Regional Update EW 37, 2014

Influenza and other respiratory viruses
(September 23, 2014)

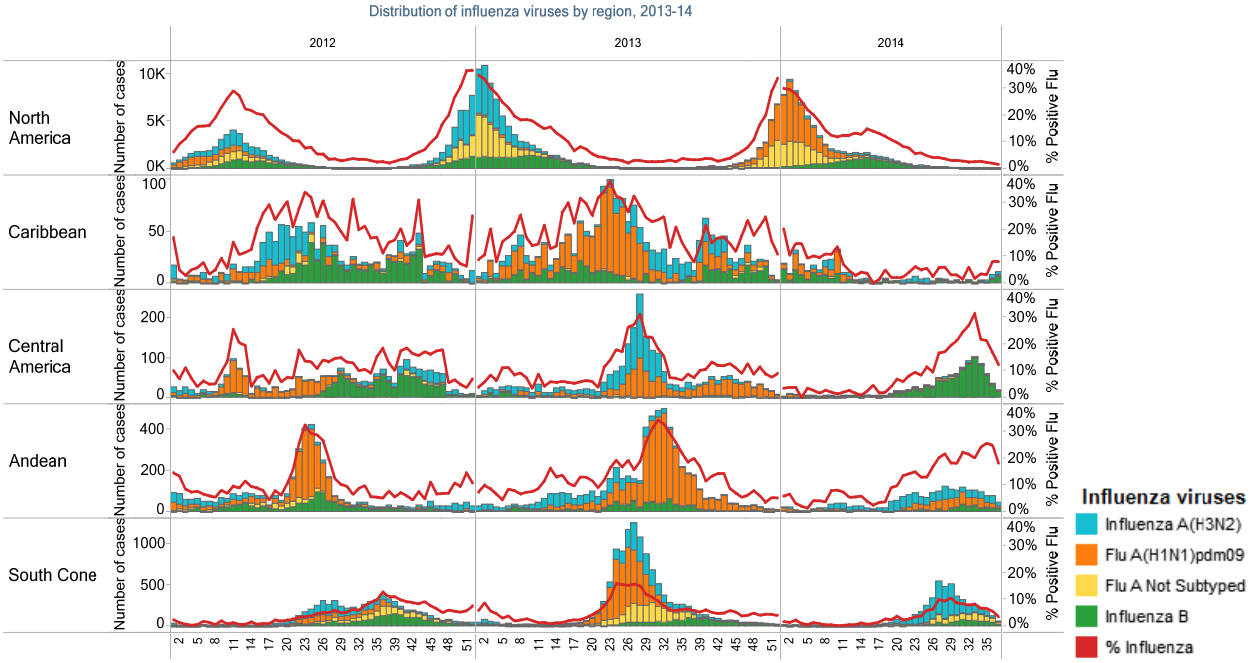
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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.

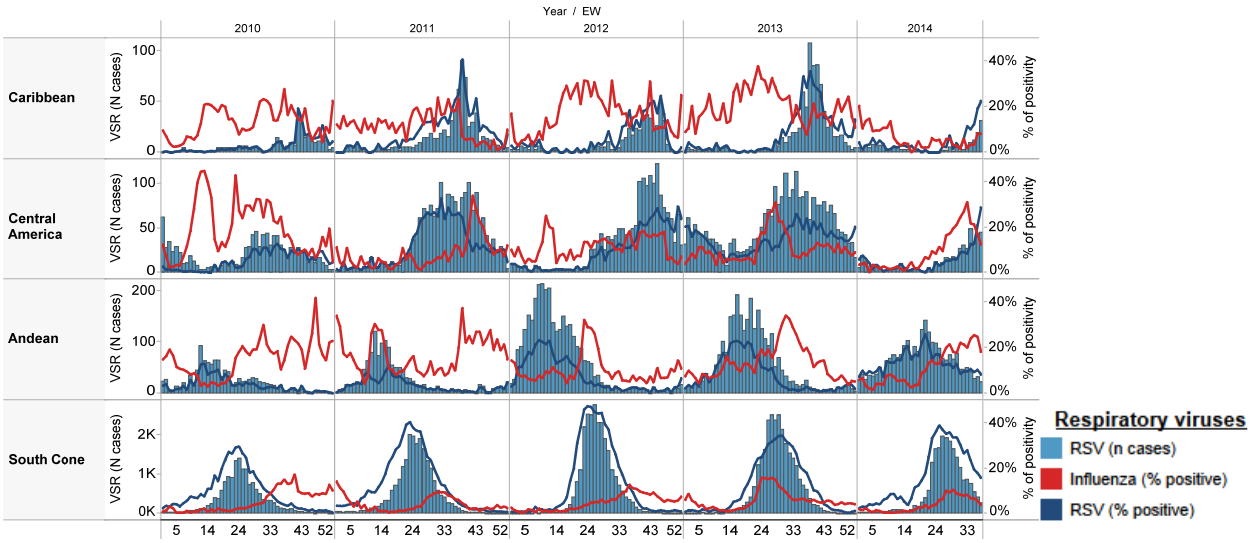
WEEKLY SUMMARY

- North America: Influenza activity remained low in the sub-region with co-circulation of influenza A(H1N1)pdm09, A(H3N2) and influenza B. In the United States, no new human infections with influenza A(H3N2) variant (H3N2v) were reported. A total of two H3N2v cases have been reported in 2014 and are not epidemiologically linked.
- The Caribbean and Central America: Continued co-circulation of influenza B and RSV was observed in most countries of this sub-region. Influenza A(H3N2) circulation was observed in some Caribbean countries (Cuba, Dominican Republic, Jamaica).
- South America – Andean Countries: Continued influenza circulation was observed in Bolivia, Colombia, Ecuador and Peru. Co-circulation of influenza A(H1N1)pdm09, A(H3N2) and influenza B was observed, as well as continued circulation of RSV.
- South America - South Cone and Brazil: Although most acute respiratory illness activity indicators in the sub-region remained elevated, they were within expected levels for this time of year and continued to decrease. RSV continued to circulate at decreasing levels, and among influenza viruses co-circulation of A(H3N2) and influenza B was observed.

Influenza circulation by region. 2013-14



Respiratory syncytial virus (RSV) circulation by region. 2013-14



ACRONYMS

ARI	Acute respiratory infection
CARPHA	Caribbean Public Health Agency
CENETROP	Centro de Enfermedades Tropicales (Santa Cruz, Bolivia)
EW	Epidemiological Week
ILI	Influenza-like illness
INLASA	Instituto Nacional de Laboratorios de Salud (La Paz, Bolivia)
INS	Instituto Nacional de Salud
ORV	Other respiratory viruses
SARI	Severe acute respiratory infection
SEDES	Servicio Departamental de Salud (Bolivia)
ICU	Intensive Care Unit
RSV	Respiratory Syncytial Virus

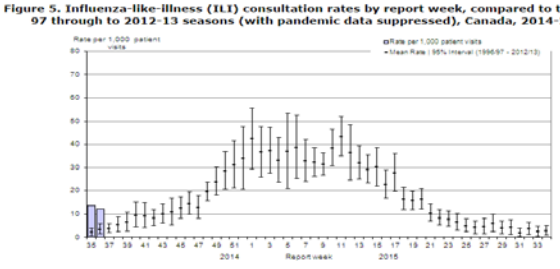
EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

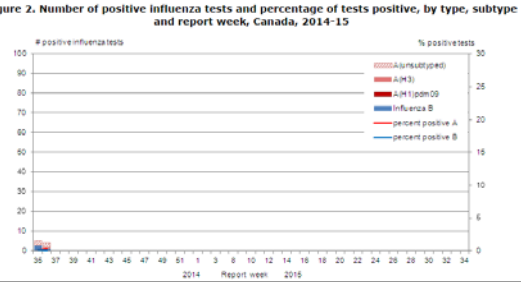
In Canada[1] during EW 36, influenza activity was low. The national ILI consultation rate was 13.6 per 1,000 patient visits, a decrease compared to the previous week but slightly above expected levels. During this same period there no influenza-associated hospitalizations or deaths reported. Based on laboratory data for EW 36 the overall percentage of positive influenza tests was <1%. Among the positive tests during EW 35-36, 55.6% were influenza A (0% A(H1N1)pdm09, 20.0% A(H3) and 80.0% not subtyped) and 44.4% were influenza B. Among other circulating respiratory viruses, rhinovirus predominated.

Canada

Canada: ILI Consultation Rates, by EW, 2014-15

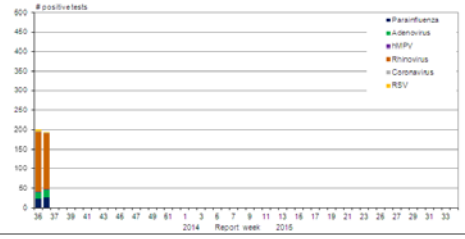


Canada: Influenza virus distribution by EW, 2014-15



[1] Canada: FluWatch Report. EW 35-36. Available at http://www.phac-aspc.gc.ca/fluwatch/

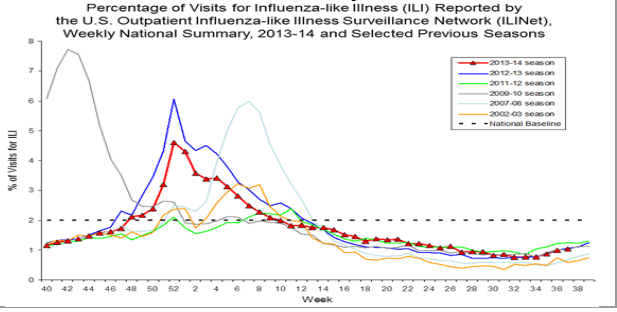
Canada: Other respiratory virus distribution by EW, 2014-15



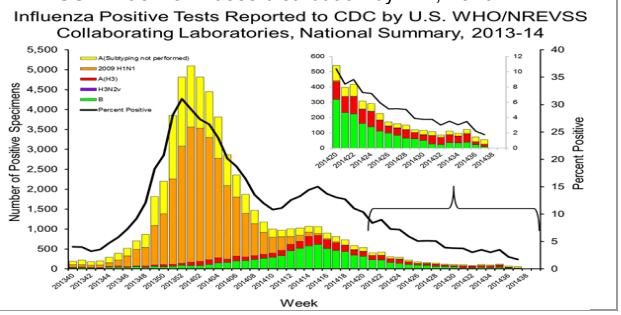
In the United States[2] during EW 37, influenza activity was low. The national proportion of ILI-associated outpatient visits (1.1%) was below the national baseline (2.0%). The proportion of deaths attributed to pneumonia and influenza (5.5%) was also below the epidemic threshold (6.0%). A total of 108 influenza-associated pediatric deaths have been reported this season (one death was reported during EW 37). According to laboratory data for EW 37, 3,118 samples were analyzed, of which 1.8% were positive for influenza. Among the positive samples, 83.6% were influenza A (0% A(H1N1)pdm09, 32.6%% A(H3) and 67.4% not subtyped) and 16.4% were influenza B. During EW 37, no new human infections with influenza A(H3N2) variant (H3N2v) were reported. A total of two H3N2v cases have been reported in 2014 and are not epidemiologically linked.

United States

US: Percent of ILI visits by EW, 2013-14



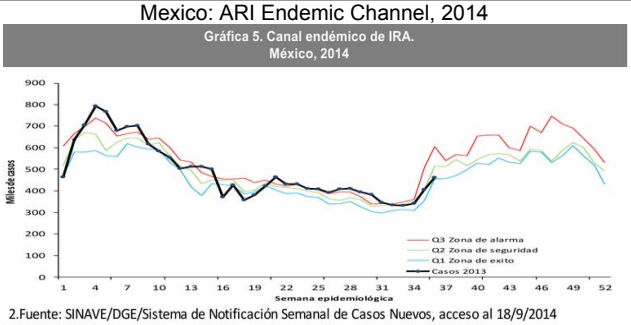
US: Influenza viruses distribution by EW, 2013-14



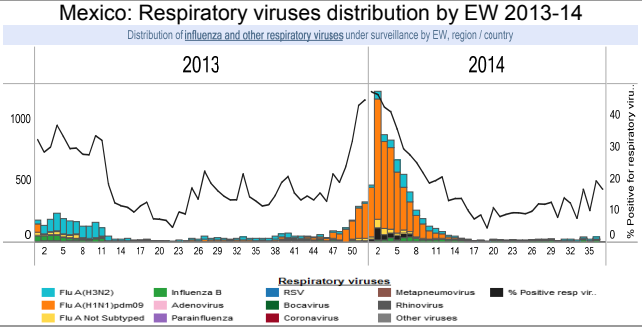
In Mexico[3] during EW 37, influenza activity remained low. ARI activity increased from the previous week and was within the alarm zone of the security channel. Pneumonia activity increased slightly compared to the previous week (rate: 1.9 per 100,000 inhabitants) and was within expected levels for this time of year. The highest levels of pneumonia activity were reported in Jalisco, Chihuahua and Aguascalientes. Nationally, through September 18, 2014, the proportion of ILI/SARI-associated medical visits was 0.5%. The highest proportions of ILI/SARI-associated medical visits were reported in Campeche, Tabasco and Yucatan. During this same period, 772 influenza-associated deaths were reported, of which 89.6% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 34-37, 708 samples were analyzed, of which 15.3% were positive for influenza. Among the positive samples, 39.8% were influenza A (0% A(H1N1)pdm09, 90.7% A(H3N2), and 7.0% not subtyped) and 60.2% were influenza B (lineage not determined).

Mexico

Mexico: ARI Endemic Channel, 2014



Mexico: Respiratory viruses distribution by EW 2013-14



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

[3] México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

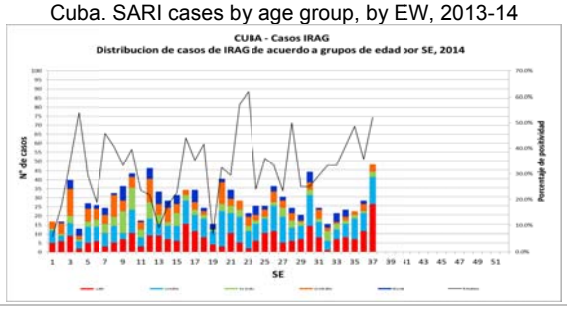
Mexico: % of sentinel ILI/SARI

Caribbean

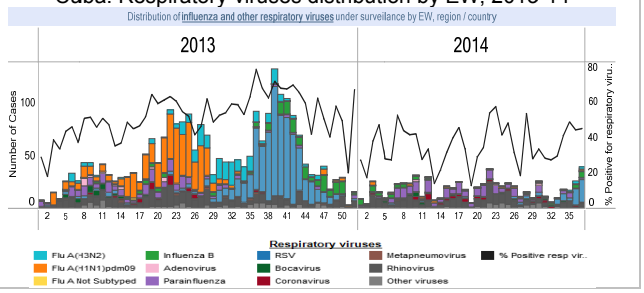
In Cuba during EW 37, the number of SARI-associated hospitalizations (n=48) increased from the previous week. Children ≤ 1 year of age comprised the largest proportion of these cases. One SARI-associated death was reported during this period and tested negative for a respiratory virus. According to national laboratory data for EW 34-37, 225 samples were analyzed, of which 44.4% were positive for a respiratory virus and 8.9% for influenza. Among the positive samples, RSV (47.0%) predominated. Among the influenza viruses, 40.0% were influenza A (12.5% A(H1N1)pdm09, 75.0% A(H3N2), and 12.5% not subtyped) and 60.0% were influenza B (91.7% Yamagata lineage and 8.3% lineage not determined).

Cuba

Cuba. SARI cases by age group, by EW, 2013-14



Cuba. Respiratory viruses distribution by EW, 2013-14

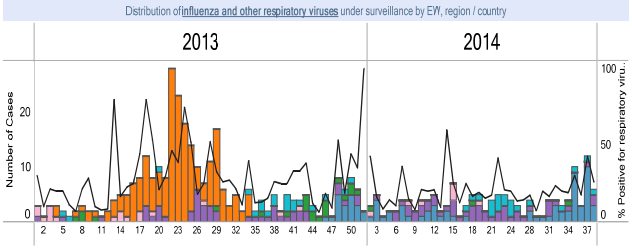


In the Dominican Republic, during EW 35-38, 101 samples were analyzed, of which 30.7% were positive for a respiratory virus and 3.0% were positive for influenza. Among the positive samples, RSV predominated (80.6%). Among the influenza positive samples, 100% were influenza A(H3N2).

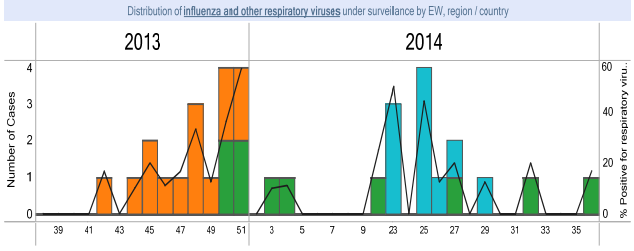
In Haiti, based on laboratory data for EW 33-36, 27 samples were analyzed, of which one (3.7%) was positive for influenza B.

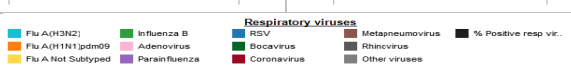
Dominican Republic and Haiti

Dominican Rep.: Respiratory viruses distribution by EW, 2013-14



Haiti: Influenza viruses distribution by EW, 2013-14

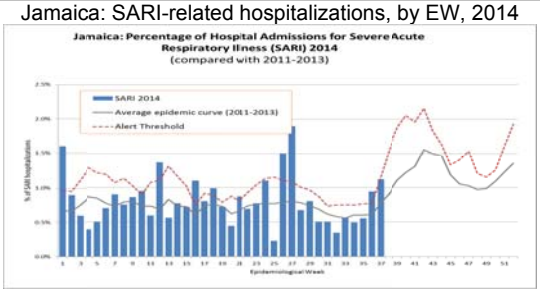




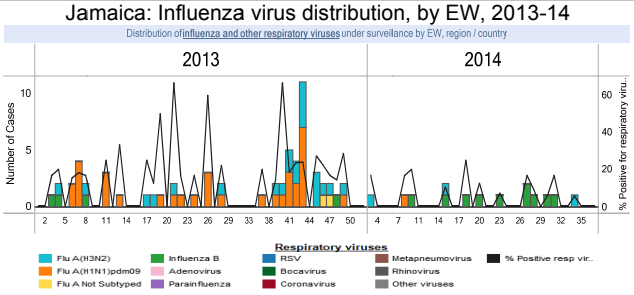
In Jamaica, based on sentinel surveillance data for EW 37, the proportions of ARI-associated consultations (5.0%) and SARI-associated hospitalizations (1.1%) increased compared to the previous week. No SARI-associated deaths were reported during this EW. Based on laboratory data for EW 34-37, 80 samples were analyzed, of which one (1.3%) was positive for influenza A(H3N2).

Jamaica

Jamaica: SARI-related hospitalizations, by EW, 2014



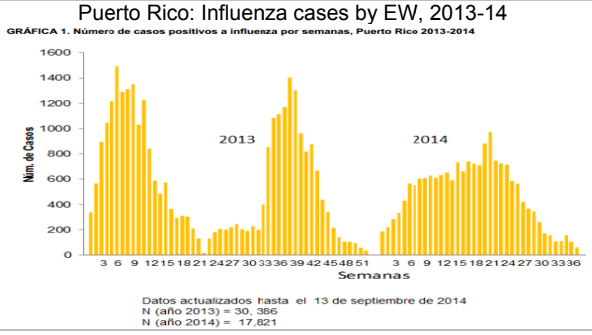
Jamaica: Influenza virus distribution, by EW, 2013-14



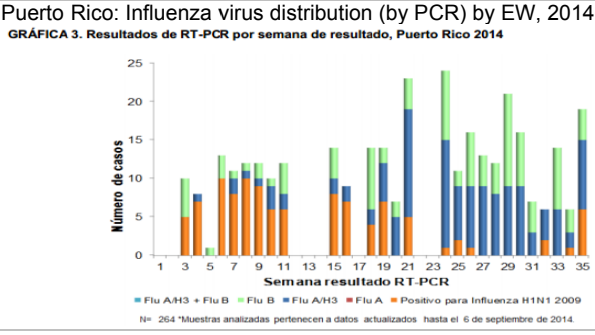
In Puerto Rico[4] during EW 37, the number of influenza cases (n=58) decreased compared to the previous week. Of these, 21 cases were associated with influenza A, 37 with influenza B, and 0 with an influenza A and B co-infection. Since the beginning of 2014, 17,821 influenza cases have been reported (43% influenza A, 56% influenza B, and 1% influenza A and B) and persons aged 0-19 years accounted for 50% of those cases. During this same period, 825 influenza-associated hospitalizations and 13 influenza-associated deaths were reported.

Puerto Rico

Puerto Rico: Influenza cases by EW, 2013-14



Puerto Rico: Influenza virus distribution (by PCR) by EW, 2014

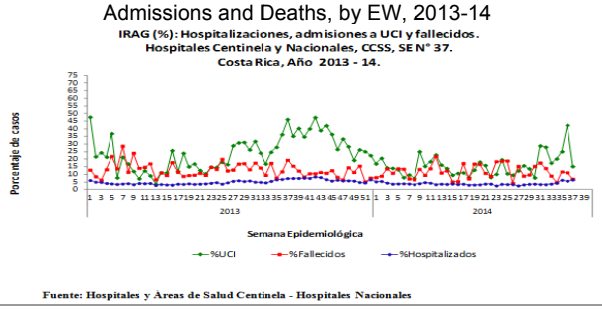


Central America

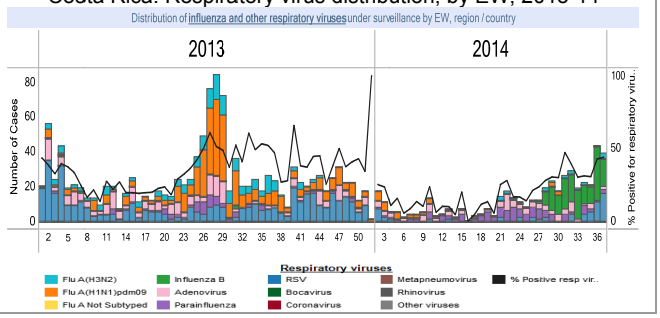
In Costa Rica, during EW 37, the proportion of SARI-associated hospitalizations (6.4%) increased from the previous week, while the proportions of SARI-associated ICU admissions (15.2%) and deaths (7%) decreased. According to laboratory data from EW 34-37, 330 samples were analyzed of which 37.9% were positive for a respiratory virus and 22.1% were positive for influenza. Among the positive samples, influenza B (54.4%) and RSV (28.8%) predominated.

Costa Rica

Costa Rica: Proportion of SARI-Associated Hospitalizations, ICU Admissions and Deaths, by EW, 2013-14



Costa Rica: Respiratory virus distribution, by EW, 2013-14

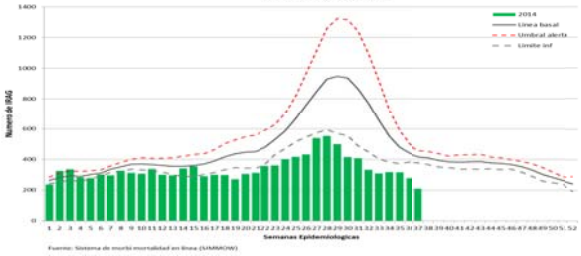


In El Salvador, during EW 37, the proportions of SARI-associated hospitalizations (4.6%), ICU admissions (0%) and deaths (9.6%) were within expected levels for this time of year. According to laboratory data from EW 34-37, 142 samples were analyzed of which 17.6% were positive for a respiratory virus and 0.7% were positive for influenza. Among the positive samples, adenovirus (56.0%) and RSV (28.0%) predominated.

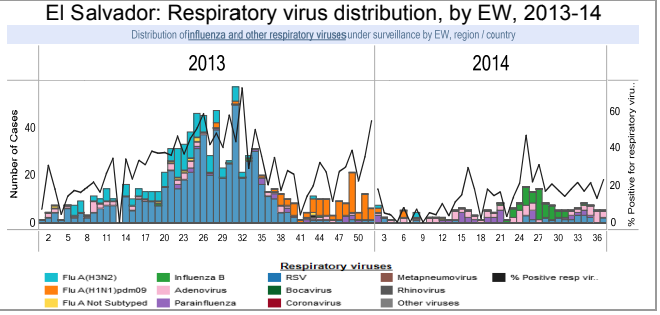
[4] Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 37

El Salvador

El Salvador: Number of SARI cases, by EW, 2014



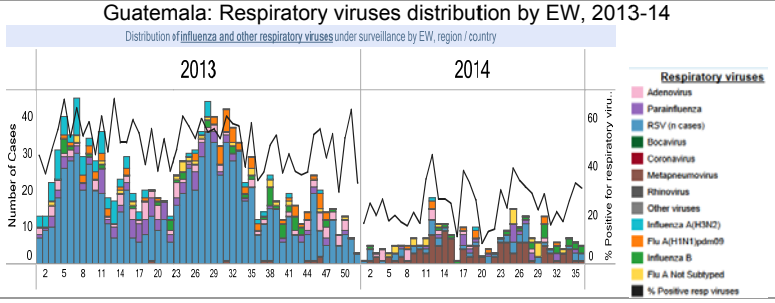
El Salvador: Respiratory virus distribution, by EW, 2013-14



In Guatemala, based on laboratory data from EW 34-37, 61 samples were analyzed, of which 29.5% were positive for a respiratory virus and 9.8% were positive for influenza. Among the positive samples, influenza B (33.3%), human metapneumovirus (33.3%) and RSV (27.8%) predominated.

Guatemala

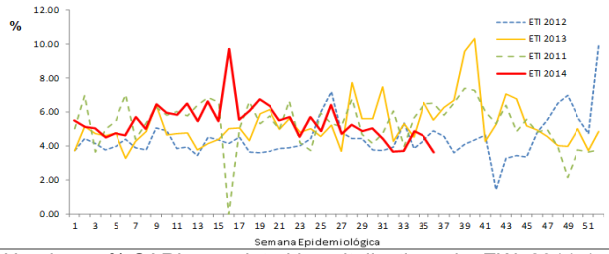
Guatemala: Respiratory viruses distribution by EW, 2013-14



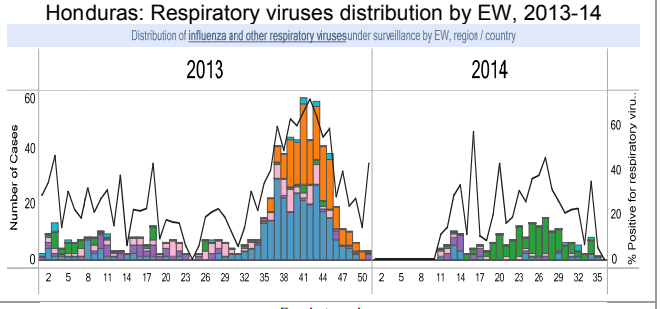
In Honduras, during EW 36, the proportions of ILI-associated medical visits (3.6%) and SARI-associated hospitalizations (4.3%) decreased from the previous week. Both remained within expected levels for this time of year. Seven SARI-associated deaths were reported during EW 36. According to laboratory data from EW 34-37, 49 samples were analyzed, of which 18.4% were positive for a respiratory virus and 12.2% were positive for influenza. Among the positive samples, influenza B (55.6%) and RSV (33.3%) predominated.

Honduras

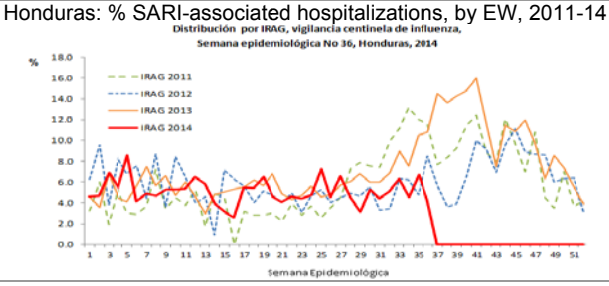
Honduras: Percent of ILI Visits by EW, 2011-2014



Honduras: Respiratory viruses distribution by EW, 2013-14



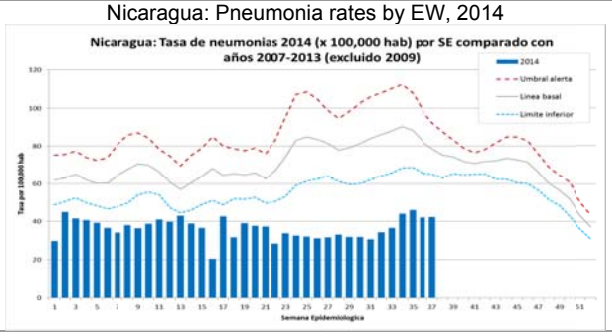
Honduras: % SARI-associated hospitalizations, by EW, 2011-14



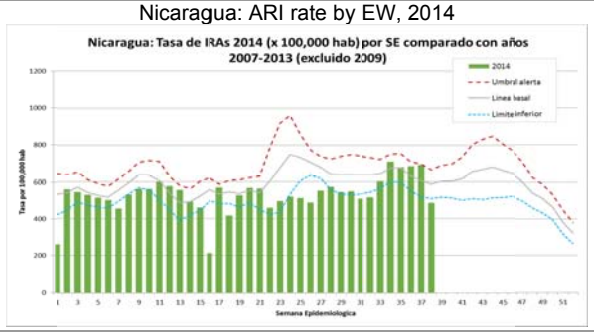
In Nicaragua, during EW 37, the national rates of pneumonia (42.3 per 100,000 population) and ARI (485.7 per 100,000 population) were within expected levels for this time of year.

Nicaragua

Nicaragua: Pneumonia rates by EW, 2014



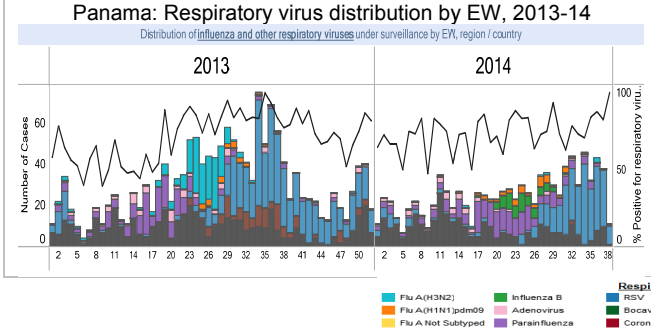
Nicaragua: ARI rate by EW, 2014



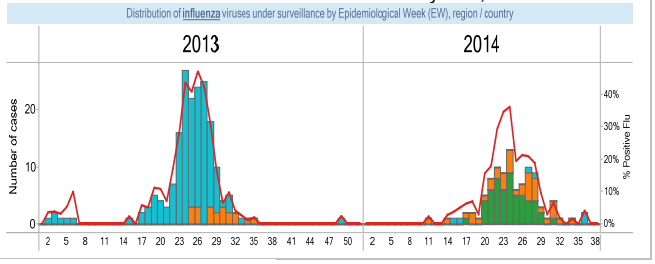
In Panama, based on national laboratory data from EW 34-37, 198 samples were analyzed, of which 80.3% were positive for a respiratory virus and 1.5% were positive for influenza. Among the positive samples, RSV (76.7%) predominated. Among the influenza positive samples, 100% were influenza A (33.3% A(H1N1)pdm09 and 66.7% A(H3N2)).

Panama

Panama: Respiratory virus distribution by EW, 2013-14



Panama. Influenza virus distribution by EW, 2013-14

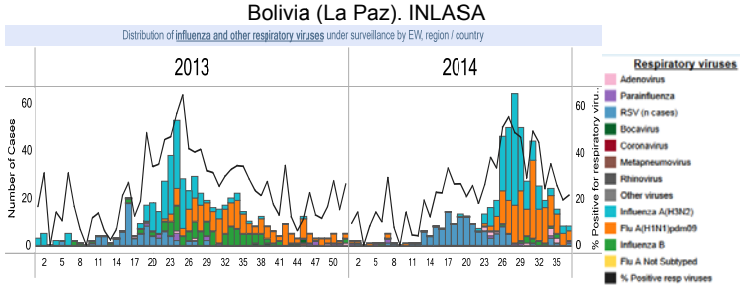


South America – Andean countries

In Bolivia, based on data from the National Laboratory in La Paz (INLASA) from EW 34-37, 204 samples were analyzed, of which 27.0% were positive for a respiratory virus and 21.1% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (54.5%) and A(H3N2) (18.2%) predominated.

Bolivia

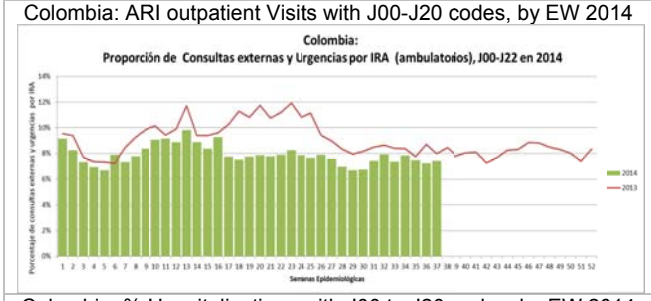
Respiratory viruses distribution by EW, 2013-14
Bolivia (La Paz). INLASA



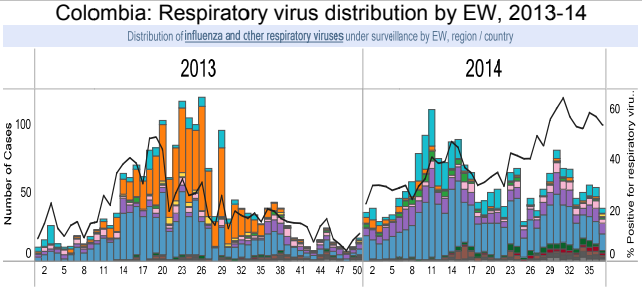
In Colombia, during EW 37 the proportions of outpatient and urgent visits (7.4%) and hospitalizations (6.0%) with ARI/SARI-associated ICD-10 codes (J00 to J22) were within the expected levels for this time of year. Based on INS laboratory data from EW 34-37, 360 samples were analyzed, of which 55.3% were positive for a respiratory virus and 9.7% were positive for influenza. Among the positive samples, RSV (31.7%) predominated. Among the influenza positive samples, 85.7% were influenza A (10.0% A(H1N1)pdm09, 83.3% A(H3N2) and 6.7% not subtyped) and 14.3% were influenza B (100% lineage not determined).

Colombia

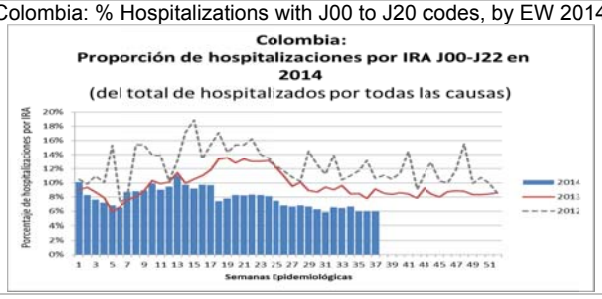
Colombia: ARI outpatient Visits with J00-J20 codes, by EW 2014



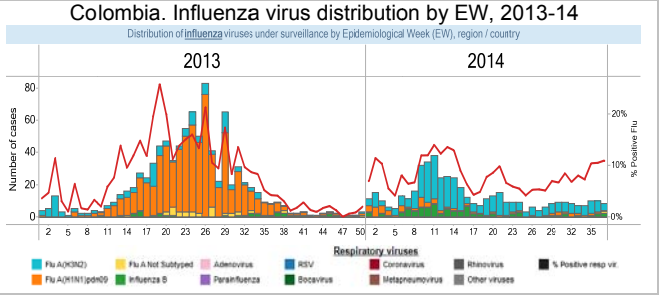
Colombia: Respiratory virus distribution by EW, 2013-14



Colombia: % Hospitalizations with J00 to J20 codes, by EW 2014



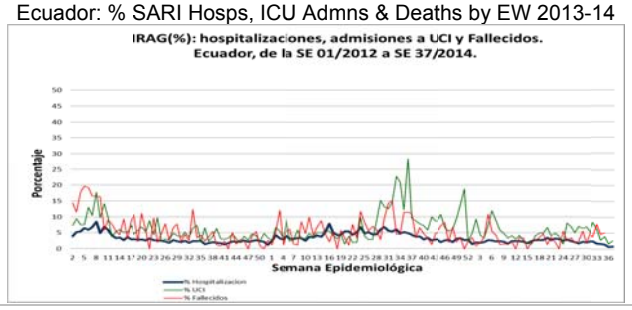
Colombia. Influenza virus distribution by EW, 2013-14



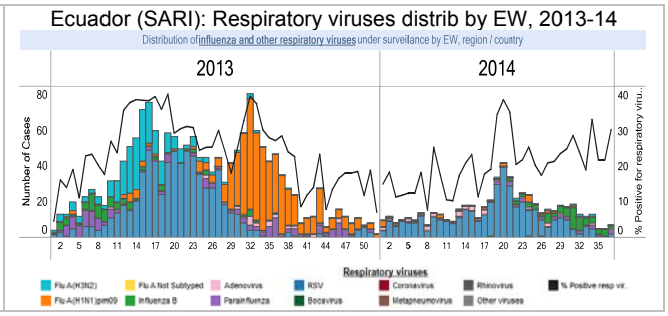
In Ecuador during EW 37, the proportions of SARI-associated hospitalizations (0.8%), ICU admissions (2.6%) and deaths (5.1%) increased compared to the previous week. Based on national reference laboratory data from EW 34-37, 108 SARI samples were analyzed, of which 27.8% were positive for a respiratory virus and 13.0% were positive for influenza. Among the positive samples, influenza B, lineage not determined (43.3%) and RSV (26.7%) predominated.

Ecuador

Ecuador: % SARI Hosps, ICU Admns & Deaths by EW 2013-14



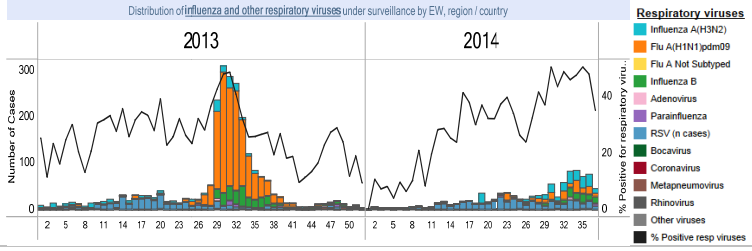
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 34-37, 596 samples were analyzed, of which 45.3% were positive for a respiratory virus and 34.1% were positive for influenza. Among the influenza positive samples, 70.4% were influenza A (42.7% A(H1N1)pdm09 and 57.3% A(H3N2)) and 29.6% were influenza B (100% Yamagata lineage). Among the other respiratory viruses, RSV predominated (17.8% of positive samples).

Peru

Perú. Respiratory viruses distribution by EW, 2013-14



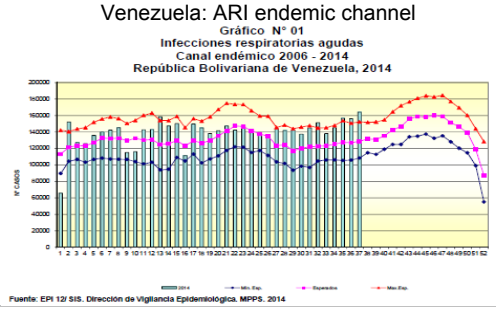
In Venezuela[5] during EW 37, the number of ARI cases increased 5.1% from the previous week and was slightly above expected levels for this time of year, while the number of pneumonia cases decreased 0.6% and was within expected levels. During EW 37, 56 SARI-associated hospitalizations were reported, with

[5] Venezuela. Boletín epidemiológico, EW 37.

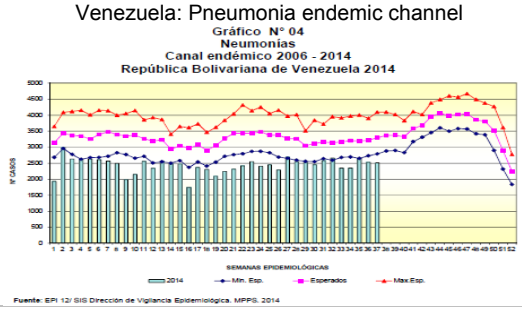
children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-37, 477 samples were analyzed from suspected influenza cases and of these, 15.7% were positive for a respiratory virus. Among the positive samples, influenza A(H3N2) predominated (40.0%).

Venezuela

Venezuela: ARI endemic channel



Venezuela: Pneumonia endemic channel

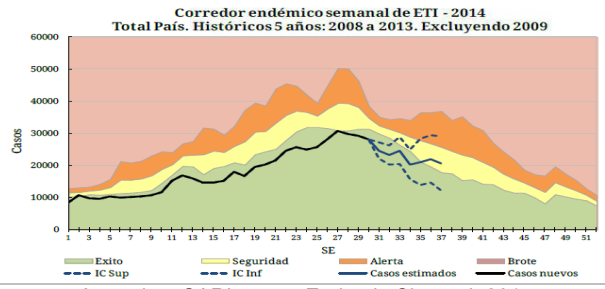


South America – South Cone and Brazil

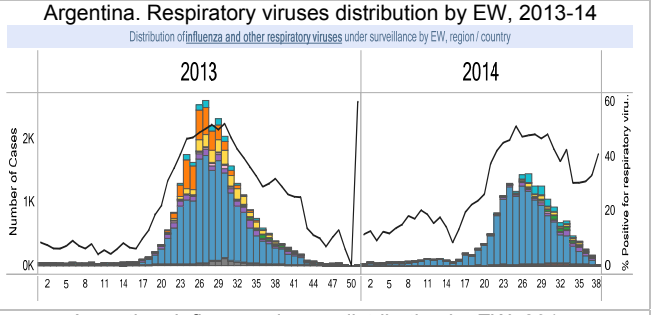
In Argentina[6], according to reports and estimations calculated for EW 37, ILI activity was within the security zone of the endemic channel while the estimated number of SARI cases was within the epidemic zone of the endemic channel. Based on laboratory data from EW 36-37, 1,300 samples were processed, of which 31.5% were positive for a respiratory virus and 7.2% were positive for influenza. Among the positive samples, RSV (48.5%) predominated. Among the influenza viruses, 63.8% were influenza A (21.7% A(H3N2) and 78.3% not subtyped) and 36.2% were influenza B (100% lineage not determined).

Argentina

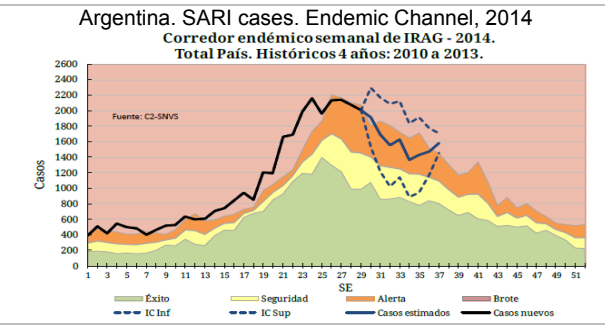
Argentina. ILI cases. Endemic Channel, 2014



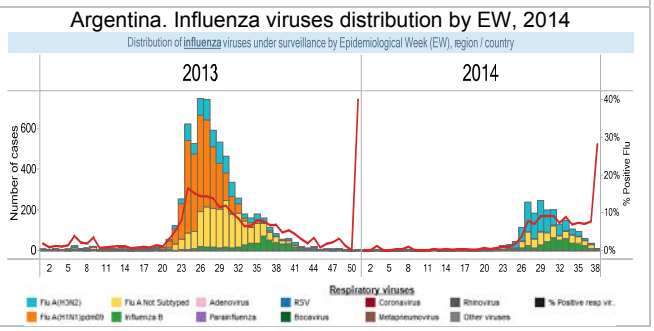
Argentina. Respiratory viruses distribution by EW, 2013-14



Argentina. SARI cases. Endemic Channel, 2014



Argentina. Influenza viruses distribution by EW, 2014



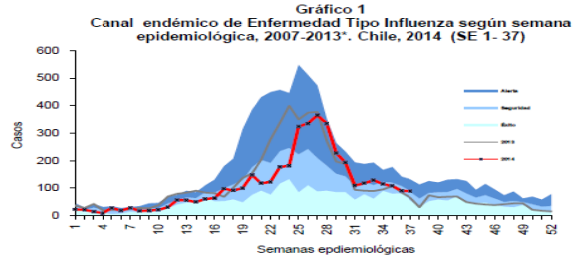
In Chile[7], during EW 37, ILI activity (rate: 5.9 per 100,000 inhabitants) was similar to the previous EW and was within the security zone of the endemic channel. Through EW 36, 2,621 SARI cases were reported through sentinel surveillance and of these, 49.4% were positive for respiratory virus. Among the positive SARI cases, RSV predominated (61%), followed by influenza A(H3N2) (17%). During this same period, 114 SARI-associated deaths were reported. Based on laboratory data from EW 36-37, 2,215 samples were analyzed, of which 28.4% were positive for a respiratory virus and 2.0% were positive for influenza. Among the positive samples, RSV predominated (61.5%). Among the influenza samples, 51.1% were influenza A (8.7% A(H1N1)pdm09, 47.8% A(H3N2), and 43.5% not subtyped) and 48.9% were influenza B (86.4% Yamagata lineage and 13.6% lineage not determined)

[6] Argentina. Boletin integrado de vigilancia. SE 37.

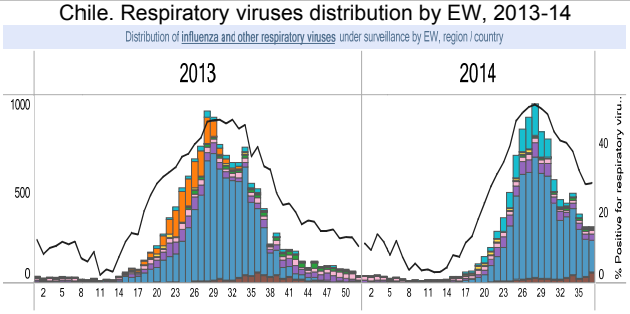
[7] Chile. Informe de situación. EW 36 & 37. Available at: http://epi.minsal.cl/

Chile

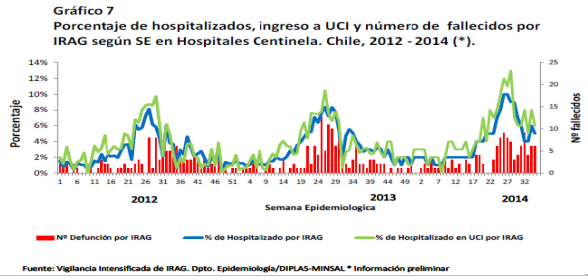
Chile. ILI Endemic Channel, 2014



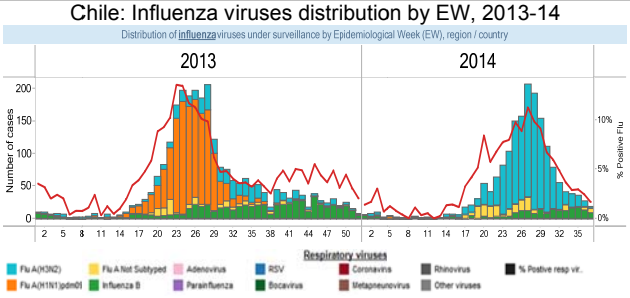
Chile. Respiratory viruses distribution by EW, 2013-14



Chile. % SARI hospitalizations, ICU Adm and Deaths, 2012-14



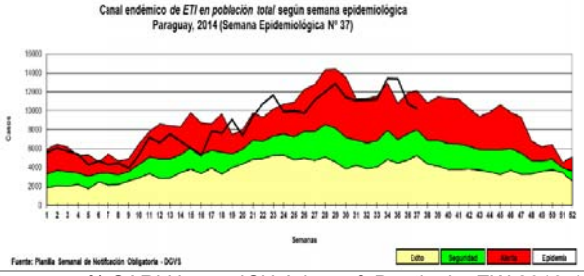
Chile: Influenza viruses distribution by EW, 2013-14



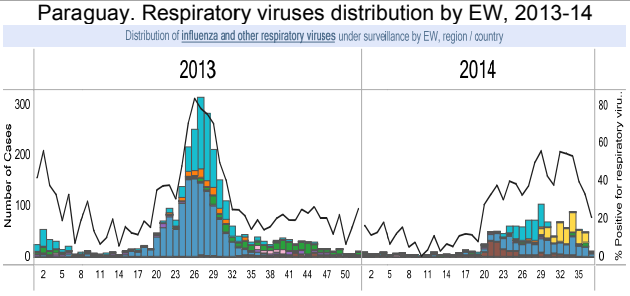
In Paraguay[8] during EW 37, the ILI consultation rate (154.1 per 100,000 inhabitants) decreased from the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (5.1%) decreased compared to the previous week. The most affected age group was children <5 years of age (55.2% of reported cases). From EW 1-37, 249 SARI-associated deaths were reported and 32 (12.9%) were positive for a respiratory virus. Based on laboratory data from EW 34-37, 494 samples were analyzed, of which 40.1% were positive for a respiratory virus and 21.9% were positive for influenza. Among the influenza samples, 83.3% were influenza A (100% not subtyped) and 16.7% were influenza B (100% lineage not determined). Among the other respiratory viruses, RSV predominated (41.9% of positive samples).

Paraguay

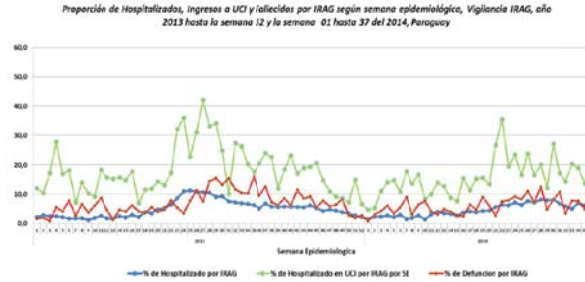
Paraguay. ILI endemic channel, by EW, 2014



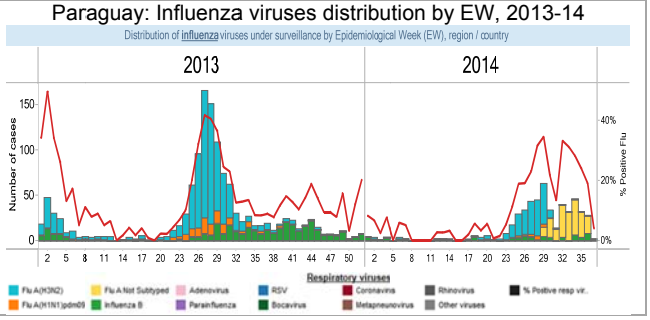
Paraguay. Respiratory viruses distribution by EW, 2013-14



Paraguay:% SARI Hosps, ICU Admns & Deaths by EW 2013-14



Paraguay: Influenza viruses distribution by EW, 2013-14



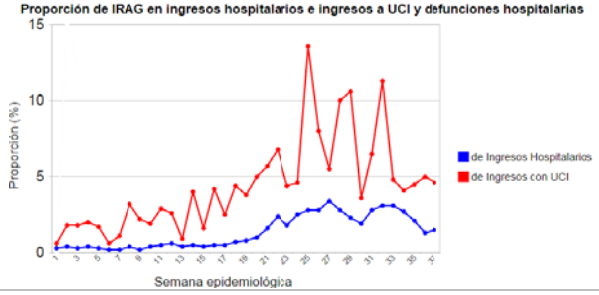
In Uruguay[9] during EW 37, the proportion of SARI-associated hospitalizations increased compared to the previous week while the proportion of ICU admissions decreased. There were no SARI-associated deaths reported during this EW. Based on laboratory data from EW 33-36, 110 samples were analyzed, of which

[8] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 37.
[9] Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública

44.5% were positive for a respiratory virus and 20.0% were positive for influenza. Among the positive samples, influenza A(H3N2) (42.9%) and RSV (36.7%) predominated.

Uruguay

Uruguay.% SARI-assoc hosps & ICU admissions by EW, 2014



Uruguay. Respiratory viruses distribution by EW, 2013-14