

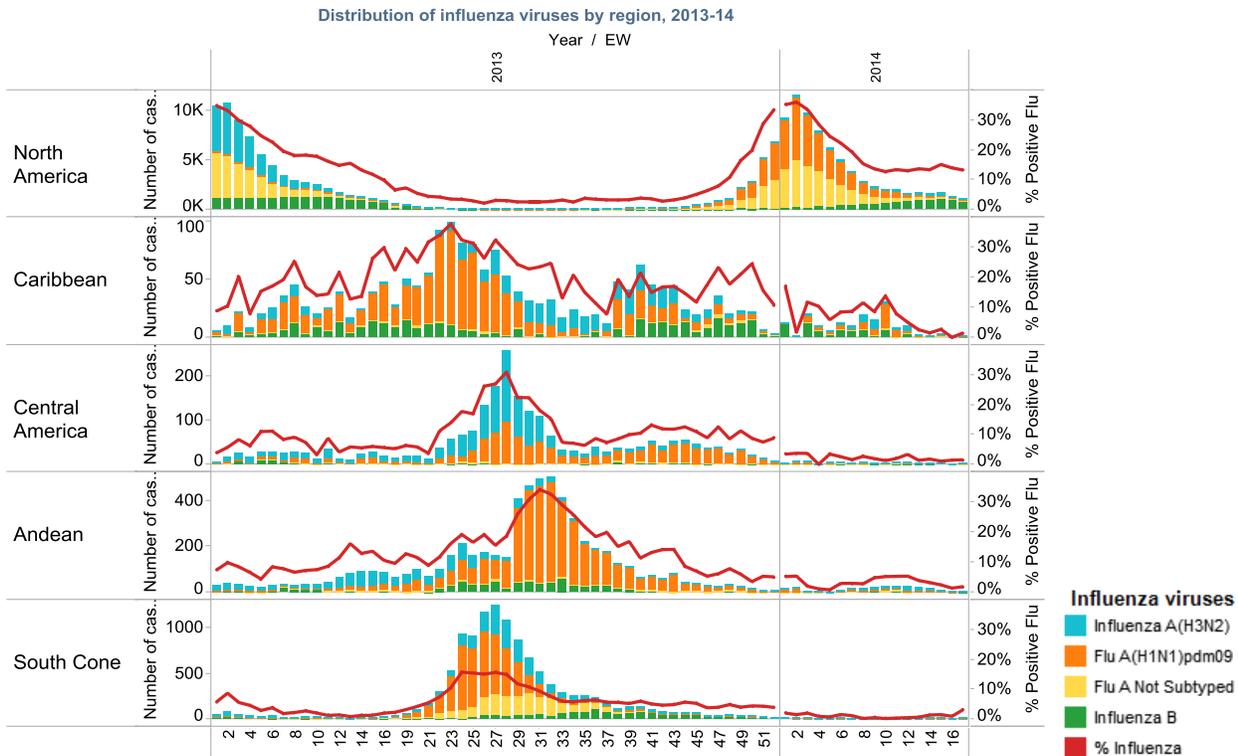
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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.

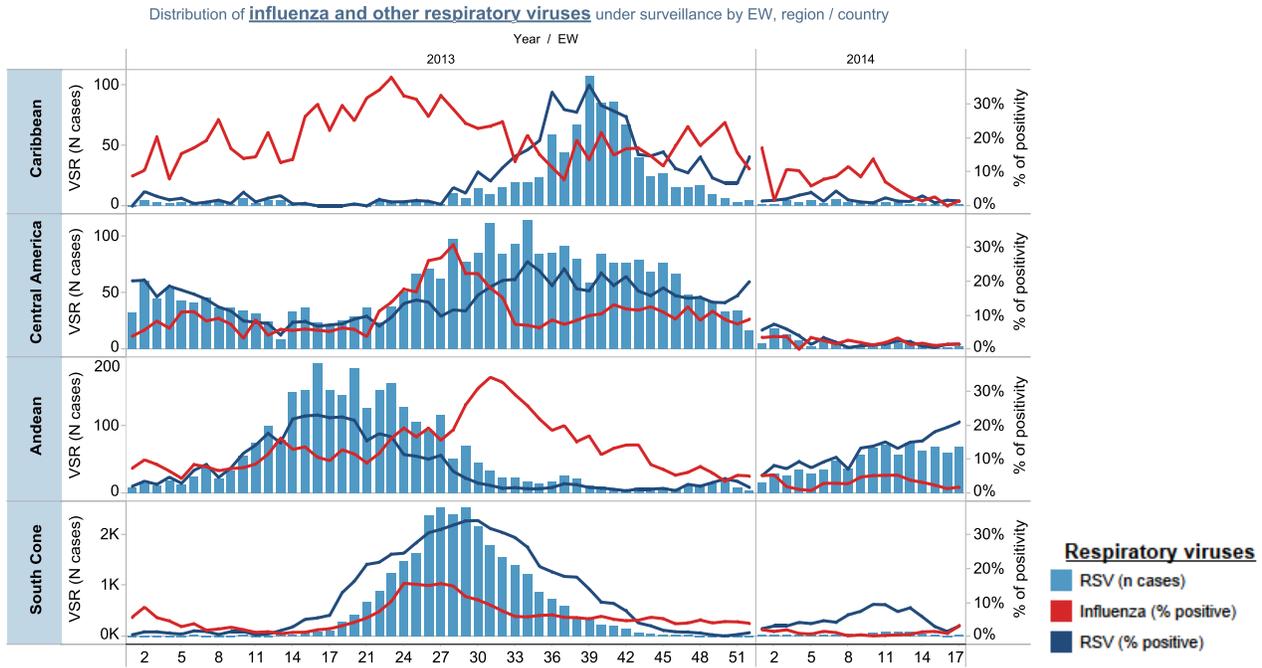
WEEKLY SUMMARY

- **North America:** Influenza B continued to predominate in Canada and the United States and most affected adults ≥65 years of age. In Mexico, influenza activity was within expected levels for this time of year and involved co-circulation of A(H1N1)pdm09, A(H3N2) and influenza B.
- **The Caribbean and Central America:** Influenza and other respiratory virus activity remained low in the sub-region with the exception of French Guyana and Guadeloupe 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 activity remained low in the sub-region. However, active circulation of RSV was observed in Bolivia, Colombia, Ecuador and Peru.
- **South America - South Cone and Brazil:** Although acute respiratory illness activity associated with other respiratory viruses increased slightly in some countries of the sub-region, it remained low and within expected levels for this time of year. Influenza activity remained low.

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:

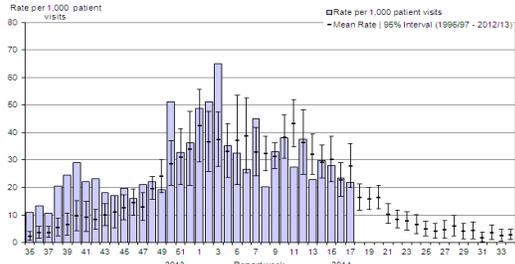
In Canada¹ during EW 17, influenza activity was sustained by continued circulation of influenza B, but was within expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 21.8 per 1,000 patient visits, a decrease compared to the previous week and within expected levels. Since the beginning of the 2013-14 influenza season, 4,393 influenza-associated hospitalizations have been reported, of which 80.7% were associated with influenza A. Although influenza A(N1H1)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, 244 deaths have been reported, most of which were associated with influenza A (82.8%). The highest proportion of deaths (48.0%) has been among adults ≥65 years of age followed by adults 20-64 years of age (43.0%). Based on laboratory data for EW 17, the overall percentage of positive influenza tests was 13.4% (N=576), a decrease compared to the previous week. Among the positive tests, 87.5% were influenza B and 12.5% were influenza A, of which 8.3% were influenza A(H1N1)pdm09, 26.4% A(H3) and 65.3% A, not subtyped. Among other circulating respiratory viruses, RSV (decreasing since early February) and rhinovirus (increasing since late March) predominated.

¹ Canada: FluWatch Report. EW 17. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

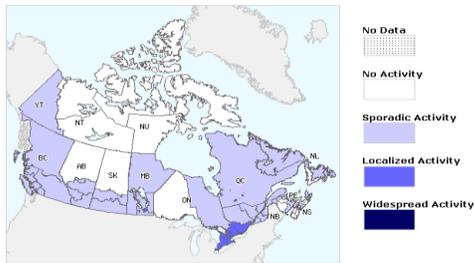
Canada

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

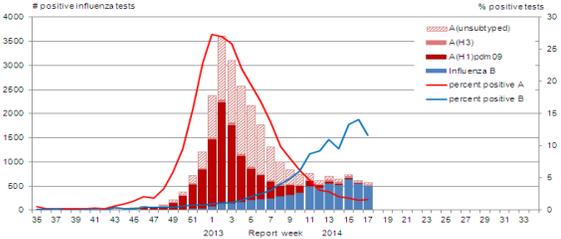


Canada: Influenza/ILI Activity by region, EW 17, 2014
Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 17



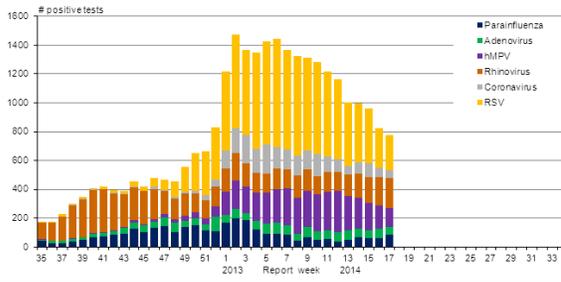
Canada: Influenza virus distribution by EW, 2013-14

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

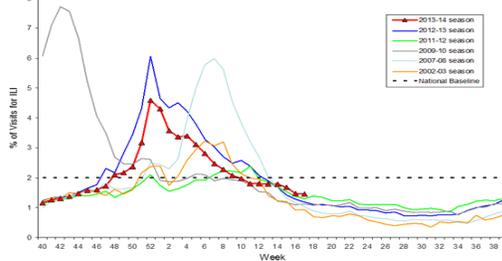


In the United States² during EW 17, influenza activity continued to decrease. The national proportion of outpatient visits for influenza-like illness (ILI) was 1.5% and below the national baseline (2.0%). Two of 10 regions reported ILI activity above their region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 17 (6.8%) increased compared to the previous EW but was below the epidemic threshold (7.1%). A total of 91 influenza-associated pediatric deaths have been reported this season, of which two were reported during EW 17. Since October 1, 2013, 9,460 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 34.9 per 100,000 population) and the majority (89.1%) have been associated with influenza A. The highest hospitalization rate was among adults ≥ 65 years and has been steadily increasing in the recent weeks. However, adults 18-64 years of age comprised approximately 60% of the reported hospitalizations. According to laboratory data for EW 17, 4,031 samples were analyzed, of which 12.4% were positive for influenza. Among the positive samples, 44.6% were influenza A (3.6% A(H1N1)pdm09, 41.3% A(H3) and 55.2% not subtyped) and 55.4% were influenza B. Based on antiviral resistance testing, 1.2% (59/5,062) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

United States

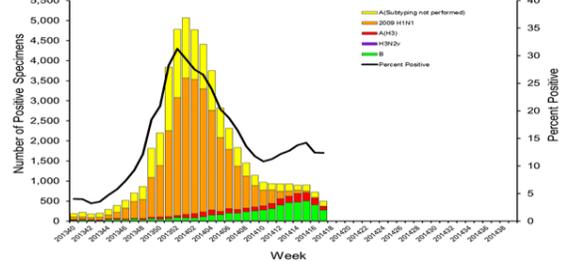
US: Percent of ILI visits by EW, 2013-14

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



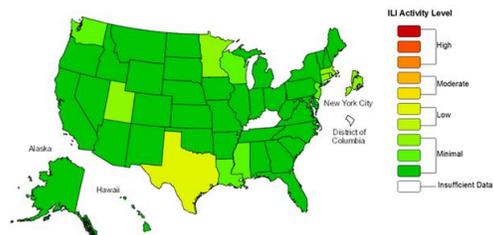
US: Influenza viruses distribution by EW, 2013-14

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



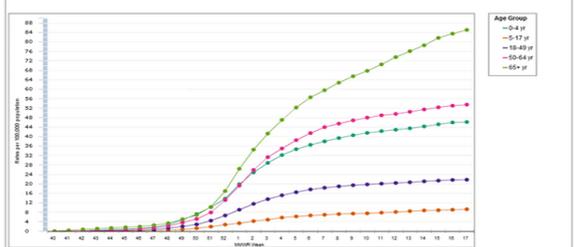
US: ILI Activity by State, EW 17, 2014

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2013-14 Influenza Season Week 17 ending Apr 26, 2014



US: Influenza-associated Hospitalization Rates by Age, 2013-14

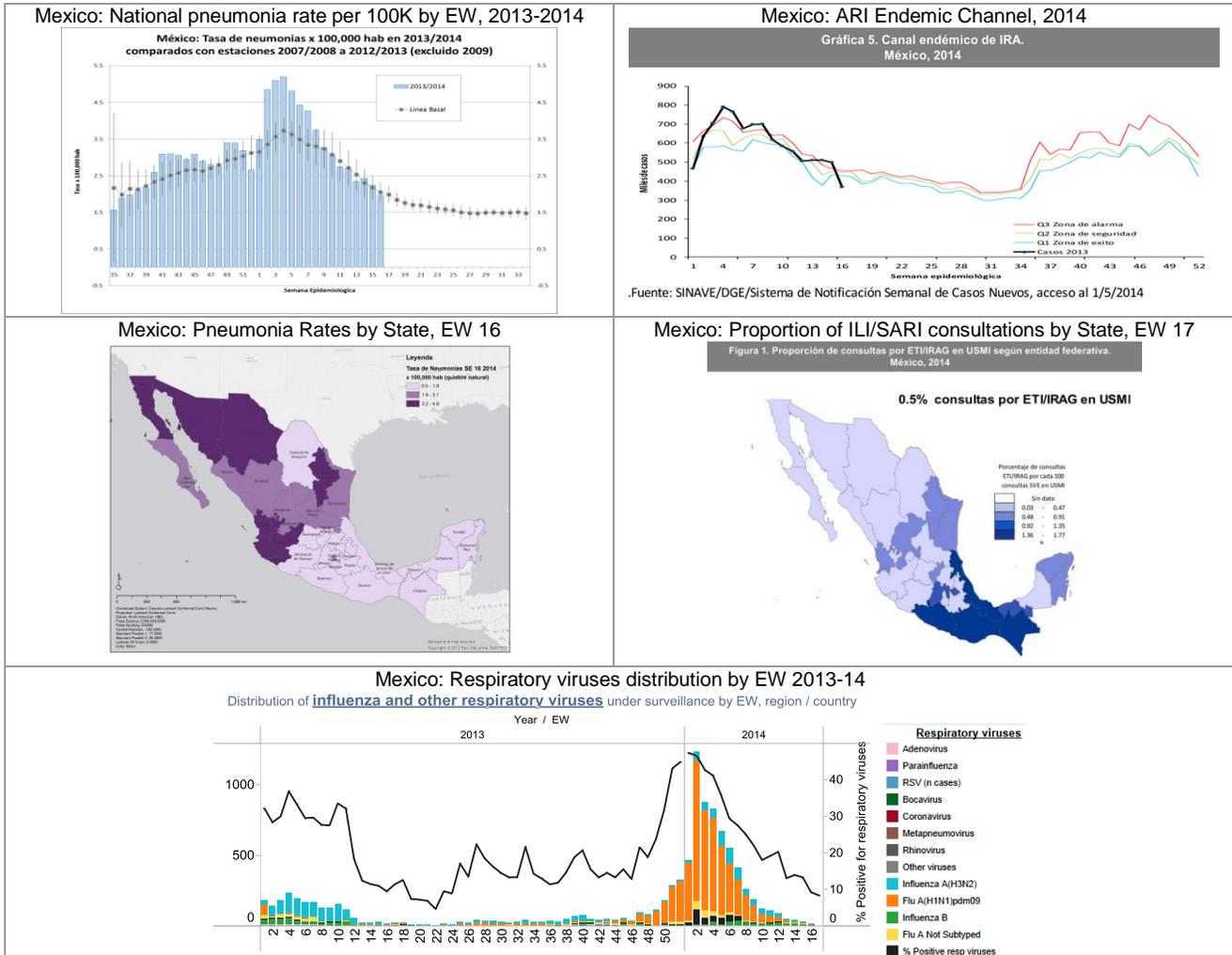
Laboratory-Confirmed Influenza Hospitalizations Preliminary rates as of Apr 26, 2014



² USA: CDC FluView report. EW 17. Available at: <http://www.cdc.gov/flu/weekly/>

In Mexico³ during EW 17, influenza activity continued to decrease. The pneumonia rate (2.0 per 100,000 inhabitants in EW 16) decreased compared to previous week and was within the expected level for this time of year. ARI activity 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, Zacatecas, and Hidalgo, while the highest levels of pneumonia activity were reported in Sonora, Jalisco and Chihuahua. Nationally, through May 1, 2014, the proportion of ILI/SARI-associated medical visits was 0.5%, a decrease compared to the previous EW. The highest proportions of ILI/SARI-associated medical visits were reported in Guerrero, Chiapas and Oaxaca. During this same period, 711 influenza-associated deaths were reported, of which 91.1% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 16-17, 197 samples were analyzed, of which 9.1% were positive for influenza. Among the positive samples, 50.0% were influenza A (22.2% A(H1N1)pdm09, 55.6% A(H3N2) and 22.2% A not subtyped) and 50.0% were influenza B.

Mexico

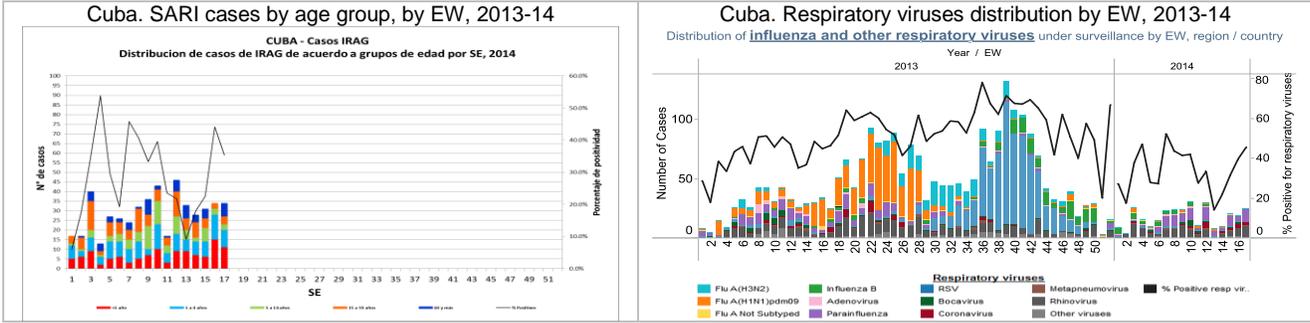


Caribbean

In Cuba during EW 17, the number of SARI-associated hospitalizations (n=34) was equal to the previous week. Children aged ≤ 1 year 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 14-17, 216 samples were analyzed, of which 34.7% were positive for a respiratory virus and 0.9% were positive for influenza. Among the positive samples, parainfluenza (38.7%) and rhinovirus (36.0%) predominated.

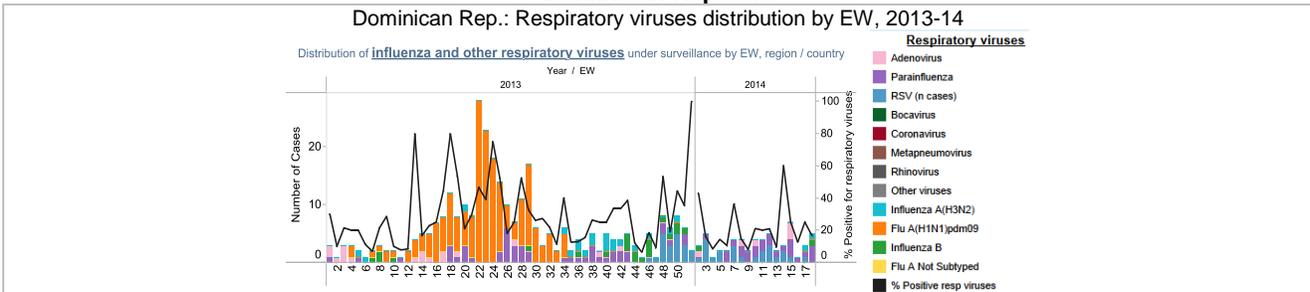
³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Cuba



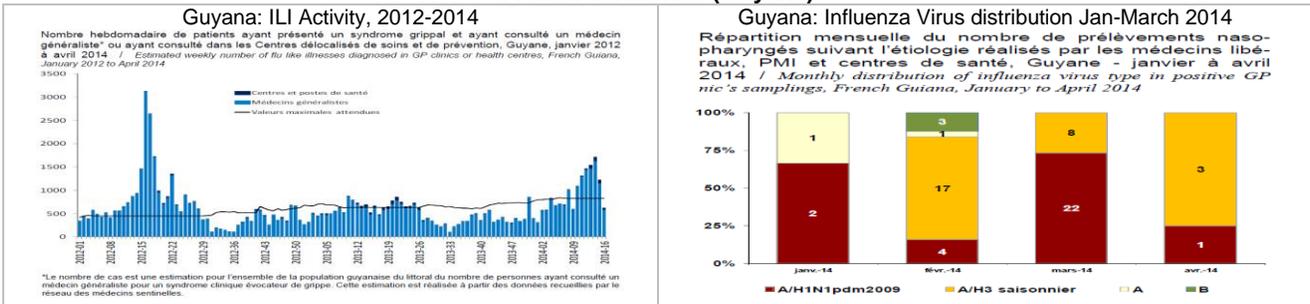
In the Dominican Republic, during EW 15-18, 78 samples were analyzed, of which 20.5% were positive for a respiratory virus and 3.8% were positive for influenza. Among the positive samples, parainfluenza (50.0%), adenovirus (18.8%) and RSV (12.5%) predominated.

Dominican Republic



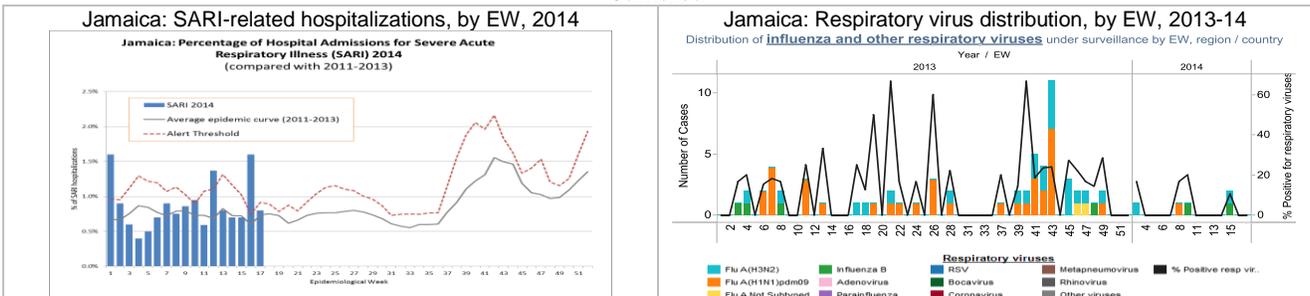
In French Guyana, since the seasonal influenza epidemic began in mid-February there have been 10,620 ILI-associated consultations, of which 1,850 occurred in the past two weeks. According to laboratory data since the beginning of 2014, there has been co-circulation of influenza A(H1N1)pdm09, influenza A(H3N2) and influenza B. Among the other French territories, Guadeloupe also declared the start of their influenza season in EW 3, but Martinique, St. Martin and St. Barthelemy have not reported influenza activity.

French Territories (Guyana)



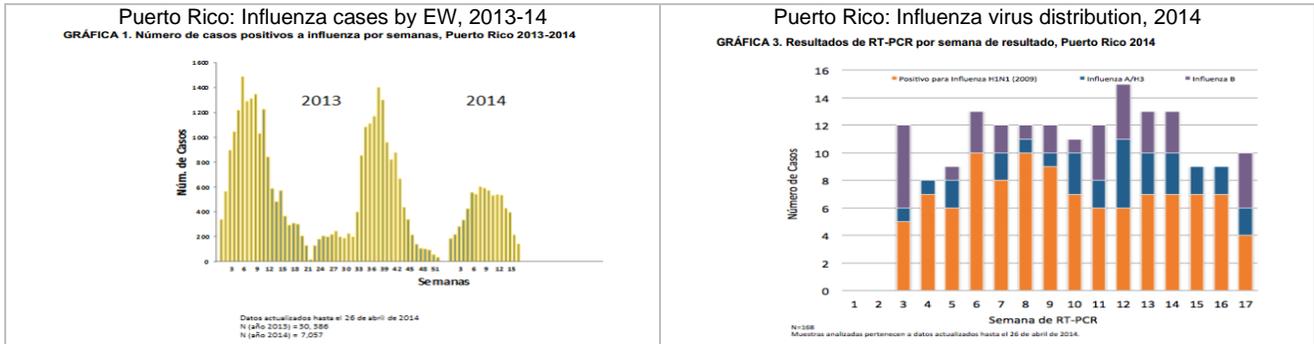
In Jamaica, based on sentinel surveillance data for EW 17, the proportion of ARI-associated consultations (4.0%) was similar to the previous week while the proportion of SARI-associated hospitalizations (0.8%) decreased. No SARI-associated deaths were reported during EW 16. Based on laboratory data for EW 14-17, 44 samples were analyzed and two were positive for influenza (influenza A(H3N2) and influenza B).

Jamaica



In Puerto Rico⁴ during EW 17, the number of influenza cases (n=142) remained low. Of these, 63 cases were associated with influenza A and 79 with influenza B. Since the beginning of 2014, 7,057 influenza cases have been reported (58% influenza A and 41% influenza B) and persons aged 0-19 years accounted for 49% of those cases. During this same period, 364 influenza-associated hospitalizations and 7 influenza-associated deaths were reported.

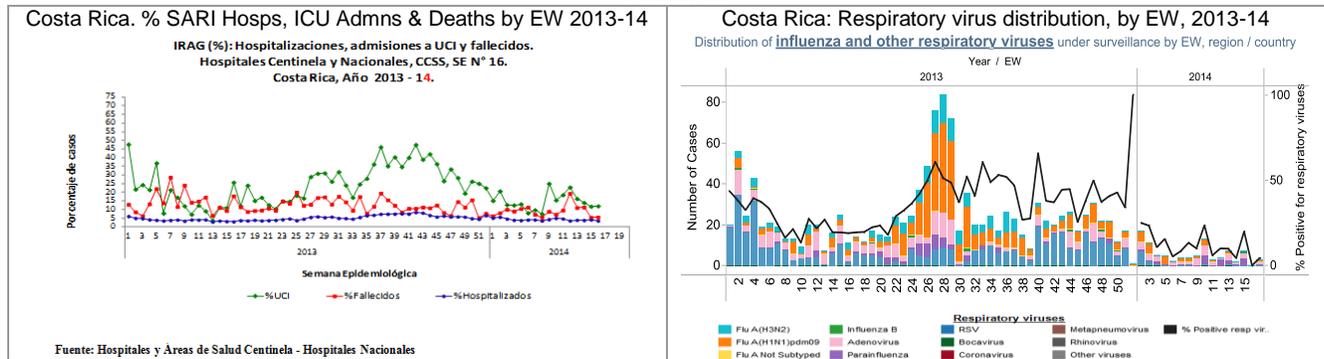
Puerto Rico



Central America

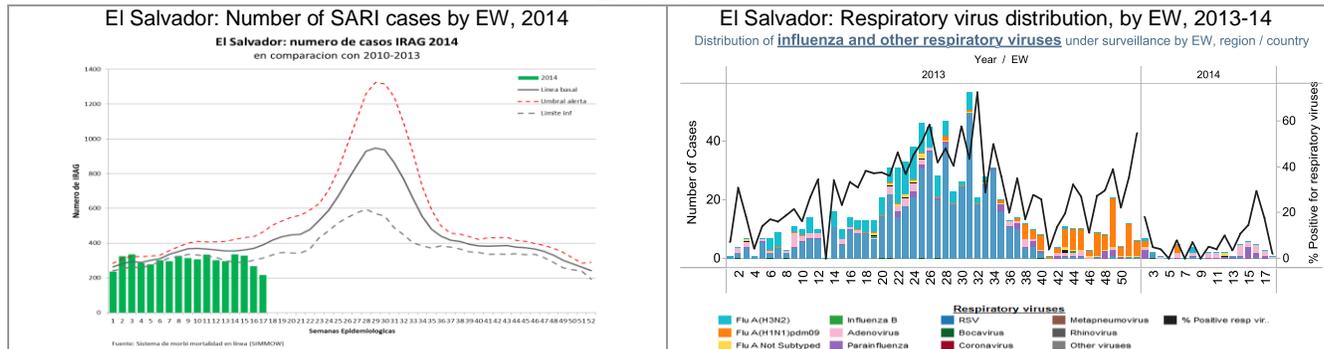
In Costa Rica, during EW 16, the percentage of SARI-associated hospitalizations (3.5%), ICU admissions (12%) and deaths (5%), were similar to the previous week. According to laboratory data from EW 14-17, 151 samples were analyzed of which 7.9% were positive for a respiratory virus and 1.3% were positive for influenza. Among the positive samples, parainfluenza (50.0%) and adenovirus (33.3%) predominated.

Costa Rica



In El Salvador, during EW 17, the proportions of hospitalizations (4.9%) and deaths (4.3%) associated with SARI decreased compared to the previous week while the proportions of SARI-associated ICU admissions (0%) remained the same. 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.

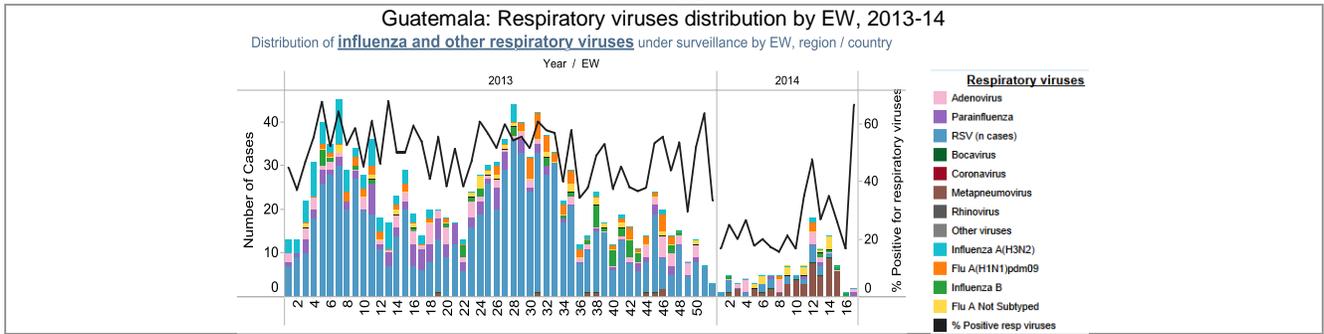
El Salvador



⁴ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 17

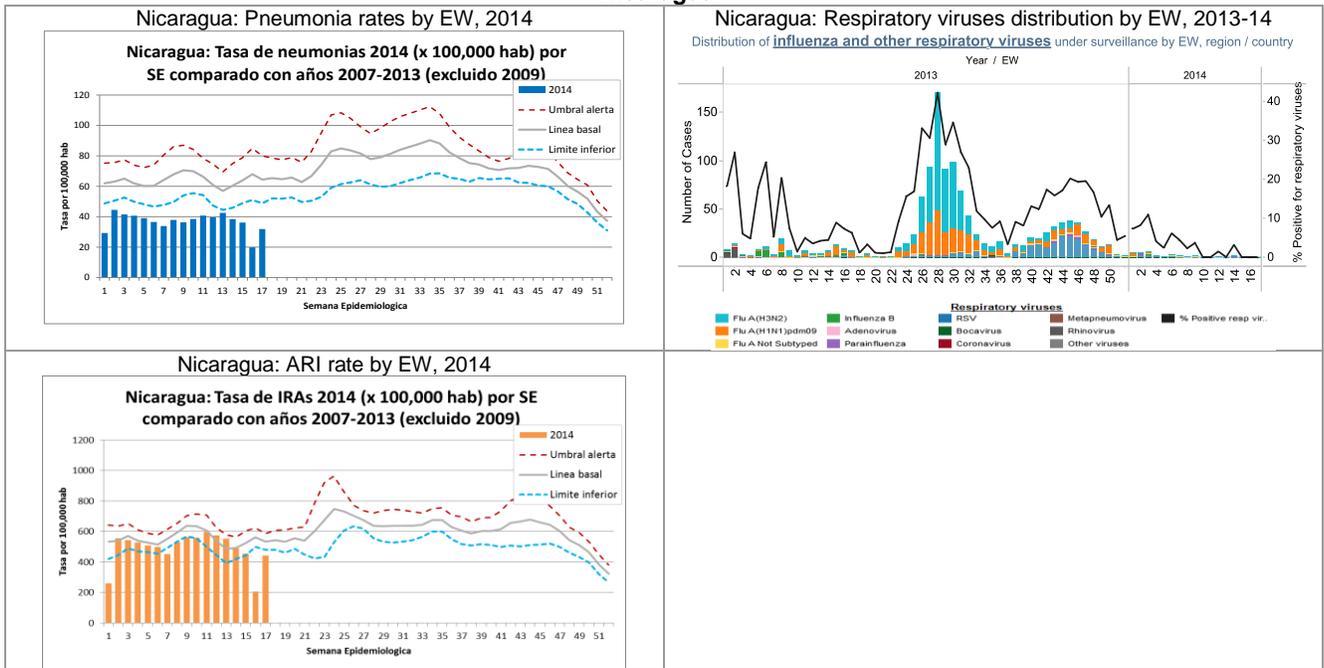
In Guatemala, based on laboratory data from EW 14-17, 76 samples were analyzed, of which 31.6% were positive for a respiratory virus and 7.9% were positive for influenza. Among the positive samples, human metapneumovirus (62.5%), influenza B (12.5%) and influenza A, not subtyped (12.5%) predominated.

Guatemala



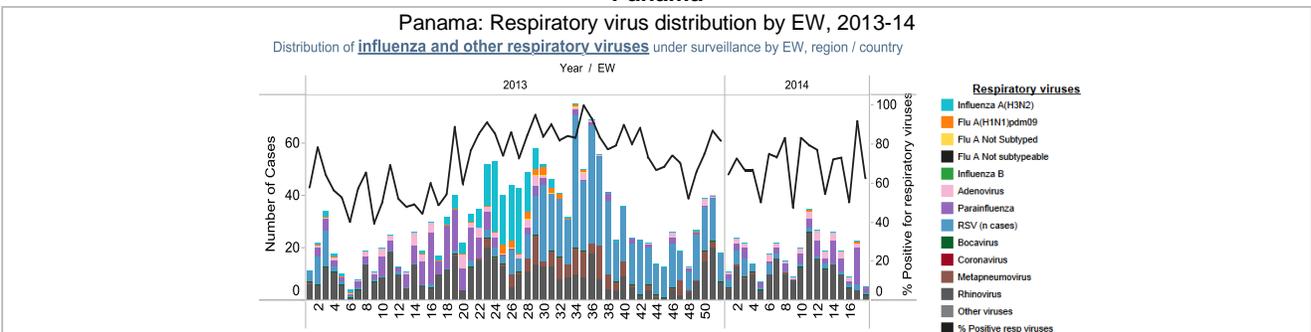
In Nicaragua, during EW 17, the national rates of pneumonia and ARI increased compared to the previous week, but remained low and within the expected levels for this time of year. Based on laboratory data from EW 14-17, 183 samples were analyzed, of which two (1.1%) were positive for a respiratory virus (parainfluenza).

Nicaragua



In Panama, based on national laboratory data from EW 15-18, 76 samples were analyzed, of which 72.7% were positive for a respiratory virus. Among the positive samples, parainfluenza (39.3%) and rhinovirus (37.5%) predominated.

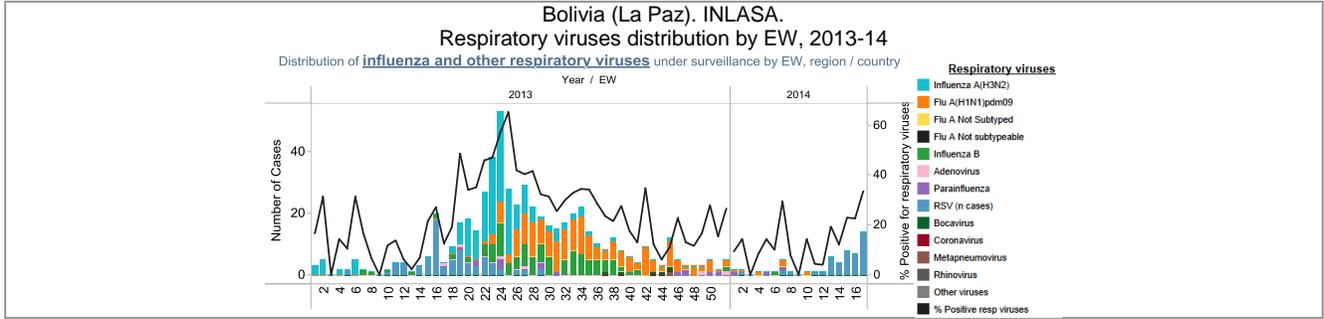
Panama



South America – Andean countries

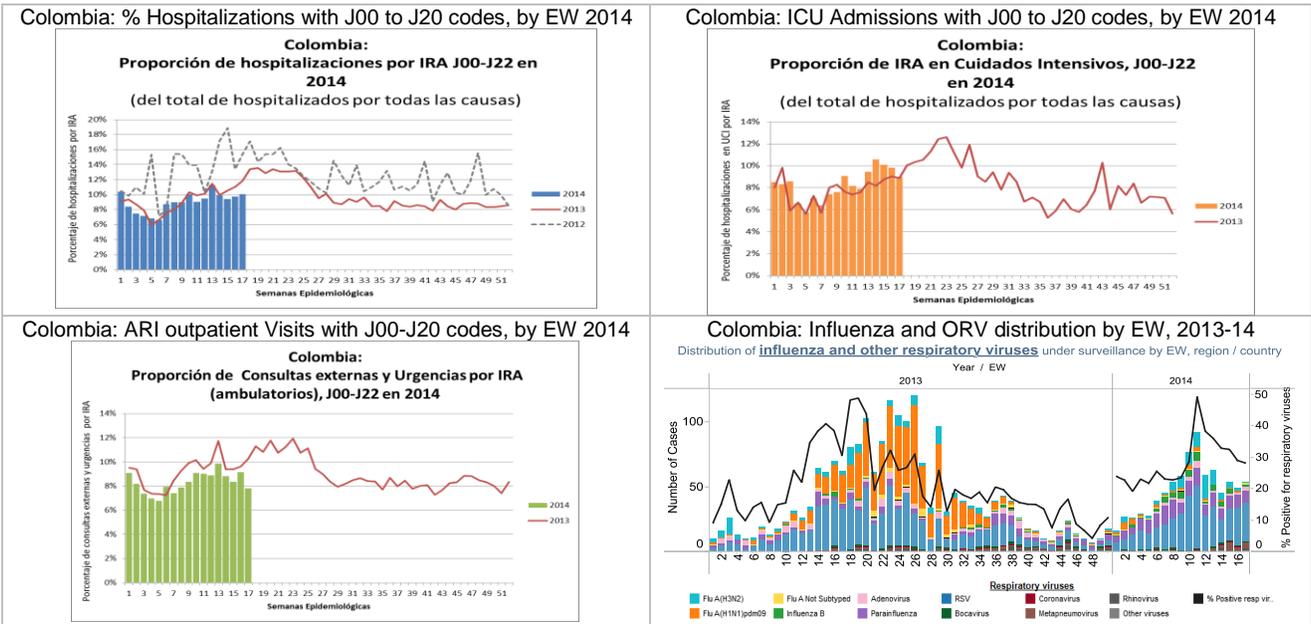
In Bolivia, according to the National Laboratory in La Paz (INLASA) from EW 14-17, 141 samples were analyzed, of which 23.4% were positive for respiratory viruses. Among the positive samples, 100% were RSV.

Bolivia



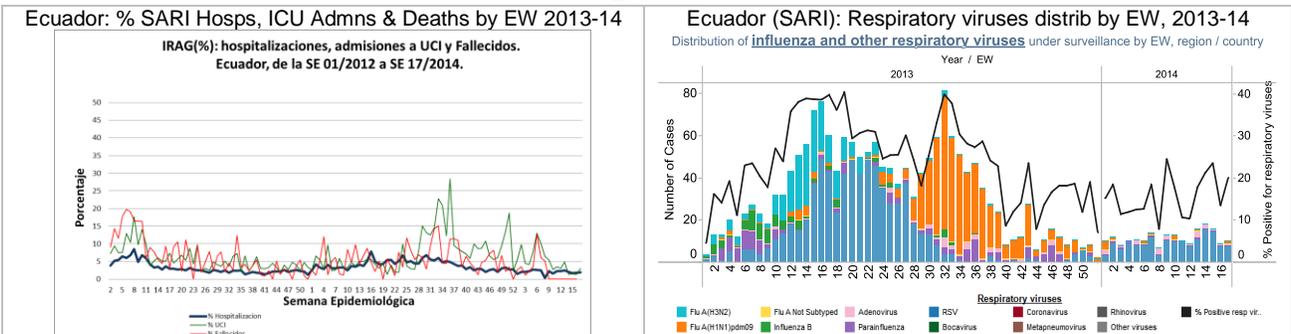
In Colombia, nationally during EW 17, the proportion of hospitalizations (10.1%) with SARI-associated ICD-10 codes (J00 to J22) increased compared to the previous week, while the proportions of ICU admissions (9.0%) and outpatient and urgent visits (7.8%) with SARI- and ARI-associated ICD-10 codes decreased. Based on INS laboratory data from EW 14-17, 661 samples were analyzed, of which 30.4% were positive for a respiratory virus and 3.9% were positive for influenza. Among the positive samples, RSV (50.2%) and parainfluenza (18.4%) predominated.

Colombia

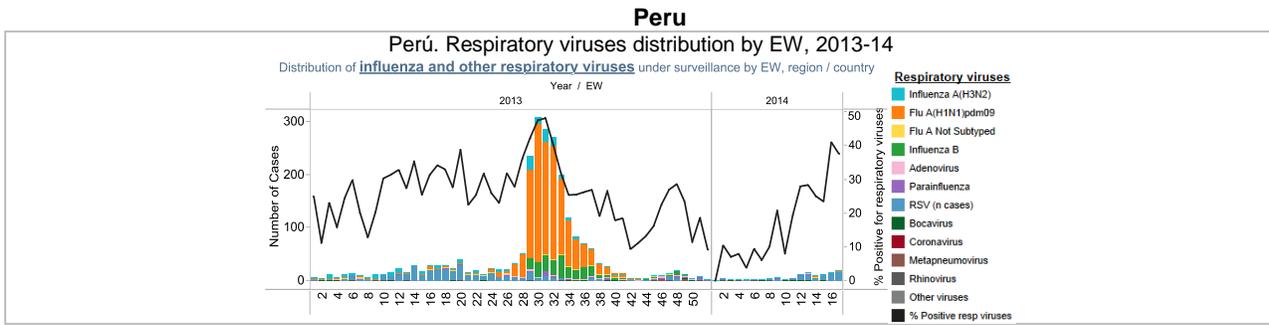


In Ecuador during EW 17, the proportions of SARI-associated hospitalizations (2.0%) and ICU admissions (3.1%) increased compared to the previous week. No SARI-associated deaths were reported during this period. Based on national reference laboratory data from EW 14-17, 270 SARI samples were analyzed, of which 19.6% were positive for a respiratory virus and 0.4% were positive for influenza. Among the positive samples, RSV predominated (88.7%).

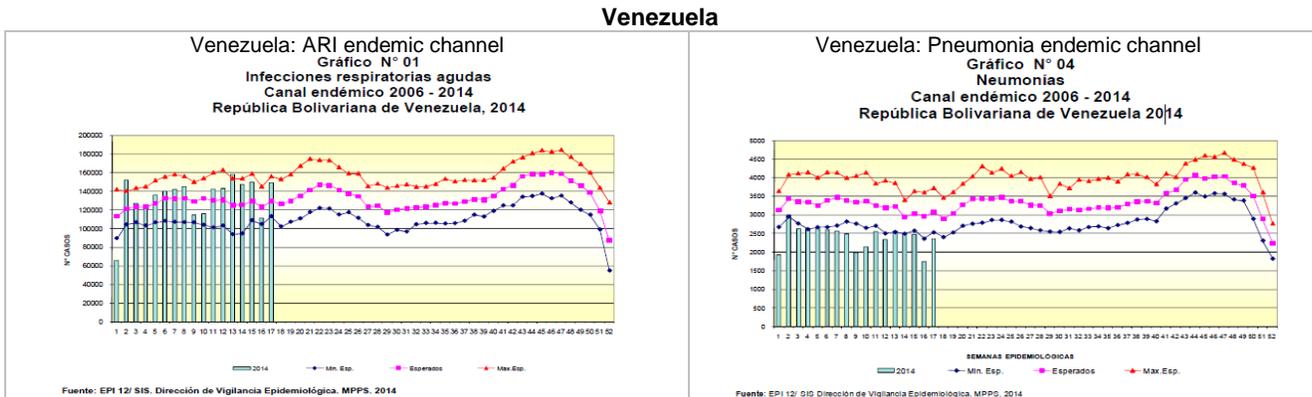
Ecuador



In Peru, based on national laboratory data from EW 14-17, 170 samples were analyzed, of which 31.8% were positive for a respiratory virus and 1.8% were positive for influenza. Among the positive samples, RSV (90.7%) predominated.

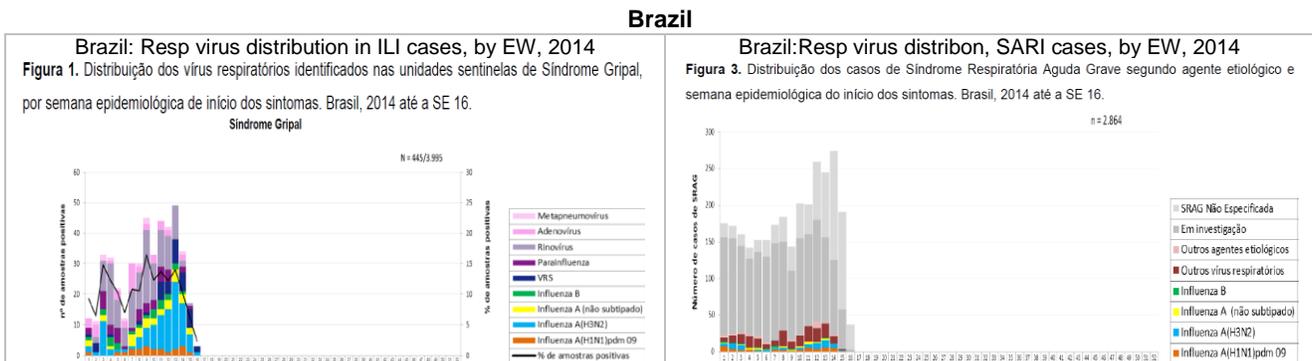


In Venezuela⁵ during EW 17, the number of ARI and pneumonia cases increased by 34.0% and 35.3%, respectively, compared to the previous EW. However, both were within the expected levels for this time of year. During EW 17, 104 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data since January 1, 2014, 231 samples have been analyzed from suspected influenza cases and of these, 13.4% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (90.3%).



South America – South Cone and Brazil

In Brazil⁶, according to ILI sentinel surveillance data through EW 16, 3,995 samples were analyzed, of which 11.1% were positive for influenza or another respiratory virus. During EW 16, 2.4% of samples were positive for a respiratory virus, and among these RSV and influenza A(H3N2) were detected. Based on universal SARI surveillance data during this same period, 2,864 SARI cases were reported and 4.8% of these were positive for influenza. Among the positive samples, influenza A(H3N2) and A(H1N1)pdm09 predominated. Through EW 16, 291 SARI-associated deaths were reported, of which 5.5% were positive for influenza.

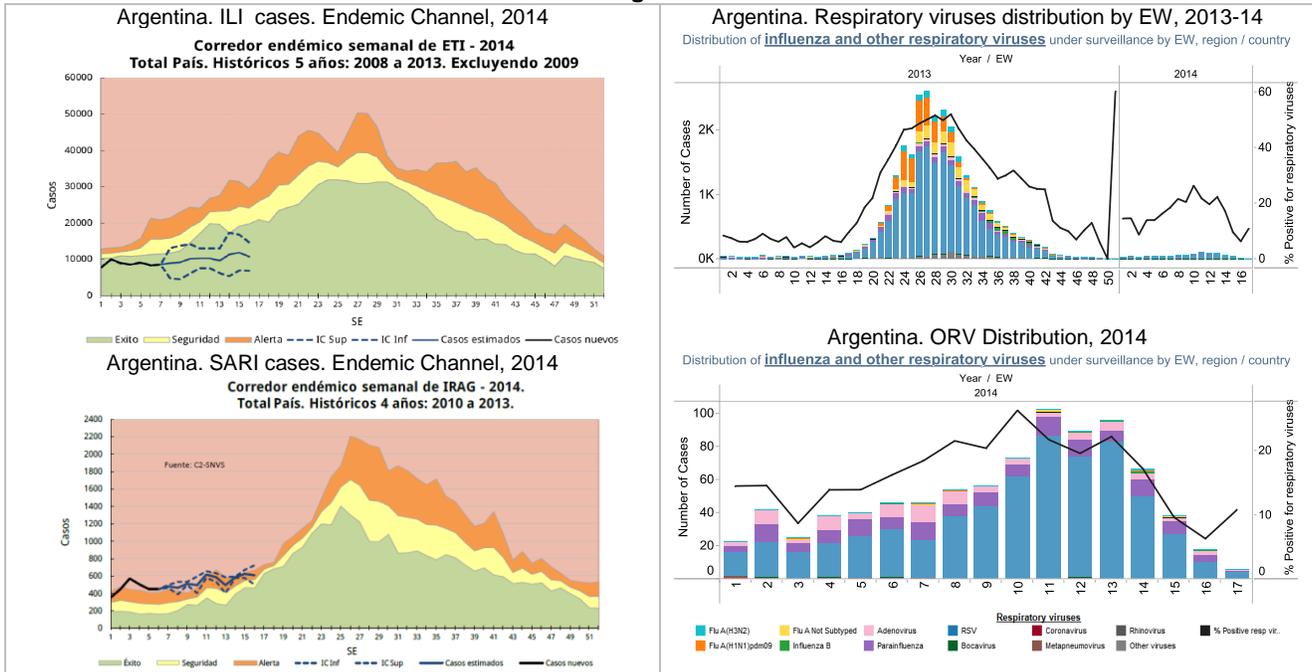


⁵ Venezuela. Boletín epidemiológico, EW 17.

⁶ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 16, 2014.

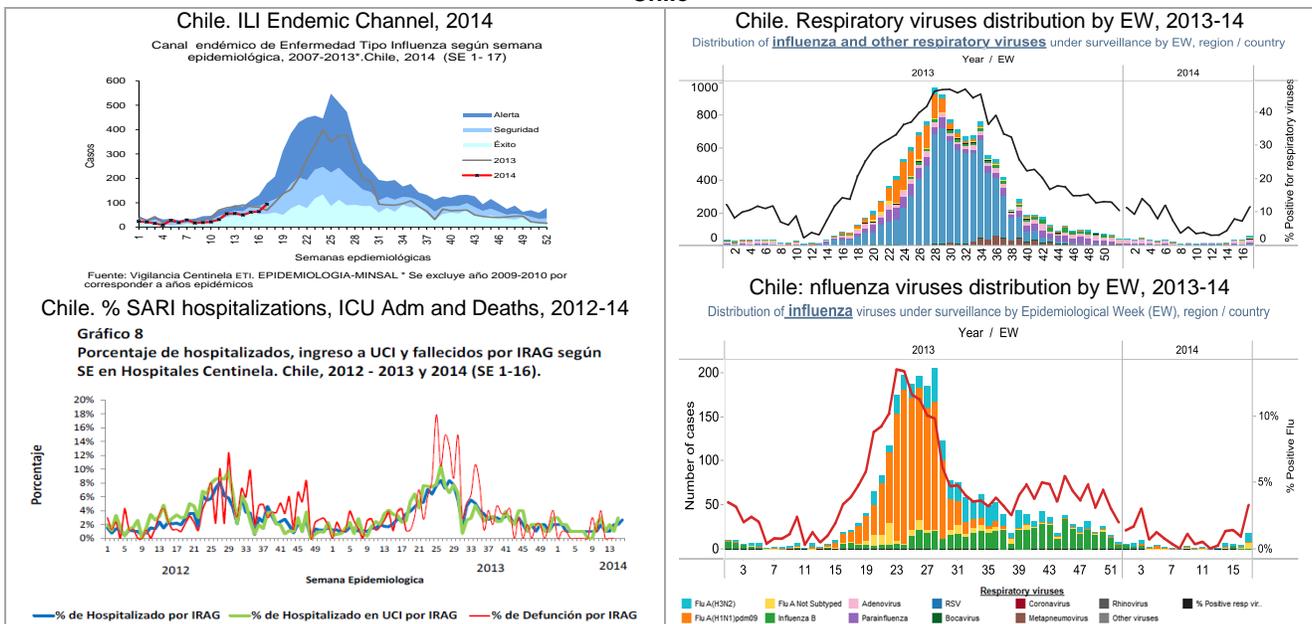
In Argentina⁷, according to reports and calculated estimations, national ILI activity during EW 16 was within the success zone of the endemic channel. The proportion of SARI-associated hospitalizations was within the alert zone of the endemic channel, but was 15% lower than the levels seen last year. Based on laboratory data from EW 14-17, 1,125 samples were analyzed, of which 11.4% were positive for a respiratory virus and 0.4% were positive for influenza. Among the positive samples, RSV (71.9%) predominated.

Argentina



In Chile⁸, ILI activity increased in recent weeks (rate: 6.4 per 100,000 inhabitants during EW 17) and was within the security zone of the endemic channel. Through EW 17, 2014, 386 SARI cases were reported through sentinel surveillance and of these, 10.4% were positive for a respiratory virus. Based on laboratory data from EW 16-17, 962 samples were analyzed, of which 9.6% were positive for a respiratory virus and 2.2% were positive for influenza. Among the positive samples, adenovirus (42.4%), RSV (18.5%) and parainfluenza (15.2%) predominated.

Chile

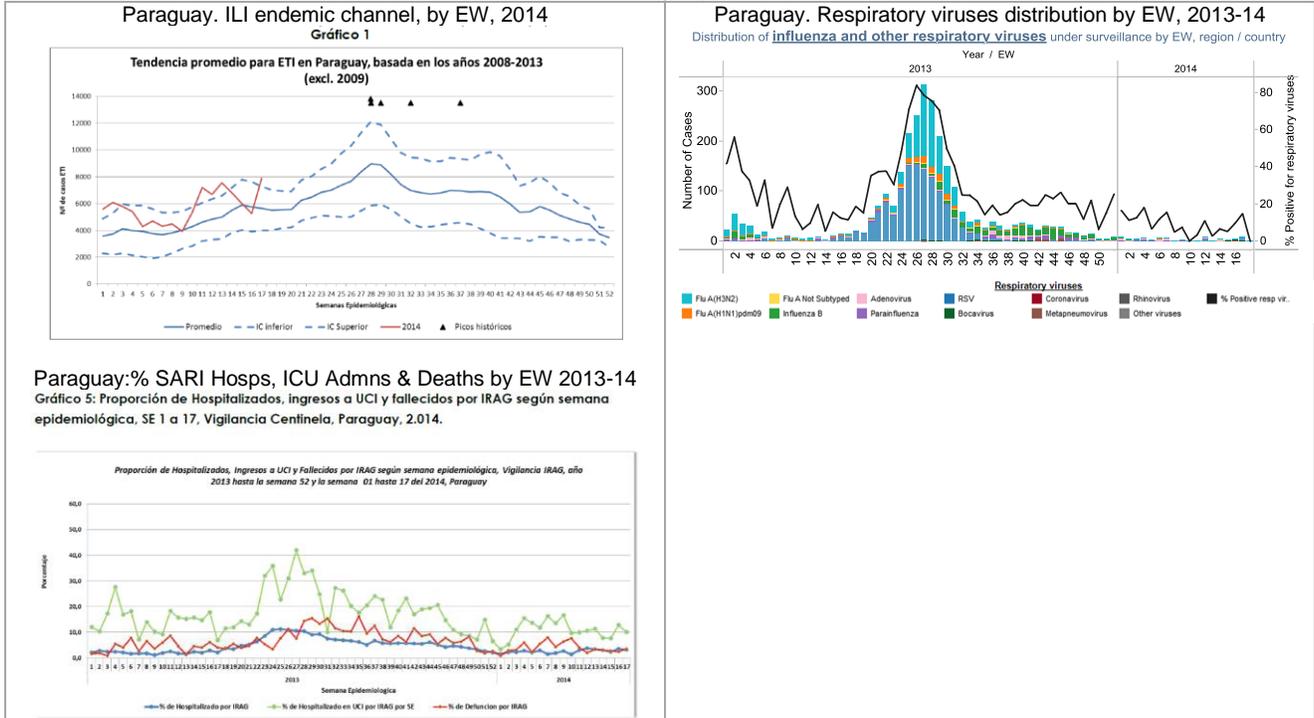


⁷ Argentina. Boletín integrado de vigilancia. SE 16.

⁸ Chile. Informe de situación. EW 16 & 17. Available at: <http://epi.minsal.cl/>

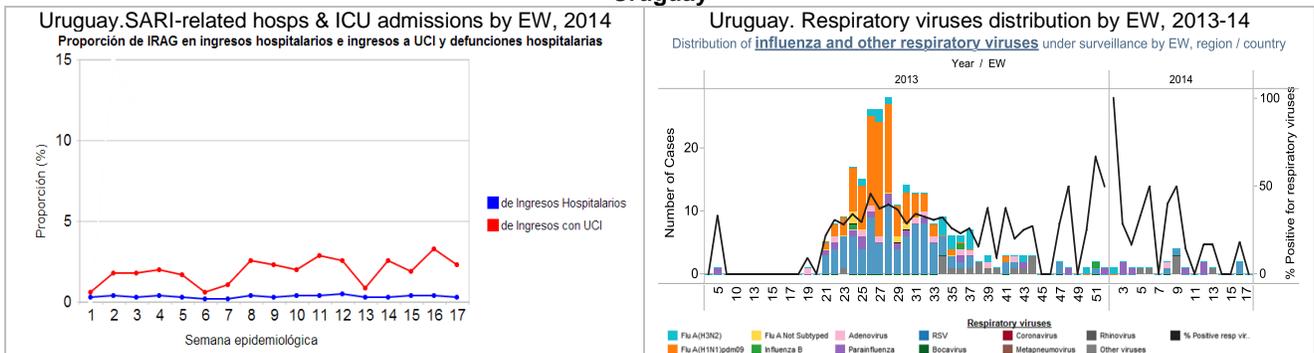
In Paraguay⁹ during EW 17, the ILI consultation rate (118.2 per 100,000 inhabitants) increased from the previous EW and was slightly higher than expected for this time of year. The proportion of SARI-associated hospitalizations (3.1%) remained within the expected range for this time of year. The most affected age groups were children <5 years of age and adults ≥60 years. Based on reference laboratory data from EW 15-18, 184 samples were analyzed of which 9.8% were positive for a respiratory virus and 1.1% were positive for influenza. Among the positive samples, RSV (38.9%) and human metapneumovirus (38.9%) predominated.

Paraguay



In Uruguay¹⁰ during EW 17, the proportions of SARI-associated hospitalizations, ICU admissions and deaths remained at low levels. Based on laboratory data from EW 14-17, 20 samples were analyzed and of these, two were positive for a respiratory virus (RSV).

Uruguay



⁹ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 17.

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