



Regional Update

Pandemic (H1N1) 2009

(December 1, 2009 - 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 Canada, the national influenza-like illness (ILI) consultation rate decreased for the past three weeks but remained above the historical average for the eighth consecutive week. The number of reported influenza outbreaks continued to decrease over the last two weeks. Hospitalization rates continued to be highest among those less than 20 years of age, but mortality rates were highest among those aged 45 and older. The overall number of hospitalizations, ICU admissions, and deaths associated with the pandemic virus decreased this week as compared to last week; however, of all pandemic associated deaths reported since the end of August, more than 70% were reported in the last two weeks.

In Mexico, the number of ILI and severe acute respiratory infection (SARI) cases has remained stable since epidemiologic week (EW) 43. Trends in acute respiratory disease decreased this week, despite continued high intensity of acute respiratory disease.

In the United States, the proportion of outpatient consultations for ILI decreased for the fourth consecutive week. All ten sub-national surveillance regions reported decreases in the proportion of outpatient visits for ILI as compared to the previous week, but all reported the ILI proportion to be above the region-specific baseline. Laboratory-confirmed influenza hospitalization rates remained high, especially in children 0–17 years of age. The proportion of deaths attributed to pneumonia and influenza remained above the epidemic threshold for the eighth consecutive week. A total of 35 influenza-associated pediatric deaths were reported this week, 27 of which were associated with the pandemic virus.

Caribbean

These countries reported variable trends in acute respiratory disease with all reporting low/moderate intensity of acute respiratory disease and low and moderate impact of acute respiratory disease on health care services.

In the French territories, ILI activity has been stable over the last few weeks and in some areas, is below what is expected for this time of year.

Central America

El Salvador and Panama reported unchanged and decreasing trends of acute respiratory disease, respectively. For both countries, intensity of acute respiratory disease remained low/moderate and impact of acute respiratory disease on health care services was low.

Weekly Summary

- In North America, acute respiratory disease activity remained above what is expected for this time of year; however, overall trends in acute respiratory disease are decreasing
- In the Caribbean, variable trends in acute respiratory disease are being reported
- Central America reported decreasing or unchanged trends in acute respiratory disease
- Most of South America reported unchanged or decreasing trends of acute respiratory disease, with the exception of Ecuador and Venezuela, which reported increasing trends for the second consecutive week
- A median of 99.9% of subtyped influenza A viruses were pandemic (H1N1) 2009
- The United States reported a total of 23 oseltamivir-resistant pandemic (H1N1) 2009 cases since April 2009
- 518 new confirmed deaths in 11 countries were reported; in total there have been 5,878 cumulative confirmed deaths

South America

Andean

Most of these countries reported widespread influenza activity. Acute respiratory disease trends were reported as increasing in Venezuela and Ecuador for the second consecutive week, unchanged in Peru, and decreasing in Bolivia and Colombia. The intensity of acute respiratory disease and the impact of acute respiratory disease on health-care services were reported as low or moderate.

Ecuador experienced an increase in the number of SARI cases in the most populated provinces (Pichincha, Guayas), as well as in the central and south-eastern provinces (Tungurahua, Morona and Azuay).

During EW 45, Peru reported increasing trends of acute respiratory disease in 8 of 25 departments. The greatest increase in the number of confirmed cases was observed in the provinces of the northeastern rainforest and the greatest increase in the number of pneumonia cases was observed in the capital city.

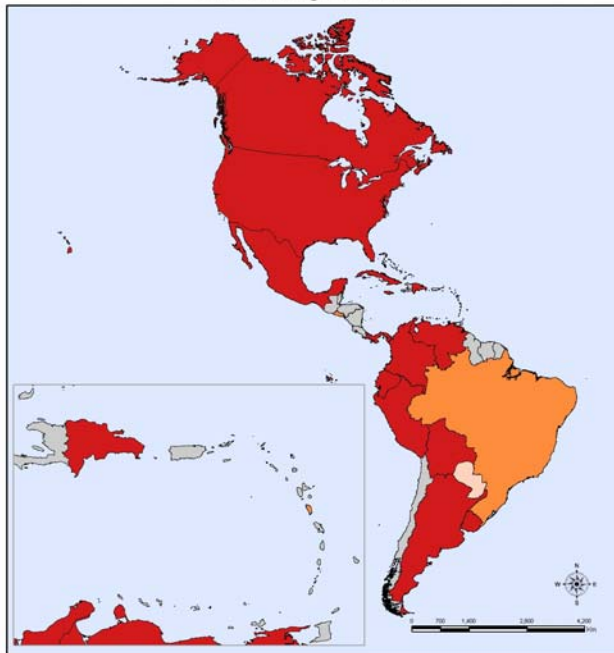
Southern Cone

Most of these countries reported widespread or regional geographical spread of influenza activity. Uruguay (EW 43), Argentina, Brazil and Paraguay (EW 46) reported decreasing trends of acute respiratory disease. Most countries reported low/moderate intensity of acute respiratory disease and low or moderate impact of acute respiratory disease on health care services.

Paraguay reported a slight increase in outpatient ILI consultations in 63% of the health regions. Overall, SARI counts increased by approximately 9.2% as compared to the prior week.

Brazil reported 160 deaths associated with pandemic influenza, however, these were accumulated from EW 40 through EW 44; the highest mortality rates were observed in the southeast region of the country.

**Map 1. Pandemic (H1N1) 2009,
Geographical Spread by Country.
Americas Region. EW 46*.**



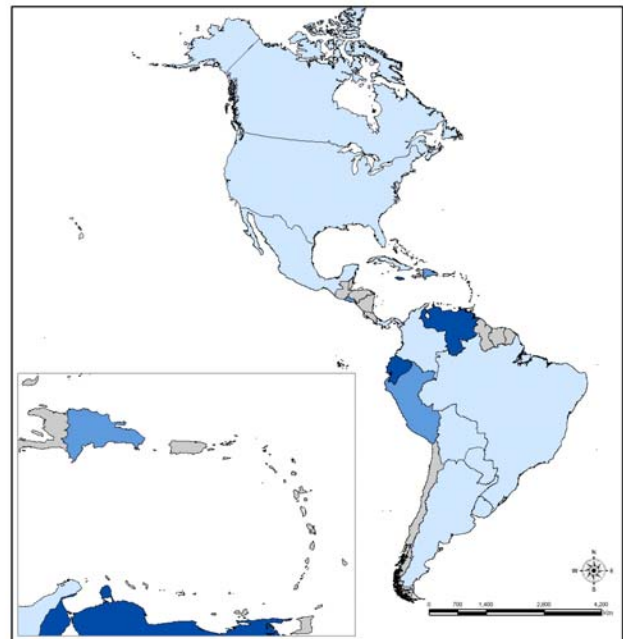
Geographical Spread

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

Map Production:
PAHO/HS/D/CD
November 30, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 46 = epidemiological week from November 15 to November 21, 2009.
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 46*.**



Trend

- No information available
- Decreasing
- Increasing

Map Production:
PAHO/HS/D/CD
November 30, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 46 = epidemiological week from November 15 to November 21, 2009.
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 46*.**



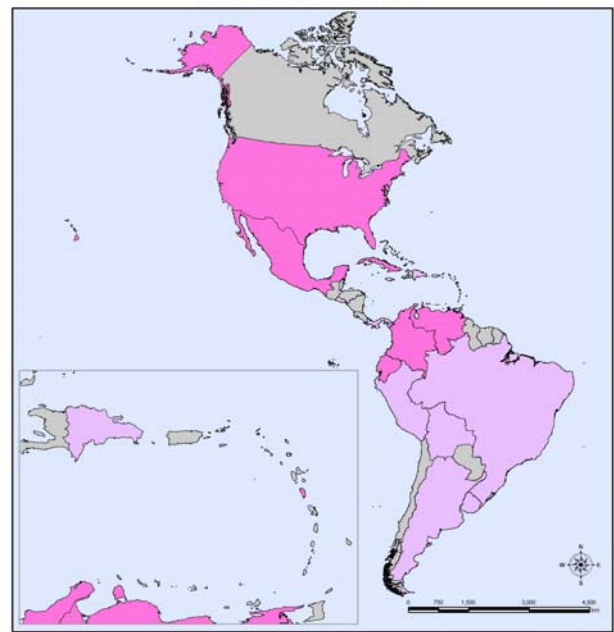
Intensity of acute respiratory disease

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

Map Production:
PAHO/HS/D/CD
November 30, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 46 = epidemiological week from November 15 to November 21, 2009.
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 46*.**



Impact on health-care services

- No information available
- Low
- Moderate
- Severe

Map Production:
PAHO/HS/D/CD
November 30, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

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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 case counts reported to PAHO is included in Annex 2.

Approximately half of hospitalized cases were among women (Table 1). Hospitalizations were highest in young adults and children. In Canada, underlying comorbidities were present in approximately 50% of hospitalized cases.

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

	Argentina	Brazil	Canada	CAREC ¹	Guadeloupe, French Guyana and Martinique	Paraguay	Peru
Reporting period	Until EW 46	Until EW 44	From August 30, 2009 to November 21, 2009	Until November 18, 2009	Until November 22, 2009	Until November 27, 2009	Until November 23, 2009
Type of cases reported	Hospitalized	Severe, confirmed	Hospitalized, confirmed	Hospitalized, confirmed	Hospitalized	Hospitalized	Severe, confirmed
Number of hospitalizations	13,251	22,565	4,843	298	325	156	635
Percentage of women	-	57%	49.0%	46.7%	56.3%	54%	52%
Age	Most affected age group: 0-4 years	Median 25 years.; Highest rates in age groups <2 years and 20-29 years	Median 27 years	Most affected age groups 0-14 and 20-49 years	Median 24 years (French Guyana)	Median 24 years; highest number in 20-39 year age group	Highest percentage (37.5%) in 0-9 year age group
Percent with underlying co-morbidities	-	-	51.6%	-	-	-	-
Co-morbidities most frequently reported (%)	-	-	-	Obesity (4.4%)	Obesity (15.4%), Asthma (13.2%), Sickle cell anemia (8.9%), Respiratory disease (6.5%)	-	-
Percent pregnant among women of child-bearing age	-	19.9%*	16.2%**	9.6%***	-	-	-

* Percent of pregnant women among women 15 to 49 years of age

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

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

¹ 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

Overall, approximately half of deceased cases were among women (Table 2). The percentage of cases with underlying co-morbidities varied from 53.1% to 68.5%.

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

	Argentina	Bolivia	Brazil	Canada	CAREC ²	Mexico	Paraguay
Reporting period	Until EW 46	Until EW 46	Until EW 44	From August 30, 2009 to November 21, 2009	Until November 18, 2009	Until November 25, 2009	Until November 27, 2009
Number of confirmed deaths	613	57	1732	192	18	610	46
Percentage of women	"No gender difference"	46.4%	-	47.9%	-	49.5%	-
Age	Highest rate in 50-59 year age group	Highest number in 15-64 year age group	-	Median 54 years	-	Highest number in 35-39 year age group	-
Percent with underlying co-morbidities	-	-	68.5%	67.4%	55.6%	-	53.1%
Co-morbidities most frequently reported (%)	-	-	In order of decreasing frequency: cardiovascular (68.5%), respiratory, immunosuppressive, metabolic	-	Obesity (50%)	Metabolic (37.4%), smoking (14.9%), cardiovascular (10.8%), respiratory (5.6%)	Chronic cardiopathy (20%), metabolic (17.6%), immunologic (11.8%), neurologic (5.9%)
Percent pregnant among women of child-bearing age	-	-	-	0%*	16.7%**	-	11.8%**

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

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

² 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

III- Viral circulation

For the purpose of this analysis, 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.

Pandemic (H1N1) 2009 continues to predominate among circulating subtyped influenza A viruses (Table 3). When cumulative relative circulation is considered (Table 4) this proportion decreases slightly. Of note is that in Mexico, during weeks 44 and 45, pandemic (H1N1) 2009 represented 84% of all subtyped influenza A viruses.

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

Country	Epidemiologic Week	Percentage of pandemic (H1N1) 2009*
Argentina	46	100
Brazil	44	100
Canada	46	99.9
USA	46	99.9
MEDIAN percentage pandemic (H1N1) 2009		99.9

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

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

Country	Epidemiologic Week	Percentage of pandemic (H1N1) 2009
Argentina	14-46	93.5
Brazil	1--44	91.2
Guadeloupe	30-46	99.6
French Guyana	30-46	89.8
Mexico	44-45	84.0
Saint Martin	30-46	95.5
MEDIAN		92.4

*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 46

Country	Geographic spread	Trend	Intensity	Impact on Health Care Services	EW
Antigua and Barbuda					
Argentina	Widespread	Decreasing	Low or moderate	Low	46
Bahamas					
Barbados					
Belize					
Bolivia	Widespread	Decreasing	Low or moderate	Low	46
Brazil	Regional	Decreasing	Low or moderate	Low	46
Canada	Widespread	Decreasing	High	NIA	46
Chile					
Colombia	Widespread	Decreasing	Low or moderate	Moderate	46
Costa Rica					
Cuba	Widespread	Decreasing	High	Moderate	46
Dominica	Regional	Decreasing	Low or moderate	Moderate	46
Dominican Republic	Widespread	Unchanged	Low or moderate	Low	46
Ecuador	Widespread	Increasing	Low or moderate	Moderate	46
El Salvador	Regional	Unchanged	Low or moderate	Low	46
Grenada					
Guatemala					
Guyana					
Haiti					
Honduras					
Jamaica	Widespread	Increasing	Low or moderate	Low	46
Mexico	Widespread	Decreasing	High	Moderate	46
Nicaragua					
Panama	Widespread	Decreasing	Low or moderate	Low	46
Paraguay	Localized	Decreasing	Low or moderate	NIA	46
Peru	Widespread	Unchanged	Low or moderate	Low	46
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent and the Grenadines					
Suriname					
Trinidad and Tobago					
United States of America	Widespread	Decreasing	High	Moderate	46
Uruguay	Widespread	Decreasing	Low or moderate	Low	43
Venezuela	Widespread	Increasing	Low or moderate	Moderate	46

NIA = No information available

**Annex 2: Number of deaths confirmed for the pandemic (H1N1) 2009 virus
Region of the Americas. Updated as of 27th November 2009, (17 h GMT; 12 h EST).**

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

Country	Cumulative number of deaths	New deaths (since Nov. 20)
Southern Cone		
Argentina	613	20
Brazil*	1,528	160
Chile	140	
Paraguay	46	3
Uruguay	20	
Andean Area		
Bolivia	58	1
Colombia	160	11
Ecuador	88	0
Peru	192	2
Venezuela	113	10
Caribbean Countries		
Antigua & Barbuda	0	
Bahamas	0	
Barbados	3	
Cuba	27	7
Dominica	0	
Dominican Republic	23	0
Grenada	0	0
Guyana	0	
Haiti	0	
Jamaica	5	
Saint Kitts & Nevis	1	
Saint Lucia	1	
Saint Vincent & Grenadines	0	
Suriname	2	
Trinidad & Tobago	5	
Central America		
Belize	0	
Costa Rica	38	
El Salvador	23	
Guatemala	18	
Honduras	16	0
Nicaragua	11	0
Panama	11	0
North America		
Canada	309	59
Mexico	610	70
United States	1,817	175
TOTAL	5,878	518

*Brazil reports on a monthly basis. Therefore the increase in the number of deaths associated with the pandemic (H1N1) 2009 has been accumulated over a 4 week period.

As of **27 November**, a total of **5,878 deaths** have been reported among the confirmed cases in **27 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 (4 deaths), French Guiana (1 death) and Martinique (1 death).
<http://new.paho.org/hq/images/atlas/en/atlas.html>