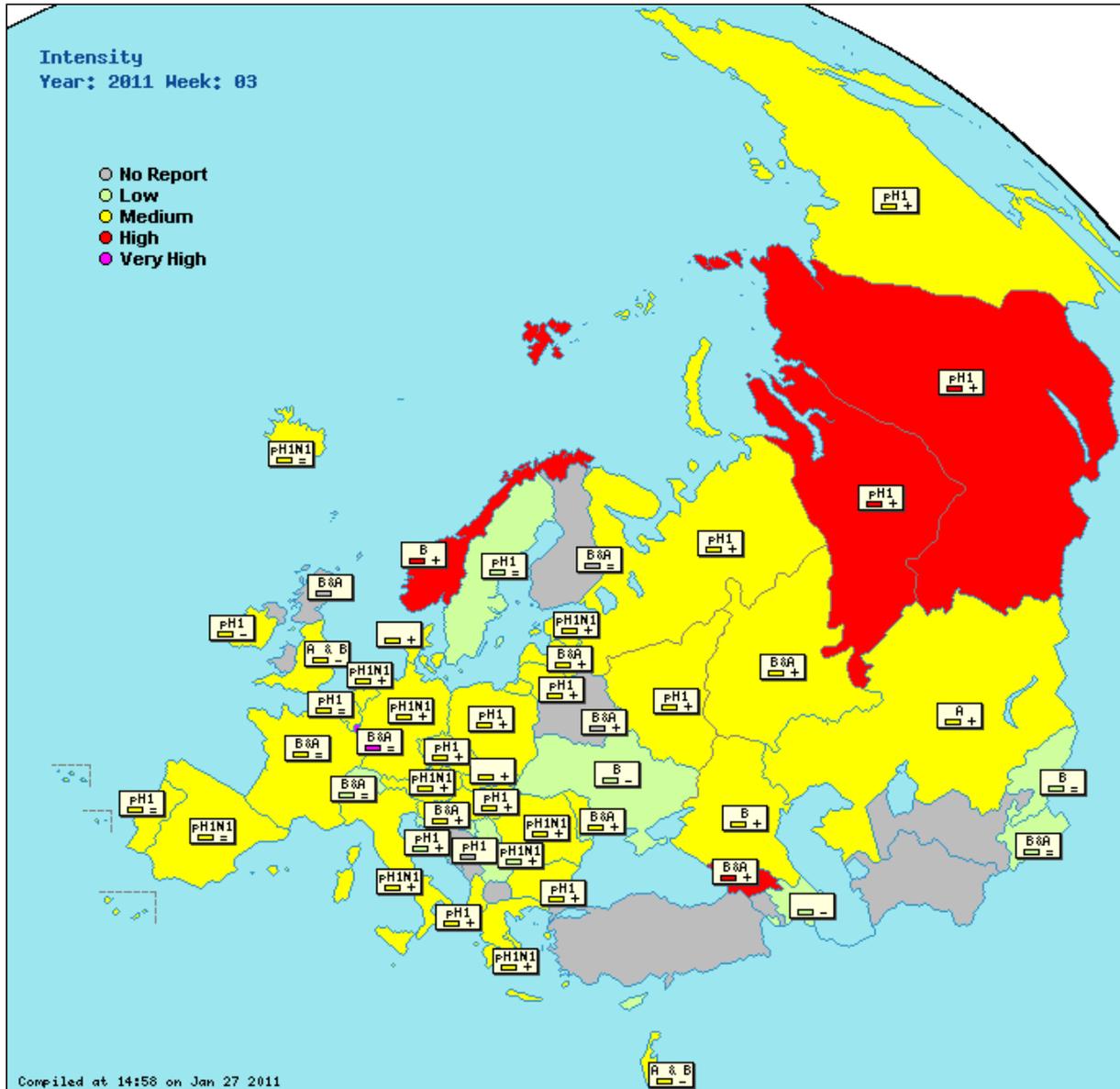
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + virological **Geographical spread** + virological **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Malta

situation stable

Norway

Total hospitalized: 82 (in ICU: 24); Age 0-4 hospitalized: 14 (in ICU: 1); Age 5-14 hospitalized: 1 (in ICU: 0); Age 15-29 hospitalized: 14 (in ICU: 0); Age 30-64 hospitalized: 49 (in ICU: 22); Age 65+ hospitalized: 4 (in ICU: 1)

Republic of Moldova

One lethal case from Influenza virus A(H1N1)-2009 was registered in the 3rd week.

Russian Federation

3 lethal cases from pandemic influenza A(H1N1) were registered in Russia

Scotland

Increase in influenza B circulating. Continue 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.

Spain

In Spain the information of severe illness due to influenza infection admitted to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season for reporting severe hospitalised confirmed influenza cases. Since week 40/2010 and up to week 03/2011 have been reported 777 severe hospitalised confirmed influenza cases. Severely affected cases are mostly in the 15-44 age group (30%) and in the 45-64 (39%) (26% of them without underlying conditions). Most of the severe cases and deaths have been associated with A(H1N1)2009 and have not previously been vaccinated

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	Medium	Sporadic	Low	Increasing	112	20.5%	Type A, Subtype pH1 and H3N2		444.6	(graphs) Click here
Armenia					2	50.0%	None			(graphs) Click here
Austria	Medium	None	Low	Increasing	69	53.6%	Type A, Subtype pH1N1	6.5	39.2	(graphs) Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	9	0%	None	72.9		(graphs) Click here
Belarus		Sporadic		Increasing	22	13.6%	Type B and Type A, Subtype pH1N1		1352.5	(graphs) Click here
Belgium	Medium	Widespread		Stable	101	72.3%	Type A, Subtype pH1	422.4	1399.0	(graphs) Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)		Click here
Bulgaria	Medium	Regional		Increasing	2	50.0%	Type A, Subtype pH1	(graphs)	2178.8	(graphs) Click here
Croatia	Low	Widespread	Low	Increasing			Type A, Subtype pH1	100.1		(graphs) Click here
Cyprus	Low	Local	Low	Stable				2.9 *	7.5 *	(graphs) Click here
Czech Republic	Medium	Local		Increasing	28	50.0%	Type A, Subtype pH1	76.9	1187.6	(graphs) Click here
Denmark	Medium	Widespread		Increasing	26	46.2%	None	(graphs)	(graphs)	Click here
England	Medium	Widespread		Decreasing	341	18.8%	Type A and B	40.7	410.6	(graphs) Click here
Estonia	Medium	Widespread		Increasing	102	23.5%	Type A, Subtype pH1N1	23.7	480.5	(graphs) Click here
Finland		Widespread		Stable	81	77.8%	Type B and Type A, Subtype pH1	0.0		(graphs) Click here
France	Medium	Widespread	Low	Stable	294	52.0%	Type B and Type A, Subtype pH1N1	(graphs)	2619.0	(graphs) Click here
Georgia	High	Widespread	Moderate	Increasing	57	45.6%	Type B and Type A, Subtype pH1	418.2		(graphs) Click here
Germany	Medium	Regional		Increasing	229	59.4%	Type A, Subtype pH1N1	(graphs)	1192.6	(graphs) Click here
Greece	Medium	Regional		Increasing	6	83.3%	Type A, Subtype pH1N1	220.8		(graphs) Click here
Hungary	Medium	Widespread	Low	Increasing	173	12.7%	Type A, Subtype pH1	280.4		(graphs) Click here
Iceland	Medium	Local	Low	Stable	0	0%		18.2		(graphs) Click here
Ireland	Medium	Widespread	Moderate	Decreasing	92	35.9%	Type A, Subtype pH1	110.4		(graphs) Click here
Israel	Medium	Widespread	Moderate	Decreasing	113	70.8%	Type A and B	141.1		(graphs) Click here
Italy	Medium	Widespread	Moderate	Increasing	205	36.1%	Type A, Subtype pH1N1	751.9		(graphs) Click here
Kazakhstan	Medium	Local	Low	Increasing	21	14.3%	Type A	2.4	235.7	(graphs) Click here
Kyrgyzstan	Low	None	Low	Stable	19	57.9%	Type B	17.9	46.4	(graphs) Click here
Latvia	Medium	Widespread		Increasing	7	57.1%	Type B and Type A, Subtype pH1	164.8	1382.2	(graphs) Click here
Lithuania	Medium	Regional	Low	Increasing	22	59.1%	Type A, Subtype pH1	137.5	827.2	(graphs) Click here
Luxembourg	Very High	Widespread			97	61.9%	Type B and Type A, Subtype pH1	8.3 *	24.4 *	(graphs) Click here
The former Yugoslav Republic of Macedonia							None	(graphs)		Click here
Malta	Medium	Local	Low	Stable				7.0 *	0 *	(graphs) Click here
Netherlands	Medium	Widespread		Increasing	59	71.2%	Type A, Subtype pH1N1	102.9		(graphs) Click here
Norway	High	Widespread		Increasing	25	48.0%	Type B	217.1		(graphs) Click here
Poland	Medium	Regional		Increasing	140	31.4%	Type A, Subtype pH1	167.2		(graphs) Click here
Portugal	Medium	Widespread		Stable	16	56.3%	Type A, Subtype pH1	90.7		(graphs) Click here
Republic of Moldova	Medium	Sporadic	Moderate	Increasing	101	38.6%	Type B and Type A, Subtype pH1	4.5	152.4	(graphs) Click here
Romania	Medium	Local	Moderate	Increasing	80	31.3%	Type A, Subtype pH1N1	66.3	2568.5	(graphs) Click here
Russian Federation	Medium	Regional		Increasing	36	19.4%	Type A, Subtype pH1	8.9	832.7	(graphs) Click here
Scotland					99	51.5%	Type B and Type A, Subtype pH1N1	(graphs)		Click here
Serbia	Low	Sporadic	Low	Increasing	22	36.4%	Type A, Subtype pH1N1	93.7		(graphs) Click here
Slovakia	Medium	Sporadic	Low	Increasing	1	0%	None	156.6	1309.2	(graphs) Click here
Slovenia	Medium	Widespread		Increasing	69	69.6%	Type B and Type A, Subtype pH1	65.4	1954.5	(graphs) Click here
Spain	Medium	Widespread		Stable	536	48.0%	Type A, Subtype pH1N1	226.0		(graphs) Click here
Sweden	Low	Sporadic	Low	Stable	47	57.5%	Type A, Subtype pH1	14.5		(graphs) Click here
Switzerland	Low	Widespread		Stable	54	51.9%	Type B and Type A, Subtype pH1	239.7		(graphs) Click here
Tajikistan	Low	Sporadic	Low	Stable	16	37.5%	Type B and Type A, Subtype pH1N1	(graphs)		Click here
Turkey					286	47.6%	None	(graphs)		Click here
Ukraine	Low	Sporadic	Low	Decreasing	8	0%	Type B	3.8 *	587.5	(graphs) Click here
Europe					3825	43.8%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

High influenza activity across the European Region



This week, the EuroFlu bulletin introduces data from sentinel surveillance systems on severe acute respiratory infections (SARI). A footnote gives more information on the minimum criteria for surveillance systems reporting SARI data on the EuroFlu platform.

- This issue is based on data reported in week 4/2011 by 47 Member States in the WHO European Region.
- Influenza activity is increasing in most countries in the Region, and 23 report widespread influenza activity.
- 46% of sentinel specimens from patients with influenza-like illness (ILI) and/or acute respiratory infections (ARI), and 44% of specimens from hospitalized SARI patients were positive for influenza in week 4/2011.
- At present, 98% of antigenically characterized viruses from the 2010/2011 influenza season are similar to the viruses included in the 2010/2011 northern hemisphere influenza vaccines.



Current situation week 4/2011

During week 4/2011, 2 countries (Georgia and Luxembourg) reported very high intensity of influenza activity; 8 reported high intensity, and 26 reported medium intensity. The geographical spread of influenza activity was reported to be widespread in 23 countries. Of the 25 countries reporting on the impact of influenza on health care systems, 1 (Georgia) reported severe impact, 10 countries reported moderate impact and 14, low impact.

Clinical data also indicated increasing influenza activity in much of the WHO European Region, as 31 countries reported increasing trends in consultation rates for ILI and/or ARI. In general, the highest consultation rates were reported for children aged 0  4 and 5  14 years. In contrast, declining clinical trends in ILI were observed in Ireland and the United Kingdom, and some southern countries (Israel, Malta, Portugal and Spain).

Seven countries (Georgia, Kyrgyzstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine) reported clinical data on SARI from sentinel hospitals. Hospitalizations due to SARI have increased during recent weeks in Georgia, Kyrgyzstan, Romania, the Russian Federation and Serbia, which also reported increases in clinical consultation rates for ILI or ARI.

Virological situation week 4/2011

Pandemic influenza A(H1N1) 2009 continued to predominate in the Region. It was reported to be dominant in 19 countries and co-dominant with influenza B in 13 countries. Influenza B was dominant in 4 countries. Sentinel physicians collected 3656 respiratory specimens, of which 1691 (46%) were positive for influenza virus: 1100 (65%) were influenza A and 591 (35%) were influenza B. Of the influenza A viruses, 981 were subtyped: 926 (94%) as pandemic A(H1) and 55 (6%) as A(H3). In the 31 countries testing 20 or more sentinel specimens, influenza positivity ranged from 9% to 75%, with a median of 50% (mean: 45%). In addition, 5940 non-sentinel specimens were reported positive for influenza: 4428 (75%) influenza A and 1512 (25%) influenza B. Of the influenza A viruses, 3555 were subtyped: 3480 (98%) as pandemic A(H1) and 75 (2%) as A(H3). Out of 195 sentinel SARI specimens collected during week 4/2011, 86 (44%) tested positive for influenza: 61 (71%) were influenza A, 25 (29%) were influenza B. All the influenza A viruses were subtyped: 59 (97%) as pandemic A(H1), and 2 (3%) as A(H3). The percentage of SARI specimens testing positive for influenza ranged from 10% (Ukraine) to 70% (Serbia) with a median of 45% (mean: 43%).

Respiratory syncytial viruses (RSV) continue to circulate, and were detected in 18 countries. In 15 of these countries, however, fewer RSV detections were reported during week 4/2011 than in week 3/2011.

Cumulative virological update weeks 40/2010 4/2011

A total of 38 300 influenza virus detections were reported during this period, of which 27 460 (72%) were influenza A and 10 840 (28%) influenza B. Of the influenza A viruses, 18 944 were subtyped: 18 073 (95%) as pandemic influenza A(H1), 869 (5%) as influenza A(H3) and 2 as influenza A(H1).

From week 40/2010 to week 4/2011, 377 out of 1959 sentinel SARI specimens (19%) have tested positive for influenza. Of these influenza viruses: 140 (37%) were influenza A and 237 (63%) influenza B. Of the influenza A viruses, 127 were subtyped: 117 (92%) as pandemic influenza A(H1) and 10 (8%) as influenza A(H3).

Since week 40/2010, 1083 influenza viruses have been characterized antigenically: 618 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 363 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 79 were A(H3) A/Perth/16/2009 (H3N2)-like; 22 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 165 influenza viruses, 90 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 4 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 23 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 16 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 5 belonged to the A(H3) clade represented by A/Perth/16/2009; 2 belonged to the A(H3) clade represented by A/Victoria/208/2009; 17 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 7 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 1 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, three countries (Italy, Norway and the United Kingdom) have screened viruses for resistance to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (678). Out of the total of 714 isolates of pandemic influenza A(H1N1) 2009 viruses that were tested, 688 were sensitive to both inhibitors and 26 viruses (3.6%) carried the H275Y mutation. These 26 viruses were resistant to oseltamivir but remained sensitive to zanamivir. One influenza A(H3N2) virus was tested and found to be sensitive to both inhibitors. All of the 61 influenza B viruses tested for oseltamivir resistance and the 62 tested for zanamivir

resistance were found to be sensitive. All 35 pandemic (H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates are increasing in much of the WHO European Region. In week 4/2011, 46% of sentinel ILI/ARI specimens and 44% of sentinel SARI specimens were positive for influenza. Influenza A(H3N2) has substantially decreased in circulation relative to pandemic influenza A(H1N1) 2009 during the course of the 2010/2011 influenza season. Influenza B viruses continue to co-circulate. During this week the relative distribution of influenza types and subtypes in hospitalized SARI patients appeared similar to that observed from other sentinel and non-sentinel data sources. There is a notable difference in the proportion of influenza A to influenza B among viruses from SARI patients in week 4/2011, when compared to all viruses from SARI patients for the cumulative 2010/2011 influenza season. This reflects the recent shift in the relative circulation of influenza A to influenza B viruses in the Caucasus, central Asia and Russian Federation, as most of the countries that are conducting sentinel SARI surveillance are located in this part of the WHO European Region.

Since the genetic characterization algorithms were put in place for pandemic influenza A(H1N1) viruses at the start of the 2010/2011 influenza season, a new genetic subgroup has been observed to emerge that is geographically dispersed and increasing in prevalence. This genetic subgroup is characterized by an S185T substitution in HA and is represented by A/England/142/2010. To date, viruses carrying the S185T substitution remain antigenically similar to the current vaccine virus A/California/7/2009. At present, 98% of antigenically characterized viruses from the 2010/2011 influenza season are similar to the viruses included in the 2010/2011 northern hemisphere influenza vaccines.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Footnote: Reporting of SARI data

The WHO Regional Office for Europe has worked with Member States in the WHO European Region to establish sentinel SARI surveillance systems to routinely monitor severe influenza, and to track the viruses that specifically cause severe respiratory disease. Countries whose SARI data are now presented in the EuroFlu weekly surveillance bulletin have SARI sentinel surveillance systems that meet the following two criteria:

- SARI is reported from a known, standard and stable number of hospitals on a weekly basis; and
- there is consistent weekly reporting of SARI epidemiological and virological data to the EuroFlu surveillance platform during the 2010/2011 influenza season.

Reporting on a total all-cause hospitalization denominator was also deemed desirable, but not essential for reporting of data on EuroFlu, as counts can be interpretable as long as a stable number of hospitals reports every week.

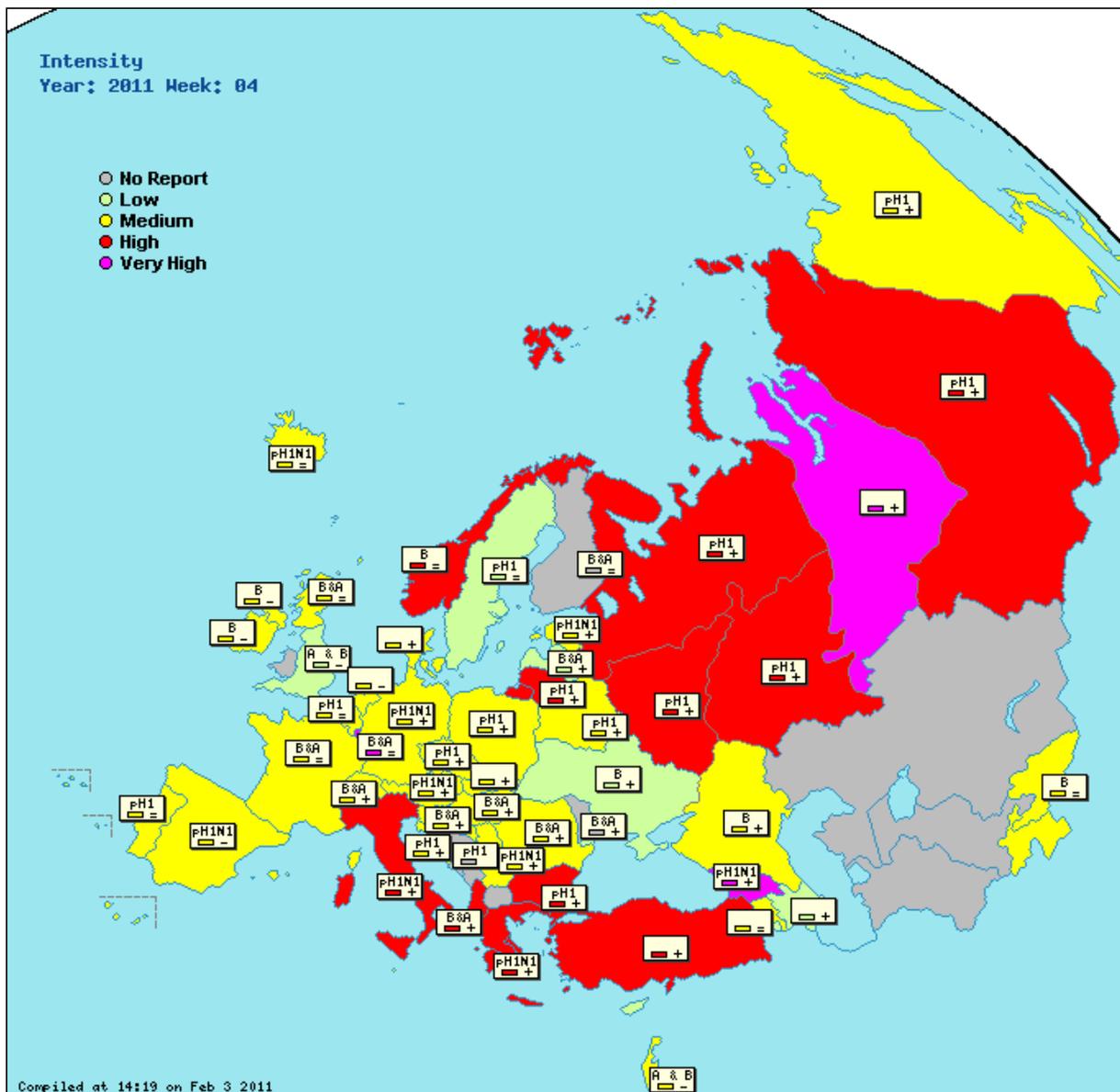
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Czech Republic

Up to end of week 4/2011 a cumulative total of 34 SARI patients with laboratory-confirmed influenza A(H1N1)2009 were reported by intensive care units and 4 death. Influenza activity is still increasing.

Greece

In Southern Greece, dual infection of H1N1pdm with influenza B was confirmed by Real Time PCR in a non sentinel swab.

Malta

situation stable

Norway

Total hospitalized: 116 (in ICU: 30); Age 0-4 hospitalized: 17 (in ICU: 3); Age 5-14 hospitalized: 2 (in ICU: 1); Age 15-29 hospitalized: 17 (in ICU: 1); Age 30-64 hospitalized: 75 (in ICU: 23); Age 65+ hospitalized: 5 (in ICU: 2)

Russian Federation

3 lethal cases of pandemic influenza A(H1N1) were detected

Serbia

Sentinel SARI surveillance system in SERBIA: In week 04/2011, 27 SARI from all causes were reported. Out of 24 SARI specimens collected in the week 04/2011, 17(70.1%) tested positive: 16 (94.1%) were influenza A and one (5.9%) was influenza B. Of the influenza A viruses, 16 were subtyped: 16(100%) as pandemic A(H1).

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Virology graph and pie chart
Albania	High	Local	Moderate	Increasing	77	15.6%	Type B and Type A, Subtype pH1		470.9 (graphs)	Click here
Armenia	Medium	Local	Moderate	Stable	1	0%	None			graphs Click here
Austria	Medium	None	Low	Increasing	66	56.1%	Type A, Subtype pH1N1	8.4 (graphs)	40.1 (graphs)	Click here
Azerbaijan	Low	Sporadic	Low	Increasing	12	0%	None	84.3 (graphs)		Click here
Belarus	Medium	Local	Moderate	Increasing	22	9.1%	Type A, Subtype pH1		1859.2 (graphs)	Click here
Belgium	Medium	Widespread		Stable	72	68.1%	Type A, Subtype pH1	480.2 (graphs)	1527.6 (graphs)	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	graphs		Click here
Bulgaria	High	Widespread		Increasing	15	40.0%	Type A, Subtype pH1	graphs	2592.1 (graphs)	Click here
Croatia	Medium	Widespread	Low	Increasing			Type A, Subtype pH1	144.8 (graphs)		Click here
Cyprus	Low	Sporadic	Low	Increasing				4.4 * (graphs)	10.3 * (graphs)	Click here
Czech Republic	Medium	Regional		Increasing	29	55.2%	Type A, Subtype pH1	148.6 (graphs)	1410.8 (graphs)	Click here
Denmark	Medium	Widespread		Increasing	28	17.9%	None	graphs	graphs	Click here
England	Low	Local		Decreasing	197	22.8%	Type A and B	24.1 (graphs)	400.5 (graphs)	Click here
Estonia	Medium	Widespread		Increasing	127	47.2%	Type A, Subtype pH1N1	28.6 (graphs)	600.9 (graphs)	Click here
Finland		Widespread		Stable	68	75.0%	Type B and Type A, Subtype pH1N1	0.0 (graphs)		graphs Click here
France	Medium	Widespread	Low	Stable	290	53.1%	Type B and Type A, Subtype pH1N1	graphs	2778.9 (graphs)	Click here
Georgia	Very High	Widespread	Severe	Increasing	111	42.3%	Type A, Subtype pH1N1	574.7 (graphs)		Click here
Germany	Medium	Regional		Increasing	251	61.4%	Type A, Subtype pH1N1	graphs	1261.5 (graphs)	Click here
Greece	High	Widespread		Increasing	35	65.7%	Type A, Subtype pH1N1	436.1 (graphs)		graphs Click here
Hungary	Medium	Widespread	Low	Increasing	205	30.2%	Type B and Type A, Subtype pH1	421.5 (graphs)		graphs Click here
Iceland	Medium	Local	Low	Stable	0	0%		39.6 (graphs)		graphs Click here
Ireland	Medium	Widespread	Moderate	Decreasing	82	34.2%	Type B	93.2 (graphs)		graphs Click here
Israel	Medium	Widespread	Moderate	Decreasing	125	64.8%	Type A and B	119.1 (graphs)		Click here
Italy	High	Widespread	Moderate	Increasing	196	46.9%	Type A, Subtype pH1N1	1007.1 (graphs)		graphs Click here
Kyrgyzstan	Medium	Sporadic	Low	Stable	40	10.0%	Type B	26.6 (graphs)	61.6 (graphs)	Click here
Latvia	Low	Widespread		Increasing	18	66.7%	Type B and Type A, Subtype pH1	343.4 (graphs)	1493.7 (graphs)	Click here
Lithuania	High	Regional	Low	Increasing	36	69.4%	Type A, Subtype pH1	159.7 (graphs)	843.0 (graphs)	Click here
Luxembourg	Very High	Widespread			104	63.5%	Type B and Type A, Subtype pH1	8.9 * (graphs)	24.3 * (graphs)	Click here
The former Yugoslav Republic of Macedonia							None	graphs		Click here
Malta	Medium	Local	Low	Decreasing				10.2 * (graphs)	0 * (graphs)	Click here
Montenegro					0	0%	None	graphs		Click here
Netherlands	Medium	Widespread		Decreasing	33	45.5%	None	90.3 (graphs)		graphs Click here
Northern Ireland	Medium	Local		Decreasing	19	42.1%	Type B	76.2 (graphs)	327.5 (graphs)	Click here
Norway	High	Widespread		Stable	20	60.0%	Type B	175.1 (graphs)		graphs Click here
Poland	Medium	Regional		Increasing	174	31.0%	Type A, Subtype pH1	192.8 (graphs)		graphs Click here
Portugal	Medium	Widespread		Stable	10	40.0%	Type A, Subtype pH1	53.1 (graphs)		graphs Click here
Republic of Moldova		Sporadic	Moderate	Increasing	98	41.8%	Type B and Type A, Subtype pH1	10.2 (graphs)	228.3 (graphs)	Click here
Romania	Medium	Local	Moderate	Increasing	108	57.4%	Type B and Type A, Subtype pH1N1	34.2 (graphs)	1078.0 (graphs)	Click here
Russian Federation	High	Widespread		Increasing	45	35.6%	Type A, Subtype pH1	32.2 (graphs)	1195.0 (graphs)	Click here
Scotland	Medium	Widespread	Moderate	Stable	45	44.4%	Type B and Type A, Subtype pH1	6.6 (graphs)	260.7 (graphs)	Click here
Serbia	Medium	Regional	Low	Increasing	7	57.1%	Type A, Subtype pH1N1	136.2 (graphs)		Click here
Slovakia	Medium	Local	Low	Increasing	5	100.0%	None	312.9 (graphs)	2135.3 (graphs)	Click here
Slovenia	Medium	Widespread		Increasing	59	74.6%	Type B and Type A, Subtype pH1	135.1 (graphs)	1840.7 (graphs)	Click here
Spain	Medium	Widespread		Decreasing	451	39.5%	Type A, Subtype pH1N1	203.3 (graphs)		graphs Click here
Sweden	Low	Widespread	Low	Stable	47	48.9%	Type A, Subtype pH1	35.0 (graphs)		graphs Click here
Switzerland	Medium	Widespread		Increasing	56	55.4%	Type B and Type A, Subtype pH1	304.4 (graphs)		Click here
Tajikistan	Medium	Sporadic	Low	Increasing				graphs		Click here
Turkey	High	Local	Moderate	Increasing	159	42.8%	None	31.4 (graphs)		Click here
Ukraine	Low	Sporadic	Low	Increasing	5	0%	Type B	3.6 * (graphs)	617.5 (graphs)	Click here
Europe					3656	46.3%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Continued high influenza activity in the WHO European Region



The EuroFlu bulletin is introducing data from sentinel surveillance systems on hospitalized severe acute respiratory infections (SARI). A footnote explains the minimum criteria for inclusion of SARI data on the EuroFlu platform.

- This issue is based on data reported in week 5/2011 by 48 Member States in the WHO European Region.
- Clinical consultation rates for influenza-like illness (ILI) and/or acute respiratory infections (ARI) are increasing in 27 countries, while 9 others have passed peaks in clinical activity.
- 46% of sentinel specimens from patients with ILI and/or ARI, and 54% of specimens from sentinel SARI patients were positive for influenza in week 5/2011.
- 98% of antigenically characterized viruses from the 2010/2011 influenza season are similar to the viruses included in the 2010/2011 northern hemisphere influenza vaccines.



Current situation ♦ week 5/2011

During week 5/2011, 2 countries (Georgia and Luxembourg) and 3 regions of the Russian Federation reported very high intensity of influenza activity; 6 countries reported high intensity and 25 reported medium intensity. 21 countries reported widespread activity. Of the 25 countries reporting on the impact of influenza on health care systems, 1 (Georgia) reported severe impact; 11 countries reported moderate impact and 13, low impact.

Clinical data also indicated increasing influenza activity in much of the WHO European Region, as 27 countries reported increasing trends in consultation rates for ILI and/or ARI. Some countries in the central, south-eastern and eastern parts of the Region have reported pronounced increases in clinical ILI or ARI activity. In general, the highest consultation rates were reported for children aged 5♦14 and 0♦4 years.

WHO/Europe received sentinel surveillance data on hospitalized SARI from 9 countries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine). These data indicate that, between weeks 3 and 5/2011, sentinel SARI hospitalizations in general reached their highest levels of the season to date in Georgia, Kazakhstan, Kyrgyzstan, Romania, the Russian Federation and Serbia. Each of these countries also reported concurrent increases in clinical consultation rates for ILI or ARI.

Virological situation ♦ week 5/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 17 countries and co-dominant with influenza B in 12 countries. Influenza B was dominant in 5 countries. During the past few weeks, the predominance of influenza B viruses has increased in countries in western Europe, which had predominantly pandemic A(H1N1) viruses circulating at the start of their season. In a number of eastern European countries, the earlier predominance of influenza B viruses has now shifted to a predominance of pandemic influenza A(H1N1) 2009 viruses. Sentinel physicians collected 3125 respiratory specimens, of which 1428 (46%) were positive for influenza virus: 824 (58%) were influenza A and 604 (42%) were influenza B. Of the influenza A viruses, 705 were subtyped: 687 (97%) as pandemic A(H1) and 18 (3%) as A(H3). In the 26 countries testing 20 or more sentinel specimens, influenza positivity ranged from 8% to 80%, with a median of 49% (mean: 50%). In addition, 6128 non-sentinel specimens were reported positive for influenza: 4532 (74%) influenza A and 1596 (26%) influenza B. Of the influenza A viruses, 3792 were subtyped: 3697 (97%) as pandemic A(H1) and 95 (3%) as A(H3). Out of 241 sentinel SARI specimens collected during week 5/2011, 129 (54%) tested positive for influenza: 94 (73%) were influenza A; 35 (27%) were influenza B. Of the influenza A viruses, 60 were subtyped: 59 (98%) as pandemic A(H1), and 1 (2%) as A(H3). Of the countries testing 10 or more sentinel SARI specimens, the percentage of specimens testing positive for influenza ranged from 36% (the Republic of Moldova) to 71% (Kyrgyzstan) with a median of 56% (mean: 54%).

Respiratory syncytial viruses (RSV) were detected in 16 countries; 14 of these reported fewer RSV detections during week 5/2011 than week 4/2011.

Cumulative virological update ♦ weeks 40/2010 ♦ 5/2011

A total of 46 613 influenza virus detections were reported during this period, of which 33 489 (72%) were influenza A and 13 124 (28%) were influenza B. Of the influenza A viruses, 24 098 were subtyped: 23 072 (96%) as pandemic influenza A(H1), 1 025 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 5/2011, 566 out of 2484 sentinel SARI specimens (23%) tested positive for influenza. Of these influenza viruses: 250 (44%) were influenza A and 316 (56%) influenza B. Of the influenza A viruses, 183 were subtyped: 168 (92%) as pandemic influenza A(H1) and 15 (8%) as influenza A(H3).

Since week 40/2010, 1420 influenza viruses have been characterized antigenically: 834 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 470 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 84 were A(H3) A/Perth/16/2009 (H3N2)-like; 31 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 194 influenza viruses, 103 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 5 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 23 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 25 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 9 belonged to the A(H3) clade represented by A/Perth/16/2009; 1 belonged to the A(H3) clade represented by A/Brisbane/10/2007; 5 belonged to the A(H3) clade represented by A/Victoria/208/2009; 16 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 6 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage),

and 1 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 5 countries (Ireland, Italy, Norway, Spain and the United Kingdom) reported screening 783 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. 667 of these viruses were screened by the United Kingdom. Of 720 isolates of pandemic influenza A(H1N1) 2009 viruses that were tested, 697 were sensitive to both inhibitors and 23 viruses (3.2%) were resistant to oseltamivir, as determined by the presence of the H275Y mutation. These 23 remained sensitive to zanamivir. 1 influenza A(H3N2) virus was tested and found to be sensitive to both inhibitors. All of the 61 influenza B viruses tested for susceptibility to oseltamivir and the 62 tested for susceptibility to zanamivir were found to be sensitive. All 35 pandemic influenza A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates continue to increase in the WHO European Region, particularly in the central, eastern and south-eastern parts, and the percentage of sentinel specimens positive for influenza remains high. Influenza activity is progressing in a west-to-east manner across the Region, with pandemic influenza A(H1N1) 2009 circulation generally decreasing in the western part of the Region and increasing in the eastern. Influenza B is becoming relatively more predominant in countries where the prevalence of pandemic influenza A (H1N1) 2009 is decreasing. This shift, with relatively more A(H1N1) 2009 viruses circulating in the eastern part of the Region, may explain the notable difference in the proportion of influenza A to influenza B viruses among SARI patients in week 5/2011, when compared to all SARI viruses for the cumulative 2010/2011 influenza season. This is because most of the countries conducting sentinel SARI surveillance are in the central and eastern part of the WHO European Region. 98% of antigenically characterized viruses from the 2010/2011 influenza season are similar to the viruses recommended for inclusion in the 2010/2011 northern hemisphere influenza vaccines.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Footnote: Reporting of SARI data

The EuroFlu bulletin presents data from countries that have established sentinel SARI surveillance systems that meet the following two criteria:

- SARI is reported from a known, standard and generally stable number of hospitals on a weekly basis; and
- there is consistent weekly reporting of SARI epidemiological and virological data to the EuroFlu surveillance platform during the 2010/2011 influenza season.

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

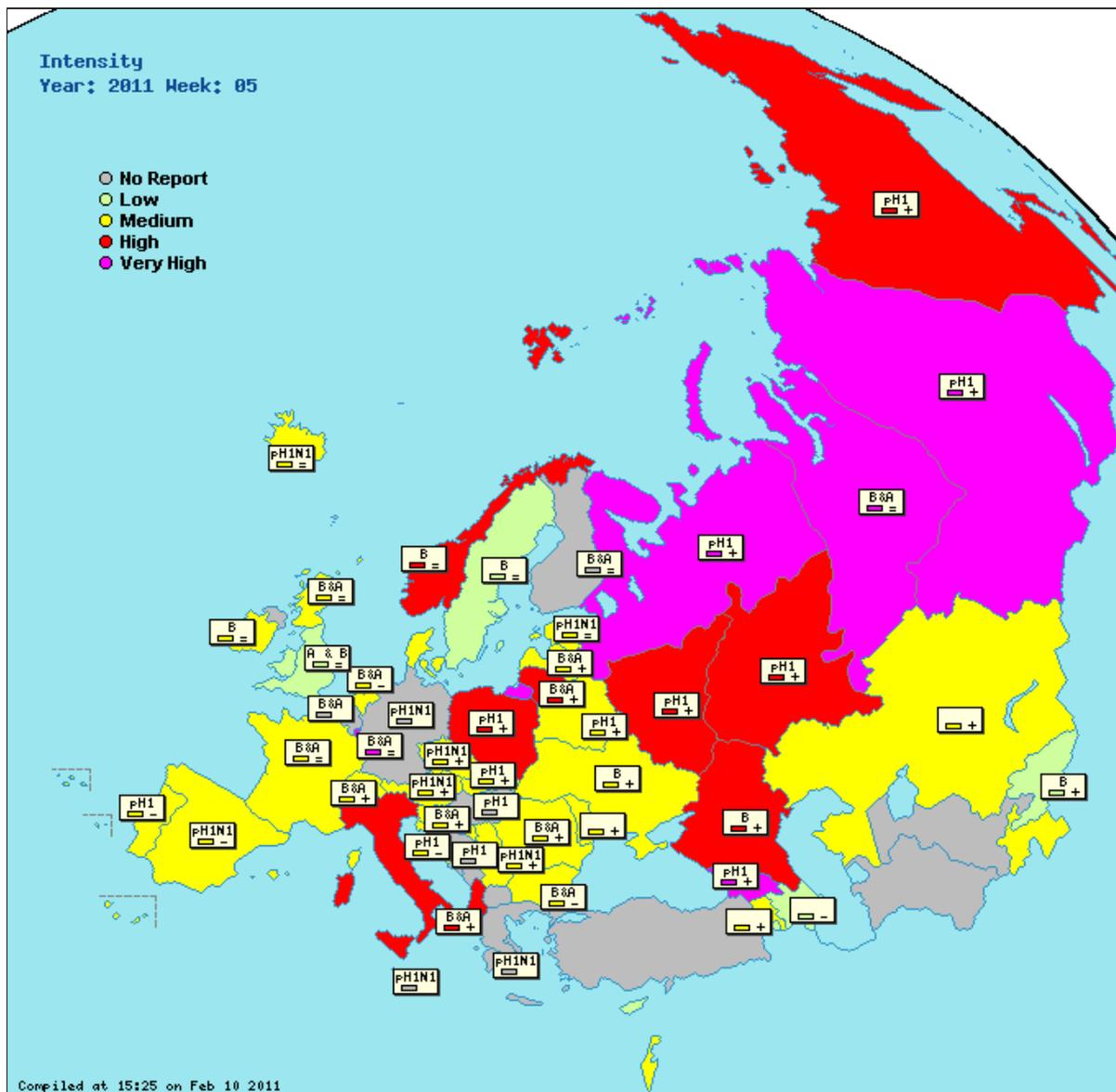
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Czech Republic

Up to end of week 5/2011 a cumulative total of 54 SARI patients with laboratory-confirmed influenza A(H1N1)2009 have been reported by intensive care units and there were 6 death. Influenza activity is still increasing.

Lithuania

Lithuania have few cases of double infection of A H1pdm and influenza B detected by Real Time PCR in a non sentinel swabs.

Luxembourg

Occasional reports of bacterial secondary infections and pneumonia

Norway

Total hospitalized: 141 (in ICU: 32); Age 0-4 hospitalized: 28 (in ICU: 3); Age 5-14 hospitalized: 2 (in ICU: 1); Age 15-29 hospitalized: 19 (in ICU: 1); Age 30-64 hospitalized: 83 (in ICU: 25); Age 65+ hospitalized: 9 (in ICU: 2)

Portugal

Overall the ILI incidence rate is decreasing although with considerable variability.

Scotland

The number of severely ill cases due to influenza (laboratory confirmed) has fallen. Similarly the number of deaths due to influenza has fallen compared to previous weeks

The number of severely ill cases due to influenza (laboratory confirmed) has fallen. Similarly the number of deaths due to influenza has fallen compared to previous weeks

Serbia

Sentinel SARI surveillance system in SERBIA: In week 05/2011, 42 SARI from all causes were reported. Out of 34 SARI specimens collected in the week 05/2011, 20 (58,8%) tested positive: 19 (95%) were influenza A and one (5%) influenza B. Of the influenza A viruses 16 (84,2%) were subtyped as pandemic A(H1) and 3 (15,8%) as A(H3).

Spain

In Spain the information of severe illness due to influenza infection admitted to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season for reporting severe hospitalised confirmed influenza cases. Since week 40/2010 and up to week 05/2011 1011 severe hospitalised confirmed influenza cases have been reported (all with age information): 13% have been less than 5 years

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	High	Local	Moderate	Increasing	93	30.1%	Type B and Type A, Subtype pH1		475.9 (graphs)	sari	Click here
Armenia	Medium	Local	Low	Increasing	2	50.0%	None	(graphs)	87.7 (graphs)	sari	Click here
Austria	Medium	None	Low	Increasing	99	79.8%	Type A, Subtype pH1N1	7.9 (graphs)	45.9 (graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	14	0%	None	80.5 (graphs)			Click here
Belarus	Medium	Local	Moderate	Increasing	67	34.3%	Type A, Subtype pH1		1893.3 (graphs)	sari	Click here
Belgium					84	65.5%	Type B and Type A, Subtype pH1	(graphs)		sari	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)			Click here
Bulgaria	Medium	Regional		Decreasing	15	53.3%	Type B and Type A, Subtype pH1	(graphs)	1887.2 (graphs)		Click here
Croatia	Medium	Widespread	Low	Decreasing			Type A, Subtype pH1	134.5 (graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				3.7 * (graphs)	11.6 * (graphs)		Click here
Czech Republic	Medium	Widespread		Increasing	36	72.2%	Type A, Subtype pH1N1	241.5 (graphs)	1598.7 (graphs)		Click here
Denmark	Medium	Widespread		Increasing				(graphs)	(graphs)		Click here
England	Low	Local		Stable	151	21.2%	Type A and B	23.7 (graphs)	429.8 (graphs)		Click here
Estonia	Medium	Widespread		Stable	76	30.3%	Type A, Subtype pH1N1	26.8 (graphs)	572.4 (graphs)		Click here
Finland		Widespread		Stable	55	70.9%	Type B and Type A, Subtype pH1N1	0.0 (graphs)	(graphs)		Click here
France	Medium	Widespread	Low	Stable	297	56.6%	Type B and Type A, Subtype pH1N1	(graphs)	3026.7 (graphs)		Click here
Georgia	Very High	Widespread	Severe	Increasing	56	46.4%	Type A, Subtype pH1	1995.3 (graphs)		sari	Click here
Germany					281	59.8%	Type A, Subtype pH1N1		(graphs)		Click here
Greece					16	75.0%	Type A, Subtype pH1N1	(graphs)			Click here
Hungary					253	7.9%	Type A, Subtype pH1	(graphs)			Click here
Iceland	Medium	Local	Low	Stable	0	0%		42.5 (graphs)	(graphs)		Click here
Ireland	Medium	Widespread	Moderate	Stable	63	47.6%	Type B	86.2 (graphs)	(graphs)		Click here
Israel	Medium	Widespread	Moderate	Decreasing				75.6 (graphs)			Click here
Italy	High	Widespread	Moderate	Increasing				1102.1 (graphs)	(graphs)		Click here
Kazakhstan	Medium	Local	Moderate	Increasing	8	87.5%	None	2.5 (graphs)	382.8 (graphs)	sari	Click here
Kyrgyzstan	Low	Sporadic	Low	Increasing	17	41.2%	Type B	10.0 (graphs)	74.9 (graphs)	sari	Click here
Latvia	Medium	Widespread		Increasing	30	50.0%	Type B and Type A, Subtype pH1	463.6 (graphs)	1433.6 (graphs)		Click here
Lithuania	High	Widespread	Low	Increasing	21	47.6%	Type B and Type A, Subtype pH1	175.8 (graphs)	843.6 (graphs)		Click here
Luxembourg	Very High	Widespread			116	60.3%	Type B and Type A, Subtype pH1	10.9 * (graphs)	23.4 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta					0	0%	Type A, Subtype pH1N1	0 * (graphs)	0 * (graphs)		Click here
Montenegro							None	(graphs)			Click here
Netherlands	Medium	Widespread		Decreasing	55	63.6%	Type B and Type A, Subtype pH1N1	71.3 (graphs)	(graphs)		Click here
Norway	High	Widespread		Stable	17	82.4%	Type B	166.5 (graphs)	(graphs)		Click here
Poland	High	Regional		Increasing	157	28.0%	Type A, Subtype pH1	232.0 (graphs)	(graphs)		Click here
Portugal	Medium	Widespread		Decreasing	16	43.8%	Type A, Subtype pH1	76.2 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Sporadic	Moderate	Increasing	72	48.6%	None	13.2 (graphs)	346.0 (graphs)	sari	Click here
Romania	Medium	Regional	Moderate	Increasing	55	70.9%	Type B and Type A, Subtype pH1N1	104.0 (graphs)	2884.5 (graphs)	sari	Click here
Russian Federation	High	Widespread	Moderate	Increasing	61	37.7%	Type A, Subtype pH1	71.4 (graphs)	1445.6 (graphs)	sari	Click here
Scotland	Medium	Local	Low	Stable	69	46.4%	Type B and Type A, Subtype pH1N1	11.1 (graphs)	309.9 (graphs)		Click here
Serbia	Medium	Regional	Moderate	Increasing	13	92.3%	Type A, Subtype pH1N1	175.5 (graphs)		sari	Click here
Slovakia	Medium	Regional	Low	Increasing	15	53.3%	Type A, Subtype pH1	481.2 (graphs)	2689.0 (graphs)	sari	Click here
Slovenia	Medium	Widespread		Increasing	67	76.1%	Type B and Type A, Subtype pH1	123.7 (graphs)	2030.2 (graphs)		Click here
Spain	Medium	Widespread		Decreasing	409	35.2%	Type A, Subtype pH1N1	178.4 (graphs)	(graphs)		Click here
Sweden	Low	Widespread	Low	Stable	57	33.3%	Type B	10.1 (graphs)	(graphs)		Click here
Switzerland	Medium	Widespread		Increasing	66	54.6%	Type B and Type A, Subtype pH1	329.5 (graphs)			Click here
Tajikistan	Medium	Local	Moderate	Increasing				(graphs)			Click here
Turkey					143	57.3%	None	(graphs)			Click here
Ukraine	Medium	Local	Low	Increasing	3	0%	Type B	3.7 * (graphs)	659.0 (graphs)	sari	Click here
Wales	Low	Sporadic	Low	Decreasing				13.2 (graphs)	(graphs)		Click here
Europe					3125	45.7%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease

activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Somnina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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High influenza activity continuing in the WHO European Region



- This issue is based on data reported in week 6/2011 by 45 Member States in the WHO European Region.
- Clinical activity has apparently moved past peak in 22 countries of the Region.
- 44% of sentinel specimens from patients with influenza-like illness (ILI) and/or acute respiratory infections (ARI), and 39% of specimens from sentinel severe acute respiratory infection (SARI) patients were positive for influenza.
- 97% of antigenically characterized viruses from the 2010/2011 influenza season are similar to the viruses included in the 2010/2011 northern hemisphere influenza vaccines.

Current situation week 6/2011

During week 6/2011, 2 countries (Georgia and Luxembourg) and the Siberian region of the Russian Federation reported very high intensity of influenza activity; 8 countries reported high intensity; 27 reported medium intensity and 4 countries, low intensity. 23 countries reported widespread activity. Of the 25 countries reporting on the impact of influenza on health care systems, 1 (Georgia) reported severe impact; 14 countries reported moderate impact and 10, low impact.

Of the 41 countries reporting on consultation rates for ILI and ARI, 8 (Albania, Belarus, the Czech Republic, Iceland, Kazakhstan, the Republic of Moldova, Serbia and Slovakia) reported increases while 6 (Ireland, Israel, Malta, Norway, Spain and the United Kingdom (England)) reported decreases. Influenza activity has apparently passed its peak in 24 countries in the Region. In general, the highest consultation rates were reported for children aged 0-4 and 5-14 years.

WHO/Europe received sentinel surveillance data on hospitalized SARI cases from 9 countries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine). Sentinel SARI hospitalizations are at the highest levels observed for the season so far in Georgia and Serbia. In Georgia, however, outpatient clinical consultation rates declined from week 5 to week 6, while the relative percentage of both SARI and ILI specimens testing positive for influenza B increased. Sentinel SARI hospitalizations in Kazakhstan, Kyrgyzstan, Romania and the Russian Federation have declined somewhat from observed peaks in weeks 3-5, but remain notably elevated above pre-season levels, with 30-50% of sentinel SARI specimens testing positive for influenza in each of these countries. Sentinel SARI admissions in the Republic of Moldova and Ukraine are at levels below prior peaks. Nevertheless, a significant percentage of sentinel SARI specimens continue to test positive for influenza, and the proportion of influenza A detections in sentinel SARI specimens in Ukraine increased in week 6. Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation week 6/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 14 countries and co-dominant with influenza B in 12 countries. Influenza B was dominant in 5 countries. During the past few weeks, the predominance of influenza B viruses has increased in countries in western Europe, which had predominantly pandemic A(H1N1) viruses circulating at the start of their season. In a number of eastern European countries, the predominance has now shifted from influenza B viruses to pandemic influenza A(H1N1) 2009 viruses.

Sentinel physicians collected 3109 respiratory specimens, of which 1373 (44%) were positive for influenza virus: 712 (52%) were influenza A and 661 (48%) were influenza B. Of the influenza A viruses, 647 were subtyped: 606 (94%) as pandemic A(H1) and 41 (6%) as A(H3). In the 30 countries testing 20 or more sentinel specimens, influenza positivity ranged from 9% to 91%, with a median of 47% (mean: 49%). In addition, 6739 non-sentinel specimens were reported positive for influenza: 5050 (75%) influenza A and 1689 (25%) influenza B. Of the influenza A viruses, 4526 were subtyped: 4445 (98%) as pandemic A(H1) and 81 (2%) as A(H3). Out of 320 sentinel SARI specimens collected during week 6/2011, 125 (39%) tested positive for influenza: 81 (65%) were influenza A; 44 (35%) were influenza B. Of the influenza A viruses, 59 were subtyped: 58 (98%) as pandemic A(H1), and 1 (2%) as A(H3). Of the 7 countries testing 10 or more sentinel SARI specimens, the percentage of specimens testing positive for influenza ranged from 29% (Kazakhstan) to 55% (Republic of Moldova) with a median of 44% (mean: 43%).

Respiratory syncytial viruses (RSV) were detected in 15 countries; 14 of these reported fewer detections in week 6/2011 than during previously observed peaks of RSV activity.

Cumulative virological update weeks 40/2010 6/2011

A total of 55 529 influenza virus detections were reported during this period, of which 39 778 (72%) were influenza A and 15 751 (28%) were influenza B. Of the influenza A viruses, 29 727 were subtyped: 28 492 (96%) as pandemic influenza A(H1), 1 234 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 6/2011, 756 out of 3058 sentinel SARI specimens (25%) tested positive for influenza. Of these influenza viruses, 345 (46%) were influenza A and 411 (54%) influenza B. Of the influenza A viruses, 246 were subtyped: 230 (93%) as pandemic influenza A(H1) and 16 (7%) as influenza A(H3).

Since week 40/2010, 1818 influenza viruses have been characterized antigenically: 1043 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 626 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 93 were A(H3) A/Perth/16/2009 (H3N2)-like; 55 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 311 influenza viruses, 147 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 7 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 23 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 25 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 9 belonged to the A(H3) clade represented by A/Perth/16/2009; 6 belonged to the A(H3) clade represented by A/Victoria/208/2009; 20 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 8

belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 66 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 5 countries (Ireland, Italy, Norway, Spain and the United Kingdom) have screened 801 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (671). Out of the total of 738 isolates of pandemic influenza A(H1N1) 2009 viruses that were tested, 710 were sensitive to both inhibitors and 28 viruses (3.8%) carried the NA H275Y mutation. These 28 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 1 influenza A(H3N2) virus was tested and found to be sensitive to both inhibitors. All of the 61 influenza B viruses tested for susceptibility to oseltamivir and the 62 tested for susceptibility to zanamivir were found to be sensitive. All 35 pandemic influenza A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI clinical consultation rates and the percentage of sentinel specimens testing positive for influenza remain high in the WHO European Region, particularly in the central, eastern and south-eastern parts. Influenza activity is generally progressing in a west-to-east manner across the Region, with pandemic influenza A(H1N1) 2009 circulation decreasing in the western part and increasing in the central and eastern parts. Influenza B is becoming relatively more predominant in countries where the circulation of pandemic influenza A (H1N1) 2009 is decreasing. This pattern is also apparent in sentinel SARI hospitalizations, which are associated with both influenza A and influenza B infections. Currently 97% of antigenically characterized viruses from the 2010/2011 influenza season are similar to the viruses recommended for inclusion in the 2010/2011 northern hemisphere influenza vaccines.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Footnote: reporting of SARI data

The EuroFlu bulletin presents data from countries that have established sentinel SARI surveillance systems that meet the following two criteria:

- hospitalized patients meeting a syndromic SARI case definition are routinely tracked, tested for influenza, and reported to the national level on a weekly basis from a standard and generally stable number of sentinel hospitals; and
- there has been consistent weekly reporting of epidemiological and virological data from the sentinel SARI system to the EuroFlu surveillance platform during the 2010/2011 influenza season.

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

Erratum: For the genetic characterizations, 66 viruses in total were characterized as B/Brisbane/60/2008 clade (Victoria lineage). The antigenic graph for Europe presents a total of 4 and is not correct.

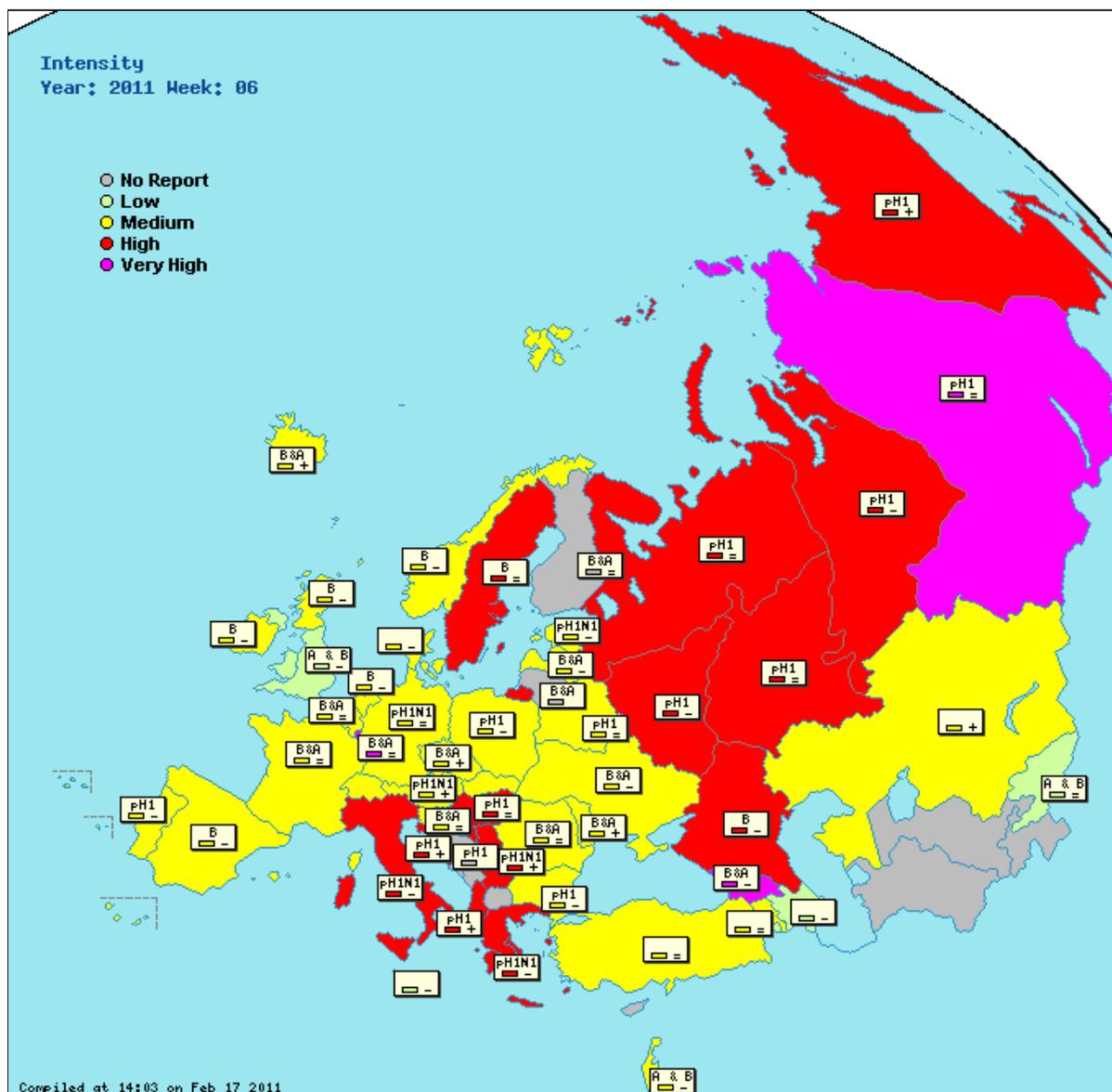
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Czech Republic

Influenza activity is still increasing. Up to end of week 6/2011 a cumulative total of 96 SARI patients with laboratory-confirmed influenza A(H1N1)2009 have been reported by intensive care units and there were 12 death.

Greece

In a single clinical specimen a coinfection of influenza B virus and A(H1N1)2009 virus was confirmed by real time PCR. A total of 60 clinical specimens positive for A(H1N1)2009 (including deaths and SARI cases) were examined by Real Time PCR for the presence of tamiflu resistance mutation H275Y. None of these isolates were confirmed to carry the mutation.

Malta

situation stable

Norway

Total hospitalized: 141 (in ICU: 32); Age 0-4 hospitalized: 28 (in ICU: 3); Age 5-14 hospitalized: 2 (in ICU: 1); Age 15-29 hospitalized: 19 (in ICU: 1); Age 30-64 hospitalized: 83 (in ICU: 25); Age 65+ hospitalized: 9 (in ICU: 2)

Republic of Moldova

Two lethal cases from influenza A(H1N1)2009 were registered in the 6th week.

Serbia

Sentinel SARI surveillance system in SERBIA: In week 06/2011, 43 SARI from all causes were reported. Out of 40 SARI specimens collected in the week 06/2011, 27 (67,5%) tested positive: 26 (96,3%) were influenza A and one (3,7%) influenza B. Of the influenza A viruses 23 (88,5%) were subtyped as pandemic A(H1) and 3 (11,5%) as A(H3).

Slovenia

In the week 6 for the first time in this season in Slovenia influenza B (Vic) virus prevails over A (H1)2009 in both, sentinel samples and samples from other sources.

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 06/2011 1059 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (66%). Conversely 13% were less than five years old. Of 944 cases with outcome information 106 died (13% with no known risk factors). Of the severe cases 662 had information available on the status of influenza vaccination for the 2010/2011 season and only 89 (13%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for only 8% of hospitalised cases (41/504). Eighty per cent of the cases included in the groups which were recommended influenza vaccination (chronic diseases / pregnancy / obesity / older than 60 years) had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	High	Local	Moderate	Increasing	78	16.7%	Type A, Subtype pH1 and H3		503.6 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Stable	3	33.3%	None	(graphs)	81.4 (graphs)	sari	Click here
Austria	Medium	None	Low	Increasing	70	68.6%	Type A, Subtype pH1N1	0.0 (graphs)	33.2 (graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	17	0%	None	292.7 (graphs)			Click here
Belarus	Medium	Local	Moderate	Stable	33	30.3%	Type A, Subtype pH1		1938.6 (graphs)	sari	Click here
Belgium	Medium	Widespread		Stable	53	62.3%	Type B and Type A, Subtype pH1	391.1 (graphs)	1695.1 (graphs)	sari	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)			Click here
Bulgaria	Medium	Regional		Decreasing	14	28.6%	Type A, Subtype pH1	(graphs)	1439.3 (graphs)		Click here
Croatia	High	Widespread	Low	Increasing			Type A, Subtype pH1	186.6 (graphs)			Click here
Czech Republic	Medium	Widespread		Increasing	29	75.9%	Type B and Type A, Subtype pH1N1	296.7 (graphs)	1583.2 (graphs)		Click here
Denmark	Medium	Widespread		Decreasing	51	25.5%	None	(graphs)	(graphs)		Click here
England	Low	Sporadic		Decreasing	137	11.7%	Type A and B	18.4 (graphs)	424.7 (graphs)		Click here
Estonia	Medium	Widespread		Decreasing	55	34.6%	Type A, Subtype pH1N1	23.1 (graphs)	502.3 (graphs)		Click here
Finland		Widespread		Stable	62	71.0%	Type B and Type A, Subtype pH1	0.0 (graphs)	(graphs)		Click here
France	Medium	Widespread	Low	Stable	232	41.4%	Type B and Type A, Subtype pH1N1	(graphs)	2824.4 (graphs)		Click here
Georgia	Very High	Widespread	Severe	Decreasing	57	91.2%	Type B and Type A, Subtype pH1	1627.6 (graphs)		sari	Click here
Germany	Medium	Regional		Stable	305	61.0%	Type A, Subtype pH1N1	(graphs)	1342.3 (graphs)		Click here
Greece	High	Widespread		Decreasing	18	72.2%	Type A, Subtype pH1N1	361.0 (graphs)	(graphs)		Click here
Hungary	High	Widespread	Moderate	Stable	162	9.3%	Type A, Subtype pH1	587.9 (graphs)	(graphs)		Click here
Iceland	Medium	Regional	Moderate	Increasing	0	0%		57.6 (graphs)	(graphs)		Click here
Ireland	Medium	Widespread	Low	Decreasing	53	39.6%	Type B	50.3 (graphs)	(graphs)		Click here
Israel	Medium	Widespread	Moderate	Decreasing	58	53.5%	Type A and B	52.8 (graphs)			Click here
Italy	High	Widespread	Moderate	Decreasing	230	36.5%	Type A, Subtype pH1N1	965.4 (graphs)	(graphs)		Click here
Kazakhstan	Medium	Local	Moderate	Increasing	44	27.3%	None	3.1 (graphs)	422.3 (graphs)	sari	Click here
Kyrgyzstan	Low	None	Low	Stable	14	35.7%	Type A and B	9.3 (graphs)	82.4 (graphs)	sari	Click here
Latvia	Medium	Widespread		Decreasing	21	47.6%	Type B and Type A, Subtype pH1	(graphs)			Click here
Lithuania					14	57.1%	Type B and Type A, Subtype pH1	(graphs)			Click here
Luxembourg	Very High	Widespread			108	62.0%	Type B and Type A, Subtype pH1	10.2 * (graphs)	27.9 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Local	Low	Decreasing	0	0%		3.6 * (graphs)	0 * (graphs)		Click here
Netherlands	Medium	Widespread		Decreasing	31	29.0%	Type B	70.9 (graphs)	(graphs)		Click here
Northern Ireland	Low	Local		Decreasing				35.6 (graphs)	372.6 (graphs)		Click here
Norway	Medium	Widespread		Decreasing	25	60.0%	Type B	145.8 (graphs)	(graphs)		Click here
Poland	Medium	Regional		Decreasing	114	29.8%	Type A, Subtype pH1	180.8 (graphs)	(graphs)		Click here
Portugal	Medium	Widespread		Decreasing	8	50.0%	Type A, Subtype pH1	50.0 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Local	Moderate	Increasing	69	66.7%	Type B and Type A, Subtype pH1N1	37.8 (graphs)	394.3 (graphs)	sari	Click here
Romania	Medium	Widespread	Moderate	Stable	55	45.5%	Type B and Type A, Subtype pH1N1	93.8 (graphs)	2855.0 (graphs)	sari	Click here
Russian Federation	High	Widespread	Moderate	Decreasing	66	45.5%	Type A, Subtype pH1	57.0 (graphs)	1295.9 (graphs)	sari	Click here
Scotland	Medium	Local	Low	Decreasing	48	41.7%	Type B	8.9 (graphs)	262.1 (graphs)		Click here
Serbia	High	Regional	Moderate	Increasing	23	65.2%	Type A, Subtype pH1N1	218.2 (graphs)		sari	Click here
Slovakia	Medium	Regional	Moderate	Increasing				572.5 (graphs)	2820.6 (graphs)	sari	Click here
Slovenia	Medium	Widespread		Stable	39	82.1%	Type B and Type A, Subtype pH1	69.6 (graphs)	1711.9 (graphs)		Click here
Spain	Medium	Regional		Decreasing	340	36.5%	Type B	152.4 (graphs)	(graphs)		Click here
Sweden	High	Widespread	Low	Stable	55	72.7%	Type B	12.6 (graphs)	(graphs)		Click here
Switzerland	Medium	Widespread		Stable				312.0 (graphs)			Click here
Turkey	Medium	Local	Moderate	Stable	304	50.0%	None	(graphs)			Click here
Ukraine	Medium	Local	Low	Decreasing	14	28.6%	Type B and Type A, Subtype pH1	4.6 * (graphs)	641.4 (graphs)	sari	Click here
Wales	Low	Sporadic	Low	Decreasing				8.3 (graphs)	(graphs)		Click here
Europe					3109	44.2%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative

units of the country (or reporting sites); Widespread = appearing in $\geq 50\%$ of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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Influenza activity continues, but starts to decline in the WHO European Region



As part of the ongoing introduction of data from sentinel surveillance systems on severe acute respiratory infections (SARI) to the EuroFlu bulletin, graphs on the age-specific distribution of sentinel SARI cases are now publicly accessible through the bulletin table.

- This issue is based on data reported in week 7/2011 by 45 Member States in the WHO European Region.
- Clinical influenza-like illness (ILI) or acute respiratory infections (ARI) activity has peaked in 27 countries.
- 42% of sentinel ILI and/or ARI specimens, and 52% of sentinel SARI specimens were positive for influenza.
- Pandemic influenza A(H1N1) 2009 and influenza B continue to co-circulate in the Region.



Current situation ♦ week 7/2011

During week 7/2011, 1 country (Georgia) reported very high intensity of influenza activity; 9 countries reported high intensity; 25 reported medium intensity and 7 countries, low intensity. 22 countries reported widespread activity. Of the 26 countries reporting on the impact of influenza on health care systems, 1 (Georgia) reported severe impact; 13 countries reported moderate impact and 12, low impact.

Epidemiological data suggest that significant influenza activity continues, but in general may be starting to decline in intensity across the WHO European Region. Increasing trends in clinical consultation rates for ILI and/or ARI were observed in 13 countries, while 18 reported declining trends. Clinical ILI or ARI activity has peaked in 27 countries.

During week 7/2011, 9 countries reported data on sentinel surveillance for hospitalized SARI cases (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine). Sentinel SARI hospitalizations in Kazakhstan, Romania, the Russian Federation and Serbia remained relatively stable compared to the previous week and are above pre-season levels. SARI hospitalizations in the Republic of Moldova and Ukraine remain below earlier peaks. In Georgia, SARI hospitalizations declined in week 7/2011 following the notable increase reported in week 6/2011. This decline is concurrent with the decline in ILI consultation rates in Georgia during recent weeks. A significant percentage of sentinel SARI specimens continues to test positive for influenza. Of the countries testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 44% (Romania) to 65% (Georgia) with a median of 50% (mean: 52%). Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [♦Overview of sentinel SARI systems in EuroFlu♦](#).

Virological situation ♦ week 7/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 16 countries and co-dominant with influenza B in 10 countries. Influenza B was dominant in 5 countries.

Sentinel physicians collected 2291 respiratory specimens, of which 966 (42%) were positive for influenza virus: 492 (51%) were influenza A and 474 (49%) were influenza B. Of the influenza A viruses, 415 were subtyped: 399 (96%) as pandemic A(H1) and 16 (4%) as A(H3). In the 30 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 94%, with a median of 48% (mean: 45%). In addition, 5882 non-sentinel specimens were reported positive for influenza: 4523 (77%) influenza A and 1359 (23%) influenza B. Of the influenza A viruses, 3994 were subtyped: 3946 (99%) as pandemic A(H1) and 48 (1%) as A(H3).

Out of 227 sentinel SARI specimens collected during week 7/2011, 119 (52%) tested positive for influenza: 77 (65%) were influenza A; 42 (35%) were influenza B. Of the influenza A viruses, 60 were subtyped: 53 (88%) as pandemic A(H1), and 7 (12%) as A(H3).

Cumulative virological update ♦ weeks 40/2010 ♦ 7/2011

A total of 64 935 influenza virus detections was reported during this period, of which 46 855 (72%) were influenza A and 18 080 (28%) were influenza B. Of the influenza A viruses, 36 054 were subtyped: 34 794 (97%) as pandemic A(H1), 1 259 (3%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 7/2011, 888 out of 3340 sentinel SARI specimens (27%) tested positive for influenza. Of these influenza viruses, 430 (48%) were influenza A and 458 (52%) influenza B. Of the influenza A viruses, 308 were subtyped: 284 (92%) as pandemic A(H1) and 24 (8%) as influenza A(H3).

Since week 40/2010, 2222 influenza viruses have been characterized antigenically: 1276 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 779 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 99 were A(H3) A/Perth/16/2009 (H3N2)-like; 67 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 343 influenza viruses, 151 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 8 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 33 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 29 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 9 belonged to the A(H3) clade represented by A/Perth/16/2009; 7 belonged to the A(H3) clade represented by A/Victoria/208/2009; 19 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 9 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 78 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 5 countries (Ireland, Italy, Norway, Spain and the United Kingdom) have screened 806 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (671). Out of the total of 743 isolates of pandemic A(H1N1) viruses that were tested, 713 were sensitive to both inhibitors and 30 viruses (4.0%) carried the NA H275Y mutation. These 30 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 1 influenza A(H3N2) virus was tested

and found to be sensitive to both inhibitors. All of the 61 influenza B viruses tested for susceptibility to oseltamivir and the 62 tested for susceptibility to zanamivir were found to be sensitive. All 35 pandemic influenza A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

Significant influenza activity continues in the WHO European Region. While increasing clinical consultation rates of ILI and ARI are observed in some countries, many others have reported recent declines in clinical outpatient activity. This observation is consistent with recent declining trends in the percentage of sentinel detections of influenza A and influenza B viruses across the Region.

Pandemic influenza A(H1N1) 2009 is circulating with the highest intensity in the south-central and eastern parts of the region. Cumulative data for weeks 4 to 7/2011 indicate that during this time 68% of sentinel SARI specimens that tested positive for influenza also subtyped as influenza A(H1N1)2009 virus. Hence, now that influenza A(H1N1) 2009 has moved into the eastern portion of the Region, the relative distribution of influenza types and subtypes in hospitalized SARI patients has become similar to that observed cumulatively from other sentinel and non-sentinel data sources.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

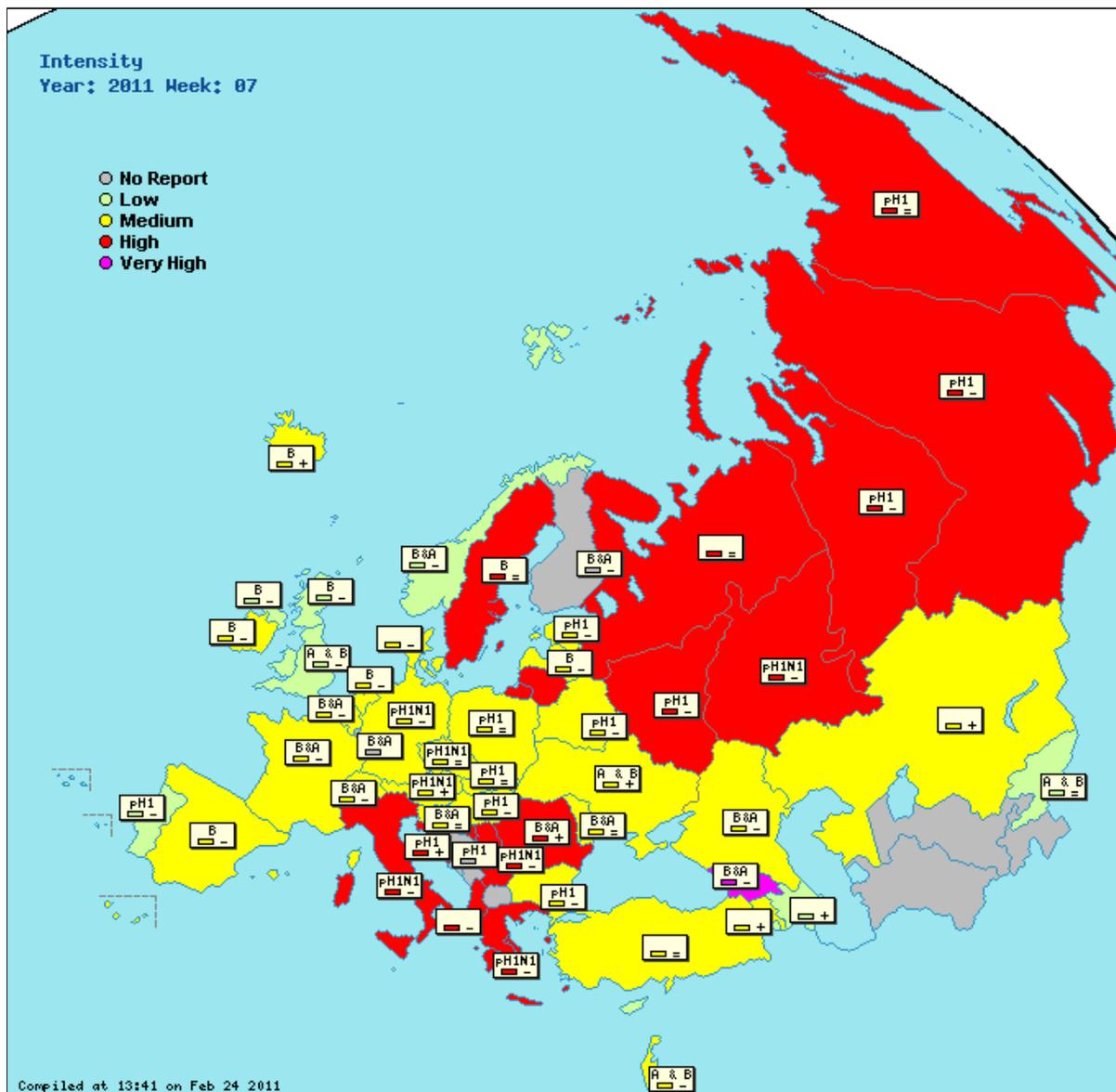
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Czech Republic

Influenza activity is at about its peak. Up to end of week 7/2011 a cumulative total of 115 SARI patients with laboratory-confirmed influenza have been reported by intensive care units and there were 16 deaths.

Malta

situation stable

Norway

Total hospitalized: 171 (in ICU: 39); Age 0-4 hospitalized: 35 (in ICU: 5); Age 5-14 hospitalized: 6 (in ICU: 1); Age 15-29 hospitalized: 22 (in ICU: 1); Age 30-64 hospitalized: 97 (in ICU: 30); Age 65+ hospitalized: 11 (in ICU: 2)

Portugal

Although ILI incidence rate is below the epidemic threshold, influenza positive cases are not localized in a single region.

Scotland

Almost all laboratory detections are influenza B

Serbia

Sentinel SARI surveillance system in SERBIA: In week 07/2011, 35 SARI from all causes were reported. Out of all 35 SARI specimens collected in the week 07/2011, 14(40%) tested positive: 13 were influenza A and one was influenza B. Of the influenza A viruses, 13 were subtyped: 16(100%) as pandemic A(H1).

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes

from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 07/2011 1089 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (66%). Conversely 14% were less than five years old. Of 1080 cases with outcome information 112 died (13% with no known risk factors). Of the severe cases 678 had information available on the status of influenza vaccination for the 2010/2011 season and only 91 (13%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for only 8% of hospitalised cases (42/518). Eighty per cent of the cases included in the groups which were recommended influenza vaccination (chronic diseases / pregnancy / obesity / older than 60 years) had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	High	Local	Moderate	Decreasing	37	5.4%	None		494.3 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Increasing	5	0%	None	(graphs)	91.2 (graphs)	sari	Click here
Austria	Medium	Widespread	Low	Increasing	69	65.2%	Type A, Subtype pH1N1	0.0 (graphs)	35.2 (graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing	22	0%	None	314.2 (graphs)			Click here
Belarus	Medium	Local	Moderate	Decreasing	29	51.7%	Type A, Subtype pH1		1756.0 (graphs)	sari	Click here
Belgium	Medium	Widespread		Decreasing	50	62.0%	Type B and Type A, Subtype pH1N1	328.2 (graphs)	1573.2 (graphs)	sari	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)			Click here
Bulgaria	Medium	Regional		Decreasing	10	70.0%	Type A, Subtype pH1	(graphs)	1339.0 (graphs)		Click here
Croatia	High	Widespread	Low	Increasing			Type A, Subtype pH1	221.2 (graphs)			Click here
Cyprus	Low	Local	Low	Stable				1.5 * (graphs)	8.0 * (graphs)		Click here
Czech Republic	Medium	Widespread		Stable	29	82.8%	Type A, Subtype pH1N1	226.1 (graphs)	1435.3 (graphs)		Click here
Denmark	Medium	Widespread		Decreasing	38	13.2%	None	(graphs)	(graphs)		Click here
England	Low	Sporadic		Decreasing	96	14.6%	Type A and B	12.1 (graphs)	390.9 (graphs)		Click here
Estonia	Medium	Widespread		Decreasing	40	15.0%	Type A, Subtype pH1	18.4 (graphs)	437.3 (graphs)		Click here
Finland	Medium	Widespread		Decreasing	48	33.3%	Type B and Type A, Subtype pH1N1	0.0 (graphs)	(graphs)		Click here
France	Medium	Widespread	Low	Decreasing	175	45.7%	Type B and Type A, Subtype pH1N1	(graphs)	2369.6 (graphs)		Click here
Georgia	Very High	Widespread	Severe	Decreasing	48	93.8%	Type B and Type A, Subtype pH1	1454.7 (graphs)		sari	Click here
Germany	Medium	Regional		Decreasing	242	50.8%	Type A, Subtype pH1N1	(graphs)	1309.0 (graphs)		Click here
Greece	High	Widespread		Decreasing	37	59.5%	Type A, Subtype pH1N1	399.9 (graphs)	(graphs)		Click here
Hungary	Medium	Widespread	Moderate	Decreasing	143	11.9%	Type A, Subtype pH1	475.6 (graphs)	(graphs)		Click here
Iceland	Medium	Regional	Moderate	Increasing	0	0%		75.2 (graphs)	(graphs)		Click here
Ireland	Medium	Regional	Low	Decreasing	47	31.9%	Type B	36.2 (graphs)	(graphs)		Click here
Israel	Medium	Widespread	Moderate	Decreasing	41	34.2%	Type A and B	35.0 (graphs)			Click here
Italy	High	Widespread	Moderate	Decreasing	113	55.8%	Type A, Subtype pH1N1	768.5 (graphs)	(graphs)		Click here
Kazakhstan	Medium	Local	Moderate	Increasing	14	92.9%	None	1.9 (graphs)	365.9 (graphs)	sari	Click here
Kyrgyzstan	Low	Sporadic	Low	Stable	10	60.0%	Type A and B	8.6 (graphs)	45.9 (graphs)	sari	Click here
Latvia	Medium	Widespread		Decreasing	9	33.3%	Type B	(graphs)			Click here
Lithuania	High	Widespread	Low	Stable				85.8 (graphs)	660.7 (graphs)		Click here
Luxembourg					58	58.6%	Type B and Type A, Subtype pH1	(graphs)			Click here
Malta	Low	Local	Low	Stable				9.2 * (graphs)	0 * (graphs)		Click here
Netherlands	Medium	Widespread		Decreasing	32	53.1%	Type B	60.4 (graphs)	(graphs)		Click here
Northern Ireland	Low	Sporadic		Decreasing	10	10.0%	Type B	29.9 (graphs)	359.2 (graphs)		Click here
Norway	Low	Widespread		Decreasing	7	42.9%	Type B and Type A, Subtype pH1	120.0 (graphs)	(graphs)		Click here
Poland	Medium	Regional		Stable	102	23.5%	Type A, Subtype pH1	171.8 (graphs)	(graphs)		Click here
Portugal	Low	Sporadic		Decreasing	3	0%	Type A, Subtype pH1	31.5 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Local	Moderate	Stable	84	57.1%	Type B and Type A, Subtype pH1N1	27.0 (graphs)	470.0 (graphs)	sari	Click here
Romania	High	Widespread	Moderate	Increasing	30	83.3%	Type B and Type A, Subtype pH1N1	41.6 (graphs)	1260.4 (graphs)	sari	Click here
Russian Federation	High	Widespread	Moderate	Decreasing	66	39.4%	Type A, Subtype pH1	38.4 (graphs)	1096.3 (graphs)	sari	Click here
Scotland	Low	Local	Low	Decreasing	45	22.2%	Type B	2.2 (graphs)	253.2 (graphs)		Click here
Serbia	High	Regional	Moderate	Decreasing	1	100.0%	Type A, Subtype pH1N1	204.6 (graphs)		sari	Click here
Slovakia	Medium	Local	Low	Stable	23	65.2%	Type A, Subtype pH1	487.9 (graphs)	2514.5 (graphs)	sari	Click here
Slovenia	Medium	Widespread		Stable	23	65.2%	Type B and Type A, Subtype pH1	69.6 (graphs)	1499.3 (graphs)		Click here
Spain	Medium	Regional		Decreasing	246	31.7%	Type B	113.6 (graphs)	(graphs)		Click here
Sweden	High	Widespread	Low	Stable	33	27.3%	Type B	19.5 (graphs)	(graphs)		Click here
Switzerland	Medium	Widespread		Decreasing	65	76.9%	Type B and Type A, Subtype pH1	276.8 (graphs)			Click here
Turkey	Medium	Local	Moderate	Stable	107	40.2%	None	(graphs)			Click here
Ukraine	Medium	Local	Low	Increasing	4	25.0%	Type A and B	5.2 * (graphs)	674.7 (graphs)	sari	Click here
Wales	Low	Sporadic	Low	Decreasing				6.2 (graphs)	(graphs)		Click here
Europe					2291	42.2%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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EuroFlu : Weekly Electronic Bulletin

Influenza activity continues, but declines in many countries in the WHO European Region



- This issue is based on data reported in week 8/2011 by 44 Member States in the WHO European Region.
- Clinical influenza-like illness (ILI) and acute respiratory infection (ARI) activity are decreasing in 24 countries of the Region.
- According to sentinel surveillance, severe acute respiratory infection (SARI) shows declining trends in some countries, but remains above pre-season levels.
- 39% of sentinel specimens from patients with ILI and/or ARI, and 56% of specimens from sentinel SARI patients tested positive for influenza.
- Pandemic influenza A(H1N1) 2009 and influenza B continue to co-circulate in the Region.



Current situation - week 8/2011

During week 8/2011, ILI or ARI consultation rates decreased in all age groups in 24 of the 35 countries reporting clinical data. Among 38 countries reporting on the geographical spread of influenza, most reported either widespread (15) or regional (7) activity, while 16 reported either sporadic or local activity. Only 5 countries reported high-intensity influenza activity (compared with 9 countries last week), while 21 countries reported medium intensity and 11 countries, low intensity. The impact of influenza on health care systems was low in 14 and moderate in 10 of the 24 countries reporting on this indicator.

Data from sentinel hospital-based surveillance for SARI were received from 9 countries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine). Sentinel SARI hospitalizations have decreased substantially in Georgia, Kazakhstan, Kyrgyzstan and the Russian Federation, concurrent with overall declines in outpatient ARI or ILI consultation rates in these 4 countries. In Romania, Serbia and Ukraine, SARI hospitalizations increased, as did the percentage of SARI specimens testing positive for influenza. Among countries testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 40% in Kazakhstan to 67% in Ukraine with a median of 65% (mean: 53%). Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation - week 8/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 7 countries and co-dominant with influenza B in 16 countries. Influenza B was dominant in 7 countries.

Sentinel physicians collected 1611 respiratory specimens, of which 621 (39%) were positive for influenza virus: 273 (44%) were influenza A and 348 (56%) were influenza B. Of the influenza A viruses, 243 were subtyped: 224 (92%) as pandemic A(H1) and 19 (8%) as A(H3). In the 20 countries testing 20 or more sentinel specimens, influenza positivity ranged from 3% to 94%, with a median of 39% (mean: 39%). In addition, 3639 non-sentinel specimens were reported positive for influenza: 2538 (70%) influenza A and 1101 (30%) influenza B. Of the influenza A viruses, 2110 were subtyped: 2088 (99%) as pandemic A(H1) and 22 (1%) as A(H3).

Out of 226 sentinel SARI specimens collected during week 8/2011 (data from 8 countries), 126 (56%) tested positive for influenza: 65 (52%) were influenza A; 61 (48%) were influenza B. Of the influenza A viruses, 41 were subtyped: 39 (95%) as pandemic A(H1), and 2 (5%) as A(H3).

Cumulative virological update - weeks 40/2010 - 8/2011

A total of 69 762 influenza virus detections were reported during this period, of which 50 098 (72%) were influenza A and 19 664 (28%) were influenza B. Of the influenza A viruses, 38 790 were subtyped: 37 395 (96%) as pandemic A(H1), 1 394 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 8/2011, 1057 out of 3626 sentinel SARI specimens (29%) tested positive for influenza. Of these influenza viruses, 526 (50%) were influenza A and 531 (50%) influenza B. Of the influenza A viruses, 357 were subtyped: 331 (93%) as pandemic A(H1) and 26 (7%) as influenza A(H3).

Since week 40/2010, 2771 influenza viruses have been characterized antigenically: 1478 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1107 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 102 were A(H3) A/Perth/16/2009 (H3N2)-like; 83 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 384 influenza viruses, 164 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 8 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 38 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 34 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 9 belonged to the A(H3) clade represented by A/Perth/16/2009; 6 belonged to the A(H3) clade represented by A/Victoria/208/2009; 20 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 9 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 96 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 7 countries (Germany, Ireland, Italy, Norway, Spain, Switzerland and the United Kingdom) have screened 990 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (671). Out of the 924 pandemic A(H1N1) viruses that were tested, 892 were sensitive to both inhibitors and 32 viruses (3.5%) carried the NA H275Y mutation. These 32 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 3 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 62 influenza B viruses tested for susceptibility to oseltamivir and the 63 tested for susceptibility to zanamivir were found to be sensitive. All 115 pandemic influenza A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

Clinical ILI and ARI consultation rates continue to decline throughout most parts of the WHO European Region with most countries reporting medium activity. A few countries, however, observe persisting and increasing clinical outpatient activity. The percentage of sentinel specimens testing positive for influenza is declining overall, but remains high in several countries. Whereas pandemic influenza A(H1N1) 2009 and influenza B currently co-dominate in northern and western Europe, pandemic influenza A(H1N1) 2009 is the dominant virus in the central and eastern parts of the Region.

Sentinel surveillance for SARI indicates that SARI hospitalizations are declining in the south-eastern part of the Region, while some countries in central Europe are observing increasing trends. Prior to seasonal increases in influenza activity, a relatively large portion of sentinel SARI hospitalizations occurred in the group aged 0-4. With increases in influenza activity, however, particularly that associated with circulation of pandemic A(H1N1) 2009 viruses, there have been associated increases in the relative proportion of SARI hospitalizations in older children, young adults and adults.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

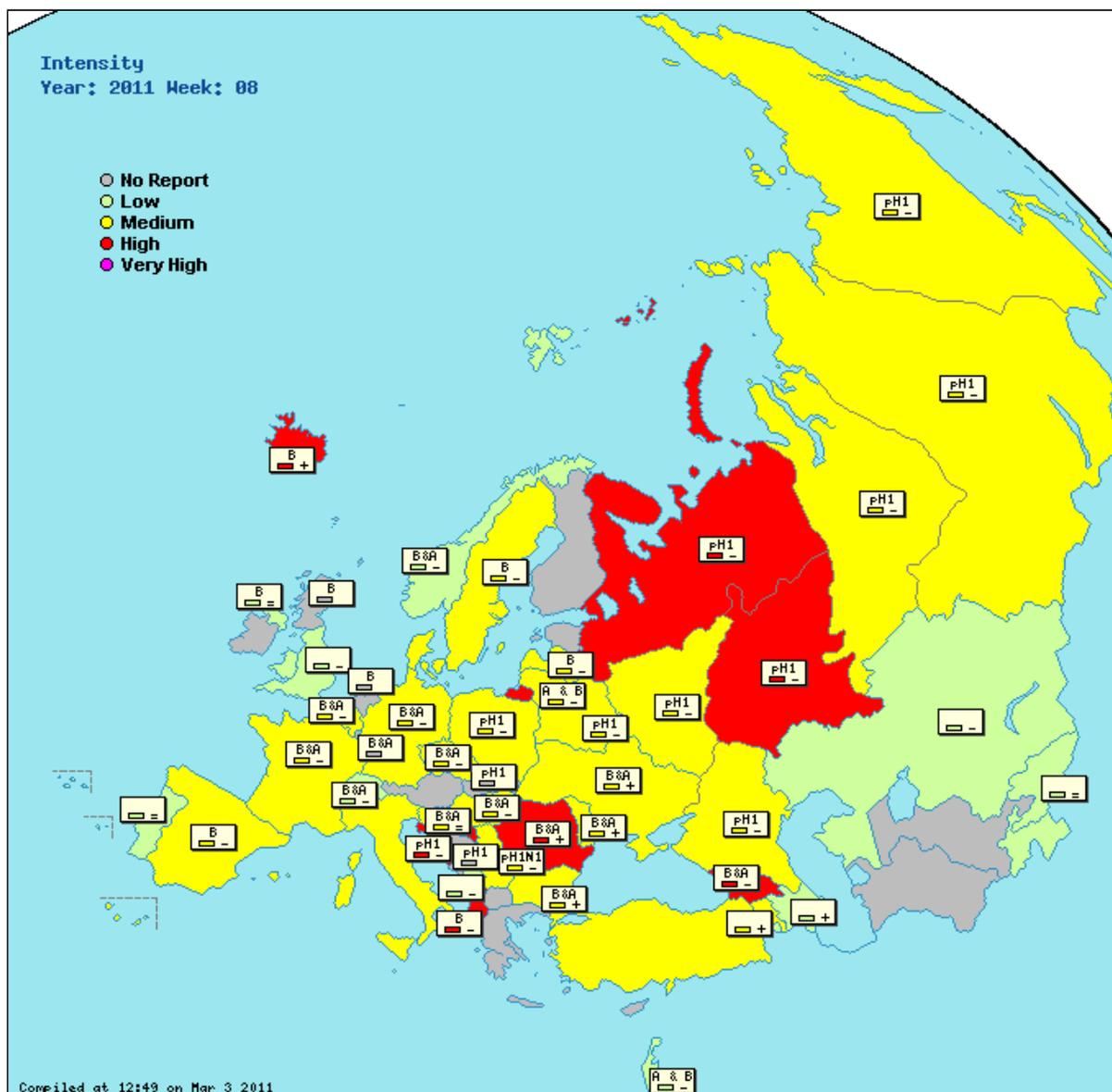
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B
 = : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Czech Republic

Up to end of week 8/2011 a cumulative total of 136 SARI patients with laboratory-confirmed influenza have been reported by intensive care units and there were 24 deaths. Of those there were 4 SARI cases caused by Flu B including 1 death of 10-years-old boy in current week.

Malta

situation stable

Republic of Moldova

In two clinical specimens a coinfection of influenza B virus and A(H1N1)2009 virus was confirmed by Real Time PCR in the 8th week. 173 clinical specimens from sentinel and non sentinel districts were examined by Real Time PCR, from which 122 specimens were positive: 84 specimens were positive for A(H1N1)2009; 14 specimens positive for A/H3; 23 specimens positive for Influenza B.

Serbia

Serbia Sentinel SARI surveillance system in SERBIA: In week 08/2011, 48 SARI from all causes were reported. Out of 43 SARI specimens collected in the week 08/2011, 27(62,8%) tested positive: 24 were influenza A and 3 were influenza B. Of the influenza A viruses, 21 were subtyped as pandemic A(H1) and 3 as A(H3).

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week

40/2010 and up to week 08/2011 1271 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (63%) and 15% were less than five years old and 18% were more than 64 years old. Of them 25% with no known risk factors. Of 1134 cases with outcome information 128 died (12% with no known risk factors). Of the severe cases 834 had information available on the status of influenza vaccination for the 2010/2011 season and only 117 (14%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for only 9% of hospitalised cases. Eighty per cent of the cases included in the groups which were recommended influenza vaccination (chronic diseases / pregnancy / obesity / older than 60 years) had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	High	Local	Moderate	Decreasing	32	3.1%	Type B		476.8 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Increasing	9	22.2%	None	(graphs)	107.7 (graphs)	sari	Click here
Azerbaijan	Low	Sporadic	Low	Increasing	16	0%	None	333.6 (graphs)			Click here
Belarus	Medium	Local	Moderate	Decreasing	14	21.4%	Type A, Subtype pH1		1731.3 (graphs)	sari	Click here
Belgium	Medium	Widespread		Decreasing	40	45.0%	Type B and Type A, Subtype pH1N1	181.8 (graphs)	1585.0 (graphs)	sari	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)			Click here
Bulgaria	Medium	Regional		Increasing	22	54.6%	Type B and Type A, Subtype pH1	(graphs)	1403.3 (graphs)		Click here
Croatia	High	Widespread	Low	Decreasing			Type A, Subtype pH1	156.6 (graphs)			Click here
Czech Republic	Medium	Regional		Decreasing	23	43.5%	Type B and Type A, Subtype pH1	182.8 (graphs)	1314.7 (graphs)		Click here
Denmark	Medium	Sporadic		Decreasing				(graphs)	(graphs)		Click here
England	Low	Sporadic		Decreasing	76	1.3%	None	9.1 (graphs)	376.1 (graphs)		Click here
Estonia					36	11.1%	None	(graphs)			Click here
Finland		Widespread		Decreasing				0.0 (graphs)	(graphs)		Click here
France	Medium	Widespread	Low	Decreasing	129	37.2%	Type B and Type A, Subtype pH1N1	(graphs)	1970.0 (graphs)		Click here
Georgia	High	Widespread	Moderate	Decreasing	36	94.4%	Type B and Type A, Subtype pH1	1085.4 (graphs)		sari	Click here
Germany	Medium	Regional		Decreasing	196	53.1%	Type B and Type A, Subtype pH1	(graphs)	1167.1 (graphs)		Click here
Hungary	Medium	Widespread	Low	Decreasing	117	20.5%	Type B and Type A, Subtype pH1	325.9 (graphs)	(graphs)		Click here
Iceland	High	Widespread	Moderate	Increasing	0	0%	Type B	89.0 (graphs)	(graphs)		Click here
Israel	Low	Regional	Moderate	Decreasing	43	18.6%	Type A and B	21.6 (graphs)			Click here
Italy	Medium	Widespread	Low	Decreasing				512.0 (graphs)	(graphs)		Click here
Kazakhstan	Low	Local	Low	Decreasing	11	9.1%	None	1.0 (graphs)	287.7 (graphs)	sari	Click here
Kyrgyzstan	Low	Sporadic	Low	Stable	8	12.5%	None	5.3 (graphs)	40.8 (graphs)	sari	Click here
Latvia	Medium	Widespread		Decreasing	12	41.7%	Type B	(graphs)			Click here
Lithuania	Medium	Widespread	Low	Decreasing	14	64.3%	Type A and B	71.6 (graphs)	633.6 (graphs)		Click here
Luxembourg					22	40.9%	Type B and Type A, Subtype pH1	(graphs)			Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Sporadic	Low	Decreasing				4.8 * (graphs)	0 * (graphs)		Click here
Montenegro	Low	Local	Low	Decreasing			None	52.9 (graphs)	619.8 (graphs)		Click here
Netherlands					27	29.6%	Type B	(graphs)			Click here
Northern Ireland	Low	Sporadic		Stable	6	33.3%	Type B	30.9 (graphs)	336.0 (graphs)		Click here
Norway	Low	Widespread		Decreasing	16	81.3%	Type B and Type A, Subtype pH1N1	105.0 (graphs)	(graphs)		Click here
Poland	Medium	Regional		Decreasing	100	27.0%	Type A, Subtype pH1	121.5 (graphs)	(graphs)		Click here
Portugal	Low	Sporadic		Stable	3	0%	None	47.5 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Local	Moderate	Increasing	111	69.4%	Type B and Type A, Subtype pH1N1	25.0 (graphs)	504.4 (graphs)	sari	Click here
Romania	High	Widespread	Moderate	Increasing	45	64.4%	Type B and Type A, Subtype pH1N1	71.0 (graphs)	1459.2 (graphs)	sari	Click here
Russian Federation	Medium	Regional	Moderate	Decreasing	51	41.2%	Type A, Subtype pH1	23.7 (graphs)	834.9 (graphs)	sari	Click here
Scotland					35	17.1%	Type B	(graphs)			Click here
Serbia	Medium	Regional	Moderate	Decreasing	7	71.4%	Type A, Subtype pH1N1	159.4 (graphs)		sari	Click here
Slovakia					15	53.3%	Type A, Subtype pH1	(graphs)		sari	Click here
Slovenia	Medium	Widespread		Stable	18	88.9%	Type B and Type A, Subtype pH1	30.8 (graphs)	1057.1 (graphs)		Click here
Spain	Medium	Local		Decreasing	218	30.7%	Type B	81.1 (graphs)	(graphs)		Click here
Sweden	Medium	Widespread	Low	Decreasing	43	32.6%	Type B	23.4 (graphs)	(graphs)		Click here
Switzerland	Low	Widespread		Decreasing	49	63.3%	Type B and Type A, Subtype pH1	217.3 (graphs)			Click here
Tajikistan	Low	Sporadic	Low	Decreasing				(graphs)			Click here
Turkey	Medium	Local	Low	Stable				18.2 (graphs)			Click here
Ukraine	Medium	Local	Low	Increasing	11	27.3%	Type B and Type A, Subtype pH1	5.5 * (graphs)	746.7 (graphs)	sari	Click here
Wales	Low	Sporadic	Low	Decreasing				5.7 (graphs)	(graphs)		Click here
Europe					1611	38.6%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Continuing influenza activity despite declining trends in many countries

- This issue is based on data reported in week 9/2011 by 46 Member States in the WHO European Region.
- Influenza-like illness (ILI) and acute respiratory infection (ARI) activity are decreasing in 22 countries of the Region.
- According to sentinel surveillance, severe acute respiratory infection (SARI) shows declining trends in some countries, but remains above pre-season levels.
- 42% of sentinel specimens from patients with ILI and/or ARI, and 48% of specimens from sentinel SARI patients tested positive for influenza.
- Pandemic influenza A(H1N1) 2009 and influenza B continue to co-circulate in the Region.



Current situation - week 9/2011

During week 9/2011, of the 39 countries reporting on consultation rates for ILI and/or ARI, 22 reported decreases while 3 (Armenia, Iceland, and Ukraine) reported increases. Among 41 countries reporting on the geographical spread of influenza, a majority reported either widespread (13) or regional (10) activity, while 17 reported either sporadic or local activity and one reported no activity. High-intensity influenza activity was reported by Georgia only (compared with 5 countries last week), while 25 countries reported medium intensity and 14 countries, low intensity. The impact of influenza on health care systems was severe in one country (Georgia), low in 14 and moderate in 7 of the 22 countries reporting on this indicator.

Data from sentinel hospital-based surveillance for SARI were received from 9 countries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine). Sentinel SARI hospitalizations have decreased substantially in Kazakhstan, Kyrgyzstan and the Republic of Moldova, concurrent with overall declines in outpatient ILI or ARI consultation rates in these 3 countries. In Ukraine, SARI hospitalizations have increased in recent weeks and remain on a high level, concurrent with increase in ARI consultation rate. In Romania and the Russian Federation, SARI hospitalizations have reached the highest levels observed in this season so far. In the 7 countries testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 0% in Kyrgyzstan to 77% in Ukraine with a median of 45% (mean: 45%). Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation - week 9/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 10 countries and co-dominant with influenza B in 16 countries. Influenza B was dominant in 5 countries.

Sentinel physicians collected 1534 respiratory specimens, of which 640 (42%) were positive for influenza virus: 312 (49%) were influenza A and 328 (51%) were influenza B. Of the influenza A viruses, 274 were subtyped: 260 (95%) as pandemic A(H1) and 14 (5%) as A(H3). In the 21 countries testing 20 or more sentinel specimens, influenza positivity ranged from 10% to 91%, with a median of 45% (mean: 43%). In addition, 3590 non-sentinel specimens were reported positive for influenza: 2707 (75%) influenza A and 883 (25%) influenza B. Of the influenza A viruses, 2352 were subtyped: 2307 (98%) as pandemic A(H1) and 45 (2%) as A(H3).

Out of 206 sentinel SARI specimens collected during week 9/2011 (data from 8 countries), 98 (48%) tested positive for influenza: 53 (54%) were influenza A; 45 (46%) were influenza B. Of the influenza A viruses, 36 were subtyped: 33 (92%) as pandemic A(H1), and 3 (8%) as A(H3).

Cumulative virological update - weeks 40/2010 - 9/2011

A total of 75 191 influenza virus detections were reported during this period, of which 54 203 (72%) were influenza A and 20 988 (28%) were influenza B. Of the influenza A viruses, 42 466 were subtyped: 40 960 (96%) as pandemic A(H1), 1 505 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 9/2011, 1167 out of 3869 sentinel SARI specimens (30%) tested positive for influenza. Of these influenza viruses, 591 (51%) were influenza A and 576 (49%) influenza B. Of the influenza A viruses, 394 were subtyped: 365 (93%) as pandemic A(H1) and 29 (7%) as influenza A(H3).

Since week 40/2010, 3083 influenza viruses have been characterized antigenically: 1533 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1342 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 107 were A(H3) A/Perth/16/2009 (H3N2)-like; and 101 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 434 influenza viruses, 187 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 9 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 38 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 34 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 11 belonged to the A(H3) clade represented by A/Perth/16/2009; 6 belonged to the A(H3) clade represented by A/Victoria/208/2009; 28 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 11 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 110 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 8 countries (Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 1217 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (728). Out of the 1134 pandemic A(H1N1) viruses that were tested, 1102 were sensitive to both inhibitors and 32 viruses (2.8%) carried the NA H275Y mutation. These 32 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 3 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 80 influenza B viruses tested for susceptibility

to oseltamivir and zanamivir were found to be sensitive. All 174 pandemic influenza A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates continue to decline throughout most parts of the WHO European Region with most countries reporting medium or low activity. The percentage of sentinel specimens testing positive for influenza is declining overall, but remains high in several countries. Whereas pandemic influenza A(H1N1) 2009 and influenza B currently co-dominate in northern and western Europe, pandemic influenza A(H1N1) 2009 is the dominant virus in the central and eastern parts of the Region.

Sentinel surveillance for SARI indicates that SARI hospitalizations are declining in the south-eastern part of the Region, while some countries in central Europe are observing increasing trends. Prior to seasonal increases in influenza activity, a relatively large portion of sentinel SARI hospitalizations occurred in the group aged 0-4. With increases in influenza activity, there have been associated increases in the relative proportion of SARI hospitalizations in older children, young adults and adults.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

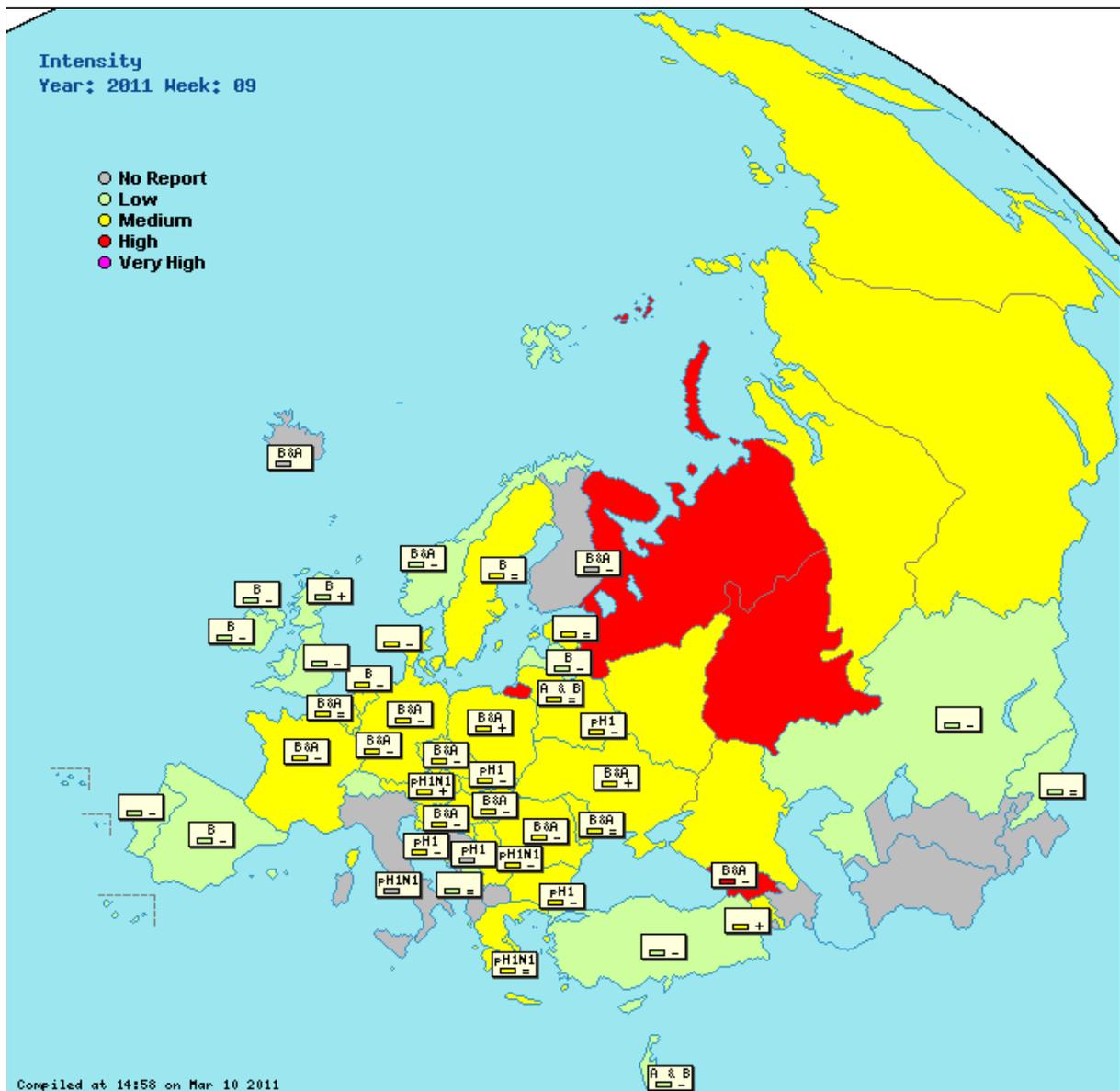
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



- A** = Dominant virus A
 - H1N1** = Dominant virus A(H1N1)
 - H3N2** = Dominant virus A(H3N2)
 - H1N2** = Dominant virus A(H1N2)
 - B** = Dominant virus B
 - A & B** = Dominant virus A & B
 - =** : stable clinical activity
 - +** : increasing clinical activity
 - : decreasing clinical activity
- Low** = no influenza activity or influenza at baseline levels
 - Medium** = usual levels of influenza activity
 - High** = higher than usual levels of influenza activity
 - Very high** = particularly severe levels of influenza activity
- 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.

Country comments (where available)

Czech Republic

Up to end of week 9/2011 a cumulative total of 151 SARI patients with laboratory-confirmed influenza have been reported by intensive care units and there were 32 deaths. Distribution by virus type and subtype is as follows: A/H1N1- 144 SARI and 29 deaths- A/H3N2- 3 SARI and 2 deaths- B- 4 SARI and 1 death.

Finland

Of the 54 samples tested during week 9, 5 were positive for parainfluenza virus type 3, and 9 for adenovirus. Since week 40, 1706 laboratory-confirmed diagnoses of influenza A, and 1770 cases of influenza B have been reported to the national infectious disease registry. Age group 0 - 4 years: 115 type A and 143 type B; age group 5 - 14 years: 104 type A, 446 type B; age group 15 - 64: 1411 type A, 1124 type B; age group 65+: 76 type A, 57 type B.

Greece

Two swabs were collected from an immunocompromized patient, the first on 10-Feb-11 and the second on 17-Feb-11 following tamiflu administration. Both clinical samples were positive for A(H1N1)v, but only the second was confirmed by real time PCR to carry the H274Y mutation for tamiflu resistance. NA sequence analysis is pending.

Malta

situation stable

Scotland

Increase in influenza activity small (33.1 per 100,000 population to 36). Number of severely ill flu cases requiring ITU

admission now remains low (111 as at 03 March 2011). Total number of deaths related to flu reported to HPS now stands at 60 (as at 03 March 2011)

Number of severely ill flu cases requiring ITU admission now remains low (111 as at 03 March 2011). Total number of deaths related to flu reported to HPS now stands at 60 (as at 03 March 2011)

Serbia

Serbia Sentinel SARI surveillance system in SERBIA: In week 09/2011, 44 SARI from all causes were reported. Out of 38 SARI specimens collected in the week 09/2011, 18(47.4%) tested positive: 14 were influenza A and 4 were influenza B. Of the influenza A viruses, 12 were subtyped as pandemic A(H1) and 2 as A(H3).

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 09/2011 1305 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (64%) and 15% were less than five years old and 17% were more than 64 years old. Of them 25% with no know risk factors. Of 1157 cases with outcome information 139 died (13% with no known risk factors). Of the severe cases 845 had information available on the status of influenza vaccination for the 2010/2011 season and only 121 (14%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for 9% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Medium	Local	Moderate	Increasing	4	50.0%	None	(graphs)	112.6 (graphs)	sari	Click here
Austria	Medium	Widespread	Low	Increasing	41	58.5%	Type A, Subtype pH1N1	27.8 (graphs)	4.2 (graphs)		Click here
Azerbaijan					15	0%	None	(graphs)			Click here
Belarus	Medium	Local	Moderate	Decreasing	47	29.8%	Type A, Subtype pH1		1620.5 (graphs)	sari	Click here
Belgium	Medium	Widespread		Stable	38	55.3%	Type B and Type A, Subtype pH1N1	129.0 (graphs)	1498.6 (graphs)	sari	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)			Click here
Bulgaria	Medium	Regional		Decreasing	4	50.0%	Type A, Subtype pH1	(graphs)	931.5 (graphs)		Click here
Croatia	Medium	Widespread	Low	Decreasing			Type A, Subtype pH1	128.3 (graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				1.6 * (graphs)	5.7 * (graphs)		Click here
Czech Republic	Medium	Local		Decreasing	20	50.0%	Type B and Type A, Subtype pH1	148.6 (graphs)	1223.7 (graphs)		Click here
Denmark	Medium	Sporadic		Decreasing	11	9.1%	None	(graphs)	(graphs)		Click here
England	Low	Sporadic		Decreasing	51	0%	None	7.6 (graphs)	405.0 (graphs)		Click here
Estonia	Medium	Widespread		Stable	34	44.1%	None	13.7 (graphs)	390.8 (graphs)		Click here
Finland		Widespread		Decreasing	54	50.0%	Type B and Type A, Subtype pH1	0.0 (graphs)	(graphs)		Click here
France	Medium	Regional	Low	Decreasing	75	25.3%	Type B and Type A, Subtype pH1N1	(graphs)	1575.3 (graphs)		Click here
Georgia	High	Widespread	Severe	Decreasing	22	90.9%	Type B and Type A, Subtype pH1	576.5 (graphs)		sari	Click here
Germany	Medium	Regional		Decreasing	160	53.8%	Type B and Type A, Subtype pH1N1	(graphs)	1147.4 (graphs)		Click here
Greece	Medium	Widespread		Stable	21	19.1%	Type A, Subtype pH1N1	225.3 (graphs)	(graphs)		Click here
Hungary	Medium	Widespread	Low	Decreasing	104	26.9%	Type B and Type A, Subtype pH1	251.8 (graphs)	(graphs)		Click here
Iceland					0	0%		(graphs)			Click here
Ireland	Low	Sporadic	Low	Decreasing	10	20.0%	Type B	18.9 (graphs)	(graphs)		Click here
Israel	Low	Regional	Moderate	Decreasing	30	16.7%	Type A and B	17.3 (graphs)			Click here
Italy					43	34.9%	Type A, Subtype pH1N1	(graphs)			Click here
Kazakhstan	Low	Local	Low	Decreasing	4	0%	None	1.3 (graphs)	224.9 (graphs)	sari	Click here
Kyrgyzstan	Low	None	Low	Stable	9	0%	None	6.0 (graphs)	40.3 (graphs)	sari	Click here
Latvia	Low	Regional		Decreasing	2	50.0%	Type B	(graphs)			Click here
Lithuania	Medium	Widespread	Low	Stable	22	31.8%	Type A and B	65.2 (graphs)	669.3 (graphs)		Click here
Luxembourg	Medium	Regional			19	63.2%	Type B and Type A, Subtype pH1	2.2 * (graphs)	19.3 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Sporadic	Low	Stable				6.4 * (graphs)	0 * (graphs)		Click here
Montenegro	Low	Local	Low	Stable			None	57.8 (graphs)	632.6 (graphs)		Click here
Netherlands	Medium	Widespread		Decreasing	18	33.3%	Type B	45.6 (graphs)	(graphs)		Click here
Northern Ireland	Low	Sporadic		Decreasing	3	33.3%	Type B	14.0 (graphs)	335.8 (graphs)		Click here
Norway	Low	Widespread		Decreasing	4	25.0%	Type B and Type A, Subtype pH1N1	82.8 (graphs)	(graphs)		Click here
Poland	Medium	Regional		Increasing	58	46.6%	Type B and Type A, Subtype pH1	154.8 (graphs)	(graphs)		Click here
Portugal	Low	Sporadic		Decreasing	2	50.0%	None	14.4 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Local	Moderate	Stable	99	69.7%	Type B and Type A, Subtype pH1N1	14.1 (graphs)	370.5 (graphs)	sari	Click here
Romania	Medium	Regional	Moderate	Decreasing	41	61.0%	Type B and Type A, Subtype pH1N1	47.1 (graphs)	1344.1 (graphs)	sari	Click here
Russian Federation	Medium	Regional		Stable	56	41.1%	Type A, Subtype pH1	15.2 (graphs)	854.0 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Increasing	25	28.0%	Type B	3.5 (graphs)	213.8 (graphs)		Click here
Serbia	Medium	Regional	Moderate	Decreasing	3	33.3%	Type A, Subtype pH1N1	138.9 (graphs)		sari	Click here
Slovakia	Medium	Local	Moderate	Decreasing	14	78.6%	Type A, Subtype pH1	318.2 (graphs)	1906.7 (graphs)	sari	Click here
Slovenia	Medium	Local		Decreasing	11	63.6%	Type B and Type A, Subtype pH1	13.0 (graphs)	1221.1 (graphs)		Click here
Spain	Low	Local		Decreasing	149	34.9%	Type B	53.3 (graphs)	(graphs)		Click here
Sweden	Medium	Widespread	Low	Stable	31	45.2%	Type B	19.0 (graphs)	(graphs)		Click here
Switzerland	Low	Widespread		Decreasing				174.9 (graphs)			Click here
Turkey	Low	Local	Low	Decreasing	171	45.6%	None	7.8 (graphs)			Click here
Ukraine	Medium	Local	Low	Increasing	9	22.2%	Type B and Type A, Subtype pH1	6.0 * (graphs)	781.5 (graphs)	sari	Click here
Wales	Low	Sporadic	Low	Decreasing				4.1 (graphs)	(graphs)		Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Somnina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Declining trends in influenza activity in the WHO European Region



- This issue is based on data reported in week 10/2011 by 47 Member States in the WHO European Region.
- Influenza-like illness (ILI) and acute respiratory infection (ARI) activity has passed recent peaks in 37 countries of the Region.
- Sentinel hospitalizations for severe acute respiratory infection (SARI) are generally declining, but remain above pre-season levels in some countries.
- 42% of sentinel specimens from patients with ILI and/or ARI, and 46% of specimens from sentinel SARI patients tested positive for influenza.
- Pandemic influenza A(H1N1) 2009 and influenza B continue to co-circulate in the Region.



Current situation - week 10/2011

During week 10/2011, 23 countries reported a low intensity of influenza and 20 countries reported medium intensity. Among 43 countries reporting on the geographical spread of influenza, a majority reported either sporadic (14) or local (13) activity, while 16 reported either regional or widespread activity. The impact of influenza on health care systems was low in 20 and moderate in 5 of the 25 countries reporting on this indicator. Clinical data also suggest decreasing influenza activity in much of the WHO European Region. Of the 44 countries reporting on consultation rates for ILI and/or ARI, 18 countries reported decreases and 37 have passed apparent peaks in ILI or ARI clinical activity.

Data from sentinel hospital-based surveillance for SARI were received from 10 countries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Malta, the Republic of Moldova, Romania, the Russian Federation, Serbia and Ukraine). During week 10/2011, sentinel SARI hospitalizations decreased substantially in Kazakhstan, Kyrgyzstan and the Russian Federation. In Georgia, the Republic of Moldova, Romania, Serbia and Ukraine, SARI hospitalizations have decreased compared to recent weeks, but they remain above pre-season levels. In the 4 countries (Georgia, the Republic of Moldova, Romania and the Russian Federation) testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 30% in the Russian Federation to 63% in Romania. Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation - week 10/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 7 countries and co-dominant with influenza B in 12 countries. Influenza B was dominant in 6 countries.

Sentinel physicians collected 1107 respiratory specimens, of which 459 (42%) were positive for influenza virus: 212 (46%) were influenza A and 247 (54%) were influenza B. Of the influenza A viruses, 194 were subtyped: 180 (93%) as pandemic A(H1) and 14 (7%) as A(H3). In the 18 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 88%, with a median of 31% (mean: 38%). In addition, 2318 non-sentinel specimens were reported positive for influenza: 1518 (65%) influenza A and 800 (35%) influenza B. Of the influenza A viruses, 1248 were subtyped: 1216 (97%) as pandemic A(H1) and 32 (3%) as A(H3).

Out of 145 sentinel SARI specimens collected during week 10/2011 (data from 9 countries), 67 (46%) tested positive for influenza: 39 (58%) were influenza A; 28 (42%) were influenza B. Of the influenza A viruses, 31 were subtyped: 25 (81%) as pandemic A(H1) and 6 (19%) as A(H3).

Cumulative virological update - weeks 40/2010 - 10/2011

A total of 77 832 influenza virus detections were reported during this period, of which 55 808 (72%) were influenza A and 22 024 (28%) were influenza B. Of the influenza A viruses, 43 910 were subtyped: 42 419 (97%) as pandemic A(H1), 1490 (3%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 10/2011, 1312 out of 4583 sentinel SARI specimens (29%) tested positive for influenza. Of these influenza viruses, 707 (54%) were influenza A and 605 (46%) influenza B. Of the influenza A viruses, 478 were subtyped: 437 (91%) as pandemic A(H1) and 41 (9%) as influenza A(H3).

Since week 40/2010, 3384 influenza viruses have been characterized antigenically: 1668 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1482 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 112 were A(H3) A/Perth/16/2009 (H3N2)-like; 121 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 485 influenza viruses, 207 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 41 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 11 belonged to the A(H3) clade represented by A/Perth/16/2009; 7 belonged to the A(H3) clade represented by A/Victoria/208/2009; 29 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 16 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 118 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 8 countries (Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 1227 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (728). Out of the 1144 pandemic A(H1N1) viruses that were tested, 1112 were sensitive to both inhibitors and 32 viruses (2.8%) carried the NA H275Y mutation. These 32 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 3 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 80 influenza B viruses tested for susceptibility to oseltamivir and zanamivir were found to be sensitive. All 174 pandemic influenza A(H1N1) 2009 viruses and 2 A(H3N2) viruses that

were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates continue to decline throughout most parts of the WHO European Region with all countries reporting medium or low activity during week 10/2011. The percentage of sentinel ILI, ARI and SARI specimens testing positive for influenza has also declined in recent weeks in many countries, but influenza activity continues. While pandemic influenza A(H1N1) 2009 and influenza B currently co-dominate in northern, western and central Europe, pandemic influenza A(H1N1) 2009 is the dominant virus in eastern part of the Region.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

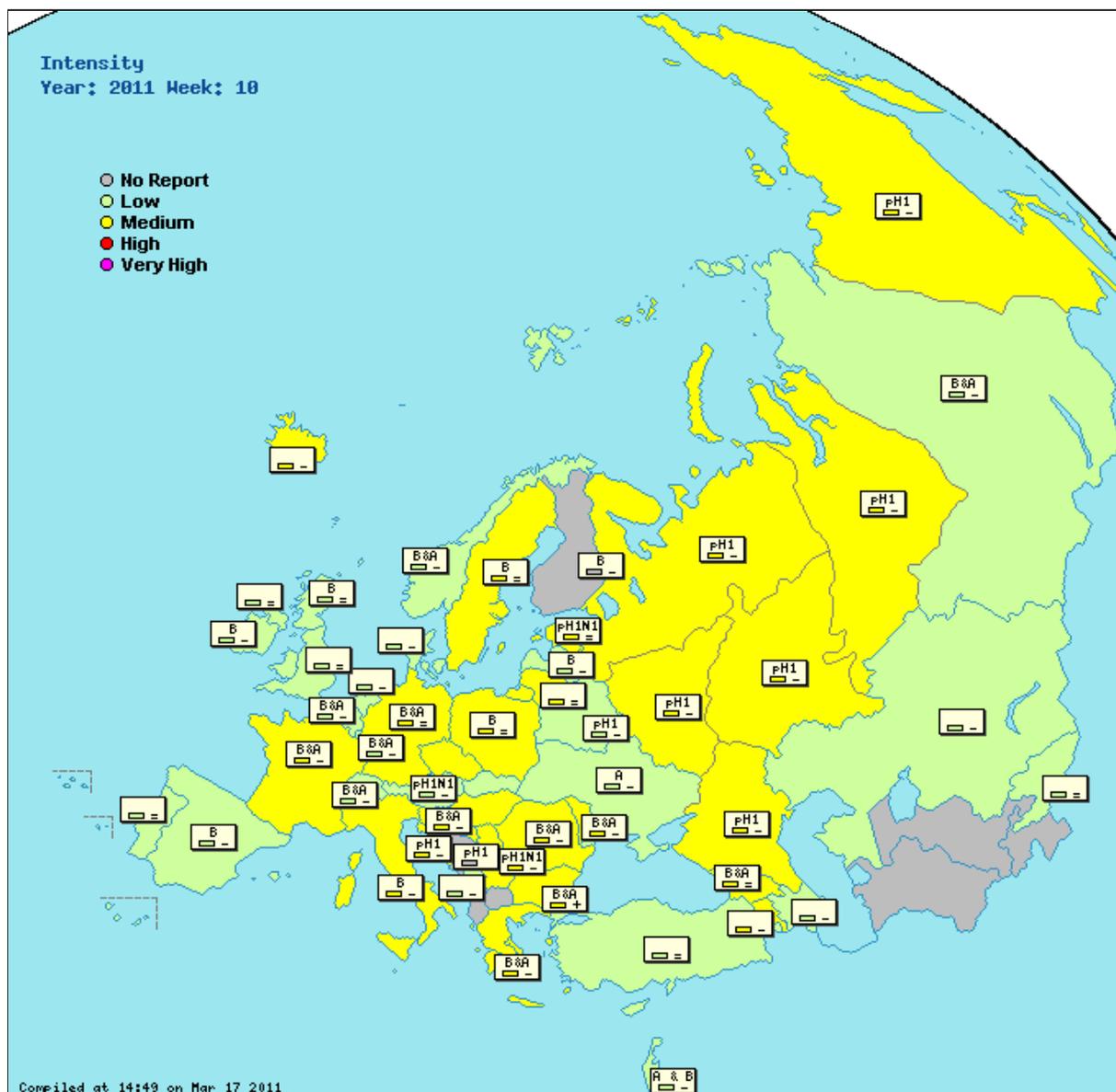
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B
 = : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Czech Republic

Up to end of week 10/2011 a cumulative total of 157 SARI patients with laboratory-confirmed influenza have been reported by intensive care units and there were 36 deaths. Distribution by virus type and subtype is as follows: A/H1N1- 150 SARI and 33 deaths- A/H3N2- 3 SARI and 2 deaths- B- 4 SARI and 1 death.

Malta

situation stable

Serbia

Serbia Sentinel SARI surveillance system in SERBIA: In week 10/2011, 24 SARI from all causes were reported. Out of 17 SARI specimens collected in the week 10/2011, 9 (52,9%) tested positive: 6 were influenza A and 3 were influenza B. Of the influenza A viruses, 4 were subtyped as pandemic A(H1).

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 10/2011 1330 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (64%) and 15% were less than five years old and 17% were more than 64 years old. 25% of them with no known risk factors. Of 1323 cases with outcome information 146 died (13% with no known risk factors). Of the severe cases 865 had information available on the status of influenza vaccination for

the 2010/2011 season and only 127 (15%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for 9% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Medium	Local	Moderate	Decreasing	3	33.3%	None	(graphs)	88.2 (graphs)	sari	Click here
Austria	Low	Regional	Low	Decreasing	24	57.7%	Type A, Subtype pH1N1	20.4 (graphs)	2.3 (graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	26	0%	None	315.2 (graphs)			Click here
Belarus	Low	Sporadic		Decreasing	9	888.9%	Type A, Subtype pH1		1179.4 (graphs)	sari	Click here
Belgium	Low	Sporadic		Decreasing	24	54.2%	Type B and Type A, Subtype pH1	69.0 (graphs)	1380.3 (graphs)	sari	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)			Click here
Bulgaria	Medium	Regional		Increasing	8	50.0%	Type B and Type A, Subtype pH1	(graphs)	1026.3 (graphs)		Click here
Croatia	Medium	Widespread	Low	Decreasing			Type A, Subtype pH1	54.1 (graphs)			Click here
Cyprus	Low	Sporadic	Low	Decreasing				1.0 * (graphs)	5.5 * (graphs)		Click here
Czech Republic	Medium	Local		Decreasing				133.7 (graphs)	1198.8 (graphs)		Click here
Denmark	Low	Sporadic		Decreasing	10	10.0%	None	62.1 (graphs)	(graphs)		Click here
England	Low	Sporadic		Stable	27	0%	None	7.8 (graphs)	385.4 (graphs)		Click here
Estonia	Medium	Local		Stable	25	24.0%	Type A, Subtype pH1N1	14.4 (graphs)	319.5 (graphs)		Click here
Finland		Regional		Decreasing	41	24.4%	Type B	0.0 (graphs)	(graphs)		Click here
France	Medium	Local	Low	Decreasing	70	17.1%	Type B and Type A, Subtype pH1N1	(graphs)	1337.4 (graphs)		Click here
Georgia	Medium	Widespread	Moderate	Stable	25	88.0%	Type B and Type A, Subtype pH1	561.6 (graphs)		sari	Click here
Germany	Medium	Regional		Stable	131	50.4%	Type B and Type A, Subtype pH1N1	(graphs)	1127.6 (graphs)		Click here
Greece	Medium	Regional		Decreasing	9	22.2%	Type B and Type A, Subtype pH1N1	139.3 (graphs)	(graphs)		Click here
Hungary	Medium	Regional	Low	Decreasing				182.8 (graphs)	(graphs)		Click here
Iceland	Medium	Regional	Low	Decreasing	0	0%		43.7 (graphs)	(graphs)		Click here
Ireland	Low	Sporadic	Low	Decreasing	12	41.7%	Type B	13.3 (graphs)	(graphs)		Click here
Israel	Low	Local	Moderate	Decreasing	18	16.7%	Type A and B	11.4 (graphs)			Click here
Italy	Medium	Regional	Low	Decreasing	44	18.2%		304.3 (graphs)	(graphs)		Click here
Kazakhstan	Low	Local	Low	Decreasing	2	0%	None	1.3 (graphs)	146.6 (graphs)	sari	Click here
Kyrgyzstan	Low	None	Low	Stable	5	20.0%	None	3.3 (graphs)	25.6 (graphs)	sari	Click here
Latvia	Low	Local		Decreasing	1	100.0%	Type B	(graphs)			Click here
Lithuania	Medium	Widespread	Low	Stable	7	14.3%	None	72.7 (graphs)	658.7 (graphs)		Click here
Luxembourg	Low	Sporadic			17	29.4%	Type B and Type A, Subtype pH1	1.8 * (graphs)	24.2 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Sporadic	Low	Stable				12.5 * (graphs)	0 * (graphs)		Click here
Montenegro	Low	Local	Low	Decreasing			None	32.3 (graphs)			Click here
Netherlands	Low	Sporadic		Decreasing	8	12.5%	None	26.3 (graphs)	(graphs)		Click here
Northern Ireland	Low	None		Stable	3	0%	None	19.2 (graphs)	314.5 (graphs)		Click here
Norway	Low	Widespread		Decreasing	8	50.0%	Type B and Type A, Subtype pH1N1	65.9 (graphs)	(graphs)		Click here
Poland	Medium	Regional		Stable	72	48.6%	Type B	147.8 (graphs)	(graphs)		Click here
Portugal	Low	Sporadic		Stable	1	0%	None	19.9 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Sporadic	Moderate	Decreasing	29	69.0%	Type B and Type A, Subtype pH1N1	4.2 (graphs)	242.2 (graphs)	sari	Click here
Romania	Medium	Local	Moderate	Decreasing	35	65.7%	Type B and Type A, Subtype pH1N1	32.6 (graphs)	1208.0 (graphs)	sari	Click here
Russian Federation	Medium	Local	Low	Decreasing	35	28.6%	Type A, Subtype pH1	8.9 (graphs)	630.0 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	20	10.0%	Type B	4.6 (graphs)	224.2 (graphs)		Click here
Serbia	Medium	Regional	Low	Decreasing	0	0%	Type A, Subtype pH1N1	134.0 (graphs)		sari	Click here
Slovakia	Low	Sporadic	Low	Decreasing				277.6 (graphs)	1846.4 (graphs)	sari	Click here
Slovenia	Medium	Local		Decreasing	4	50.0%	Type B and Type A, Subtype pH1	7.6 (graphs)	1033.3 (graphs)		Click here
Spain	Low	Sporadic		Decreasing	123	23.6%	Type B	38.2 (graphs)	(graphs)		Click here
Sweden	Medium	Widespread	Low	Stable	27	22.2%	Type B	15.3 (graphs)	(graphs)		Click here
Switzerland	Low	Widespread		Decreasing	23	47.8%	Type B and Type A, Subtype pH1	116.0 (graphs)			Click here
Turkey	Low	Local	Low	Stable	178	33.7%	None	8.1 (graphs)			Click here
Ukraine	Low	Local	Low	Decreasing	3	0%	Type A	6.0 * (graphs)	601.9 (graphs)	sari	Click here
Uzbekistan								(graphs)	24.7 (graphs)		Click here
Wales	Low	Sporadic	Low	Decreasing				2.8 (graphs)	(graphs)		Click here
Europe					1107	41.5%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Influenza activity declining in the WHO European Region



- This issue is based on data reported in week 11/2011 by 46 Member States in the WHO European Region.
- Influenza-like illness (ILI) and acute respiratory infection (ARI) activity has passed recent peaks in 38 countries of the Region.
- Sentinel hospitalizations for severe acute respiratory infections (SARI) are generally declining, but remain above pre-season levels in some countries.
- 33% of sentinel specimens from patients with ILI and/or ARI, and 40% of specimens from sentinel SARI patients tested positive for influenza.
- Pandemic influenza A(H1N1) 2009 and influenza B continue to co-circulate in the Region.



Current situation - week 11/2011

During week 11/2011, 23 countries reported a low intensity of influenza and 17 countries reported medium intensity. Among 40 countries reporting on the geographical spread of influenza, a majority reported either sporadic (20) or local (9) activity, while 10 reported either regional or widespread activity and one country reported no activity. The impact of influenza on health care systems was low in 21 and moderate in 4 of the 25 countries reporting on this indicator.

Clinical data also suggest decreasing influenza activity in much of the WHO European Region. Of the 39 countries reporting on consultation rates for ILI and/or ARI, 21 countries reported decreases and 38 have passed apparent peaks in ILI or ARI clinical activity.

Data from sentinel hospital-based surveillance for SARI were received from 10 countries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Malta, the Republic of Moldova, Romania, the Russian Federation, Serbia and Ukraine). During week 11/2011, sentinel SARI hospitalizations were higher than the previous week in the Republic of Moldova and Romania but remain below previously observed peak levels for this season. In Armenia, Georgia, Serbia and Ukraine, SARI hospitalizations have decreased compared to recent weeks, but they still remain above pre-season levels. SARI hospitalizations were stable and generally low in Kazakhstan, Malta and the Russian Federation. In the 5 countries (Georgia, Kazakhstan, Romania, the Russian Federation and Ukraine) testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 15% in Kazakhstan to 58% in Ukraine.

Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation - week 11/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 9 countries and co-dominant with influenza B in 10 countries. Influenza B was dominant in 6 countries.

Sentinel physicians collected 912 respiratory specimens, of which 298 (33%) were positive for influenza virus: 89 (30%) were influenza A and 209 (70%) were influenza B. Of the influenza A viruses, 82 were subtyped: 68 (83%) as pandemic A(H1) and 14 (17%) as A(H3). In the 15 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% in France to 88% in Georgia, with a median of 31% (mean: 35%). In addition, 1707 non-sentinel specimens were reported positive for influenza: 1117 (65%) influenza A and 590 (35%) influenza B. Of the influenza A viruses, 999 were subtyped: 968 (97%) as pandemic A(H1) and 31 (3%) as A(H3).

Out of 155 sentinel SARI specimens collected during week 11/2011 (data from 9 countries), 62 (40%) tested positive for influenza: 37 (60%) were influenza A; 25 (40%) were influenza B. Of the influenza A viruses, 23 were subtyped and all were pandemic A(H1).

Cumulative virological update - weeks 40/2010 - 11/2011

A total of 80 531 influenza virus detections were reported during this period, of which 57 673 (72%) were influenza A and 22 858 (28%) were influenza B. Of the influenza A viruses, 45 626 were subtyped: 43 997 (96%) as pandemic A(H1), 1628 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 11/2011, 1400 out of 4424 sentinel SARI specimens (32%) tested positive for influenza. Of these influenza viruses, 770 (55%) were influenza A and 630 (45%) influenza B. Of the influenza A viruses, 505 were subtyped: 464 (92%) as pandemic A(H1) and 41 (8%) as influenza A(H3).

Since week 40/2010, 3699 influenza viruses have been characterized antigenically: 1837 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1615 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 113 were A(H3) A/Perth/16/2009 (H3N2)-like; 133 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 519 influenza viruses, 215 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 41 were reported as A(H1) pandemic not attributed to group category but belonging to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 11 belonged to the A(H3) clade represented by A/Perth/16/2009; 7 belonged to the A(H3) clade represented by A/Victoria/208/2009; 30 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 19 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 140 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 8 countries (Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 1444 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (735). Out of the 1333 pandemic A(H1N1) 2009 viruses that were tested, 1291 were sensitive to both inhibitors and 42 viruses (3.2%) carried the NA H275Y mutation. These 42 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 4 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 107 influenza B viruses tested for susceptibility to oseltamivir and the 96 tested for susceptibility to zanamivir were found to be sensitive. All 178 pandemic influenza

A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates continue to decline throughout most parts of the WHO European Region with all countries reporting medium or low activity during week 11/2011. Significant influenza activity continues in some places however. The overall percentage of sentinel ILI, ARI and SARI specimens testing positive for influenza has declined from about 40% in previous weeks to 33% in week 11/2011. The percentage of sentinel specimens testing positive was highest in weeks 4 and 5 (46%) and corresponded to the peak of clinical influenza activity, which occurred during weeks 4 to 6 in 26 out of 40 countries. Influenza B and pandemic influenza A(H1N1) 2009 co-dominate in the Region.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

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Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

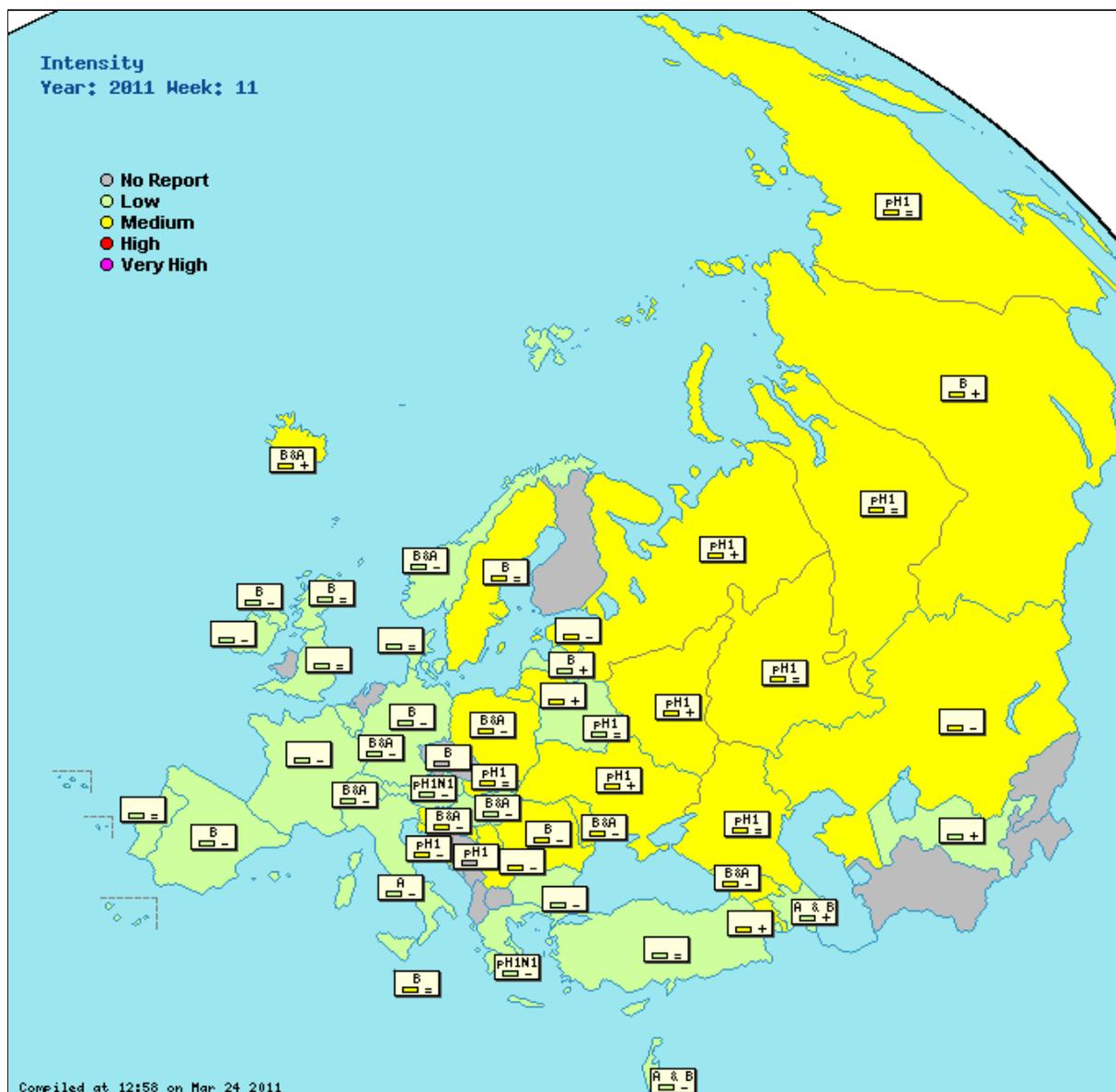
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

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Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



- A** = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B
- = : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity
- Low** = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity
- 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.

Country comments (where available)

Malta

situation stable

Republic of Moldova

One lethal case from influenza A(H1N1)2009 was registered in the 11th week

Serbia

Serbia Sentinel SARI surveillance system in SERBIA: In week 11/2011, 19 SARI from all causes were reported. Out of 13 SARI specimens collected in the week 11/2011, 4 (30.7%) tested positive: 2 were influenza A and 2 were influenza B.

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 11/2011 1340 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (63%) and 16% were less than five years old and 18% were more than 64 years old. 25% of them with no known risk factors. Of 1333 cases with outcome information 148 died (13% with no known risk factors). Of the severe cases 873 had information available on the status of influenza vaccination for the 2010/2011 season and only 128 (15%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for 9% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Medium	Local	Low	Increasing	2	0%	None	(graphs)	106.8 (graphs)	sari	Click here
Austria	Low	Sporadic	Low	Decreasing	27	51.9%	Type A, Subtype pH1N1	17.9 (graphs)	3.0 (graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing	19	0%	Type A and B	352.8 (graphs)			Click here
Belarus	Low	Sporadic	Low	Stable	39	15.4%	Type A, Subtype pH1		1211.0 (graphs)	sari	Click here
Belgium	Low	Sporadic		Stable				56.9 (graphs)	1486.9 (graphs)	sari	Click here
Bosnia and Herzegovina							Type A, Subtype pH1	(graphs)			Click here
Bulgaria	Low	Local		Decreasing	2	0%	None	(graphs)	886.1 (graphs)		Click here
Croatia	Medium	Widespread	Low	Decreasing			Type A, Subtype pH1	33.8 (graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				1.9 * (graphs)	4.7 * (graphs)		Click here
Czech Republic					26	57.7%	Type B		(graphs)		Click here
Denmark	Low	Sporadic		Stable	2	0%	None	66.8 (graphs)	(graphs)		Click here
England	Low	Sporadic		Stable	25	16.0%	None	7.4 (graphs)	408.8 (graphs)		Click here
Estonia	Medium	Local		Decreasing	28	25.0%	None	12.5 (graphs)	333.6 (graphs)		Click here
France	Low	Sporadic	Low	Decreasing	25	0%	None	(graphs)	1213.3 (graphs)		Click here
Georgia	Medium	Widespread	Moderate	Decreasing	32	87.5%	Type B and Type A, Subtype pH1	428.1 (graphs)		sari	Click here
Germany	Low	Regional		Decreasing	122	58.2%	Type B	(graphs)	1085.4 (graphs)		Click here
Greece	Low	Local		Decreasing	13	30.8%	Type A, Subtype pH1N1	96.6 (graphs)	(graphs)		Click here
Hungary	Low	Sporadic	Low	Decreasing	19	26.3%	Type B and Type A, Subtype pH1	102.9 (graphs)	(graphs)		Click here
Iceland	Medium	Regional	Moderate	Increasing	0	0%		56.6 (graphs)	(graphs)		Click here
Ireland	Low	Sporadic	Low	Decreasing	9	11.1%	None	5.9 (graphs)	(graphs)		Click here
Israel	Low	Sporadic	Low	Decreasing	21	14.3%	Type A and B	8.8 (graphs)			Click here
Italy	Low	Regional	Low	Decreasing	19	26.3%	Type A	197.9 (graphs)	(graphs)		Click here
Kazakhstan	Medium	Local	Low	Decreasing	5	100.0%	None	1.4 (graphs)	179.5 (graphs)	sari	Click here
Kyrgyzstan					7	0%	None		(graphs)	sari	Click here
Latvia	Low	Regional		Increasing	0	0%	Type B	(graphs)			Click here
Lithuania	Medium	Widespread	Low	Increasing	10	0%	None	75.5 (graphs)	777.4 (graphs)		Click here
Luxembourg	Low	Sporadic			14	21.4%	Type B and Type A, Subtype pH1	1.0 * (graphs)	20.8 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Medium	Sporadic	Low	Stable	0	0%		10.0 * (graphs)	0 * (graphs)		Click here
Montenegro								21.2 (graphs)			Click here
Netherlands					17	29.4%	None	(graphs)			Click here
Northern Ireland	Low	Sporadic		Decreasing	0	0%	Type B	14.4 (graphs)	328.7 (graphs)		Click here
Norway	Low	Sporadic		Decreasing	1	100.0%	Type B and Type A, Subtype pH1N1	51.1 (graphs)	(graphs)		Click here
Poland	Medium	Regional		Decreasing	36	27.8%	Type B and Type A, Subtype pH1	99.7 (graphs)	(graphs)		Click here
Portugal	Low	None		Stable	4	0%	None	6.7 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Sporadic	Moderate	Decreasing	22	40.9%	Type B and Type A, Subtype pH1N1	8.1 (graphs)	229.3 (graphs)	sari	Click here
Romania	Medium	Local	Moderate	Decreasing	24	41.7%	Type B	22.8 (graphs)	1078.2 (graphs)	sari	Click here
Russian Federation	Medium	Sporadic	Low	Increasing	45	31.1%	Type A, Subtype pH1	5.5 (graphs)	695.3 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	25	16.0%	Type B	2.3 (graphs)	242.7 (graphs)		Click here
Serbia	Medium	Regional	Low	Decreasing	1	100.0%	None	117.3 (graphs)		sari	Click here
Slovakia	Medium	Sporadic	Low	Stable	5	40.0%	Type A, Subtype pH1	257.8 (graphs)	1830.7 (graphs)	sari	Click here
Slovenia	Medium	Local		Decreasing	8	50.0%	Type B and Type A, Subtype pH1	8.5 (graphs)	1008.7 (graphs)		Click here
Spain	Low	Sporadic		Decreasing	108	16.7%	Type B	31.0 (graphs)	(graphs)		Click here
Sweden	Medium	Widespread	Low	Stable	16	0%	Type B	5.7 (graphs)	(graphs)		Click here
Switzerland	Low	Local		Decreasing	11	63.6%	Type B and Type A, Subtype pH1	102.4 (graphs)			Click here
Turkey	Low	Sporadic	Low	Stable	112	37.5%	None	6.0 (graphs)			Click here
Ukraine	Medium	Local	Low	Increasing	11	0%	Type A, Subtype pH1	5.2 * (graphs)	624.6 (graphs)	sari	Click here
Uzbekistan	Low	Sporadic	Low	Increasing			None		(graphs)		Click here
Europe					912	32.7%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Low influenza activity reported in most countries of the WHO European Region



- This issue is based on data reported in week 12/2011 by 46 Member States in the WHO European Region.
- Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) activity continue to decrease throughout the Region and are below baseline or at pre-season levels in 29 countries.
- Sentinel hospital surveillance for severe acute respiratory infection (SARI) from 9 countries suggests that SARI hospitalizations are declining from previous peaks.
- 22% of sentinel specimens from patients with ILI or ARI, and 25% of specimens from sentinel SARI patients tested positive for influenza.
- Data from sentinel sites show that pandemic influenza A(H1N1) 2009 and influenza B continue to co-circulate in the Region, but with an increasing proportion of influenza B detections.



Current situation - week 12/2011

During week 12/2011, low influenza activity was reported in 34 out of 42 countries, a higher proportion compared to the previous week, while 8 reported medium intensity. ILI or ARI consultation rates were decreasing in all 39 countries reporting clinical data, and were either below baseline or at pre-season levels in 29 of these. Among 43 countries reporting on the geographical spread of influenza, most reported no or sporadic activity (28 countries). Local spread was reported in 6 countries, while 7 reported regional activity, and 2 widespread. The impact of influenza on health care systems was low in 20 and moderate in 4 of the 24 countries reporting on this indicator.

Data from sentinel hospital-based surveillance for SARI were reported from 9 countries: Armenia, Georgia, Kazakhstan, Malta, the Republic of Moldova, Romania, the Russian Federation, Serbia and Ukraine. In Kazakhstan and the Russian Federation, sentinel SARI hospitalizations continue to decrease and are now at pre-season levels. While the number of SARI hospitalizations in Armenia, Georgia, the Republic of Moldova and Serbia remained relatively unchanged compared to previous weeks, declining trends in cases have been observed in Romania and Ukraine along with decreasing percentages of SARI specimens testing positive for influenza. Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation - week 12/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 4 countries and co-dominant with influenza B in 8 countries. Influenza B was dominant in 7 countries.

Sentinel physicians collected 681 respiratory specimens, of which 147 (22%) were positive for influenza virus: 50 (34%) were influenza A and 97 (66%) were influenza B. Of the influenza A viruses, 42 were subtyped: 41 (98%) as pandemic A(H1) and 1 (2%) as A(H3). In the 13 countries testing 20 or more sentinel specimens, influenza positivity ranged from 5% to 46%, with a median of 14% (mean: 20%). In addition, 988 non-sentinel specimens were reported positive for influenza: 595 (60%) influenza A and 393 (40%) influenza B. Of the influenza A viruses, 532 were subtyped: 516 (97%) as pandemic A(H1) and 16 (3%) as A(H3).

Sentinel hospitals participating in SARI surveillance (9 countries) collected 171 respiratory specimens, of which 42 (25%) were positive for influenza compared to 40% in the previous week. Among the 5 countries testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 0% in Malta to 43% in Ukraine (median: 23%, mean: 18%).

Cumulative virological update - weeks 40/2010 - 12/2011

A total of 81 244 influenza virus detections were reported during this period, of which 57 885 (71%) were influenza A and 23 359 (29%) were influenza B. Of the influenza A viruses, 46 119 were subtyped: 44 467 (96%) as pandemic A(H1), 1651 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 to week 12/2011, 1470 out of 5170 sentinel SARI specimens (28%) tested positive for influenza. Of these influenza viruses, 821 (56%) were influenza A and 649 (44%) influenza B. Of the influenza A viruses, 569 were subtyped: 518 (91%) as pandemic A(H1) and 51 (9%) as influenza A(H3).

Since week 40/2010, 3950 influenza viruses have been characterized antigenically: 1952 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1736 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 117 were A(H3) A/Perth/16/2009 (H3N2)-like; 144 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 1 was B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 359 influenza viruses, 77 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 81 belonged to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 11 belonged to the A(H3) clade represented by A/Perth/16/2009; 4 belonged to the A(H3) clade represented by A/Victoria/208/2009; 18 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 19 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 93 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 9 countries (Denmark, Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 2399 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Out of the 2067 pandemic A(H1N1) 2009 viruses that were tested, 1976 were sensitive to both inhibitors and 91 viruses (4.4%) carried the NA H275Y mutation. These 91 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 4 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 332 influenza B viruses tested for susceptibility to oseltamivir and the 322 tested for susceptibility to zanamivir were found to be sensitive. All 178 pandemic influenza

A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

Clinical ILI and ARI consultation rates are below baseline or at pre-season levels in many countries of the WHO European Region and most are reporting low influenza activity. This is consistent with declines in the percentage of ILI and ARI sentinel specimens testing positive for influenza, from 33% in week 11 to 22% this week. Data from hospital-based sentinel surveillance in 9 countries suggest that SARI hospitalizations, and the percentage of SARI cases that are caused by influenza, are declining overall. Pandemic influenza A(H1N1) 2009 and influenza B are still co-dominating in the Region, but the ratio of influenza B to influenza A is increasing.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

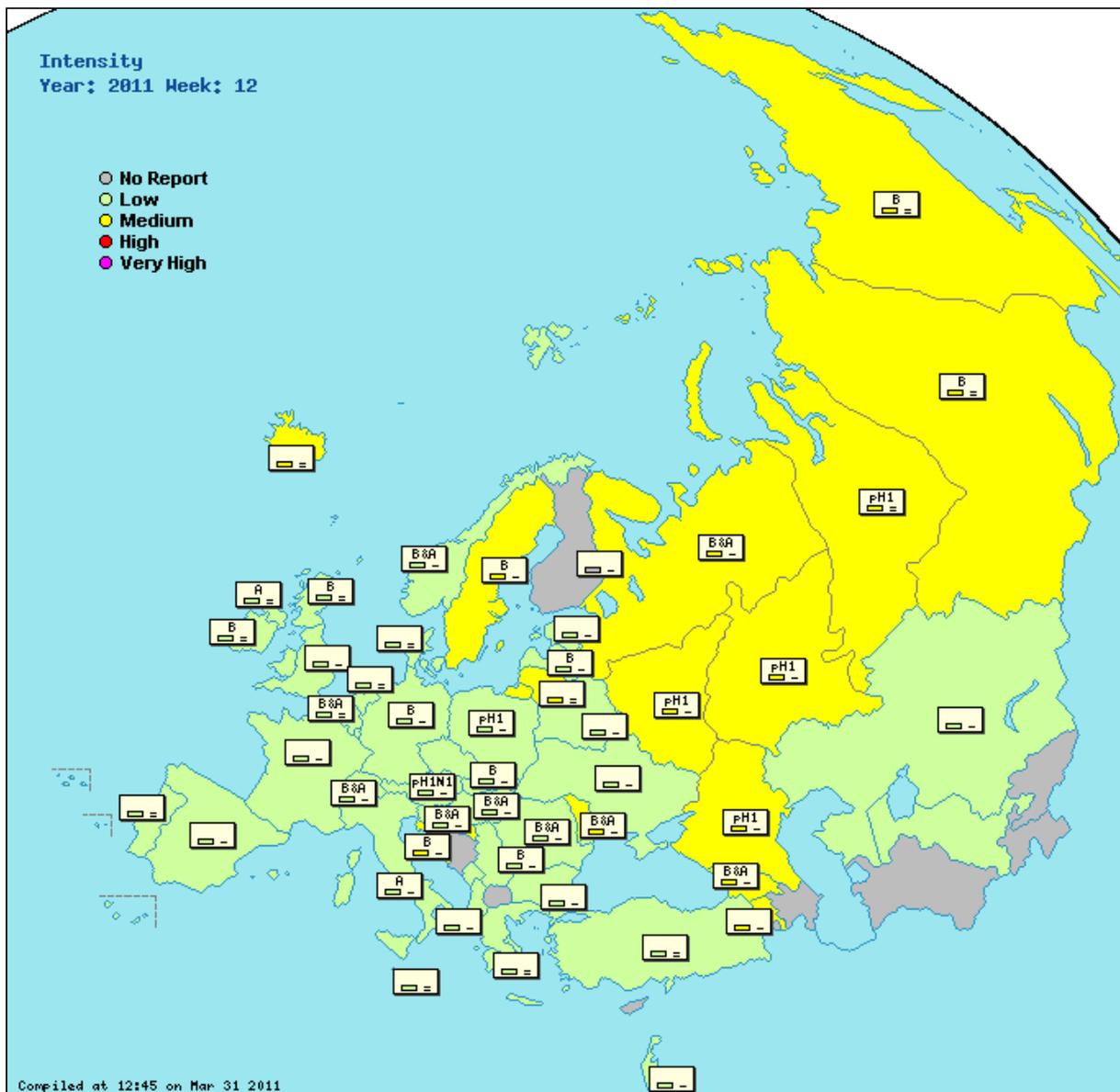
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Georgia

Increased number of SARI cases this week is caused by nosocomial spread and does not reflect situation within the country.

Malta

situation stable

Serbia

Serbia Serbia Sentinel SARI surveillance system in SERBIA: In week 12/2011, 20 SARI from all causes were reported. Out of 16 SARI specimens collected in the week 12/2011, 7 (43,8%) tested positive: 3 were influenza A and 4 were influenza B.

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 12/2011 1360 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (67%) and 15% were less than five years old and 18% were more than 64 years old. 26% of them with no known risk factors. Of 1354 cases with outcome information 154 died (13% with no known risk factors). Of the severe cases 885 had information available on the status of influenza vaccination for the 2010/2011 season and only 132 (15%) cases had been immunised. Monovalent pandemic vaccines 2009 were

reported to have been received for 9% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	Low	Sporadic	Moderate	Decreasing	5	20.0%	None		378.1 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Decreasing	1	0%	None	(graphs)	(graphs)	sari	Click here
Austria	Low	Sporadic	Low	Decreasing	11	18.2%	Type A, Subtype pH1N1	18.7 (graphs)	1.1 (graphs)		Click here
Azerbaijan					2	0%	None	(graphs)			Click here
Belarus	Low	Sporadic	Low	Decreasing	21	4.8%	None		1083.7 (graphs)	sari	Click here
Belgium	Low	Sporadic		Stable	15	13.3%	Type B and Type A, Subtype pH1	40.6 (graphs)	1331.9 (graphs)	sari	Click here
Bulgaria	Low	Sporadic		Decreasing	0	0%	None	(graphs)	739.3 (graphs)		Click here
Croatia	Medium	Widespread	Low	Decreasing			Type B	24.6 (graphs)			Click here
Czech Republic	Low	Local		Decreasing				76.3 (graphs)	1029.0 (graphs)		Click here
Denmark	Low	Sporadic		Stable	5	20.0%	None	12.5 (graphs)	(graphs)		Click here
England	Low	Sporadic		Decreasing	33	3.0%	None	5.5 (graphs)	429.4 (graphs)		Click here
Estonia	Low	Local		Decreasing	37	8.1%	None	10.0 (graphs)	333.5 (graphs)		Click here
Finland		Sporadic		Decreasing	23	8.7%	None	0.0 (graphs)	(graphs)		Click here
France	Low	Sporadic	Low	Decreasing	28	14.3%	None	(graphs)	1241.7 (graphs)		Click here
Georgia	Medium	Regional	Low	Decreasing	14	7.1%	Type B and Type A, Subtype pH1	370.5 (graphs)		sari	Click here
Germany	Low	Regional		Decreasing	97	46.4%	Type B	(graphs)	963.4 (graphs)		Click here
Greece	Low	Sporadic		Stable	4	0%	None	79.7 (graphs)	(graphs)		Click here
Hungary	Low	Sporadic	Low	Decreasing	55	27.3%	Type B and Type A, Subtype pH1	87.3 (graphs)	(graphs)		Click here
Iceland	Medium	Regional	Moderate	Stable	0	0%		50.9 (graphs)	(graphs)		Click here
Ireland	Low	Sporadic	Low	Stable	4	0%	Type B	9.4 (graphs)	(graphs)		Click here
Israel	Low	Sporadic	Low	Decreasing	13	7.7%	None	6.6 (graphs)			Click here
Italy	Low	Regional	Low	Decreasing	11	9.1%	Type A	147.0 (graphs)	(graphs)		Click here
Kazakhstan	Low	Sporadic	Low	Decreasing	3	0%	None	0.4 (graphs)	80.9 (graphs)	sari	Click here
Kyrgyzstan					3	0%	None		(graphs)	sari	Click here
Latvia	Low	Regional		Decreasing	0	0%	Type B	(graphs)			Click here
Lithuania	Medium	Widespread	Low	Stable	8	12.5%	None	39.9 (graphs)	600.5 (graphs)		Click here
Luxembourg	Low	Sporadic						0.5 * (graphs)	23.3 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Sporadic	Low	Stable	0	0%	None	4.0 * (graphs)	0 * (graphs)		Click here
Montenegro	Low	Sporadic	Low	Decreasing				13.0 (graphs)			Click here
Netherlands	Low	Regional		Stable	10	30.0%	None	27.4 (graphs)	(graphs)		Click here
Northern Ireland	Low	None		Stable	0	0%		14.6 (graphs)	400.6 (graphs)		Click here
Norway	Low	Sporadic		Decreasing	4	0%	Type B and Type A, Subtype pH1N1	46.4 (graphs)	(graphs)		Click here
Poland	Low	Local		Decreasing	20	20.0%	Type A, Subtype pH1	72.2 (graphs)	(graphs)		Click here
Portugal	Low	None		Stable	0	0%	None	3.6 (graphs)	(graphs)		Click here
Republic of Moldova	Medium	Sporadic	Moderate	Decreasing	15	46.7%	Type B and Type A, Subtype pH1N1	1.5 (graphs)	137.4 (graphs)	sari	Click here
Romania	Low	Sporadic	Low	Decreasing	26	42.3%	Type B and Type A, Subtype pH1N1	17.1 (graphs)	929.1 (graphs)	sari	Click here
Russian Federation	Medium	Sporadic		Decreasing	46	23.9%	Type A, Subtype pH1	3.1 (graphs)	631.7 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	18	16.7%	Type B	2.3 (graphs)	293.5 (graphs)		Click here
Serbia	Low	Sporadic	Low	Decreasing	0	0%	Type B	84.3 (graphs)		sari	Click here
Slovakia	Low	Sporadic	Low	Decreasing	5	20.0%	Type B	219.6 (graphs)	1674.4 (graphs)	sari	Click here
Slovenia	Low	Sporadic		Decreasing	8	12.5%	Type B and Type A, Subtype pH1	3.7 (graphs)	980.2 (graphs)		Click here
Spain	Low	Sporadic		Decreasing	51	13.7%	None	16.4 (graphs)	(graphs)		Click here
Sweden	Medium	Regional	Low	Decreasing	7	71.4%	Type B	6.9 (graphs)	(graphs)		Click here
Switzerland	Low	Local		Decreasing	24	33.3%	Type B and Type A, Subtype pH1	58.7 (graphs)			Click here
Turkey	Low	Local	Low	Stable	35	14.3%	None	6.5 (graphs)			Click here
Ukraine	Low	Sporadic	Low	Decreasing	19	0%	None	3.9 * (graphs)	478.5 (graphs)	sari	Click here
Uzbekistan	Low	None	Low				None		(graphs)		Click here
Wales	Low	Sporadic	Low	Stable				4.4 (graphs)	(graphs)		Click here
Europe					681	21.6%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Influenza activity continuing to decline in the WHO European Region



- This issue is based on data reported in week 13/2011 by 47 Member States in the WHO European Region.
- Clinical consultation rates for influenza-like illness (ILI) and/or acute respiratory infections (ARI) continue to decline in 35 countries, and are lower than previously observed peaks in 38 countries.
- Sentinel surveillance for hospitalised severe acute respiratory infections (SARI) in 10 countries suggests that SARI hospitalizations have also passed previous peaks in each of these countries.
- 18% of sentinel specimens from patients with ILI or ARI, and 15% of specimens from sentinel SARI patients tested positive for influenza, a decline from recent weeks.
- Influenza B now represents a large majority of influenza detections from sentinel sites in the Region.

Current situation ♦ week 13/2011

Of the 42 countries reporting on the intensity of respiratory disease activity, 38 reported a low intensity and 5 reported a medium intensity. Of 43 countries reporting on the geographical spread of influenza, 31 reported none or sporadic activity. Local activity was reported in 6 countries, while 5 reported regional activity, and 1 (Croatia) reported widespread activity. The impact of influenza on health care systems was reported to be low in 22 and moderate in 2 of the 24 countries reporting on this indicator.

Trends in clinical and virological data suggest declining influenza activity in the Region. Clinical consultation rates for influenza-like illness (ILI) and/or acute respiratory infection (ARI) activity continue to decline in 35 countries, and are lower than previously observed peaks in 38 countries. In addition, of the 17 countries indicating a baseline threshold for influenza activity, all reported ILI or ARI clinical consultation rates to be below the seasonal threshold. Declining trends in influenza positivity rates can also be observed in 16 of the 18 countries that have reported consistently on this indicator. Data from sentinel hospital-based surveillance for SARI were reported from 10 countries: Albania, Armenia, Georgia, Kazakhstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine. Sentinel SARI hospitalizations have declined to levels below previous peaks in all of these countries. This has been accompanied by concurrent declines in the percent of sentinel SARI specimens testing positive for influenza. There has also been a decrease in the relative percentage of sentinel SARI hospitalisations in persons over age four years. Although Kyrgyzstan reported an increase in sentinel SARI hospitalizations during the current week, no sentinel specimens from these patients were reported to be positive for influenza, and this increase was mostly the result of recent hospitalisations in the 0-4 age group. Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [♦ Overview of sentinel SARI systems in EuroFlu ♦](#).

Virological situation - week 13/2011

Pandemic influenza A(H1N1) 2009 was reported to be dominant in 2 countries and co-dominant with influenza B in 3 countries. Influenza B was reported to be dominant in 10 countries.

Sentinel physicians collected 590 respiratory specimens, of which 106 (18%) were positive for influenza virus: 18 (17%) were influenza A and 88 (83%) were influenza B. Of the influenza A viruses, 15 were subtyped: 15 (100%) as pandemic A(H1). In the 12 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 50%, with a median of 11% (mean: 20%). In addition, 587 non-sentinel specimens were reported positive for influenza: 315 (54%) influenza A and 272 (46%) influenza B. Of the influenza A viruses, 261 were subtyped: 247 (95%) as pandemic A(H1) and 14 (5%) as A(H3).

Sentinel hospitals participating in SARI surveillance (10 countries) collected 113 sentinel SARI specimens of which 17 (15%) were positive for influenza (compared to 25% positive in week 12/2011). Among the 5 countries testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 0% in Kyrgyzstan to 30% in Georgia (median: 8%, mean: 13%).

Cumulative virological update - weeks 40/2010 - 13/2011

A total of 82 150 influenza virus detections were reported during this period, of which 58 399 (71%) were influenza A and 23 751 (29%) were influenza B. Of the influenza A viruses, 46 551 were subtyped: 44 879 (96%) as pandemic A(H1), 1671 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 through week 13/2011, 1521 out of 5343 sentinel SARI specimens (28%) tested positive for influenza. Of these influenza viruses, 863 (57%) were influenza A and 658 (43%) influenza B. Of the influenza A viruses, 684 were subtyped: 632 (92%) as pandemic A(H1) and 52 (8%) as influenza A(H3).

Since week 40/2010, 4443 influenza viruses have been characterized antigenically: 2262 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1865 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 150 were A(H3) A/Perth/16/2009 (H3N2)-like; 164 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 2 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 550 influenza viruses, 160 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 124 belonged to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 12 belonged to the A(H3) clade represented by A/Perth/16/2009; 7 belonged to the A(H3) clade represented by A/Victoria/208/2009; 30 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 19 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 142 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 9 countries (Denmark, Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 2407 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Out of the 2069 pandemic A(H1N1) 2009 viruses that were tested, 1978 were sensitive to both inhibitors and 91 viruses (4.4%) carried the NA H275Y mutation. These 91 viruses were resistant to oseltamivir but remained sensitive to

zanamivir. 4 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 338 influenza B viruses tested for susceptibility to oseltamivir and the 328 tested for susceptibility to zanamivir were found to be sensitive. All 178 pandemic influenza A(H1N1) 2009 viruses and 2 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

Trends in clinical and virological data suggest that influenza activity is substantially declining across the WHO European Region. Recent declines in clinical indicators have been observed in nearly all countries, and many are below seasonal thresholds for influenza activity. The percent of sentinel ILI, ARI, and SARI specimens that have tested positive for influenza, and the circulation of pandemic influenza A(H1N1) 2009 relative to influenza B has also declined during recent weeks.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

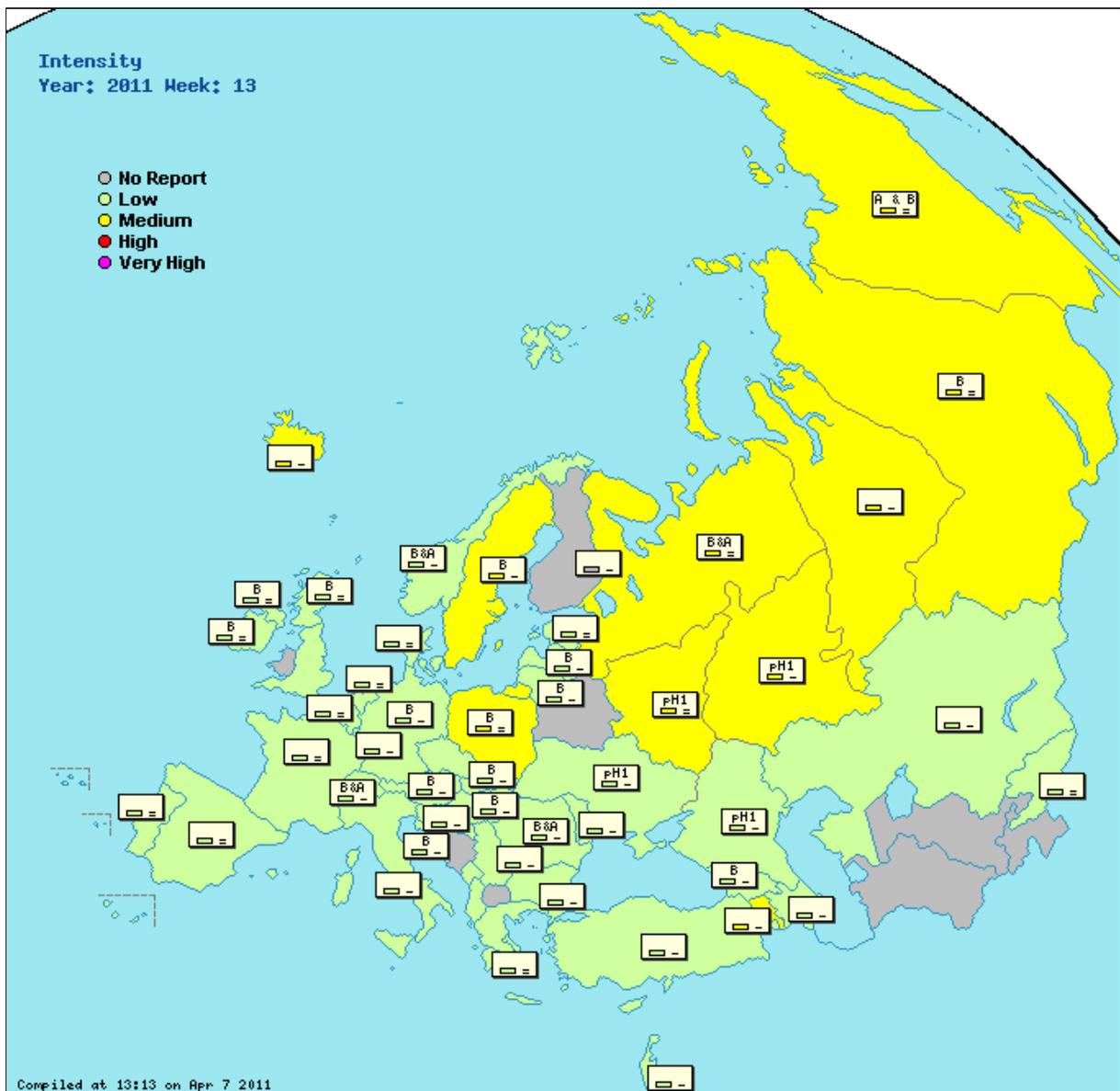
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Serbia

Serbia Serbia Sentinel SARI surveillance system in SERBIA: In week 13/2011, 13 SARI from all causes were reported. Out of 8 SARI specimens collected in the week 13/2011, 3 (37,5%) tested positive: 1 was influenza A and 2 were influenza B.

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 13/2011 1380 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (63%) and 19% were less than five years old and 18% were more than 64 years old. 26% of them with no known risk factors. Of 1374 cases with outcome information 155 died (13% with no known risk factors). Of the severe cases 892 had information available on the status of influenza vaccination for the 2010/2011 season and only 134 (15%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for 10% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	Low	Sporadic	Moderate	Decreasing					382.5 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Decreasing	1	0%	None	graphs	76.5 (graphs)	sari	Click here
Austria	Low	Sporadic	Low	Decreasing	16	50.0%	Type B	15.1 (graphs)	1.1 (graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	18	0%	None	341.3 (graphs)			Click here
Belarus					16	0%	None		graphs	sari	Click here
Belgium	Low	Sporadic		Stable	6	0%	None	37.1 (graphs)	1533.9 (graphs)	sari	Click here
Bosnia and Herzegovina							None	graphs			Click here
Bulgaria	Low	Sporadic		Decreasing	5	0%	None	graphs	589.2 (graphs)		Click here
Croatia	Low	Widespread	Low	Decreasing			Type B	8.7 (graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				1.2 * (graphs)	5.6 * (graphs)		Click here
Czech Republic	Low	Sporadic		Decreasing				49.0 (graphs)	917.9 (graphs)		Click here
Denmark	Low	None		Stable	12	0%	None	59.8 (graphs)	graphs		Click here
England	Low	Sporadic		Stable				7.7 (graphs)	431.7 (graphs)		Click here
Estonia	Low	Sporadic		Stable	21	9.5%	None	10.0 (graphs)	353.8 (graphs)		Click here
Finland		Local		Decreasing	28	10.7%	None	0.0 (graphs)	graphs		Click here
France	Low	Sporadic	Low	Stable	32	9.4%	None	graphs	1288.7 (graphs)		Click here
Georgia	Low	Regional	Low	Decreasing	28	0%	Type B	374.5 (graphs)		sari	Click here
Germany	Low	Regional		Decreasing	52	50.0%	Type B	graphs	831.6 (graphs)		Click here
Greece	Low	Sporadic		Stable	1	0%	None	63.4 (graphs)	graphs		Click here
Hungary	Low	Sporadic	Low	Decreasing	37	46.0%	Type B	63.1 (graphs)	graphs		Click here
Iceland	Medium	Regional	Low	Decreasing	0	0%		39.0 (graphs)	graphs		Click here
Ireland	Low	Sporadic	Low	Stable	9	22.2%	Type B	7.1 (graphs)	graphs		Click here
Israel	Low	Sporadic	Low	Decreasing	14	7.1%	None	6.3 (graphs)			Click here
Italy	Low	Local	Low	Decreasing	20	5.0%		109.5 (graphs)	graphs		Click here
Kazakhstan	Low	Sporadic	Low	Decreasing	5	0%	None	0.9 (graphs)	137.5 (graphs)	sari	Click here
Kyrgyzstan	Low	None	Low	Stable	3	0%	None	2.0 (graphs)	23.9 (graphs)	sari	Click here
Latvia	Low	Local		Decreasing	0	0%	Type B	graphs			Click here
Lithuania	Low	Regional	Low	Decreasing	1	0%		21.1 (graphs)	372.7 (graphs)		Click here
Luxembourg	Low	Sporadic			4	25.0%		0.6 * (graphs)	16.0 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	graphs			Click here
Montenegro	Low	Sporadic	Low	Decreasing				11.4 (graphs)			Click here
Netherlands	Low	Sporadic		Stable	6	16.7%	None	23.3 (graphs)	graphs		Click here
Northern Ireland	Low	Sporadic		Stable	3	0%	Type B	13.5 (graphs)	397.7 (graphs)		Click here
Norway	Low	Sporadic		Decreasing	1	0%	Type B and Type A, Subtype pH1N1	37.9 (graphs)	graphs		Click here
Poland	Medium	Local		Stable	24	29.2%	Type B	71.9 (graphs)	graphs		Click here
Portugal	Low	None		Stable	2	0%	None	9.1 (graphs)	graphs		Click here
Republic of Moldova	Low	None	Low	Decreasing	0	0%	None	1.0 (graphs)	119.3 (graphs)	sari	Click here
Romania	Low	Sporadic	Low	Decreasing	13	0%	Type B and Type A, Subtype pH1N1	16.5 (graphs)	856.4 (graphs)	sari	Click here
Russian Federation	Medium	Sporadic		Stable	36	11.1%	Type A, Subtype pH1	1.7 (graphs)	592.7 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	16	18.8%	Type B	2.3 (graphs)	233.4 (graphs)		Click here
Serbia	Low	Sporadic	Low	Decreasing	0	0%	None	54.7 (graphs)		sari	Click here
Slovakia	Low	Sporadic	Low	Decreasing	9	22.2%	Type B	192.9 (graphs)	1566.4 (graphs)	sari	Click here
Slovenia	Low	Sporadic		Decreasing	1	100.0%	None	1.2 (graphs)	927.5 (graphs)		Click here
Spain	Low	Sporadic		Stable	73	11.0%	None	21.6 (graphs)	graphs		Click here
Sweden	Medium	Regional	Low	Decreasing	9	11.1%	Type B	9.6 (graphs)	graphs		Click here
Switzerland	Low	Local		Decreasing	23	30.4%	Type B and Type A, Subtype pH1	37.4 (graphs)			Click here
Turkey	Low	Sporadic	Low	Decreasing	31	22.6%	None	5.0 (graphs)			Click here
Ukraine	Low	Sporadic	Low	Decreasing	14	7.1%	Type A, Subtype pH1	3.8 * (graphs)	425.3 (graphs)	sari	Click here
Uzbekistan							None	graphs	20.6 (graphs)		Click here
Europe					590	18.0%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation)

and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Influenza activity is returning to low levels in most parts of the WHO European Region



- This issue is based on data reported in week 14/2011 by 47 Member States in the WHO European Region.
- Clinical consultation rates for influenza-like illness (ILI) and/or acute respiratory infections (ARI) continue to decline or have returned to baseline levels in 36 countries.
- Sentinel surveillance for hospitalized severe acute respiratory infections (SARI) in 10 countries suggests that SARI hospitalizations have passed previous peaks in all of these countries.
- 13% of sentinel specimens from patients with ILI or ARI, and 3% of specimens from sentinel SARI patients tested positive for influenza.
- In week 14/2011, influenza B viruses represented the majority of influenza detections from sentinel sites in the Region.

Current situation - week 14/2011

Of the 37 countries reporting on the intensity of respiratory disease activity, 34 reported low intensity and 3 reported medium intensity. Of 38 countries reporting on the geographical spread of influenza, 28 reported none or sporadic activity. Local activity was reported in 5 countries, while 4 reported regional activity, and 1 (Croatia) reported widespread activity. The impact of influenza on health care systems was reported to be low in 19 and moderate in 2 of the 21 countries reporting on this indicator.

Trends in clinical and virological data indicate further declines in influenza activity in the Region. Of the 15 countries indicating a baseline threshold for influenza activity, all reported ILI or ARI clinical consultation rates to be below these thresholds. Data from sentinel hospital-based surveillance for SARI were reported by 10 countries: Albania, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Romania, the Republic of Moldova, the Russian Federation, Serbia and Ukraine. Sentinel SARI hospitalizations have declined to levels below previous peaks in all of these countries. This has been accompanied by concurrent declines in the percentage of sentinel SARI specimens testing positive for influenza. Although a few countries (Armenia, Kazakhstan and Georgia) reported a slight increase in sentinel SARI hospitalizations during the current week, the percentage of specimens testing positive for influenza was very low (3%).

Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation - week 14/2011

No country reported pandemic influenza A(H1N1) 2009 virus to be dominant but it was co-dominant with influenza B virus in 6 countries. Influenza B virus was dominant in 4 countries.

Sentinel physicians collected 506 respiratory specimens, of which 64 (13%) were positive for influenza virus: 19 (30%) were influenza A and 45 (70%) were influenza B. Of the influenza A viruses, 12 were subtyped: 9 (75%) as pandemic A(H1) and 3 (25%) as A(H3). In the 8 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% to 46%, with a median of 11% (mean: 15%). In addition, 386 non-sentinel specimens were reported positive for influenza: 204 (53%) influenza A and 182 (47%) influenza B. Of the influenza A viruses, 154 were subtyped: 123 (80%) as pandemic A(H1) and 31 (20%) as A(H3).

Sentinel hospitals participating in SARI surveillance (10 countries) collected 111 sentinel SARI specimens of which 3 (3%) were positive for influenza (compared to 15% positive in week 13/2011). Among the 3 countries testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 0% in Georgia and the Russian Federation to 4% in Kazakhstan.

Cumulative virological update - weeks 40/2010 - 14/2011

A total of 82 759 influenza virus detections were reported during this period, of which 58 749 (71%) were influenza A and 24 010 (29%) were influenza B. Of the influenza A viruses, 46 843 were subtyped: 45 115 (96%) as pandemic A(H1), 1727 (4%) as influenza A(H3) and 1 as influenza A(H1).

From week 40/2010 through week 14/2011, 1526 out of 5471 sentinel SARI specimens (28%) tested positive for influenza. Of these influenza viruses, 867 (57%) were influenza A and 659 (43%) influenza B. Of the influenza A viruses, 688 were subtyped: 636 (92%) as pandemic A(H1) and 52 (8%) as influenza A(H3).

Since week 40/2010, 4654 influenza viruses have been characterized antigenically: 2387 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1936 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 155 were A(H3) A/Perth/16/2009 (H3N2)-like; 174 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 2 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 566 influenza viruses, 150 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 132 belonged to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 12 belonged to the A(H3) clade represented by A/Perth/16/2009; 6 belonged to the A(H3) clade represented by A/Victoria/208/2009; 28 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 20 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 162 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 9 countries (Denmark, Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 3532 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Of the 3182 pandemic A(H1N1) 2009 viruses that were tested, 3090 were sensitive to both inhibitors and 92 viruses (2.9%) carried the NA H275Y mutation. These 92 viruses were resistant to oseltamivir but remained sensitive to zanamivir. Four influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 346 influenza B viruses tested for

susceptibility to oseltamivir and the 340 tested for susceptibility to zanamivir were found to be sensitive. All 197 pandemic influenza A(H1N1) 2009 viruses and 10 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

Trends in clinical and virological data suggest that influenza activity is declining further across the WHO European Region. Recent declines in clinical indicators have been observed in nearly all countries, and many are below baseline thresholds for influenza activity. Influenza B now dominates in circulation relative to pandemic influenza A(H1N1) 2009, but positivity rates continue to decline for all influenza types and sub-types of influenza.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

Erratum

The geographical spread reported by Wales in week 14/2011 is incorrect. The geographical spread should be 'no activity'.

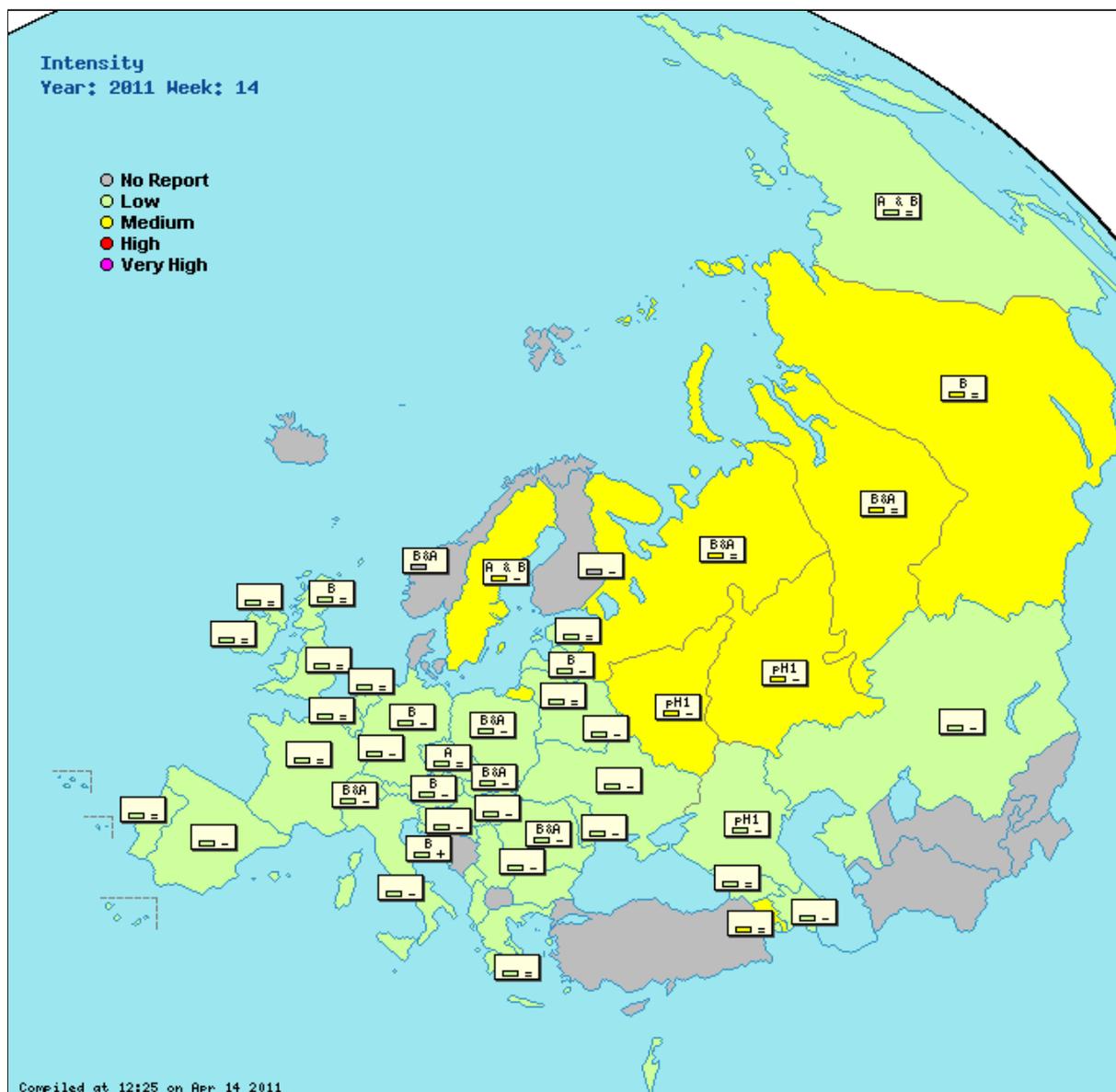
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



- A** = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B
- = : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity
- Low** = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity
- 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.

Country comments (where available)

Serbia

Serbia Serbia Sentinel SARI surveillance system in SERBIA: In week 14/2011, 6 SARI from all causes were reported. Out of 3 SARI specimens collected in the week 14/2011, 1 (33,3%) tested positive: 1 was influenza B.

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 14/2011 1386 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (63%) and 15% were less than five years old and 18% were more than 64 years old. 25% of them with no known risk factors. Of 1382 cases with outcome information 156 died (13% with no known risk factors). Of the severe cases 893 had information available on the status of influenza vaccination for the 2010/2011 season and only 134 (15%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for 10% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	Low	Sporadic	Moderate	Decreasing					367.7 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Stable	0	0%	None	graphs	71.5 (graphs)	sari	Click here
Austria	Low	Sporadic	Low	Decreasing	4	25.0%	Type B	0.0 (graphs)	graphs		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	7	0%	None	315.0 (graphs)			Click here
Belarus	Low	Sporadic	Low	Decreasing	14	14.3%	None		900.3 (graphs)	sari	Click here
Belgium	Low	Sporadic		Stable	11	9.1%	None	35.7 (graphs)	1373.7 (graphs)	sari	Click here
Bosnia and Herzegovina							None	graphs			Click here
Bulgaria	Low	Sporadic			0	0%	None	graphs	430.1 (graphs)		Click here
Croatia	Low	Widespread	Low	Increasing			Type B	17.4 (graphs)			Click here
Czech Republic	Low	Sporadic		Stable	16	25.0%	Type A	33.8 (graphs)	809.1 (graphs)		Click here
Denmark					6	0%	None	graphs			Click here
England	Low	Sporadic		Stable	25	0%	None	4.2 (graphs)	382.7 (graphs)		Click here
Estonia	Low	Sporadic		Stable	28	21.4%	None	9.8 (graphs)	309.8 (graphs)		Click here
Finland		Regional		Decreasing	22	13.6%	None	0.0 (graphs)	graphs		Click here
France	Low	Sporadic	Low	Stable	14	0%	None	graphs	1225.9 (graphs)		Click here
Georgia	Low	Regional	Low	Stable	18	0%	None	404.5 (graphs)		sari	Click here
Germany	Low	Local		Decreasing	39	46.2%	Type B	graphs	797.9 (graphs)		Click here
Greece	Low	Sporadic		Stable	1	0%	None	53.1 (graphs)	graphs		Click here
Hungary	Low	Sporadic	Low	Decreasing	27	11.1%	None	53.1 (graphs)	graphs		Click here
Iceland					0	0%		graphs			Click here
Ireland	Low	Sporadic	Low	Stable	3	33.3%	None	5.2 (graphs)	graphs		Click here
Israel	Low	Sporadic	Low	Decreasing				4.8 (graphs)			Click here
Italy	Low	Local	Low	Decreasing	12	0%		94.0 (graphs)	graphs		Click here
Kazakhstan	Low	Sporadic	Low	Decreasing	7	0%	None	2.5 (graphs)	117.5 (graphs)	sari	Click here
Kyrgyzstan					1	0%	None		graphs	sari	Click here
Latvia	Low	Local		Decreasing	0	0%	Type B	graphs			Click here
Lithuania	Low	Regional	Low	Stable	3	0%	None	6.7 (graphs)	407.8 (graphs)		Click here
Luxembourg	Low	None			4	0%	None	0.3 * (graphs)	23.3 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	graphs			Click here
Montenegro	Low	Sporadic	Low	Decreasing				10.6 (graphs)			Click here
Netherlands	Low	Sporadic		Stable	5	40.0%	None	26.7 (graphs)	graphs		Click here
Northern Ireland	Low	None		Stable	2	0%		11.2 (graphs)	386.2 (graphs)		Click here
Norway					0	0%	Type B and Type A, Subtype pH1N1	graphs			Click here
Poland	Low	Local		Decreasing	1	0%	Type B and Type A, Subtype pH1	50.5 (graphs)	graphs		Click here
Portugal	Low	None		Stable	2	0%	None	3.6 (graphs)	graphs		Click here
Republic of Moldova	Low	None	Low	Decreasing			None	0.7 (graphs)	112.5 (graphs)	sari	Click here
Romania	Low	Sporadic	Low	Decreasing	16	6.3%	Type B and Type A, Subtype pH1N1	9.1 (graphs)	749.5 (graphs)	sari	Click here
Russian Federation	Medium	Sporadic		Decreasing	30	3.3%	Type B and Type A, Subtype pH1	0.7 (graphs)	549.6 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	15	0%	Type B	0.0 (graphs)	194.1 (graphs)		Click here
Serbia	Low	Sporadic	Low	Decreasing	1	0%	None	44.1 (graphs)		sari	Click here
Slovakia	Low	Sporadic	Low	Decreasing	4	25.0%	Type B and Type A, Subtype pH1	153.0 (graphs)	1508.9 (graphs)	sari	Click here
Slovenia	Low	Sporadic		Decreasing	1	0%	None	1.3 (graphs)	752.6 (graphs)		Click here
Spain	Low	Sporadic		Decreasing	31	9.7%	None	8.9 (graphs)	graphs		Click here
Sweden	Medium	Regional	Low	Decreasing	18	16.7%	Type A and B	4.2 (graphs)	graphs		Click here
Switzerland	Low	Sporadic		Decreasing	15	26.7%	Type B and Type A, Subtype pH1	23.3 (graphs)			Click here
Turkey					86	11.6%	None	graphs			Click here
Ukraine	Low	Sporadic	Low	Decreasing	17	0%	None	3.2 * (graphs)	403.5 (graphs)	sari	Click here
Uzbekistan							None		graphs		Click here
Wales	Low	Widespread						4.5 (graphs)	graphs		Click here
Europe					506	12.7%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitry Peryaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Sporadic influenza activity in the WHO European Region

- This issue is based on data reported in week 15/2011 by 35 Member States in the WHO European Region.
- Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) activity are below baseline or at pre-season levels in most countries.
- Hospitalizations for severe acute respiratory infection (SARI) are declining overall in countries with sentinel hospital-based surveillance for SARI.
- 10% of sentinel specimens from patients with ILI or ARI, and 4% of specimens from sentinel SARI patients, tested positive for influenza.
- Influenza B continues to make up most of the influenza detections from sentinel sites in the Region this week.



Current situation week 15/2011

During week 15/2011, low influenza activity was reported in 22 countries and 2 reported medium intensity. ILI or ARI consultation rates have returned to pre-season levels or are below the national baselines in all of the 21 countries reporting clinical data this week. Among the 25 countries reporting on the geographical spread of influenza, most reported no or sporadic activity (21 countries). Local spread was reported in 2 countries (Armenia and Croatia), while 2 reported regional spread (Georgia and Lithuania). The impact of influenza on health care systems was low in all but one (Armenia) of the 17 countries reporting on this indicator.

Data on sentinel hospital-based surveillance for SARI were reported from 8 countries: Armenia, Georgia, Kazakhstan, the Republic of Moldova, Romania, the Russian Federation, Serbia and Ukraine. SARI hospitalizations are declining overall and appear to have reached pre-season levels in Kazakhstan, Romania and Serbia. Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation week 15/2011

Ukraine reported pandemic influenza A(H1N1) 2009 virus to be dominant, and it was co-dominant with influenza B virus in 3 countries. Influenza B virus was reported as the dominant type in 5 countries.

Sentinel physicians collected 310 respiratory specimens, of which 31 (10%) were positive for influenza virus: 5 (16%) were influenza A and 26 (84%) were influenza B. All influenza A viruses were subtyped: 2 as pandemic A(H1) and 3 as A(H3). In the 6 countries testing 20 or more sentinel specimens, influenza positivity ranged from 5% to 18%, with a median of 8% (mean: 9%). In addition, 203 non-sentinel specimens were reported positive for influenza: 104 (51%) influenza A and 99 (49%) influenza B. Of the influenza A viruses, 81 were subtyped: 71 (88%) as pandemic A(H1) and 10 (12%) as A(H3).

Sentinel hospitals representing 8 of 10 countries participating in SARI surveillance collected 112 SARI specimens, of which 4 (4%) were positive for influenza. Among the 3 countries testing 10 or more sentinel SARI specimens, the percentage testing positive for influenza ranged from 0% in Ukraine to 5% in the Russian Federation.

Cumulative virological update - weeks 40/2010 - 15/2011

A total of 83 042 influenza virus detections were reported during this period, of which 58 911 (71%) were influenza A and 24 131 (29%) were influenza B. Of the influenza A viruses, 46 957 were subtyped: 45 211 (96%) as pandemic A(H1) and 1746 (4%) as A(H3).

From week 40/2010 through week 15/2011, 1531 out of 5484 sentinel SARI specimens (28%) tested positive for influenza. Of these influenza viruses, 871 (57%) were influenza A and 660 (43%) influenza B. Of the influenza A viruses, 691 were subtyped: 638 (92%) as pandemic A(H1) and 53 (8%) as influenza A(H3).

Since week 40/2010, 4728 influenza viruses have been characterized antigenically: 2427 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1963 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 155 were A(H3) A/Perth/16/2009 (H3N2)-like; 181 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 2 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 565 influenza viruses, 150 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 130 belonged to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 12 belonged to the A(H3) clade represented by A/Perth/16/2009; 5 belonged to the A(H3) clade represented by A/Victoria/208/2009; 29 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 20 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 163 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 9 countries (Denmark, Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 3533 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Of the 3183 pandemic A(H1N1) 2009 viruses that were tested, 3091 were sensitive to both inhibitors and 92 viruses (3%) carried the NA H275Y mutation. These 92 viruses were resistant to oseltamivir but remained sensitive to zanamivir. Four influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 346 influenza B viruses tested for susceptibility to oseltamivir and the 340 tested for susceptibility to zanamivir were found to be sensitive. All 197 pandemic influenza A(H1N1) 2009 viruses and 10 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

Influenza activity has returned to pre-season levels in most countries across the WHO European Region, along with a continued decrease in the percentage of ILI and ARI sentinel specimens testing positive for influenza. Influenza B accounted for 84% of the total positive specimens collected this week, although the majority of virus detections since the start of the season have been pandemic

influenza A(H1N1) 2009. Countries with hospital-based sentinel surveillance continue to report SARI hospitalizations, although numbers are declining overall, along with a decreasing proportion of samples testing positive for influenza.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

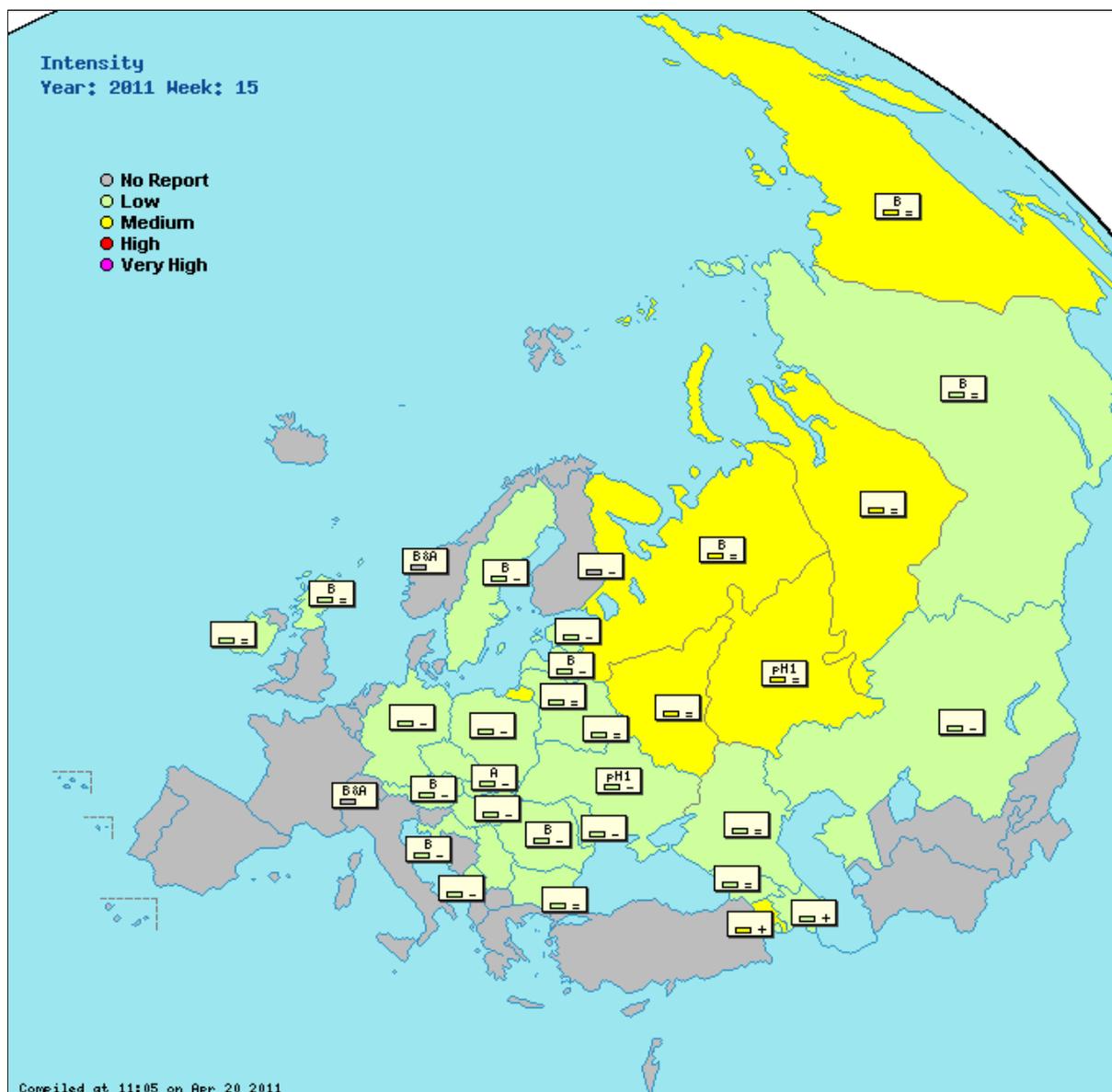
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : Intensity + virological Geographical spread + virological Impact



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity

H1N2 = Dominant virus A(H1N2)
 B = Dominant virus B
 A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Serbia

Serbia Serbia Sentinel SARI surveillance system in SERBIA: In week 15/2011, 2 SARI from all causes were reported. Out of 2 SARI specimens collected in the week 15/2011, no one was positive.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Medium	Local	Moderate	Increasing	1	0%	None		(graphs)	sari	Click here
Austria	Low	Sporadic	Low	Decreasing	2	100.0%	Type B	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing	13	0%	None	405.1 (graphs)			Click here
Belarus	Low	Sporadic	Low	Stable	22	4.6%	None		(graphs)	sari	Click here
Belgium					7	14.3%	None	(graphs)		sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	Sporadic		Stable	0	0%	None	(graphs)	468.4 (graphs)		Click here
Croatia	Low	Local	Low	Decreasing			Type B	1.5 (graphs)			Click here
Czech Republic	Low	Sporadic		Stable				27.5 (graphs)	787.4 (graphs)		Click here
Denmark					3	0%	None	(graphs)			Click here
Estonia	Low	Sporadic		Decreasing	15	20.0%	None	7.7 (graphs)	310.1 (graphs)		Click here
Finland		Sporadic		Decreasing	27	11.1%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	Regional	Low	Stable	23	8.7%	None	390.3 (graphs)		sari	Click here
Germany	Low	Sporadic		Decreasing	22	18.2%	None	(graphs)	735.0 (graphs)		Click here
Hungary	Low	Sporadic	Low	Decreasing	17	29.4%	None	40.2 (graphs)	(graphs)		Click here
Ireland	Low	None	Low	Stable	4	0%	None	3.7 (graphs)	(graphs)		Click here
Kazakhstan	Low	Sporadic	Low	Decreasing	8	0%	None	1.2 (graphs)	111.3 (graphs)	sari	Click here
Latvia	Low	Sporadic		Decreasing	0	0%	Type B	(graphs)			Click here
Lithuania	Low	Regional	Low	Stable	0	0%	None	3.6 (graphs)	392.2 (graphs)		Click here
Luxembourg					2	0%	None	(graphs)			Click here
Montenegro	Low	Sporadic	Low	Decreasing			None	5.4 (graphs)			Click here
Netherlands					4	0%	None	(graphs)			Click here
Norway					1	0%	Type B and Type A, Subtype pH1N1	(graphs)			Click here
Poland	Low	Sporadic		Decreasing	7	14.3%	None	43.3 (graphs)	(graphs)		Click here
Republic of Moldova	Low	None	Low	Decreasing	0	0%	None	0.3 (graphs)	117.9 (graphs)	sari	Click here
Romania	Low	Sporadic	Low	Decreasing	10	20.0%	Type B	4.6 (graphs)	731.5 (graphs)	sari	Click here
Russian Federation	Medium	Sporadic		Stable	31	6.5%	Type B and Type A, Subtype pH1	0.4 (graphs)	543.9 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	10	10.0%	Type B	1.2 (graphs)	207.5 (graphs)		Click here
Serbia	Low	Sporadic	Low	Decreasing				40.0 (graphs)		sari	Click here
Slovakia	Low	Sporadic	Low	Decreasing	1	100.0%	Type A	145.6 (graphs)	1414.6 (graphs)	sari	Click here
Slovenia					1	0%	None	(graphs)			Click here
Sweden	Low	Sporadic	Low	Decreasing	6	0%	Type B	3.8 (graphs)	(graphs)		Click here
Switzerland					7	0%	Type B and Type A, Subtype pH1	25.3 (graphs)			Click here
Turkey					53	5.7%	None	(graphs)			Click here
Ukraine	Low	Sporadic	Low	Decreasing	13	0%	Type A, Subtype pH1	3.0 * (graphs)	401.8 (graphs)	sari	Click here
Uzbekistan							None		(graphs)		Click here
Europe					310	10.0%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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EuroFlu : Weekly Electronic Bulletin

Influenza activity has returned to out of season levels in most countries of the WHO European Region



EUROPE



- This issue is based on data reported in week 16/2011 by 45 Member States in the WHO European Region.
- Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) activity are below baseline thresholds or at pre-season levels in most countries.
- Hospitalizations for severe acute respiratory infection (SARI) continue to decline in most countries with sentinel hospital-based surveillance for SARI.
- 5% of sentinel specimens from patients with ILI or ARI, and 3% of specimens from sentinel SARI patients, tested positive for influenza.

Current situation out week 16/2011

During week 16/2011, 35 countries reported low intensity of respiratory-disease activity and 2 (Armenia and the Russian Federation), medium intensity. ILI or ARI consultation rates have returned to pre-season levels or are below the national baseline thresholds in all but 1 (Azerbaijan) of the 36 countries reporting epidemiological data this week. Among the 37 countries reporting on the geographical spread of influenza, 35 reported no or sporadic activity. Armenia reported local spread, and Georgia, regional spread. The impact of influenza on health care systems was low in all but 1 (Armenia) of the 20 countries reporting on this indicator.

Data on sentinel hospital-based surveillance for SARI were reported in 10 countries: Armenia, Georgia, Kazakhstan, Kyrgyzstan, Malta, the Republic of Moldova, Romania, the Russian Federation, Serbia and Ukraine. SARI hospitalizations are declining overall and are back to pre-season levels in Kazakhstan, Romania, Serbia and Ukraine. In Georgia, SARI hospitalizations have increased over the last three weeks; this is driven by increases in hospitalizations in the group aged 0-4, however, and no sentinel SARI specimens tested positive for influenza in the country during week 16. Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation out week 16/2011

Influenza B virus was dominant in three countries, and co-dominant with pandemic influenza A(H1N1) 2009 in two others. Ukraine reported pandemic influenza A(H1N1) 2009 virus to be dominant.

Sentinel physicians collected 162 respiratory specimens, of which 8 (5%) were positive for influenza virus: 3 (38%) were influenza A and 5 (62%) were influenza B. Two of the three influenza A viruses were subtyped: both were pandemic A(H1). In the 2 countries testing 20 or more sentinel specimens, influenza positivity ranged from 3% to 5%. In addition, 140 non-sentinel specimens were reported positive for influenza: 63 (45%) influenza A and 77 (55%) influenza B. Of the influenza A viruses, 54 were subtyped: 51 (94%) as pandemic A(H1) and 3 (6%) as A(H3).

Sentinel hospitals participating in SARI surveillance in 10 countries collected 64 specimens from SARI patients of which 2 (3%) were positive for influenza.

Cumulative virological update out weeks 40/2010 out 16/2011

A total of 77 462 influenza virus detections was reported during this period, of which 54 949 (71%) were influenza A and 22 513 (29%) were influenza B. Of the influenza A viruses, 46 281 were subtyped: 44 542 (96%) as pandemic A(H1) and 1739 (4%) as A(H3).

From week 40/2010 through week 16/2011, 1533 out of 5525 sentinel SARI specimens (28%) tested positive for influenza: 872 (57%) were influenza A and 661 (43%) influenza B. Of the influenza A viruses, 691 were subtyped: 638 (92%) as pandemic A(H1) and 53 (8%) as influenza A(H3).

Since week 40/2010, 4515 influenza viruses have been characterized antigenically: 2329 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 1860 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 151 were A(H3) A/Perth/16/2009 (H3N2)-like; 173 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage), and 2 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 585 influenza viruses, 166 belonged to the pandemic A/California/7/2009 A(H1N1) clade; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) clade; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) clade; 136 belonged to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 12 belonged to the A(H3) clade represented by A/Perth/16/2009; 5 belonged to the A(H3) clade represented by A/Victoria/208/2009; 29 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 20 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 161 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 9 countries (Denmark, Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 3519 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Of the 3164 pandemic A(H1N1) 2009 viruses that were tested, 3072 were sensitive to both inhibitors and 92 viruses (2.9%) carried the NA H275Y mutation. These 92 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 9 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 346 influenza B viruses tested for susceptibility to oseltamivir and the 340 tested for susceptibility to zanamivir were found to be sensitive. All 197 pandemic influenza A(H1N1) 2009 viruses and 10 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

Influenza activity has returned to pre-season levels in most countries across the WHO European Region. At present, a very low

percentage (< 5%) of sentinel ILI/ARI and SARI specimens is testing positive for influenza.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#) (ECDC).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

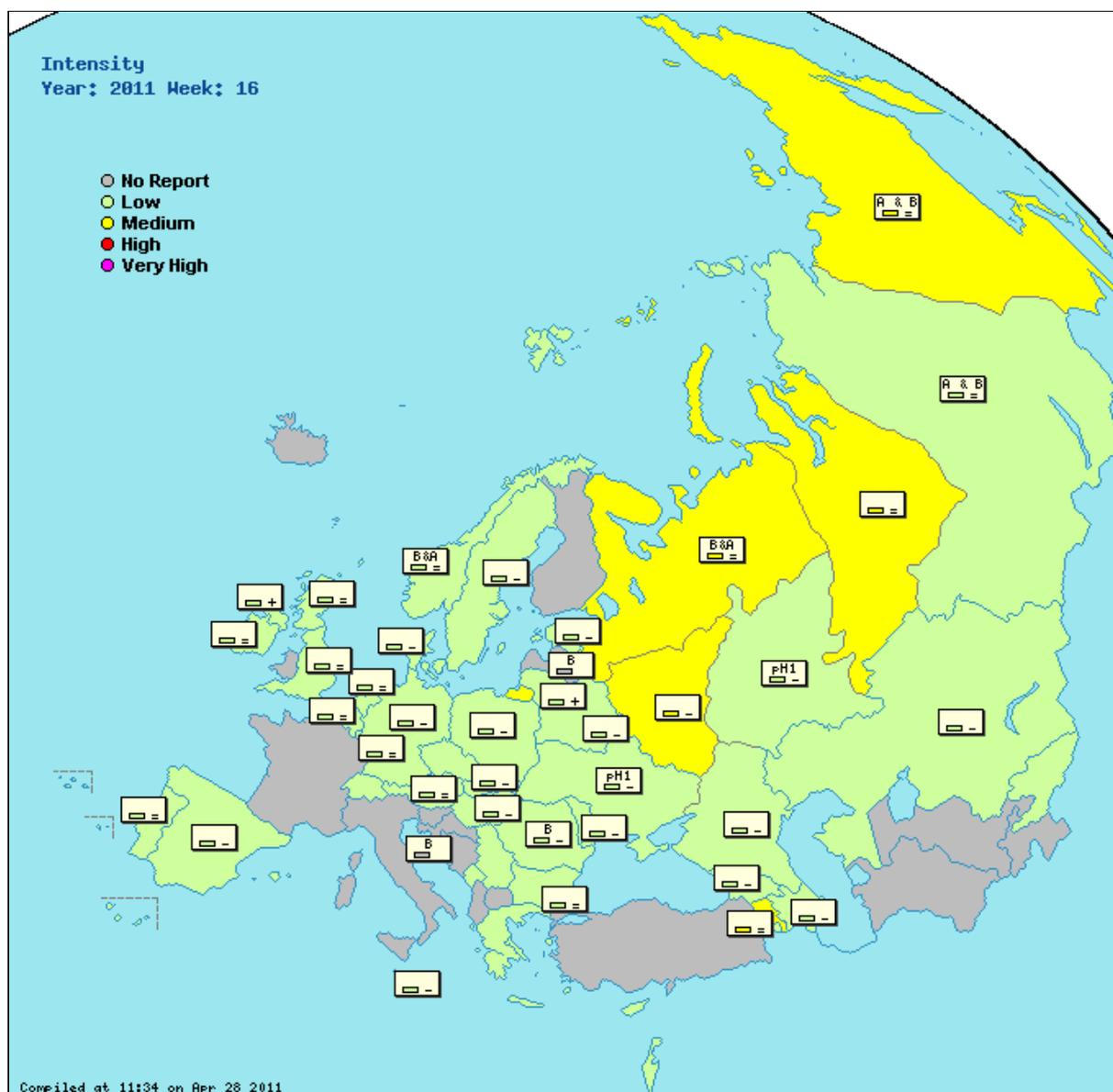
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

B = Dominant virus B
A & B = Dominant virus A & B
= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

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.

Country comments (where available)

Malta

situation stable

Northern Ireland

Due to holiday period low number of returns this week

Norway

The number of patients tested for influenza is lower than normal due to the Easter holidays

Serbia

Serbia Serbia Sentinel SARI surveillance system in SERBIA: In week 16/2011, 5 SARI from all causes were reported. Out of 5 SARI specimens collected in the week 16/2011, none was positive.

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 16/2011 1405 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (63%) and 16% were less than five years old and 18% were more than 64 years old. 26% of them with no known risk factors. Of 1403 cases with outcome information 164 died (12% with no known risk factors). Of the severe cases 897 had information available on the status of influenza vaccination for the 2010/2011 season and only 135 (15%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for 10% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Medium	Local	Moderate	Stable	0	0%	None	(graphs)	76.4 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	3	0%	None	331.3 (graphs)			Click here
Belarus	Low	Sporadic	Low	Decreasing	17	5.9%	None		870.5 (graphs)	sari	Click here
Belgium	Low	Sporadic		Stable	5	0%	None	7.0 (graphs)	1125.6 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	Sporadic		Stable	0	0%	None	(graphs)	407.2 (graphs)		Click here
Croatia							Type B	(graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				1.1 * (graphs)	3.8 * (graphs)		Click here
Czech Republic	Low	Sporadic		Stable				18.2 (graphs)	679.7 (graphs)		Click here
Denmark	Low	None		Decreasing	1	0%	None	4.0 (graphs)	(graphs)		Click here
England	Low	Sporadic		Stable	2	0%	None	3.0 (graphs)	292.1 (graphs)		Click here
Estonia	Low	Sporadic		Decreasing	15	6.7%	None	6.8 (graphs)	252.5 (graphs)		Click here
Georgia	Low	Regional	Low	Decreasing	20	5.0%	None	277.6 (graphs)		sari	Click here
Germany	Low	Sporadic		Decreasing	8	0%	None	(graphs)	485.0 (graphs)		Click here
Greece	Low	None		Stable				37.0 (graphs)	(graphs)		Click here
Hungary	Low	None	Low	Decreasing	8	0%	None	26.1 (graphs)	(graphs)		Click here
Iceland					0	0%		(graphs)			Click here
Ireland	Low	None	Low	Stable	1	0%	None	3.1 (graphs)	(graphs)		Click here
Israel	Low	None	Low	Decreasing				1.6 (graphs)			Click here
Italy					7	0%	None	(graphs)			Click here
Kazakhstan	Low	Sporadic		Decreasing	4	25.0%	None	0.7 (graphs)	110.0 (graphs)	sari	Click here
Kyrgyzstan	Low	None	Low	Stable				0.7 (graphs)	19.7 (graphs)	sari	Click here
Latvia					0	0%	Type B	(graphs)			Click here
Lithuania	Low	Local	Low	Increasing	0	0%	None	1.9 (graphs)	291.2 (graphs)		Click here
Luxembourg	Low	None			1	0%		0.4 * (graphs)	23.8 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Sporadic	Low	Decreasing	0	0%	None	4.7 * (graphs)	0 * (graphs)		Click here
Montenegro	Low	Sporadic	Low	Stable				6.7 (graphs)			Click here
Netherlands	Low	Sporadic		Stable	4	0%	None	10.2 (graphs)	(graphs)		Click here
Northern Ireland	Low	None		Increasing	0	0%		13.4 (graphs)	341.9 (graphs)		Click here
Norway	Low	None		Stable	0	0%	Type B and Type A, Subtype pH1N1	11.7 (graphs)	(graphs)		Click here
Poland	Low	Sporadic		Decreasing	0	0%	None	19.7 (graphs)	(graphs)		Click here
Portugal	Low	None		Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Republic of Moldova	Low	None	Low	Decreasing	0	0%	None	(graphs)	87.2 (graphs)	sari	Click here
Romania	Low	Sporadic	Low	Decreasing	6	50.0%	Type B	2.2 (graphs)	618.0 (graphs)	sari	Click here

Russian Federation	Medium	Sporadic		Stable	40	2.5%	Type B and Type A, Subtype pH1	0.2 (graphs)	517.2 (graphs)	sari	Click here
Scotland	Low	None	Low	Stable	6	0%	None	5.9 (graphs)	209.4 (graphs)		Click here
Serbia	Low	Sporadic	Low	Decreasing				20.0 (graphs)		sari	Click here
Slovakia	Low	None	Low	Decreasing	2	0%	None	96.6 (graphs)	1152.6 (graphs)	sari	Click here
Slovenia					0	0%	None	(graphs)			Click here
Spain	Low	None		Decreasing	8	0%	None	3.0 (graphs)	(graphs)		Click here
Sweden	Low	Sporadic	Low	Decreasing	0	0%	None	2.7 (graphs)	(graphs)		Click here
Switzerland	Low	None		Stable				11.1 (graphs)			Click here
Ukraine	Low	Sporadic	Low	Decreasing	4	0%	Type A, Subtype pH1	3.3 * (graphs)	371.8 (graphs)	sari	Click here
Uzbekistan							None			(graphs)	Click here
Europe					162	4.9%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Influenza season ending in the WHO European Region



- This issue is based on data reported in week 17/2011 by 44 Member States in the WHO European Region.
- Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) are now at pre-season levels in all countries.
- Sentinel-hospital surveillance data for severe acute respiratory infection (SARI) from seven countries shows that SARI hospitalizations have declined to levels observed at the beginning of the season.
- Less than 2% of sentinel specimens from patients with ILI or ARI, and 2% of specimens from sentinel SARI patients tested positive for influenza.



Current situation week 17/2011

During week 17/2011, all but one country (Armenia) reported low influenza activity. ILI or ARI consultation rates either continued to decline further or were at very low levels in all of the 36 countries reporting clinical data this week. Among 39 countries reporting on the geographical spread of influenza, 37 reported no or sporadic activity. Armenia and Lithuania reported local spread, and Georgia, regional activity. The impact of influenza on health care systems was low in 20 and moderate in 2 of the 22 countries reporting on this indicator.

Seven countries reported data from sentinel hospital-based surveillance systems for SARI: Armenia, Kazakhstan, the Republic of Moldova, Romania, the Russian Federation, Serbia and Ukraine. SARI hospitalizations have returned to pre-season levels in these countries and, although influenza detections have been reported from sentinel sites in recent weeks, the percentage of samples testing positive is very low.

Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation week 17/2011

Sentinel physicians collected 136 respiratory specimens, of which only 2 (2%) were positive for influenza virus: 1 was pandemic A(H1) and 1 was influenza B. One country, the Russian Federation, tested 20 or more sentinel specimens, and influenza was detected in 2% of the samples. In addition, 70 non-sentinel specimens were reported positive for influenza: 37 (53%) influenza B and 33 (47%) influenza A. Of the influenza A viruses, 25 were subtyped: 21 (84%) as pandemic A(H1) and 4 (16%) as A(H3).

Sentinel hospitals participating in SARI surveillance collected 41 respiratory specimens, of which 1 (2%) was positive for influenza. Only the Russian Federation tested more than 10 sentinel SARI specimens, finding 1 positive specimen, to yield a 3% positivity in the country.

Cumulative virological update weeks 40/2010 17/2011

A total of 83 369 influenza virus detections were reported during this period, of which 59 075 (71%) were influenza A and 24 294 (29%) were influenza B. Of the influenza A viruses, 47 068 were subtyped: 45 311 (96%) as pandemic A(H1) and 1757 (4%) as influenza A(H3).

From week 40/2010 to week 17/2011, 1540 out of 5622 sentinel SARI specimens (27%) tested positive for influenza. Of these influenza viruses, 876 (57%) were influenza A and 664 (43%) influenza B. Of the influenza A viruses, 696 were subtyped: 643 (92%) as pandemic A(H1) and 53 (8%) as influenza A(H3).

Since week 40/2010, 5250 influenza viruses have been characterized antigenically: 2622 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 2255 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 197 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); 174 were A(H3) A/Perth/16/2009 (H3N2)-like; and 2 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 607 influenza viruses, 169 belonged to the pandemic A/California/7/2009 A(H1N1) cluster; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) cluster; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) cluster; 142 belonged to the recently emerged A/England/142/2010 subgroup characterized by S185T substitution in the HA; 12 belonged to the A(H3) clade represented by A/Perth/16/2009; 5 belonged to the A(H3) clade represented by A/Victoria/208/2009; 29 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 23 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 171 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, nine countries (Denmark, Germany, Ireland, Italy, the Netherlands, Norway, Spain, Switzerland and the United Kingdom) had screened 3533 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Of the 3169 pandemic A(H1N1) 2009 viruses that were tested, 3077 were sensitive to both inhibitors and 92 viruses (2.9%) carried the NA H275Y mutation. These 92 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 18 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 346 influenza B viruses tested for susceptibility to oseltamivir and the 340 tested for susceptibility to zanamivir were found to be sensitive. All 197 pandemic influenza A(H1N1) 2009 viruses and 10 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates are low throughout the WHO European Region. The great majority of countries is reporting no or sporadic influenza activity and the percentage of sentinel ILI, ARI, and SARI samples testing positive for influenza has declined to pre-season levels.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on

the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#) (ECDC).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

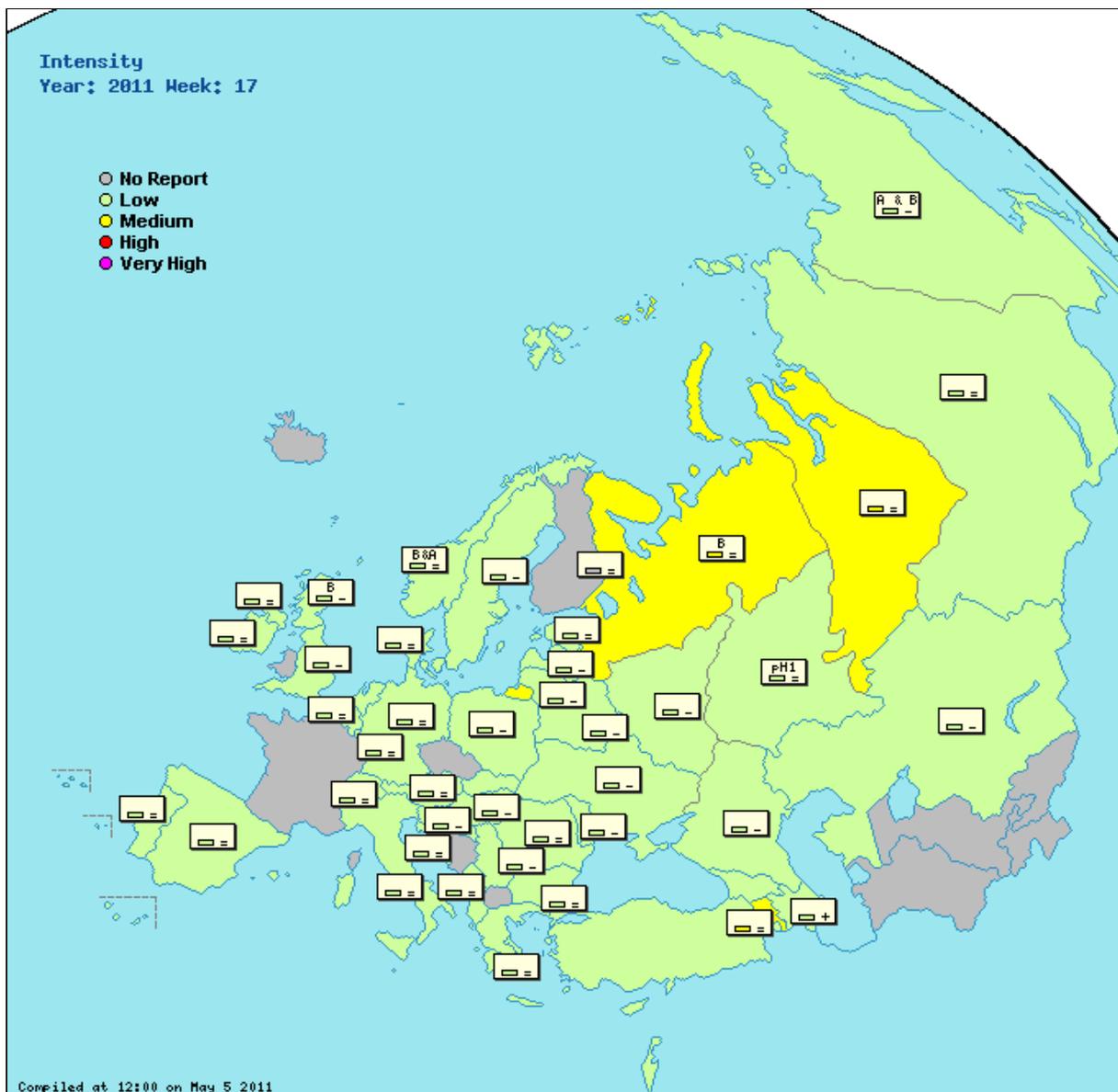
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B
= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Spain

In Spain information concerning severe illness due to influenza infection with associated admission to hospitals comes from a surveillance system developed during the 2009/2010 pandemic season specifically for this purpose. Since week 40/2010 and up to week 17/2011 1409 severe hospitalised confirmed influenza cases have been reported. Severely affected cases were mostly in the 15-64 year age groups (63%) and 15% were less than five years old and 18% were more than 64 years old. 26% of them with no known risk factors. Of 1407 cases with outcome information 165 died (12% with no known risk factors). Of the severe cases 899 had information available on the status of influenza vaccination for the 2010/2011 season and only 136 (15%) cases had been immunised. Monovalent pandemic vaccines 2009 were reported to have been received for 10% of hospitalised cases. Most of severe and fatal cases included in the groups which were recommended influenza vaccination had not been vaccinated this season

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	Low	Sporadic	Moderate	Decreasing					344.3 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Stable	1	0%	None	graphs	75.4 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	1	0%	None	0.0 (graphs)	graphs		Click here
Azerbaijan	Low	Sporadic	Low	Increasing	1	0%	None	339.5 (graphs)			Click here
Belarus	Low	None	Low	Decreasing	11	0%	None		816.0 (graphs)	sari	Click here
Belgium	Low	None		Stable	1	0%	None	19.9 (graphs)	906.6 (graphs)	sari	Click here
Bosnia and Herzegovina							None	graphs			Click here
Bulgaria	Low	Sporadic		Stable	0	0%	None	graphs	419.8 (graphs)		Click here
Croatia	Low	Sporadic	Low	Stable			None	0.3 (graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				2.2 * (graphs)	4.6 * (graphs)		Click here
Denmark	Low	None		Stable	1	0%	None	10.9 (graphs)	graphs		Click here
England	Low	Sporadic		Decreasing	0	0%	None	2.6 (graphs)	220.3 (graphs)		Click here
Estonia	Low	Sporadic		Stable	5	0%	None	7.7 (graphs)	297.7 (graphs)		Click here
Finland		Sporadic		Stable	9	0%	None	0.0 (graphs)	graphs		Click here
Georgia	Low	Regional	Low	Stable				graphs		sari	Click here
Germany	Low	Sporadic		Stable	4	0%	None	graphs	509.7 (graphs)		Click here
Greece	Low	None		Stable	1	0%	None	54.4 (graphs)	graphs		Click here
Hungary	Low	None	Low	Decreasing	3	0%	None	22.3 (graphs)	graphs		Click here
Iceland					0	0%		graphs			Click here
Ireland	Low	None	Low	Stable	2	0%	None	4.4 (graphs)	graphs		Click here
Israel	Low	None	Low	Stable				1.7 (graphs)			Click here
Italy	Low	None	Low	Stable	6	0%		52.4 (graphs)	graphs		Click here
Kazakhstan	Low	None	Low	Decreasing	3	0%	None	0.3 (graphs)	106.4 (graphs)	sari	Click here
Latvia	Low	Sporadic		Decreasing	0	0%	None	0.0 (graphs)			Click here
Lithuania	Low	Local	Low	Decreasing	0	0%	None	0.4 (graphs)	237.8 (graphs)		Click here
Luxembourg	Low	None			1	0%	None	0 * (graphs)	18.2 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	graphs			Click here
Montenegro	Low	Sporadic	Low	Stable			None	5.7 (graphs)			Click here
Netherlands	Low	Sporadic		Stable				6.3 (graphs)	graphs		Click here
Northern Ireland	Low	None		Stable	0	0%		4.2 (graphs)	182.5 (graphs)		Click here
Norway	Low	Sporadic		Stable	1	0%	Type B and Type A, Subtype pH1N1	20.1 (graphs)	graphs		Click here
Poland	Low	Sporadic		Decreasing	0	0%	None	11.3 (graphs)	graphs		Click here
Portugal	Low	None		Stable	0	0%	None	0.0 (graphs)	graphs		Click here
Republic of Moldova	Low	None	Low	Decreasing	0	0%	None	graphs	59.9 (graphs)	sari	Click here
Romania	Low	Sporadic	Low	Stable	6	16.7%	None	0.5 (graphs)	641.0 (graphs)	sari	Click here
Russian Federation	Low	Sporadic		Decreasing	48	2.1%	Type A and B	0.1 (graphs)	478.9 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Decreasing	3	0%	Type B	0.0 (graphs)	123.9 (graphs)		Click here
Serbia	Low	None	Low	Decreasing	0	0%	None	14.3 (graphs)		sari	Click here
Slovakia	Low	None	Low	Decreasing				106.8 (graphs)	1107.0 (graphs)	sari	Click here
Slovenia	Low	Sporadic		Decreasing	0	0%	None	0.0 (graphs)	527.6 (graphs)		Click here
Spain	Low	None		Stable	19	0%	None	4.7 (graphs)	graphs		Click here
Sweden	Low	Sporadic	Low	Decreasing	0	0%	None	0.0 (graphs)	graphs		Click here
Switzerland	Low	None		Stable	3	0%	None	9.0 (graphs)			Click here
Turkey	Low	None	Low	Stable				4.7 (graphs)			Click here
Ukraine	Low	Sporadic	Low	Decreasing	6	0%	None	2.6 * (graphs)	297.3 (graphs)	sari	Click here
Uzbekistan							None		graphs		Click here
Europe					136	1.5%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-

confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in \geq 50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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Sporadic influenza activity of low intensity in the WHO European Region



EUROPE



- This issue is based on data reported in week 18/2011 by 46 Member States in the WHO European Region.
- Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) are at low levels in all countries.
- Sentinel-hospital surveillance data for severe acute respiratory infection (SARI) from eight countries shows that SARI hospitalizations continue to decline.
- 2% of sentinel specimens from patients with ILI or ARI, and 4% of specimens from sentinel SARI patients tested positive for influenza.

Current situation week 18/2011

During week 18/2011, all but one country (Armenia) reported low influenza activity. ILI and ARI consultation rates are below the national baselines or at pre-season levels in all 34 countries reporting clinical data. Among 39 countries reporting on the geographical spread of influenza, 38 reported no or sporadic activity, while 1 (Armenia) reported local spread. Only two countries reported moderate impact of influenza on their health care systems (Albania and Armenia).

This week, 8 countries reported data from sentinel hospital-based surveillance systems for SARI: Armenia, Georgia, Kazakhstan, Malta, the Republic of Moldova, Romania, the Russian Federation and Serbia. The number of SARI hospitalizations remains at low levels in most of them. Only one country (Romania) reported influenza infection associated with a SARI case.

Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation week 18/2011

Sentinel physicians collected 170 respiratory specimens, of which 4 (2%) were positive for influenza B. Only one country, the Russian Federation, tested more than 20 sentinel specimens, and influenza B was detected in 3% of the samples. In addition, 32 non-sentinel specimens were reported positive for influenza: 18 (56%) influenza A and 14 (44%) influenza B. Of the influenza A viruses, 6 were subtyped: 5 as pandemic A(H1) and 1 as A(H3).

Sentinel hospitals from 8 countries collected 56 respiratory specimens from SARI patients, of which 2 (4%) were positive for influenza B. Both cases were in Romania.

Cumulative virological update weeks 40/2010 18/2011

A total of 82 146 influenza virus detections were reported during this period, of which 58 464 (71%) were influenza A and 23 682 (29%) were influenza B. Of the influenza A viruses, 46 507 were subtyped: 44 891 (97%) as pandemic A(H1) and 1 616 (3%) as influenza A(H3).

From week 40/2010 to week 18/2011, 1545 out of 5737 sentinel SARI specimens (27%) tested positive for influenza. Of these influenza viruses, 877 (57%) were influenza A and 668 (43%) influenza B. Of the influenza A viruses, 697 were subtyped: 644 (92%) as pandemic A(H1) and 53 (8%) as influenza A(H3).

Since week 40/2010, 5318 influenza viruses have been characterized antigenically: 2643 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 2297 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 198 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); 174 were A(H3) A/Perth/16/2009 (H3N2)-like; and 6 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 632 influenza viruses, 179 belonged to the pandemic A/California/7/2009 A(H1N1) cluster; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) cluster; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) cluster; 144 belonged to the A/England/142/2010 subgroup characterized by S185T substitution in the HA; 12 belonged to the A(H3) clade represented by A/Perth/16/2009; 5 belonged to the A(H3) clade represented by A/Victoria/208/2009; 29 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 23 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 184 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 9 countries (Denmark, Germany, Ireland, Italy, the Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 3533 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Of the 3169 pandemic A(H1N1) 2009 viruses that were tested, 3077 were sensitive to both inhibitors and 92 viruses (2.9%) carried the NA H275Y mutation. These 92 viruses were resistant to oseltamivir but remained sensitive to zanamivir. Eighteen influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All of the 346 influenza B viruses tested for susceptibility to oseltamivir and the 340 tested for susceptibility to zanamivir were found to be sensitive. All 197 pandemic influenza A(H1N1) 2009 viruses and 10 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates are at very low levels in the WHO European Region and half of the countries reported no influenza activity this week. The percentages of sentinel samples from ILI, ARI, and SARI surveillance testing positive for influenza continue to be low.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#) (ECDC).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

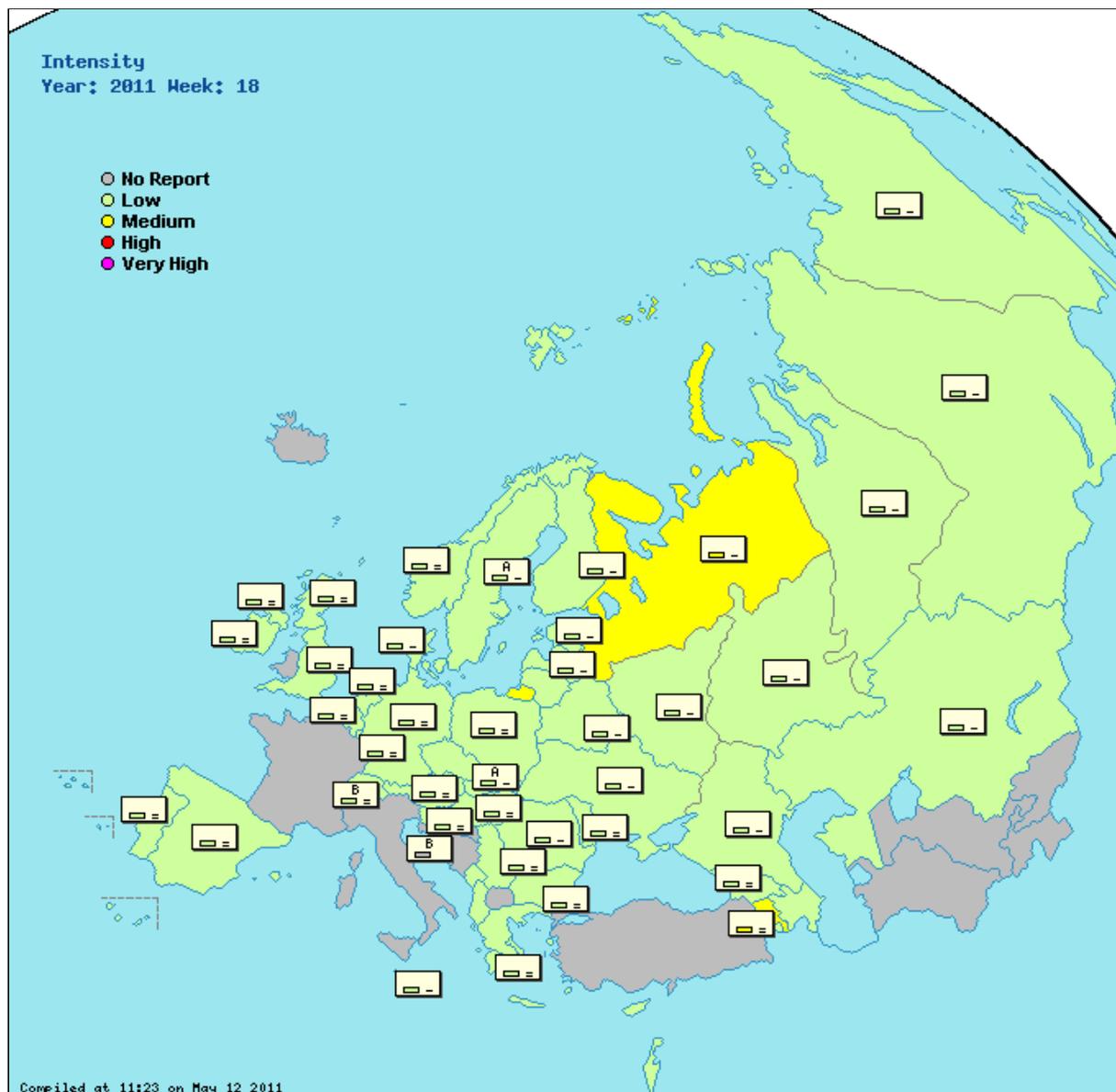
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B
= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Malta

situation stable

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Albania	Low	Sporadic	Moderate	Decreasing					342.0 (graphs)	sari	Click here
Armenia	Medium	Local	Moderate	Stable	0	0%	None	(graphs)	70.4 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	1	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing				363.3 (graphs)			Click here
Belarus	Low	None	Low	Decreasing	18	0%	None		(graphs)	sari	Click here
Belgium	Low	None		Stable	5	0%	None	24.4 (graphs)	975.8 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	420.9 (graphs)		Click here
Croatia							Type B	(graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				0.4 * (graphs)	4.1 * (graphs)		Click here
Czech Republic	Low	None		Stable				14.1 (graphs)	670.4 (graphs)		Click here
Denmark	Low	None		Decreasing	4	0%	None	14.6 (graphs)	(graphs)		Click here
England	Low	Sporadic		Stable	9	11.1%	None	3.2 (graphs)	277.8 (graphs)		Click here
Estonia	Low	Sporadic		Decreasing	4	0%	None	4.5 (graphs)	218.9 (graphs)		Click here
Finland	Low	Sporadic	Low	Decreasing	8	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Stable	15	0%	None	340.6 (graphs)		sari	Click here
Germany	Low	Sporadic		Stable	3	0%	None	(graphs)	515.4 (graphs)		Click here
Greece	Low	None		Stable	1	100.0%		42.3 (graphs)	(graphs)		Click here
Hungary	Low	None	Low	Stable	2	0%	None	23.5 (graphs)	(graphs)		Click here
Iceland					0	0%		(graphs)			Click here
Ireland	Low	None	Low	Stable	1	0%	None	1.7 (graphs)	(graphs)		Click here
Israel	Low	None	Low	Stable				2.6 (graphs)			Click here
Kazakhstan	Low	None	Low	Decreasing	3	0%	None	1.0 (graphs)	76.5 (graphs)	sari	Click here
Kyrgyzstan					0	0%	None		(graphs)	sari	Click here
Latvia	Low	Sporadic		Decreasing	0	0%	None	0.0 (graphs)			Click here
Lithuania	Low	Sporadic	Low	Stable				0.4 (graphs)	293.4 (graphs)		Click here
Luxembourg	Low	None			1	0%	None	0 * (graphs)	15.3 * (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Sporadic	Low	Decreasing			None	4.6 * (graphs)	0 * (graphs)		Click here
Montenegro	Low	None	Low	Decreasing				2.5 (graphs)			Click here
Netherlands	Low	Sporadic		Stable	3	0%	None	11.7 (graphs)	(graphs)		Click here
Northern Ireland	Low	None		Stable	0	0%		8.4 (graphs)	243.3 (graphs)		Click here
Norway	Low	None		Stable	0	0%	None	18.3 (graphs)	(graphs)		Click here
Poland	Low	Sporadic		Stable	2	0%	None	13.7 (graphs)	(graphs)		Click here
Portugal	Low	None		Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	68.5 (graphs)	sari	Click here
Romania	Low	Sporadic	Low	Decreasing	4	25.0%	None	0.8 (graphs)	611.1 (graphs)	sari	Click here
Russian Federation	Low	Sporadic		Decreasing	40	2.5%	None	0.1 (graphs)	397.3 (graphs)	sari	Click here
Scotland	Low	None	Low	Stable	2	0%	None	0.0 (graphs)	90.4 (graphs)		Click here
Serbia	Low	None	Low	Stable	0	0%	None	17.0 (graphs)		sari	Click here
Slovakia	Low	None	Low	Decreasing	0	0%	Type A	108.3 (graphs)	1177.6 (graphs)	sari	Click here
Slovenia	Low	None		Stable	0	0%	None	0.0 (graphs)	477.2 (graphs)		Click here
Spain	Low	None		Stable	16	0%	None	4.6 (graphs)	(graphs)		Click here
Sweden	Low	Sporadic	Low	Decreasing	3	0%	Type A	0.8 (graphs)	(graphs)		Click here
Switzerland	Low	None		Stable	11	0%	Type B	11.2 (graphs)			Click here
Turkey					8	0%	None	(graphs)			Click here
Ukraine	Low	None	Low	Decreasing	6	0%	None		247.6 (graphs)	sari	Click here
Uzbekistan							None		(graphs)		Click here
Europe					170	2.4%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

The 2010-2011 influenza season is coming to an end in the WHO European Region



- This issue is based on data reported in week 19/2011 by 42 Member States in the WHO European Region.
- Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) are at low levels in all countries.
- Sentinel-hospital surveillance data for severe acute respiratory infection (SARI) from 7 countries show that SARI hospitalizations continue to decline.
- 1% of sentinel specimens from patients with ILI or ARI, and no specimens from sentinel SARI patients tested positive for influenza.



Current situation week 19/2011

During week 19/2011, all but one country (Armenia) reported low influenza activity. ILI and ARI consultation rates were below the national baselines or at pre-season levels in all 38 countries reporting clinical data. The 37 countries reporting on the geographical spread of influenza, reported no or sporadic activity. Only one country (Armenia) reported moderate impact of influenza on its health care system.

This week, 7 countries reported data from sentinel hospital-based surveillance systems for SARI: Armenia, Georgia, Kazakhstan, the Republic of Moldova, Romania, the Russian Federation and Ukraine. The number of SARI hospitalizations remains at low levels in most of them. No country reported influenza infection associated with a SARI case.

Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation week 19/2011

Sentinel physicians collected 151 respiratory specimens, of which 2 (1%) were positive for influenza virus: 1 pandemic A(H1) influenza and 1 influenza B. In the 3 countries testing 20 or more sentinel specimens, influenza positivity ranged from 0% in Belarus and Spain to 5% in the Russian Federation. In addition, 21 non-sentinel specimens were reported positive for influenza: 10 (48%) influenza A and 11 (52%) influenza B. Of the influenza A viruses, 6 were subtyped: 5 as pandemic A(H1) and 1 as A(H3).

Sentinel hospitals from 7 countries collected 34 respiratory specimens from SARI patients, and none was positive for influenza.

Cumulative virological update weeks 40/2010 19/2011

A total of 82 175 influenza virus detections were reported during this period, of which 58 478 (71%) were influenza A and 23 697 (29%) were influenza B. Of the influenza A viruses, 46 518 were subtyped: 44 897 (97%) as pandemic A(H1) and 1 621 (3%) as influenza A(H3).

From week 40/2010 to week 19/2011, 1547 out of 5774 sentinel SARI specimens (27%) tested positive for influenza. Of these influenza viruses, 878 (57%) were influenza A and 669 (43%) influenza B. Of the influenza A viruses, 697 were subtyped: 644 (92%) as pandemic A(H1) and 53 (8%) as influenza A(H3).

Since week 40/2010, 5352 influenza viruses have been characterized antigenically: 2663 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 2307 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 202 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); 174 were A(H3) A/Perth/16/2009 (H3N2)-like; and 6 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 659 influenza viruses, 180 belonged to the pandemic A/California/7/2009 A(H1N1) cluster; 10 belonged to the pandemic A/Christchurch/16/2010 A(H1) cluster; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) cluster; 144 belonged to the A/England/142/2010 subgroup characterized by S185T substitution in the HA; 12 belonged to the A(H3) clade represented by A/Perth/16/2009; 5 belonged to the A(H3) clade represented by A/Victoria/208/2009; 29 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 24 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage), and 209 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 10 countries (Denmark, Germany, Ireland, Israel, Italy, the Netherlands, Norway, Spain, Switzerland and the United Kingdom) have screened 3535 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Of the 3171 pandemic A(H1N1) 2009 viruses that were tested, 3077 were sensitive to both inhibitors and 94 viruses (3.0%) carried the NA H275Y mutation. These 94 viruses were resistant to oseltamivir but remained sensitive to zanamivir. 18 influenza A(H3N2) viruses were tested and found to be sensitive to both inhibitors. All 346 influenza B viruses tested for susceptibility to oseltamivir and the 340 influenza B viruses tested for susceptibility to zanamivir were found to be sensitive. All 197 pandemic influenza A(H1N1) 2009 viruses and 10 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates are at very low levels in the WHO European Region and half of the countries reported no influenza activity this week. Very low percentages of sentinel samples from ILI, ARI, and SARI surveillance are testing positive for influenza.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#) (ECDC).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

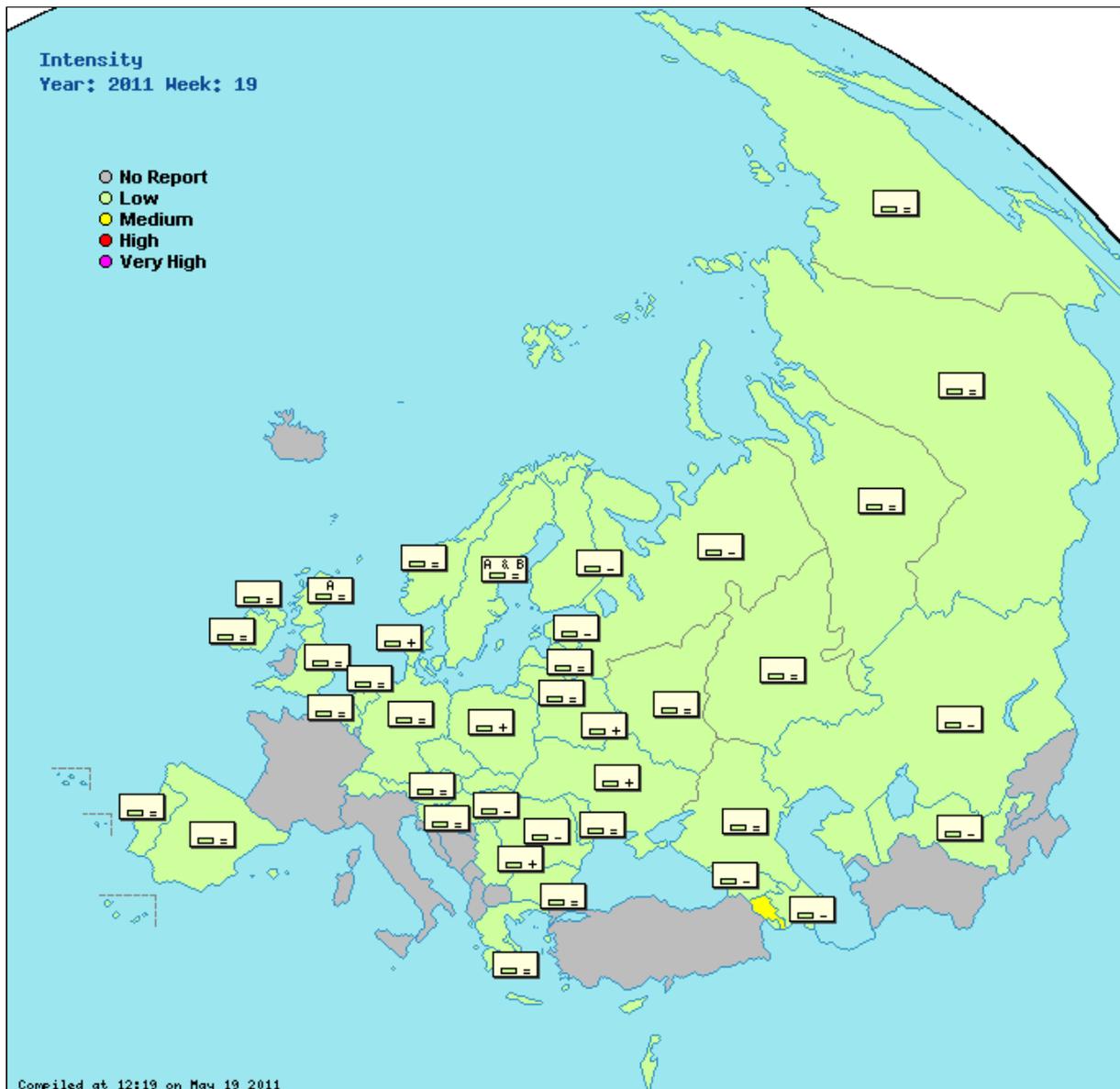
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Kazakhstan

вирусологическим методом исследовано 12/0, серологическим методом 29/0, методом ПЦР 7/0, методом иммунофлюоресценции 35/0. на др. не гриппозные инфекции 35/3 (+)-3 аденовирусы.

Malta

situation stable

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Medium	Sporadic	Moderate	Decreasing				(graphs)	50.8 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	5	0%	None	306.3 (graphs)			Click here
Belarus	Low	None	Low	Increasing	20	0%	None		678.8 (graphs)	sari	Click here
Belgium	Low	None		Stable	5	0%	None	10.5 (graphs)	1027.3 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	466.3 (graphs)		Click here
Croatia							None	(graphs)			Click here
Cyprus	Low	Sporadic	Low	Stable				0.4 * (graphs)	4.5 * (graphs)		Click here
Czech Republic	Low	None	Low	Stable				12.8 (graphs)	620.0 (graphs)		Click here
Denmark	Low	None		Increasing	2	0%	None	24.1 (graphs)	(graphs)		Click here
England	Low	None		Stable	7	0%		1.9 (graphs)	300.7 (graphs)		Click here
Estonia	Low	Sporadic		Decreasing	3	0%	None	3.6 (graphs)	218.9 (graphs)		Click here
Finland	Low	Sporadic	Low	Decreasing	11	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Decreasing	8	0%	None	175.3 (graphs)		sari	Click here
Germany	Low	None		Stable	6	0%	None	(graphs)	467.0 (graphs)		Click here
Greece	Low	None		Stable				38.8 (graphs)	(graphs)		Click here
Hungary	Low	None	Low	Decreasing	1	0%	None	19.9 (graphs)	(graphs)		Click here
Iceland					0	0%		(graphs)			Click here
Ireland	Low	None	Low	Stable	2	0%	None	2.5 (graphs)	(graphs)		Click here
Israel	Low	None	Low	Stable				1.8 (graphs)			Click here
Kazakhstan	Low	None	Low	Decreasing	5	0%	None	1.2 (graphs)	80.2 (graphs)	sari	Click here
Latvia	Low	Sporadic		Stable	0	0%	None	0.0 (graphs)			Click here
Lithuania	Low	Sporadic	Low	Stable	0	0%	None	0.2 (graphs)	279.1 (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Malta	Low	Sporadic	Low	Decreasing				4.1 * (graphs)	0 * (graphs)		Click here
Netherlands	Low	None		Stable	3	0%	None	10.1 (graphs)	(graphs)		Click here
Northern Ireland	Low	Local		Stable	1	0%		7.8 (graphs)	254.7 (graphs)		Click here
Norway	Low	None		Stable	0	0%	None	20.1 (graphs)	(graphs)		Click here
Poland	Low	Sporadic		Increasing	1	0%	None	18.6 (graphs)	(graphs)		Click here
Portugal	Low	None		Stable	0	0%	None	7.0 (graphs)	(graphs)		Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	59.7 (graphs)	sari	Click here
Romania	Low	None	Low	Decreasing	2	0%	None	0.3 (graphs)	597.0 (graphs)	sari	Click here
Russian Federation	Low	Sporadic		Stable	38	5.3%	None	(graphs)	367.7 (graphs)	sari	Click here
Scotland	Low	None	Low	Stable	5	0%	Type A	0.0 (graphs)	158.3 (graphs)		Click here
Serbia	Low	None	Low	Increasing	0	0%	None	21.6 (graphs)		sari	Click here
Slovakia	Low	None	Low	Decreasing				106.5 (graphs)	1136.2 (graphs)	sari	Click here
Slovenia	Low	None		Stable	0	0%	None	0.0 (graphs)	605.7 (graphs)		Click here
Spain	Low	None		Stable	21	0%	None	5.4 (graphs)	(graphs)		Click here
Sweden	Low	Sporadic	Low	Stable	0	0%	Type A and B	0.7 (graphs)	(graphs)		Click here
Switzerland	Low	None		Stable				4.8 (graphs)			Click here
Turkey					0	0%	None	(graphs)			Click here
Ukraine	Low	Sporadic	Low	Increasing	4	0%	None	2.9 * (graphs)	274.0 (graphs)	sari	Click here
Uzbekistan	Low	None	Low	Decreasing			None		10.8 (graphs)		Click here
Europe					150	1.3%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Seasonal influenza activity is over in WHO/European Region

- This issue is based on data reported in week 20/2011 by 40 Member States in the WHO European Region.
- Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) are at low levels in all countries.
- Sentinel-hospital surveillance data for severe acute respiratory infection (SARI) from 7 countries show that SARI hospitalizations continue to decline.
- 1% of sentinel specimens from patients with ILI or ARI, and 2% of specimens from sentinel SARI patients tested positive for influenza.
- This is the last winter report. The next EuroFlu bulletin will be published on 17 June and will summarize the situation in weeks 21-23/2011.



Current situation week 20/2011

During week 20/2011, all but one country (Armenia) reported low influenza activity. ILI and ARI consultation rates were below the national baselines or at pre-season levels in all 34 countries reporting clinical data. The 35 countries reporting on the geographical spread of influenza, reported no or sporadic activity. Only one country (Armenia) reported moderate impact of influenza on its health care system.

This week, 7 countries reported data from sentinel hospital-based surveillance systems for SARI: Armenia, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova, Romania and the Russian Federation. The number of SARI hospitalizations remains at low levels in most of them. Only one country (Armenia) reported influenza infection associated with a SARI case.

Further information on the sentinel SARI surveillance systems represented in the EuroFlu bulletin can be found in the [Overview of sentinel SARI systems in EuroFlu](#).

Virological situation week 20/2011

Sentinel physicians collected 159 respiratory specimens, of which 1 (1%) was positive for influenza B virus. In addition, 24 non-sentinel specimens were reported positive for influenza: 19 (79%) influenza A and 5 (21%) influenza B. Of the influenza A viruses, 8 were subtyped as pandemic A(H1).

Sentinel hospitals in 7 countries collected 42 respiratory specimens from SARI patients, of which 1 (2%) was positive for pandemic influenza A(H1) virus.

Cumulative virological update weeks 40/2010 20/2011

A total of 82 156 influenza virus detections were reported during this period, of which 58 499 (71%) were influenza A and 23 657 (29%) were influenza B. Of the influenza A viruses, 46 538 were subtyped: 44 907 (96%) as pandemic A(H1) and 1 631 (4%) as influenza A(H3).

From week 40/2010 to week 20/2011, 1548 out of 5816 sentinel SARI specimens (27%) tested positive for influenza. Of these influenza viruses, 879 (57%) were influenza A and 669 (43%) influenza B. Of the influenza A viruses, 698 were subtyped: 645 (92%) as pandemic A(H1) and 53 (8%) as influenza A(H3).

Since week 40/2010, 5361 influenza viruses have been characterized antigenically: 2671 were A(H1) pandemic A/California/7/2009 (H1N1)-like; 2308 were B/Brisbane/60/2008-like (B/Victoria/2/87 lineage); 202 were B/Florida/4/2006-like (B/Yamagata/16/88 lineage); 174 were A(H3) A/Perth/16/2009 (H3N2)-like; and 6 were B/Bangladesh/3333/2007-like (B/Yamagata/16/88 lineage). Based on the genetic characterization of 714 influenza viruses, 174 belonged to the pandemic A/California/7/2009 A(H1N1) cluster; 11 belonged to the pandemic A/Christchurch/16/2010 A(H1) cluster; 46 belonged to the pandemic A/Hong Kong/2213/2010 A(H1) cluster; 168 belonged to the A/England/142/2010 subgroup characterized by S185T substitution in the HA; 14 belonged to the A(H3) clade represented by A/Perth/16/2009; 13 belonged to the A(H3) clade represented by A/Victoria/208/2009; 35 belonged to the subgroup represented by A/Hong Kong/2121/2010 in the A/Victoria/208/2009 A(H3) clade; 26 belonged to the B/Bangladesh/3333/2007 clade (Yamagata lineage); 1 belonged to the B/Brisbane/3/2007 clade (Yamagata lineage) and 226 to the B/Brisbane/60/2008 clade (Victoria lineage).

Since week 40/2010, 23 countries (Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Israel, Italy, Latvia, Malta, the Netherlands, Norway, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland and the United Kingdom) had screened 4076 viruses for susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir. The United Kingdom analysed most of the viruses screened (1672). Of the 3526 pandemic A(H1N1) 2009 viruses that were tested, 3417 were sensitive to both inhibitors and 109 viruses (3.1%) carried the NA H275Y mutation. These 109 viruses were resistant to oseltamivir but remained sensitive to zanamivir. All of the 90 influenza A(H3N2) viruses tested for susceptibility to oseltamivir and the 88 tested for susceptibility to zanamivir were found to be sensitive. All of the 460 influenza B viruses tested for susceptibility to oseltamivir and the 447 tested for susceptibility to zanamivir were found to be sensitive. All 261 pandemic influenza A(H1N1) 2009 viruses and 43 A(H3N2) viruses that were screened for susceptibility to adamantanes were found to be resistant.

Comment

ILI and ARI consultation rates are at very low levels in the WHO European Region and most countries reported no influenza activity this week. Very low percentages of sentinel samples from ILI, ARI, and SARI surveillance tested positive for influenza.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. For an update on the influenza situation and WHO/Europe recommendations, see the WHO/Europe [web site](#).

Further information can be obtained from the web sites of [WHO/Europe](#), [WHO headquarters](#) and the [European Centre for Disease Prevention and Control](#) (ECDC).

Further information on severe cases associated with influenza virus infections in the European Region can be found in the [ECDC Weekly Influenza Surveillance Overview](#).

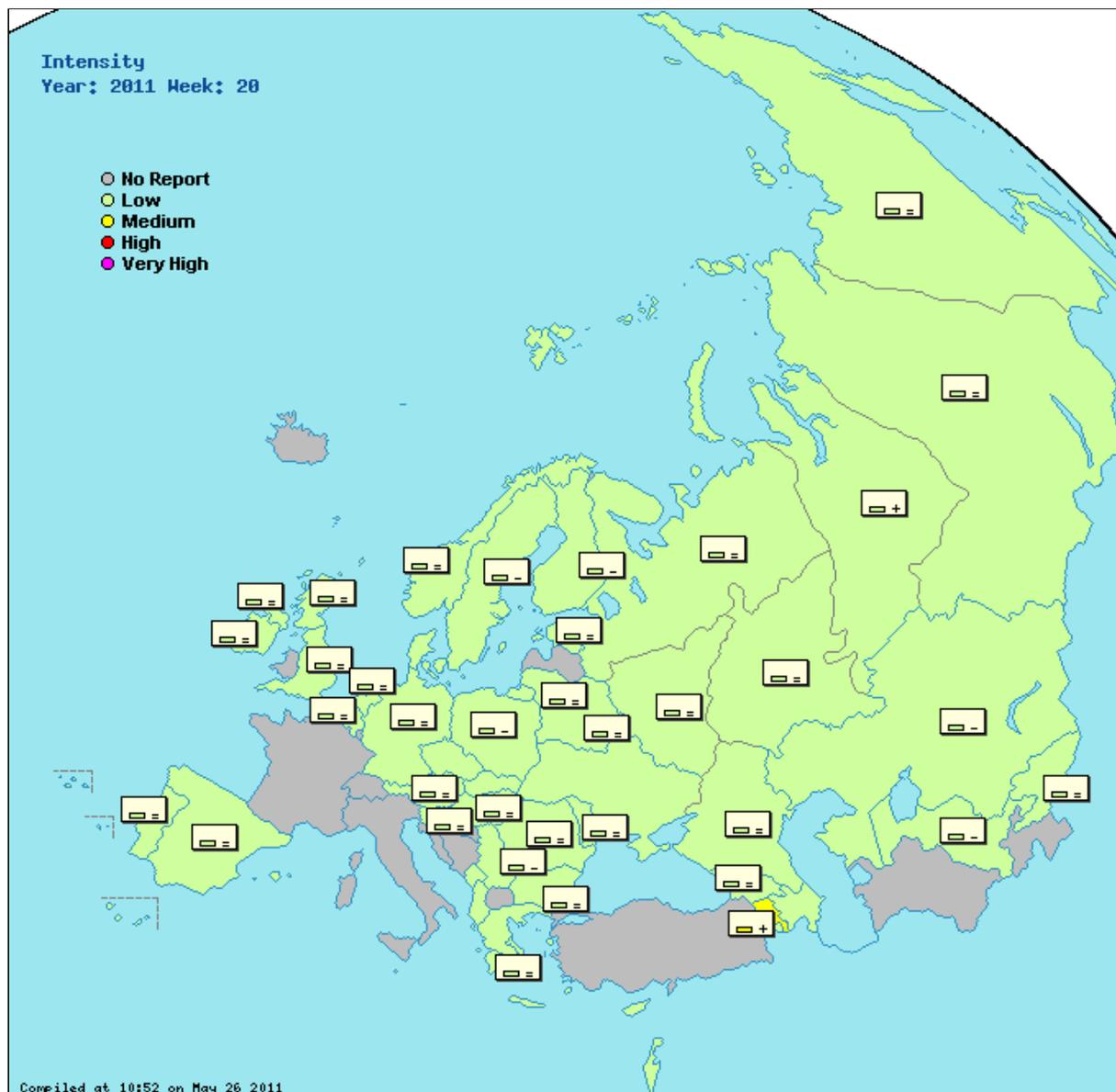
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B
= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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

Country comments (where available)

Kazakhstan

вирусологическим методом 5/0, методом иммунофлюоресценции 28/0, другие негриппозны инфекции 28/3: адено 2, ПГ1-1.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Medium	Local	Moderate	Increasing	0	0%	None	(graphs)	65.9 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing				339.9 (graphs)			Click here
Belarus	Low	None	Low	Stable	19	0%	None		694.5 (graphs)	sari	Click here
Belgium	Low	None		Stable	3	0%	None	23.1 (graphs)	1232.3 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	419.6 (graphs)		Click here
Cyprus	Low	Sporadic	Low	Stable				0.4 * (graphs)	3.2 * (graphs)		Click here
Czech Republic	Low	None		Stable				12.6 (graphs)	605.1 (graphs)		Click here
Denmark	Low	None		Decreasing				6.1 (graphs)	(graphs)		Click here
England	Low	None		Stable	6	0%	None	1.7 (graphs)	282.8 (graphs)		Click here
Estonia	Low	Sporadic		Stable	0	0%	None	3.7 (graphs)	196.0 (graphs)		Click here
Finland	Low	Sporadic	Low	Decreasing	14	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Stable	28	0%	None	275.3 (graphs)		sari	Click here
Germany	Low	None		Stable	3	0%	None	(graphs)	492.9 (graphs)		Click here
Greece	Low	None		Stable	0	0%		34.3 (graphs)	(graphs)		Click here
Hungary	Low	None	Low	Stable	0	0%	None	12.3 (graphs)	(graphs)		Click here
Iceland					0	0%		(graphs)			Click here
Ireland	Low	None	Low	Stable	4	0%	None	5.3 (graphs)	(graphs)		Click here
Israel	Low	None	Low	Stable				1.9 (graphs)			Click here
Kazakhstan	Low	None	Low	Decreasing	2	0%	None	0.6 (graphs)	(graphs)	sari	Click here
Kyrgyzstan	Low	None	Low	Stable	0	0%	None	(graphs)	15.5 (graphs)	sari	Click here
Latvia					0	0%	None	(graphs)			Click here
Lithuania	Low	Sporadic	Low	Stable	0	0%	None	0.0 (graphs)	276.3 (graphs)		Click here
The former Yugoslav Republic of Macedonia							None	(graphs)			Click here
Montenegro	Low	None	Low	Stable				1.6 (graphs)			Click here
Netherlands	Low	None		Stable	2	0%	None	12.9 (graphs)	(graphs)		Click here
Northern Ireland	Low	None		Stable	0	0%		6.8 (graphs)	236.5 (graphs)		Click here
Norway	Low	None		Stable	0	0%	None	11.4 (graphs)	(graphs)		Click here
Poland	Low	None	Low	Decreasing	1	0%	None	15.6 (graphs)	(graphs)		Click here
Portugal	Low	None		Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	0.2 (graphs)	51.0 (graphs)	sari	Click here
Romania	Low	None	Low	Stable	4	0%	None	0.5 (graphs)	644.7 (graphs)	sari	Click here
Russian Federation	Low	Sporadic		Stable	42	0%	None	0.1 (graphs)	392.7 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	0	0%		1.7 (graphs)	130.4 (graphs)		Click here
Serbia	Low	None	Low	Decreasing	0	0%	None	15.5 (graphs)		sari	Click here
Slovakia	Low	None	Low	Decreasing				100.9 (graphs)	1144.6 (graphs)	sari	Click here
Slovenia	Low	None		Stable	0	0%	None	0.0 (graphs)	663.9 (graphs)		Click here
Spain	Low	None		Stable	14	0%	None	4.5 (graphs)	(graphs)		Click here
Sweden	Low	None	Low	Decreasing	1	0%	None	0.0 (graphs)	(graphs)		Click here
Turkey					11	9.1%	None	(graphs)			Click here
Uzbekistan	Low	None	Low	Decreasing					10.5 (graphs)		Click here
Europe					154	0.7%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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EuroFlu : Weekly Electronic Bulletin

Influenza activity in Europe is at out-of-season levels

During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This is the first summer report, based on data reported in week 23/2011 by 31 Member States in the WHO European Region.
- None of the 87 specimens collected from sentinel sources tested positive for influenza.



Current situation: week 23/2011

Clinical consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) are at low levels throughout the Region. Twenty-four countries reported assessments of influenza activity based on qualitative indicators: all reported low intensity of activity, with four reporting sporadic activity for the geographic-spread indicator.

Virological update: week 23/2011

Sentinel physicians collected 87 respiratory specimens, none of which tested positive for influenza virus. Specimens from non-sentinel sources yielded 4 influenza detections: 2 type A (1 A/H1 2009, and 1 unsubtype) and 2 influenza B.

Cumulative virological data: weeks 21-23/2011

During this period, 19 influenza virus detections were reported: 10 were influenza A (52.6%) and 9 (47.4%) were influenza B. Of the influenza A viruses, 6 (60%) were subtyped, with 3 being pandemic A(H1) and 3 A(H3).

Comment

Influenza activity is at out-of-season levels throughout the European Region. None of the samples collected from sentinel sources was positive for influenza virus. From non-sentinel sources, only two countries (the Russian Federation and the United Kingdom (England)) reported influenza-positive samples, indicating minimal influenza activity in the Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

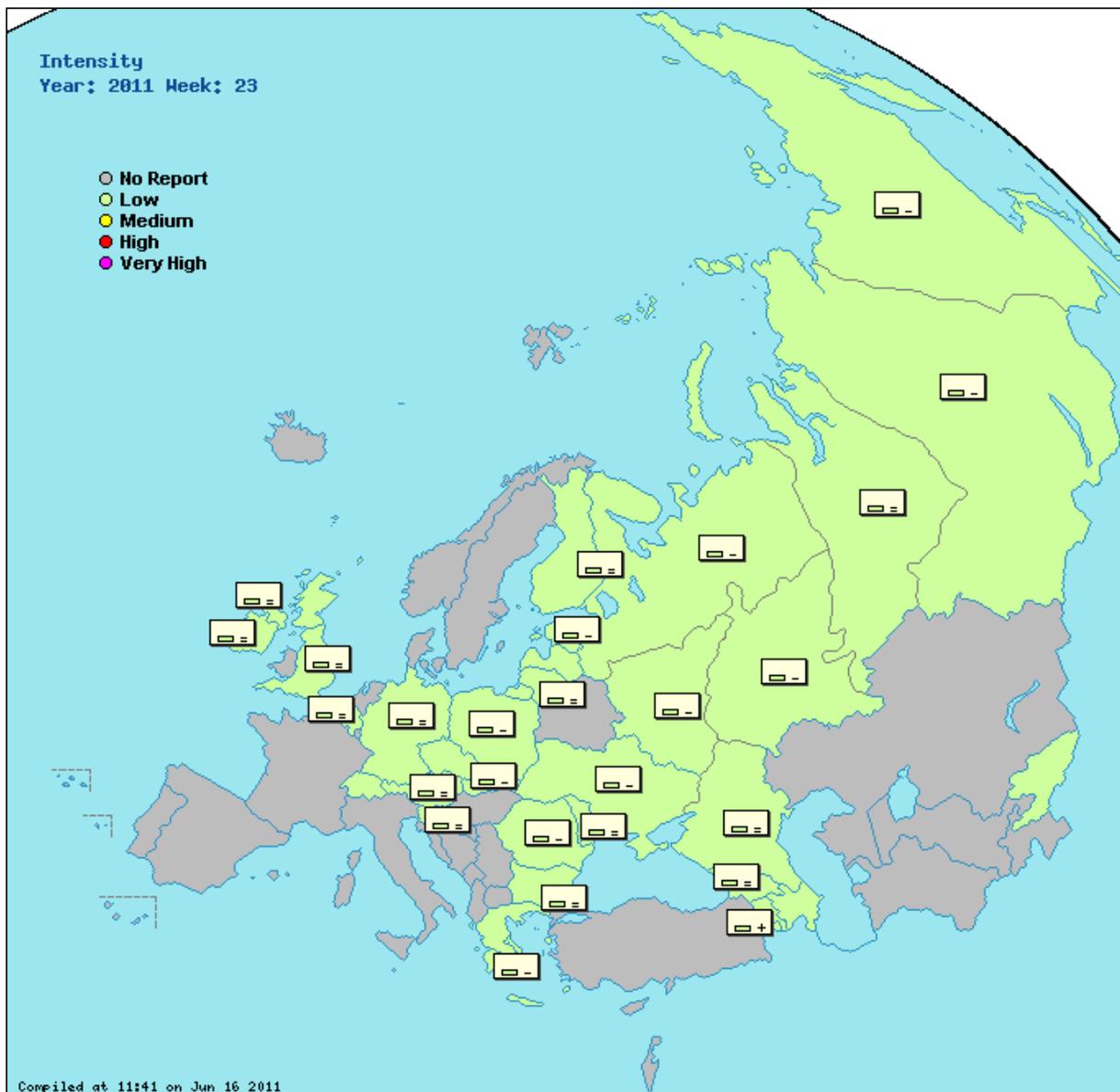
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Low	None	Low	Increasing	0	0%	None	(graphs)	53.2 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing				270.9 (graphs)			Click here
Belarus					10	0%	None		(graphs)	sari	Click here
Belgium	Low	None		Stable	0	0%	None	6.9 (graphs)	1169.1 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	373.1 (graphs)		Click here
Czech Republic	Low	None		Stable				9.2 (graphs)	535.6 (graphs)		Click here
Denmark					0	0%	None	(graphs)			Click here

England	Low	None		Stable	8	0%	None	3.5 (graphs)	296.8 (graphs)		Click here
Estonia	Low	None		Decreasing	1	0%	None	2.8 (graphs)	129.3 (graphs)		Click here
Finland	Low	None	Low	Stable	5	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Stable	10	0%	None	197.3 (graphs)		sari	Click here
Germany	Low	None		Stable	5	0%	None	(graphs)	456.7 (graphs)		Click here
Greece	Low	None		Decreasing	0	0%		21.0 (graphs)	(graphs)		Click here
Ireland	Low	None	Low	Stable	1	0%	None	2.7 (graphs)	(graphs)		Click here
Kazakhstan					2	0%	None	0.9 (graphs)	70.6 (graphs)	sari	Click here
Kyrgyzstan	Low	None	Low	Stable				(graphs)	11.8 (graphs)	sari	Click here
Latvia	Low	None		Stable				0 * (graphs)	0.4 * (graphs)		Click here
Lithuania	Low	Sporadic	Low	Stable	0	0%	None	0.0 (graphs)	171.3 (graphs)		Click here
Netherlands					0	0%	None	(graphs)			Click here
Northern Ireland	Low	None		Stable	0	0%		10.5 (graphs)	287.9 (graphs)		Click here
Poland	Low	None	Low	Decreasing	0	0%	None	7.5 (graphs)	(graphs)		Click here
Portugal					0	0%	None	(graphs)			Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	48.9 (graphs)	sari	Click here
Romania	Low	None	Low	Decreasing	0	0%	None	0.0 (graphs)	486.3 (graphs)	sari	Click here
Russian Federation	Low	Sporadic		Decreasing	42	0%	None	(graphs)	276.6 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable				3.8 (graphs)	133.0 (graphs)		Click here
Slovakia	Low	None	Low	Decreasing	0	0%	None	78.0 (graphs)	908.5 (graphs)	sari	Click here
Slovenia	Low	None		Stable	0	0%	None	0.0 (graphs)	614.6 (graphs)		Click here
Sweden					0	0%	None	(graphs)			Click here
Switzerland	Low	None		Stable				0.9 (graphs)			Click here
Ukraine	Low	None	Low	Decreasing	3	0%	None	2.3 * (graphs)	253.7 (graphs)	sari	Click here
Europe					87	0%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitry Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Influenza activity in Europe at out-of-season levels

During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 25/2011 by 30 Member States in the WHO European Region
- Low influenza activity was observed throughout the Region.



Current situation: week 25/2011

Throughout the Region, clinical consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) remain at low, out-of-seasons levels. All countries reported low intensity of influenza activity. Out of 26 countries for which information on geographical spread was available, five reported sporadic influenza activity (Azerbaijan, Cyprus, Poland, the Russian Federation and United Kingdom (Scotland)). The remainder reported no geographical spread.



Virological update: week 25/2011

None of the 54 respiratory specimens collected by sentinel physicians tested positive for influenza virus. Specimens from non-sentinel sources yielded 2 influenza A detections: neither of which was subtyped.

Cumulative virological data: weeks 21-25/2011

During this period, 30 influenza virus detections were reported: 19 were influenza A (63%) and 11 (37%) were influenza B. Of the influenza A viruses, 10 (53%) were subtyped, with 5 being pandemic A(H1) and 5 A(H3).

Comment

Influenza activity remains at out-of-season levels throughout the European Region. None of the samples collected from sentinel sources was positive for influenza virus. From non-sentinel sources, only two countries (Poland and the United Kingdom (Scotland)) reported influenza-positive samples, indicating minimal influenza activity in the Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

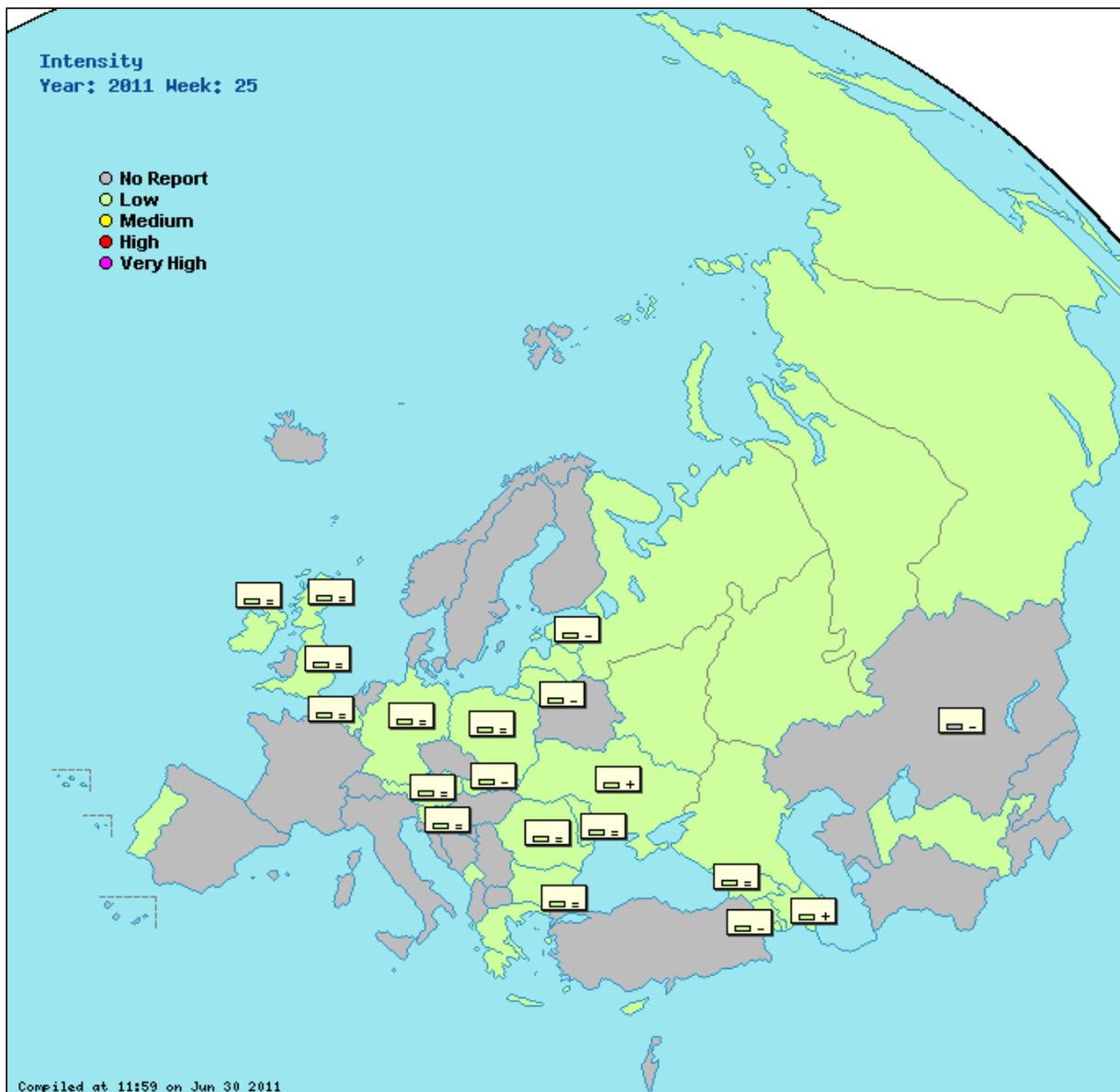
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : [Intensity](#) [+ virological](#) [Geographical spread](#) [+ virological](#) [Impact](#)



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
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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.

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Low	None	Low	Decreasing	0	0%	None	(graphs)	45.3 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing	8	0%	None	249.4 (graphs)			Click here
Belgium	Low	None		Stable	3	0%	None	15.0 (graphs)	781.9 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	343.7 (graphs)		Click here
Cyprus	Low	Sporadic	Low	Stable				0.5 * (graphs)	4.9 * (graphs)		Click here
England	Low	None		Stable	7	0%	None	3.2 (graphs)	249.2 (graphs)		Click here
Estonia	Low	None		Decreasing	0	0%	None	2.2 (graphs)	69.4 (graphs)		Click here

Georgia	Low	None	Low	Stable	19	0%	None	282.2 (graphs)		sari	Click here
Germany	Low	None		Stable	4	0%	None	(graphs)	354.8 (graphs)		Click here
Greece	Low	None		Stable				27.2 (graphs)	(graphs)		Click here
Ireland	Low	None	Low	Stable				1.5 (graphs)	(graphs)		Click here
Kazakhstan		None		Decreasing	5	0%	None	1.0 (graphs)	66.7 (graphs)	sari	Click here
Latvia	Low	None		Stable				0 * (graphs)	0.3 * (graphs)		Click here
Lithuania	Low	None	Low	Decreasing	0	0%	None	0.0 (graphs)	110.1 (graphs)		Click here
Montenegro	Low	None	Low	Stable				0.5 (graphs)			Click here
Netherlands					1	0%	None	(graphs)			Click here
Northern Ireland	Low	None		Stable	3	0%		6.9 (graphs)	276.7 (graphs)		Click here
Norway		None			0	0%	None	0.0 (graphs)	(graphs)		Click here
Poland	Low	Sporadic	Low	Stable	0	0%	None	8.5 (graphs)	(graphs)		Click here
Portugal	Low	None		Stable				0.0 (graphs)	(graphs)		Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	32.5 (graphs)	sari	Click here
Romania	Low	None	Low	Stable	0	0%	None	0.5 (graphs)	536.9 (graphs)	sari	Click here
Russian Federation	Low	Sporadic		Stable				(graphs)	238.0 (graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	0	0%	None	4.1 (graphs)	159.3 (graphs)		Click here
Slovakia	Low	None	Low	Decreasing	0	0%	None	62.3 (graphs)	813.6 (graphs)	sari	Click here
Slovenia	Low	None		Stable	0	0%	None	0.0 (graphs)	508.1 (graphs)		Click here
Sweden					0	0%	None	(graphs)			Click here
Turkey					2	0%	None	(graphs)			Click here
Ukraine	Low	None	Low	Increasing	2	0%	None	3.2 * (graphs)	216.8 (graphs)	sari	Click here
Uzbekistan	Low	None	Low	Decreasing					9.9 (graphs)		Click here
Europe					54	0%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Somnina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Influenza activity in Europe at out-of-season levels

During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 27/2011 by 27 Member States in the WHO European Region.
- Very low influenza activity was observed throughout the Region.



Current situation: week 27/2011

Throughout the Region, clinical consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) remained at low, out-of-season levels. All countries reported low intensity of influenza activity. Of 23 countries for which information on geographical spread was available, only one (Azerbaijan) reported sporadic influenza activity. The remainder reported no geographical spread.



Virological update: week 27/2011

None of the 35 respiratory specimens collected by sentinel physicians tested positive for influenza virus. Specimens from non-sentinel sources yielded 6 influenza A detections, none of which were subtyped.

Cumulative virological data: weeks 21-27/2011

During this period, 45 influenza virus detections were reported: 31 were influenza A (69%) and 14 (31%) were influenza B. Of the influenza A viruses, 12 (39%) were subtyped, with 6 being pandemic A(H1) and 6 A(H3).

Comment

Influenza activity is at out-of-season levels throughout the European Region. None of the samples collected from sentinel sources was positive for influenza virus. From non-sentinel sources, only one country (the United Kingdom (England)) reported influenza-positive samples, indicating minimal influenza activity in the Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

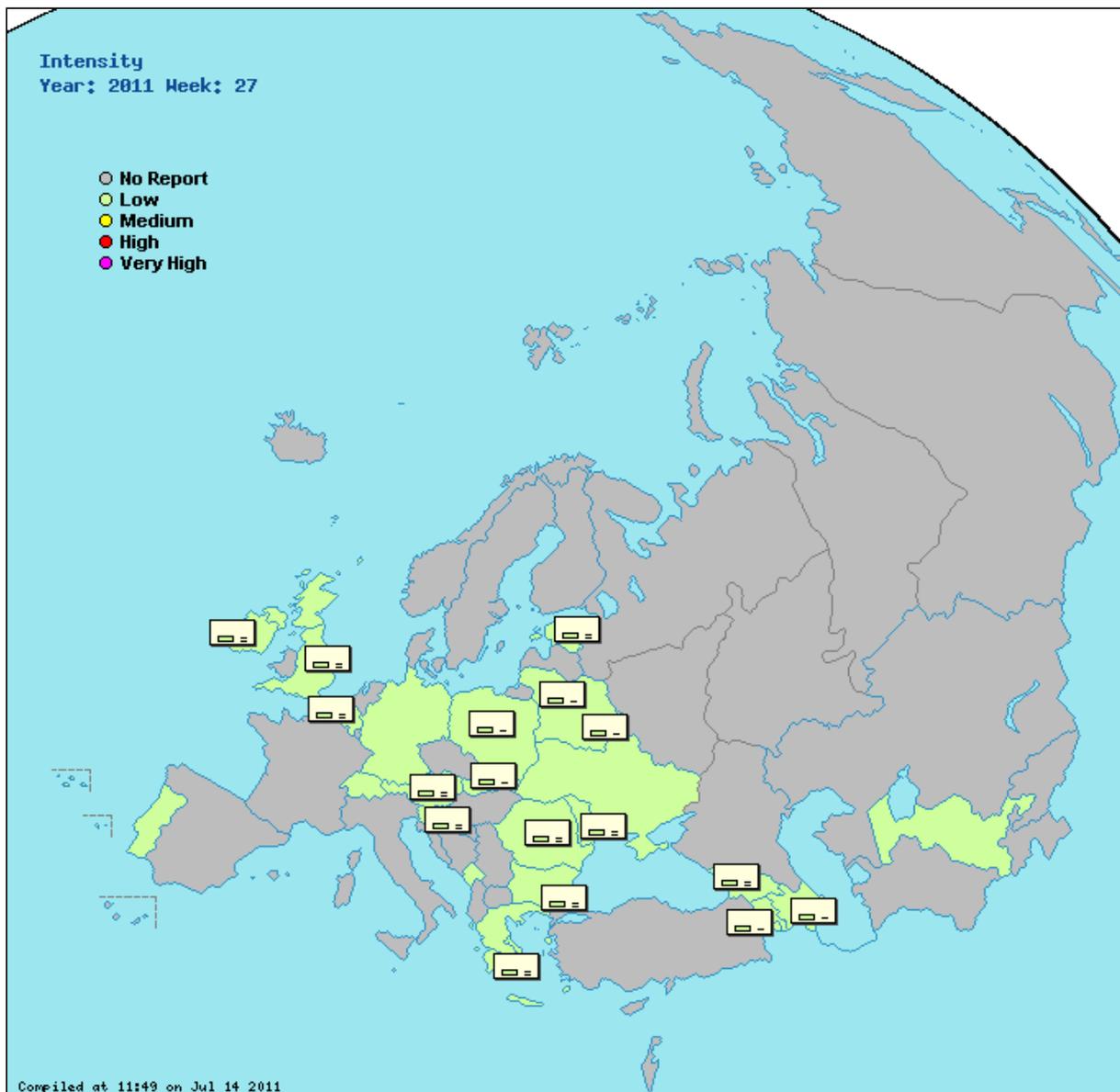
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : [Intensity](#) [+ virological](#) [Geographical spread](#) [+ virological](#) [Impact](#)



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Northern Ireland

Low number returns due to holiday period in N Ireland.

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Low	None	Low	Decreasing	0	0%	None	(graphs)	27.9 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	8	0%	None	166.1 (graphs)			Click here
Belarus	Low	None	Low	Decreasing	7	0%	None		359.2 (graphs)	sari	Click here
Belgium	Low	None		Stable	2	0%	None	17.1 (graphs)	833.0 (graphs)	sari	Click here
Bulgaria	Low	None		Stable	2	0%	None	(graphs)	287.2 (graphs)		Click here
England	Low	None		Stable	0	0%	None	1.7 (graphs)	283.3 (graphs)		Click here
Estonia	Low	None		Stable	0	0%	None	1.6 (graphs)	59.2 (graphs)		Click here
Georgia	Low	None	Low	Stable	12	0%	None	214.2 (graphs)		sari	Click here

Germany	Low	None		Stable					(graphs)	448.2	(graphs)	Click here
Greece	Low	None		Stable	0	0%			29.4	(graphs)	(graphs)	Click here
Iceland					0	0%			(graphs)			Click here
Ireland	Low	None	Low	Stable	1	0%	None		2.4	(graphs)	(graphs)	Click here
Kazakhstan					0	0%	None		0.9	(graphs)	59.9	(graphs) sari Click here
Lithuania	Low	None	Low	Decreasing	0	0%	None		0.0	(graphs)	85.3	(graphs) Click here
Montenegro	Low	None	Low	Stable					0.2	(graphs)		Click here
Netherlands					2	0%	None		(graphs)			Click here
Northern Ireland	Low	None		Stable					8.4	(graphs)	226.1	(graphs) Click here
Poland	Low	None	Low	Decreasing	1	0%	None		4.4	(graphs)	(graphs)	Click here
Portugal	Low	None		Stable					0.0	(graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable			None		(graphs)	(graphs)	sari Click here	
Romania	Low	None	Low	Stable	0	0%	None		0.0	(graphs)	474.9	(graphs) sari Click here
Scotland	Low	None	Low	Stable					2.9	(graphs)	131.6	(graphs) Click here
Slovakia	Low	None	Low	Decreasing	0	0%	None		40.9	(graphs)	597.6	(graphs) sari Click here
Slovenia	Low	None		Stable	0	0%	None		0.0	(graphs)	511.7	(graphs) Click here
Sweden					0	0%	None		(graphs)			Click here
Switzerland	Low	None		Stable					2.3	(graphs)		Click here
Ukraine	Low	None	Low	Increasing					2.7 *	(graphs)	186.6	(graphs) sari Click here
Uzbekistan	Low	None	Low	Decreasing							9.2	(graphs) Click here
Europe					35	0%						Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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Influenza at out-of-season levels in the European Region



During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 29/2011 by 23 Member States in the WHO European Region.
- There were no influenza detections among sentinel samples in the Region.

Current situation: week 29/2011

Consultation rates for clinical influenza-like illness (ILI) and acute respiratory infection (ARI) continued to be at very low levels throughout the Region, with all countries reporting low influenza intensity.



Virological update: week 29/2011

Sentinel physicians collected 44 respiratory specimens, none of which tested positive for influenza virus. Only one specimen from non-sentinel sources tested positive for influenza (influenza B).

Cumulative virological data: weeks 21-29/2011

During this period, 51 influenza virus detections were reported: 34 were influenza A (67%) and 17 (33%) were influenza B. Of the influenza A viruses, 13 (38%) were subtyped, with 7 being pandemic A(H1) and 6 A(H3).

Comment

Influenza activity continues to be at very low levels throughout the WHO European Region. Only one country (the United Kingdom (Scotland)) reported a positive influenza sample. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

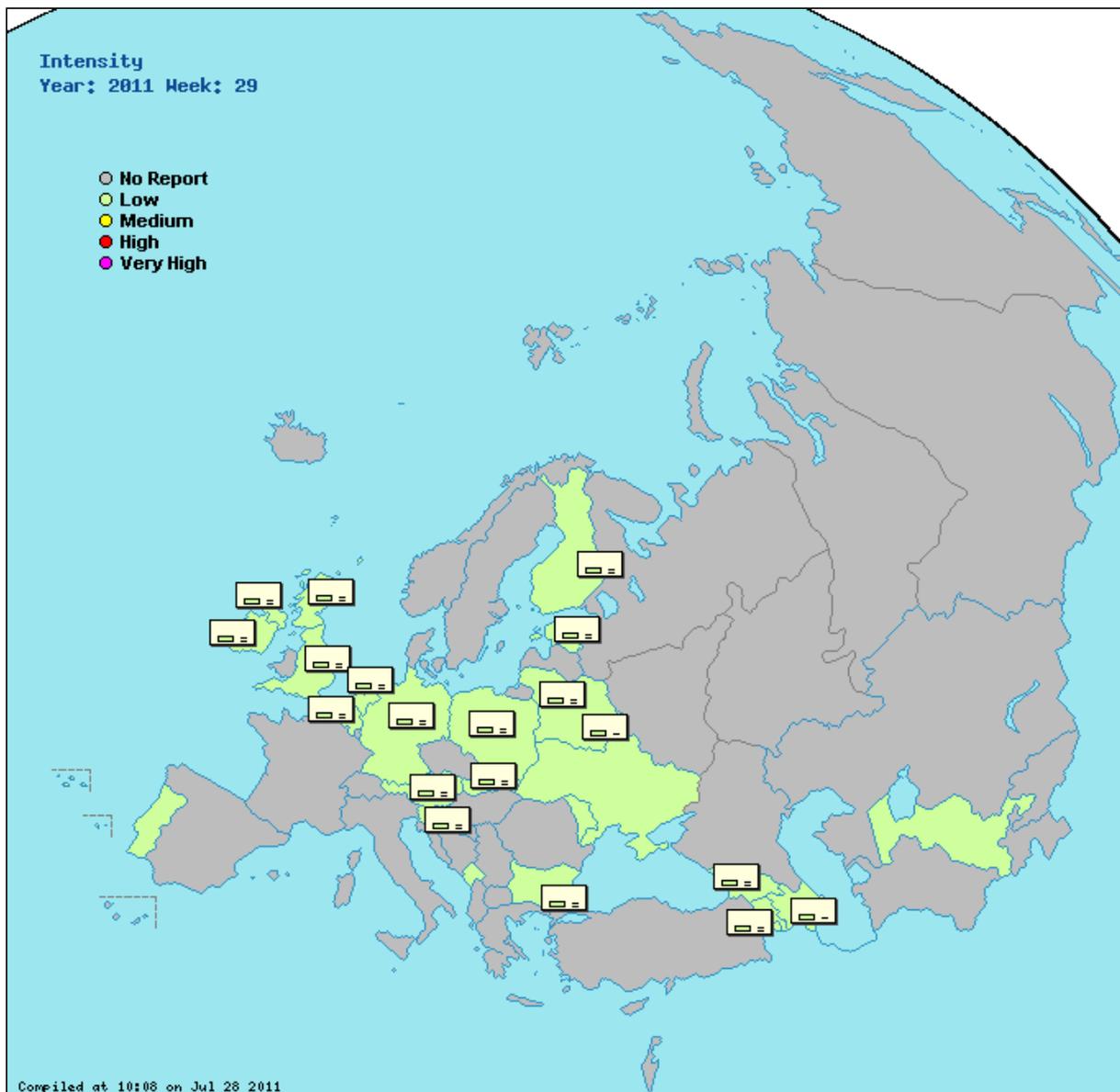
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

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.

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Low	None	Low	Stable	0	0%	None	(graphs)	28.5 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	6	0%	None	186.5 (graphs)			Click here
Belarus	Low	None	Low	Decreasing	4	0%	None		(graphs)	sari	Click here
Belgium	Low	None		Stable	0	0%	None	12.4 (graphs)	562.3 (graphs)	sari	Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	235.0 (graphs)		Click here
England	Low	None		Stable	10	0%	None	2.0 (graphs)	228.8 (graphs)		Click here
Estonia	Low	None		Stable	0	0%	None	1.0 (graphs)	52.3 (graphs)		Click here
Finland	Low	None	Low	Stable	4	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Stable	15	0%	None	173.7 (graphs)		sari	Click here

Germany	Low	None		Stable	0	0%	None	(graphs)	423.6	(graphs)	Click here	
Ireland	Low	None	Low	Stable	2	0%	None	2.5	(graphs)	(graphs)	Click here	
Latvia					0	0%	None	(graphs)			Click here	
Lithuania	Low	None	Low	Stable	0	0%	None	0.0	(graphs)	80.8	(graphs)	Click here
Montenegro	Low	None	Low	Stable				(graphs)			Click here	
Netherlands	Low	None		Stable	3	0%	None	8.6	(graphs)	(graphs)	Click here	
Northern Ireland	Low	None		Stable	0	0%		5.0	(graphs)	219.4	(graphs)	Click here
Poland	Low	None	Low	Stable	0	0%	None	3.9	(graphs)	(graphs)	Click here	
Portugal	Low	None		Stable				0.0	(graphs)	(graphs)	Click here	
Republic of Moldova	Low	None	Low	Stable				(graphs)	31.0	(graphs)	sari Click here	
Scotland	Low	None	Low	Stable	0	0%	None	0.0	(graphs)	118.5	(graphs)	Click here
Slovakia	Low	None	Low	Stable	0	0%	None	39.8	(graphs)	546.9	(graphs)	sari Click here
Slovenia	Low	None		Stable	0	0%	None	0.0	(graphs)	513.7	(graphs)	Click here
Ukraine	Low	None	Low	Decreasing				2.5 *	(graphs)	167.5	(graphs)	sari Click here
Uzbekistan	Low	None		Stable						9.6	(graphs)	Click here
Europe					44	0%					Click here	

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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Sporadic cases of laboratory-confirmed influenza in recent weeks



EUROPE



During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 31/2011 by 27 Member States in the WHO European Region.
- All sentinel samples collected in the Region were negative for influenza detection.

Current situation: week 31/2011

Consultation rates for clinical influenza-like illness (ILI) and acute respiratory infection (ARI) continued to be at very low levels throughout the Region, with all countries reporting low influenza intensity.

Virological update: week 31/2011

Sentinel physicians collected 25 respiratory specimens, none of which tested positive for influenza virus. From non-sentinel sources, 8 specimens were reported positive for influenza: 6 influenza A and 2 influenza B. Of the influenza A viruses, 5 were subtyped: 2 as pandemic A(H1) and 3 as A(H3).

Cumulative virological data: weeks 21-31/2011

During this period, 67 influenza virus detections were reported from sentinel and non-sentinel sources: 46 were influenza A (69%) and 21(31%) were influenza B. Of the influenza A viruses, 22 (48%) were subtyped, with 12 being pandemic A(H1) and 10 A(H3).

Comment

Influenza activity continues to be at very low levels throughout the WHO European Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

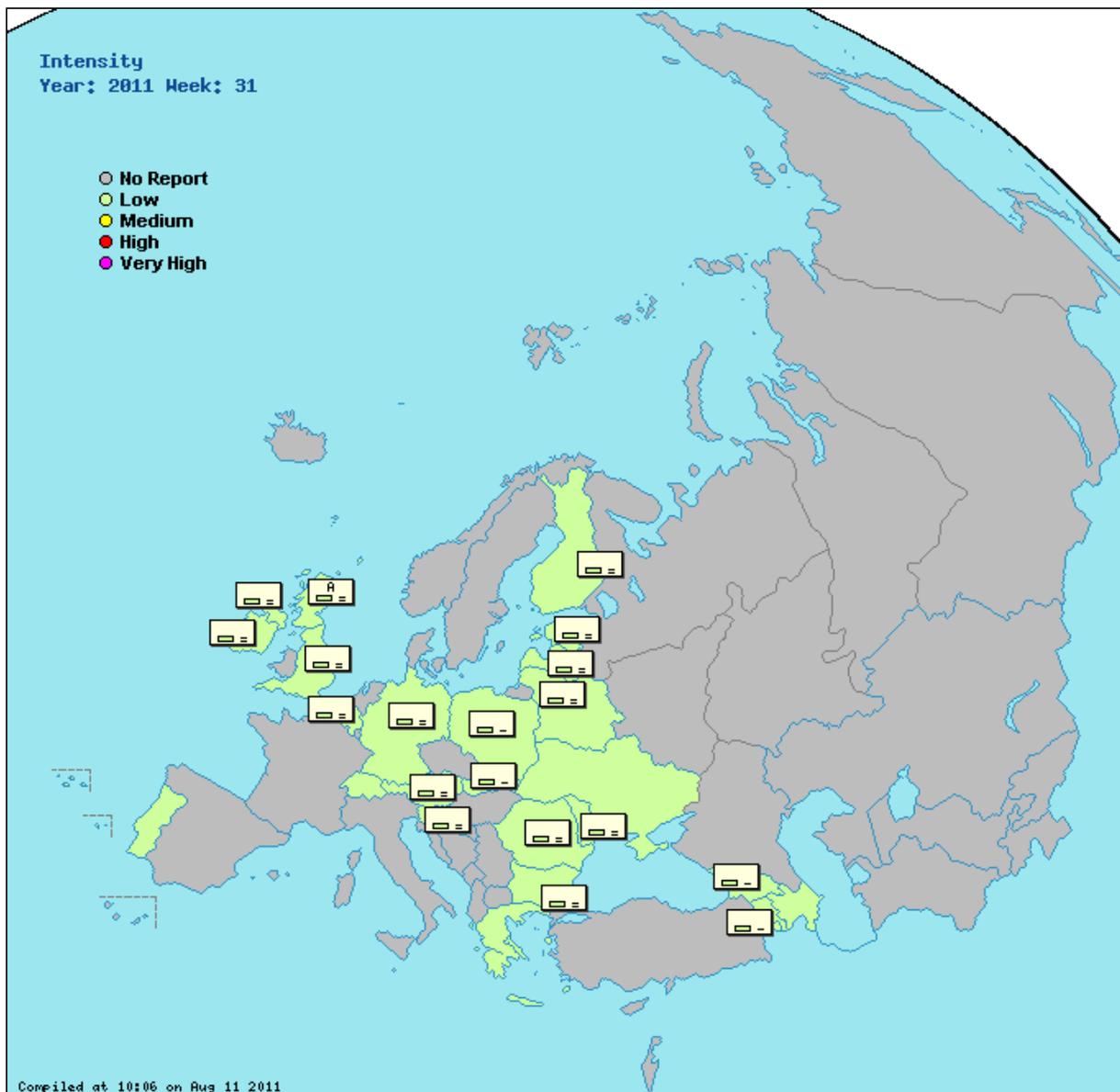
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Low	None	Low	Decreasing	0	0%	None	(graphs)	24.5 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing				157.9 (graphs)			Click here
Belarus	Low	None	Low	Increasing					367.4 (graphs)	sari	Click here
Belgium	Low	None		Stable	0	0%	None	8.3 (graphs)	611.8 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Stable	0	0%	None	(graphs)	240.8 (graphs)		Click here
England	Low	None		Stable	3	0%	None	1.5 (graphs)	200.4 (graphs)		Click here
Estonia	Low	None		Stable	0	0%	None	1.2 (graphs)	58.9 (graphs)		Click here
Finland	Low	None	Low	Stable	6	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Decreasing	10	0%	None	112.2 (graphs)		sari	Click here

Germany	Low	None		Stable	1	0%	None	(graphs)	400.1	(graphs)	Click here		
Greece	Low	None		Stable				23.9	(graphs)	(graphs)	Click here		
Ireland	Low	None	Low	Stable	2	0%	None	1.9	(graphs)	(graphs)	Click here		
Latvia	Low	None		Stable	0	0%	None	0 *	(graphs)	0.2 *	(graphs)	Click here	
Lithuania	Low	None	Low	Stable	0	0%	None	0.0	(graphs)	73.8	(graphs)	Click here	
Netherlands					2	0%	None		(graphs)		Click here		
Northern Ireland	Low	None		Stable	0	0%		5.6	(graphs)	179.0	(graphs)	Click here	
Norway		None						0.0	(graphs)	(graphs)	Click here		
Poland	Low	None	Low	Decreasing	0	0%	None	5.1	(graphs)	(graphs)	Click here		
Portugal	Low	None		Stable				0.0	(graphs)	(graphs)	Click here		
Republic of Moldova	Low	None	Low	Stable	0	0%	None		(graphs)	28.1	(graphs)	sari	Click here
Romania	Low	None	Low	Stable	0	0%	None	0.0	(graphs)	440.2	(graphs)	sari	Click here
Scotland	Low	Sporadic	Low	Stable	0	0%	Type A	0.0	(graphs)	102.4	(graphs)	Click here	
Slovakia	Low	None	Low	Decreasing	0	0%		30.2	(graphs)	472.2	(graphs)	sari	Click here
Slovenia	Low	None		Stable	0	0%	None	0.0	(graphs)	388.3	(graphs)	Click here	
Sweden					1	0%	None		(graphs)		Click here		
Switzerland	Low	None		Stable				3.6	(graphs)		Click here		
Ukraine	Low	None	Low	Increasing				2.3 *	(graphs)	177.3	(graphs)	sari	Click here
Europe					25	0%					Click here		

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Sporadic influenza activity in the WHO European Region



During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 33/2011 by 30 Member States in the WHO European Region.
- All sentinel samples collected in the Region were negative for influenza detection.

Current situation: week 33/2011

Consultation rates for clinical influenza-like illness (ILI) and acute respiratory infection (ARI) continued to be at very low levels throughout the Region, with all countries reporting low influenza activity.



Virological update: week 33/2011

Sentinel physicians collected 67 respiratory specimens, none of which tested positive for influenza virus. From non-sentinel sources, 14 specimens were reported positive for influenza: 8 type A and 6 type B. Of the influenza A viruses, 7 were subtyped: 6 as pandemic A(H1) and 1 as A(H3).

Cumulative virological data: weeks 21-33/2011

During this period, 97 influenza virus detections were reported from sentinel and non-sentinel sources: 64 (66%) were influenza A and 33 (34%) were influenza B. Of the influenza A viruses, 37 (58%) were subtyped, with 19 being pandemic A(H1) and 18 A(H3).

Comment

Influenza activity continues to be at very low levels throughout the WHO European Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

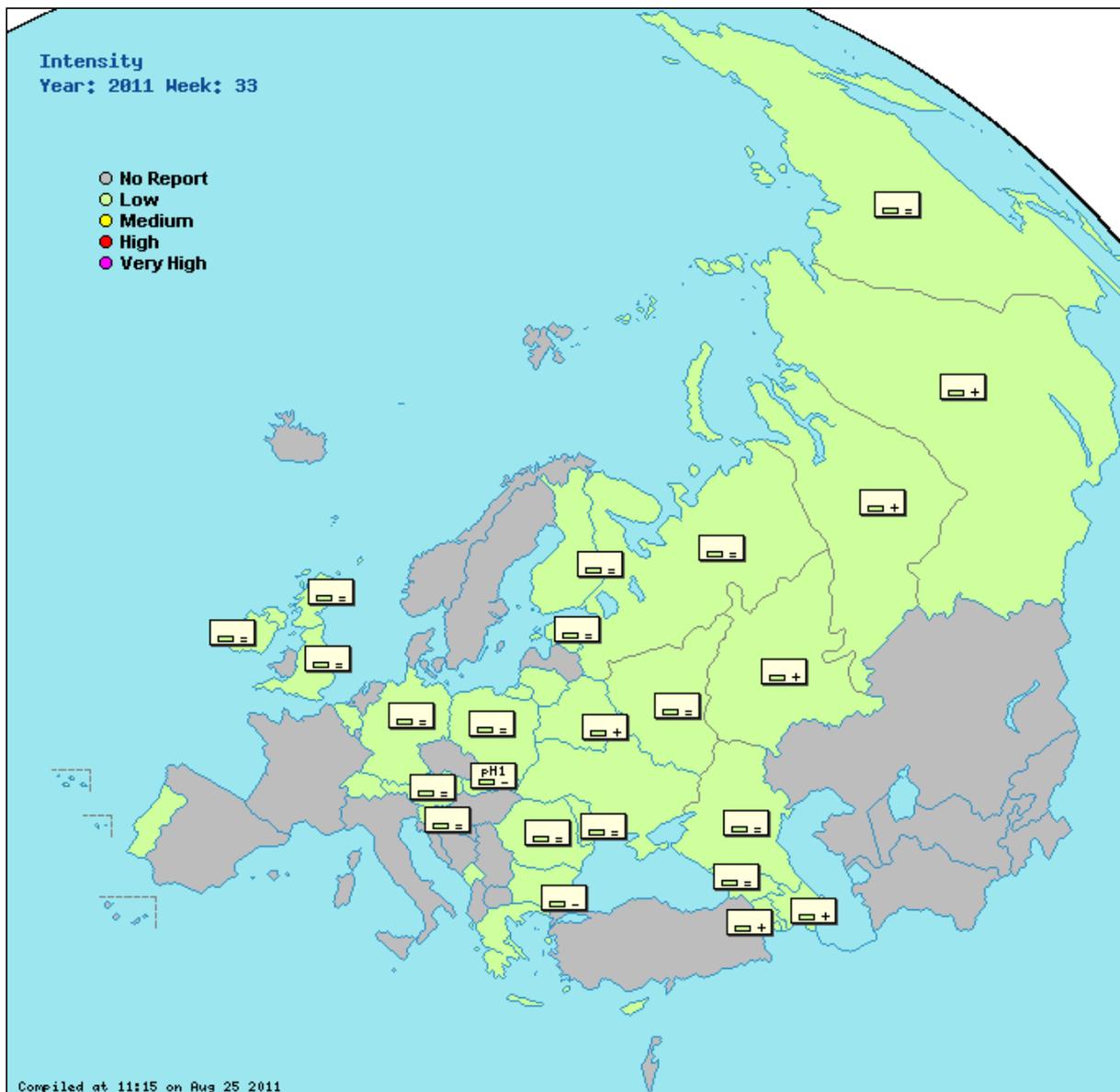
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Low	None	Low	Increasing	0	0%	None	(graphs)	26.6 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Increasing	8	0%	None	188.4 (graphs)			Click here
Belarus	Low	None	Low	Increasing	7	0%	None		412.7 (graphs)	sari	Click here
Belgium	Low	None		Stable				18.9 (graphs)	575.6 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Decreasing	0	0%	None	(graphs)	217.9 (graphs)		Click here
Cyprus	Low	Sporadic	Low	Stable				0.3* (graphs)	2.3* (graphs)		Click here
Denmark					1	0%	None	(graphs)			Click here
England	Low	None		Stable	6	0%	None	2.6 (graphs)	200.3 (graphs)		Click here
Estonia	Low	None		Stable	0	0%	None	1.4 (graphs)	71.8 (graphs)		Click here

Finland	Low	None	Low	Stable	11	0%	None	0.0	(graphs)	(graphs)	Click here
Georgia	Low	None	Low	Stable	5	0%	None	100.1	(graphs)		sari Click here
Germany	Low	None		Stable	1	0%	None		(graphs)	332.4 (graphs)	Click here
Greece	Low	None		Stable				22.2	(graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	0	0%	None	0.9	(graphs)	(graphs)	Click here
Lithuania	Low	None	Low	Stable				0.1	(graphs)	78.9 (graphs)	Click here
Montenegro	Low	None	Low	Stable				0.2	(graphs)		Click here
Netherlands					1	0%	None		(graphs)		Click here
Northern Ireland	Low	None		Stable				5.5	(graphs)	200.3 (graphs)	Click here
Norway		None			0	0%	None	0.0	(graphs)	(graphs)	Click here
Poland	Low	None	Low	Stable	0	0%	None	4.0	(graphs)	(graphs)	Click here
Portugal	Low	None		Stable				0.0	(graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None		(graphs)	29.6 (graphs)	sari Click here
Romania	Low	None	Low	Stable	0	0%	None	0.0	(graphs)	448.6 (graphs)	sari Click here
Russian Federation	Low	Sporadic		Increasing	26	0%	None		(graphs)	231.8 (graphs)	sari Click here
Scotland	Low	Sporadic	Low	Stable	0	0%	None	3.7	(graphs)	96.4 (graphs)	Click here
Slovakia	Low	None	Low	Decreasing	0	0%	Type A, Subtype pH1	32.5	(graphs)	478.5 (graphs)	sari Click here
Slovenia	Low	None		Stable	1	0%	None	0.0	(graphs)	288.7 (graphs)	Click here
Sweden					0	0%	None		(graphs)		Click here
Switzerland	Low	None		Stable				2.0	(graphs)		Click here
Ukraine	Low	None	Low	Increasing						198.9 (graphs)	sari Click here
Europe					67	0%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Sominina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Sporadic cases of laboratory-confirmed influenza in the WHO European Region



During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 35/2011 by 23 Member States in the WHO European Region.
- All sentinel samples tested negative for influenza.

Current situation: week 35/2011

Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) remain very low throughout the Region, although some countries have reported slight increases in clinical ILI or ARI rates among children aged 0-4 years in recent weeks.

Virological update: week 35/2011

Sentinel physicians collected 50 respiratory specimens, none of which tested positive for influenza virus. From non-sentinel sources, 4 specimens were reported positive for influenza: 3 type A and 1 type B. None of the influenza A viruses was subtyped.

Cumulative virological data: weeks 21-35/2011

During this period, 104 influenza virus detections were reported from sentinel and non-sentinel sources: 69 (66%) were influenza A and 35 (34%) were influenza B. Of the influenza A viruses, 38 (55%) were subtyped, with 19 being pandemic A(H1) and 19 A(H3).

Comment

Influenza activity is still at low levels throughout the WHO European Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

Map

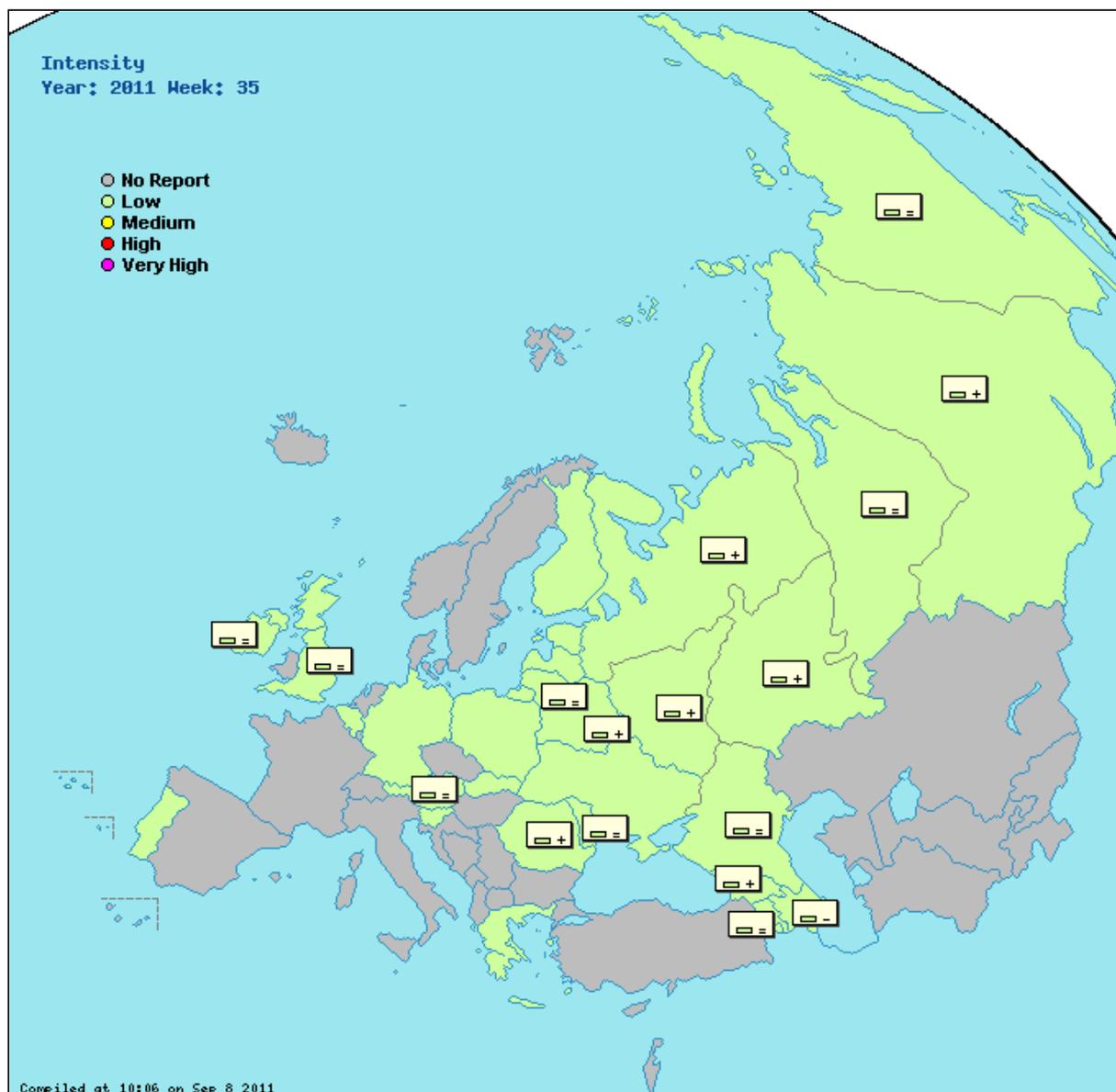
The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**





A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia	Low	None	Low	Stable	0	0%	None	(graphs)	27.6 (graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan	Low	Sporadic	Low	Decreasing	4	0%	None	135.4 (graphs)			Click here
Belarus	Low	None	Low	Increasing	4	0%	None		533.0 (graphs)	sari	Click here
Belgium	Low	None		Stable				18.4 (graphs)	749.2 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
England	Low	None		Stable	5	0%	None	2.8 (graphs)	179.0 (graphs)		Click here
Estonia	Low	None		Decreasing				2.5 (graphs)	105.9 (graphs)		Click here
Finland	Low	None	Low	Stable				0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Increasing	16	0%	None	255.9 (graphs)		sari	Click here
Germany	Low	None		Stable				(graphs)	408.8 (graphs)		Click here

Greece	Low	None		Stable				22.6 (graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	0	0%	None	1.8 (graphs)	(graphs)	Click here
Latvia	Low	None		Stable				0 * (graphs)		Click here
Lithuania	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	91.0 (graphs)	Click here
Northern Ireland	Low	None		Stable				8.1 (graphs)	184.3 (graphs)	Click here
Poland	Low	Sporadic	Low	Stable				4.0 (graphs)	(graphs)	Click here
Portugal	Low	None		Stable				0.0 (graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	18.9 (graphs)	sari Click here
Romania	Low	None	Low	Increasing	0	0%	None	0.0 (graphs)	447.7 (graphs)	sari Click here
Russian Federation	Low	None		Increasing	21	0%	None	(graphs)	289.5 (graphs)	sari Click here
Scotland	Low	Sporadic	Low	Stable				0.0 (graphs)	159.4 (graphs)	Click here
Slovakia	Low	None	Low	Decreasing				24.2 (graphs)	386.3 (graphs)	sari Click here
Slovenia	Low	None		Stable				0.0 (graphs)	418.9 (graphs)	Click here
Ukraine	Low	None	Low	Increasing				1.0 * (graphs)	207.5 (graphs)	sari Click here
Europe					50	0%				Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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Sporadic cases of laboratory-confirmed influenza in the WHO European Region



During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 37/2011 by 30 Member States in the WHO European Region.
- All sentinel samples tested negative for influenza.

Current situation: week 37/2011

Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) remain low throughout the Region. Some countries have reported slight increases in clinical ARI rates in recent weeks which is normal for this time of year.

Virological update: week 37/2011

Sentinel physicians collected 96 respiratory specimens, none of which tested positive for influenza virus. From non-sentinel sources, 2 specimens (United Kingdom, England) were reported positive for influenza: 1 type A unsubtype and 1 type A(H3).

Cumulative virological data: weeks 21-37/2011

During this period, 111 influenza virus detections were reported from sentinel and non-sentinel sources: 74 (67%) were influenza A and 37 (33%) were influenza B. Of the influenza A viruses, 39 (53%) were subtyped, with 19 being pandemic A(H1) and 20 A(H3).

Comment

Influenza activity is still at low levels throughout the WHO European Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

Map

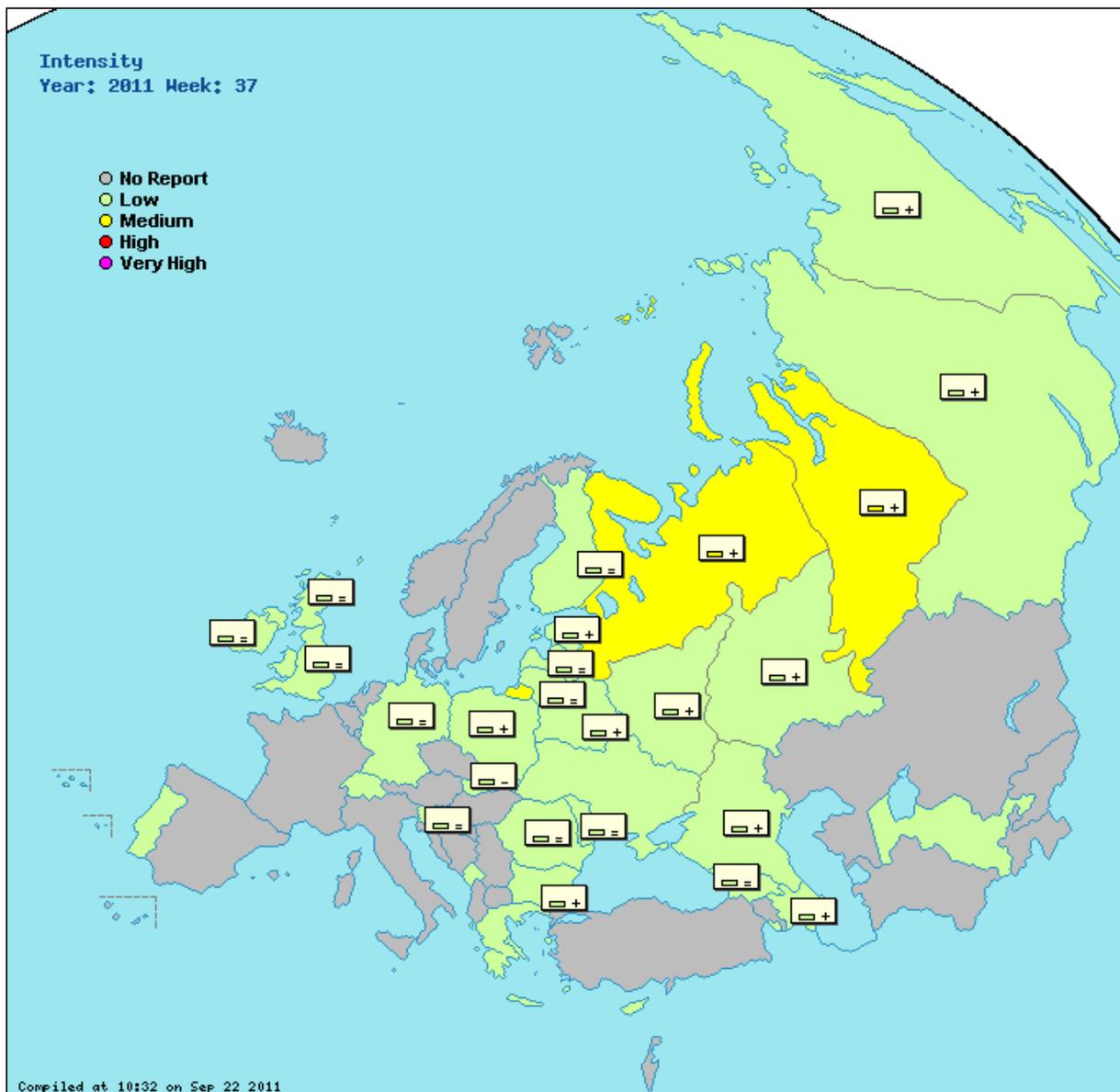
The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** **+ virological** **Geographical spread** **+ virological** **Impact**





A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
+ : increasing clinical activity
- : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia					0	0%	None		(graphs)	sari	Click here
Azerbaijan	Low	Sporadic	Low	Increasing	1	0%	None	217.3 (graphs)			Click here
Belarus	Low	None	Low	Increasing	3	0%	None		1010.8 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Increasing	0	0%	None	(graphs)	315.6 (graphs)		Click here
Cyprus	Low	Sporadic	Low	Stable				0.5 * (graphs)	4.5 * (graphs)		Click here
Denmark					0	0%	None	(graphs)			Click here
England	Low	None		Stable	5	0%	None	4.0 (graphs)	242.4 (graphs)		Click here
Estonia	Low	None		Increasing	0	0%	None	4.6 (graphs)	218.2 (graphs)		Click here
Finland	Low	None	Low	Stable	22	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Stable	12	0%	None	155.7 (graphs)		sari	Click here

Germany	Low	None		Stable	7	0%	None	(graphs)	598.1	(graphs)	Click here
Greece	Low	None		Stable				(graphs)	21.3	(graphs)	Click here
Iceland					0	0%		(graphs)			Click here
Ireland	Low	None	Low	Stable	2	0%	None	(graphs)	3.4	(graphs)	Click here
Kazakhstan					3	0%	None	(graphs)	1.0	(graphs)	Click here
Latvia	Low	None		Stable	0	0%	None	(graphs)	0 *		Click here
Lithuania	Low	None	Low	Stable	0	0%	None	(graphs)	0.1	(graphs)	Click here
Montenegro	Low	None	Low	Stable				(graphs)	0.5		Click here
Netherlands					5	0%	None	(graphs)			Click here
Northern Ireland	Low	None		Stable				(graphs)	6.2	(graphs)	Click here
Poland	Low	None	Low	Increasing	2	0%	None	(graphs)	16.0	(graphs)	Click here
Portugal	Low	None		Stable				(graphs)	0.0	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	51.3		sari Click here
Romania	Low	None	Low	Stable	0	0%	None	(graphs)	479.0	(graphs)	sari Click here
Russian Federation	Low	None		Increasing	34	0%	None	(graphs)	530.4	(graphs)	sari Click here
Scotland	Low	None	Low	Stable	0	0%	None	(graphs)	0.0	(graphs)	Click here
Slovakia	Low	None	Low	Decreasing	0	0%	None	(graphs)	47.0	(graphs)	sari Click here
Slovenia	Low	None		Stable	0	0%	None	(graphs)	0.0	(graphs)	Click here
Switzerland	Low	None		Stable				(graphs)	9.1		Click here
Ukraine	Low		Low	Increasing				(graphs)	1.1 *	(graphs)	sari Click here
Uzbekistan	Low	None		Increasing					12.2	(graphs)	Click here
Wales	Low	None		Stable				(graphs)	1.9	(graphs)	Click here
Europe					96	0%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium= usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in >=50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown, Joshua Mott, Pernille Jorgensen and Dmitriy Pereyaslov), the Netherlands Institute for Health Services Research (NIVEL; Liana Martirosyan, Temporary Adviser to WHO), UMC St Radboud; (Tamara Meerhoff, Temporary Adviser to WHO) and the WHO Collaborating Center for Influenza, Mill Hill, United Kingdom (Rod Daniels). The bulletin was reviewed by Silke Buda (Robert Koch Institute, Berlin, Germany), Ge Donker (Netherlands Institute for Health Services Research (NIVEL), Utrecht, Netherlands), Anna Somnina (Research Institute for Influenza, St. Petersburg, Russian Federation) and ECDC, on behalf of the data contributors.

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Sporadic cases of laboratory-confirmed influenza in the WHO European Region



During weeks 21-40/2011, the EuroFlu bulletin is published biweekly.

- This issue is based on data reported in week 39 by 29 Member States in the WHO European Region.
- All sentinel samples tested negative for influenza.
- This is the last summer report; the next EuroFlu bulletin will be published on 14 October and will summarize the situation in week 40/2011.



Current situation: week 39/2011

Consultation rates for influenza-like illness (ILI) and acute respiratory infection (ARI) remain low throughout the Region. Some countries have reported slight increases in clinical ILI and/or ARI rates in recent weeks, which is normal for this time of year.

Virological update: week 39/2011

Sentinel physicians collected 134 respiratory specimens, none of which tested positive for influenza virus. From non-sentinel sources, 2 two specimens (the Russian Federation) were reported positive for pandemic influenza A(H1).

Cumulative virological data: weeks 21-39/2011

During the summer, no positive influenza specimens were detected from sentinel sources. From non-sentinel sources, a total of 123 influenza virus detections were reported: 83 (67%) were influenza A and 40 (33%) were influenza B. Of the influenza A viruses, 47 (57%) were subtyped, with 28 being pandemic A(H1) and 19 A(H3).

Comment

Influenza activity is still at low levels throughout the WHO European Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

Further information

The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the [WHO/Europe](#) and [WHO headquarters](#) web sites.

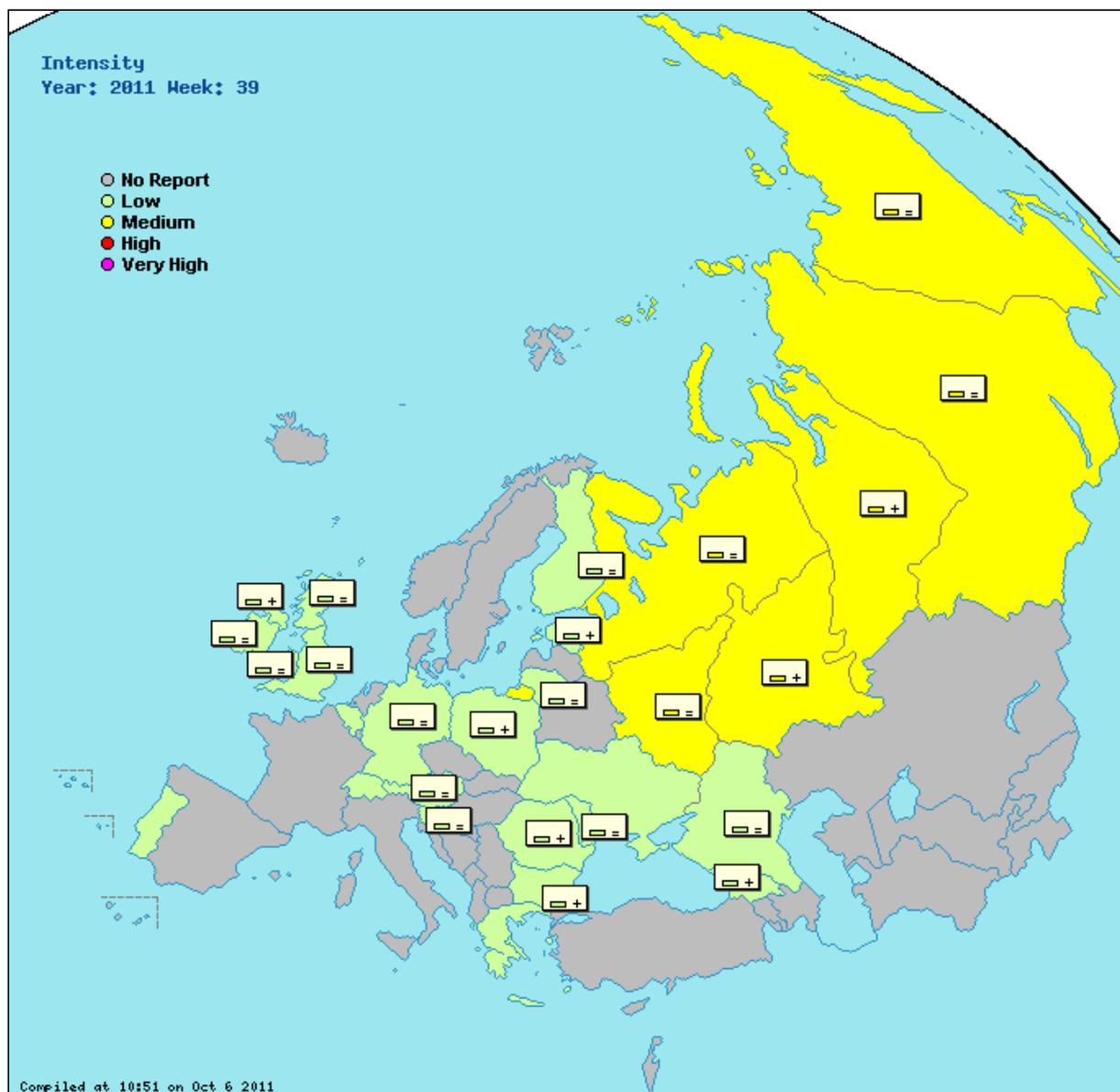
Map

The map presents the qualitative indicators of influenza activity (intensity, trend, geographical spread and impact) and the dominant virus as assessed by each of the countries.

Clicking on the map will, if available, take you through to the national web site. If 'regional' activity is reported, a pop-up text box will appear which describes the activity in greater detail.

Clicking on France, Russian Federation, Turkey and United Kingdom (England) will provide you with regional data.

Type of map : **Intensity** + **virological** **Geographical spread** + **virological** **Impact**



A = Dominant virus A
H1N1 = Dominant virus A(H1N1)
H3N2 = Dominant virus A(H3N2)
H1N2 = Dominant virus A(H1N2)
B = Dominant virus B
A & B = Dominant virus A & B

= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

Low = no influenza activity or influenza at baseline levels
Medium = usual levels of influenza activity
High = higher than usual levels of influenza activity
Very high = particularly severe levels of influenza activity

No activity = no laboratory-confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity.
Sporadic = isolated cases of laboratory confirmed influenza infection
Localized = limited to one administrative unit of the country (or reporting site) only.
Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites).
Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Country comments (where available)

Table and graphs (where available)

	Intensity	Geographic Spread	Impact	Trend	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000	Sentinel SARI	Virology graph and pie chart
Armenia					0	0%	None		(graphs)	sari	Click here
Austria	Low	None	Low	Stable	0	0%	None	0.0 (graphs)	(graphs)		Click here
Azerbaijan					2	0%	None	(graphs)			Click here
Belarus					8	0%	None		(graphs)	sari	Click here
Belgium	Low	None		Stable				60.4 (graphs)	1509.1 (graphs)	sari	Click here
Bosnia and Herzegovina							None	(graphs)			Click here
Bulgaria	Low	None		Increasing	0	0%	None	(graphs)	418.5 (graphs)		Click here
England	Low	None		Stable	14	0%	None	4.5 (graphs)	308.2 (graphs)		Click here
Estonia	Low	None		Increasing	0	0%	None	5.9 (graphs)	277.6 (graphs)		Click here
Finland	Low	None	Low	Stable	34	0%	None	0.0 (graphs)	(graphs)		Click here
Georgia	Low	None	Low	Increasing	12	0%	None	299.4 (graphs)		sari	Click here

Germany	Low	None		Stable	13	0%	None	(graphs)	744.3	(graphs)	Click here
Greece	Low	None		Stable				54.3	(graphs)	(graphs)	Click here
Ireland	Low	None	Low	Stable	0	0%	None	4.9	(graphs)	(graphs)	Click here
Kazakhstan					2	0%	None	0.4	(graphs)	112.1	(graphs) sari Click here
Latvia					0	0%	None	(graphs)			Click here
Lithuania	Low	None	Low	Stable	3	0%	None	0.2	(graphs)	384.8	(graphs) Click here
Netherlands					4	0%	None	(graphs)			Click here
Northern Ireland	Low	None		Increasing	0	0%		13.3	(graphs)	310.2	(graphs) Click here
Norway					1	0%	None	(graphs)			Click here
Poland	Low	None	Low	Increasing	4	0%	None	38.1	(graphs)	(graphs)	Click here
Portugal	Low	None		Stable				0.0	(graphs)	(graphs)	Click here
Republic of Moldova	Low	None	Low	Stable	0	0%	None	(graphs)	60.4	(graphs) sari Click here	
Romania	Low	None	Low	Increasing	0	0%	None	0.0	(graphs)	739.7	(graphs) sari Click here
Russian Federation	Medium	Sporadic		Stable	30	0%	None	(graphs)	621.3	(graphs) sari Click here	
Scotland	Low	None	Low	Stable	0	0%	None	0.0	(graphs)	349.2	(graphs) Click here
Serbia					0	0%	None	(graphs)			sari Click here
Slovakia					0	0%	None	(graphs)			sari Click here
Slovenia	Low	None		Stable	6	0%	None	0.0	(graphs)	983.5	(graphs) Click here
Switzerland	Low	None		Stable				14.0	(graphs)		Click here
Ukraine	Low	None	Low	Increasing				3.2 *	(graphs)	420.9	(graphs) sari Click here
Wales	Low	None		Stable	1	0%		8.4	(graphs)	(graphs)	Click here
Europe					134	0%					Click here

Preliminary data

Intensity: Low = no influenza activity or influenza activity at baseline level; Medium = usual levels of influenza activity; High = higher than usual levels of influenza activity; Very high = particularly severe levels of influenza activity.

Geographical spread: No activity = no laboratory-confirmed cases, or evidence of increased or unusual respiratory disease activity; Sporadic = isolated cases of laboratory-confirmed influenza infection; Localized = limited to one administrative unit in the country (or reporting site) only; Regional = appearing in multiple but <50% of the administrative units of the country (or reporting sites); Widespread = appearing in ≥50% of the administrative units of the country (or reporting sites).

Impact: Low = demands on health-care services are not above usual levels; Moderate = demands on health-care services are above the usual demand levels but still below the maximum capacity of those services; Severe = demands on health care services exceed the capacity of those services.

Trend: Increasing = evidence that the level of respiratory disease activity is increasing compared with the previous week; Stable = evidence that the level of respiratory disease activity is unchanged compared with the previous week; Decreasing = evidence that the level of respiratory disease activity is decreasing compared with the previous week.

Percentage positive: percentage of sentinel swabs that tested positive for influenza A or B

Dominant type: this assessment is based on data from sentinel and non-sentinel sources

ARI: acute respiratory infection

ILI: influenza-like illness

Sentinel SARI: severe acute respiratory illness

Population: per 100,000 population

*: the value in the table for these countries reflects the percent (e.g. from 0.0 to 100.0) of total outpatient encounters that were due to ILI/ARI rather than a consultation rate per 100,000

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