

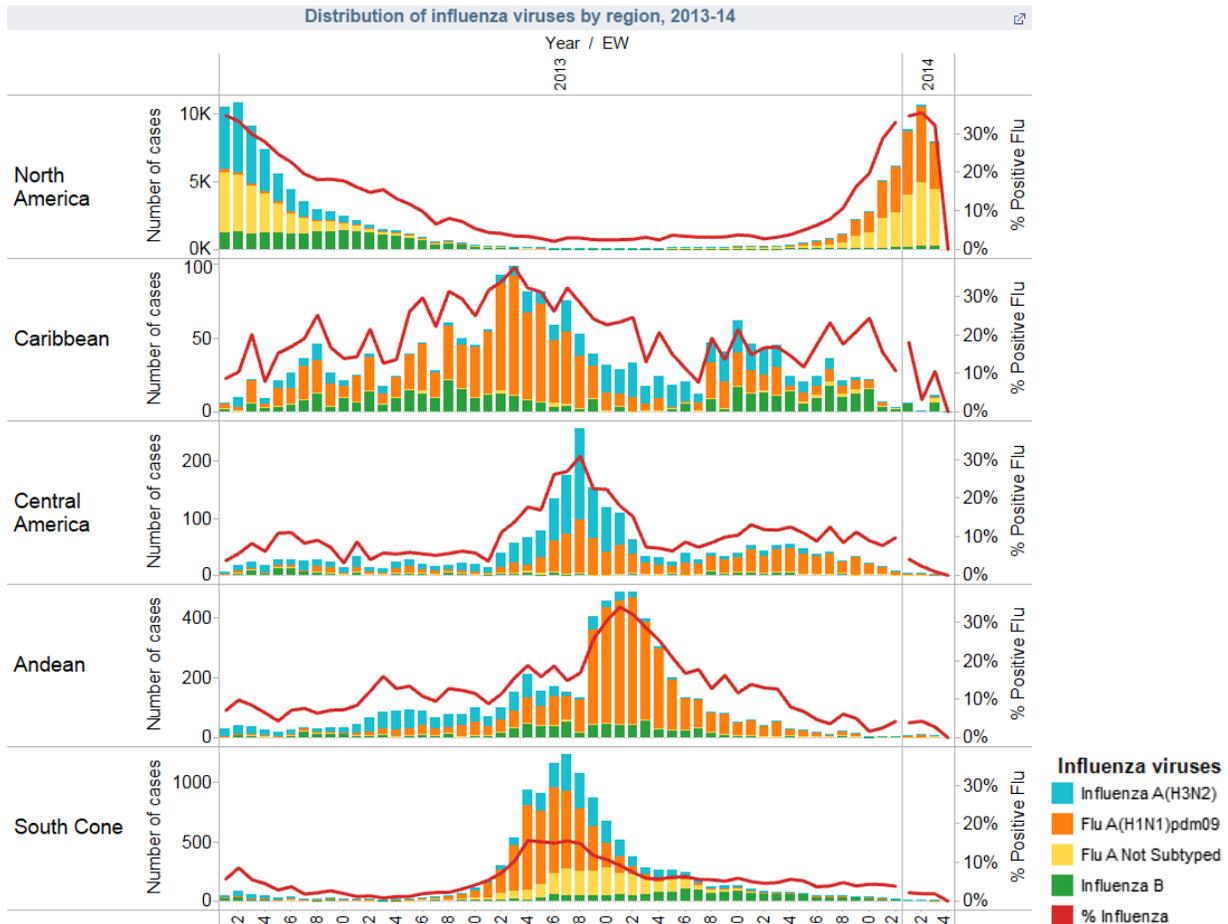
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

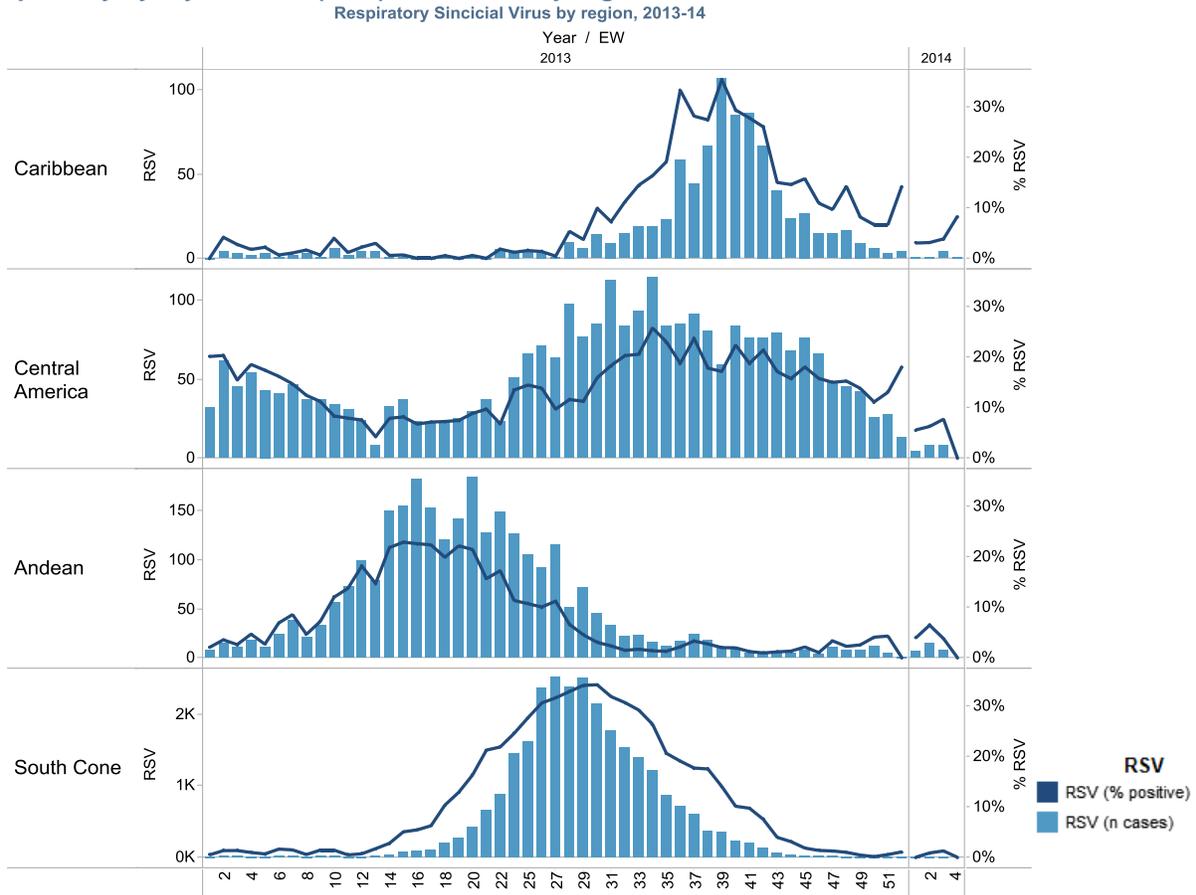
WEEKLY SUMMARY

- **North America:** Although influenza activity remained high in Canada and the United States, some indicators have decreased in the previous weeks. In Mexico, influenza activity continued to increase. In the region, influenza A(H1N1)pdm09 was the predominant circulating virus.
- **The Caribbean and Central America:** Although indicators in some countries of the Caribbean increased, influenza activity in the region remained low. Influenza B predominated in Cuba and Dominican Republic while influenza A(H1N1)pdm09 predominated in Costa Rica, El Salvador and Nicaragua. RSV continued circulating in some countries of the region, put at decreasing levels.
- **South America – Andean Countries:** Acute respiratory illness activity as well as influenza and other respiratory viruses activity remained low in the region.
- **South America - South Cone and Brazil:** Acute respiratory illness activity as well as influenza and other respiratory viruses 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

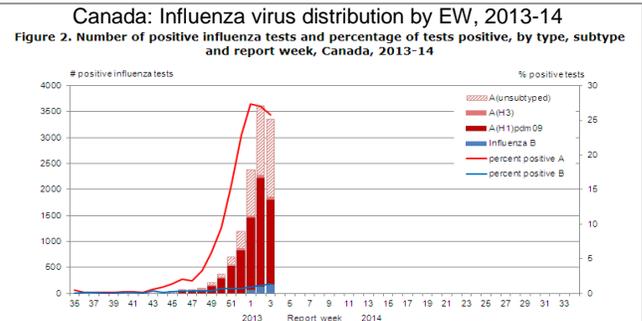
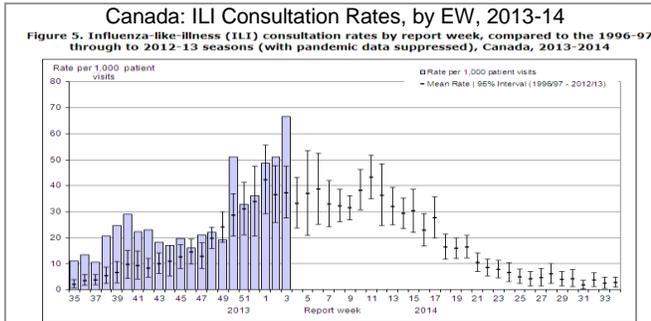
North America:

In Canada¹ during EW 3, influenza activity remained elevated. The national influenza-like illness (ILI) consultation rate was 66.8 per 1,000 patient visits, an increase compared to the previous week and above the expected levels for this time of year. Since the beginning of the 2013-14 influenza season, 1,875 influenza-associated hospitalizations have been reported and the majority of these cases have been adults 45-64 years of age. Compared to the 2012-13 season, when A(H3N2) was predominant, a significantly larger proportion of influenza cases this season has been reported among adults 20-64 years of age compared to those ≥65 years of age. To date this season, 84 deaths have been reported (compared to 146 during the same period of the 2012-13 season) and 98.8% were associated influenza A. The highest proportion of these deaths (52%) occurred among adults 20-64 years of age, followed by adults ≥65 years (38%). Based

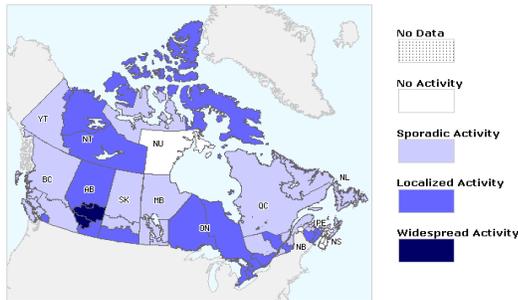
¹ Canada: FluWatch Report. EW 3. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

on laboratory data for EW 3, the overall percentage of positive influenza tests was 27.2% (N=3,364), a slight decrease compared to the previous week. Among the positive tests, 94.7% were influenza A (51.7% influenza A(H1N1)pdm09, 1.0% A(H3N2) and 47.3% not subtyped. Among other circulating respiratory viruses, RSV predominated.

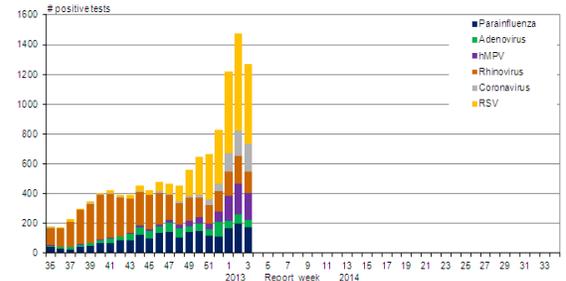
Canada



Canada: Influenza/ILI Activity by region, EW 3, 2014
 Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 03

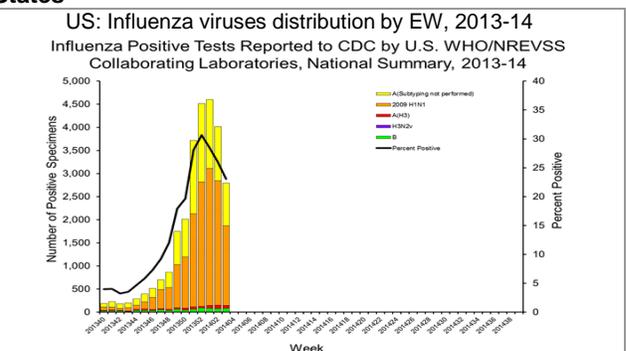
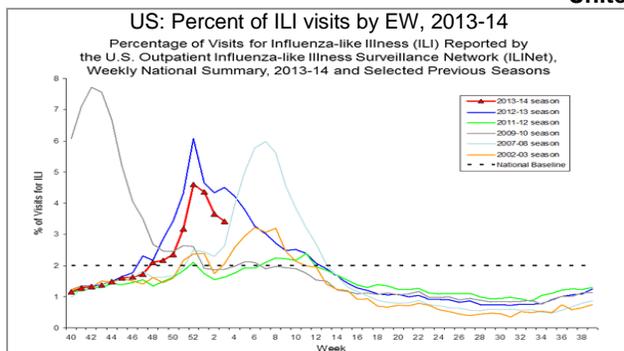


Canada: Respiratory virus distribution by EW, 2013-14
 Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

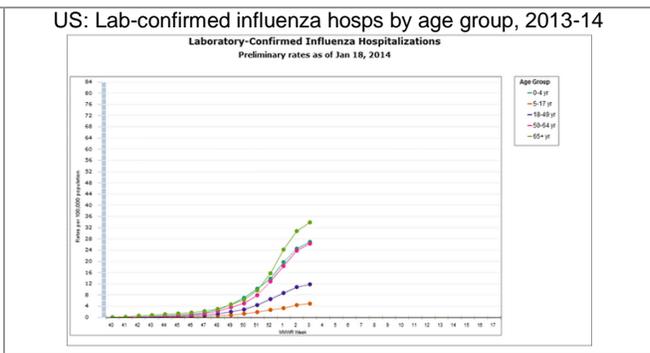
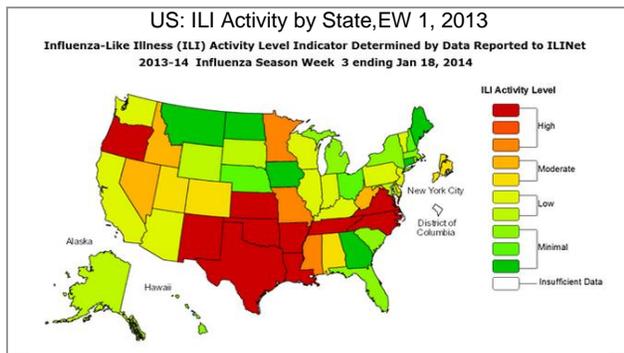


In the United States² during EW 3, influenza activity remained high. The proportion of outpatient visits for influenza-like illness (ILI) was 3.4%, above the national baseline of 2.0% but a decrease compared to the previous EW (3.7%). All 10 regions reported ILI activity above region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 3 (8.1%) was above the epidemic threshold (7.2%). A total of 28 influenza-associated pediatric deaths have been reported this season, of which eight were reported during EW 3. Five of these deaths were associated with influenza A(H1N1)pdm09 and occurred in EW 1, 2 and 3. Three were associated with influenza A (not subtyped) and occurred in EW 2. Since October 1, 2013, 4,615 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 17.0 per 100,000 population). The highest hospitalization rates were among adults ≥65 years and children 0-4 years. However, adults aged 18-64 years comprised 61% of the reported hospitalizations. According to laboratory data for EW 3, 12,108 samples were analyzed, of which 23.1% were positive for influenza. Among the positive samples, 96.9% were influenza A (63.8% A(H1N1)pdm09, 2.1% A(H3N2) and 34.1% not subtyped) and 3.1% were influenza B. Based on antiviral resistance testing, 1.1% (20/1,827) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant

United States

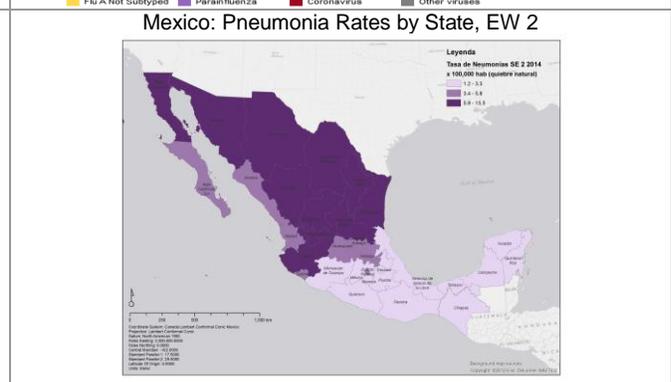
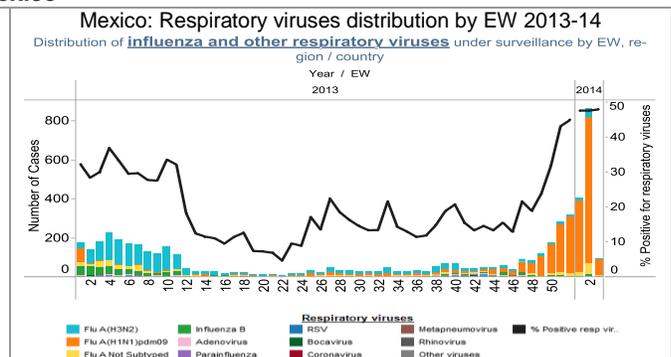
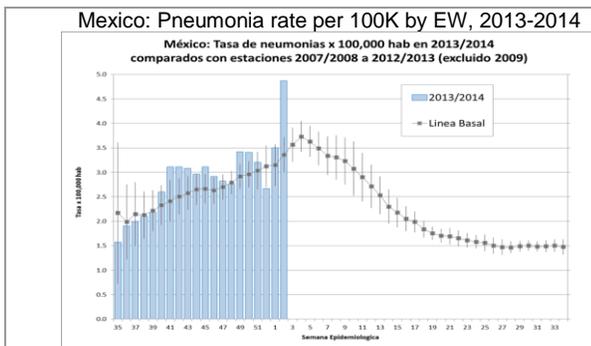


² USA: CDC FluView report. EW 3. Available at: <http://www.cdc.gov/flu/weekly/>



In Mexico³, during EW 2 influenza activity increased with respect to the previous weeks. Both ARI and pneumonia rates increased from the previous EW and were above the alert threshold for this time of year. The highest levels of ARI activity were reported in Zacatecas, Aguascalientes and Durango, and the highest levels of pneumonia activity were reported in Zacatecas, Chihuahua and Jalisco. Nationally, the proportion of ILI/SARI-associated medical visits continued to increase was 2.6% (as of January 23, 2014). According to laboratory data, influenza positivity has been increasing for the last several weeks. During EW 2-3, 2,232 samples were analyzed, of which 47.4% were positive for influenza. Among the positive influenza samples, 99.1% were influenza A (78.8% A(H1N1)pdm09 and 4.6% A(H3N2)) and 0.9% were influenza B.

Mexico



Caribbean

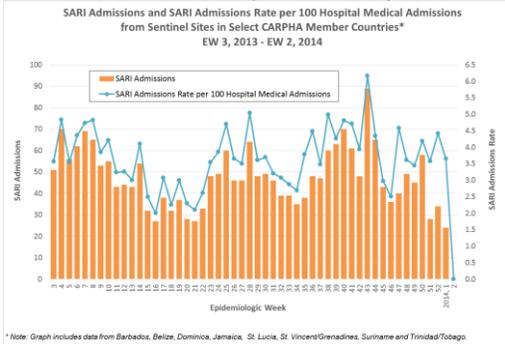
CARPHA⁴ received weekly SARI/ARI data from the following countries for EW 51-1: Barbados, Jamaica, St. Vincent & the Grenadines, and Trinidad & Tobago. The proportion of SARI-associated hospitalizations has shown a decreasing trend for the last two weeks and children under 4 years of age have had the highest rate of SARI admissions. One SARI-associated death was reported by Barbados and occurred in EW 52. According to laboratory data from EW 51-2, the following viruses were detected: influenza A(H1N1)pdm09 (Belize, Jamaica, Trinidad & Tobago), influenza A(H3) (Barbados, Jamaica, Trinidad & Tobago, Turks & Caicos Islands), influenza A, not subtyped (Barbados), influenza B (Barbados, Trinidad & Tobago), human metapneumovirus (Dominica), parainfluenza (Dominica) and RSV (Aruba, Barbados).

³ México. Dirección General de Epidemiología. Información epidemiológica. SE 2.

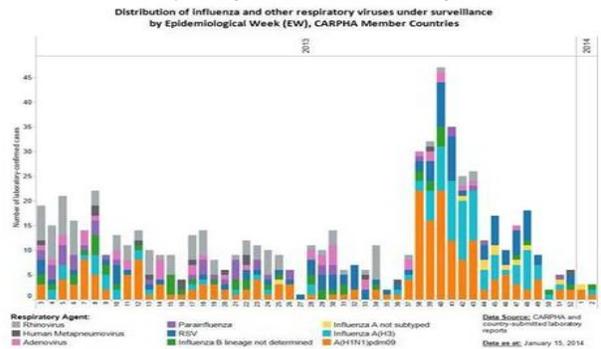
⁴ Caribbean Public Health Agency (CARPHA) EW 2

CARPHA

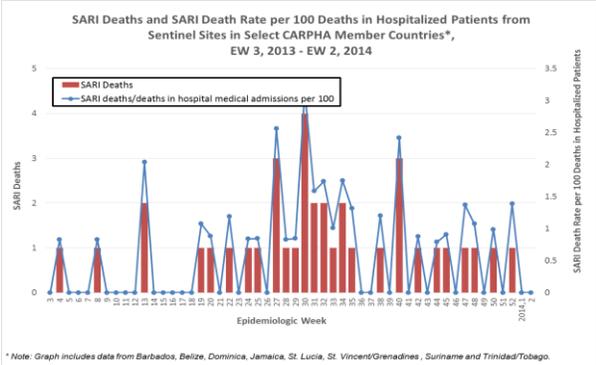
CARPHA. SARI-related Hospitalizations, by EW, 2013-14



CARPHA. Respiratory viruses distribution by EW, 2013-14



CARPHA. SARI-related deaths, by EW, 2013-14



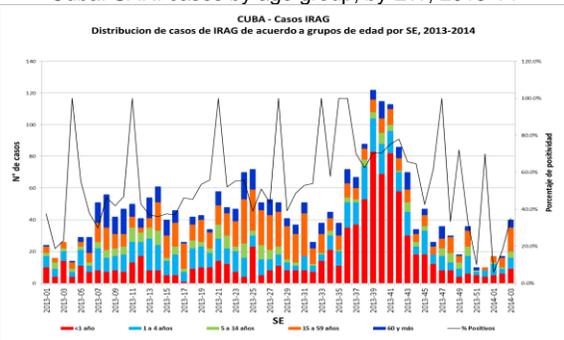
CARPHA. Distribution of respiratory viruses in member countries, EW 49, 2013 – EW 2, 2014



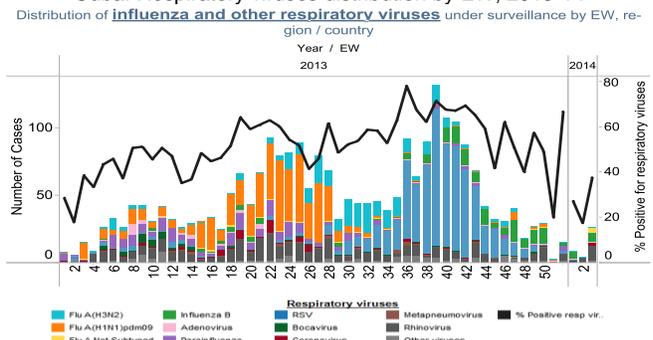
In Cuba during EW 3, the number of SARI-associated hospitalizations increased compared to the previous week. Persons aged 15-48 years of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 52-3, 149 samples were analyzed, of which 36.9% were positive for a respiratory virus and 12.8% were positive for influenza. Among positive samples, rhinovirus (40.0%), influenza B (25.5%), and parainfluenza (10.9%) were predominant.

Cuba

Cuba. SARI cases by age group, by EW, 2013-14



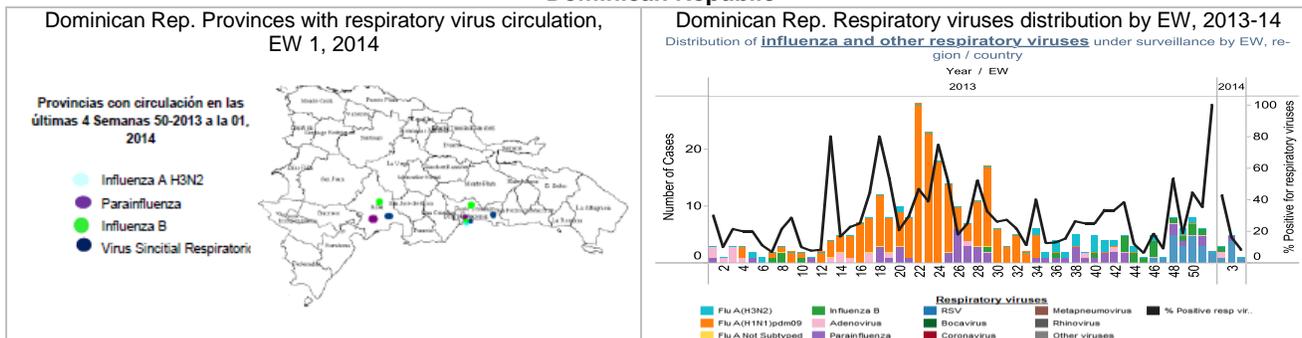
Cuba. Respiratory viruses distribution by EW, 2013-14



In the Dominican Republic⁵, during EW 1, 16 SARI cases were reported through sentinel surveillance. There were no SARI-associated deaths reported during this period. According to laboratory data for EW 1-4, 50 samples were analyzed, of which 18.0% were positive for a respiratory virus and 2.0% were positive for influenza. Among positive influenza samples, 100% were influenza B. Among other respiratory viruses, RSV (66.7% of positive samples) predominated.

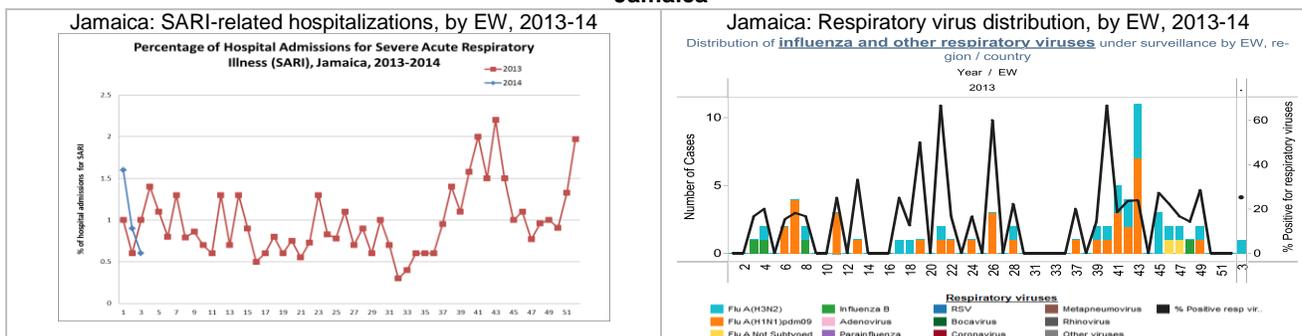
⁵ República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 1.

Dominican Republic



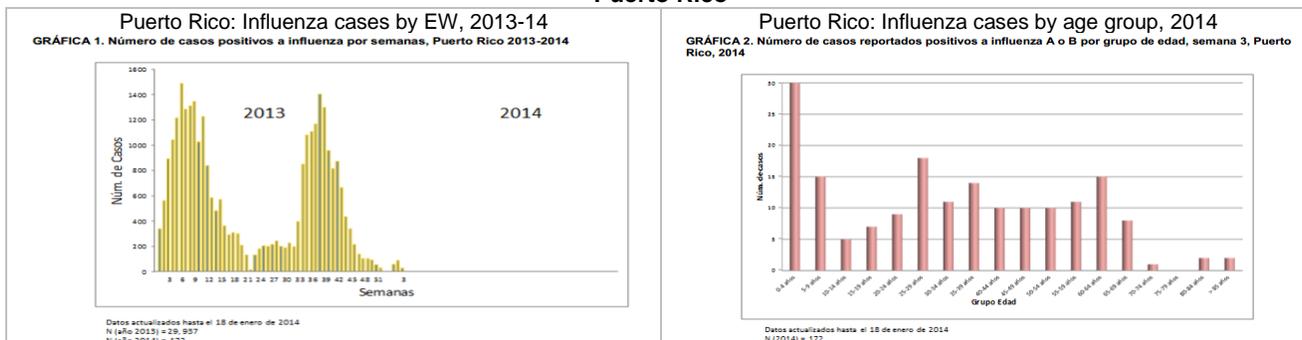
In Jamaica, based on sentinel surveillance data for EW 3, the proportion of ARI-associated consultations (4.0%) increased compared to the previous week while the proportion of SARI-associated hospitalizations (0.6%) decreased. No SARI-associated deaths were reported during this period. Based on laboratory data for EW 52-3, 6 samples were analyzed of which one was positive for influenza A(H3N2).

Jamaica



In Puerto Rico⁶ during EW 3, the number of influenza cases (n=25) continued a decreasing trend since peaking in EW 37, 2013. Of these, 76.0% were associated with influenza A and 24.0% with influenza B. Since the beginning of 2014, 172 influenza cases have been reported and persons aged 0-19 years accounted for 33% of those cases. During this same period, 19 influenza-associated hospitalizations and no influenza-associated deaths have been reported.

Puerto Rico



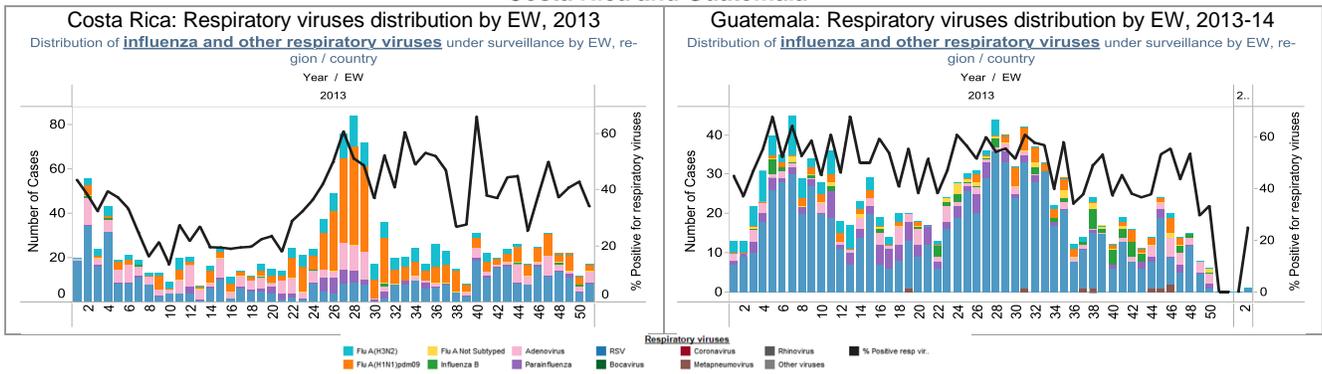
Central America

In Costa Rica, based on national laboratory data from EW 48-51, 191 samples were analyzed, of which 38.2% were positive for a respiratory virus and 11.0% were positive for influenza. Among influenza positive samples, 90.5% were influenza A (100% were A(H1N1)pdm09). Among other respiratory viruses, RSV predominated (53.4% of positive samples), followed by adenovirus (15.1%).

In Guatemala, based on laboratory data from EW 51-2, 8 samples were analyzed, of which one was positive for RSV.

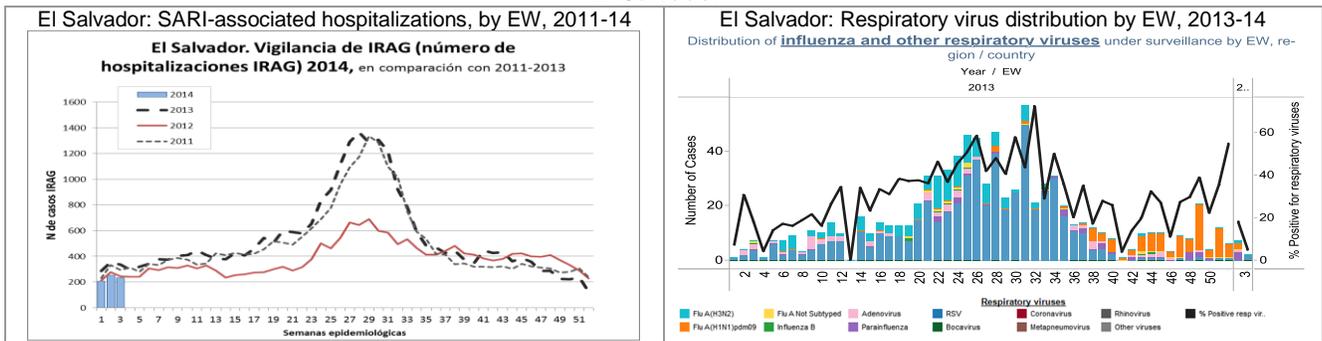
⁶ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 3. <http://www.salud.gov.pr/influenza/2014/Informe%20Influenza%20Semana%2003.pdf>

Costa Rica and Guatemala



In El Salvador, during EW 3, the proportions of SARI-associated hospitalizations (5.0%), ICU admissions (7.7%) and deaths (6.3%) remained low. According to national laboratory data from EW 52-3, 91 samples were analyzed, of which 16.5% were positive for a respiratory virus and 8.8% were positive for influenza. Among influenza positive samples, 100% were influenza A (81.5% A(H1N1)pdm09 and 12.5% A(H3N2)). Among other respiratory viruses, parainfluenza (20.0% of positive samples), RSV (20.0%) and adenovirus (6.7%) were detected.

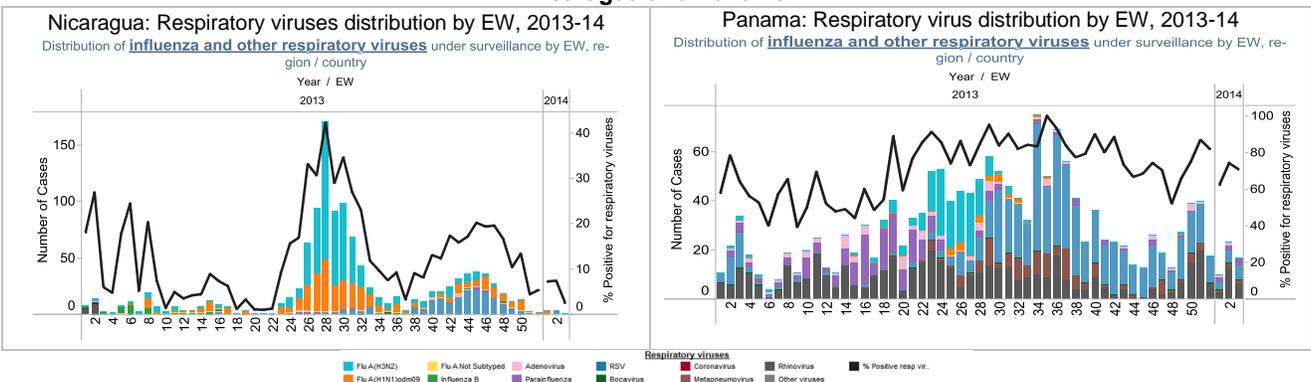
El Salvador



In Nicaragua, according to national laboratory data from EW 52-3, 185 samples were analyzed of which 5.9% were positive for a respiratory virus and 2.7% were positive for influenza. Among influenza positive samples, 100% were influenza A (80.0% A(H1N1)pdm09 and 20.0% A(H3N2)). Among other respiratory viruses, RSV (36.4% of positive samples) and parainfluenza (18.2%) were detected.

In Panama, based on national laboratory data from EW 52-3, 93 samples were analyzed of which 73.1% were positive for a respiratory virus. Among these, rhinovirus (42.6%) and RSV (36.8%) predominated.

Nicaragua and Panama

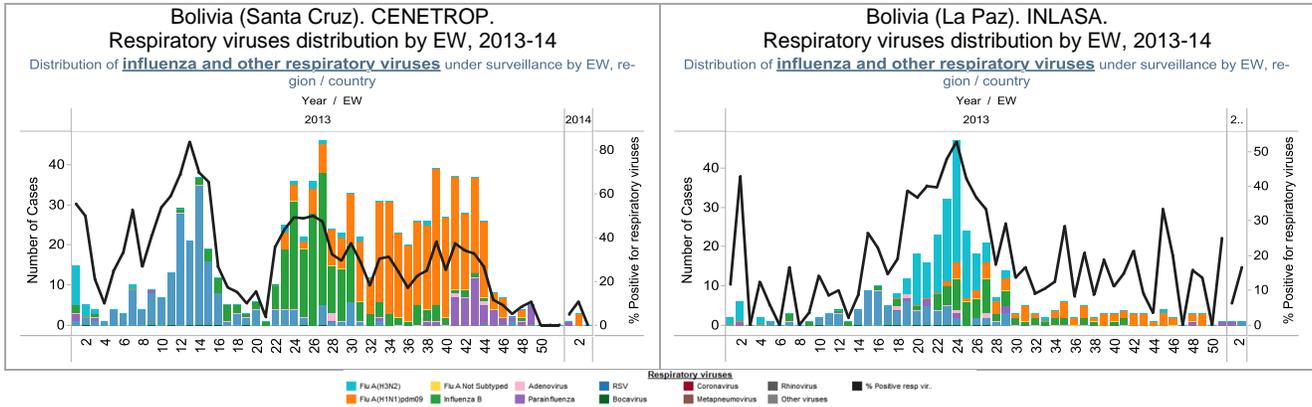


South America – Andean countries

In Bolivia, according to laboratory data from CENETROP (Santa Cruz), from EW 52-3, 88 samples were analyzed of which 4.5% were positive for a respiratory virus and 3.4% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (75.0%) and parainfluenza (25.0%) were detected.

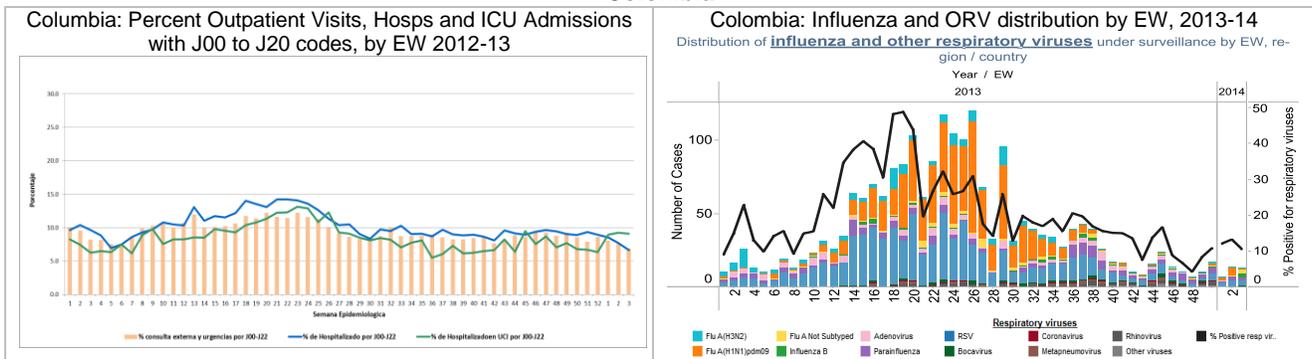
According to laboratory data from INLASA (La Paz) from EW 51-2, 26 samples were analyzed of which 11.5% were positive for a respiratory virus.

Bolivia



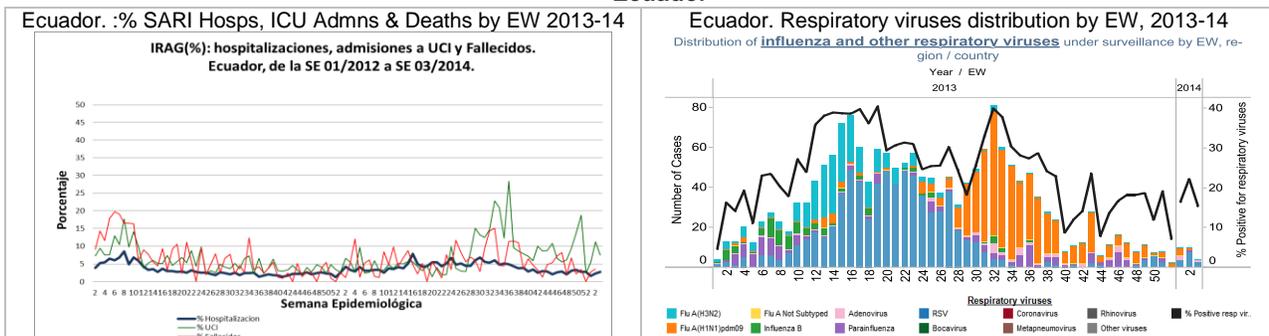
In Colombia, nationally during EW 3, the proportions of hospitalizations (6.6%), ICU admissions (9.1%), and outpatient and urgent visits (6.9%) with ARI-associated ICD-10 codes (J00 to J22) remained at low levels. Based on INS national laboratory data from EW 52-3, 287 samples were analyzed, of which 11.8% were positive for a respiratory virus and 5.2% were positive for influenza. Among the positive influenza samples, 80.0% were influenza A, of which 75.0% were A(H1N1)pdm09. Among other respiratory viruses, RSV (29.4% of positive samples) and parainfluenza (20.6%) predominated.

Colombia



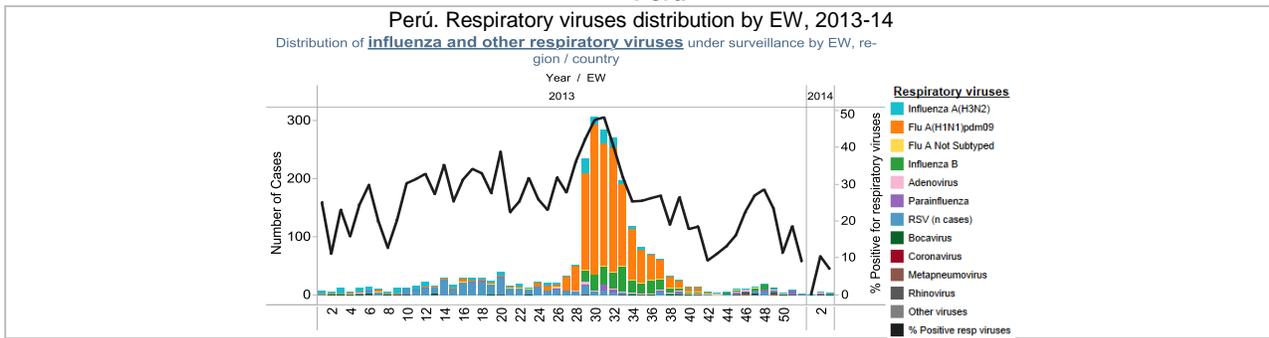
In Ecuador during EW 3, the proportion of SARI-associated hospitalizations (2.7%), ICU admissions (7.5%) and deaths (3.5%) increased slightly compared to the previous week. Based on national reference laboratory data from EW 52-3, 160 SARI samples were analyzed, of which 16.3% were positive for a respiratory virus and 4.4% were positive for influenza. Among the positive samples, RSV (57.7%), influenza A(H1N1)pdm09 (26.9%) and adenovirus (11.5%) predominated.

Ecuador



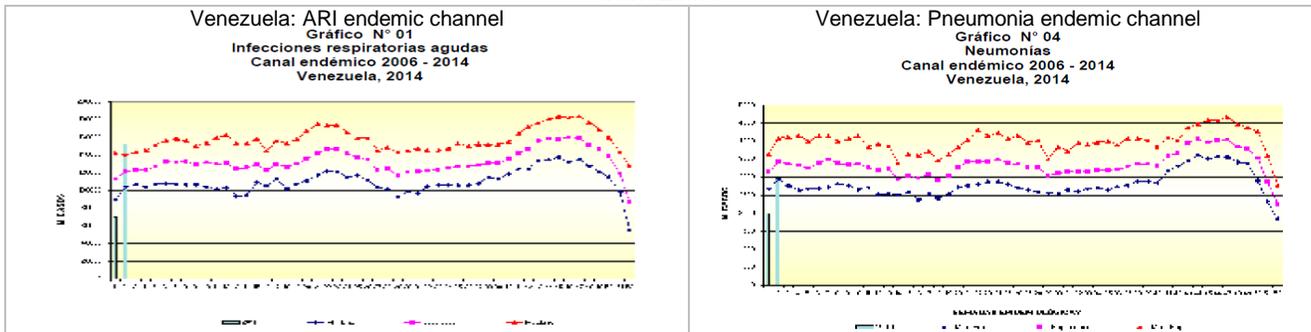
In Peru based on national laboratory data from EW 52-3, 138 samples were analyzed, of which 7.2% were positive for a respiratory virus and 0.7% were positive for influenza. Among the positive influenza samples, influenza B was detected. Among other respiratory viruses, RSV (40.0%) and adenovirus (40.0%) predominated.

Peru



In Venezuela⁷ during EW 2, ARI activity increased compared to the previous EW and was above the expected level for this time of year. Pneumonia activity also increased compared to the previous EW, but was within the expected range. During EW 2, 71 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from January 1, 2013 to January 11, 2014, 5,325 samples were analyzed from suspected influenza cases, of which 52.4% were positive for influenza. Among the positive samples, 91.7% were influenza A(H1N1)pdm09.

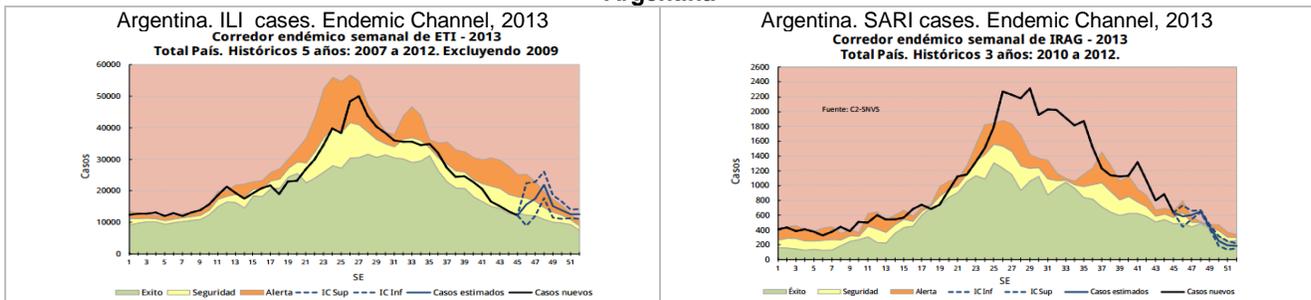
Venezuela



South America – Southern Cone and Brazil

In Argentina⁸, according to reports and calculated estimations, national ILI activity during EW 2 was within the success zone of the endemic channel and showed a decreasing trend since its peak in EW 27. The proportion of SARI-associated hospitalizations was within the alert zone of the endemic channel, but also showed a decreasing trend since EW 29.

Argentina



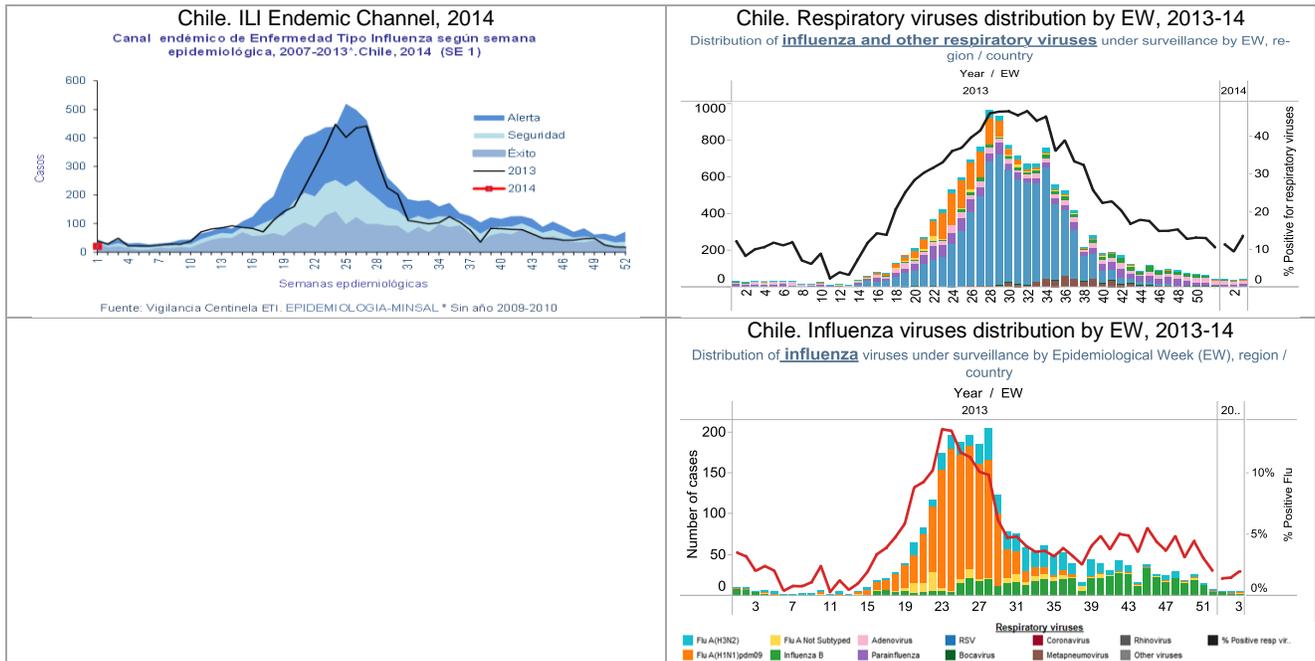
In Chile⁹ ILI activity during EW 1 (rate: 1.2 per 100,000 inhabitants) remained low and was within the success zone of the endemic channel. Based on laboratory data from EW 2-3, 719 samples were analyzed, of which 11.1% were positive for a respiratory virus and 1.7% were positive for influenza. Among the positive samples, adenovirus (50.0%), parainfluenza (23.8%), and RSV (10.0%) were predominant.

⁷ Venezuela. Boletín epidemiológico, EW 2.

⁸ Argentina. Boletín integrado de vigilancia. SE 2.

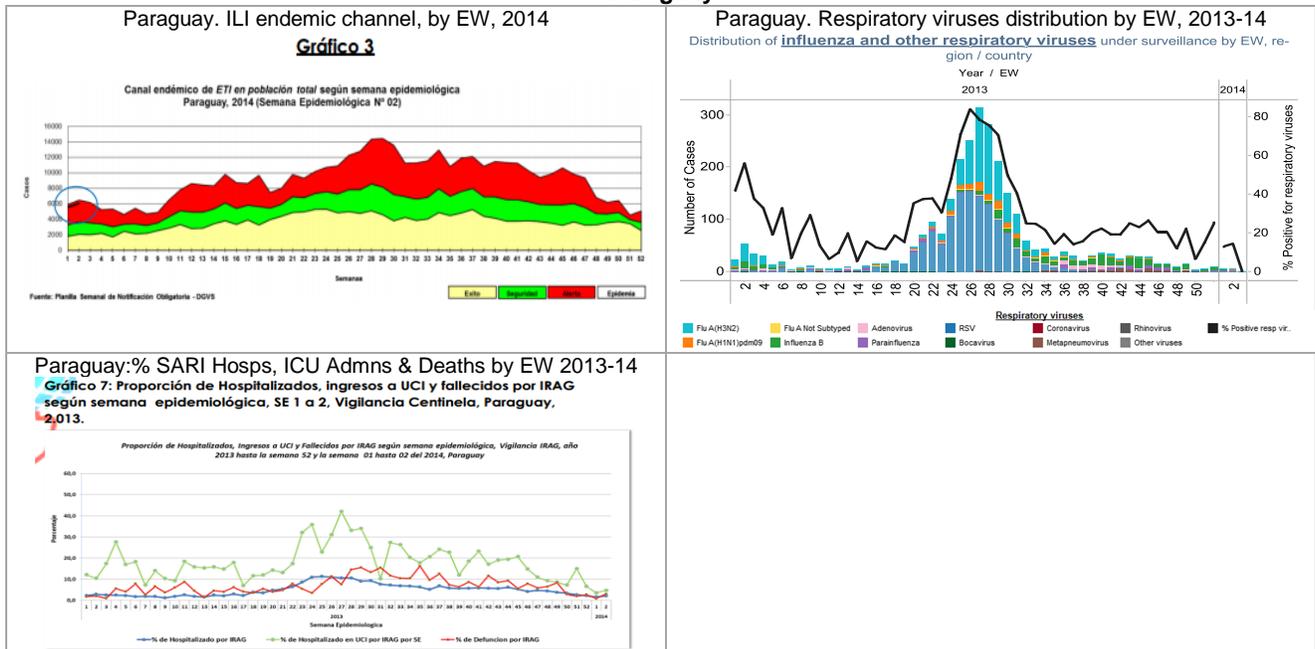
⁹ Chile. Informe de situación. EW 1. Available at: <http://epi.minsal.cl/>

Chile



In Paraguay¹⁰ during EW 2, the ILI consultation rate (91.1 per 100,000 inhabitants) increased slightly compared to the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (2.1%) was within the expected range for this time of year. The most affected age groups were children less than 2 years of age and adults ≥ 60 years. Based on laboratory data from EW 52-3, 127 samples were analyzed, of which 15.7% were positive for a respiratory virus and 10.2% were positive for influenza. Among influenza samples, 92.3% were influenza B. Among other respiratory viruses, adenovirus (20.0% of positive samples) and parainfluenza (15.0%) were detected.

Paraguay



¹⁰ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 2.