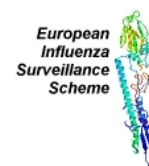


Ongoing influenza activity with a high intensity in parts of central and southern Europe



Key points: week 52/2009

- This report is based on data received from 39 of the 53 Member States in the WHO European Region.
- Thirty-three per cent of specimens collected from sentinel sources tested positive for influenza virus.
- The incidence of clinical respiratory illness has decreased over the past three weeks in 16 reporting countries.
- Influenza transmission remains high in some areas, particularly in the central and southern part of the Region.
- Out of 12 countries that reported testing at least 20 sentinel specimens for influenza this week, five reported that 30% of specimens or more had tested positive for influenza.
- Four countries reported high or very high intensity of influenza activity, with six reporting moderate impact on health services.
- Pandemic (H1N1) 2009 was dominant in 27 countries and accounted 100% of influenza A virus subtype detections in sentinel specimens and 97% of detections in non-sentinel specimens.
- 2555 laboratory confirmed pandemic (H1N1) 2009 deaths have been reported in the Region.

Current situation: week 52/2009

Clinical respiratory disease activity has declined over the past three weeks in 16 countries. In many of these countries, the clinical consultation rate in the 5-14 year age group has again dropped below rates observed in the 0-4 year age group. However four of these 16 countries (Poland, Portugal, Switzerland and the United Kingdom) also tested at least 20 sentinel specimens for influenza during week 52/2009 and the median influenza positivity rate was 37% (mean 33%), suggesting that influenza circulation is ongoing despite declining clinical trends. The intensity of influenza transmission also remains high in some areas, particularly in the central and southern parts of the Region. Although the increase in clinical consultation rates reported during week 51/2009 in Georgia and Montenegro have not continued, 54% of sentinel specimens collected in Georgia tested positive for influenza during week 52/2009. In addition, Greece has reported that 73% of sentinel specimens tested positive for influenza, reflecting the highest positivity rate of any country testing 20 or more sentinel specimens this week. Although clinical consultation rates for ARI appear to have reached a second peak in Ukraine, clinical consultation rates remain high, particularly in central and eastern Ukraine. Georgia, Poland, the Russian Federation (Urals Region), Ukraine and Serbia reported the intensity of influenza circulation as high. Estonia, France, Georgia, Romania, Turkey and Ukraine reported the impact of influenza on health care services to be moderate.

Reports of respiratory hospitalizations and deaths to EuroFlu indicate that deaths due to acute respiratory infection (ARI) have continued to decline in the Russian Federation during each week since week 48/2009. The weekly count of hospitalizations due to severe acute respiratory illness (SARI) reported by Slovakia has also decreased from a peak that was observed in week 50. However, sentinel SARI hospitalizations reported by Ukraine again increased during week 52/2009, largely due to increases reported at sentinel sites in Kyiv and Odessa. Weekly reports of SARI hospitalizations in Uzbekistan have remained stable at a level similar to a peak that was reached in week 49/2009.

Virological update: week 52/2009

Sentinel physicians collected 942 respiratory specimens this week, of which 312 (33%) were positive for influenza virus. Of these virus detections, 312 (100%) were type A (300 pandemic A(H1), 12 not subtyped). Of the 13 countries testing 20 or more sentinel specimens this week, influenza-positive rates ranged from 0% (Hungary) to 72% (Greece), with a median of 36% and a mean of 34%.

Based on the antigenic characterization of 799 influenza viruses reported from week 40/2009 to week 52/2009, 792 were pandemic A(H1N1), A/California/7/2009-like, 3 were A/Perth/16/2009 (H3N2)-like, 2 were A(H3) A/Brisbane/10/2007 (H3N2)-like, 1 was A/Brisbane/59/2007 (H1N1)-like, and 1 was B/Brisbane/60/2008-like. Genetic characterizations were available for 252 isolates; all belonged to the A/California/7/2009 A(H1N1) pandemic influenza lineage.

Ten countries have tested isolates of pandemic (H1N1) 2009 virus for oseltamivir resistance. Of the 1312 cases tested, 26 were resistant to oseltamivir. All viruses tested for resistance to zanamivir (346/346) have been found to be zanamivir-sensitive and all viruses tested for resistance to adamantanes (64/64) have been found to be resistant. This week the Netherlands reported that one additional patient was retrospectively diagnosed with a monopopulation of H275Y oseltamivir resistant virus. This patient did not receive oseltamivir therapy and the epidemiological investigation is ongoing.

Comment

Sentinel surveillance systems throughout the Region suggest that influenza activity remains ongoing, and a high intensity of activity continues in parts of central and southern Europe. The percentage of sentinel specimens testing positive for influenza in the Region was 33% during week 52/2009. While this is lower than the peak of 45% that was reached during week 45/2009, this should be interpreted with caution as clinical consultation rates and the testing of sentinel specimens may be impacted by the holiday season.

Further information

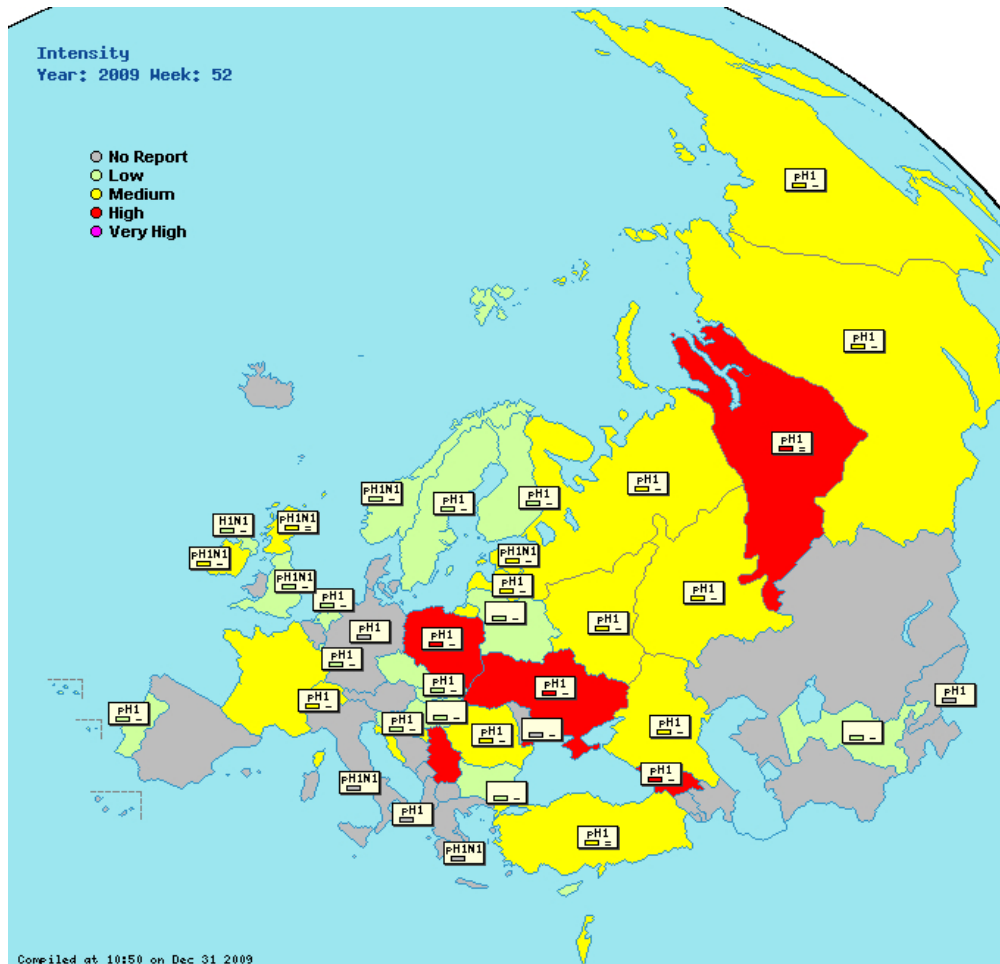
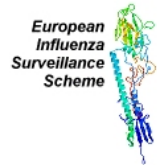
The EuroFlu bulletin describes and comments on influenza activity in the 53 countries in the WHO European Region. Further information can be obtained from the WHO/Europe and WHO headquarters web sites.

The bulletin text was written by an editorial team at the WHO Regional Office for Europe (Caroline Brown and Joshua Mott), the Netherlands Institute for Health Services Research (NIVEL), John Paget and Tamara Meerhoff, Temporary Advisers to WHO) and the WHO Collaborating Centre for reference and research on influenza, Mill Hill, UK (Rod Daniels). The bulletin was reviewed by Douglas Fleming (Royal College of General Practitioners, UK), Lars Nielsen (Statens Serum Institute, Denmark) and Anne Mosnier (Open Rome, France) on behalf of the data contributors.

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Ongoing influenza activity with a high intensity in parts of central and southern Europe

Intensity of influenza



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 and 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

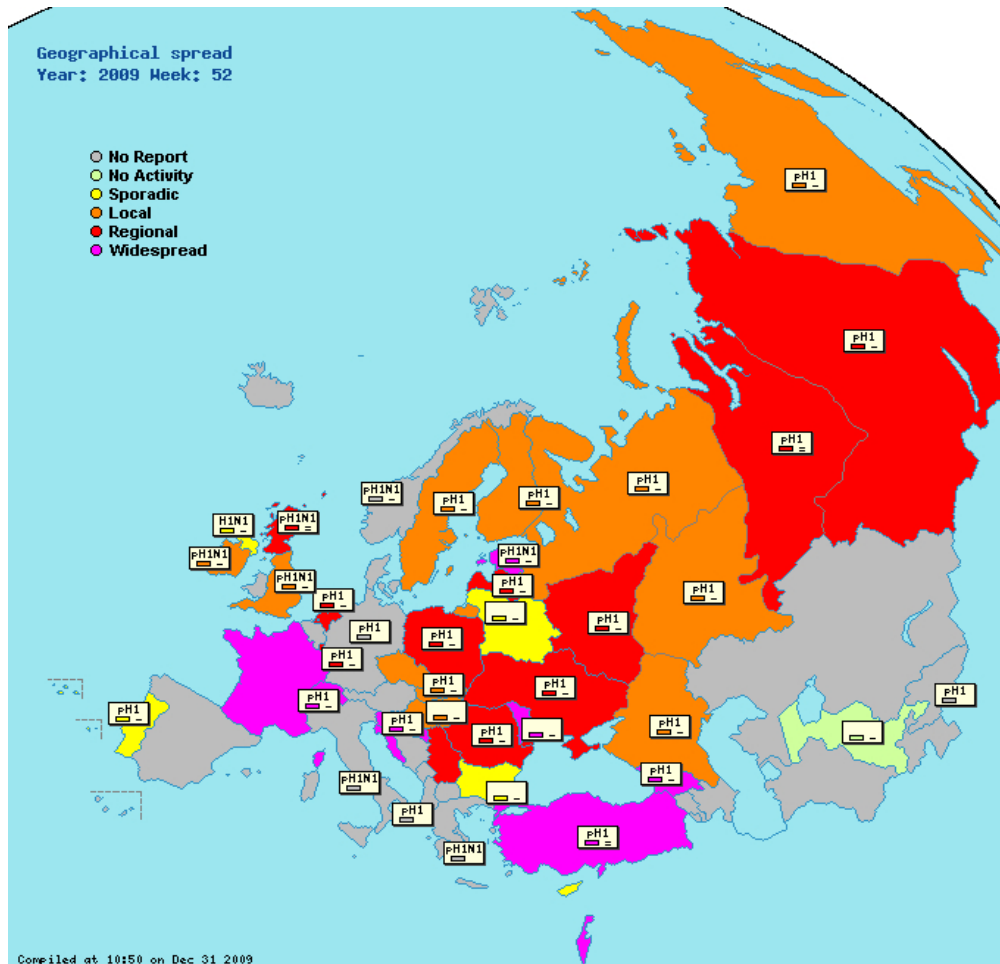
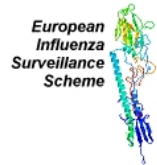
= : stable clinical activity
 + : increasing clinical activity
 - : decreasing clinical activity

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Geographic spread of influenza



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 and 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.

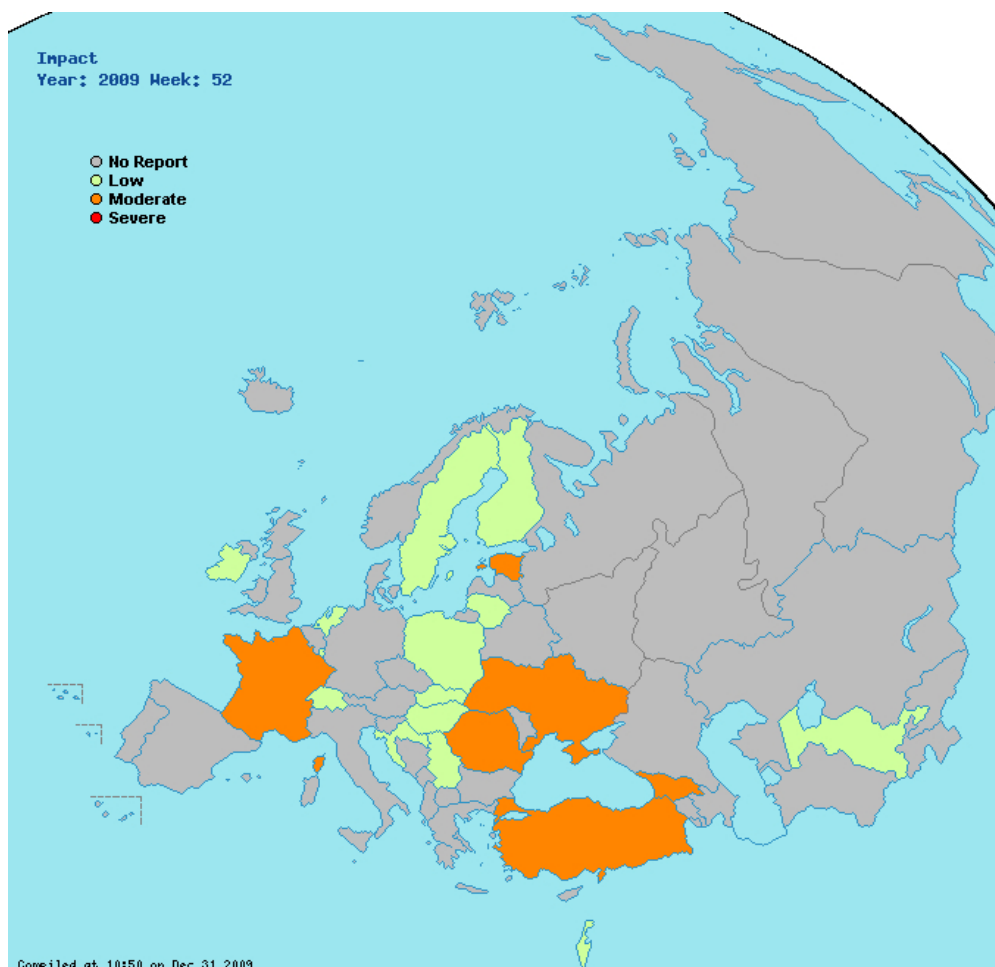
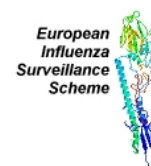
Widespread = influenza activity above baseline levels in one or more regions with a population comprising 50% or more of the country's population. Laboratory confirmed.

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Impact of influenza



Low = demands on health care services are not above usual levels

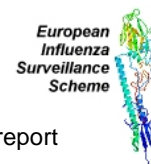
Moderate = demands on health care services are above the usual demand levels but still below the maximum capacity of those services

Severe = demands on health care services exceed the capacity of those services

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Network comments (where available)



Finland

due to the Christmas holidays, reports from the sentinel surveillance sites didn't arrive in time for this report

Netherlands

By week 53 in the Netherlands 15 patients were diagnosed with oseltamivir resistant pandemic A(H1N1) 2009 influenza virus. Compared to week 52, one additional patient was retrospectively diagnosed with a monopopulation of H275Y oseltamivir resistant virus. However, this patient did not receive oseltamivir therapy. Source and transmission investigation is ongoing. Eleven of the 15 patients were immunosuppressed due to cytostatic/immunosuppressive therapy, of which five died. Contact tracing identified no cases of onward transmission of the oseltamivir resistant viruses.

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Table

	Intensity	Geographic spread	Impact	Sentinel swabs	Percentage positive	Dominant type	ILI per 100,000	ARI per 100,000
Albania				168	22.6%	Type A, Subtype pH1		
Belarus	Low	Sporadic					877.9	
Bulgaria	Low	Sporadic				None	582.5	
Croatia	Medium	Widespread	Low				24.1	
Cyprus	Low	Sporadic						
Czech Republic	Low	Local					84.9	725.9
England	Low	Local		132	9.1%	Type A, Subtype pH1N1	12.7	410.4
Estonia	Medium	Widespread	Moderate	15	26.7%	Type A, Subtype pH1N1	21.6	267.0
Finland	Low	Local	Low			Type A, Subtype pH1		
France	Medium	Widespread	Moderate					1838.7
Georgia	High	Widespread	Moderate	56	53.6%	Type A, Subtype pH1	387.5	
Germany				44	47.7%	Type A, Subtype pH1		
Greece				29	72.4%	Type A, Subtype pH1N1		
Hungary	Low	Local	Low	39	0%	None	152.3	
Ireland	Medium	Local	Low	5	0%	Type A, Subtype pH1N1	21.2	
Israel	Medium	Widespread	Low				65.6	
Italy				6	16.7%	Type A, Subtype pH1N1		
Kyrgyzstan				7	0%	Type A, Subtype pH1		
Latvia	Medium	Regional		0	0%	Type A, Subtype pH1	19.8	505.2
Lithuania	Low	Sporadic	Low	6	33.3%	None		
Luxembourg	Low	Regional	Low	20	40.0%	Type A, Subtype pH1		

Intensity: for definitions see page 1

Geographic spread: for definitions see page 2

Impact: for definitions see page 3

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

ILI per 100,000: influenza-like illness consultations per 100,000 population

ARI per 100,000: acute respiratory infection consultations per 100,000 population

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Netherlands	Low	Regional	Low	10	10.0%	Type A, Subtype pH1	36.6	
Northern Ireland	Low	Sporadic		8	12.5%	Type A, Subtype H1N1	30.6	
Norway	Low			5	0%	Type A, Subtype pH1N1	55.8	
Poland	High	Regional	Low	28	25.0%	Type A, Subtype pH1	91.8	
Portugal	Low	Sporadic		25	48.0%	Type A, Subtype pH1	26.4	
Republic of Moldova		Widespread				None	158.7	155.8
Romania	Medium	Regional	Moderate	86	36.1%	Type A, Subtype pH1	697.4	2.5
Russian Federation	Medium	Local				Type A, Subtype pH1	630.2	
Scotland	Medium	Regional		106	17.9%	Type A, Subtype pH1N1	8.8	
Serbia	High	Regional	Low				173.0	
Slovakia	Low	Local	Low	2	50.0%	Type A, Subtype pH1	210.2	1469.6
Slovenia	Low	Widespread		5	60.0%	Type A, Subtype pH1	23.7	647.0
Sweden	Low	Local	Low	14	0%	Type A, Subtype pH1	4.3	
Switzerland	Medium	Widespread	Low	37	48.7%	Type A, Subtype pH1	240.9	
Turkey	Medium	Widespread	Moderate	89	19.1%	Type A, Subtype pH1	63.1	
Ukraine	High	Regional	Moderate			Type A, Subtype pH1	1301.2	
Uzbekistan	Low	None	Low			None	31.9	
Europe				942	33.1%			

Intensity: for definitions see page 1

Geographic spread: for definitions see page 2

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