



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

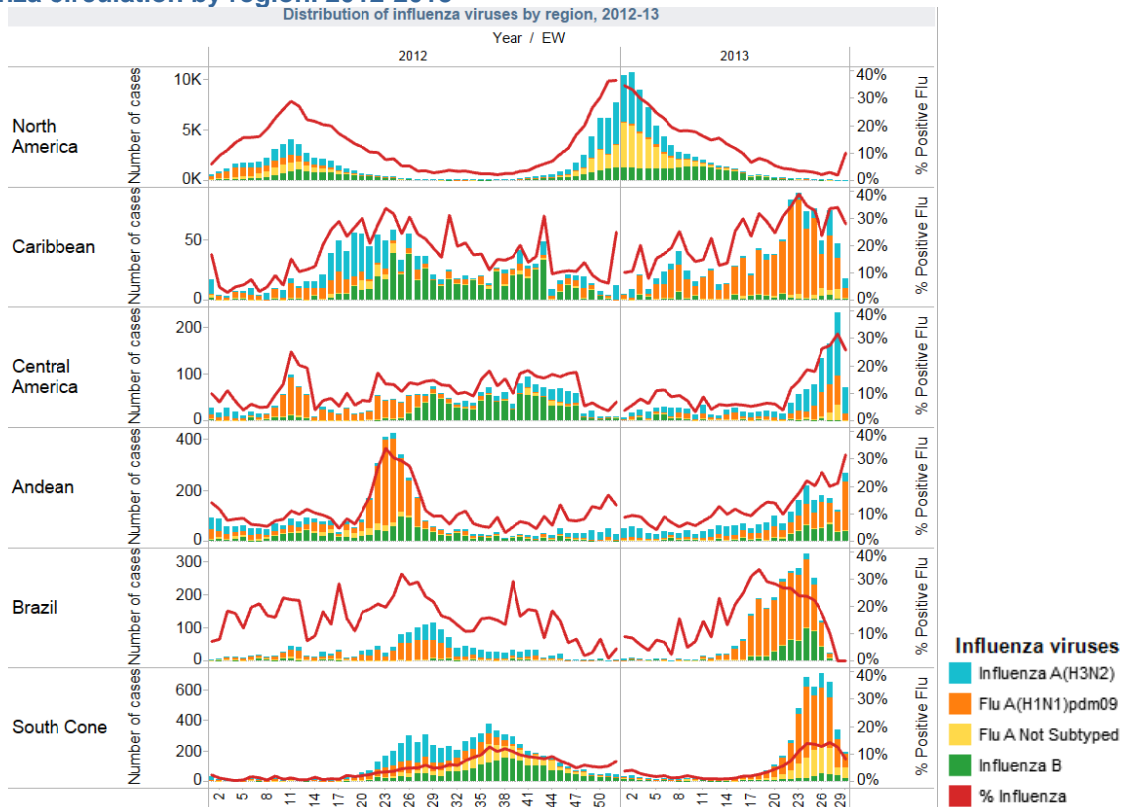
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

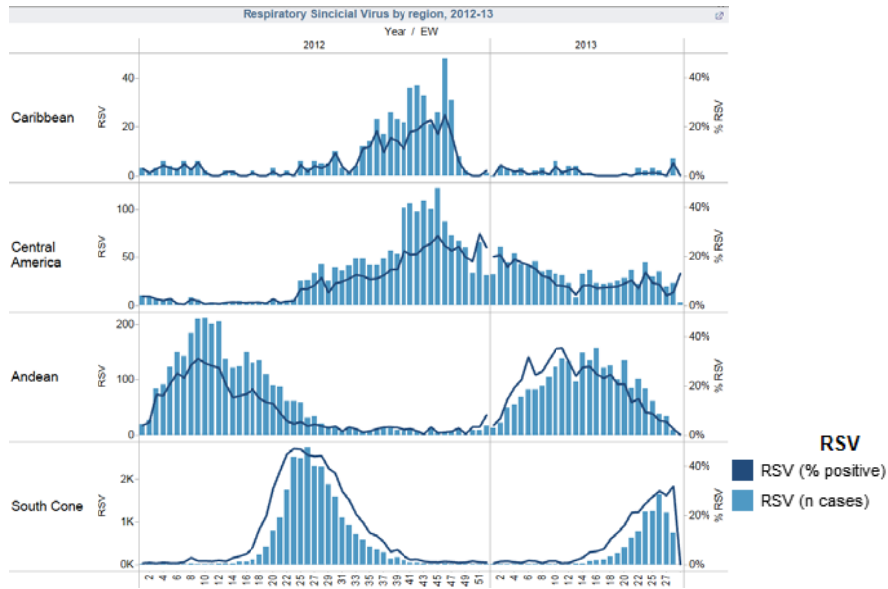
WEEKLY SUMMARY

- **North America:** most influenza activity indicators were low and within expected levels for this time of year. In Mexico, influenza A(H1N1)pdm09 predominated in Quintana Roo and Yucatan. In the United States, 2 new cases of influenza A(H3N2v) were reported, bringing the total to 14 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 decreased in Cuba and Dominican Republic. Meanwhile, 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 remained the predominant virus in Guatemala and El Salvador.
- **South America – Andean Countries:** acute respiratory illness activity increased in Peru, Ecuador and La Paz (Bolivia), with increased circulation of influenza A(H1N1)pdm09. Meanwhile, Venezuela and Colombia showed decreased activity.
- **South America - South Cone:** acute respiratory illness activity was high, although some indicators showed a decreasing trend. Uruguay and the southern Brazil continue to see increased activity. RSV predominated 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

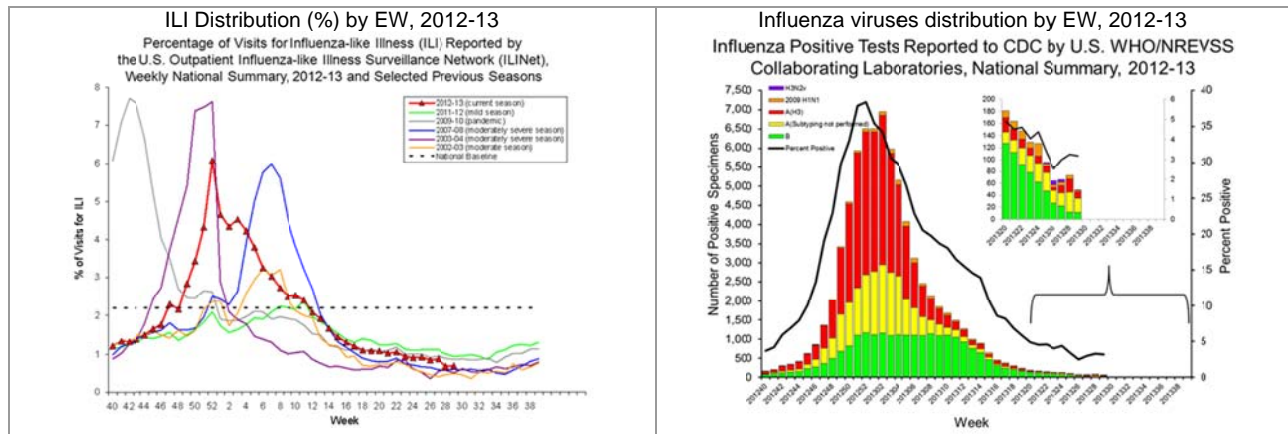


EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In the United States¹, during EW 29, influenza activity remained low. Nationally, the proportion of ILI consultations (0.7%) was below the national baseline of 2.2%. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 29 (5.2%) was below the epidemic threshold for this time of year. In EW 29, three influenza-associated pediatric deaths were reported. Of these, two occurred during EW 1 and 4, 2013 and were associated with influenza A, not subtyped, and one occurred during EW 12, 2012 and was associated with influenza A, not subtyped. Among all samples tested during EW 29 (n=1,538), the percentage of samples positive for influenza (3.2%) decreased from the previous week. Among the influenza positive samples, 77.0% were influenza A (29.7% were influenza A(H3N2)) and 22.9% were influenza B. During EW 29, two new human infections with an influenza A(H3N2) variant (H3N2v) were reported, bringing the total number of H3N2v cases reported this summer to 14 (Indiana: 13, Ohio: 1). No hospitalizations or deaths have occurred, 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.

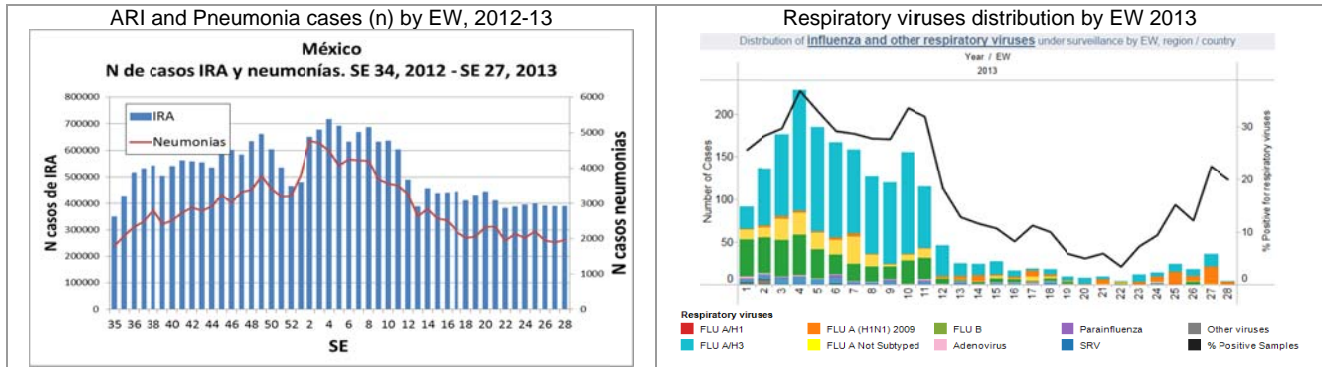
United States



¹ USA: CDC FluView report. EW 29. Available at: <http://www.cdc.gov/flu/weekly/>

In Mexico², nationally during EW 28 the number of ARI cases reported was similar to EW 27, and the number of pneumonia cases increased by 3.6% compared to EW 27. 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 Yucatan, Campeche and Zacatecas (648, 614, and 575 per 100,000 inhabitants, respectively), and the highest pneumonia rates were in Jalisco, Colima and Yucatan (4.8, 4.5, and 3.8 per 100,000 inhabitants, respectively). According to laboratory data, between EWs 26-29, 529 samples were tested and 16.1% were positive for influenza. Among the positive influenza samples, 94.1% were influenza A, of which 45.0% were A(H1N1)pdm09 (mainly detected in Quintana Roo and Yucatan) and 52.5 were H3N2, and 5.9% were influenza B.

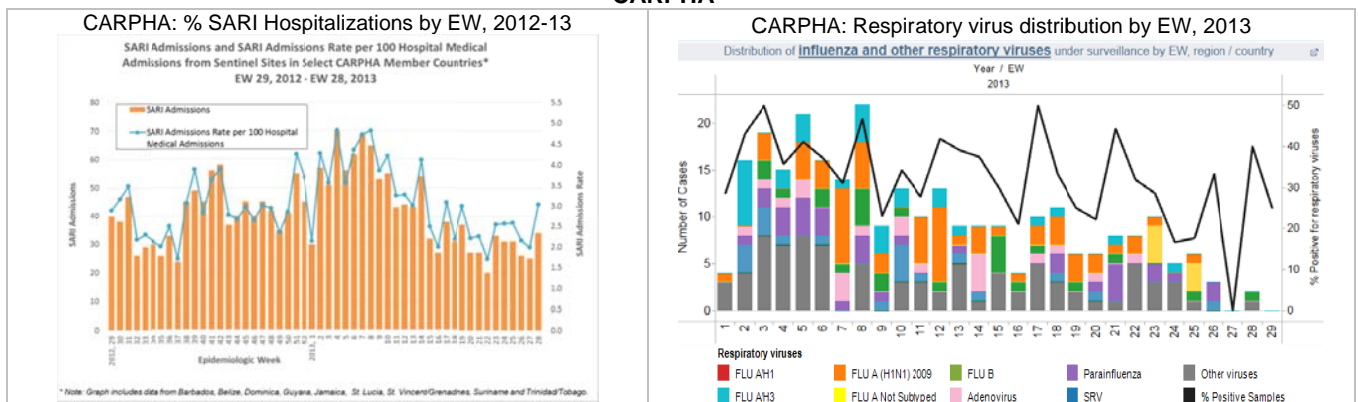
Mexico



Caribbean

CARPHA³ received weekly SARI/ARI data from eight countries for EW 28: Aruba, Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 28, the proportion of SARI hospitalizations was 3.0%, with the highest rate among children 6 months to 4 years of age (9.3%). Two SARI deaths were reported in EW 27 (one death in St. Lucia and the other in Suriname). For cases with dates of onset between EW 23 to EW 28, 2013, the following viruses have been laboratory confirmed in member countries: influenza A (H1N1)pdm09 (Belize, Trinidad and Tobago, Aruba); influenza A(H3N2) (Barbados); influenza B (Barbados, Aruba), parainfluenza 1 (Barbados, Trinidad & Tobago), parainfluenza 3 (Barbados, Belize), rhinovirus (Barbados, Belize, Trinidad & Tobago, Guyana), RSV (Aruba); Influenza A not subtyped (Aruba). In 2013, to date, the CARPHA laboratory has confirmed 222 cases as positive for one or more respiratory agent. The overall percentage positivity for specimens tested was 32.7%, and of these, multiple viruses were isolated from 18 cases (8.1%).

CARPHA



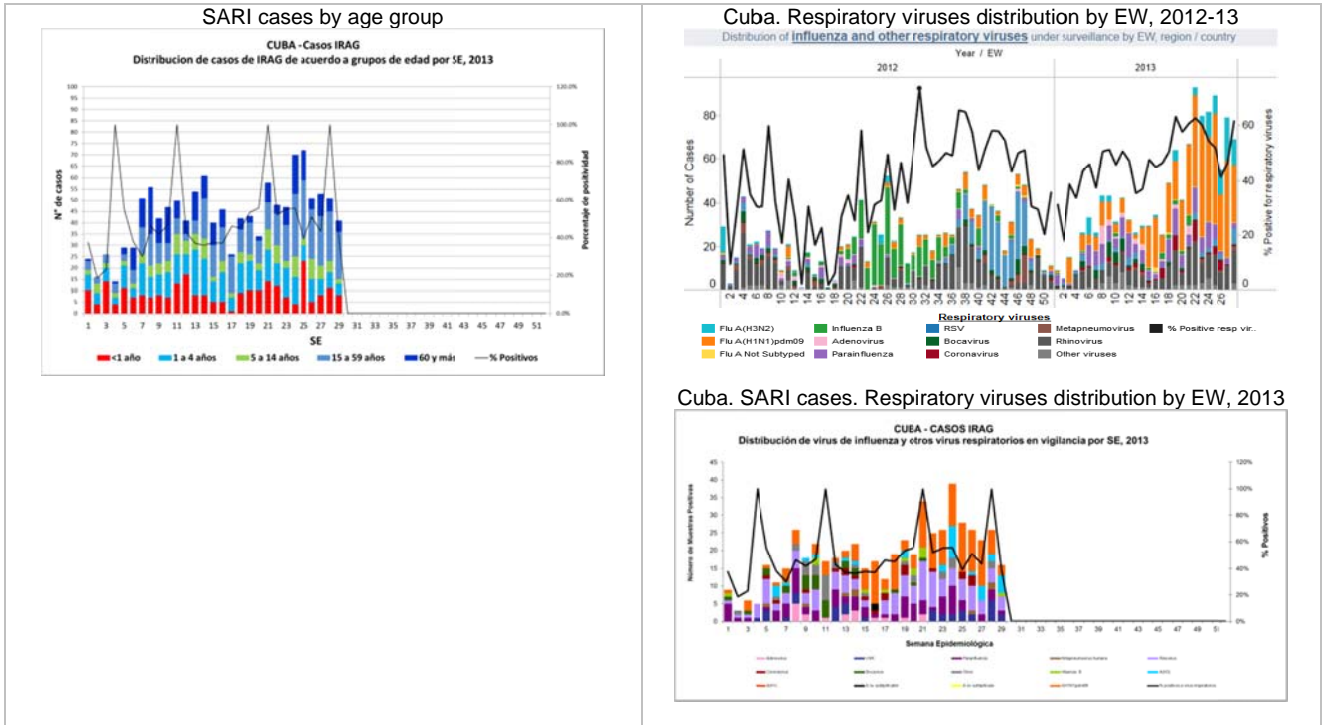
² México. Dirección General de Epidemiología. Información epidemiológica. SE 29.

³ Caribbean Public Health Agency (CARPHA) EW 28



In Cuba, between EW 26-29 of 2013, according to national laboratory data, among all samples analyzed (n=481), the average percent positivity for respiratory viruses was 48.9% and 31.8% for influenza viruses. Of the total positive samples for influenza A, 64.4% were influenza A(H1N1)pdm09 followed by influenza A(H3N2) (35.6% of positives). Rhinovirus, RSV and parainfluenza were also circulating. In EW 29, of the total of positive samples, 40% were from ILI cases and 53.3% were from SARI cases. The age groups most affected by SARI were those 15 to 54 years of age. Among the SARI cases, between EW 26-29 of 2013, 171 samples were analyzed and influenza A(H1N1)pdm09, influenza A(H3N2), RSV, rhinovirus and parainfluenza were detected. No deaths were reported during this period.

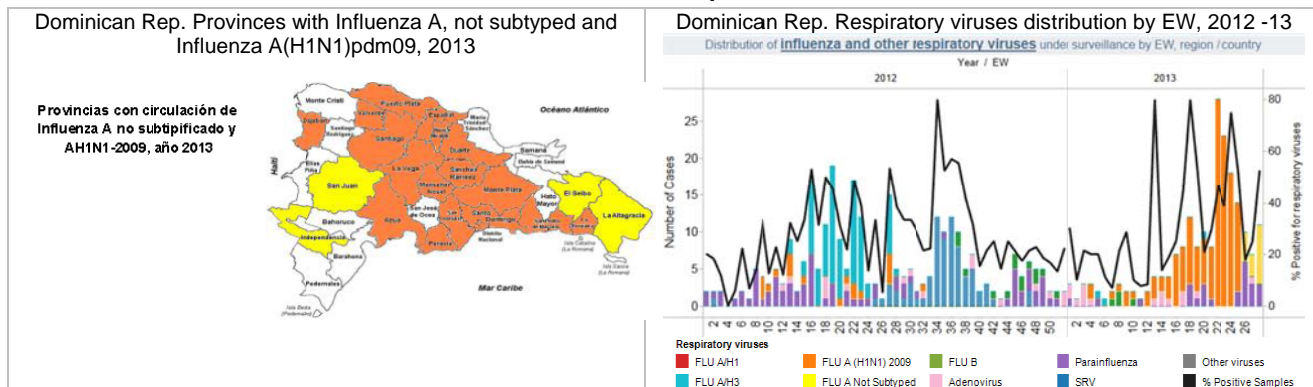
Cuba



In the Dominican Republic⁴, from EW 1 to 28, a total of 1,317,726 ILI cases were reported, with a rate of 691 per 10,000 inhabitants. This is 15% less than what was reported for the same period in 2012 (812 per 10,000 inhabitants). Between EW 1-28, 888 SARI cases were reported through sentinel surveillance, primarily in Santo Domingo and Santiago provinces. Influenza A(H1N1)pdm09 circulation was identified in the provinces of Dajabon and Valverde. Of the total 17 SARI-associated deaths, 14 were associated with influenza A (H1N1)pdm09 (higher than the number observed in 2012 (n=5)). According to laboratory data from EW 26 to 29, 157 samples were analyzed, and the average percent positivity for influenza was 29.6%. Influenza A not subtyped and parainfluenza were detected.

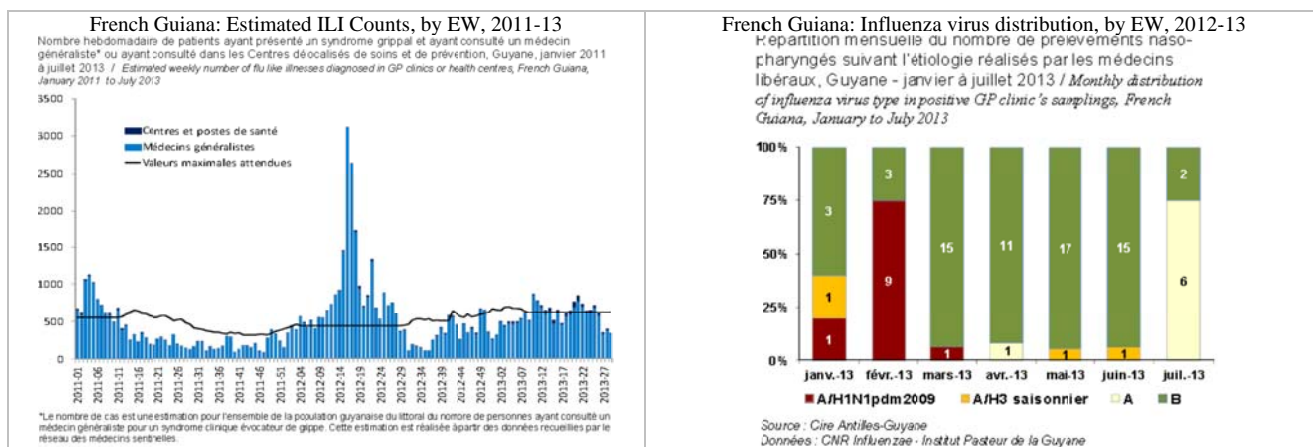
⁴ República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 28.

Dominican Republic



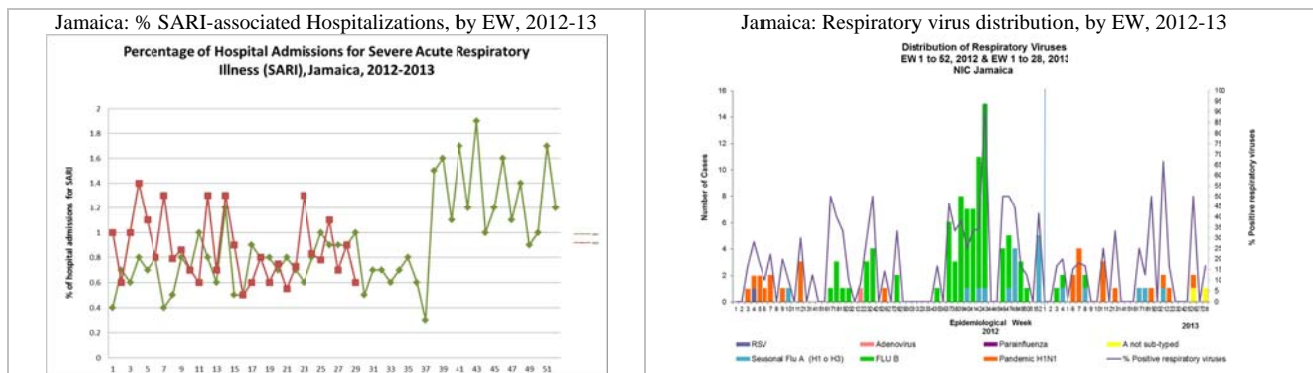
In French Guiana, from EW 01-27, 2013 and since the beginning of the month of July, the number of consultations by ILI lies well below the maximum values expected for this period. During the outbreak, which lasted 17 weeks (EW 10-26, 2013), there were an estimated 11,796 ILI cases, with no hospitalizations or deaths reported. According to laboratory data, circulation of influenza A(H1N1)pdm09, A(H3N2), influenza B/Victoria and B/Yamagata were reported.

French Guiana



In Jamaica for EW 29, sentinel data showed that the proportion of ARI consultations was 2.7%, a 0.6% decrease compared to EW 28. The proportion of admissions due to SARI was less than 1% and stable compared to the previous week. There were no SARI-associated deaths reported during EW 29. Among samples tested during EW 28, the percent positivity for influenza was 16.7% (n=6).

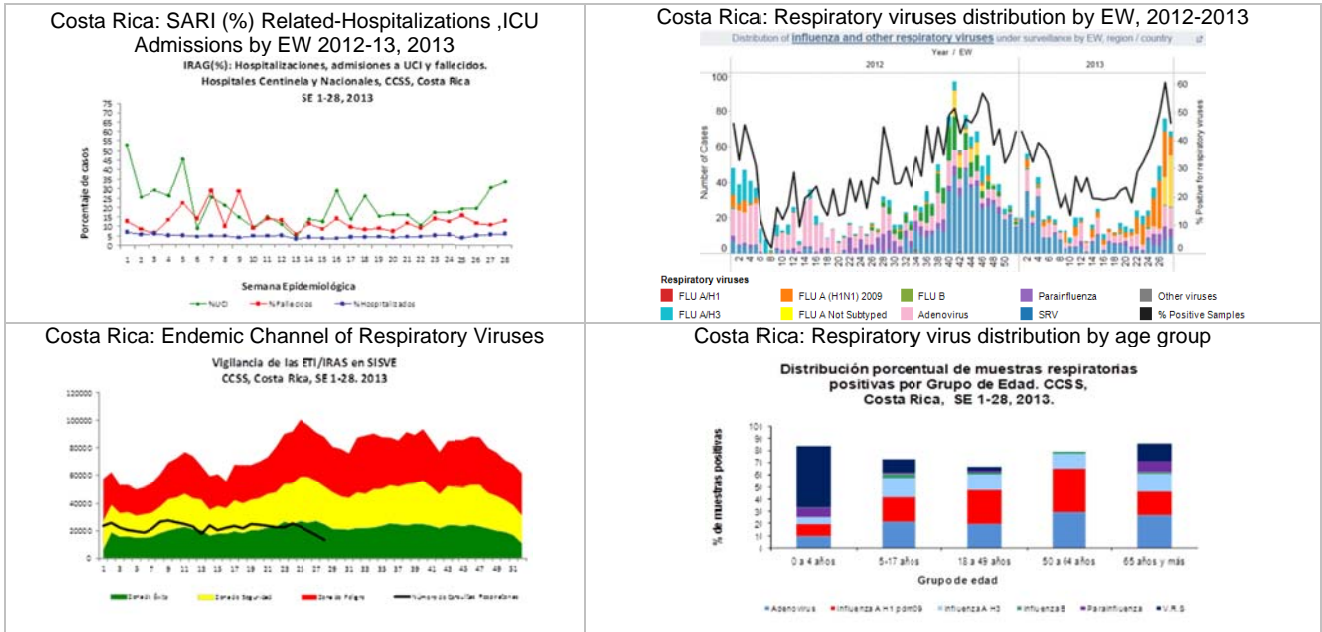
Jamaica



Central America

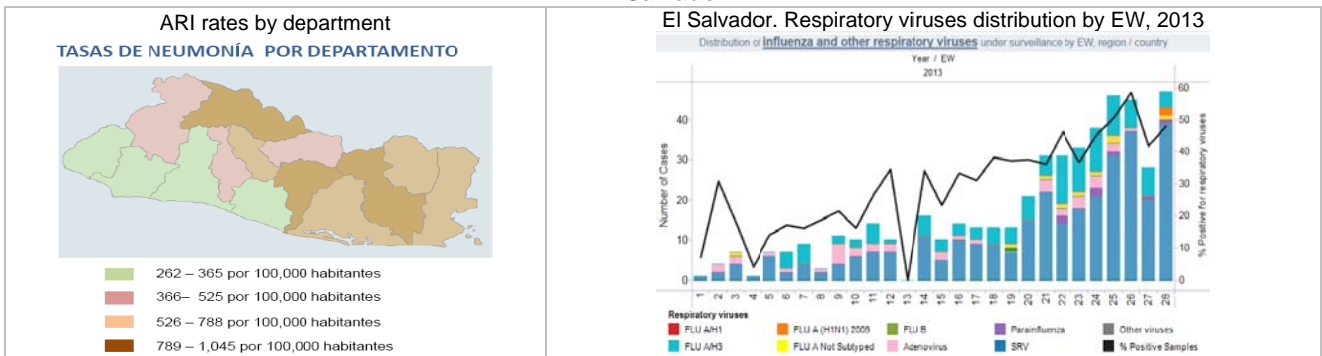
In Costa Rica⁵, nationally in EW 28, influenza activity continued to increase. SARI was associated with 6.3% of all hospitalizations (n=2,759 total hospitalizations), 33% of ICU admissions (n=63) and 13% of deaths (n=18). From EW 1-28, 267 SARI-associated deaths were reported. A sample was collected from about 25% of these cases (n=65), and of these 20 were positive for a respiratory virus. Among all deaths that occurred during EW 1-28, 26 were positive for a respiratory virus (there has been a significant increase from EW 15 to 29). Between EW 25 and 28, 10 deaths were associated with influenza A(H1N1)pmd09, one death was associated with each of the following: influenza A(H3N2), parainfluenza, and adenovirus. According to laboratory data, the percentage of positive samples increased in the last 8 weeks. In EW 28, among tested samples, 46% were positive for respiratory viruses and 29% were positive for influenza. Among the influenza viruses, 67% were A unsubtype, 25.6% were A(H1N1)pdm09 and 7% were A(H3N2). Among other respiratory viruses, adenovirus (8% of positivity) and RSV (6% of positivity) predominated.

Costa Rica



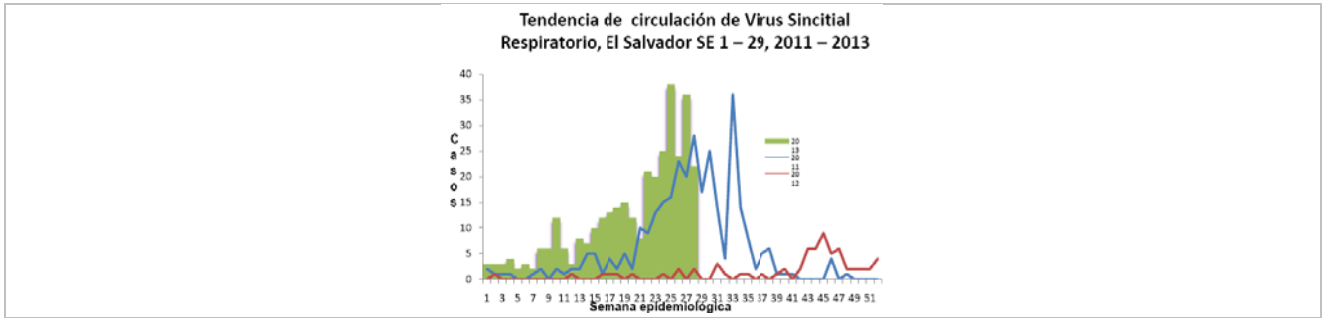
In El Salvador⁶, nationally, the number of ARI cases decreased about 39% between EWs 26 and 29; and the number of cumulative ARI cases remained 3% lower than what was observed during the same period of 2012. The number of pneumonia cases remained similar in EWs 26-29, with a rate of 520 per 100,000 inhabitants, and was 27% higher than the observed rate in 2012. Regionally, the highest pneumonia rates per 100,000 inhabitants were reported in San Vicente (1,045), Chalatenango (846) and San Miguel (814). According to laboratory data during EWs 25-28, among the samples tested (n=333), there was 49.7% positivity for respiratory viruses, and 10% positivity for influenza viruses. RSV was the predominant virus (38.2% of positives). Among influenza viruses, influenza A(H3N2) predominated

El Salvador



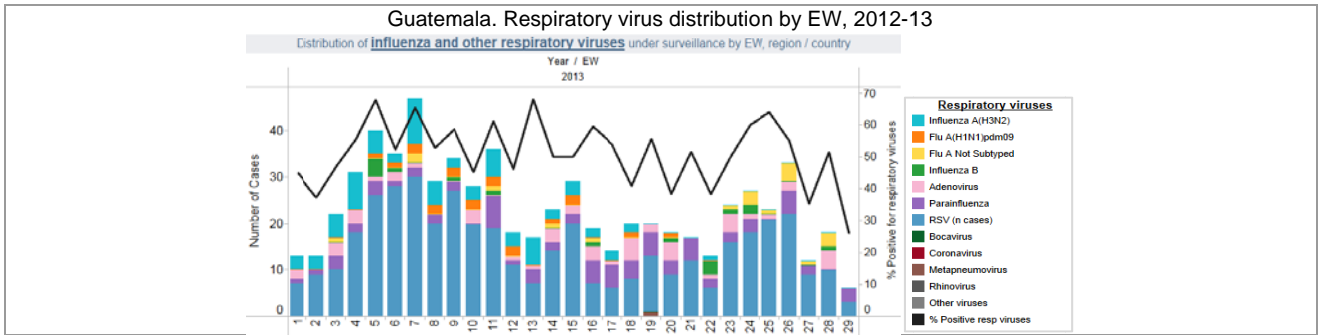
⁵ Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 28.

⁶ El Salvador. Boletín epidemiológico SE 29.



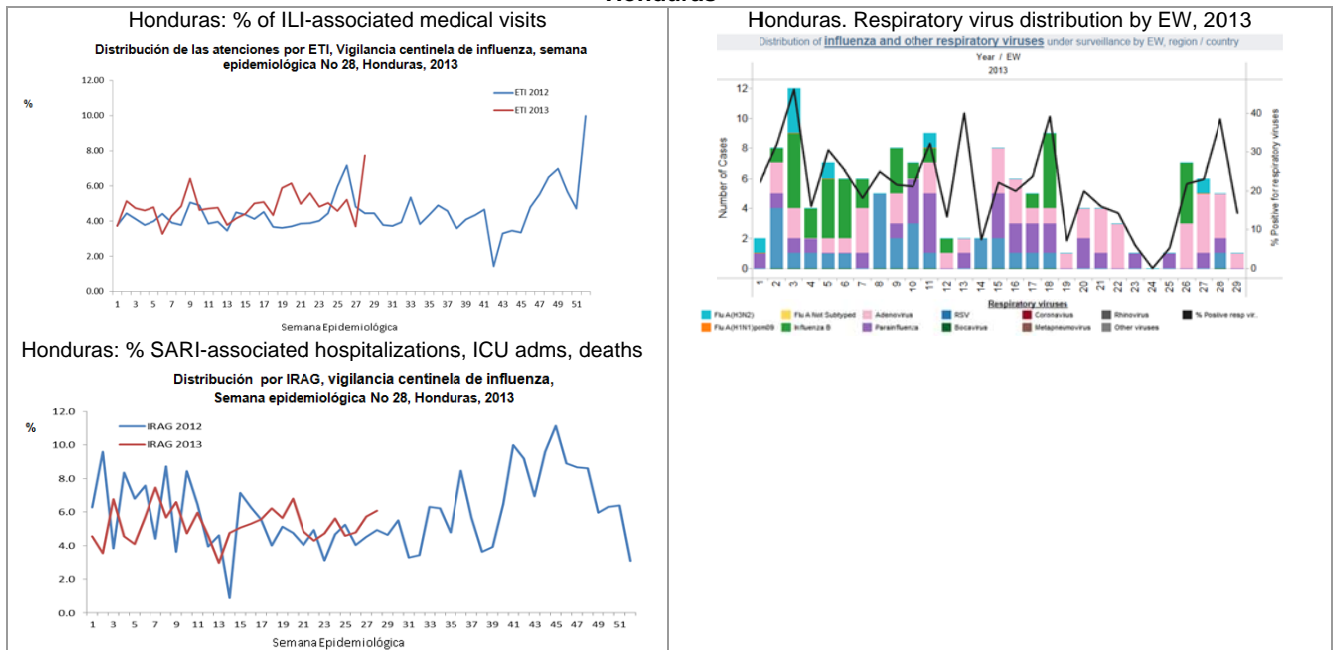
In Guatemala, according to national laboratory data, during EW 26-29, of the samples tested (n=152), the percentage of positive samples for respiratory viruses was 42%, and for influenza viruses was 5.3%. Among respiratory viruses, RSV predominated (28.9% of positives), followed by parainfluenza (6.6% of positives). Among samples positive for influenza, 89% were influenza A (100% were A unsubtype) and 11% were influenza B.

Guatemala



In Honduras⁷, in EW 28, based on sentinel surveillance, the proportion of ILI cases (7.7%) and the proportion of SARI hospitalizations (4.9%) increased as compared to the previous weeks, and were higher than the level reported in 2012 for this time of year. Based on laboratory data for EW 26-29, among the samples tested (n=78), 24.4% of samples were positive for respiratory viruses and 4.1% were positive for influenza. Among respiratory viruses, adenovirus predominated (14% of positives), and among influenza viruses, influenza B predominated.

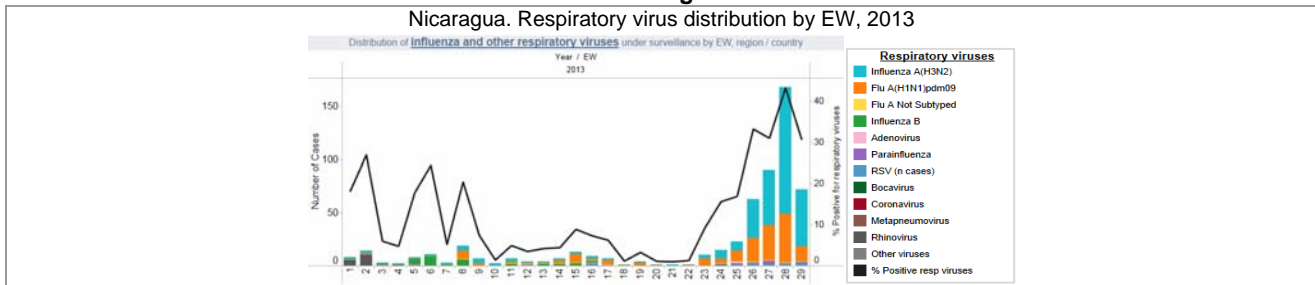
Honduras



⁷ Honduras. Boletín de influenza SE 28.

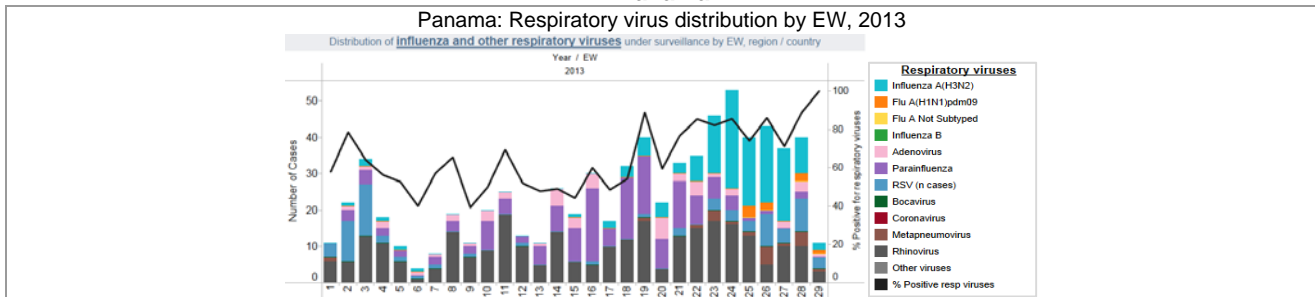
In Nicaragua⁸, through EW 28, 2013, the ILI rate (0.87 per 1,000 inhabitants) was the double that recorded in 2012, while the SARI rate (0.44 per 1,000 inhabitants) remained similar to the last year. According to national laboratory, the percentage of positive samples for influenza increased from 1.3% (EW 22) to 42.4% (EW 28), with influenza A(H3N2) (~70% among the positives) predominating, followed by influenza A(H1N1)pdm09 (~30% among the positives). In EW 29, of the samples tested (n=235), the percentage of positive samples for influenza decreased to 29%.

Nicaragua



In Panama, according to national laboratory data, of the samples tested between EW 26-29 (n=158), the percentage of samples positive for respiratory viruses was 86.5%, and for influenza viruses was 34.6%. Among samples positive for influenza, A(H3N2) was the predominant virus. Among the other respiratory viruses, rhinovirus (18.0% of positives) and RSV (15.8% of positives) predominated.

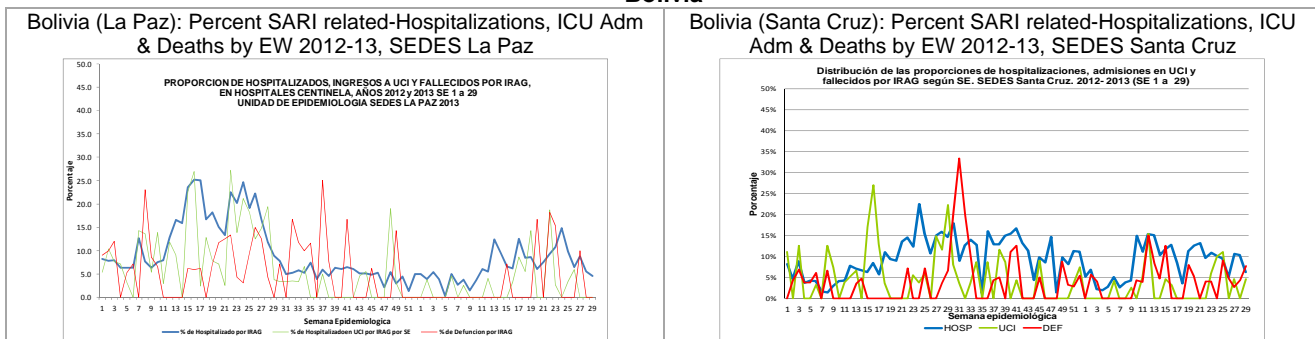
Panamá



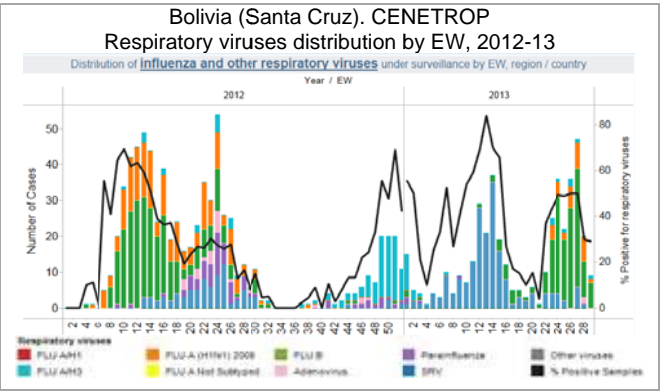
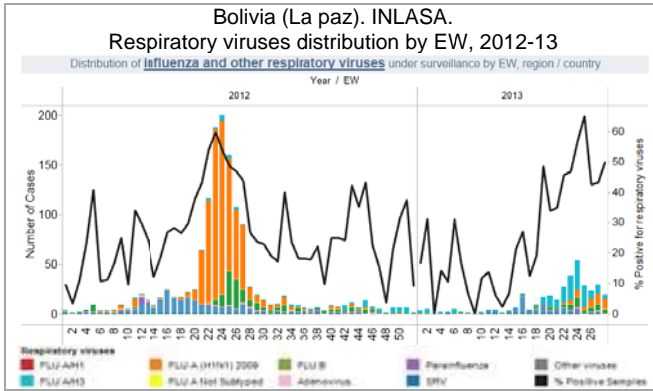
South America – Andean countries

In Bolivia, according to data from Santa Cruz, during EW 29 the proportion of SARI hospitalizations (6.2%) was lower than the previous week and has been fluctuating. Based on laboratory data from CENETROP, between EW 26 and 27, 98 samples were analyzed from SARI cases in Santa Cruz. There was decreased positivity for both respiratory viruses (29%) and influenza (26%). Among positive samples, Influenza B (58%) and influenza A(H1N1)pdm09 (27%) predominated. According to data from La Paz, the proportion of SARI-associated hospitalizations (4.6%) during EW 29 was lower than that observed in the previous week and showed a decreasing trend since EW 24. According to laboratory data from INLASA (La Paz), 97 samples were processed during EWs 28-29 with 40% positive for respiratory viruses and 36% positive for influenza. Among influenza positive samples, influenza A(H1N1)pdm09 (46%, increasing since EW 24), influenza B (28%), and influenza A(H3N2) (15%, decreasing since EW 24) predominated.

Bolivia

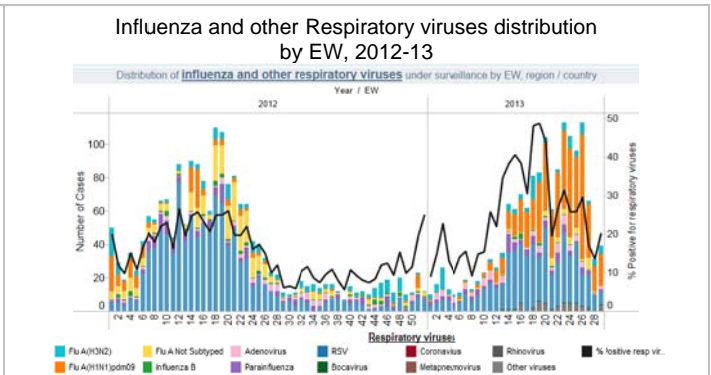
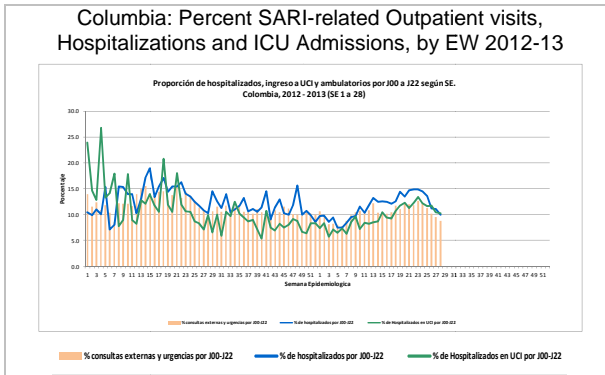


⁸ Nicaragua. Ministerio de Salud. Boletín epidemiológico SE 28.



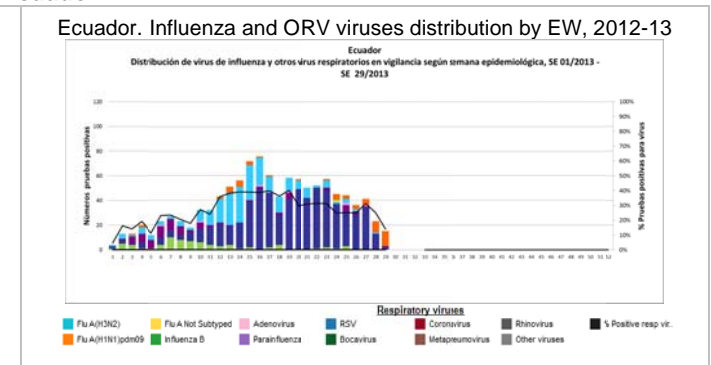
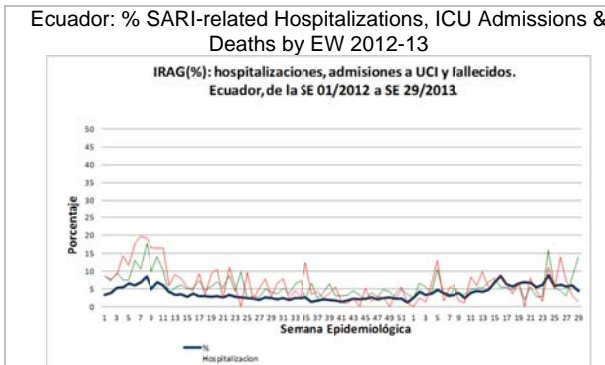
In Colombia, nationally during EW 29, the proportions of SARI outpatient visits (8.7%), SARI hospitalizations (9.9%), and SARI ICU admissions (10.4%) (J00 and J22 codes) decreased compared to the previous week, and have been showing a decreasing trend since EW 23. According to the national laboratory data (from INS), among samples tested (n=420) during EW 28-29, 17% were positive for respiratory viruses and 10% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (48%) and RSV (26%) predominated.

Colombia



In Ecuador, based on SARI surveillance, the proportion of SARI hospitalizations (4%) decreased compared to the previous week, primarily in the Costa Region. Conversely, there was a slight increase reported in the Sierra Region. According to national laboratory data from INSPI, among the 108 SARI samples analyzed for EW 29, 14% were positive for respiratory viruses and 11% were positive for influenza. Among positive samples, influenza A(H1N1)pdm09 predominated, followed by RSV.

Ecuador

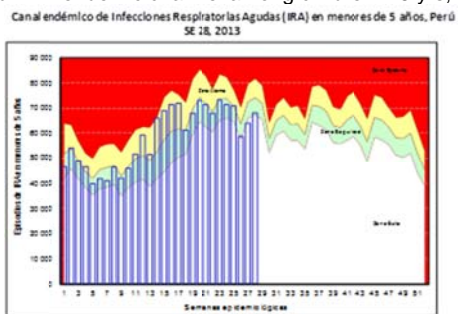


In Peru⁹, nationally for the previous weeks ARI reports in children less than 5 years of age have increased while pneumonia levels are within the expected level for this time of year. According to national laboratory data during EWs 29, among the 556 samples analyzed, positivity for both respiratory viruses and influenza increased (42% and 38%, respectively). Among the positive viruses, influenza A(H1N1)pdm09 (71%) predominated.

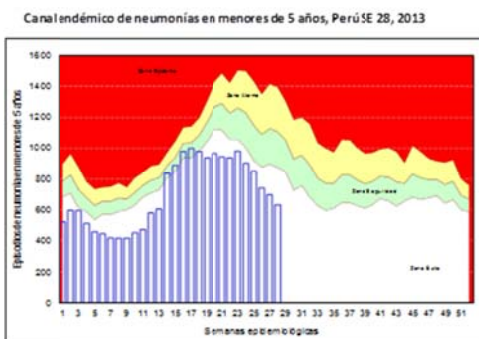
⁹ Perú. Sala de Situación de Salud. EW 29, 2013. Ministerio de Salud. Dirección General de Epidemiología

Peru

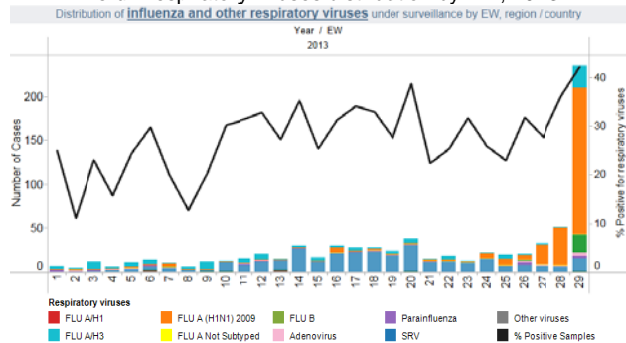
Peru. ARI endemic channel among children < 5 yrs, 2013



Peru. Pneumonia endemic channel among children <5yrs, 2013



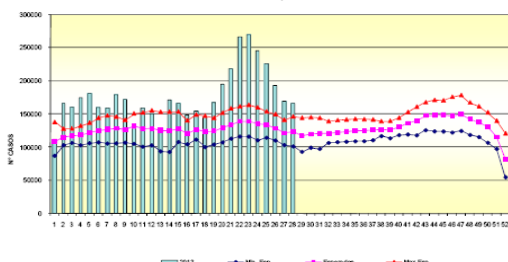
Perú. Respiratory viruses distribution by EW, 2013



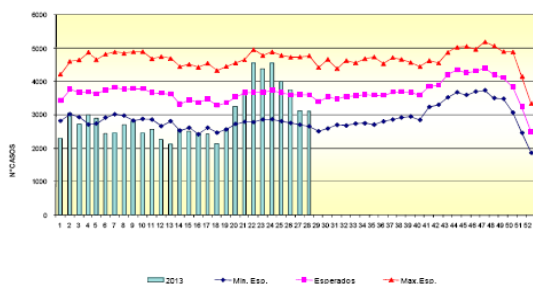
In Venezuela¹⁰, according to data published through EW 28, ARI activity continued to be slightly above the epidemic threshold for this time of year, and showed no change compared to the previous EW. Pneumonia notifications fell within the expected range and also showed stable behavior. According to virologic surveillance data, the number of samples analyzed continued to decrease. During EW 28 positivity was lower than recorded in previous weeks and influenza A(H1N1)pdm09 continued to predominate among positive samples.

Venezuela

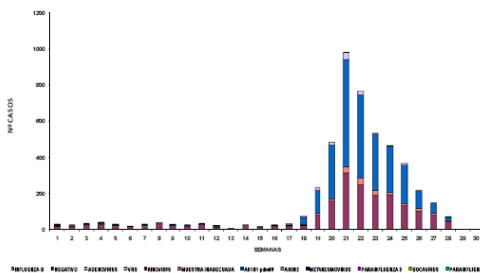
Venezuela: ARI endemic channel
Infecciones respiratorias agudas
Canal endémico 2005 - 2013
Venezuela, 2013



Venezuela: Pneumonia endemic channel
Neumonías
Canal endémico 2005 - 2013
Venezuela, 2013



Venezuela: Respiratory viruses by EW, 2013
Estudio de influenza por semanas de inicio de síntomas
Y resultados de PCR
Semana 28. Venezuela año 2013

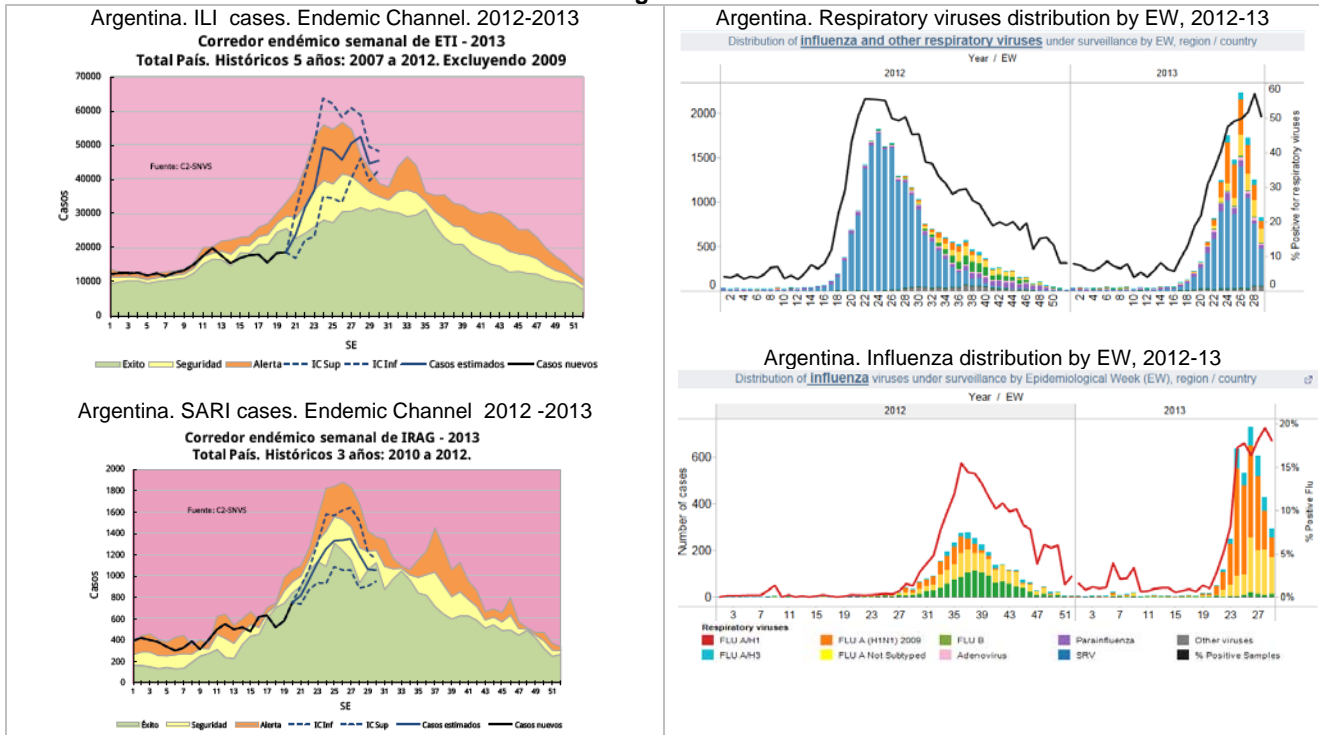


South America – Southern Cone

¹⁰ Venezuela. Boletín epidemiológico, EW 28, 2013.

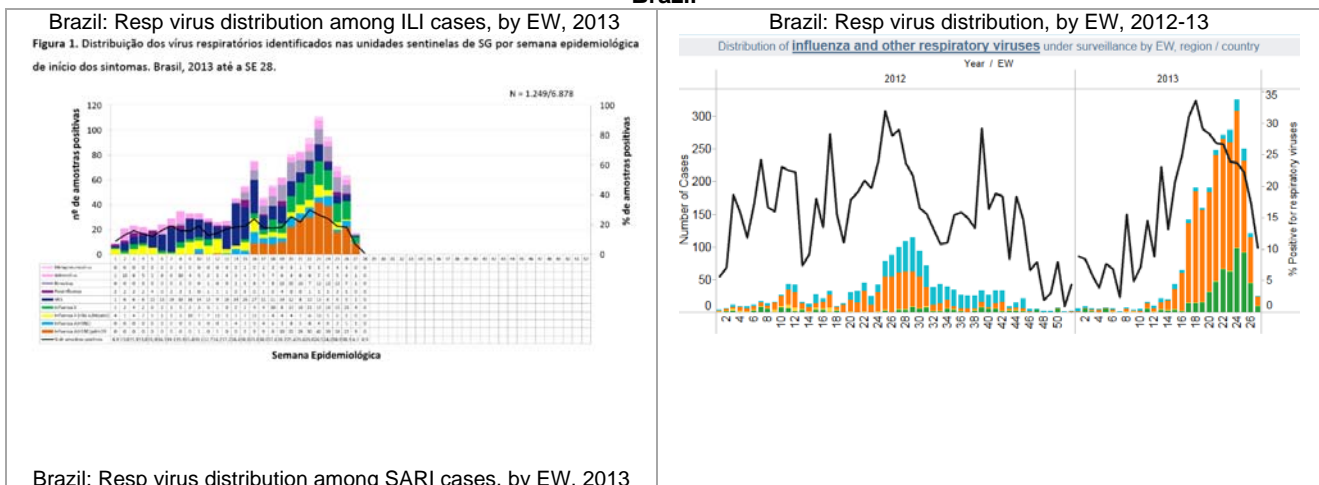
In Argentina¹¹, at the national level, according to reports and performed estimations, the number of ILI cases is above what is expected, but is showing a decreasing trend with no significant changes compared to the previous EW. The number of SARI hospitalizations is within the expected level and is also showing a decreasing trend. Based on laboratory data from EW 29, 1,634 samples were analyzed of which 50% were positive for a respiratory virus and 18% were positive for flu. Among the positive samples, RSV (51%), and influenza A(H1N1)pdm09 and influenza, not subtyped (29%) predominated.

Argentina



In Brazil¹², a decrease in respiratory virus activity has been observed since EW 23. Between EW 26 and 27, 620 samples from influenza sentinel surveillance were processed, primarily from the southern region. Of these, 13% were positive for respiratory viruses and 9% were positive for influenza. Influenza A(H1N1)pdm09 (38%) and influenza B (23%) predominated among the positive samples. Through universal SARI surveillance during EW 26 and 27, 1,141 samples were processed and influenza A(H1N1)pdm09 predominated (43%) in the south and southeast regions, followed by "other respiratory viruses" (31%), primarily in the southern region. Among samples processed from SARI-associated deaths during the same period, influenza A(H1N1)pdm09 predominated.

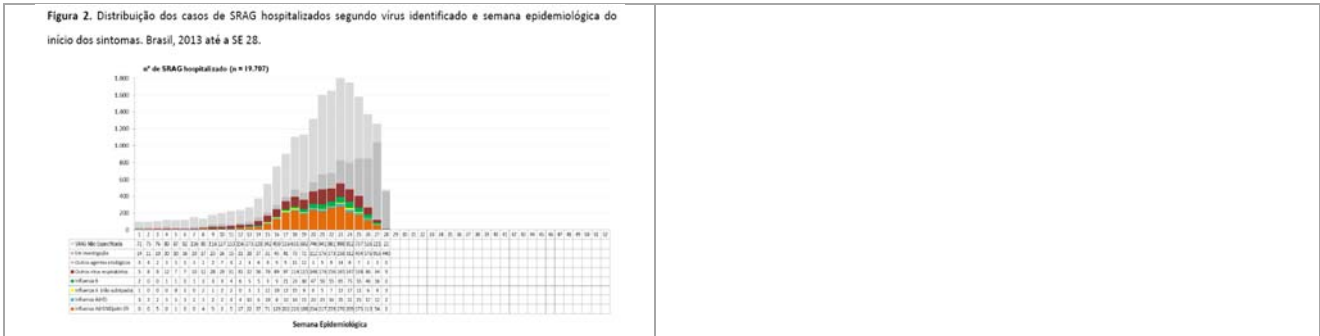
Brazil



Brazil: Resp virus distribution among SARI cases, by EW, 2013

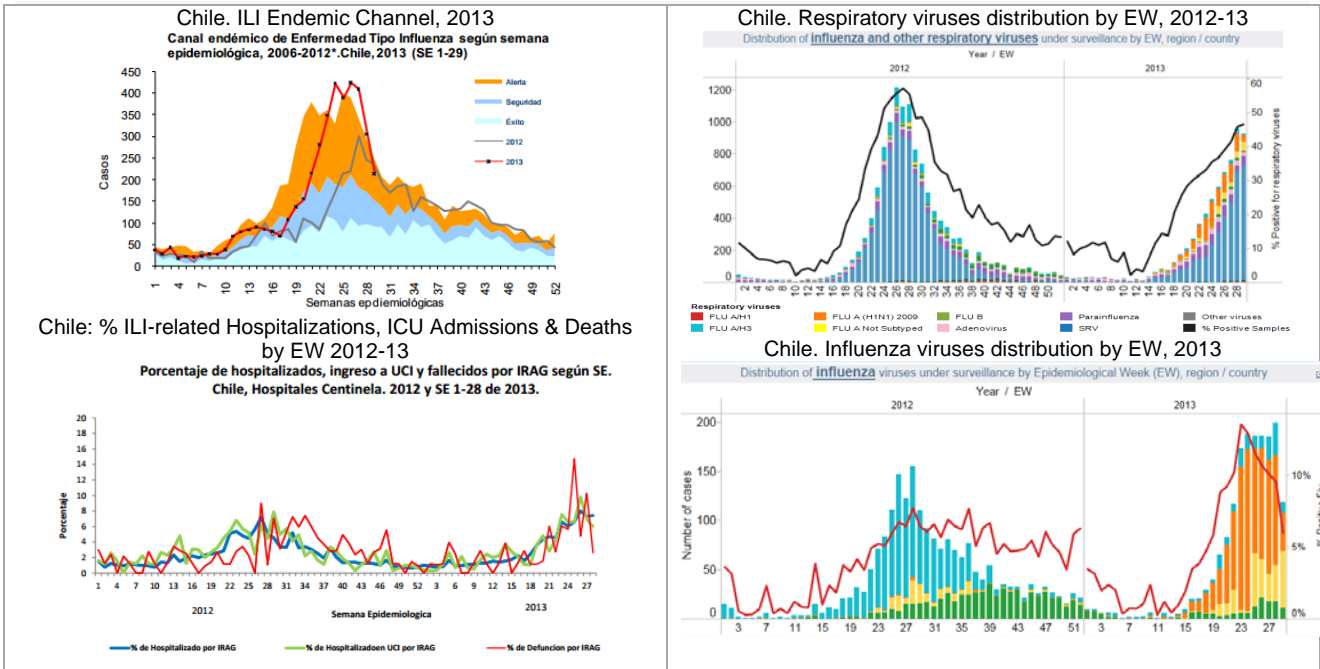
¹¹ Argentina. Boletín integrado de vigilancia. SE 29.

¹² Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 29, 2013.



In Chile¹³, during EW 29, ILI activity (rate: 13.6 per 100,000 inhabitants) showed a significant decline compared to the previous EW, and entered the alert zone of the endemic channel. At the sub-national level, the majority of regions also showed decreased ILI activity. The proportion of ILI-associated hospitalizations (7.4%) did not change significantly from the previous week, and remains at a higher level than what was recorded during the same period last year. According to laboratory data from EW 29, 1,987 samples were analyzed. Of these, 47% were positive for a respiratory virus and 6% were positive for influenza. There was a predominance of RSV (77%, an increase), followed by influenza A(H1N1)pmd09 and influenza A, not subtyped (10%, a decrease for the previous three weeks). Among the 110 SARI samples analyzed, RSV (48%), and influenza A(H1N1)pmd09 and influenza A, not subtyped (35%) predominated.

Chile

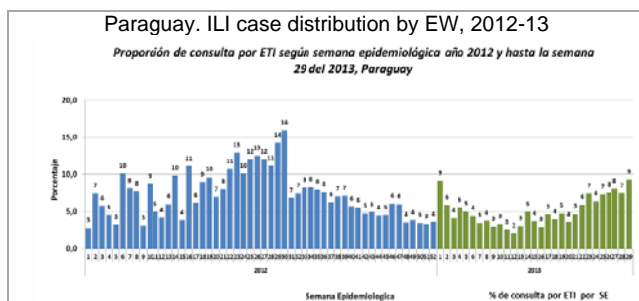


In Paraguay¹⁴, during EW 29, the rate of ILI consultations was 175 per 100,000 inhabitants. This was slightly higher than what was observed during the previous week and falls within the alert zone of the endemic channel. A similar pattern was observed in the proportion of the ILI consultations (9%). Conversely, the proportion of ILI-associated hospitalizations (8%) decreased, as did ICU admissions. Based on laboratory data during EW 29, 221 samples were processed and showed elevated positivity for both respiratory viruses (77%) and influenza (45%). Among the positive samples, influenza A(H3N2) (42%) and RSV (41%) predominated. Among samples analyzed from SARI sentinel centers during the same period, RSV predominated, followed by influenza A(H3N2).

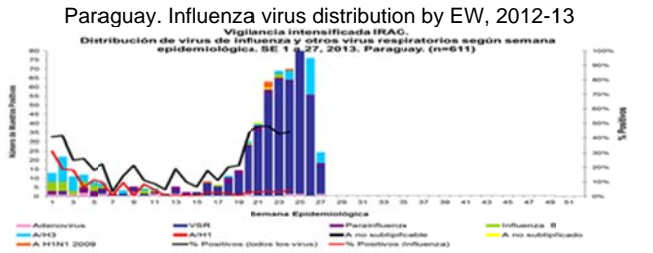
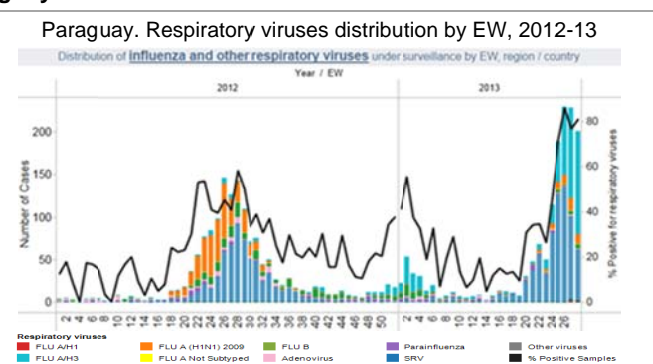
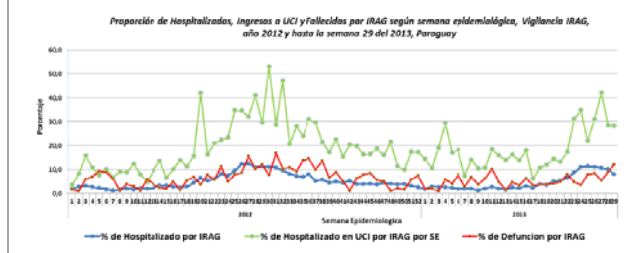
¹³ Chile. Informe de situación. EW 29. Disponible en: www.pandemia.cl

¹⁴ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 29, 2013

Paraguay

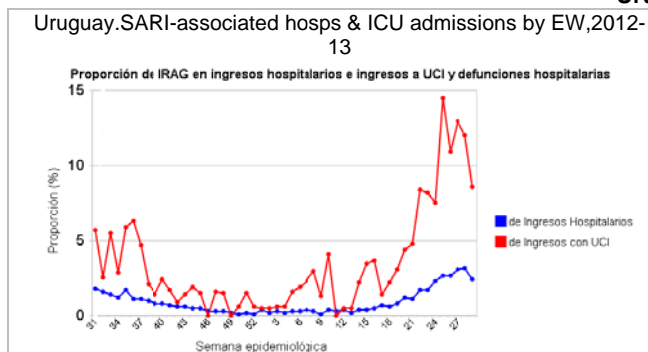


Paraguay: % SARI Hospitalizations, ICU Admissions & Deaths by EW 2012-13

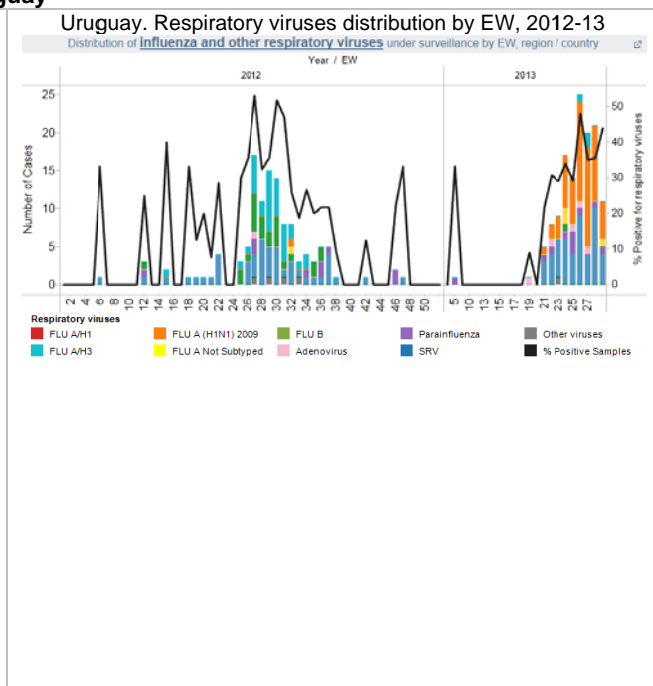
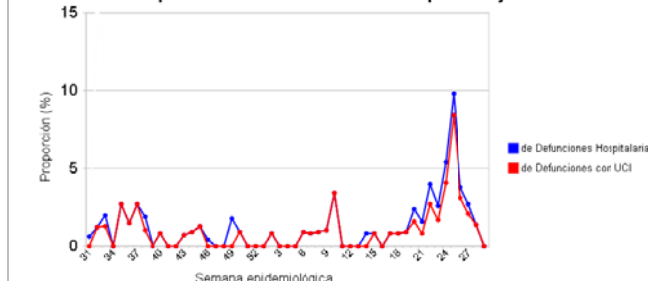


In Uruguay¹⁵, nationally the proportions of SARI-associated hospitalizations and ICU admissions were lower than the previous week, and no SARI-associated deaths were reported. During EW 28 and 29, 84 SARI samples were analyzed, and 38% were positive for a respiratory virus and 19% were positive for influenza. Influenza A(H1N1)pmd09 (47%) and RSV (44%) predominated among the positive samples.

Uruguay



Uruguay. SARI-associated deaths by EW. 2012-13
 Proporción de IRAG en defunciones hospitalarias y en UCI



¹⁵ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública