# Regional Update
## Pandemic (H1N1) 2009

**(September 25, 2009 - 22 h GMT; 17 h EST)**

## Update on the Qualitative Indicators

For **Epidemiological Week 37 (EW 37)**, from 13 September to 19 September, 18 countries reported updated information to the Pan American Health Organization (PAHO) regarding the qualitative indicators to monitor pandemic (H1N1) 2009 (Table 1)[1]. Only those 18 countries were included in this analysis.

Presently, 14 countries in the Region reported having widespread geographical distribution of influenza virus. Brazil and Cuba reported regional activity and Dominica and Saint Kitts and Nevis reported no activity (Map 1).

Barbados, Canada, Cuba, Honduras, Jamaica, Mexico, and the United States reported an increasing trend of respiratory disease. Brazil, Costa Rica, El Salvador, Paraguay, Saint Kitts and Nevis, and Venezuela reported a decreasing trend. The other five countries reported an unchanged trend (Map 2).

Regarding the intensity of acute respiratory disease, El Salvador, Mexico, and Paraguay reported high intensity of acute respiratory disease. The remaining 15 countries reported low or moderate intensity (Map 3).

Nine countries (Barbados, Brazil, Costa Rica, Ecuador, El Salvador, Mexico, Paraguay, United States, and Venezuela) reported moderate impact on health care services, while eight countries reported low impact (Map 4).

In North America and the Caribbean islands, trends in respiratory disease are increasing

The World Health Organization (WHO) does not recommend any travel restrictions or border closures due to pandemic (H1N1) 2009.

[1] See Annex 1

**Map 1. Pandemic (H1N1) 2009,**
**Geographical Spread by Country.**
**Americas Region. EW 37*.**

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

* EW 37 = epidemiological week from September 13 to September 19, 2009.
Includes the latest information reported by each country this week.

Map Production:
HSD/CD
September 25, 2009

Cartographic projection:
Lambert Equal Area Azimuthal

Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

**Map 2. Pandemic (H1N1) 2009,**
**Trend of respiratory disease activity compared to the previous week.**
**Americas Region. EW 37*.**

Trend
- No information available
- Decreasing
- Unchanged
- Increasing

* EW 37 = epidemiological week from September 13 to September 19, 2009.
Includes the latest information reported by each country this week.

Map Production:
HSD/CD
September 25, 2009

Cartographic projection:
Lambert Equal Area Azimuthal

Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

**Map 3. Pandemic (H1N1) 2009,**
**Intensity of Acute Respiratory Disease in the Population.**
**Americas Region. EW 37*.**

Intensity of acute respiratory disease
- No information available
- Low or moderate
- High
- Very high

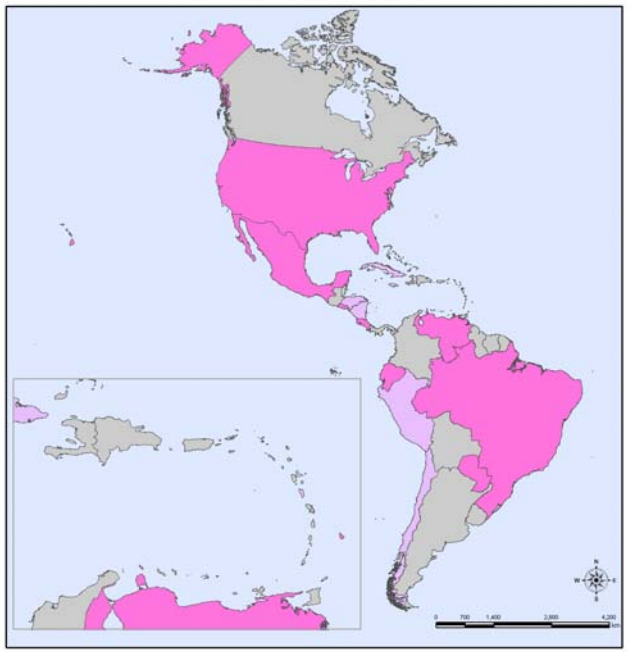
* EW 37 = epidemiological week from September 13 to September 19, 2009.
Includes the latest information reported by each country this week.

Map Production:
HSD/CD
September 25, 2009

Cartographic projection:
Lambert Equal Area Azimuthal

Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

**Map 4. Pandemic (H1N1) 2009,**
**Impact of Acute Respiratory Disease on Health-Care Services.**
**Americas Region. EW 37*.**



Impact on health-care services
- No information available
- Low
- Moderate
- Severe

* EW 37 = epidemiological week from September 13 to September 19, 2009.
Includes the latest information reported by each country this week.

Map Production:
HSD/CD
September 25, 2009

Cartographic projection:
Lambert Equal Area Azimuthal

Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

**Table 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** | | | | | |
| **Bahamas** | | | | | |
| **Barbados** | Widespread | Increasing | Low or moderate | Moderate | 37 |
| **Belize** | | | | | |
| **Bolivia** | | | | | |
| **Brazil** | Regional | Decreasing | Low or moderate | Moderate | 37 |
| **Canada** | Widespread | Increasing | Low or moderate | NIA | 37 |
| **Chile** | Widespread | Unchanged | Low or moderate | Low | 37 |
| **Colombia** | | | | | |
| **Costa Rica** | Widespread | Decreasing | Low or moderate | Moderate | 37 |
| **Cuba** | Regional | Increasing | Low or moderate | Low | 37 |
| **Dominica** | No activity | Unchanged | Low or moderate | Low | 37 |
| **Dominican Republic** | | | | | |
| **Ecuador** | Widespread | Unchanged | Low or moderate | Moderate | 37 |
| **El Salvador** | Widespread | Decreasing | High | Moderate | 37 |
| **Grenada** | | | | | |
| **Guatemala** | | | | | |
| **Guyana** | | | | | |
| **Haiti** | | | | | |
| **Honduras** | Widespread | Increasing | Low or moderate | Low | 36 |
| **Jamaica** | Widespread | Increasing | Low or moderate | Low | 36 |
| **Mexico** | Widespread | Increasing | High | Moderate | 37 |
| **Nicaragua** | Widespread | Unchanged | Low or moderate | Low | 37 |
| **Panama** | | | | | |
| **Paraguay** | Widespread | Decreasing | High | Moderate | 36 |
| **Peru** | Widespread | Unchanged | Low or moderate | Low | 37 |
| **Saint Kitts and Nevis** | No activity | Decreasing | Low or moderate | Low | 37 |
| **Saint Lucia** | | | | | |
| **Saint Vincent and the Grenadines** | | | | | |
| **Suriname** | | | | | |
| **Trinidad and Tobago** | | | | | |
| **United States of America** | Widespread | Increasing | Low or moderate | Moderate | 37 |
| **Puerto Rico (U.S.)** | | | | | |
| **Virgin Islands (U.S.)** | | | | | |
| **Uruguay** | | | | | |
| **Venezuela** | Widespread | Decreasing | Low or moderate | Moderate | 36 |

NIA = No information available

# Update on Epidemiological Situation by Climatic Region

## Summary of influenza activity in tropical regions

***Central America***
Since the beginning of the pandemic, there has been constant level of activity in Central America. For the last few weeks, however, despite having widespread influenza activity, trends in respiratory disease have been decreasing in most of Central America.

***South America***
In the tropical regions of South America, there was a peak in respiratory illness activity during the months of May and June, which was followed by a decrease in most of this region. In general, for many of these countries, respiratory illness increased in the larger capitol cities, prior to the increases seen county-wide.

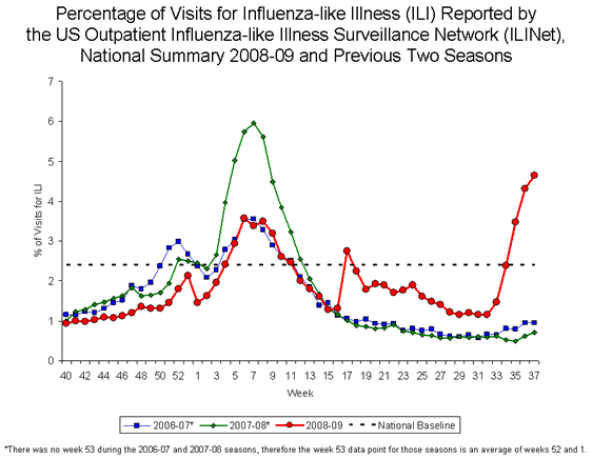
***Caribbean***
No distinct peak in activity of respiratory illnesses has been reported so far. Nevertheless, most of the Caribbean countries that provided updated information this week, report that the activity of respiratory illnesses is increasing.

## Summary of influenza activity in temperate regions

***North America***

In Mexico, after a large rise in the number of hospitalizations for respiratory infection in the beginning of the pandemic, these hospitalizations have been lower and stable over the last two months. However, in epidemiological weeks 35 and 36 a large increase in respiratory illness was observed from in one temperate region (Tamaulipas) and two tropical regions (Colima and Hidalgo) of the country.

ILI consultations in the United States have surpassed the national baseline since EW 35, which is approximately 12 weeks earlier than expected. The majority of sub-typed influenza A cases are still pandemic (H1N1) 2009. Laboratory-confirmed influenza hospitalization rates, as monitored through the Emerging Infections Program, were at or above the seasonal average for those aged 5–17 years and those 18–49 years.



Source: http://www.cdc.gov/flu/weekly

In Canada, during week 36, overall influenza activity remained similar to week 35. The national influenza-like-illness (ILI) rate increased this week as compared to the last, but was still within the expected range for this time of year. The majority of subtyped influenza A cases are still pandemic (H1N1) 2009.

***South America***

In the southernmost countries of South America, the epidemic appears to be steadily decreasing since peaking in weeks 26 (Argentina, Chile, and Uruguay) to 31 (Brazil).

## Description of severe pandemic (H1N1) 2009 confirmed cases in selected countries

The characteristics of severe or hospitalized confirmed cases for Canada, Chile, Brazil, and selected CAREC member countries and territories[6] which provided information are displayed in Table 2. Based on information provided during the reporting period for the three countries, the median age of these cases was between 23 and 33 years and the proportion of these cases with underlying co-morbidities was between 37.7 and 58.5 percent. For Canada and Chile, the proportion of women was slightly greater than 50 percent but less than fifty percent for the CAREC countries. The proportion pregnant, among women of child-bearing age, was 28.1% for Canada and 24.3% for Brazil.

**Table 2: Descriptive Epidemiology of Severe or Hospitalized Confirmed Cases of Pandemic (H1N1) 2009 Influenza**

| | Country | | | |
|---|---|---|---|---|
| | **Canada** | **Chile** | **Brazil** | **CAREC countries[6]** |
| **Source** | http://www.phac-aspc.gc.ca/fluwatch/08-09/w33_09/ pdf/fw2009-36-eng.pdf | Ministry of Health Pandemic Influenza Weekly Report, September 16, 2009 | Ministry of Health Influenza Epidemiological Report, N 8, September 2009 | CAREC influenza surveillance report, V1(12), September 18, 2009 |
| **Reporting period** | Through week 36 | Through week 36 | Through week 36 | Through September 16, 2009 |
| **Reporting of severe or hospitalized cases** | Hospitalized cases | Hospitalized cases | Severe cases | Hospitalized cases |
| **Number of hospitalized or severe confirmed cases analyzed** | 1459 | 1563 | 9249 | 107 |
| **% Female** | 51.4 | 52.0 | -- | 40.6 |
| **Median age in years** | 23 | 33 | 26 | -- |
| **% Pregnant** | 28.1[1] | -- | 24.3[2] | 16.3[5] |
| **% Co-existing medical conditions** | 58.5[3] | 49.0 | 37.7[4] | -- |

[1] Among confirmed cases in women 15–44 years of age
[2] Among confirmed cases in women 15–49 years of age
[3] Not defined, but excludes pregnancy
[4] Not defined but includes pregnancy
[5] Among all women
[6] CAREC countries and territories include Anguilla, Antigua, Barbados, Belize, Cayman Islands, Dominica, Guyana, Jamaica, Netherlands Antilles, St. Kitts and Nevis, St. Lucia, Suriname, Turks and Caicos Islands

## Update on the number of cases and deaths

As of **25 September 2009**, a total of **137,147 confirmed cases** have been notified in all **35 countries** in the Americas Region. A total of **3,020 deaths** have been reported among the confirmed cases in **22 countries** of the Region.

In addition to the figures displayed in **Table 3**, 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 (14); British Virgin Islands UK Overseas Territory (2); Turks and Caicos Islands (3); Martinique French Overseas Community (44, 1 death); Guadeloupe French Overseas Community (27); Guyane French Overseas Community (29); Saint-Martin French Overseas Community (16); Saint Bartholomew; French Overseas Community (2); Netherlands Antilles Aruba (13); Netherlands Antilles Bonaire (29); Netherlands Antilles Curacao (46)*; Netherlands Antilles St. Eustatius (1); and Netherlands Antilles St. Maarten (22).

* 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

**Table 3. Number of cases and deaths confirmed for the Pandemic (H1N1) 2009 virus Region of the Americas. Updated as of 25h September 2009, (17 h GMT; 12 h EST).**

| Country | Number of confirmed cases | Number of deaths | New cases (since Sept 18) | New deaths (since Sept 18) |
|---|---|---|---|---|
| Antigua & Barbuda | 3 | 0 | 0 | 0 |
| Argentina | 8,851 | 514 | 0 | 0 |
| Bahamas | 23 | 0 | 0 | 0 |
| Barbados | 84 | 0 | 11 | 0 |
| Belize | 23 | 0 | 0 | 0 |
| Bolivia | 1,946 | 41 | 180 | 6 |
| Brazil** | 9,249 | 899 | 0 | 0 |
| Canada* | 10,156 | 78 | 0 | 4 |
| Chile | 12,248 | 132 | 1 | 0 |
| Colombia | 1,525 | 82 | 435 | 17 |
| Costa Rica | 1,377 | 37 | 62 | 0 |
| Cuba | 415 | 0 | 11 | 0 |
| Dominica | 2 | 0 | 0 | 0 |
| Dominican Republic | 405 | 21 | 0 | 0 |
| Ecuador | 1,801 | 60 | 173 | 11 |
| El Salvador | 749 | 19 | 5 | 2 |
| Grenada | 3 | 0 | 0 | 0 |
| Guatemala | 751 | 13 | 0 | 0 |
| Guyana | 12 | 0 | 5 | 0 |
| Haiti | 5 | 0 | 0 | 0 |
| Honduras | 459 | 15 | 0 | 1 |
| Jamaica | 97 | 4 | 8 | 0 |
| Mexico | 27,085 | 220 | 2,399 | 5 |
| Nicaragua | 1,997 | 9 | 156 | 2 |
| Panama | 761 | 11 | 48 | 1 |
| Paraguay | 523 | 42 | 0 | 0 |
| Peru | 8,146 | 133 | 460 | 12 |
| Saint Kitts & Nevis | 6 | 1 | 0 | 0 |
| Saint Lucia | 13 | 0 | 0 | 0 |
| Saint Vincent & Grenadines | 2 | 0 | 0 | 0 |
| Suriname | 11 | 0 | 0 | 0 |
| Trinidad & Tobago | 97 | 0 | 0 | 0 |
| United States[β] | 46,329 | 593*** | 0 | 0 |
| Uruguay* | 550 | 20 | 0 | 0 |
| Venezuela | 1,443 | 76 | 187 | 11 |
| TOTAL | 137,147 | 3,020 | 4,141 | 72 |

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

*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 pandemic (H1N1) 2009 among cases of severe acute respiratory infections (SRAG).
***Since August 30 2009, the United States has replaced the weekly report of laboratory-confirmed pandemic (H1N1) 2009 -related hospitalizations and deaths with a new system (either laboratory-confirmed or pneumonia and influenza syndromic hospitalizations and deaths resulting from all types or subtypes of influenza).

## Virological Update

Virological data obtained from Ministry of Health websites, Ministry of Health reports sent to PAHO, and notifications from National Influenza Centers (NIC) are provided in Table 4. 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.

When considering data for the latest EW available, the majority (median: 95.2%, range: 50.0%-100%) of circulating subtyped influenza A viruses were pandemic (H1N1) 2009 (Table 4). This figure is slightly lower when considering aggregated data up to on EW 36 (Table 5). In both tables, however, it is evident that the pandemic (H1N1) 2009 virus circulation is higher in countries in temperate regions and countries in tropical regions still experience some circulation of seasonal influenza A viruses.

**Table 4. Relative circulation of pandemic (H1N1) 2009 for selected countries by last EW available**

| Country | Epidemiological Week | Percentage of Pandemic (H1N1) 2009 |
|---|---|---|
| **Canada** | 36 | 95.80% |
| **Chile** | 36 | 100% |
| **Colombia** | 35 | 95.20% |
| **Cuba** | 37 | 76.90% |
| **El Salvador** | 36 | 50.00% |
| **Dominican Republic** | 36 | 88.00% |
| **USA** | 36 | 99.70% |
| **MEDIAN** | | **95.20%** |

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

Table 5. Aggregated relative circulation of pandemic (H1N1) 2009 for selected countries

| Country | Period | Percentage of Pandemic (H1N1) 2009 |
|---|---|---|
| **Brazil** | Until 36 | 89.00% |
| **Chile** | from 1 to 36 | 98.20% |
| **Cuba** | from 1 to 37 | 76.00% |
| **El Salvador** | From 1 to 36 | 57.00% |
| **Dominican Republic** | From 1 to 36 | 87.00% |
| **MEDIAN** | | **87.00%** |

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

## Update on Clinical Information

The U.S. Centers for Disease Control and Prevention has updated its Interim recommendations for obstetric health care providers on the use of antivirals for influenza in the 2009-2010 flu season[†]. As pregnant women have been observed to have increased risk of complications and death, early use of antivirals is recommended (preferably within the first 48 hours of onset of symptoms). While both neuraminidase inhibitor antiviral medications (oseltamivir or zanamivir) may be considered for use in pregnant women, oseltamivir is recommended for its systemic absorption. The recommendations state that it is not necessary to wait for laboratory confirmation to begin antiviral treatment, which is done at the usual dosing as for adult patients[‡].

In order to ensure early treatment, health professionals should inform pregnant women of signs and symptoms of influenza, which are similar as those for the general population. The recommendations also include actions to support early treatment initiation after symptom onset, such as mechanisms for telephone consultations and clinical evaluation.

Given the risk that fever appears to pose for the fetus, the symptomatic treatment of fever with acetaminophen is also recommended.

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[†] Updated Interim Recommendations for Obstetric Health Care Providers Related to Use of Antiviral Medications in the Treatment and Prevention of Influenza for the 2009-2010 Season. September 17, 2009, 3:30 PM ET. http://www.cdc.gov/H1N1flu/pregnancy/antiviral_messages.htm

[‡] Dosing recommendations: Oseltamivir: 75mg/12h po, 5 d; Zanamivir: 2 inhalations 5mg/12h, 5 d

**Annex 1: Qualitative indicators for the monitoring of pandemic (H1N1) 2009**

| | |
|---|---|
| **Geographical spread:** refers to the number and distribution of sites reporting influenza activity. | |
| **No activity:** | No laboratory confirmed case(s) of influenza, or evidence of increased or unusual respiratory disease activity. |
| **Localized:** | Limited to one administrative unit of the country (or reporting site) only. |
| **Regional:** | Appearing in multiple but <50% of the administrative units of the country (or reporting sites). |
| **Widespread:** | Appearing in ≥50% of the administrative units of the country (or reporting sites). |
| **No information available:** | No information available for the previous 1 week period. |
| **Trend of respiratory disease activity compared to the previous week:** refers to changes in the level of respiratory disease activity compared with the previous week. | |
| **Increasing:** | Evidence that the level of respiratory disease activity is increasing compared with the previous week. |
| **Unchanged:** | Evidence that the level of respiratory disease activity is unchanged compared with the previous week. |
| **Decreasing:** | Evidence that the level of respiratory disease activity is decreasing compared with the previous week. |
| **No information available.** | |
| **Intensity of Acute Respiratory Disease in the Population:** is an estimate of the proportion of the population with acute respiratory disease, covering the spectrum of disease from influenza-like illness to pneumonia. | |
| **Low or moderate:** | A normal or slightly increased proportion of the population is currently affected by respiratory illness. |
| **High:** | A large proportion of the population is currently affected by respiratory illness. |
| **Very high:** | A very large proportion of the population is currently affected by respiratory illness. |
| **No information available.** | |
| **Impact on Health-Care Services:** refers to the degree of disruption of health care services as a result of acute respiratory disease. | |
| **Low:** | Demands on health-care services are not above usual levels. |
| **Moderate:** | Demands on health-care services are above the usual demand levels but still below the maximum capacity of those services. |
| **Severe:** | Demands on health care services exceed the capacity of those services. |
| **No information available.** | |

***Source**: Updated interim WHO guidance on global surveillance of human infection with pandemic (H1N1) 2009 virus. 10 July 2009.*

The data and information in this report will be updated on a weekly basis and available at: http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=814&Itemid=1206

This report was prepared based on the indicators in the document *Human infection with pandemic (H1N1) 2009 virus: updated interim WHO guidance on global surveillance* available at: (http://www.who.int/csr/disease/swineflu/notes/h1n1_surveillance_20090710/en/index.html).

The information presented herein has been obtained through the official sites of the Ministries of Health of the countries in the Region as well as official reports submitted by the International Health Regulation (2005) National Focal Points.