Regional Update EW 25, 2014

Influenza and other respiratory viruses

(July 1, 2014)

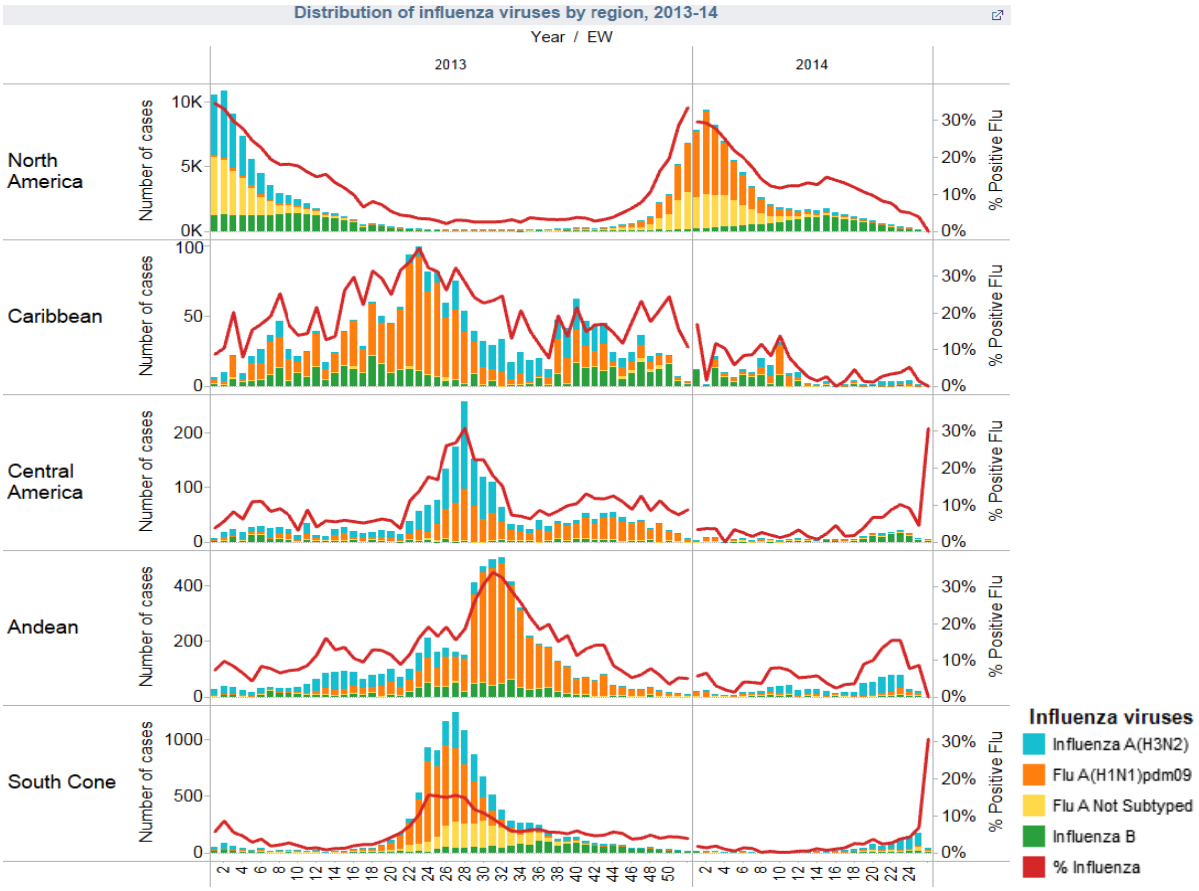
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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.

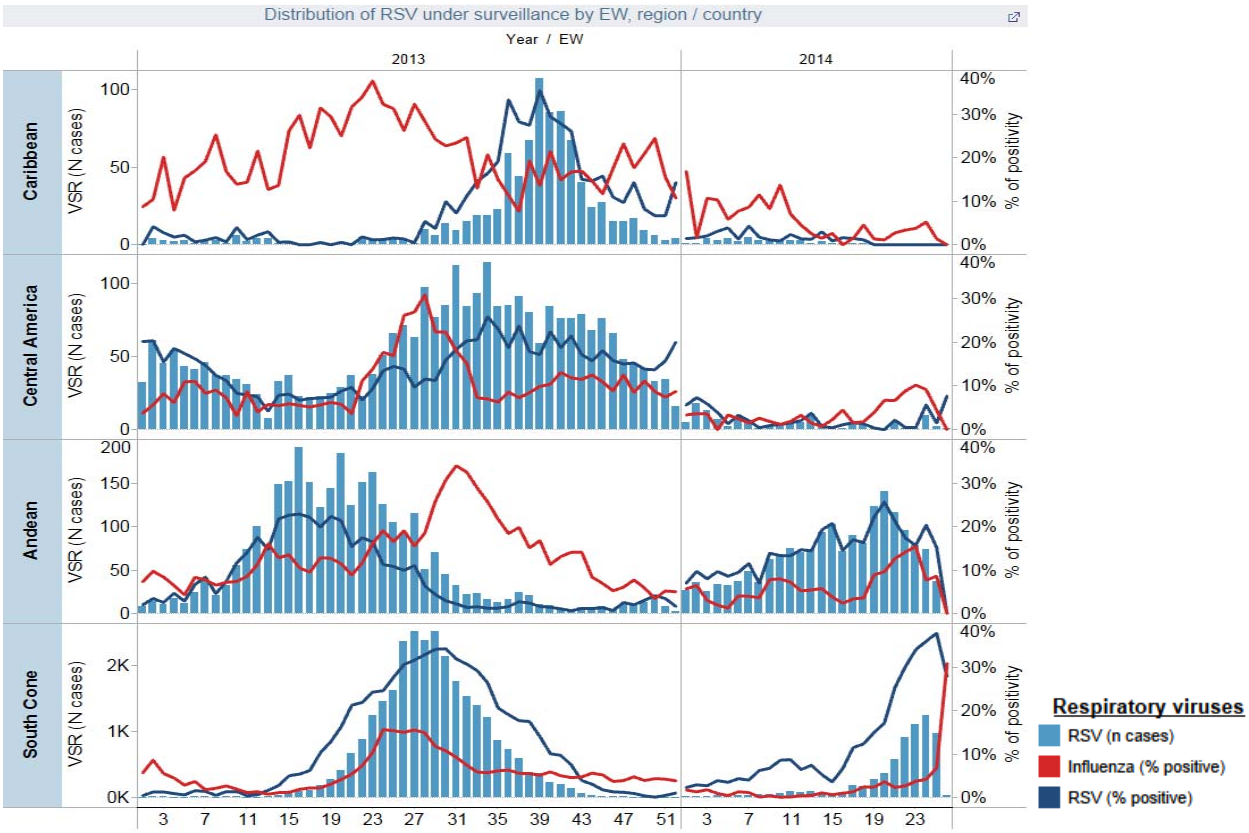
WEEKLY SUMMARY

- North America: Influenza activity continued 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 (Barbados, Jamaica, El Salvador, Panama, Honduras, Puerto Rico) was observed; with co-circulation of A(H3N2) in Dominican Republic.
- South America – Andean Countries: RSV continued to circulate in Bolivia, Colombia, Ecuador and Peru. Although an increase in the circulation of influenza A(H3N2) was observed in Bolivia, Venezuela and an increase of A(H1N1)pdm09 was observed in Ecuador and Peru; but activity remained within expected levels for this time of year.
- South America - South Cone and Brazil: Most respiratory virus activity indicators in the sub-region continued to increase but remained within expected levels for this time of year. RSV predominated at increasing levels. Concerning influenza viruses, A(H3N2) predominated (Argentina, Brazil and Chile) with low co-circulation of influenza B.

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

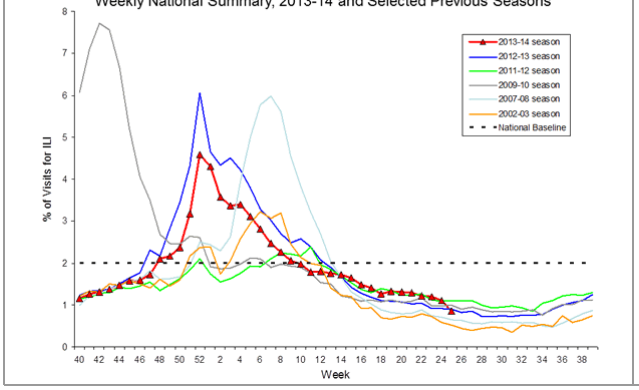
North America:

In the United States[1] during EW 25, influenza activity continued to decrease. 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 for EW 25 (5.9%) was also below the epidemic threshold (6.4%). A total of 99 influenza-associated pediatric deaths have been reported this season (two deaths were reported during EW 25). According to laboratory data for EW 25, 1,897 samples were analyzed, of which only 5.32% were positive for influenza. Among the positive samples, 52.5% were influenza B and 47.5% were influenza A (0% A(H1N1)pdm09, 14% A(H3) and 83% not subtyped).

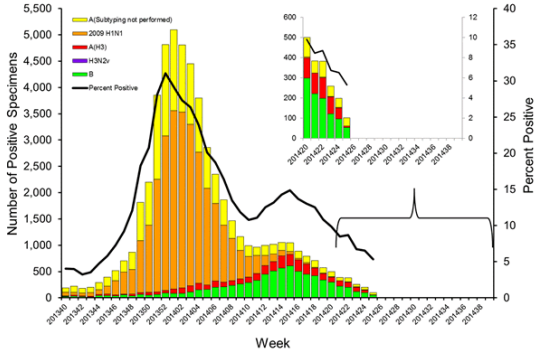
[1] USA: CDC FluView report. EW 25. Available at: http://www.cdc.gov/flu/weekly/

United States

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



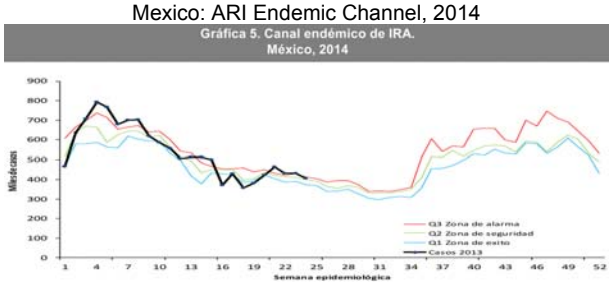
US: Influenza viruses distribution by EW, 2013-14



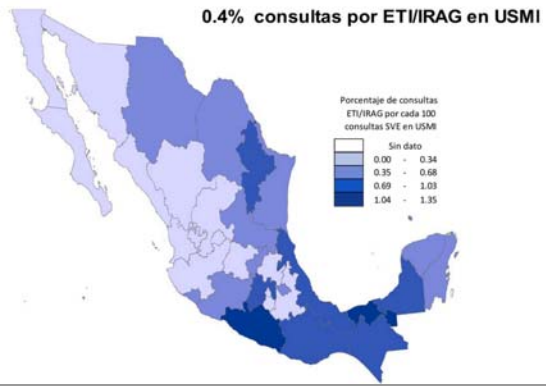
In Mexico[2] during EW 25, influenza activity remained low. ARI activity was expected levels for this time of year. Pneumonia activity decreased slightly compared to the previous week (rate: 1.8 per 100,000 inhabitants). The highest levels of pneumonia activity were reported in Nuevo Leon, Jalisco, and Baja California Sur. Nationally, through June 26, 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, México, Campeche and Veracruz. During this same period, 748 influenza-associated deaths were reported, of which >90% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 20-23, 655 samples were analyzed, of which 8.9% were positive for influenza. Among the positive samples, 81.0% were influenza B and 19.0% were influenza A (9.1% A(H1N1)pdm09, 72.7% A(H3N2) and 18.2% A, not subtyped).

Mexico

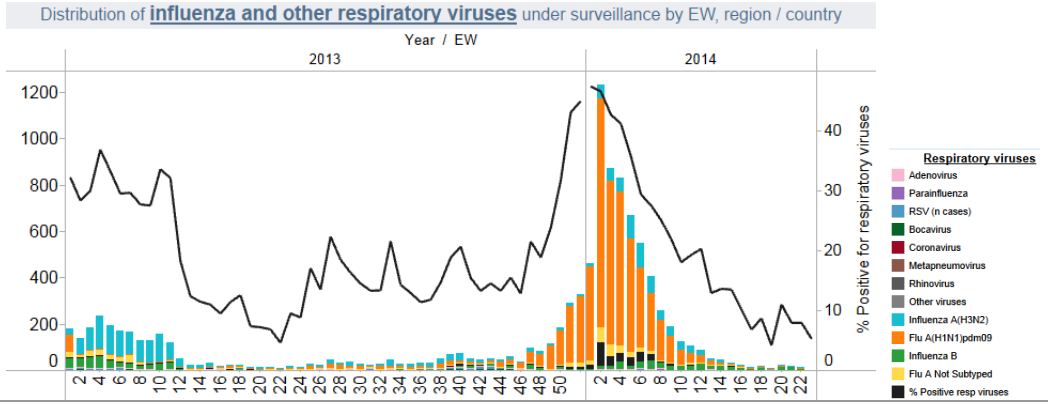
Mexico: ARI Endemic Channel, 2014



Mexico: % of sentinel ILI/SARI



Mexico: Respiratory viruses distribution by EW 2013-14



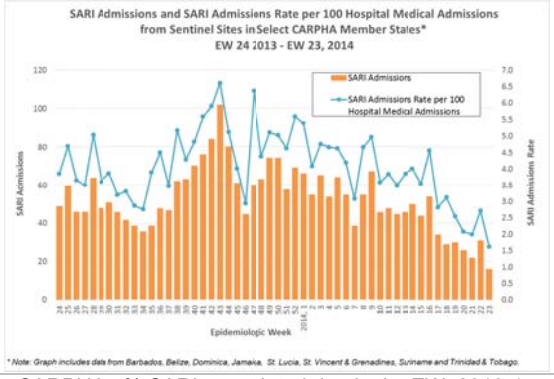
[2] México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Caribbean

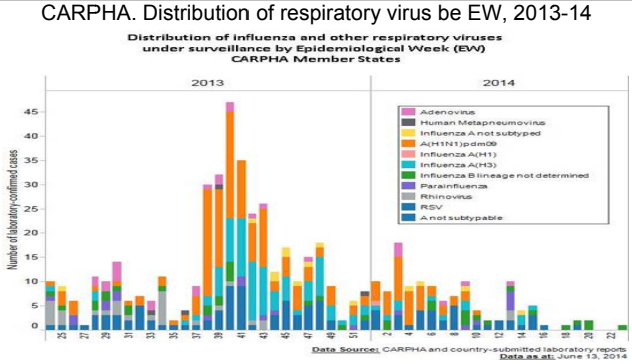
CARPHA[3] received weekly ARI/SARI data from the following countries during EWs 19-23: Barbados, Belize, Jamaica, San Vicente and the Grenadines, and Trinidad and Tobago. The proportion of hospitalizations associated with SARI during EWs 19-23 was 2.5%, 2.1%, 2.0%, 2.7%, and 1,6%, respectively. The highest rates occurred in children ≤6 months of age. Between EWs 19-23, 3 SARI-associated deaths were reported. According to laboratory data from EWs 19-23, primary reports were of low circulation of influenza B (in Barbados and Jamaica) and RSV in Dominica.

CARPHA

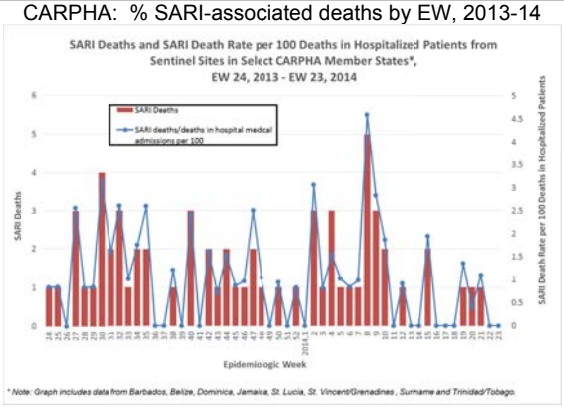
CARPHA. Rate of SARI-associated hosp.s by EW, 2013 - 2014



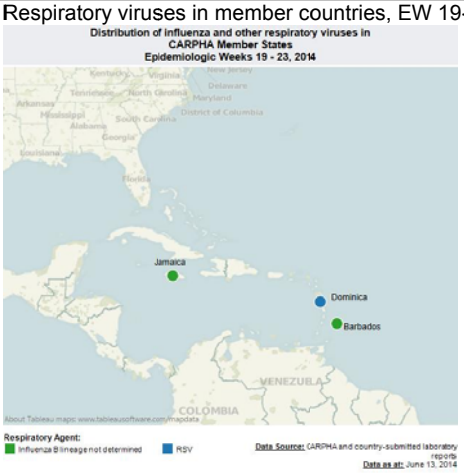
CARPHA. Distribution of respiratory virus be EW, 2013-14



CARPHA: % SARI-associated deaths by EW, 2013-14



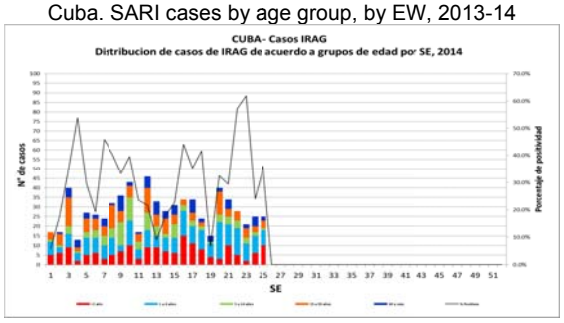
CARPHA. Respiratory viruses in member countries, EW 19-23, 2014



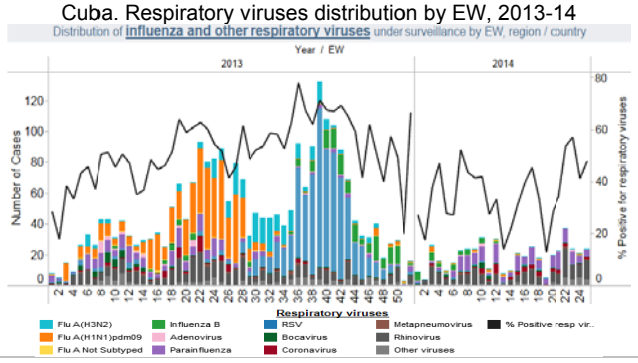
In Cuba during EW 25, the number of SARI-associated hospitalizations (n=25) remained similar to the previous week. Children 1-4 years of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 22-25, 212 samples were analyzed, of which 50% were positive for a respiratory virus and just .5% for influenza. Among the positive samples, rhinovirus (48%) and parainfluenza (256%) predominated.

Cuba

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



Cuba. Respiratory viruses distribution by EW, 2013-14

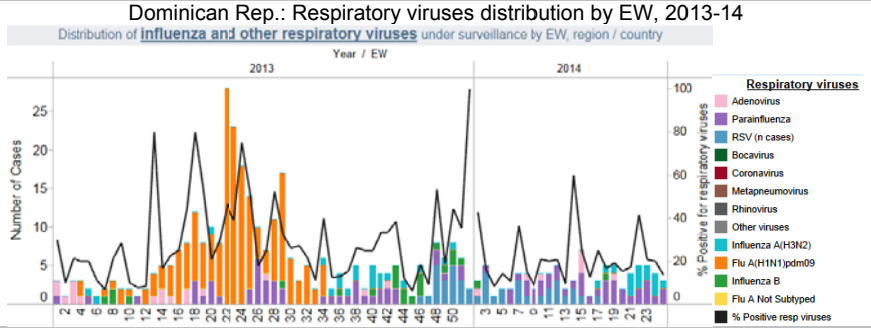


[3] Caribbean Public Health Agency (CARPHA) EW 23.

In the Dominican Republic, during EW 22-25, 78 samples were analyzed, of which 24% were positive for a respiratory virus and 13% were positive for influenza. Among the positive samples, influenza A(H3N2) (53%) and parainfluenza (47%) were detected.

Dominican Republic

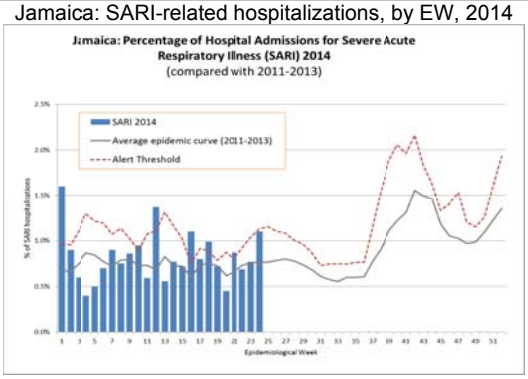
Dominican Rep.: Respiratory viruses distribution by EW, 2013-14



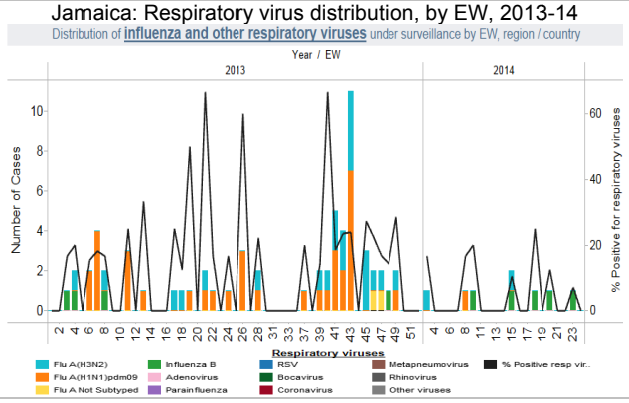
In Jamaica, based on sentinel surveillance data for EW 25, the proportion of ARI-associated consultations was 3.5%. The proportion of SARI-associated hospitalizations (0.23%) increased, though it remains within expected levels. No SARI-associated deaths were reported during this EW. Based on laboratory data for EW 21-24, 48 samples were analyzed, of which 2% tested positive for influenza B.

Jamaica

Jamaica: SARI-related hospitalizations, by EW, 2014



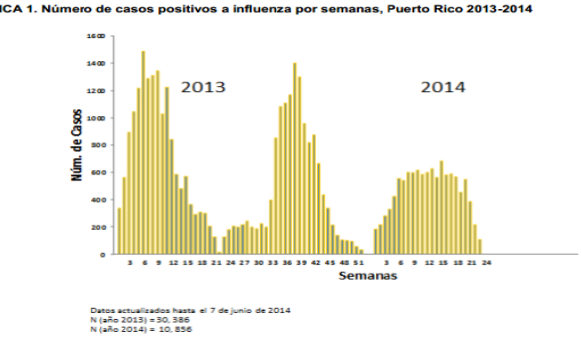
Jamaica: Respiratory virus distribution, by EW, 2013-14



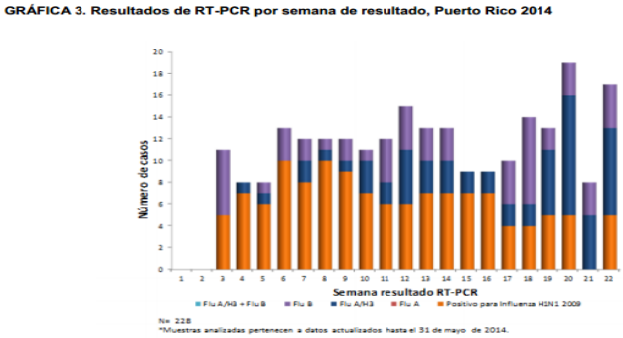
In Puerto Rico[4] during EW 23, the number of influenza cases (n=106) decreased compared to the previous week. Of these, 48 cases were associated with influenza A, 53 with influenza B and 5 with an influenza A and B co-infection. Since the beginning of 2014, 10,856 influenza cases have been reported (52% influenza A and 47% influenza B) and persons aged 0-19 years accounted for 50% of those cases. During this same period, 586 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



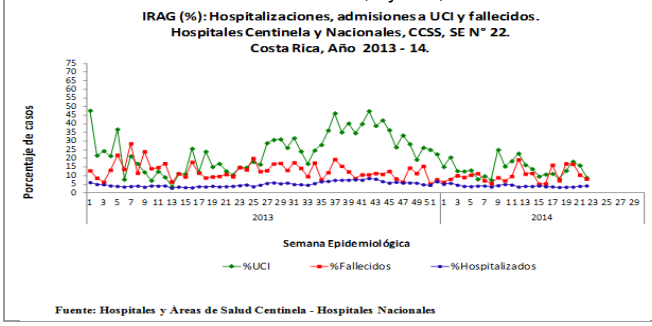
[4] Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 23

Central America

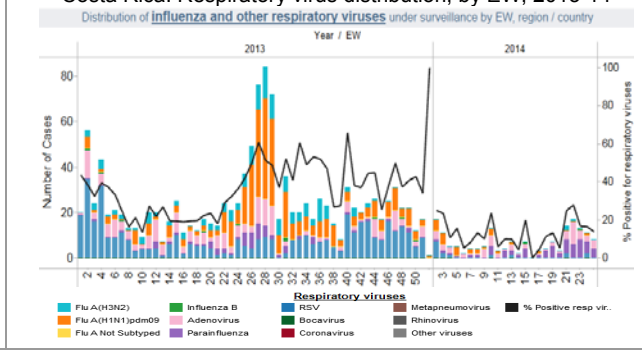
In Costa Rica, during EW 23, the proportion of SARI-associated hospitalizations (4.0%) was similar to the previous week, while the proportions of SARI-associated ICU admissions (9.0%) and deaths (8.0%) decreased. According to laboratory data from EW 22-25, 264 samples were analyzed of which 18.7% were positive for a respiratory virus and just 1.1% were positive for influenza. Among the positive samples, parainfluenza (47%) and adenovirus (42%) predominated.

Costa Rica

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



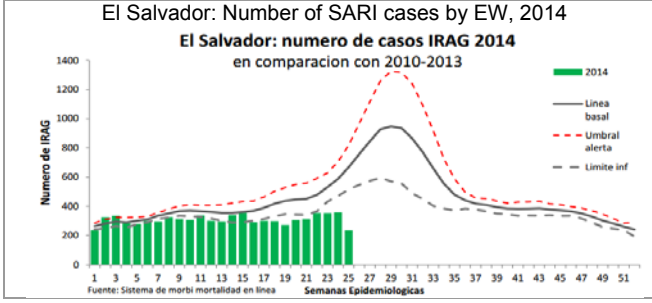
Costa Rica: Respiratory virus distribution, by EW, 2013-14



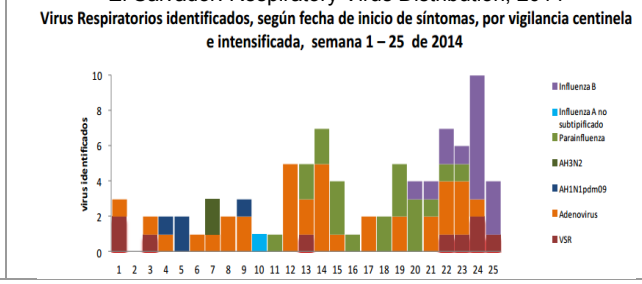
In El Salvador, during EW 25, influenza and acute respiratory infection activity remained low. The proportion of SARI-associated hospitalizations (6.9%), the proportions of SARI-associated ICU admissions (0%) and SARI-associated deaths (5.7%) remained at similar low levels. According to laboratory data for EW 24-25, influenza B, RSV and adenovirus were detected.

El Salvador

El Salvador: Number of SARI cases by EW, 2014



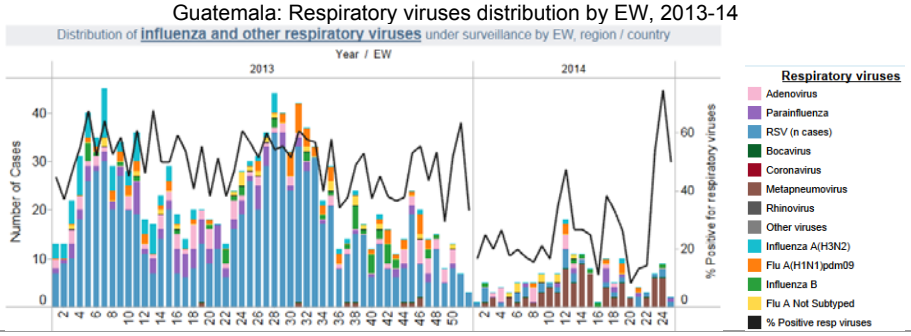
El Salvador: Respiratory Virus Distribution, 2014



In Guatemala, based on laboratory data from EW 22-25, 50 samples were analyzed, of which 48% were positive for a respiratory virus and 2.1% were positive for influenza. Among the positive samples, human metapneumovirus (70%) and RSV (25%) predominated.

Guatemala

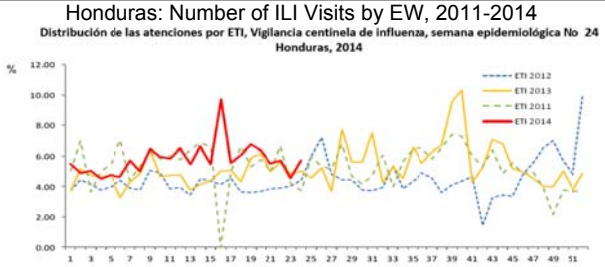
Guatemala: Respiratory viruses distribution by EW, 2013-14



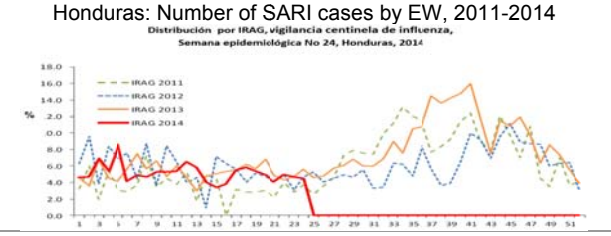
In Honduras, during EW 24, the proportions of ILI-associated medical visits (6%), SARI-associated hospitalizations (6%) and SARI-associated deaths (11.3%) remained low and similar to the previous week. According to laboratory data sustained influenza B circulation has been observed since EW 15.

Honduras

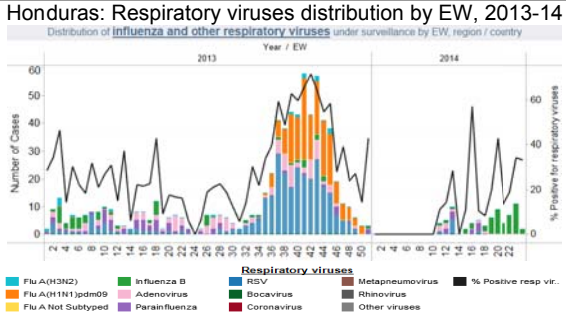
Honduras: Number of ILI Visits by EW, 2011-2014



Honduras: Number of SARI cases by EW, 2011-2014



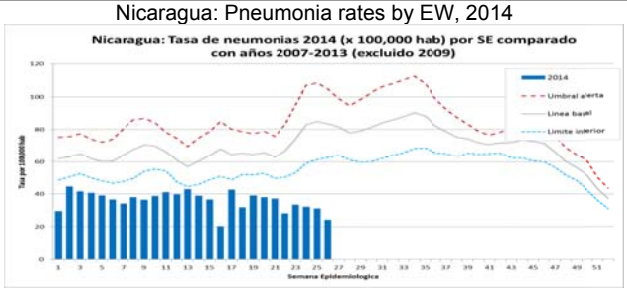
Honduras: Respiratory viruses distribution by EW, 2013-14



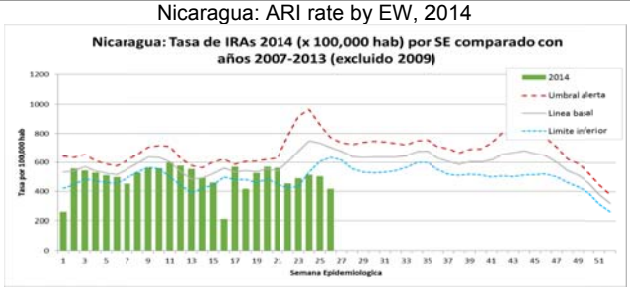
In Nicaragua, during EW 26, the national rates of pneumonia and ARI were within expected levels for this time of year and slightly lower than previous weeks. Based on laboratory data from EW 22-25, 209 samples were analyzed, of which seven (3.4%) were positive for a respiratory virus (71% parainfluenza). No influenza virus was detected

Nicaragua

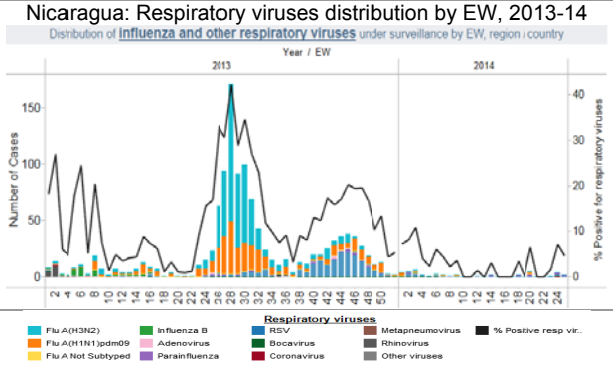
Nicaragua: Pneumonia rates by EW, 2014



Nicaragua: ARI rate by EW, 2014



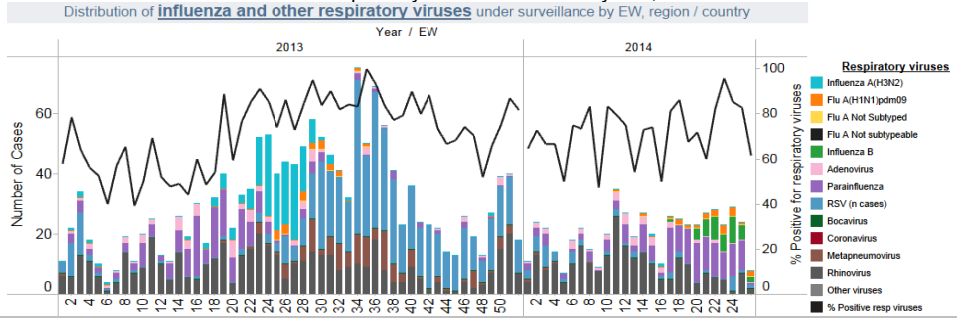
Nicaragua: Respiratory viruses distribution by EW, 2013-14



In Panama, based on national laboratory data from EW 23-26, 100 samples were analyzed, of which 81% were positive for a respiratory virus and 31% were positive for influenza. Among the positive samples, influenza B (70%) predominated over influenza A(H1N1)pdm09 (30%).

Panama

Panama: Respiratory virus distribution by EW, 2013-14

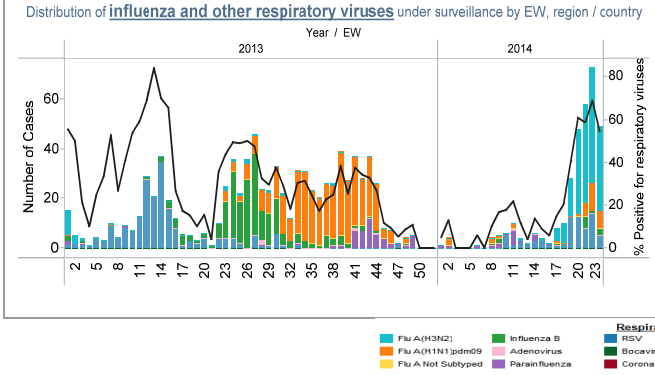


South America – Andean countries

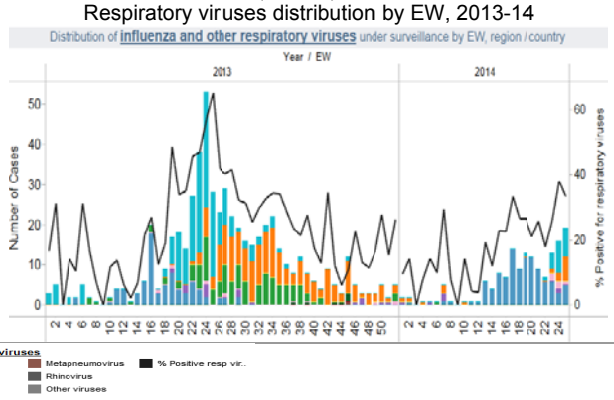
In Bolivia, increased influenza and RSV activity was observed. According to laboratory data from Santa Cruz (CENETROP), during EW 20-23, 374 samples were analyzed, of which 61.0% were positive for a respiratory virus and 50.3% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (68.0%), followed by RSV (17.5%). According to the National Laboratory in La Paz (INLASA) from EW 22-25, 188 samples were analyzed, of which 28.8% were positive for a respiratory virus and 14.8% were positive for influenza. Among the influenza-positive samples, influenza A(H3N2) (69%) predominated A(H3N2) (31%). Furthermore, RSV circulation (36% of positives) continues.

Bolivia

Bolivia (Santa Cruz). CENETROP.
Respiratory viruses distribution by EW, 2013-14



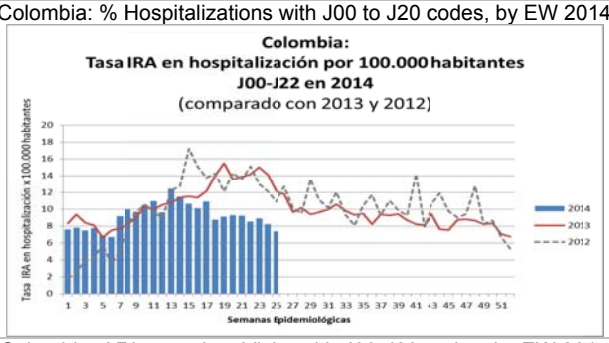
Bolivia (La Paz). INLASA.
Respiratory viruses distribution by EW, 2013-14



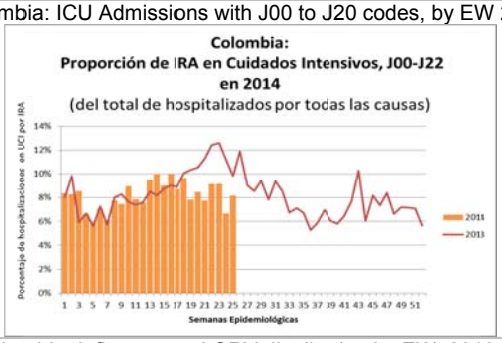
In Colombia, during EW 25, the proportions of ARI outpatient and urgent visits (7.7%), the rate of hospitalizations (7.4 per 100,000 inhabitants) and ICU admissions (0.4 per 100,000 inhabitants) with ARI/SARI-associated ICD-10 codes (J00 to J22) were within the expected levels for this time of year and similar to the previous week. Based on INS laboratory data from EW 22-25, 516 samples were analyzed, of which 36.3% were positive for a respiratory virus and 5.7% were positive for influenza. Among the positive samples, RSV (49%) and parainfluenza (12%) predominated. Of the influenza viruses, influenza A (80%) predominated, primarily A(H3N2).

Colombia

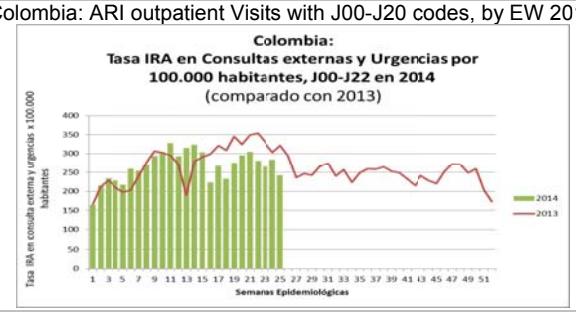
Colombia: % Hospitalizations with J00 to J20 codes, by EW 2014



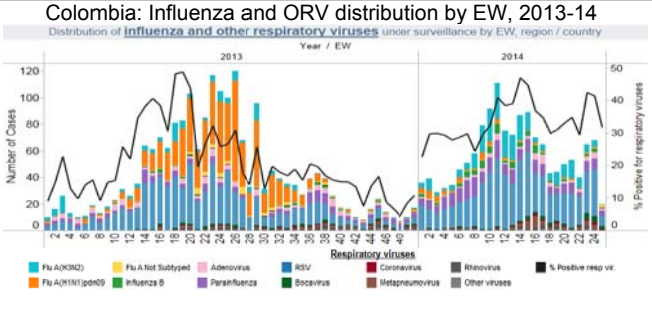
Colombia: ICU Admissions with J00 to J20 codes, by EW 2014



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



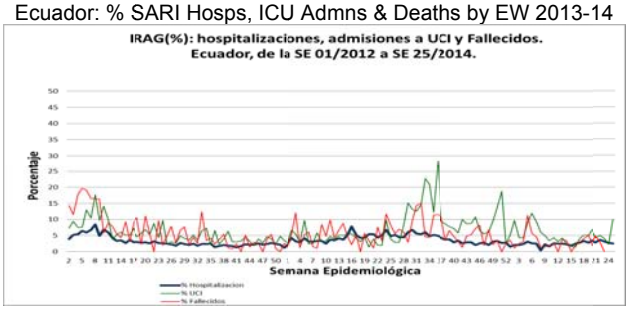
Colombia: Influenza and ORV distribution by EW, 2013-14



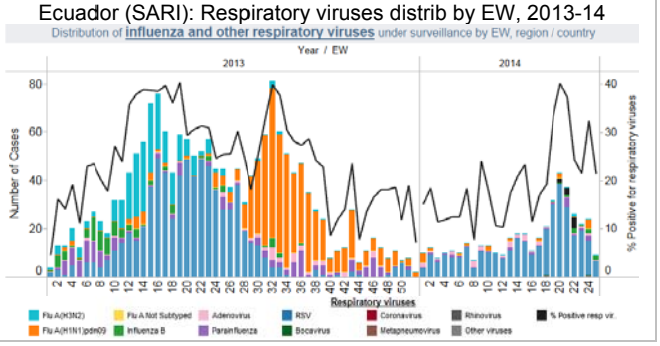
In Ecuador during EW 25, the proportion of SARI-associated hospitalizations (2.5%) and remained similar, although SARI ICU admissions (9.9%) increased compared to the previous week. No SARI deaths were reported. Based on national reference laboratory data from EW 22-25, 325 SARI samples were analyzed, of which 25% were positive for a respiratory virus and 5% were positive for influenza. Among the positive samples, RSV predominated (65% of positives). Among the influenza viruses, a co-circulation of influenza B and A(H1N1)pdm09 was observed.

Ecuador

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



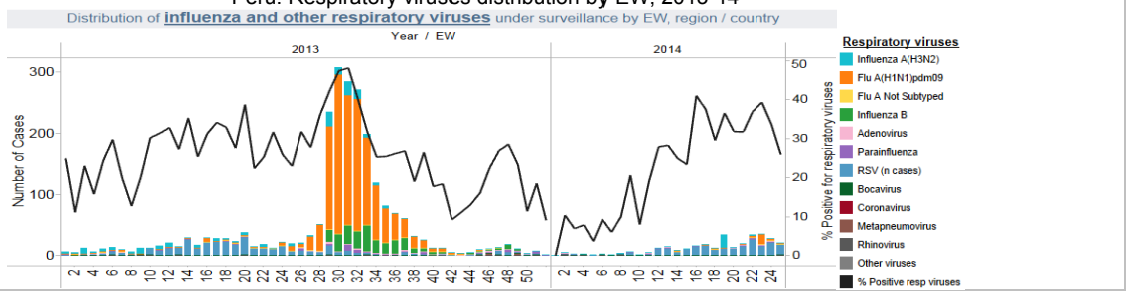
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 22-25, 345 samples were analyzed, of which 34% were positive for a respiratory virus and 8% were positive for influenza. Among the positive samples, RSV (68%) predominated, followed by influenza A (22%), primarily A(H1N1)pdm09.

Peru

Perú. Respiratory viruses distribution by EW, 2013-14

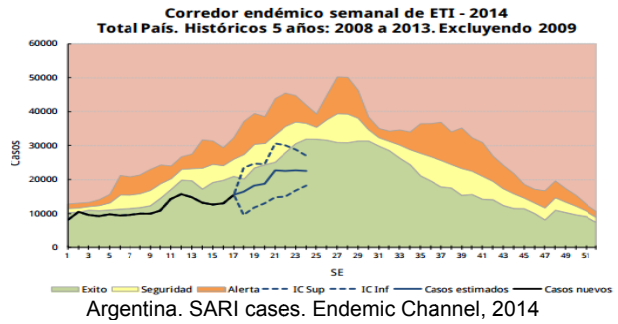


South America – South Cone and Brazil

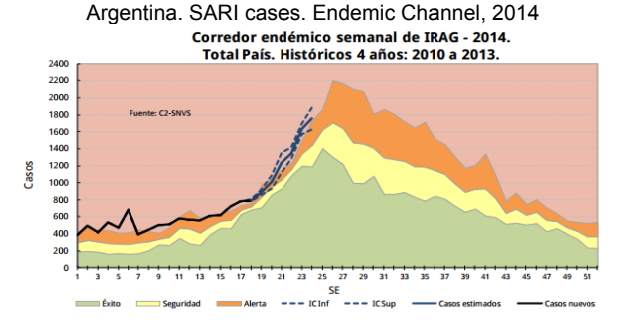
In Argentina[5], RSV activity continued to increase while influenza activity remained low. According to reports and estimations calculated for EW 24, ILI and pneumonia activity was within the success zone of the endemic channel while the estimated number of SARI cases continued to increase and was slightly above the epidemic threshold. Based on laboratory data from EW 25-26, 1,096 samples were processed, of which 71% were positive for a respiratory virus and 17% were positive for influenza. Among the positive samples, RSV (80%) predominated. Among the influenza viruses, influenza A predominated (90%), primarily A(H3N2) and influenza not subtyped.

Argentina

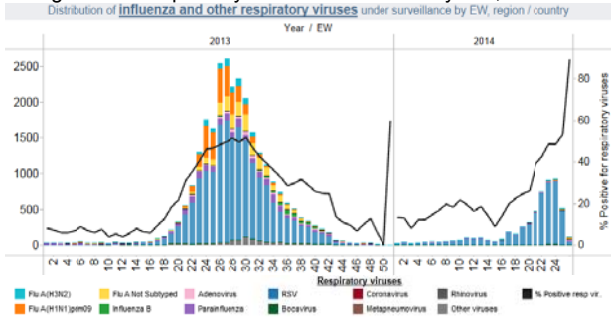
Argentina. ILI cases. Endemic Channel, 2014



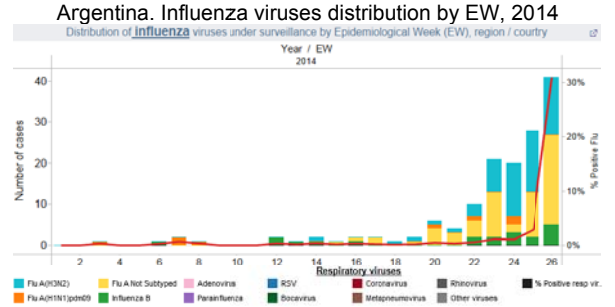
Argentina. SARI cases. Endemic Channel, 2014



Argentina. Respiratory viruses distribution by EW, 2013-14



Argentina. Influenza viruses distribution by EW, 2014

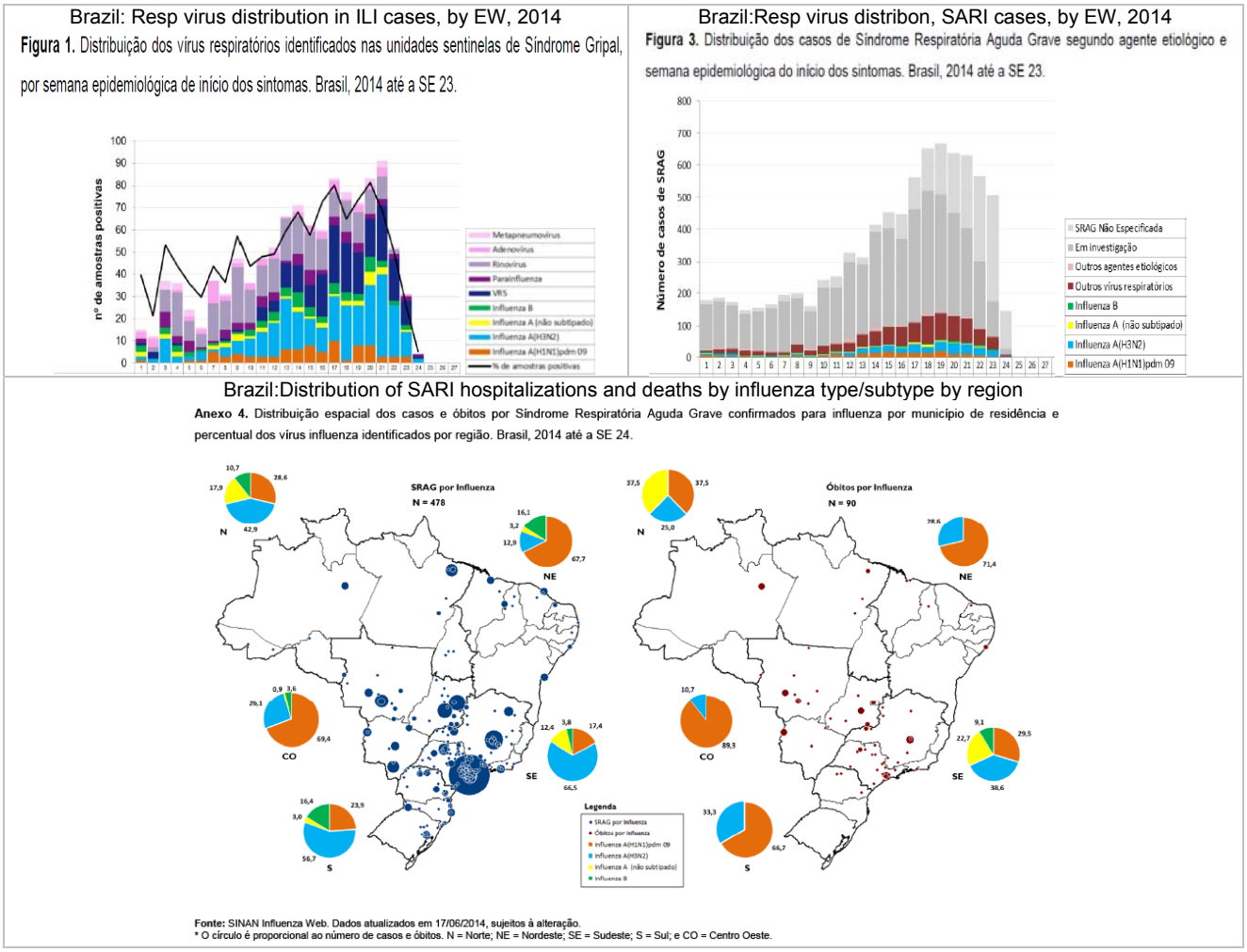


[5] Argentina. Boletin integrado de vigilancia. SE 24.

In Brazil[6], according to ILI sentinel surveillance data through EW 24, 7,239 samples were analyzed, and of these, 15.8% were positive for influenza or another respiratory virus. Among the influenza-positive samples, A(H3N2) predominated (25.8% of positive samples). The largest number of positive samples came from the South and Southeast regions of the country. Furthermore, RSV circulation was observed in the Southeast and North, and rinovirus in the South. Based on national SARI surveillance data during this same period, 8,391 SARI cases were reported and 6.9% of these were positive for influenza. Among the positive samples, influenza A(H3N2) (53.5%) predominated, followed by influenza A(H1N1)pdm09 (31.5%). The largest number of SARI cases was reported in the Southeast region, primarily in Sao Paulo. Through EW 24, 821 SARI-associated deaths were reported, of which 11% were positive for influenza (53.3% A(H1N1)pdm09 and 27.8% A(H3N2)).

Brazil

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



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

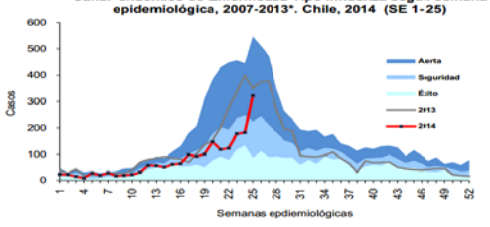
Brazil:Distribution of SARI hospitalizations and deaths by influenza type/subtype by region

In Chile[7], seasonal ILI activity continued to increased and remained within expected levels for this time of year. During EW 25, ILI activity increased markedly compared to the previous week (rate: 21.5 per 100,000 inhabitants) and was within the security zone of the endemic channel. According to sentinel SARI surveillance, the percentage of SARI reached a maximum of 8% during EW 25, with RSV and influenza A(H3N2) predominating. During EW 25, 34 SARI cases were reported through sentinel surveillance (4 cases associated with respiratory viruses), lower than what was observed during the same week of 2013. Based on laboratory data from EW 24-25, 2,833 samples were analyzed, of which 42.6% were positive for a respiratory virus and 8.6% were positive for influenza. Among the positive influenza samples, 95% were influenza A (77% A(H3N2) and 23% A not subtyped) and 5% were influenza B. Among the other respiratory viruses, RSV (64% of positive samples) continued to increase, followed by parainfluenza (9.5%).

[6] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 25, 2014.
[7] Chile. Informe de situación. EW 25. Available at: http://epi.minsal.cl/

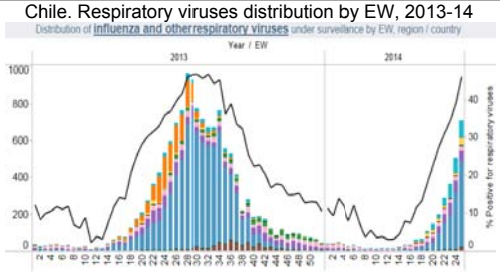
Chile

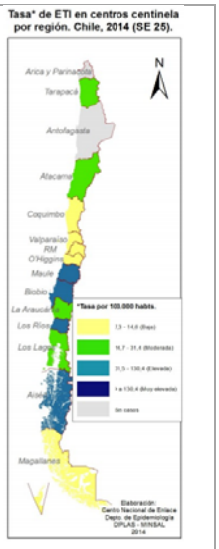
Chile. ILI Endemic Channel, 2014



Fuente: Vigilancia Centinela ETI. EPIDEMIOLOGIA-MINSAL * Se excluye año 2009-2010 por corresponder a años epidémicos

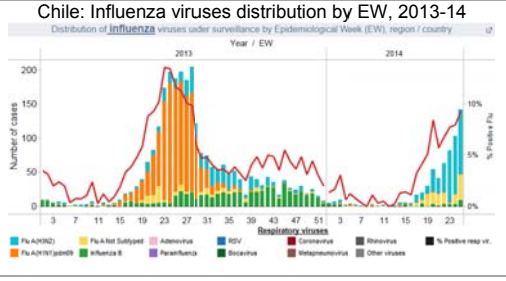
Chile. Respiratory viruses distribution by EW, 2013-14





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

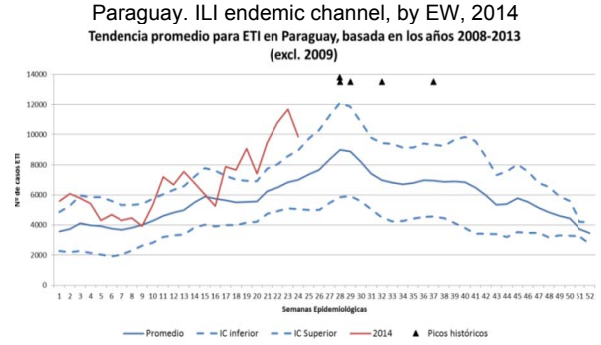
Chile: Influenza viruses distribution by EW, 2013-14



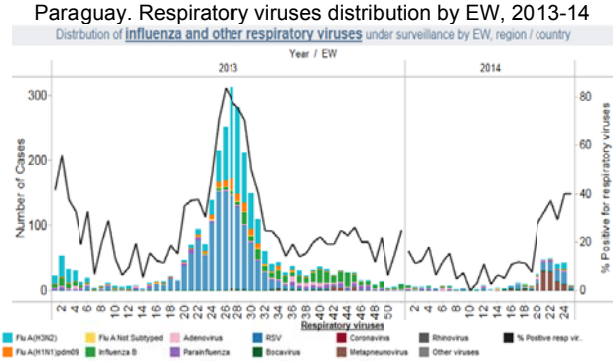
In Paraguay[8] during EW 24, the ILI consultation rate (147 per 100,000 inhabitants) decreased from the previous EW but remained above the expected levels for this time of year. The proportion of SARI-associated hospitalizations (5.6%) also remained similar to the previous week. The most affected age groups were children <5 years of age and adults ≥60 years. Based on reference laboratory data from EW 22-25, 395 SARI samples were analyzed, of which 36.6% were positive for a respiratory virus and 7% were positive for influenza. Among the positive samples, human metapneumovirus (39.5%) and RSV (38%) predominated. Amongthe influenza viruses, 83% were A (exclusively A(H3N2)) and 17% influenza B.

Paraguay

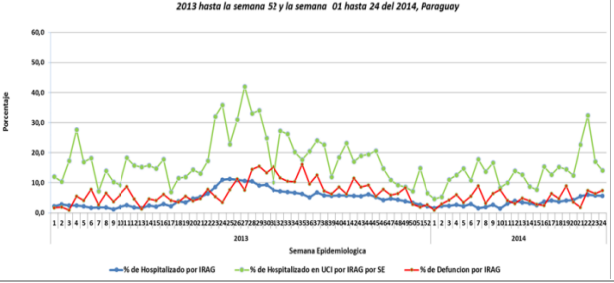
Paraguay. ILI endemic channel, by EW, 2014



Paraguay. Respiratory viruses distribution by EW, 2013-14



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

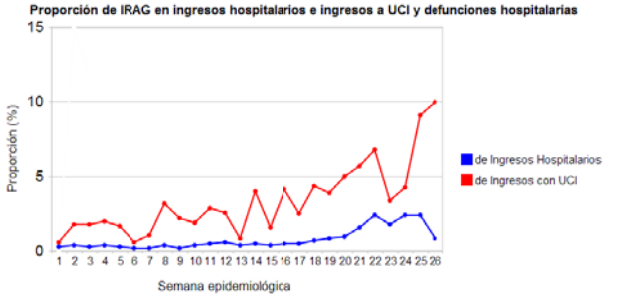


[8] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 25.

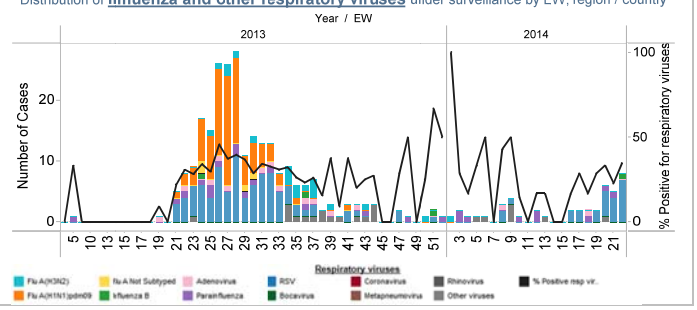
In Uruguay[9] during EW 25-26, the proportions of SARI-associated hospitalizations remained at a slightly elevated level. SARI-associated ICU admissions increased compared to the previous week. Based on laboratory data from EW 20-23, 63 samples were analyzed, of which 30.2% were positive for a respiratory virus and 1.6% were positive for influenza. Among the positive samples, RSV (78.9%) predominated.

Uruguay

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



Uruguay. Respiratory viruses distribution by EW, 2013-14



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