Regional Update EW 37, 2013

Influenza and other respiratory viruses
(September 24, 2013)

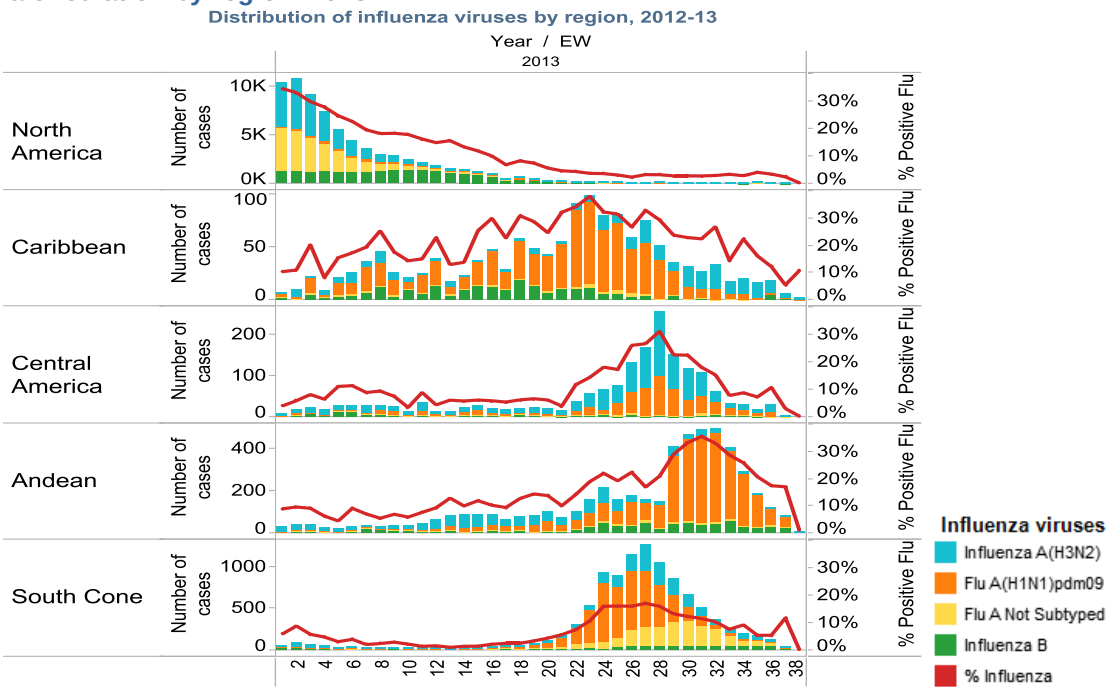
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

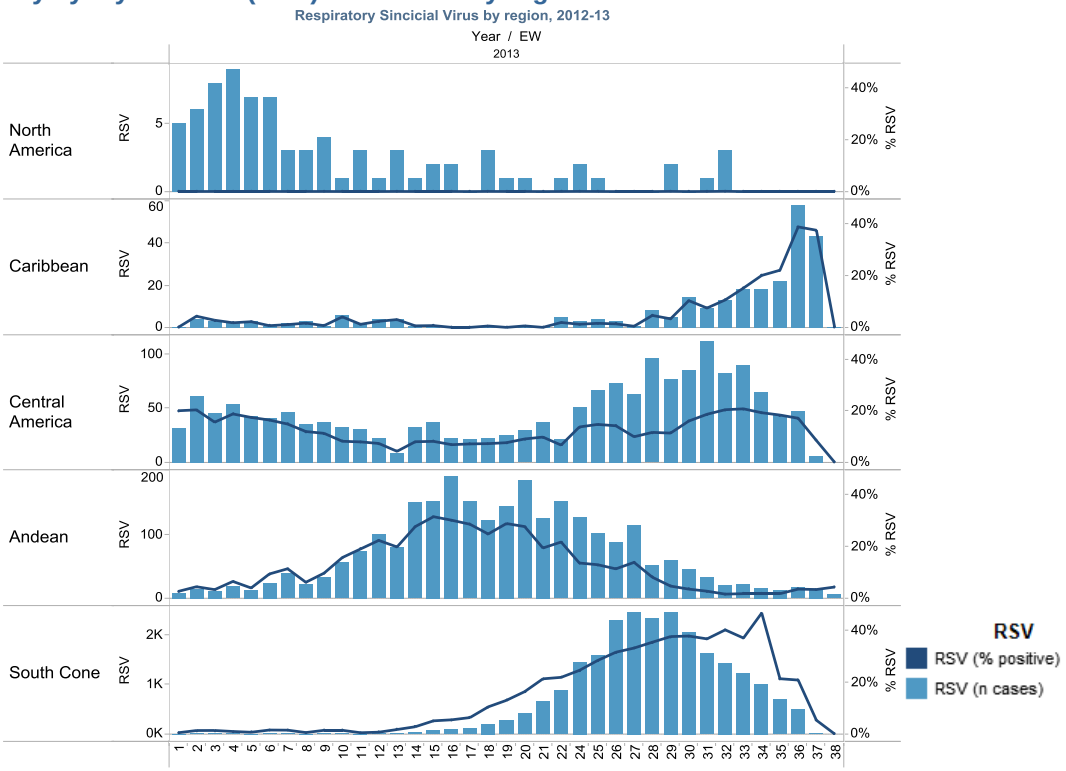
WEEKLY SUMMARY

- North America: Influenza activity in the United States remained low, while respiratory virus activity in Mexico showed increasing trends. In the United States, 18 cases of influenza A(H3N2v) have been reported this year, including one hospitalization and no deaths. Additionally, 2 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 and no ongoing human-to-human transmission has occurred.
- The Caribbean and Central America: Acute respiratory virus infections continued their decreasing trend in this sub-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 was circulating. Among other respiratory viruses, RSV continued to predominate.
- 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, Ecuador and Peru, whereas RSV predominated in Colombia.
- 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 South and Southeast Brazil, influenza activity continued to decrease, with co-circulation of influenza A(H1N1)pdm09 and influenza B reported.

Influenza circulation by region. 2013



Respiratory syncytial virus (RSV) circulation by region. 2013

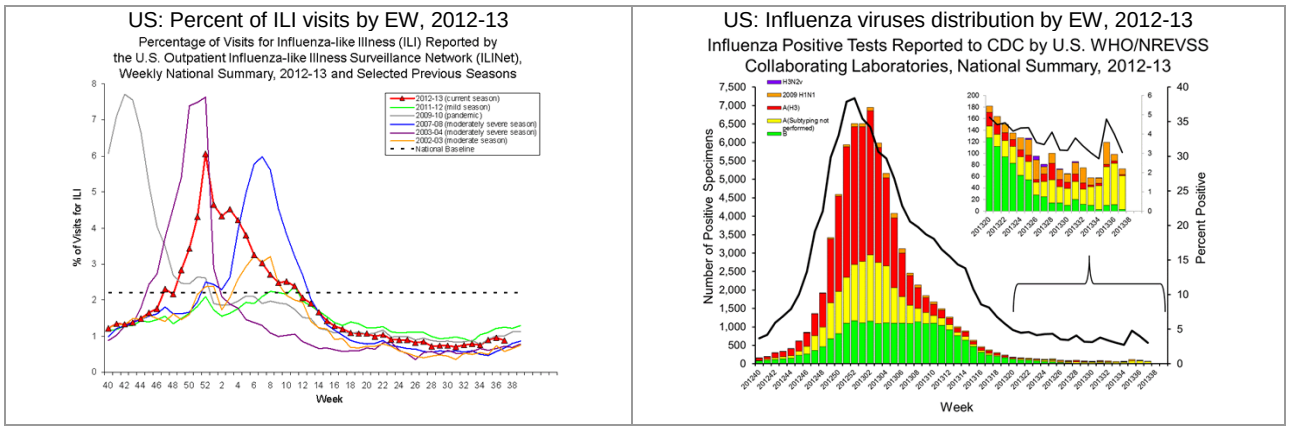


EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In the United States[1] during EW 37, influenza activity remained low with 0.9% of outpatient visits associated with ILI and 5.8% of deaths associated with pneumonia and influenza. No influenza-associated pediatric deaths were reported during EW 37. Based on laboratory data for EW 37, 2,401 samples were analyzed, of which 3.0% were positive for influenza. Among the positive samples (n=73), 95.9% were influenza A (of which 82.8% were not subtyped and 14.3% were A(H1N1)pdm09) and 4.7% were influenza B. No new human infections with an influenza A(H3N2) variant (H3N2v) were reported during EW 37. 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. Additionally, Arkansas reported two people infected with the strain of influenza virus known as H1N1(v). All 20 cases have reported close contact with swine in the week prior to illness onset, and 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

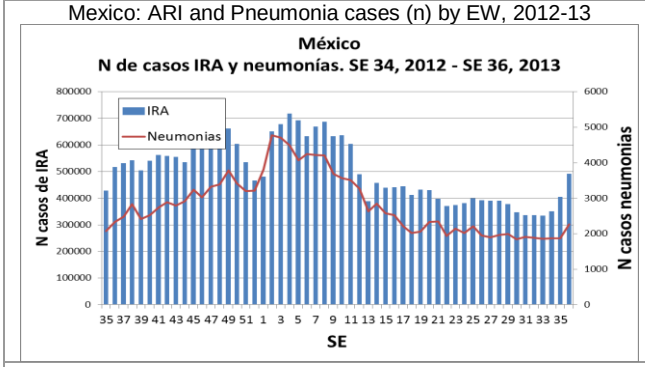


[1] USA: CDC FluView report. EW 37. Available at: http://www.cdc.gov/flu/weekly/

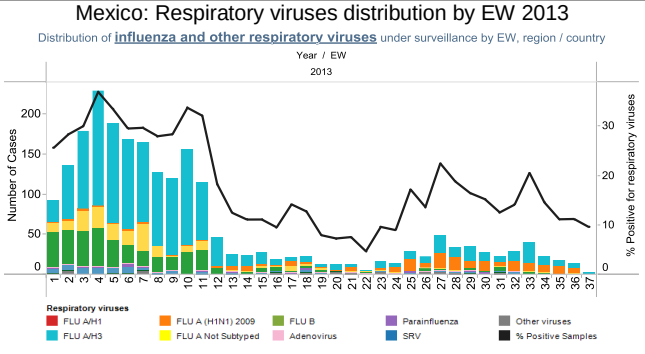
In Mexico[2], during EW 37 respiratory virus activity showed an increasing trend with the number of ARI and pneumonia cases increasing by 21.9% and 21.0%, respectively, from the previous EW. According to laboratory data from EW 36-37, 221 samples were tested, of which 10.9% were positive for influenza. Among the positives, 95.8% were influenza A (34.8% were A(H3N2) and 30.4% were A(H1N1)pdm09) and 4.2% were influenza B.

Mexico

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

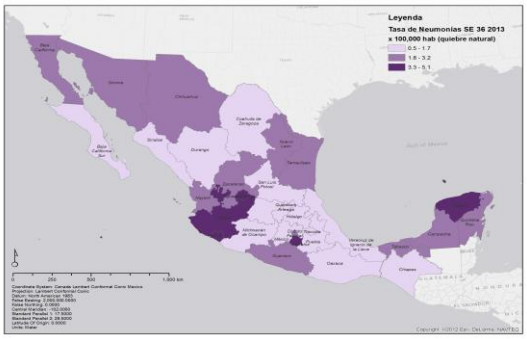


Mexico: Respiratory viruses distribution by EW 2013



Mexico: ARI Rates by State, EW 34

Mexico: Pneumonia Rates by State, EW 34

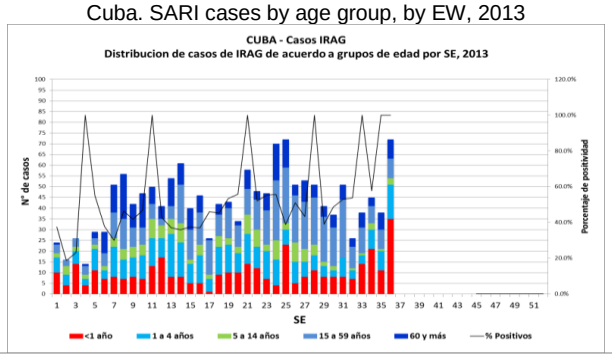


Caribbean

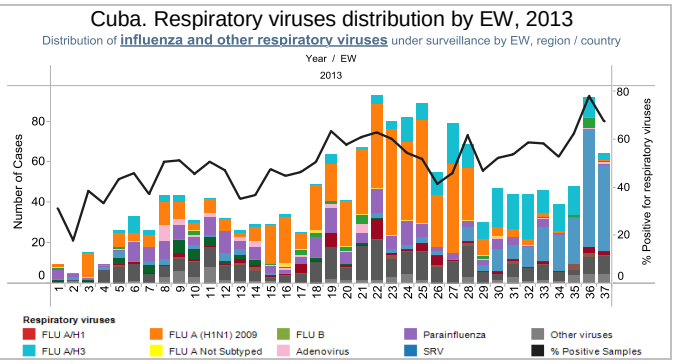
In Cuba during EW 37, the number of SARI-associated hospitalizations decreased compared to the previous EW and children less than one year of age comprised the largest proportion of these cases. One SARI-associated death was reported during this period and it was positive for a respiratory virus. According to national laboratory data for EW 33-36, 348 samples were analyzed, of which 62.8% were positive for a respiratory virus and 17.2% were positive for influenza. Among samples positive for influenza, A(H3N2) predominated (94.4% of influenza A samples). Among the other respiratory viruses, RSV (30.9%) predominated, followed by rhinovirus (6.6%), parainfluenza (2.1%) and metapneumovirus (1.7%).

Cuba

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



Cuba. Respiratory viruses distribution by EW, 2013



In the Dominican Republic[3], 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

[2] México. Dirección General de Epidemiología. Información epidemiológica. SE 37.

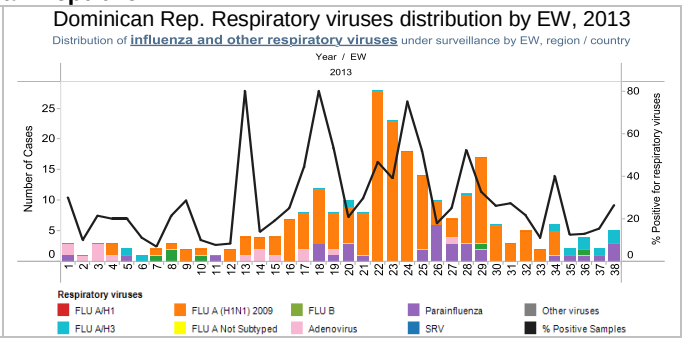
[3] República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletin Semanal SE 36.

2012). According to laboratory data for EWs 34-37, 75 samples were analyzed, of which 18.7% were positive for a respiratory virus and 14.7% were positive for influenza. Among positive influenza samples, 81.8% were influenza A (55.6% influenza A(H3N2) and 44.4% A(H1N1)pdm09) and 9.1% were influenza B. Among the other respiratory viruses, parainfluenza (28.6% of positive samples) predominated.

Dominican Republic

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

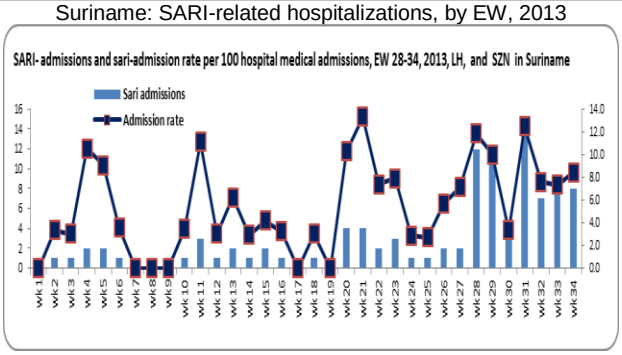
Dominican Rep. Respiratory viruses distribution by EW, 2013



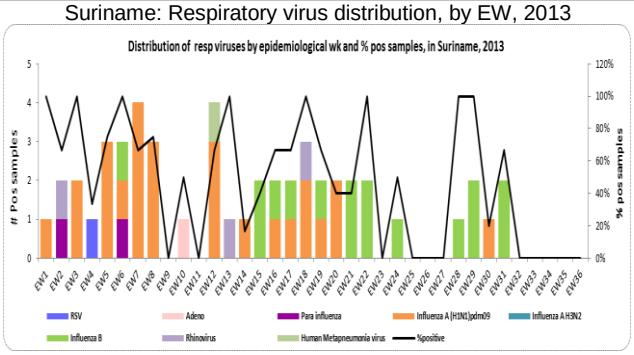
In Suriname, between EW 1-34, the Bureau of Public Health (BOG) received weekly SARI data from the Streekziekenhuis Nickerie Hospital, the Lands Hospital and ARI testing sites. During EW 34, the SARI admission rate was 8.4%, a slight increase compared to previous weeks. The highest SARI rate was among those aged 6 months-4 years. Ten SARI deaths were reported between EW 8-33. Based on laboratory data from EW 28-34, influenza B and influenza A(H1N1)pdm09 were detected.

Suriname

Suriname: SARI-related hospitalizations, by EW, 2013



Suriname: Respiratory virus distribution, by EW, 2013



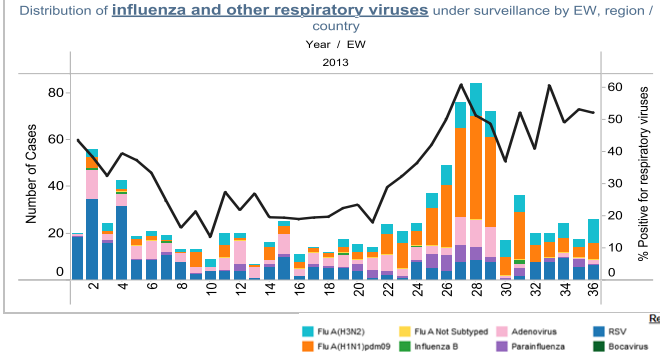
Central America

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 (50% A(H1N1)pdm09 and 50% A(H3N2)). Among samples positive for other respiratory viruses, RSV (35.6%) predominated followed by adenovirus (5.7%) and parainfluenza (5.7%).

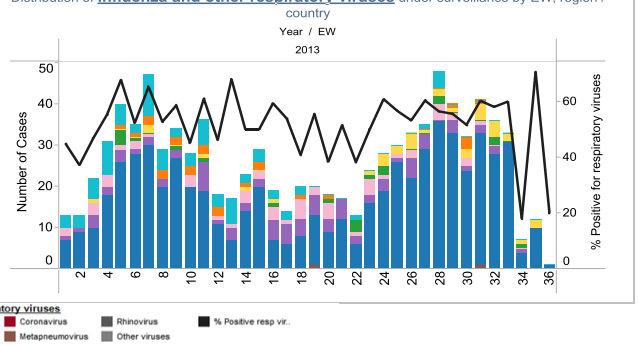
In Guatemala, based on national laboratory data from EW 33-36, 116 samples were analyzed, of which 45.7% were positive for a respiratory virus and 5.2% were positive for influenza. Among samples positive for respiratory viruses, RSV (86.8%) predominated. Among samples positive for influenza (n=6), most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

Costa Rica and Guatemala

Costa Rica: Respiratory viruses distribution by EW, 2013



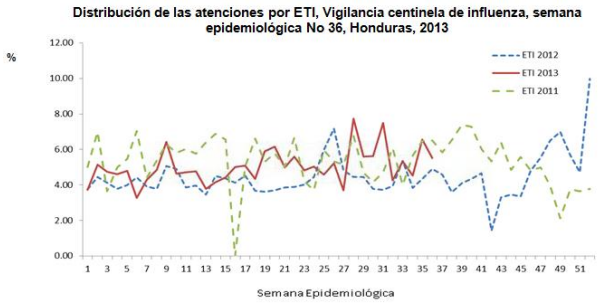
Guatemala: Respiratory viruses distribution by EW, 2013



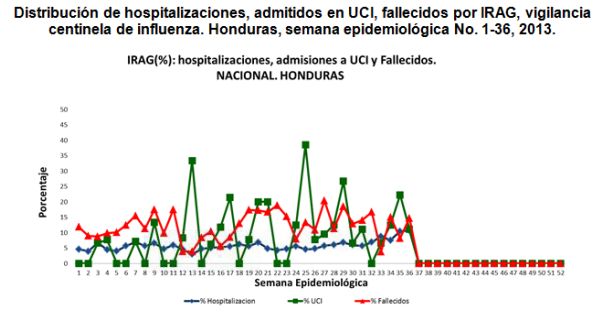
In Honduras[4], based on sentinel surveillance during EW 36, the proportion of ILI-associated visits was 5.5% and the proportion of SARI-associated hospitalizations was 10.8%. The proportion of SARI-associated deaths during this EW was 14.8%. Based on national laboratory data for EW 33-36, 32 samples 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 was detected.

Honduras

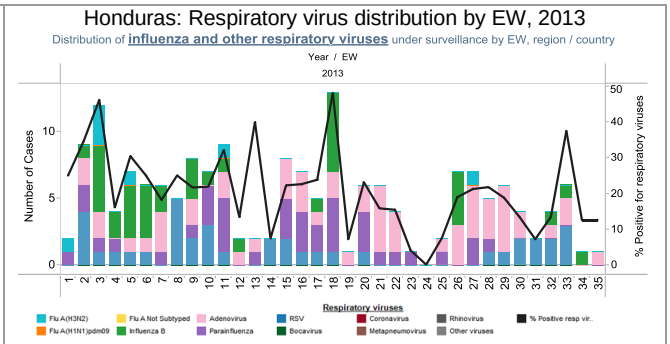
Honduras: ILI-related visits by EW, 2011-13



Honduras: SARI-related hosps, ICU adms & deaths, by EW,2013



Honduras: Respiratory virus distribution by EW, 2013

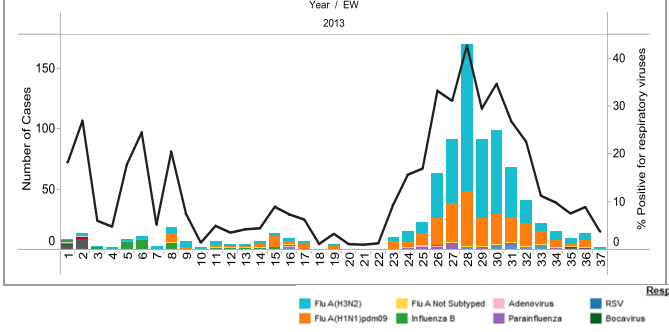


In Nicaragua, based on national laboratory data from EW 34-37, 498 samples were analyzed, of which 8.2% were positive for a respiratory virus and 6.8% were positive for influenza. Among samples positive for influenza (n=34), 100% were influenza A (of which 55.9% were A(H3N2) and 44.1% were A(H1N1)pdm09). Among other respiratory viruses, rhinovirus, RSV and parainfluenza were detected.

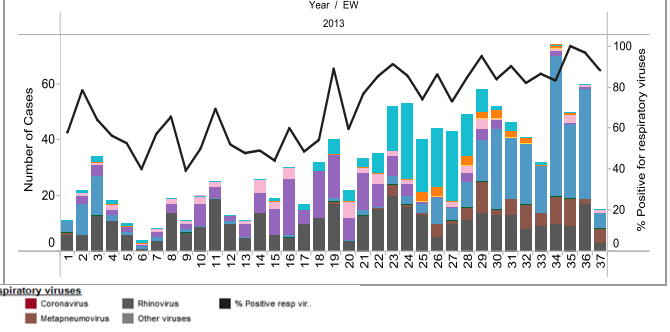
In Panama, based on national laboratory data from EW 34-37, 218 samples were analyzed, of which 91.3% were positive for a respiratory virus. Among positive samples, RSV (61.3%) predominated, followed by rhinovirus (19.6%), metapneumovirus (13.6%) and adenovirus (3.0%).

Nicaragua y Panama

Nicaragua: Respiratory virus distribution by EW, 2013



Panama: Respiratory virus distribution by EW, 2013



South America – Andean countries

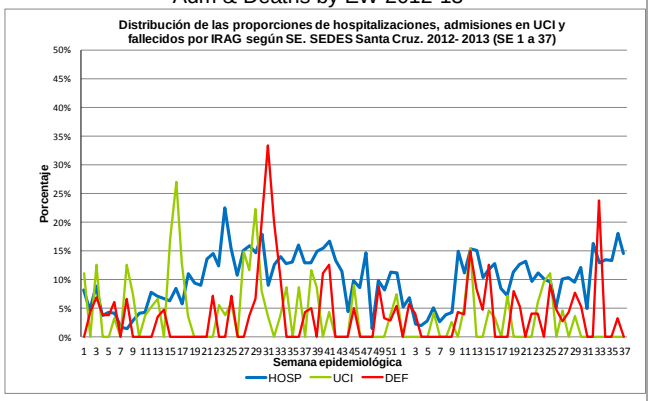
In Bolivia, according to data from Santa Cruz during EW 37, the proportion of SARI hospitalizations (14%) remained elevated compared to this period last year. Based on laboratory data from CENETROP (Santa Cruz) during EW 36-37, 206 SARI samples were analyzed, of which 20.0% were positive for a respiratory

[4] Honduras. Influenza Bulletin, EW 36

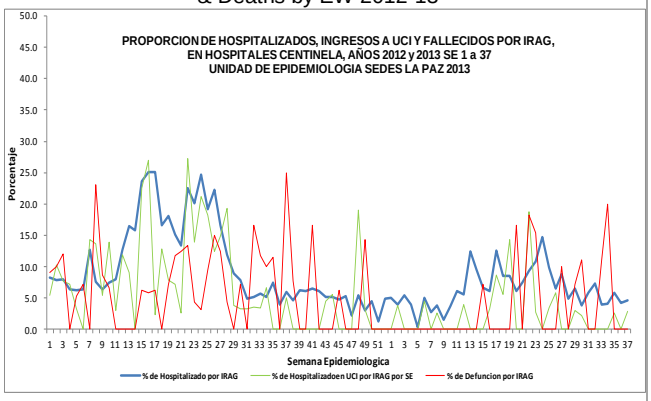
virus. Among the positive samples, influenza A(H1N1)pdm09 (88.0%) predominated. According to data from La Paz, the proportion of SARI-associated hospitalizations in EW 37 (4.7%) did not change significantly during the previous weeks and remains low. Based on laboratory data from INLASA (La Paz) from EW 36-37, 83 samples were analyzed of which 25.0% were positive for a respiratory virus. Among positive samples, influenza A(H1N1)pdm09 (47.6%) and influenza B (47.6%) predominated.

Bolivia

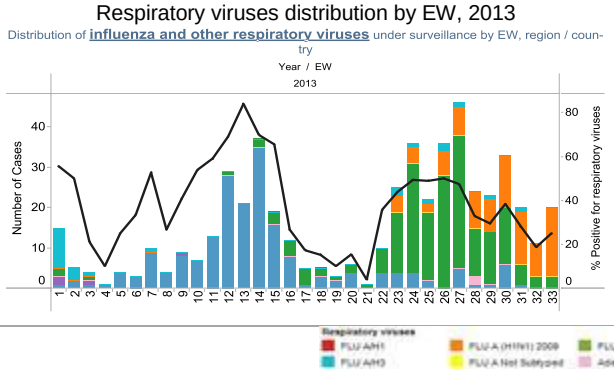
Bolivia (Santa Cruz): Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13



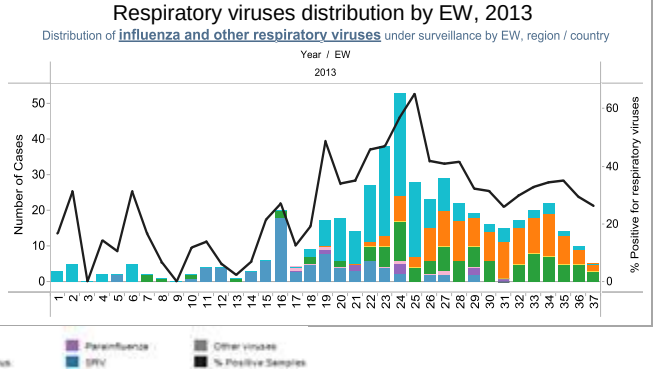
Bolivia (La Paz): Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13



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



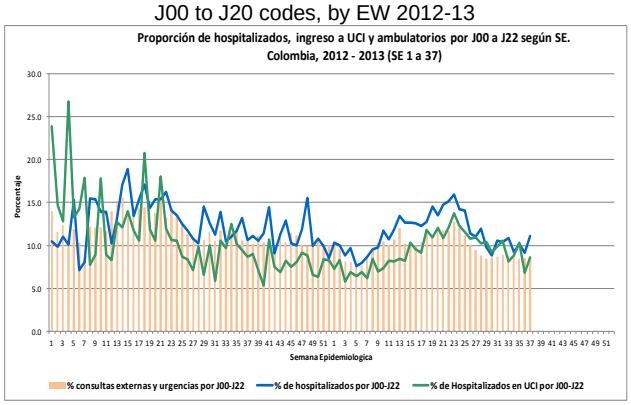
Bolivia (La paz). INLASA.
Respiratory viruses distribution by EW, 2013



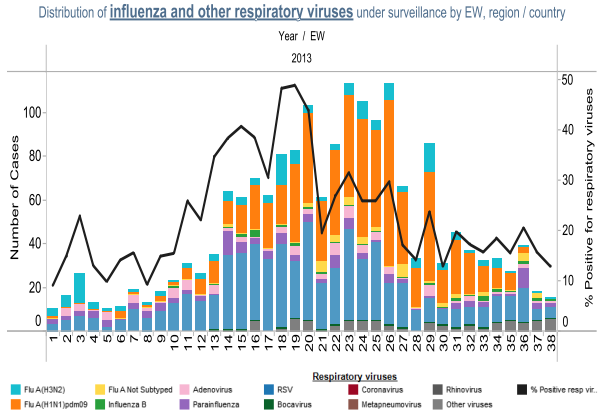
In Colombia, nationally during EW 37, the proportions of outpatient visits (8.6%), hospitalizations (11%), and ICU admissions (8.6%) with ARI-associated ICD-10 codes (J00 to J22) did not change significantly from the previous EW. and are similar to what was observed during this same period last year. Based on INS national laboratory data from EWs 37-38, 232 samples were analyzed, of which 14.2% were positive for a respiratory virus and 2.2% were positive for influenza. Among the positive samples, RSV (30.3%) and parainfluenza (15.2%) 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

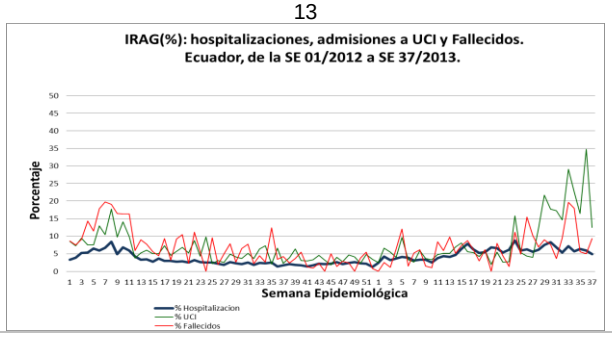


In Ecuador, based on SARI surveillance data from EW 37, the proportion of SARI-associated hospitalizations (5%) remained stable compared to the previous weeks, but exceeded the values observed during this same

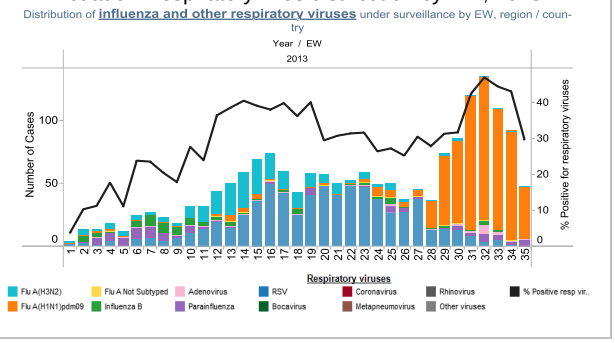
period last year. Based on national reference laboratory data from EW 35-36, 203 SARI samples were analyzed, of which 30.0% were positive for a respiratory virus and 24.0% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (81.0%) predominated.

Ecuador

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



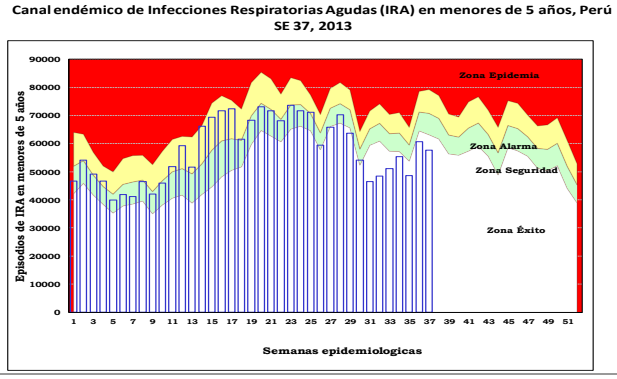
Ecuador. Respiratory virus distribution by EW, 2013



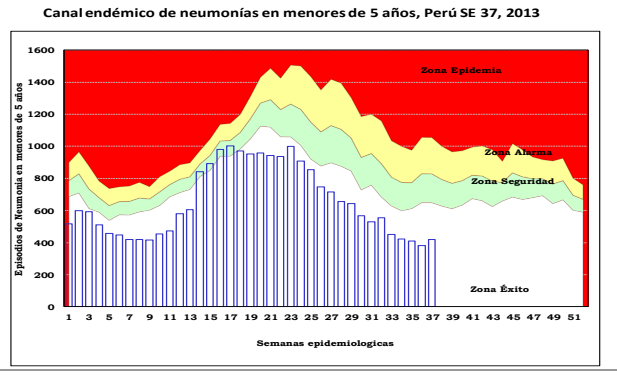
In Peru[5], ARI reports in children less than 5 years of age have been increasing since EW 31 but are within the success zone of the endemic channel. Pneumonia reports in the same age group are also within the success zone and have remained stable for the last weeks. Based on national laboratory data from EW 36-37, 363 samples were analyzed, of which 26.0% were positive for a respiratory virus and 24.0% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (58.0%) and influenza B (33.0%) predominated.

Peru

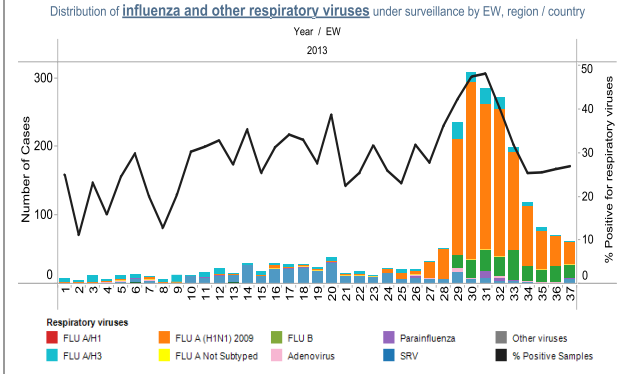
Peru. ARI endemic channel among children < 5 yrs, 2013



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



Perú. Respiratory viruses distribution by EW, 2013

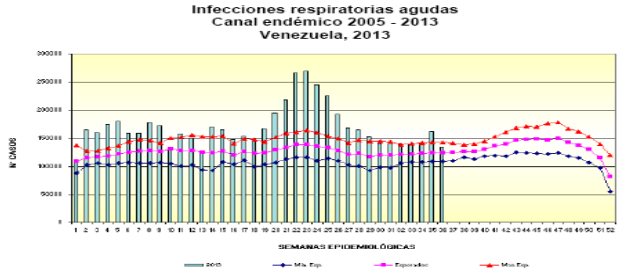


In Venezuela[6], ARI and pneumonia activity during EW 37 were within the expected values for this time of year. Based on virologic data from EW 1-37, 5,133 samples were analyzed from suspected influenza cases, of which 53.9% were positive for influenza. Among the positive samples, 92.4% were influenza A(H1N1)pdm09. The federal entities with the largest number of suspected influenza cases were Mérida (n=948), Distrito Capital (n=377), Zulia (n=350), Carabobo (n=324), Táchira (n=291) and Lara (n=289).

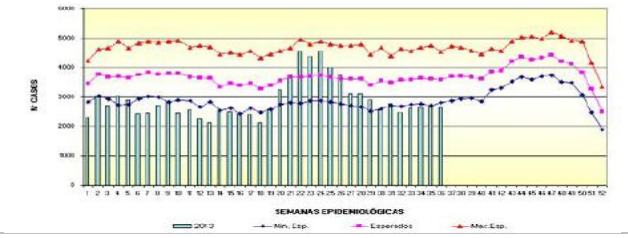
[5] Perú. Sala de Situación de Salud. EW 37, 2013. Ministerio de Salud. Dirección General de Epidemiología
[6] Venezuela. Boletín epidemiológico, EW 37, 2013.

Venezuela

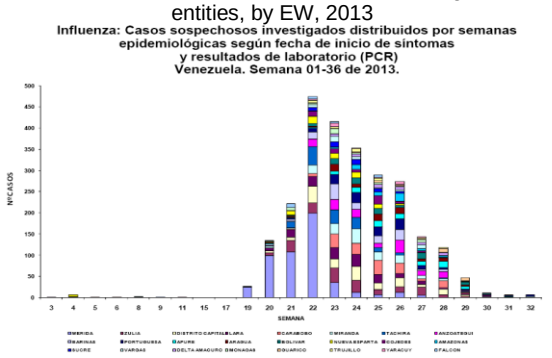
Venezuela: ARI endemic channel



Venezuela: Pneumonia endemic channel



Venezuela: Influenza viruses distribution among federal entities, by EW, 2013

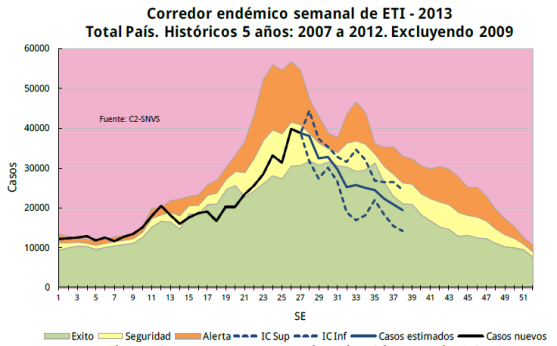


South America – Southern Cone and Brazil

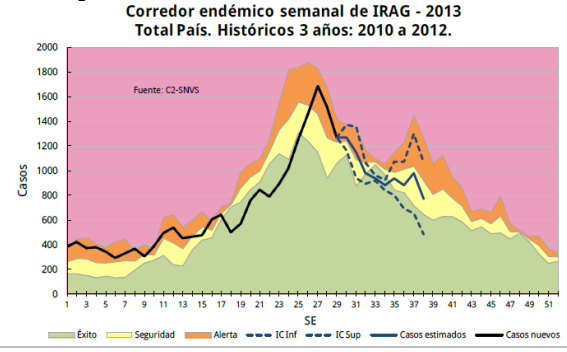
In Argentina[7], according to reports and calculated estimations, national ILI activity is within the success zone of the endemic channel and showed a decreasing trend for the previous weeks. The proportion of SARI-associated hospitalizations entered the security zone of the endemic channel and also showed a decreasing trend. Based on laboratory data from EW 37, 706 samples were analyzed, of which 28.0% were positive for a respiratory virus and 4% for influenza. Among the positive samples, RSV predominated (71.0%).

Argentina

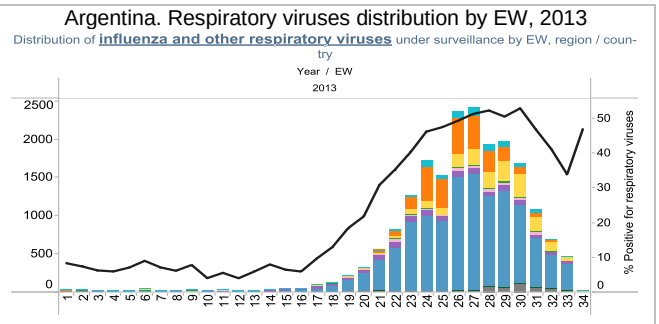
Argentina. ILI cases. Endemic Channel, 2013



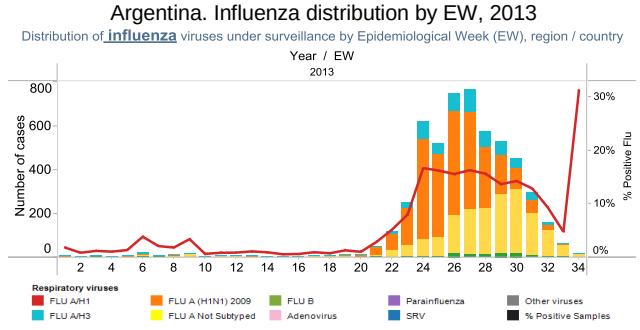
Argentina. SARI cases. Endemic Channel, 2013



Argentina. Respiratory viruses distribution by EW, 2013



Argentina. Influenza distribution by EW, 2013



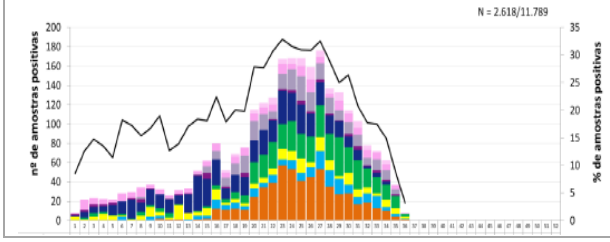
In Brazil[8], according to ILI sentinel surveillance data through EW 36, 11,789 samples have been analyzed, of which 22.1% were positive for influenza or other respiratory viruses. Positivity has decreased since EW 27, but among positive samples influenza B has predominated, primarily in the Southern region. Based on

[7] Argentina. Boletin integrado de vigilancia. SE 37.
[8] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 36, 2013.

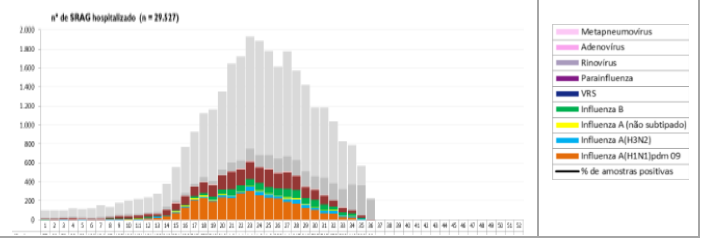
universal SARI surveillance data during this same period, 29,527 SARI cases were reported and 18.3% were positive for influenza. Of these positive samples, influenza A(H1N1)pdm09 predominated (65.9%), followed by influenza B (20.3%). Through EW 36, 3,266 SARI-associated deaths were reported of which 26.2% were positive for influenza, and of these, 83.1% were associated with influenza A(H1N1)pmd09.

Brazil

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



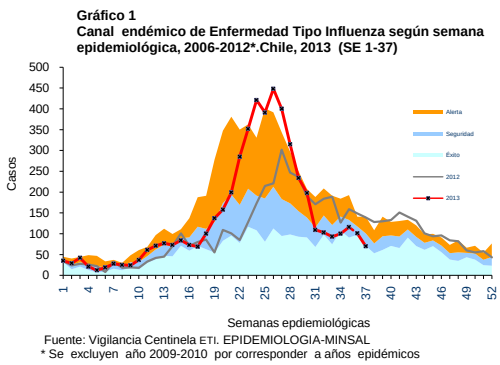
Brazil:Resp virus distribon, SARI cases, by EW, 2013



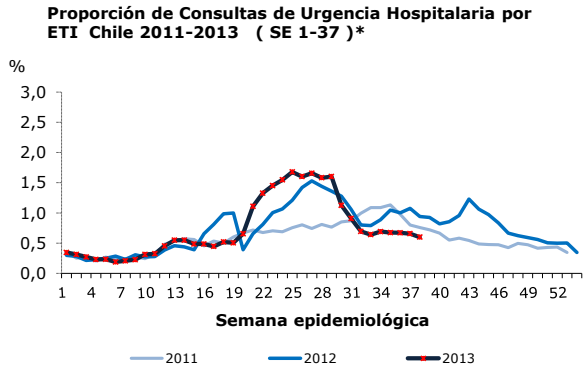
In Chile[9] ILI activity during EW 37 (rate: 4.5 per 100,000 inhabitants) was lower than the previous EW and was at the boundary of the alert and epidemic zones of the endemic channel. The proportion of ILI-associated hospital emergencies in EW 37 (0.6%) remained below the values observed during this time 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%). During EW 36-37, 64 SARI samples were analyzed and among those, RSV and metapneumovirus predominated.

Chile

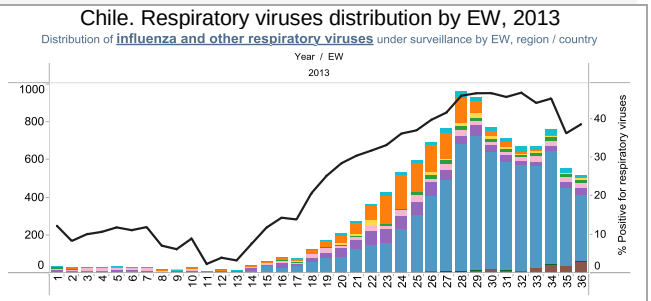
Chile. ILI Endemic Channel, 2013



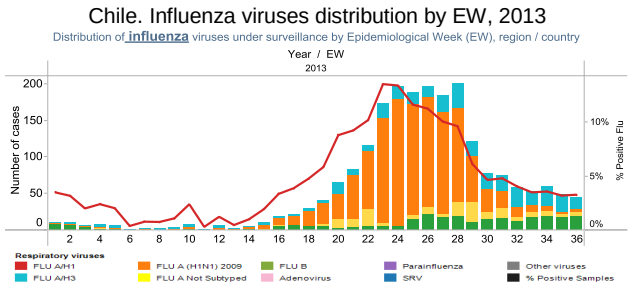
Chile: Proportion of ILI-related hospital emergencies, by EW 2013



Chile. Respiratory viruses distribution by EW, 2013



Chile. Influenza viruses distribution by EW, 2013



In Paraguay[10] during EW 37, the ILI consultation rate (156 per 100,000 inhabitants) continued to show elevated values and was at the boundary of the alert and epidemic zones of the endemic channel. The proportion of SARI-associated hospitalizations (6.0%) during the same period did not show any significant changes. Based on reference laboratory data from EW 36-37, 279 samples were analyzed, of which 18.6%

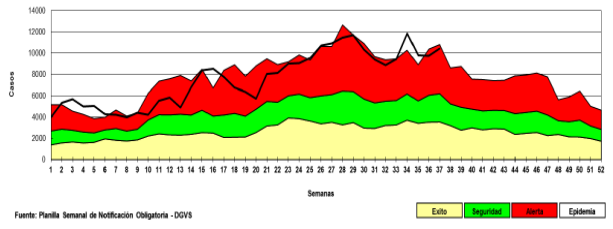
[9] Chile. Informe de situación. EW 37. Disponible en: www.pandemia.cl

[10] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 37, 2013

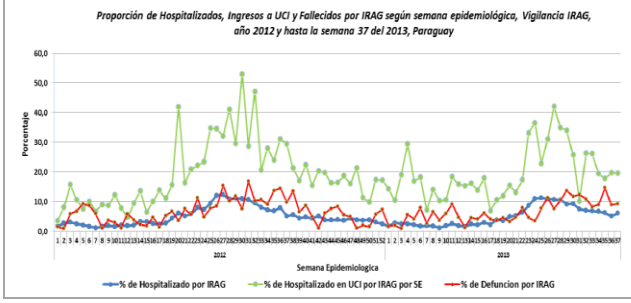
were positive for a respiratory virus and 10.8% were positive for influenza. Among the positive samples, influenza B predominated (36.5%), followed by adenovirus (21.0%) and influenza A(H3N2) (17.0%).

Paraguay

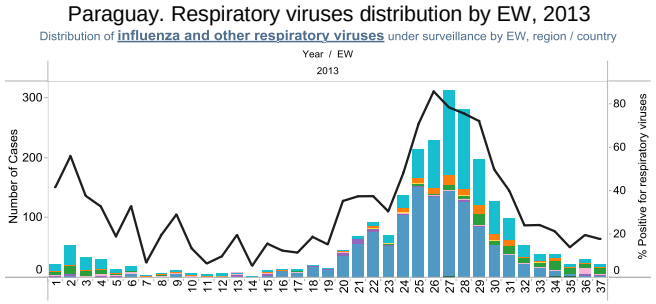
Paraguay. ILI endemic channel, by EW, 2013



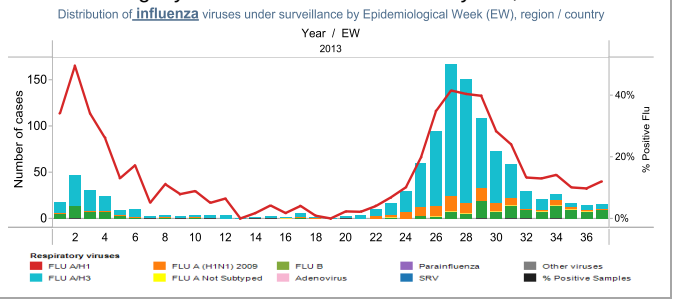
Paraguay:% SARI Hosps, ICU Admns & Deaths by EW 2012-13



Paraguay. Respiratory viruses distribution by EW, 2013



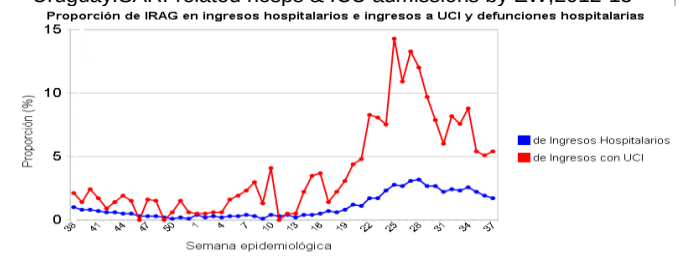
Paraguay. Influenza virus distribution by EW, 2013



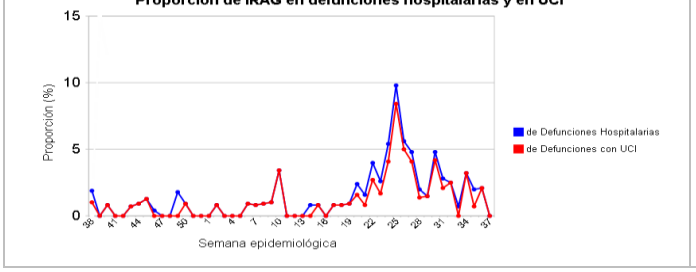
In Uruguay[11], the proportion of SARI-associated hospitalizations has shown a decrease for the last three EW and maintained an elevated level of activity compared to the same period last year. The proportions of ICU admissions and SARI-associated deaths also demonstrated a decrease during the same period. No SARI-associated deaths were reported during EW 37. Based on laboratory data from EW 36-37, 39 SARI samples were analyzed, of which 12.8% were positive for influenza. Among the positive samples (n=5), 80% were influenza A (of which 100% were A(H3N2)) and 20% were influenza B.

Uruguay

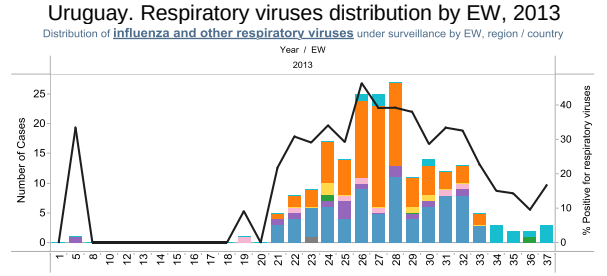
Uruguay.SARI-related hosps & ICU admissions by EW,2012-13



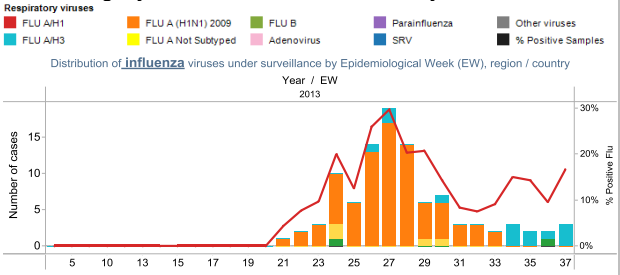
Uruguay. SARI-associated deaths by EW. 2012-13



Uruguay. Respiratory viruses distribution by EW, 2013



Uraguay. Influ enza virus distribution by EW, 2013



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