Influenza

February 23, 2011 - 17 h GMT; 12 h EST

The information presented in this update is based on data provided by Ministries of Health and National Influenza Centers of Member States to the Pan American Health Organization (PAHO) or from updates on the Member States’ Ministry of Health web pages.

• In Canada, overall influenza activity continued to increase in Quebec and the Atlantic Provinces while the ILI consultation rate remained within the expected levels for this time of year. In the United States, at the national level, ILI activity and the proportion of deaths attributed to pneumonia and influenza were above the epidemic threshold. In Canada, influenza A/H3 has predominated since the beginning of the influenza season. In the United States and Mexico, there has been a co-circulation of influenza A and B.

• Influenza activity in Central America, the Caribbean, the Andean Region and the South Cone remained low, there has been a co-circulation of influenza A and B.

Epidemiologic and virologic influenza update

North America

In Canada, in epidemiological week (EW) 06, influenza activity continued to increase in Quebec and the Atlantic provinces. In EW 06, one region (Quebec) reported widespread influenza activity, 23 regions reported localized activity, 25 regions reported sporadic activity, and 7 regions reported no activity. During EW 06, the national ILI consultation rate remained within expected levels and was 35.7 per 1,000 consultations—which is higher than what was observed in EW 05 (29.9 per 1,000 consultations). Children under 5 years of age had the highest ILI consultation rates (84.2 per 1,000 consultations). The percentage of samples positive for influenza was 20.2%, which represents a slight increase from the prior week (19.8%). Since the beginning of the influenza season, influenza A/H3N2 has been the predominant strain circulating in Canada. In EW 06, of the positive tests reported (n=1280), 51% were unsubtyped influenza A, 33% were influenza A/H3N2, 9% were influenza B, and 7% were influenza A/H1N1 2009. Among the other respiratory viruses, the proportion of specimens positive for respiratory syncytial virus (RSV) increased from EW 05 (16.9%) to EW 06 (19%).

In Mexico, in EW 06, of all samples tested, the percentage of positive samples for influenza virus increased to 22% from the previous week (13%). In EW 06, the predominant circulating virus was influenza B (72% of all positive samples).

In the United States, in EW 06, at the national level, the proportion of outpatient consultations for ILI (4.5%) was above the national baseline, which was similar to the prior week (4.6%). At the regional level, all ten regions reported ILI activity to be at or above their region-specific baseline. The proportion of deaths attributed to pneumonia and influenza was above the epidemic threshold. Five influenza-associated pediatric deaths were reported this week. During EW 06, 35% of samples tested were positive for influenza [influenza A/H3 (30.1%), followed by unsubtyped influenza A (24.3%), influenza A/H1N1 2009 (23.4%) and influenza type B (21.4%)]] which is higher as compared to EW 05 (31.7%). Of characterized influenza B viruses, 94% belong to the B/Victoria lineage, which is included in the 2010-2011 Northern Hemisphere vaccine and 6% belong to the B/Yamagata lineage.

Caribbean

CAREC, in EW 06, reported that the proportion of admissions for severe acute respiratory infection (SARI) remained similar (1.8%) to the previous week. Children between 6-48 months of age had the highest SARI admission rate (7.14 per 100 hospitalizations). No SARI deaths have been reported in the last seven EWs. In EWs 05 & 06, the predominant circulating virus was influenza B. To date in 2011, 30 positive respiratory
cases have been identified among residents in Barbados, Jamaica, St. Kitt’s, Suriname, and Turks & Caicos Islands. Among the 30 cases, 33% (n=10) were influenza A/H3N2, 30% (n=9) were influenza A/H1N1 2009, 30% (n=9) were influenza B and 7% (n=2) were parainfluenza type 3.

In Cuba, in EW 06, of all samples tested, the percentage of samples positive for respiratory viruses remained stable (~25%) and the percentage of positive samples for influenza virus was low (3%). To date in 2011, influenza A/H3 has been the predominant influenza virus circulating. Among the respiratory viruses, respiratory syncytial virus (RSV) has been the predominant virus in the last two EW. Based on the laboratory data, in EW 06, parainfluenza virus was the predominant viruses in children less than 1 year of age and bocavirus was the predominant virus in the 15-64 years of age group.

In Dominican Republic, in EW 07, of all samples tested, the percentage of positive samples for respiratory viruses was 18%. To date in 2011, the predominant circulating viruses were parainfluenza and adenovirus. No influenza viruses have been detected since EW 01, 2011.

In Jamaica, influenza B has been the predominant circulating virus in EWs 05-07.

Central America

In Honduras, from EW 01-06, small numbers of respiratory viruses were detected. Influenza B has been the predominant influenza virus circulating in 2011.

In Panama, from EW 01-05, small numbers of respiratory viruses were detected. Parainfluenza virus and RSV have been the predominant respiratory viruses circulating in the last 2 weeks.

South America – Andean

In Colombia, in EW 05, the number of the acute respiratory illness (ARI) cases remained similar to EW 04—representing approximately half as many as were seen during the same period in 2010. In EWs 04-05, there has been a co-circulation of influenza A/H1 2009 and influenza A/H3N2.

In Venezuela, in EW 05, the number of the ARI cases increased 10% as compared to EW 04 and remained within expected levels for this time of year. The number of pneumonia cases decreased 9.8% as compared to EW 04 and remained within expected levels for this time of year. Children under 1 year of age had the highest ARI and pneumonia rates. To date in 2011, the percentage of positive samples for influenza was 44% and the predominant circulating virus is seasonal influenza A, with no detections of A/H1N1 2009.

South America – Southern Cone

In Argentina, to date in 2011, parainfluenza and adenovirus were the predominant respiratory circulating viruses, and influenza A unsubtyped was reported as the predominant circulating virus among influenza viruses.

In Paraguay, in EW 06, the proportion of ILI consultations remained less than 10%. The proportion of SARI cases among the total hospitalized, the proportion of SARI intensive care units (ICU) cases among all ICU admissions and the proportion of SARI deaths among the total deaths were below 6%, which remains similar to previous weeks. Influenza A/H3 has been the predominant circulating virus in 2011 (93.5% of all respiratory viruses). In EW 06, of all samples tested, 23% were positive for respiratory viruses and 6.1% were positive for influenza.

In Uruguay, from EW 01 – 08, the proportions of SARI cases among the total number of hospitalizations, ICU admissions, and deaths associated with SARI, have remained less than 2%. To date in 2011, small numbers of respiratory viruses were detected and influenza A/H3 has been the predominant circulating virus among SARI cases.
North America

Canada

Mexico

Year 2010 -2011

Distribution of respiratory viruses under surveillance by EW 2010-2011 as reported to PAHO

- RSV
- Adenovirus
- Flu A Seasonal (H1 or H3)
- Flu H1N1 (pandemic)
- Parainfluenza
- Flu B
- % Positives

Year 2011

Distribution of respiratory viruses under surveillance by EW 2010-2011 as reported to PAHO

United States


Influenza Positive Tests Reported to CDC by U.S. WHO/INREVSS Collaborating Laboratories, National Summary, 2010-11 Season
CAREC

Graph A: SARI Admissions and SARI Admissions Rate per 100 Hospital Medical Admissions from Sentinel Sites in Select CAREC Member Countries
Epidemiologic week 27, 2010 to week 6, 2011*

Note: Includes data from Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago.

This graph includes data from the following CAREC Member Countries (n=4): Dominica, Jamaica, St. Vincent & the Grenadines, and Trinidad & Tobago.

Graph E - Laboratory Confirmed Influenza Cases by Type and Subtype
CAREC Member Countries
Epidemiologic week 27, 2010 to week 6, 2011

Cuba

Distribution of respiratory viruses under surveillance by EW 2010-2011, as reported to PAHO

Distribution of respiratory viruses by age Group in the EW 06, 2011. Cuba

Distribución de virus respiratorios en la SE 6 en Cuba, por grupos de edad

*Note: Includes data from Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago.
Dominican Republic and Jamaica

Central America

Honduras and Panama
South America - Andean

Colombia

**Numbers of Acute Respiratory Disease Cases, Colombia, 2010-2011**

Gráfica 8. Comportamiento de la notificación de la morbilidad por IRA, SE 1-5 de 2011

Fuente: Sivigila 2011, Instituto Nacional de Salud

![Graph of Acute Respiratory Disease Cases in Colombia, 2010-2011](image)

**Distribution of respiratory viruses under surveillance by EW 2010 - 2011, as reported to PAHO**

![Diagram showing the distribution of respiratory viruses in Colombia, 2010-2011](image)

Venezuela

**Numbers of Acute Respiratory Disease Cases, Venezuela, 2010-2011**

Infecciones Respiratorias Agudas
Canal Endémico 2005 - 2011
Venezuela, 2011

**Numbers of Pneumonia Cases, Venezuela, 2010-2011**

Neumonías
Canal Endémico 2005 - 2011
Venezuela 2011

![Graphs of Acute Respiratory Disease and Pneumonia Cases in Venezuela, 2010-2011](image)
**South America – Southern Cone**

**Argentina**

Distribution of respiratory viruses under surveillance by EW 2010-2011, as reported to PAHO

- **RSV**
- **Adenovirus**
- **Flu A Seasonal (H1 or H3)**
- **Flu H1N1 (pandemic)**

**Paraguay**

Distribution of respiratory viruses under surveillance by EW 2010-2011 as reported to PAHO

- **Adenovirus**
- **RSV**
- **Parainfluenza**
- **Influenza B**
- **Influenza A/ H3**
- **Influenza A/ H1**
- **A not subtypable**
- **A not subtyped**
- **Inf A H1N1 2009**

**Uruguay**

Distribution of respiratory viruses under surveillance by EW 2010-2011, as reported to PAHO

- **Adenovirus**
- **RSV**
- **Parainfluenza**
- **Influenza B**
- **Influenza A/ H3**
- **Influenza A/ H1**
- **A not subtypable**
- **A not subtyped**
- **Inf A H1N1 2009**

---

2. USA. Surveillance Summary. Week 06. Centers for Disease Control and Prevention
3. Colombia. Boletín epidemiológico semanal. SE 05. Instituto Nacional de Salud