



Regional Update

Pandemic (H1N1) 2009

(October 26, 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 and the United States, spread of influenza continues to be widespread and trends of acute respiratory disease continue to increase.

In the United States, in EW 41, outpatient influenza-like-illness (ILI) activity continued to increase, remaining above the national baseline for the eighth consecutive week. Emerging Infections Program (EIP) laboratory-confirmed influenza hospitalizations rates remained high, especially in persons 5–49 years of age. The proportion of deaths attributed to pneumonia and influenza crossed the epidemic threshold for the first time in this influenza season in EW 40 and remained above this threshold.

A total of 95 pediatric deaths associated with pandemic (H1N1) 2009 have been reported to the Centers for Disease Control (CDC) since the emergence of the virus. Since August 30, 2009, CDC has received 53 reports of influenza-associated pediatric deaths; 47 of the 53 deaths were due to 2009 influenza A (H1N1) virus infections, and the remaining six were associated with influenza A virus for which the subtype is undetermined. This week, 11 influenza-associated pediatric deaths were reported to CDC—nine were associated with pandemic (H1N1) 2009 and two were associated with an influenza A virus for which the subtype is undetermined. Reports of pediatric influenza-associated deaths during the early fall are uncommon, but have occurred in the setting of geographically widespread high levels of pandemic influenza A (H1N1) in the United States. Seven of the 32 pediatric deaths (22%) had positive bacterial cultures; five of these were positive *Staphylococcus aureus*, of which three were methicillin-resistant. On Saturday, September 24, 2009, the United States declared a national emergency due to the pandemic.

Based on information available from Mexico's webpage¹, the greatest number of laboratory-confirmed cases was seen in the Federal District, Chiapas, Yucatan, Nueva Leon, San Luis Potosi, and Jalisco. As compared to the previous week (October 12), the greatest increases in confirmed cases were observed in Aguascalientes, Mexico, Durango, San Luis Potosi, and Jalisco. Of note, the states of Aguascalientes, Durango and Baja California Sur have experienced increases of more than 20% per week for at least the last three weeks.

Weekly Summary

- The trends of acute respiratory disease in North America continue to increase; there were eleven influenza-associated pediatric deaths reported in the United States this week and declared a national emergency due to the pandemic
- Caribbean countries reported variable trends in acute respiratory disease this week; Trinidad and Tobago reported their first deaths from pandemic influenza
- Central America had overall decreasing trends in acute respiratory disease with the exception of Guatemala, which reported an increasing trend
- Most of South America had stable or decreasing trends of acute respiratory disease, with the exception of Colombia, Ecuador, and Paraguay, which reported increasing trends; Brazil reported 469 new pandemic-associated deaths since week 36
- A median of 100% of subtyped influenza A viruses were pandemic (H1N1) 2009
- Two countries (Barbados and El Salvador) reported cases of co-infections of pandemic influenza and dengue
- 636 new confirmed deaths in 10 countries were reported; in total there have been 4,175 cumulative confirmed deaths
- PAHO/WHO hosted a pandemic influenza clinical management meeting last week where worldwide partners presented findings and experiences from the pandemic

¹ <http://portal.salud.gob.mx/contenidos/noticias/influenza/estadisticas.html>
accessed October 12 and October 19, 2009

Caribbean

In the Caribbean, acute respiratory disease activity has been variable with some countries reporting increasing trends in acute respiratory disease while others are reporting decreasing or unchanged trends. Overall, the intensity of acute respiratory disease and impact of acute respiratory disease on health care services is remaining low to moderate, with the exception of Belize which reported very high intensity of acute respiratory disease but a moderate impact of acute respiratory disease on health care services. Cuba continues to report widespread influenza activity and increasing trends and high intensity of acute respiratory disease. Trinidad and Tobago reported their first pandemic-associated deaths last week (EW 40); in total, there have been 43 deaths in this region, including 22 in the Dominican Republic, and seven in Cuba.

Central America

In relation to the geographic spread of influenza, all countries except El Salvador reported widespread activity. The trend of acute respiratory disease is decreasing or unchanged in much of this region, with the exception of Guatemala, which reported an increasing trend. All countries are reporting low/moderate intensity of acute respiratory disease except Guatemala, which is reporting high intensity. The overall impact of acute respiratory disease on health care services was low or moderate in these countries. Several countries are reporting simultaneous outbreaks of dengue and cases of co-infection of both viruses are being investigated.

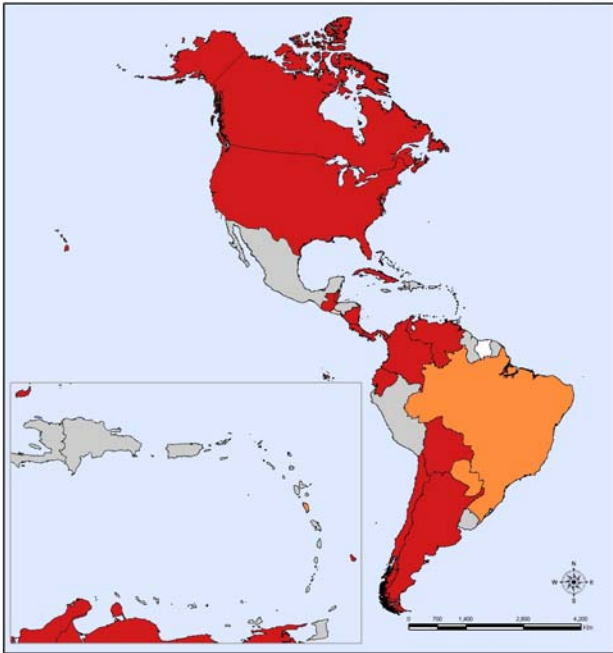
South America**Andean**

All the countries providing an update this week reported widespread geographic spread of influenza. This week, Colombia reported a continued increasing trend of acute respiratory disease, while Ecuador reported a new increasing trend in acute respiratory disease. All reporting countries had a low or moderate intensity of acute respiratory disease and a low impact on health care services due to acute respiratory disease.

Southern Cone

Most of these countries continued to experience a decreasing or unchanged trend of acute respiratory disease, with low/moderate intensity of acute respiratory disease, and low impact on health care services. Paraguay, however, reported a new increasing trend and high intensity of acute respiratory disease. Brazil reported an overall decreasing trend in acute respiratory disease and in severe acute respiratory illness (SARI) (97.3% decrease between EW 31 and 40) but also reported school outbreaks in the southern part of the country (Paraná). Since EW 36, Brazil reported an additional 469 pandemic-influenza associated deaths.

**Map 1. Pandemic (H1N1) 2009,
Geographical Spread by Country.
Americas Region. EW 41*.**



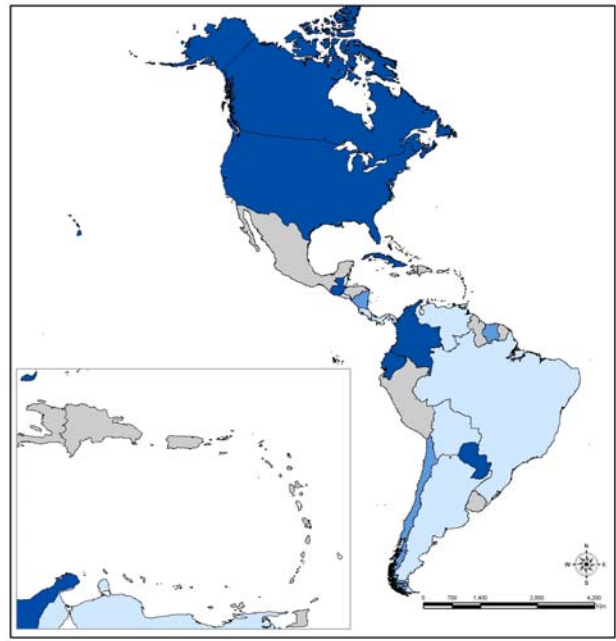
Geographical Spread

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

Map Production:
PAHO/MSD/CDC
October 27, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 41 = epidemiological week from October 11 to October 17, 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 41*.**



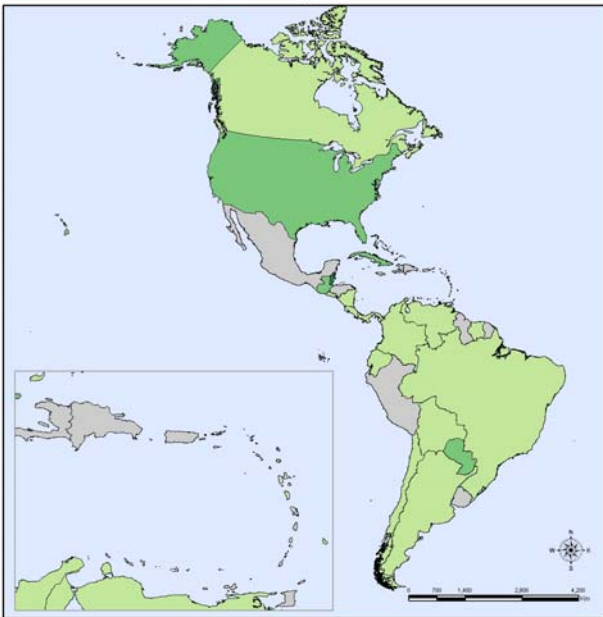
Trend

- No information available
- Decreasing
- Unchanged
- Increasing

Map Production:
PAHO/MSD/CDC
October 27, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 41 = epidemiological week from October 11 to October 17, 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 41*.**



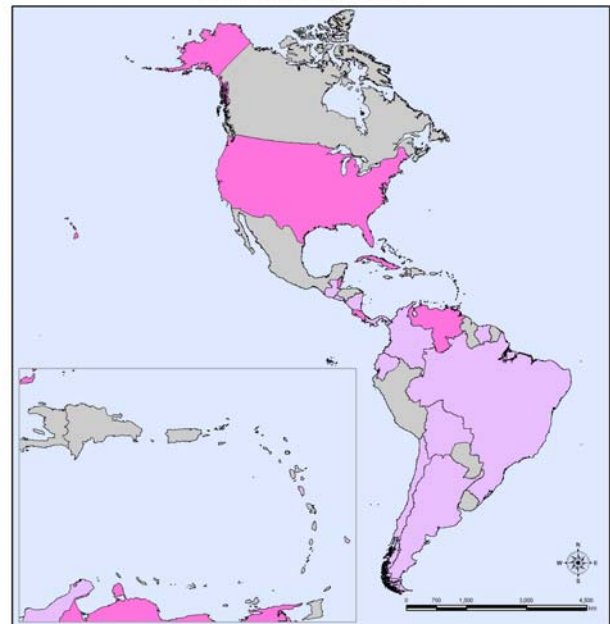
Intensity of acute respiratory disease

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

Map Production:
PAHO/MSD/CDC
October 27, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 41 = epidemiological week from October 11 to October 17, 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 41*.**



Impact on health-care services

- No information available
- Low
- Moderate
- Severe

Map Production:
PAHO/MSD/CDC
October 27, 2009
Cartographic projection:
Lambert Equal Area Azimuthal
Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
Created by PAHO/WHO

* EW 41 = epidemiological week from October 11 to October 17, 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.

Approximately half of confirmed hospitalized confirmed cases were among women (Table 1), while children were the age group with highest hospitalization rates. Underlying comorbidities were present in 50- 60% of hospitalized cases, while approximately 25% of confirmed cases in child-bearing age women were pregnant.

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

	Countries			
	Brazil	Canada	Chile	Surinam
Reporting period	Through October 19, 2009	Through EW 40	Through EW 41	Through October 16, 2009
Type of cases reported	Severe cases	Hospitalized	Hospitalized	Hospitalized
Number of hospitalizations	17,219	1,541	1,841	56
Percentage of women	-	51.6%	51.6%	-
Age	-	Median 23 years Highest rate in children <15 years	Median: 32 years Highest age group: ≤1year old	46.4% are children <15 years old
Co-morbidities	-	61.3%	53%	-
Co-morbidities most frequently reported	-	-	Asthma (17%) Arterial hypertension (9%) Diabetes mellitus (9%) COPD (7%)	-
Percent pregnant among women of child-bearing age	26.3% (1414/5369)	27.6%	-	-

In assessing the deaths among confirmed cases, women represent approximately 45–60% of these cases (Table 2). Deaths have taken place mostly among adults. More than two-thirds of deceased cases had underlying comorbidities.

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

	Countries			
	Chile	Canada	Mexico	Peru
Reporting period	Through October 21, 2009	Through EW 40	Through October 19, 2009	Through EW 40
Number of confirmed deaths	136	80	271	162
Percentage of women	48.5%	61.3%	49.8%	54%
Age	Median 49 years	Median 50 years	Highest number in age group: 40-49 years	Median 39 years Highest rate: 50-59 age group
Co-morbidities	69.1%	80.3%	-	76.5%
Co-morbidities most frequently reported (%)	Pulmonary disease (asthma, COPD) (14.5%) Diabetes mellitus (14.5%) Arterial hypertension (12.9%) Morbid obesity (8.6%) Alcoholism (5.1%) Epilepsy (4.3%)	-	Metabolic conditions (32.5%) Smoking (21%) Cardiopathies (14.4%)	Metabolic (24.1%) Cardiovascular (21%) Respiratory (12.4%) Neurologic (9.9%) Genetic (8.6%) Renal (8.6%)
Percent pregnant among women of child-bearing age	-	25.0%	-	-

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.

In the countries providing this information, there is a continued predominant circulation of the pandemic (H1N1) 2009 virus.

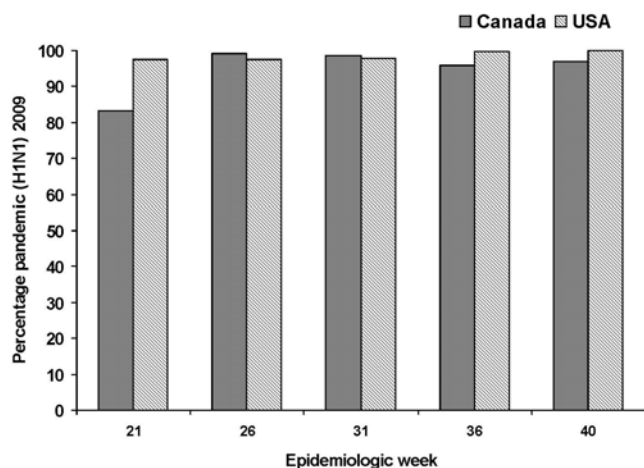
Table 3. Relative circulation of pandemic (H1N1) 2009 for selected countries—Last EW available

Country	Epidemiological Week	Percentage of Pandemic (H1N1) 2009 [#]
Canada	40	96.9%
Brazil	40	97.5%
Panama	39	100.0%
Chile	41	100.0%
United States	41	100.0%
MEDIAN		100.0%

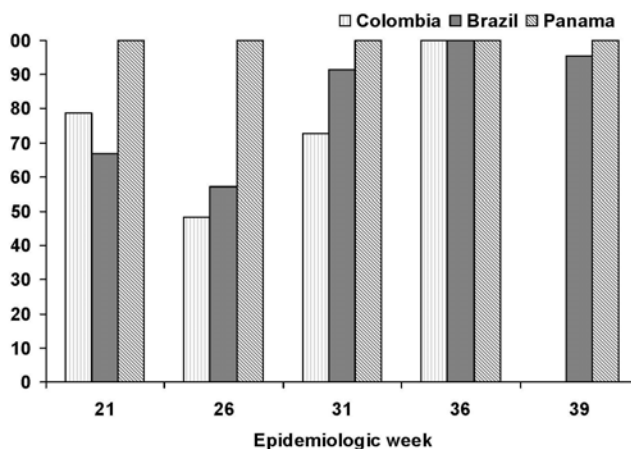
[#]Percentage of pandemic (H1N1) 2009 virus = Pandemic (H1N1) 2009 virus / All subtyped influenza A viruses

In temperate regions, the proportion of pandemic (H1N1) 2009 virus amongst all subtyped A viruses remained stable from EW 21 through EW 40 (Graph 1). In contrast, in the tropical regions, the replacement of seasonal influenza A subtypes took place gradually over this same time period (Graph 2).

Graph 1: Percentage of pandemic influenza H1N1(2009) by epidemiologic week-North America



Graph 2: Percentage of pandemic influenza H1N1 (2009) by epidemiologic week in tropical regions of the Americas



This week, Barbados and El Salvador reported cases co-infected with influenza (H1N1) 2009 and dengue, which are under investigation. PAHO also received notification of suspected cases, co-infected with influenza (H1N1) 2009 and dengue from other countries.

IV-Clinical Topic

Pregnancy highlighted as risk factor in the WHO International Consultation on Clinical aspects of Pandemic (H1N1) 2009

To gather information about the clinical features and management of pandemic influenza, PAHO/WHO hosted a meeting in Washington DC from 14-16 October 2009. Findings and experiences were presented by more than 100 international clinicians, scientists, and public health professionals with a broad representation from the Americas Region.

Participants agreed that the risk of severe or fatal illness is highest in three groups: pregnant women, especially during the third trimester of pregnancy, children younger than two years of age, and people with chronic lung disease, including asthma.

Although there is no significant gender difference among the hospitalized cases, country data from the Americas suggest that 20–25% of child-bearing age confirmed hospitalized cases were pregnant². This proportion is similar among fatal cases².

Health care providers of antenatal services should pay special attention to the signs and symptoms of respiratory infection among pregnant women. Early clinical suspicion, followed by **oseltamivir treatment without delay**, is considered a recommended intervention³ to prevent severe cases and deaths related with influenza in pregnancy. Differences in the influenza lethality among pregnant women from different countries could be related to the early access to antiviral medication and additional clinical measures. **Oxygen saturation below 94%** is considered an alert sign for prompt referral to a higher health care level and oxygen therapy. **Chest X-ray** is considered safe in the last trimester of pregnancy, as expressed by the experts in the last WHO International Consultation held in Washington, DC.

Primary prevention of influenza among pregnant women should be also emphasized. As prioritized group for influenza vaccination, **pandemic H1N1 vaccine** should be administered as recommended in national protocols. Infection control measures at the community level, such as **respiratory etiquette**, **hand hygiene** and frequent **ventilation** of the households should be promoted. If a family member develops a respiratory infection, distancing of 1-2 meters is necessary to avoid transmission. Pregnant women should not take care of household members with by respiratory infections.

For additional information about this meeting, please refer to the following link:

http://www.who.int/csr/disease/swineflu/notes/h1n1_clinical_features_20091016/en/index.html.

² Previous epidemiologic reports: http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=814&Itemid=1206&lang=en

³ Epidemiologic report published September 25, 2009:

http://new.paho.org/hq/index.php?option=com_content&task=view&id=1832&Itemid=1206

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	40
Bahamas	Widespread	Increasing	Low or moderate	Moderate	40
Barbados	Widespread	Decreasing	Low or moderate	Low	40
Belize	Widespread	Decreasing	Very high	Moderate	41
Bolivia	Widespread	Decreasing	Low or moderate	Low	41
Brazil	Regional	Decreasing	Low or moderate	Low	41
Canada	Widespread	Increasing	Low or moderate	NIA	41
Chile	Widespread	Unchanged	Low or moderate	Low	41
Colombia	Widespread	Increasing	Low or moderate	Low	41
Costa Rica	Widespread	Decreasing	Low or moderate	Moderate	41
Cuba	Widespread	Increasing	High	Moderate	41
Dominica	Regional	Decreasing	Low or moderate	Low	41
Dominican Republic					
Ecuador	Widespread	Increasing	Low or moderate	Low	41
El Salvador	Localized	Decreasing	Low or moderate	Low	41
Grenada					
Guatemala	Widespread	Increasing	High	Low	41
Guyana					
Haiti					
Honduras					
Jamaica					
Mexico					
Nicaragua	Widespread	Unchanged	Low or moderate	Low	41
Panama	Widespread	Decreasing	Low or moderate	Low	41
Paraguay	Regional	Increasing	High	NIA	41
Peru					
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent and the Grenadines					
Suriname	No activity	Unchanged	Low or moderate	Low	41
Trinidad and Tobago					
United States of America	Widespread	Increasing	High	Moderate	41
Uruguay					
Venezuela	Widespread	Decreasing	Low or moderate	Moderate	41

**Annex 2: Number of cases and deaths confirmed for the Pandemic (H1N1) 2009 virus
Region of the Americas. Updated as of 23rd October 2009, (17 h GMT; 12 h EST).**

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

Country	Cumulative number of confirmed cases	Cumulative number of deaths	New cases (since Oct. 16)	New deaths (since Oct. 16)
Southern Cone				
Argentina	9,196	585	77	5
Brazil**	17,219	1,368	7,970	469
Chile	12,257	136	5	2
Paraguay	692	42	0	0
Uruguay*	550	20	0	0
Andean Area				
Bolivia	2,309	56	28	0
Colombia	2,543	118	196	8
Ecuador	2,174	75	96	5
Peru	8,724	162	128	0
Venezuela	1,793	91	0	0
Caribbean Countries				
Antigua & Barbuda	3	0	0	0
Bahamas	23	0	0	0
Barbados	147	3	0	0
Cuba	677	7	0	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	108	2	20	0
Trinidad & Tobago	163	4	5	2
Central America				
Belize	36	0	0	0
Costa Rica	1,552	38	22	0
El Salvador	772	22	5	2
Guatemala	811	13	1	0
Honduras	543	16	0	0
Nicaragua	2,152	11	15	0
Panama	787	11	0	0
North America				
Canada*	10,156	86	0	6
Mexico	47,788	278	5,868	18
United States***	50,768	1,004	0	119
TOTAL	174,565	4,175	14,436	636

*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 **23 October**, a total of **174,565 confirmed cases** have been notified in all **35 countries** in the Americas Region. A total of **4,175 deaths** have been reported among the confirmed cases in **26 countries** of the Region.

In addition to the figures displayed in **Annex 1**, the following overseas territories have confirmed cases of pandemic (H1N1) 2009: American territories: American Samoa (8); Guam (1); Puerto Rico (20) and U.S. Virgin Islands (49). 2. United Kingdom Overseas Territories: Bermuda (1); Cayman Islands (104, 1 death); British Virgin Islands (12); Turks and Caicos Islands (36). French Overseas Communities: Martinique (44, 1 death); Guadeloupe (27); Guyane (29, 1 death); Saint Martin (30); Saint Bartholomew (2); Netherlands Antilles: Aruba (13); Bonaire (31); Curaçao (53)*; St. Eustatius (1); and 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>