



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, Mexico, and the United States, trends in acute respiratory disease continued to increase and the intensity of such diseases remained high this week. Canada has experienced increased national rate of ILI consultation, above what is expected for this time of year since EW 37. The geographic spread of influenza continued to be widespread. Based on information available from Mexico's web page¹, as of the 13th of October, the greatest numbers of cumulative laboratory-confirmed cases were seen in the Federal District, Chiapas, Yucatan, Nuevo Leon, Jalisco, San Luis Potosi, and Tamaulipas. When comparing against cases reported in the previous week (8 October), the greatest increases were observed in Nayarit, Durango, Nuevo Leon, Sonora, Morelos, and Guerrero.

Caribbean

Few Caribbean countries reported qualitative indicators for this week, but those who did reported increasing or unchanged trends in acute respiratory disease. Reporting CAREC countries², maintain a low level of respiratory disease activity, but there have been reports of outbreaks in school settings. Cuba continued to report high intensity of acute respiratory disease. Overall, impact on health care services due to acute respiratory disease was moderate.

Central America

Most countries providing an update this week report widespread geographic spread of influenza except for El Salvador which continues to report regional spread. Trends of acute respiratory disease were reported as decreasing or unchanged, with the exception of El Salvador, which reported a new increasing trend. The intensity of acute respiratory disease was mostly low/moderate, again with the exception of El Salvador, which again reported high intensity. Impact on health care services due to acute respiratory disease was low or moderate.

South America **Andean**

This sub-region still notes moderate pandemic influenza activity compared to southern temperate regions, albeit in decreasing trends. Colombia was the only country to report an increasing trend of acute respiratory disease. The impact on health services of acute respiratory disease was low or moderate.

Southern Cone

The Southern Cone of South America is experiencing a decrease in intensity of respiratory disease, except in Paraguay, who newly reported a high intensity. For the remaining countries in this sub-region the situation reported remains largely unchanged since last EW.

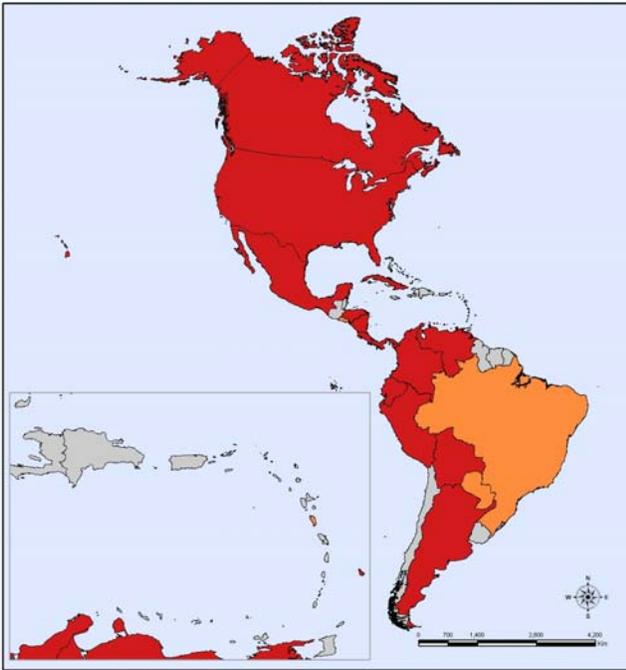
Weekly Summary

- The intensity of acute respiratory diseases in North America was high in Canada, Mexico, and the U.S.
- In Central America had a low or moderate intensity of acute respiratory disease; with the exception of El Salvador, which had a high intensity of acute respiratory disease and an increasing trend of acute respiratory disease
- Caribbean countries reported increasing or unchanged trends in acute respiratory disease, with outbreaks in schools.
- Most of South America had a decreasing trend and low or moderate intensity of acute respiratory disease; Colombia, however, had an increasing trend in acute respiratory disease
- 81.95% of subtyped influenza A viruses were pandemic (H1N1) 2009
- 133 new confirmed deaths in 10 countries (3539 cumulative deaths)

¹ Source: Mexico's Health Secretariat <http://portal.salud.gob.mx/contenidos/noticias/influenza/estadisticas.html> Accessed October 15, 2009

² Barbados, Bahamas, Dominica, Jamaica, St Vincent and the Grenadines, and Trinidad and Tobago

**Map 1. Pandemic (H1N1) 2009,
Geographical Spread by Country.
Americas Region. EW 40*.**



Geographical Spread

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

Map Production:
PAHO/MSD/CDC
October 16, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 40 = epidemiological week from October 4 to October 10, 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 40*.**



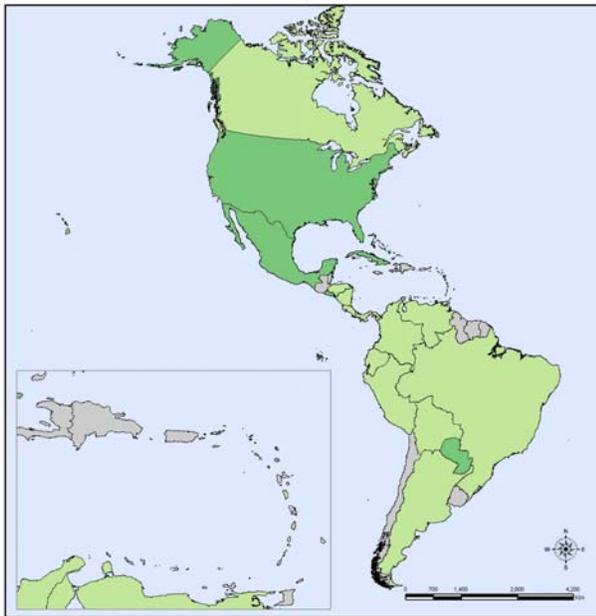
Trend

- No information available
- Decreasing
- Unchanged
- Increasing

Map Production:
PAHO/MSD/CDC
October 16, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
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**Map 3. Pandemic (H1N1) 2009,
Intensity of Acute Respiratory Disease in the Population.
Americas Region. EW 40*.**



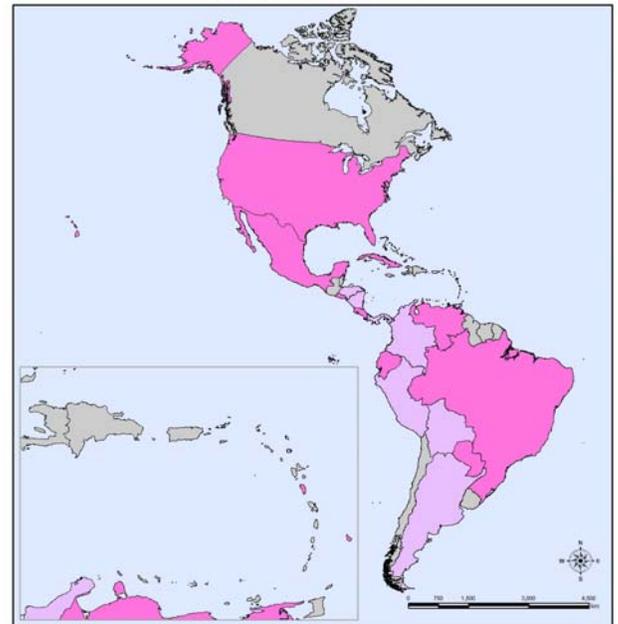
Intensity of acute respiratory disease

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

Map Production:
PAHO/MSD/CDC
October 16, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 40 = epidemiological week from October 4 to October 10, 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 40*.**



Impact on health-care services

- No information available
- Low
- Moderate
- Severe

Map Production:
PAHO/MSD/CDC
October 16, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 40 = epidemiological week from October 4 to October 10, 2009. 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.

Among hospitalized confirmed cases (Table 1), approximately half were women. While the greatest number of cases was among young adults, the highest rates of hospitalization were observed in children.

Pregnant women also had a higher burden of morbidity and mortality. In Canada, while 1% of the population is pregnant in a given year, approximately 5% of hospitalized cases and 5% of the deaths were in this group. Caribbean Epidemiology Center (CAREC) reports that 30% of the hospitalized cases presented with gastrointestinal symptoms, which is higher than what was seen in non-hospitalized cases (20%).

Table 1: Description of hospitalizations among confirmed cases of pandemic (H1N1) 2009 in selected countries

	Countries		
	Argentina*	Canada	CAREC**
Reporting period	Until SE 39	Until SE 39	Until October 9, 2009
Number of hospitalizations	11,086	1,504	157
Percent female	-	51.1%	46.2%
Age	Highest rate in <5 years of age (70/100,000 persons < 5 years of age)	Median 23 years; Highest rate in children <15 years	"Most affected groups: 0-14 and 20-49 years"
Comorbidities	-	61.7%	-
Pregnant among women of child-bearing age	-	27.6% **	14.9%

*Hospitalizations among all persons with severe acute respiratory illness

** CAREC countries and territories include Anguilla, Antigua, Barbados, Belize, Cayman Islands, Dominica, Guyana, Jamaica, Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent, Suriname, Turks and Caicos Islands

In assessing the deaths among confirmed cases, women represent 49-60 % (Table 2). The deaths have taken place mostly among adults. More than two thirds of deceased cases had underlying comorbidities, and the percentage of pregnant women ranges from 20-27%.

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

	Countries				
	Argentina	Canada	Mexico	Peru	CAREC*
Reporting period	Until EW 39	Until EW 39	Until October 12, 2009	Until EW 39	Until October 9, 2009
Number of confirmed deaths	580	78	255	186	10
Percent female	-	60.3%	49.0 %	53.8%	
Age	Highest rate in the age group 50-59 y	Median 50 years	Highest number in age 40-49 years.	Mean 36	
Co-morbidities	-	81.7%	-	76%	90%
Co-morbidities most frequently reported	-	-	Metabolic conditions (31.8%) smoking (22.0%) cardiopathies (15.3%)	Cardiovascular Metabolic Respiratory Neurological Genetic Renal, etc	Obesity (40%)
Pregnant among women of child-bearing age	-	26.7%	-	-	20%

*CAREC countries and territories include Anguilla, Antigua, Barbados, Belize, Cayman Islands, Dominica, Guyana, Jamaica, Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent, Suriname, 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. Until EW 39, pandemic (H1N1) 2009 appears to continue to be the influenza virus in circulation.

**Table 3. Relative circulation of pandemic (H1N1) 2009 for selected countries
Last EW Available**

Country	Epidemiological Week	Percentage of Pandemic (H1N1) 2009 [#]
Canada	39	96.90%
Chile	39	100%
United States	39	99.9%
MEDIANA		81.95%

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

IV Antiviral Resistance

The Centers for Disease Control and Prevention (CDC) complete antiviral susceptibility testing on isolates submitted by various countries in the Region. To date, all 163 samples submitted from 18 countries were found to be sensitive to neuraminidase inhibitors (oseltamivir and zanamivir) but resistant to adamantanes.

As of EW 40, the United States and Canada each reported a new case oseltamivir-resistant pandemic (H1N1) 2009, bringing their total to 13 and 3 cases, respectively.

Annex 1: Weekly monitoring of pandemic epidemiological indicators for countries that provided updated information. Region of the Americas.

Country	Geographic spread	Trend	Intensity	Impact on Health Care Services	EW
Antigua and Barbuda					
Argentina	Widespread	Decreasing	Low or moderate	Low	39
Bahamas					
Barbados	Widespread	Increasing	Low or moderate	Moderate	39
Belize					
Bolivia	Widespread	Decreasing	Low or moderate	Low	40
Brazil	Regional	Decreasing	Low or moderate	Moderate	40
Canada	Widespread	Increasing	Low or moderate		40
Chile					
Colombia	Widespread	Increasing	Low or moderate	Low	40
Costa Rica	Widespread	Decreasing	Low or moderate	Moderate	40
Cuba	Widespread	Increasing	High	Moderate	40
Dominica	Regional	Unchanged	Low or moderate	Moderate	40
Dominican Republic					
Ecuador	Widespread	Decreasing	Low or moderate	Moderate	40
El Salvador	Regional	Increasing	High	Moderate	40
Grenada					
Guatemala					
Guyana					
Haiti					
Honduras	Widespread	Decreasing	Low or moderate	Low	39
Jamaica					
Mexico	Widespread	Increasing	High	Moderate	40
Nicaragua	Widespread	Unchanged	Low or moderate	Low	40
Panama	Widespread	Decreasing	Low or moderate	Low	40
Paraguay	Regional	Decreasing	High	Moderate	40
Peru	Widespread	Decreasing	Low or moderate	Low	40
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent and the Grenadines					
Suriname					
Trinidad and Tobago					
United States of America	Widespread	Increasing	High	Moderate	40
Uruguay					
Venezuela	Widespread	Decreasing	Low or moderate	Moderate	40
Antigua and Barbuda					
Argentina	Widespread	Decreasing	Low or moderate	Low	39

**Annex 2: Number of cases and deaths confirmed for the Pandemic (H1N1) 2009 virus
Region of the Americas. Updated as of 16th October 2009, (17 h GMT; 12 h EST).**

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

Country	Number of confirmed cases	Number of deaths	New cases (since Oct. 9)	New deaths (since Oct. 9)
Southern Cone				
Argentina	9,119	580	70	41
Brazil**	9,249	899	0	0
Chile	12,252	134	0	0
Paraguay	692	42	10	0
Uruguay*	550	20	0	0
Andean Area				
Bolivia	2,281	56	12	0
Colombia	2,347	110	248	10
Ecuador	2,078	70	76	3
Peru	8,596	162	116	9
Venezuela	1,793	91	114	2
Caribbean Countries				
Antigua & Barbuda	3	0	0	0
Bahamas	23	0	0	0
Barbados	147	3	16	1
Cuba	677	7	209	0
Dominica	10	0	0	0
Dominican Republic	424	22	0	0
Grenada	3	0	0	0
Guyana	17	0	0	0
Haiti	43	0	0	0
Jamaica	104	4	0	0
Saint Kitts & Nevis	6	1	0	0
Saint Lucia	13	0	0	0
Saint Vincent & Grenadines	2	0	0	0
Suriname	88	2	77	0
Trinidad & Tobago	158	2	61	2
Central America				
Belize	36	0	0	0
Costa Rica	1,530	38	36	0
El Salvador	767	20	4	0
Guatemala	810	13	0	0
Honduras	543	16	19	0
Nicaragua	2,137	11	37	0
Panama	787	11	0	0
North America				
Canada*	10,156	80	0	1
Mexico	41,920	260	5,327	12
United States***	50,768	885	0	52
TOTAL	160,129	3,539	6,432	133

*This country no longer updates on the total number of confirmed cases; only on the number of deaths.

**Brazil reports the number of cases of severe acute respiratory infections (SRAG) that have been confirmed for pandemic (H1N1) 2009.

*** Since August 30, 2009 the United States has replaced the weekly report of all laboratory confirmed pandemic (H1N1) 2009 cases with a new reporting system of only confirmed hospitalized cases and deaths. Furthermore, the results of its syndromic surveillance of pneumonias and influenza are also notified. While the later includes all influenza subtypes, 99% of influenza viruses detected are pandemic (H1N1) 2009.

As of **16 October**, a total of **160,129 confirmed cases** have been notified in all **35 countries** in the Americas Region. A total of **3,539 deaths** have been reported among the confirmed cases in **26 countries** of the Region. Trinidad and Tobago reported its first deaths during this epidemiological week.

In addition to the figures displayed in **Annex 1**, The following overseas territories have confirmed cases of pandemic (H1N1) 2009: American Samoa, U.S. Territory (8); Guam, U.S. Territory (1); Puerto Rico, U.S. Territory (20); Virgin Islands, U.S. Territory (49); Bermuda, UK Overseas Territory (1); Cayman Islands, UK Overseas Territory (103, 1 death); British Virgin Islands, UK Overseas Territory (12); Turks and Caicos Islands (36); Martinique, French Overseas Community (44, 1 death); Guadeloupe, French Overseas Community (27); Guyane, French Overseas Community (29, 1 death); Saint-Martin, French Overseas Community (19); Saint Bartholomew, French Overseas Community (2); Netherlands Antilles, Aruba (13); Netherlands Antilles, Bonaire (31); Netherlands Antilles, Curaçao (50)*; Netherlands Antilles, St. Eustatius (1); and Netherlands Antilles, St. Maarten (24).

* Three cases were reported on a cruise-ship.

The distribution of cases and deaths at the first sub-national level can be found in the interactive map available through the following link: <http://new.paho.org/hq/images/atlas/en/atlas.html>