

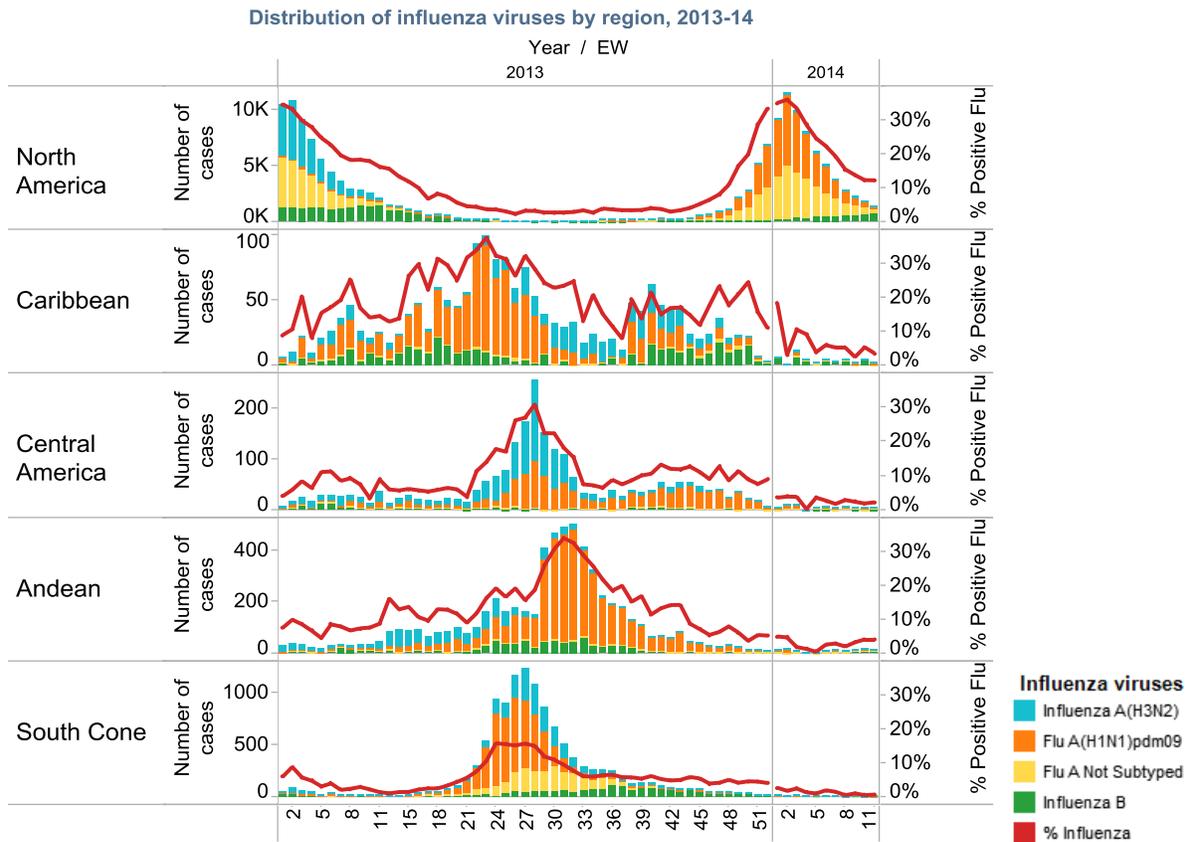
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

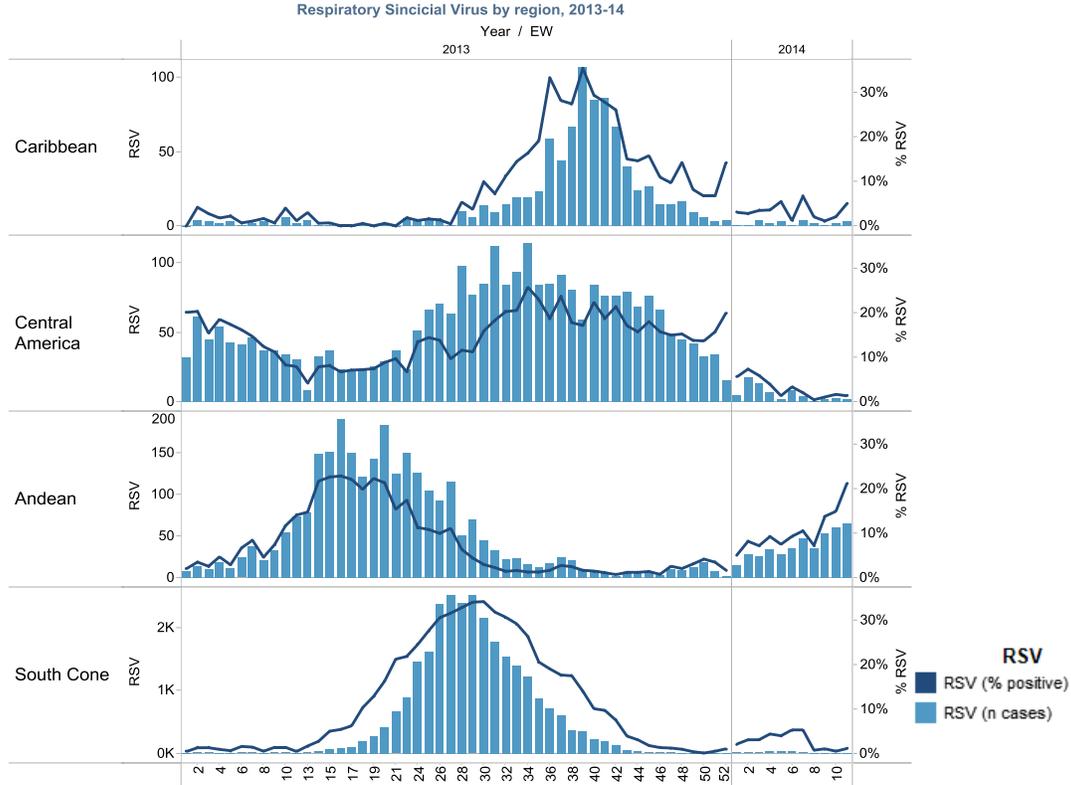
WEEKLY SUMMARY

- North America: Influenza activity continued to decrease in the United States and Mexico where influenza A(H1N1)pdm09 remained predominant but circulation of influenza B continued to increase. In Canada, there was a slight increase in influenza activity due to increased influenza B circulation. Among other respiratory viruses, RSV circulation remained high in Canada and the United States.
- The Caribbean and Central America: Influenza and other respiratory virus activity remained low in the region except in Guyana and Guadeloupe where influenza activity was above expected levels.
- South America – Andean Countries: Acute respiratory illness activity, and influenza and other respiratory virus activity remained low in the region with the exception of Colombia where RSV circulation continued to increase.
- 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

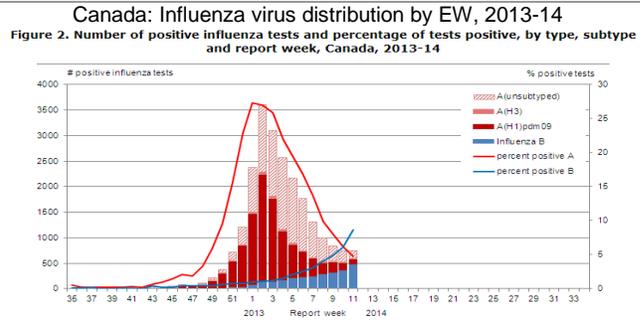
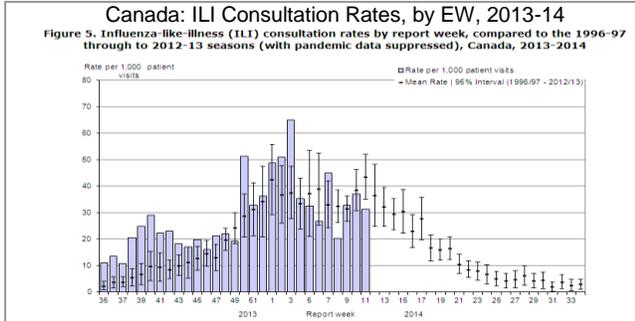
North America:

In Canada¹ during EW 11, influenza activity increased slightly but was within expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 31.2 per 1,000 patient visits, a decrease compared to the previous week. Since the beginning of the 2013-14 influenza season, 3,570 influenza-associated hospitalizations have been reported and most (93.2%) of them have been associated with influenza A. The majority (57.4%) of hospitalizations have been adults ≥ 45 years of age. However, a significantly greater proportion of influenza B cases have been ≥ 65 years of age compared to A(H1N1)pdm09. There have been 324 ICU admissions reported and of these, 66.6% were among adults 20-64 years of age. To date this season, 197 deaths have been reported (compared to 271 during the same period of the 2012-13 season) and 94.4% were associated with influenza A. The highest proportion of these deaths (49.7%) occurred among adults 20-64 years of age, followed by adults ≥ 65 years (40.6%). Based on laboratory data for EW 11, the overall percentage of positive influenza tests was 13.4% (N=750), a slight increase compared to the previous week and driven by increased detections of influenza B. Among the positive tests, 35.3% were influenza A (36.2% influenza A(H1N1)pdm09, 8.3% A(H3N2) and 55.5% not

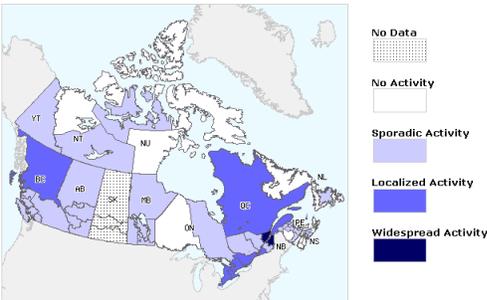
¹ Canada: FluWatch Report. EW 11. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

subtyped) and 64.7% were influenza B. Among other circulating respiratory viruses, RSV continued to predominate.

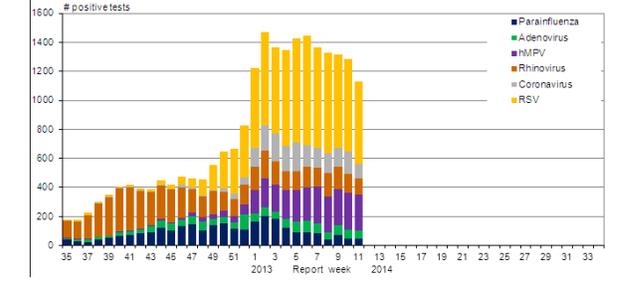
Canada



Canada: Influenza/ILI Activity by region, EW 11, 2014
 Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 11

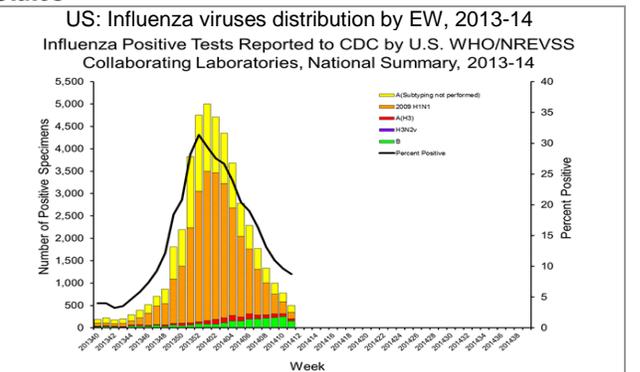
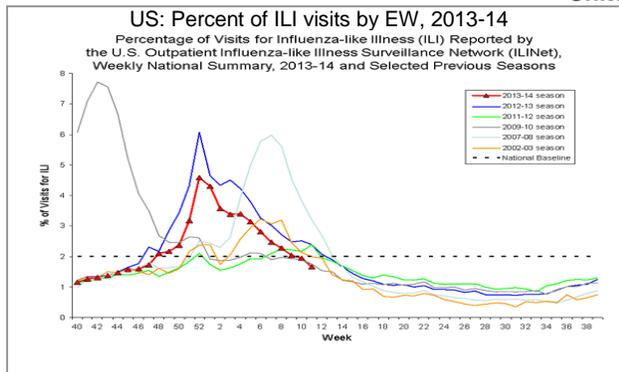


Canada: Respiratory virus distribution by EW, 2013-14
 Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

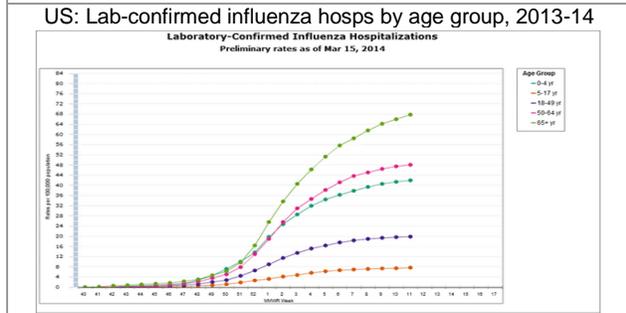
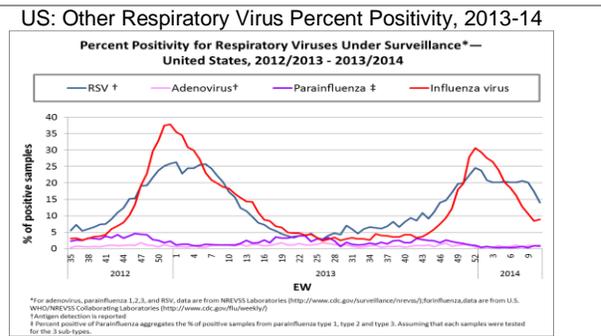
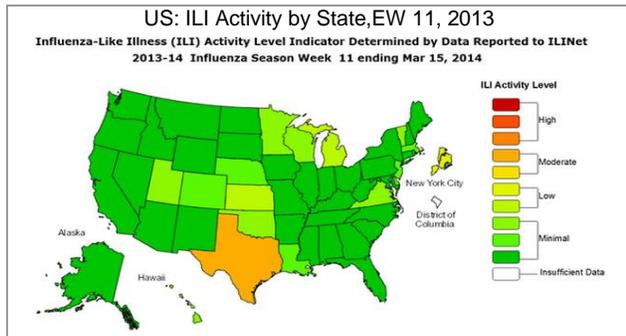


In the United States² during EW 11, influenza activity continued to decrease. The proportion of outpatient visits for influenza-like illness (ILI) was 1.7%, a decrease compared to the previous week and below the national baseline (2.0%). Four of the 10 regions reported ILI activity above their region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 10 (7.1%) increased slightly from the previous EW but was below the epidemic threshold (7.4%). A total of 75 influenza-associated pediatric deaths have been reported this season, of which seven were reported during EW 11. Of these, one death was associated with influenza A(H1N1)pdm09 and occurred during EW 10, five deaths were associated with influenza A (not subtyped) and occurred during EW 49, 8, and 9, and one death was associated with influenza B (and occurred during EW 10). Since October 1, 2013, 8,235 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 30.4 per 100,000 population) and the majority (93.6%) 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 more than 60% of the reported hospitalizations. According to laboratory data for EW 11, 5,650 samples were analyzed, of which 8.8% were positive for influenza. Among the positive samples, 68.9% were influenza A (42.8% A(H1N1)pdm09, 13.5% A(H3) and 43.7% not subtyped) and 31.3% were influenza B. Based on antiviral resistance testing, 1.0% (43/4,413) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant. Among other circulating respiratory viruses, RSV activity was high with percent positivity of 14.0%.

United States

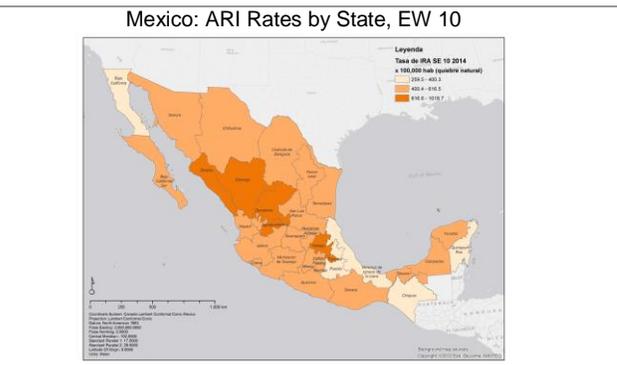
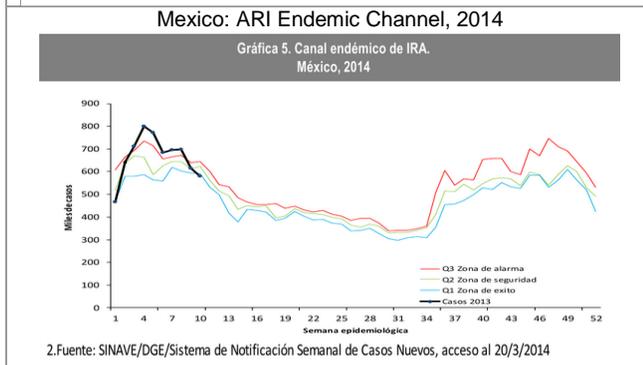
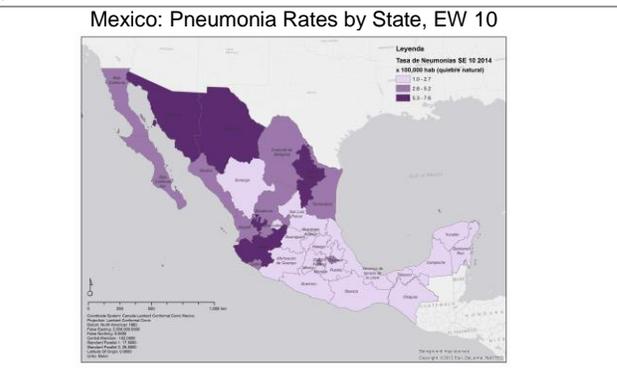
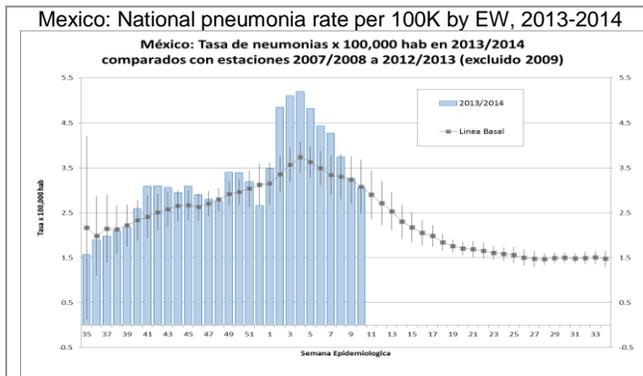


² USA: CDC FluView report. EW 11. Available at: <http://www.cdc.gov/flu/weekly/>

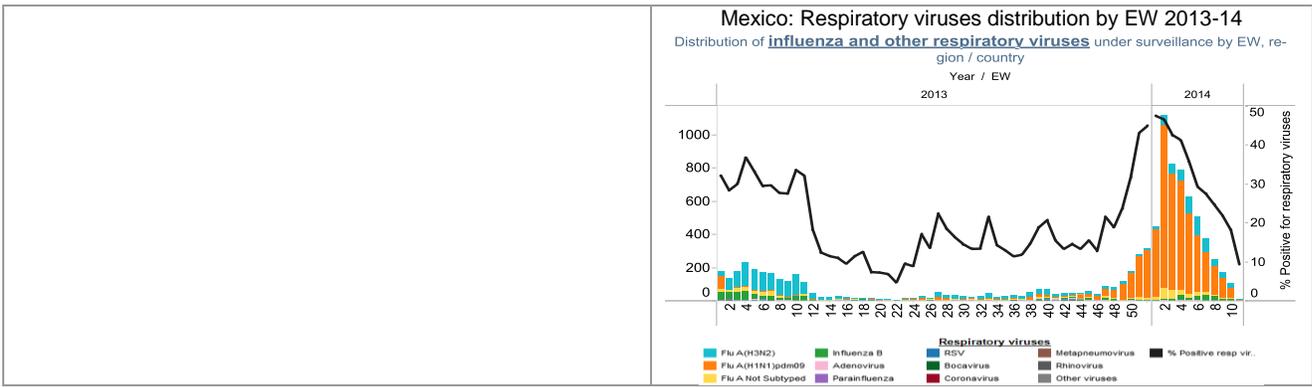


In Mexico³ during EW 10, influenza activity continued to decrease. The pneumonia rate has been decreasing since EW 6 and was within the expected level for this time of year. ARI decreased from the previous week and was within the success zone of the endemic channel. The highest levels of ARI activity were reported in Aguascalientes, Zacatecas and Durango, and the highest levels of pneumonia activity were reported in Chihuahua, Nuevo Leon and Sonora. Nationally through March 20, 2014, the proportion of ILI/SARI-associated medical visits was 1.3%, a decrease compared to the previous EW. During this same period, 704 influenza-associated deaths were reported, of which 91.1% were associated with influenza A(H1N1)pdm09. According to laboratory data during EW 10-11, 701 samples were analyzed, of which 16.4% were positive for influenza. Among the positive influenza samples, 86.1% were influenza A (63.6% A(H1N1)pdm09 and 33.3% A(H3N2)) and 13.9% were influenza B.

Mexico



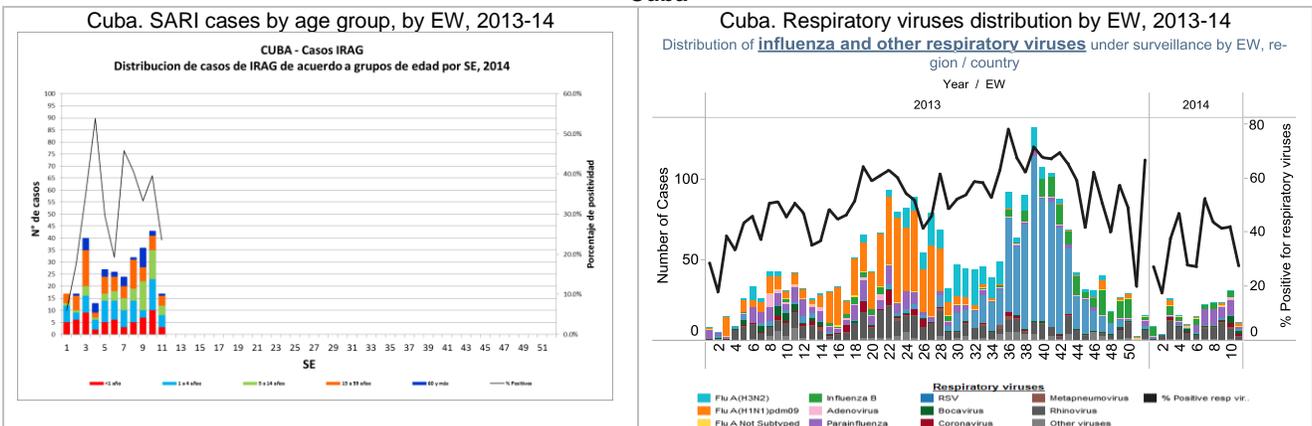
³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.



Caribbean

In Cuba during EW 11, the number of SARI-associated hospitalizations decreased compared to the previous week. Children aged 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 8-11, 227 samples were analyzed, of which 39.6% were positive for a respiratory virus and 5.3% were positive for influenza. Among the positive samples, parainfluenza (30.0%) and rhinovirus (30.0%) predominated.

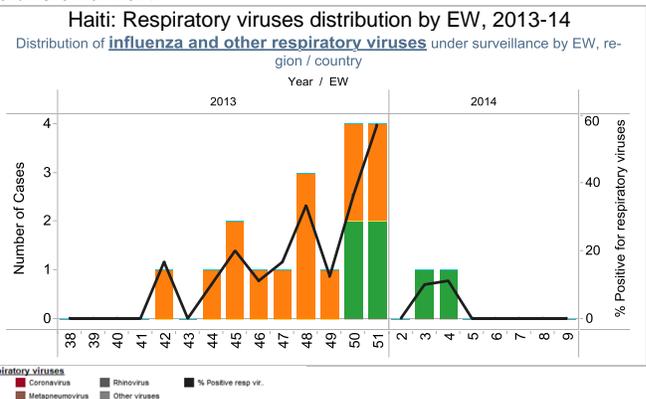
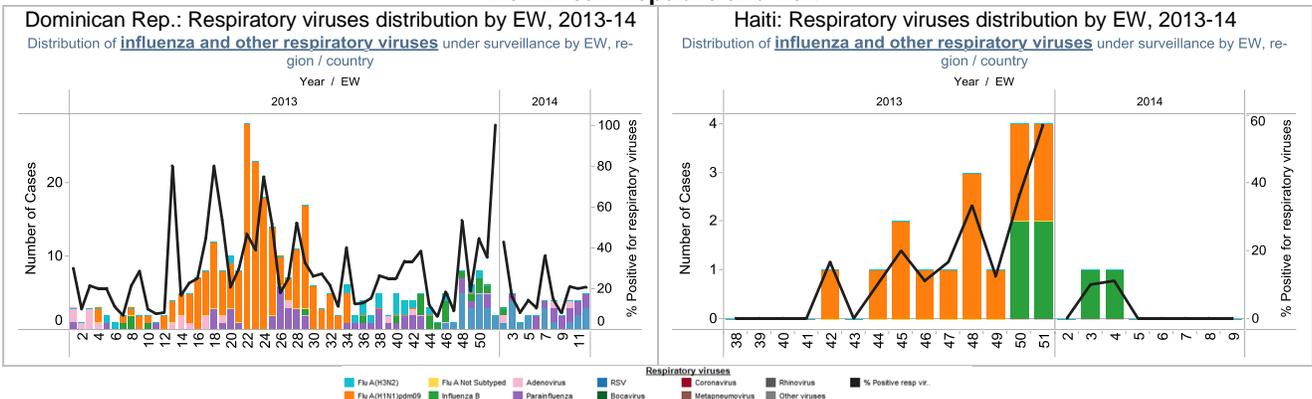
Cuba



In the Dominican Republic⁴, during EW 1-9 the cumulative incidence of acute respiratory infections was 50.8 per 10,000 inhabitants, 38% lower than this same period in 2013. Based on laboratory data for EW 9-12, 88 samples were analyzed, of which 17.0% were positive for a respiratory virus. Among the positive samples, parainfluenza (53.3%) and RSV (40.0%) predominated.

In Haiti, based on laboratory data for EW 6-9, 23 samples were analyzed and all were negative for influenza.

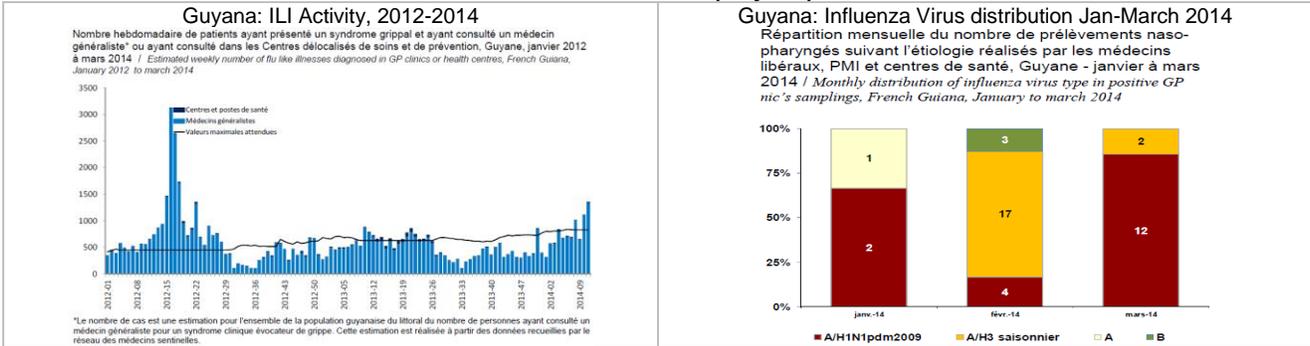
Dominican Republic and Haiti



⁴ República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 9.

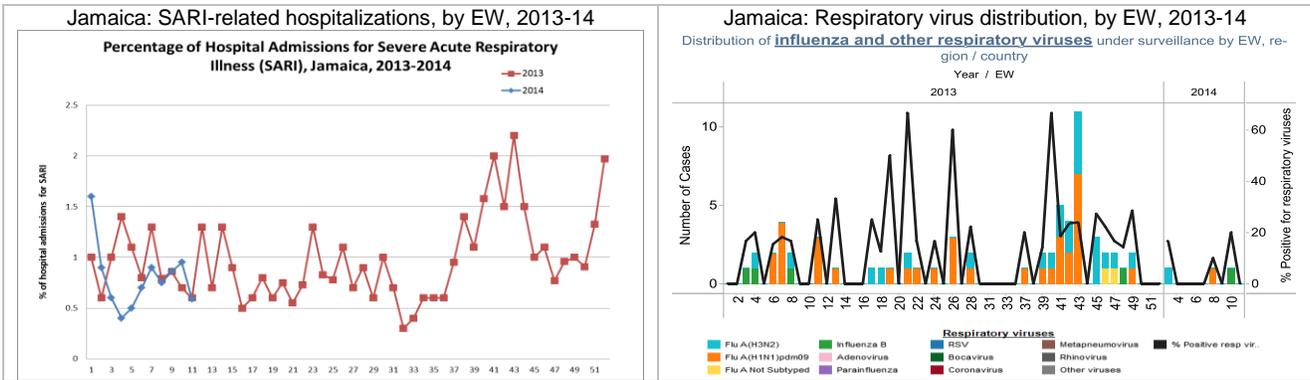
Among the French territories, ILI associated consultations in Guyana have been above expected levels since mid-February and indicate the start of the seasonal influenza epidemic. Although there was a decrease in ILI activity at the end of February, in recent weeks it has increased and is above expected levels. Since the beginning of 2014, there has been co-circulation of influenza A(H3N2), influenza A(H1N1)pdm09 and influenza B. Among the other French territories, Guadeloupe has also declared the start of their influenza season (EW 3). However, Martinique, St. Martin and St. Barthelemy have not reported influenza activity.

French Territories (Guyana)



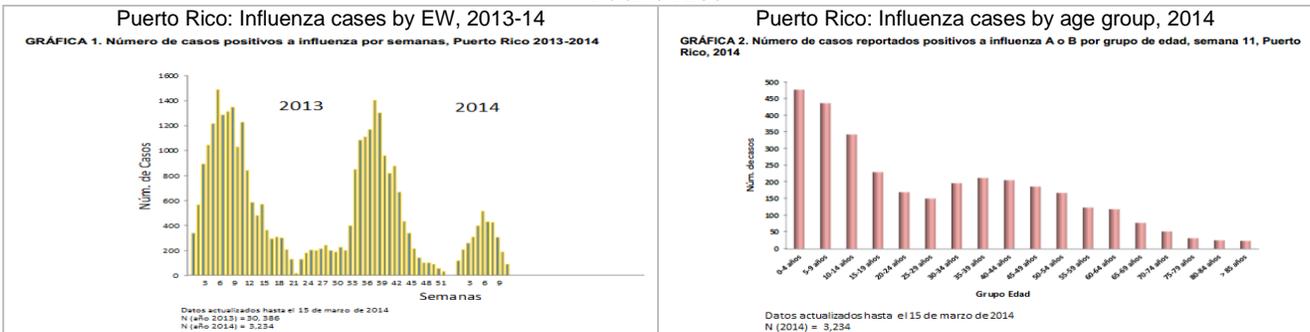
In Jamaica, based on sentinel surveillance data for EW 11, the proportions of ARI-associated consultations (4.0%) and SARI-associated hospitalizations (0.6%) decreased compared to the previous week. No SARI-associated deaths were reported during EW 11. Based on laboratory data for EW 9-12, 11 samples were analyzed and one was positive for influenza B.

Jamaica



In Puerto Rico⁵ during EW 11, the number of influenza cases (n=89) remained low. Of these, 65 cases were associated with influenza A and 24 with influenza B. Since the beginning of 2014, 3,234 influenza cases have been reported and persons aged 0-19 years accounted for 46% of those cases. During this same period, 186 influenza-associated hospitalizations and 3 influenza-associated deaths were reported.

Puerto Rico

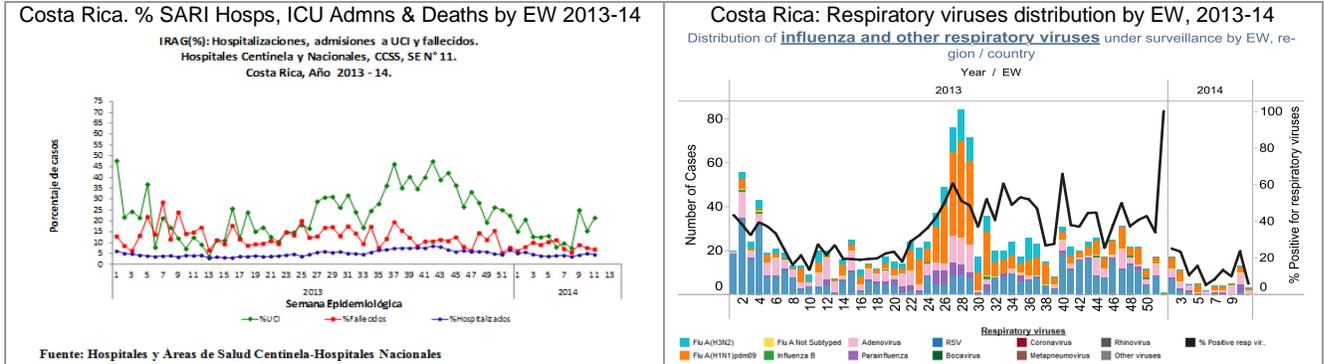


⁵ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 11

Central America

In Costa Rica, during EW 11, the proportions of SARI-associated hospitalizations (4.5%), SARI-associated ICU admissions (21.5%) and SARI-associated deaths (7.0%) were similar to the previous EW. Based on laboratory data from EW 8-11, 186 samples were analyzed, of which 13.4% were positive for a respiratory virus and 3.8% were positive for influenza. Among the positive influenza samples, 100% were influenza A(H1N1)pdm09. Among other respiratory viruses, adenovirus (48.0% of positive samples) and parainfluenza (20.0%) predominated.

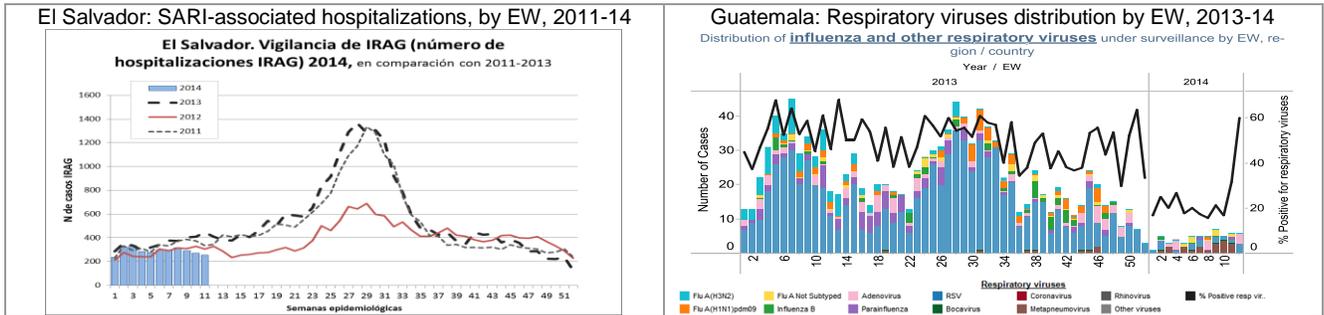
Costa Rica



In El Salvador, during EW 11, the proportions of SARI-associated hospitalizations (5.3%), ICU admissions (7.1%) and deaths (4.5%) remained low and within the expected levels for this time of year.

In Guatemala, based on laboratory data from EW 9-12, 92 samples were analyzed, of which 26.1% were positive for a respiratory virus and 3.3% were positive for influenza. Among the positive influenza samples, 100% were influenza A (not subtyped). Among other respiratory viruses, human metapneumovirus (47.1% of positive samples) and RSV (29.2%) predominated.

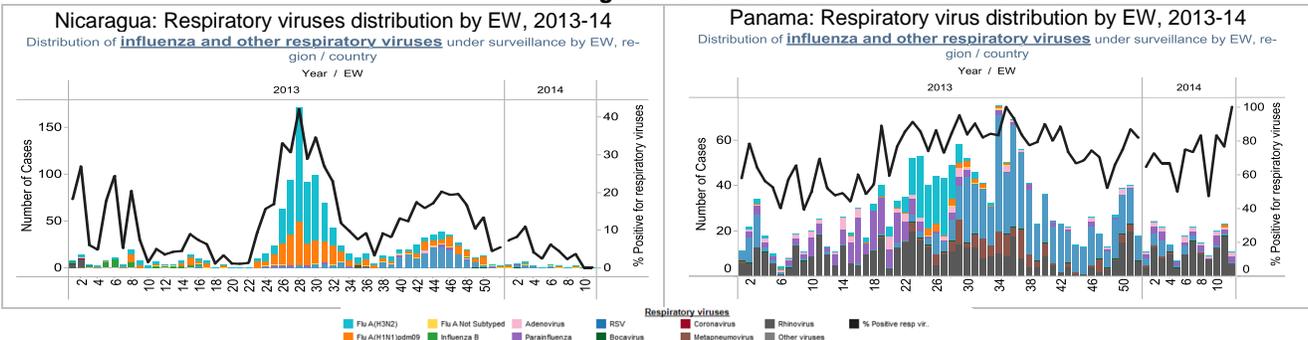
El Salvador and Guatemala



In Nicaragua, according to national laboratory data from EW 8-11, 220 samples were analyzed of which 1.4% were positive for a respiratory virus and 0.9% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09, influenza B and parainfluenza were detected.

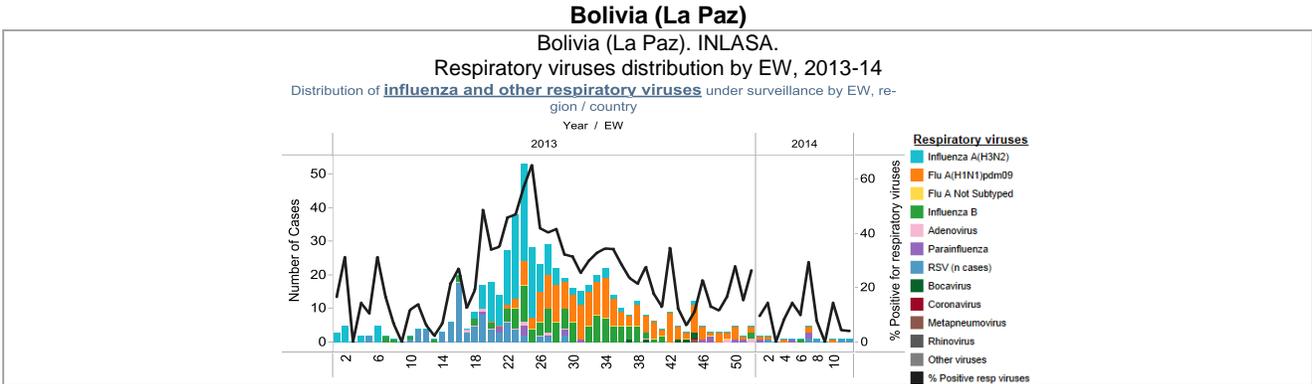
In Panama, based on national laboratory data from EW 9-12, 84 samples were analyzed of which 75.0% were positive for a respiratory virus. Among the positive samples, rhinovirus (71.4%) predominated.

Nicaragua and Panama

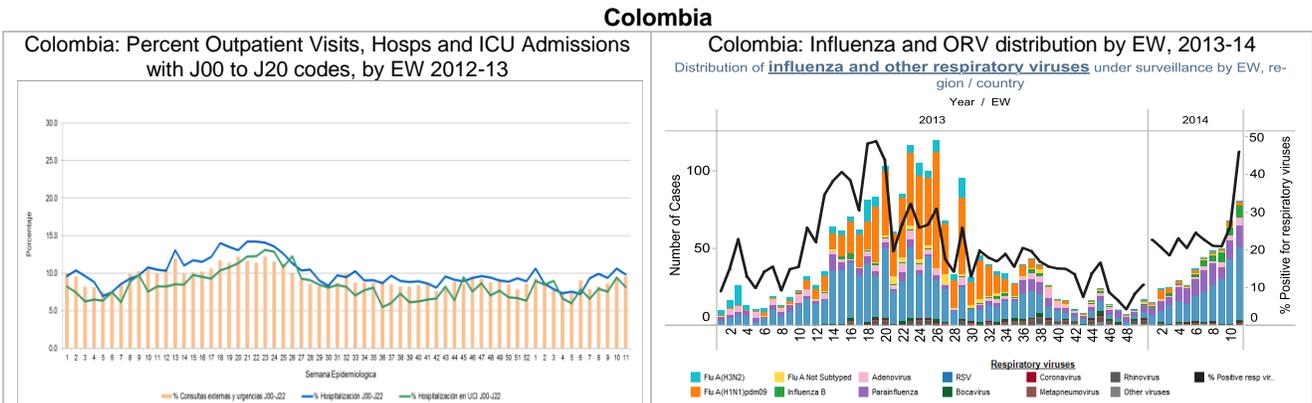


South America – Andean countries

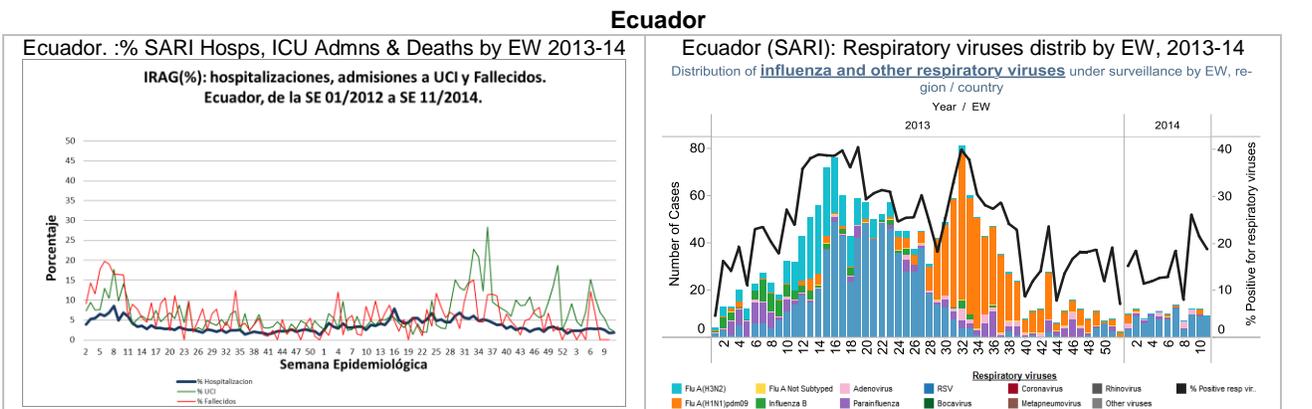
According to laboratory data from INLASA (La Paz) from EW 9-12, 59 samples were analyzed of which 5.1% were positive for a respiratory virus and 1.7% were positive for influenza. Among the positive samples, RSV (66.7%) and influenza A(H1N1)pdm09 (33.3%) were detected.



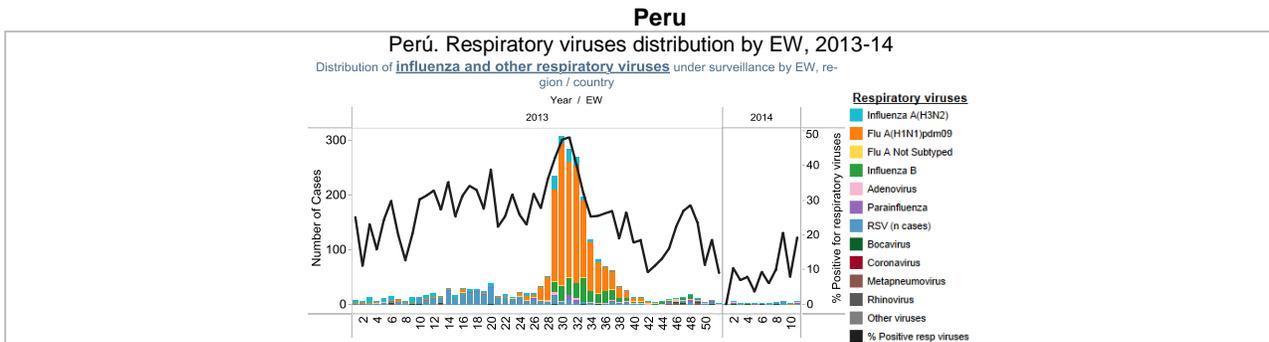
In Colombia, nationally during EW 10, the proportions of hospitalizations (9.8%), ICU admissions (8.2%), and outpatient and urgent visits (9.6%) with ARI-associated ICD-10 codes (J00 to J22) were similar to the previous week. Based on INS national laboratory data from EW 8-11, 903 samples were analyzed, of which 27.4% were positive for a respiratory virus and 4.0% were positive for influenza. Among the positive influenza samples, 33.3% were influenza A (66.7% A(H1N1)pdm09, 25.0% A(H3N2) and 8.3% not subtyped) and 66.7% were influenza B. Among other respiratory viruses, there has been increasing positivity with a predominance of RSV (57.5% of positive samples) and parainfluenza (19.4%).



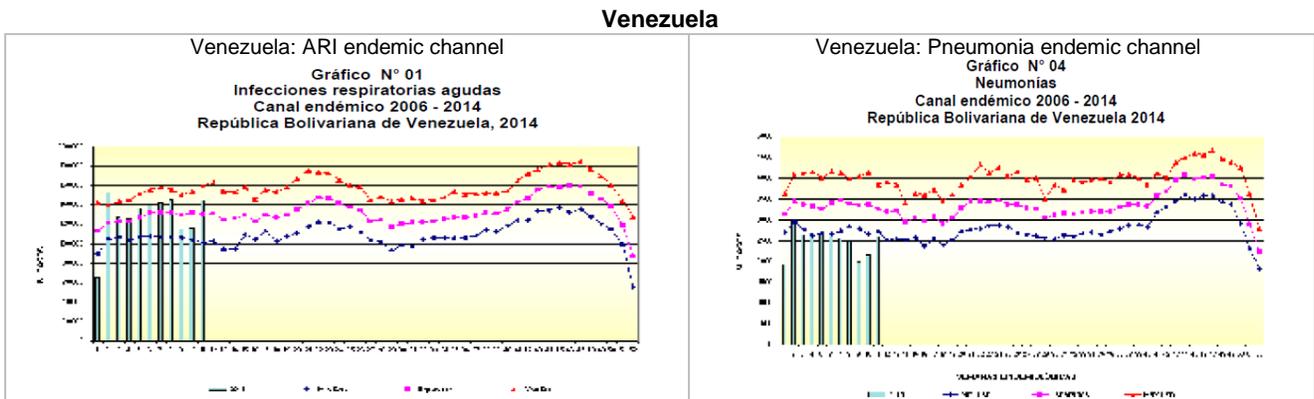
In Ecuador respiratory virus activity remained low. During EW 11, the proportions of SARI-associated hospitalizations (1.9%), ICU admissions (2.2%) and SARI-associated deaths (0.0%) were similar to the previous EW. Based on national reference laboratory data from EW 8-11, 237 SARI samples were analyzed, of which 16.9% were positive for a respiratory virus and 0.8% were positive for influenza. Among the positive samples, RSV predominated (80.0%).



In Peru, based on national laboratory data from EW 8-11, 120 samples were analyzed, of which 14.2% were positive for a respiratory virus and 1.7% were positive for influenza. Among the positive samples, RSV (64.7%) predominated.

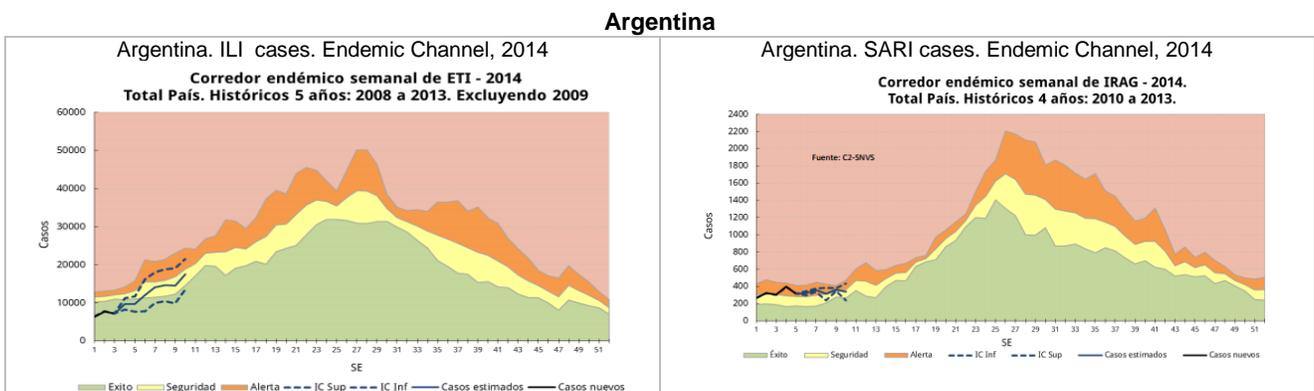


In Venezuela⁶ during EW 11, the number of ARI and pneumonia cases increased by 25.1% and 20.6%, respectively, compared to the previous EW. Both were within the expected levels for this time of year. During EW 11, 82 SARI-associated hospitalizations were reported, with children ≤ 1 year of age comprising the largest proportion of cases. Based on virologic data from January 1, 2014, 100 samples were analyzed from suspected influenza cases and of these, 15.0% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (73.3%).



South America – South Cone and Brazil

In Argentina⁷, according to reports and calculated estimations, national ILI activity during EW 10 was within the security zone of the endemic channel. The proportion of SARI-associated hospitalizations was within the security zone of the endemic channel, but was 13% lower than the levels seen last year.

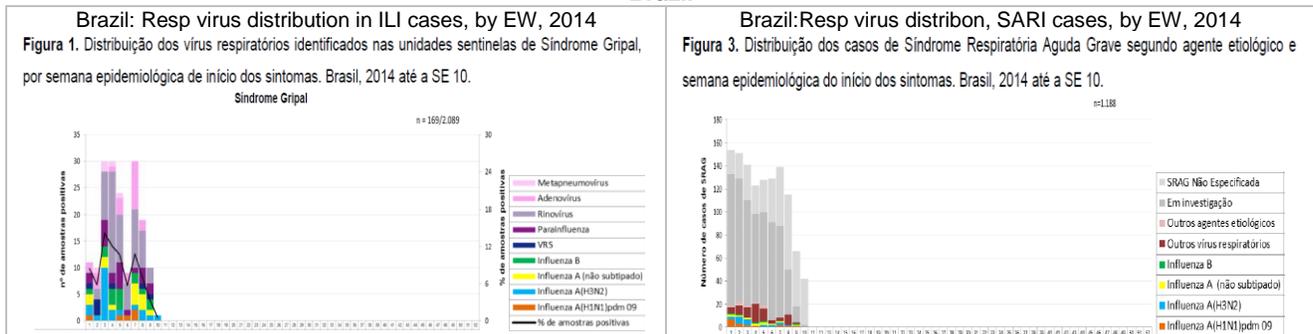


⁶ Venezuela. Boletín epidemiológico, EW 11.

⁷ Argentina. Boletín integrado de vigilancia. SE 10.

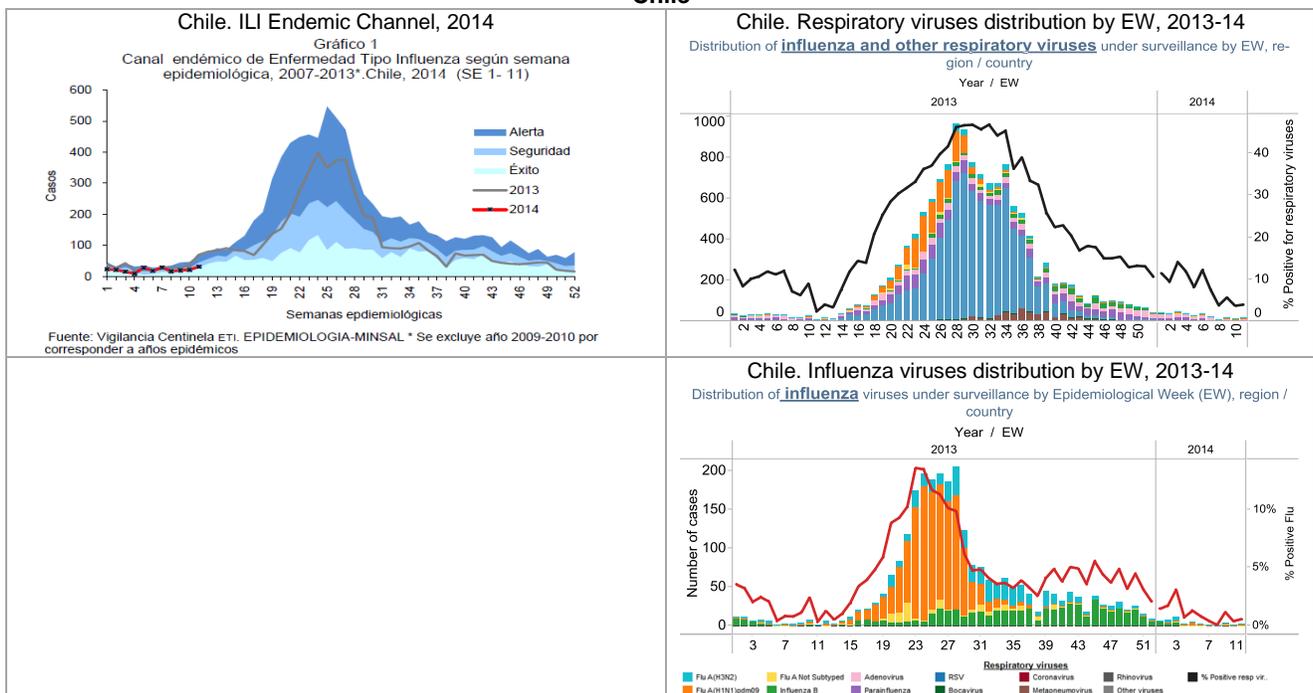
In Brazil⁸, according to ILI sentinel surveillance data through EW 10, 2,089 samples were analyzed, of which 8.1% were positive for influenza or another respiratory virus. Among the positive samples between EW 7-10, rhinovirus, adenovirus and influenza A (not subtyped) predominated. Based on universal SARI surveillance data during this same period, 1,188 SARI cases were reported and 4.5% of these were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 and A(H3N2) predominated. Through EW 10, 135 SARI-associated deaths were reported, of which 3.0% were positive for influenza.

Brazil



In Chile⁹, ILI activity during EW 11 remained low (rate: 2.0 per 100,000 inhabitants) and was in the security zone of the endemic channel. Based on laboratory data from EW 10-11, 701 samples were analyzed, of which 3.7% were positive for a respiratory virus and 0.4% were positive for influenza. Among the positive samples, adenovirus (57.7%) and RSV (26.9%) predominated.

Chile



In Paraguay¹⁰ during EW 10, the ILI consultation rate (69.8 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 (1.4%) was within the expected range for this time of year. The most affected age groups were children <2 years of age and adults ≥60 years. Based on laboratory data from EW 9-12, 141 samples were analyzed, of which 4.3% were positive for a respiratory virus. Among the positive samples, adenovirus, RSV, parainfluenza and influenza B were detected.

⁸ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 10, 2014.

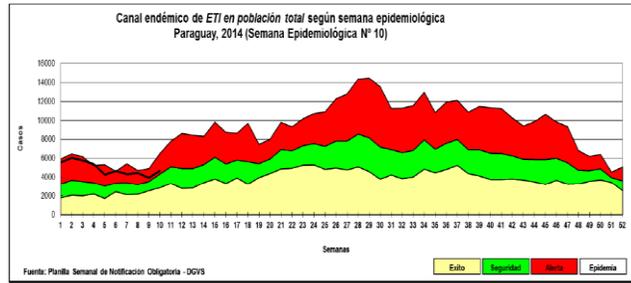
⁹ Chile. Informe de situación. EW 11. Available at: <http://epi.minsal.cl/>

¹⁰ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 10.

Paraguay

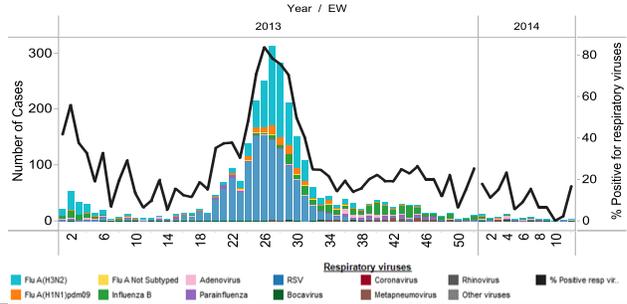
Paraguay. ILI endemic channel, by EW, 2014

Gráfico 1



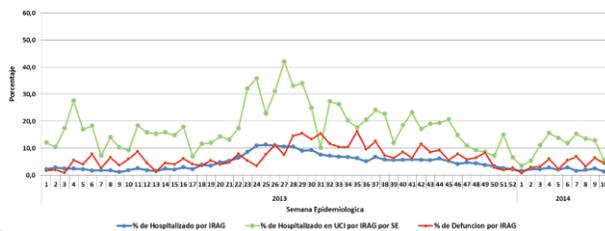
Paraguay. Respiratory viruses distribution by EW, 2013-14

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



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

Proporción de Hospitalizados, Ingresos a UCI y Fallecidos por IRAG según semana epidemiológica, Vigilancia IRAG, año 2013 hasta la semana 52 y la semana 01 hasta 10 del 2014, Paraguay

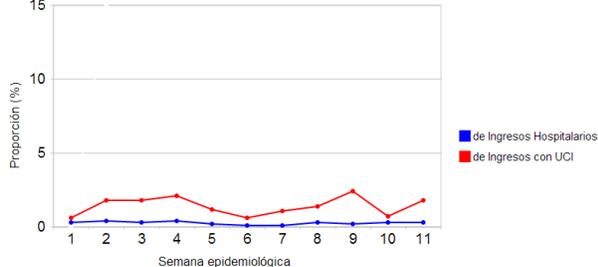


In Uruguay¹¹ during EW 11, the proportions of SARI-associated hospitalizations, ICU admissions and deaths remained at low levels. Based on laboratory data from EW 8-11, 13 samples were analyzed and of these, 6 (46.2%) were positive for a respiratory virus. Among the positive samples, RSV and adenovirus were detected.

Uruguay

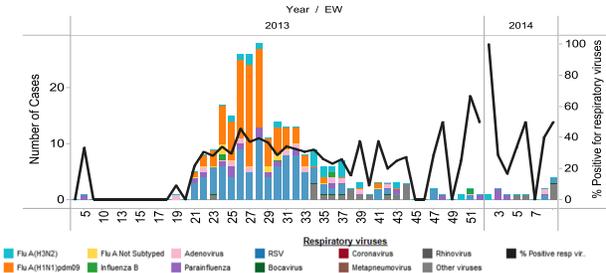
Uruguay. SARI-related hosps & ICU admissions by EW, 2014

Proporción de IRAG en ingresos hospitalarios e ingresos a UCI y defunciones hospitalarias



Uruguay. Respiratory viruses distribution by EW, 2013-14

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



¹¹ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública