

ECDC DAILY UPDATE

Pandemic (H1N1) 2009

Update 23 October 2009,
09:00 hours CEST

Main developments in past 24 hours

- Weekly Influenza Surveillance Overview to be published today;
- Eurosurveillance updates published;
- Total of 269 fatal cases in Europe and EFTA countries and 5 113 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 22 October 2009 16:00 hours CEST, for the world, and 23 October 09:00 hours CEST, for Europe is presented in Table 2.

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

Eurosurveillance updates

Eurosurveillance published this week a special issue on the development of the pandemic H1N1 influenza in the southern hemisphere which includes an editorial written by MG Baker, H Kelly, and N Wilson. This editorial highlights some of the key findings in the articles from Australia, South Africa, Peru, Brazil and Réunion Island, reviews features of pandemic H1N1 influenza epidemiology in these countries, and lists some potential lessons for the northern hemisphere (and possible future waves in the southern hemisphere).

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19370>

In their editorial, the authors summarise the articles in the special issue as follows:

Investigators from Réunion Island (located near Madagascar in the Indian Ocean) used data from multiple surveillance systems, including influenza-like illness (ILI) reports by sentinel practitioners, virological surveillance, surveillance of hospital emergency departments and intensive care units (ICUs), and fatal cases attributed to influenza A(H1N1) infection. The introduction of the pandemic virus happened later than in other southern hemisphere countries with community transmission not documented until 23 July 2009. The pandemic virus became the predominant circulating influenza virus on Réunion within four weeks following its first detection.

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19364>

The paper from South Africa provides one of the first reports on the pandemic from an African country. It is based on a descriptive analysis of the national epidemiology of the H1N1 pandemic, focussing on laboratory-confirmed cases and deaths. Surveillance included multiple systems and an expected shift in focus as the pandemic progressed. The final analysis was based on a large number of laboratory-confirmed cases (12,331) including 91 deaths. Of particular note was the high proportion of fatal cases who were human immunodeficiency virus (HIV)-positive (53% based on 17/32 tested, against a background HIV prevalence of 18% in 15-49 year-old adults) and pregnant (56%, based on 25/45 women of reproductive age).

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19369>

Assessment of the pandemic in Brazil was based on surveillance of notified influenza cases and later ILI cases with severe acute respiratory infection (SARI). Reflecting its large population, Brazil reported 34,506 cases of ILI with SARI, although only 16.7% were laboratory-confirmed as pandemic influenza. There were 1,567 recorded deaths among SARI cases, including 645 with confirmed pandemic influenza. The age distribution of cases (peaks in the under five year-olds and in adults 20-29 years, with lower rates in the over 60 year-olds) was similar to that seen in higher income countries such as Australia and New Zealand. Severe illness was associated with pregnancy and a range of co-morbidities (notably chronic lower respiratory and metabolic diseases). The authors also noted marked geographic variations with cases concentrated in southern and south-eastern Brazil, regions with more temperate climates bordering other affected South American countries.

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19362>

Description of the pandemic in Peru was based on established sentinel ILI and virological surveillance of influenza, surveillance of SARI, acute respiratory infection (ARI) and pneumonia, and additional case and cluster investigation. Peru reported 8,381 confirmed cases including 143 fatalities. Most fatal cases (75.5%) had an identified co-morbidity, notably metabolic, cardiovascular or respiratory disease.

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19371>

This edition includes three separate reports from Australia. Investigators from New South Wales (NSW) provide perhaps the most comprehensive description of the pandemic using multiple surveillance systems (including use of novel systems such as ambulance despatch data and web-based systems for capturing attendances at specialist influenza clinics and ICU utilisation). The pandemic there lasted 10 weeks and had a substantial impact on ICUs, with an increased risk of severe illness, including respiratory failure, in those aged between 35 and 60 years. As seen elsewhere, vulnerable groups included pregnant women, indigenous people (Aboriginal or Torres Strait Islanders), those with chronic respiratory disease, and those with morbid obesity. However, the general influenza-related mortality and overall mortality between April and September 2009 was lower than that seen during the same period in recent years.

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19365>

Although commencing earlier, the pandemic in Victoria followed a similar epidemic pattern to NSW, based on a general practitioner sentinel surveillance system and notifications of laboratory-confirmed influenza. Peak ILI rates were comparable in magnitude to several previous years. Understanding of the Victorian experience has been strengthened by an accompanying paper which estimates the reproduction number (R) during the epidemic in that state. After accounting for undetected transmission, the authors estimate R at 1.6 (95% credible interval: 1.5-1.8).

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19368>

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19363>

The final paper is focussed on the impact of the pandemic on indigenous people, rather than on a specific geographic area. From the southern hemisphere, this analysis included indigenous people in Brazil (Amerindians), Australia (Aborigines and Torres Straits Islanders), New Zealand (Māori and Pacific peoples), and the Pacific (Polynesians, Melanesians). It also included indigenous people in the northern hemisphere, notably in Canada and the United States. In all of these countries indigenous peoples experienced significantly elevated risks of serious infection, with hospitalisation and mortality rates that were three to seven times higher than those reported for non-indigenous populations.

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19366>

Epidemiologic update

All 27 EU and 4 EFTA countries are reporting cases of pandemic (H1N1) 2009 influenza. Since April 2009, a total 269 deaths have been reported; the information is available in Table 2.

The latest available updates as of October 22, 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.

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 23 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 (16.10.)	-	-	-	-
Belgium (16.10.)	-	-	-	-
Bulgaria	-	-	-	-
Cyprus	-	-	-	-
Czech Republic (15.10.)	-	-	-	-
Denmark (21.10.)	-	-	-	-
Estonia (04.09.)	0	0	0	0
Finland (20.10.)	-	-	-	-
France (20.10.)	37	317	13	43
Germany (14.10.)	-	-	-	-
Greece (21.10.)	-	-	-	-
Hungary (22.10.)	-	-	-	-
Iceland (19.10.)	26	60	4	-
Ireland (18.10.)	-	325	-	26
Italy (18.10)	-	1494	-	-
Latvia (13.08.)	-	1	-	-
Liechtenstein (21.10.)	-	-	-	-
Lithuania (13.08.)	-	-	-	-
Luxembourg (21.10.)	-	-	0	0
Malta (04.09.)	-	46	-	1
Netherlands (16.10.)	24	151	4	23
Norway (15.10.)	4	101	1	18
Poland (14.10.)	-	-	-	-
Portugal (21.10.)	15	-	2	-
Romania (19.10)	-	-	-	-
Slovakia (12.08.)	2	33	0	0
Slovenia (10.08.)	-	-	-	-
Spain (22.10.)	-	303	-	137
Sweden (22.10.)	13	145	-	-
Switzerland (21.10.)	-	24	-	3
United Kingdom ^a (22.10.)	506	-	99	-

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 (380 cumulative hospitalisations), Wales (126) and Northern Ireland (346).

Table 2. Reported number of new and cumulative confirmed fatal Pandemic (H1N1) 2009 influenza cases in EU and EFTA countries, as 23 October 2009, 09:00 hours CEST, and in the rest of the world by country, as of 22 October 2009, 16:00 hours CEST.

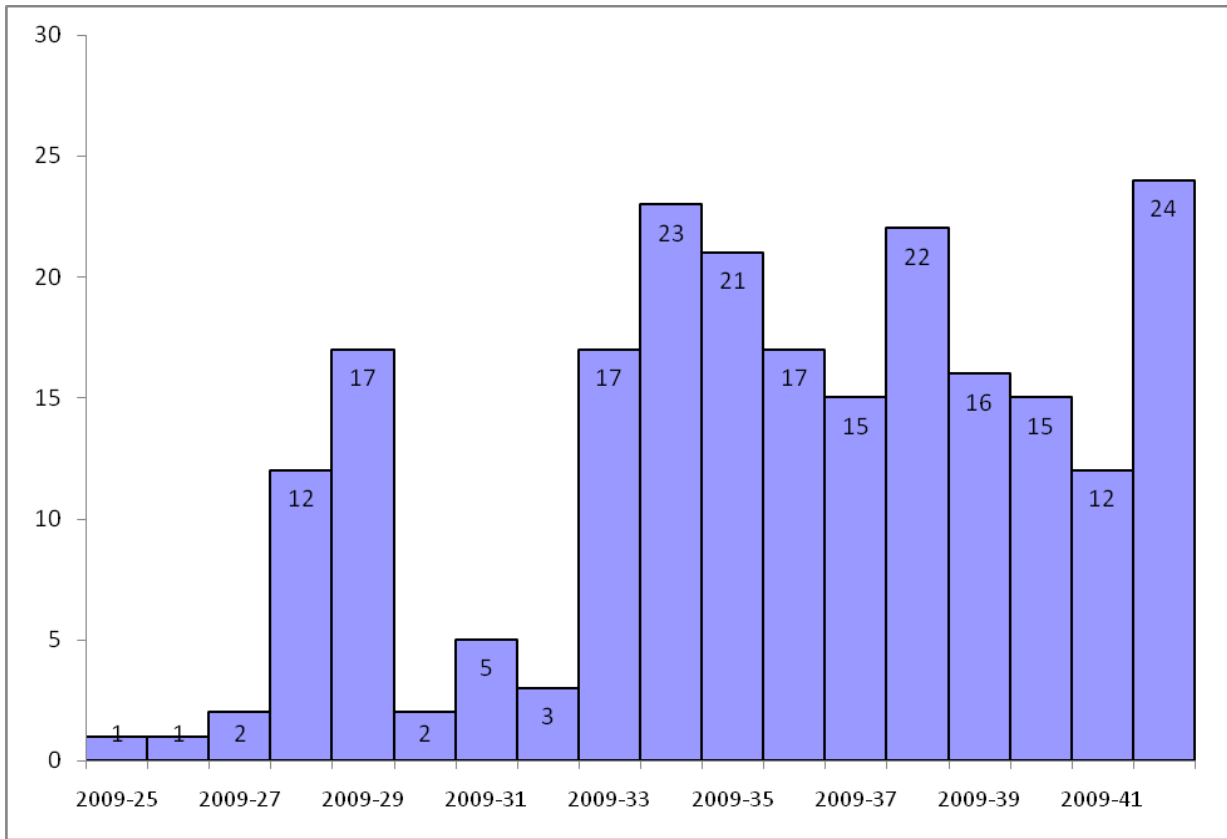
Country	Number of new fatal cases since previous national update	Cumulative number of fatal cases
EU AND EFTA COUNTRIES		
Belgium	-	5
Bulgaria	-	1
France	-	36 ^a
Germany	-	2
Greece	-	3
Hungary	-	4
Iceland	-	1
Ireland	3	8
Italy	-	4
Luxembourg	-	1
Malta	-	5
Netherlands	-	4
Norway	-	8
Portugal	-	3
Spain	9	54
Sweden	-	2
United Kingdom	19	128
OTHER EUROPEAN COUNTRIES & CENTRAL ASIA		
Serbia	1	1
MEDITERRANEAN AND MIDDLE-EAST		
Bahrain	-	6
Egypt	-	3
Iran	-	10
Iraq	-	2
Israel	-	32
Jordan	1	2
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
Sudan	-	1
Tanzania	-	1
NORTH AMERICA		
Canada	-	83
Mexico	-	271
USA	-	593
CENTRAL AMERICA & CARIBBEAN		
Bahamas	-	4
Barbados	-	3
Cayman Islands	-	1
Costa Rica	-	38
Cuba	-	7
Dominican Republic	-	22
El Salvador	-	22
Guatemala	-	13
Honduras	-	16
Jamaica	-	5
Nicaragua	-	11
Panama	-	11
Saint Kitts and Nevis	-	1
Suriname	-	2
Trinidad-Tobago	-	4
SOUTH AMERICA		
Argentina	-	580
Bolivia	-	56
Brazil	-	1368
Chile	-	134
Colombia	-	111
Ecuador	-	70
Paraguay	-	52
Peru	-	162
Uruguay	-	33
Venezuela	-	93
NORTH-EAST & SOUTH ASIA		
Bangladesh	-	5
China (Mainland)	-	2

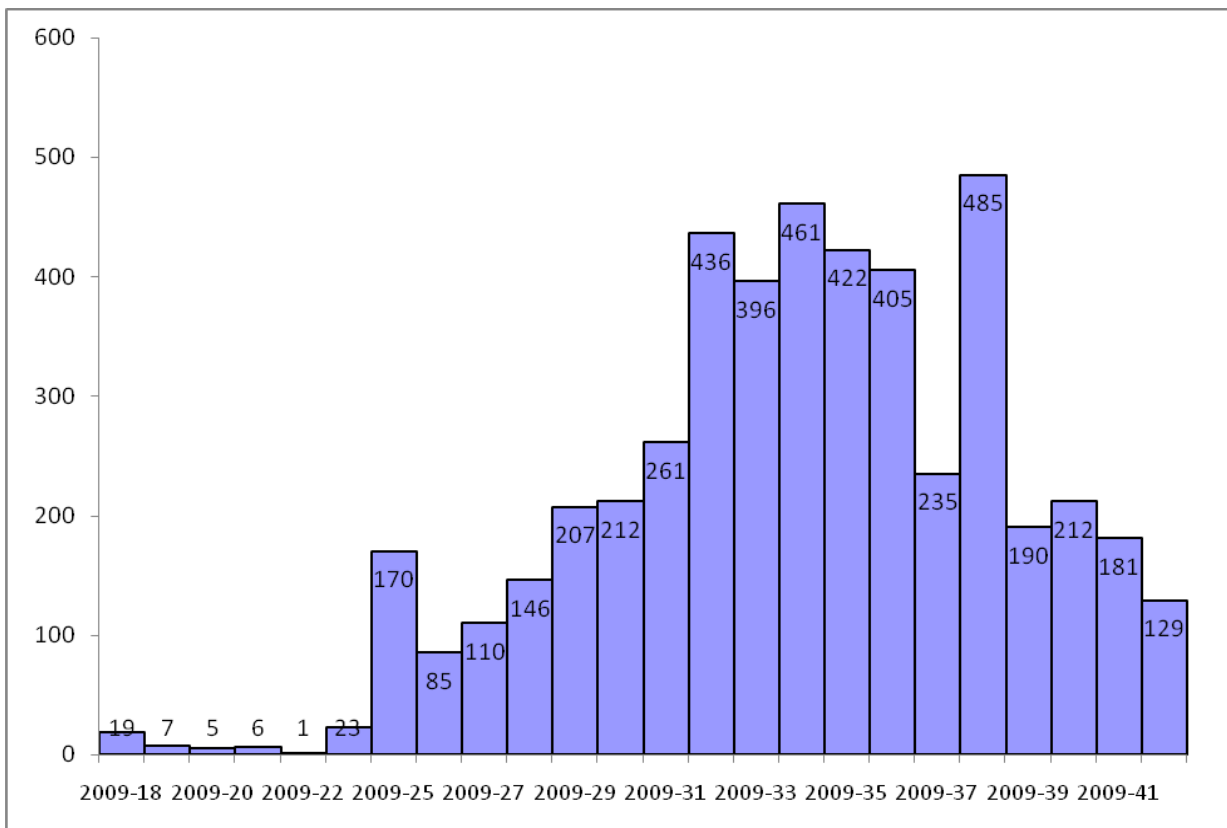
Hong Kong SAR China	1	33
India	7	427
Japan	-	27
Macao SAR China	-	1
South Korea	-	20
Taiwan	-	25
SOUTH-EAST ASIA		
Brunei Darussalam	-	1
Cambodia	-	3
Indonesia	-	10
Laos Peoples Democratic Republic	-	1
Malaysia	-	77
Philippines	-	28
Singapore	-	18
Thailand	6	176
Vietnam	-	24
AUSTRALIA & PACIFIC		
Australia	-	186
Cook Islands	-	1
Marshall Islands	-	1
New Zealand	-	19
Samoa	-	2
Solomon Islands	-	1
Tonga	-	1
TOTAL	47	5382

^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, 2 in Mayotte, 1 in Guadeloupe and 9 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 42, 2009) and world (lower panel, week 18 to week 42, 2009).

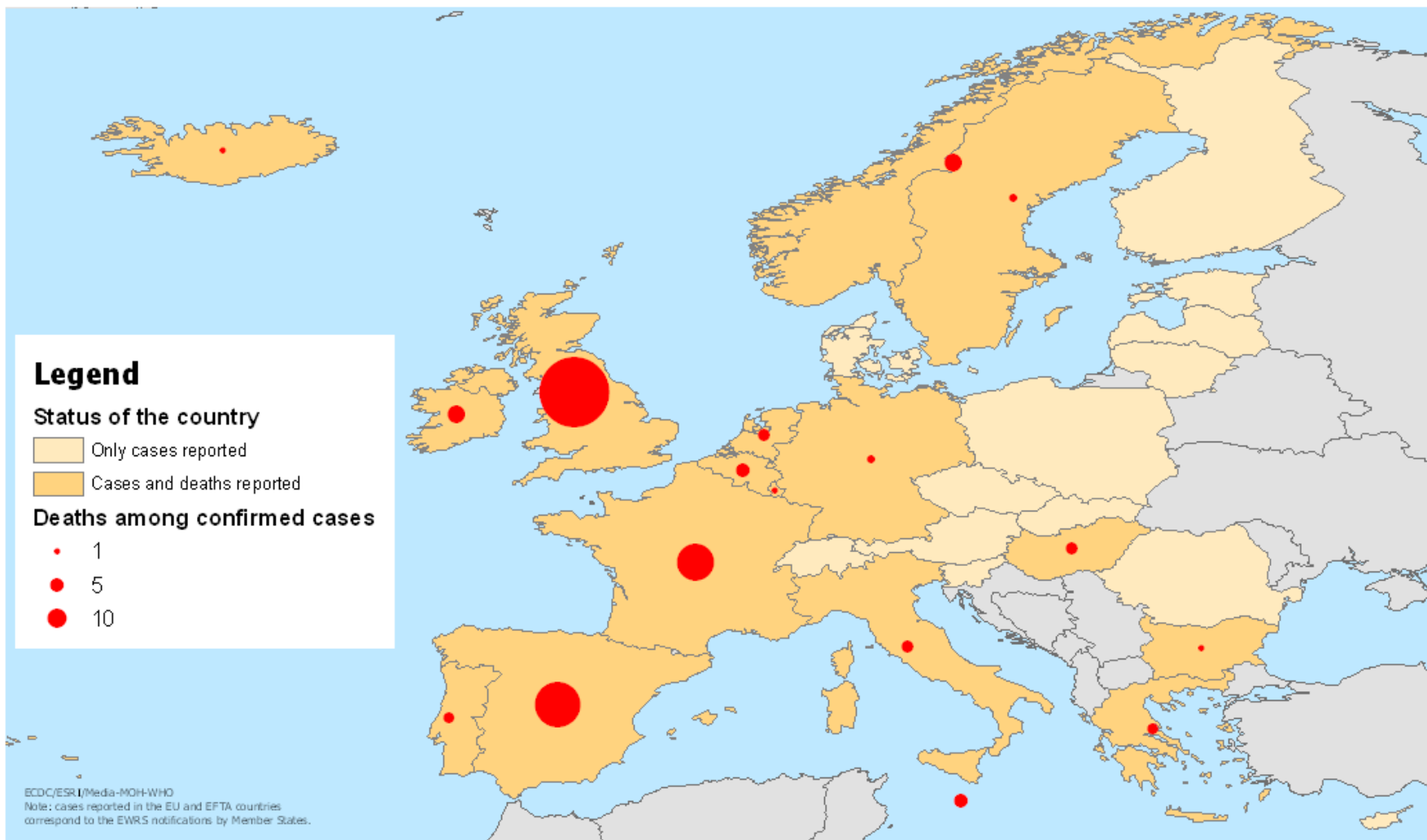


Notification week



Notification week

Reported cumulative number of confirmed fatal cases of influenza A(H1N1)v in EU and EFTA countries, as of 23 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 22 October 2009, 16:00 hours CEST

