

## ECDC DAILY UPDATE

### Pandemic (H1N1) 2009

Update 09 October 2009,  
09:00 hours CEST

## Main developments in past 24 hours

- Eurosurveillance update: Does viral interference affect spread of influenza?
- Internet search-engine based influenza-monitoring for Europe unveiled;
- Media highlights published;
- Two studies on clinical aspects of pandemic influenza published;
- Total of 198 fatal cases in Europe and EFTA countries and 4 381 in the rest of the world have been reported up to date.

This report is based on official information provided by the national public health websites or through other official communication channels. An update on the number of confirmed fatal cases, as of 08 October 2009 16:00 hours CEST, for the world, and 09 October 09:00 hours CEST, for Europe is presented in Table 2.

## Eurosurveillance Updates

### Does viral interference affect spread of influenza?

A paper from Sweden published in Eurosurveillance this week presents the hypothesis that a rhinovirus epidemic after the end of the summer holidays may have interfered with the spread of pandemic influenza during a period with warm and humid weather conditions that reduces spread of influenza by aerosol. Although the laboratory data supporting this hypothesis are limited, it is meant to stimulate research into the possibility that the interaction between different circulating viruses may affect influenza epidemiology. As a possible explanation, the authors note that rhinovirus transmission is not known to be climate-dependent. Thus the spread of rhinoviruses may have had an advantage over influenza in mild and moist climate. Rhinovirus infection will elicit an innate immune response in the infected cells, stimulating the production of interferon and other cytokines. This immune reaction causes the cells to enter an antiviral state that would to some extent protect them from further infections by other viruses.

Link to the article: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19354>

### Google flutrends now includes several European countries

Google Flu Trends, a tool that estimates the level of influenza activity in near real-time using aggregated search queries, has been released for 14 countries in Europe on 8 October 2009 by Google.org, the philanthropic arm of Google. In total Google Flu Trends covers information for 20 countries worldwide and it is available in 37 languages.

Link to the article:

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19352>

Link to Google flutrends

<http://www.google.org/flutrends/>

## Media highlights

Much of the media this week has focused on the start of the US pandemic vaccination program, with many global and European press considering the attitude of many US citizens towards the vaccine. Of particular interest to the media has been the re-assurance given by US Health secretary that the vaccines which are being used are safe and have been rigorously tried and tested. This perspective has also been widely reported from statements made by the World Health Organisation (WHO), which restated its confidence in the H1N1 flu vaccine and calling it the most important tool against the pandemic. In particular that mild adverse side effects are to be expected in some people but everyone who has access to the vaccine should still be inoculated. Other news coverage has focussed in on 22 governments placing orders for the pandemic flu vaccine with pharmaceutical company GSK and, in parallel, the news that the European Commission has approved another pandemic vaccine for use, this time produced by Baxters.

## Epidemiologic update

All 27 EU and 4 EFTA countries are reporting cases of pandemic (H1N1) 2009 influenza. Since April 2009, a total 198 deaths have been reported; the information is available on Table 2.

The latest available updates as of October 08, 2009, at 16:00, on new and on confirmed fatal pandemic (H1N1) cases outside the EU/EFTA area by country, are also presented in Table 2.

The latest available updates on hospital admissions per Member State are presented in Table 1.

## Other updates

Two studies published in New England Journal of Medicine (NEJM) online review some of the aspects of hospitalisations in the USA and Australia and New Zealand. The first article by the Australian and New Zealand Intensive Care (ANZIC) study is an inception-cohort study of the first 722 patients admitted to ICU's in the two countries. The authors conclude that the 2009 pandemic had a substantial impact on ICU's during the winter in Australia and New Zealand. The second article is written by the 2009 Pandemic Influenza A (H1N1) Virus Hospitalizations Investigation Team and describes the clinical characteristics of all patients hospitalised with pandemic influenza in USA from April 2009 to mid-June 2009. Authors of this study conclude that nearly three quarters of hospitalised patients had one or more underlying medical conditions and few severe illnesses were reported among persons older than 65 years of age.

The two articles can be found at:

<http://content.nejm.org/cgi/content/full/NEJMoa0908481?query=TOC>

<http://content.nejm.org/cgi/content/full/NEJMoa0906695?query=TOC>

## Daily Update contents

ECDC has now stopped publishing numbers of confirmed cases reported from EU/EFTA member states – as well as from other countries around the world – in its Daily Update. This is due to the fact that most European countries are now recommending laboratory confirmation only in certain population groups, such as the risk groups. The World Health Organization has also recommended that countries verify only the first few hundred cases; after that exhaustive sampling is not recommended any more.

We will continue to monitor the evolution of the pandemic within Europe mirrored by the number of fatal cases by country and through the Weekly Influenza Surveillance Overview which is published on Fridays. For the countries outside of Europe, we will monitor the number of fatal cases by country and monitor the surveillance reports of selected non-European countries. It must be emphasized that the numbers of fatal cases per country associated with pandemic influenza are likely to be gross underestimates. Access to healthcare, the quality of the laboratory network in the country, the quality of the surveillance system and the case definition used for identifying fatal cases all affect these figures and will vary from country to country.

Daily Updates will be produced by 09:00hrs every morning Monday to Friday. No updates will be produced during weekends and the Daily Update published on Monday includes the weekend's information. The production cycle will be reviewed as needed.

**Table 1: Reported number of confirmed Pandemic (H1N1) 2009 influenza cases admitted to hospitals and intensive care by country as of 09 October 2009, 09:00 hours (CEST) in the EU and EFTA countries**

Country (date of report)	Number of cases currently hospitalised	Cumulative number of cases admitted in hospitals	Number of cases currently in intensive care	Cumulative number of cases admitted to intensive care
Austria (02.10.)	-	-	-	-
Belgium (08.10.)	-	-	-	-
Bulgaria	-	-	-	-
Cyprus	-	-	-	-
Czech Republic (08.10.)	-	-	-	-
Denmark (07.10.)	-	-	-	-
Estonia (04.09.)	0	0	0	0
Finland (07.10.)	-	-	-	-
France (07.10.)	15	199	4	26
Germany (08.10.)	-	-	-	-
Greece (08.10.)	-	-	-	-
Hungary (19.09.)	-	32	-	-
Iceland (08.10.)	5	9	1	1
Ireland (08.10.)	17	204	-	17
Italy (27.09)	80	846	-	-
Latvia (13.08.)	-	1	-	-
Liechtenstein (08.10.)	-	-	-	-
Lithuania (13.08.)	-	-	-	-
Luxembourg (02.10.)	-	-	0	0
Malta (04.09.)	-	46	-	1
Netherlands (02.10.)	-	114	-	19
Norway (07.10.)	8	79	5	14
Poland (05.10.)	-	-	-	-
Portugal (07.10.)	15	-	5	-
Romania (27.09)	-	-	-	-
Slovakia (12.08.)	2	33	0	0
Slovenia (10.08.)	-	-	-	-
Spain (08.10.)	-	-	-	-
Sweden (08.10.)	10	121	-	-
Switzerland (08.10.)	-	23	-	1
United Kingdom <sup>a</sup> (08.10.)	290	-	47	-

Note: Data for the EU and EFTA countries correspond to the Ministry of Health or surveillance centre websites. New updates are shaded in yellow. (-) denotes no information readily available in official sources.

<sup>a</sup>Data includes all probable cases for England only. Does not include Scotland (208 cumulative hospitalisations), Wales (71) and Northern Ireland (216).

**Table 2. Reported number of new and cumulative confirmed fatal Pandemic (H1N1) 2009 influenza cases in EU and EFTA countries, as 09 October, 09:00 hours CEST, and in the rest of the world by country, as of 08 October 2009, 16:00 hours CEST.**

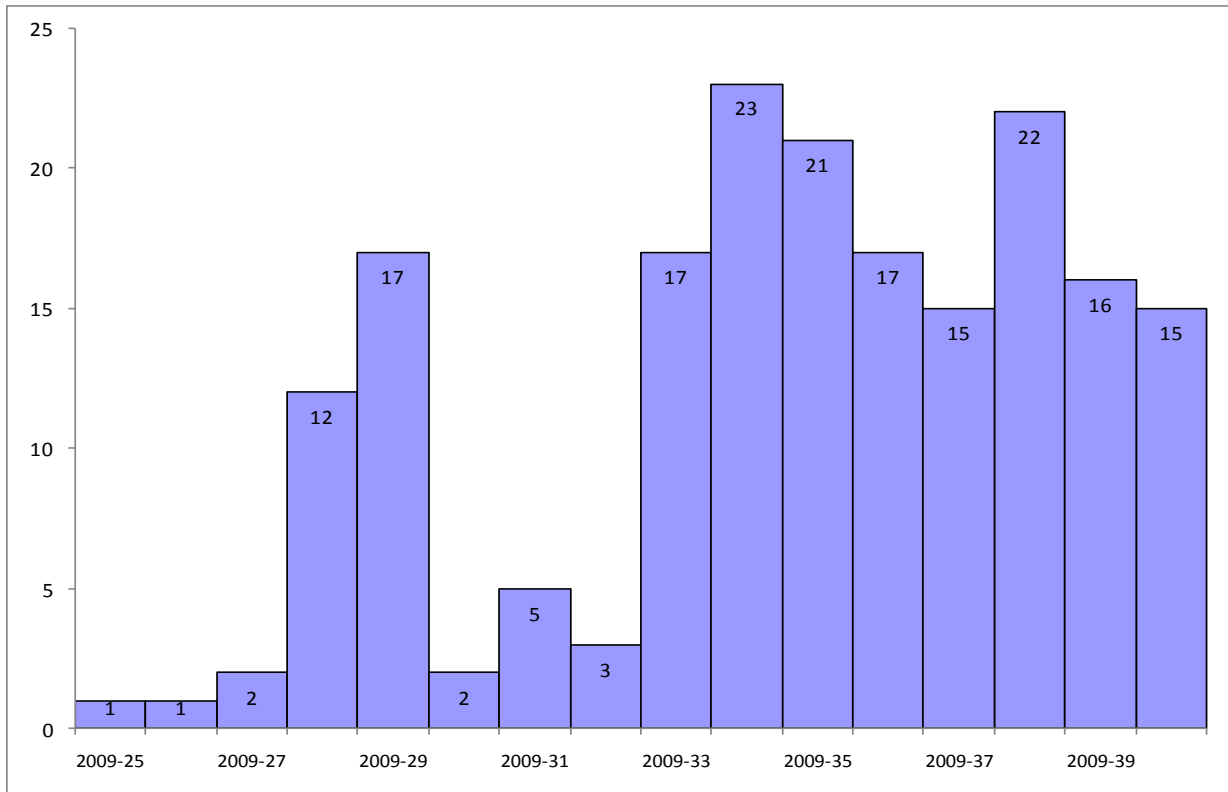
Country	Number of new fatal cases since previous national update	Cumulative number of fatal cases
<b>EU AND EFTA COUNTRIES</b>		
Belgium	-	2
Bulgaria	-	1
France	-	31 <sup>a</sup>
Germany	-	2
Greece	-	3
Hungary	-	2
Ireland	-	4
Italy	-	3
Luxembourg	-	1
Malta	-	3
Netherlands	-	4
Norway	-	6
Portugal	-	2
Spain	1	43
Sweden	-	2
United Kingdom	4	89
<b>OTHER EUROPEAN COUNTRIES &amp; CENTRAL ASIA</b>		
No deaths reported	-	-
<b>MEDITERRANEAN AND MIDDLE-EAST</b>		
Bahrain	1	6
Egypt	-	2
Iran	1	7
Iraq	-	2
Israel	1	31
Kuwait	-	9
Lebanon	-	2
Occupied Palestinian Territory	-	1
Oman	-	21
Qatar	-	3
Saudi Arabia	1	36
Syria	-	2
United Arab Emirates	-	6
Yemen	-	6
<b>AFRICA</b>		
Ghana	-	1
Madagascar	-	1

Mauritius	-	8
Mozambique	-	2
Namibia	-	1
South Africa	-	91
<b>NORTH AMERICA</b>		
Canada	-	78
Mexico	1	245
USA	-	593
<b>CENTRAL AMERICA &amp; CARIBBEAN</b>		
Barbados	-	2
Cayman Islands	-	1
Costa Rica	-	37
Cuba	-	1
Dominican Republic	-	22
El Salvador	-	20
Guatemala	-	13
Honduras	-	16
Jamaica	-	4
Nicaragua	-	11
Panama	-	11
Saint Kitts and Nevis	-	1
Suriname	-	2
<b>SOUTH AMERICA</b>		
Argentina	-	539
Bolivia	-	56
Brazil	-	899
Chile	-	132
Colombia	-	101
Ecuador	-	64
Paraguay	-	52
Peru	-	143
Uruguay	-	33
Venezuela	-	87
<b>NORTH-EAST &amp; SOUTH ASIA</b>		
Bangladesh	-	4
China (Mainland)	-	1
Hong Kong SAR China	-	23
India	7	366
Japan	-	20
Macao SAR China	-	1
South Korea	-	11
Taiwan	-	22

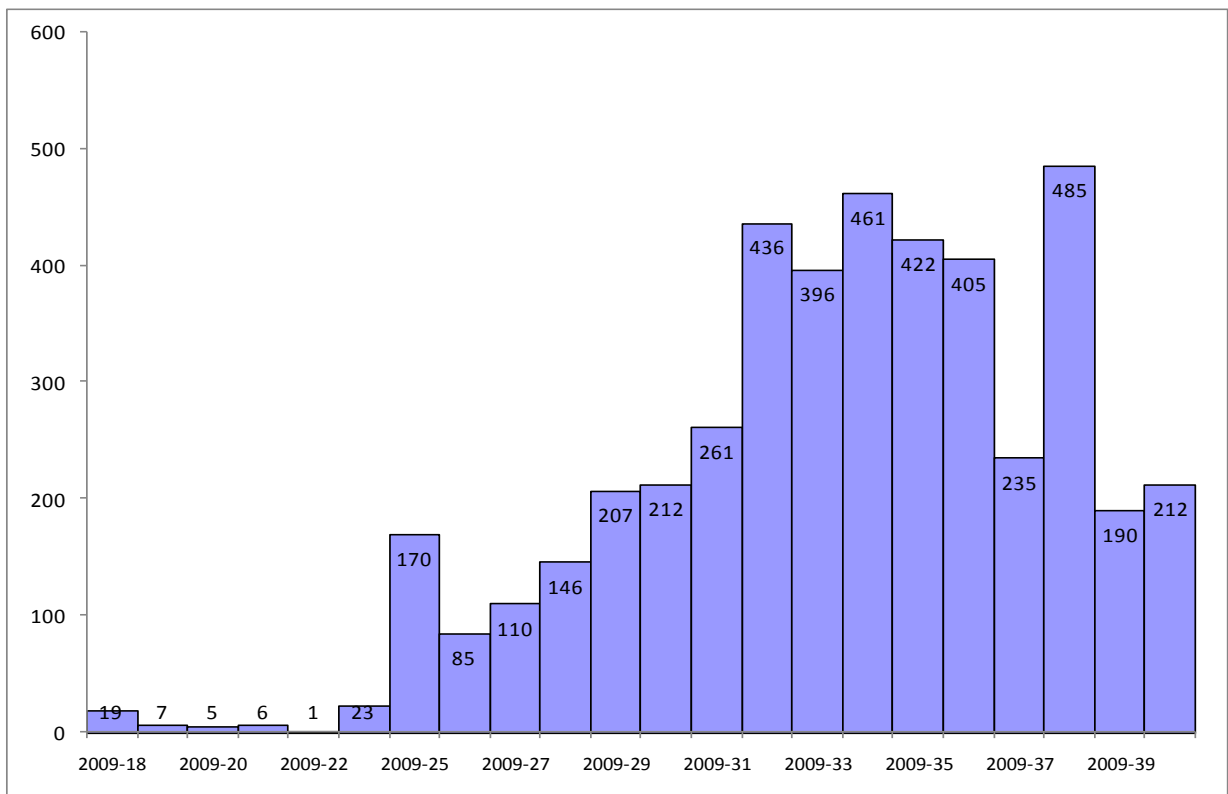
<b>SOUTH-EAST ASIA</b>		
Brunei Darussalam	-	1
Cambodia	-	3
Indonesia	-	10
Laos Peoples Democratic Republic	-	1
Malaysia	-	77
Philippines	-	28
Singapore	-	18
Thailand	-	165
Vietnam	-	20
<b>AUSTRALIA &amp; PACIFIC</b>		
Australia	2	185
Cook Islands	-	1
Marshall Islands	-	1
New Zealand	-	18
Samoa	-	2
Solomon Islands	-	1
Tonga	-	1
<b>TOTAL</b>	<b>19</b>	<b>4579</b>

<sup>a</sup> Deaths reported from France include 1 in Guyana, 9 in New Caledonia, 7 in the French Polynesia, 6 in the Reunion, 1 Martinique and 7 in mainland France.

**Figure 1: Number of confirmed deaths among pandemic (H1N1) 2009 influenza cases by week of notification. EU and EFTA countries (upper panel, week 25 to week 40, 2009) and world (lower panel, week 18 to week 40, 2009).**

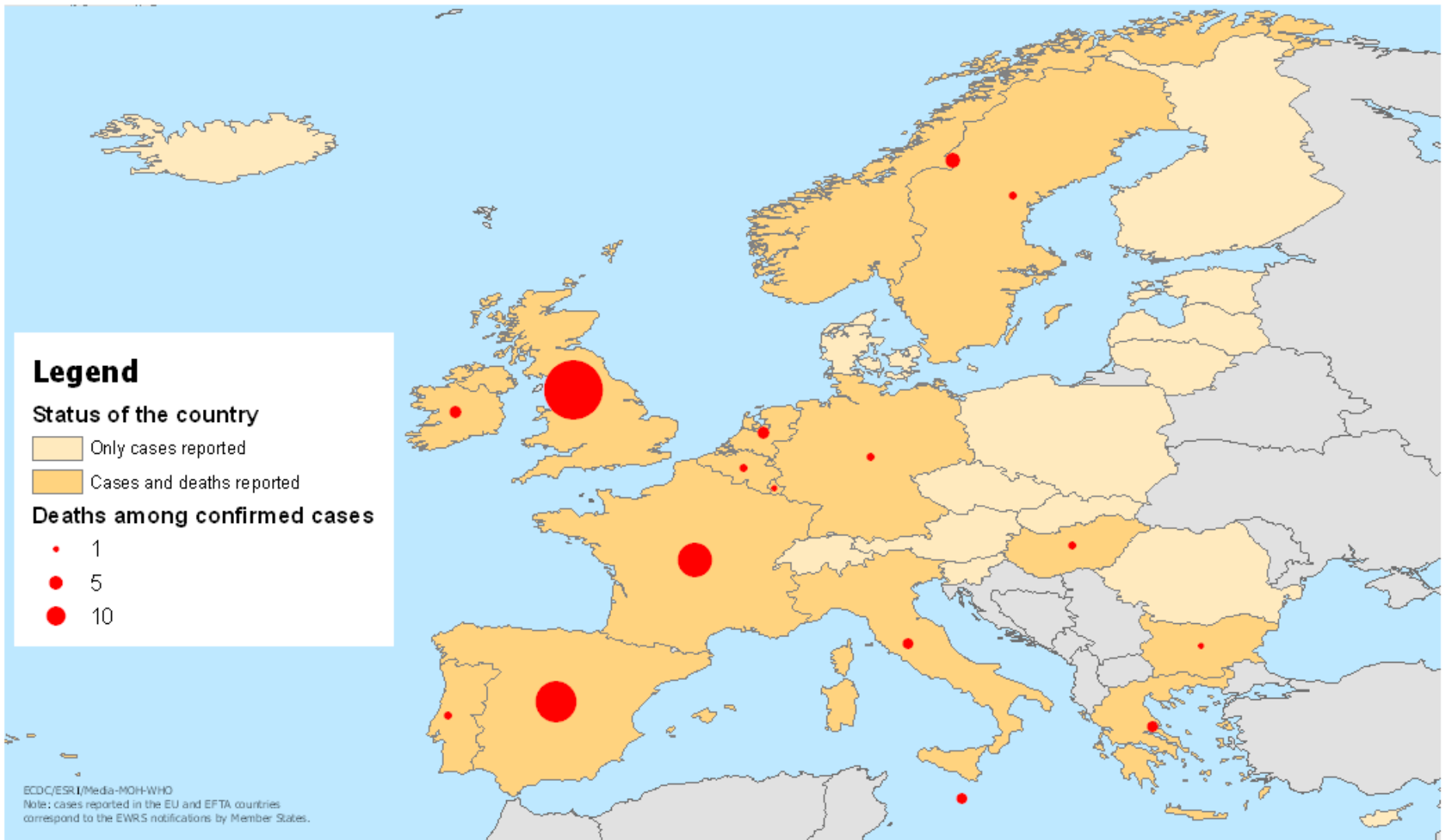


Notification week



Notification week

# Reported cumulative number of confirmed fatal cases of influenza A(H1N1)v in EU and EFTA countries, as of 09 October 2009, 09:00 hours CEST



## Reported cumulative number of confirmed fatal cases of influenza A(H1N1)v and country reporting status by country, as of 08 October 2009, 16:00 hours CEST

