Influenza
(March 29, 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, the influenza-like illness (ILI) consultation rate remained similar to the prior week and was within expected levels for this time of year; influenza A/H3 has predominated since the beginning of the influenza season, however recently, influenza B cases have increased. In Mexico, ILI and severe acute respiratory infection (SARI) activity decreased as compared to previous EWs and remained low; influenza B has been the predominant influenza virus during the last six EWs. In the United States, at the national level, ILI activity was at the national baseline and the proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold; there has been a co-circulation of influenza A and B during the second half of the influenza season.

- 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) 11, overall influenza activity remained similar to the previous week. In EW 11, the national influenza-like illness (ILI) consultation rate remained similar to the prior week and was within the expected rate for this time of year. Children under 5 years of age and children between 5 and 19 years of age had the highest ILI consultation rate (39 per 1,000 consultations). There was a large increase in the number of influenza and ILI outbreaks reported this week, with over half of the outbreaks reported in schools. In EW 11, the percentage of samples positive for influenza was 12.6%, which represents a slight decrease from the prior week (14.9%); 59.9% were influenza A and 40.1% were influenza B. In week 11, influenza B increased steadily in most regions of the country except the Atlantic provinces. Among the other respiratory viruses, the proportion of specimens positive for respiratory syncytial virus (RSV) decreased slightly compared to the prior week and appears to have peaked in EW 07.

In Mexico, at the national level, the number of cases of Acute Respiratory Infection (ARI) remained within the endemic channel during EW 10. In EW 11 and at the beginning of EW 12 (up to 24 March 2011) the weekly proportion of reported cases of ILI and severe acute respiratory infection (SARI) diminished in comparison with EW 10, remaining low (<10%). At the regional level, in EW 11 and at the beginning of EW 12 (up to 24 March 2011) all the states reported an ARI activity within what is expected. The states that presented the greatest incidence rate of ILI/SARI per a hundred thousand inhabitants-month in the last month (22/02/2011–24/03/2011) were: Chiapas (11.8), Chihuahua (5.6), Campeche (5.0), Jalisco (3.3), Nuevo Leon (2.9) and Quintana Roo (2.6). With regard to the national virological surveillance, the percentage of positivity for influenza of the total of samples tested was 9% in the last EW, with influenza type B predominating. During EW 12, in the state of Chihuahua, a respiratory disease outbreak was detected with five deaths reported (four in the city of Juarez), three were associated with influenza A/H1N1 2009.

In the United States, in EW 11, at the national level, the proportion of outpatient consultations for ILI (2.5%) was at the baseline and decreased as compared to EW 10 (3.0%). At the regional level, six of ten regions reported ILI activity to be at or above their region-specific baseline. The proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold. Six influenza-associated pediatric deaths were reported this week. During EW 11, 18.9% of samples tested were positive for influenza [influenza type B (27.9%), influenza A/H3 (27.3%), unsubtyped influenza A (24.4%), and influenza A/H1N1 2009 (20.4%)]. 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 11, reported that the proportion of admissions for SARI (~1%) was lower than the prior week. No SARI deaths were reported in the last EW. No influenza viruses have been detected in the last two EW.

In Cuba, in EW 11, among all samples tested, the percentage of positivity for respiratory viruses was 43% and the percentage of positivity for influenza viruses was 9%. To date in 2011, influenza A/H3 has been the predominant influenza virus circulating. Based on the laboratory data, in EW 11, rhinovirus was the predominant virus detected in children less than 1 year of age.

In the Dominican Republic, to date in 2011, parainfluenza has been the primary respiratory virus circulating. No influenza viruses have been detected since EW 01.

In Jamaica for EW 11, the proportion of outpatient consultations for ARI decreased by 0.3% compared to the previous week. The proportion of admissions due to SARI was less than 1% and remained stable compared to the previous week. There were no SARI deaths reported for EW 11. The percentage of samples positive for influenza was 25%, which represents an increase compared to the previous week (21.4%). Influenza type B has been the predominant influenza type circulating in the last seven EW.

Central America

Influenza activity in this region has remained low in 2011.

In Costa Rica, to date in 2011, influenza B has been the primary influenza virus circulating, while adenovirus has been the primary respiratory virus circulating.

In Guatemala, small numbers of respiratory viruses have been detected in the last two weeks. To date in 2011, influenza A/H3 was the predominant influenza virus circulating.

In Honduras4, in EW 11, the proportion of ILI consultations among all consultations remained similar to the prior week (6%). The proportion of admissions for SARI among all hospital admissions was 3%, which represents a slight decrease as compared to EW 10 (4.5%). Seven SARI deaths were reported this week in San Pedro Sula. To date in 2011, small numbers of respiratory viruses have been detected. Adenovirus has been the predominant respiratory virus in the last two EW and no influenza viruses were detected this week.

In Panama, to date in 2011, adenovirus, parainfluenza and RSV have been co-circulating. No influenza viruses have been detected since EW 04.

South America – Andean

In Colombia, to date in 2011, there has been a co-circulation of multiple respiratory viruses, with influenza A/H3 being the predominant influenza virus.

In Ecuador, in EW 11, the percentage of samples positive for respiratory viruses (~40%) increased slightly as compared to EW 10. To date in 2011, influenza A/H3 and influenza A/H1N1 2009 co-circulated (each ~38% of the positive influenza viruses). From EW 47, 2010 to EW 11, 2011, influenza A/H3N2 was the predominant virus detected in children between 1-14 years of age, and influenza A/H1N1 2009 was the predominant virus detected in those 15-54 years of age.

In Peru5, in EW 09, the ARI activity and the pneumonia activity in children under 5 years of age remained within the endemic channel and similar to the levels observed during the prior week.

In Venezuela6, in EW 09, the number of ARI cases remained similar as compared to EW 08 and the number of pneumonia cases decreased as compared to EW 08. ARI and pneumonia cases remained below the highest expected counts for this time of year. The highest rates for both ARI and pneumonia were observed in those less than one year of age. Up to EW 09 in 2011, of a total of 180 samples tested, 32.8% were positive for influenza A/seasonal, 7.2% influenza A/H1N1 2009 and 2.8% influenza B. As of March 29th, 415 cases associated with influenza A/H1N1 2009 were reported nationally, of which, 46% were in Merida (west of the country).

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* Participating CAREC member countries, which include, Barbados, Dominica, Jamaica, St Vincent and the Grenadines, St. Lucia and Trinidad and Tobago, were assessed together
In Paraguay, in EW 10, the number of ILI consultations was above the endemic channel and higher than the prior week. At the regional level, the ILI activity increased especially in the departments of Concepcion and Alto Paraguay (north of the country) and the SARI activity increased especially the departments of Central and Amambay. In the last six EWs, RSV has been the predominant circulating respiratory virus. Small numbers of influenza A/H3N2 have been detected in the last five EWs.

**Graphs**

**North America**

- **Canada**
  - [Graph showing Influenza-like illness (ILI) consultation rates in Canada.]
  - [Graph showing percent positive influenza tests compared to other respiratory viruses in Canada.]

- **Mexico**
  - [Graph showing weekly ILI/SARI proportion in Mexico 2010-2011.]
  - [Graph showing distribution of respiratory viruses under surveillance by EW 2010-2011 as reported to PAHO.]
  - [Graph showing ARI endemic channel in Mexico 2011.]
  - [Graph showing influenza virus circulation in Mexico 2010-2011.]

United States


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

Caribbean

CAREC

Graph A: SARI: Admissions and SARI:Admissions Rate per 100 Hospital Medical Admissions from Sentinel Sites in Selected CAREC Member Countries
Epidemiological week 27, 2010 to week 11, 2011

Graph B: Laboratory Confirmed Influenza Cases by Type and Subtype
CAREC Member Countries
Epidemiological week 27, 2010 to week 11, 2011

*Results are not yet available for countries submitted during week 13
Honduras

ILI activity
Distribución de las atenciones por ETI, Vigilancia centinela de influenza, semana epidemiológica No 11, Honduras, 2011

SARI activity
Distribución por IRAG, vigilancia centinela de influenza, Semana epidemiológica No. 11 Honduras, 2011

South America - Andean

Colombia

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

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

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

Peru

Acute Respiratory Illness, in children <5 years old. Peru, 2011

Neumonías notificadas en niños menores de 5 años. Perú - 2011

Venezuela

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

Infecciones Respiratorias Agudas Canal Endémico 2005 - 2011

Neumonías Canal Endémico 2005 - 2011

Numbers of Pneumonia Cases, Venezuela, 2010-2011

South America – Southern Cone

Paraguay

ILI endemic channel - Paraguay

Paraguay

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

2 México. Informe semanal de Vigilancia Epidemiológica. Influenza. SE 12.
3 USA. Surveillance Summary. Week 11. Centers for Disease Control and Prevention
4 Honduras. Boletín de la vigilancia de influenza y otro virus respiratorios. SE 11.