



Regional Update EW 34

Influenza
(September 6, 2011 - 17 h GMT; 12 h EST)

PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp

Influenza Regional Reports: http://new.paho.org/hq/index.php?option=com_content&task=view&id=3352&Itemid=2469&to=2246

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 North America, influenza activity remains low.
- In Central America and the Caribbean, the predominance of respiratory syncytial virus (RSV) continued (CAREC, Costa Rica, Guatemala, El Salvador and Panama), and there has been a variable predominance of influenza A/H3N2 (Cuba and Honduras) and influenza B (Dominican Republic).
- In the Southern Cone, RSV circulation continues to show a decreasing trend (Argentina and Chile). Among influenza viruses, overall, viral circulation is lower than expected for this time of year, with predominance of influenza A/H1N1 2009 (Bolivia, Colombia, Chile) and variable co-circulation of influenza A/H3 (Peru and Argentina) and influenza B (Brazil).

Epidemiologic and virologic influenza update

North America

Canada¹, in epidemiological weeks (EWs) 33 and 34, continued to have influenza activity at inter-seasonal levels. Influenza-like illness (ILI) consultation rates were 7.2 (EW 33) and 8.5 (EW 34) per 1,000 consultations; these rates were within the expected levels for this time of year. Few influenza detections were reported in EWs 33 and 34, and during both of these weeks, the percentage of samples positive for influenza was less than 1%, which is similar to previous EWs. The influenza viruses detected were influenza B and untyped influenza A.

In the United States², in EW 34, at the national level, the proportion of ILI consultations (0.8%) remained below the national baseline (2.5%). The proportion of deaths attributed to pneumonia and influenza (5.8%) remained below the epidemic threshold for EW 34 (6.4%). This week no pediatric deaths associated with influenza were reported. During EW 34, among all samples tested (n=839), the percentage of samples positive for influenza remained at low levels (<1%), with sporadic detections of influenza A/H3, untyped influenza A and influenza B. On August 2011, CDC reported two swine-origin triple reassortant influenza A/H3N2 cases with one gene segment from influenza A/H1N1 2009, in Indiana and Pennsylvania. Both of them were children under 5 years old, and one of them with direct exposure to swine identified. Both cases have completely recovered. No epidemiological link between the two cases has been identified, and no additional confirmed human infections among relatives have been detected. The viruses in these two patients were susceptible to the neuraminidase inhibitor drugs.

In Mexico, in EW 34, influenza and other respiratory virus activity remained low. Of all samples tested (n=31), the percent positivity for respiratory viruses was <10%; these samples were positive for influenza A/H3 and other respiratory viruses.

Caribbean

CAREC^{*}, in EW 34, received information from Jamaica and Trinidad and Tobago. The proportion of severe acute respiratory infection (SARI) cases among all hospitalizations was 1.8%, which was similar to the previous week (1.4%). No SARI-related deaths have been reported since EW 27. According to laboratory data, in EW 33, among samples tested (n=15), no samples positive for respiratory viruses were detected. Respiratory syncytial virus (RSV) was the primary virus in circulation between EWs 26-31, with sporadic detections of A/H1N1 2009 throughout the year.

In Cuba, in EW 34, among all samples tested (n=74), ~70% were positive for respiratory viruses and <35% of overall samples were positive for influenza. In EW 34, the primary virus in circulation was influenza A/H3, followed by RSV and other respiratory viruses.

In the Dominican Republic, in EW 35, among all samples tested (n=33), the percentage of samples positive for respiratory viruses was ~27%, which was lower than the previous week (25%). The primary virus in circulation was parainfluenza. Concerning influenza viruses, co-circulation of influenza B and influenza A/H1N1 2009 continued.

In Jamaica, in EW 34, the proportion of acute respiratory illness (ARI) consultations was 2.8%—similar to that observed during the previous week. The proportion of SARI admissions was <1% and remains stable compared to the previous week. In EW 33 no SARI-related deaths were reported. According to laboratory data there has been no detection of influenza since EW 21.

Central America

In Costa Rica, in EW 35, among all samples tested (n=118), the percentage of samples positive for respiratory viruses was ~55%, which is similar to the previous week. RSV has been the predominant virus since EW 28, followed by adenovirus. In EW 34 and 35 no samples were positive for influenza.

In El Salvador, in EW 34, of all samples tested (n=32) the proportion of samples positive for respiratory viruses decreased to ~40% compared to EWs 32 and 33 (~60%), without influenza detections since EW 29. RSV continues to be the predominant virus.

In Guatemala, in EW 34, of all samples tested (n=28), 50% were positive for respiratory viruses, and RSV was the only virus detected and has been the predominant virus since EW 26. No samples positive for influenza have been detected since EW 31.

In Honduras, in EWs 33 and 34, of all samples tested (n=61 and 16, respectively), ~40% were positive for influenza virus and influenza A/H3 has been the predominant virus since EW 28, followed by influenza B, influenza A/H1N1 2009 and RSV.

In Panama, in EW 34, among all samples tested (n=11), ~75% were positive for some respiratory virus, and RSV has been the predominant virus since EW 21. In EW 34, no samples were positive for influenza.

South America – Andean

In Bolivia, in La Paz (INLASA), after a predominance of influenza A/H3 up to EW 31, between EWs 33-35, of all samples tested, ~8% were positive for some respiratory virus, primarily influenza A/H1N1 2009. In Santa Cruz, (CENETROP), in EW 33 of all samples tested (n=60) the percent positivity for respiratory viruses (20%) was slightly lower than the previous week (~30%) with predominance of influenza A/H1N1 2009 followed by influenza A/H3.

In Colombia according to the national laboratory³, in EW 33, of all samples tested (n=10), 10% were positive for some respiratory virus, with influenza A/H1N1 2009 being the only virus detected. To date this year, co-circulation of influenza A/H3 and influenza A/H1N1 2009 has been reported.

In Peru⁴, in EW 33, at the national level, ARI and pneumonia activity indicators (number of ARI cases in less than 5 years old and number of pneumonia cases in children less than 5 years old, respectively) showed a decreasing trend compared to the previous weeks, remaining below or within the expected levels for this

^{*} Includes Barbados, Dominica, Jamaica, St Vincents and the Grenadines, St Lucia, and Trinidad and Tobago

time of year. Through EW 31 of 2011, 249 pneumonia-related deaths were reported in children less than 5 years old; this represents ~20% less than the average reported in the last three years (2008-2010). According to laboratory data, in EW 33, of all samples tested (n=52), 25% were positive for respiratory viruses and influenza A/H3 has been the primary virus in circulation, followed by unsubtype influenza A, RSV and parainfluenza.

South America – Southern Cone

In Argentina⁵, the ILI and SARI endemic channels showed that the number of ILI and SARI cases for EW 31 continued to decrease and were at lower levels than what was observed during 2010. According to national laboratory data, in EW 33 the predominance of RSV continued but has been decreasing since its peak in EW 26. In EW 33, among samples tested (n=488), 30% were positive for respiratory viruses. Concerning influenza viruses, there has been a decreasing trend of the number of influenza A cases detected since its peak in EW 28; unsubtype influenza A has been the main virus detected. Among subtyped influenza viruses, co-circulation of influenza A/H3N2 and influenza A/H1N1 2009 was observed in EWs 19-32.

In Brazil, according to Adolfo Lutz institute (Sao Paulo), in EW 35, among all samples tested, 20% were positive for respiratory viruses. Between EWs 32-34, among all samples tested, co-circulation of influenza A/H3 and influenza B was reported, with sporadic detections of influenza A/H1N1 2009. In the FIOCRUZ laboratory (Rio de Janeiro), between EWs 32-34, influenza B was the predominant virus. The Evandro Chagas Institute (Belen, Para), in EWs 32 and 33, detected only influenza B.

In Chile⁶, in EW 34, ILI activity (10.2 consultations per 100,000 inhabitants) at the national level was higher than the previous week (6.3 per 100,000 inhabitants), but remained with low intensity and within the expected levels for this period. Between EWs 32-34, the percentage of emergency department admission for respiratory cases in children less than 15 years and adults registered a slight increase, but remained lower than observed in 2010. In EW 34, 7 deaths associated with influenza A/H1N1 2009 were reported, all of whom had one or more comorbidities. According to laboratory data, in EW 34, among samples tested at the national level, 18% were positive for some respiratory virus; of these positives, RSV was the predominant one (36%) and has been decreasing compared to the previous weeks. Concerning influenza viruses, among all samples positive for some respiratory virus, 29% were positive for influenza A, with predominance of influenza A/H1N1 2009.

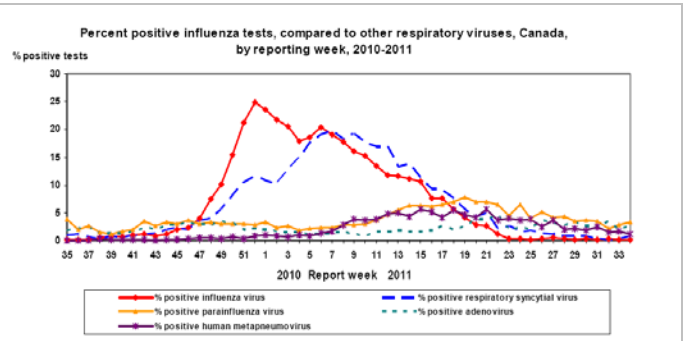
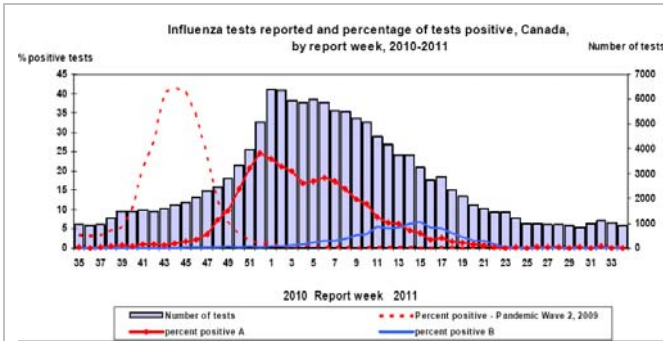
In Paraguay⁷, in EW 34, the proportion of ILI consultations among all consultations was ~8%, remaining similar to the previous week (~7%). In EW 34 the proportion of SARI hospitalizations decreased slightly and remained below 5%. The proportion of SARI ICU admissions (16%) was higher than the previous week. The percentage of SARI deaths remained below 10%. According to laboratory data, in EW 35, of all samples tested no positive samples were detected. Between EWs 27-34, few samples positive for adenovirus, RSV, parainfluenza and influenza A/H2 were detected.

In Uruguay⁸, in EW 34, the proportion of SARI hospitalizations and the proportion of SARI ICU admissions were below 5% and 15% respectively.

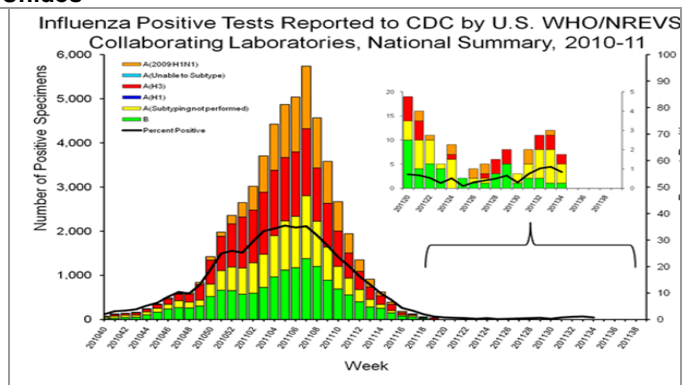
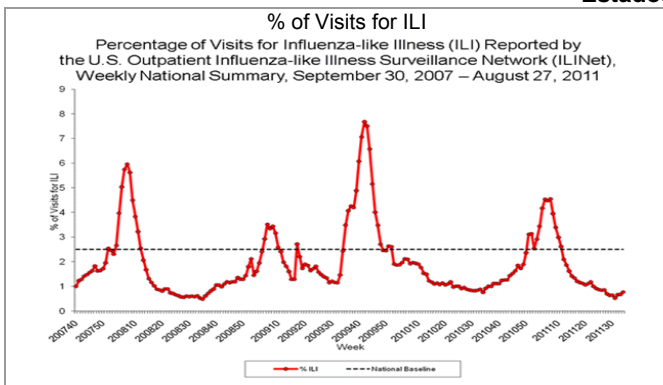
Graphs

North America

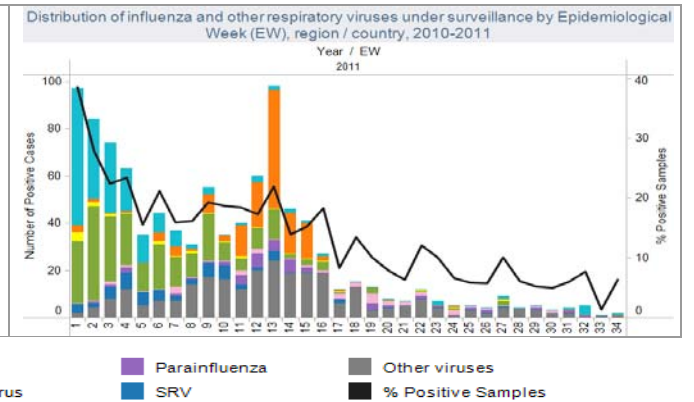
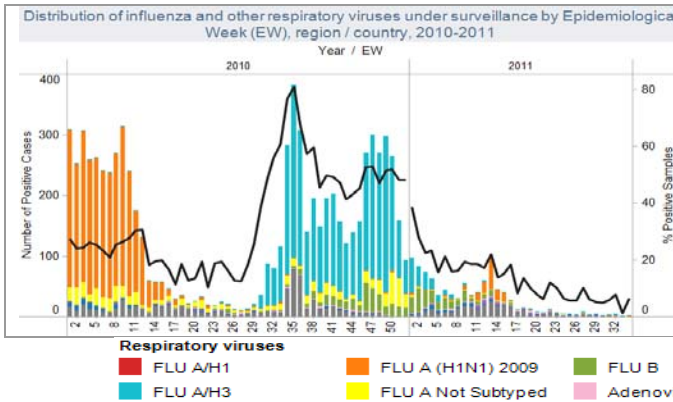
Canada



Estados Unidos



Mexico

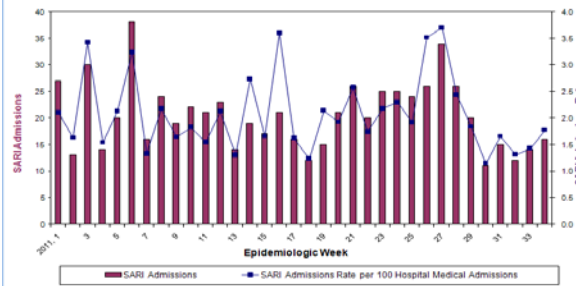


Caribbean

CAREC

% SARI Admissions

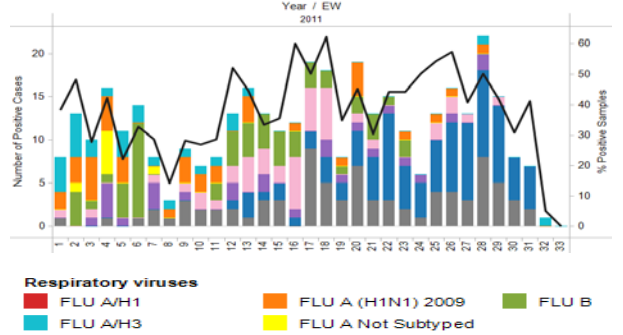
Graph A: SARI Admissions and SARI Admissions Rate per 100 Hospital Medical Admissions from Sentinel Sites in Select CAREC Member Countries, 2011*



*Note: Graph includes data from Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Tobago

Respiratory virus characterization by EW, 2011

Distribution of influenza and other respiratory viruses under surveillance by Epidemiological Week (EW), region / country, 2010-2011

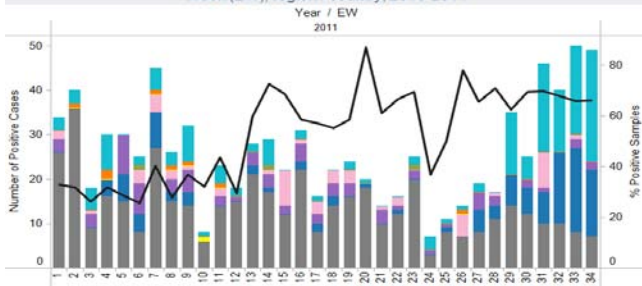


Cuba and Dominican Republic

Cuba

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Distribution of influenza and other respiratory viruses under surveillance by Epidemiological Week (EW), region / country, 2010-2011



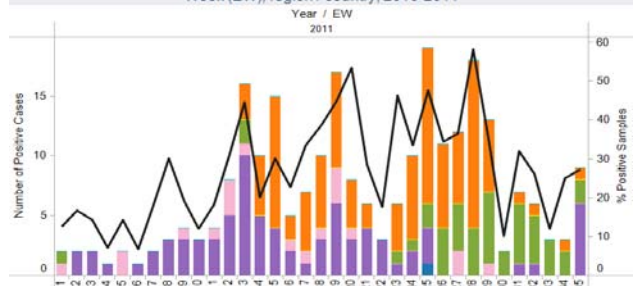
Respiratory viruses

- FLU A/H1
- FLU A/H3
- FLU A (H1N1) 2009
- FLU A Not Subtyped
- FLU B
- Adenovirus

Dominican Republic

Respiratory virus characterization by EW, 2011

Distribution of influenza and other respiratory viruses under surveillance by Epidemiological Week (EW), region / country, 2010-2011



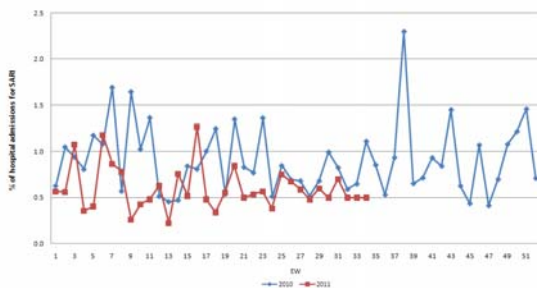
Respiratory viruses

- Parainfluenza
- SRV
- Other viruses
- % Positive Samples

Jamaica

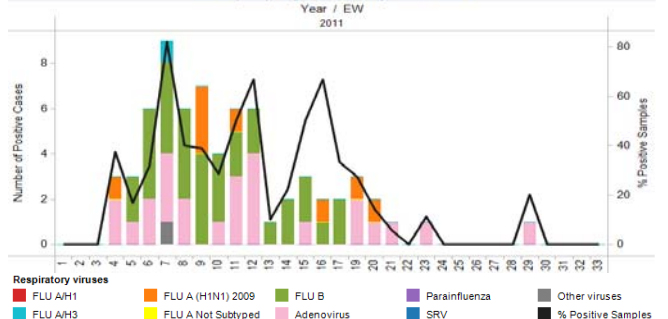
SARI Cases by EW

Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI), Jamaica, 2010-2011



Respiratory virus characterization by EW, 2011

Distribution of influenza and other respiratory viruses under surveillance by Epidemiological Week (EW), region / country, 2010-2011

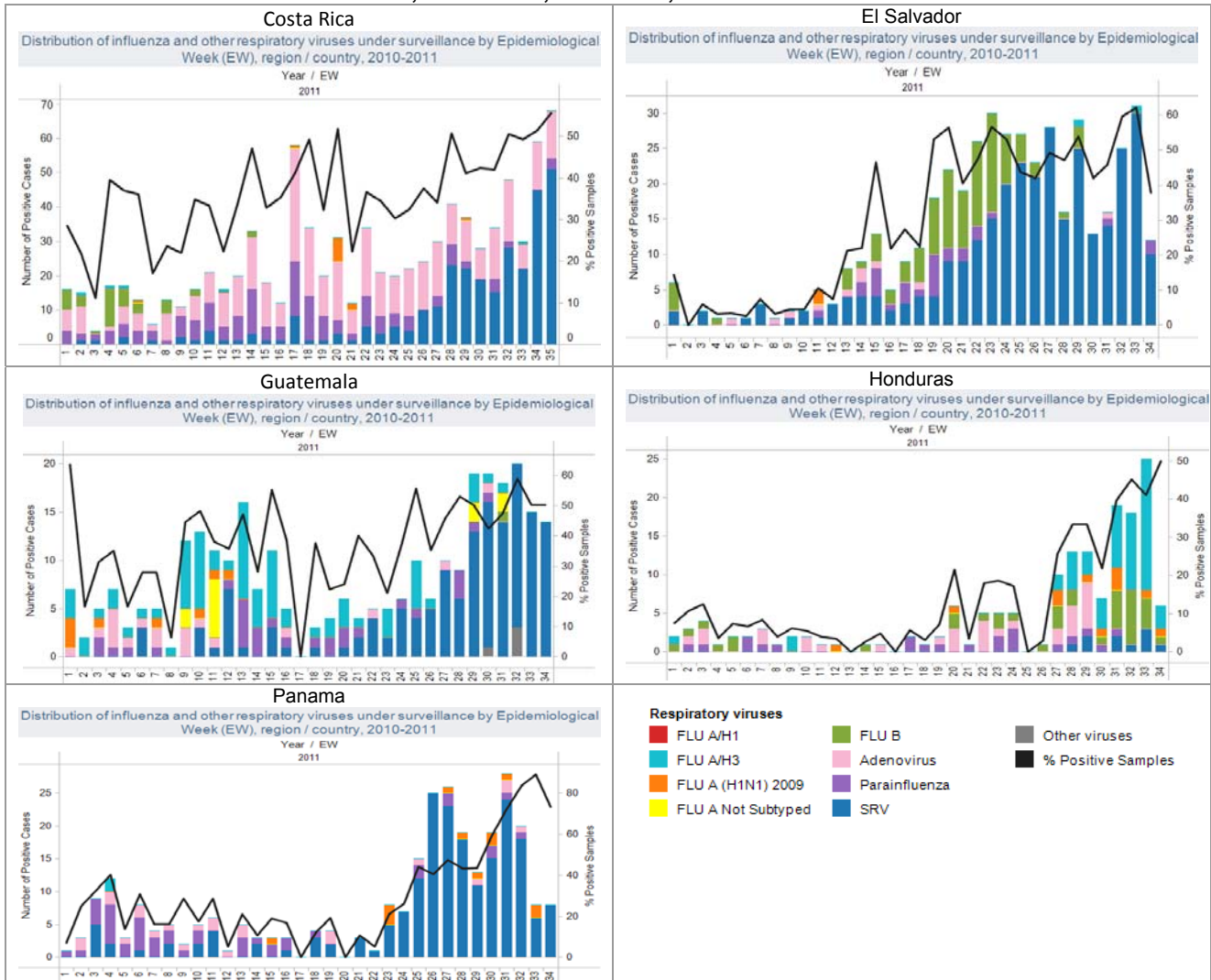


Respiratory viruses

- FLU A/H1
- FLU A/H3
- FLU A (H1N1) 2009
- FLU A Not Subtyped
- FLU B
- Adenovirus
- SRV
- Other viruses
- % Positive Samples

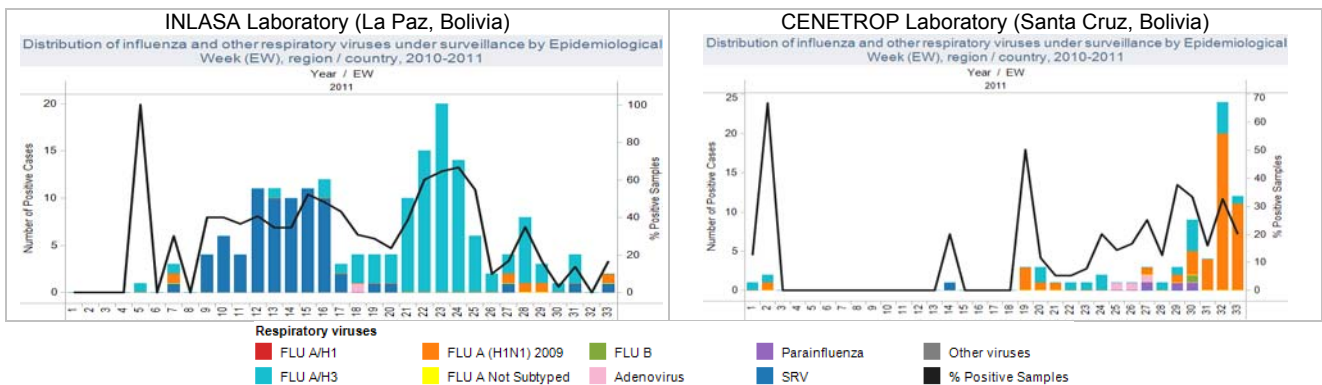
Central America

Costa Rica, El Salvador, Guatemala, Honduras and Panama

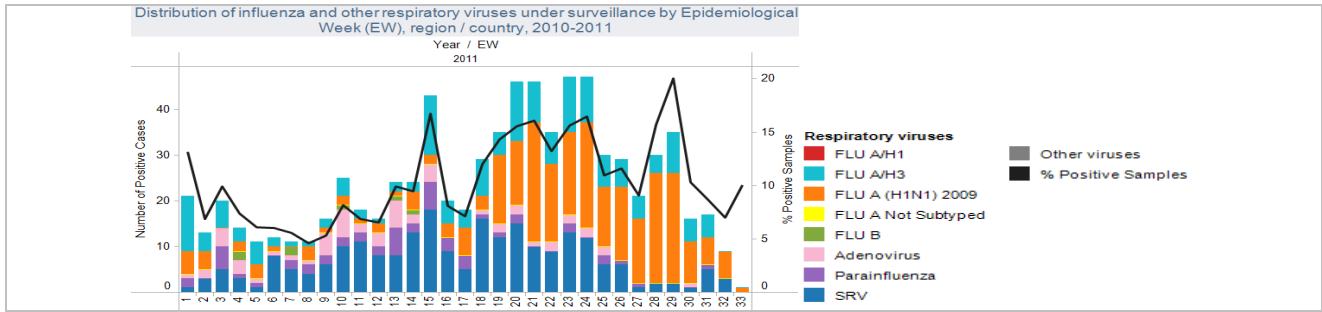


South America - Andean

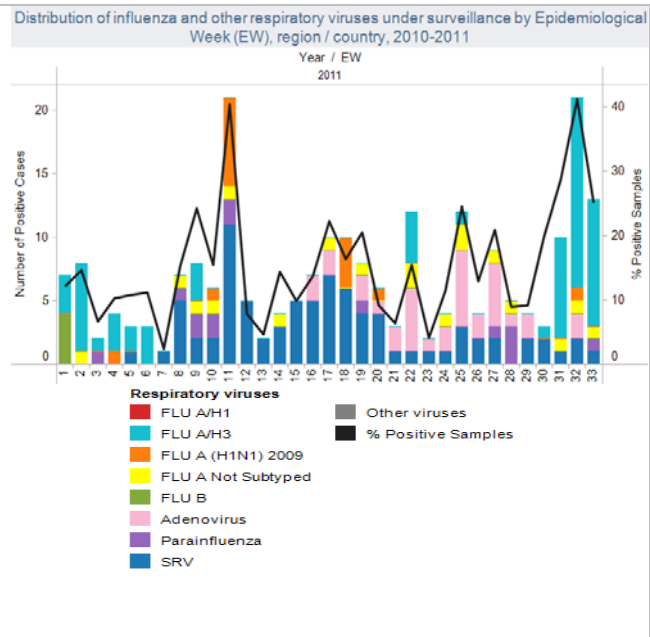
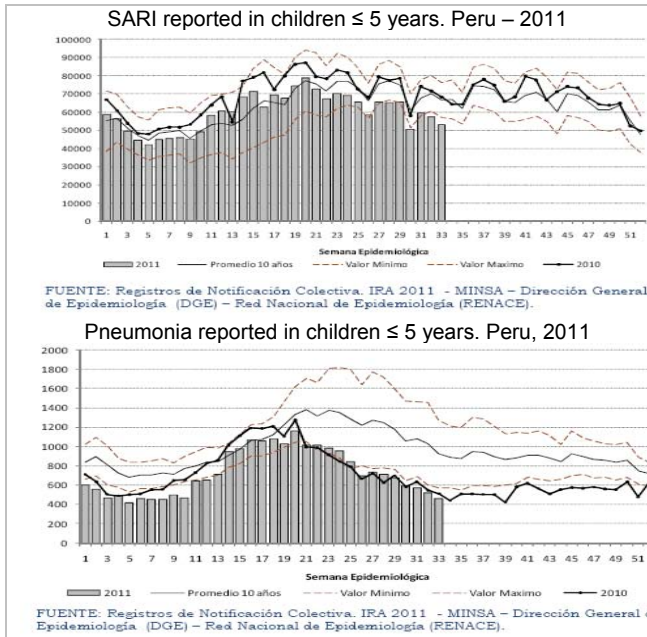
Bolivia



Colombia

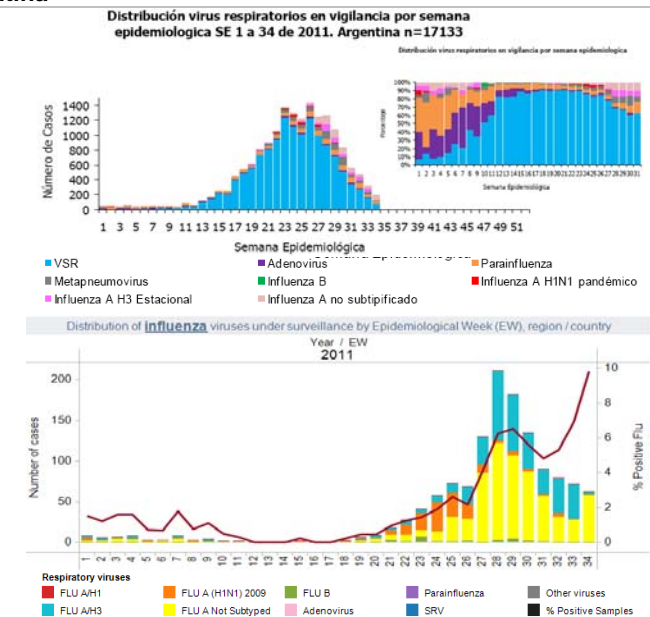
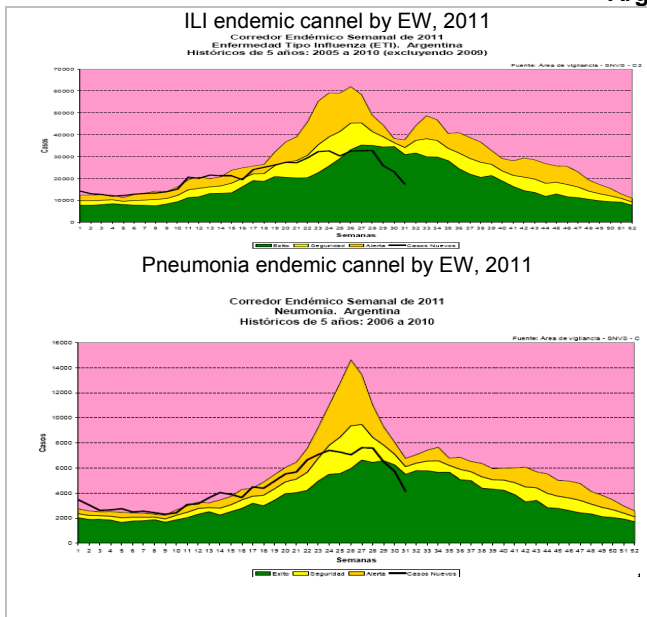


Peru

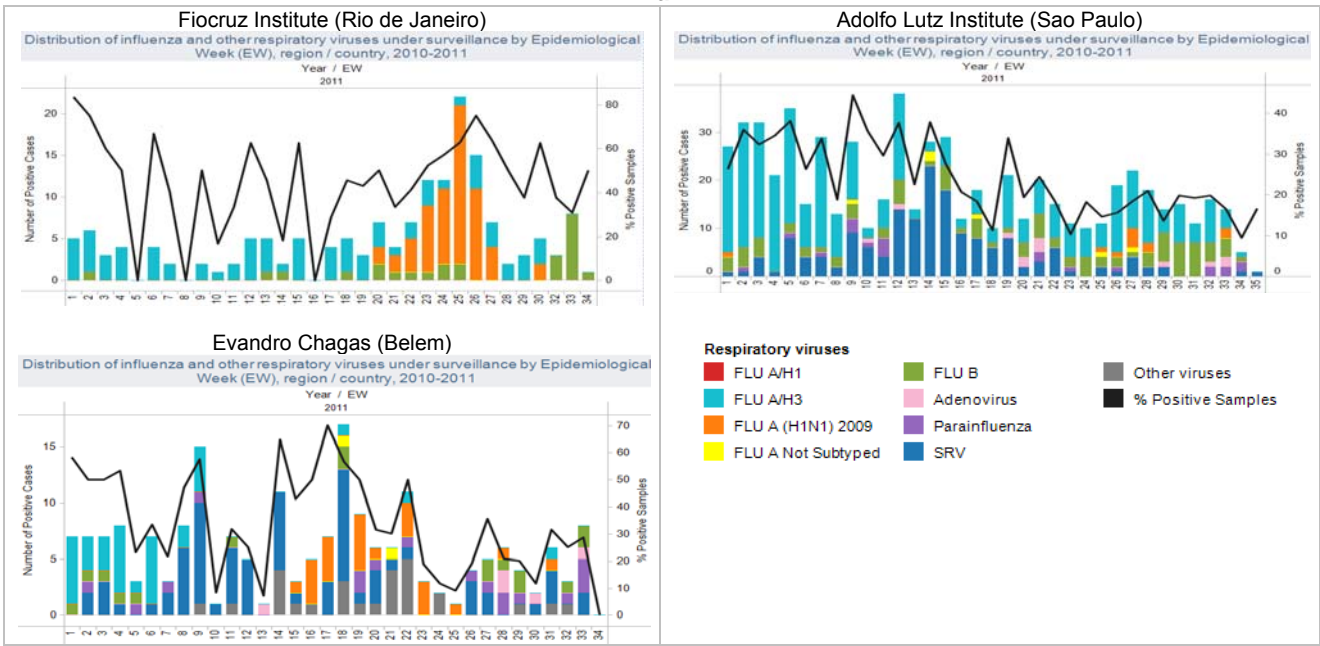


South America – Southern Cone

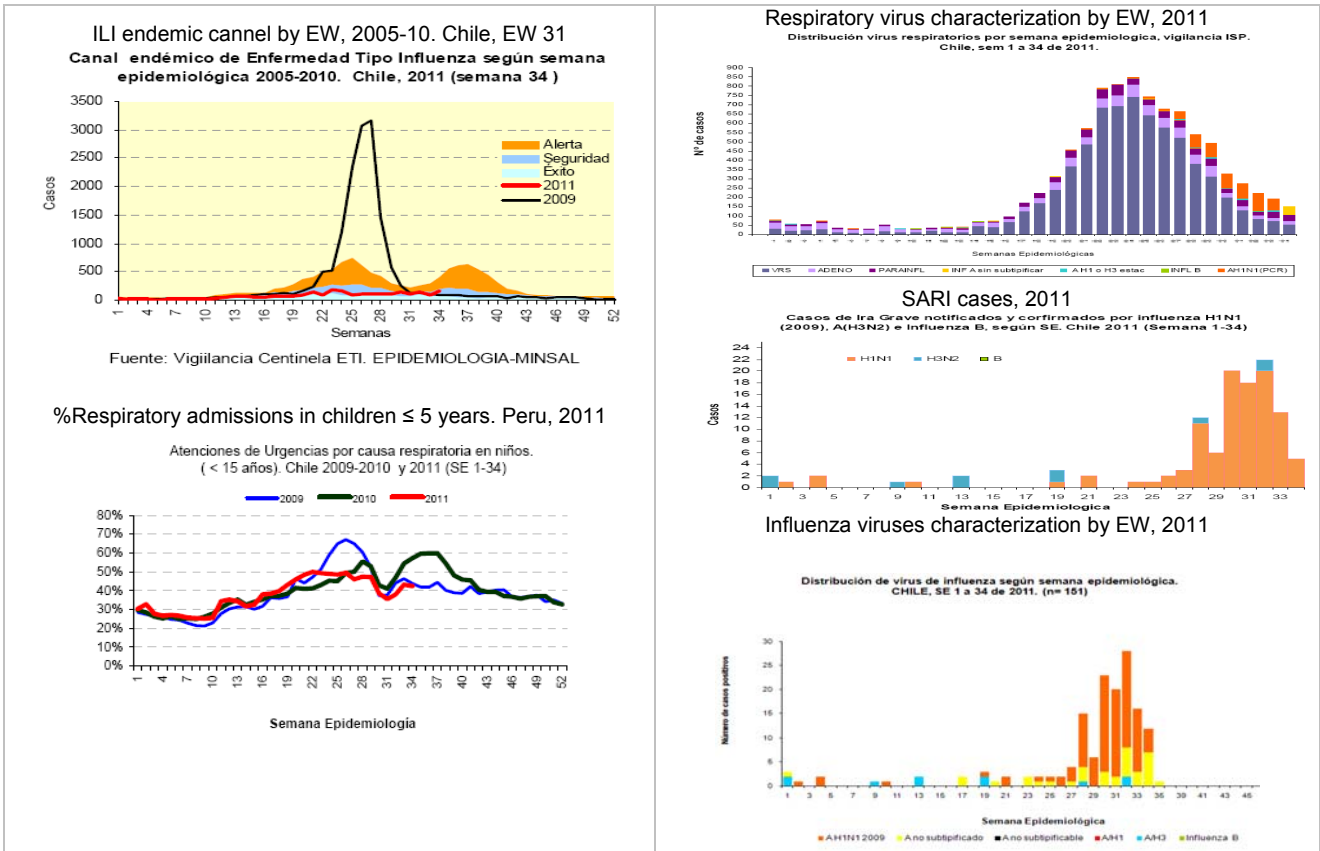
Argentina



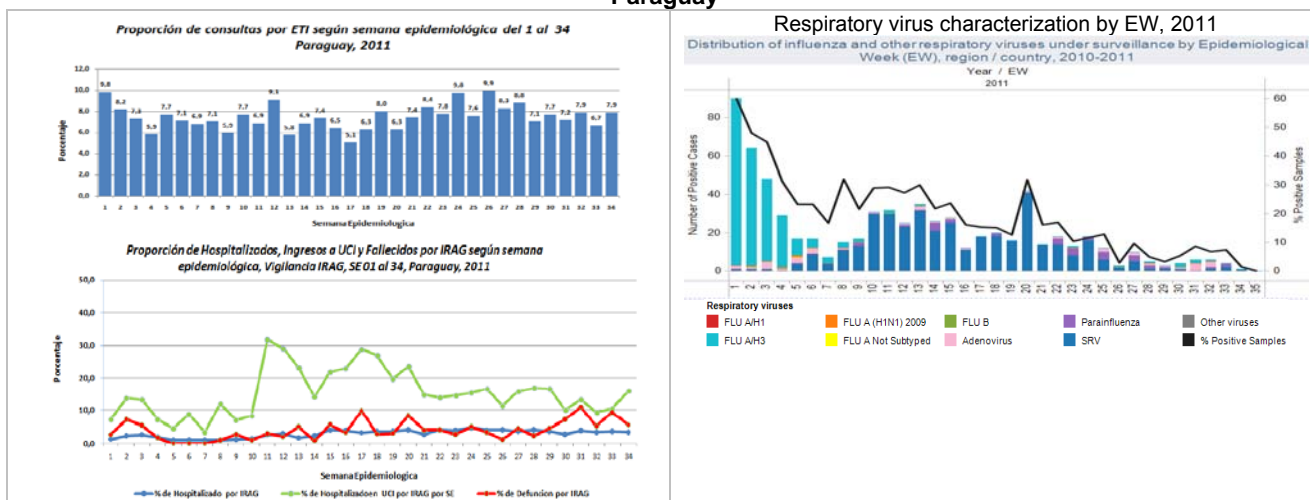
Brazil



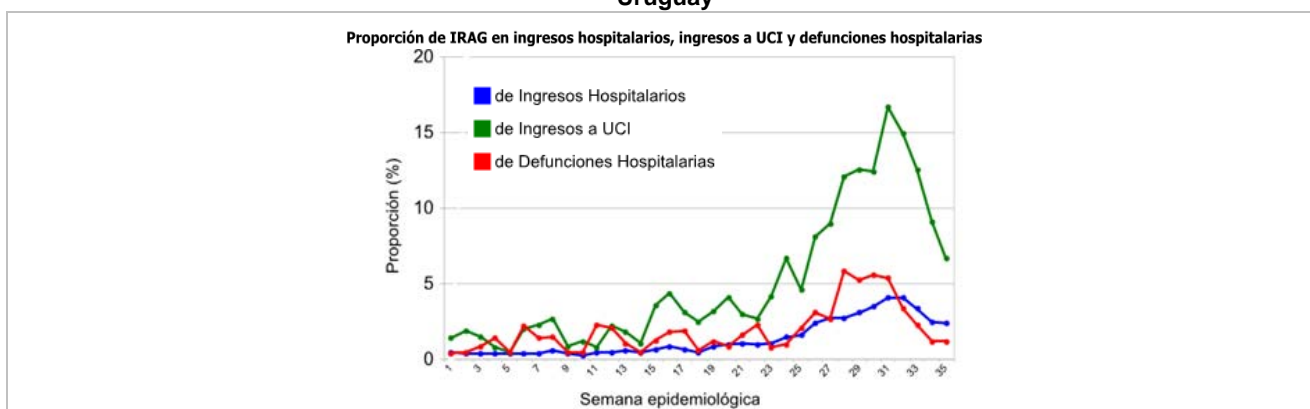
Chile



Paraguay



Uruguay



¹ FluWatch Report. EWs 33-34. <http://www.phac-aspc.gc.ca/fluwatch/>

² US Surveillance Summary. Week 34. Centers for Disease Control and Prevention

³ Colombia. Instituto Nacional de Salud.

⁴ Perú. Sala de Situación de Salud. SE 33. Ministerio de Salud. Dirección General de Epidemiología.

⁵ Argentina. Actualización situación de enfermedades respiratorias 2011. SE 31.

⁶ Chile. Informe de situación. SE 34. www.pandemia.cl

⁷ Paraguay. Boletín epidemiológico semanal. SE 35. Ministerio de Salud Pública y Bienestar Social

⁸ Uruguay. Dirección General de la Salud. División Epidemiología.

<https://trantor.msp.gub.uy/epidemiologia/servlet/iraggrafmenu>