



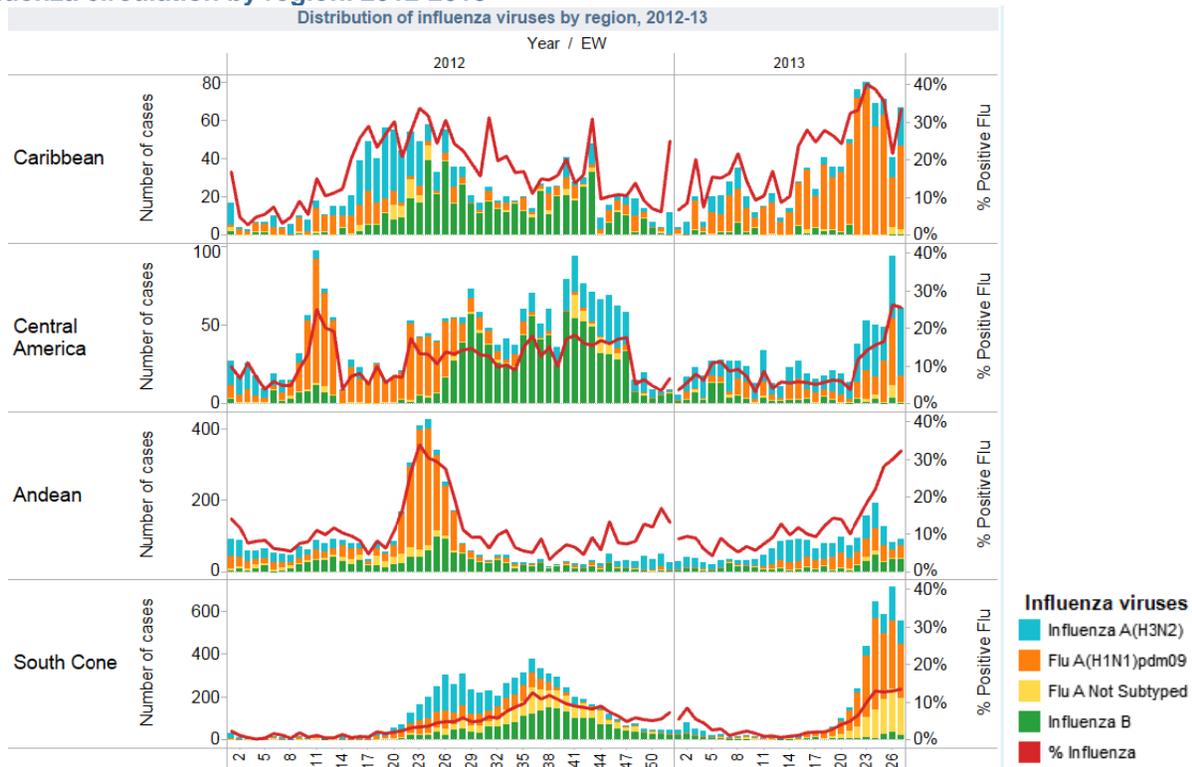
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
 Influenza Regional Reports: www.paho.org/reportesinfluenza

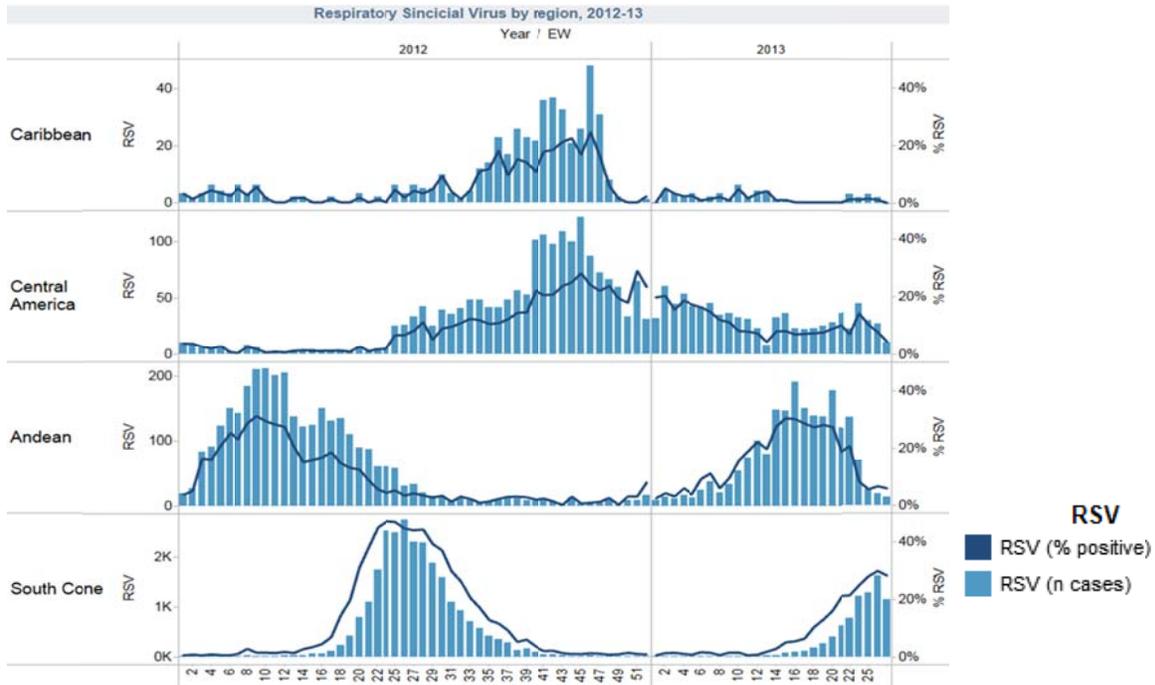
The information presented in this update is based on data provided by Ministries of Health and National Influenza Centers of Member States to the Pan American Health Organization (PAHO) or from updates on the Member States' Ministry of Health web pages.

WEEKLY SUMMARY

- **North America:** most influenza activity indicators were low and within expected levels for this time of year. In the United States, 12 cases of influenza A(H3N2v) have been reported (no hospitalizations or deaths have been reported) and mostly these infections have been associated with prolonged exposure to pigs at agricultural fairs.
- **The Caribbean and Central America:** while influenza activity continued decreasing in Cuba and Dominican Republic, it increased in some countries in Central America (Costa Rica, El Salvador, Nicaragua). In Central America, co-circulation of A(H1N1)pdm09 (in Costa Rica and Nicaragua) and A(H3N2) (in El Salvador, Nicaragua and Panama) were reported. Among other respiratory viruses, RSV has also been increasing in El Salvador in the last weeks..
- **South America – Andean Countries:** acute respiratory illness activity was still high in Venezuela, but with decreasing indicators in the last weeks. In the rest of the Andean region, acute respiratory illness remained within the expected levels. Among respiratory viruses, influenza A(H1N1)pdm09 became the predominant virus in these region, except in Santa Cruz (Bolivia) where influenza B predominates with an increasing trend and in Ecuador, where RSV continues as the predominant virus.
- **South America - South Cone:** acute respiratory illness activity was high with increasing trends. In Chile and Argentina, ILI activity was above the expected level for this time of year; meanwhile in Uruguay and the South of Brazil, it continued to increase. RSV predominated in most 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



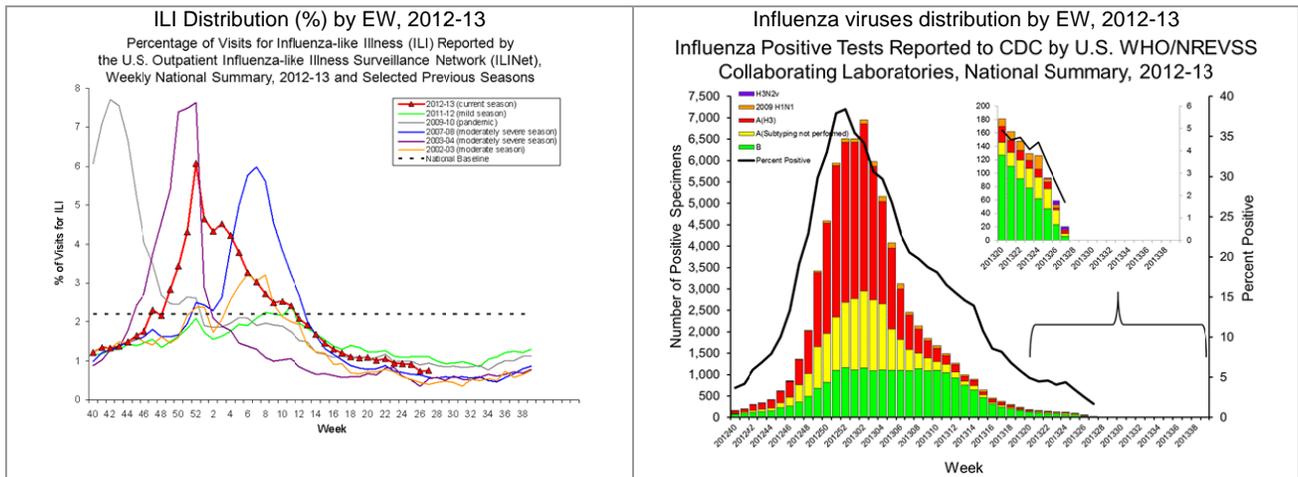


EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In the United States¹, during EW 27, influenza activity remained low. Nationally, the proportion of ILI consultations (0.8%) was below the national baseline of 2.2%. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 26 (5.8%) was below the epidemic threshold for this time of year. In EW 27, no influenza-associated pediatric deaths were reported. Among all samples tested during EW 27 (n=1,177), the percentage of samples positive for influenza (1.7%) decreased from the previous week. Among the influenza positive samples, 62.5% were influenza A (majority influenza A(H3)) and 37.5% were influenza B. Recently, 12 human infections with an influenza A(H3N2) variant (H3N2v) were reported by Indiana. None of these persons were hospitalized and no deaths have occurred. 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.

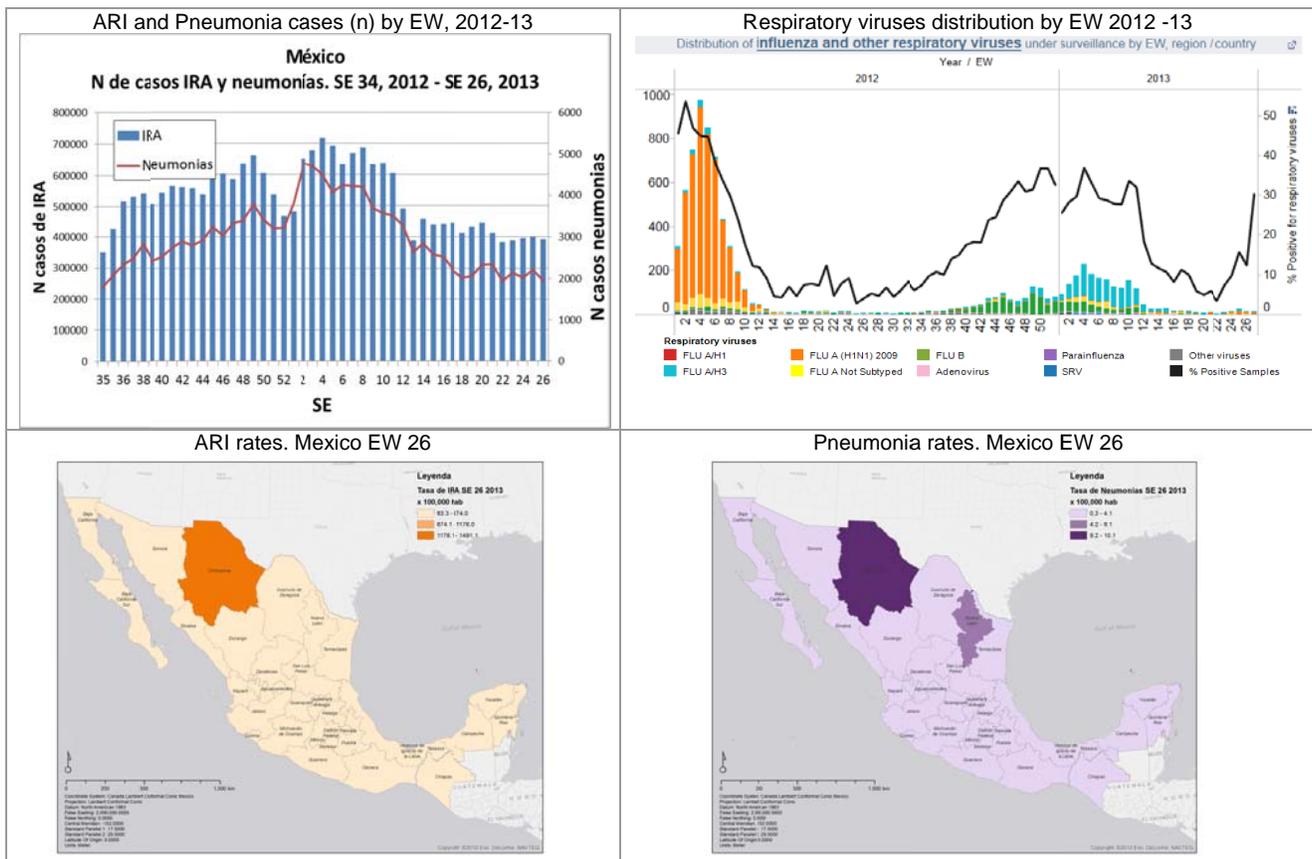
United States



¹ USA: CDC FluView report. EW 27. Available at: <http://www.cdc.gov/flu/weekly/>

In Mexico², nationally the number of ARI and pneumonia cases decreased by 1.6% and 11.3%, respectively, from EW 25 to EW 26 and have shown decreasing trends since their peaks in 2013 (EW 4 for ARI and EW 2 for pneumonia). According to laboratory data, between EWs 24-27, 459 samples were tested, of which 13.9% were positive for influenza. Among the positive influenza samples, 93.7% were influenza A (56.7% were A(H1N1)pdm09 and 41.7% were A(H3N2)) and 6.3% were influenza B.

Mexico



Caribbean

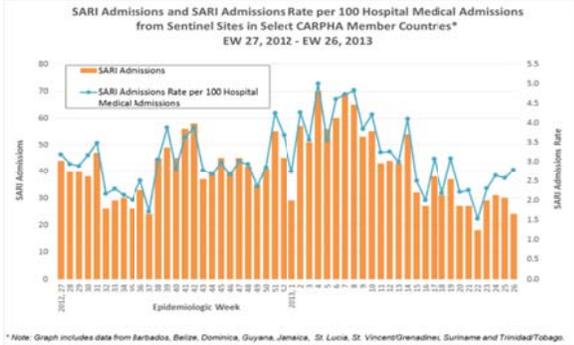
CARPHA³, received weekly SARI/ARI data from 6 countries for EW 26, 2013: Barbados, Belize, Dominica, Jamaica, St. Vincent and the Grenadines, and Trinidad and Tobago. In EW 26, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.8% and the highest rate of SARI was among children 6 months to 4 years of age (6.9%). No SARI deaths were reported from the region in EW 26, 2013. For cases with dates of symptom onset between EW 21 to EW 26, 2013, the following viruses have been laboratory confirmed in member countries: influenza A (H1N1)pdm09 (Jamaica, Trinidad and Tobago, St. Kitts & Nevis); influenza A(H3N2) (Barbados, Jamaica); influenza B (Barbados, Suriname), adenovirus (St. Vincent and Grenadines), human metapneumovirus (St. Vincent & Grenadines), parainfluenza 1 (Dominica, Trinidad and Tobago), parainfluenza 3 (Barbados, Cayman Islands), rhinovirus (Barbados, Trinidad and Tobago, Guyana). In 2013, to date, the CARPHA laboratory has confirmed 212 cases as positive for one or more respiratory agent. The percentage of specimens that were positive for a respiratory virus was 33%.

² México. Dirección General de Epidemiología. Información epidemiológica. SE 27.

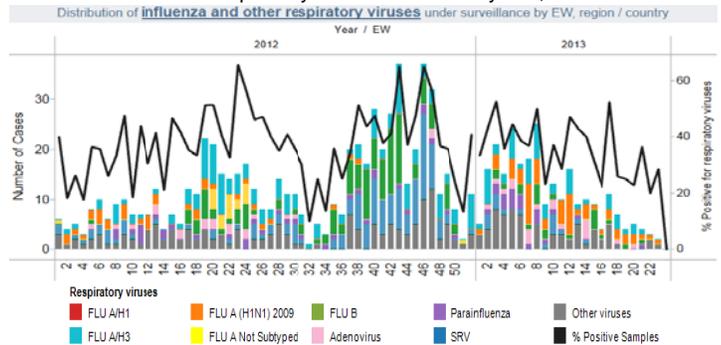
³ Caribbean Public Health Agency (CARPHA) EW 26

CARPHA

CARPHA: % SARI Hospitalizations by EW, 2012-13



CARPHA: Respiratory virus distribution by EW, 2012-13

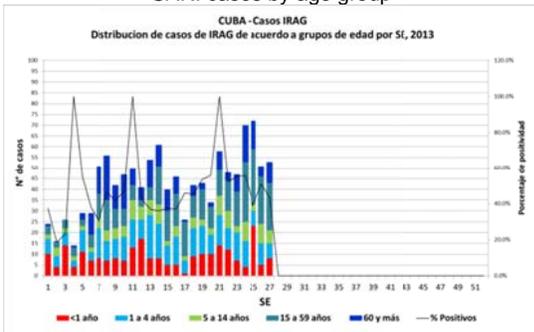


Distribution of influenza and other respiratory viruses in CARPHA Member Countries



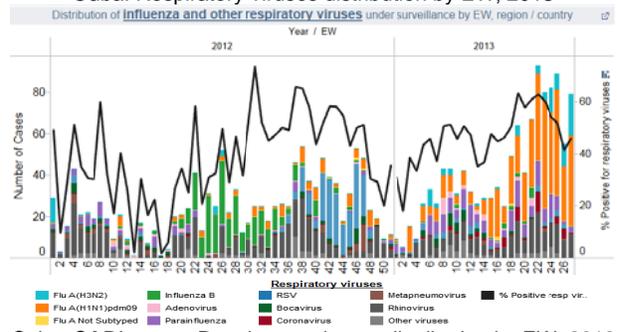
In Cuba, according to national laboratory data, among all samples analyzed (n=628) between EW 24 and 27, the average percent positivity for respiratory viruses was 48.3%, and 33.3% for influenza viruses. Of the total positive samples for influenza A, 75.5% were influenza A(H1N1)pdm09 followed by 24.5% for influenza A(H3N2). Rhinovirus and parainfluenza (7.0% and 3.8% positivity, respectively) were also circulating. Of the total of positive samples in EW 27, 65.8% were from ILI cases and 29.1% were from SARI cases. Among the SARI cases, 246 samples were analyzed between EW 24 to 27 and detected influenza A(H1N1)pdm09, influenza A(H3N2), rhinovirus and parainfluenza. The age group most affected by SARI were those between 15 to 54 years.

SARI cases by age group

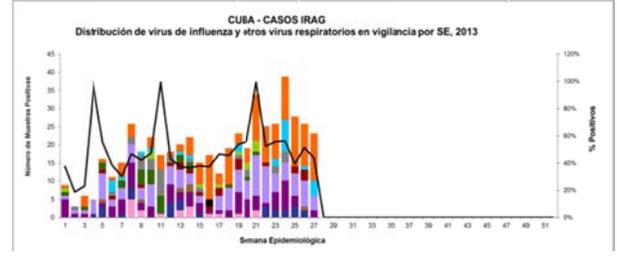


Cuba

Cuba. Respiratory viruses distribution by EW, 2013

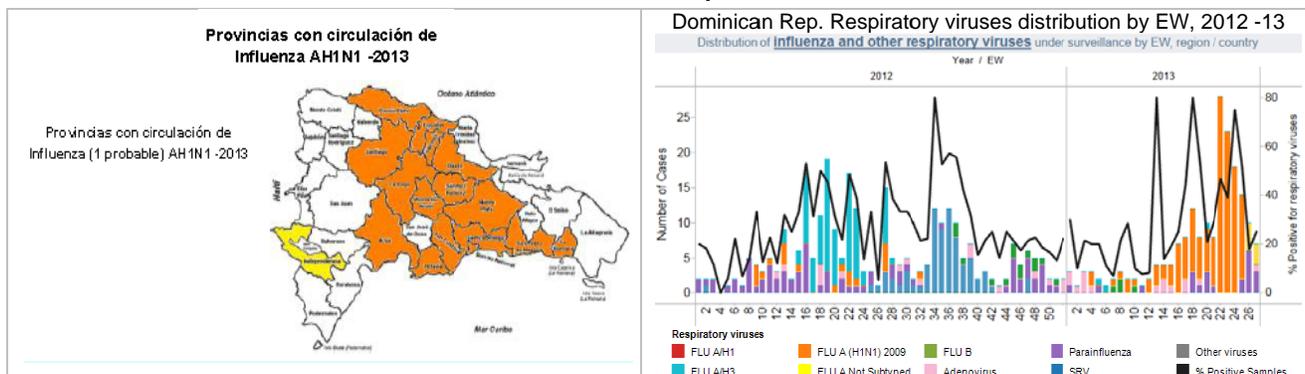


Cuba. SARI cases. Respiratory viruses distribution by EW, 2013



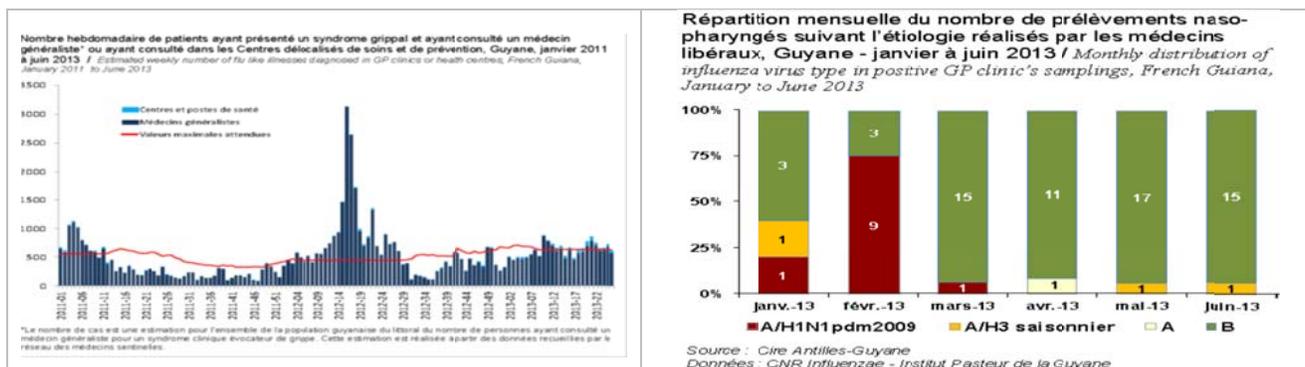
In the Dominican Republic⁴, from the EW 01 to 27, 2013, a total of 1,274,564 ILI cases were reported, with a rate of 645 per 10,000 population, 15% than less what was reported for the same period in 2012 (758 per 10,000 population). In EWs 01-27, through sentinel surveillance, 842 SARI cases were reported, mainly in Santo Domingo and Santiago provinces. In this same period, 16 SARI deaths (higher than the number observed in 2012 (n=5)) were reported. According to laboratory data from EW 24 to 27, 132 samples were analyzed, and on average, 36.8% of specimens were positive for influenza viruses. Among these, Influenza A(H1N1)pdm09, parainfluenza and influenza A not subtyped were detected.

Dominican Republic



In French Guiana, through EW 27, the number of ILI consultations has remained relatively stable and close to the maximum values expected. Since the beginning of the epidemic (early March), nearly 11,795 ILI consultations were estimated. According to lab data, circulation of influenza B (Victoria and Yamagata lineages) predominated, followed by influenza A(H1N1)pdm09.

French Guiana



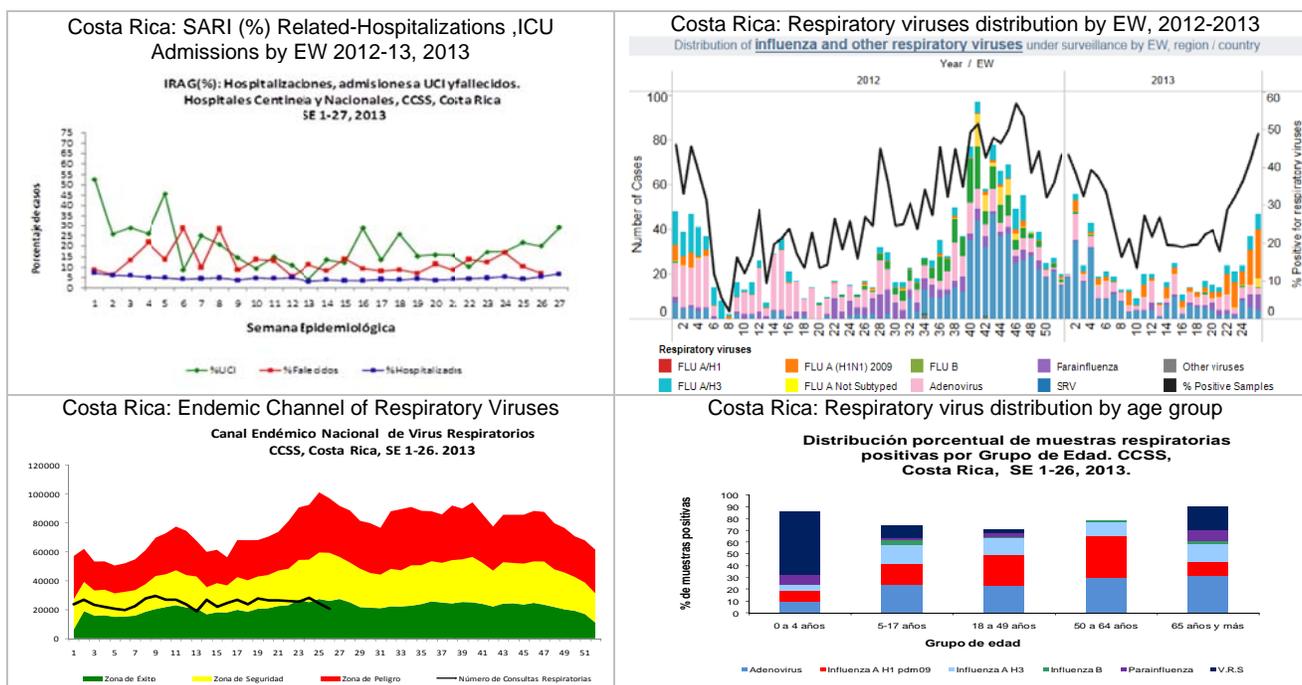
Central America

In Costa Rica⁵, nationally in EW 27, influenza activity (SARI proportion and % of positive respiratory viruses) continued to increase; however, the ARI endemic channel was within the expected levels. Of the total registered hospitalizations, 6.7% were due to SARI and of these, 29% were admitted to the ICU. Of the total registered deaths, 7% were associated with SARI. According to laboratory data, RSV is predominant, and is highest among 0-4 year olds. Among influenza cases, influenza A(H3N2) is present among all age groups, especially among those 5 years and older, and influenza A(H1N1)pdm09 is most prevalent among 50-64 year olds. With respect to other respiratory viruses parainfluenza, mostly parainfluenza 1 and 3, is present among the extremes of age, principally those 65 years and older. Adenovirus is also present among all ages groups, especially those 5 years and older.

⁴ República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 27.

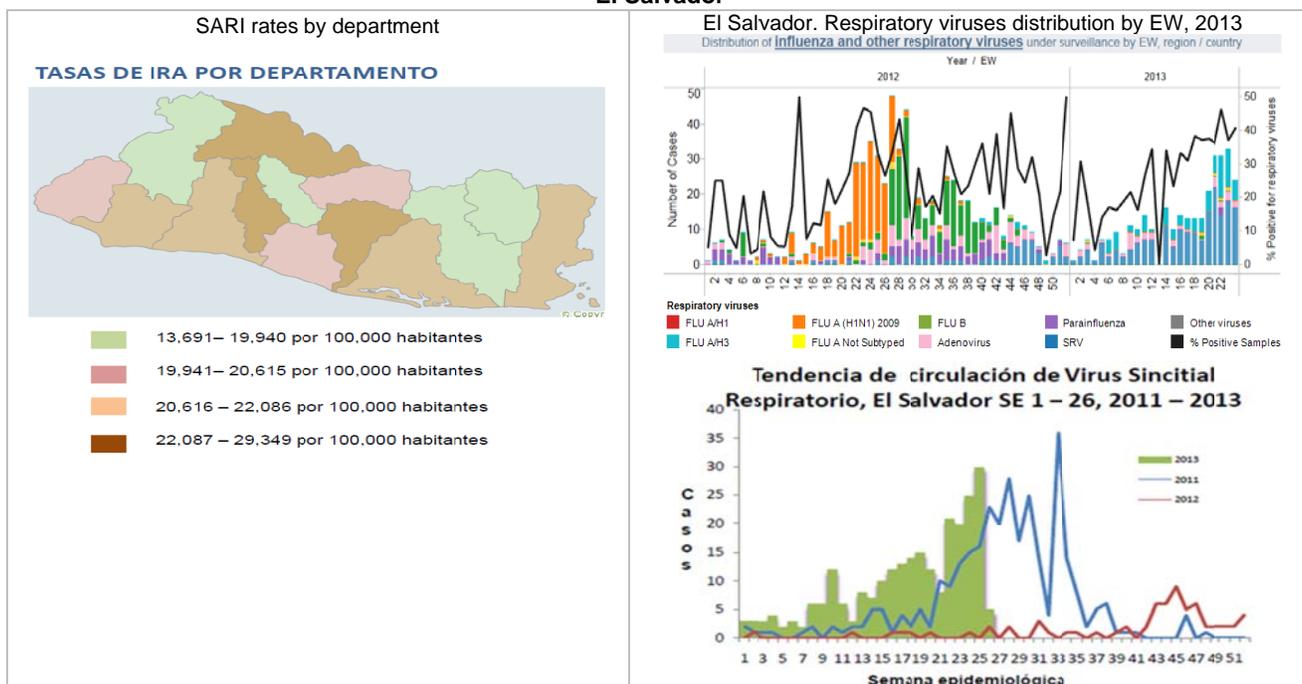
⁵ Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 27.

Costa Rica



In El Salvador⁶, nationally, in EW 27 there were 53,060 cases of ARI, 12.9% less than reported in the previous week (n=60,040 cases). The number of cumulative ARI cases between EW 01-26, 2013 (n=1,432,611) is similar to that observed in the same period of 2012. Persons aged 60 years and older accounted for 63% of SARI-associated deaths and the highest mortality (16%). In EW 27 2,262 cases of pneumonia were reported and accounted for a 13.1% (n=262) increase from the previous week. Regionally, the highest SARI rates per 100,000 population were reported in Chalatenango (29.3), San Salvador (28.4) and San Vicente (24.8), while the highest rates of pneumonia (per 100,000 population) were reported in San Vicente (904), Chalatenango (714), and San Miguel (698). During EW 27, there was 41.9% positivity for respiratory viruses, with RSV having 29.7% positivity. Influenza positivity was 10.8% and was predominated by influenza A(H3N2).

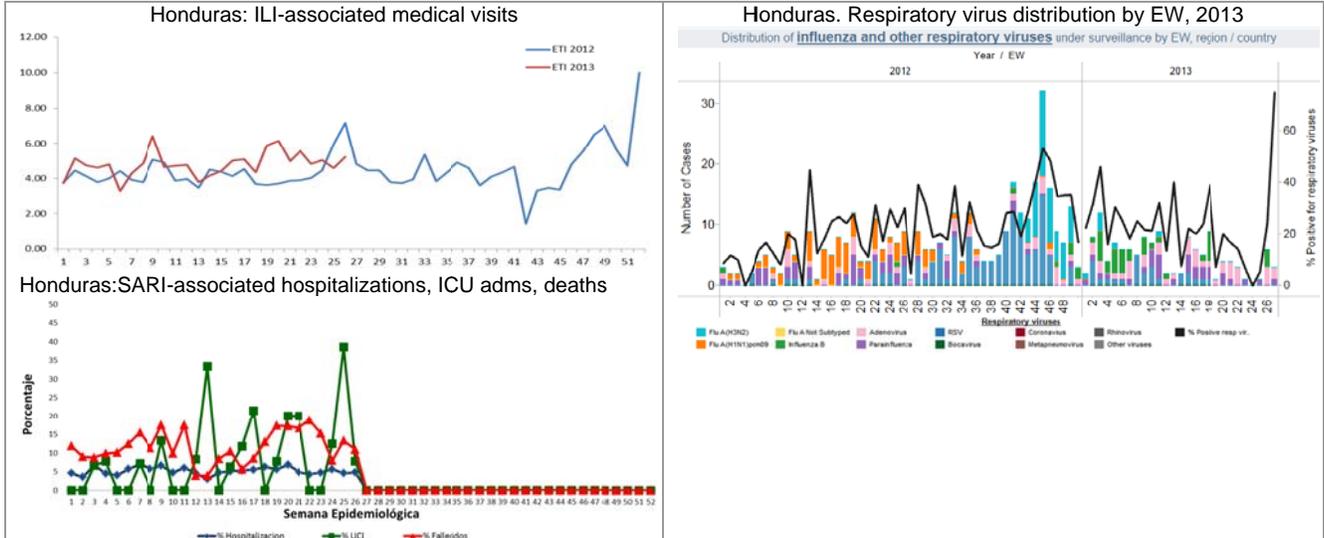
El Salvador



⁶ El Salvador. Boletín epidemiológico SE 27.

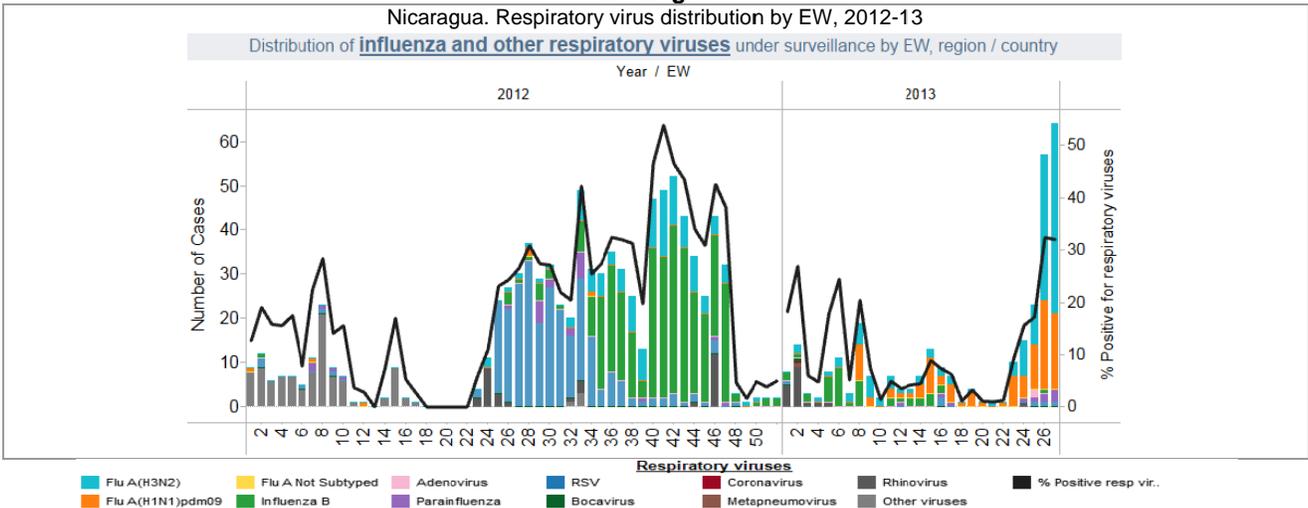
In Honduras⁷, during EW 26, 2013, based on sentinel surveillance, ILI accounted for 5.2% (534/10,219) of visits, slightly higher than the level reported in EW 25 (4.6%). The proportion of SARI-associated hospitalizations was 4.8% (46/964) and was also slightly higher than the level reported SE 25 (4.6%, 44/895). Among deaths during EW 26, 10.9% were SARI-associated (7/64) and occurred in the following sites: Tegucigalpa (25%), San Pedro Sula (10%) and Hospital Catarino Rivas (11.1%). Based on laboratory data for EW 24-27, 17.9% of samples were positive for respiratory viruses (8.9% were positive for adenovirus and 3.6% for parainfluenza) and 5.4% were positive for influenza (predominantly Influenza B).

Honduras



In Nicaragua, according to national laboratory, of the samples tested between EW 24-27 (n = 606), the percentage of positive samples increased from 15.6% (SE 24) to 32.0% (SE 27). Among samples tested during that time, 26.2% were positive for a respiratory virus and 24.1% were positive for influenza. Influenza A(H1N1)pdm09 and A(H3N2) predominated.

Nicaragua

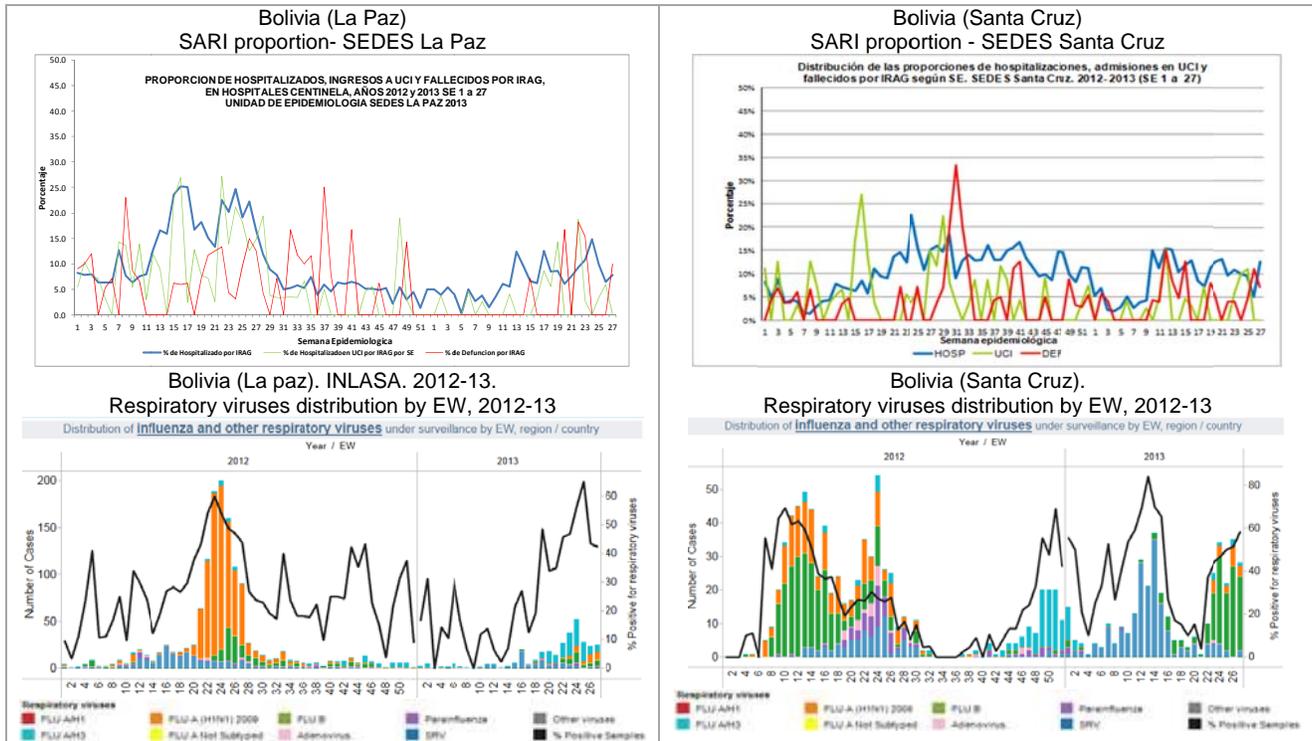


⁷ Honduras. Boletín de influenza SE 26.

South America – Andean countries

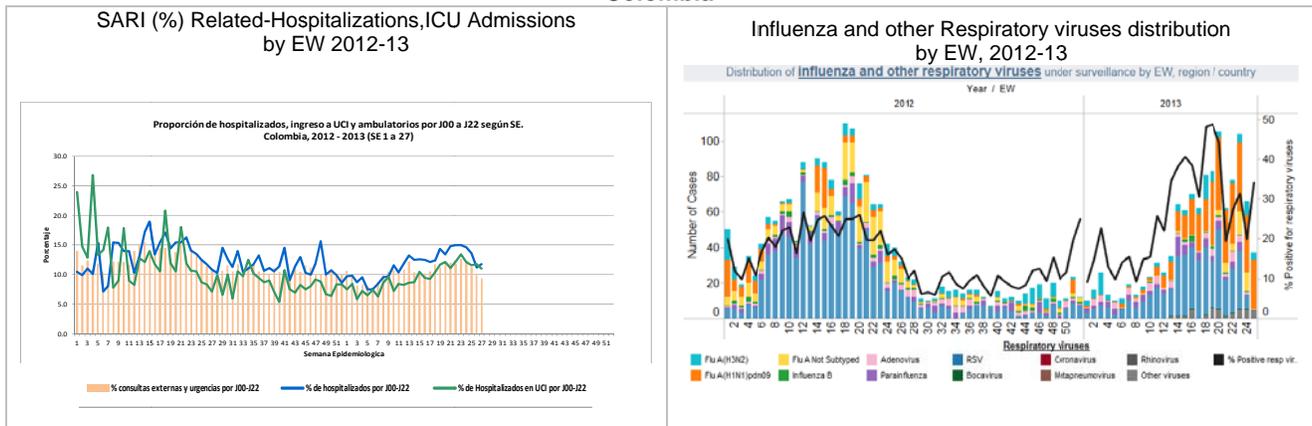
In Bolivia, according to data from Santa Cruz, during EW 26 the proportion of SARI hospitalizations (12.6%) increased compared to the previous week but has been relatively stable with only slight fluctuations since EW 9. Based on laboratory data from CENETROP (Santa Cruz), 116 samples were analyzed from SARI cases during EWs 25 and 25, and increased positivity was observed for all respiratory viruses (54%) and influenza (53%). Influenza B was most predominant (77% of positive samples). The proportion of SARI-associated hospitalizations (10%) reported by La Paz during EW 27 was higher than that observed in the previous week and illustrated a fluctuation. According to laboratory data from INLASA (La Paz), among 112 samples processed during EWs 26-27, 43% were positive for respiratory viruses and 38% were positive for influenza viruses. Among influenza positive samples, influenza A(H1N1)pmd09 (35%), influenza A(H3N2) (33%), and influenza B (20%) predominated.

Bolivia



In Colombia, nationally, in EW 26, the proportions of ARI outpatients-J codes (9%), SARI hospitalizations (12%), and SARI ICU admissions (11%) did not change significantly compared to the previous week, and have been showing a decreasing trend since EW 23. According to the national laboratory data (INS), among virus samples tested (n=685) in EW 25-26, 26% were positive for respiratory viruses and 18% were positive for influenza viruses. Among the positive samples, influenza A(H1N1)pdm09 and influenza A not subtyped predominated in Antioquia (63%) and RSV (24%) in Bogota.

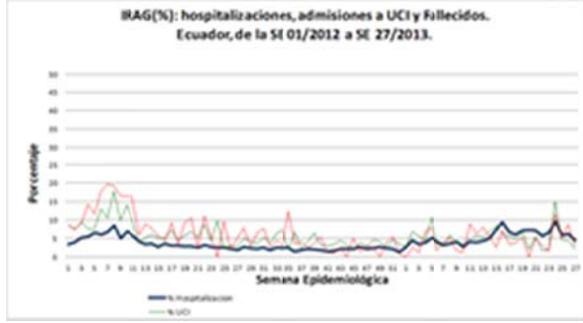
Colombia



In Ecuador, during EW 27, the proportion of SARI hospitalizations (5%), SARI ICU admissions (2%) and SARI deaths (3%) decreased from the previous week. According to national laboratory data, among 124 samples analyzed during EWs 26 and 27, 34% were positive for respiratory viruses and 7% were positive for influenza viruses. RSV was the predominant virus, accounting for 74% of the positive samples. Among the SARI samples analyzed, RSV was also the predominant virus.

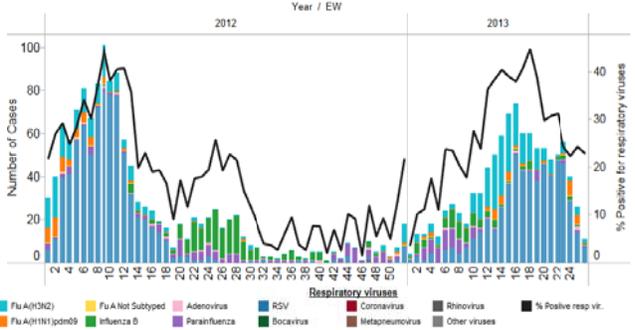
Ecuador

Ecuador SARI (%) Related-Hospitalizations ,ICU Admissions & Deaths by EW 2012-13



Ecuador. Influenza and ORV viruses distribution by EW, 2012-13

Distribution of influenza and other respiratory viruses under surveillance by EW, region / country

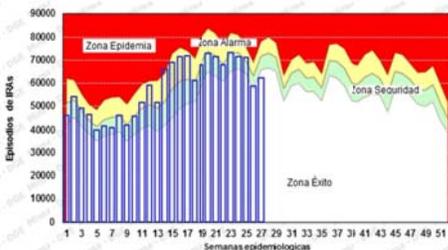


In Peru⁸, nationally, in EW 27, the number of ARI and pneumonia cases in children less than 5 years of age remained within the expected level for this time of year. Regionally, Lima reported during EW 27 that pneumonia episodes among children less than 5 years were within the epidemic zone of the endemic channel. According to national laboratory data, during EWs 26-27, among the 185 samples analyzed, 29% were positive for respiratory viruses and 18% were positive for influenza viruses. Among the positive viruses, influenza A(H1N1)pdm09 (50%) and RSV (30%) predominated.

Peru

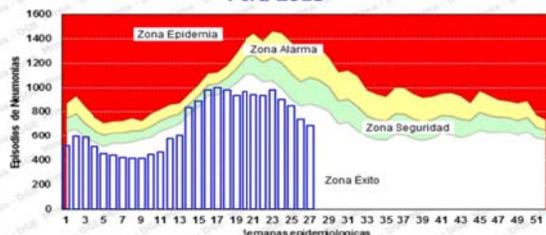
Peru. Endemic channel of ARI, 2013

Canal de Infecciones Respiratorias Agudas (IRA) en menores de 5 años, Perú 2013*



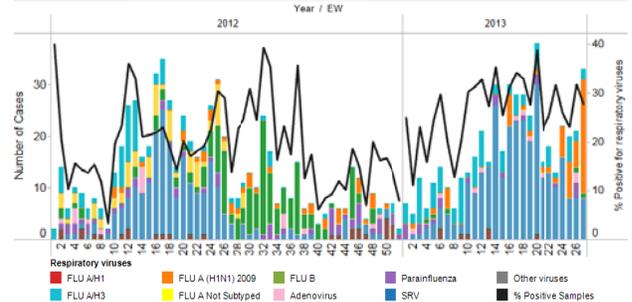
Peru. Endemic channel of pneumonia, 2013

Canal endémico de neumonías en menores de 5 años, Perú 2013*



Perú. Respiratory viruses distribution by EW, 2012-13

Distribution of influenza and other respiratory viruses under surveillance by EW, region / country

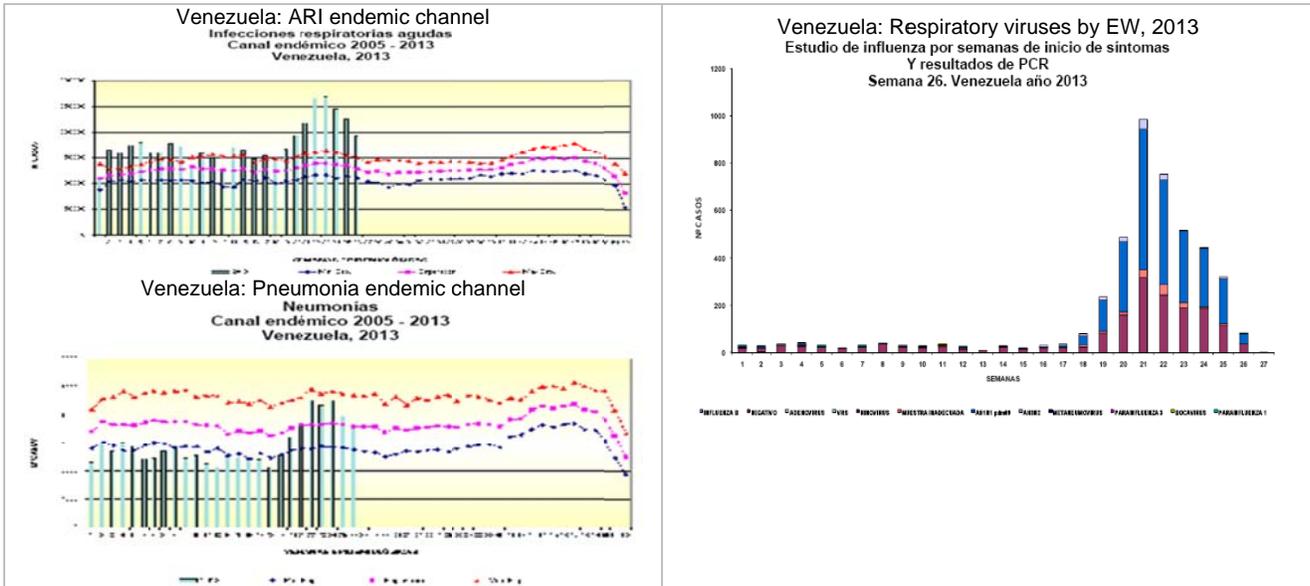


In Venezuela⁹, according to data published through EW 26, the ARI endemic channels showed activity above the epidemic threshold for this time of the year with decreasing trend. The pneumonia notifications fell with the expected range, and also showed a decreasing trend. Regionally, the highest numbers of ARI and pneumonia cases were reported in Zulia. Based on virologic surveillance data through EW 26, positivity was 57% with a predominance of influenza A(H1N1)pdm09 (92% of positive samples), followed by influenza A(H3N2) (6.5% of positive samples).

⁸ Perú. Sala de Situación de Salud. EW 27, 2013. Ministerio de Salud. Dirección General de Epidemiología

⁹ Venezuela. Boletín epidemiológico, SE 27, 2013.

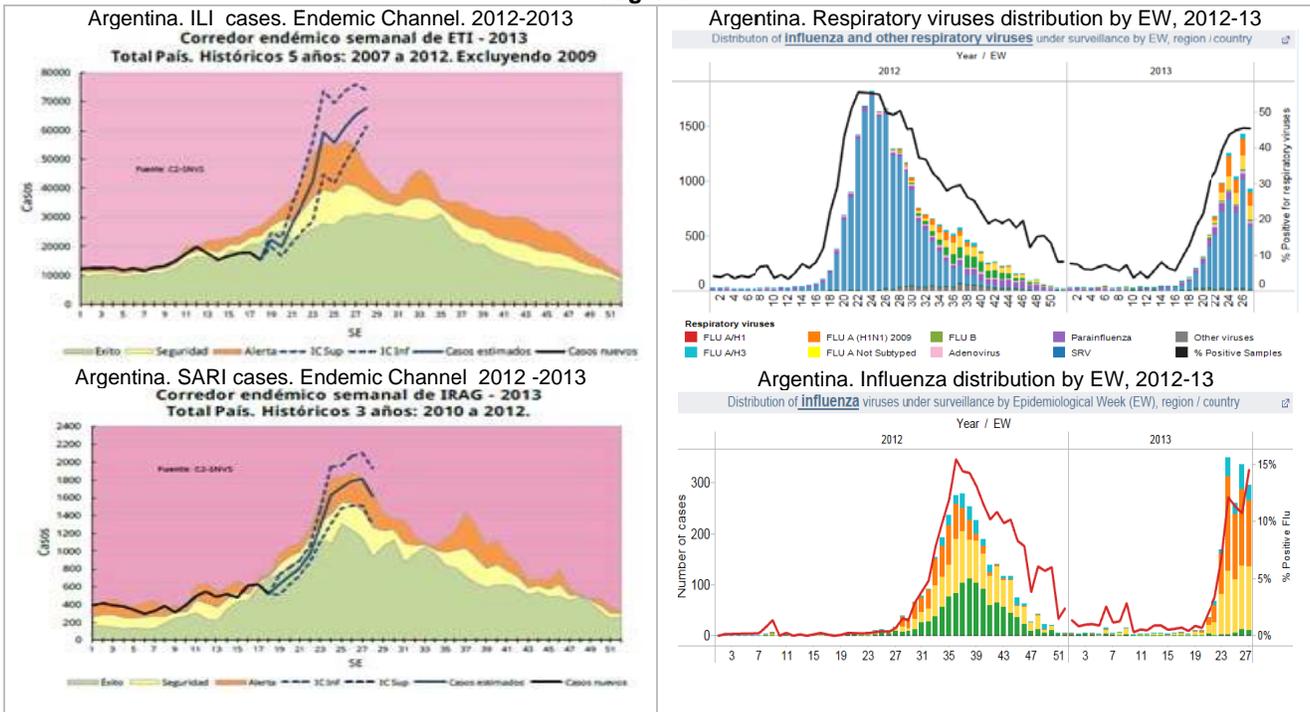
Venezuela



South America – Southern Cone

In Argentina¹⁰, at the national level through EW 27, the number of ILI visits in the outbreak zone and is similar to the level that occurred at the end of 2012. The level of pneumonia is between the alert and security zones. Compared to the previous three years, the level of SARI hospitalizations reported between EWs 19-27 2013, approached the boundary between the alert and outbreak zones. According to laboratory data, between EWs 1 and 27, there have been 27,293 cases of acute respiratory infections, with a positivity rate of 16.1% (N=7,424). Of the positive samples, 61.2% were positive for RSV, 22.0% for influenza and 9.8% for parainfluenza. Through EW 27, there have been 1,975 cases of influenza, of which 97.2% were influenza A and 2.9% were influenza B. Among the influenza A samples, 56.9% were influenza A(H1N1)pdm09 and 12.2% were influenza A(H3N2).

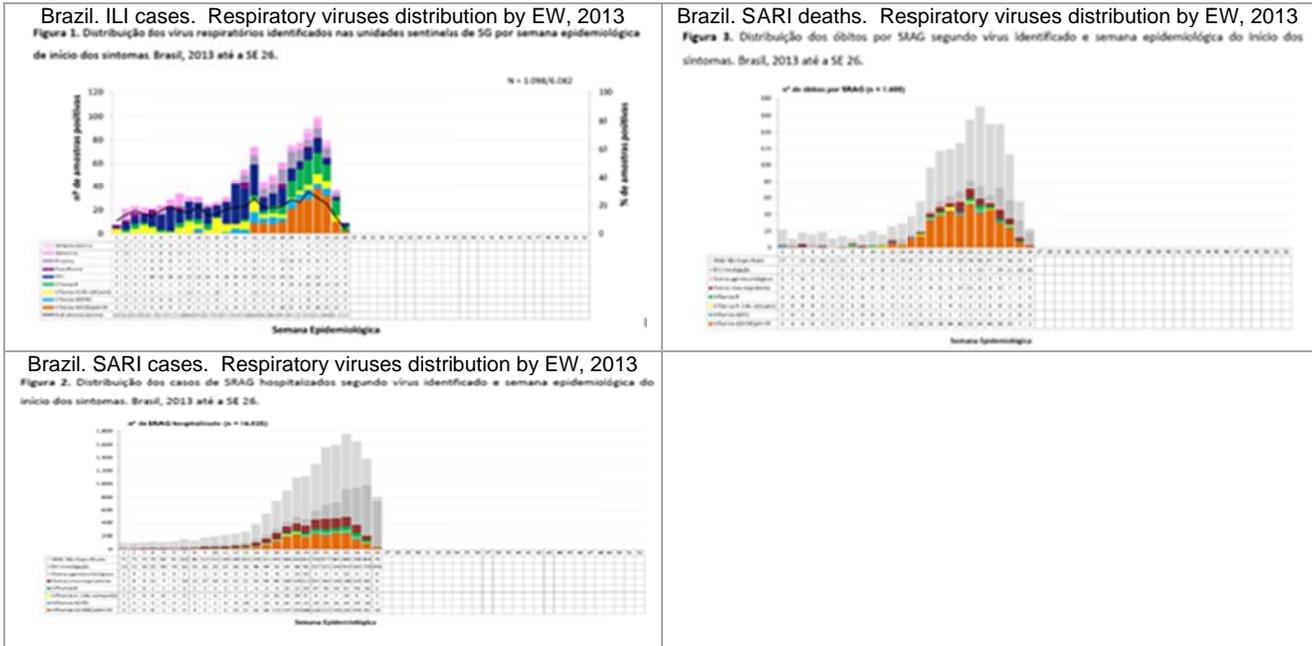
Argentina



¹⁰ Argentina. Boletín integrado de vigilancia. SE 27.

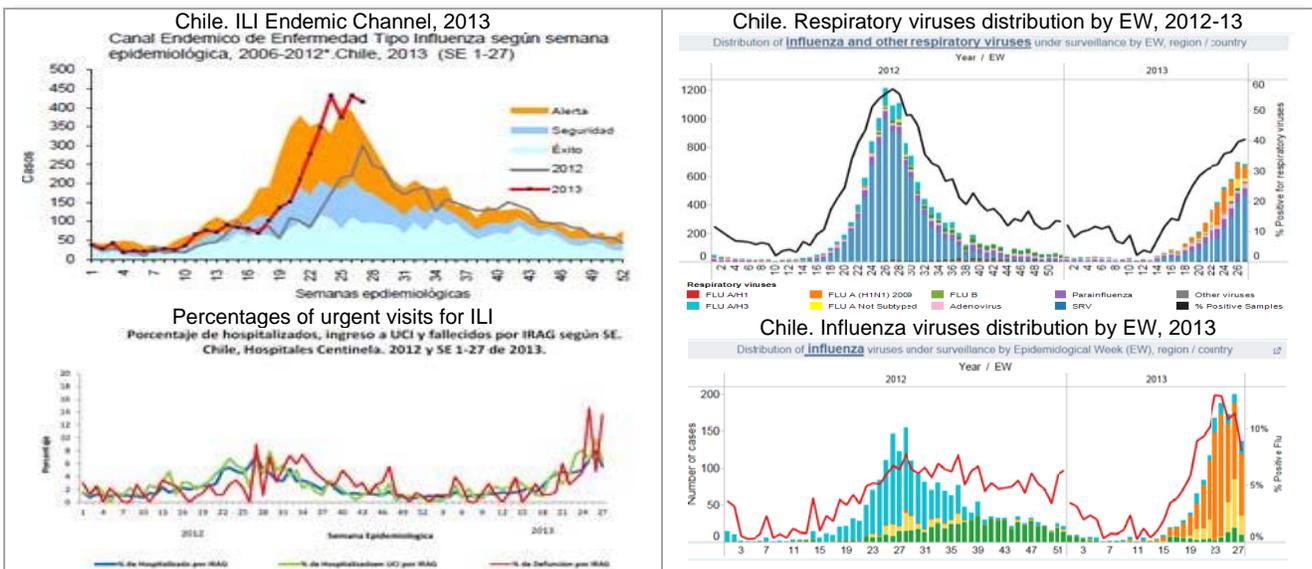
In Brazil¹¹, according to influenza sentinel surveillance between EWs 25 and 26, among the positive samples, influenza B predominated (37% of positives) followed by influenza A(H1N1)pmd09 (26%). However, among SARI surveillance during the same period, influenza A(H1N1)pdm09 predominated (43%) in the south and southeast regions, followed by other respiratory viruses (31%) in the south region. Among SARI-associated deaths, a similar pattern was observed.

Brazil



In Chile¹², in EWs 26 to 27, the ILI level was of moderate intensity and above the alert zone of the endemic channel. In EW 27, the ILI rate was 26.4 per 100,000 population, and the emergency care services rate was higher than in previous years, accounting for 1.6% of total emergency visits. At the regional level, the following regions had significant changes compared to the previous week: Tarapacá (northern area) decreased while Coquimbo and Valparaíso (central region) increased. Compared to EW 26, the proportion of hospitalizations (5.5%) and ICU admissions (6.4%) decreased. Based on laboratory data, from EW 27, 1,697 samples were analyzed and 40% were positive for respiratory viruses and 8% were positive for influenza. RSV predominated (67%), followed by influenza A(H1N1)pdm09 and influenza A, not subtyped (16%).

Chile

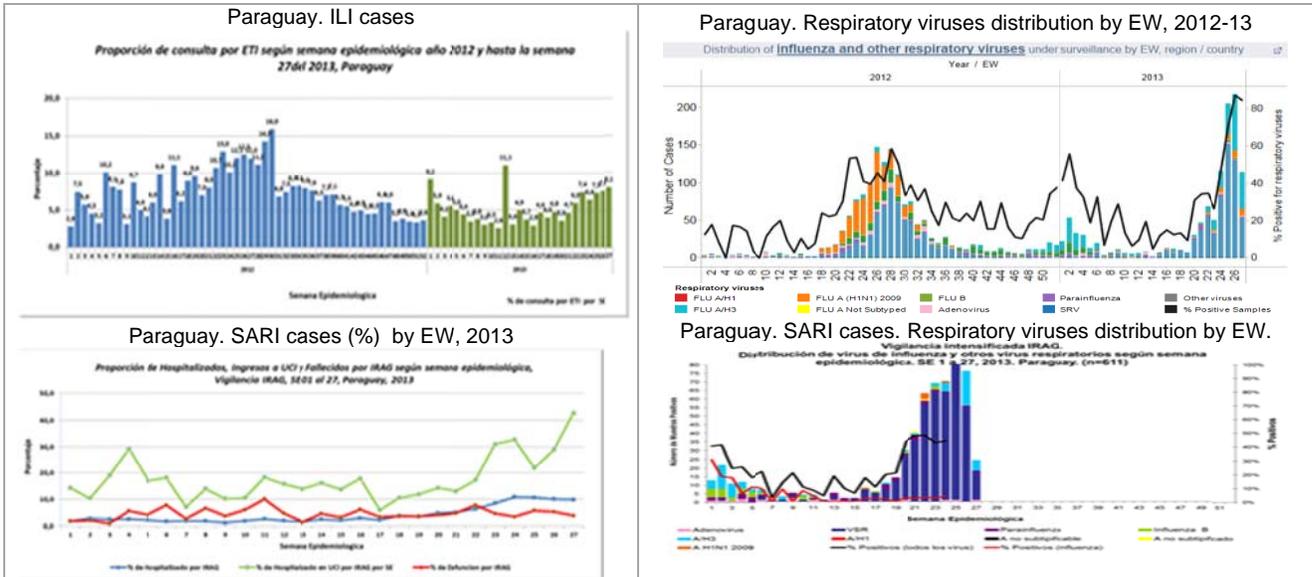


¹¹ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 26, 2013.

¹² Chile. Informe de situación. EW 26. Disponible en: www.pandemia.cl

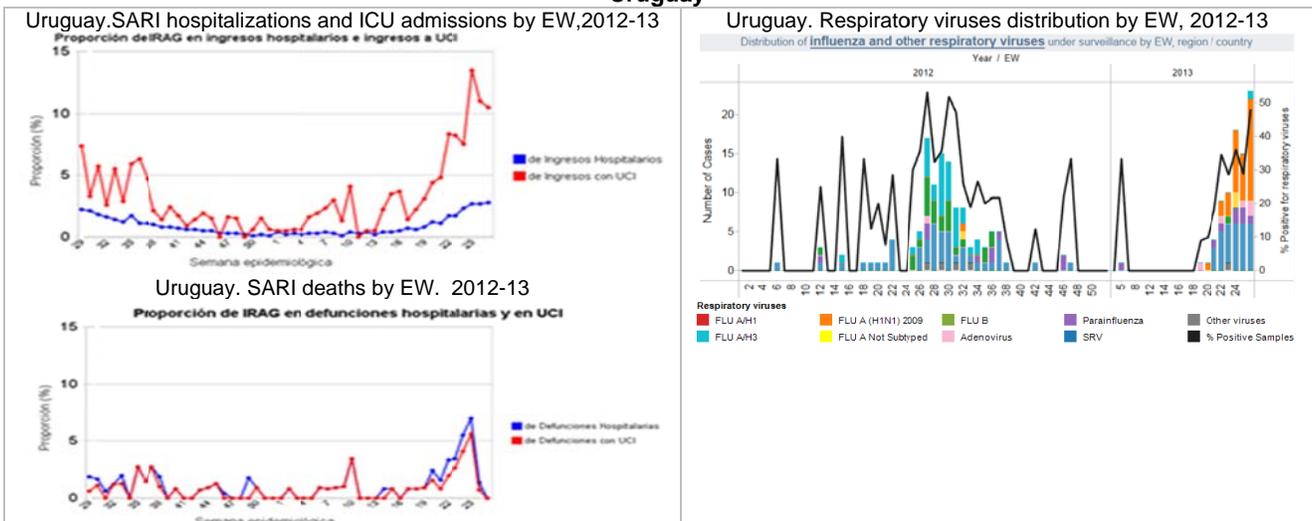
In Paraguay¹³, through EW 27, the rate of ILI consultations was 163.6 per 100,000 population. This was a 2% increase from the previous week (160.3 during EW 26) and is in the epidemic zone of the endemic channel. However, this is about 19.7% lower in magnitude compared to this same time last year. From EW 1-27 there are been 2,756 SARI cases reported through sentinel surveillance. SARI hospitalizations accounted for 9.9% of total hospitalizations (233/2,346). Of the cases in EW 27, 64% were in children less than 5 years of age (150/233). From EW 1-27, there have been 402 ICU admissions (42.9% (27/63 were admitted during EW 27), and 140 SARI-associated deaths (of which 15 were associated with respiratory viruses). Based on laboratory data, between EW 26 and 27, 561 samples were analyzed, of which 83% were positive for respiratory viruses and 43% were positive for influenza. There was a predominance of RSV (47%) and influenza A(H3N2) (45%). Among the 121 samples collected from the SARI sentinel surveillance sites during the same period, RSV predominated followed by influenza A(H3N2).

Paraguay



In Uruguay¹⁴, nationally during EW 27 the proportion of SARI-associated hospitalizations remained high and stable since EW 25. However, SARI-associated ICU admissions and deaths have decreased in the last two weeks. Between EW 26 and 27, 104 SARI samples were processed for respiratory viruses showing a positivity of 43% for all respiratory viruses and 28% for influenza, with a predominance of influenza A(H1N1)pdm09 (58%) and RSV (29%).

Uruguay



¹³ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 26, 2013

¹⁴ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública