Regional Update EW 36, 2013

Influenza and other respiratory viruses

(September 17, 2013)

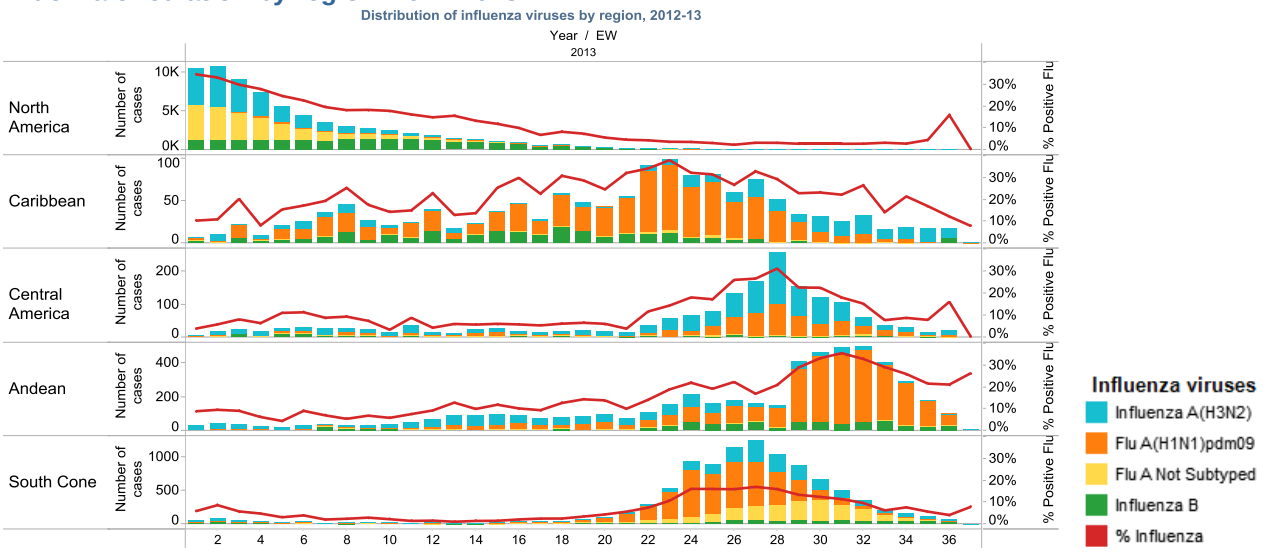
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

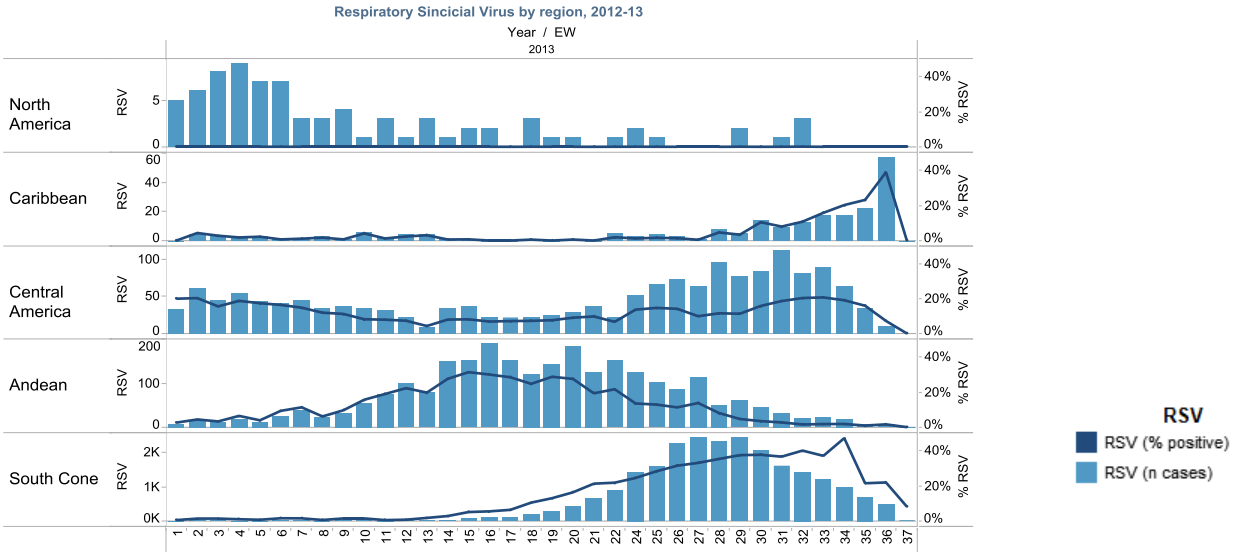
WEEKLY SUMMARY

- North America: most influenza activity indicators were low and within expected levels for this time of year. In the United States, 18 cases of influenza A(H3N2v) have been reported this year, including one hospitalization and no deaths. Additionally, 2 new cases of influenza A(H1N1v) were reported and both cases have fully recovered. All of these infections have been associated with prolonged exposure to pigs.
- The Caribbean and Central America: acute respiratory virus infections continued their decreasing trend in this region. In the majority of countries, co-circulation of influenza A(H3N2) and A(H1N1)pdm09 was reported, with the exception of Honduras, where influenza B predominated. Among other respiratory viruses, RSV continued to predominate mainly in Guatemala.
- South America – Andean Countries: acute respiratory virus activity continued its decreasing trend after a high activity in July and August. Co-circulation of influenza A(H1N1)pdm09 and influenza B was reported in Bolivia and Peru, whereas influenza A(H1N1)pdm09 predominated in Ecuador.
- South America - South Cone and Brazil: acute respiratory virus activity was within the expected level for this time of year in all countries except Paraguay where ILI activity was elevated. RSV predominated in most countries with co-circulation of influenza B and A(H3N2) in Paraguay and Uruguay. In Brazil, activity continued to decrease, but co-circulation of influenza A(H1N1)pdm09, A(H3N2) and B was reported primarily in the Southern part of the country.

Influenza circulation by region. 2012-2013



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

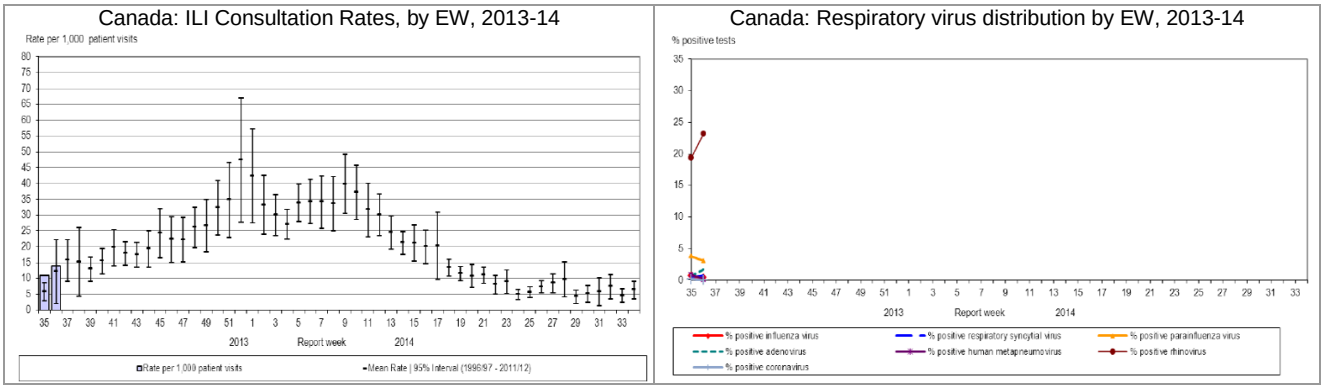


EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In Canada[1], during EW 35-36, influenza activity remained low. During EW 36, the national influenza-like-illness (ILI) consultation rate was 13.9 per 1,000 patient visits, with the highest rates in children 5-19 years of age (38.7 per 1,000 patient visits). No influenza-associated pediatric deaths were reported during this period. Based on laboratory data for EW 35 and 36, the overall percentages of positive influenza tests were 0.6% and 0.3%, respectively. Among the positive samples (N=10), 80% were associated with influenza A (of which 62.5% were A(H1N1)pdm09) and 20% with influenza B. Among other respiratory viruses, rhinovirus predominated (23.1%), followed by parainfluenza (3.1%), adenovirus (1.7%), RSV (0.8%) and human metapneumovirus (0.1%).

Canada



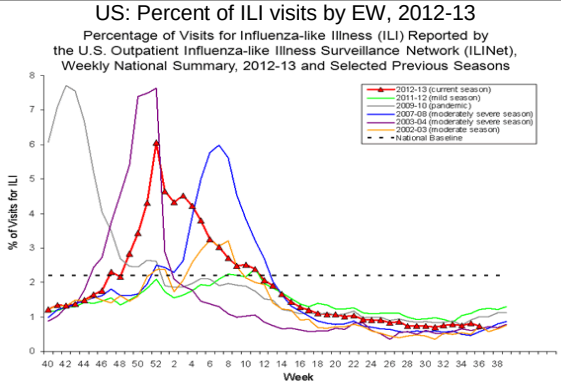
In the United States[2] during EW 36, influenza activity remained low with 0.7% of outpatient visits associated with ILI and 5.7% of deaths associated with pneumonia and influenza. Three influenza-associated pediatric deaths were reported during EW 36. One death was associated with influenza A(H3) and occurred in EW 11, and two deaths were associated with influenza B and occurred in EW 12 and 13. Based on laboratory data for EW 36, 1,677 samples were analyzed, of which 5.1% were positive for influenza. Among the positive samples (n=85), 88.2% were influenza A (of which 89.3% were not subtyped and 8.0% were A(H1N1)pdm09) and 11.8% were influenza B. No new human infections with an influenza A(H3N2) variant (H3N2v) were reported during EW 36. The total number of H3N2v cases reported this summer is 18 (Illinois: 1, Indiana: 14, Michigan: 2, Ohio: 1). There has been one hospitalization associated with the H3N2v infection, but no deaths have occurred. All cases have reported close contact with swine in the week prior to

[1] Canada: FluWatch Report. EW 35-36. Available at http://www.phac-aspc.gc.ca/fluwatch/
[2] USA: CDC FluView report. EW 36. Available at: http://www.cdc.gov/flu/weekly/

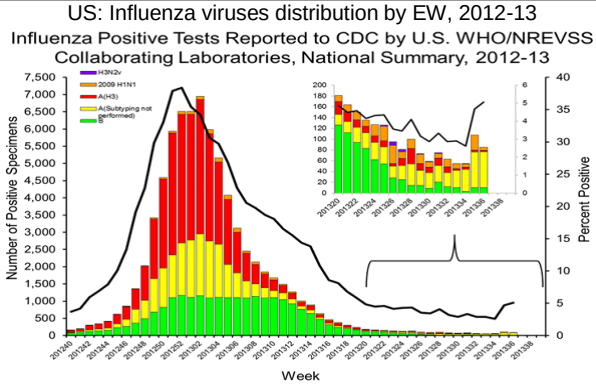
illness onset, and no ongoing human-to-human transmission has been identified. Additionally, Arkansas reported that two people have been infected with the strain of influenza virus known as H1N1(v) after contact with swine. There has been no evidence of human-to-human transmission and both patients have recovered fully. 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

US: Percent of ILI visits by EW, 2012-13



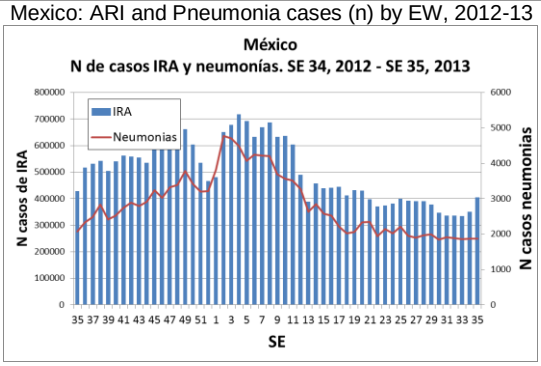
US: Influenza viruses distribution by EW, 2012-13



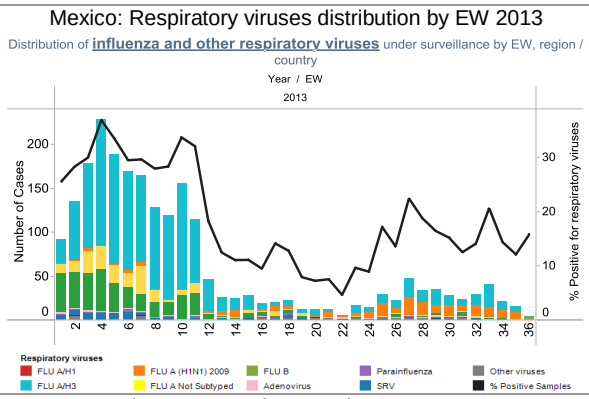
In Mexico[3], nationally during EW 36 the number of ARI cases increased by 15.2% from the previous EW, while the number of pneumonia cases decreased by 0.3%. However, both are showing decreasing trends since their peaks in early 2013 (EW 4 for ARI and EW 2 for pneumonia). According to laboratory data from EW 35-36, 195 samples were tested, of which 12.8% were positive for influenza. Among the positives, 96.0% were influenza A (41.7% were A(H1N1)pdm09 and 37.5% were A(H3N2)) and 4.0% were influenza B.

Mexico

Mexico: ARI and Pneumonia cases (n) by EW, 2012-13

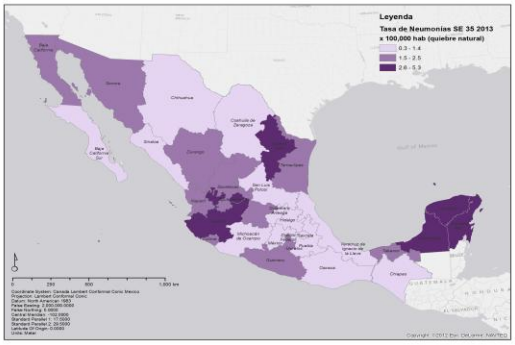


Mexico: Respiratory viruses distribution by EW 2013



Mexico: ARI Rates by State, EW 34

Mexico: Pneumonia Rates by State, EW 34



Caribbean

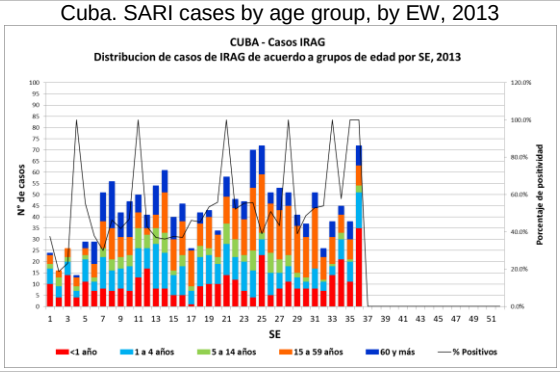
In Cuba during EW 36, the number of SARI-associated hospitalizations increased compared to the previous EW and children less than one year of age comprised the largest proportion of these cases. Two SARI-associated deaths were reported during this period and both were positive for a respiratory virus. According to national laboratory data for EW 32-35, 305 samples were analyzed, of which 58.0% were positive for a respiratory virus and 22.3% were positive for influenza. Among the samples positive for respiratory viruses,

[3] México. Dirección General de Epidemiología. Información epidemiológica. SE 36.

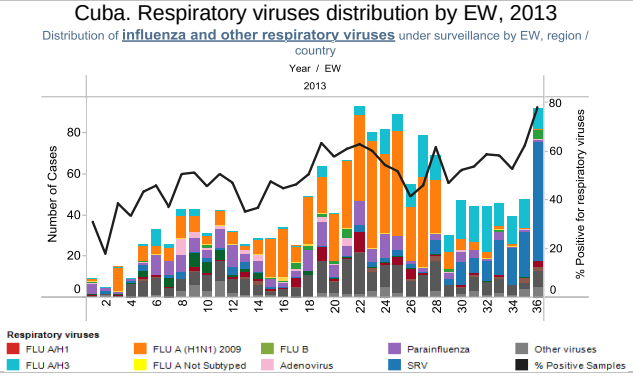
RSV (32.9%) predominated, followed by rhinovirus (12.4%) and parainfluenza (4.0%). Among samples positive for influenza, 97.1% were influenza A (90.9% were A(H3N2)) and 2.9% were influenza B. .

Cuba

Cuba. SARI cases by age group, by EW, 2013



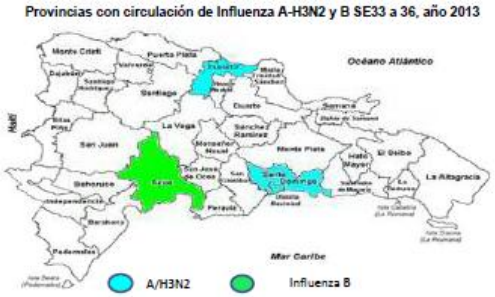
Cuba. Respiratory viruses distribution by EW, 2013



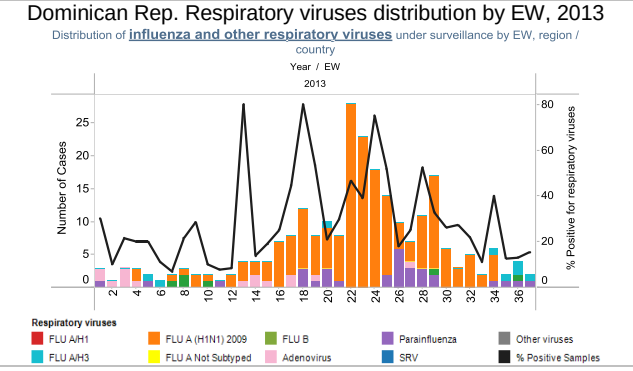
In the Dominican Republic[4], the cumulative ILI rate for EW 1-36 was 1,064 per 10,000 inhabitants, and is 14% less than what was reported for the same period in 2012. During EW 1-36, 1,180 SARI cases were reported through sentinel surveillance, of which 16 were reported during EW 36. No SARI-associated deaths reported during EW 36, however 24 SARI-associated deaths have been reported this year (compared to 5 in 2012). According to laboratory data for EWs 33-36, 80 samples were analyzed, of which 17.5% were positive for a respiratory virus and 13.8% were positive for influenza. Among the samples positive for influenza, 90.9% were influenza A (of which 60.0% were influenza A(H1N1)pdm09 and 40.0% were A(H3N2). Among the samples positive for other respiratory viruses, parainfluenza (21.4%) predominated.

Dominican Republic

Dominican Rep. Provinces with circulation of influenza A(H3N2) and Influenza B, EW 36



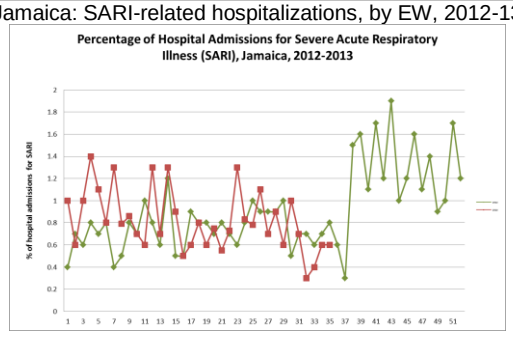
Dominican Rep. Respiratory viruses distribution by EW, 2013



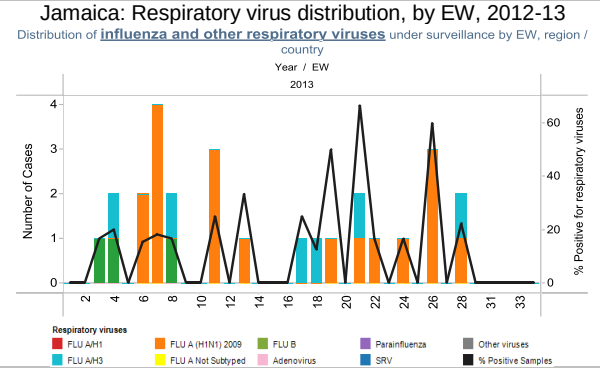
In Jamaica, based on sentinel surveillance data for EW 35, the proportion of ARI-associated consultations was 2.3%, a slight increase from the previous EW. The proportion of SARI-associated hospitalizations was less than 1% and remained stable compared to the previous weeks. During EW 35, there were no SARI-associated deaths reported, and according to laboratory results, no influenza viruses were detected.

Jamaica

Jamaica: SARI-related hospitalizations, by EW, 2012-13



Jamaica: Respiratory virus distribution, by EW, 2012-13



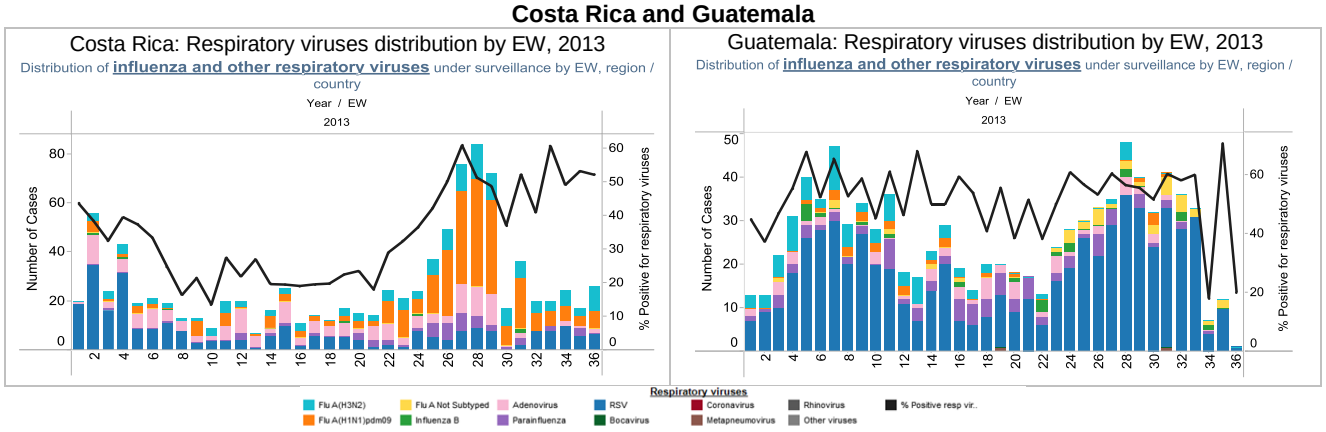
[4] República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletin Semanal SE 35.

Central America

In Costa Rica, based on national laboratory data from EW 33-36, 164 samples were analyzed, of which 53.0% were positive for a respiratory virus and 28.0% were positive for influenza. Among samples positive for influenza (n=46), 100% were influenza A (of which 50% were A(H1N1)pdm09 and 50% were A(H3N2)). Among samples positive for other respiratory viruses, RSV (35.6%) predominated followed by adenovirus (5.7%) and parainfluenza (5.7%).

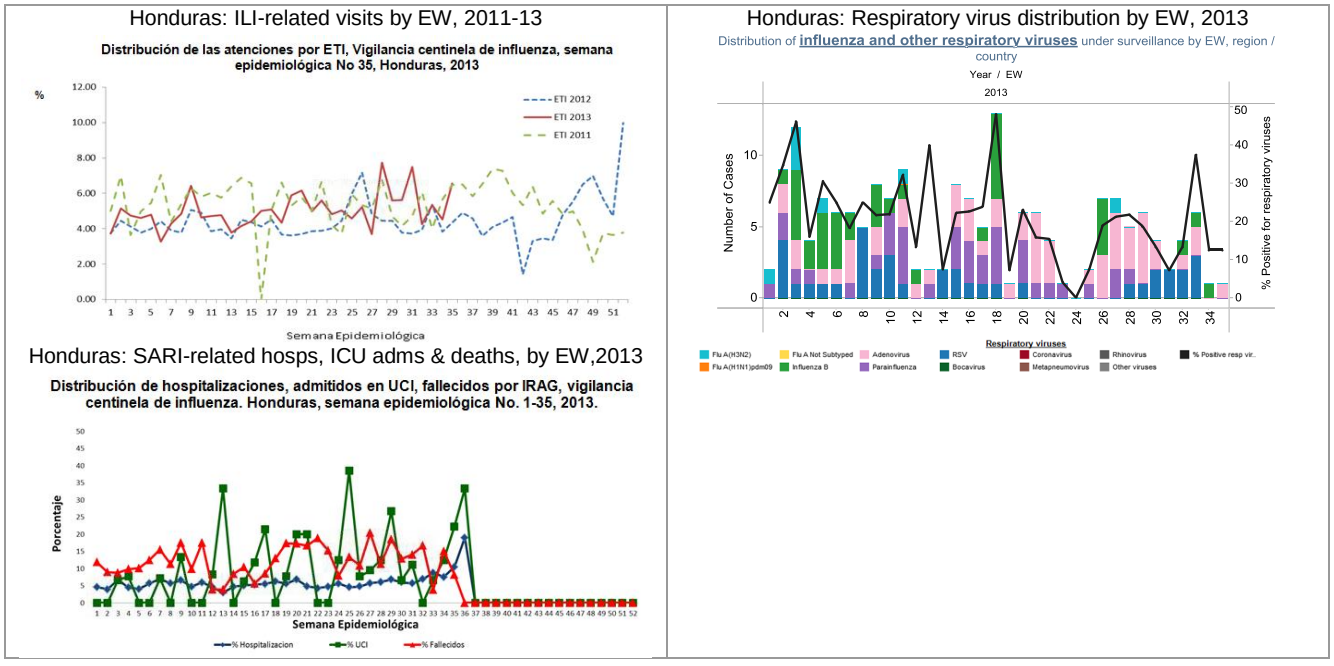
In Guatemala, based on national laboratory data from EW 33-36, 116 samples were analyzed, of which 45.7% were positive for a respiratory virus and 5.2% were positive for influenza. Among samples positive for respiratory viruses, RSV (86.8%) predominated. Among samples positive for influenza (n=6), most of them were influenza A not subtyped.

Costa Rica and Guatemala



In Honduras[5], based on sentinel surveillance during EW 36, the proportion of ILI-associated visits was 6.6% and the proportion of SARI-associated hospitalizations was 10.5%. The proportion of SARI-associated deaths during this EW 36 was 8.2%. Based on national laboratory data for EW 33-36, 32 samples were analyzed, of which 25.0% were positive for respiratory viruses and 6.3% were positive for influenza. Among samples positive for respiratory viruses, RSV (37.5%) and adenovirus (37.5%) predominated, and only some influenza B were detected.

Honduras

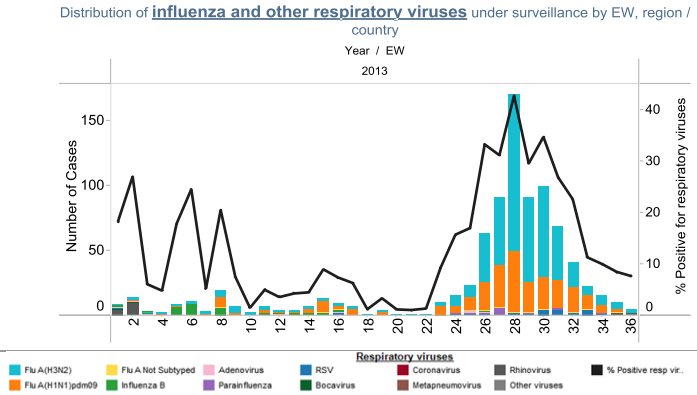


[5] Honduras. Influenza Bulletin, EW 36

In Nicaragua, based on national laboratory data from EW 33-36, 532 samples were analyzed, of which 9.8% were positive for a respiratory virus and 7.5% were positive for influenza. Among samples positive for influenza (n=40), 100% were influenza A (of which 52.5% were A(H3N2) and 47.5% were A(H1N1)pdm09).

Nicaragua

Nicaragua: Respiratory virus distribution by EW, 2013

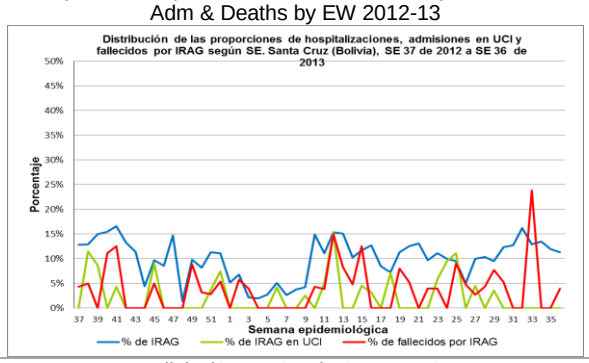


South America – Andean countries

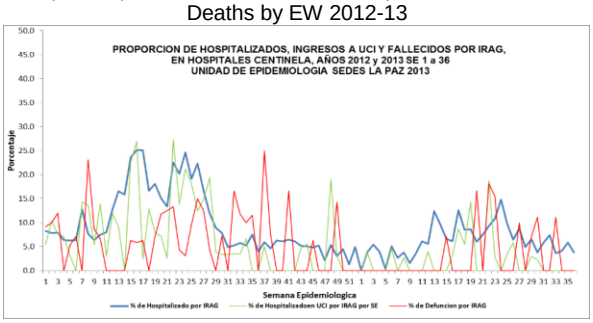
In Bolivia, according to data from Santa Cruz during EW 35, the proportion of SARI hospitalizations (11%) was lower than the previous EW and has been showing a decreasing trend since EW 32. Based on laboratory data from CENETROP (Santa Cruz) during EW 34-35, 179 SARI samples were analyzed, of which 23% were positive for a respiratory virus. Among the positive samples, influenza A(H1N1)pdm09 (93%) predominated. According to data from La Paz, the proportion of SARI-associated hospitalizations in EW 36 (3.8%) decreased compared to the previous EW and has been showing a decreasing trend since EW 25. Based on laboratory data from INLASA (La Paz) from EW 35-36, 44 samples were analyzed of which 32.4% were positive for a respiratory virus. Among positive samples, influenza A(H1N1)pdm09 (50.0%) and influenza B (41.7%) predominated.

Bolivia

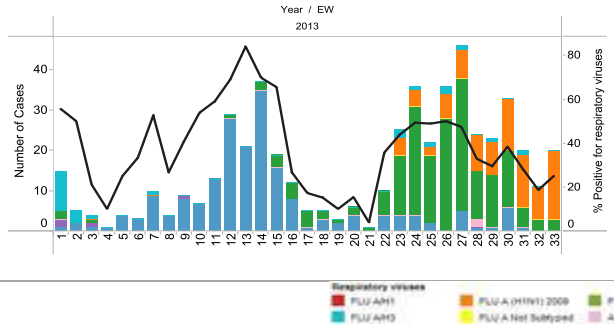
Bolivia (Santa Cruz): Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13



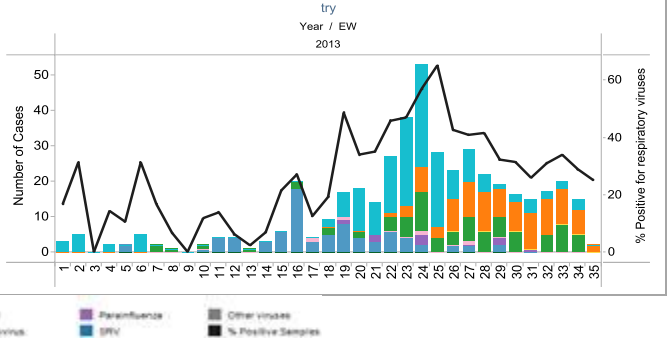
Bolivia (La Paz): Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13



Bolivia (Santa Cruz). CENETROP
Respiratory viruses distribution by EW, 2013



Bolivia (La paz). INLASA.
Respiratory viruses distribution by EW, 2013

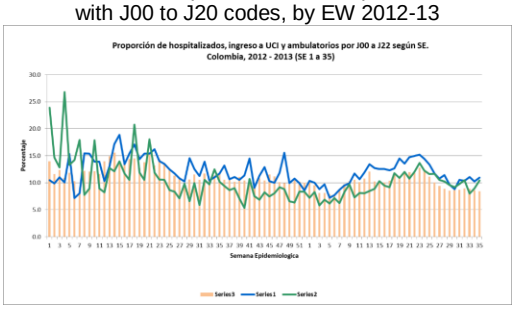


In Colombia, nationally during EW 35, the proportions of outpatient visits (8.4%), hospitalizations (11%), and ICU admissions (10.4%) with ARI-associated ICD-10 codes (J00 to J22) did not change significantly from the previous EW. and are similar to what was observed during this same period last year. Based on INS national laboratory data from EWs 34-35, 317 samples were analyzed, of which 17.4% were positive for a

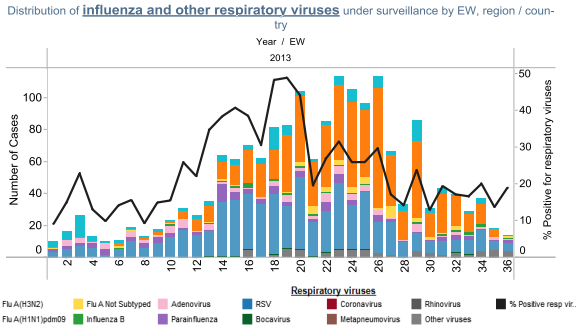
respiratory virus and 7.6% were positive for influenza. Among the positive samples, RSV (33%) and influenza A(H1N1)pdm09 (31%) predominated.

Colombia

Columbia: Percent Outpatient Visits, Hosps and ICU Admns with J00 to J20 codes, by EW 2012-13



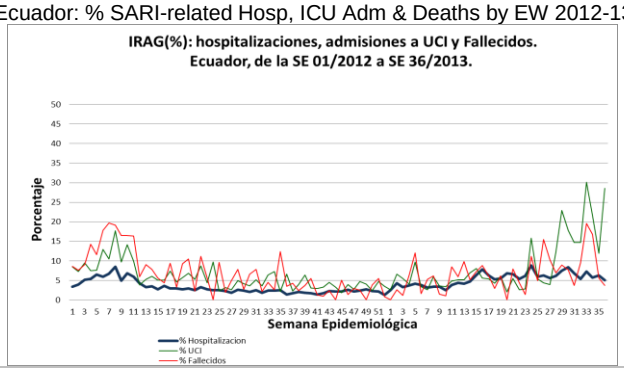
Colombia: Influenza and ORV distribution by EW, 2013



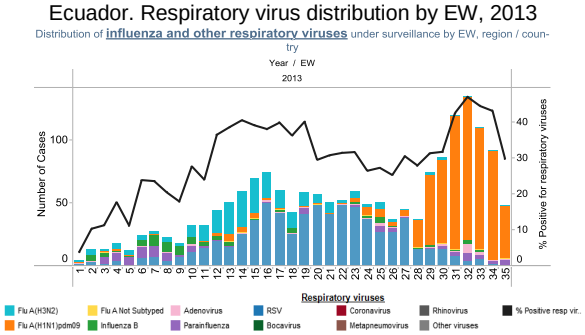
In Ecuador, based on SARI surveillance data from EW 35, the proportion of SARI-associated hospitalizations (5%) remained stable compared to the previous weeks, but exceeded the values observed during this same period last year. Since the beginning of the year there have been 59 SARI-associated deaths with a confirmed respiratory virus. Among these, influenza A(H1N1)pdm09 (41%), influenza A(H3N2) (20%) and RSV (19%) predominated. Based on national reference laboratory data from EW 35-36, 206 SARI samples were analyzed, of which 28% were positive for a respiratory virus and 22% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (81%) predominated.

Ecuador

Ecuador: % SARI-related Hosp, ICU Adm & Deaths by EW 2012-13



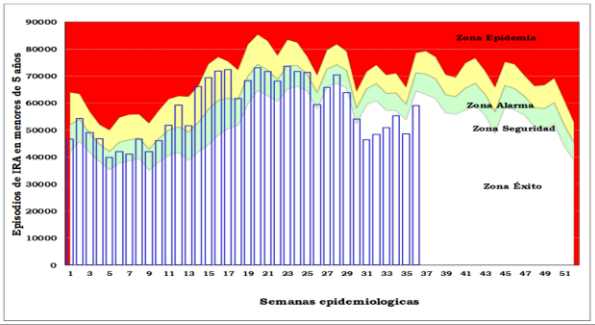
Ecuador. Respiratory virus distribution by EW, 2013



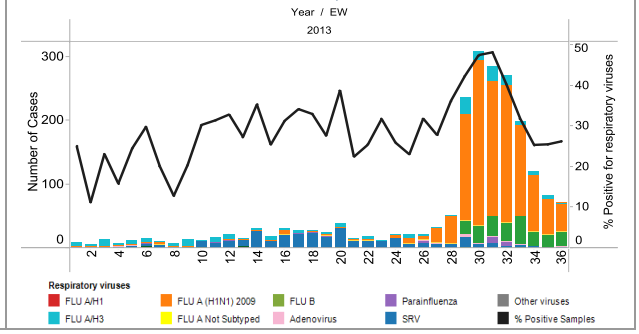
In Peru[6], nationally, ARI reports in children less than 5 years of age have been increasing for the previous weeks but are within the success zone of the endemic channel. Pneumonia reports in the same age group continue to decrease. Based on national laboratory data from EW 36, 267 samples were analyzed, of which 26.2% were positive for a respiratory virus and 25.1% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (73%) and influenza B (33%) predominated.

Peru

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

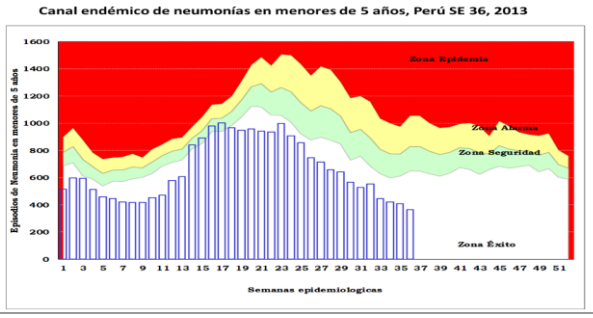


Perú. Respiratory viruses distribution by EW, 2013



[6] Perú. Sala de Situación de Salud. EW 36, 2013. Ministerio de Salud. Dirección General de Epidemiología

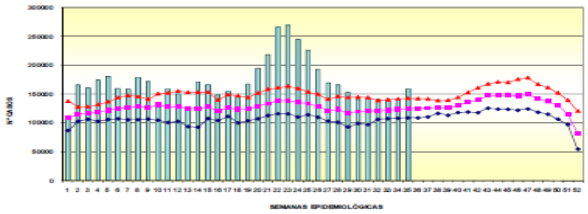
Peru. Pneumonia endemic channel, children <5yrs, 2013



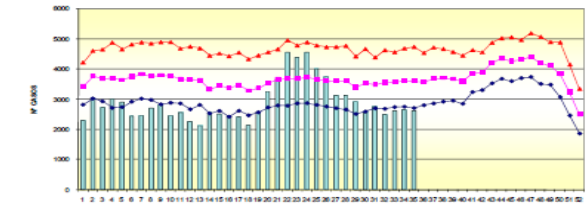
In Venezuela[7], the ARI activity during EW 35 was similar to the previous EW and remained near the upper limit of expected activity for this time of year. However, pneumonia notification levels were below the lower limit of expected activity for this time of year. Based on virologic surveillance data between EW 1-35, 5,104 samples were analyzed. The decrease in samples processed for respiratory viruses observed since EW 21 continues, and during the last three EWs, all samples analyzed were negative for the tested viruses.

Venezuela

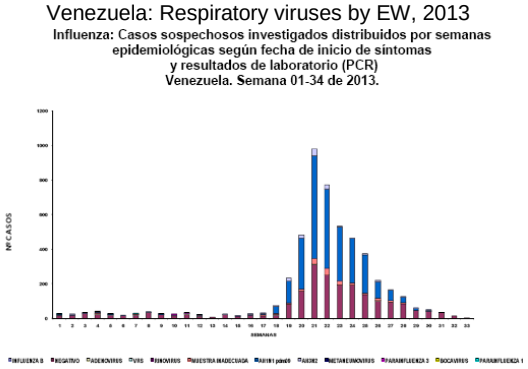
Venezuela: ARI endemic channel



Venezuela: Pneumonia endemic channel



Venezuela: Respiratory viruses by EW, 2013

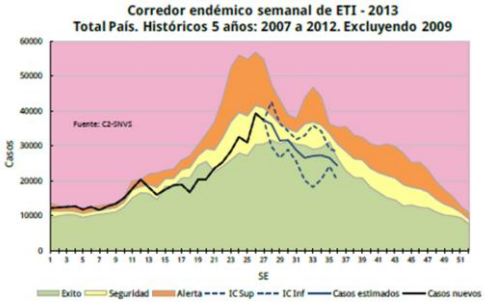


South America – Southern Cone and Brazil

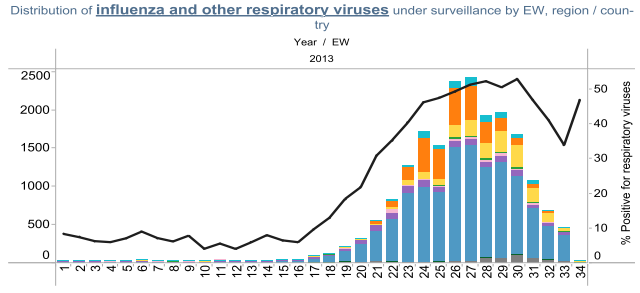
In Argentina[8], according to reports and calculated estimations, national ILI activity is within the success zone of the endemic channel and showed a decreasing trend for the previous weeks. The proportion of SARI-associated hospitalizations entered the alert zone of the endemic channel and also showed a decreasing trend. Based on laboratory data from EW 35, 1,060 samples were analyzed, of which 34% were positive for a respiratory virus and 5% were positive for influenza. Among the positive samples, RSV (63%), and parainfluenza (11%) predominated.

Argentina

Argentina. ILI cases. Endemic Channel, 2013



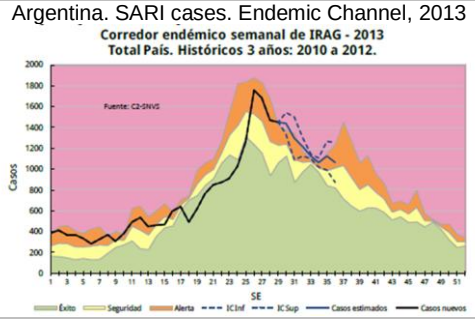
Argentina. Respiratory viruses distribution by EW, 2013

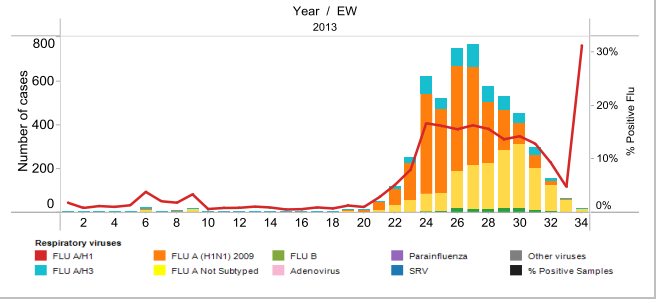


Argentina. Influenza distribution by EW, 2013

[7] Venezuela. Boletín epidemiológico, EW 35, 2013.
[8] Argentina. Boletin integrado de vigilancia. SE 35.

Argentina. SARI cases. Endemic Channel, 2013

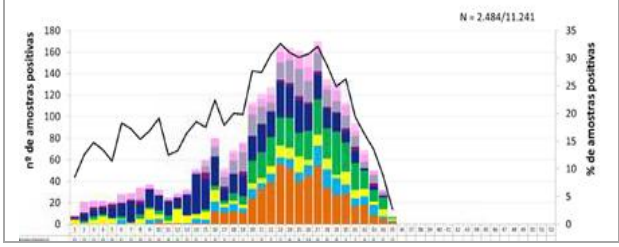




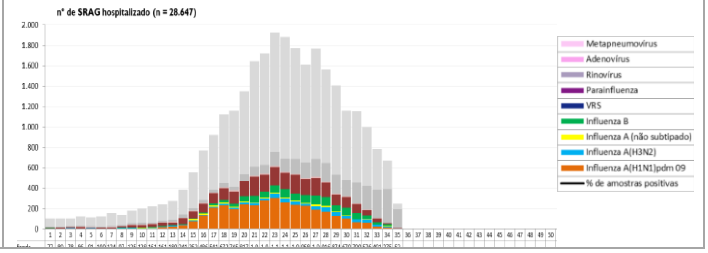
In Brazil[9], according to ILI sentinel surveillance data through EW 35, 11,241 samples have been analyzed, of which 22.1% were positive for influenza. There has been a decrease in positivity since EW 27. During EW 34-35, co-circulation of influenza B, influenza A(H1N1)pmd09 and influenza A(H3N2) was observed, primarily in the Southern region. Based on universal SARI surveillance data during this same period, 28,647 SARI cases were reported and 18.3% were positive for influenza. Of these positive samples, influenza A(H1N1)pdm09 predominated (66.4%) followed by influenza B (10.3%). Through EW 35, 3,149 SARI-associated deaths were reported of which 26.6% positive for influenza, and of these, 83.7% were associated with influenza A(H1N1)pmd09.

Brazil

Brazil: Resp virus distribution in ILI cases, by EW, 2013



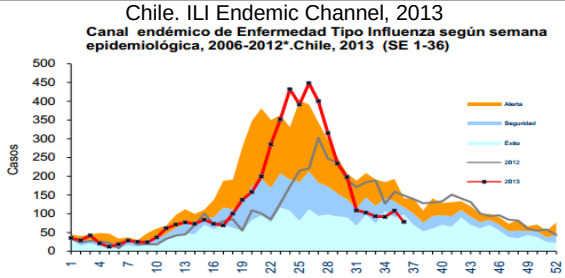
Brazil:Resp virus distribon, SARI cases, by EW, 2013



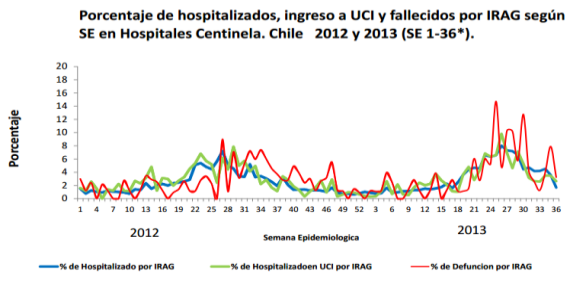
In Chile[10] ILI activity during EW 36 (rate: 5.1 per 100,000 inhabitants) decreased compared to the previous EW and is within the success zone of the endemic channel. The proportion of SARI-associated hospitalizations (2%) also decreased compared to the previous EW and had values similar to this period last year. Based on laboratory data from EW 36, 1,346 samples were analyzed, of which 38.6% were positive for a respiratory virus and 3.3% were positive for influenza. Among the positive samples RSV predominated (61.7%) followed by metapneumovirus (12%) and parainfluenza (6%).

Chile

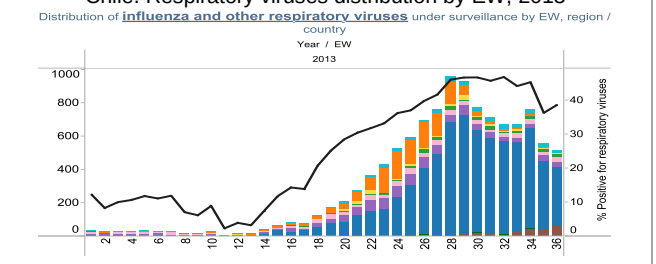
Chile. ILI Endemic Channel, 2013



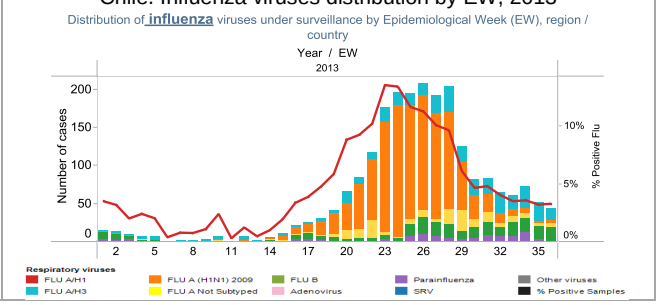
Chile:% SARI-related Hosps, ICU Admns & Deaths, by EW 2013



Chile. Respiratory viruses distribution by EW, 2013



Chile. Influenza viruses distribution by EW, 2013

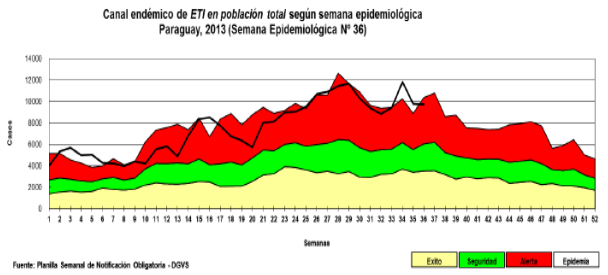


[9] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 35, 2013.
[10] Chile. Informe de situación. EW 35. Disponible en: www.pandemia.cl

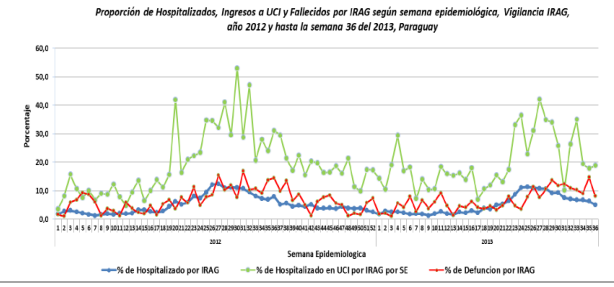
In Paraguay[11] during EW 36, the ILI consultation rate (146 per 100,000 inhabitants) continued to show elevated values and was at the boundary of the alert and epidemic zones of the endemic channel. However, the proportions of SARI-associated hospitalizations (5.0%) continued to show a decreasing trend. Based on reference laboratory data from EW 35-36, 131 samples were analyzed, of which 14.5% were positive for a respiratory virus and 9.7% were positive for influenza. Among the positive samples for influenza (n=13), 30.8 were influenza A (of which 100% were A(H3N2)) and 69.2% were influenza B. Among the samples positive for other respiratory viruses, RSV (21.1%) and metapneumovirus (10.5%) predominated.

Paraguay

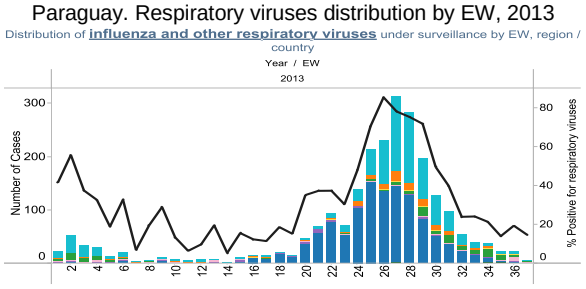
Paraguay. ILI endemic channel, by EW, 2013



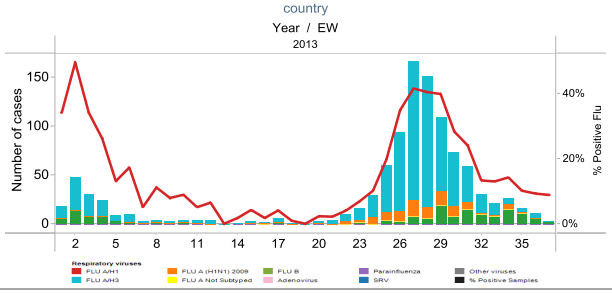
Paraguay:% SARI Hosps, ICU Admns & Deaths by EW 2012-13



Paraguay. Respiratory viruses distribution by EW, 2013



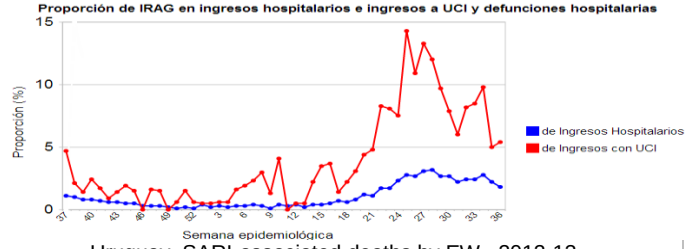
Paraguay. Influenza virus distribution by EW, 2013



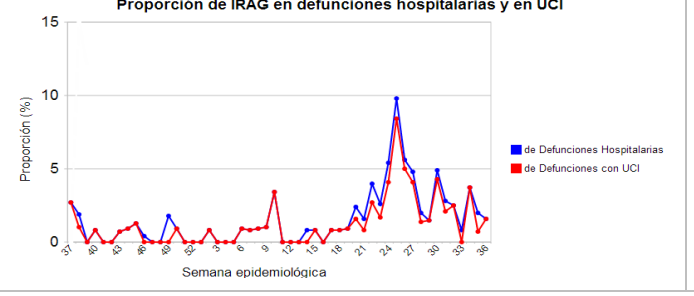
In Uruguay[12], during EW 36 the proportion of SARI-associated hospitalizations decreased compared to the previous EW and maintained an elevated level of activity compared to the same period last year. Conversely, the proportions of ICU admissions and SARI-associated deaths demonstrated a decrease during the same period. Based on laboratory data from EWs 35-36, 17 SARI samples were analyzed, of which 12% were positive for influenza. Among the positive samples (n=2), influenza A(H1N1)pdm09 (50%) and influenza B (50%) were detected.

Uruguay

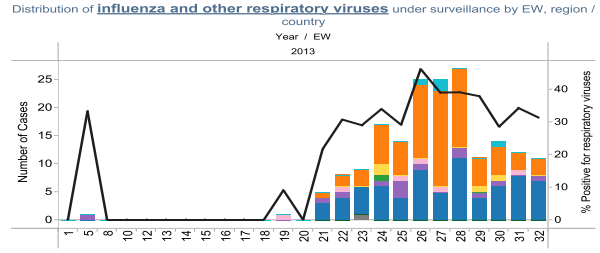
Uruguay.SARI-related hosps & ICU admissions by EW,2012-13



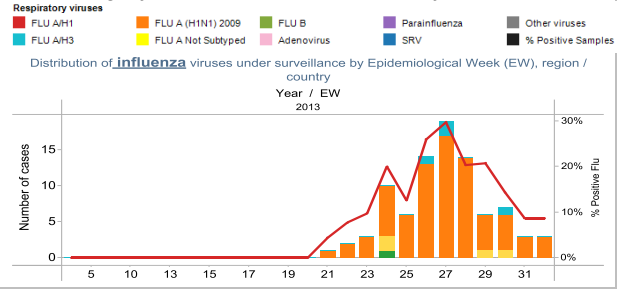
Uruguay. SARI-associated deaths by EW. 2012-13



Uruguay. Respiratory viruses distribution by EW, 2013



Uraguay. Influ enza virus distribution by EW, 2013



[11] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 36, 2013

[12] Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública