

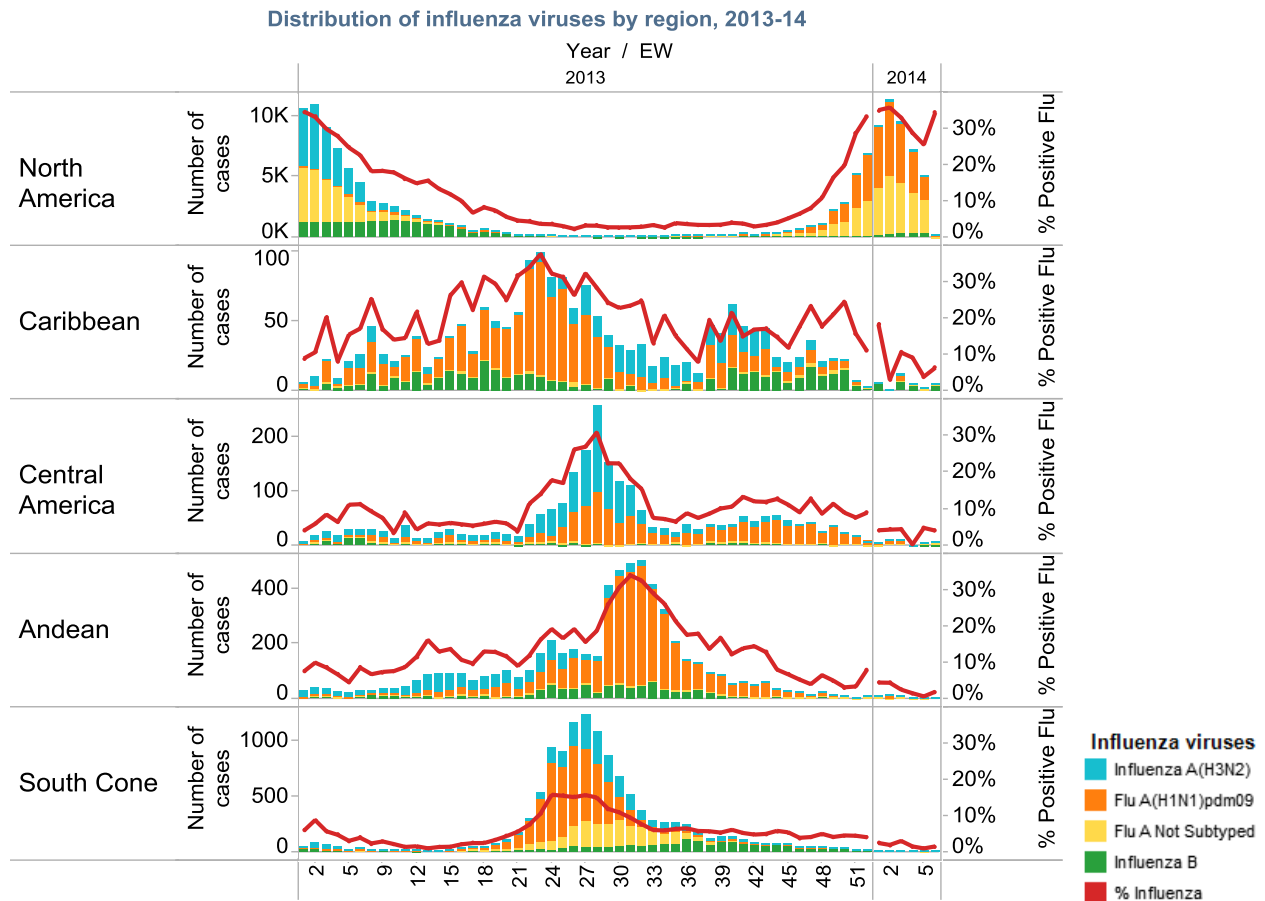
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

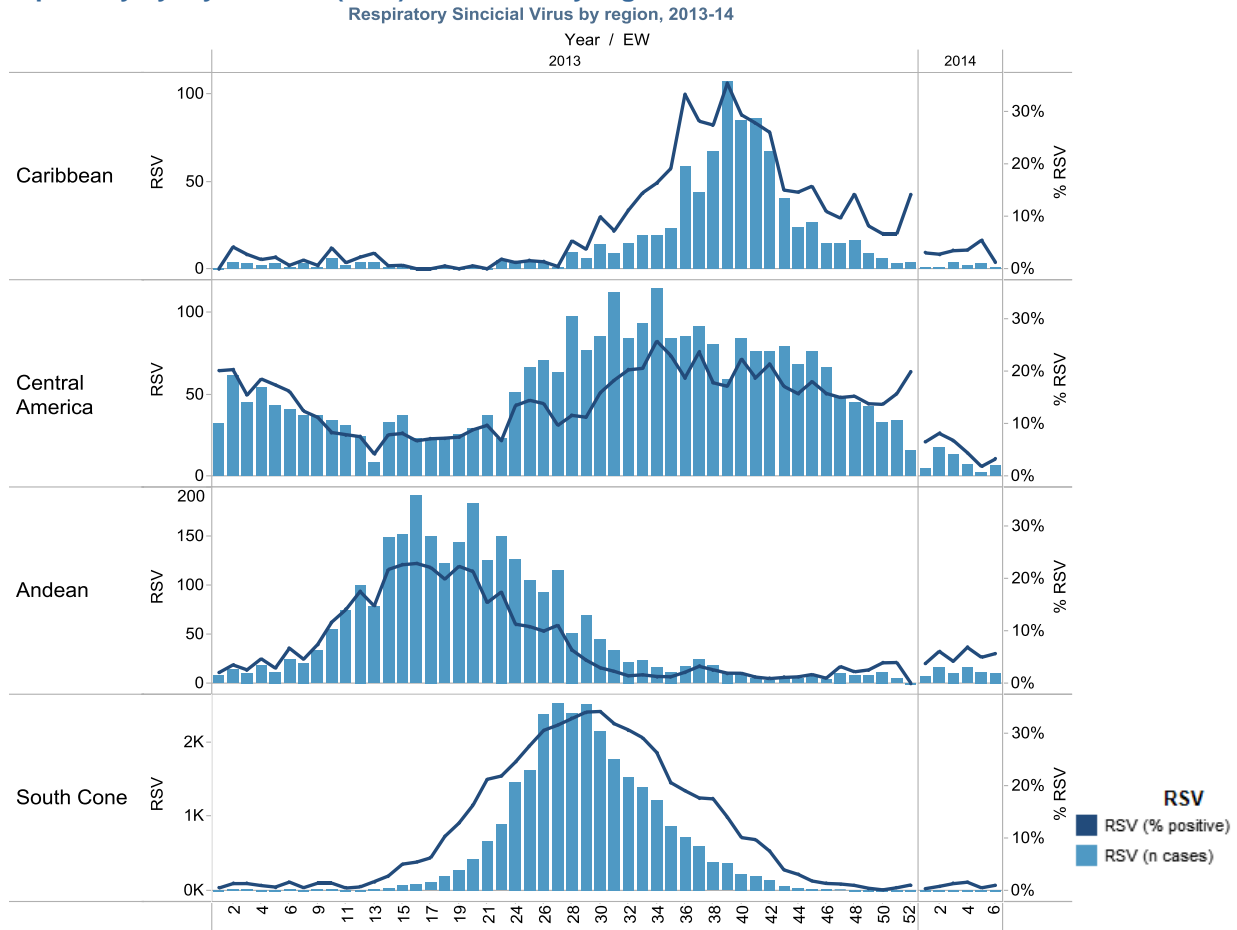
WEEKLY SUMMARY

- North America: Although influenza activity remained high in Canada and the United States, several indicators continued to decrease. In Mexico, influenza activity remained elevated, but some indicators decreased this week. Influenza A(H1N1)pdm09 continued to be the predominant circulating virus in the region.
- The Caribbean and Central America: Influenza and other respiratory viruses activity in the region remained low.
- 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 6, overall influenza activity decreased compared to the previous week. The national influenza-like illness (ILI) consultation rate was 27.2 per 1,000 patient visits, a decrease compared to the previous week, and within the expected levels for this time of year. Since the beginning of the 2013-14 influenza season, 2,818 influenza-associated hospitalizations have been reported and the majority (57.7%) of these cases have been adults ≥45 years of age. There have been 277 ICU admissions reported and of these, 70.4% were among adults 20-64 years of age. To date this season, 143 deaths have been reported (compared to 217 during the same period of the 2012-13 season) and 98.6% were associated influenza A. The highest proportion of these deaths (55.9%) occurred among adults 20-64 years of age, followed by

¹ Canada: FluWatch Report. EW 6. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

adults ≥ 65 years (35.7%). Based on laboratory data for EW 6, the overall percentage of positive influenza tests was 20.0% (N=1,811), a decrease compared to the previous week. Among the positive tests, 87.2% were influenza A (33.0% influenza A(H1N1)pdm09, 1.9% A(H3N2) and 65.1% not subtyped) and 12.8% were influenza B. Among other circulating respiratory viruses, RSV predominated and continued its increasing trend observed since November 2013.

Canada

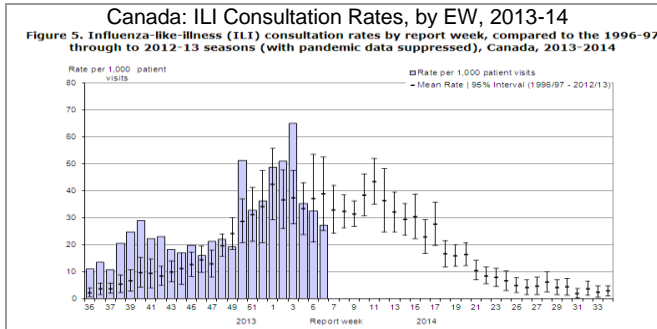


Figure 5. Influenza-like-illness (ILI) consultation rates by report week, compared to the 1996-97 through to 2012-13 seasons (with pandemic data suppressed), Canada, 2013-2014

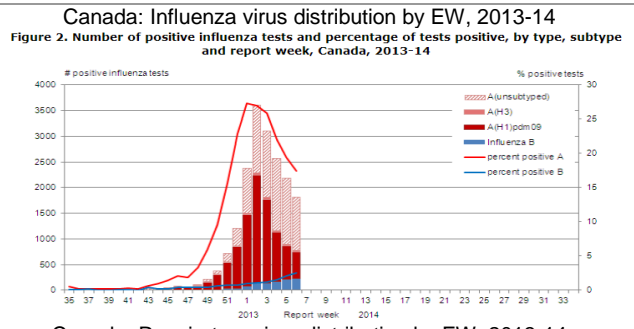
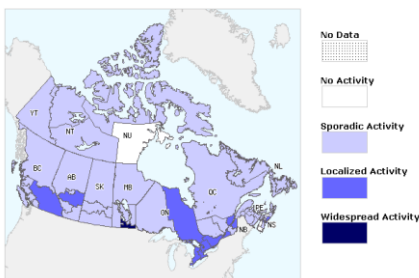


Figure 2. Number of positive influenza tests and percentage of tests positive, by type, subtype and report week, Canada, 2013-14

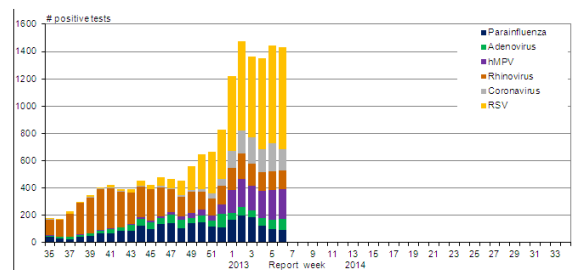
Canada: Influenza/ILI Activity by region, EW 6, 2014

Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 06



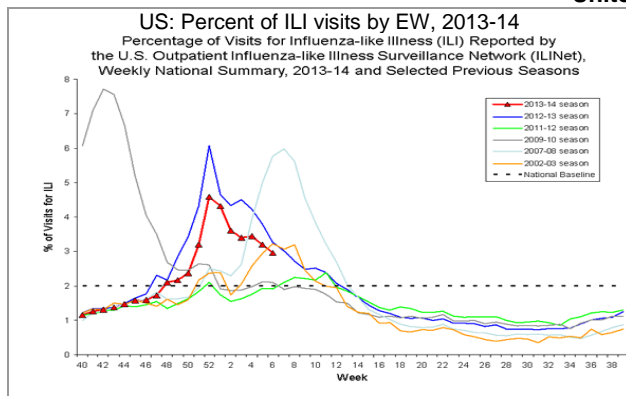
Canada: Respiratory virus distribution by EW, 2013-14

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

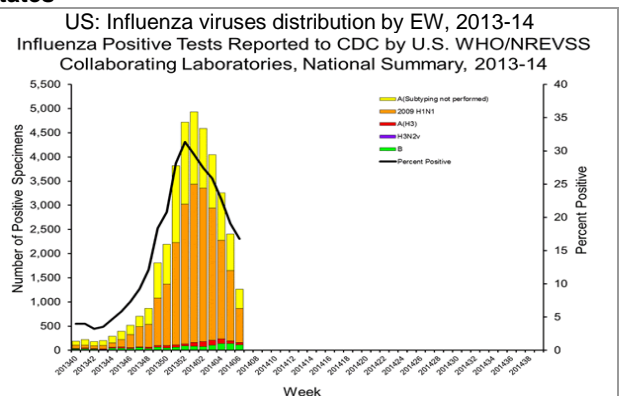


In the United States² during EW 6, influenza activity decreased, but still remained high. The proportion of outpatient visits for influenza-like illness (ILI) was 3.0%, above the national baseline of 2.0%, but a decrease compared to the previous EW. All 10 regions reported ILI activity above region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 6 (8.4%) decreased slightly from the previous EW, but was above the epidemic threshold (7.3%). A total of 50 influenza-associated pediatric deaths have been reported this season, of which 10 were reported during EW 6. Six of these deaths were associated with influenza A(H1N1)pdm09 and occurred during EW 4-5, and four were associated with influenza A (not subtyped) and occurred during EW 2-5. Since October 1, 2013, 6,655 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 24.6 per 100,000 population). The highest hospitalization rates were among adults ≥ 65 years followed by 50-64 years and children 0-4 years. Adults aged 18-64 years comprised more than 60% of the reported hospitalizations. According to laboratory data for EW 6, 7,562 samples were analyzed, of which 16.8% were positive for influenza. Among the positive samples, 91.0% were influenza A (61.4% A(H1N1)pdm09, 3.9% A(H3) and 34.7% not subtyped) and 9.0% were influenza B. Based on antiviral resistance testing, 0.8% (25/3,109) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

United States

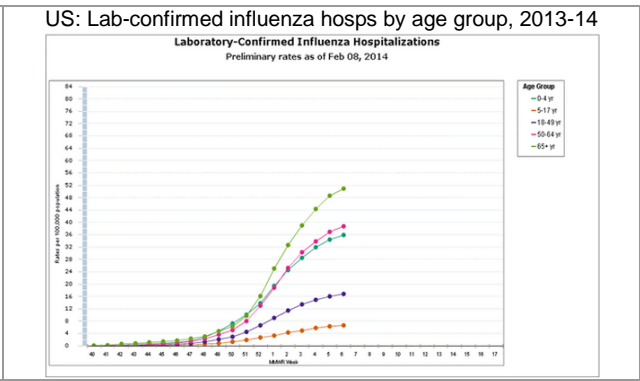
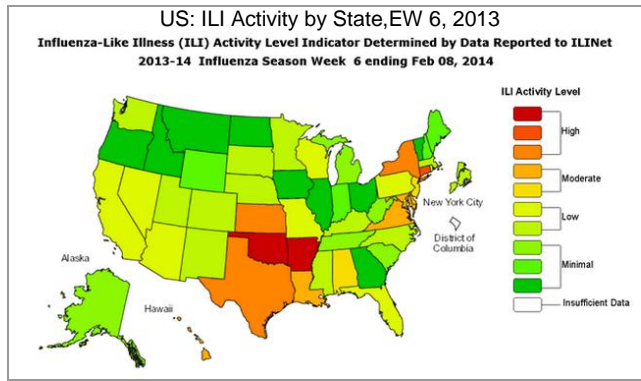


US: Percent of ILI visits by EW, 2013-14
Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2013-14 and Selected Previous Seasons



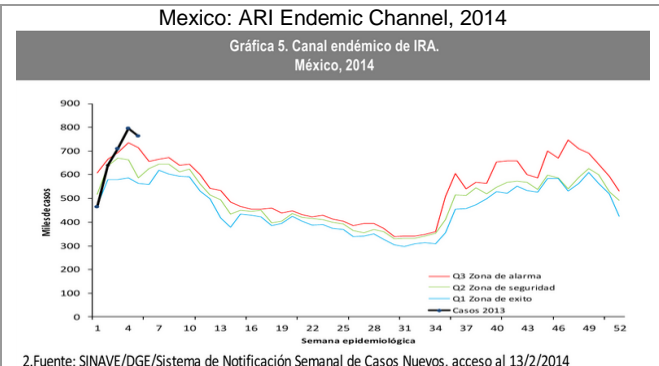
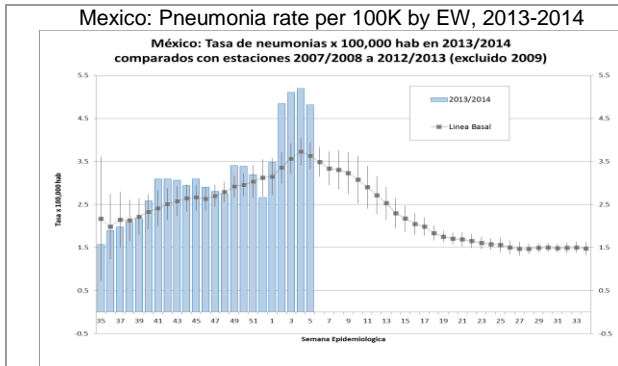
US: Influenza viruses distribution by EW, 2013-14
Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2013-14

² USA: CDC FluView report. EW 6. Available at: <http://www.cdc.gov/flu/weekly/>

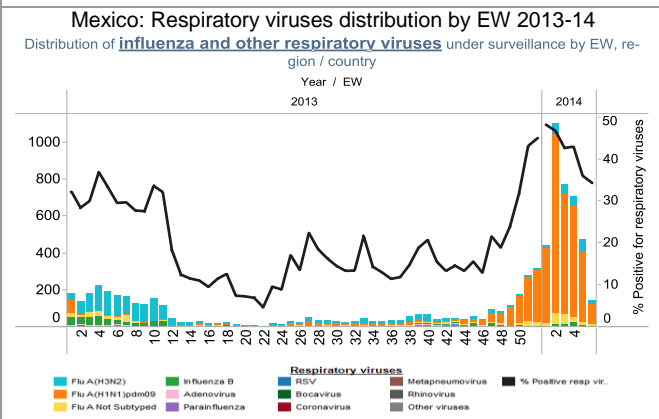
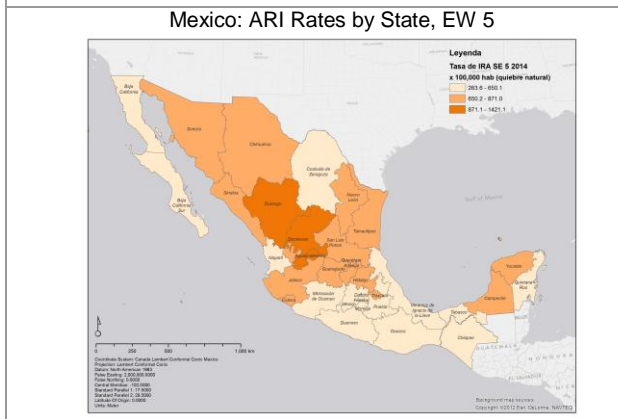


In Mexico³, during EW 5 influenza activity remained elevated. Both ARI and pneumonia rates decreased slightly compared to the previous EW but were above expected levels for this time of year. ARI activity remained in the epidemic zone of the endemic channel. The highest levels of ARI activity were reported in Zacatecas, Aguascalientes and Durango, and the highest levels of pneumonia activity were reported in Chihuahua, Jalisco and Sonora. Nationally, through February 13, 2014, the proportion of ILI/SARI-associated medical visits was 3.3%, a decrease compared to the previous EW. During this same period, 505 influenza-associated deaths were reported, of which 91.9% were associated with influenza A(H1N1)pdm09. According to laboratory data during EW 5-6, 1,851 samples were analyzed, of which 35.5% were positive for influenza. Among the positive influenza samples, 97.9% were influenza A (78.3% A(H1N1)pdm09 and 12.0% A(H3N2)) and 2.1% were influenza B.

Mexico

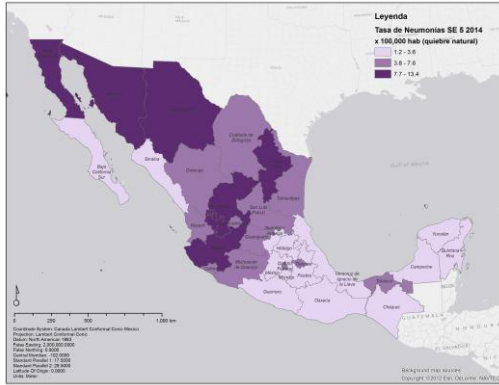


2.Fuente: SINAVE/DGE/Sistema de Notificación Semanal de Casos Nuevos, acceso al 13/2/2014



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

Mexico: Pneumonia Rates by State, EW 5

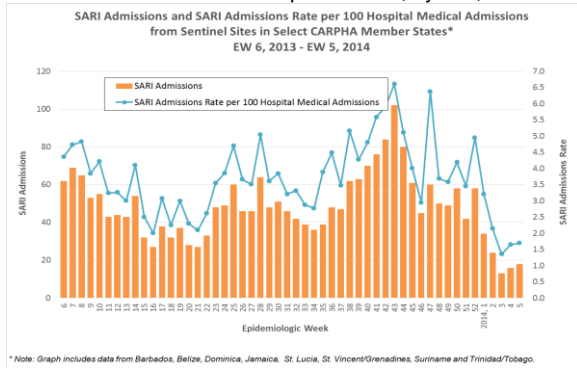


Caribbean

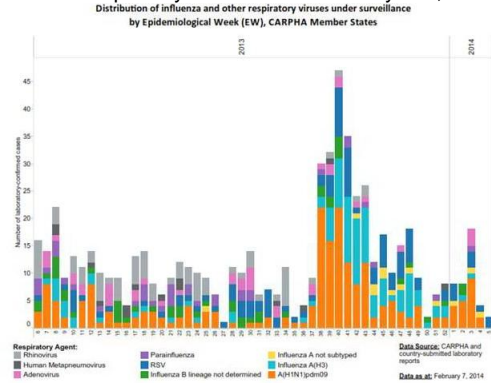
CARPHA⁴ received weekly SARI/ARI data from the following countries for EW 4-5: Barbados, Jamaica, and Trinidad & Tobago. The proportion of SARI-associated hospitalizations during EW 5 was 1.7%, a slight increase compared to the previous EW. Children 5-14 years of age had the highest rate of SARI admissions (6.1%). One SARI-associated death was reported during EW 4 by Barbados. According to laboratory data from EW 52-5, the following viruses were detected: influenza A(H1N1)pdm09 (Belize, Montserrat, Trinidad & Tobago), influenza A(H3) (Barbados, Jamaica, Trinidad & Tobago), influenza A, not subtyped (Aruba, Barbados), influenza B (Barbados, Belize, Trinidad & Tobago), human metapneumovirus (Dominica), parainfluenza (Aruba), RSV (Aruba, Barbados) and adenovirus (Barbados, Montserrat).

CARPHA

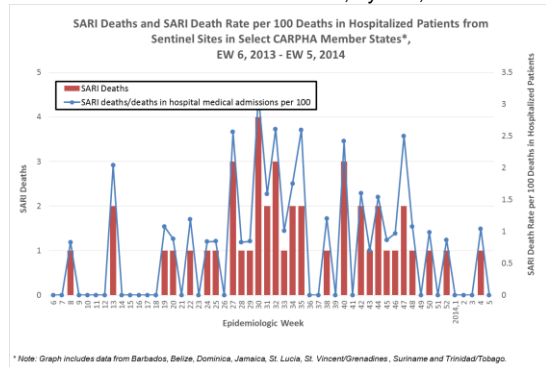
CARPHA. SARI-related Hospitalizations, by EW, 2013-14



CARPHA. Respiratory viruses distribution by EW, 2013-14



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



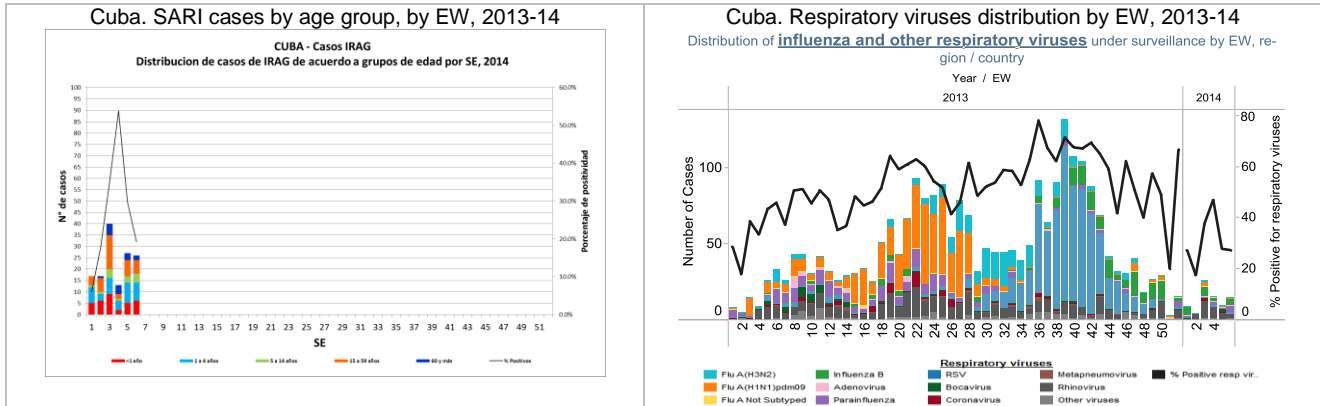
CARPHA. Distribution of respiratory viruses in member countries, EW 52, 2013 – EW 5, 2014



In Cuba during EW 6, the number of SARI-associated hospitalizations decreased slightly compared to the previous week. Children aged 1-4 years comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 3-6, 194 samples were analyzed, of which 34.5% were positive for a respiratory virus and 10.8% were positive for influenza. Among positive samples, rhinovirus (40.3%) and influenza B (20.9%) were predominant.

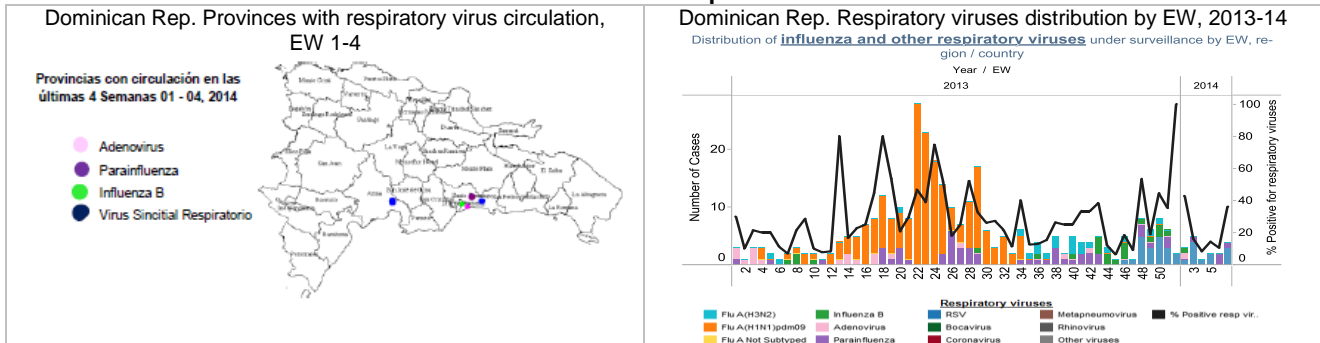
⁴ Caribbean Public Health Agency (CARPHA) EW 4-5

Cuba



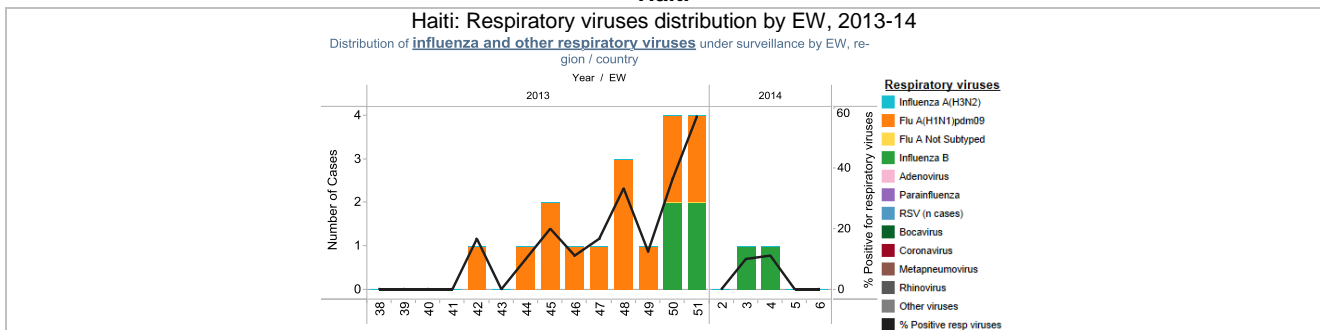
In the Dominican Republic⁵, the cumulative ILI rate for EW 1-4 was 9.1 per 10,000 inhabitants. During this same period, 144 SARI cases were reported through sentinel surveillance, of which 27 were reported during EW 4. There were no SARI-associated deaths reported during EW 4 (3 deaths have been reported since the beginning of 2014). Based on laboratory data for EW 4-7, 56 samples were analyzed, of which 16.1% were positive for a respiratory virus. Among the positive samples, RSV (66.7%) and parainfluenza (33.3%) were detected.

Dominican Republic



In Haiti, based on laboratory data for EW 3-6, 25 samples were analyzed, of which two (8.0%) were positive for influenza B.

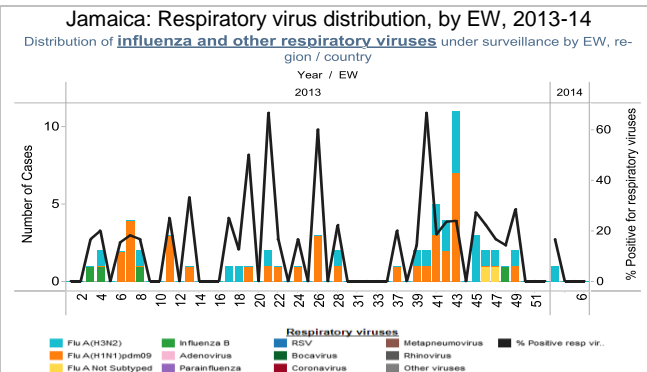
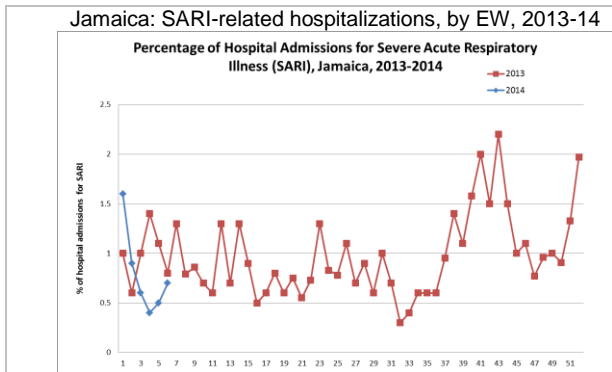
Haiti



In Jamaica, based on sentinel surveillance data for EW 6, the proportions of ARI-associated consultations (4.8%) and SARI-associated hospitalizations (0.7%) increased compared to the previous week. No SARI-associated deaths were reported during EW 6. Based on laboratory data for EW 3-6, 14 samples were analyzed of which one was positive for influenza A(H3N2).

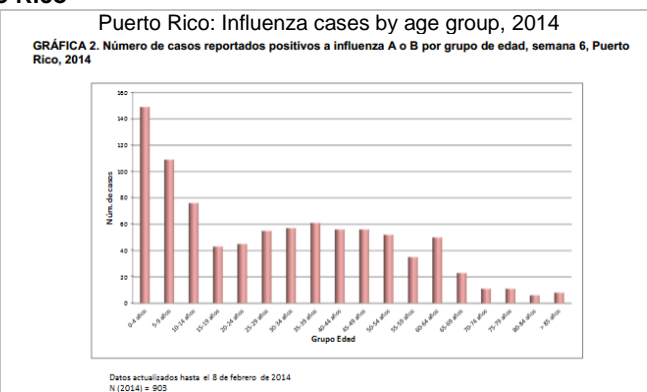
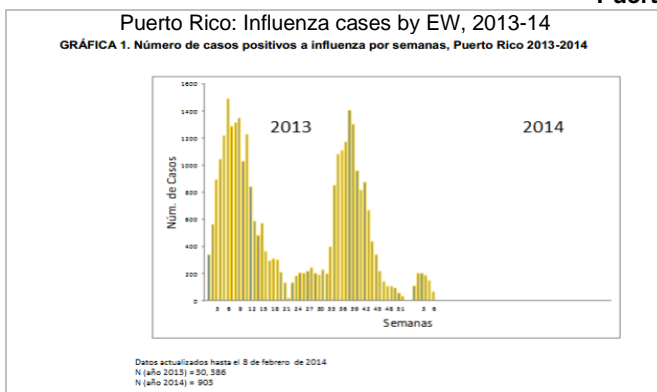
⁵ República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 4.

Jamaica



In Puerto Rico⁶ during EW 6, the number of influenza cases (n=65) remained low. Of these, 50 cases were associated with influenza A and 15 with influenza B. Since the beginning of 2014, 903 influenza cases have been reported and persons aged 0-19 years accounted for 42% of those cases. During this same period, 68 influenza-associated hospitalizations and one influenza-associated death was reported.

Puerto Rico

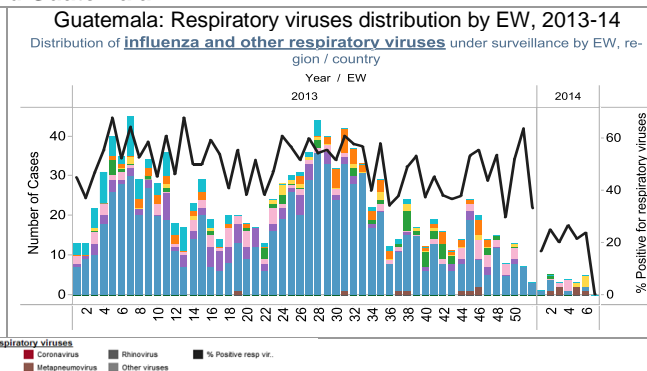
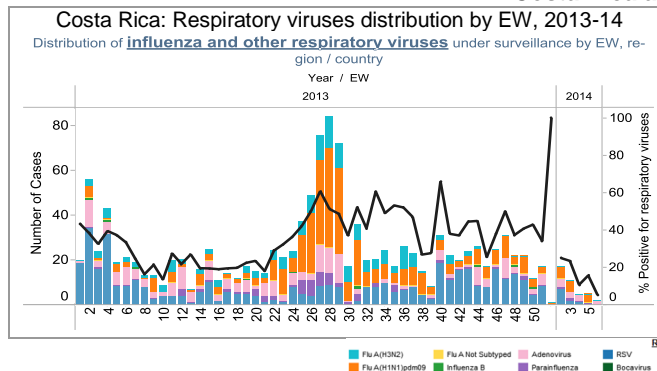


Central America

In Costa Rica, based on laboratory data from EW 3-6, 164 samples were analyzed, of which 14.0% were positive for a respiratory virus and 5.5% were positive for influenza. Among the positive influenza samples, 100% were influenza A(H1N1)pdm09. Among other respiratory viruses, adenovirus (34.8% of positive samples), RSV (13.0%) and parainfluenza (13.0%) were detected.

In Guatemala, based on laboratory data from EW 4-7, 58 samples were analyzed, of which 20.7% were positive for a respiratory virus and 6.9% were positive for influenza. Among the positive influenza samples, 100% were influenza A, not subtyped. Among other respiratory viruses, adenovirus (25.0% of positive samples), human metapneumovirus (25.0%) and RSV (16.7%) were detected.

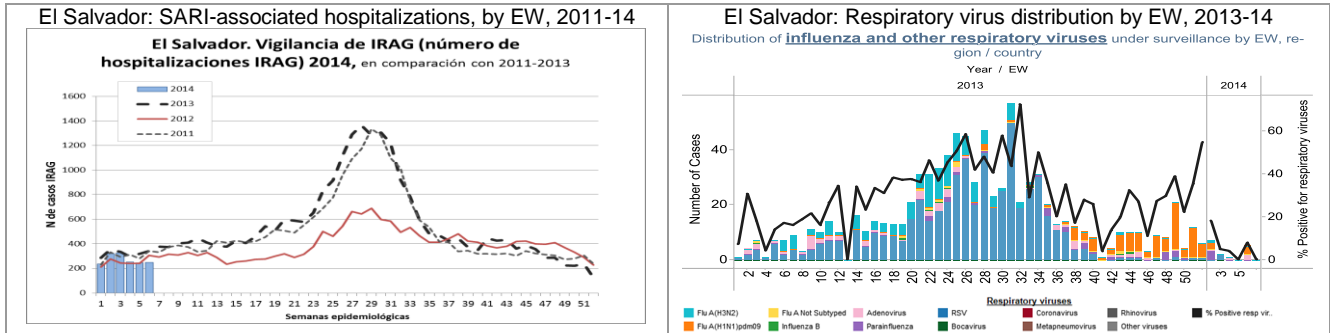
Costa Rica and Guatemala



⁶ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 6

In El Salvador, during EW 6, the proportions of SARI-associated hospitalizations (4.9%), ICU admissions (0%) and deaths (4.2%) remained low and within the expected levels for this time of year. According to national laboratory data from EW 4-7, 124 samples were analyzed, of which 4.8% were positive for a respiratory virus and 2.4% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (50.0%) and adenovirus (50.0%) were detected.

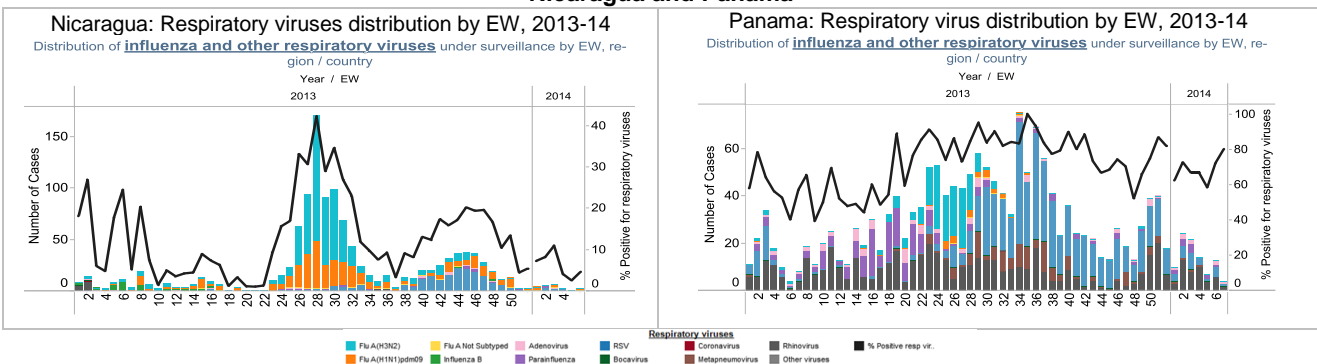
El Salvador



In Nicaragua, according to national laboratory data from EW 3-6, 188 samples were analyzed of which 5.9% were positive for a respiratory virus and 2.1% were positive for influenza. Among influenza positive samples, 75.0% were influenza A (66.7% A(H1N1)pdm09 and 33.3% A(H3N2)) and 25.0% were influenza B. Among other respiratory viruses, RSV (54.5% of positive samples) and parainfluenza (9.1%) were detected.

In Panama, based on national laboratory data from EW 4-7, 56 samples were analyzed of which 67.9% were positive for a respiratory virus. Among the positive samples, rhinovirus (57.9%) and RSV (23.7%) predominated.

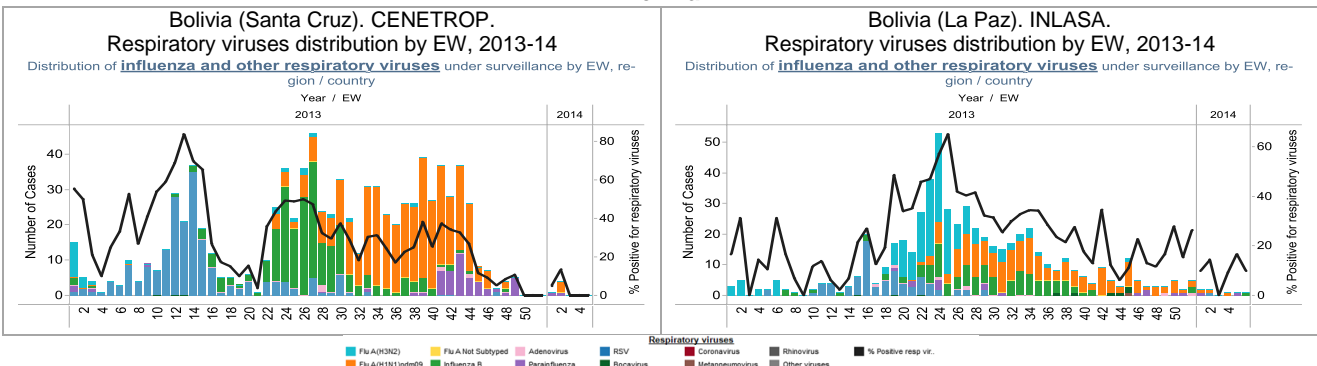
Nicaragua and Panama



South America – Andean countries

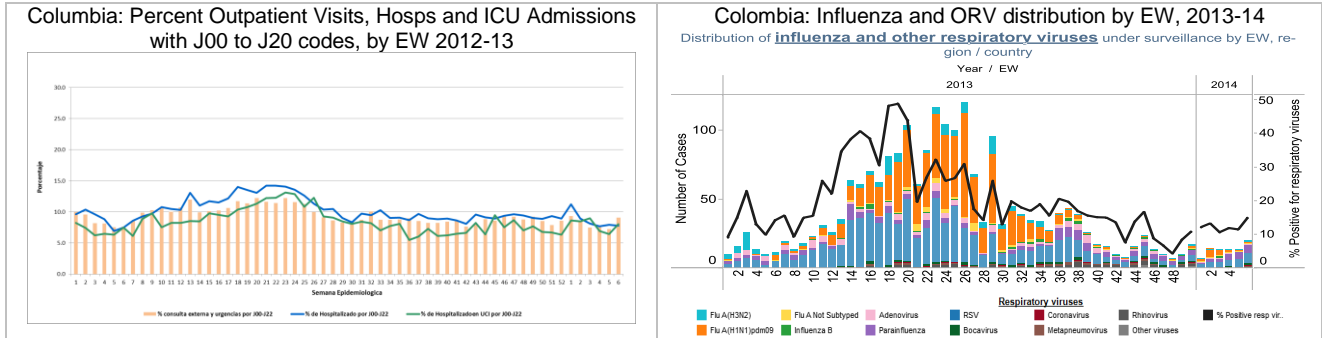
In Bolivia, according to laboratory data from CENETROP (Santa Cruz), from EW 2-5, 78 samples were analyzed of which 5.1% were positive for a respiratory virus and 3.8% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (75.0%) and parainfluenza (25.0%) were detected. According to laboratory data from INLASA (La Paz) from EW 3-6, 38 samples were analyzed of which 7.9% were positive for a respiratory virus and 4.3% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09, influenza B and parainfluenza were detected.

Bolivia



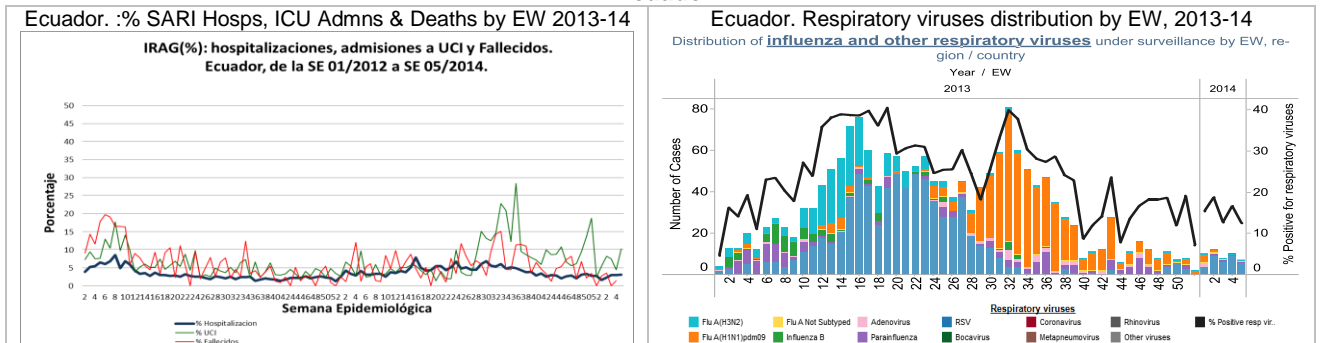
In Colombia, nationally during EW 6, the proportions of hospitalizations (7.8%), ICU admissions (8.0%), and outpatient and urgent visits (9.1%) with ARI-associated ICD-10 codes (J00 to J22) remained low. Based on INS national laboratory data from EW 3-6, 481 samples were analyzed, of which 12.3% were positive for a respiratory virus and 2.3% were positive for influenza. Among the positive influenza samples, 81.8% were influenza A, of which 88.9% were A(H1N1)pdm09. Among other respiratory viruses, RSV (37.3% of positive samples) and parainfluenza (30.5%) predominated.

Colombia



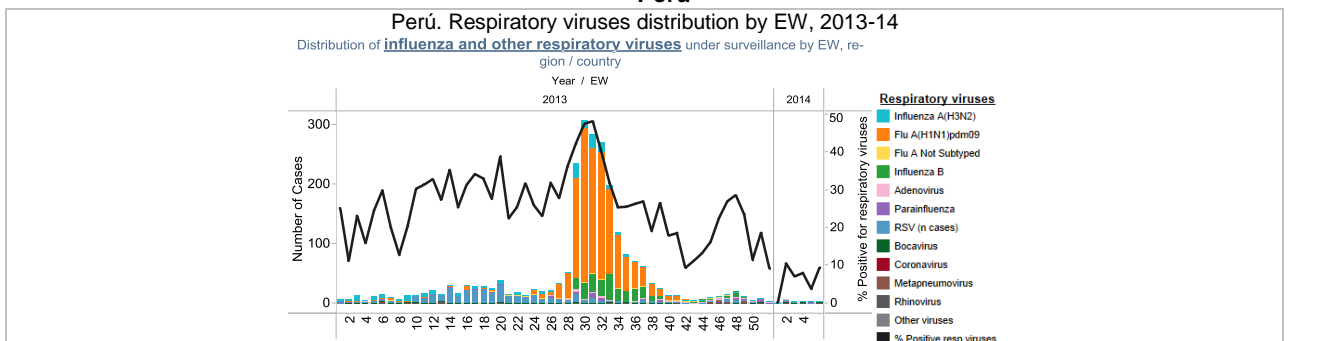
In Ecuador during EW 5, the proportion of SARI-associated hospitalizations (3.1%), ICU admissions (10.2%) and deaths (13.0%) increased compared to the previous week but remained at low levels. Based on national reference laboratory data from EW 2-5, 202 SARI samples were analyzed, of which 18.8% were positive for a respiratory virus and 2.5% were positive for influenza. Among the positive samples influenza samples, 100% were influenza A(H1N1)pdm09. Among the other respiratory viruses, RSV predominated (73.7% of positive samples).

Ecuador



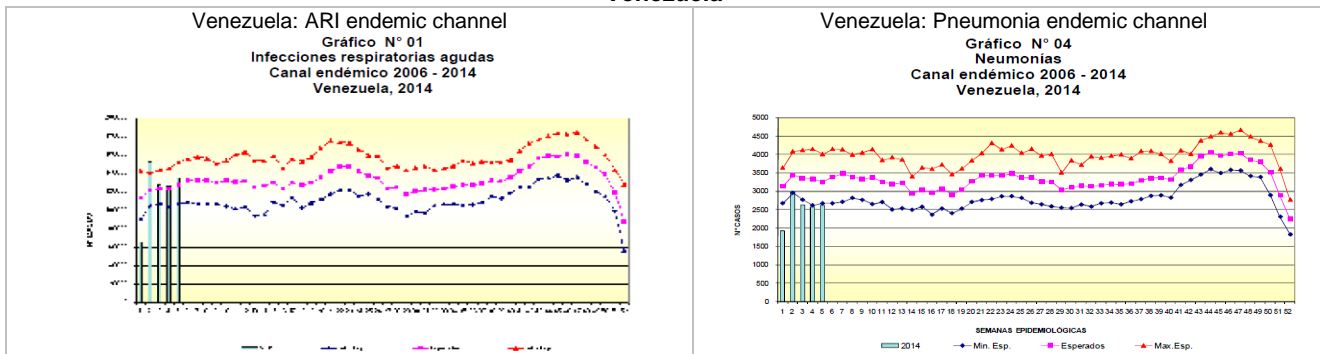
In Peru, based on national laboratory data from EW 3-6, 167 samples were analyzed, of which 6.6% were positive for a respiratory virus. Among the positive samples, RSV (54.5%), adenovirus (18.2%) and human metapneumovirus (18.2%) predominated.

Peru



In Venezuela⁷ during EW 5, the number of ARI and pneumonia cases increased by 7.4% and 1.9%, respectively, compared to the previous EW. Both were within the expected levels for this time of year. During EW 5, 81 SARI-associated hospitalizations were reported, with children ≤ 1 year of age comprising the largest proportion of cases. Based on virologic data from January 1, 2013 to February 1, 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.

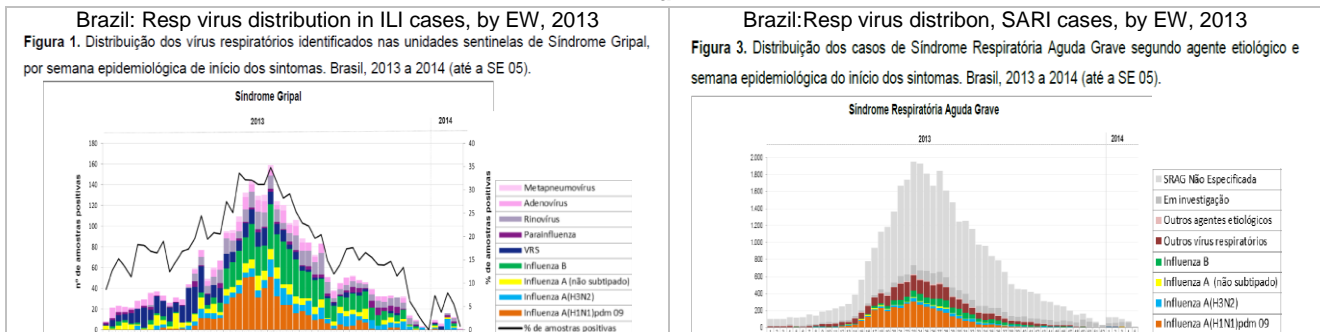
Venezuela



South America – South Cone and Brazil

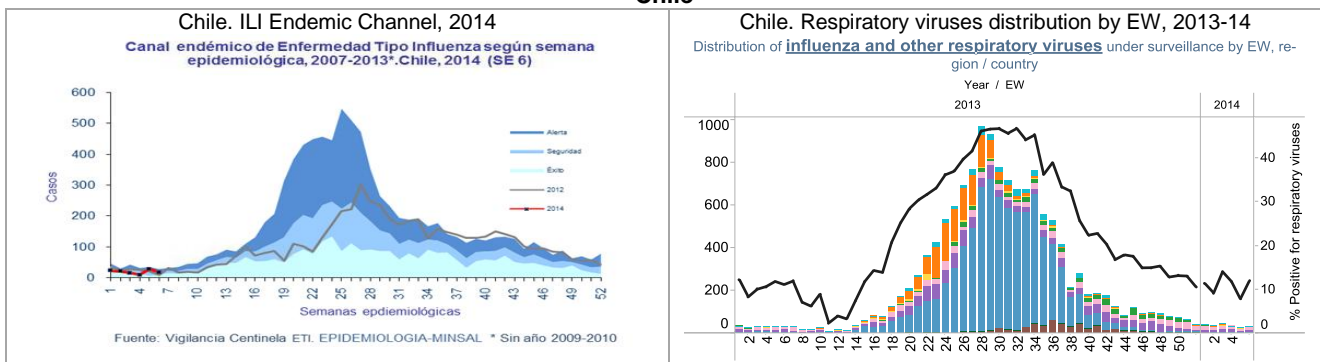
In Brazil⁸, according to ILI sentinel surveillance data through EW 5, 841 samples were analyzed, of which 5.2% were positive for influenza or another respiratory virus. Based on universal SARI surveillance data during this same period, 436 SARI cases were reported and 6.0% of these were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 and A(H3N2) predominated. Additionally, through EW 4, 36 SARI-associated deaths were reported, of which 8.3% were positive for influenza.

Brazil



In Chile⁹, ILI activity during EW 6 remained low (rate: 1.2 per 100,000 inhabitants) and was in the security zone of the endemic channel. Based on laboratory data from EW 5-6, 585 samples were analyzed, of which 9.6% were positive for a respiratory virus and 0.7% were positive for influenza. Among the positive samples, adenovirus predominated (57.1%), followed by parainfluenza (19.6%).

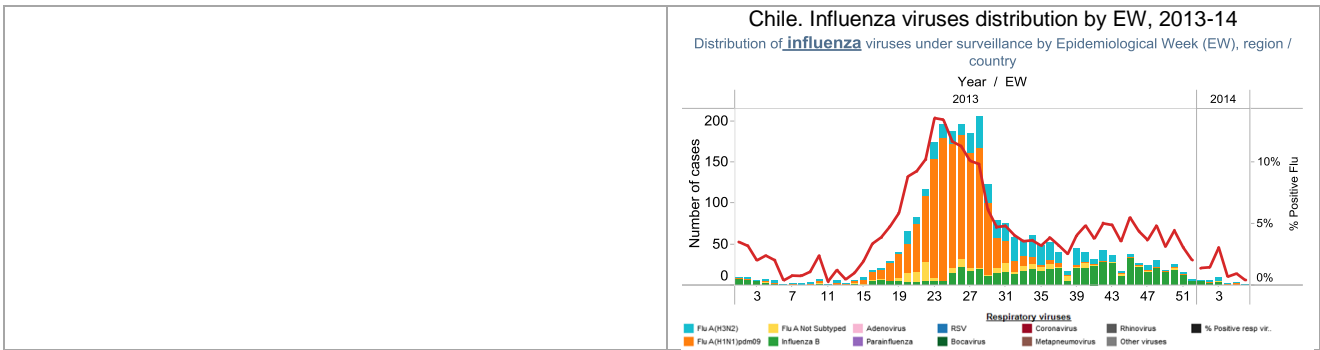
Chile



⁷ Venezuela. Boletín epidemiológico, EW 5.

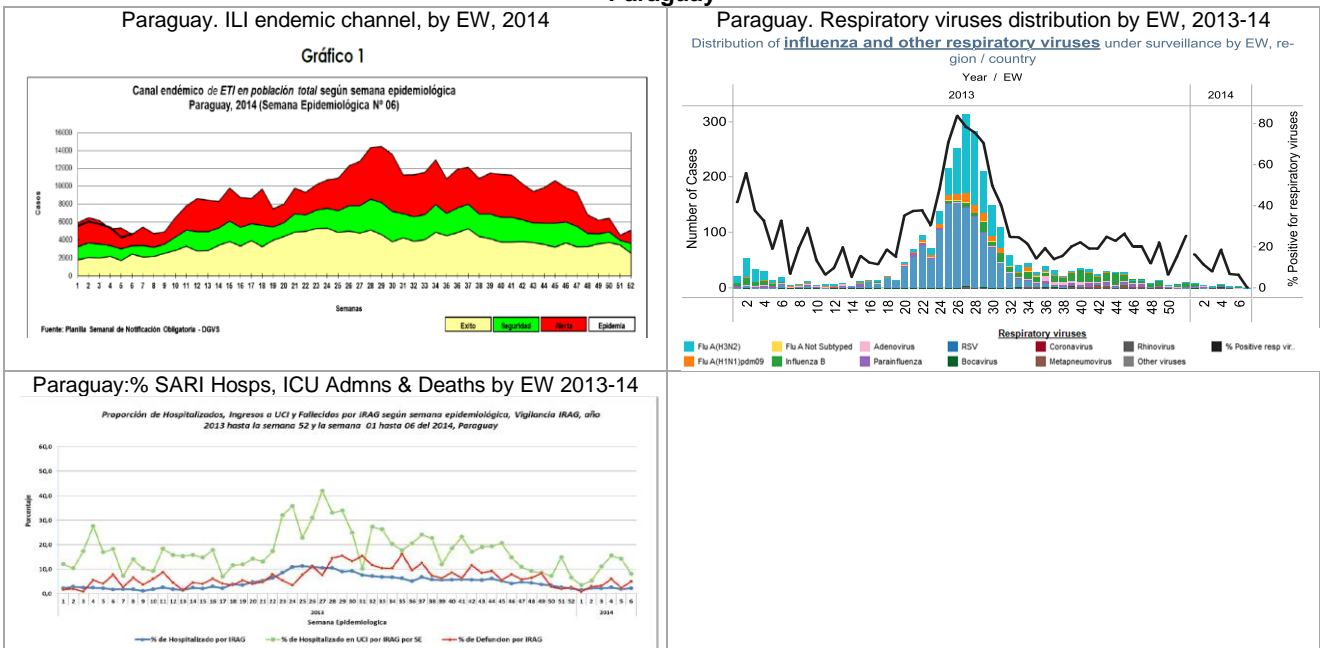
⁸ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 5, 2013.

⁹ Chile. Informe de situación. EW 6. Available at: <http://epi.minsal.cl/>



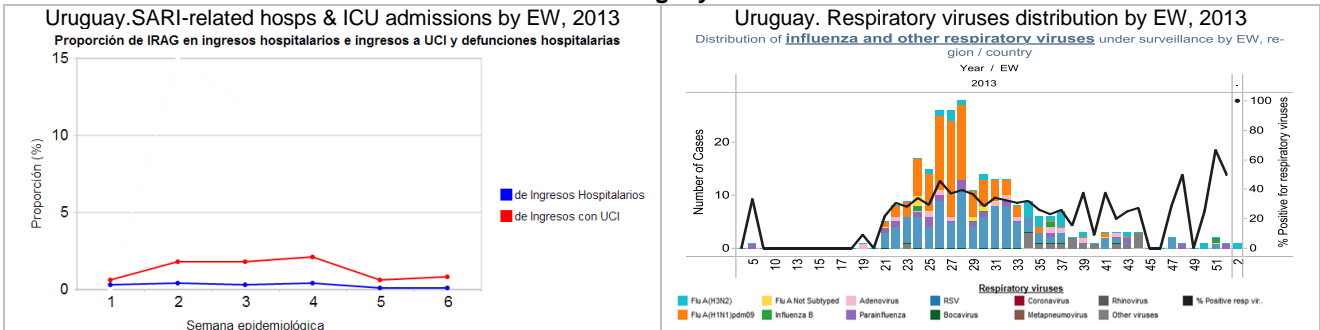
In Paraguay¹⁰ during EW 6, the ILI consultation rate (70.4 per 100,000 inhabitants) increased slightly from the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (2.2%) was within the expected range for this time of year. The most affected age groups were children <2 years of age and adults ≥60 years. Based on laboratory data from EW 4-7, 120 samples were analyzed, of which 10.0% were positive for a respiratory virus and 4.2% were positive for influenza. Among the positive samples, influenza B (41.7%) predominated.

Paraguay



In Uruguay¹¹ during EW 6, the proportions of SARI-associated hospitalizations, ICU admissions and deaths were similar to the previous EW, and remained at low levels. Based on laboratory data from EW 2-5, one sample was analyzed and it tested positive for influenza A(H3N2).

Uruguay



¹⁰ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 6.

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