



Regional Update

Pandemic (H1N1) 2009

(May 3, 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 16 the national influenza-like illness (ILI) consultation rate was similar to the eighteen previous weeks and was still below the historical average. No new pandemic-related hospitalizations and deaths have been reported for three weeks. 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 sixteen 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. No influenza-associated pediatric deaths were reported this week. A total of 64 oseltamivir-resistant isolates have been detected since April 2009.

In Mexico³, in EW 15 there was a 26% decrease 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.

Caribbean

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

Central America

Costa Rica reported widespread influenza activity; while Guatemala, Honduras and Nicaragua reported regional activity; and El Salvador and Panama reported localized and no influenza activity respectively. El Salvador, Guatemala and Panama reported increasing trends in acute respiratory disease while Costa Rica, Honduras and Nicaragua reported unchanged or decreasing trend. Low/moderate intensity and low impact of acute respiratory disease on health care services were reported by all 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 disease except Jamaica which reported an increasing trend.
- In Central America, El Salvador, Guatemala and Panama reported increasing trends in acute respiratory disease.
- South American countries reported decreasing or unchanged trends in acute respiratory disease, except Bolivia which reported an increasing trend.
- In Canada, Chile and USA the 95.8% of all subtyped influenza A viruses were pandemic (H1N1) 2009.
- 41 new confirmed deaths in 6 countries were reported; in total there have been 8,357 cumulative confirmed deaths.

South America

Andean

Bolivia, Colombia and Peru reported regional influenza activity while Venezuela reported localized activity. All these countries reported unchanged or decreasing trends in acute respiratory disease, except Bolivia which reported an increasing trend. All these countries reported low/moderate intensity of acute respiratory disease and low impact of acute respiratory disease on health care services.

In Peru⁴, the nationally, the number of pneumonia cases in children under 5 years of age has been increasing since EW 10 and in EW 15, surpassed the epidemic threshold. This increase is localized to Lima where these pneumonia counts have been above the epidemic for seven consecutive weeks.

Southern Cone

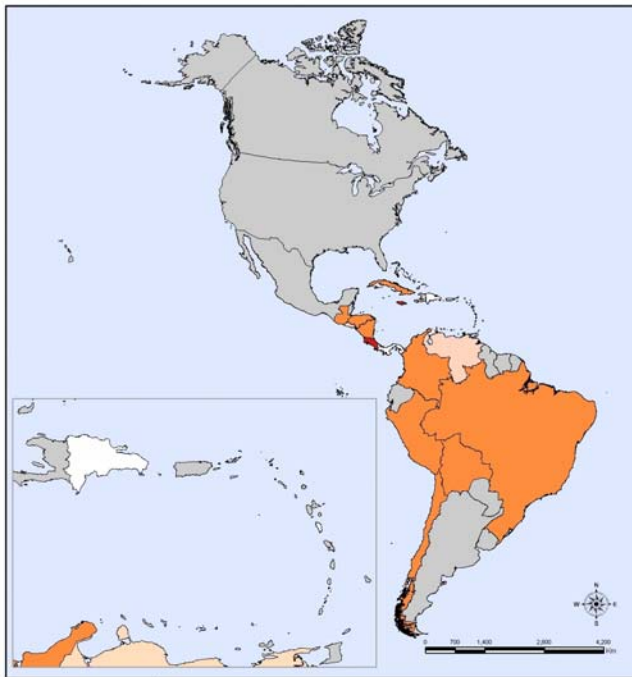
Brazil and Chile reported regional influenza activity, unchanged trends in acute respiratory disease, low/moderate intensity of acute respiratory disease, and low impact of acute respiratory disease on health care services.

Argentina in EW 12 reported an average decrease of 26% in the national ILI rate in all provinces except Buenos Aires which reported a 14% increase, as compared to the same period last year.

In Chile⁵, sentinel surveillance indicated that the national ILI rate in EW 15 (6.5/100,000 population) was well below the epidemic threshold. In some southern regions (Maule, Aysén), however the ILI rates were in the alert zone, while in Los Lagos the ILI rate has been above the epidemic threshold for the last four weeks.

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**Map 1. Pandemic (H1N1) 2009,
Geographical Spread by Country.
Americas Region. EW 16, 2010*.**



Geographical Spread

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

Map Production: PAHO/MSD/CID
April 30, 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 16 = epidemiological week from April 18 to April 24, 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 16, 2010*.**



Trend

- No information available
- Decreasing
- Unchanged
- Increasing

Map Production: PAHO/MSD/CID
April 30, 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 16 = epidemiological week from April 18 to April 24, 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 16, 2010*.**



Intensity of acute respiratory disease

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

Map Production: PAHO/MSD/CID
April 30, 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 16 = epidemiological week from April 18 to April 24, 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 16, 2010*.**



Impact on health-care services

- No information available
- Low
- Moderate
- Severe

Map Production: PAHO/MSD/CID
April 30, 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 16 = epidemiological week from April 18 to April 24, 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 were present in 53 - 56% of hospitalized cases.

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

	Canada	Chile	Costa Rica ⁶
Reporting period	April 11, 2009– April 24, 2010	2009 – April 24, 2010	April 24, 2009 – April 17, 2010
Type of cases reported	Hospitalized, confirmed	Hospitalized, confirmed	Hospitalized, confirmed
Number of cases	8,227	1,627	514
Percentage of women	50	52**	56.5
Age	Median 29 years	Median 32 years, highest incidence in age group < 5 year**	Mean 42.1 years
Percent with underlying co-morbidities	56.1	53**	-
Co-morbidities most frequently reported (%)	-	Asthma 17%, Hypertension 10%, Diabetes 8%, COPD 7%**	Asthma 23% Diabetes 13% COPD 8.2% Cardiopathy 8.1%
Percent pregnant among women of child-bearing age	20.4*	-	6.6***

* Percent of pregnant women among women 15 to 44 years of age

** Information available on 1,622 cases from 2009.

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

Overall, approximately half of deceased cases were among women (Table 2). The percentage of cases with underlying co-morbidities varied from 61 to 83%.

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

	Canada	Chile	Mexico
Reporting period	April 12, 2009–April 24, 2010	2009–April 24, 2010	2009 – April 26, 2010
Number of confirmed deaths	423	150	1,208
Percentage of women	49.6	47	47.9
Age	Median 53 years	Median 44 years	Highest percentage (70.1%) in 20–54 year age group
Percent with underlying co-morbidities	83	70.6%	61
Co-morbidities most frequently reported (%)	-	-	-
Percent pregnant among women of child-bearing age	8*	1.4%**	-

* Percent of pregnant women among women 15 to 44 years of age.

** 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 and Chile, pandemic (H1N1) 2009 continues to predominate as well (Table 4).

In Canada, during EW 16, 2010 the proportion of tests that were positive for influenza was 0.12%, respiratory syncytial virus 8.7%, parainfluenza virus 3.8%, and adenovirus 1.8%.

In Chile from EW 01 to EW 15, 2010, 5.1% of sentinel surveillance samples tested positive for respiratory viruses. Of these positive samples, 37.3% were positive for adenovirus, 19.3% for parainfluenza virus, 19% for influenza, and 18.7% for respiratory syncytial virus.

In Dominican Republic⁷ in EW 16, 2010 29% of respiratory samples were positive by immunofluorescence assays. These samples were positive for adenovirus and parainfluenza virus.

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

Country	Epidemiologic Week	Percentage of pandemic (H1N1) 2009 [#]
Canada	16	100
Chile	15	100
USA	16	87.5
MEDIAN percentage pandemic (H1N1) 2009		95.8*

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

*Eleven samples were positive for pandemic virus (one sample in Canada, three in Chile and seven 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– April 24, 2010	99.8
Chile	EW 1, 2010 – EW 15, 2010	100
MEDIAN percentage pandemic (H1N1) 2009		99.9

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

Annex 1: Weekly monitoring of pandemic epidemiological indicators for countries that provided updated information—Region of the Americas, Epidemiologic Week 16, 2010

Country	Geographic spread	Trend	Intensity	Impact on Health Care Services	EW
Antigua and Barbuda					
Argentina					
Bahamas					
Barbados					
Belize					
Bolivia	Regional	Increasing	Low or moderate	Low	16
Brazil	Regional	Unchanged	Low or moderate	Low	16
Canada					
Chile	Regional	Unchanged	Low or moderate	Low	16
Colombia	Regional	Unchanged	Low or moderate	Low	16
Costa Rica	Widespread	Decreasing	Low or moderate	Low	15
Cuba	Regional	Decreasing	Low or moderate	Low	16
Dominica	No activity	Unchanged	Low or moderate	Low	16
Dominican Republic	No activity	Unchanged	Low or moderate	Low	16
Ecuador					
El Salvador	Localized	Increasing	Low or moderate	Low	15
Grenada					
Guatemala	Regional	Increasing	Low or moderate	Low	16
Guyana					
Haiti					
Honduras	Regional	Unchanged	Low or moderate	Low	16
Jamaica	Widespread	Increasing	Low or moderate	Low	15
Mexico					
Nicaragua	Regional	Unchanged	Low or moderate	Low	16
Panama	No activity	Increasing	Low or moderate	Low	16
Paraguay					
Peru	Regional	Unchanged	Low or moderate	Low	16
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent and the Grenadines					
Suriname					
Trinidad and Tobago					
United States of America					
Uruguay					
Venezuela	Localized	Decreasing	Low or moderate	Low	16

**Annex 2: Number of deaths confirmed for the pandemic (H1N1) 2009 virus Region of the Americas.
As of April 30, 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 23, 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	5
Ecuador	129	
Peru	224	1
Venezuela	135	0
Caribbean Countries		
Antigua & Barbuda	0	
Bahamas	1	
Barbados	3	
Cuba	69	6
Dominica	0	
Dominican Republic	23	0
Grenada	0	
Guyana	0	
Haiti	0	
Jamaica	7	0
Saint Kitts & Nevis	2	
Saint Lucia	1	
Saint Vincent & Grenadines	0	
Suriname	2	
Trinidad & Tobago	5	
Central America		
Belize	0	0
Costa Rica	60	3
El Salvador	33	0
Guatemala	24	3
Honduras	18	0
Nicaragua	11	0
Panama	12	0
North America		
Canada	428	0
Mexico	1,208	23
United States*	2,718	
TOTAL	8,357	41

*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 **April 30, 2010**, a total of **8,357 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.- Fluview. Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>.
- 3.- Influenza en México. Temporada primavera verano 2010. Number 24. April 23, 2010.
- 4.- Informe de Vigilancia de Infecciones Respiratorias Agudas y neumonías en menores de 5 años en el Perú 2010 SE 15. Revisado el 30 de abril, 2010.
<http://www.dge.gob.pe/vigilancia/sala/2010/SE15/neumonias.pdf>
- 5.- Influenza pandémica (H1N1) 2009. Ministerio de Salud de Chile. Reporte de situación. April, 24, 2010.
<http://www.pandemia.cl>
- 6.- Boletín Semanal de Vigilancia de la Salud Semana Epidemiológica 16. Dirección de Vigilancia de la Salud Ministerio de Salud de Costa Rica
- 7.- Boletín Semanal de Vigilancia de la Salud Semana Epidemiológica 16. Dirección General de Epidemiología del Ministerio de Salud Pública y asistencia Social de República Dominicana.
<http://www.sespasdigepe.gob.do/indexdef.htm>