



Regional Update

Pandemic (H1N1) 2009

(May 10, 2010 - 17 h GMT; 12 h EST)

The information contained within this update is obtained from data provided by Ministries of Health of Member States and National Influenza Centers through reports sent to Pan American Health Organization (PAHO) or updates on their web pages.

I- Evolution of the pandemic

North America

In Canada¹, in EW 17 the national influenza-like illness (ILI) consultation rate was similar to the nineteen previous weeks and was still below the historical average. Up to date, only 14 hospitalizations and two deaths have occurred since the beginning of 2010. A total of 13 oseltamivir-resistant isolates have been reported since April 2009.

In the United States², the proportion of outpatient consultations for ILI has remained below the national baseline for seventeen consecutive weeks. All sub-national surveillance regions reported the proportion of outpatient visits for ILI to be below their region specific baseline. Laboratory-confirmed influenza hospitalization rates remained stable, and children 0–4 years of age continue to have the highest rate. The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold. One influenza-associated pediatric death was reported this week and it was associated with pandemic virus. A total of 65 oseltamivir-resistant isolates have been detected since April 2009.

In Mexico³, in EW 16 there was a 4% increase in the number ILI and severe acute respiratory illness (SARI) cases with respect to the previous week. Mexico has reported one oseltamivir-resistant case, since the beginning of pandemic. The number of hospitalizations and ICU patients at the *Instituto Nacional de Enfermedades Respiratorias* (INER) has been decreasing since the beginning of April and remains stable.

Caribbean

In countries providing these data^{*} SARI hospitalization incidence increased compared to the previous week, but remained much lower than the peak levels seen in EW 40 and 41 of 2009. From EW 1 to EW 16 of 2010, a total of two hospitalizations and no deaths due to pandemic virus were reported⁴.

Influenza activity was reported as widespread in Dominican Republic and Jamaica, regional in Cuba, and no influenza activity in Dominica. All these countries reported unchanged or decreasing trends in acute respiratory disease. Low/moderate intensity of acute respiratory disease and low impact of acute respiratory disease on health care services were reported by these countries.

Weekly Summary

- In North America, acute respiratory disease activity remained stable and is lower than expected in most areas.
- Caribbean countries reported unchanged or decreasing trends in acute respiratory
- In Central American countries reported decreasing or unchanged trends in acute respiratory disease.
- South American countries reported decreasing or unchanged trends in acute respiratory disease.
- In Canada, Chile and the USA the 100% of all subtyped influenza A viruses were pandemic (H1N1) 2009.
- 4 new confirmed deaths in 2 countries were reported; in total there have been 8,361 cumulative confirmed deaths.

^{*} Participating CAREC member countries, which include, Barbados, Bahamas, Dominica, Jamaica, St Vincent and the Grenadines, and Trinidad and Tobago, were assessed together

Central America

El Salvador reported no influenza activity, Guatemala reported localized influenza activity and Honduras reported regional influenza activity. These countries reported unchanged or decreasing trends in acute respiratory disease. Low/moderate intensity and low impact of acute respiratory disease on health care services were reported by all countries.

South America

Andean

Colombia and Peru reported regional influenza activity while Venezuela reported no influenza activity. All these countries reported unchanged or decreasing trends in acute respiratory disease, low/moderate intensity of acute respiratory disease and low impact of acute respiratory disease on health care services.

In Peru⁵, the nationally, the number of pneumonia cases in children under 5 years of age in EW 16 was below the epidemic threshold. In Lima, these pneumonia cases were below the epidemic threshold for the first week after seven weeks above it, and virological data indicated respiratory syncytial virus has predominated since EW 10.

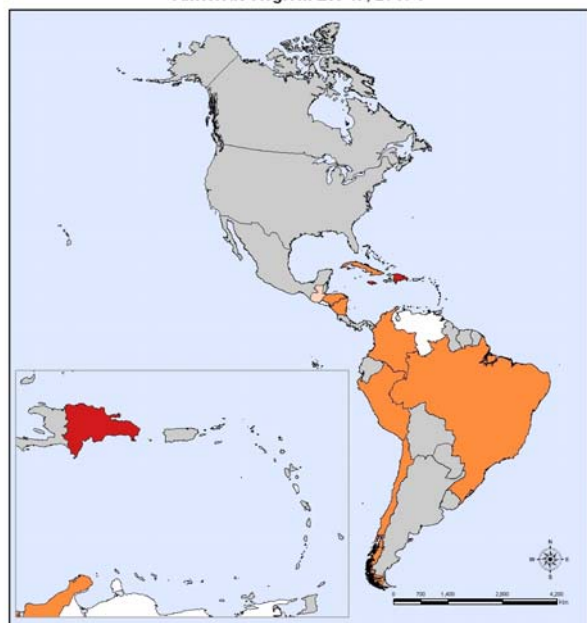
Southern Cone

Brazil and Chile reported regional influenza activity. Argentina, Brazil and Chile reported unchanged or decreasing trends in acute respiratory disease, low/moderate intensity of acute respiratory disease, and low impact of acute respiratory disease on health care services.

Argentina⁶ in EW 17 reported an average national ILI rate lower than that for the same period of in previous; this pattern persisted throughout the country except in Buenos Aires, Entre Rios, Chubut and Rio Negro which reported an increased ILI rate as compared to the previous year.

In Chile⁷, sentinel surveillance indicated that the national ILI rate in EW 17 (5.2/100,000 population) was well below the epidemic threshold. In Los Lagos, the ILI rate (13.7/100,000) has been above the epidemic threshold for the last three weeks.

**Map 1. Pandemic (H1N1) 2009,
Geographical Spread by Country.
Americas Region. EW 17, 2010*.**



Geographical Spread

- No activity
- No information available
- Localized
- Regional
- Widespread

Map Production: PAHO/HS/DICD
May 10, 2010
Cartographic projection:
Lambert Equal Area Azimuthal
Central Meridian: -90.00000
Latitude of Origin: 10.00000
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 17 = epidemiological week from April 25 to May 1, 2010.
Includes the latest information reported by each country this week.

**Map 2. Pandemic (H1N1) 2009,
Trend of respiratory disease activity compared to the previous week.
Americas Region. EW 17, 2010*.**



Trend

- No information available
- Decreasing
- Unchanged
- Increasing

Map Production: PAHO/HS/DICD
May 10, 2010
Cartographic projection:
Lambert Equal Area Azimuthal
Central Meridian: -90.00000
Latitude of Origin: 10.00000
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 17 = epidemiological week from April 25 to May 1, 2010.
Includes the latest information reported by each country this week.

**Map 3. Pandemic (H1N1) 2009,
Intensity of Acute Respiratory Disease in the Population.
Americas Region. EW 17, 2010*.**



Intensity of acute respiratory disease

- No information available
- Low or moderate
- High
- Very high

Map Production: PAHO/HS/DICD
May 10, 2010
Cartographic projection:
Lambert Equal Area Azimuthal
Central Meridian: -90.00000
Latitude of Origin: 10.00000
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 17 = epidemiological week from April 25 to May 1, 2010.
Includes the latest information reported by each country this week.

**Map 4. Pandemic (H1N1) 2009,
Impact of Acute Respiratory Disease on Health-Care Services.
Americas Region. EW 17, 2010*.**



Impact on health-care services

- No information available
- Low
- Moderate
- Severe

Map Production: PAHO/HS/DICD
May 10, 2010
Cartographic projection:
Lambert Equal Area Azimuthal
Central Meridian: -90.00000
Latitude of Origin: 10.00000
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 17 = epidemiological week from April 25 to May 1, 2010.
Includes the latest information reported by each country this week.

II- Description of hospitalizations and deaths among confirmed cases of pandemic (H1N1) 2009

A table containing the number of deaths reported to PAHO is included in Annex 2.

The ratio of males to females among hospitalized cases was approximately one (Table 1). Hospitalizations were mainly in young adults. Underlying comorbidities was present in 53% of hospitalized cases.

Table 1: Description of hospitalizations and severe cases—selected countries

	Chile	Costa Rica ⁸
Reporting period	2009 – May 7, 2010	April 24, 2009 – May 1, 2010
Type of cases reported	Hospitalized, confirmed	Hospitalized, confirmed
Number of cases	1,627	519
Percentage of women	52*	57.1
Age	Median 32 years, highest incidence in age group < 5 year*	Mean 41.4 years
Percent with underlying co-morbidities	53*	-
Co-morbidities most frequently reported (%)	Asthma 17%, Hypertension 10%, Diabetes 8%, COPD 7%*	Asthma 23.1% Diabetes 13.2% COPD 8.2% Cardiopathy 8.2%
Percent pregnant among women of child-bearing age	-	4.9**

* Information available on 1,622 cases from 2009

** The denominator was all hospitalizations as information was not provided about women of child-bearing age

In Chile, 47% of deceased cases were among women (Table 2). The percentage of cases with underlying co-morbidities was 70.6%.

Table 2: Description of deaths among confirmed cases of pandemic (H1N1) 2009 in selected countries

	Chile
Reporting period	2009-May 7, 2010
Number of confirmed deaths	150
Percentage of women	47
Age	Median 44 years
Percent with underlying co-morbidities	70.6%
Co-morbidities most frequently reported (%)	-
Percent pregnant among women of child-bearing age	1.4%*

* The denominator used was all women as information was not provided about women of child-bearing age.

III- Viral circulation

For the purpose of the analysis presented in Table 3 and Table 4, only countries which reported data on influenza A subtypes were considered. We excluded from the calculations of the percentages, results from samples of influenza A that were not subtyped or were unsubtypeable.

Currently, in North America and Chile, pandemic (H1N1) 2009 continues to predominate among circulating subtyped influenza A viruses in the Region (Table 3). Cumulatively, in Canada, Chile and CAREC, pandemic (H1N1) 2009 continues to predominate as well (Table 4).

In Canada, during EW 17, 2010 the proportion of tests that was positive for influenza was <1%, respiratory syncytial virus 6.8%, parainfluenza virus 5.0%, and adenovirus 1.9%. In the USA in EW 17, <1% of all samples tested were positive for influenza. Among these positive samples, 31.3% were positive for influenza type B.

In Panama from EW 1 to EW 16, 9.3% of samples tested positive for respiratory viruses. Of these positive samples, 32.6% were positive for influenza, 32.6% for parainfluenza virus, 24.5% for respiratory syncytial virus, and 10.2% for adenovirus. In EW 16, 7.7% of all samples tested were positive for respiratory viruses. These samples tested positive for adenovirus and parainfluenza virus.

In Dominican Republic⁹ in EW 17, 2010, 27% of respiratory samples were positive by immunofluorescence assays. These samples were positive for adenovirus and parainfluenza virus.

In Colombia from EW 01 to EW 14, 2010, 6.5% of samples tested positive for respiratory viruses. Of these positive samples, 77.8% were positive for influenza, 12% for respiratory syncytial virus, 6.8% for parainfluenza virus, and 3.2% for adenovirus.

In Chile from EW 01 to EW 16, 2010, 5.2% of sentinel surveillance samples tested positive for respiratory viruses. Of these positive samples, 34.3% for respiratory syncytial virus, 29.7% were positive for adenovirus, 19.3% for influenza and 16.3% for parainfluenza virus. In Argentina, from EW 01 to EW 17, 2010, 62% of all samples positive for respiratory viruses were respiratory syncytial virus and 0.96% were pandemic virus.

Table 3: Relative circulation of pandemic (H1N1) 2009 for selected countries—last EW available

Country	Epidemiologic Week	Percentage of pandemic (H1N1) 2009 [#]
Canada	17	100
Chile	17	100
USA	17	100
MEDIAN percentage pandemic (H1N1) 2009		100*

[#]Percentage of pandemic (H1N1) 2009 virus = Pandemic (H1N1) 2009 virus / All subtyped influenza A viruses

*Sixteen samples were positive for pandemic virus (four samples in Canada, four in Chile and eight in USA).

Table 4: Cumulative relative circulation of pandemic (H1N1) 2009 for selected countries

Country	Time Period	Percentage of pandemic (H1N1) 2009 [#]
Canada	August 30, 2009– May 1, 2010	99.8
CAREC [†]	EW 1, 2010-EW 16, 2010	100
Chile	EW1, 2010- EW 17, 2010	100
MEDIAN percentage pandemic (H1N1) 2009		99.9

[#]Percentage of pandemic (H1N1) 2009 virus = Pandemic (H1N1) 2009 virus / All subtyped influenza A viruses

[†] CAREC countries and territories include Anguilla, Antigua, Barbados, Belize, Bermuda, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, and Turks and Caicos Islands

Annex 1: Weekly monitoring of pandemic epidemiological indicators for countries that provided updated information—Region of the Americas, Epidemiologic Week 17, 2010

Country	Geographic spread	Trend	Intensity	Impact on Health Care Services	EW
Antigua and Barbuda					
Argentina	NIA	Unchanged	Low/moderate	Low	17
Bahamas					
Barbados					
Belize					
Bolivia					
Brazil	Regional	Decreasing	Low/moderate	Low	17
Canada					
Chile	Regional	Unchanged	Low/moderate	Low	17
Colombia	Regional	Unchanged	Low/moderate	Low	17
Costa Rica					
Cuba	Regional	Decreasing	Low/moderate	Low	17
Dominica	No activity	Unchanged	Low/moderate	Low	17
Dominican Republic	Widespread	Decreasing	Low/moderate	Low	17
Ecuador					
El Salvador	No activity	Decreasing	Low/moderate	Low	16
Grenada					
Guatemala	Localized	Unchanged	Low/moderate	Low	17
Guyana					
Haiti					
Honduras	Regional	Unchanged	Low/moderate	Low	17
Jamaica	Widespread	Unchanged	Low/moderate	Low	17
Mexico					
Nicaragua	Regional	Decreasing	Low/moderate	Low	17
Panama					
Paraguay					
Peru	Regional	Unchanged	Low/moderate	Low	17
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent and the Grenadines					
Suriname					
Trinidad and Tobago					
United States of America					
Uruguay					
Venezuela	No activity	Decreasing	Low/moderate	Low	17

NIA: No Information Available

**Annex 2: Number of deaths confirmed for the pandemic (H1N1) 2009 virus Region of the Americas.
As of May 7, 2010 (17 h GMT; 12 h EST).**

Source: Ministries of Health of the countries in the Region.

Country	Cumulative number of deaths	New deaths reported. (since April 30, 2010, 12 h EST)
Southern Cone		
Argentina	626	
Brazil	2,101	
Chile	153	0
Paraguay	47	
Uruguay	20	
Andean Area		
Bolivia	59	0
Colombia	238	0
Ecuador	129	
Peru	224	0
Venezuela	135	0
Caribbean Countries		
Antigua & Barbuda	0	0
Bahamas	1	0
Barbados	3	0
Cuba	71	2
Dominica	0	0
Dominican Republic	23	0
Grenada	0	0
Guyana	0	0
Haiti	0	
Jamaica	7	0
Saint Kitts & Nevis	2	0
Saint Lucia	1	0
Saint Vincent & Grenadines	0	0
Suriname	2	0
Trinidad & Tobago	5	0
Central America		
Belize	0	0
Costa Rica	60	0
El Salvador	33	
Guatemala	26	2
Honduras	18	0
Nicaragua	11	0
Panama	12	
North America		
Canada*	428	
Mexico	1,208	
United States**	2,718	
TOTAL	8,361	4

* As of April 24, 2010, pandemic-associated death reporting was discontinued.

**These deaths include both laboratory-confirmed pandemic (H1N1) 2009 and other influenza associated deaths through April 3, 2010.
As of April 3, 2010, influenza-associated death reporting through AHDRA was discontinued.

As of **May 7, 2010**, a total of **8,361 deaths** have been reported among the confirmed cases in **28 countries** of the Region. In addition to the figures displayed in **Annex 2**, the following overseas territories have confirmed deaths of pandemic (H1N1) 2009: United Kingdom Overseas Territories; Cayman Islands (1 death); French Overseas Communities: Guadeloupe (5 deaths), French Guiana (1 death) and Martinique (1 death).

References:

- 1 .- Fluwatch. Public Health Agency of Canada. <http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>
- 2.- Fluvieview. Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>.
- 3.- Influenza en México. Temporada primavera verano 2010. Number 25. April 30, 2010.
- 4 .- CAREC Surveillance Report-Influenza. Volume 2, Number 8. May 4, 2010. www.carec.org
- 5 .- Informe de Vigilancia de Infecciones Respiratorias Agudas y neumonías en menores de 5 años en el Perú 2010 SE 16. Reviewed on May 7, 2010.
<http://www.dge.gob.pe/vigilancia/sala/2010/SE16/neumonias.pdf>
- 6 .- Fortalecimiento de la Vigilancia de Infecciones Respiratorias Agudas. Ministerio de Salud de la Republica de Argentina. EW 17, May 5, 2010.
- 7.- Influenza pandémica (H1N1) 2009. Ministerio de Salud de Chile. Reporte de situación 2010. May 7, 2010. <http://www.pandemia.cl>
- 8 .- Boletín Semanal de Vigilancia de la Salud Semana Epidemiológica 17. Dirección de Vigilancia de la Salud Ministerio de Salud de Costa Rica
- 9 .- Boletín Semanal de Vigilancia de la Salud Semana Epidemiológica 17. Dirección General de Epidemiología del Ministerio de Salud Pública y Asistencia Social de República Dominicana.
<http://www.sespasdigepi.gob.do/indexdef.htm>