Regional Update EW 32, 2014

Influenza and other respiratory viruses
(August 19, 2014)

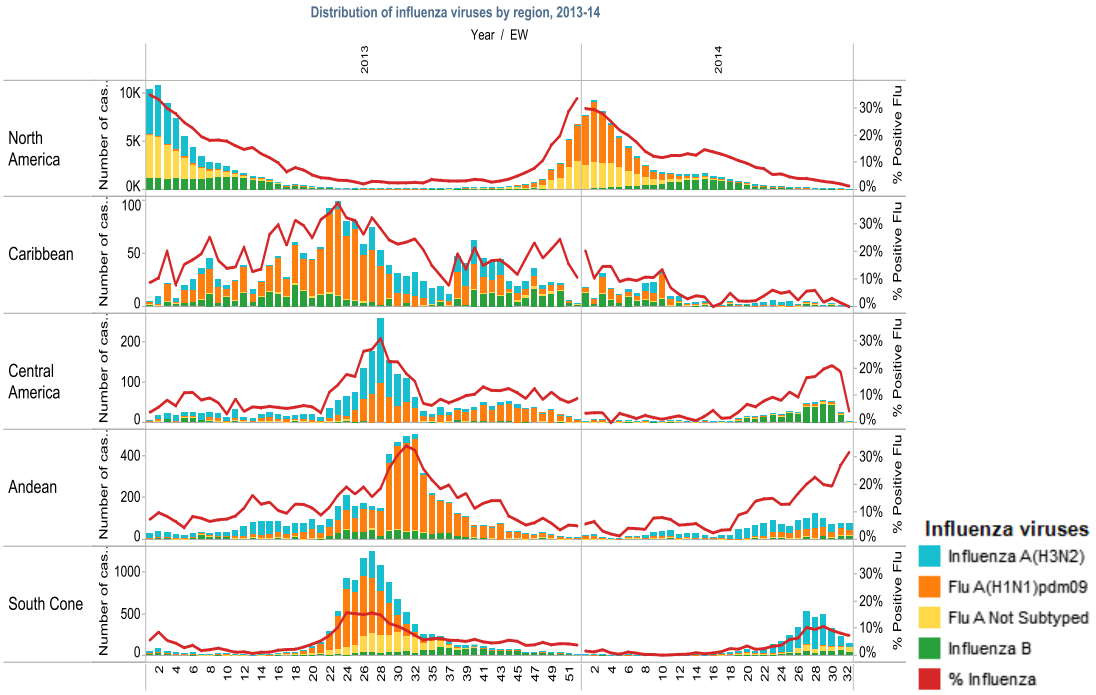
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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.

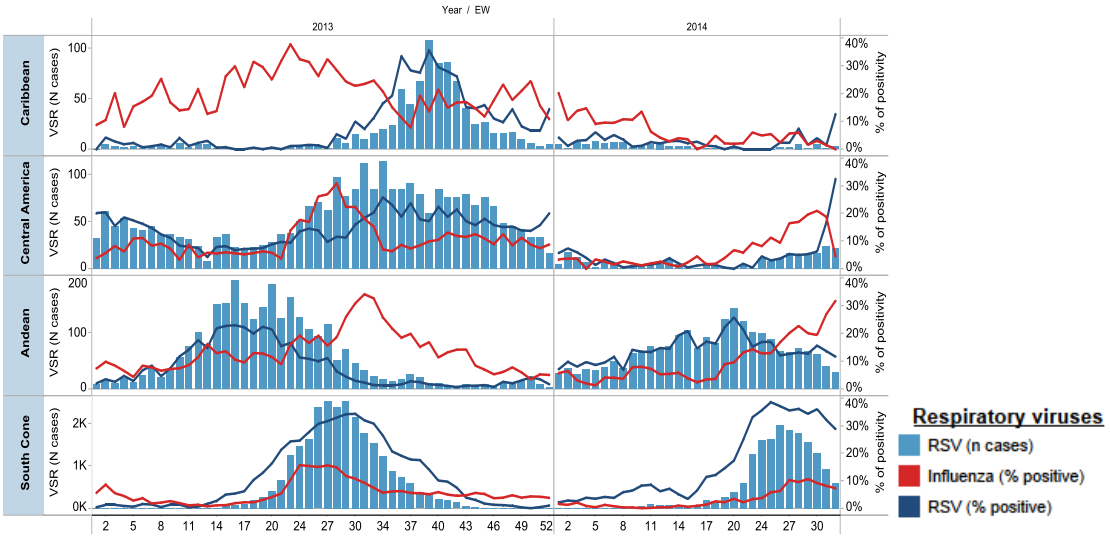
WEEKLY SUMMARY

- North America: Influenza activity remained low in the sub-region with co-circulation of influenza B and A(H3N2).
- The Caribbean and Central America: Circulation of influenza B was observed in several countries of the sub-region (Jamaica, Guatemala, Honduras, Nicaragua Panama and Puerto Rica), and co-circulation with influenza A(H1N1)pdm09 was observed in Guatemala and Panama.
- 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 began to decrease. RSV continued to circulate, and among influenza viruses, A(H3N2) predominated.

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

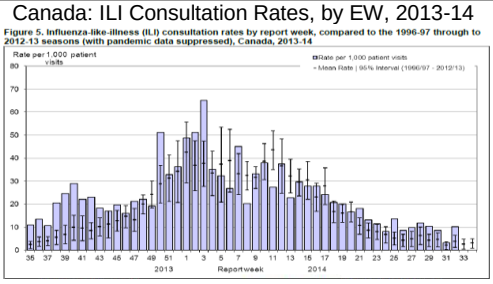
EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

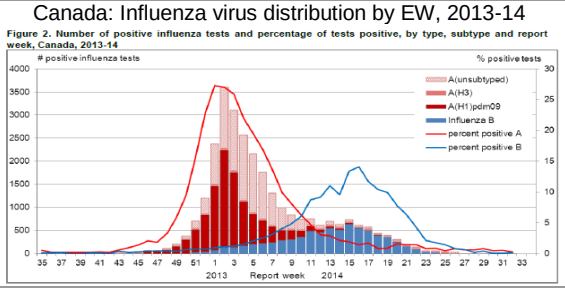
In Canada[1] during EW 32, influenza activity was low. The national ILI consultation rate was 10.2 per 1,000 patient visits, an increase compared to the previous week and slightly above expected levels. Since the beginning of the 2013-14 influenza season, 5,442 influenza-associated hospitalizations have been reported, of which 68.3% were associated with influenza A. During this same period, 342 deaths were reported, most of which were associated with influenza A (64.3%). The highest proportion of deaths (56.7%) has been among adults ≥65 years of age. Based on laboratory data for EW 32 the overall percentage of positive influenza tests was <1%. Among the positive tests during EW 31-32, 66.7% were influenza A (0% were influenza A(H1N1)pdm09, 75.0% were A(H3) and 25.0% were not subtyped) and 33.3% were influenza B. Among other circulating respiratory viruses, rhinovirus predominated.

Canada

Canada: ILI Consultation Rates, by EW, 2013-14



Canada: Influenza virus distribution by EW, 2013-14

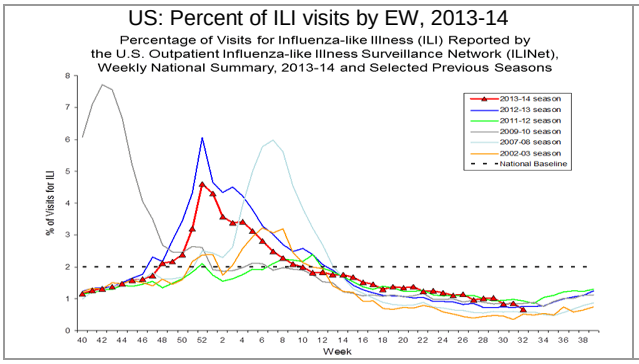


[1] Canada: FluWatch Report. EW 31-32. Available at http://www.phac-aspc.gc.ca/fluwatch/

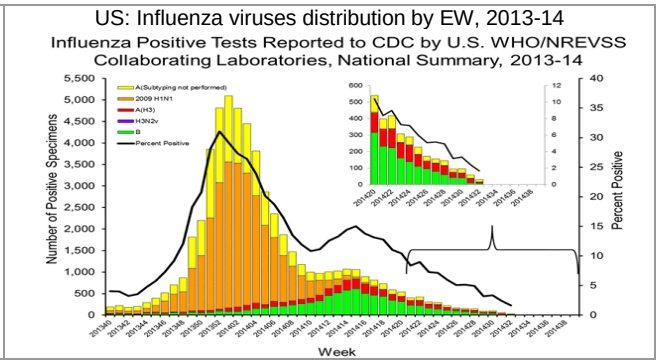
In the United States[2] during EW 32, influenza activity was low. The national proportion of ILI-associated outpatient visits (0.7%) was below the national baseline (2.0%). The proportion of deaths attributed to pneumonia and influenza (5.2%) was also below the epidemic threshold (6.0%). A total of 107 influenza-associated pediatric deaths have been reported this season (one death was reported during EW 32). According to laboratory data for EW 32, 1,826 samples were analyzed, of which 1.6% were positive for influenza. Among the positive samples, 76.7% were influenza A (4.3% A(H1N1)pdm09, 30.4% A(H3) and 65.2% not subtyped) and 23.3% were influenza B.

United States

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



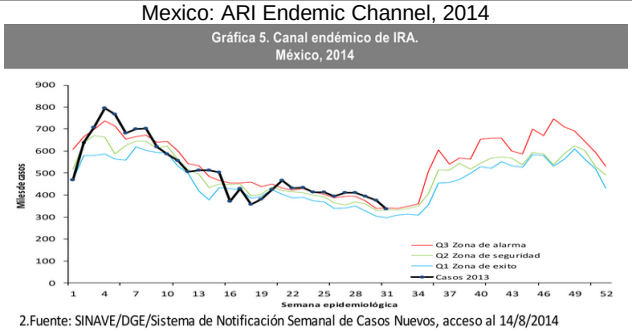
US: Influenza viruses distribution by EW, 2013-14



In Mexico[3] during EW 32, influenza activity remained low. ARI activity decreased from the previous week and was within the epidemic zone of the alarm channel. Pneumonia activity increased slightly compared to the previous week (rate: 1.9 per 100,000 inhabitants) and was slightly above expected levels for this time of year. The highest levels of pneumonia activity were reported in Nuevo Leon, Jalisco and Nayarit. Nationally, through August 14, 2014, the proportion of ILI/SARI-associated medical visits was 0.4%. The highest proportions of ILI/SARI-associated medical visits were reported in Guerrero, Veracruz and Queretaro. During this same period, 764 influenza-associated deaths were reported, of which 90.1% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 29-32, 515 samples were analyzed, of which 11.3% were positive for influenza. Among the positive samples, influenza B predominated (70.7%), followed by influenza A(H3N2) (25.9%).

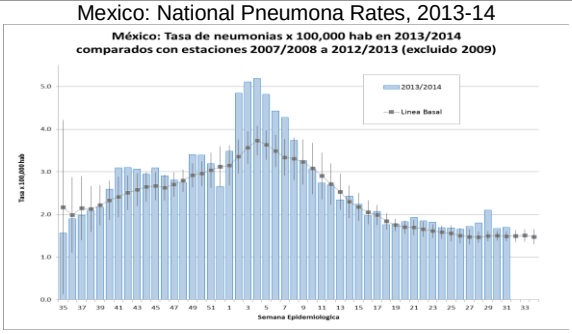
Mexico

Mexico: ARI Endemic Channel, 2014

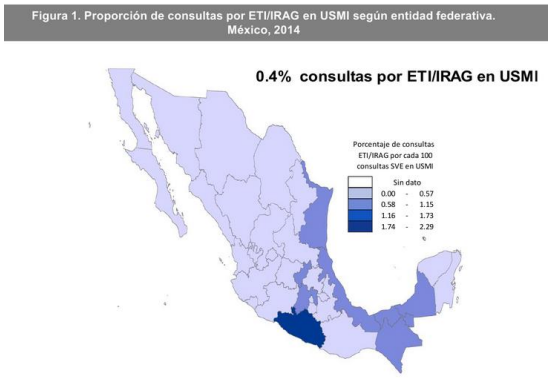


2.Fuente: SINAVE/DGE/Sistema de Notificación Semanal de Casos Nuevos, acceso al 14/8/2014

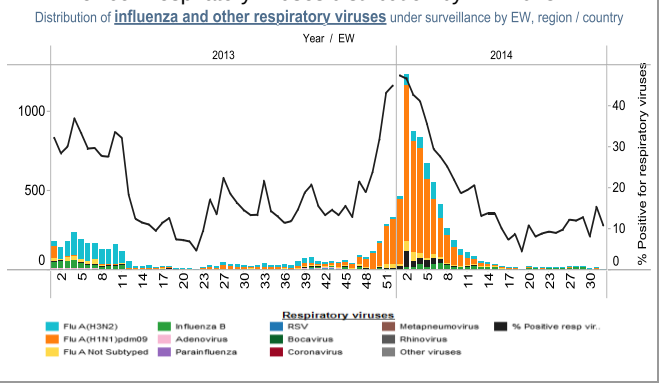
Mexico: National Pneumona Rates, 2013-14



Mexico: % of sentinel ILI/SARI



Mexico: Respiratory viruses distribution by EW 2013-14



[2] USA: CDC FluView report. EW 32. Available at: http://www.cdc.gov/flu/weekly/

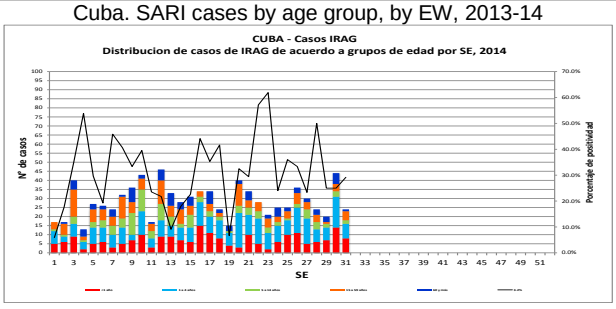
[3] México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Caribbean

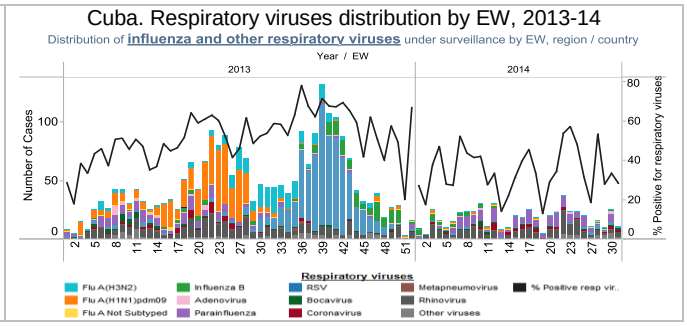
In Cuba during EW 31, the number of SARI-associated hospitalizations (n=24) decreased from the previous week. Children 0-4 years of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 28-31, 183 samples were analyzed, of which 34.4% were positive for a respiratory virus and 2.7% for influenza. Among the positive samples, rhinovirus (22.2%) and parainfluenza (19.0%) predominated. Among the influenza viruses, influenza B and A(H1N1)pdm09 were detected.

Cuba

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



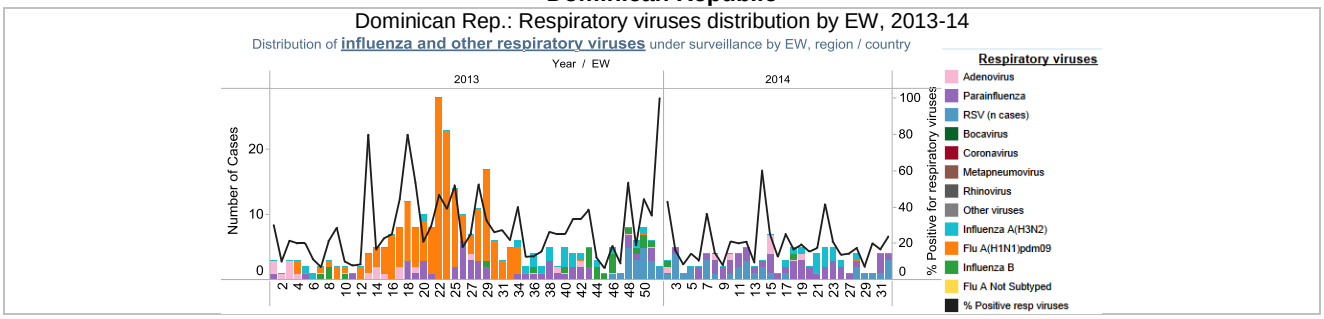
Cuba. Respiratory viruses distribution by EW, 2013-14



In the Dominican Republic, during EW 29-32, 60 samples were analyzed, of which 16.7% were positive for a respiratory virus and 0% were positive for influenza. Among the positive samples, RSV (60%) and parainfluenza (40%) were detected.

Dominican Republic

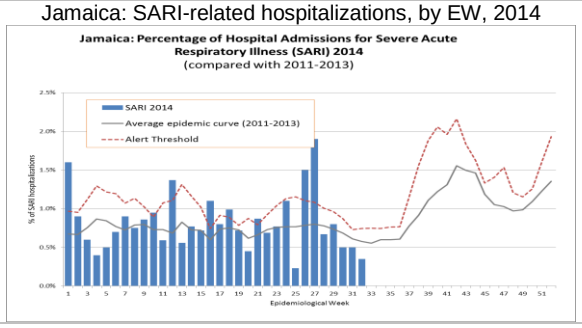
Dominican Rep.: Respiratory viruses distribution by EW, 2013-14



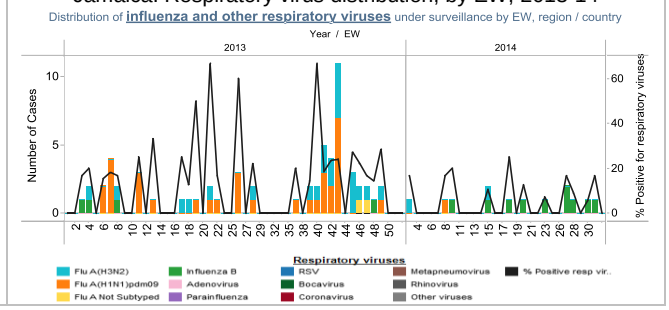
In Jamaica, based on sentinel surveillance data for EW 32, the proportions of ARI-associated consultations (2.3%) and SARI-associated hospitalizations (0.4%) decreased compared to the previous week. No SARI-associated deaths were reported during this EW. Based on laboratory data for EW 29-32, 39 samples were analyzed, of which two (5.1%) were positive for influenza B.

Jamaica

Jamaica: SARI-related hospitalizations, by EW, 2014



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



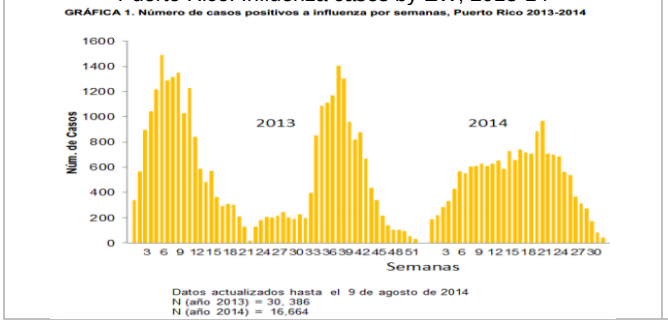
In Puerto Rico[4] during EW 32, the number of influenza cases (n=42) decreased compared to the previous week. Of these, 16 cases were associated with influenza A, 25 with influenza B and 1 with an influenza A and B co-infection. Since the beginning of 2014, 16,664 influenza cases have been reported (44% influenza A, 55% influenza B and 1% influenza A and B) and persons aged 0-19 years accounted for 50% of those

[4] Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 32

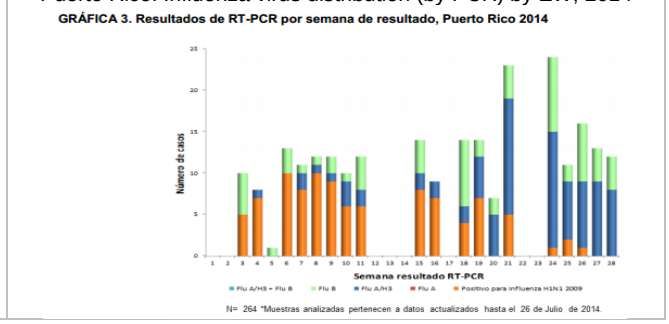
cases. During this same period, 795 influenza-associated hospitalizations and 13 influenza-associated deaths were reported.

Puerto Rico

Puerto Rico: Influenza cases by EW, 2013-14



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

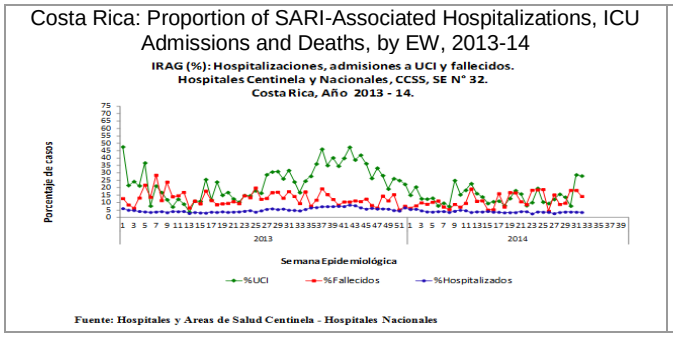


Central America

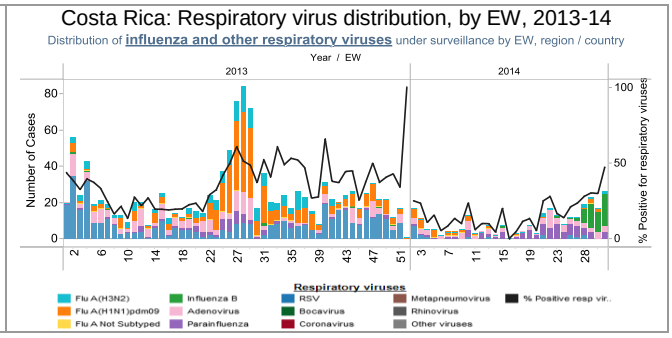
In Costa Rica, during EW 32, the proportions of SARI-associated hospitalizations (3.5%), ICU admissions (28.0%) and deaths (14.2%) decreased from the previous week. According to laboratory data from EW 28-31, 256 samples were analyzed of which 33.2% were positive for a respiratory virus and 23.0% were positive for influenza. Among the positive samples, influenza B (60.0%), parainfluenza (14.1%) and adenovirus (14.1%) predominated.

Costa Rica

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



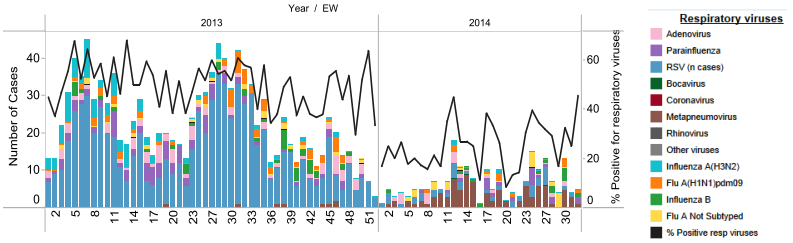
Costa Rica: Respiratory virus distribution, by EW, 2013-14



In Guatemala, based on laboratory data from EW 29-32, 91 samples were analyzed, of which 28.6% were positive for a respiratory virus and 13.2% were positive for influenza. Among the positive samples, human metapneumovirus (34.6%) predominated. Among the influenza positive samples, 58.3% were influenza A (42.9% A(H1N1)pdm09 and 57.1% not subtyped) and 41.7% were influenza B.

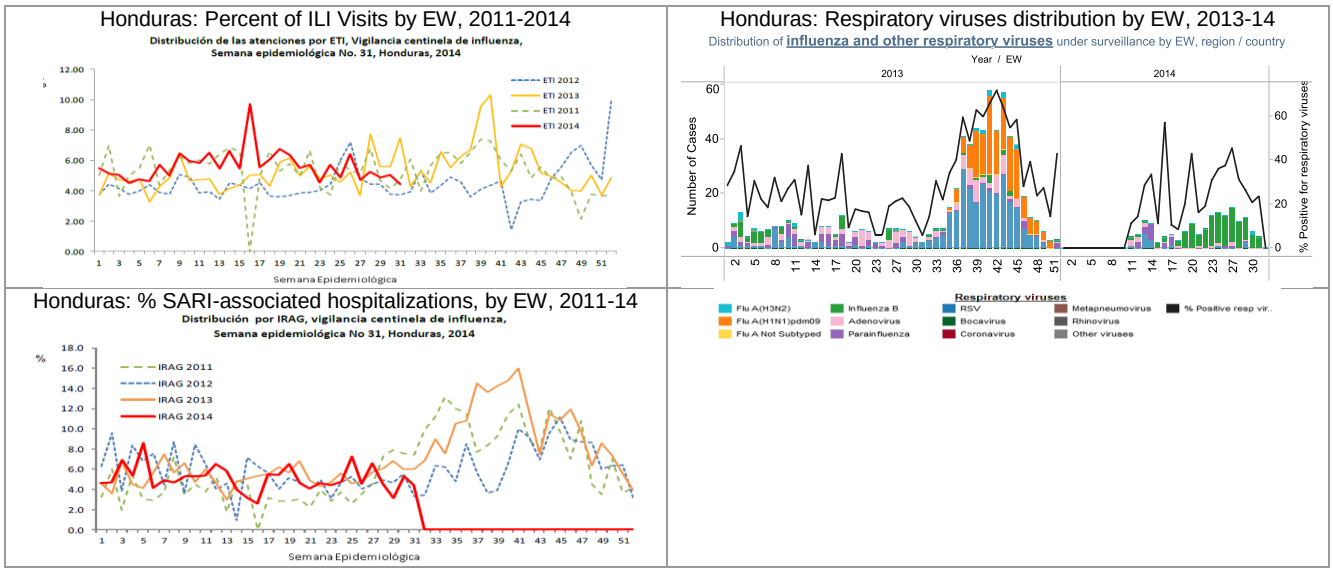
Guatemala

Guatemala: Respiratory viruses distribution by EW, 2013-14



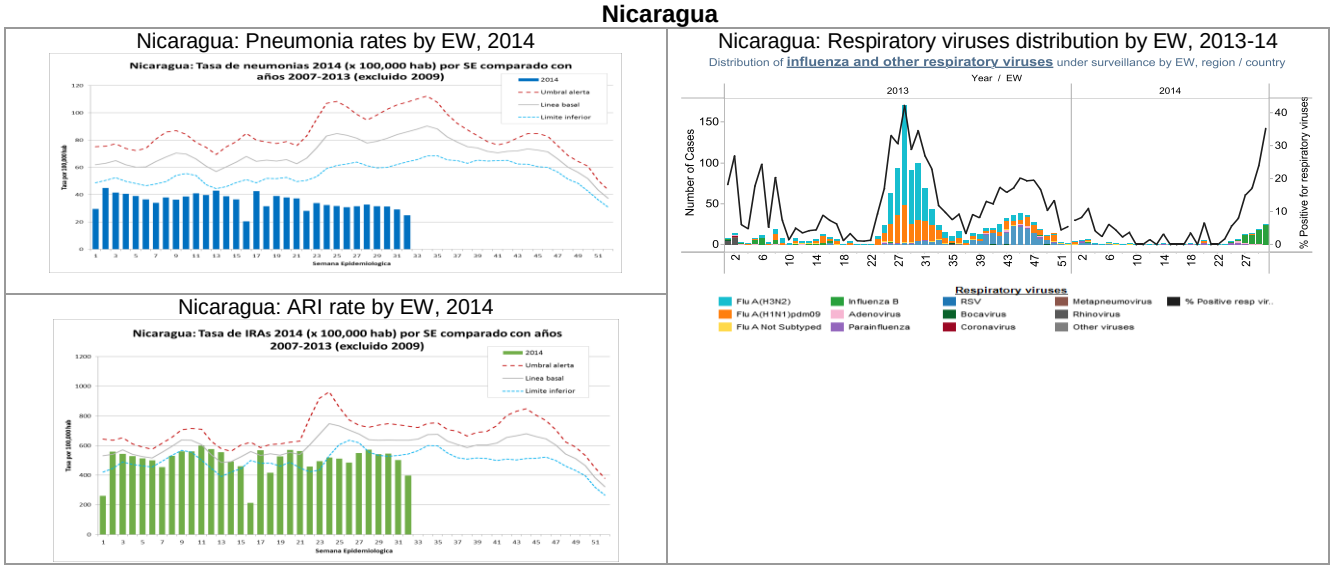
In Honduras, during EW 31, the proportions of ILI-associated medical visits (4.4%) and SARI-associated hospitalizations (4.4%) decreased compared to the previous week, and remained within expected levels for this time of year. According to laboratory data from EW 29-32, 96 samples were analyzed, of which 21.9% were positive for a respiratory virus and 18.8% were positive for influenza. Among positive samples, influenza B predominated (81.0%).

Honduras



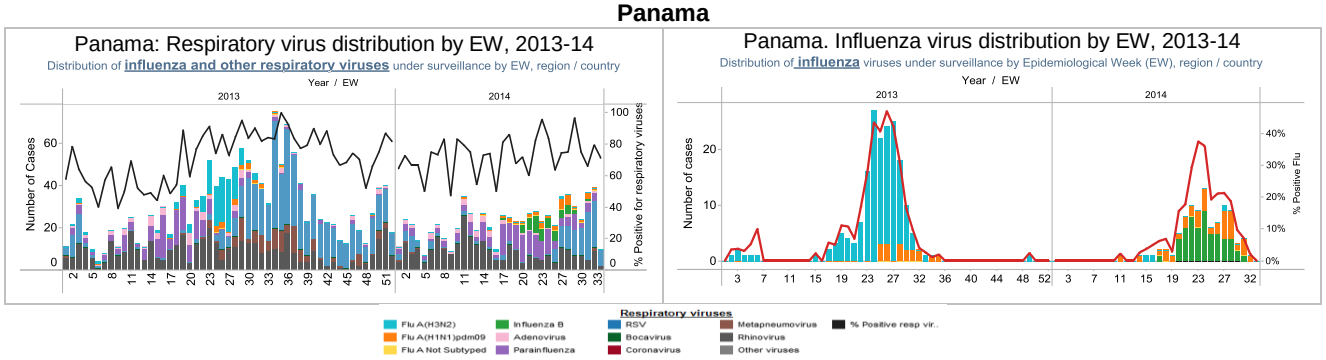
In Nicaragua, during EW 32, the national rates of pneumonia (24.8 per 100,000 population) and ARI (397.8 per 100,000 population) were within expected levels for this time of year. Based on laboratory data from EW 27-30, 319 samples were analyzed, of which 22.3% were positive for a respiratory virus and 21.0% were positive for influenza. Among the positive samples, influenza B (91.5%) predominated.

Nicaragua



In Panama, based on national laboratory data from EW 29-32, 168 samples were analyzed, of which 77.4% were positive for a respiratory virus and 5.4% were positive for influenza. Among the positive samples, RSV (53.8%) and rhinovirus (21.5%) predominated. Among the influenza positive samples, 66.7% were influenza A (100% A(H1N1)pdm09) and 33.3% were influenza B.

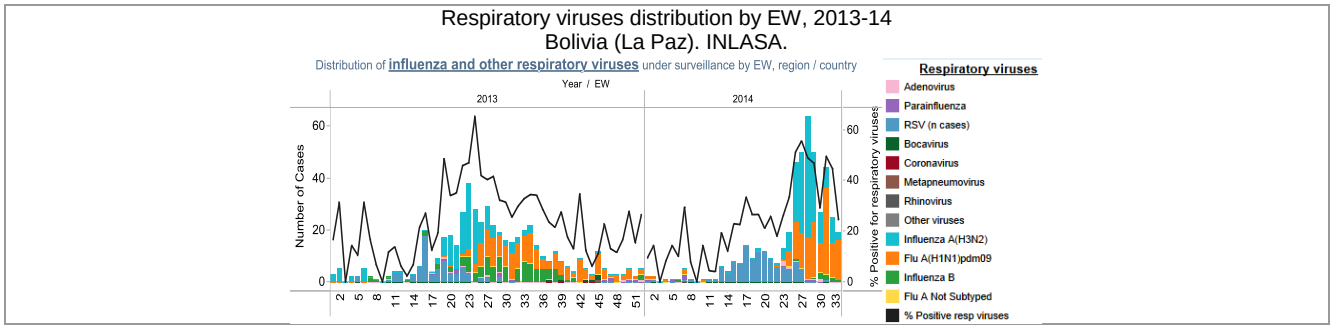
Panama



South America – Andean countries

In Bolivia, according data from the National Laboratory in La Paz (INLASA) from EW 29-32, 345 samples were analyzed, of which 42.3% were positive for a respiratory virus and 41.4% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (53.4%) and influenza A(H3N2) (39.0%) predominated.

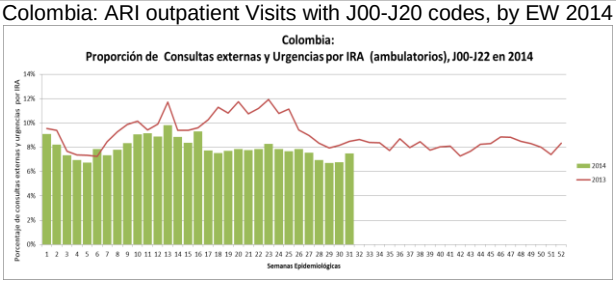
Bolivia



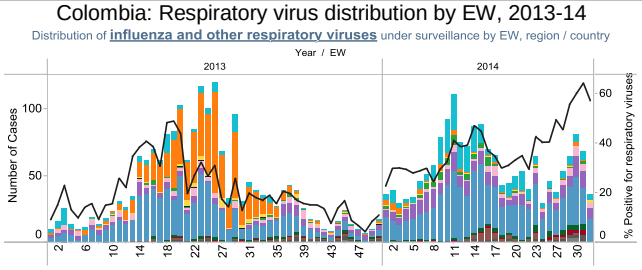
In Colombia, during EW 31 the proportions of outpatient and urgent visits (7.5%), hospitalizations (5.8%) and ICU admissions (6.4%) with ARI/SARI-associated ICD-10 codes (J00 to J22) were within the expected levels for this time of year. Based on INS laboratory data from EW 29-32, 419 samples were analyzed, of which 59.4% were positive for a respiratory virus and 7.6% were positive for influenza. Among the positive samples, RSV (43.8%) predominated. Among the influenza viruses, influenza A(H3N2) predominated (68.8% of influenza samples).

Colombia

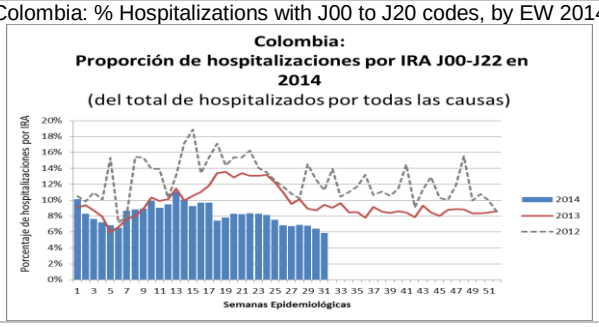
Colombia: ARI outpatient Visits with J00-J20 codes, by EW 2014



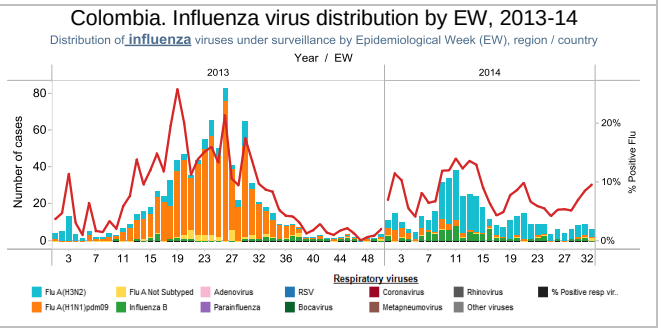
Colombia: Respiratory virus distribution by EW, 2013-14



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



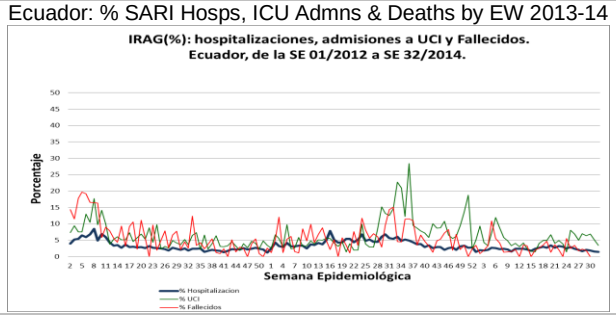
Colombia. Influenza virus distribution by EW, 2013-14



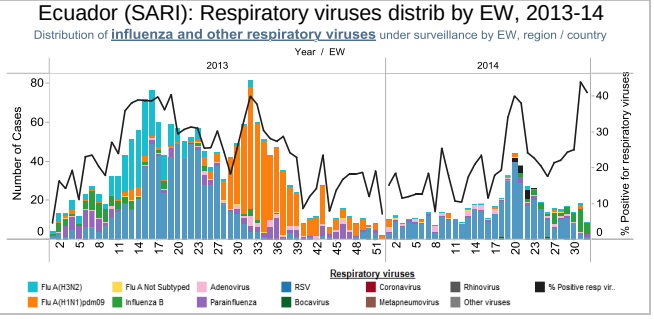
In Ecuador during EW 32, the proportions of SARI-associated hospitalizations (1.5%), ICU admissions (3.4%) and deaths (0%) decreased compared to the previous week. Based on national reference laboratory data from EW 29-32,189 SARI samples were analyzed, of which 30.7% were positive for a respiratory virus and 15.3% were positive for influenza. Among the positive samples, RSV predominated (43.1%). Among the influenza viruses, influenza B predominated (93.1% of influenza samples).

Ecuador

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



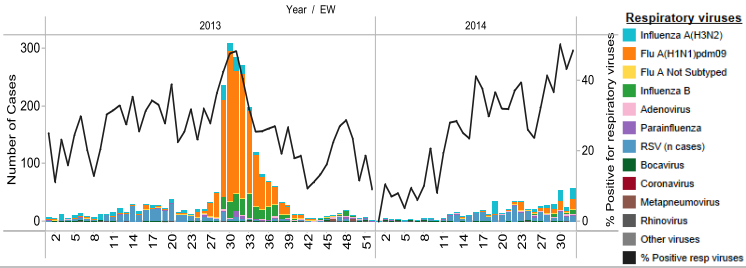
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 29-32, 366 samples were analyzed, of which 45.4% were positive for a respiratory virus and 31.7% were positive for influenza. Among the positive samples, influenza A(H3N2) (32.5%), influenza A(H1N1)pdm09 (25.3%), RSV predominated (25.3%), and influenza B (12.0%) predominated.

Peru

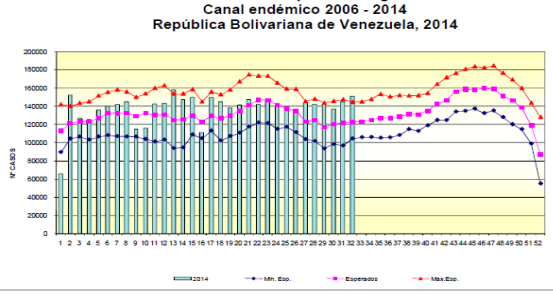
Perú. Respiratory viruses distribution by EW, 2013-14



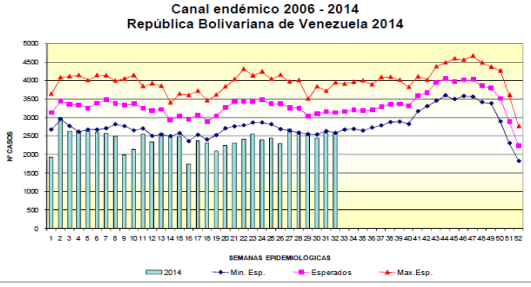
In Venezuela[5] during EW 32, the numbers of ARI and pneumonia cases increased by 4.3% and 2.8%, respectively, compared to the previous week. The number of ARI cases was slightly above expected levels for this time of year. During EW 32, 56 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-32, 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

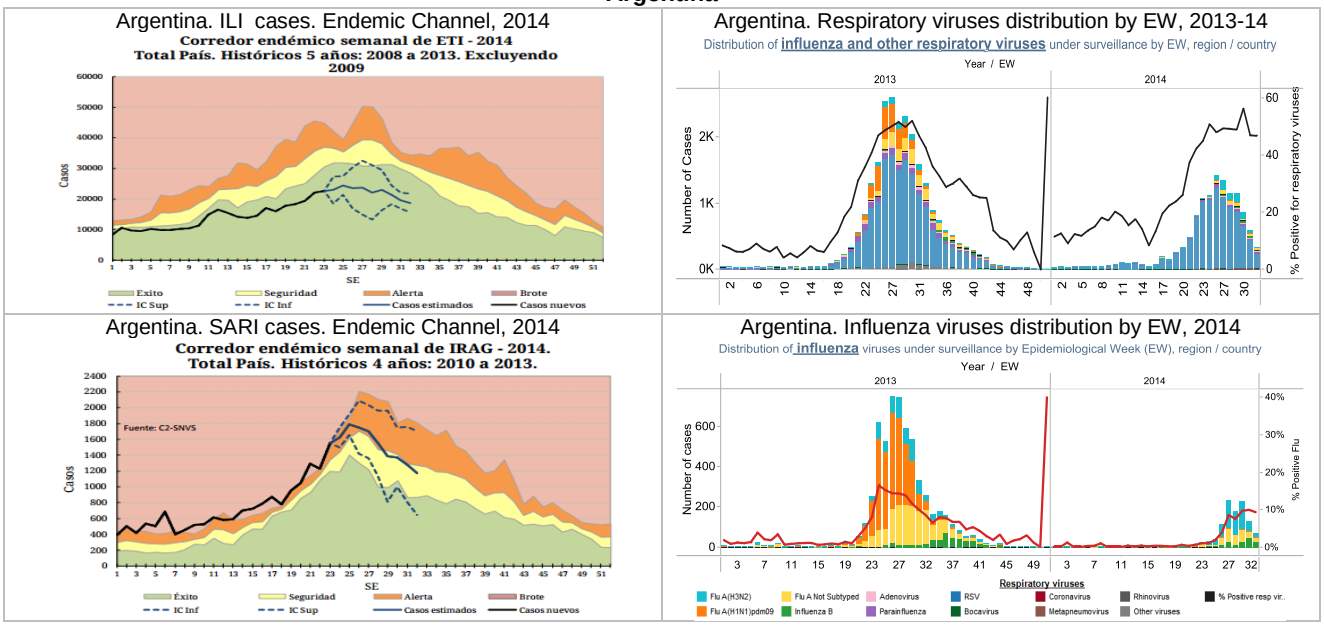


South America – South Cone and Brazil

In Argentina[6], according to reports and estimations calculated for EW 31, the majority of respiratory virus indicators have decreased since peaking in EW 25. ILI activity was within the success zone of the endemic channel while the estimated number of SARI cases was within the security zone of the endemic channel. Based on laboratory data from EW 31-32, 1,989 samples were processed, of which 46.8% were positive for a respiratory virus and 9.7% were positive for influenza. Among the positive samples, RSV (68.3%) predominated. Among the influenza viruses, 66.3% were influenza A (3.1% A(H1N1)pdm09, 41.6% A(H3N2) and 50.8% not subtyped) and 33.7% were influenza B.

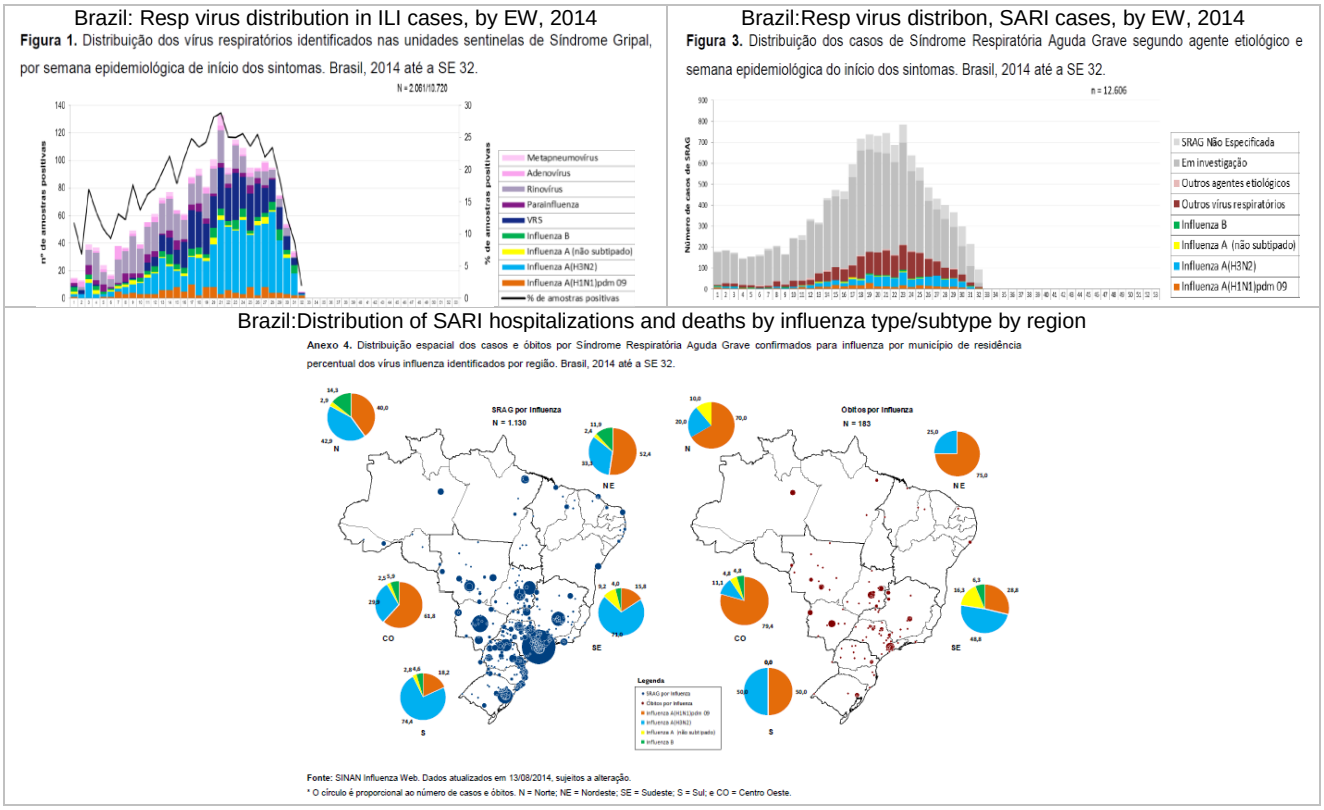
[5] Venezuela. Boletín epidemiológico, EW 32.
[6] Argentina. Boletin integrado de vigilancia. SE 31.

Argentina



In Brazil[7], according to ILI sentinel surveillance data through EW 32, 10,720 samples were analyzed, and of these, 19.2% were positive for influenza or another respiratory virus. Among the positive samples, influenza A(H3N2) and RSV predominated. Based on national SARI surveillance data during this same period, 12,606 SARI cases were reported and 9.0% of these were positive for influenza. Among the positive samples, influenza A(H3N2) (62.2%) predominated, followed by influenza A(H1N1)pdm09 (27.0%). The largest number of SARI cases was reported in the southeast region, primarily in Sao Paulo. Through EW 32, 1,387 SARI-associated deaths were reported, of which 13.2% were positive for influenza (53.0% A(H1N1)pdm09 and 33.3% A(H3N2)).

Brazil

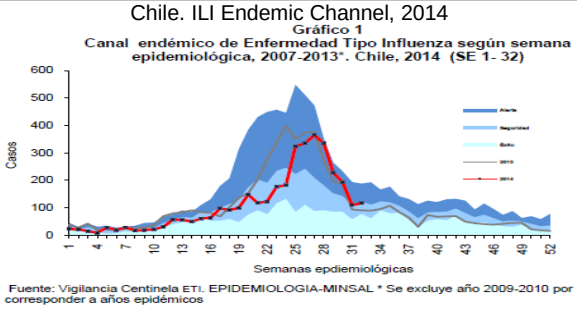


[7] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 32, 2014.

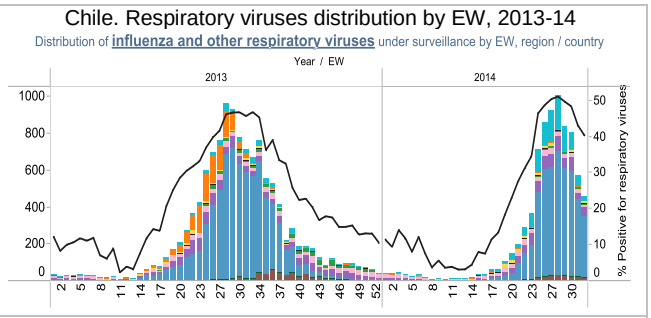
In Chile[8], during EW 32, ILI activity (rate: 7.9 per 100,000 inhabitants) increased slightly compared to the previous EW and was within the security zone of the endemic channel. Through EW 31, 2,089 SARI cases were reported through sentinel surveillance and of these, 48.4% were positive for respiratory virus. Among the positive SARI cases, RSV predominated, followed by influenza A(H3N2). During this same period, 58 SARI-associated deaths were reported. Based on laboratory data from EW 31-32, 2,466 samples were analyzed, of which 41.7% were positive for a respiratory virus and 4.9% were positive for influenza. Among the positive samples, RSV predominated (73.76%). Among the influenza samples, 78.7% were influenza A (81.3% A(H3N2) and 18.8% not subtyped) and 21.3% were influenza B.

Chile

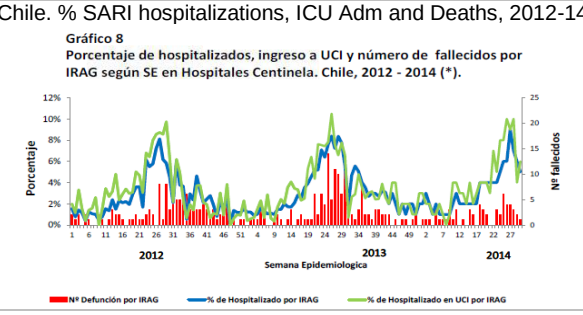
Chile. ILI Endemic Channel, 2014



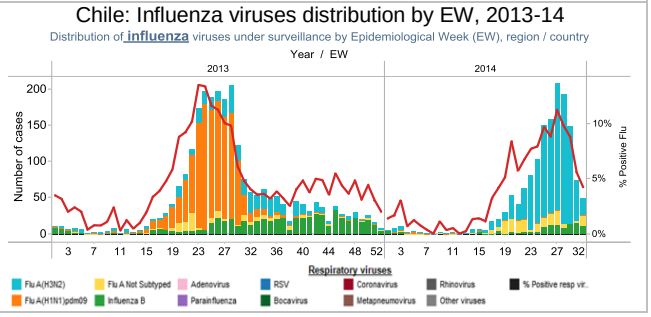
Chile. Respiratory viruses distribution by EW, 2013-14



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



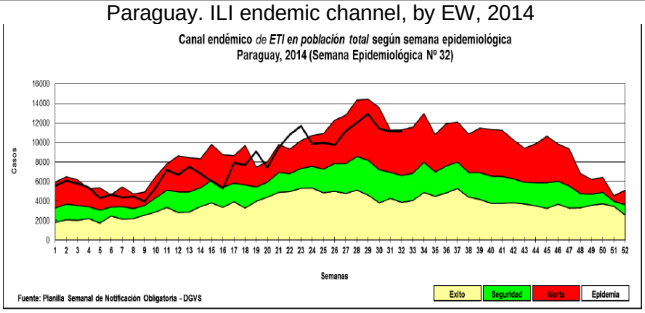
Chile: Influenza viruses distribution by EW, 2013-14



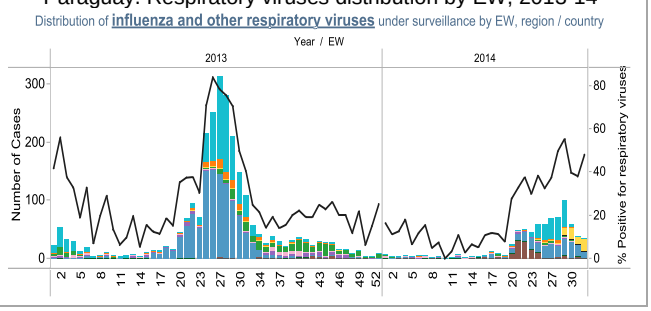
In Paraguay[9] during EW 32, the ILI consultation rate (166.9 per 100,000 inhabitants) was similar to the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (5.7%) decreased compared to the previous week. The most affected age group was children <5 years of age (40.7% of reported cases). From EW 1-32, 194 SARI-associated deaths were reported and 19 (9.8%) were positive for a respiratory virus. Based on laboratory data from EW 29-32, 501 samples were analyzed, of which 46.1% were positive for a respiratory virus and 25.3% were positive for influenza. Among the positive samples, RSV (36.8%) predominated. Among the influenza samples, 93.7% were influenza A (2.5% A(H1N1)pdm09, 43.7% A(H3N2), and 53.8% A, not subtyped) and 6.3% were influenza B.

Paraguay

Paraguay. ILI endemic channel, by EW, 2014



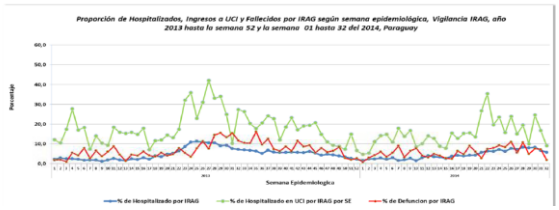
Paraguay. Respiratory viruses distribution by EW, 2013-14



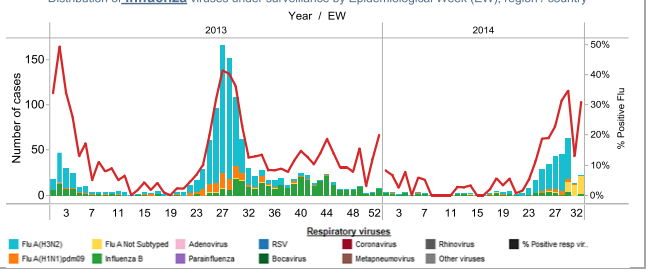
[8] Chile. Informe de situación. EW 31-32. Available at: http://epi.minsal.cl/

[9] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 32.

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



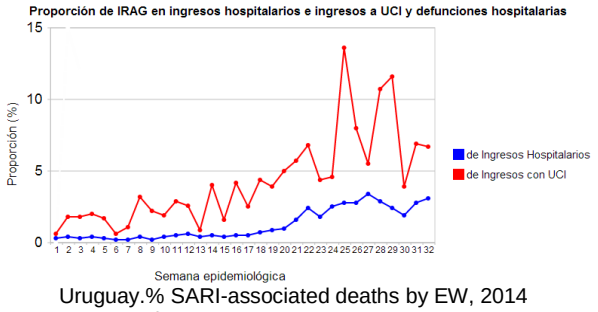
Paraguay: Influenza viruses distribution by EW, 2013-14



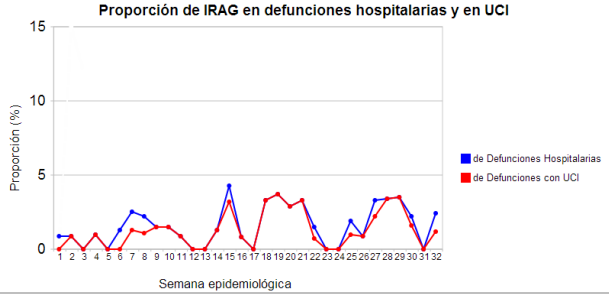
In Uruguay[10] during EW 32, the proportions of SARI-associated hospitalizations and deaths increased compared to the previous week, while the proportion of SARI-associated ICU admissions decreased. Based on laboratory data from EW 29-32, 98 samples were analyzed, of which 37.8% were positive for a respiratory virus and 10.2% were positive for influenza. Among the positive samples, RSV predominated (64.9%). Among the positive influenza samples, 90% were influenza A (66.7% A(H3N2) and 33.3% not subtyped) and 10% were influenza B.

Uruguay

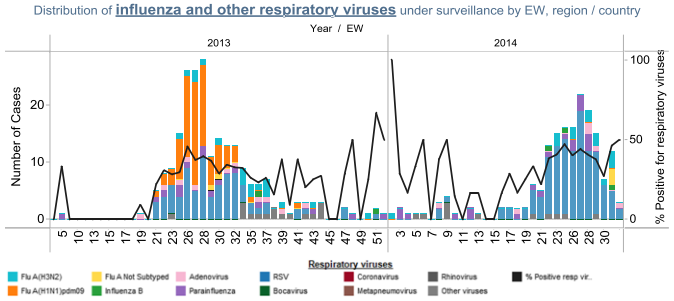
Uruguay.% SARI-assoc hosps & ICU admissions by EW, 2014



Uruguay.% SARI-associated deaths by EW, 2014



Uruguay. Respiratory viruses distribution by EW, 2013-14



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