Regional Update EW 27, 2014
Influenza and other respiratory viruses
(July 15, 2014)

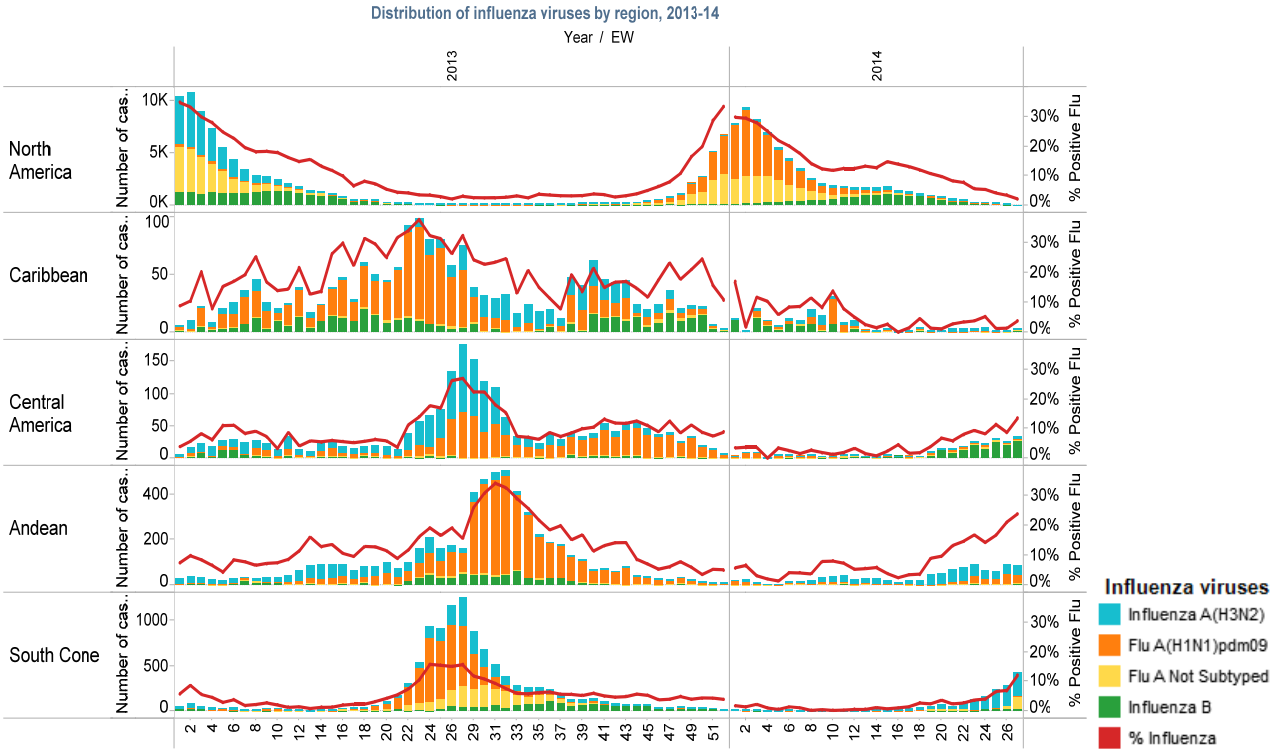
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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.

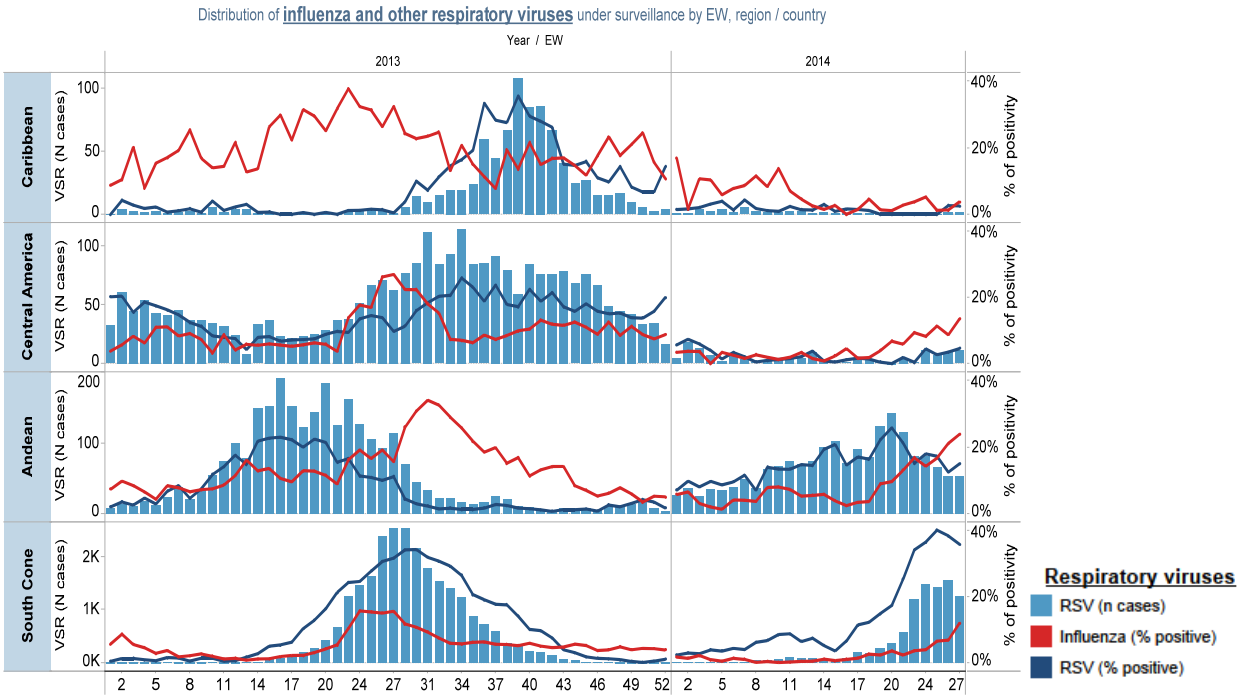
WEEKLY SUMMARY

- North America: Influenza activity remained low in the sub-region with co-circulation of influenza B and A(H3N2).
- The Caribbean and Central America: Respiratory virus activity remained low in the sub-region, but increased circulation of influenza B was observed in some countries (El Salvador, Honduras, Jamaica, Nicaragua, Panama, Puerto Rico).
- South America – Andean Countries: RSV continued to circulate in most countries of the sub-region. Increased circulation of influenza was observed in Bolivia, with co-circulation of A(H3N2) and A(H1N1)pdm09; while activity remained low in the rest of the countries of this sub-region.
- South America - South Cone and Brazil: Most acute respiratory illness activity indicators in the sub-region continued to increase, especially in Chile, where observed ILI levels were similar to 2013. RSV continued to predominate. With respect to influenza activity, A(H3N2) predominated (Argentina, Brazil, Chile, Paraguay).

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

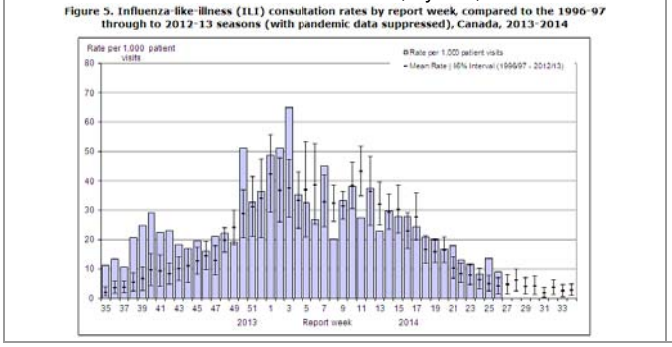
North America:

In Canada[1] during EW 26, influenza activity continued to decline and was within expected levels for this time of year. The national ILI consultation rate was 8.2 per 1,000 patient visits, a decrease compared to the previous week, but slightly above expected levels. Since the beginning of the 2013-14 influenza season, 5,358 influenza-associated hospitalizations have been reported, of which 68.9% were associated with influenza A. During this same period, 332 deaths were reported, most of which were associated with influenza A (65.4%). The highest proportion of deaths (56.0%) has been among adults ≥65 years of age. Based on laboratory data for EW 26 the overall percentage of positive influenza tests was 2.0% (N=35). Among the positive tests during EW 25-26, 54.3% were influenza A (5.3% were influenza A(H1N1)pdm09, 42.1% were A(H3) and 52.6% were A, not subtyped) and 45.7% were influenza B. Among other circulating respiratory viruses, rhinovirus predominated.

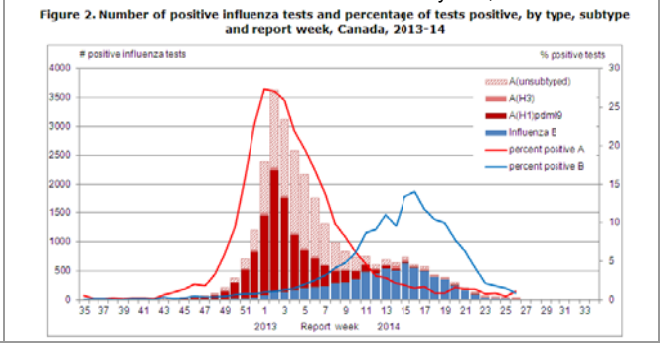
[1] Canada: FluWatch Report. EW 25-26. Available at http://www.phac-aspc.gc.ca/fluwatch/

Canada

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



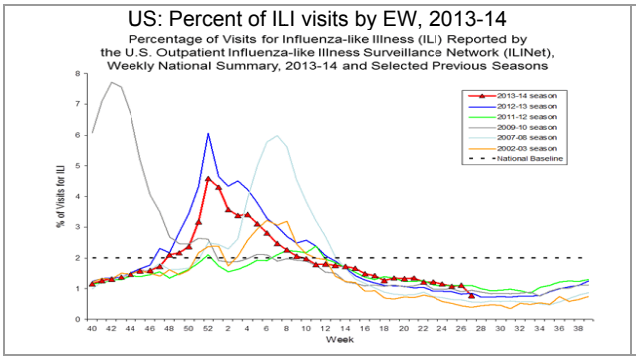
Canada: Influenza virus distribution by EW, 2013-14



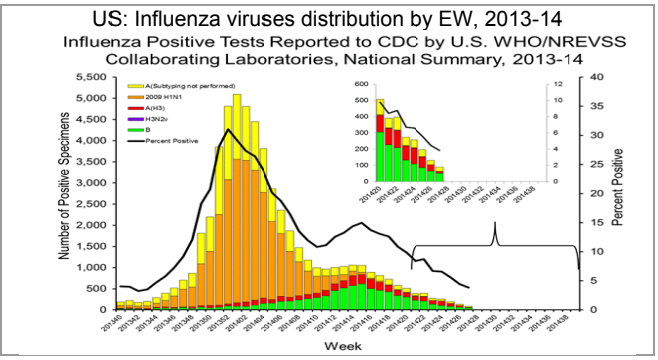
In the United States[2] during EW 27, influenza activity was low. The national proportion of ILI-associated outpatient visits (0.8%) was below the national baseline (2.0%). The proportion of deaths attributed to pneumonia and influenza (5.7%) was also below the epidemic threshold (6.3%). A total of 100 influenza-associated pediatric deaths have been reported this season (no deaths were reported during EW 27). According to laboratory data for EW 27, 2,309 samples were analyzed, of which 3.9% were positive for influenza. Among the positive samples, 57.3% were influenza B and 42.7% were influenza A (0% A(H1N1)pdm09, 31.6% A(H3) and 68.4% not subtyped).

United States

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



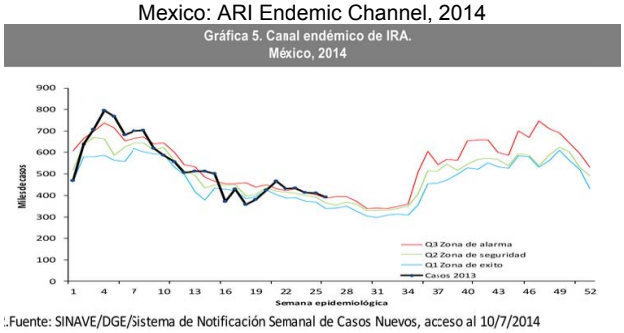
US: Influenza viruses distribution by EW, 2013-14



In Mexico[3] during EW 27, influenza activity remained low. ARI activity was similar to the previous week and was within the epidemic zone of the endemic channel. Pneumonia activity decreased compared to the previous week (rate: 1.6 per 100,000 inhabitants). The highest levels of pneumonia activity were reported in Aguascalientes, Campeche and Guerrero. Nationally, through July 10, 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, Tabasco and Veracruz. During this same period, 756 influenza-associated deaths were reported, of which 90.3% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 24-27, 572 samples were analyzed, of which 8.4% were positive for influenza. Among the positive samples, influenza B predominated (76.4%), followed by influenza A(H3N2) (10.9%).

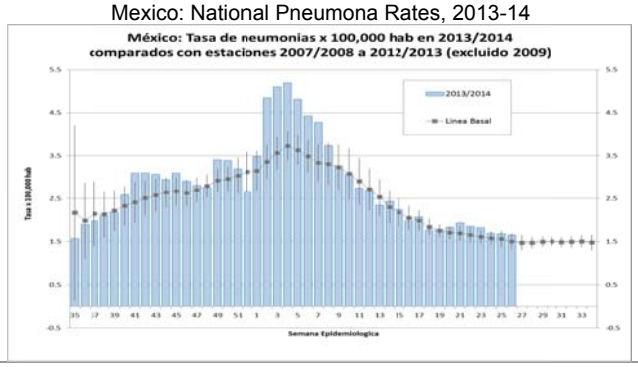
Mexico

Mexico: ARI Endemic Channel, 2014



Fuente: SINAVE/DGE/Sistema de Notificación Semanal de Casos Nuevos, acceso al 10/7/2014

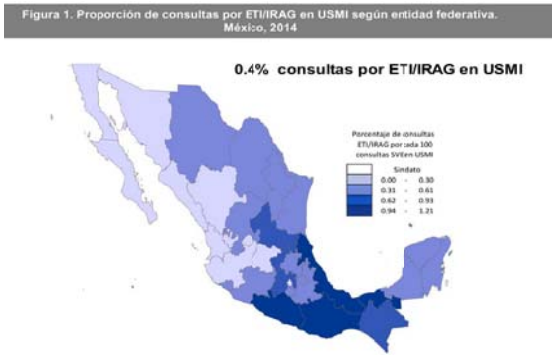
Mexico: National Pneumona Rates, 2013-14



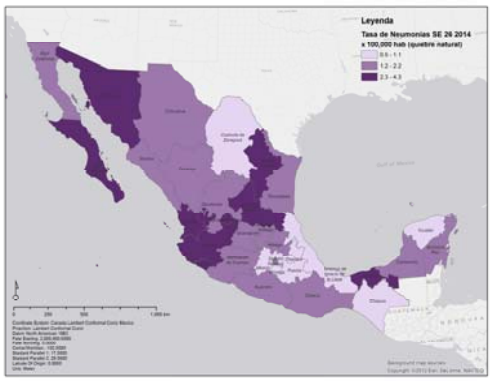
[2] USA: CDC FluView report. EW 27. Available at: http://www.cdc.gov/flu/weekly/

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

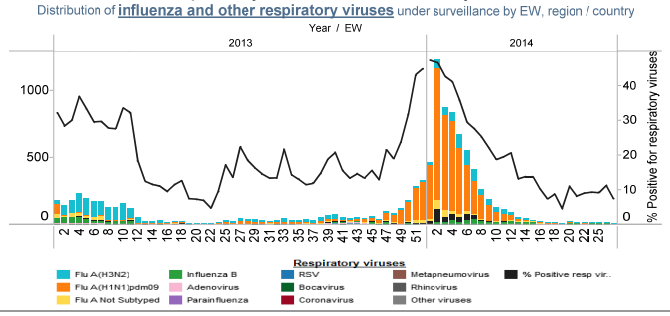
Mexico: % of sentinel ILI/SARI



Mexico: Neumonia rates by state, EW 26



Mexico: Respiratory viruses distribution by EW 2013-14

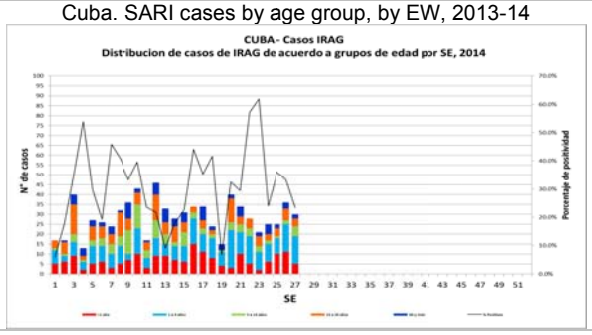


Caribbean

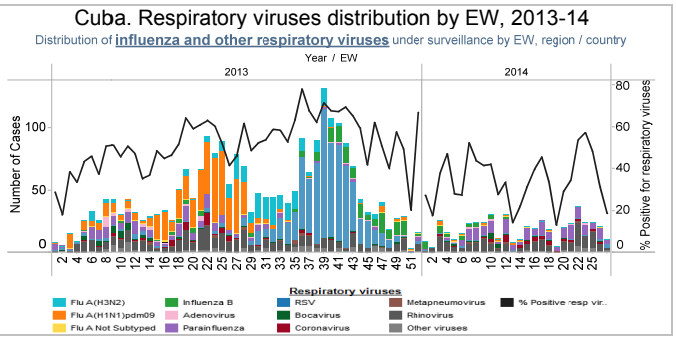
In Cuba during EW 27, the number of SARI-associated hospitalizations (n=30) decreased from the previous week. Children 1-4 years of age comprised the largest proportion of these cases. Two SARI-associated deaths were reported during this period and tested negative for a respiratory virus. According to national laboratory data for EW 24-27, 228 samples were analyzed, of which 33.8% were positive for a respiratory virus and 1.3% were positive for influenza. Among the positive samples, rhinovirus (39.0%) and parainfluenza (29.9%) predominated.

Cuba

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



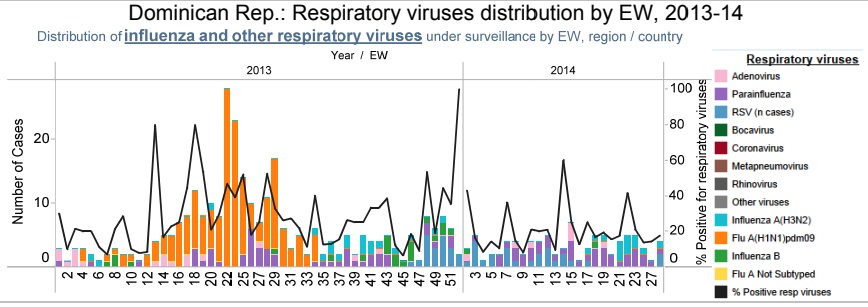
Cuba. Respiratory viruses distribution by EW, 2013-14



In the Dominican Republic, during EW 25-28, 52 samples were analyzed, of which 15.4% were positive for a respiratory virus and 3.8% were positive for influenza. Among the positive samples, parainfluenza (50.0%), influenza A(H3N2) (25.0%) and RSV (25.0%) were detected.

Dominican Republic

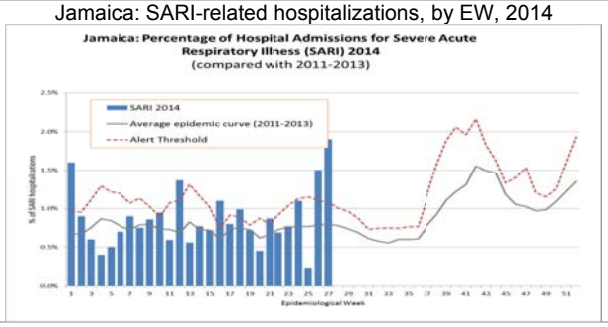
Dominican Rep.: Respiratory viruses distribution by EW, 2013-14



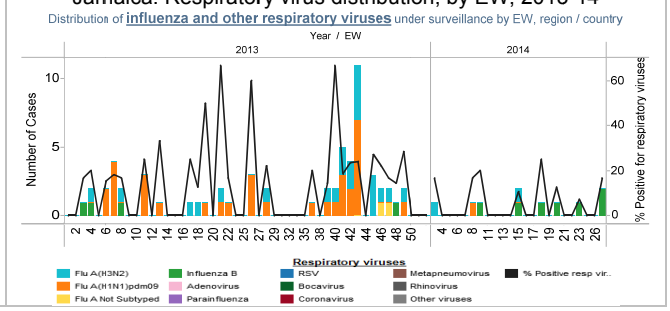
In Jamaica, based on sentinel surveillance data for EW 27, the proportion of ARI-associated consultations (3.7%) was similar to the previous week. The proportion of SARI-associated hospitalizations (1.9%) increased and was above expected levels for this time of year. No SARI-associated deaths were reported during this EW. Based on laboratory data for EW 24-27, 39 samples were analyzed, of which two (5.1%) were positive for influenza B.

Jamaica

Jamaica: SARI-related hospitalizations, by EW, 2014



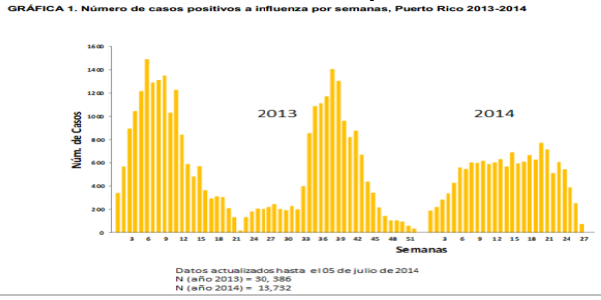
Jamaica: Respiratory virus distribution, by EW, 2013-14



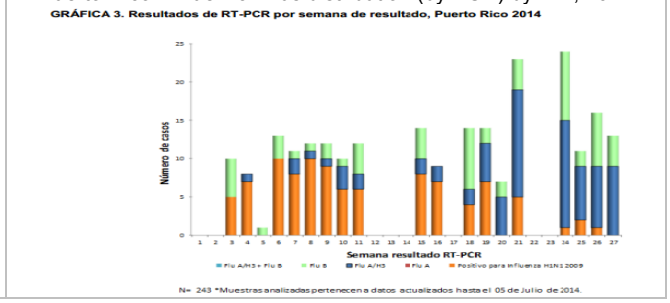
In Puerto Rico[4] during EW 27, the number of influenza cases (n=67) decreased compared to the previous week. Of these, 21 cases were associated with influenza A, 44 with influenza B and 2 with an influenza A and B co-infection. Since the beginning of 2014, 13,732 influenza cases have been reported (47.3% influenza A, 51.7% influenza B and 1.0% influenza A and B) and persons aged 0-19 years accounted for 50% of those cases. During this same period, 710 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

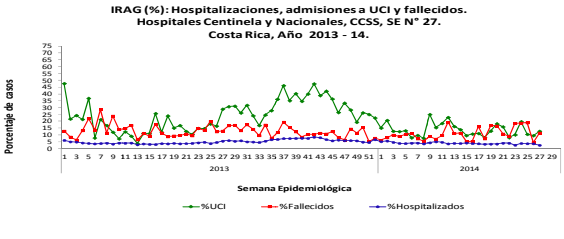


Central America

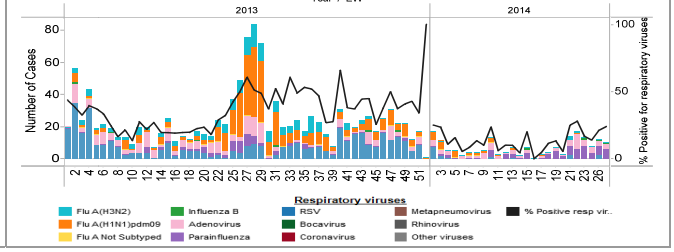
In Costa Rica, during EW 27, the proportion of SARI-associated hospitalizations (2.5%) decreased from the previous week, while the proportions of SARI-associated ICU admissions (12.8%) and deaths (11.5%) increased slightly. According to laboratory data from EW 24-27, 224 samples were analyzed of which 18.3% were positive for a respiratory virus and 1.3% were positive for influenza. Among the positive samples, parainfluenza (51.2%) and adenovirus (31.7%) 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



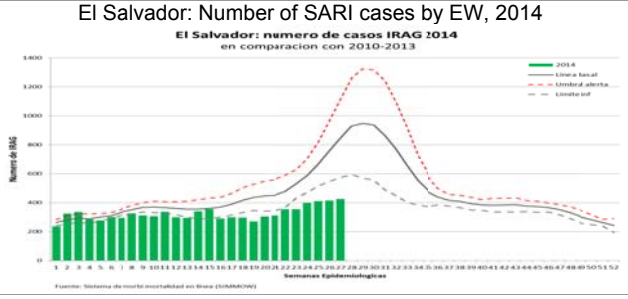
In El Salvador, during EW 27, the proportions of SARI-associated hospitalizations (8.5%) and deaths (8.7%) increased compared to the previous week. There were no SARI-associated ICU admissions reported this week. According to laboratory data from EW 24-27, 175 samples were analyzed of which 28.6% were

[4] Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 27

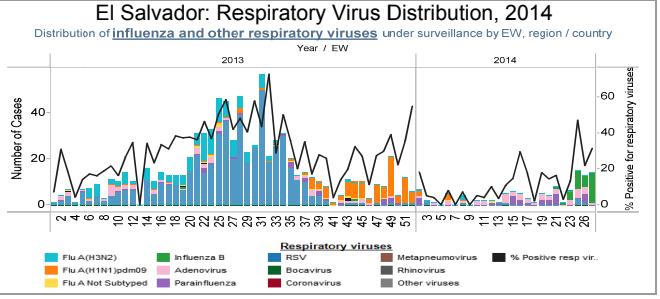
positive for a respiratory virus and 16.6% were positive for influenza. Among the positive samples, influenza B (58.0%) and adenovirus (26.0%) predominated.

El Salvador

El Salvador: Number of SARI cases by EW, 2014



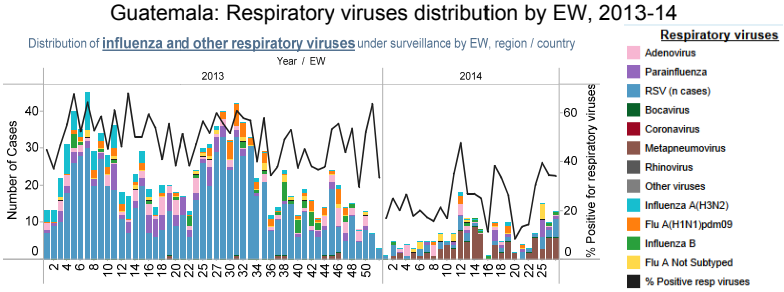
El Salvador: Respiratory Virus Distribution, 2014



In Guatemala, based on laboratory data from EW 24-27, 144 samples were analyzed, of which 32.6% were positive for a respiratory virus and 4.9% were positive for influenza. Among the positive samples, human metapneumovirus (44.7%), RSV (25.5%) and parainfluenza (14.9%) predominated.

Guatemala

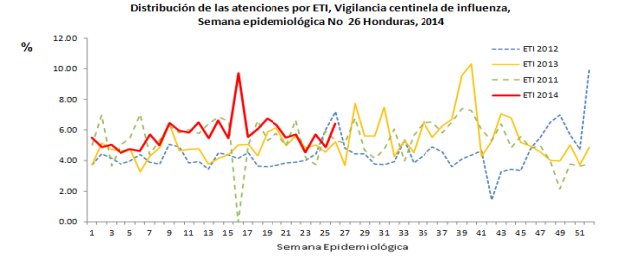
Guatemala: Respiratory viruses distribution by EW, 2013-14



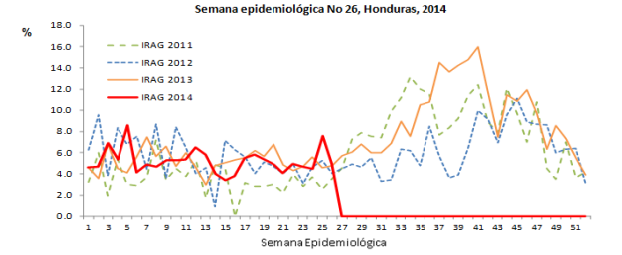
In Honduras, during EW 26, the proportion of ILI-associated medical visits (6.4%) increased compared to the previous week while the proportion of SARI-associated hospitalizations (4.9%) decreased. According to laboratory data from EW 24-27, 98 samples were analyzed, of which 29.6% were positive for a respiratory virus and 25.5% were positive for influenza. Among positive samples, influenza B predominated (86.2%).

Honduras

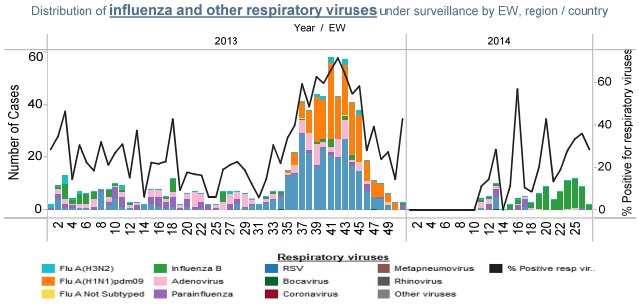
Honduras: Percent of ILI Visits by EW, 2011-2014



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

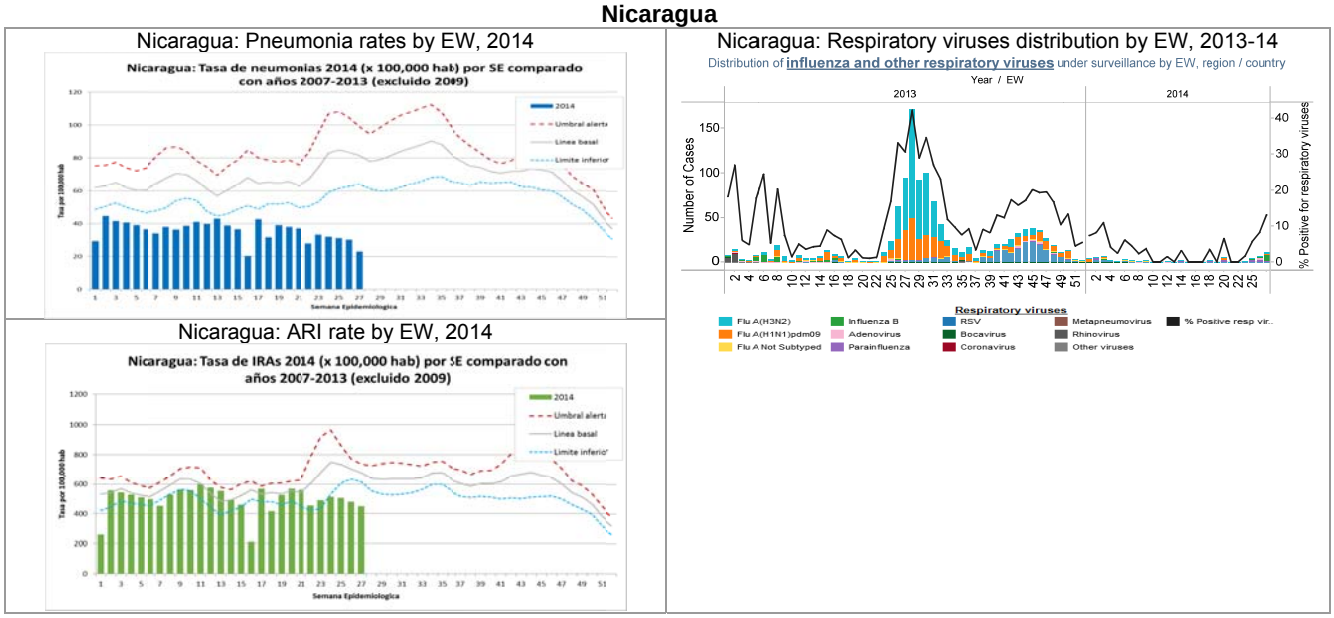


Honduras: Respiratory viruses distribution by EW, 2013-14



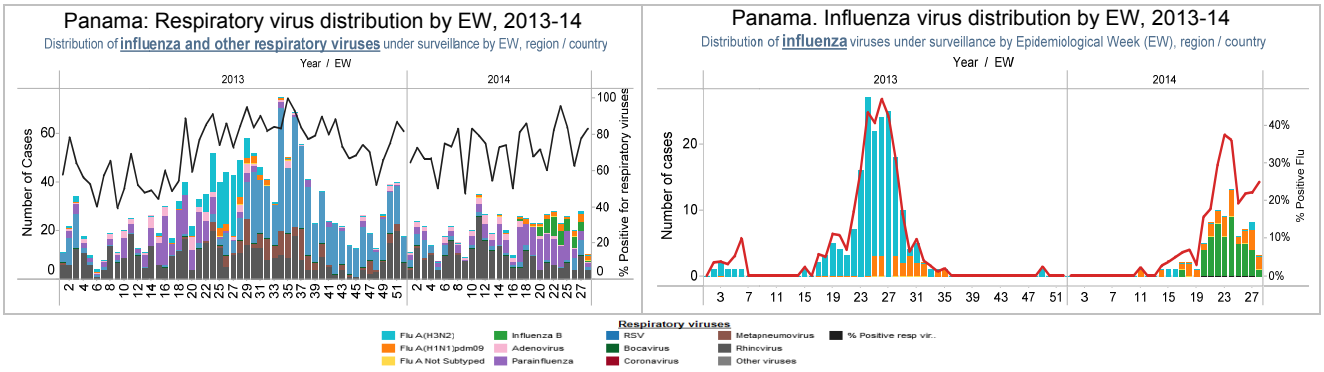
In Nicaragua, during EW 27, the national rates of pneumonia and ARI were within expected levels for this time of year and slightly lower than previous weeks. Based on laboratory data from EW 24-27, 291 samples were analyzed, of which 8.6% were positive for a respiratory virus and 4.1% were positive for influenza. Among the positive samples, parainfluenza (44.0%) and influenza B (40.0%) predominated.

Nicaragua



In Panama, based on national laboratory data from EW 24-27, 135 samples were analyzed, of which 77.0% were positive for a respiratory virus and 25.2% were positive for influenza. Among the influenza positive samples, 67.6% were influenza B and 32.4% were influenza A (90.9% A(H1N1)pdm09 and 9.1% A(H3N2)). Among the other respiratory viruses, parainfluenza (29.8% of positive samples) and rhinovirus (21.2%) predominated.

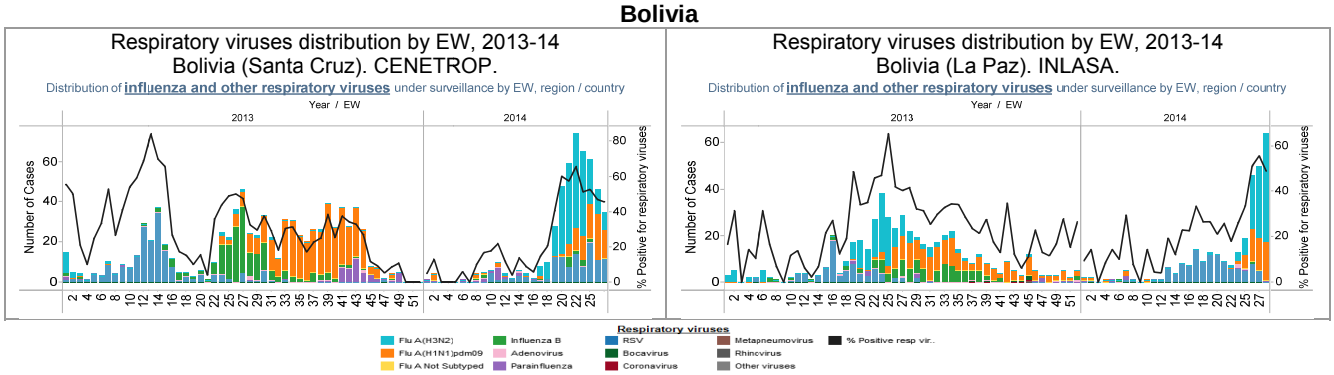
Panama



South America – Andean countries

In Bolivia, according to laboratory data from Santa Cruz (CENETROP) from EW 24-27, 381 samples were analyzed, of which 49.1% were positive for a respiratory virus and 35.7% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (35.8%), influenza A(H3N2) (34.8%), and RSV (27.3%) predominated. Based on data from the National Laboratory in La Paz (INLASA) from EW 25-28, 368 samples were analyzed, of which 48.6% were positive for a respiratory virus and 43.2% were positive for influenza. Among the positive samples, influenza A(H3N2) (60.3%), influenza A(H1N1)pdm09 (27.9%) and RSV (10.1%) predominated.

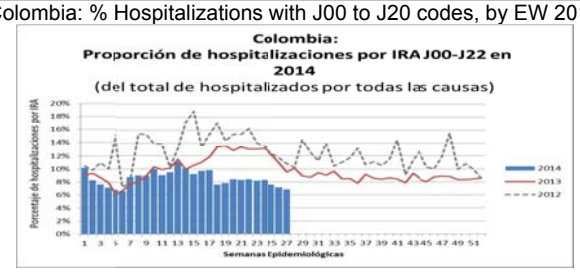
Bolivia



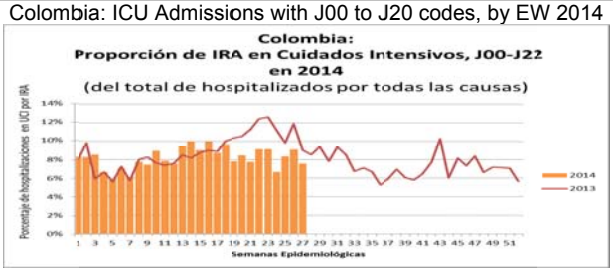
In Colombia, during EW 27 the proportions of outpatient and urgent visits (7.6%), hospitalizations (6.8%) and ICU admissions (7.6%) with ARI/SARI-associated ICD-10 codes (J00 to J22) were within the expected levels for this time of year. Based on INS laboratory data from EW 24-27, 417 samples were analyzed, of which 41.2% were positive for a respiratory virus and 5.3% were positive for influenza. Among the positive samples, RSV (49.4%) and parainfluenza (14.0%) predominated. Among the influenza viruses, influenza A(H3N2) predominated.

Colombia

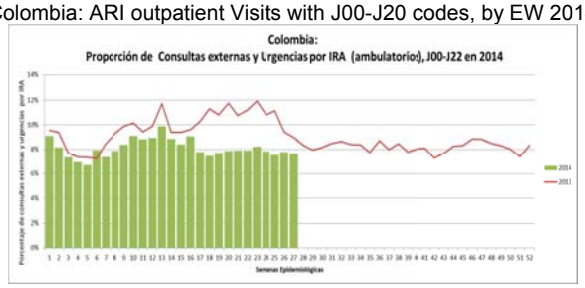
Colombia: % Hospitalizations with J00 to J20 codes, by EW 2014



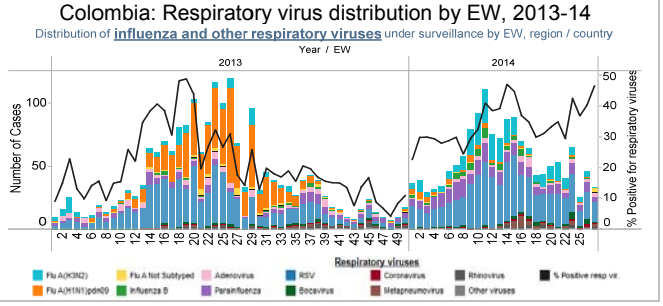
Colombia: ICU Admissions with J00 to J20 codes, by EW 2014



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



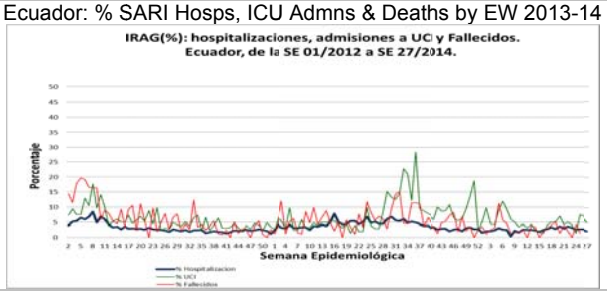
Colombia: Respiratory virus distribution by EW, 2013-14



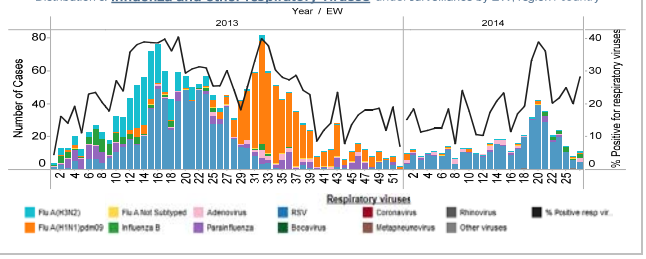
In Ecuador during EW 27, the proportions of SARI-associated hospitalizations (2.1%), ICU admissions (5.2%) and deaths (1.5%) decreased compared to the previous week. Based on national reference laboratory data from EW 24-27, 213 SARI samples were analyzed, of which 26.8% were positive for a respiratory virus and 7.0% were positive for influenza. Among the positive samples, RSV predominated (61.4%). Among the influenza viruses, a co-circulation of influenza B (15.8% of positive samples) and A(H1N1)pdm09 (8.8%) was observed.

Ecuador

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



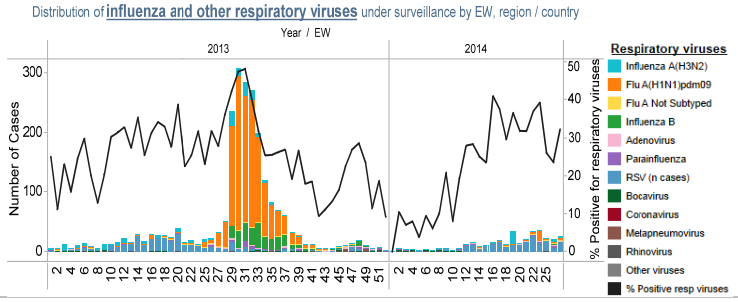
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 24-27, 333 samples were analyzed, of which 28.8% were positive for a respiratory virus and 7.5% were positive for influenza. Among the positive samples, RSV (64.6%) predominated, followed by influenza A(H1N1)pdm09 (12.5%) and influenza A(H3N2) (8.3%).

Peru

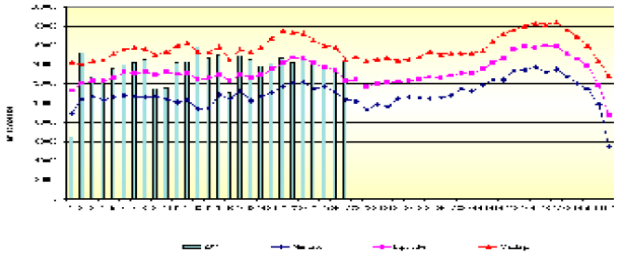
Perú. Respiratory viruses distribution by EW, 2013-14



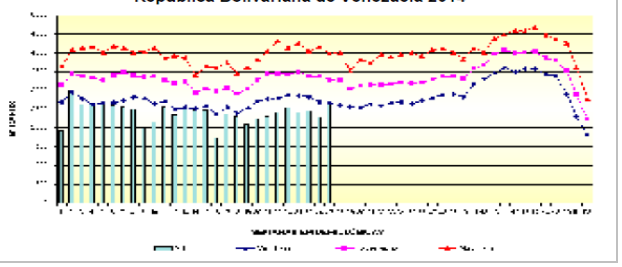
In Venezuela[5] during EW 27, the number of ARI and pneumonia cases increased by 6.2% and 16.7%, respectively, compared to the previous week. Both were within the expected levels for this time of year. During EW 27, 69 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-27, 412 samples were analyzed from suspected influenza cases and of these, 15.0% were positive for a respiratory virus. Among the positive samples, influenza A(H3N2) predominated (48.4%).

Venezuela

Venezuela: ARI endemic channel



Venezuela: Pneumonia endemic channel

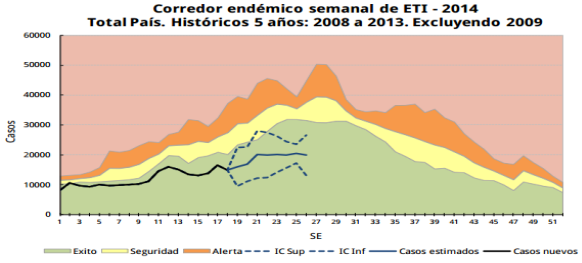


South America – South Cone and Brazil

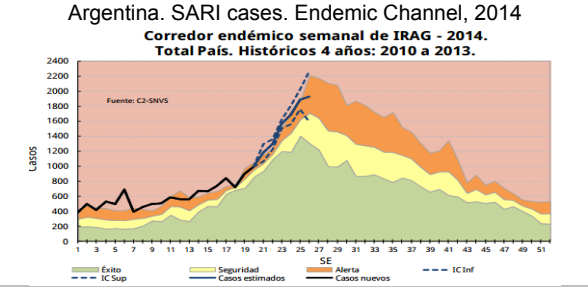
In Argentina[6], according to reports and estimations calculated for EW 26, ILI activity was within the success zone of the endemic channel while the estimated number of SARI cases continued to increase and was within the alert zone of the endemic channel. Based on laboratory data from EW 26-27, 3,340 samples were processed, of which 52.7% were positive for a respiratory virus and 8.4% were positive for influenza. Among the positive samples, RSV (78.9%) predominated. Among the influenza viruses, influenza A (90.4%) predominated (55.7% A(H3N2) and 43.5% influenza A not subtyped).

Argentina

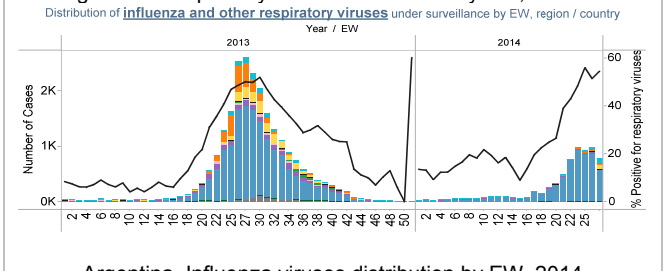
Argentina. ILI cases. Endemic Channel, 2014



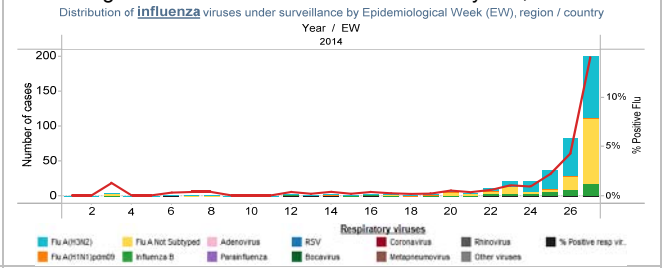
Argentina. SARI cases. Endemic Channel, 2014



Argentina. Respiratory viruses distribution by EW, 2013-14



Argentina. Influenza viruses distribution by EW, 2014



In Brazil[7], according to ILI sentinel surveillance data through EW 27, 8.448 samples were analyzed, and of these, 17.0% were positive for influenza or another respiratory virus. Among the positive samples, influenza A(H3N2) and rhinovirus predominated. Although the largest number of positive samples came from the south and southeast regions, virus circulation varied by region with RSV and influenza B predominating in the north, and influenza A(H1N1)pdm09 and A(H3N2) in the west. Based on national SARI surveillance data during this same period, 10,289 SARI cases were reported and 7.6% of these were positive for influenza. Among the positive samples, influenza A(H3N2) (57.5%) predominated, followed by influenza A(H1N1)pdm09 (28.6%). The largest number of SARI cases was reported in the southeast region, primarily

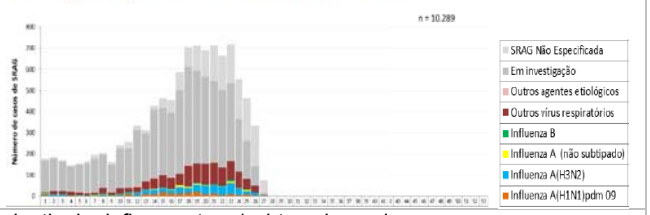
[5] Venezuela. Boletín epidemiológico, EW 27.
[6] Argentina. Boletin integrado de vigilancia. SE 26.
[7] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 27, 2014.

in Sao Paulo. Through EW 27, 1,030 SARI-associated deaths were reported, of which 11.7% were positive for influenza (52.9% A(H1N1)pdm09 and 30.6% A(H3N2)).

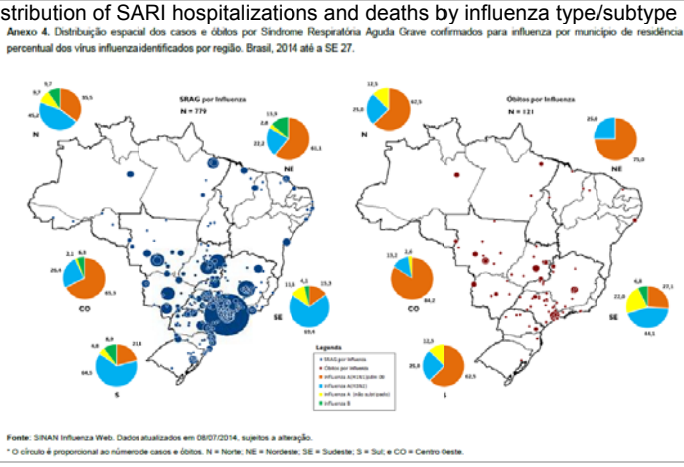
Brazil

Brazil: Resp virus distribution in ILI cases, by EW, 2014

Brazil:Resp virus distribon, SARI cases, by EW, 2014



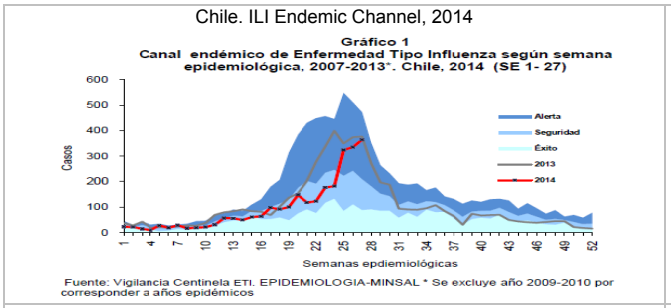
Brazil:Distribution of SARI hospitalizations and deaths by influenza type/subtype by region



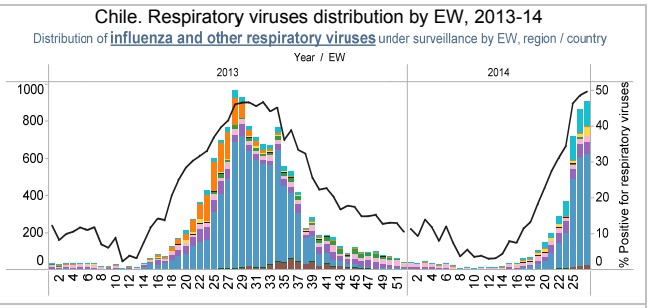
In Chile[8], seasonal ILI activity continued to increase but remained within expected levels for this time of year. During EW 27, ILI activity (rate: 24.2 per 100,000 inhabitants) increased compared to the previous EW and was within the alert zone of the endemic channel. Through EW 27, 1,475 SARI cases were reported through sentinel surveillance and of these, 42% were positive for respiratory virus. Among the positive SARI cases, RSV predominated (61%), followed by influenza A(H3N2) (18%). During this same period, 52 SARI-associated deaths were reported. Based on laboratory data from EW 26-27, 3,594 samples were analyzed, of which 49.2% were positive for a respiratory virus and 9.6% were positive for influenza. Among the positive influenza samples, 94.5% were influenza A (79.4% A(H3N2) and 20.6% A not subtyped) and 5.5% were influenza B. Among the other respiratory viruses, RSV (66.7% of positive samples) predominated.

Chile

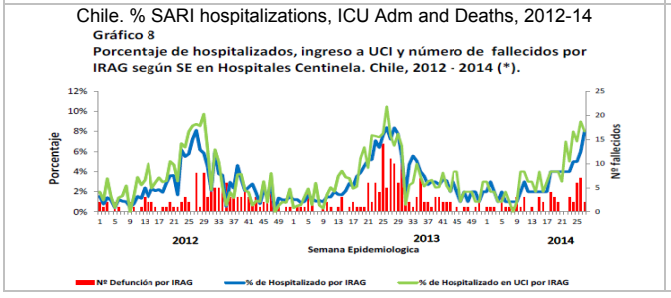
Chile. ILI Endemic Channel, 2014



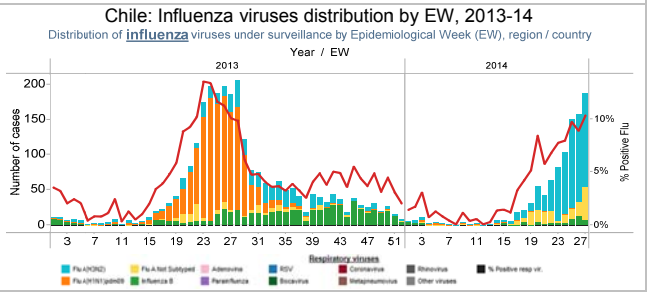
Chile. Respiratory viruses distribution by EW, 2013-14



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



Chile: Influenza viruses distribution by EW, 2013-14



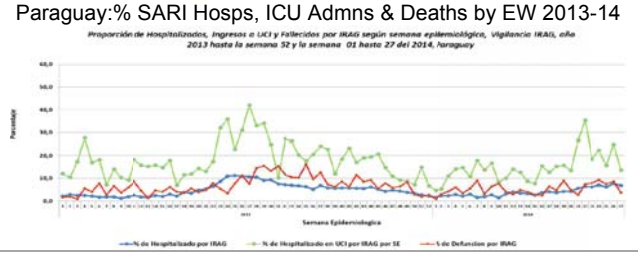
[8] Chile. Informe de situación. EW 27. Available at: http://epi.minsal.cl/

In Paraguay[9] during EW 27, the ILI consultation rate (167.1 per 100,000 inhabitants) increased compared to the previous EW and remained above the expected levels for this time of year. The proportion of SARI-associated hospitalizations (6.8%) decreased compared to the previous week. The most affected age group was children <5 years of age (66.7% of reported cases). During EW 1-27, 149 SARI-associated deaths were reported, of which 12 (8.1%) were positive for a respiratory virus. Based on reference laboratory data from EW 23-26, 464 samples were analyzed, of which 38.8% were positive for a respiratory virus and 13.6% were positive for influenza. Among the positive samples, RSV (40.0%), influenza A(H3N2) (30.0%), and human metapneumovirus (21.7%) predominated.

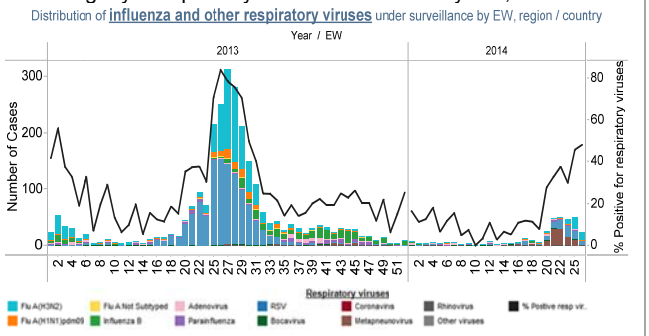
Paraguay

Paraguay. ILI endemic channel, by EW, 2014

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



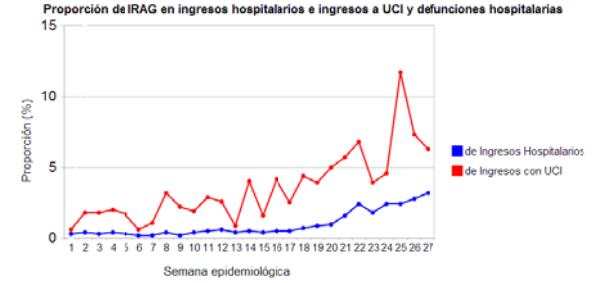
Paraguay. Respiratory viruses distribution by EW, 2013-14



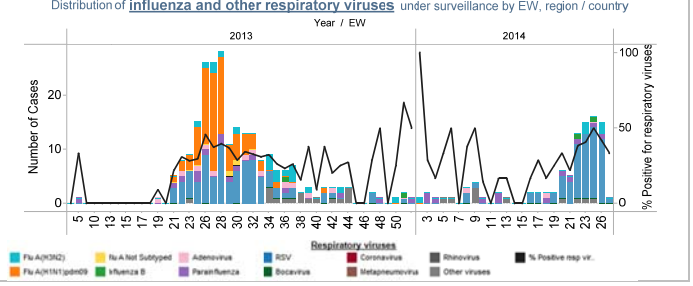
In Uruguay[10] during EW 27, the proportion of SARI-associated hospitalizations increased compared to the previous week while the proportion of SARI-associated ICU admissions decreased. Based on laboratory data from EW 24-27, 98 samples were analyzed, of which 41.8% were positive for a respiratory virus and 3.1% were positive for influenza. Among the positive samples, RSV (78.0%) predominated.

Uruguay

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



Uruguay. Respiratory viruses distribution by EW, 2013-14



[9] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 27.
[10] Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública