

ECDC DAILY UPDATE

Pandemic (H1N1) 2009

Update 16 October 2009,
09:00 hours CEST

Main developments in past 24 hours

- Weekly Influenza Surveillance Overview to be published today;
- Eurosurveillance updates published;
- Media highlights published;
- The American Journal of Public Health issues a Supplement on Influenza Preparedness and Response;
- Total of 221 fatal cases in Europe and EFTA countries and 4 553 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 15 October 2009 16:00 hours CEST, for the world, and 16 October 09:00 hours CEST, for Europe is presented in Table 2.

Eurosurveillance updates

This week's edition of Eurosurveillance includes a perspective on the newly authorised pandemic vaccines available in Europe, two papers modelling the influence of planned vaccination campaigns in Greece and the US on the course of the pandemic, and one paper describing the resistance of turkeys to experimental infection with an early 2009 Italian human influenza A(H1N1)v virus isolate.

The perspective reports on the pandemic vaccines now available for use within the European Union (EU) from four manufacturers and describes their composition. The vaccine strain in all authorised pandemic vaccines worldwide is based on the same initial isolate of influenza A/California/7/2009 (H1N1)v but the vaccines differ in conditions for virus propagation, antigen preparation, antigen content and whether they are adjuvanted or not. According to the authors, the vaccines are likely to be effective since no significant genetic or antigenic drift has occurred and there are already mechanisms for estimating clinical effectiveness. Influenza vaccines have good safety records and no safety concerns have so far been encountered with any of the vaccines developed. However, special mechanisms have been devised for the early detection and rigorous investigation of possible significant side effects in Europe through post-marketing surveillance and analysis. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19361>

The article from Greece describes a modelling study to assess the impact of vaccination timing and prioritisation strategies on reducing transmission of pandemic influenza A(H1N1). This was evaluated in a community with the structure of the Greek population using a stochastic simulation model. Prioritisation scenarios were based on the recommendations of the United States Centers' for Disease Control and Prevention Advisory Committee on Immunization Practices and vaccination was assumed to begin either before or during the ongoing epidemic. In the absence of intervention, an illness attack rate (AR) of 34.5% is anticipated. Vaccinating the priority groups before the epidemic (pregnant women, people who live with or care for children <6 months of age, healthcare/emergency services personnel, children aged between 6 months and 4 years and high-risk children 5-18 years old) will have a negligible impact on the overall AR. Vaccinating the recommended groups before the epidemic (priority groups as well as all persons 6 months–24 years old and high-risk individuals 25-64 years old) is anticipated to result in overall and age-specific ARs within the range of seasonal influenza (5%-15%). Initiating vaccination early during the epidemic (AR≤1% of the population) is predicted to result in overall ARs up to 15.2%-19.9% depending on daily vaccination coverage rates. When vaccination is initiated at a later stage (AR: 5%), only coverage of 80% of the whole population at intensive daily vaccination rates would be able to reduce ARs to approximately 15%. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19356>

The report from the US used data on confirmed cases of pandemic influenza A(H1N1) disseminated by the United States Centers for Disease Control and Prevention to fit the parameters of a seasonally forced Susceptible - Infective - Recovered (SIR) model. The authors used the resulting model to predict the course of the H1N1 influenza pandemic in autumn 2009, and assessed the efficacy of the planned CDC H1N1 vaccination campaign. The model predicts that there will be a significant wave in autumn, with 63% of the population being infected, and that this wave will peak so early that the planned CDC vaccination campaign will likely not have a large effect on the total number of people ultimately infected by the pandemic H1N1 influenza virus. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19358>

An article from Italy describes an experimental infection of 21- and 70-day-old meat turkeys with an early human isolate of the 2009 pandemic H1N1 influenza virus exhibiting an α -2,3 receptor binding profile. Virus was not recovered by molecular or conventional methods from blood, tracheal and cloacal swabs, lungs, intestine or muscle tissue. Seroconversion was detected in a limited number of birds with the homologous antigen only. The findings suggest that in its present form, the pandemic H1N1 influenza virus is not likely to be transmitted to meat turkeys and does therefore not represent an animal health or food safety issue for this species. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19360>

Media highlights

Significant media coverage earlier this week surrounded the EU Health Council, held in Luxembourg. EU Ministers discussed the current situation with the development of pandemic H1N1 around the EU. Following discussions on how to tackle the pandemic the current EU Presidency and Swedish Public Health Minister, Maria Larsson, re-iterated that “we have to listen to the experts who say it's not time to lower our guard”.

Vaccines and their distribution have been widely covered in the media this week as many countries start in earnest with their pandemic H1N1 vaccination strategies, notably in the US where significant activity has been covered on availability and logistics. Further the news from the WHO, suggesting that many countries who do not currently have access to vaccines, would soon be able to benefit from a vaccination donation scheme from richer countries was widely reported.

Weekly Influenza Surveillance Overview

The ECDC Weekly Influenza Surveillance Overview will be published this afternoon and will be available at:

http://www.ecdc.europa.eu/en/activities/surveillance/EISN/Pages/EISN_Bulletin.aspx

Epidemiologic update

All 27 EU and 4 EFTA countries are reporting cases of pandemic (H1N1) 2009 influenza. Since April 2009, a total 221 deaths have been reported; the information is available in Table 2.

The latest available updates as of October 15, 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

The American Journal of Public Health issued a Supplement on Influenza Preparedness and Response. The full table of content is available from: <http://www.ajph.org/content/vol99/issueS2/>

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 16 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 (09.10.)	-	-	-	-
Belgium (08.10.)	-	-	-	-
Bulgaria	-	-	-	-
Cyprus	-	-	-	-
Czech Republic (15.10.)	-	-	-	-
Denmark (14.10.)	-	-	-	-
Estonia (04.09.)	0	0	0	0
Finland (14.10.)	-	-	-	-
France (14.10.)	34	247	5	30
Germany (08.10.)	-	-	-	-
Greece (14.10.)	-	-	-	-
Hungary (19.09.)	-	32	-	-
Iceland (14.10.)	13	26	3	-
Ireland (15.10.)	22	265	-	24
Italy (14.10)	-	1155	-	-
Latvia (13.08.)	-	1	-	-
Liechtenstein (15.10.)	-	-	-	-
Lithuania (13.08.)	-	-	-	-
Luxembourg (02.10.)	-	-	0	0
Malta (04.09.)	-	46	-	1
Netherlands (09.10.)	13	126	0	19
Norway (15.10.)	4	101	1	18
Poland (14.10.)	-	-	-	-
Portugal (14.10.)	20	-	4	-
Romania (12.10)	-	-	-	-
Slovakia (12.08.)	2	33	0	0
Slovenia (10.08.)	-	-	-	-
Spain (15.10.)	-	-	-	-
Sweden (15.10.)	5	127	-	-
Switzerland (15.10.)	-	23	-	2
United Kingdom ^a (15.10.)	363	-	74	-

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.

^aData includes all probable cases for England only. Does not include Scotland (208 cumulative hospitalisations), Wales (193) and Northern Ireland (280).

Table 2. Reported number of new and cumulative confirmed fatal Pandemic (H1N1) 2009 influenza cases in EU and EFTA countries, as 16 October 2009, 09:00 hours CEST, and in the rest of the world by country, as of 15 October 2009, 16:00 hours CEST.

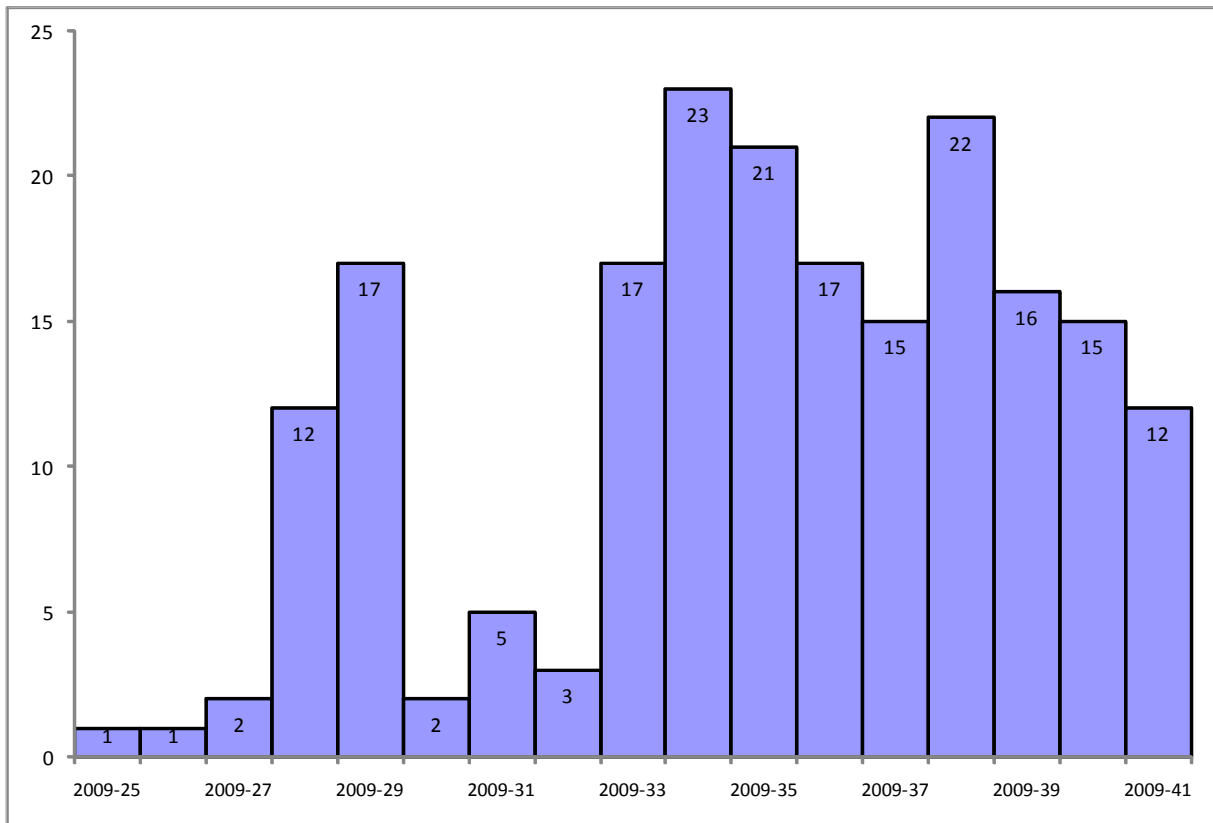
Country	Number of new fatal cases since previous national update	Cumulative number of fatal cases
EU AND EFTA COUNTRIES		
Belgium	-	3
Bulgaria	-	1
France	-	32 ^a
Germany	-	2
Greece	-	3
Hungary	-	3
Ireland	-	4
Italy	-	4
Luxembourg	-	1
Malta	-	3
Netherlands	-	4
Norway	-	6
Portugal	-	2
Spain	2	45
Sweden	-	2
United Kingdom	11	106
OTHER EUROPEAN COUNTRIES & CENTRAL ASIA		
No deaths reported	-	-
MEDITERRANEAN AND MIDDLE-EAST		
Bahrain	-	6
Egypt	-	3
Iran	-	10
Iraq	-	2
Israel	1	32
Jordan	-	1
Kuwait	-	10
Lebanon	-	2
Occupied Palestinian Territory	-	1
Oman	-	23
Qatar	-	3
Saudi Arabia	-	36
Syria	-	2
United Arab Emirates	-	6
Yemen	-	13
AFRICA		
Ghana	-	1

Madagascar	-	1
Mauritius	-	8
Mozambique	-	2
Namibia	-	1
South Africa	-	91
Tanzania	1	1
NORTH AMERICA		
Canada	-	80
Mexico	-	255
USA	-	593
CENTRAL AMERICA & CARIBBEAN		
Bahamas	-	4
Barbados	-	2
Cayman Islands	-	1
Costa Rica	-	38
Cuba	-	7
Dominican Republic	-	22
El Salvador	-	20
Guatemala	-	13
Honduras	-	16
Jamaica	-	5
Nicaragua	-	11
Panama	-	11
Saint Kitts and Nevis	-	1
Suriname	-	2
Trinidad-Tobago	2	2
SOUTH AMERICA		
Argentina	-	580
Bolivia	-	56
Brazil	-	899
Chile	-	134
Colombia	-	111
Ecuador	-	67
Paraguay	-	52
Peru	-	153
Uruguay	-	33
Venezuela	1	91
NORTH-EAST & SOUTH ASIA		
Bangladesh	-	4
China (Mainland)	-	1
Hong Kong SAR China	3	32
India	3	399

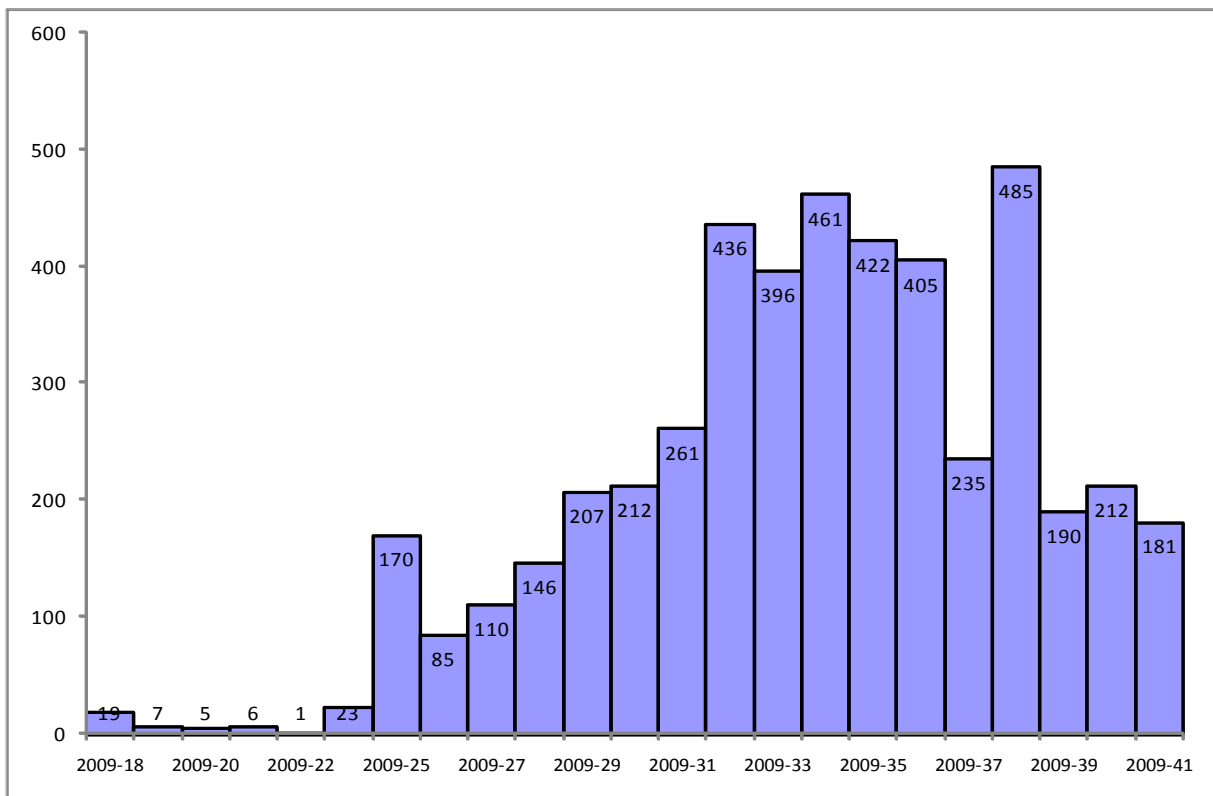
Japan	3	23
Macao SAR China	-	1
South Korea	-	15
Taiwan	-	24
SOUTH-EAST ASIA		
Brunei Darussalam	-	1
Cambodia	-	3
Indonesia	-	10
Laos Peoples Democratic Republic	-	1
Malaysia	-	77
Philippines	-	28
Singapore	-	18
Thailand	-	170
Vietnam	-	23
AUSTRALIA & PACIFIC		
Australia	-	185
Cook Islands	-	1
Marshall Islands	-	1
New Zealand	-	18
Samoa	-	2
Solomon Islands	-	1
Tonga	-	1
TOTAL	27	4774

^a Deaths reported from France include 1 in Guyana, 9 in New Caledonia, 7 in the French Polynesia, 6 in the Reunion, 1 in Martinique, 1 in Mayotte 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 41, 2009) and world (lower panel, week 18 to week 41, 2009).

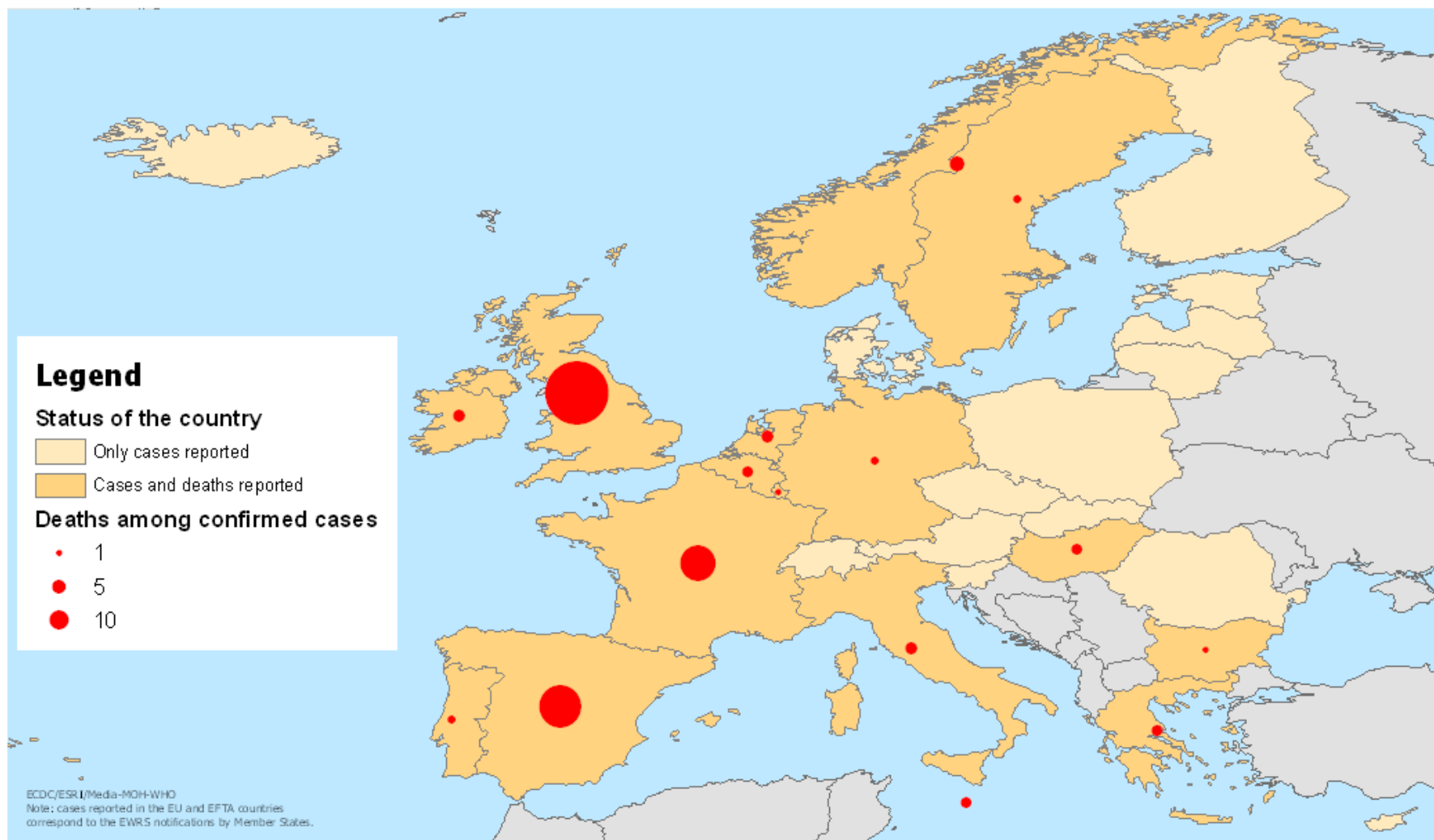


Notification week



Notification week

Reported cumulative number of confirmed fatal cases of influenza A(H1N1)v in EU and EFTA countries, as of 16 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 15 October 2009, 16:00 hours CEST

