

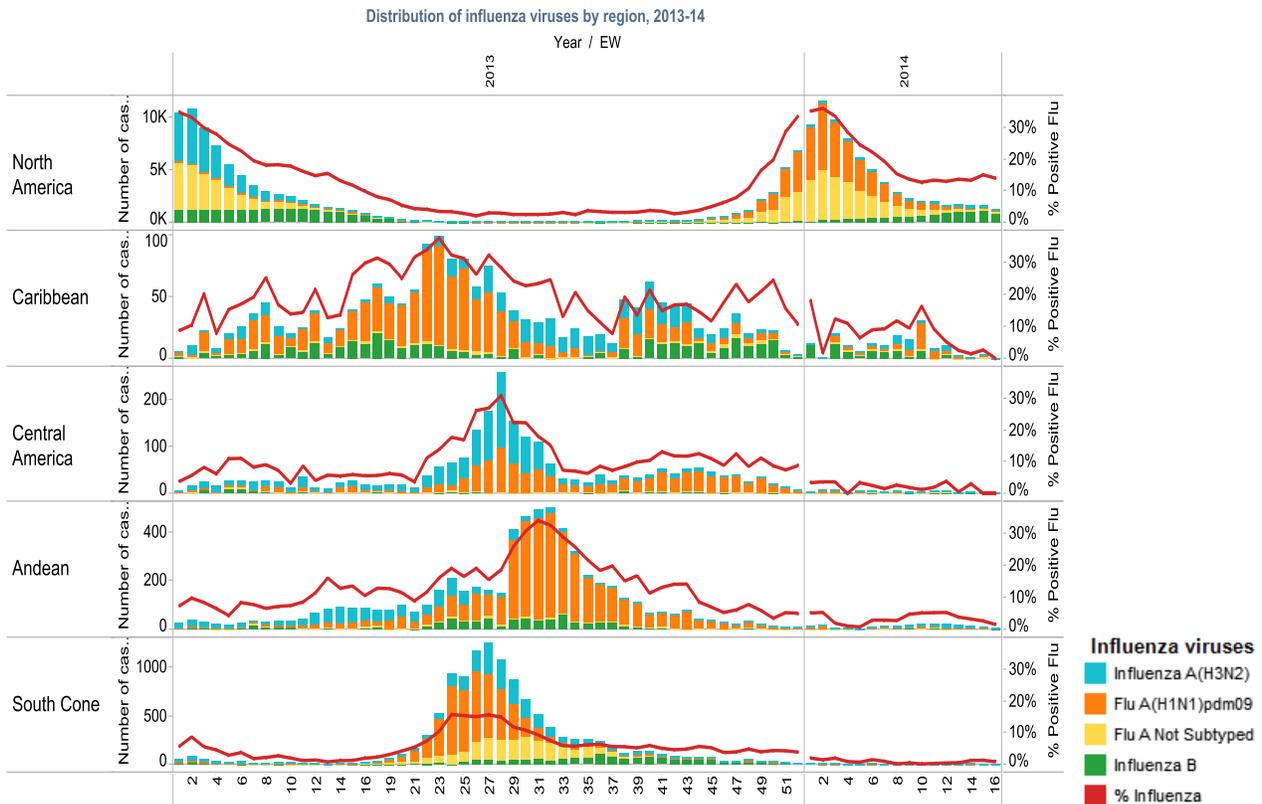
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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

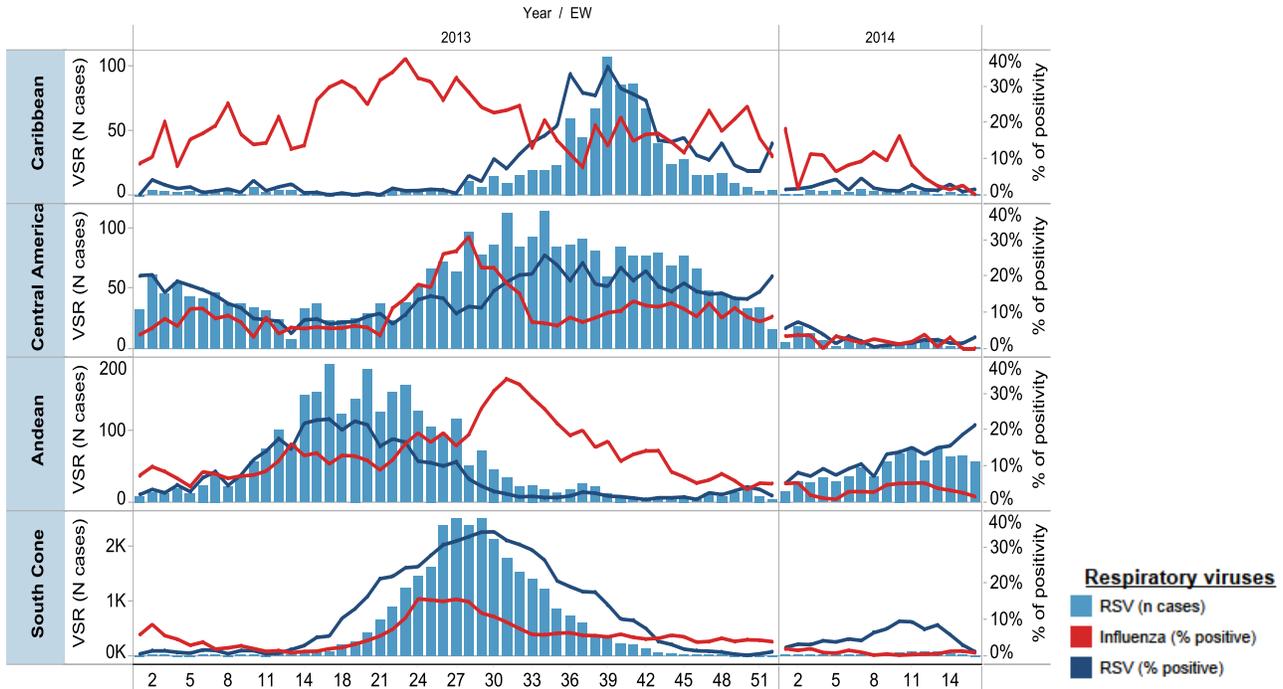
- **North America:** Influenza B continued to predominate in Canada and the United States and most affected adults ≥65 years of age. In Mexico, influenza activity was within expected levels for this time of year and involved co-circulation of A(H1N1)pdm09, A(H3N2) and influenza B.
- **The Caribbean and 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:** Acute respiratory illness activity, and influenza and other respiratory virus 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

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:

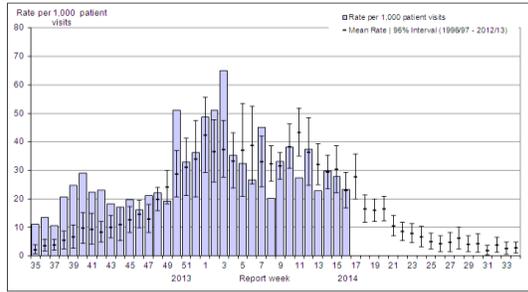
In Canada¹ during EW 16, influenza activity was sustained by continued circulation of influenza B but was within expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 23.2 per 1,000 patient visits, a decrease compared to the previous week and within expected levels. Since the beginning of the 2013-14 influenza season, 4,211 influenza-associated hospitalizations have been reported, of which 83.6% 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, 235 deaths have been reported, most of which were associated with influenza A (84.7%). The highest proportion of deaths (47.2%) has been among adults ≥65 years of age followed by adults 20-64 years of age (44.6%). Based on laboratory data for EW 16, the overall percentage of positive influenza tests was 16.1% (N=587), an increase compared to the previous week. Among the positive tests, 92.2% were influenza B and 7.8% were influenza A, of which 19.6% were influenza A(H1N1)pdm09, 26.1% A(H3) and 54.3% A, not subtyped. Among other circulating respiratory viruses, RSV continued to predominate, but at decreasing levels since early February.

¹ Canada: FluWatch Report. EW 16. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada

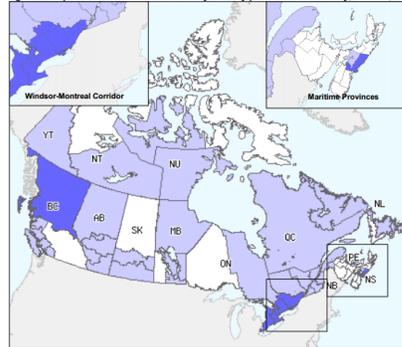
Canada: ILI Consultation Rates, by EW, 2013-14

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



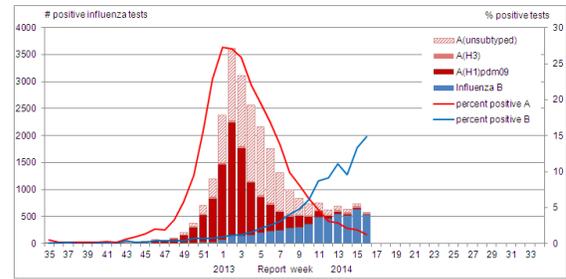
Canada: Influenza/ILI Activity by region, EW 16, 2014

Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 16



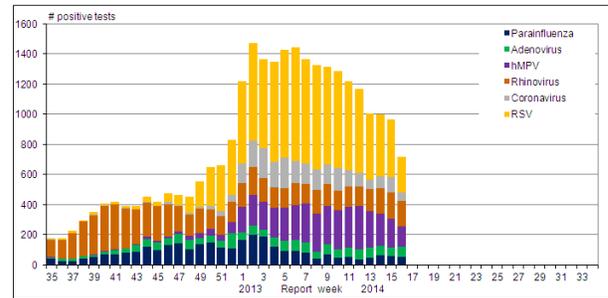
Canada: Influenza virus distribution by EW, 2013-14

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

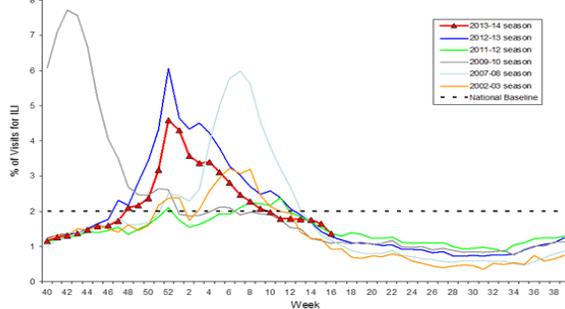


In the United States² during EW 16, influenza activity continued to decrease. The national proportion of outpatient visits for influenza-like illness (ILI) was 1.4%, a decrease compared to the previous week and below the national baseline (2.0%). Two of 10 regions reported ILI activity above their region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 16 (6.3%) decreased compared to the previous EW and was below the epidemic threshold (7.1%). A total of 89 influenza-associated pediatric deaths have been reported this season, of which three were reported during EW 16. Since October 1, 2013, 9,173 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 33.9 per 100,000 population) and the majority (90.0%) 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 aged 18-64 years comprised approximately 60% of the reported hospitalizations. According to laboratory data for EW 16, 5,061 samples were analyzed, of which 12.0% were positive for influenza. Among the positive samples, 43.9% were influenza A (5.3% A(H1N1)pdm09, 47.7% A(H3) and 47.0% not subtyped) and 56.1% were influenza B. Based on antiviral resistance testing, 1.2% (59/4,968) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

United States

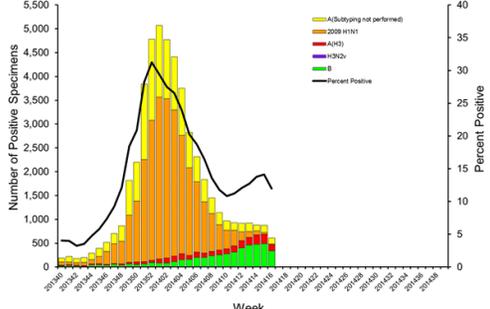
US: Percent of ILI visits by EW, 2013-14

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

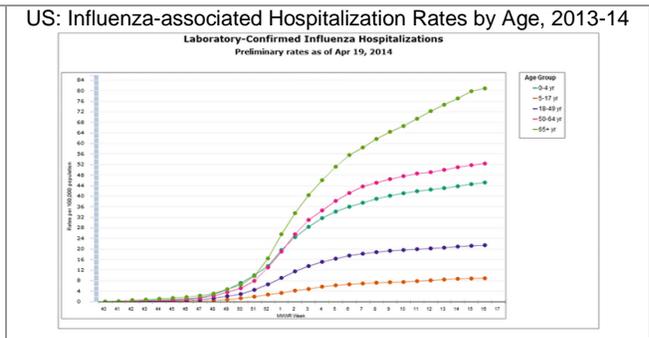
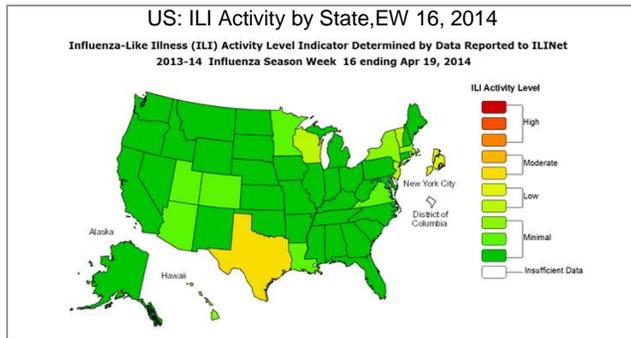


US: Influenza viruses distribution by EW, 2013-14

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

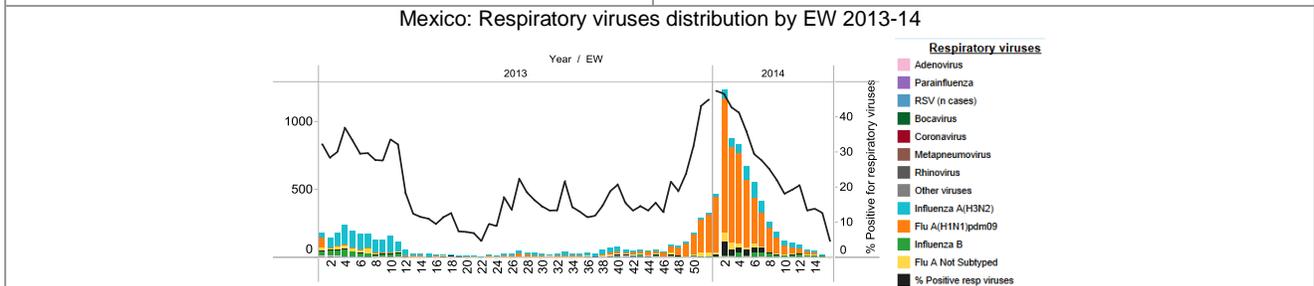
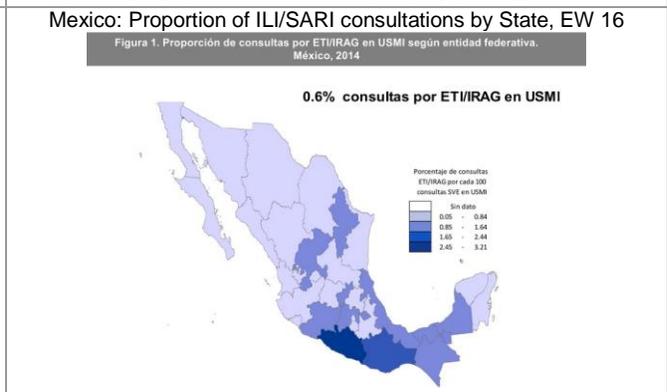
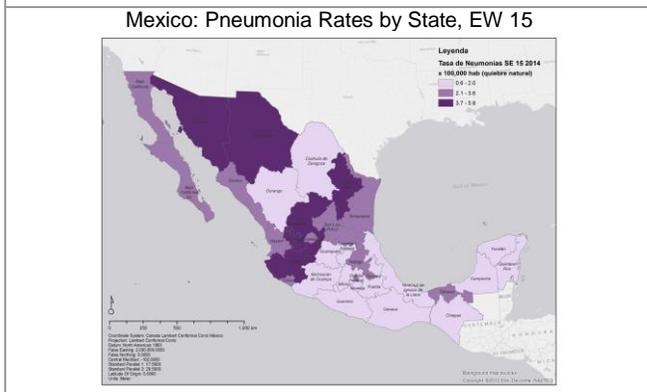
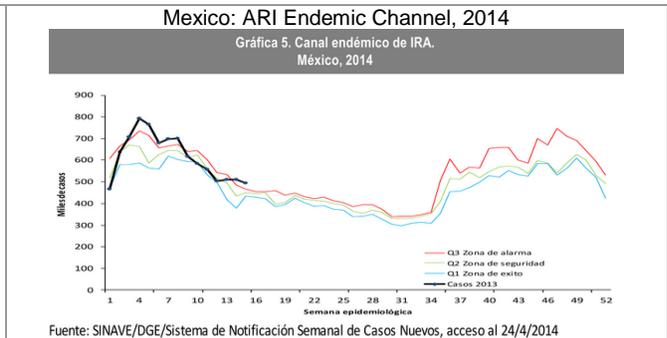
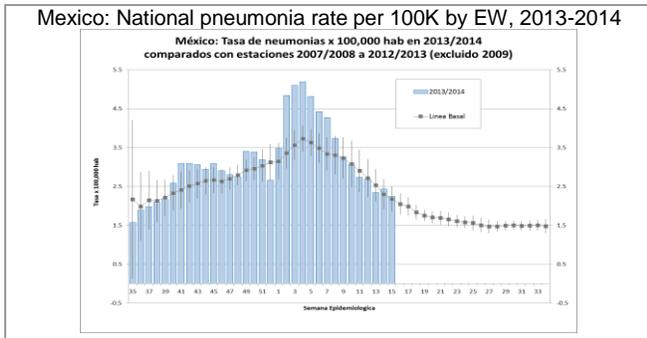


² USA: CDC FluView report. EW 16. Available at: <http://www.cdc.gov/flu/weekly/>



In Mexico³ during EW 16, influenza activity continued to decrease. The pneumonia rate (2.2 per 100,000 inhabitants in EW 15) decreased compared to previous week and was within the expected level for this time of year. ARI activity decreased slightly compared to the previous week and was within the epidemic zone of the endemic channel. Regionally, the highest levels of ARI activity were reported in Aguascalientes, Zacatecas, and Guerrero, while the highest levels of pneumonia activity were reported in Chihuahua, Sonora and Nuevo Leon. Nationally, through April 24, 2014, the proportion of ILI/SARI-associated medical visits was 0.6%, a slight decrease compared to the previous EW. The highest proportions of ILI/SARI-associated medical visits were reported in Guerrero, Oaxaca and Veracruz. During this same period, 708 influenza-associated deaths were reported, of which 91.1% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 15-16, 224 samples were processed, of which 10.7% were positive for influenza. Among the positive samples, 66.7% were influenza B and 33.3% were influenza A (25.0% A(H1N1)pdm09, 50.0% A(H3N2) and 25.0% A not subtyped).

Mexico

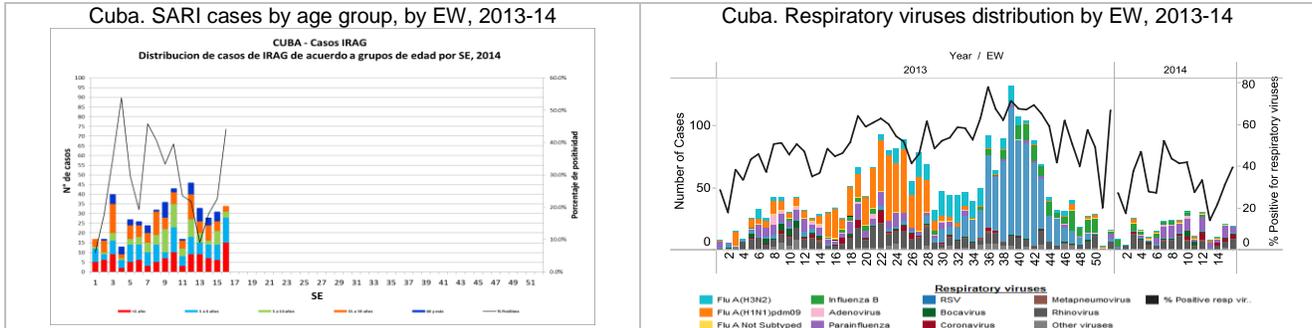


³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Caribbean

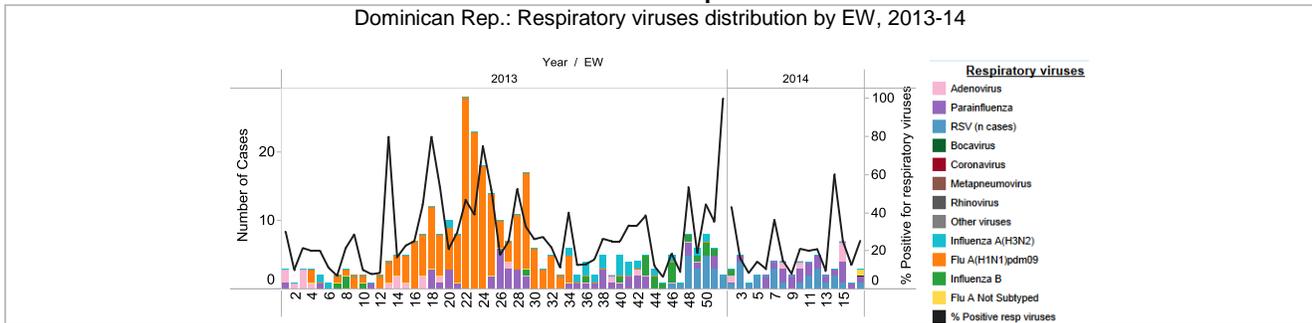
In Cuba during EW 16, the number of SARI-associated hospitalizations (n=34) increased slightly compared to the previous week. Children aged ≤ 1 year of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 13-16, 218 samples were analyzed, of which 26.6% were positive for a respiratory virus and 1.8% were positive for influenza. Among the positive samples, parainfluenza (37.9%) and rhinovirus (31.0%) predominated.

Cuba



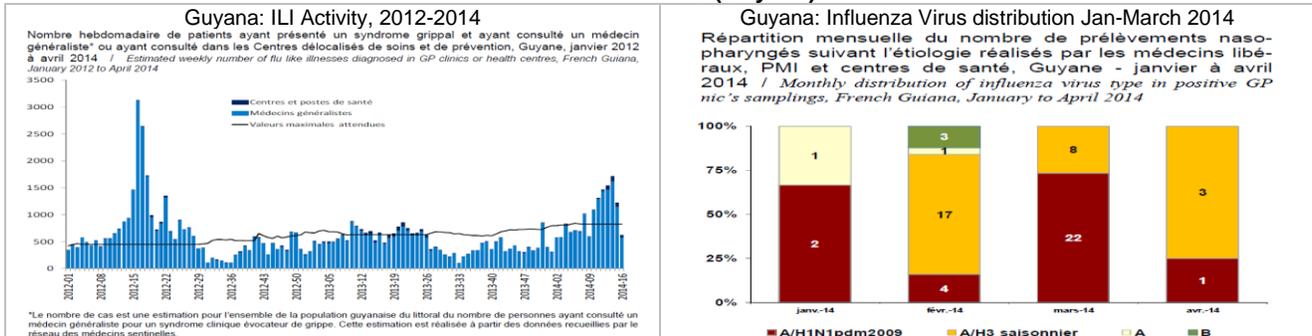
In the Dominican Republic, during EW 14-17, 53 samples were analyzed, of which 26.4% were positive for a respiratory virus and 1.9% were positive for influenza. Among the positive samples, parainfluenza (42.9%), RSV (28.6%) and adenovirus (21.4%) predominated.

Dominican Republic



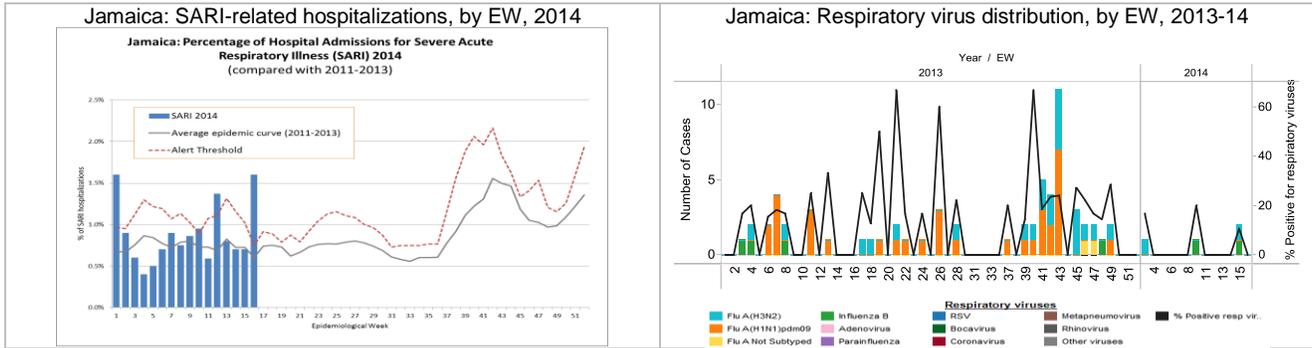
In French Guyana, since the seasonal influenza epidemic began in mid-February there have been 10,620 ILI-associated consultations, of which 1,850 occurred in the past two weeks. According to laboratory data since the beginning of 2014, there has been co-circulation of influenza A(H1N1)pdm09, influenza 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)



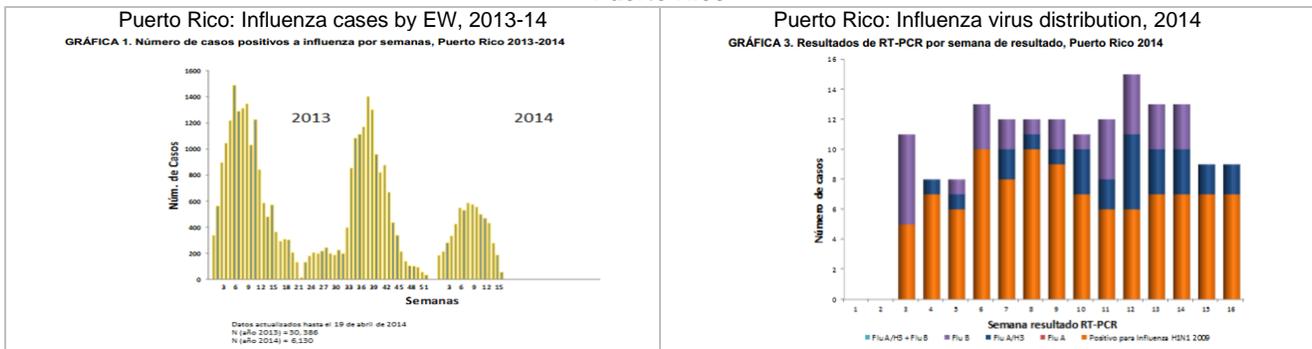
In Jamaica, based on sentinel surveillance data for EW 16, the proportions of ARI-associated consultations (4.0%) and SARI-associated hospitalizations (1.6%) increased compared to the previous week and were above the expected levels for this time of year. No SARI-associated deaths were reported during EW 16. Based on laboratory data for EW 13-16, 43 samples were analyzed and two were positive for influenza (influenza A(H3N2) and influenza B).

Jamaica



In Puerto Rico⁴ during EW 16, the number of influenza cases (n=54) remained low. Of these, 35 cases were associated with influenza A and 19 with influenza B. Since the beginning of 2014, 6,130 influenza cases have been reported (60.7% influenza A and 38.5% influenza B) and persons aged 0-19 years accounted for 49% of those cases. During this same period, 324 influenza-associated hospitalizations and 7 influenza-associated deaths were reported.

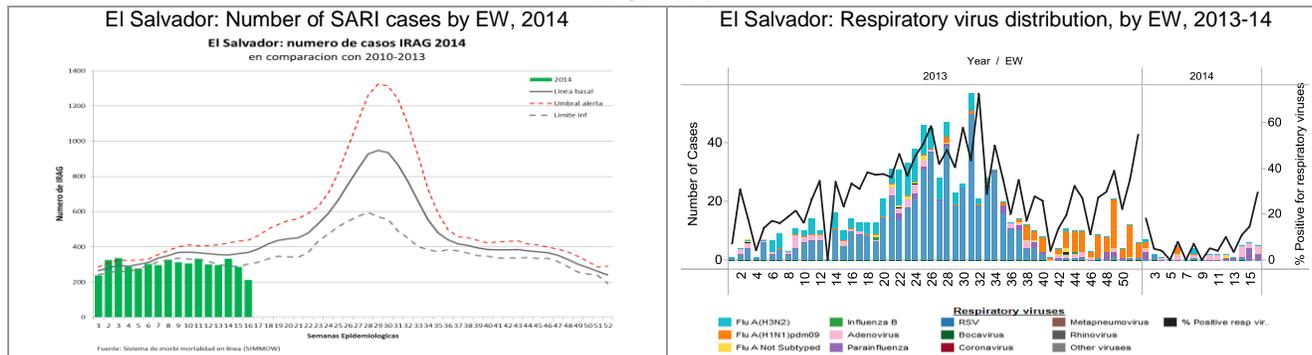
Puerto Rico



Central America

In El Salvador, during EW 16, the proportions of hospitalizations (6.5%) and deaths (6.1%) associated with SARI increased compared to the previous week while the proportions of SARI-associated ICU admissions (0%) remained the same. Based on laboratory data from EW 13-16, 133 samples were analyzed, of which 12.8% were positive for a respiratory virus. Among the positive samples, adenovirus (52.9%) and parainfluenza (41.2%) predominated.

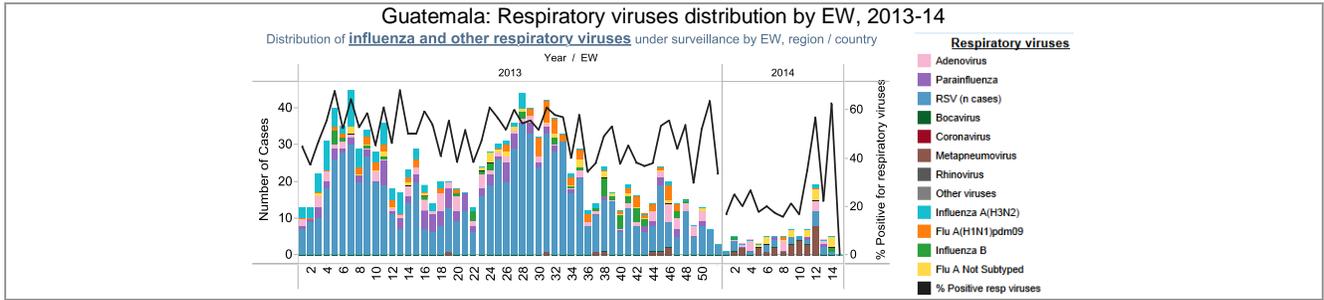
El Salvador



In Guatemala, based on laboratory data from EW 12-15, 66 samples were analyzed, of which 45.5% were positive for a respiratory virus and 15.2% were positive for influenza. Among the positive influenza samples, 90.0% were influenza A (22.2% A(H1), 11.1% A(H3N2) and 66.7% not subtyped) and 10.0% were influenza B. Among other respiratory viruses, human metapneumovirus (26.7% of positive samples), RSV (23.3%) and adenovirus (13.3%) predominated.

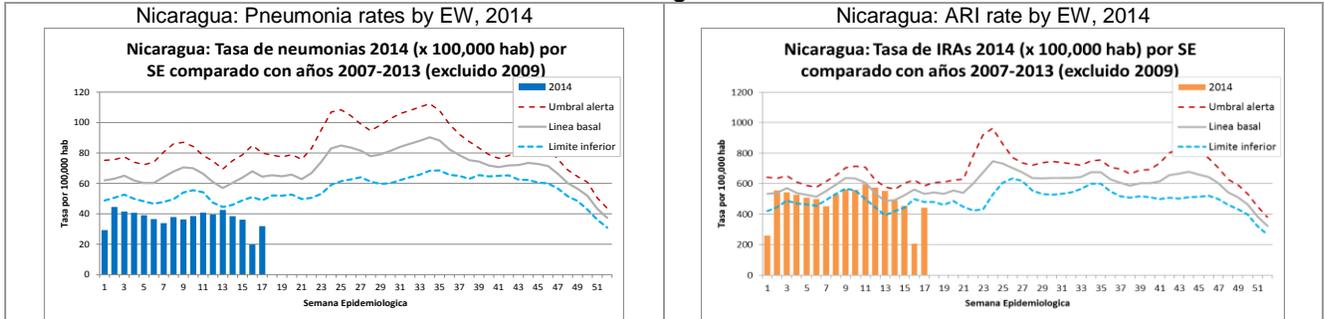
⁴ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 16

Guatemala



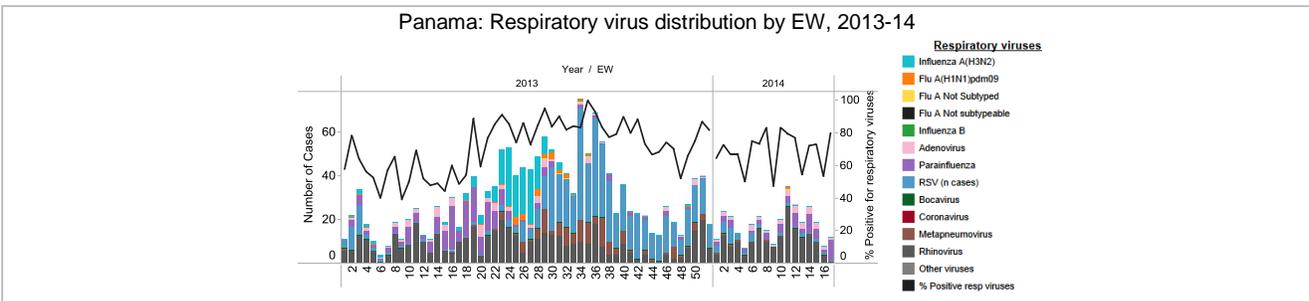
In Nicaragua, during EW 16, the national rates of pneumonia and ARI increased compared to the previous week, but remained low and within the expected levels for this time of year.

Nicaragua



In Panama, based on national laboratory data from EW 14-17, 92 samples were analyzed, of which 70.7% were positive for a respiratory virus. Among the positive samples, rhinovirus (44.6%) and parainfluenza (38.5%) predominated.

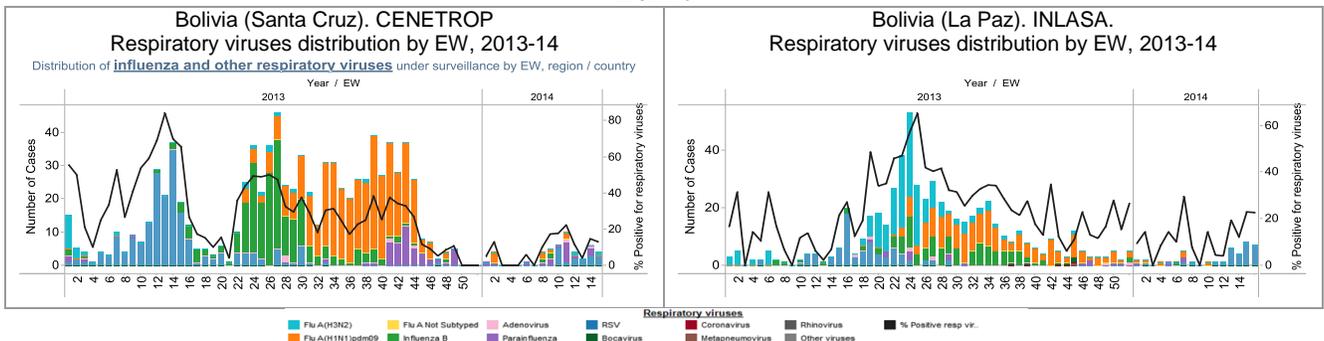
Panama



South America – Andean countries

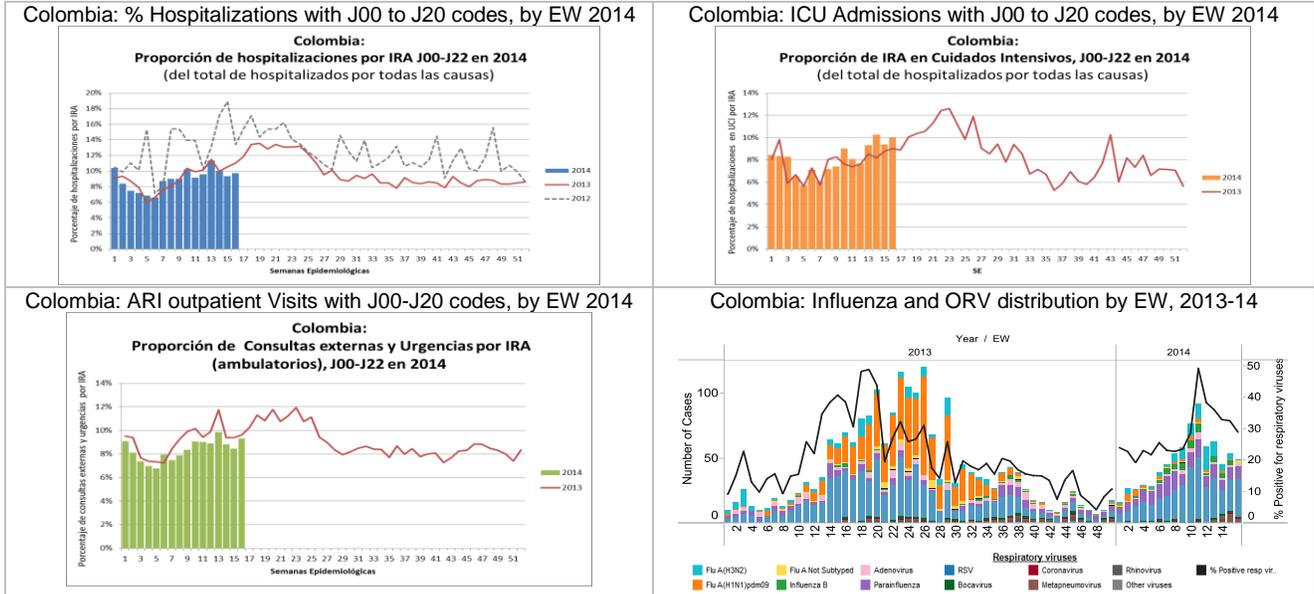
In Bolivia, according to laboratory data from CENETROP (Santa Cruz) from EW 12-15, 157 samples were analyzed, of which 10.2% were positive for a respiratory virus and 1.3% were positive for influenza. Among the positive samples, RSV (62.5%), parainfluenza (18.8%) and influenza A(H3N2) (12.4%) predominated. According to the National Laboratory in La Paz (INLASA) from EW 13-16, 130 samples were analyzed, of which 19.2% were positive for respiratory viruses. Among the positive samples, 100% were RSV.

Bolivia



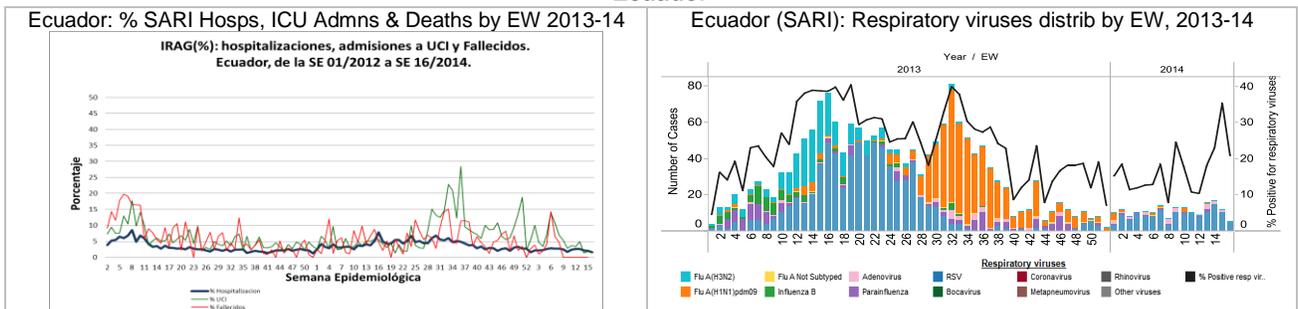
In Colombia, nationally during EW 16, the proportions of hospitalizations (9.7%), ICU admissions (10.0%), and outpatient and urgent visits (9.3%) with SARI and ARI-associated ICD-10 codes (J00 to J22) increased compared to the previous week. Based on INS laboratory data from EW 13-16, 644 samples were analyzed, of which 32.6% were positive for a respiratory virus and 5.9% were positive for influenza. Among the positive influenza samples, 63.2% were influenza A (4.2% A(H1N1)pdm09, 83.3% A(H3N2) and 12.5% not subtyped) and 36.8% were influenza B. Among other respiratory viruses, RSV (48.6% of positive samples) predominated, followed by parainfluenza (18.6%).

Colombia



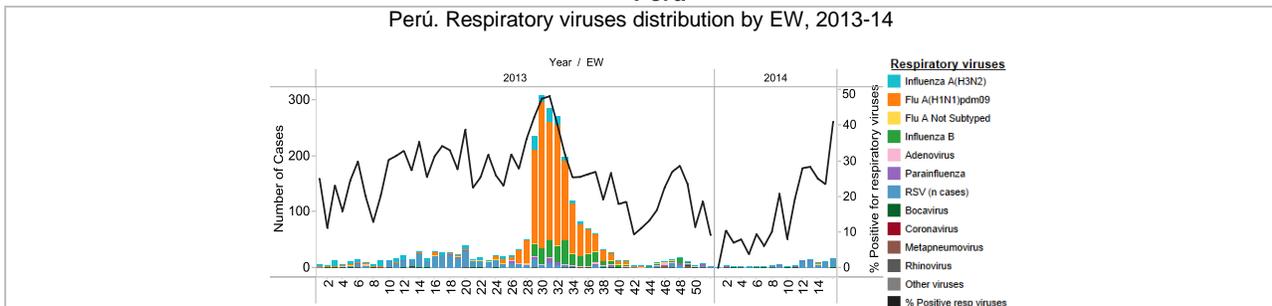
In Ecuador during EW 16, the proportions of SARI-associated hospitalizations (1.5%) and ICU admissions (1.4%) decreased compared to the previous week. No SARI-associated deaths were reported during this period. Based on national reference laboratory data from EW 13-16, 220 SARI samples were analyzed, of which 22.7% were positive for a respiratory virus and 0.5% were positive for influenza. Among the positive samples, RSV predominated (84.0%).

Ecuador



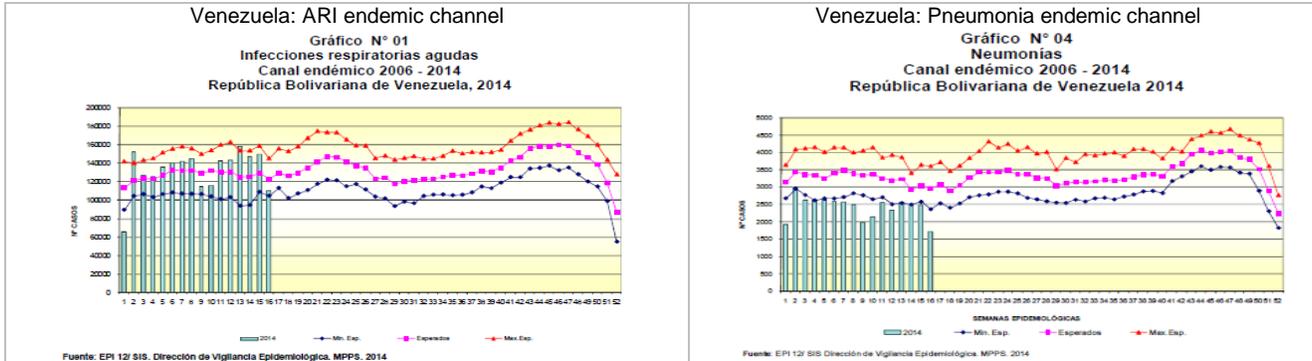
In Peru, based on national laboratory data from EW 13-16, 175 samples were analyzed, of which 29.1% were positive for a respiratory virus and 1.7% were positive for influenza. Among the positive samples, RSV (84.3%) predominated.

Peru



In Venezuela⁵ during EW 16, the number of ARI and pneumonia cases decreased by 26.3% and 30.8%, respectively, compared to the previous EW. Both were within the expected levels for this time of year. During EW 16, 148 SARI-associated hospitalizations were reported, with children ≤ 1 year of age comprising the largest proportion of cases. Based on virologic data since January 1, 2014, 196 samples have been analyzed from suspected influenza cases and of these, 15.8% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (90.3%).

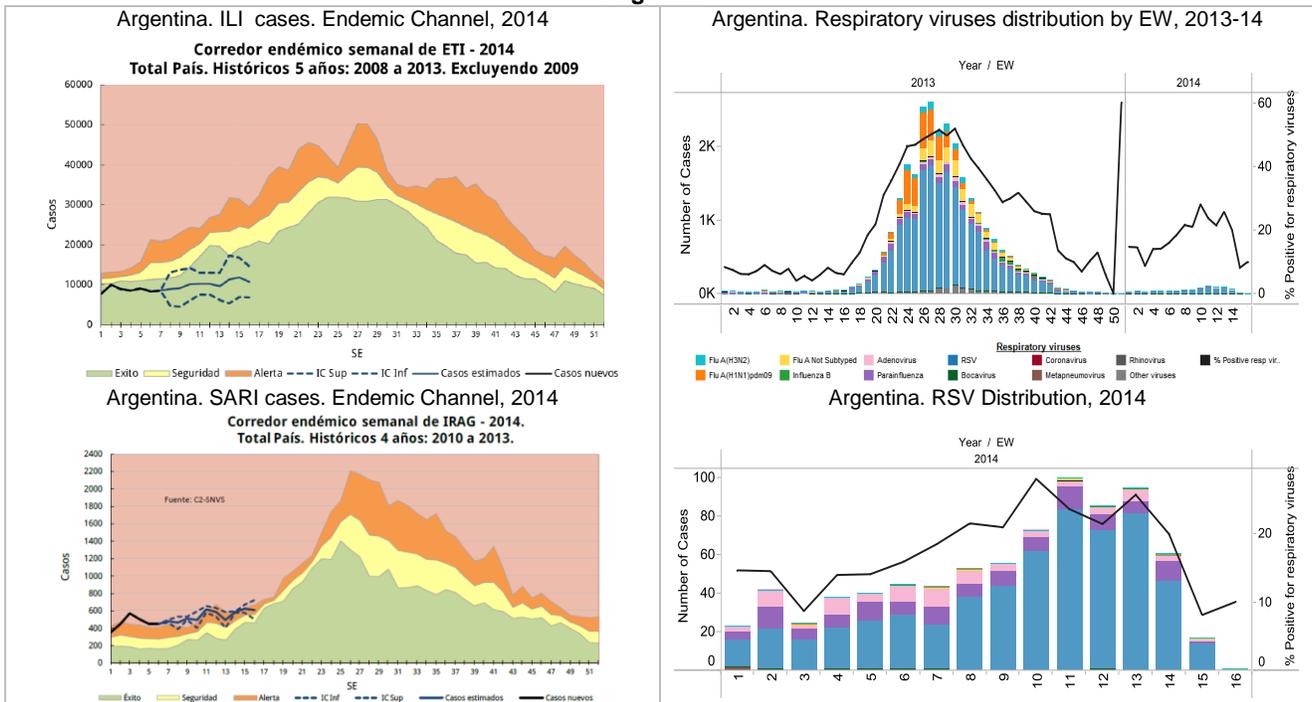
Venezuela



South America – South Cone and Brazil

In Argentina⁶, 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 13-16, 894 samples were analyzed, of which 19.5% were positive for a respiratory virus and 0.6% were positive for influenza. Among the positive samples, RSV (82.2%) predominated.

Argentina



In Chile⁷, ILI activity increased slightly in recent weeks (rate: 4.3 per 100,000 inhabitants during EW 16) and was within the security zone of the endemic channel. Through EW 16, 2014, 369 SARI cases were reported

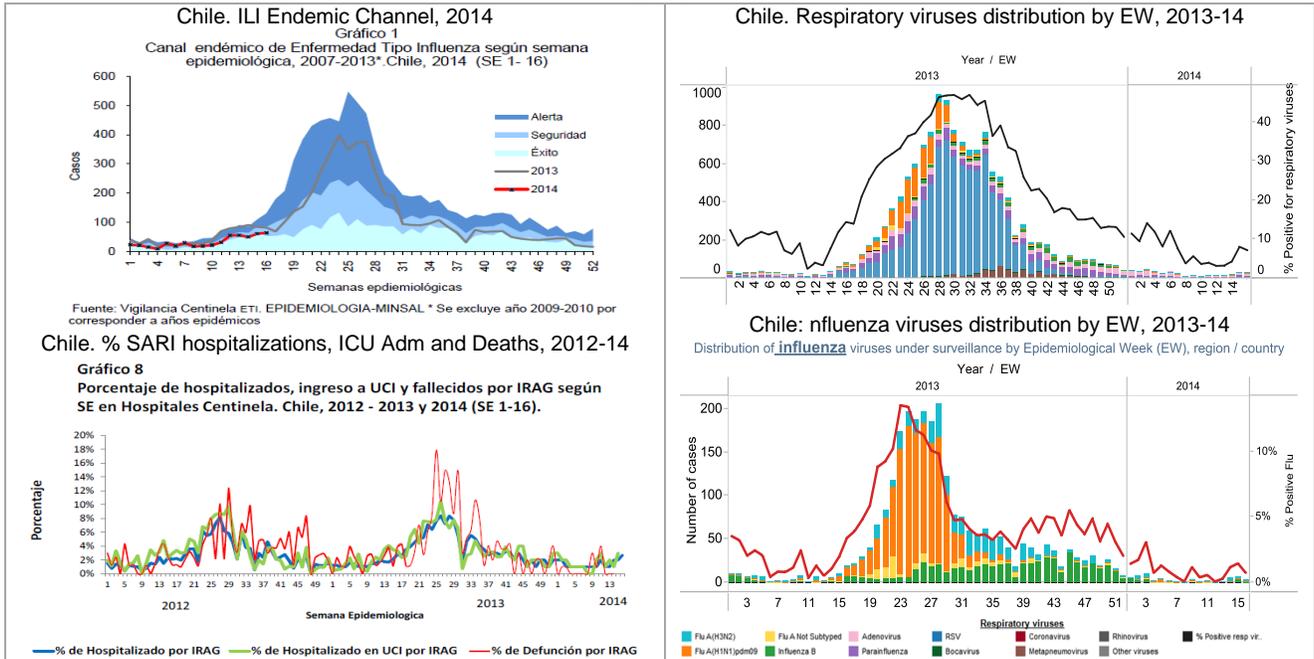
⁵ Venezuela. Boletín epidemiológico, EW 16.

⁶ Argentina. Boletín integrado de vigilancia. SE 16.

⁷ Chile. Informe de situación. EW 16. Available at: <http://epi.minsal.cl/>

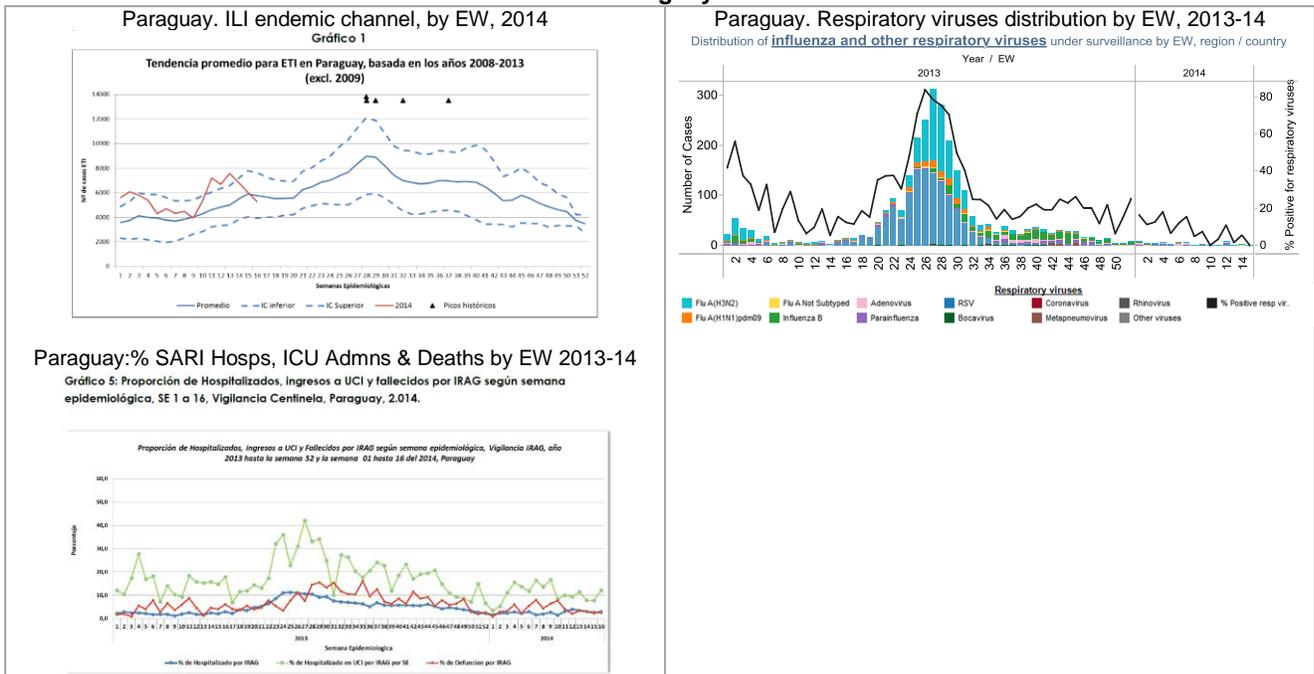
through sentinel surveillance and of these, 10.3% were positive for a respiratory virus. Based on laboratory data from EW 15-16, 868 samples were analyzed, of which 7.5% were positive for a respiratory virus and 1.0% were positive for influenza. Among the positive samples, adenovirus (52.3%), parainfluenza (18.5%) and RSV (15.4%) predominated.

Chile



In Paraguay⁸ during EW 16, the ILI consultation rate (79 per 100,000 inhabitants) decreased from the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (2.9%) 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 12-15, 214 samples were analyzed, of which 5.5% were positive for a respiratory virus. Among the positive samples, influenza B (33.3%) and RSV (25.0%) predominated.

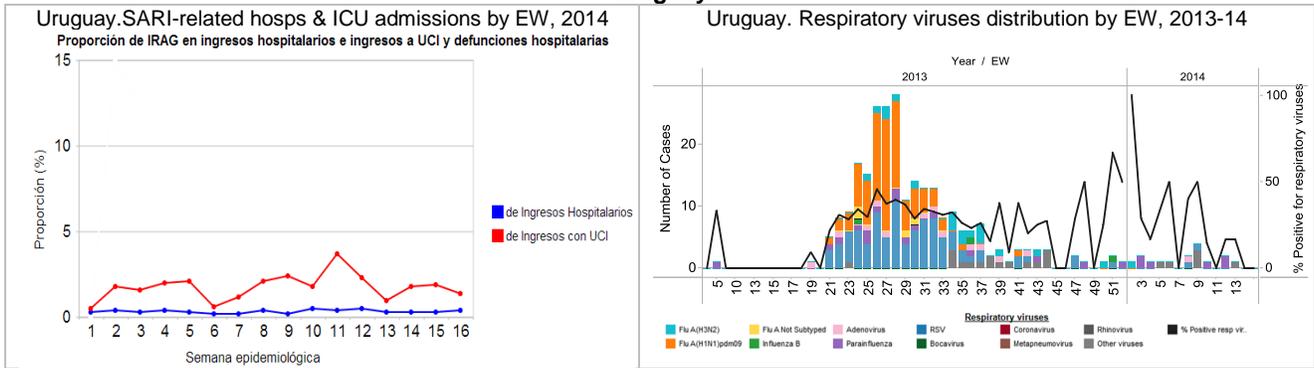
Paraguay



⁸ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 16.

In Uruguay⁹ during EW 16, the proportions of SARI-associated hospitalizations, ICU admissions and deaths remained at low levels. Based on laboratory data from EW 13-16, 13 samples were analyzed and of these, one was positive for a respiratory virus.

Uruguay



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