

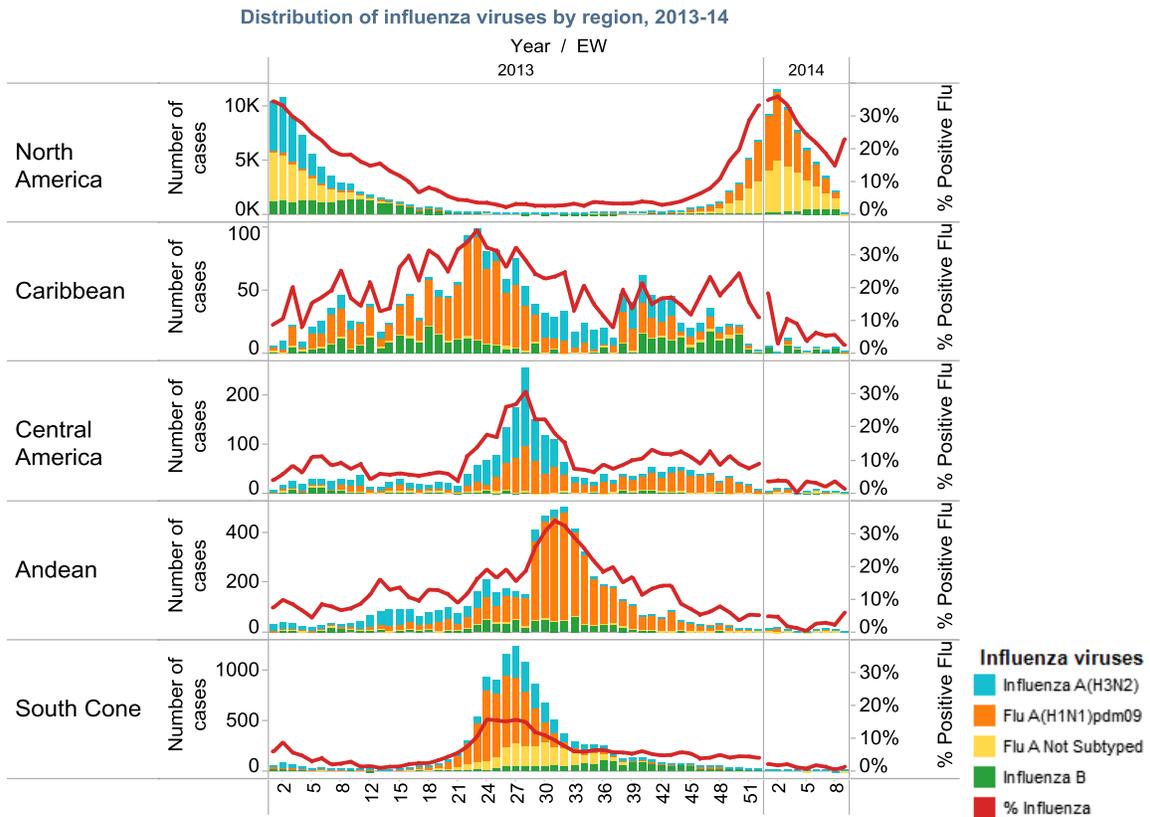
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

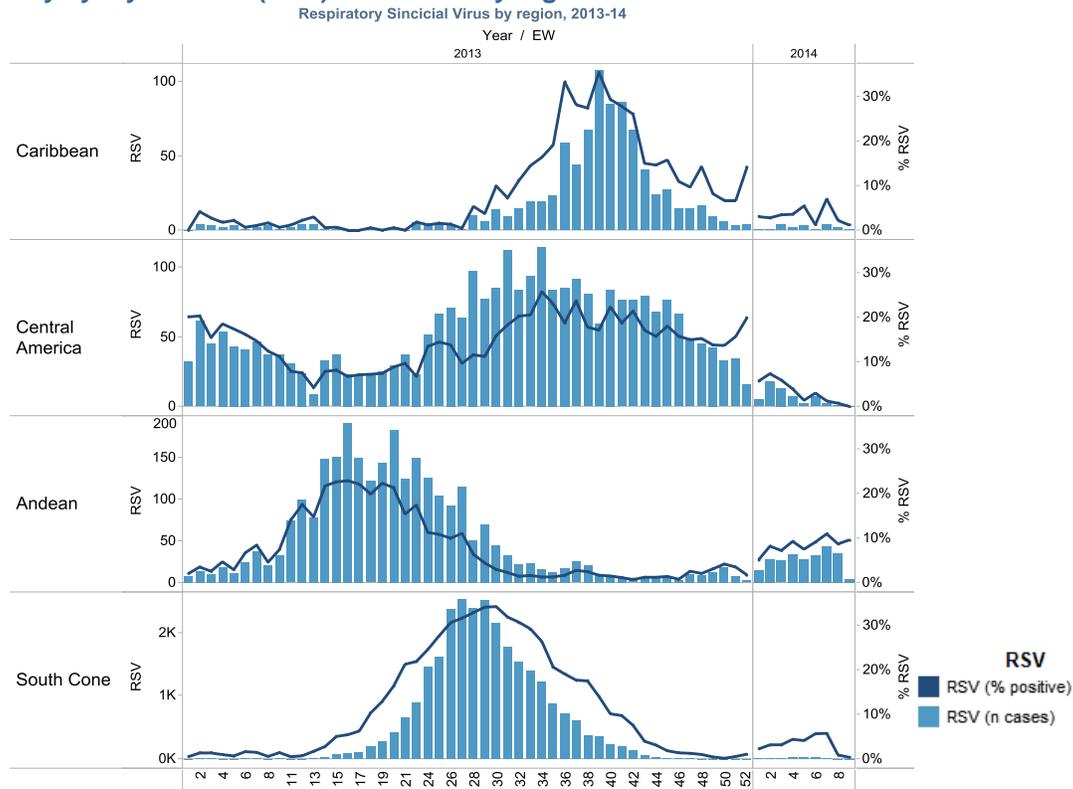
WEEKLY SUMMARY

- North America: Influenza activity continued to decrease in the region. Influenza A(H1N1)pdm09 remained the predominant circulating virus in the region but circulation of influenza B and A(H3N2) increased. Among other respiratory viruses, RSV circulation remained high in Canada and the United States.
- 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. RSV circulation was detected in some countries of the sub-region including Colombia and Ecuador.
- 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

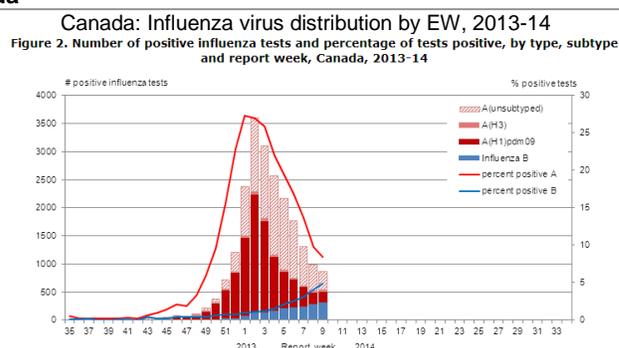
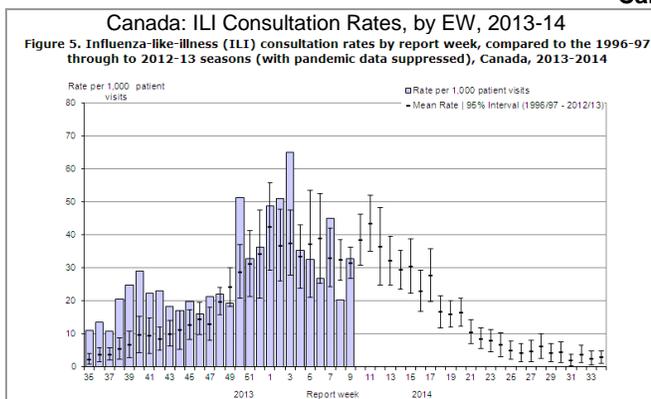
EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

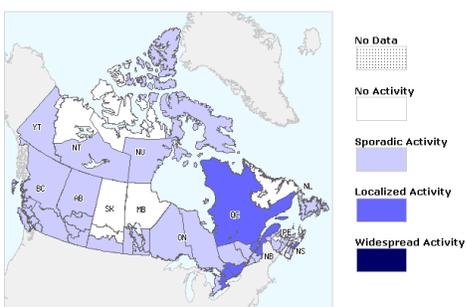
In Canada¹ during EW 9, influenza activity continued to decline. The national influenza-like illness (ILI) consultation rate was 32.7 per 1,000 patient visits, an increase compared to the previous week, but within the expected range for this time of year. Since the beginning of the 2013-14 influenza season, 3,238 influenza-associated hospitalizations have been reported and most of them have been associated with influenza A (95.9%). The majority (57.6%) of these cases have been adults ≥45 years of age. There have been 307 ICU admissions reported and of these, 67.1% were among adults 20-64 years of age. To date this season, 182 deaths have been reported (compared to 254 during the same period of the 2012-13 season) and 95.6% were associated with influenza A. The highest proportion of these deaths (51.1%) occurred among adults 20-64 years of age, followed by adults ≥65 years (39.6%). Based on laboratory data for EW 9, the overall percentage of positive influenza tests was 13.3% (N=864), a decrease compared to the previous week. Among the positive tests, 63.3% were influenza A (35.1% influenza A(H1N1)pdm09, 4.8% A(H3N2) and 60.1% not subtyped) and 36.7% were influenza B. Among other circulating respiratory viruses, RSV continued to predominate.

¹ Canada: FluWatch Report. EW 9. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

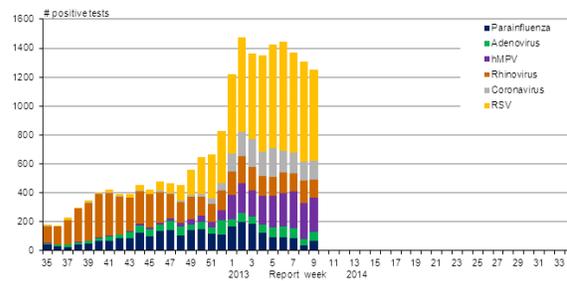
Canada



Canada: Influenza/ILI Activity by region, EW 9, 2014
Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 09

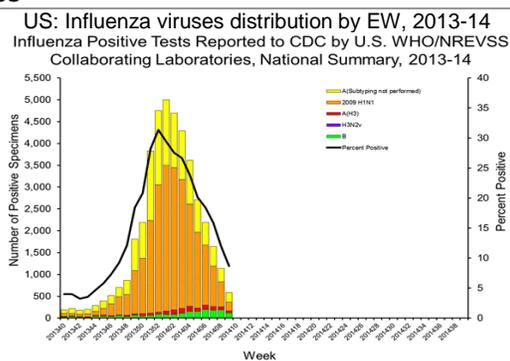
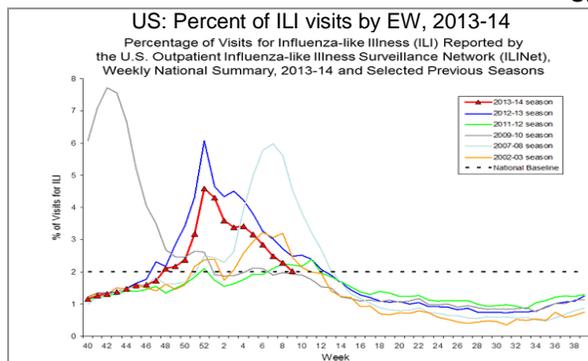


Canada: Respiratory virus distribution by EW, 2013-14
Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

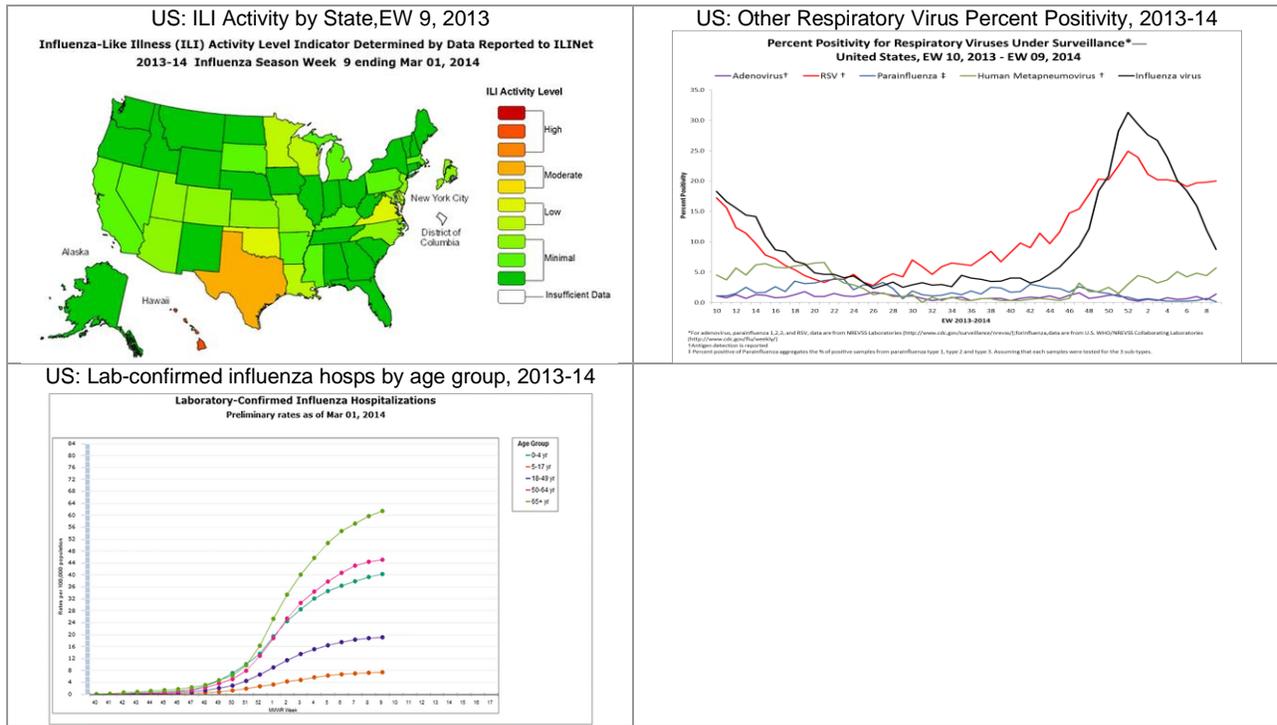


In the United States² during EW 9, influenza activity continued to decrease. The proportion of outpatient visits for influenza-like illness (ILI) was 2.0%, equal to the national baseline and a decrease compared to the previous EW. Five of the 10 regions reported ILI activity above their region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 9 (7.9%) increased from the previous EW and was above the epidemic threshold (7.4%). A total of 65 influenza-associated pediatric deaths have been reported this season, of which four were reported during EW 9. Of these, two deaths were associated with influenza A (not subtyped) and occurred during EW 3 and 9, one death was associated with influenza B and occurred during EW 8, and one death was associated with an influenza A and B co-infection and occurred during EW 8. Since October 1, 2013, 7,725 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 28.5 per 100,000 population). 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 9, 6,748 samples were analyzed, of which 8.7% were positive for influenza. Among the positive samples, 80.1% were influenza A (43.4% A(H1N1)pdm09, 10.4% A(H3) and 46.2% not subtyped) and 19.9% were influenza B. Based on antiviral resistance testing, 0.8% (34/4,002) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant. Among other circulating respiratory viruses, RSV activity was high with percent positivity around 20%.

United States

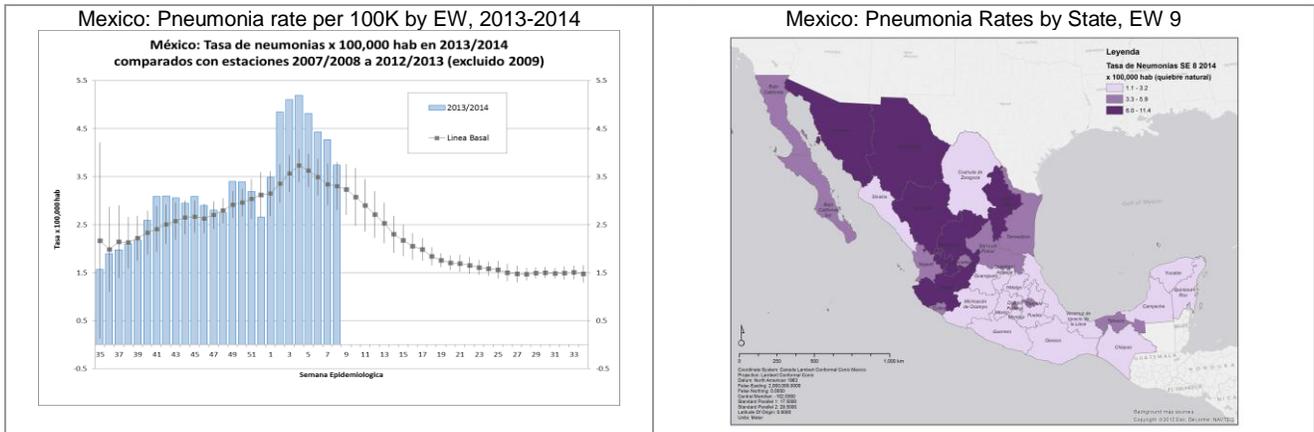


² USA: CDC FluView report. EW 9. Available at: <http://www.cdc.gov/flu/weekly/>



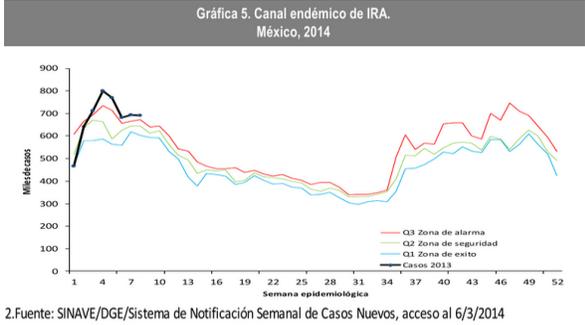
In Mexico³ during EW 8, although some indicators decreased, influenza activity remained elevated. The pneumonia rate decreased for the fourth consecutive week and was within the expected level for this time of year. ARI activity was similar to the previous week but remained in the epidemic zone of the endemic channel. The highest levels of ARI activity were reported in Zacatecas, Aguascalientes, and Tlaxcala, and the highest levels of pneumonia activity were reported in Chihuahua, Nuevo Leon and Durango. Nationally through March 6, 2014, the proportion of ILI/SARI-associated medical visits was 2.3%, a decrease compared to the previous EW. During this same period, 669 influenza-associated deaths were reported, of which 90.7% were associated with influenza A(H1N1)pdm09. According to laboratory data during EW 8-9, 1,100 samples were analyzed, of which 25.2% were positive for influenza. Among the positive influenza samples, 88.4% were influenza A (78.4% A(H1N1)pdm09 and 18.0% A(H3N2)) and 11.6% were influenza B.

Mexico



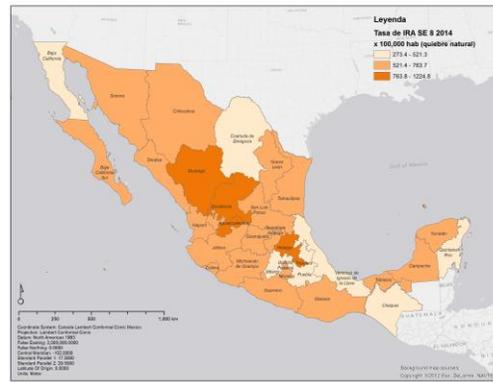
³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Mexico: ARI Endemic Channel, 2014



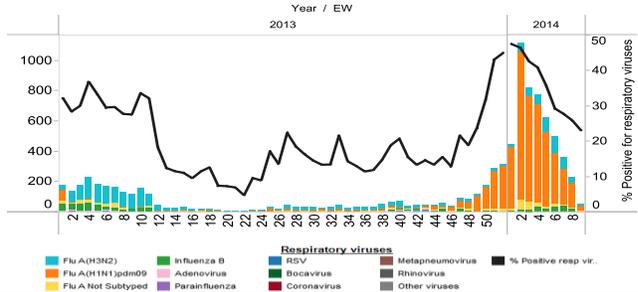
2.Fuente: SINAVE/DGE/Sistema de Notificación Semanal de Casos Nuevos, acceso al 6/3/2014

Mexico: ARI Rates by State, EW 9



Mexico: Respiratory viruses distribution by EW 2013-14

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

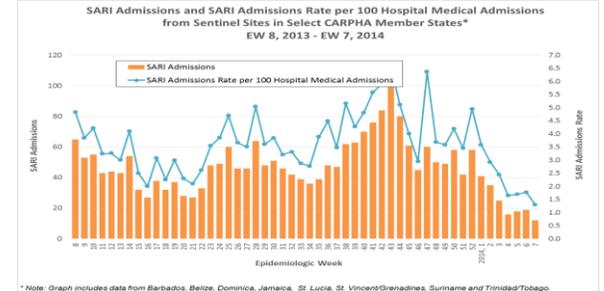


Caribbean

CARPHA⁴ received weekly SARI/ARI data from the following countries for EW 6-7: Barbados, Jamaica, St Vincent & the Grenadines, and Trinidad & Tobago. The proportion of SARI-associated hospitalizations during EW 7 was 1.3%, a decrease compared to the previous EW. Children 6 months to four years of age had the highest rate of SARI admissions (4.9%). No SARI-associated deaths reported during this period. According to laboratory data from EW 2-7, the following viruses were detected: influenza A(H1N1)pdm09 (Anguilla, Belize, Bermuda, Montserrat, Trinidad & Tobago), influenza A(H3) (Jamaica, Trinidad & Tobago), influenza A, not subtyped (Aruba, Barbados), influenza B (Belize, Trinidad & Tobago), parainfluenza (Aruba), RSV (Aruba, Barbados) and adenovirus (Barbados, Montserrat).

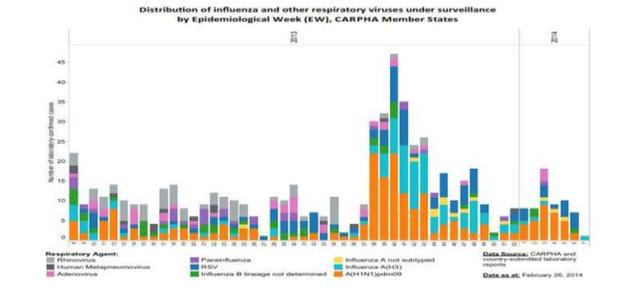
CARPHA

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



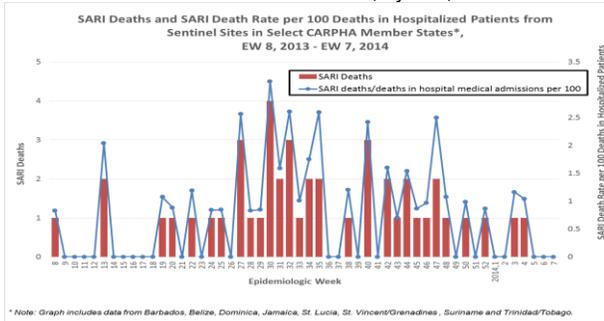
* Note: Graph includes data from Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent/Grenadines, Suriname and Trinidad/Tobago.

CARPHA. Respiratory viruses distribution by EW, 2013-14



Data Source: CARPHA and country submitted laboratory reports. Data as of: February 26, 2014

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



* Note: Graph includes data from Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent/Grenadines, Suriname and Trinidad/Tobago.

CARPHA. Respiratory viruses in Member Countries, EW 2-7, 2014

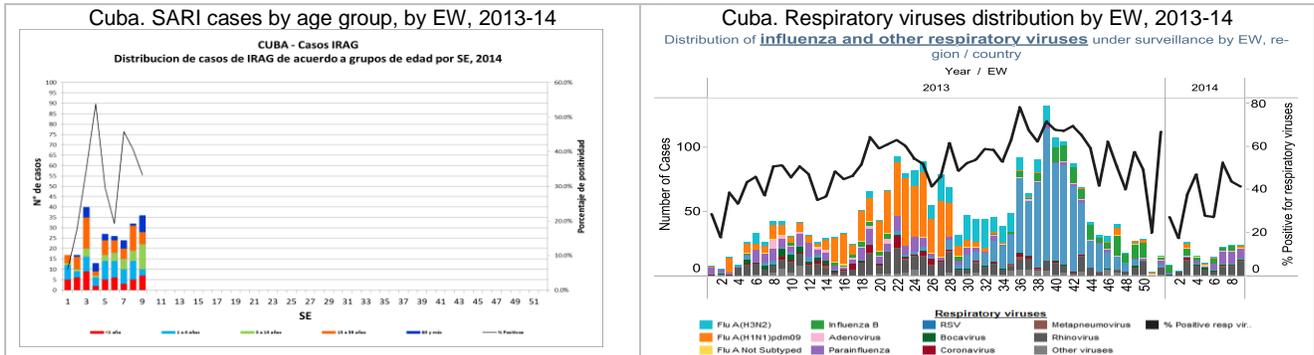


Data Source: CARPHA and country submitted laboratory reports. Data as of: February 26, 2014

⁴ Caribbean Public Health Agency (CARPHA) EW 6-7

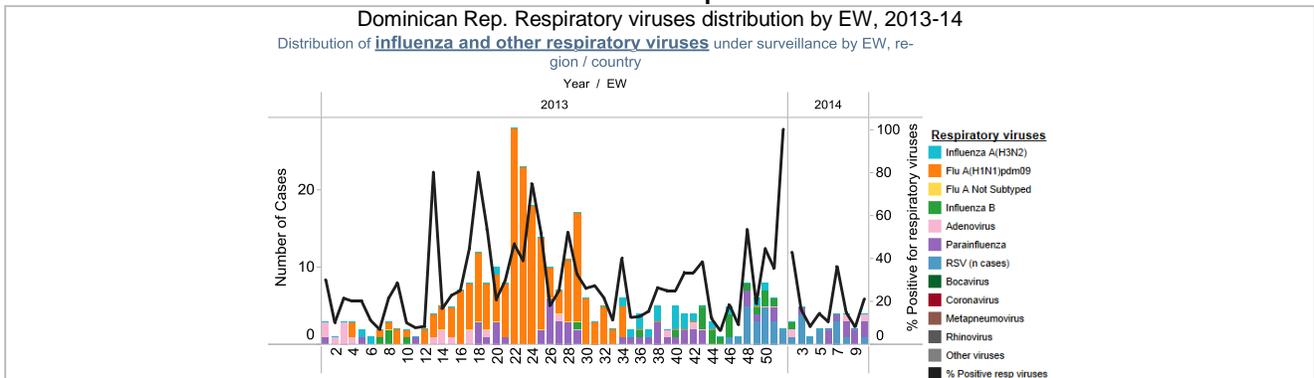
In Cuba during EW 9, the number of SARI-associated hospitalizations increased slightly compared to the previous week. Children aged 5-14 years comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 6-9, 212 samples were analyzed, of which 40.6% were positive for a respiratory virus and 6.6% were positive for influenza. Among the positive samples, parainfluenza (36.0%), rhinovirus (31.4%) and influenza B (12.8%) predominated.

Cuba



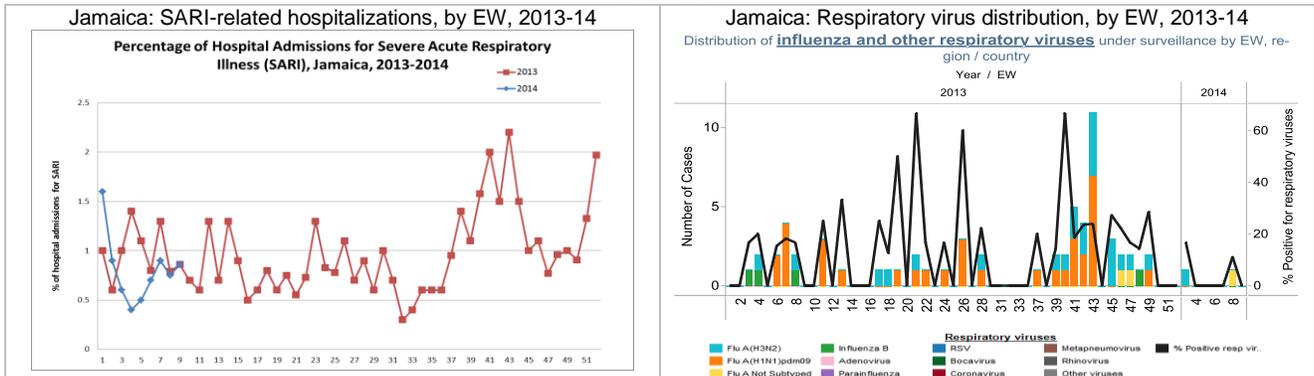
In the Dominican Republic, based on laboratory data for EW 7-10, 82 samples were analyzed, of which 17.1% were positive for a respiratory virus. Among the positive samples, parainfluenza (50.0%), RSV (35.7%) and adenovirus (14.3%) were detected.

Dominican Republic



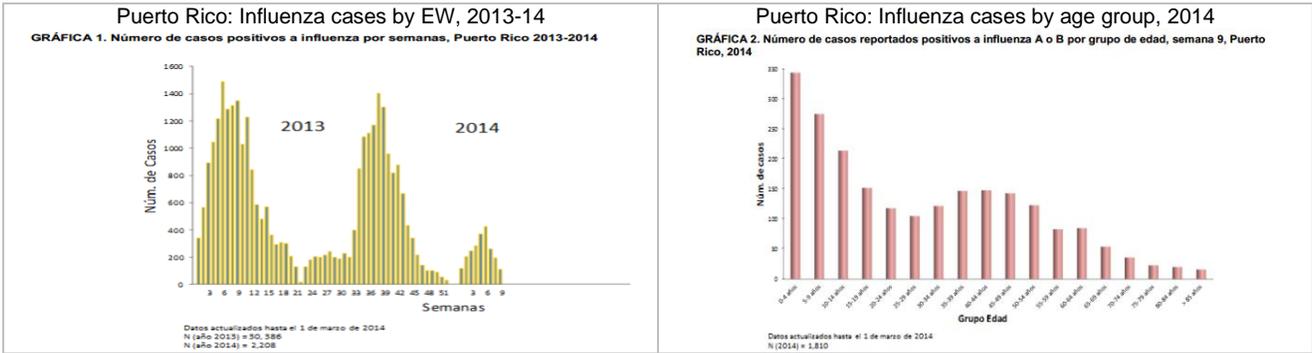
In Jamaica, based on sentinel surveillance data for EW 9, the proportion of ARI-associated consultations (4.0%) decreased compared to the previous week while the proportion of SARI-associated hospitalizations (0.9%) increased. No SARI-associated deaths were reported during EW 8. Based on laboratory data for EW 6-9, 20 samples were analyzed and one was positive for influenza A (not subtyped).

Jamaica



In Puerto Rico⁵ during EW 9, the number of influenza cases (n=110) remained low. Of these, 90 cases were associated with influenza A and 20 with influenza B. Since the beginning of 2014, 2,208 influenza cases have been reported and persons aged 0-19 years accounted for 45% of those cases. During this same period, 146 influenza-associated hospitalizations and one influenza-associated death were reported.

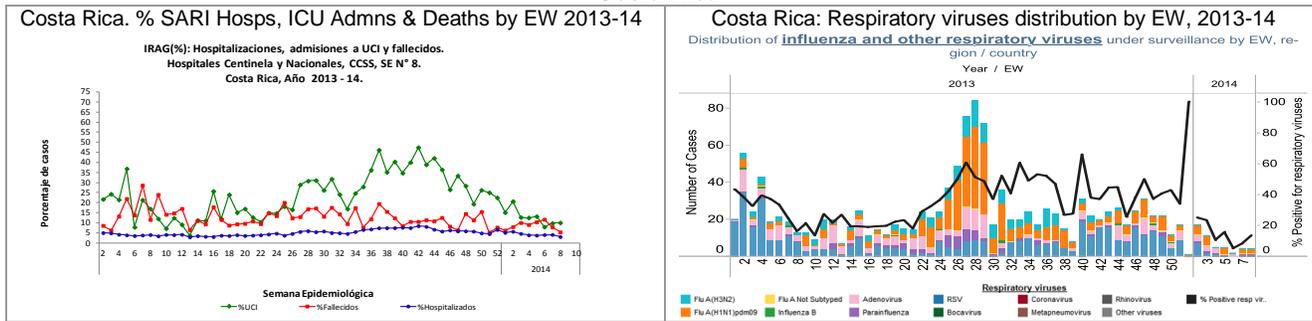
Puerto Rico



Central America

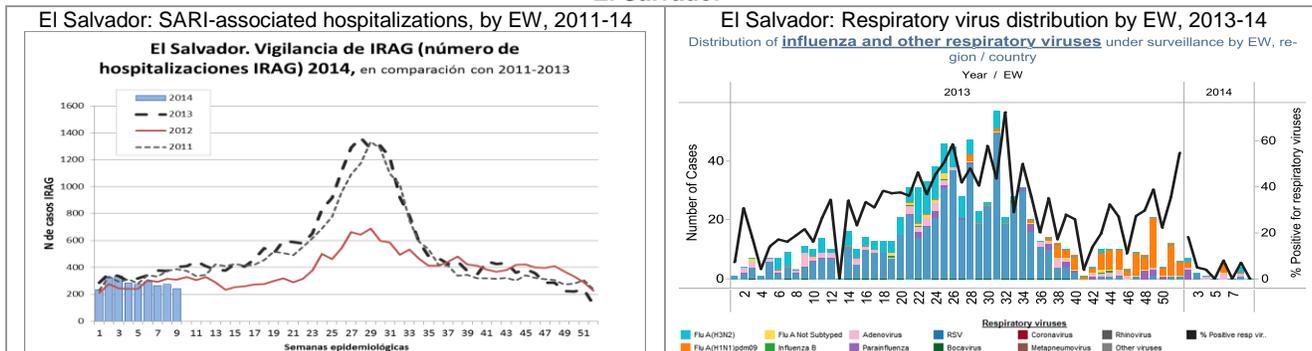
In Costa Rica, according to ILI/SARI surveillance data, influenza and other respiratory virus activity remained low during EW 8. The proportions of SARI-associated hospitalizations (3.0%), SARI-associated ICU admissions (10%) and SARI-associated deaths (5.0%) were similar to the previous EW. Based on laboratory data from EW 5-8, 145 samples were analyzed, of which 10.1% were positive for a respiratory virus and 5.4% were positive for influenza. Among the positive influenza samples, 100% were influenza A(H1N1)pdm09. Among other respiratory viruses, adenovirus (26.7% of positive samples) and parainfluenza (20.0%) were detected.

Costa Rica



In El Salvador, during EW 9, the proportions of SARI-associated hospitalizations (4.9%), ICU admissions (8.3%) and deaths (5.2%) remained low and within the expected levels for this time of year. According to national laboratory data from EW 6-9, 166 samples were analyzed, of which 5.4% were positive for a respiratory virus and 3.0% were positive for influenza. Among the positive influenza samples, 100% were influenza A (60.0% A(H1N1)pdm09 and 40.0% A(H3N2)). Among other respiratory viruses, adenovirus (33.3% of positive samples) and RSV (11.1%) were detected.

El Salvador

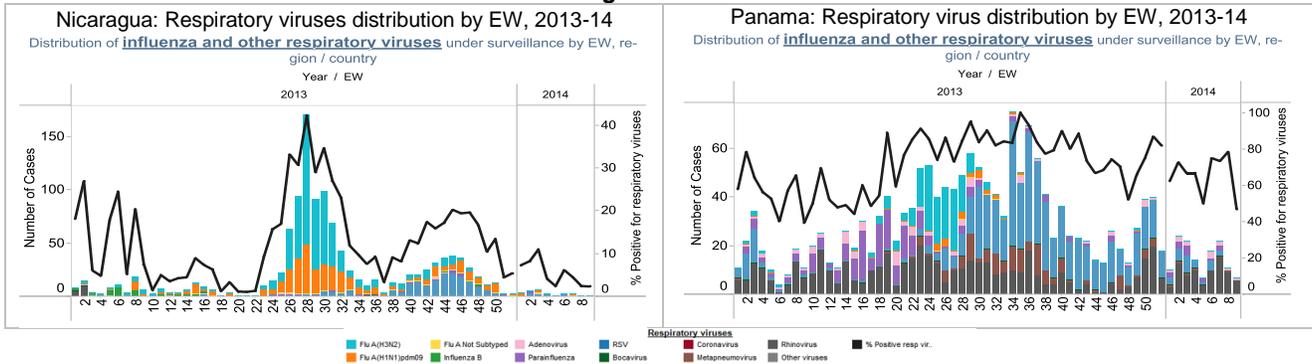


⁵ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 9

In Nicaragua, according to national laboratory data from EW 6-9, 180 samples were analyzed of which 3.9% were positive for a respiratory virus and 2.2% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (42.9%) and RSV (28.6%) predominated.

In Panama, based on national laboratory data from EW 6-9, 83 samples were analyzed of which 69.9% were positive for a respiratory virus. Among the positive samples, rhinovirus (70.7%) predominated.

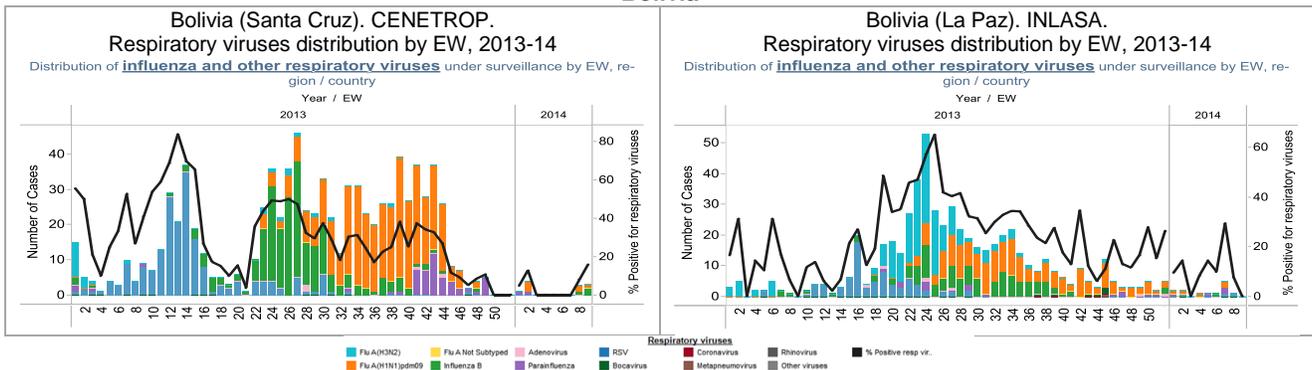
Nicaragua and Panama



South America – Andean countries

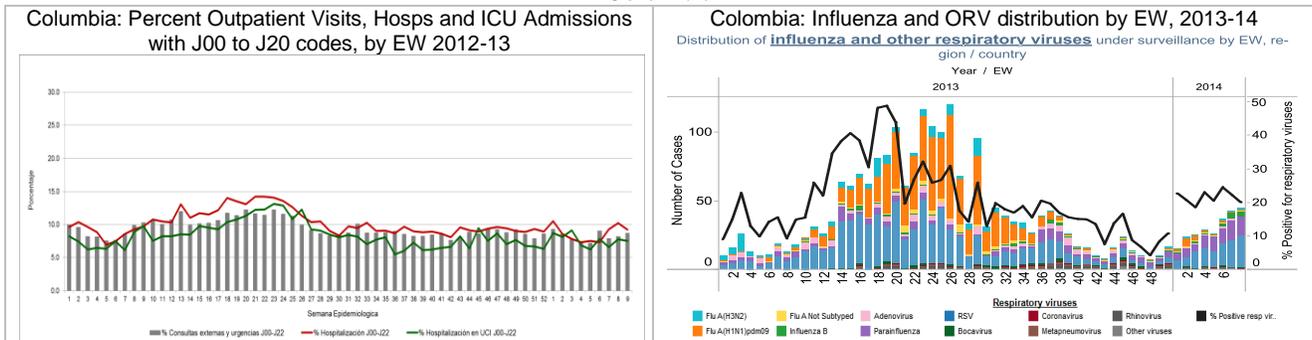
In Bolivia, according to laboratory data from CENETROP (Santa Cruz), from EW 6-9, 96 samples were analyzed and of these, four (6.3%) were positive for influenza (influenza A(H1N1)pdm09 and influenza B). According to laboratory data from INLASA (La Paz) from EW 6-9, 44 samples were analyzed of which 15.9% were positive for a respiratory virus and 6.8% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09, influenza B, RSV and parainfluenza were detected.

Bolivia



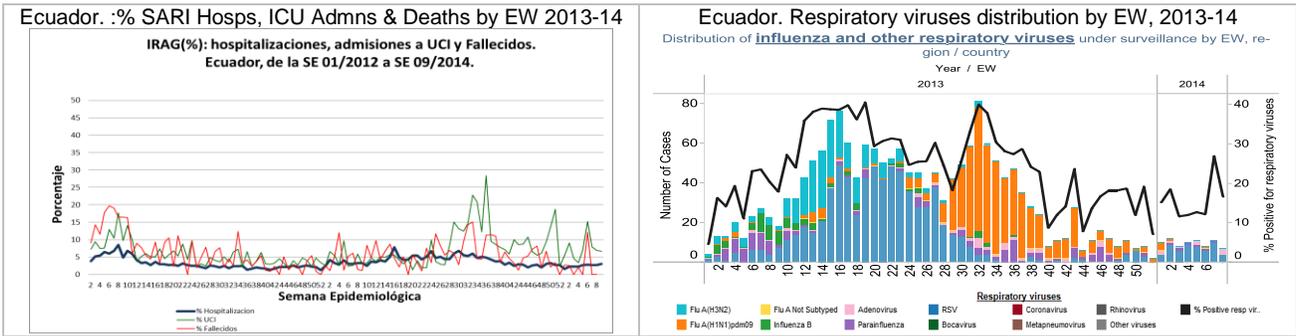
In Colombia, nationally during EW 9, the proportions of hospitalizations (9.2%), ICU admissions (7.5%), and outpatient and urgent visits (8.7%) with ARI-associated ICD-10 codes (J00 to J22) remained low. Based on INS national laboratory data from EW 5-8, 696 samples were analyzed, of which 21.7% were positive for a respiratory virus and 2.7% were positive for influenza. Among the positive influenza samples, 36.8% were influenza A (71.4% A(H1N1)pdm09 and 28.6% A(H3N2)) and 63.2% were influenza B. Among other respiratory viruses, RSV (46.4% of positive samples) and parainfluenza (33.8%) increased slightly.

Colombia



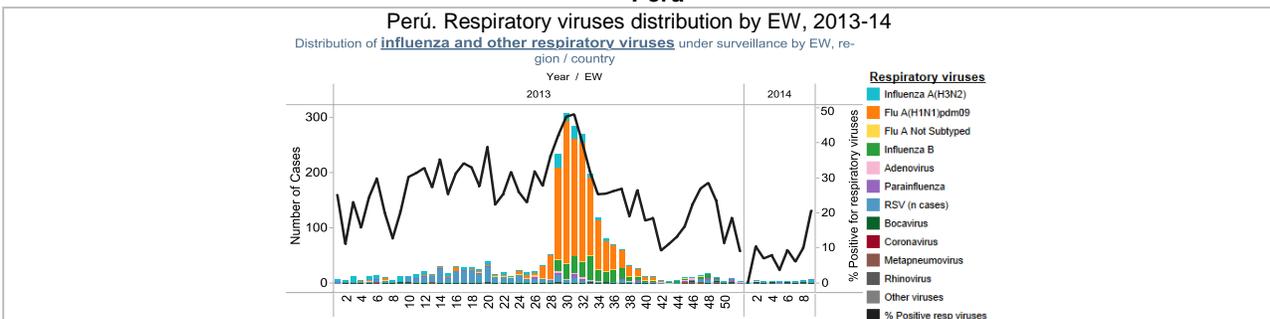
In Ecuador respiratory virus activity remained low. During EW 9, the proportions of SARI-associated hospitalizations (3.1%), ICU admissions (6.8%) and SARI-associated deaths (0.0%) were similar to the previous EW. Based on national reference laboratory data from EW 6-9, 223 SARI samples were analyzed, of which 16.6% were positive for a respiratory virus and 0.9% were positive for influenza. Among the positive samples, RSV predominated (75.7%).

Ecuador



In Peru, based on national laboratory data from EW 6-9, 134 samples were analyzed, of which 11.2% were positive for a respiratory virus. Among the positive samples, RSV (80.0%) predominated.

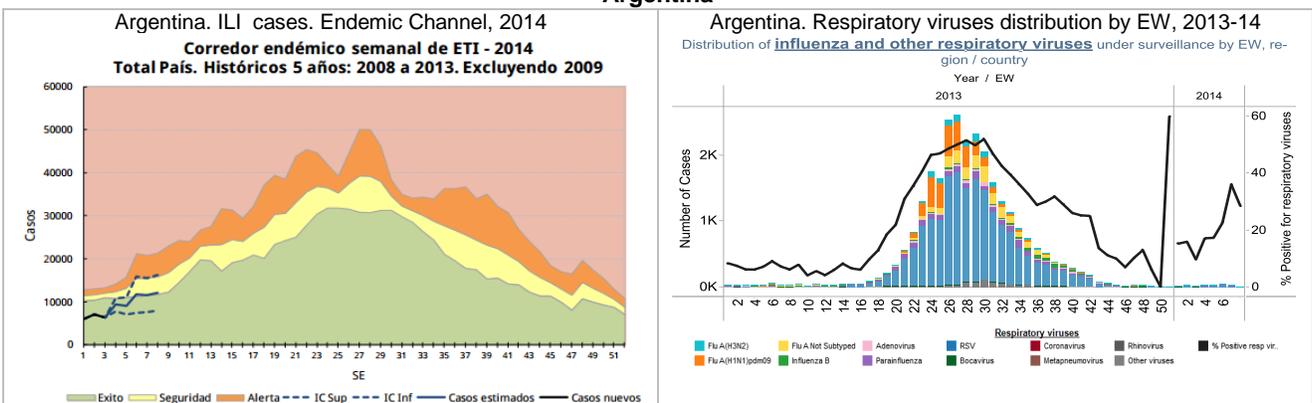
Peru



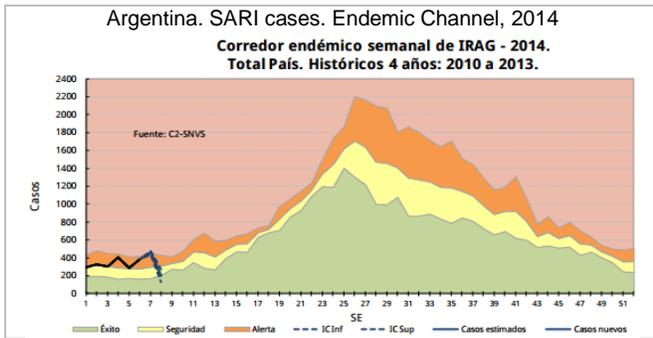
South America – South Cone and Brazil

In Argentina⁶, according to reports and calculated estimations, national ILI activity during EW 8 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 19% lower than the levels seen last year. Based on laboratory data from EW 5-8, 498 samples were analyzed of which 22.7% were positive for a respiratory virus and 0.6% were positive for influenza. Among the positive samples, RSV (66.4%) predominated.

Argentina

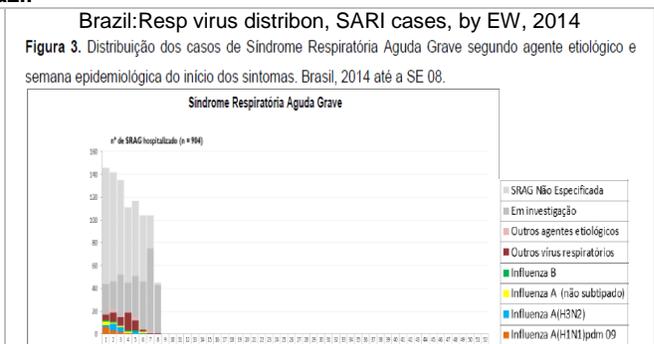
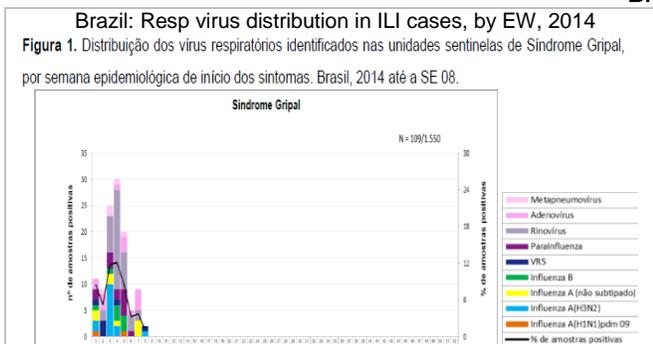


⁶ Argentina. Boletín integrado de vigilancia. SE 8.



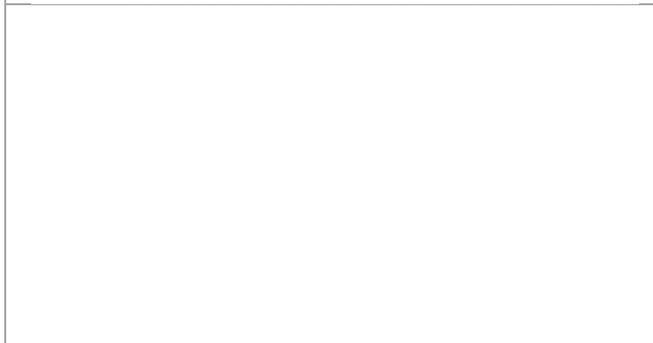
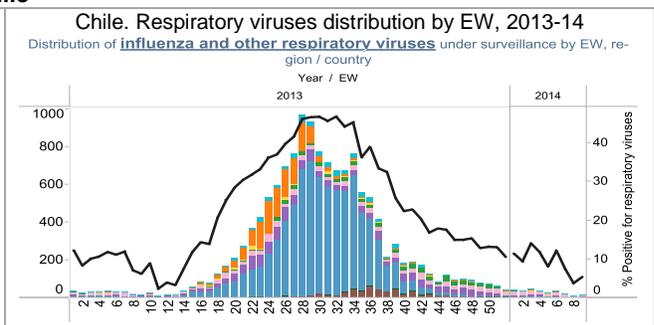
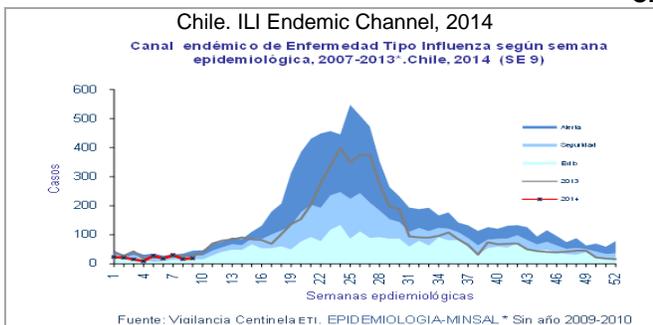
In Brazil⁷, according to ILI sentinel surveillance data through EW 8, 1,550 samples were analyzed, of which 7.0% were positive for influenza or another respiratory virus. During EW 8, 1.1% of samples were positive for a respiratory virus, and among these RSV and influenza A(H3N2) were detected. Based on universal SARI surveillance data during this same period, 904 SARI cases were reported and 4.2% of these were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 and A(H3N2) predominated. Through EW 8, 92 SARI-associated deaths were reported, of which 4.3% were positive for influenza.

Brazil



In Chile⁸, ILI activity during EW 9 remained low (rate: 1.3 per 100,000 inhabitants) and was in the security zone of the endemic channel. Based on laboratory data from EW 8-9, 538 samples were analyzed, of which 4.5% were positive for a respiratory virus and 0.6% were positive for influenza. Among the positive samples, adenovirus predominated (62.5%).

Chile

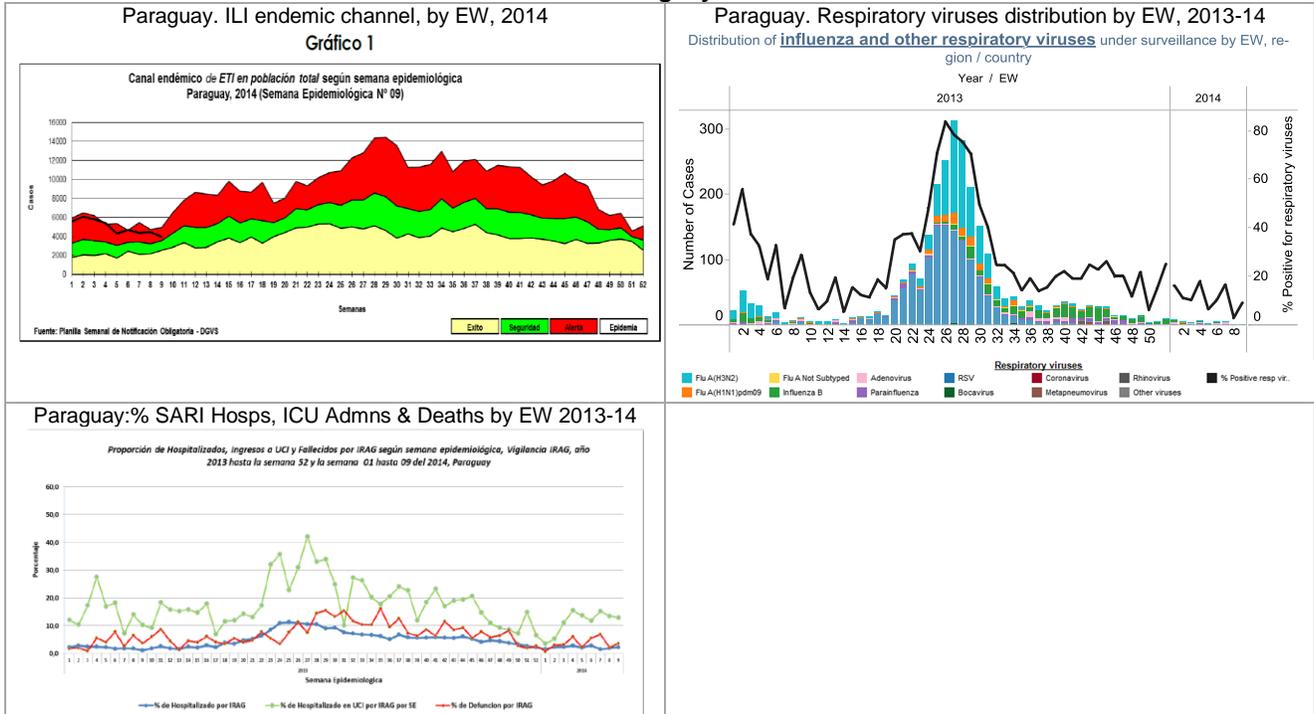


⁷ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 8, 2014.

⁸ Chile. Informe de situación. EW 9. Available at: <http://epi.minsal.cl/>

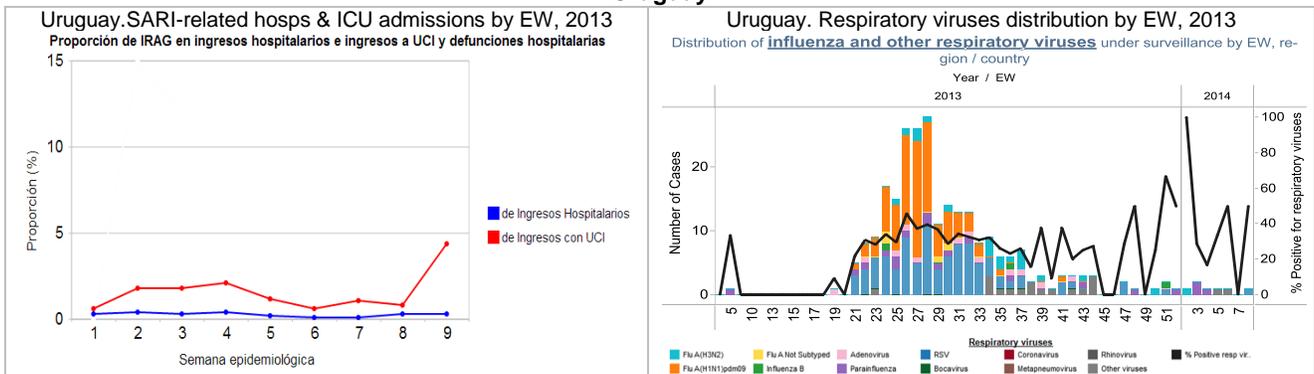
In Paraguay⁹ during EW 9, the ILI consultation rate (58.9 per 100,000 inhabitants) decreased from the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (2.2%) was within the expected range for this time of year. The most affected age groups were children <2 years of age and adults ≥60 years. Based on laboratory data from EW 6-9, 130 samples were analyzed, of which 10.0% were positive for a respiratory virus and 3.1% were positive for influenza. Among the positive samples, adenovirus (46.2%) and influenza B (30.8%) predominated.

Paraguay



In Uruguay¹⁰ during EW 9, the proportions of SARI-associated hospitalizations, ICU admissions and deaths remained at low levels. Based on laboratory data from EW 6-9, 6 samples were analyzed of which two tested positive for a respiratory virus.

Uruguay



⁹ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 9.

¹⁰ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública