



Regional Update

Pandemic (H1N1) 2009

(August 21, 2009 - 17 h GMT; 12 h EST)

Update on the qualitative indicators

For **Epidemiological Week 32** (EW 32), August 9 to August 15, 20 countries reported updated information to the Pan American Health Organization (PAHO) regarding the qualitative indicators¹ to monitor pandemic (H1N1) 2009 (**Table 1**).

Based on the most recent information provided by 34 countries on the **geographical spread** of pandemic (H1N1), 23 countries report *widespread* distribution. Belize is the only country reporting an increase in the spread from *localized* to *regional*. Information from Trinidad and Tobago was previously not available, but it is now reporting *widespread* distribution. Saint Kitts and Nevis and Dominica continue to report *no activity* (**Map 1**).

The **trends** in respiratory diseases were available for 30 countries. Argentina, Canada, Costa Rica, Dominican Republic, El Salvador, Jamaica, Mexico, Panama, Paraguay, Saint Lucia, United States, Uruguay, and Venezuela report *decreasing* trends, while Haiti, Honduras, and Bolivia reported increasing trends. Belize and Peru which reported increasing trends for EW 31 informed an unchanged trend, while Saint Lucia informed a decreasing trend for EW 32 (**Map 2**).

Regarding the **intensity** indicator, information has been provided by 29 countries. *Low or moderate* intensity was reported by 23. Five countries (Argentina, Costa Rica, El Salvador, Guatemala, and Paraguay) reported *high* intensity. Mexico reported *very high* intensity for the second consecutive week (**Map 3**).

Impact on health care services indicator is available for 28 countries. Eleven countries informed a *moderate* impact on health care services, three more in comparison with EW 31 (Belize, Costa Rica, and Peru). Among these countries, Peru reported a low impact to present and Belize and Costa Rica did not have information available up to date. No country reported a severe impact (**Map 4**).

Reporting of impact on health care services has increased this week in Central America. Most countries are now reporting moderate impact on health services.

¹ See **Annex 1**

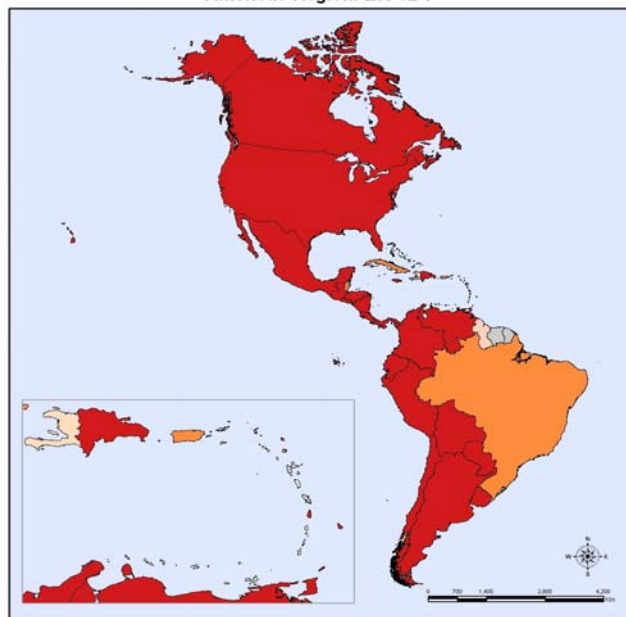
Table 1. Weekly monitoring of qualitative indicators for the Pandemic (H1N1) 2009.
Last epidemiological week available. Americas Region

Country	Geographic spread	Trend	Intensity	Impact on Health Care Services	EW
Antigua and Barbuda	Regional	Unchanged	Low or moderate	Low	Not specified
Argentina	Widespread	Decreasing	High	Low	31
Bahamas	Regional	NIA	NIA	NIA	28
Barbados	Widespread	NIA	Low or moderate	NIA	31
Belize	Regional	Unchanged	Low or moderate	Moderate	32
Bolivia	Widespread	Increasing	Low or moderate	Moderate	32
Brazil	Regional	Unchanged	Low or moderate	Moderate	31
Canada	Widespread	Decreasing	Low or moderate	NIA	30
Chile	Widespread	Unchanged	Low or moderate	Low	32
Colombia	Widespread	Unchanged	Low or moderate	Low	32
Costa Rica	Widespread	Decreasing	High	Moderate	32
Cuba	Regional	Unchanged	Low or moderate	Moderate	32
Dominica	No activity	Unchanged	Low or moderate	Low	32
Dominican Republic	Widespread	Decreasing	Low or moderate	Low	30
Ecuador	Widespread	Unchanged	Low or moderate	Moderate	32
El Salvador	Widespread	Decreasing	High	Moderate	32
Grenada	Localized	Unchanged	Low or moderate	Low	31
Guatemala	Widespread	Unchanged	High	Moderate	32
Guyana	Localized	NIA	NIA	NIA	28
Haiti	Localized	Increasing	NIA	Low	Not specified
Honduras	Widespread	Increasing	Low or moderate	Low	32
Jamaica	Widespread	Decreasing	Low or moderate	Low	Not specified
Mexico	Widespread	Decreasing	Very High	Moderate	32
Nicaragua	Widespread	NIA	NIA	NIA	28
Panama	Widespread	Decreasing	Low or moderate	Low	31
Paraguay	Widespread	Decreasing	High	Moderate	31
Peru	Widespread	Unchanged	Low or moderate	Moderate	31
Saint Kitts and Nevis	No activity	Unchanged	Low or moderate	Low	32
Saint Lucia	Widespread	Decreasing	Low or moderate	Low	32
Saint Vincent and the Grenadines	Localized	Unchanged	NIA	NIA	28
Suriname	NIA	NIA	NIA	NIA	
Trinidad and Tobago	Widespread	Unchanged	Low or moderate	Low	30
United States of America	Widespread	Decreasing	Low or moderate	Low	31
Puerto Rico (U.S.)	Regional	NIA	NIA	NIA	28
Virgin Islands (U.S.)	NIA	NIA	NIA	NIA	28
Uruguay	Widespread	Decreasing	Low or moderate	Low	30
Venezuela	Widespread	Decreasing	Low or moderate	Low	32

NIA: No Information Available

Source: Ministries of Health of the countries in the Region

**Map 1. Pandemic (H1N1) 2009,
Geographical Spread by Country.
Americas Region. EW 32*.**



Geographical Spread
 No activity
 No information available
 Localized
 Regional
 Widespread

Map Production:
HSD/CD
August 20th, 2009
 Projection:
Lambert Equal Area Azimuthal
 Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
 Created by PAHO/WHO

*EW 32=Epidemiological Week from August 9 to August 15, 2009

**Map 2. Pandemic (H1N1) 2009,
Trend of respiratory disease activity compared to the previous week.
Americas Region. EW 32*.**



Trend
 No information available
 Decreasing
 Unchanged
 Increasing

Map Production:
HSD/CD
August 20th, 2009
 Projection:
Lambert Equal Area Azimuthal
 Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
 Created by PAHO/WHO

*EW 32=Epidemiological Week from August 9 to August 15, 2009

**Map 3. Pandemic (H1N1) 2009,
Intensity of Acute Respiratory Disease in the Population.
Americas Region. EW 32*.**



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

Map Production:
HSD/CD
August 20th, 2009
 Projection:
Lambert Equal Area Azimuthal
 Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
 Created by PAHO/WHO

*EW 32=Epidemiological Week from August 9 to August 15, 2009

**Map 4. Pandemic (H1N1) 2009,
Impact of Acute Respiratory Disease on Health-Care Services.
Americas Region. EW 32*.**



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

Map Production:
HSD/CD
August 20th, 2009
 Projection:
Lambert Equal Area Azimuthal
 Source: Ministries of Health of the countries
Consolidated by PAHO/WHO
 Created by PAHO/WHO

*EW 32=Epidemiological Week from August 9 to August 15, 2009

Note: EW 32 maps were produced using the last available information. Please refer to Table 1.

Update on the number of cases and deaths

As of **August 21, 2009**, a total of **110,113 confirmed cases** have been notified in all 35 countries in the Americas Region. A total of **1,876 deaths** have been reported among the confirmed cases in 22 countries of the Region.

In addition to the figures displayed in **Table 2**, the following overseas territories have confirmed cases of pandemic (H1N1) 2009: 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 (25); Guadeloupe, French Overseas Community (5); Guyane, French Overseas Community (12); Saint-Martin, French Overseas Community (12); Netherlands Antilles, Aruba (13); Netherlands Antilles, Bonaire (29); Netherlands Antilles, Curaçao* (44); Netherlands Antilles, St. Eustatius (1); and Netherlands Antilles, St. Maarten (20).

* 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 2. Number of cases and deaths confirmed for the pandemic (H1N1) 2009 virus
Region of the Americas. Updated as of August 21, 2009 (17 h GMT; 12 h EST)

Country	Number of confirmed cases	Number of deaths	New cases (since August 14)	New deaths (since August 14)
Antigua & Barbuda	3	0	0	0
Argentina	6,768	404	0	0
Bahamas	23	0	0	0
Barbados	47	0	0	0
Belize	23	0	0	0
Bolivia	1,268	16	199	3
Brazil	3,087	368	128	176
Canada*	10,156	67	0	1
Chile**	12,175	128	71	16
Colombia	367	23	0	0
Costa Rica	982	31	117	3
Cuba	306	0	42	0
Dominica	1	0	0	0
Dominican Republic	182	5	0	0
Ecuador	1,136	27	97	4
El Salvador	706	15	80	3
Grenada	3	0	0	0
Guatemala	624	10	0	0
Guyana	7	0	0	0
Haiti	5	0	0	0
Honduras	326	7	32	1
Jamaica	69	4	5	0
Mexico	19,634	164	1,244	2
Nicaragua	659	1	116	0
Panama	647	6	25	3
Paraguay	430	39	9	0
Peru	5,415	46	0	0
Saint Kitts & Nevis	6	1	0	0
Saint Lucia	8	0	0	0
Saint Vincent & Grenadines	1	0	0	0
Suriname	11	0	0	0
Trinidad & Tobago	97	0	0	0
United States*	43,771	477	0	0
Uruguay*	550	20	0	0
Venezuela***	620	17	-39	5
TOTAL	110,113	1,876	2,126	217

*These countries no longer update on the total number of confirmed cases. However they do update the number of deaths.

** There are 353,525 cases compatible with the case definition; of those, 12,175 have been confirmed for the pandemic (H1N1) 2009 virus.

***The Ministry of Health of Venezuela reported a correction in the total of cumulative cases in the country.

Source: Ministries of Health of the countries in the Region

Analysis of pandemic (H1N1) 2009 associated deaths in selected countries

In Argentina, Bolivia, Brazil, Canada, Chile, Costa Rica, Mexico, and Peru, additional information was available about deaths amongst confirmed cases of pandemic (H1N1) 2009 (**Table 3**). For most countries, the proportion of males to females was similar. In Bolivia, there was a greater proportion of males amongst those who died. Conversely, in Canada the proportion of females was greater. The median age for the cases who died varied

by country. For countries which provided information about the type of underlying co-morbidity, the most common reported conditions were: metabolic diseases (mainly diabetes mellitus), obesity, cardiovascular diseases, respiratory diseases (asthma and chronic obstructive pulmonary disease), and cancer. Should be highlighted the proportion of pregnant women which varied from country to country.

Table 3. Information on deaths among confirmed cases of pandemic (H1N1) 2009. Selected Countries, Region of the Americas

	Bolivia	Brazil	Canada	Chile	Costa Rica	Mexico	Peru
<i>Reporting period</i>	<i>Until EW31</i>	<i>Until EW32</i>	<i>Until EW31</i>	<i>Until EW31</i>	<i>Until EW32</i>	<i>Until EW32</i>	<i>Until EW29</i>
Number of confirmed deaths analyzed	13	368	66	105	28	164	29
Sex	30.7% female (4/13)	-	63.1% female (41/65)	48. 6% female (48/104)	53.6% female (15/28)	49.4% female	48.3% female (14/29)
Age	Median 29 years	-	Median 51 years	Median 49 years (range 4m-89y)	Median 41 years	63.2% between 20–49 years	62.0% between 20-50 years
% Co-morbidities	50% (6/12)	50.3%	81.3% (39/48)	66.6% (70/105)	-	-	37.9% [1]
Most frequent co-morbidities	-	Metabolic diseases Respiratory illnesses Chronic cardiopathies	-	-	Obesity (42.9%) Diabetes Mellitus (25%) Asthma (21%) Chronic Obstructive Pulmonary Disease (COPD) (10.7%)	Metabolic diseases (34.8%) Smoking (23.2%) Cardiopathies (15.9%)	-
Pregnancy	-	29.9% [2] (46/154)	18.2%[3] (2/11)	-	10.7%[4]	-	-
Source	Ministry of Health and Sport of Bolivia/ Epidemiology Unit, Bulletin No.35	Secretary of Surveillance and Health, Epidemiological Report, Ed 5- August 2009	Public Health Agency of Canada, FluWatch:phac-aspc.gc.ca/fluwatch	Ministry of Health, Weekly Report, August 12, 2009	Ministry of Health, Surveillance Unit, Epidemiological Bulletin No. 44, August 14, ,2009	Ministry of Health, August 18, 2009 Report	Ministry of Health, Epidemiology Unit, Bulletin V.18 No. 29

- No information available

[1] Co-morbidity was defined as hypertension, diabetes, obesity, pregnancy, Down's syndrome, chronic pulmonary disease, cardiac diseases, hydrocephaly, malnutrition, rheumatoid arthritis, epilepsy, or others.

[2] Among women between 15 and 49 years old

[3] Among women between 15 and 44 years old.

[4] Not specified if this percentage is among total deaths or among total deaths women in childbearing age

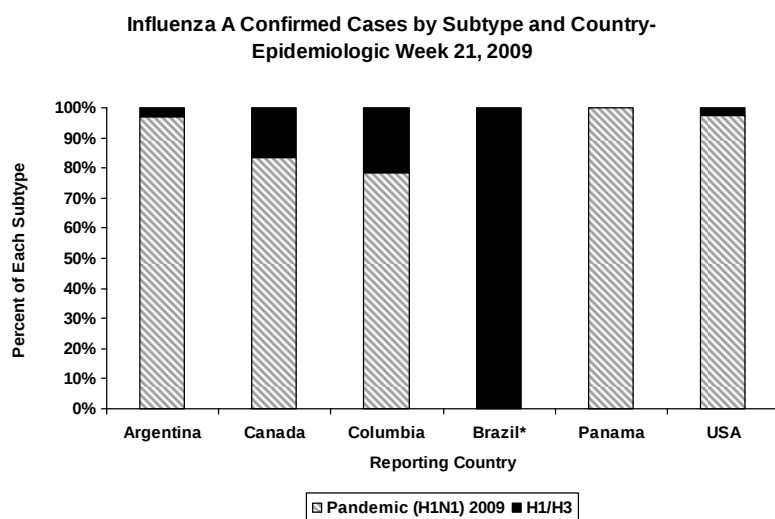
Virological update

Pattern of viral circulation

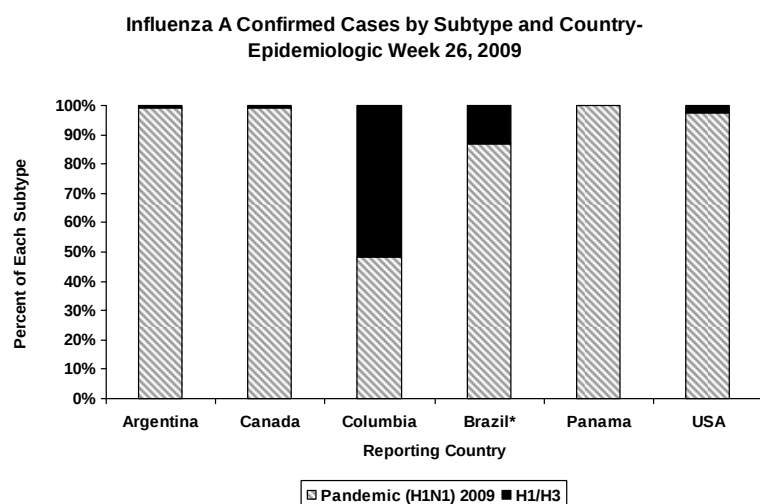
Virological data obtained from Ministry of Health websites, from Ministry of Health reports sent to PAHO and notifications from National Influenza Centers (NICs) is included below. For the purposes of this analysis, only countries or laboratories that reported Influenza A by subtype were selected. In the calculations of the percentages, laboratory results of influenza cases not subtyped or unsubtypeable were excluded.

Virological information for countries or laboratories that provided that level of detail is included in the Figure 1. In spite of the limitations of the available data, the graphs in figure 1 show a progressive increase of pandemic (H1N1) 2009 among the subtyped influenza A isolates (seasonal H1/H3 and pandemic (H1N1) 2009).

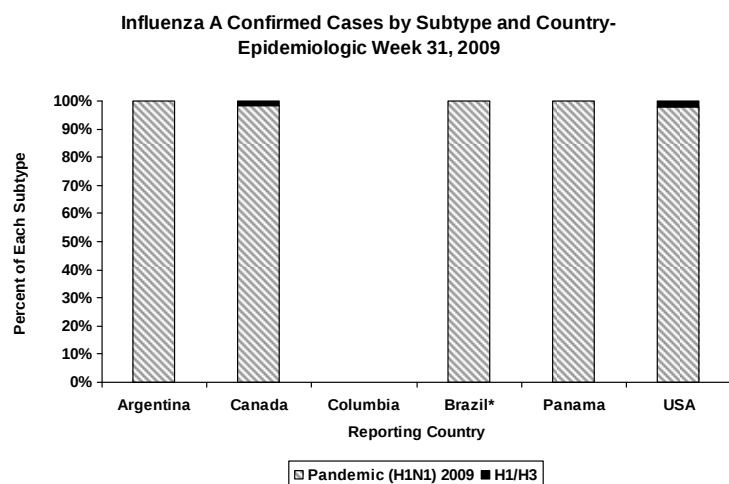
Figure 1. Comparison of Influenza A confirmed cases by subtype and country during epidemiological weeks 21, 26 and 31, 2009



Country	Number of Pandemic (H1N1) 2009	Number of H1/H3
Argentina	135	4
Canada	65	13
Columbia	11	3
Brazil*	0	2
Panama	25	0
USA	1558	40



Country	Number of Pandemic (H1N1) 2009	Number of H1/H3
Argentina	874	7
Canada	572	5
Columbia	31	33
Brazil*	33	5
Panama	40	0
USA	903	23



Country	Number of Pandemic (H1N1) 2009	Number of H1/H3
Argentina	40	0
Canada	128	2
Columbia	-	-
Brazil*	5	0
Panama	15	0
USA	516	12

- No information available

Source: Ministry of Health Argentina; FluWatch Canada; NIC Panama; NIC Colombia and CDC, USA

* Brazil, Source Evandro Chagas Institute

Antiviral susceptibility

On July 21, 2009, Canada reported the first case of oseltamivir-resistant pandemic (H1N1) 2009 virus in the Americas Region. Since then, the United States reported on August 14, 2009 the detection of oseltamivir-resistant pandemic (H1N1) 2009 virus in two immunosuppressed patients in the State of Washington. While both patients were being treated with oseltamivir, they were treated in different hospitals and were not epidemiologically linked. The virus in both patients had been initially documented as being susceptible to oseltamivir, and resistance developed subsequently during antiviral treatment.

Influenza virus antiviral susceptibility testing is done routinely as part of the surveillance activities carried out by the WHO collaborating

center for Surveillance, Epidemiology and Control of Influenza at the U.S. Centers for Disease Control and Prevention. Susceptibility to neuraminidase inhibitors is carried out for the neuraminidase inhibition assay and resistant viruses are sequenced for determine the presence of established molecular marker of resistance. The susceptibility to adamantanes is carried out by determining the presence of established molecular markers of resistance.

In total, 89 pandemic (H1N1) 2009 isolates from 16 countries from Latin America and Caribbean were tested by CDC for anti-viral susceptibility. These isolates tested for antiviral susceptibility so far have shown sensitivity to both oseltamivir and zanamivir.

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.

