



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 sixth consecutive week and remained below the historical average. The overall number of hospitalizations, ICU admissions, and deaths associated with the pandemic virus decreased approximately 50% as compared to the prior week (EW 48). A total of seven oseltamivir-resistant isolates have been detected since April 2009.

In Mexico, from EW 46 to EW 48, there was a 24% decrease in the number of influenza-like illness (ILI) and severe acute respiratory illness (SARI) cases.

In the United States, the proportion of outpatient consultations for ILI decreased for the seventh consecutive week, but remained above the national baseline. Five of ten sub-national surveillance regions reported the proportion of outpatient visits for ILI to be above their region-specific baseline. Laboratory-confirmed influenza hospitalization rates remained stable but high, especially in children 0–4 years of age. The proportion of deaths attributed to pneumonia and influenza remained above the epidemic threshold for the eleventh consecutive week. A total of nine influenza-associated pediatric deaths were reported this week, eight of which were associated with the pandemic virus. A total of 44 oseltamivir-resistant isolates have been detected since April 2009.

### ***Caribbean***

All of these countries reported unchanged and decreasing trends in acute respiratory disease, except Barbados, which reported an increasing trend. All countries reported a low/moderate intensity of acute respiratory disease and low impact of acute respiratory disease on health care services.

In the French territories, ILI activity has been variable, with Martinique reporting less activity than what is expected for this time of year, St. Barthelemy reporting high levels for the last three weeks, and St. Martin reporting activity below what was seen during the first wave of the pandemic.

### ***Central America***

These countries reported variable geographic spread of influenza activity, but all reported either decreasing or unchanged trends in acute respiratory disease. All reported low/moderate intensity of acute respiratory disease and low impact of acute respiratory disease on health care services.

### **Weekly Summary**

- In North America, acute respiratory disease activity continued to decrease and is lower than expected in some areas
- In the Caribbean, all countries reported unchanged and decreasing trends in acute respiratory disease, except Barbados, which reported an increasing trend
- Central America reported decreasing or unchanged trends in acute respiratory disease
- All South American countries reported a decreasing or unchanged trend of acute respiratory disease, except Ecuador which reported an increasing trend
- A median of 99.3% of subtyped influenza A viruses in North America were pandemic (H1N1) 2009
- 335 new confirmed deaths in 10 countries were reported; in total there have been 6,670 cumulative confirmed deaths

Guatemala (EW 48) reported a decrease of 7.5% and 4.6% of acute respiratory disease cases and pneumonia cases, respectively, as compared to the prior week.

### ***South America***

#### **Andean**

Most of these countries reported widespread influenza activity. Acute respiratory disease trends were reported as unchanged or decreasing, except in Ecuador, which reported an increasing trend. The intensity of acute respiratory disease and the impact of acute respiratory disease on health-care services were reported as low or moderate.

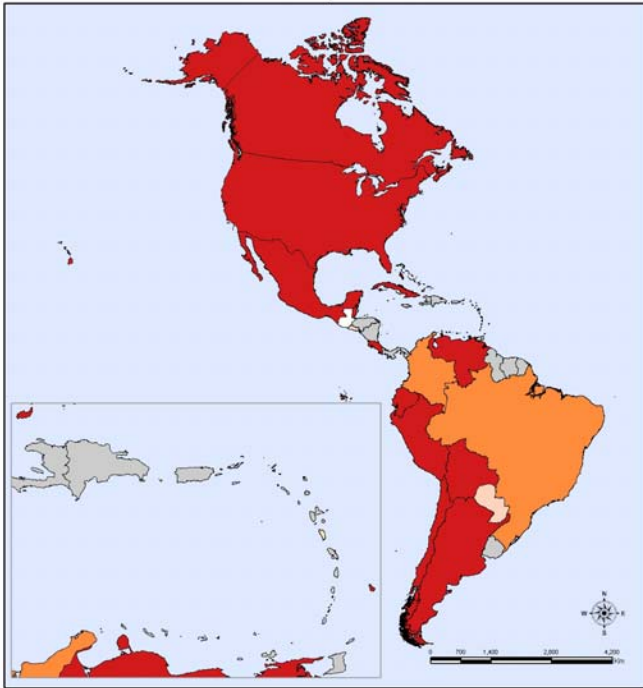
Ecuador (EW 48) reported an increase in SARI cases in 5 of 24 provinces, mainly in the north and central areas of the country.

#### **Southern Cone**

Influenza activity was reported as widespread in Chile and Argentina, regional in Brazil, and localized in Paraguay. These countries reported continued decreasing and unchanged trends of acute respiratory disease. The intensity of acute respiratory disease and the impact of acute respiratory disease on health-care services were reported as low or moderate for all countries.

This week, Chile reported decreasing ILI activity in 14 of 15 regions (national incidence of 2.7 per 100,000 population). Paraguay reported a nationally decreasing trend of influenza activity; however, there was an increasing trend of ILI and SARI (6.5% and 29.4%, respectively). In Argentina, in EW 47, the incidence of ILI continued to be low (7 per 100,000 population). In Brazil, even though ILI activity increased from EW 45 to EW 47, it was within the expected range.

**Map 1. Pandemic (H1N1) 2009,  
Geographical Spread by Country.  
Americas Region. EW 49\*.**



**Geographical Spread**  
 □ No activity  
 □ No information available  
 □ Localized  
 □ Regional  
 □ Widespread

Map Production:  
PAHO/HSD/ICD  
December 18, 2009  
 Cartographic projection:  
Lambert Equal Area Azimuthal  
 Source: Ministries of Health of the countries  
Consolidated by PAHO/WHO  
Created by PAHO/WHO

\* EW 49 = epidemiological week from December 6 to December 12, 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 49\*.**



**Trend**  
 □ No information available  
 □ Decreasing  
 □ Unchanged  
 □ Increasing

Map Production:  
PAHO/HSD/ICD  
December 18, 2009  
 Cartographic projection:  
Lambert Equal Area Azimuthal  
 Source: Ministries of Health of the countries  
Consolidated by PAHO/WHO  
Created by PAHO/WHO

\* EW 49 = epidemiological week from December 6 to December 12, 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 49\*.**

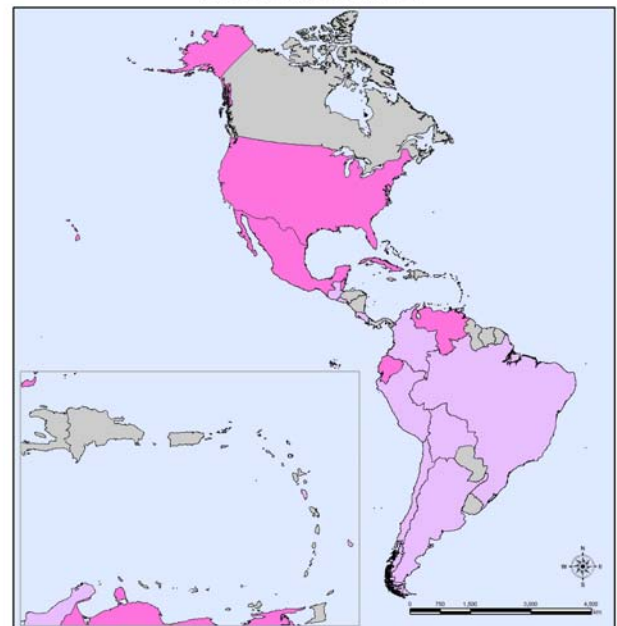


**Intensity of acute respiratory disease**  
 □ No information available  
 □ Low or moderate  
 □ High  
 □ Very high

Map Production:  
PAHO/HSD/ICD  
December 18, 2009  
 Cartographic projection:  
Lambert Equal Area Azimuthal  
 Source: Ministries of Health of the countries  
Consolidated by PAHO/WHO  
Created by PAHO/WHO

\* EW 49 = epidemiological week from December 6 to December 12, 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 49\*.**



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

Map Production:  
PAHO/HSD/ICD  
December 18, 2009  
 Cartographic projection:  
Lambert Equal Area Azimuthal  
 Source: Ministries of Health of the countries  
Consolidated by PAHO/WHO  
Created by PAHO/WHO

\* EW 49 = epidemiological week from December 6 to December 12, 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.

The ratio of males to females among hospitalized cases was approximately one (Table 1). Hospitalizations were highest in children and young adults. Underlying comorbidities were present in approximately 50% of hospitalized cases.

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

|  | Argentina  | Brazil   | Canada                  | Chile   | Costa Rica  | Paraguay                |
|--|--|--|-------------------------|---|---|-------------------------|
| <b>Reporting period</b>                                  | Until EW 48  | Until EW 47  | Until EW 49             | Until December 15, 2009   | Until December 8, 2009  | Until December 18, 2009 |
| <b>Type of cases reported</b>                            | Hospitalized   | Severe, confirmed  | Hospitalized, confirmed | Severe, confirmed   | Hospitalized  | Severe, confirmed       |
| <b>Number of cases</b>                                   | 13,818   | 27,850   | 7,481                   | 1,618   | 2,547   | 164                     |
| <b>Percentage of women</b>                               | -  | 57   | 49.8                    | 52  | -   | 55                      |
| <b>Age</b>   | Most affected age group: 0-4 years (incidence 75.6/ 100,000 hab) | Median 25 years.; highest incidence in age group <2 years (27.3/100,000 hab) and 20-29 years (20/ 100,000 hab) | Median: 28 years        | Median 32 years, highest incidence in age group < 1 y (76/100,000 hab), 1-4 y (20/ 100,000 hab) | -   | Median 23 years         |
| <b>Percent with underlying co-morbidities</b>            | -  | -  | 50.7                    | 53.4  | -   | -                       |
| <b>Co-morbidities most frequently reported (%)</b>       | -  | -  | -                       | Asthma (17%), arterial hypertension (10%), diabetes (8%), COPD (7%)                             | Asthma (21.2%), Diabetes (10.8%), COPD (9.4%), Cardiopathy (7.3%), Smoking (6.9%), Obesity (6.6%) | -                       |
| <b>Percent pregnant among women of child-bearing age</b> | -  | 22*  | 21.2**                  | -   | 3.3***  | -                       |

\* 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 cases 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 54% to 74%.

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

|  | Argentina                            | Bolivia                                | Brazil  | Canada          | Chile  | Colombia  | Ecuador                                | México   | Paraguay   |
|--|--------------------------------------|--|---|-----------------|--|---|--|--|--|
| <b>Reporting period</b>                                  | Until EW 47                          | Until EW 49                            | Until EW 47   | Until EW 49     | Until December 15, 2009  | Until EW 49                                       | Until December 9, 2009                 | Until December 16, 2009  | Until December 18, 2009  |
| <b>Number of confirmed deaths</b>                        | 616                                  | 58                                     | 1632  | 367             | 150  | 190   | 96                                     | 780  | 46   |
| <b>Percentage of women</b>                               | "No gender difference"               | 46.6                                   | -   | 50.7            | 48.7   | -   | 47                                     | 49.5   | 43   |
| <b>Age</b>   | Highest rate in 50-59 year age group | Highest number in 15-64 year age group | -   | Median 53 years | Mean 44 years  | Highest percentage: 77.9% in 15-64 year age group | Highest number in 20-59 year age group | Highest percentage (51.9%) in 25-50 year age group                             | Median 37 years  |
| <b>Percent with underlying co-morbidities</b>            | -                                    | -                                      | 54  | 66.8            | 63.3   | -   | -                                      | -  | 74   |
| <b>Co-morbidities most frequently reported (%)</b>       | -                                    | -                                      | In order of decreasing frequency: cardiovascular, respiratory, metabolic, immunosuppressive | -               | Pulmonary disease (including COPD, asthma) (14.5%), Diabetes Mellitus (14.5%), Arterial hypertension (12.8%), Obesity (8.6%) | -   | -                                      | Metabolic (37.9%), smoking (13.1%), cardiovascular (12.7%), respiratory (4.7%) | Chronic cardiopathy (20%), metabolic (17%), immunologic (12%), neurologic (6%) |
| <b>Percent pregnant among women of child-bearing age</b> | -                                    | -                                      | 28.5*   | 8.7**           | 4.2**  | -   | -                                      | -  | 12***  |

\* 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 all deaths as information was not provided about women of child-bearing age

### 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.

Currently in North America, pandemic (H1N1) 2009 continues to predominate among circulating subtyped influenza A viruses (Table 3).

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

| Country                                       | Epidemiologic Week | Percentage of pandemic (H1N1) 2009* |
|---|--------------------|-------------------------------------|
| Canada  | 49                 | 99.2                                |
| USA   | 49                 | 99.3                                |
| <b>MEDIAN percentage pandemic (H1N1) 2009</b> |                    | <b>99.3</b>                         |

\*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 |
|---|----------------------------|------------------------------------|
| Canada  | August 3-December 12, 2009 | 99.8                               |
| Chile   | Until EW 49                | 98.3                               |
| <b>MEDIAN percentage pandemic (H1N1) 2009</b> |                            | <b>99.1</b>                        |

\*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 49**

| Country                                 | Geographic spread | Trend      | Intensity       | Impact on Health Care Services | EW |
|---|-------------------|------------|-----------------|--------------------------------|----|
| <b>Antigua and Barbuda</b>              |                   |            |                 |                                |    |
| <b>Argentina</b>                        | Widespread        | Decreasing | Low or moderate | Low                            | 47 |
| <b>Bahamas</b>                          | Widespread        | Decreasing | Low or moderate | Moderate                       | 48 |
| <b>Barbados</b>                         | Widespread        | Increasing | Low or moderate | Low                            | 48 |
| <b>Belize</b>                           | Widespread        | Decreasing | Very high       | Moderate                       | 48 |
| <b>Bolivia</b>                          | Widespread        | Decreasing | Low or moderate | Low                            | 49 |
| <b>Brazil</b>                           | Regional          | Decreasing | Low or moderate | Low                            | 49 |
| <b>Canada</b>                           | Widespread        | Decreasing | Low or moderate | NIA                            | 49 |
| <b>Chile</b>                            | Widespread        | Unchanged  | Low or moderate | Low                            | 49 |
| <b>Colombia</b>                         | Regional          | Decreasing | Low or moderate | Low                            | 49 |
| <b>Costa Rica</b>                       | Widespread        | Decreasing | Low or moderate | Low                            | 48 |
| <b>Cuba</b>                             | Widespread        | Decreasing | Low or moderate | Moderate                       | 48 |
| <b>Dominica</b>                         | Localized         | Unchanged  | Low or moderate | Low                            | 49 |
| <b>Dominican Republic</b>               |                   |            |                 |                                |    |
| <b>Ecuador</b>                          | Widespread        | Increasing | Low or moderate | Moderate                       | 49 |
| <b>El Salvador</b>                      | Localized         | Unchanged  | Low or moderate | Low                            | 49 |
| <b>Grenada</b>                          |                   |            |                 |                                |    |
| <b>Guatemala</b>                        | No Activity       | Decreasing | Low or moderate | Low                            | 48 |
| <b>Guyana</b>                           |                   |            |                 |                                |    |
| <b>Haiti</b>                            |                   |            |                 |                                |    |
| <b>Honduras</b>                         |                   |            |                 |                                |    |
| <b>Jamaica</b>                          |                   |            |                 |                                |    |
| <b>Mexico</b>                           | Widespread        | Decreasing | High            | Moderate                       | 49 |
| <b>Nicaragua</b>                        |                   |            |                 |                                |    |
| <b>Panama</b>                           |                   |            |                 |                                |    |
| <b>Paraguay</b>                         | Localized         | Decreasing | Low or moderate | NIA                            | 49 |
| <b>Peru</b>                             | Widespread        | Unchanged  | Low or moderate | Low                            | 49 |
| <b>Saint Kitts and Nevis</b>            |                   |            |                 |                                |    |
| <b>Saint Lucia</b>                      |                   |            |                 |                                |    |
| <b>Saint Vincent and the Grenadines</b> |                   |            |                 |                                |    |
| <b>Suriname</b>                         |                   |            |                 |                                |    |
| <b>Trinidad and Tobago</b>              |                   |            |                 |                                |    |
| <b>United States of America</b>         | Widespread        | Decreasing | Low or moderate | Moderate                       | 49 |
| <b>Uruguay</b>                          |                   |            |                 |                                |    |
| <b>Venezuela</b>                        | Widespread        | Decreasing | Low or moderate | Moderate                       | 49 |

NIA = No information available

**Annex 2: Number of deaths confirmed for the pandemic (H1N1) 2009 virus  
Region of the Americas. Updated as of 18<sup>th</sup> December 2009 (17 h GMT; 12 h EST).**

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

| Country                    | Cumulative number of deaths | New deaths<br>(since Dec 11) |
|----------------------------|-----------------------------|------------------------------|
| <b>Southern Cone</b>       |                             |                              |
| Argentina                  | 616                         | 3                            |
| Brazil                     | 1,632                       | 104*                         |
| Chile                      | 150                         |                              |
| Paraguay                   | 46                          | 0                            |
| Uruguay                    | 20                          |                              |
| <b>Andean Area</b>         |                             |                              |
| Bolivia                    | 58                          | 0                            |
| Colombia                   | 190                         | 7                            |
| Ecuador                    | 96                          | 0                            |
| Peru                       | 205                         | 2                            |
| Venezuela                  | 116                         | 0                            |
| <b>Caribbean Countries</b> |                             |                              |
| Antigua & Barbuda          | 0                           |                              |
| Bahamas                    | 1                           |                              |
| Barbados                   | 3                           |                              |
| Cuba                       | 36                          | 4                            |
| Dominica                   | 0                           |                              |
| Dominican Republic         | 23                          |                              |
| Grenada                    | 0                           |                              |
| Guyana                     | 0                           |                              |
| Haiti                      | 0                           |                              |
| Jamaica                    | 6                           |                              |
| Saint Kitts & Nevis        | 2                           | 1                            |
| Saint Lucia                | 1                           |                              |
| Saint Vincent & Grenadines | 0                           |                              |
| Suriname                   | 2                           |                              |
| Trinidad & Tobago          | 5                           |                              |
| <b>Central America</b>     |                             |                              |
| Belize                     | 0                           |                              |
| Costa Rica                 | 38                          |                              |
| El Salvador                | 31                          | 1                            |
| Guatemala                  | 18                          |                              |
| Honduras                   | 16                          | 0                            |
| Nicaragua                  | 11                          |                              |
| Panama                     | 11                          |                              |
| <b>North America</b>       |                             |                              |
| Canada                     | 397                         | 24                           |
| Mexico                     | 780                         | 67                           |
| United States              | 2,160                       | 122                          |
| <b>TOTAL</b>               | <b>6,670</b>                | <b>335</b>                   |

\*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 **18 December**, a total of **6,670 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).