

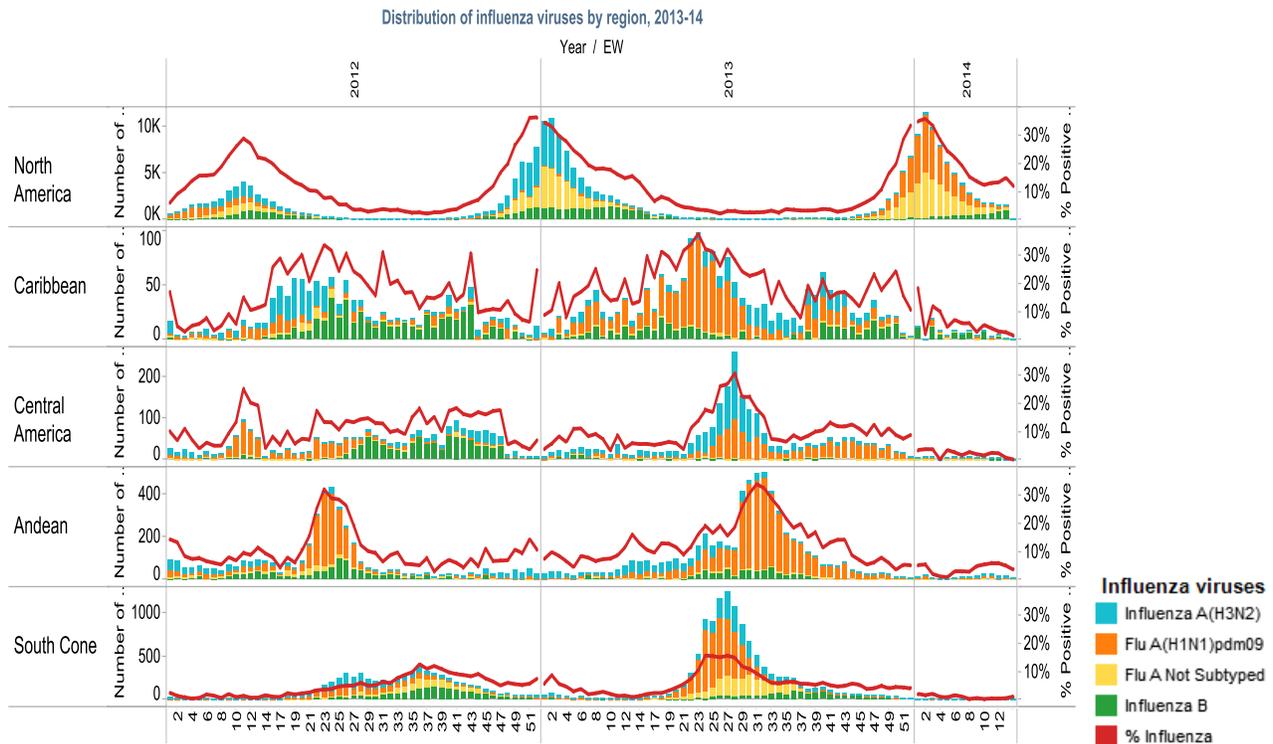
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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.

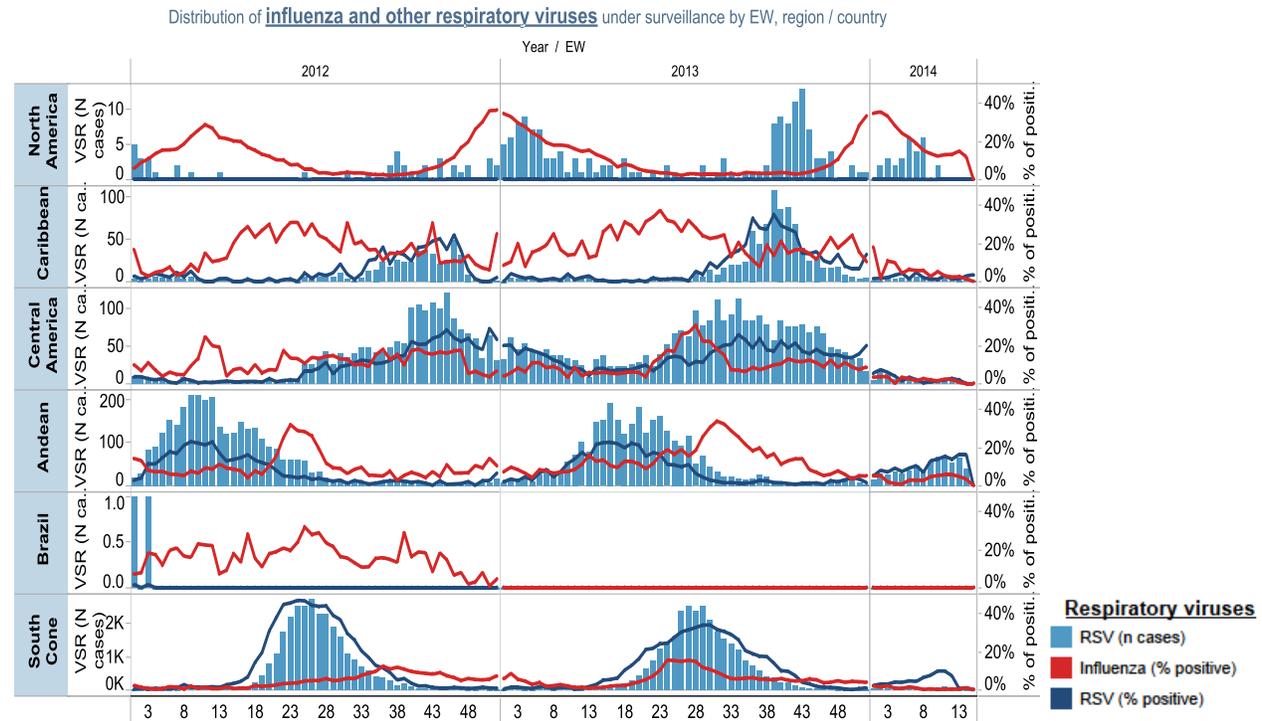
WEEKLY SUMMARY

- **North America:** Influenza activity continued to decrease in this sub-region. In the United States and Canada, the principal strain in circulation was influenza B, which increased progressively in recent weeks. In Mexico, low activity was observed, with co-circulation of A(H1N1)pdm09, A(H3N2) and influenza B. Among other respiratory viruses, RSV continued to predominate, but at decreasing levels, in Canada and the United States.
- **The Caribbean and Central America:** Influenza and other respiratory virus activity remained low in the sub-region.
- **South America – Andean Countries:** Acute respiratory illness activity, and influenza and other respiratory virus activity remained low in the sub-region. However, RSV circulation was observed in Colombia, Ecuador and Peru.
- **South America - South Cone and Brazil:** Acute respiratory illness activity as well as influenza and other respiratory virus activity was low and within the expected level for this time of year in all countries of the region.

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

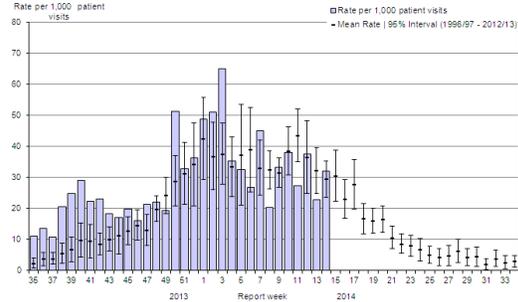
North America:

In Canada¹ during EW 14, influenza activity continued to decline and was within the expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 32.0 per 1,000 patient visits, an increase compared to the previous week, but still within expected levels. Since the beginning of the 2013-14 influenza season, 3,946 influenza-associated hospitalizations have been reported, of which 87.5% 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, 223 deaths have been reported, most of which were associated with influenza A. An equal proportion of deaths (45.7%) have been among adults 20-64 years of age and adults ≥ 65 years of age. Based on laboratory data for EW 14, the overall percentage of positive influenza tests was 11.7% (N=613), a decrease compared to the previous week. Among the positive tests, 81.4% were influenza B and 18.6% were influenza A, of which 22.8% were influenza A(H1N1)pdm09, 22.8% A(H3) and 54.4% A, not subtyped. Among other circulating respiratory viruses, RSV continued to predominate.

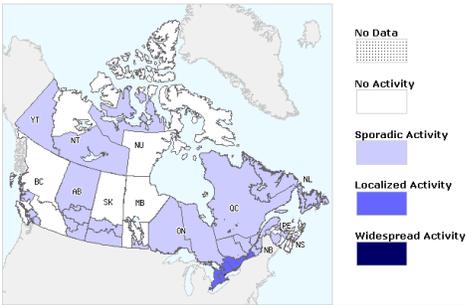
¹ Canada: FluWatch Report. EW 14. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada

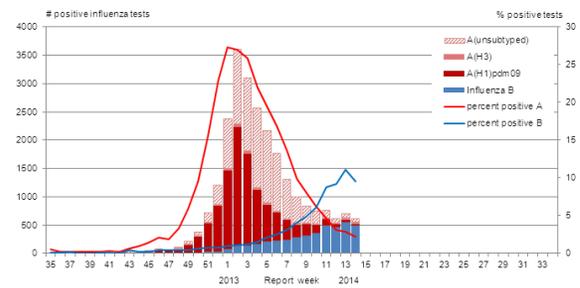
Canada: ILI Consultation Rates, by EW, 2013-14
 Figure 5. Influenza-like-illness (ILI) consultation rates by report week, compared to the 1996-97 through to 2012-13 seasons (with pandemic data suppressed), Canada, 2013-2014



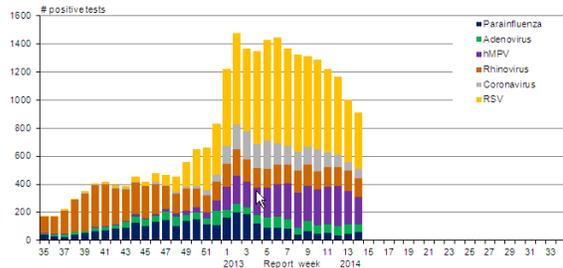
Canada: Influenza/ILI Activity by region, EW 14, 2014
 Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 14



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

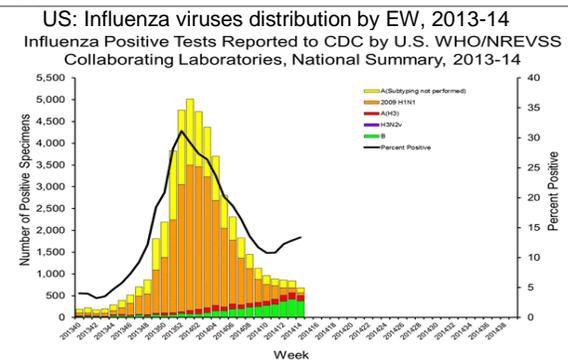
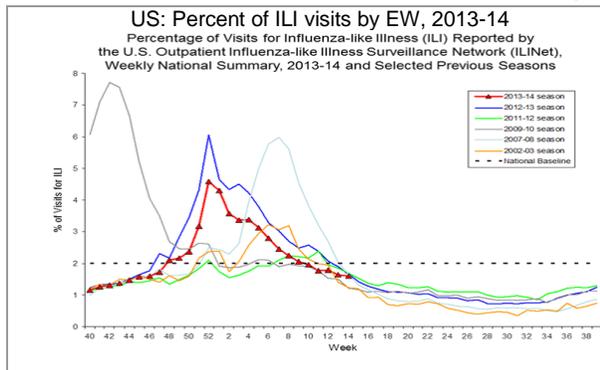


Canada: Respiratory virus distribution by EW, 2013-14
 Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

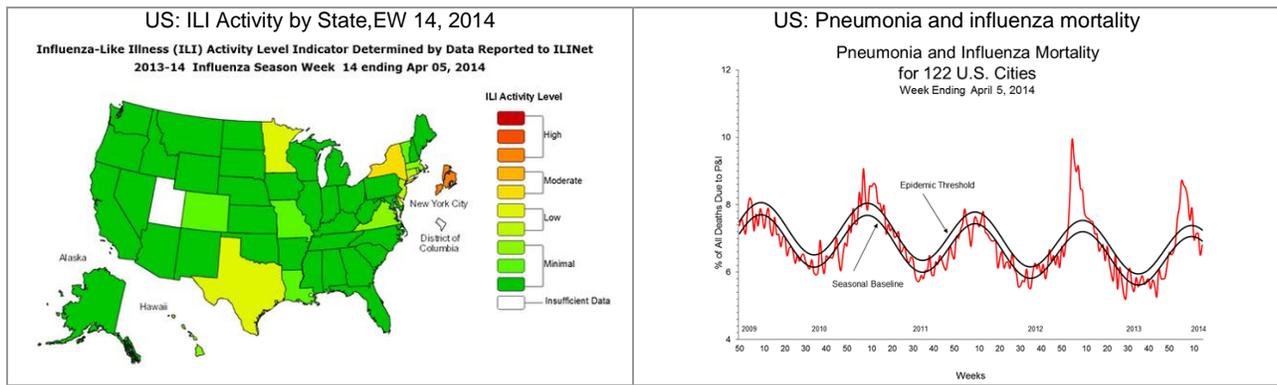


In the United States² during EW 14, influenza activity continued to decrease. The national proportion of outpatient visits for influenza-like illness (ILI) was 1.6%, similar to the previous week and below the national baseline (2.0%). Two of the 10 regions reported ILI activity above their region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 14 (6.8%) increased slightly compared to the previous EW but was below the epidemic threshold (7.3%). A total of 85 influenza-associated pediatric deaths have been reported this season, of which three were reported during EW 14. Since October 1, 2013, 8,777 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 32.4 per 100,000 population) and the majority (91.8%) have been associated with influenza A. The highest hospitalization rates were among adults ≥ 65 years followed by adults 50-64 years and children 0-4 years. However, adults aged 18-64 years comprised approximately 60% of the reported hospitalizations. According to laboratory data for EW 14, 5,127 samples were analyzed, of which 13.4% were positive for influenza. Among the positive samples, 44.1% were influenza A (18.9% A(H1N1)pdm09, 41.1% A(H3) and 40.1% A, not subtyped) and 55.9% were influenza B. Based on antiviral resistance testing, 1.2% (56/4,817) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

United States

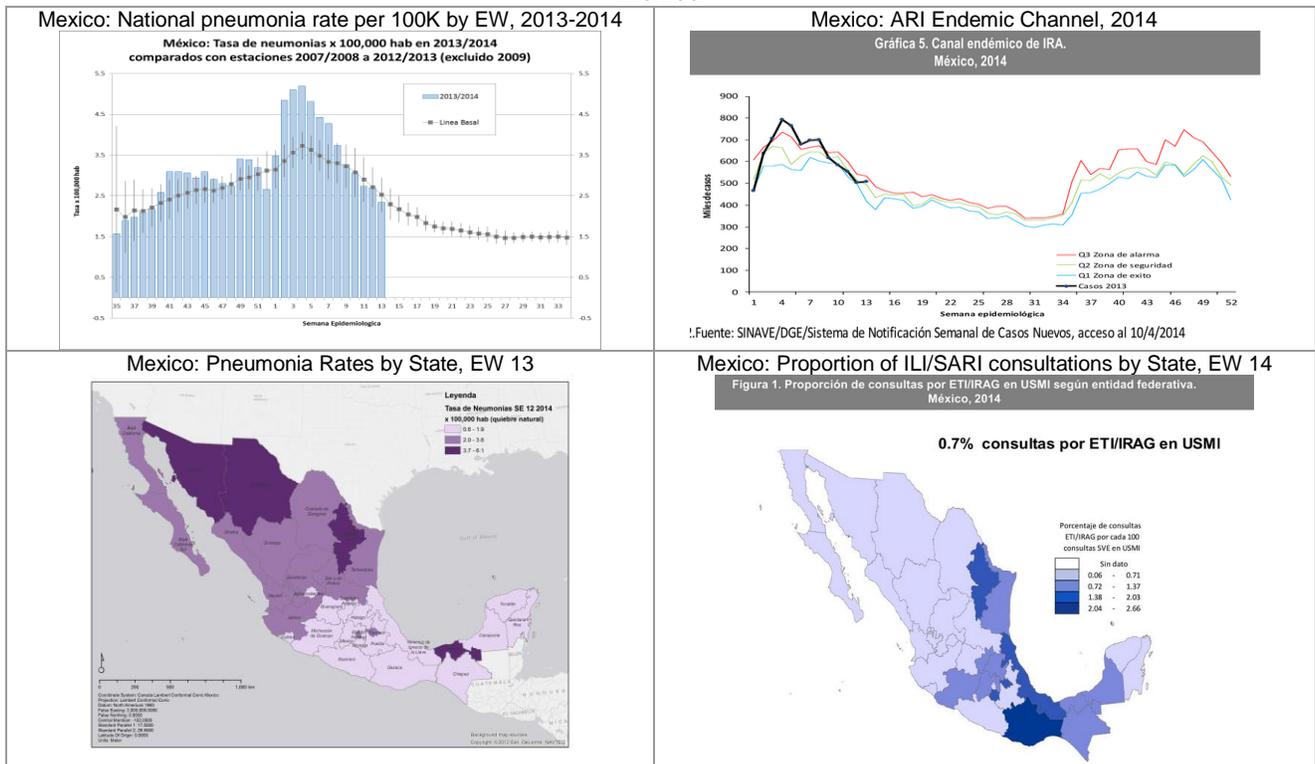


² USA: CDC FluView report. EW 14. Available at: <http://www.cdc.gov/flu/weekly/>

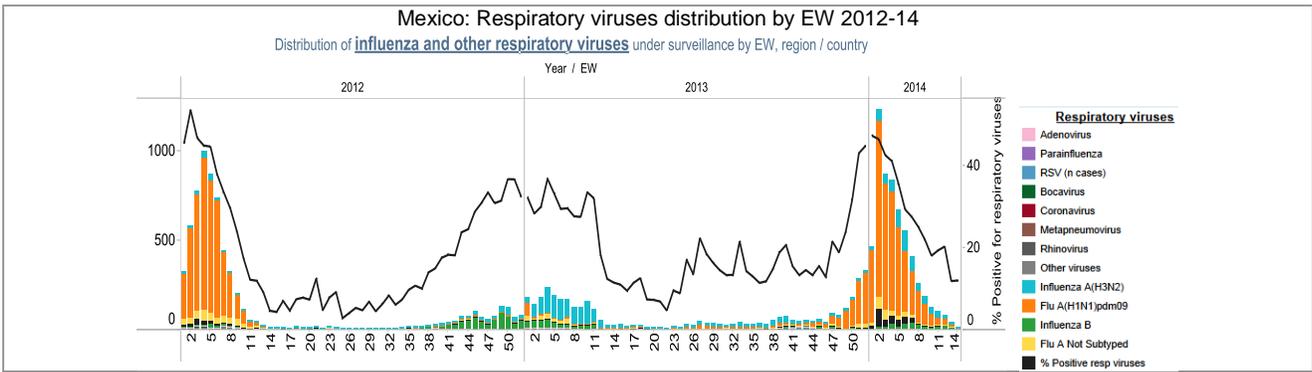


In Mexico³ during EW 14, influenza activity continued to decrease. The pneumonia rate (2.3 per 100,000 inhabitants in EW 13) has been decreasing since EW 6 and was within the expected level for this time of year. ARI activity increased slightly compared to the previous week and was within the alert zone of the endemic channel. Regionally, the highest levels of ARI activity were reported in Aguascalientes, Zacatecas and Sinaloa, while the highest levels of pneumonia activity were reported in Chihuahua, Tabasco and Nuevo Leon. Nationally, through April 10, 2014, the proportion of ILI/SARI-associated medical visits was 0.7%, a decrease compared to the previous EW. The highest proportions of ILI/SARI-associated medical visits were reported in Oaxaca (2.7%), Veracruz (2.0%), Tlaxcala (1.9%) y Morelos (1.9%). During this same period, 704 influenza-associated deaths were reported, of which 91.1% were associated with influenza A(H1N1)pdm09. Based on laboratory data, 413 samples were processed during EW 13-14, of which 11.9% were positive for influenza. Among the positive samples, 61.2% were influenza A (60.0% A(H1H1)pdm09, 36.7% A(H3N2) and 3.3% A not subtyped) and 38.8% with influenza B.

Mexico



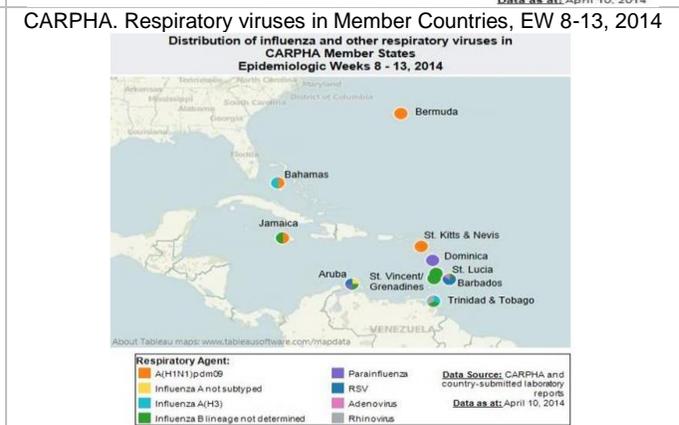
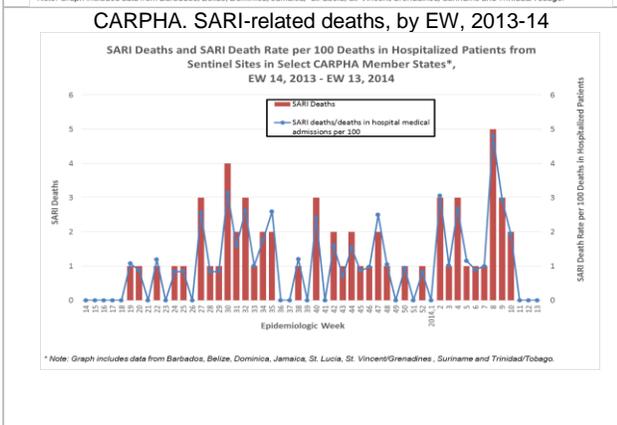
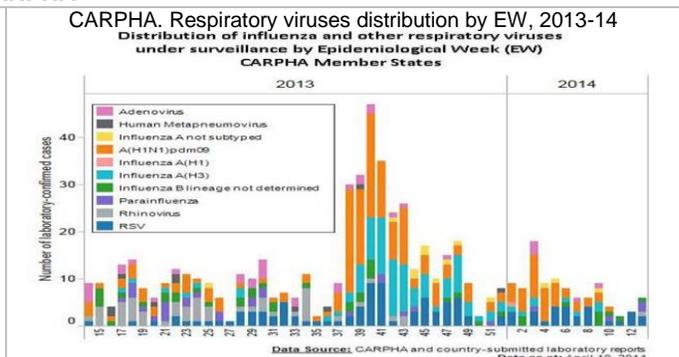
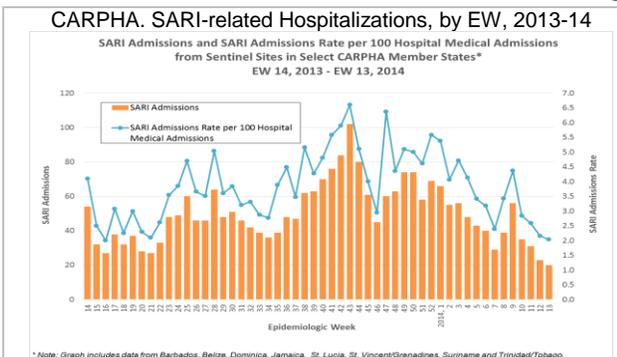
³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.



Caribbean

CARPHA⁴ received weekly SARI/ARI data from the following countries for EW 13: Barbados, Jamaica, St Vincent & the Grenadines, and Trinidad & Tobago. The proportion of SARI-associated hospitalizations during EW 13 was 2.0%, a decrease compared to the previous EW. Children ≤ 6 months of age had the highest rate of SARI admissions (5.5%). No SARI-associated deaths were reported during this period. According to laboratory data from EW 8-13, the following viruses were detected: influenza A(H1N1)pdm09 (Bahamas, Bermuda, Jamaica, St. Kitts & Nevis), influenza A(H3) (Bahamas, Trinidad & Tobago), influenza A, not subtyped (Aruba), influenza B (Aruba, Barbados, Jamaica, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago), parainfluenza (Aruba, Dominica), RSV (Aruba, Barbados), adenovirus (Barbados) and rhinovirus (Trinidad & Tobago).

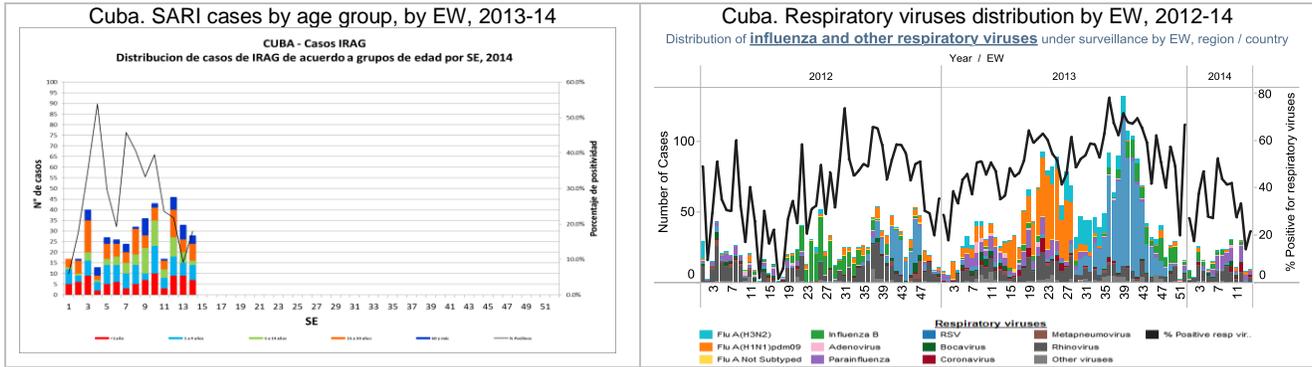
CARPHA



In Cuba during EW 14, the number of SARI-associated hospitalizations (n=28) decreased compared to the previous week. Persons aged 15-59 years of age comprised the largest proportion of these cases. One SARI-associated death was reported during this period and was negative for a respiratory virus. According to national laboratory data for EW 11-14, 233 samples were analyzed, of which 25.3% were positive for a respiratory virus and 3.4% were positive for influenza. Among the positive samples, parainfluenza (33.9%) and rhinovirus (23.7%) predominated.

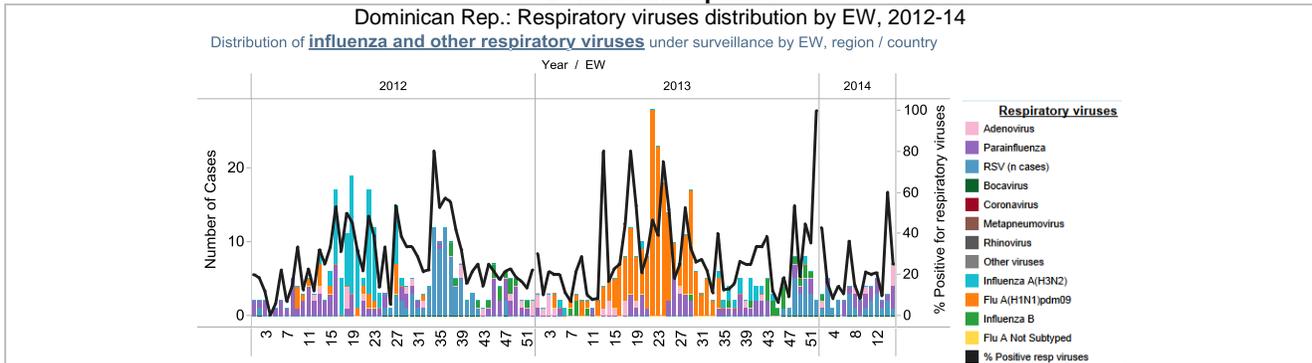
⁴ Caribbean Public Health Agency (CARPHA) EW 13

Cuba



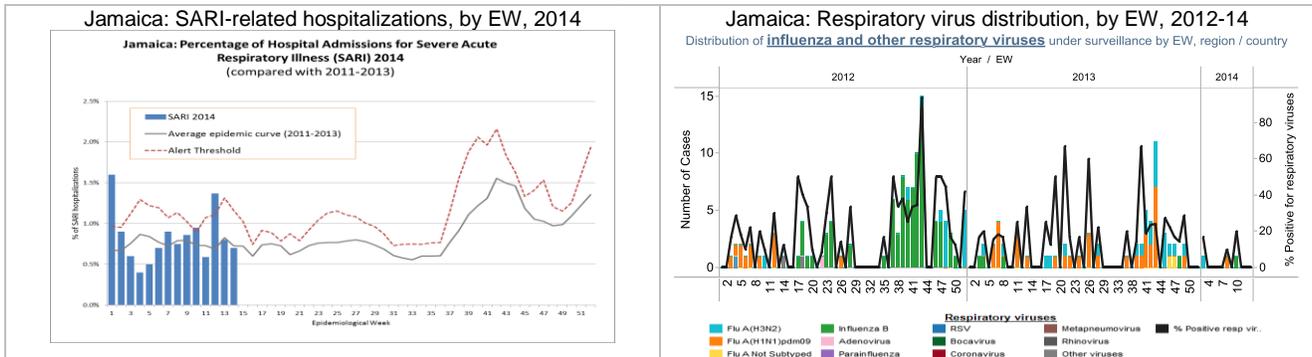
In the Dominican Republic, during EW 12-15, 78 samples were analyzed, of which 21.8% were positive for a respiratory virus. Among the positive samples, RSV (41.2%) and parainfluenza (41.2%) predominated.

Dominican Republic



In Jamaica, based on sentinel surveillance data for EW 14, the proportions of ARI-associated consultations (3.9%) increased slightly compared to the previous week. Meanwhile, the proportion of SARI-associated hospitalizations (0.7%) decreased and was within the expected levels for this time of year. No SARI-associated deaths were reported during EW 14. Based on laboratory data for EW 11-14, 21 samples were analyzed and all were negative for respiratory viruses.

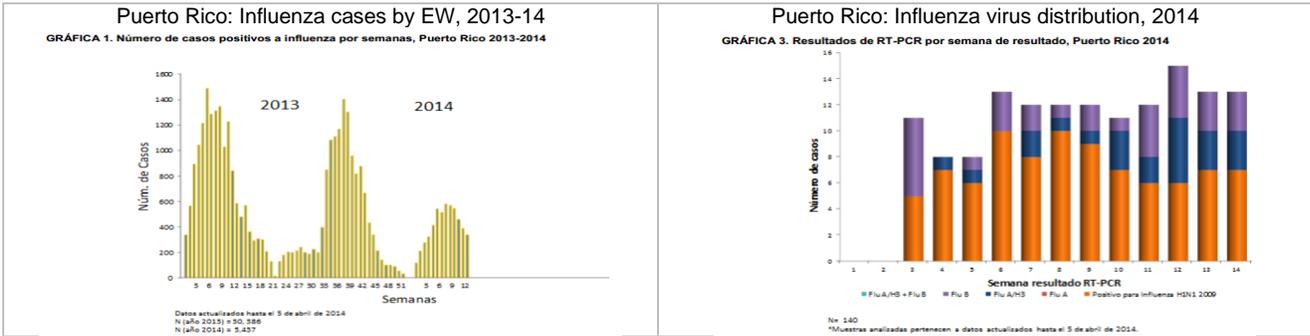
Jamaica



In Puerto Rico⁵ during EW 14, the number of influenza cases (n=158) remained low. Of these, 105 cases were associated with influenza A, 52 with influenza B, and 1 with an influenza A and B co-infection. Since the beginning of 2014, 5,437 influenza cases have been reported (61.3% influenza A and 37.9% influenza B) and persons aged 0-19 years accounted for 49% of those cases. During this same period, 287 influenza-associated hospitalizations and 3 influenza-associated deaths were reported.

⁵ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 14

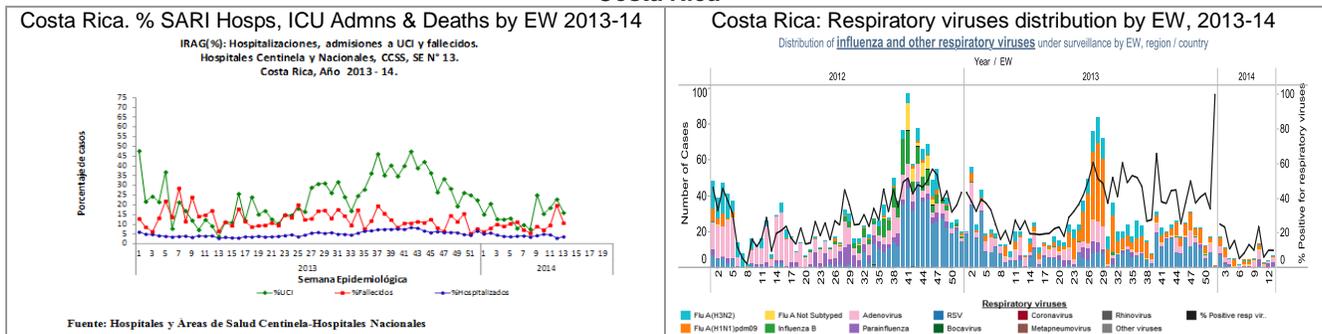
Puerto Rico



Central America

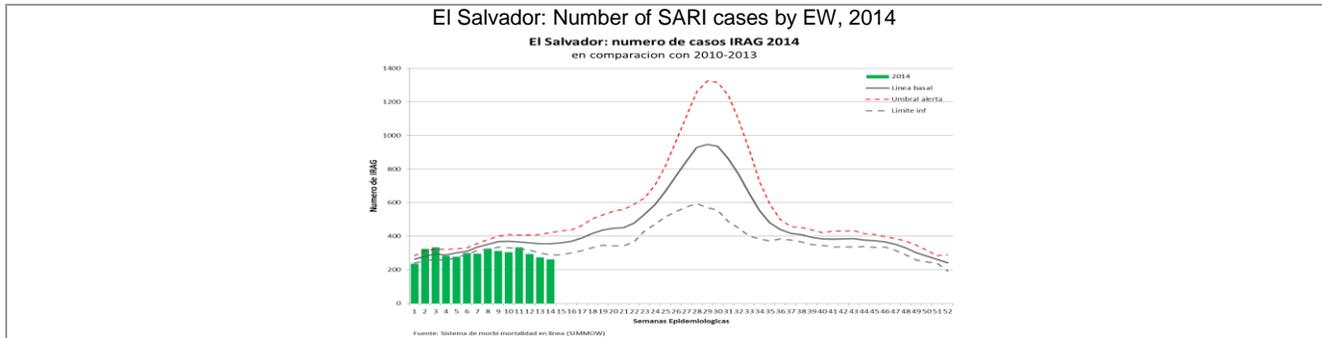
In Costa Rica, during EW 14, the percentage of SARI hospitalizations (4%) increased slightly compared to the previous week, while the proportions of SARI-associated ICU admissions (16%) and deaths (11%) decreased. Based on national laboratory data from EW 10-13, 217 samples were analyzed, of which 12.4% were positive for a respiratory virus and 2.3% were positive for influenza. Among the positive influenza samples, 100% were influenza A(H1N1)pdm09. Among other respiratory viruses, adenovirus (40.7% of positive samples) and parainfluenza (33.3%) predominated.

Costa Rica



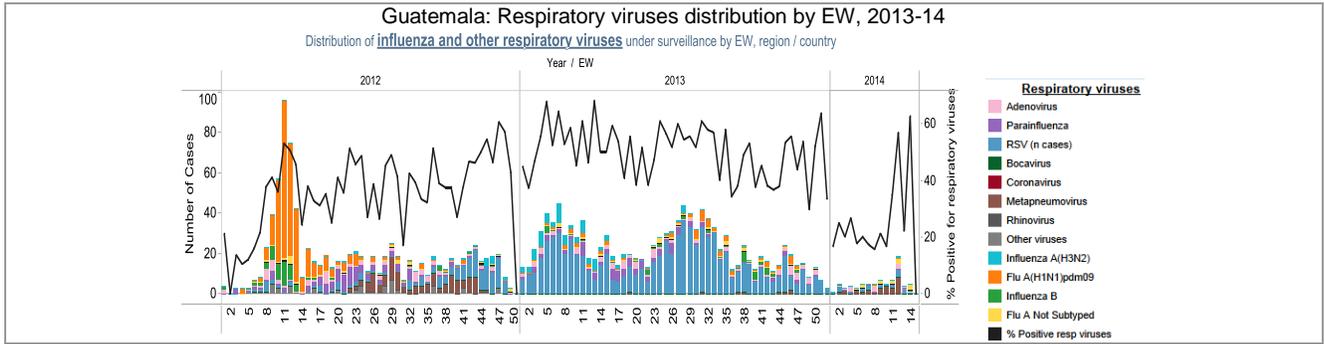
In El Salvador, during EW 14, the proportion of SARI-associated hospitalizations (4.8%) increased slightly compared to the previous week while the proportions of SARI-associated ICU admissions (0.0%) and deaths (2.6%) decreased.

El Salvador



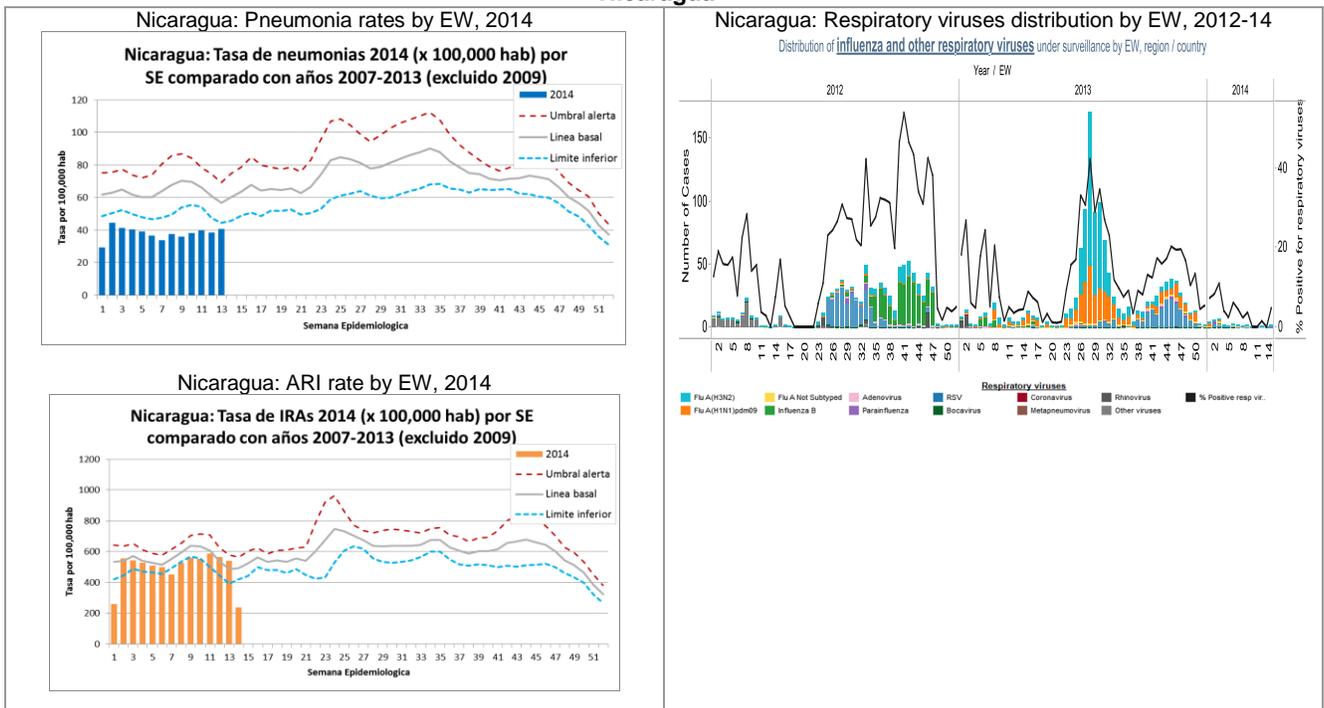
In Guatemala, based on laboratory data from EW 12-15, 66 samples were analyzed, of which 45.5% were positive for a respiratory virus and 15.2% were positive for influenza. Among the positive influenza samples, 90.0% were influenza A (22.2% A(H1), 11.1% A(H3N2) and 66.7% not subtyped) and 10.0% were influenza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

Guatemala



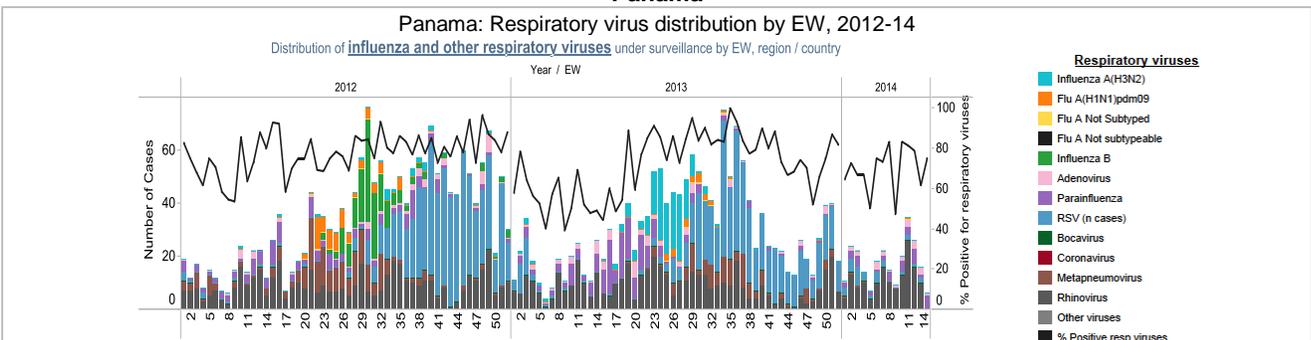
In Nicaragua, during EW 13, the national rates of pneumonia and ARI were low and within the expected levels for this time of year. According to national laboratory data from EW 11-14, 227 samples were analyzed of which 1.3% were positive for a respiratory virus. Among the positive samples, influenza B and parainfluenza were detected.

Nicaragua



In Panama, based on national laboratory data from EW 11-14, 110 samples were analyzed, of which 75.5% were positive for a respiratory virus and 0.9% were positive for influenza. Among the positive samples, rhinovirus (62.7%) predominated.

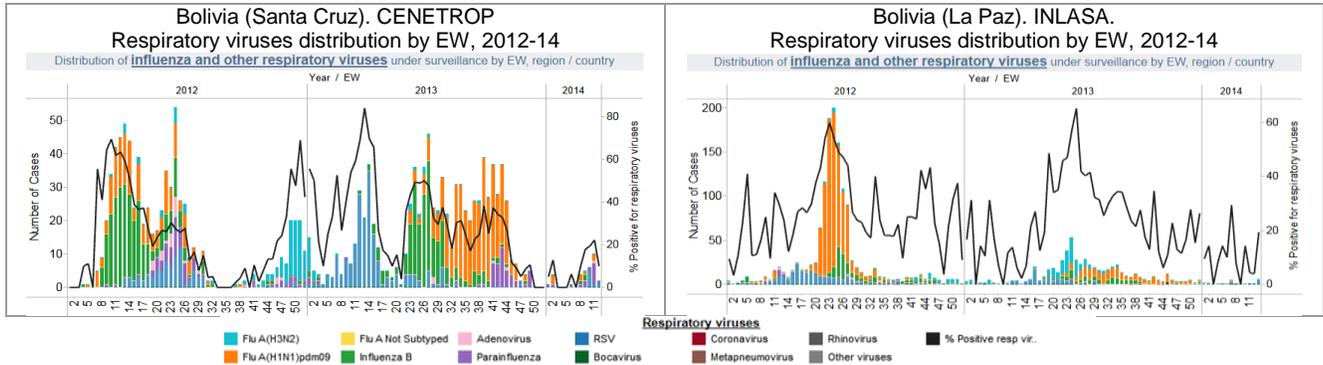
Panama



South America – Andean countries

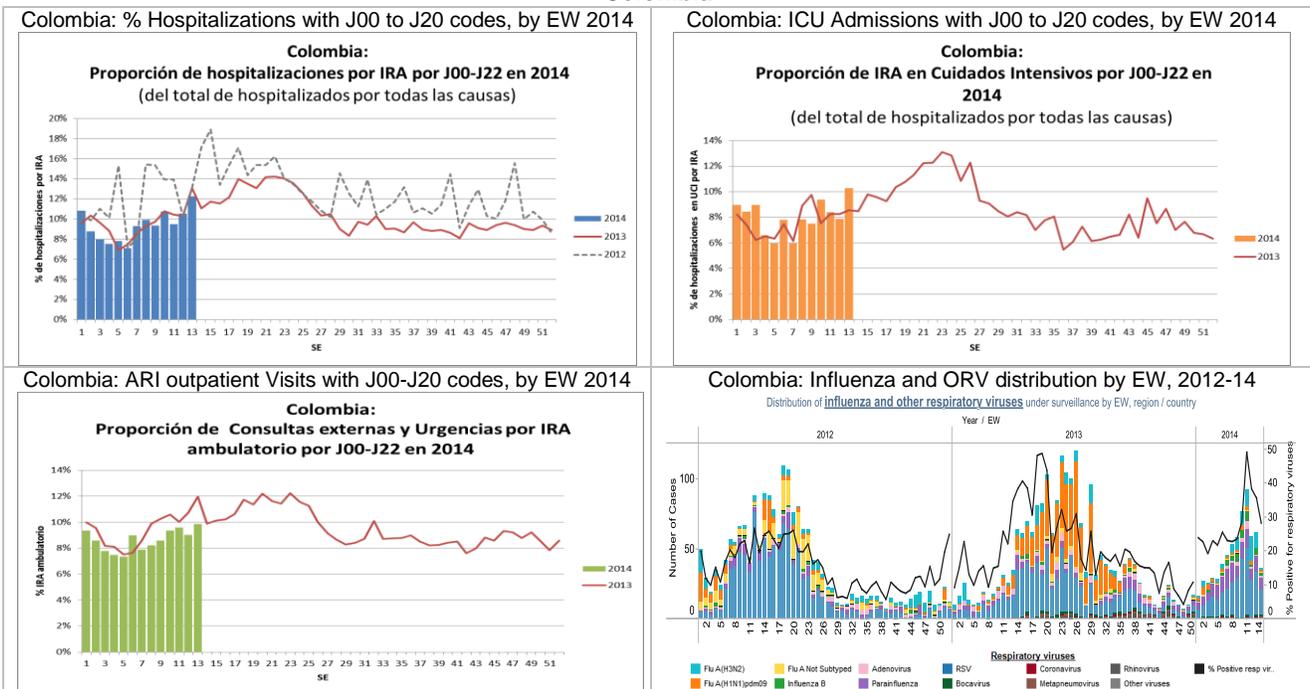
In Bolivia, according to laboratory data from CENETROP (Santa Cruz), 124 samples were analyzed between EW 9-12, of which 18.5% were positive to some respiratory virus and 4.0% were positive for influenza. Among the positive samples, parainfluenza (43.5%) and RSV (30.4%) predominated; and among those positive for influenza, influenza A(H1N1)pdm09 and influenza B were detected. According to the National Laboratory in La Paz (INLASA), 86 samples were analyzed between EW 10-13, of which 10.5% were positive for respiratory viruses and 1.2% were positive for influenza. Among the positive samples, VSR and influenza A(H1N1)pdm09 were detected.

Bolivia



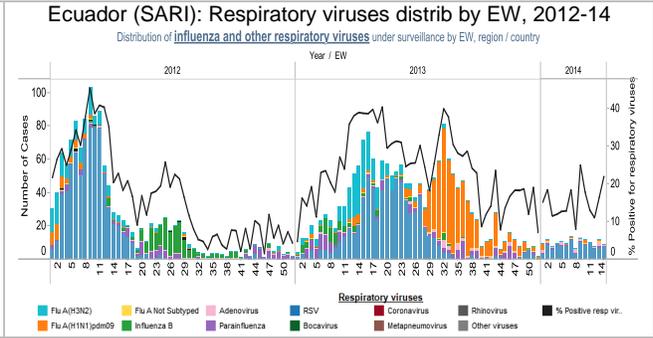
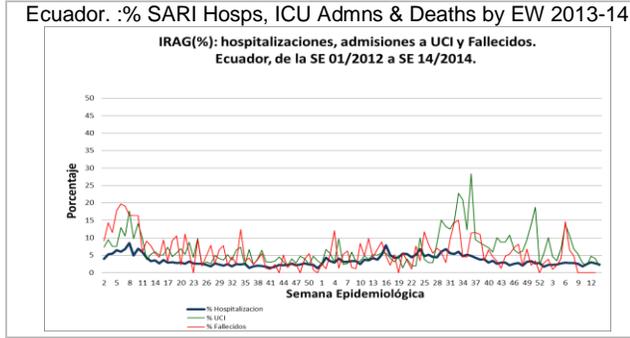
In Colombia, nationally during EW 13, the proportions of hospitalizations (12.3%), ICU admissions (10.3%), and outpatient and urgent visits (9.8%) with SARI and ARI-associated ICD-10 codes (J00 to J22) increased compared to the previous week. Based on INS laboratory data from EW 11-14, 643 samples were analyzed, of which 38.7% were positive for a respiratory virus and 10.1% were positive for influenza. Among the positive influenza samples, 72.3% were influenza A (12.8% A(H1N1)pdm09 and 87.2% A(H3N2)) and 27.7% were influenza B. Among other respiratory viruses, RSV (50.2% of positive samples) and parainfluenza (16.5%) predominated.

Colombia



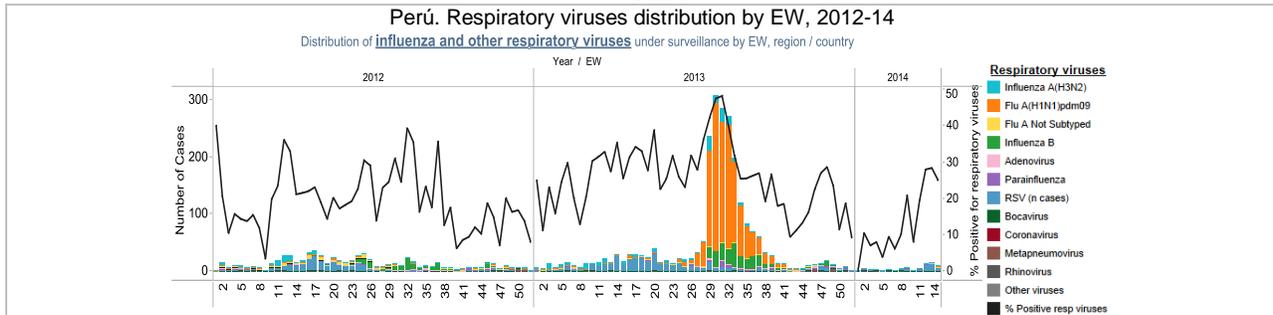
In Ecuador during EW 14, the proportions of SARI-associated hospitalizations (2.3%) and ICU admissions (1.9%) decreased compared to the previous week; no SARI-associated deaths were reported. Based on national reference laboratory data from EW 11-14, 264 SARI samples were analyzed, of which 14.8% were positive for a respiratory virus and 0.4% were positive for influenza. Among the positive samples, RSV predominated (82.1%).

Ecuador



In Peru, based on national laboratory data from EW 11-14, 158 samples were analyzed, of which 25.9% were positive for a respiratory virus and 2.5% were positive for influenza. Among the positive samples, RSV (70.7%) predominated.

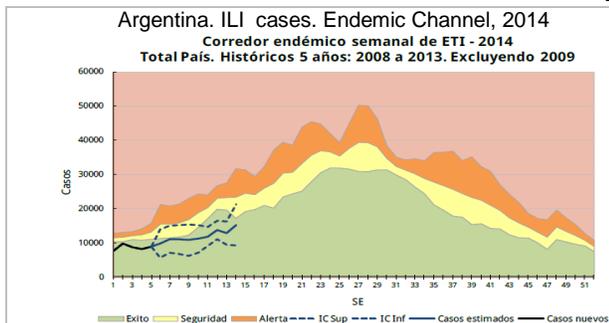
Peru



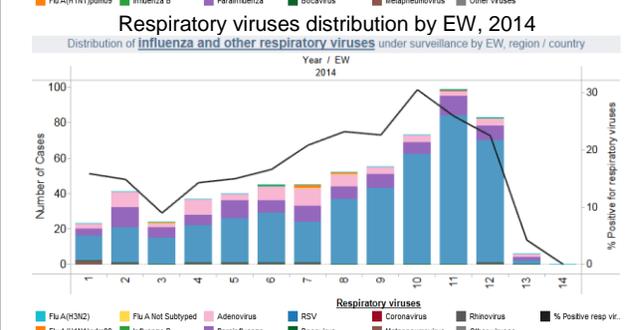
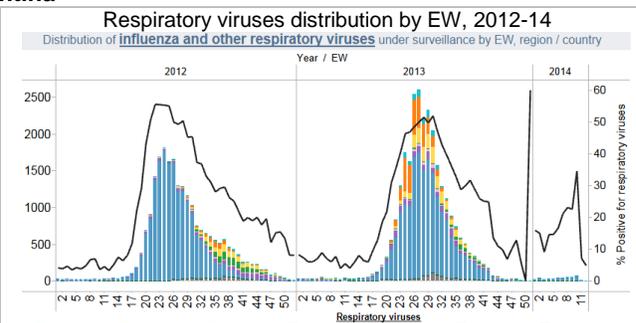
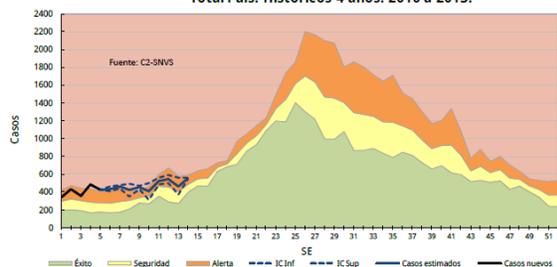
South America – South Cone and Brazil

In Argentina⁶, according to reports and calculated estimations, the national ILI activity during EW 13 was within the success zone of the endemic channel. The proportion of SARI-associated hospitalizations was within the alert zone of the endemic channel and was 18% higher than the levels seen last year. According to laboratory data, 510 samples were processed during EW 12-13, of which 17.5% were positive for respiratory viruses and 0.2% were positive for influenza. Among the positive samples, RSV (79.8%) predominated, followed by parainfluenza (11%) and adenovirus (6.7%).

Argentina

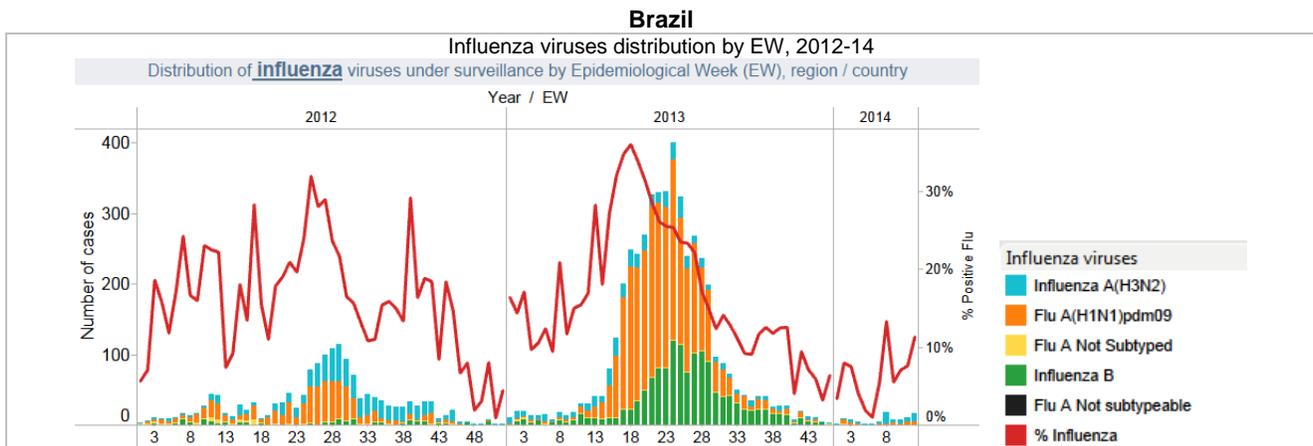


Argentina. SARI cases. Endemic Channel, 2014
Corredor endémico semanal de IRAG - 2014.
Total País. Históricos 4 años: 2010 a 2013.

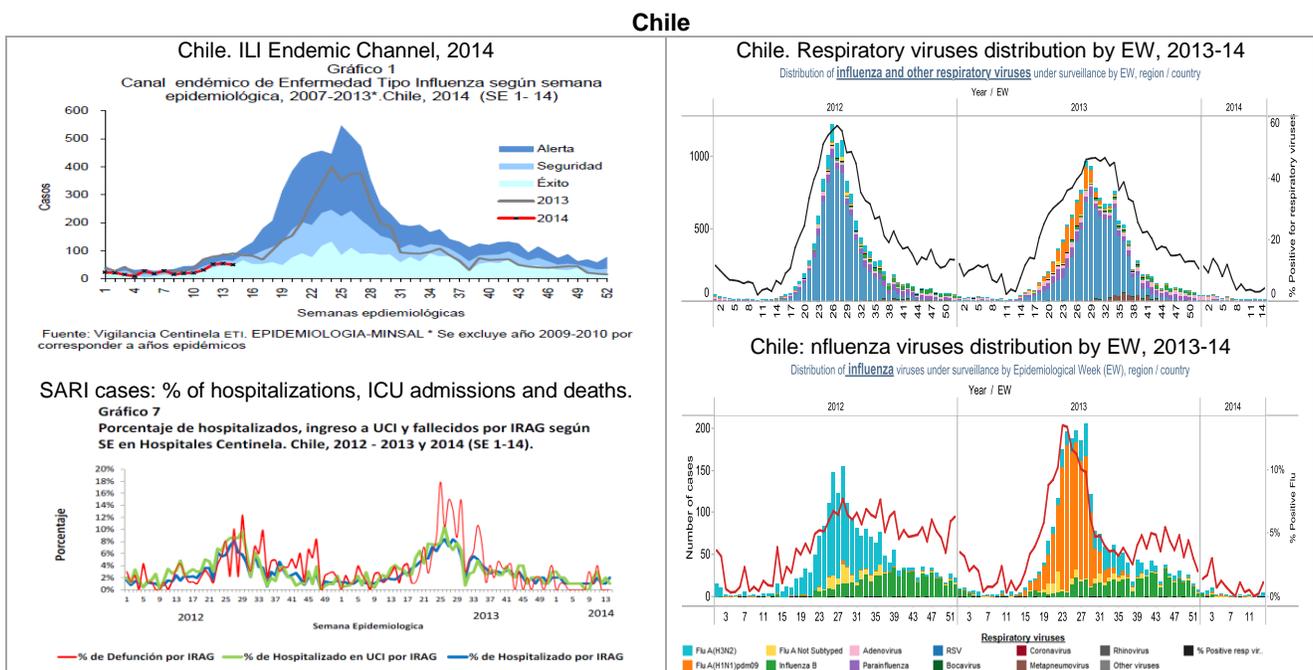


⁶ Argentina. Boletín integrado de vigilancia. SE 13.

In Brazil, based on laboratory data from EW 12-13, 159 samples were processed. Of these, 16.3% were positive for influenza and showed a slight increase in recent weeks. Among the influenza-positive samples, co-circulation of A(H3N2) (73%) and A(H1N1)pdm09 (27%) was observed.



In Chile⁷, ILI activity increased slightly in recent weeks (rate 3.2 per 100,000 inhabitants during EW 14) and was within the security zone of the endemic channel. Through EW 14, 2014, 296 SARI cases were reported through sentinel surveillance, and of these 9.0% were positive for a respiratory virus (influenza A, influenza B and adenovirus were detected). Based on laboratory data from EW 13-14, 901 samples were analyzed, of which 3.7% were positive for a respiratory virus and 0.7% were positive for influenza. Among the positive samples, adenovirus (51.5%) and RSV (18.2%) predominated.



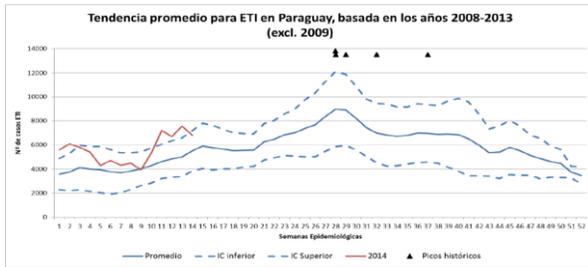
In Paraguay⁸ during EW 14, the ILI consultation rate (101.8 per 100,000 inhabitants) increased from the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (2.9%) decreased and remained within the expected range for this time of year. The most affected age groups were children <5 years of age and adults ≥60 years. Based on reference laboratory data, from EW 11-14, 197 samples were processed, of which 5.1% were positive for a respiratory virus. Among the positive samples, adenovirus, RSV, parainfluenza and influenza B were detected.

⁷ Chile. Informe de situación. EW 14. Available at: <http://epi.minsal.cl/>

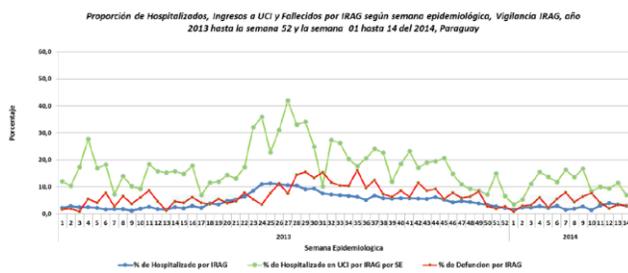
⁸ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 14.

Paraguay

Paraguay. ILI endemic channel, by EW, 2014
Gráfico 1

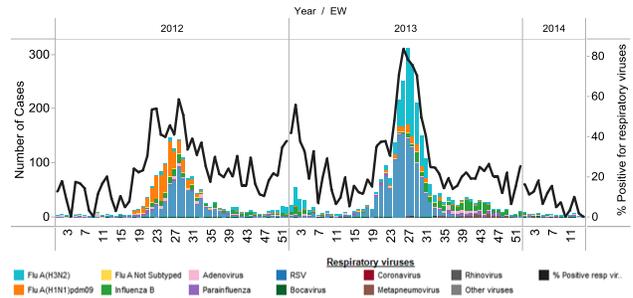


Paraguay: % SARI Hosps, ICU Adms & Deaths by EW 2013-14



Paraguay. Respiratory viruses distribution by EW, 2012-14

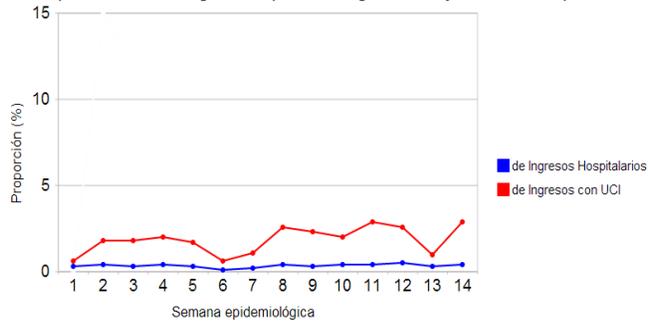
Distribution of **influenza and other respiratory viruses** under surveillance by EW, region / country



In Uruguay⁹ during EW 14, the proportions of SARI-associated hospitalizations, ICU admissions and deaths remained at low levels. Based on laboratory data from EW 11-14, 25 samples were analyzed and of these, 2 (8.0%) were positive for a respiratory virus.

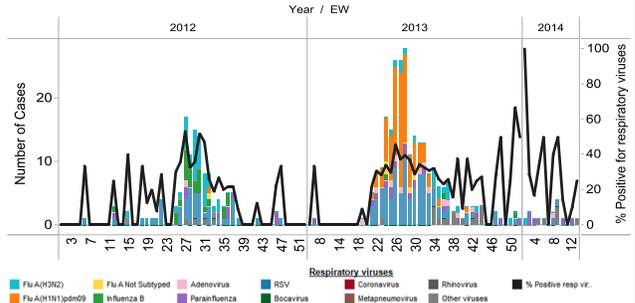
Uruguay

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, 2012-14

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



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