



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

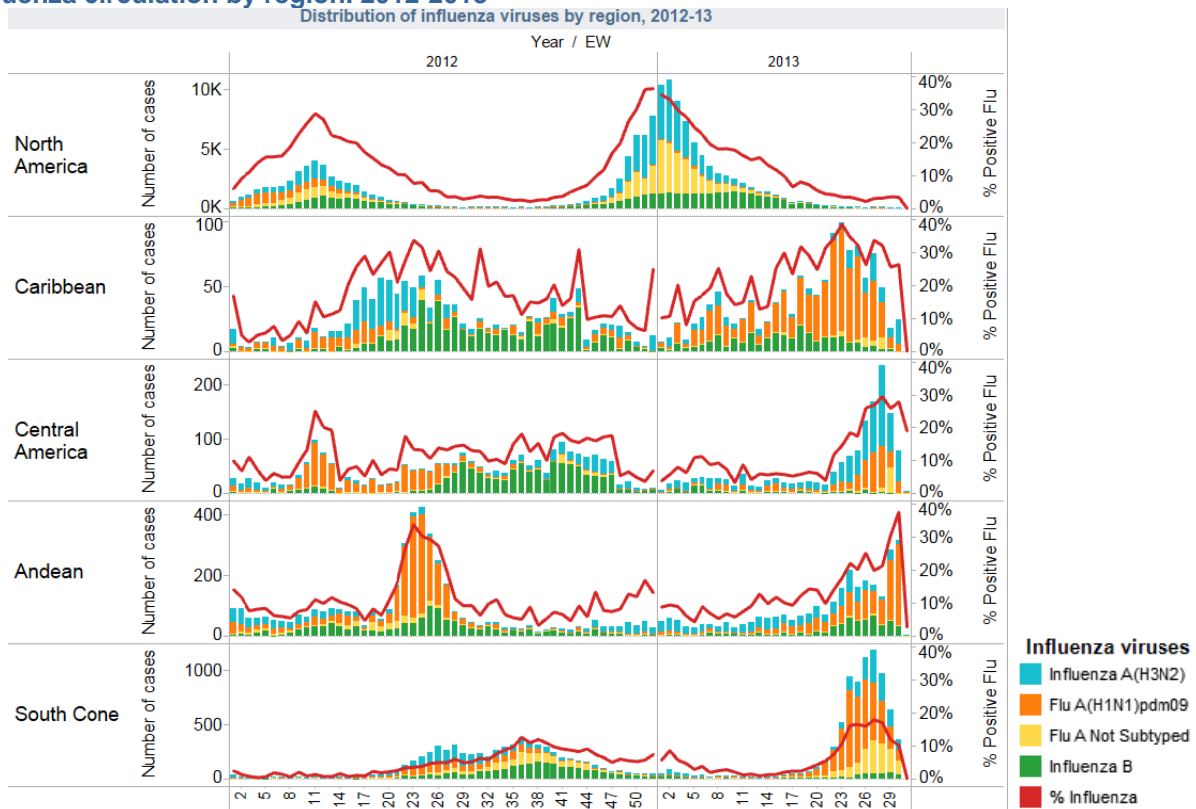
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

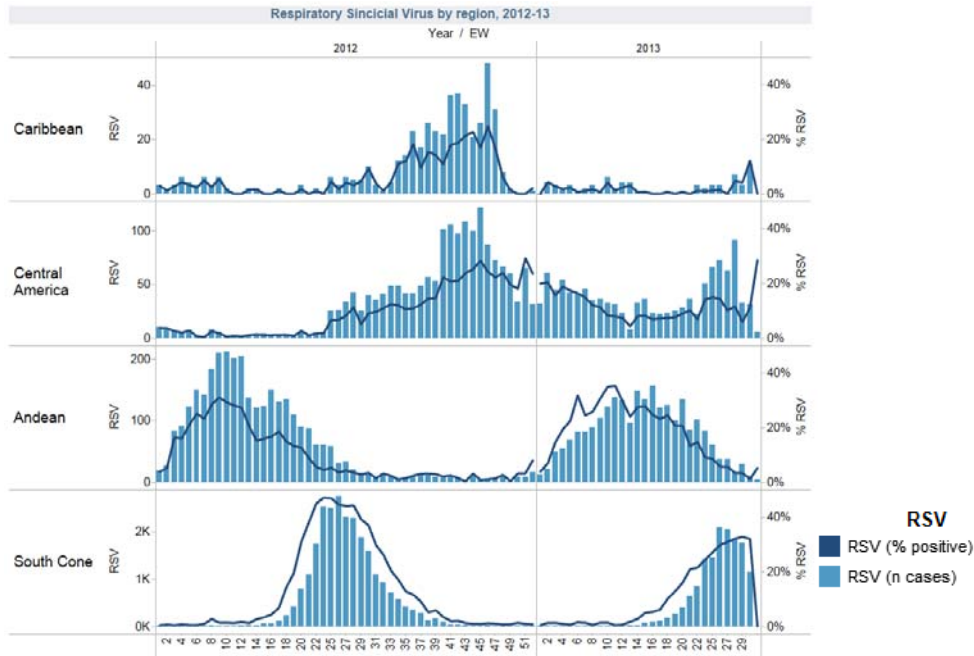
WEEKLY SUMMARY

- **North America:** most influenza activity indicators were low and within expected levels for this time of year. In the United States, 1 new case of influenza A(H3N2v) was reported, bringing the total to 15 cases for the summer. No hospitalizations or deaths have been reported, and these infections have mostly been associated with prolonged exposure to pigs.
- **The Caribbean and Central America:** in the last weeks, influenza activity showed high activity in Costa Rica. El Salvador and Nicaragua; and decreased in Cuba and Dominican Republic. In Central America, co-circulation of A(H1N1)pdm09 (in Costa Rica and Nicaragua) and A(H3N2) (in Nicaragua and Panama) was reported. Among other respiratory viruses, RSV remained the predominant virus in Guatemala and Panama.
- **South America – Andean Countries:** influenza A(H1N1)pdm09 activity increased in Bolivia (La Paz), Peru and Ecuador during the last weeks. Influenza B continued to circulate in Bolivia (Santa Cruz). Meanwhile, Venezuela and Colombia showed decreased activity.
- **South America - South Cone and Brazil:** even though some areas reported high acute respiratory illness activity; influenza and RSV activity appeared to peak and showed decreasing trends in the last weeks. RSV continued as the predominating virus in all the countries, with co-circulation of influenza A(H1N1)pdm09 in Argentina, Brazil, Chile and Uruguay, and influenza A(H3N2) in Paraguay.

Influenza circulation by region. 2012-2013



Respiratory syncytial virus (RSV) circulation by region. 2012-2013

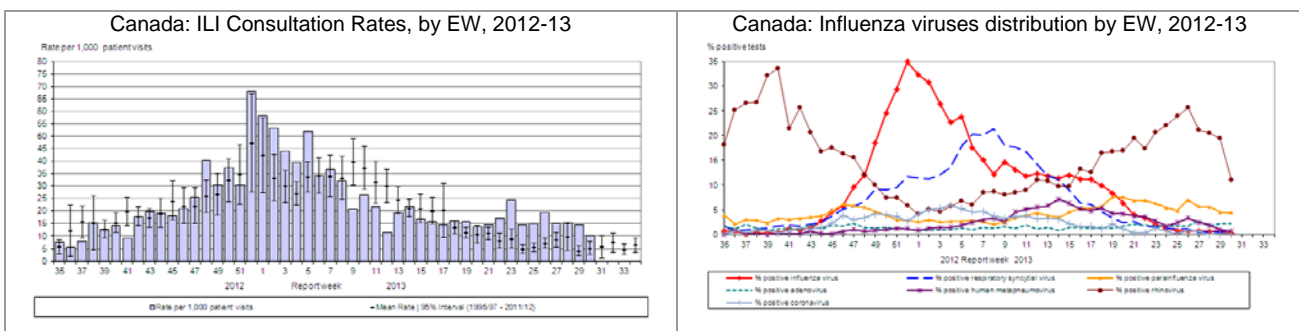


EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In Canada¹, during EWs 29 and 30, influenza activity remained low, with no regions reporting localized activity. Nationally, the influenza-like-illness (ILI) consultation rate decreased to 10.0 per 1,000 patient visits in EW 30. Although it was similar for EWs 15-29, the ILI rates observed during EWs 18-30 were above the expected range, with the highest rate observed among children under 5 years of age. The percentage of positive influenza tests was low and stable (0.8% in EW 29 and 0.2% in EW 30). Of all positive influenza samples this season, 85.1% were influenza A (34.8% A(H3), 4.7% A(H1N1)pdm09, and 60.5% A, unsubtype), and 14.9% were influenza B viruses. Among other respiratory viruses, rhinovirus predominated (19.4% in EW 19 and 11.0% in EW 30), followed by parainfluenza (4.5% in EWs 29 and 30). The percentages of positive tests for other respiratory viruses were low in EW 30: adenovirus (2.2%), RSV (0.8%), human metapneumovirus (0.7%), and coronavirus (0.2%). There was one pediatric death reported in EW 29 and was associated with influenza A. During the 2012-13 season, 1,495 influenza viruses were antigenically characterized: 100% of influenza A(H3N2) and A(H1N1)pdm09 were antigenically similar to the vaccine strain. Among the influenza B viruses, 77% (n=462) were antigenically similar to the B/Wisconsin/01/2010 (Yamagata lineage) vaccine strain and 23% (n=138) were similar to the B/Brisbane/60/2008 (Victoria lineage) component of the 2011-12 seasonal influenza vaccine. During the 2012-13 season, 1,495 influenza viruses were tested for oseltamivir resistance and 1,492 for zanamivir resistance; among these, one A(H3N2) virus was resistant to oseltamivir and zanamivir, one A(H1N1)pdm09 virus was resistant to oseltamivir, and three influenza B virus samples were resistant to both oseltamivir and zanamivir.

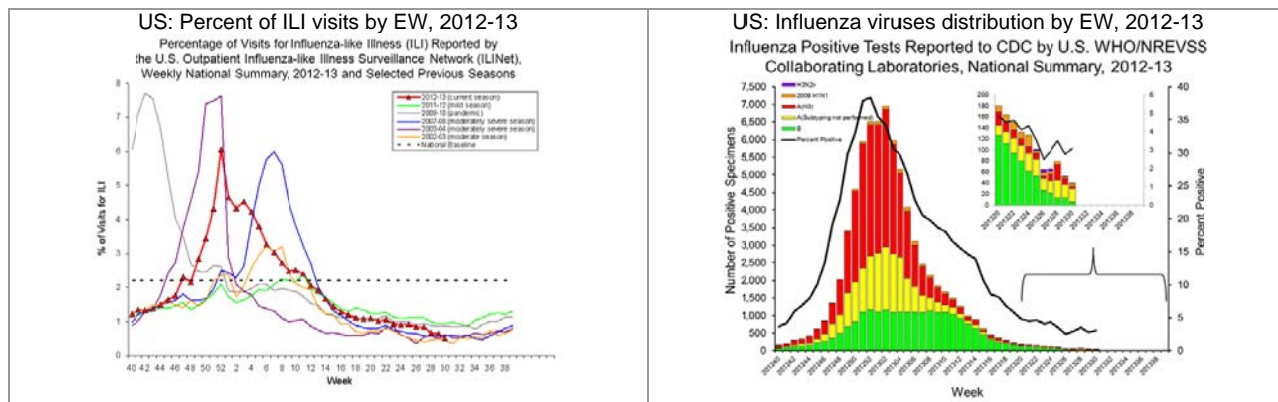
Canada



¹ Canada: FluWatch Report. EW 29&30. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

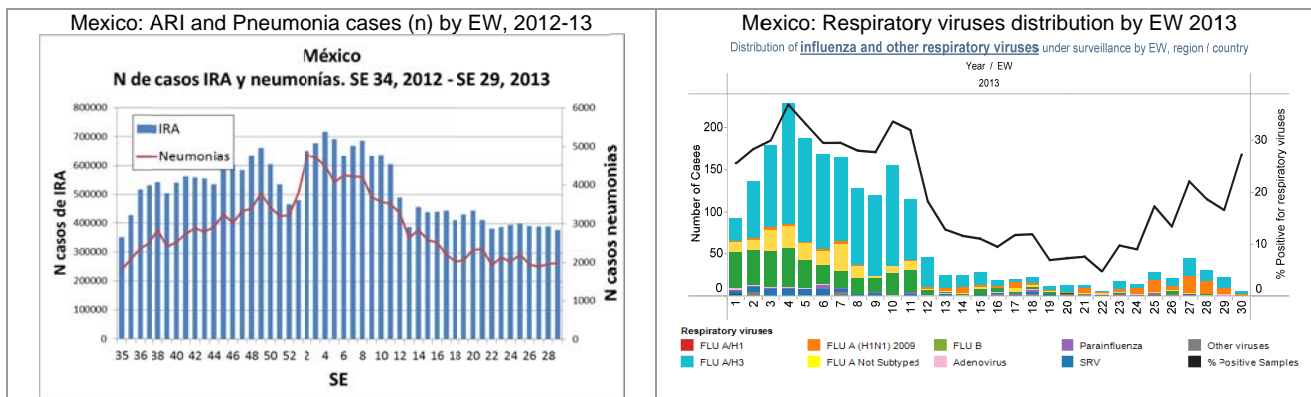
In the United States², during EW 30, influenza activity remained low. The proportion of ILI consultations (0.5%) was below the national baseline of 2.2%. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 30 (5.9%) was below the epidemic threshold for this time of year. During EW 30, one influenza-associated pediatric death was reported. This death occurred during EW 5 and was associated with influenza A(H3). Among all samples tested during EW 30 (n=1,322), the percentage of samples positive for influenza (3.1%) increased slightly from the previous week. Among the influenza positive samples (n=40), 85.0% were influenza A (of which 70.6% were influenza A(H3N2)) and 15.0% were influenza B. During EW 30, one new human infection with an influenza A(H3N2) variant (H3N2v) was reported, bringing the total number of H3N2v cases reported this summer to 15 (Illinois: 1, Indiana: 13, Ohio: 1). No hospitalizations or deaths have occurred. All cases have reported close contact with swine in the week prior to illness onset, and at this time, no ongoing human-to-human transmission has been identified. Public health and agriculture officials are investigating the disease among humans and swine, and more cases may be identified as the investigation continues.

United States



In Mexico³, nationally during EW 29 the number of ARI cases reported decreased 3.1% and the number of pneumonia cases increased 1.5% compared to EW 28. However, both have shown decreasing trends since their peaks in 2013 (EW 4 for ARI and EW 2 for pneumonia). The highest ARI rates were reported in Aguascalientes, Campeche and Yucatan (673, 656, and 643 per 100,000 inhabitants, respectively), and the highest pneumonia rates were in Jalisco, Sonora and Yucatan (4.7, 3.4, and 3.4 per 100,000 inhabitants, respectively). According to laboratory data from EWs 27-30, 525 samples were tested and 18.7% were positive for influenza. Among the positive influenza samples, 96.9% were influenza A, of which 47.4% were A(H1N1)pdm09 and 51.6 were H3N2, and 3.1% were influenza B.

Mexico



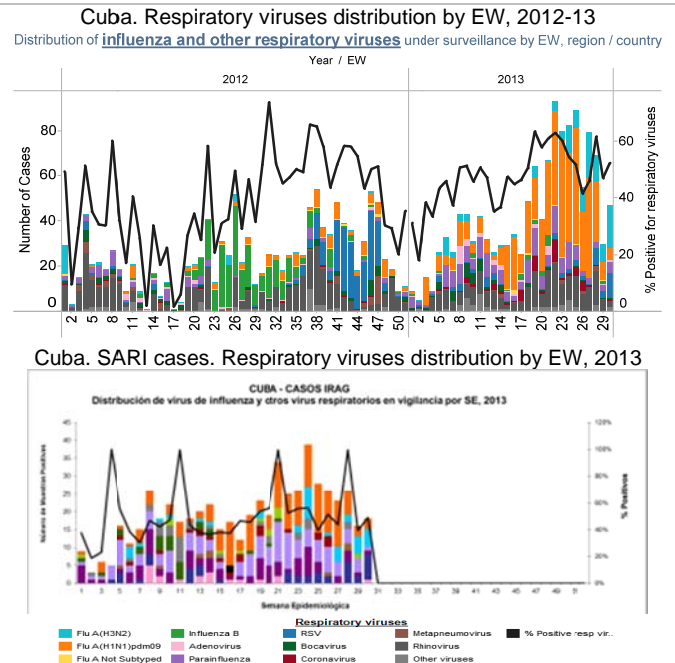
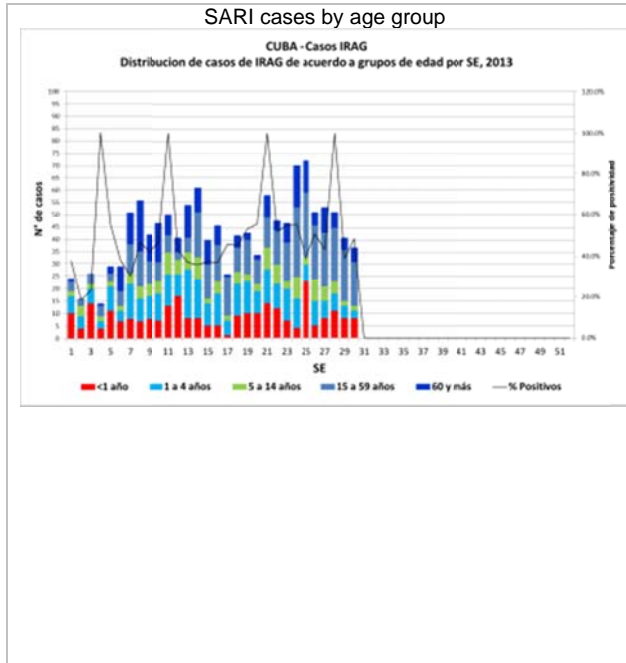
² USA: CDC FluView report. EW 30. Available at: <http://www.cdc.gov/flu/weekly/>

³ México. Dirección General de Epidemiología. Información epidemiológica. SE 30.

Caribbean

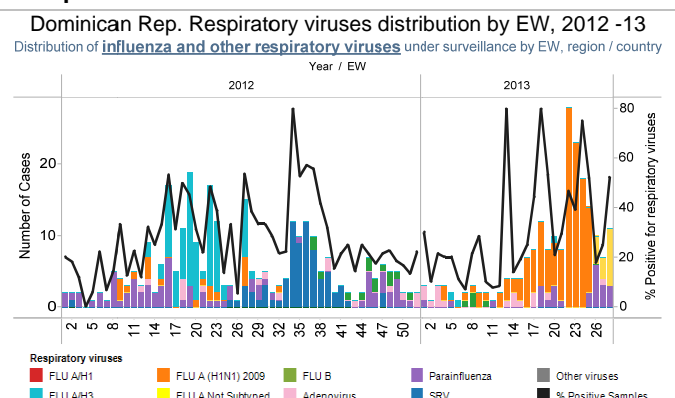
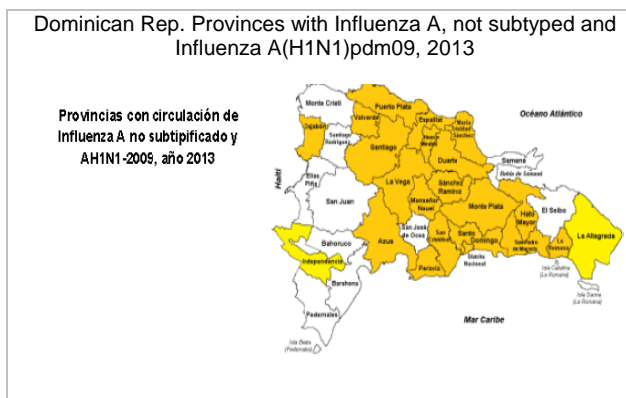
In Cuba, based on national laboratory data from EW 27-30, 431 samples were analyzed of which 51.7% were positive for a respiratory virus and 31.5% were positive for influenza. Among the samples positive for influenza A, 52% were influenza A(H1N1)pdm09 and 48% were influenza A(H3N2). Rhinovirus, RSV and parainfluenza were also circulating. In EW 30, among the total positive samples, 57.4% were from ILI cases and 38.2% were from SARI cases. The age groups most affected by SARI were children less than 1 year of age. Among the SARI cases between EW 27-30, 157 samples were analyzed and influenza A(H1N1)pdm09, influenza A(H3N2), RSV, rhinovirus and parainfluenza were detected.

Cuba



In the Dominican Republic⁴, from EWs 1-29 a total of 1,356,625 ILI cases were reported (rate: 737.5 per 10,000 inhabitants). This is 17% less than what was reported for the same period in 2012 (923 per 10,000 inhabitants). Between EWs 1-29, 895 SARI cases were reported through sentinel surveillance, primarily in Santo Domingo, Santiago and San Cristobal provinces. Circulation of influenza A, not subtyped, was identified in the provinces of La Altagracia, San Pedro de Macorís, Santo Domingo, Santiago and Independencia. Of the total 17 SARI-associated deaths, 14 were associated with influenza A (H1N1)pdm09 (higher than the number observed in 2012 (n=5)). Based on laboratory data from EWs 28-31, 112 samples were analyzed, of which, on average, 33.9% were positive for influenza. Among positive samples, influenza A(H1N1)pdm09, A not subtyped and parainfluenza predominated.

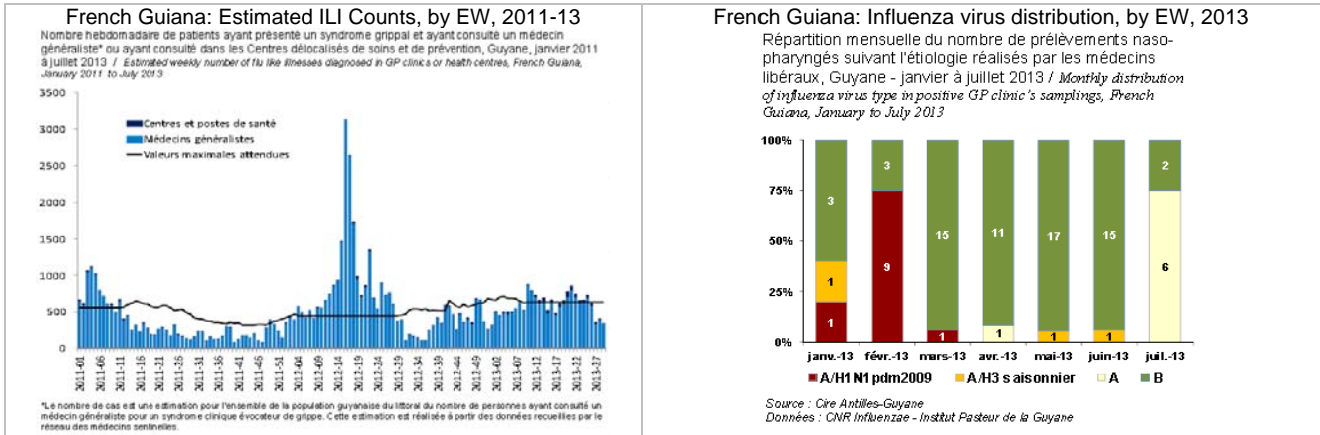
Dominican Republic



⁴ República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 30.

In French Guiana, since the beginning of July, the number of ILI consultations is well below the maximum values expected for this period. During EWs 28 and 29, the numbers of consultations per week were 406 and 347, respectively, and these correspond to the values generally observed during inter-epidemic periods. Pasteur Institute of Guyana identified influenza A not subtyped and B during July.

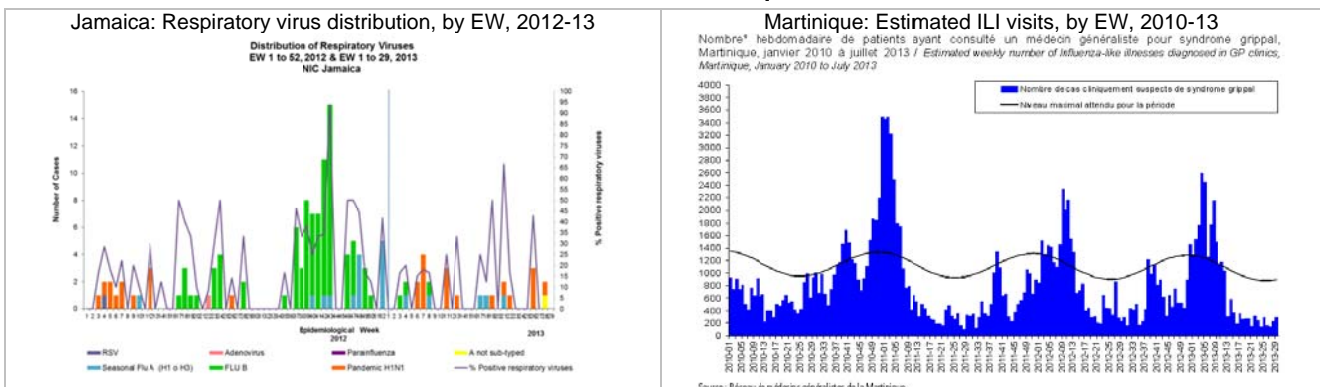
French Guiana



In Jamaica, based on National Influenza Center data from EW 26-29, 19 samples were analyzed of which 13.5% were positive for influenza. Among these, influenza A(H1N1)pdm09 predominated.

In Martinique, since the end of the influenza epidemic that was initially declared in the middle of March (EW 12-29), there have been an estimated 5,600 ILI cases, 7 hospitalizations and no SARI-associated ICU admissions reported. Laboratory data indicate that during the outbreak, influenza A(H1N1)pmd09 and influenza A(H3N2) were identified.

Jamaica and Martinique



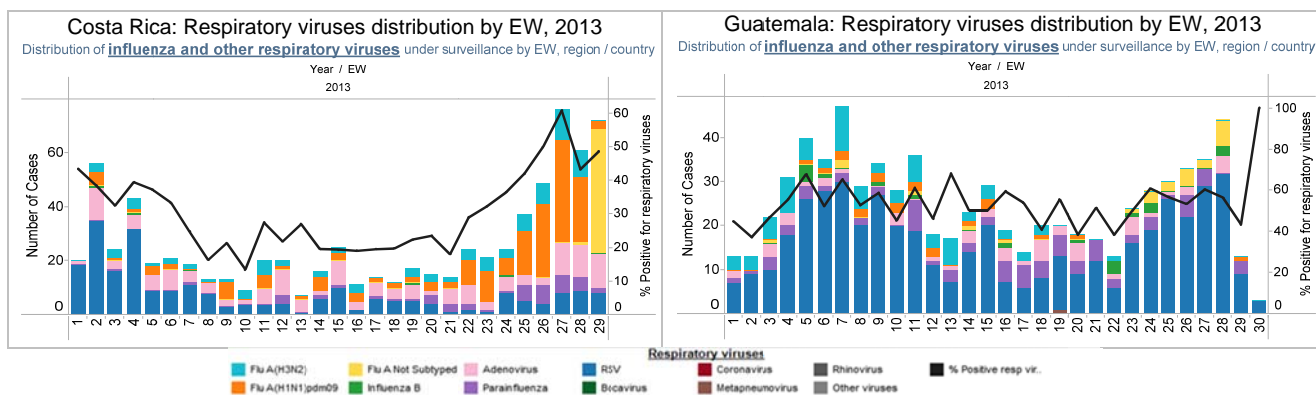
Central America

In Costa Rica⁵, based on national laboratory data from EW 26-29, 516 samples were analyzed of which 50.8% were positive for a respiratory virus and 32.6% were positive for influenza. Among positive influenza samples, 100% were influenza A: 54.8% H1N1pdm09, 28% not subtyped, and 17.3% H3N2. Among samples positive for other respiratory viruses, adenovirus (7.8%), RSV (5.6%) and parainfluenza (4.1%) predominated.

In Guatemala, based on national laboratory data from EW 27-30, 169 samples were analyzed of which 56.2% were positive for a respiratory virus and 6.5% were positive for influenza. Among samples positive for influenza, 81.8% were influenza A (88.9% were A unsubtype and 11.1% were A(H1N1)pdm09) and 18.2% were influenza B. Among respiratory viruses, RSV (43.2%) and parainfluenza (4.1%) predominated.

⁵ Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 28.

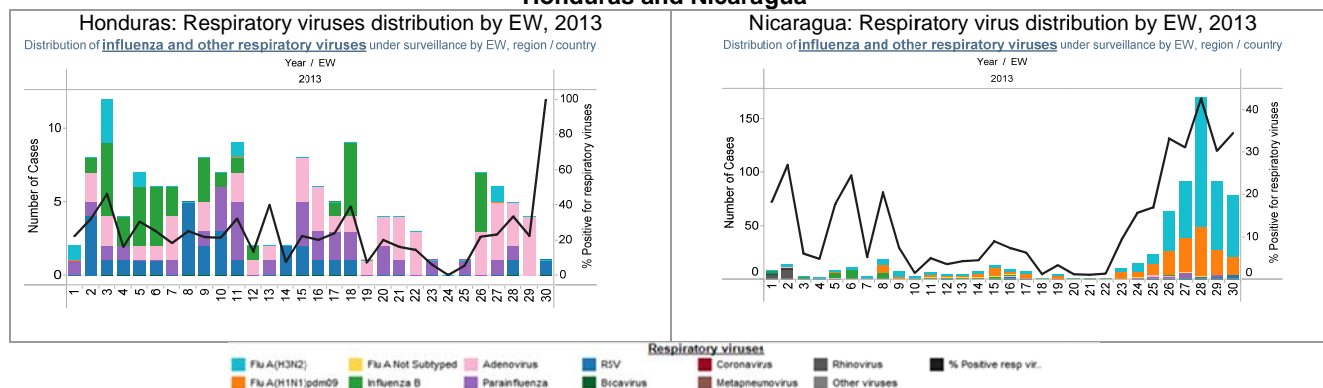
Costa Rica and Guatemala



In Honduras, based on laboratory data from EW 27-30, 60 samples were analyzed of which 26.7% were positive for a respiratory virus and 1.7% were positive for influenza. Among the positive samples, adenovirus (18.3%) and influenza A(H3N2).

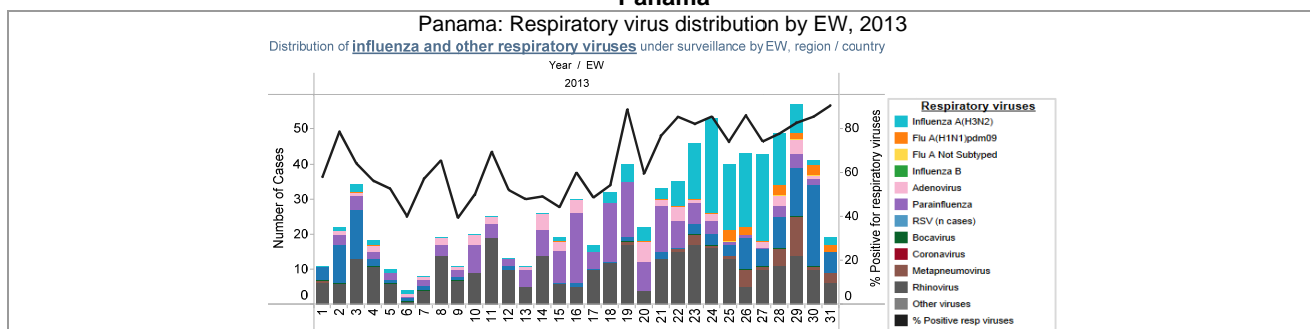
In Nicaragua⁶, through EW 28, 2013, the ILI rate (0.87 per 1,000 inhabitants) was double that recorded in 2012, while the SARI rate (0.44 per 1,000 inhabitants) remained similar to the last year. Based on national laboratory data, 1,220 samples were analyzed of which 35.2% were positive for a respiratory virus and 33.9% were positive for influenza. Among positive influenza samples, influenza A(H3N2) (71.2%) predominated, followed by influenza A (H1N1)pdm09 (28.8%).

Honduras and Nicaragua



In Panama, based on national laboratory data from EW 27-30, 238 samples were analyzed of which 79.8% were positive for a respiratory virus and 23.9% were positive for influenza. Among positive influenza samples, 100% were influenza A (86% were H3N2 and 14% were (H1N1)pdm09). Among samples positive for other respiratory viruses, RSV (21.4%) and rhinovirus (18.4%) predominated.

Panamá

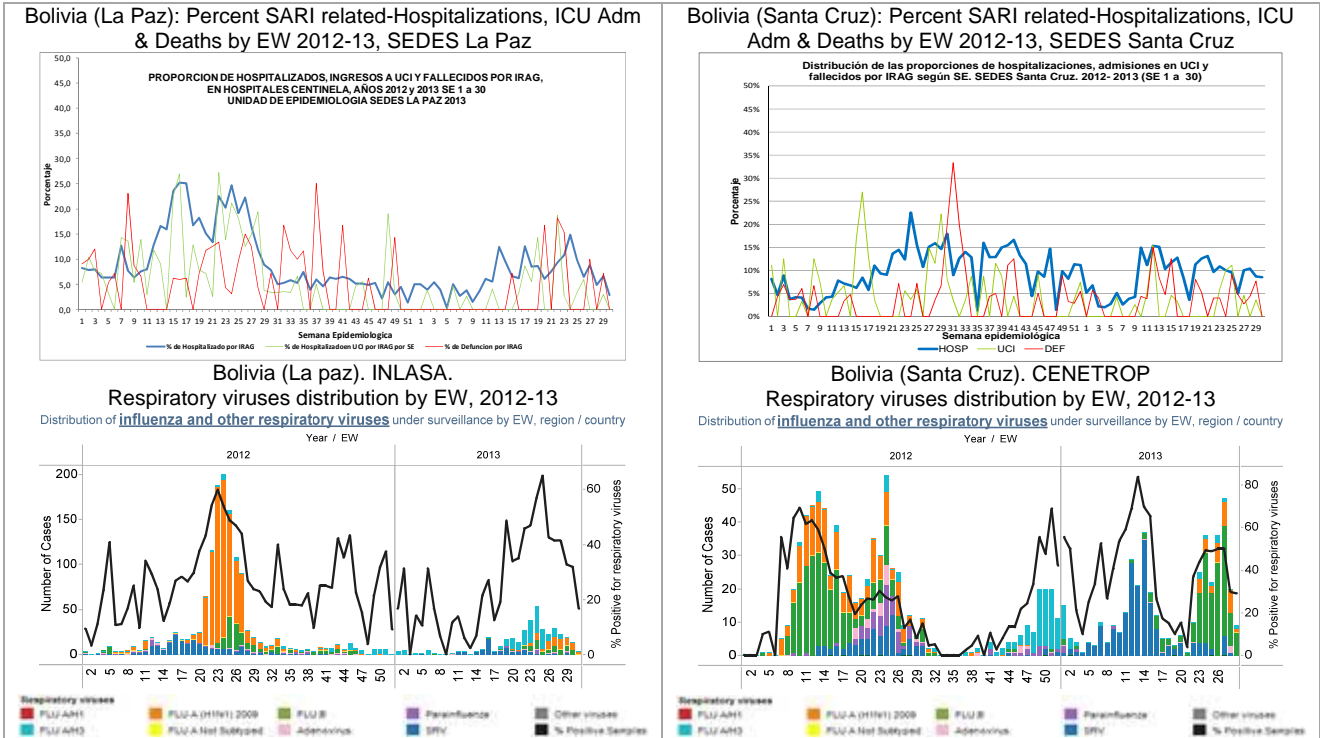


⁶ Nicaragua. Ministerio de Salud. Boletín epidemiológico SE 28.

South America – Andean countries

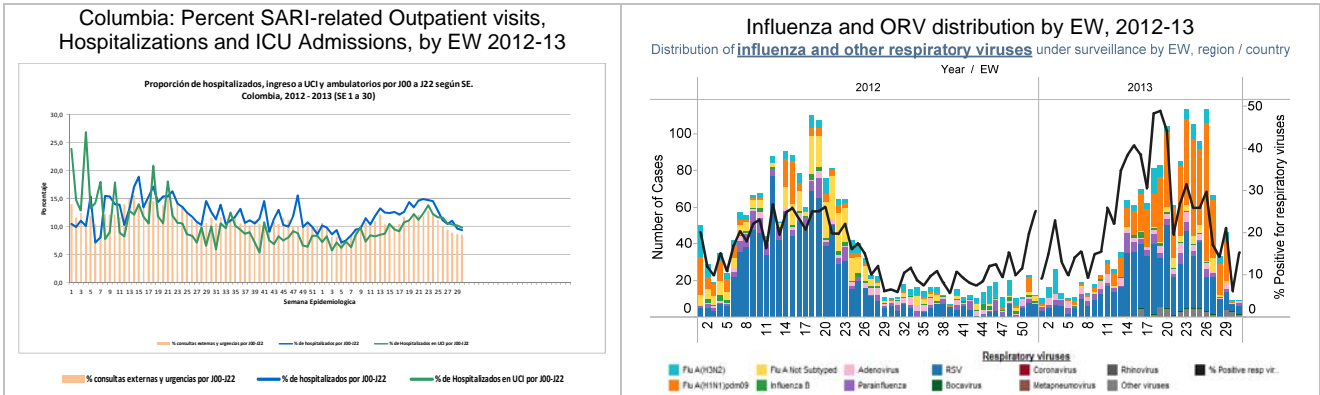
In Bolivia, according to data from Santa Cruz, during EW 30 the proportion of SARI hospitalizations (8.5%) was similar to what was observed in EW 29 and during this time last year. Based on laboratory data from CENETROP (Santa Cruz) from EW 28-29, 98 samples were analyzed of which 29% were positive for a respiratory virus and 26% were positive for influenza. Among positive samples, influenza B (58%) and influenza A(H1N1)pdm09 (27%) predominated. According to data from La Paz, during EW 30 the proportion of SARI-associated hospitalizations (2.8%) was lower than that observed in EW 29 and showed a decreasing trend since EW 24. Based on laboratory data from INLASA (La Paz) from EW 29-30, 102 samples were analyzed of which 32% were positive for a respiratory virus and 28% were positive for influenza. Among positive samples, influenza A(H1N1)pdm09 (45%) and influenza B (36%) predominated.

Bolivia



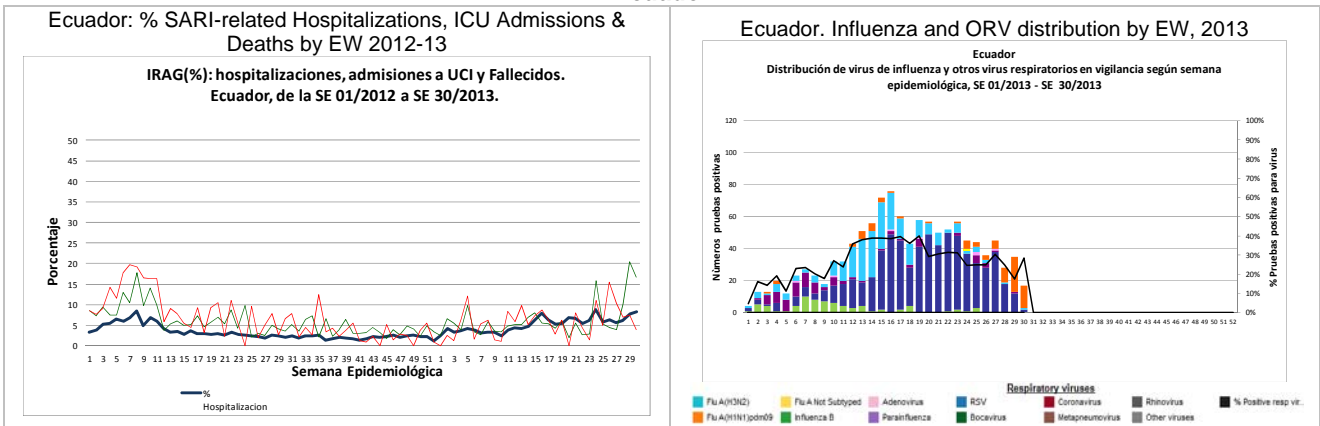
In Colombia, nationally during EW 30, the proportions of SARI outpatient visits (8.5%), SARI hospitalizations (9.8%), and SARI ICU admissions (10.2%) (based on J00 and J22 codes) decreased compared to the previous week, and have been showing a decreasing trend since EW 23. Based on INS national laboratory data from EW 29-30, 364 samples were analyzed, of which 15% were positive for a respiratory virus and 8% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (40%) and RSV (25%) predominated.

Colombia



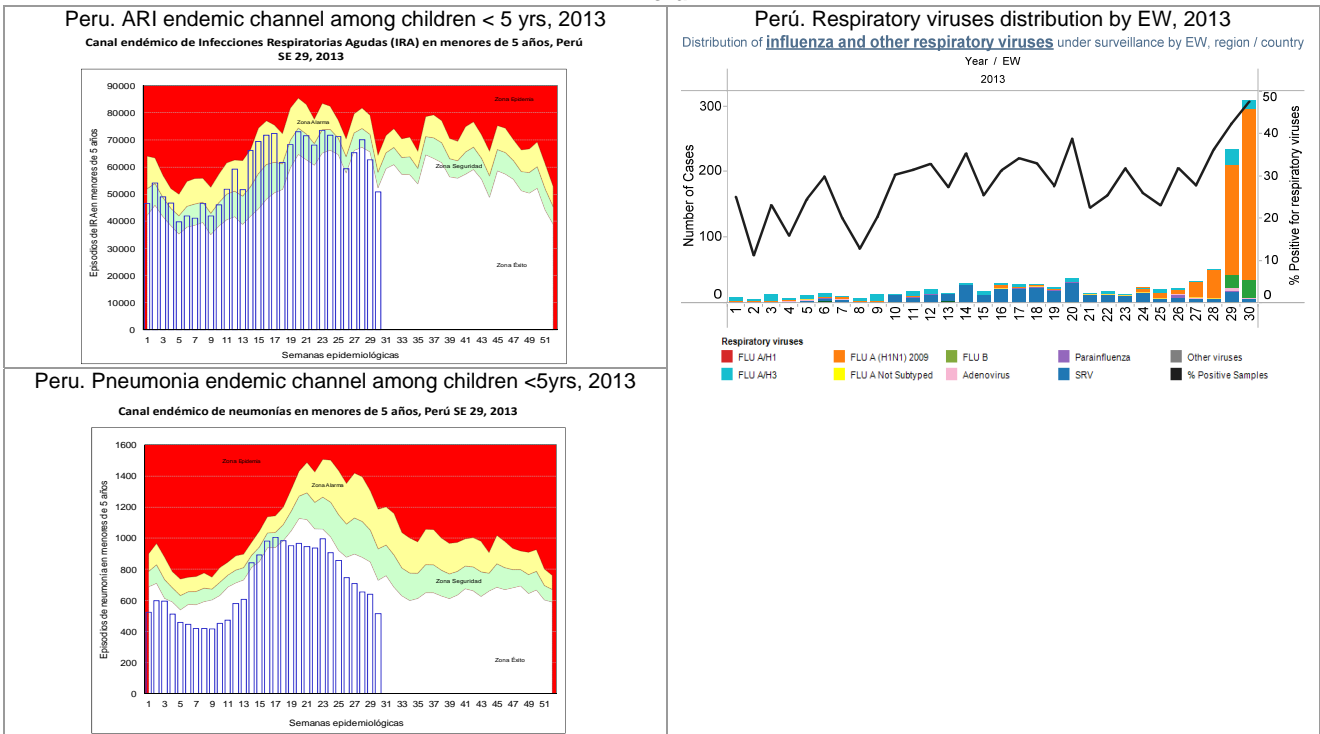
In Ecuador, based on SARI sentinel surveillance data from EW 30, the proportion of SARI hospitalizations (8%) did not change significantly whereas the proportion of SARI-associated ICU admissions and deaths decreased compared to the previous EW. Based on national laboratory data from EW 29-30, 260 samples were analyzed, of which 20% were positive for a respiratory virus and 14% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (69%) and RSV (26%) predominated.

Ecuador



In Peru⁷, nationally for the previous weeks ARI and pneumonia reports in children less than 5 years of age have been decreasing and are within the expected range for this time of year. Based on national laboratory data from EW 30, 649 samples were analyzed, of which 47% were positive for a respiratory virus and 46% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (84%) predominated.

Peru

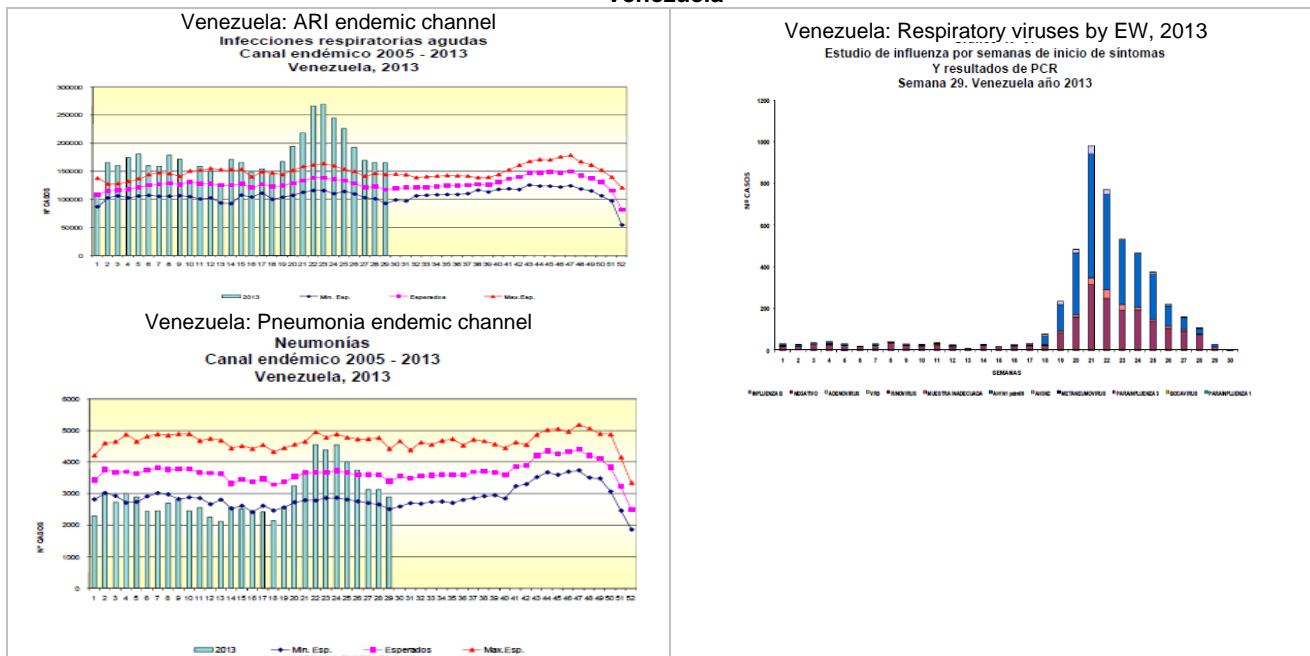


In Venezuela⁸, according to data published through EW 29, ARI activity continued to be slightly above the epidemic threshold for this time of year, and showed no change during the last three EWs. Pneumonia notifications remained stable and within the expected range. Based on virologic surveillance data from EW 29, there has been a continued decrease in samples processed for respiratory viruses. However, among the positive samples, influenza A(H1N1)pdm09 predominated.

⁷ Perú. Sala de Situación de Salud. EW 30, 2013. Ministerio de Salud. Dirección General de Epidemiología

⁸ Venezuela. Boletín epidemiológico, EW 28, 2013.

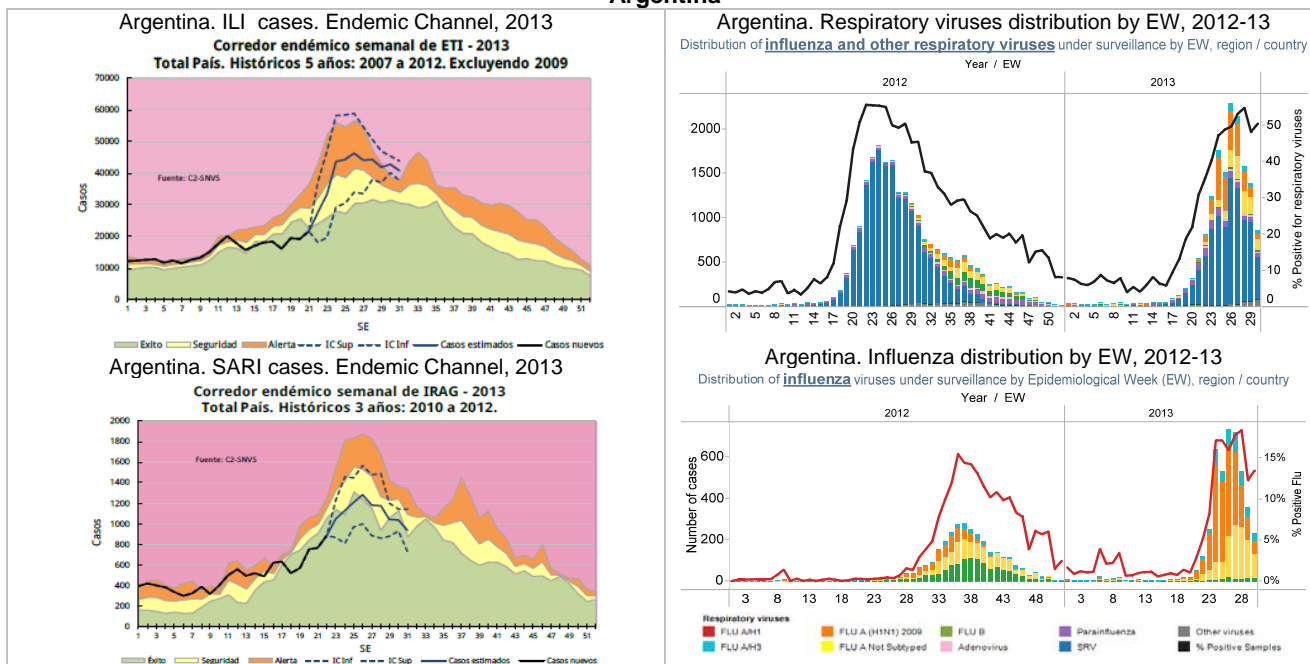
Venezuela



South America – Southern Cone and Brazil

In Argentina⁹, at the national level, according to reports and calculated estimations, the number of ILI reports is above what is expected, but is showing a decreasing trend. The number of SARI hospitalizations is within the expected level and is also showing a decreasing trend. Based on laboratory data from EW 30, 1,700 samples were analyzed, of which 50% were positive for a respiratory virus and 13% were positive for influenza. Among the positive samples, RSV (57%), and influenza A(H1N1)pdm09 and influenza, not subtyped (21%) predominated.

Argentina



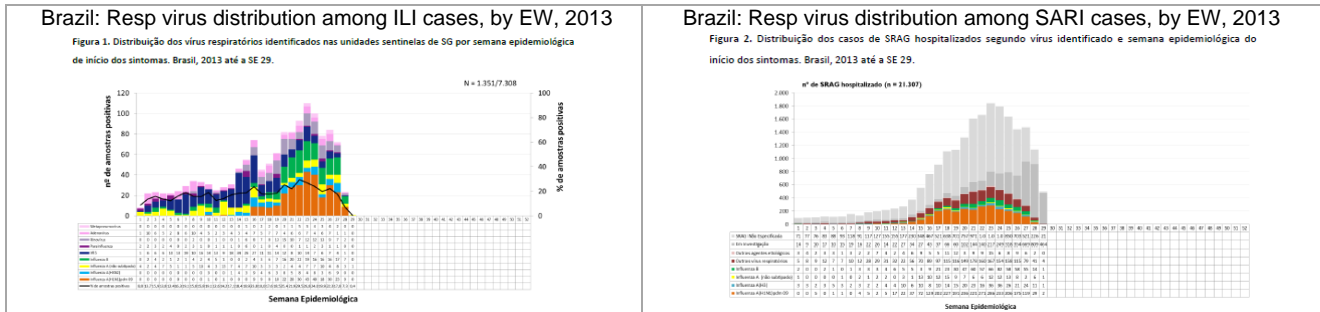
In Brazil¹⁰, nationally there has been a decrease in respiratory virus activity, although activity in the southern region is elevated. Based on sentinel surveillance laboratory data through EW 29, 7,308 samples were analyzed, of which 18.5% were positive for a respiratory virus. Among positive samples, RSV has

⁹ Argentina. Boletín integrado de vigilancia. SE 30.

¹⁰ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 30, 2013.

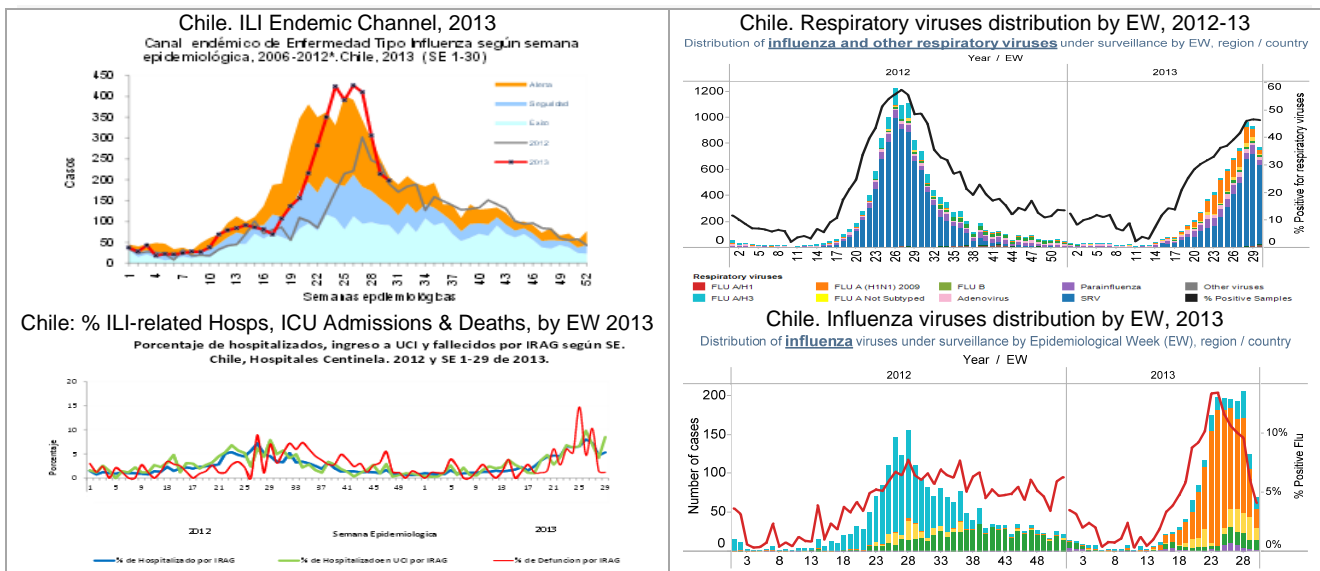
predominated since the beginning of the year, and influenza A(H1N1)pdm09 and influenza B have had increased circulation since EW 16 and EW 20, respectively. Based on universal SARI surveillance data during this same period, 21,307 cases were reported, of which 17.8% were positive for influenza. Although influenza A(H1N1)pdm09 has been increasing since SE 12, there has been a recent decrease in influenza A(H1N1)pdm09, influenza B and other respiratory virus activity, especially in the southeast region.

Brazil



In Chile¹¹, during EW 30, ILI activity (rate: 12.6 per 100,000 inhabitants) showed a decline compared to the previous EW, and entered the alert zone of the endemic channel. Sub-nationally, the majority of regions also showed a decreasing trend, with the exception of Coquimbo where activity remained elevated. In EW 29, the proportion of hospitalizations did not change significantly compared to the previous EW. Based on laboratory data from EW 30, 1,650 samples were analyzed, of which 46% were positive for a respiratory virus and 4% were positive for influenza. Among the positive samples, RSV predominated (80%).

Chile

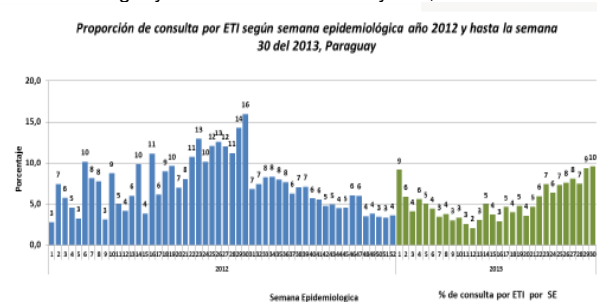


In Paraguay¹², during EW 30, ILI activity (rate: 155 per 100,000 inhabitants) decreased compared to the previous EW, and remained within the alter zone of the endemic channel. Conversely, the proportion of ILI consultations (10%) and SARI hospitalizations (8%) did not change significantly. Based on national laboratory data from EW 30, 197 samples were analyzed, of which 63% were positive for a respiratory virus and 36% were positive for influenza. Among the positive samples, RSV (42%) and influenza A(H3N2) (41%) predominated. RSV and influenza A(H3N2) also predominated among the respiratory samples collected through SARI sentinel surveillance.

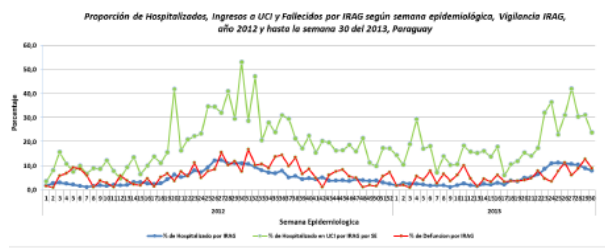
¹¹ Chile. Informe de situación. EW 30. Disponible en: www.pandemia.cl
¹² Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 30, 2013

Paraguay

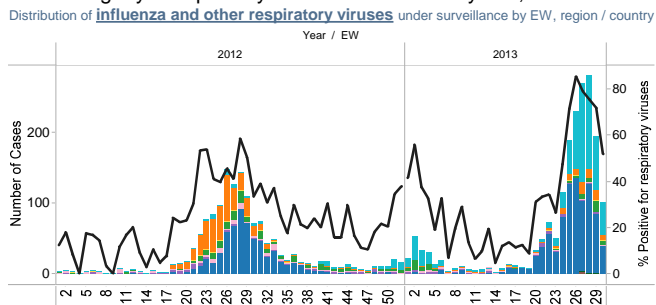
Paraguay. ILI case distribution by EW, 2012-13



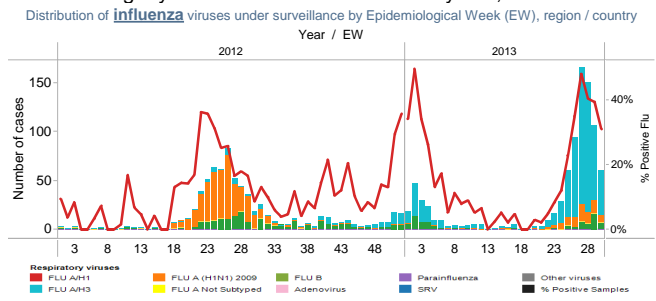
Paraguay: % SARI Hospitalizations, ICU Admissions & Deaths by EW 2012-13



Paraguay. Respiratory viruses distribution by EW, 2012-13



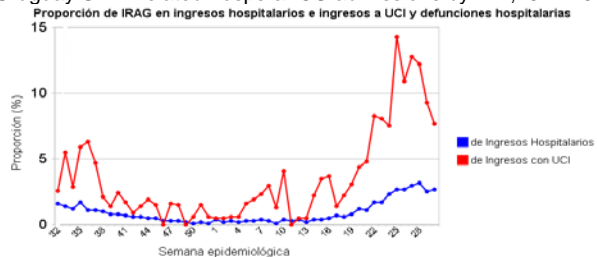
Paraguay. Influenza virus distribution by EW, 2012-13



In Uruguay¹³, nationally the proportions of SARI-associated hospitalizations did not change significantly from the previous EW and still showed higher values compared to last year. However, ICU admissions continued to decrease. Based on laboratory data from EW 29-30, 61 SARI samples were analyzed, of which 33% were positive for a respiratory virus and 15% were positive for influenza. Among the positive samples, RSV (9/20) and influenza A(H1N1)pdm09 (7/20) predominated.

Uruguay

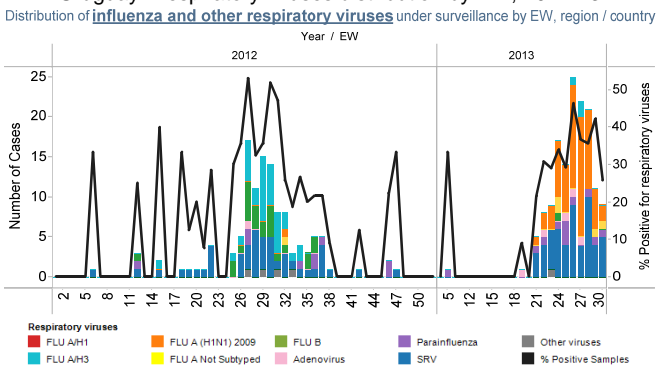
Uruguay. SARI-related hospis & ICU admissions by EW, 2012-13



Uruguay. SARI-associated deaths by EW. 2012-13



Uruguay. Respiratory viruses distribution by EW, 2012-13



¹³ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública