

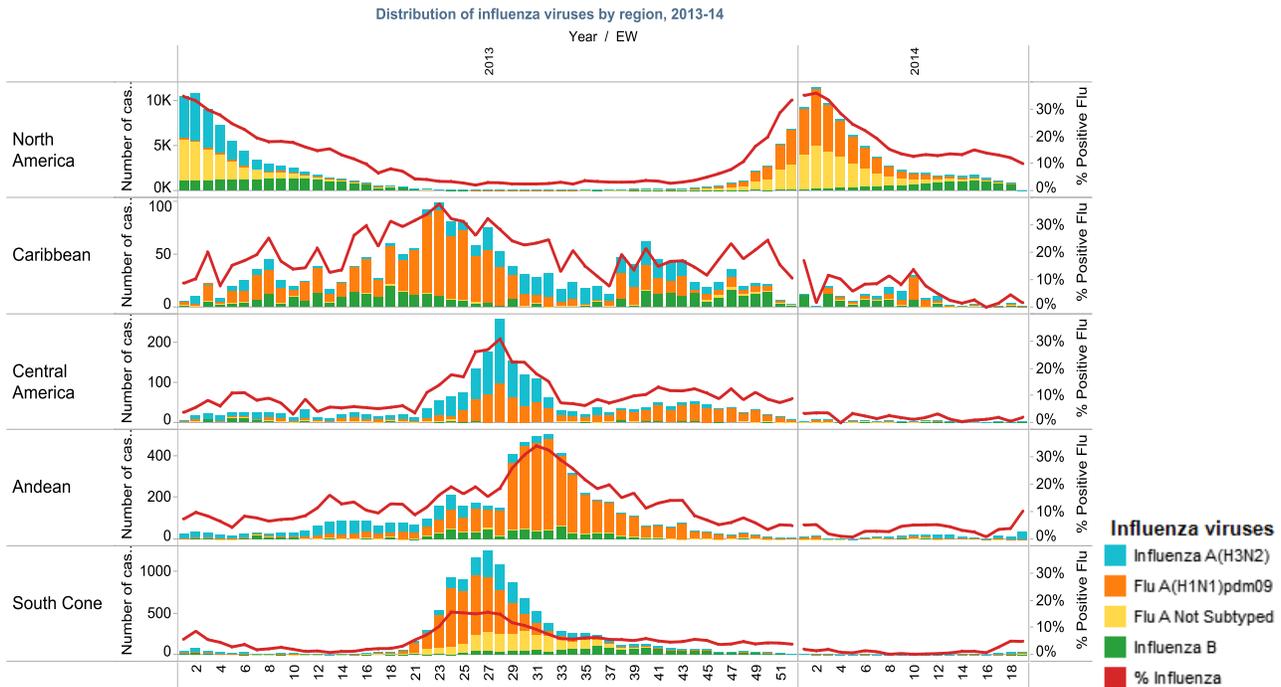
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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

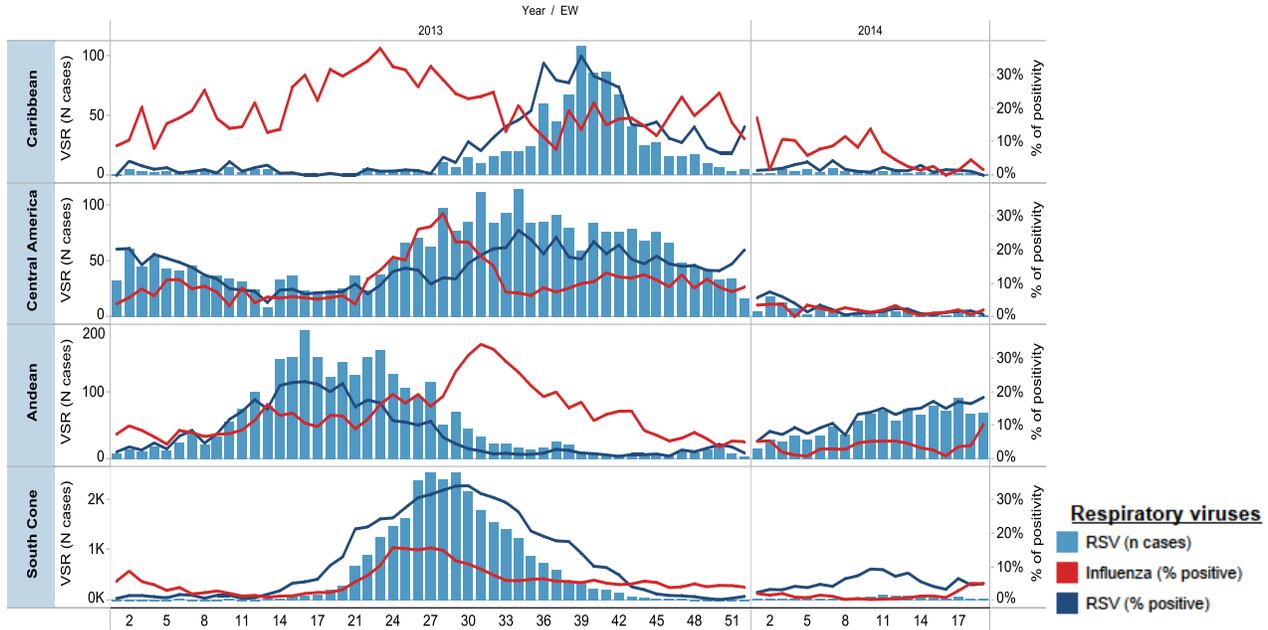
- **North America:** Influenza activity continued to decline in the sub-region. Although influenza B predominated in all countries, co-circulation of influenza A(H1N1)pdm09 and A(H3N2) was observed.
- **The Caribbean and Central America:** Influenza and other respiratory virus activity remained low in the sub-region, except in French Guyana where the seasonal influenza epidemic continued and included co-circulation of influenza A(H1N1)pdm09, A(H3N2) and influenza B.
- **South America – Andean Countries:** Influenza A(H3N2) activity increased slightly in some countries (Bolivia and Peru) of the sub-region. Circulation of RSV continued in Bolivia, Colombia, Ecuador and Peru.
- **South America - South Cone and Brazil:** Increases of some indicators of influenza and other respiratory virus activity were observed in some South Cone countries (Argentina, Chile and Paraguay), but these remained within expected levels for this time of year.

Influenza circulation by region. 2013-14



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

Distribution of **influenza and other respiratory viruses** under surveillance by EW, region / country



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:

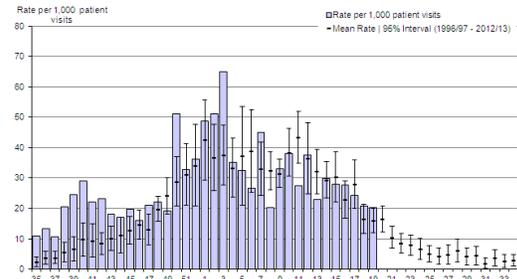
In Canada¹ during EW 19, influenza B circulation continued in several regions but at stable or decreasing levels, and remained within expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 20.2 per 1,000 patient visits, a decrease compared to the previous week and within expected levels. Since the beginning of the 2013-14 influenza season, 4,731 influenza-associated hospitalizations have been reported, of which 76.1% were associated with influenza A. Although influenza A(H1N1)pdm09 predominated this season and mostly affected adults 20-64 years of age, influenza B is having a greater impact on adults ≥ 65 years and young persons from 5 -19 years of age. To date this season, 275 deaths have been reported, most of which were associated with influenza A (74.9%). The highest proportion of deaths (51.2%) has been among adults ≥ 65 years of age followed by adults 20-64 years of age (39.6%). Based on laboratory data for EW 19, the overall percentage of positive influenza tests was 11.0% (N=445), a decrease compared to the previous week. Among the positive tests, 92.0% were influenza B and 8.0% were influenza A, of which 9.4% were influenza A(H1N1)pdm09, 50.0% were A(H3) and 40.6% were A, not subtyped. Among other circulating respiratory viruses, rhinovirus and RSV predominated, but at decreasing levels.

¹ Canada: FluWatch Report. EW 19. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada

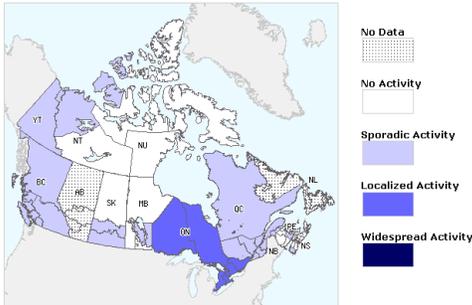
Canada: ILI Consultation Rates, by EW, 2013-14

Figure 5. Influenza-like illness (ILI) consultation rates by report week, compared to the 1996-97 through to 2012-13 seasons (with pandemic data suppressed), Canada, 2013-2014



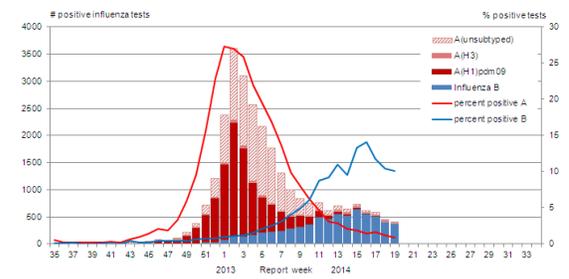
Canada: Influenza/ILI Activity by region, EW 19, 2014

Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 19



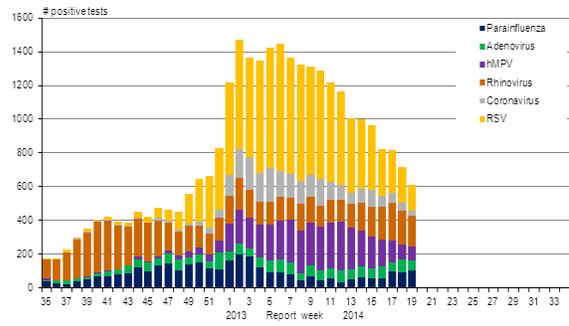
Canada: Influenza virus distribution by EW, 2013-14

Figure 2. Number of positive influenza tests and percentage of tests positive, by type, subtype and report week, Canada, 2013-14



Canada: Respiratory virus distribution by EW, 2013-14

Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

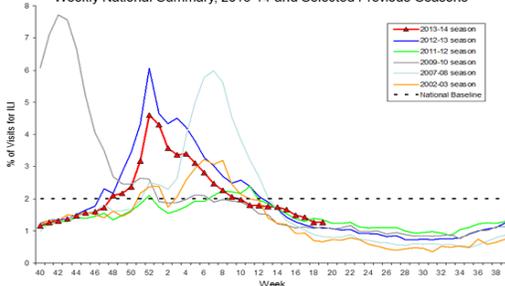


In the United States² during EW 19, influenza activity continued to decrease. The national proportion of outpatient visits for influenza-like illness (ILI) was 1.3% and below the national baseline (2.0%). Two of 10 regions reported ILI activity at or above their region-specific baselines. The proportion of deaths attributed to pneumonia and influenza for EW 19 (6.2%) decreased compared to the previous EW and was below the epidemic threshold (6.9%). A total of 94 influenza-associated pediatric deaths have been reported this season, of which 3 were reported during EW 19. Between October 1, 2013 and April 30, 2014, 9,619 laboratory confirmed influenza-associated hospitalizations were reported (rate: 35.4 per 100,000 population) and the majority (88.3%) were associated with influenza A. The highest hospitalization rate was among adults ≥ 65 years, however, adults 18-64 years of age comprised approximately 60% of the reported hospitalizations. According to laboratory data for EW 19, 3,381 samples were analyzed, of which 10.1% were positive for influenza. Among the positive samples, 58.5% were influenza B and 41.5% were influenza A (0% A(H1N1)pdm09, 41.5% A(H3) and 58.5% not subtyped). Based on antiviral resistance testing, 1.2% (59/5,092) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

United States

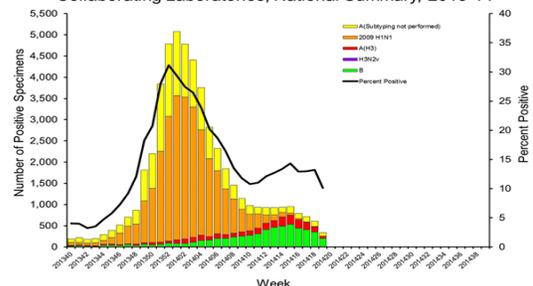
US: Percent of ILI visits by EW, 2013-14

Percentage of Visits for influenza-like illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2013-14 and Selected Previous Seasons

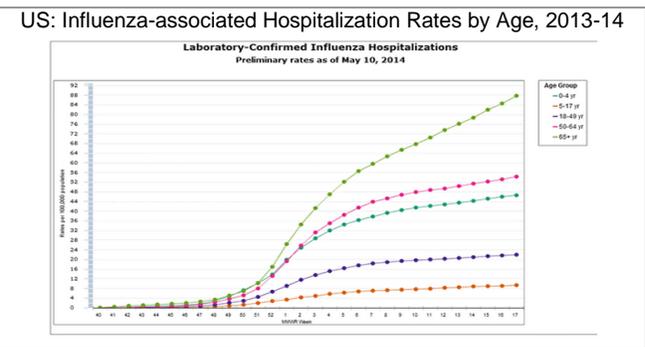
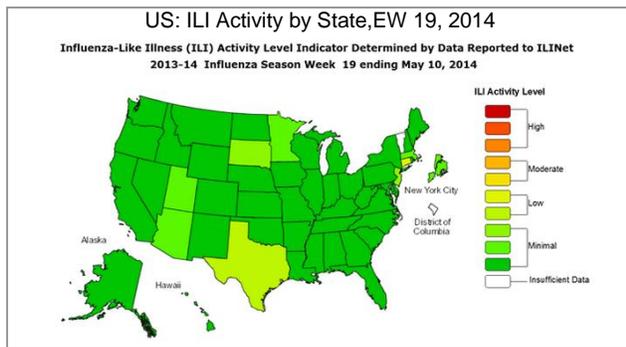


US: Influenza viruses distribution by EW, 2013-14

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2013-14

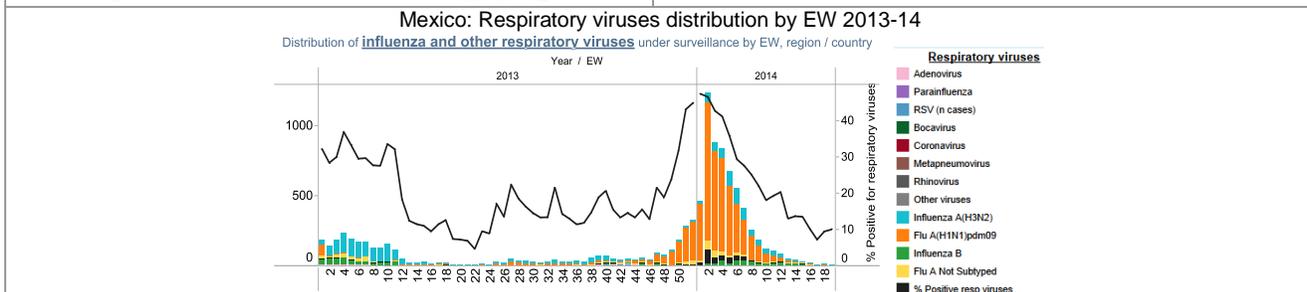
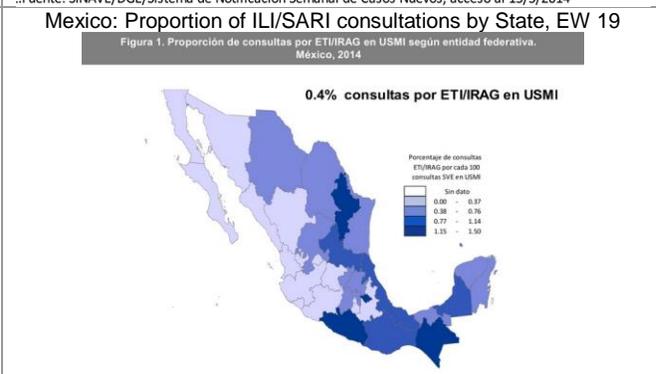
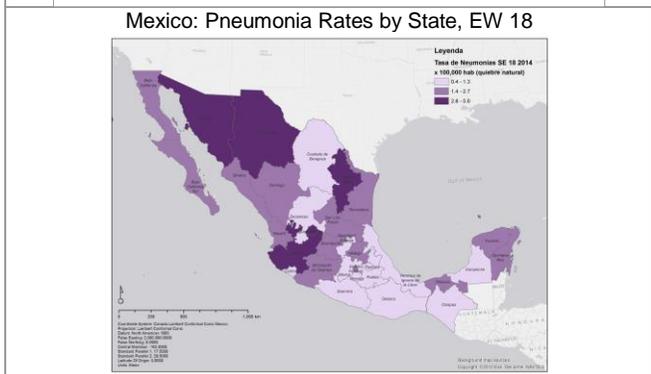
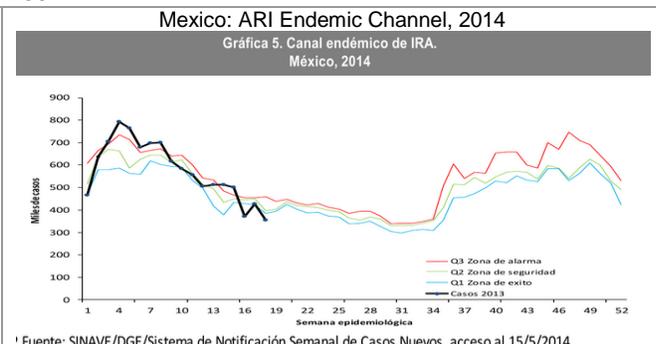
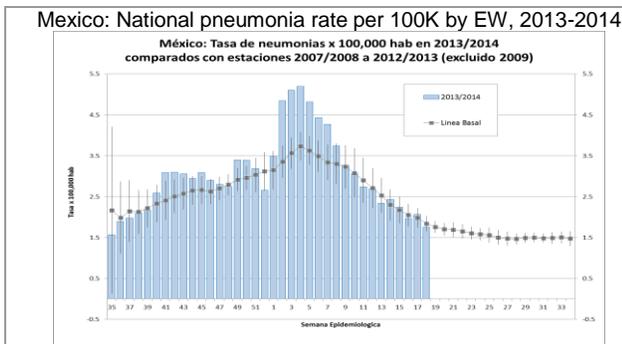


² USA: CDC FluView report. EW 19. Available at: <http://www.cdc.gov/flu/weekly/>



In Mexico³ during EW 19, influenza activity decreased. The pneumonia rate (1.8 per 100,000 inhabitants in EW 18) decreased compared to previous week and was within the expected levels for this time of year. ARI activity also decreased compared to the previous week and was within the success zone of the endemic channel. Regionally, the highest levels of ARI activity were reported in Aguascalientes, Campeche and Durango, while the highest levels of pneumonia activity were reported in Sonora, Nuevo Leon and Chihuahua. Nationally, through May 15, 2014, the proportion of ILI/SARI-associated medical visits was 0.4%, a decrease compared to the previous EW. The highest proportions of ILI/SARI-associated medical visits were reported in Guerrero, Chiapas and Nuevo Leon. During this same period, 716 influenza-associated deaths were reported, of which 91.2% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 16-19, 660 samples were analyzed, of which 9.1% were positive for influenza. Among the positive samples, 58.3% were influenza B and 41.7% were influenza A (32.0% A(H1N1)pdm09, 60.0% A(H3N2) and 8.0% A, not subtyped).

Mexico

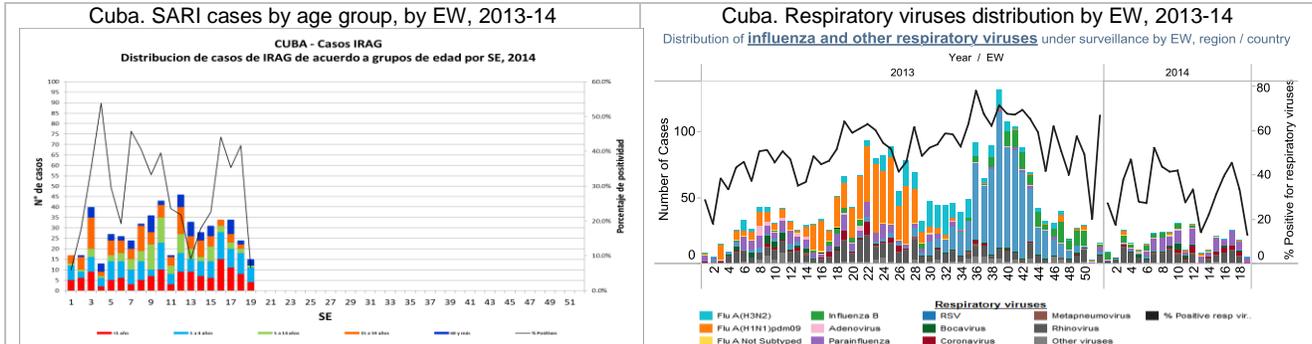


³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Caribbean

In Cuba during EW 19, the number of SARI-associated hospitalizations (n=15) decreased compared 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 16-19, 196 samples were analyzed, of which 34.2% were positive for a respiratory virus and 0.5% were positive for influenza. Among the positive samples, parainfluenza (38.8%) and rhinovirus (34.3%) predominated.

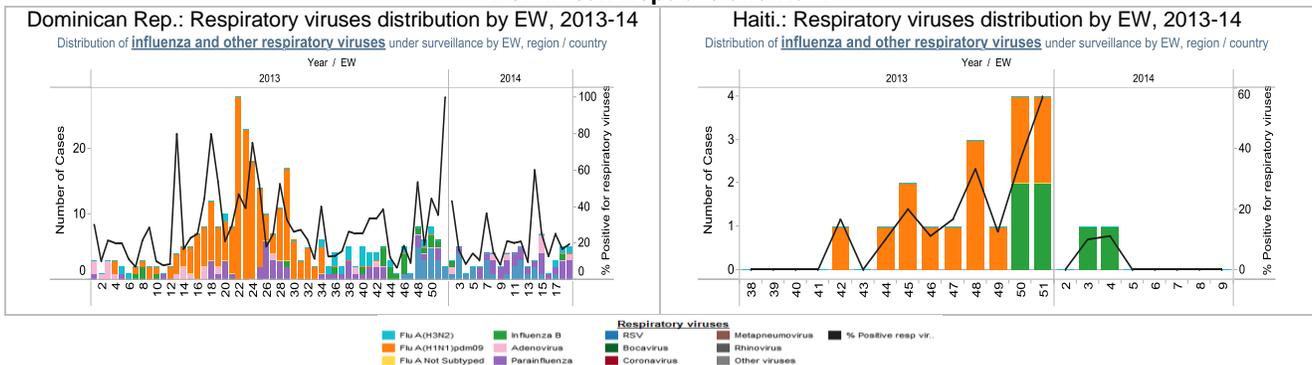
Cuba



In the Dominican Republic, during EW 16-19, 76 samples were analyzed, of which 18.4% were positive for a respiratory virus and 5.3% were positive for influenza. Among the positive samples, parainfluenza (57.1%) and influenza A(H3N2) (21.4%) predominated.

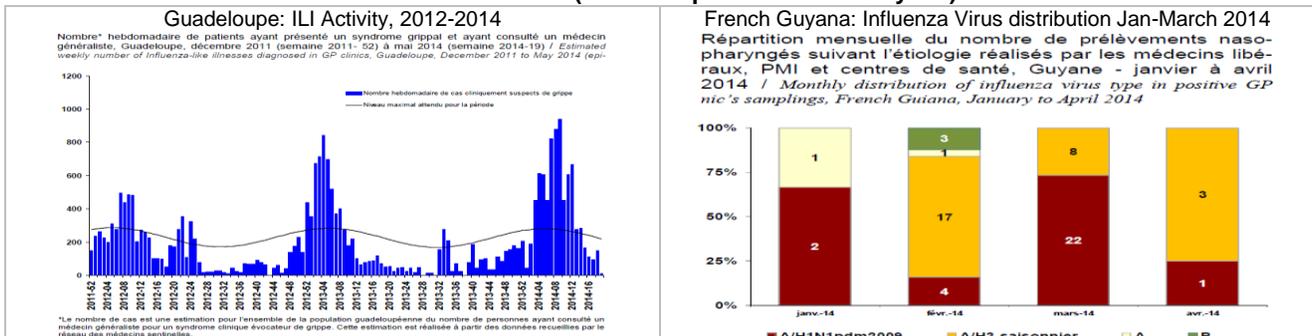
In Haiti, during 2014, influenza B was detected among influenza positive samples.

Dominican Republic and Haiti



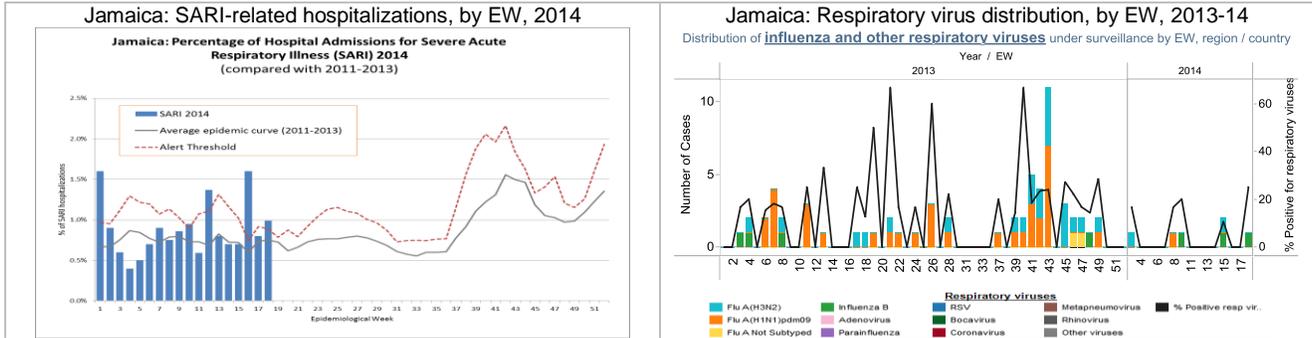
Among the French Territories, in French Guyana, the seasonal influenza epidemic that began in EW 8 continues. However, in Guadeloupe, the seasonal influenza epidemic began in EW 3 and was declared over in EW 15. An estimated 7,600 ILI-associated consultations were reported during that time. According to laboratory data, since the beginning of 2014, there has been co-circulation of influenza A(H1N1)pdm09, influenza A(H3N2) and influenza B. Among the other French territories, Martinique, St. Martin and St. Barthelemy have not reported influenza activity.

French Territories (Guadeloupe and French Guyana)



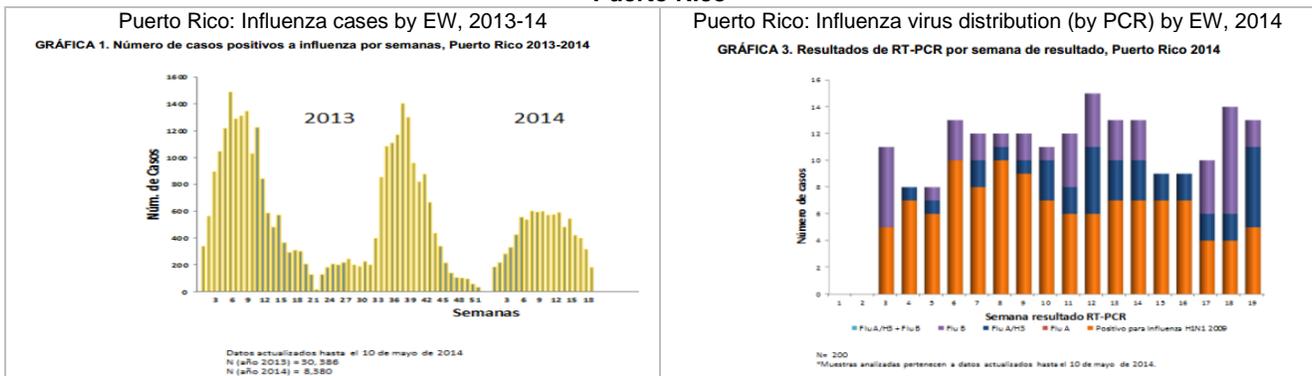
In Jamaica, based on sentinel surveillance data for EW 18, the proportion of ARI-associated consultations (3.4%) decreased compared to the previous week while the proportion of SARI-associated hospitalizations (1.0%) increased. No SARI-associated deaths were reported during EW 18. Based on laboratory data for EW 15-18, 31 samples were analyzed of which three were positive for influenza (influenza B and A(H3N2)).

Jamaica



In Puerto Rico⁴ during EW 19, the number of influenza cases (n=178) remained low. Of these, 89 cases were associated with influenza A, 88 with influenza B and 1 with an influenza A and B co-infection. Since the beginning of 2014, 8,380 influenza cases have been reported (56% influenza A and 43% influenza B) and persons aged 0-19 years accounted for 49% of those cases. During this same period, 434 influenza-associated hospitalizations and 7 influenza-associated deaths were reported.

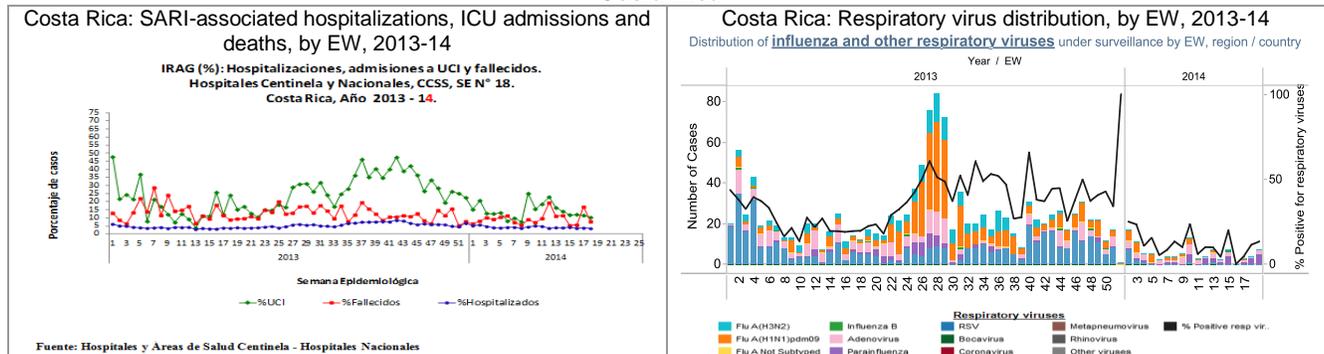
Puerto Rico



Central America

In Costa Rica, during EW 18, the proportions of SARI-associated hospitalizations (3.5%), ICU admissions (10.2%) and deaths (7.6%) were similar to the previous week. According to laboratory data from EW 16-19, 143 samples were analyzed of which 8.9% were positive for a respiratory virus and 0.6% were positive for influenza. Among the positive samples, parainfluenza (64.3%) and adenovirus (28.6%) predominated.

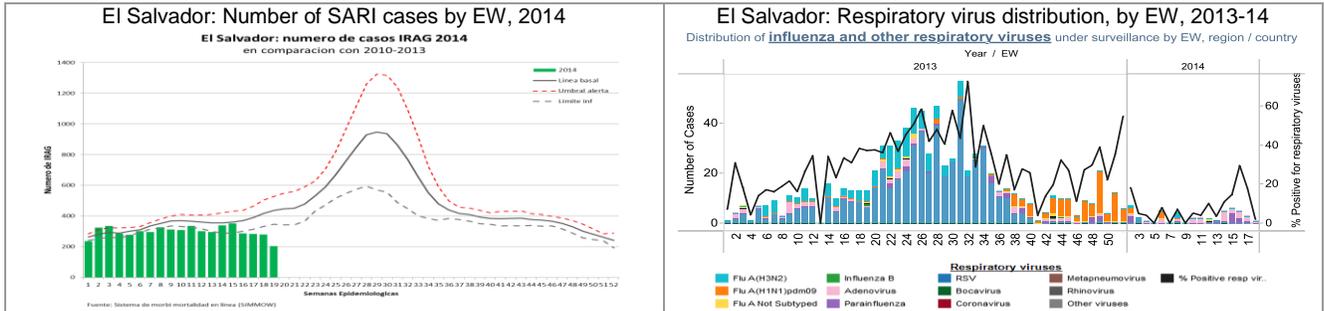
Costa Rica



⁴ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 19

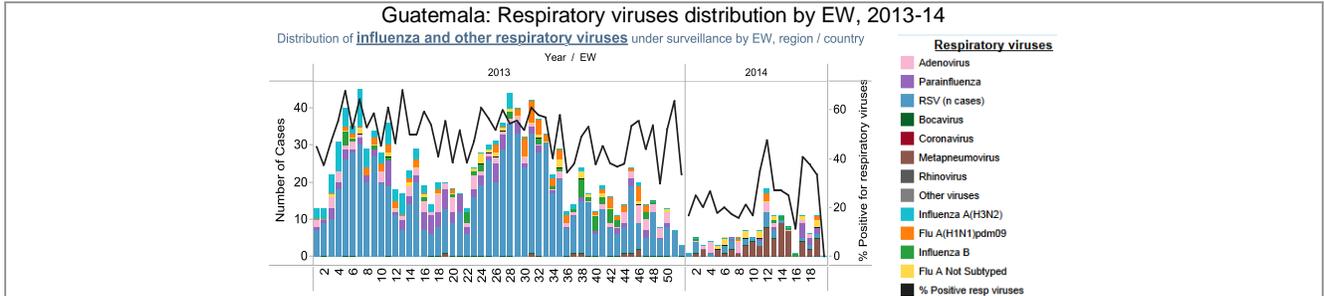
In El Salvador, during EW 19, the proportion of SARI-associated hospitalizations (4.4%) was similar to the previous week while the proportions of SARI-associated ICU admissions (4.3%) and deaths (7.7%) increased. Based on laboratory data from EW 15-18, 124 samples were analyzed, of which 12.1% were positive for a respiratory virus. Among the positive samples, adenovirus (53.3%) and parainfluenza (46.7%) were detected.

El Salvador



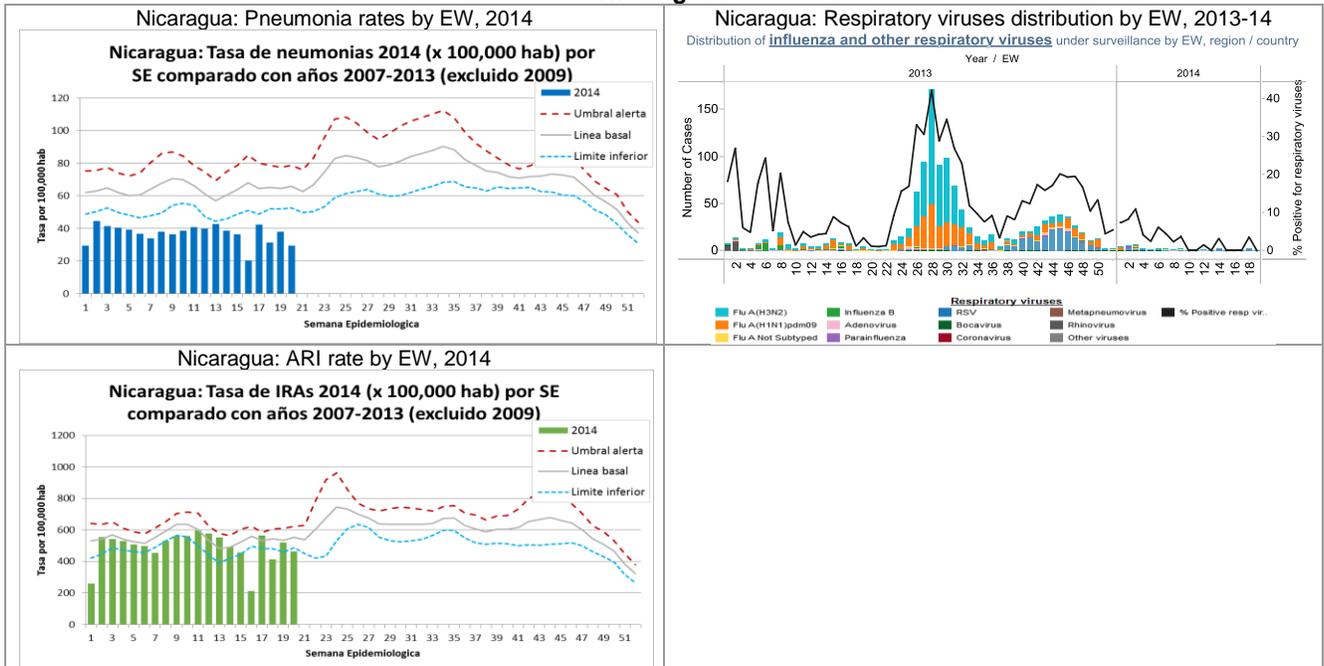
In Guatemala, based on laboratory data from EW 17-20, 80 samples were analyzed, of which 35.0% were positive for a respiratory virus and 5.0% were positive for influenza. Among the influenza positive samples, 100% were influenza A (25% A(H1N1)pdm09 and 75% not subtyped). Among other respiratory viruses, human metapneumovirus (39.3%) and parainfluenza (28.6%) predominated.

Guatemala



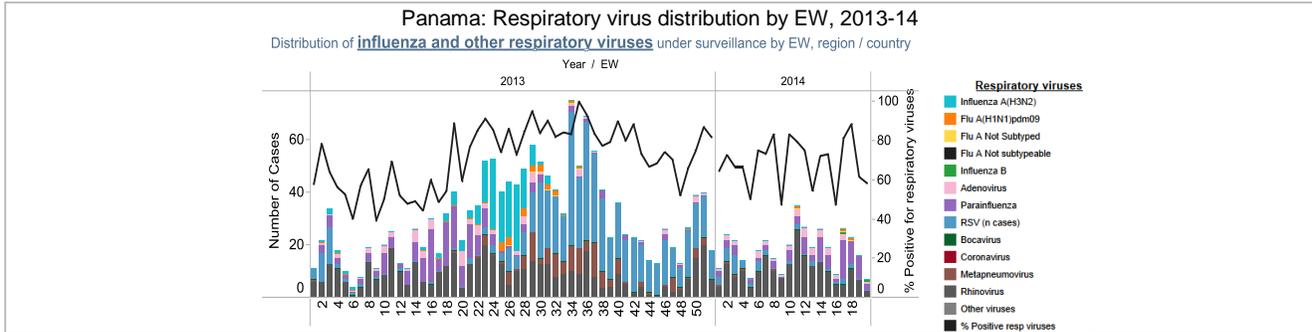
In Nicaragua, during EW 20, the national rates of pneumonia and ARI decreased compared to the previous week and were within expected levels for this time of year. Based on laboratory data from EW 16-19, 193 samples were analyzed, of which two (1.0%) were positive for a respiratory virus (parainfluenza).

Nicaragua



In Panama, based on national laboratory data from EW 17-20, 96 samples were analyzed, of which 75.0% were positive for a respiratory virus and 4.2% were positive for influenza. Among the positive samples, parainfluenza (48.6%) and rhinovirus (36.1%) predominated.

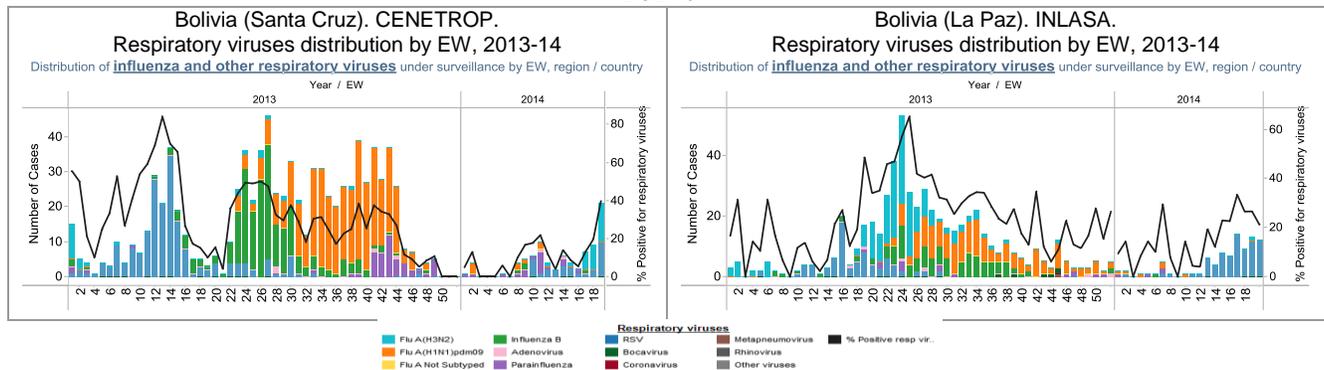
Panama



South America – Andean countries

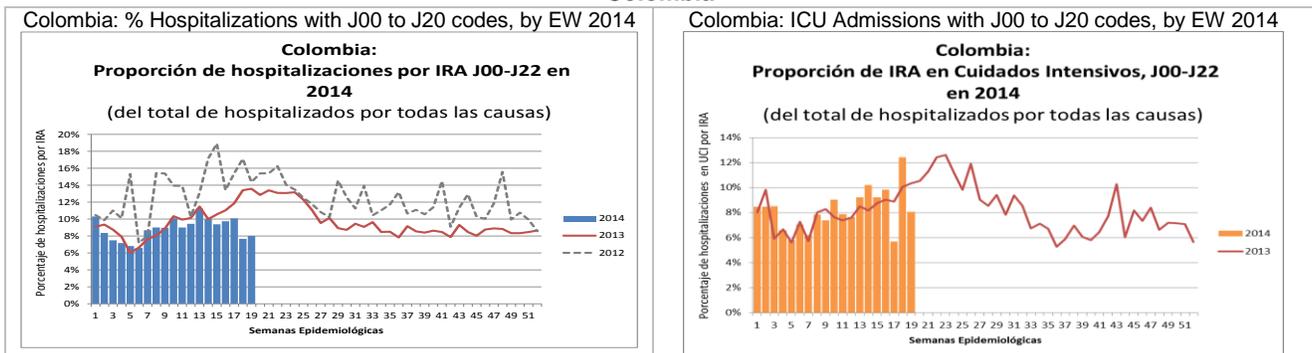
In Bolivia, increased influenza and RSV activity was observed. According to laboratory data from Santa Cruz, (CENETROP) from EW 16-19, 189 samples were analyzed, of which 20.6% were positive for respiratory virus and 12.7% were positive for influenza. Among the positive samples, influenza A(H3N2) (59.0%) and RSV (35.9%) predominated. According to the National Laboratory in La Paz (INLASA) from EW 17-20, 182 samples were analyzed, of which 26.4% were positive for a respiratory virus and 0.5% were positive for influenza. Among the positive samples, 97.9% were RSV.

Bolivia

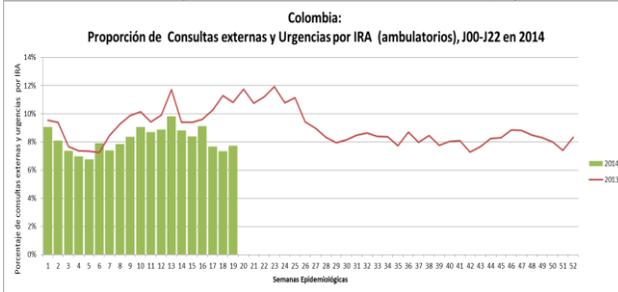


In Colombia, nationally during EW 19, the proportions of hospitalizations (8.0%) and outpatient and urgent visits (7.7%) with SARI/ARI-associated ICD-10 codes (J00 to J22) were similar to the previous week and below values observed last year. Meanwhile the proportion of ICU admissions (8.1%) decreased compared to the previous week. Based on INS laboratory data from EW 16-19, 634 samples were analyzed, of which 27.9% were positive for a respiratory virus and 3.6% were positive for influenza. Among the positive samples, RSV (55.4%) and parainfluenza (16.4%) predominated.

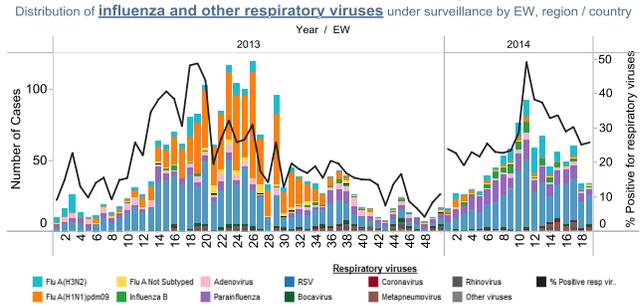
Colombia



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



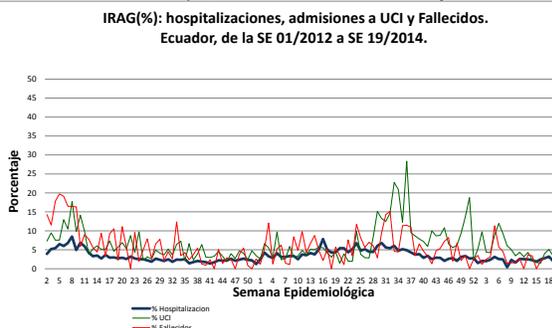
Colombia: Influenza and ORV distribution by EW, 2013-14



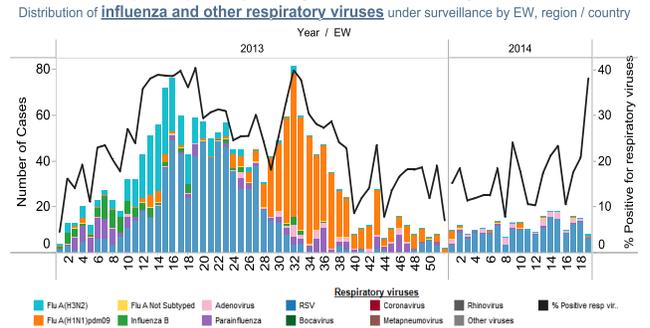
In Ecuador during EW 19, the proportions of SARI-associated hospitalizations (2.0%) and ICU admissions (3.4%) decreased compared to the previous week. Two SARI-associated deaths were reported during this period. Based on national reference laboratory data from EW 16-19, 279 SARI samples were analyzed, of which 17.6% were positive for a respiratory virus and 0.7% were positive for influenza. Among the positive samples, RSV predominated (83.7%).

Ecuador

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



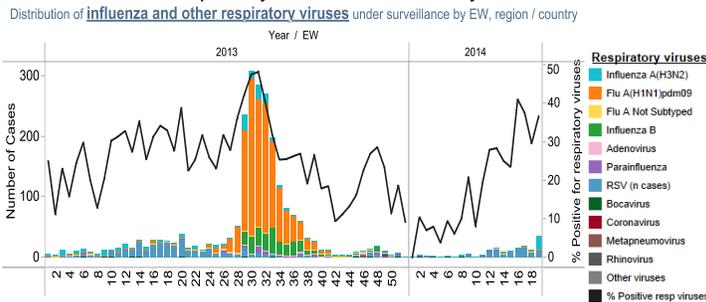
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 16-19, 224 samples were analyzed, of which 36.2% were positive for a respiratory virus and 11.2% were positive for influenza. Among the positive samples, RSV (65.4%) and influenza A(H3N2) (29.6%) predominated.

Peru

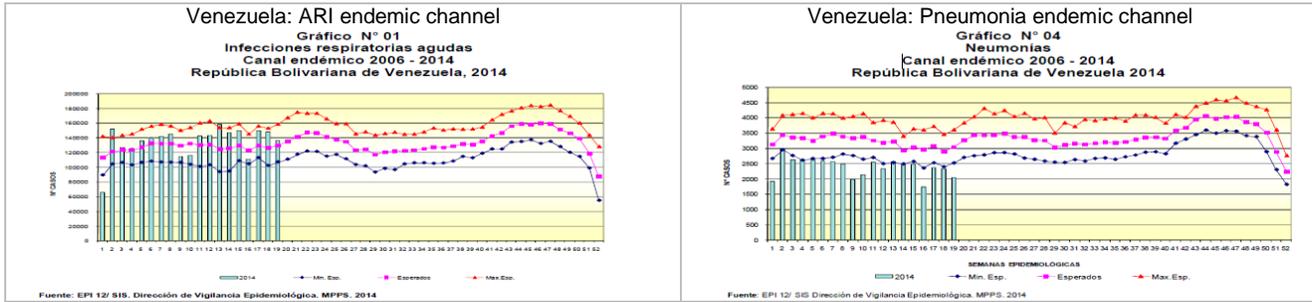
Perú. Respiratory viruses distribution by EW, 2013-14



In Venezuela⁵ during EW 19, the number of ARI and pneumonia cases decreased by 7.9% and 11.9%, respectively, compared to the previous EW. Both were within the expected levels for this time of year. During EW 19, 184 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-19, 238 samples were analyzed from suspected influenza cases and of these, 13.0% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (90.3%).

⁵ Venezuela. Boletín epidemiológico, EW 19.

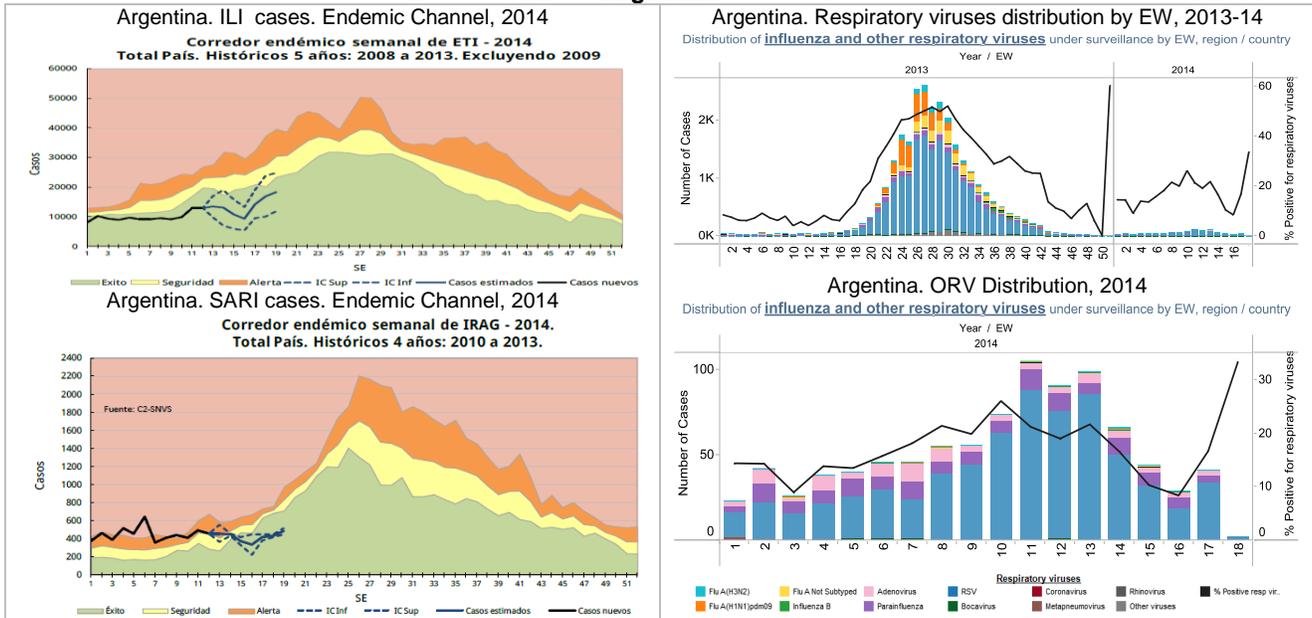
Venezuela



South America – South Cone and Brazil

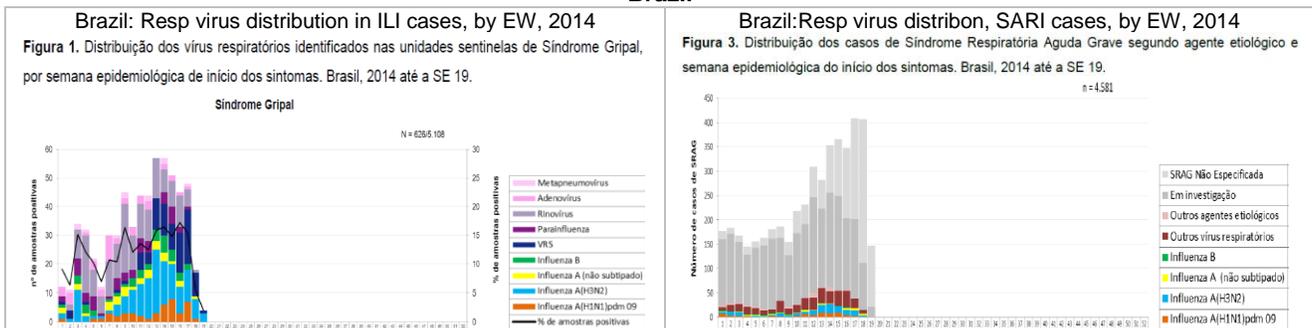
In Argentina⁶, according to reports and calculated estimations, for EW 19 the number of cases of ILI and SARI were both within the success zone of the endemic channel. Based on laboratory data from EW 15-18, 1,028 samples were analyzed, of which 11.3% were positive for a respiratory virus and 0.2% were positive for influenza. Among the positive samples, RSV (74.1%) predominated.

Argentina



In Brazil⁷, according to ILI sentinel surveillance data through EW 19 of 2014, 5,108 samples were analyzed, of which 12.3% were positive for influenza or another respiratory virus. Among the influenza positive samples, A(H3N2) predominated. Based on national SARI surveillance data during this same period, 4,581 SARI cases were reported and 5.3% of these were positive for influenza. Among the influenza positive samples, influenza A(H3N2) predominated. Through EW 19, 420 SARI-associated deaths were reported, of which 6.4% were positive for influenza (55.6% A(H1N1)pdm09 and 29.6% A(H3N2)).

Brazil

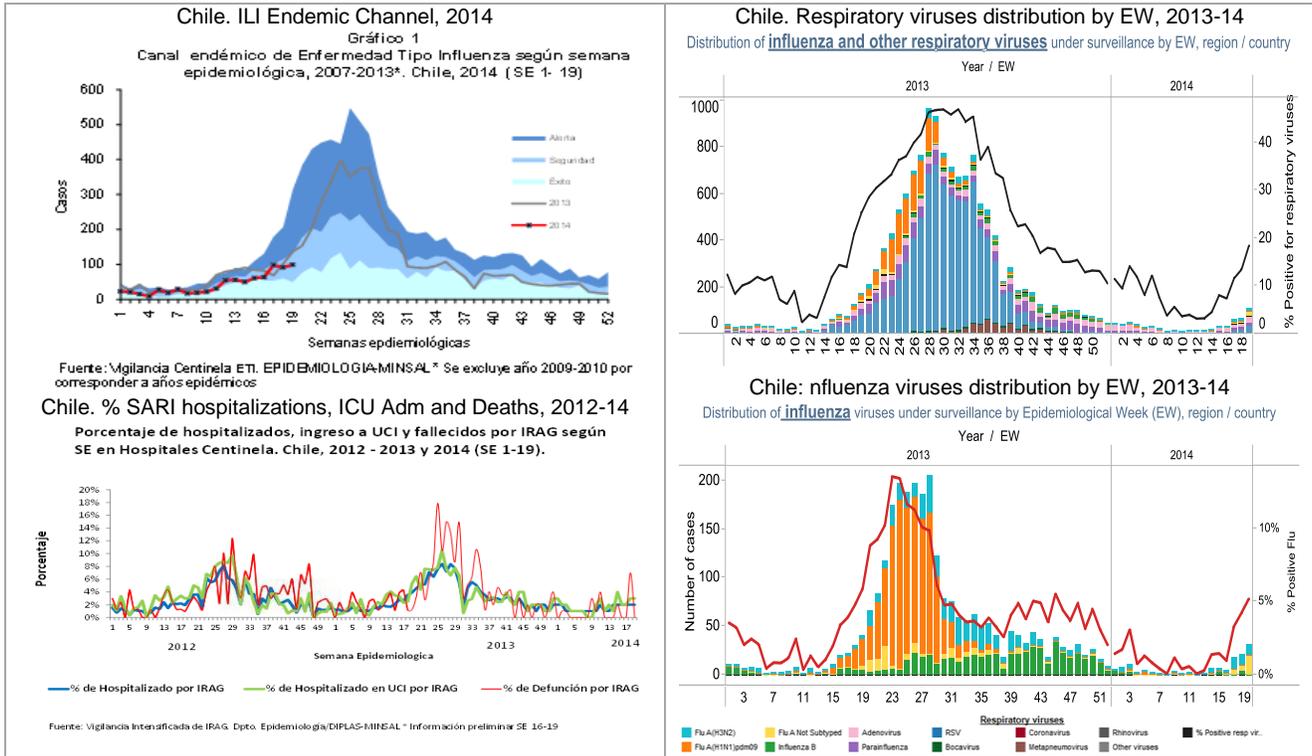


⁶ Argentina. Boletín integrado de vigilancia. SE 19.

⁷ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 19, 2014.

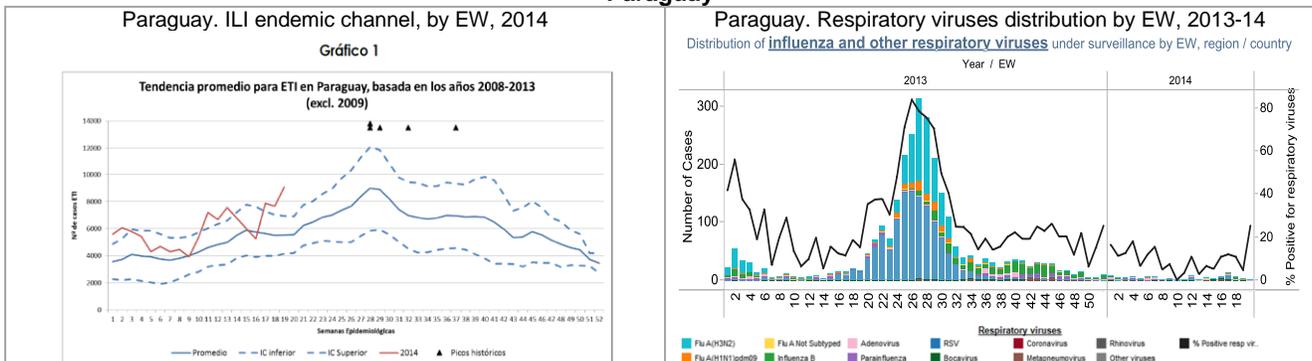
In Chile⁸, ILI activity has been increasing slowly since EW 12 but is within expected levels for this time of the season. During EW 19, the rate of ILI notifications (rate: 6.6 per 100,000 inhabitants) was within the security zone of the endemic channel. Through EW 19, 494 SARI cases were reported through sentinel surveillance and of these, 14.0% were positive for a respiratory virus. Based on laboratory data from EW 18-19, 1,065 samples were analyzed, of which 16.1% were positive for a respiratory virus and 4.7% were positive for influenza. Among the positive influenza samples, 92.0% were influenza A (43.5% A(H3N2) and 56.5% not subtyped) and 8% were influenza B. Among the other respiratory viruses, RSV (28.7% of positive samples) and adenovirus (27.5%) predominated.

Chile



In Paraguay⁹ during EW 19, the ILI consultation rate (136.2 per 100,000 inhabitants) increased from the previous EW and was above the expected levels for this time of year. The proportion of SARI-associated hospitalizations (3.6%) remained within the expected range for this time of year. The most affected age groups were children <5 years of age and adults ≥60 years. Based on reference laboratory data from EW 17-20, 240 samples were analyzed of which 10.0% were positive for a respiratory virus and 4.6% were positive for influenza. Among the positive samples, RSV (41.7%) and influenza B (29.2%) predominated.

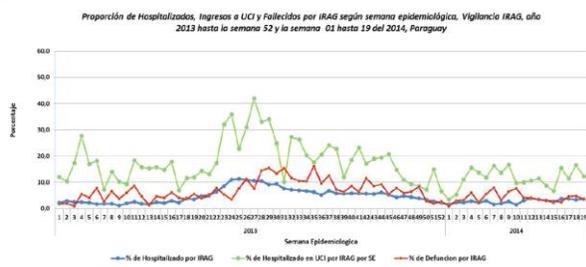
Paraguay



⁸ Chile. Informe de situación. EW 19. Available at: <http://epi.minsal.cl/>

⁹ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 19.

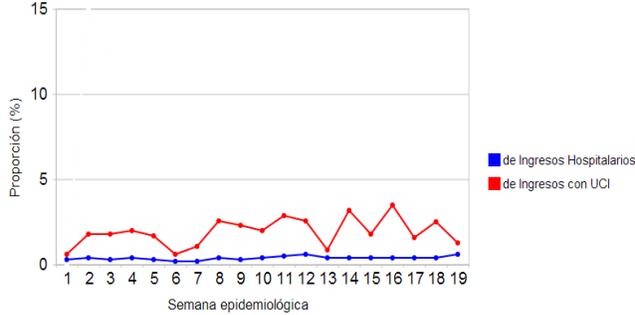
Paraguay:% SARI Hosps, ICU Adms & Deaths by EW 2013-14
 Gráfico 5: Proporción de Hospitalizados, ingresos a UCI y fallecidos por IRAG según semana epidemiológica, SE 1 a 19, Vigilancia Centinela, Paraguay, 2.014.



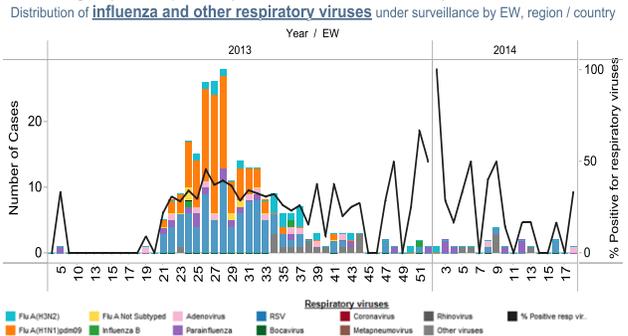
In Uruguay¹⁰ during EW 19, the proportions of SARI-associated hospitalizations, ICU admissions and deaths remained at low levels. Based on laboratory data from EW 16-19, 18 samples were analyzed and of these, three (16.7%) were positive for a respiratory virus (RSV and adenovirus).

Uruguay

Uruguay.SARI-related hosps & ICU admissions by EW, 2014
 Proporción de IRAG en ingresos hospitalarios e ingresos a UCI y defunciones hospitalarias



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