

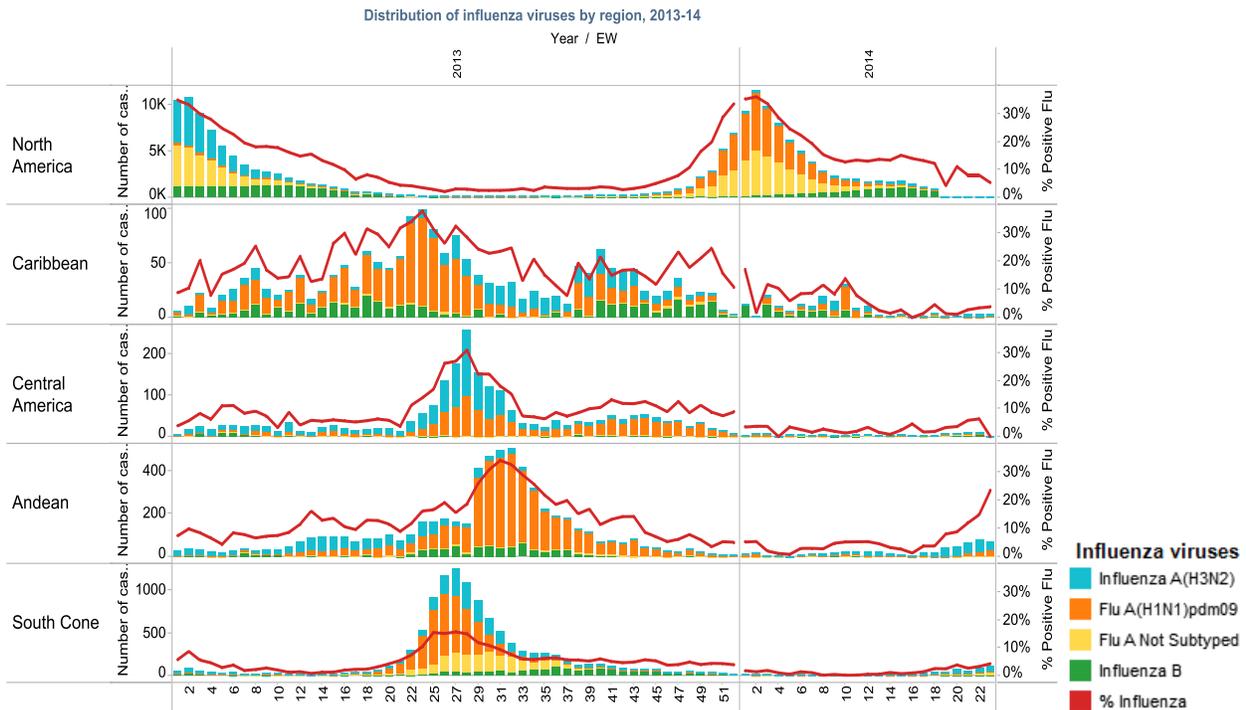
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

The information presented in this update is based on data provided by Ministries of Health and National Influenza Centers of Member States to the Pan American Health Organization (PAHO) or from updates on the Member States' Ministry of Health web pages.

WEEKLY SUMMARY

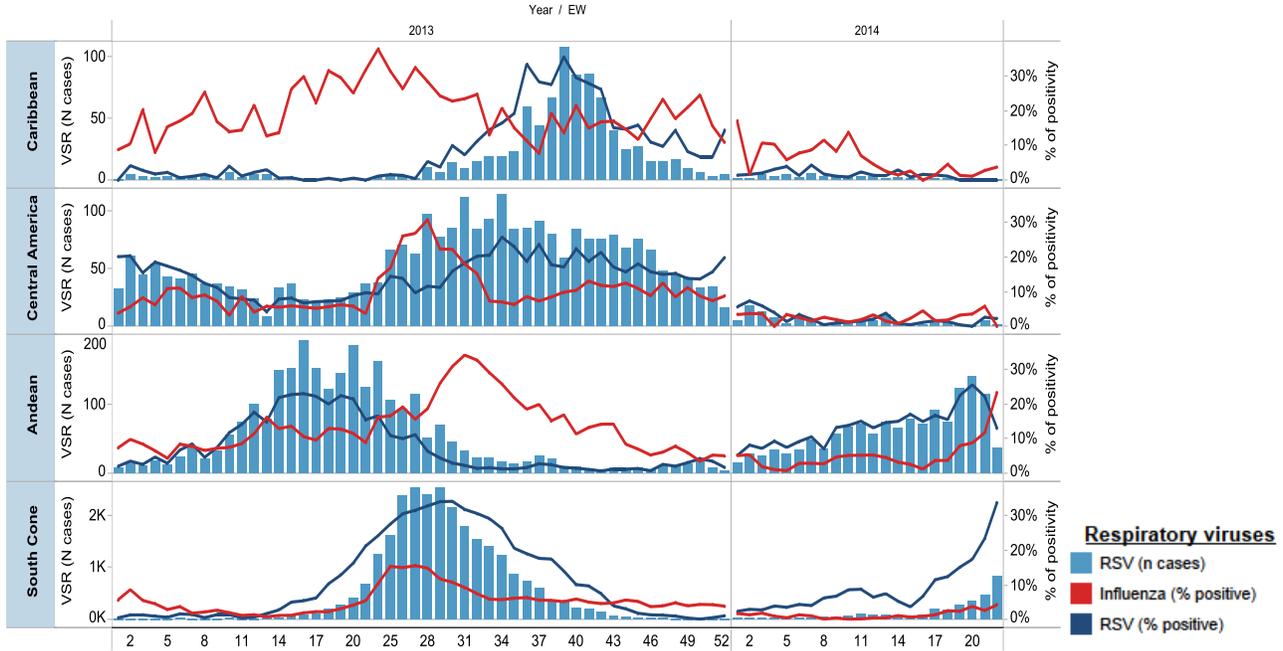
- **North America:** Influenza activity continued to decline in the sub-region, with a predominance of influenza B and A(H3N2). Circulation of influenza A(H1N1)pdm09 was observed, but at low levels.
- **The Caribbean and Central America:** Respiratory virus activity remained low in the sub-region, but increased circulation of influenza A(H3N2) (Dominican Republic) and influenza B (El Salvador, Panama, Honduras, Puerto Rico) was observed.
- **South America – Andean Countries:** RSV continued to circulate in Bolivia, Colombia, Ecuador and Peru. Although an increase in the circulation of influenza A(H3N2) was observed in some countries (Bolivia, Venezuela), activity remained within expected levels for this of year.
- **South America - South Cone and Brazil:** Most respiratory virus activity indicators in the sub-region increased in recent weeks but remained within expected levels for this time of year. RSV predominated at increasing levels and influenza A(H3N2) circulation was observed in some countries (Brazil and Chile).

Influenza circulation by region. 2013-14



Respiratory syncytial virus (RSV) circulation by region. 2013-14

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



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

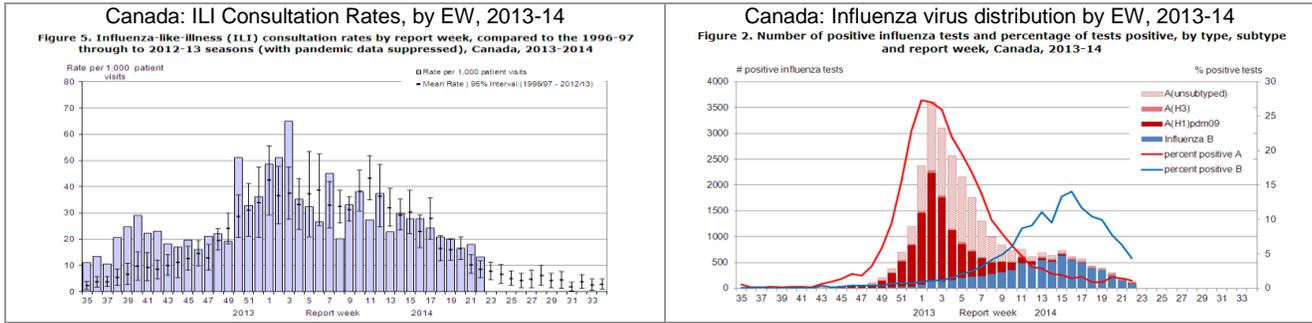
EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In Canada¹ during EW 22, influenza activity continued to decline and was within expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 13.2 per 1,000 patient visits, a decrease compared to the previous week, but slightly above expected levels. Since the beginning of the 2013-14 influenza season, 5,086 influenza-associated hospitalizations have been reported, of which 71.4% were associated with influenza A. During this same period, 313 deaths were reported, most of which were associated with influenza A (68.7%). The highest proportion of deaths (54.3%) has been among adults ≥ 65 years of age. Based on laboratory data for EW 22, the overall percentage of positive influenza tests was 5.5% (N=133). Among the positive tests during EW 21-22, 80.4% were influenza B and 19.6% were influenza A, of which 9.1% were influenza A(H1N1)pdm09, 59.1% were A(H3) and 31.8% were A, not subtyped. Among other circulating respiratory viruses, rhinovirus predominated.

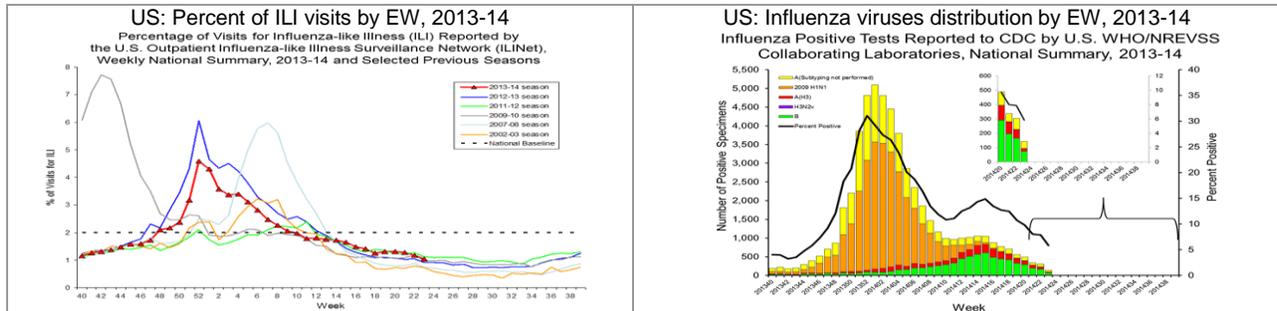
¹ Canada: FluWatch Report. EW 21-22. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada



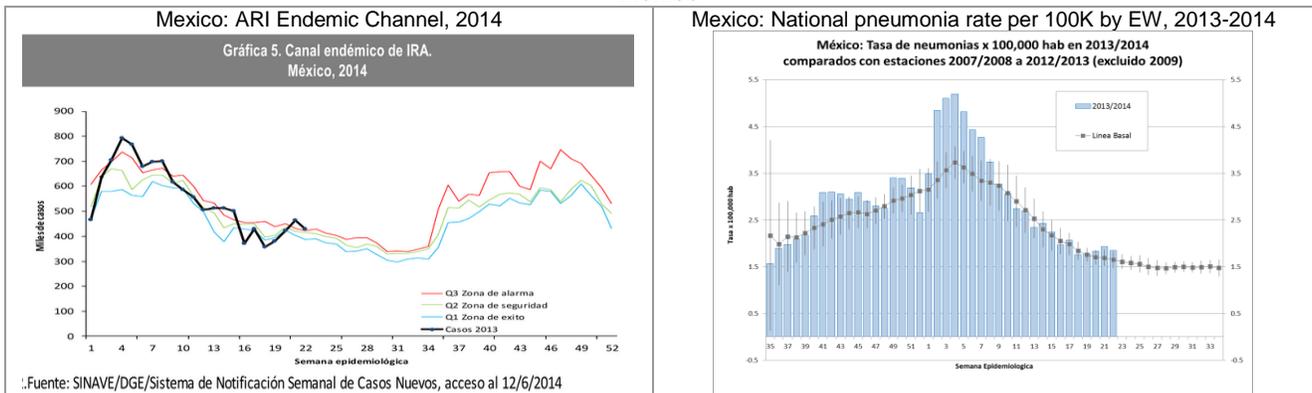
In the United States² during EW 23, influenza activity continued to decrease. The national proportion of ILI-associated outpatient visits was 1.0% and below the national baseline (2.0%). The proportion of deaths attributed to pneumonia and influenza for EW 23 (5.7%) was also below the epidemic threshold (6.6%). A total of 97 influenza-associated pediatric deaths have been reported this season (no deaths were reported during EW 23). According to laboratory data for EW 23, 2,453 samples were analyzed, of which 5.8% were positive for influenza. Among the positive samples, 52.4% were influenza B and 47.6% were influenza A (0% A(H1N1)pdm09, 27.9% A(H3) and 72.1% not subtyped).

United States



In Mexico³ during EW 23, influenza activity decreased compared to the previous week. ARI activity was within the epidemic zone of the endemic channel, and the highest levels of ARI activity were reported in Campeche, Hidalgo, and Aguascalientes. Pneumonia activity decreased compared to the previous week (rate: 1.8 per 100,000 inhabitants) and was within expected levels for this time of year. The highest levels of pneumonia activity were reported in Nuevo Leon, Jalisco, and Baja California Sur. Nationally, through June 12, 2014, the proportion of ILI/SARI-associated medical visits was 0.5%. The highest proportions of ILI/SARI-associated medical visits were reported in Oaxaca, Guerrero and Veracruz. During this same period, 739 influenza-associated deaths were reported, of which 90.3% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 20-23, 655 samples were analyzed, of which 8.9% were positive for influenza. Among the positive samples, 81.0% were influenza B and 19.0% were influenza A (9.1% A(H1N1)pdm09, 72.7% A(H3N2) and 18.2% A, not subtyped).

Mexico

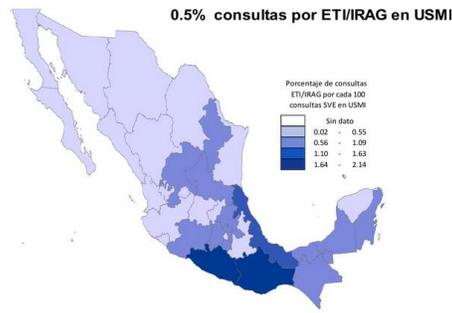


² USA: CDC FluView report. EW 23. Available at: <http://www.cdc.gov/flu/weekly/>

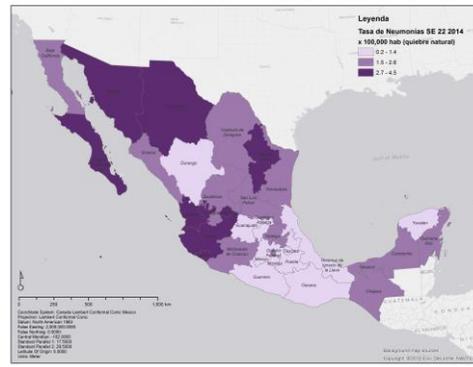
³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Mexico: Proportion of ILI/SARI consultations by State, EW 23

Figura 1. Proporción de consultas por ETI/IRAG en USMI según entidad federativa. México, 2014

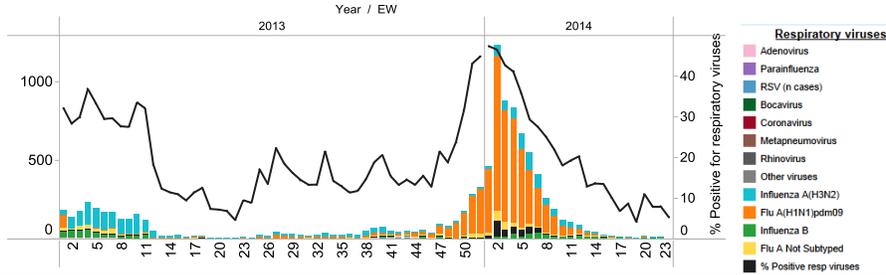


Mexico: Pneumonia Rates by State, EW 22



Mexico: Respiratory viruses distribution by EW 2013-14

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

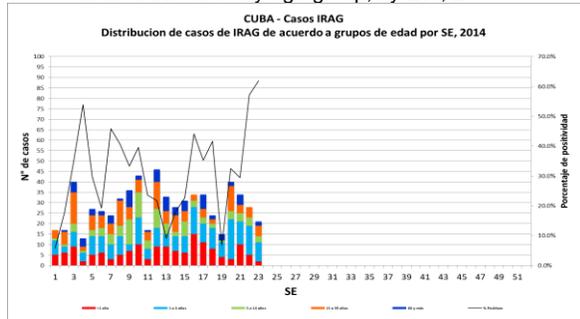


Caribbean

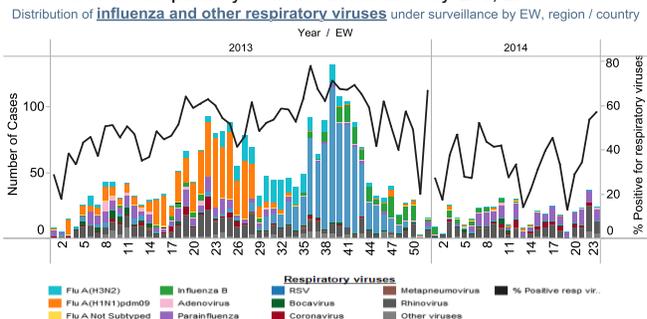
In Cuba during EW 23, the number of SARI-associated hospitalizations (n=21) decreased compared to the previous week. Children 1-4 years of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 20-23, 247 samples were analyzed, of which 42.1% were positive for a respiratory virus. Among the positive samples, rhinovirus (41.3%) and parainfluenza (34.6%) predominated.

Cuba

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



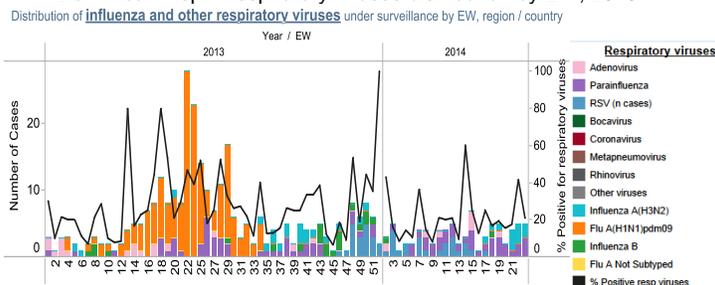
Cuba. Respiratory viruses distribution by EW, 2013-14



In the Dominican Republic, during EW 20-23, 72 samples were analyzed, of which 22.2% were positive for a respiratory virus and 11.1% were positive for influenza. Among the positive samples, influenza A(H3N2) and parainfluenza (50.0%) were detected.

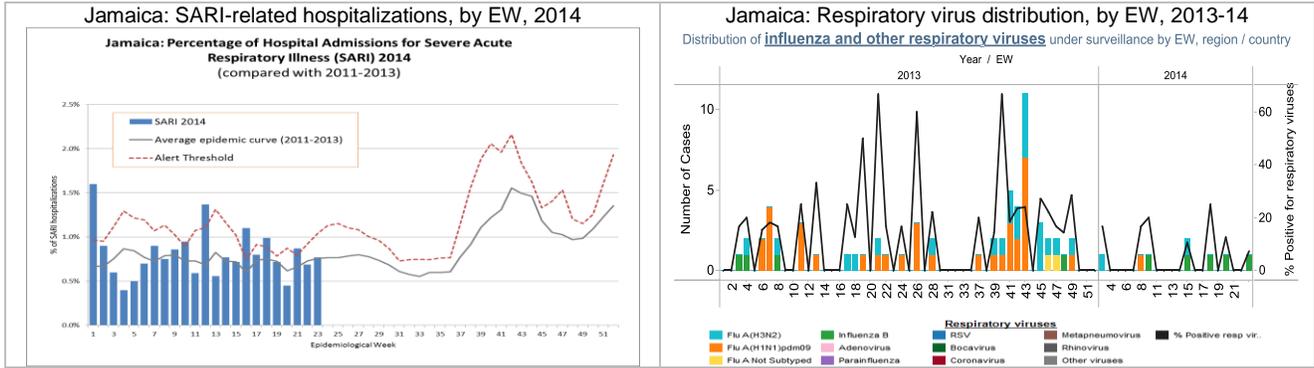
Dominican Republic

Dominican Rep.: Respiratory viruses distribution by EW, 2013-14



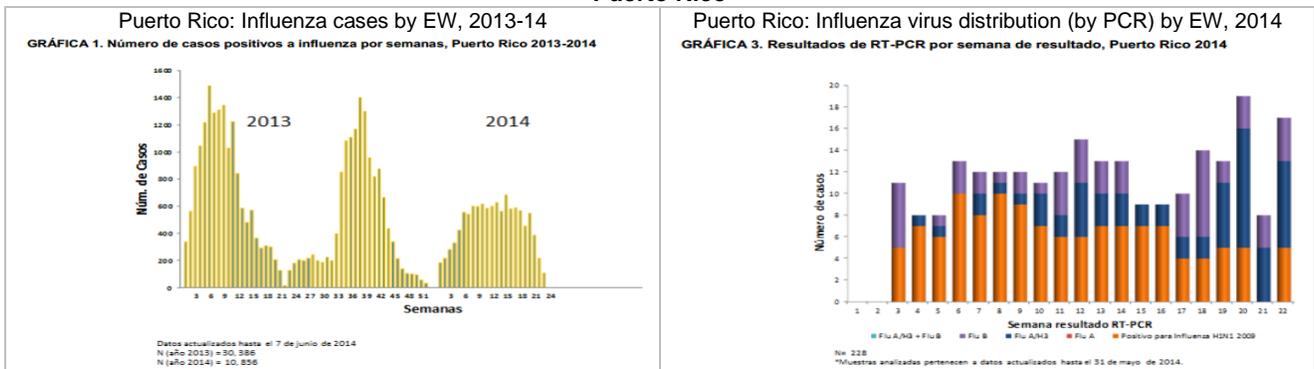
In Jamaica, based on sentinel surveillance data for EW 23, the proportion of ARI-associated consultations (3.7%) decreased compared to the previous week while the proportion of SARI-associated hospitalizations (0.7%) increased. No SARI-associated deaths were reported during this EW. Based on laboratory data for EW 20-23, 50 samples were analyzed, and two tested positive for influenza B.

Jamaica



In Puerto Rico⁴ during EW 23, the number of influenza cases (n=106) decreased compared to the previous week. Of these, 48 cases were associated with influenza A, 53 with influenza B and 5 with an influenza A and B co-infection. Since the beginning of 2014, 10,856 influenza cases have been reported (52% influenza A and 47% influenza B) and persons aged 0-19 years accounted for 50% of those cases. During this same period, 586 influenza-associated hospitalizations and 13 influenza-associated deaths were reported.

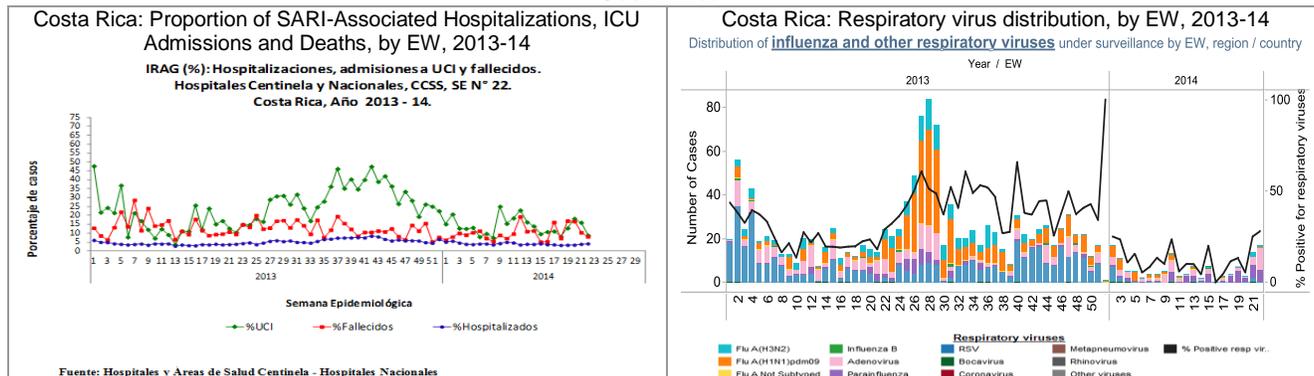
Puerto Rico



Central America

In Costa Rica, during EW 23, the proportion of SARI-associated hospitalizations (4.0%) was similar to the previous week, while the proportions of SARI-associated ICU admissions (9.0%) and deaths (8.0%) decreased. According to laboratory data from EW 19-22, 227 samples were analyzed of which 18.1% were positive for a respiratory virus and 1.3% were positive for influenza. Among the positive samples, parainfluenza (46.3%) and adenovirus (41.5%) predominated.

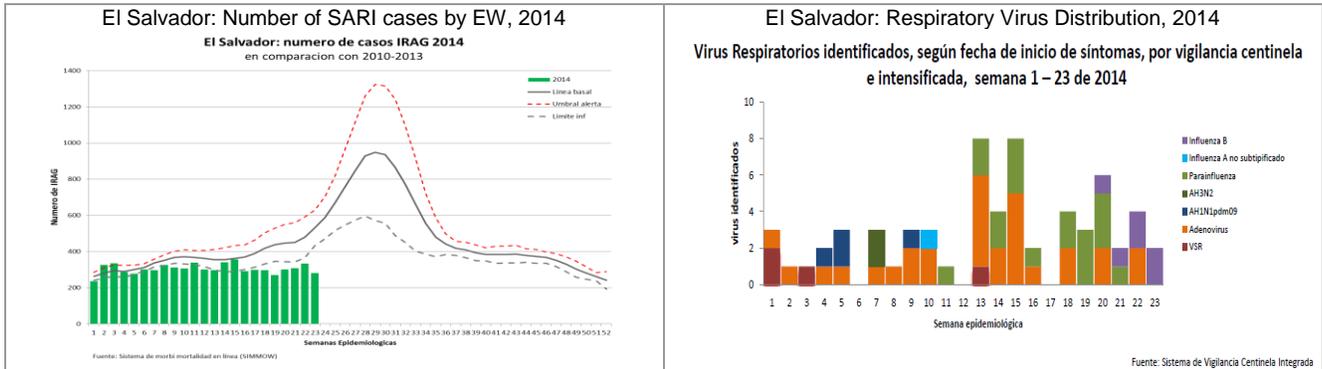
Costa Rica



⁴ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 23

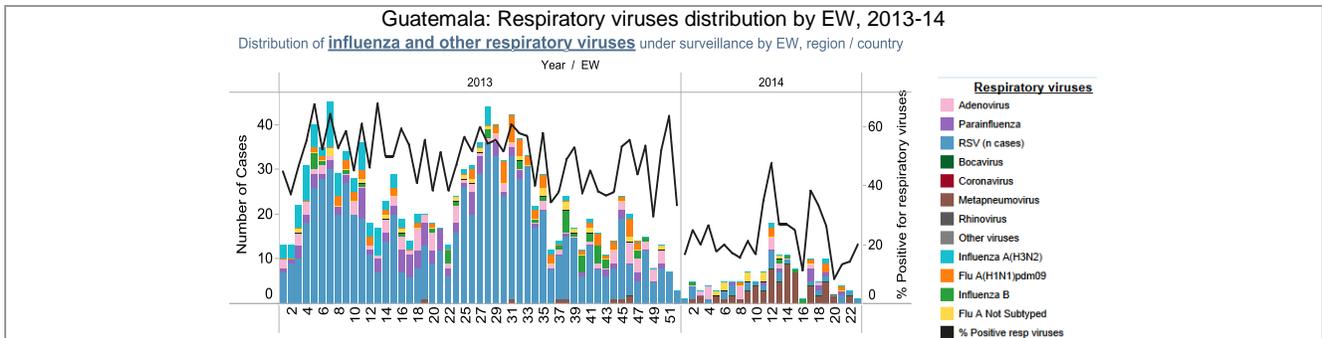
In El Salvador, during EW 23, the proportion of SARI-associated hospitalizations (6.3%) increased compared to the previous week, while the proportions of SARI-associated ICU admissions (5.9%) and SARI-associated deaths (4.0%) decreased. According to laboratory data for EW 23, 45 samples were analyzed, and of these 13.9% were positive for a respiratory virus. Among the positive samples, influenza B and adenovirus were detected.

El Salvador



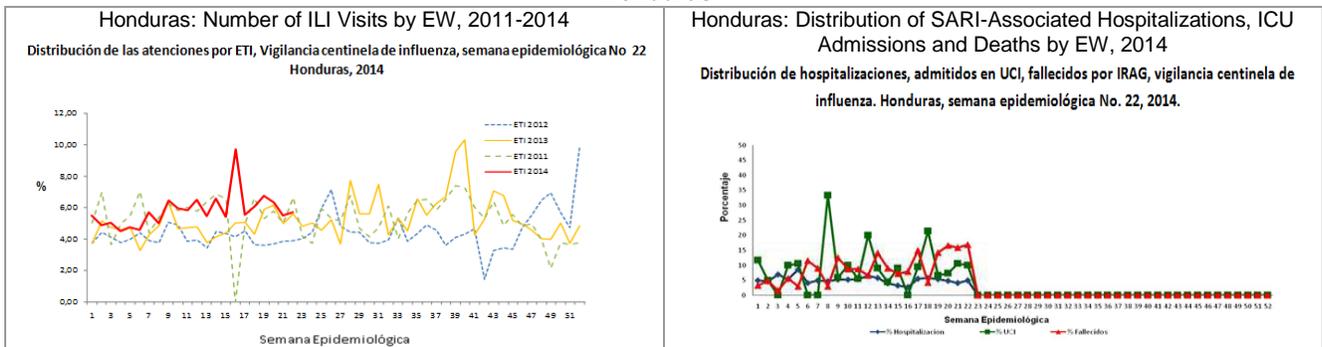
In Guatemala, based on laboratory data from EW 20-23, 80 samples were analyzed, of which 12.5% were positive for a respiratory virus and 1.3% were positive for influenza. Among the positive samples, RSV (40.0%) and human metapneumovirus (40.0% of positive samples) predominated.

Guatemala



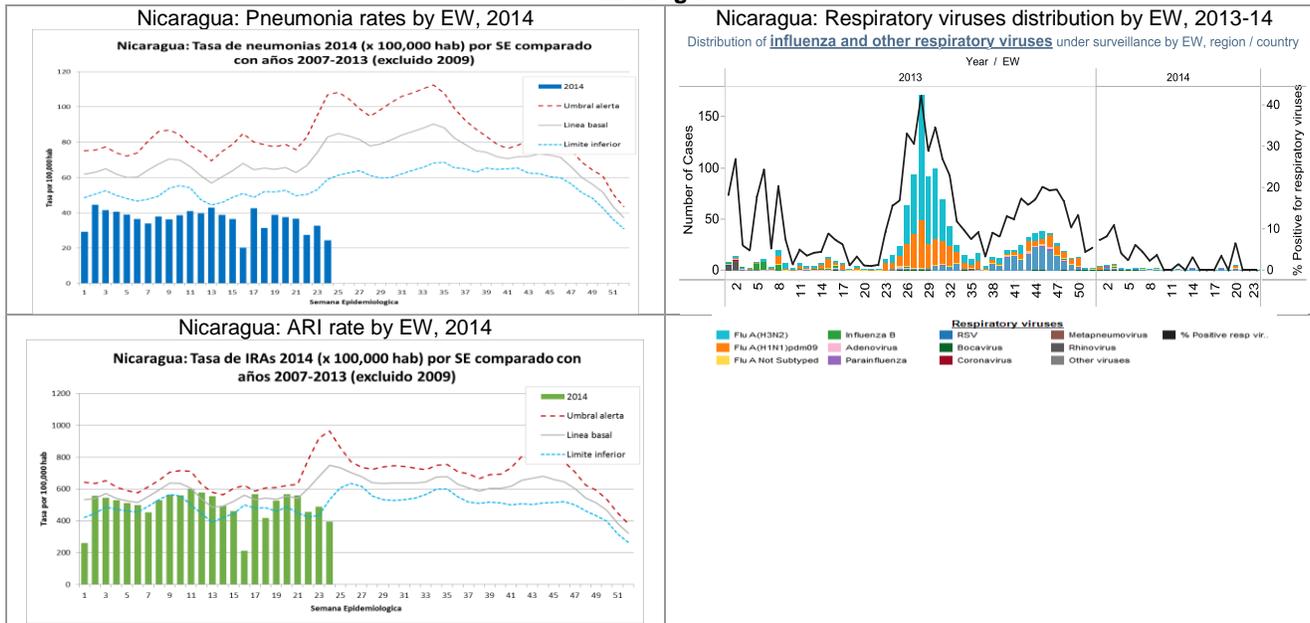
In Honduras, during EW 22, the proportions of ILI-associated medical visits (5.7%), SARI-associated hospitalizations (4.9%) and SARI-associated deaths (16.9%) increased compared to the previous week. According to laboratory data for EW 22, 34 samples were analyzed, and of these 9 (26.5%) were positive for influenza B.

Honduras



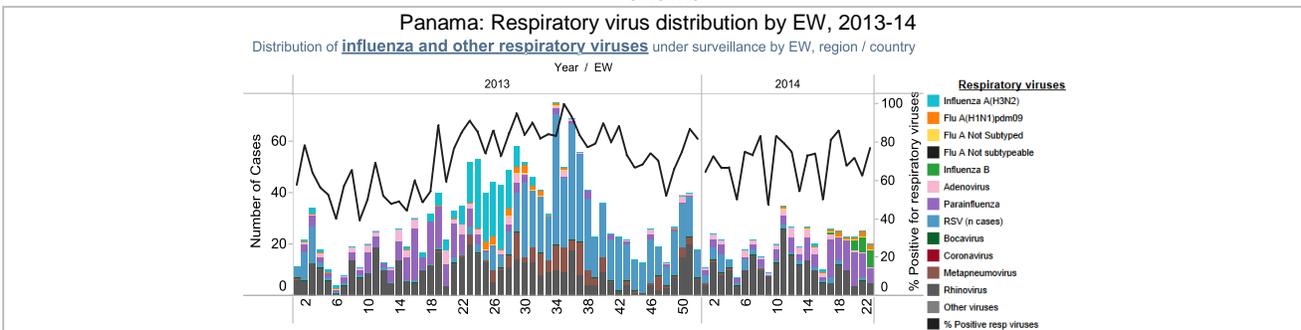
In Nicaragua, during EW 24, the national rates of pneumonia and ARI decreased compared to the previous week and were within expected levels for this time of year. Based on laboratory data from EW 20-23, 232 samples were analyzed, of which five (2.2%) were positive for a respiratory virus (60% parainfluenza and 40% influenza A(H1N1)pdm09).

Nicaragua



In Panama, based on national laboratory data from EW 19-22, 132 samples were analyzed, of which 68.9% were positive for a respiratory virus and 17.4% were positive for influenza. Among the positive samples, parainfluenza (45.1%), rhinovirus (27.5%) and influenza B (18.7%) predominated.

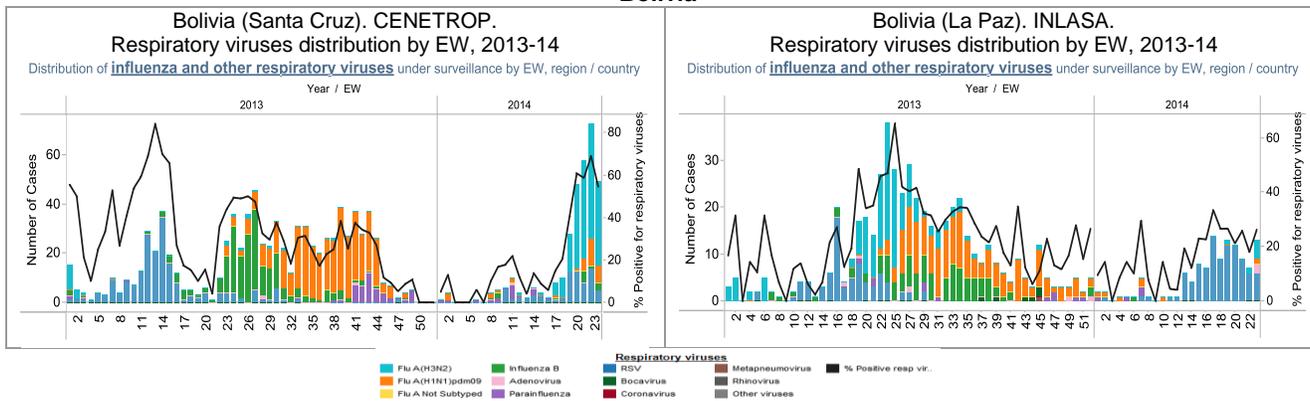
Panama



South America – Andean countries

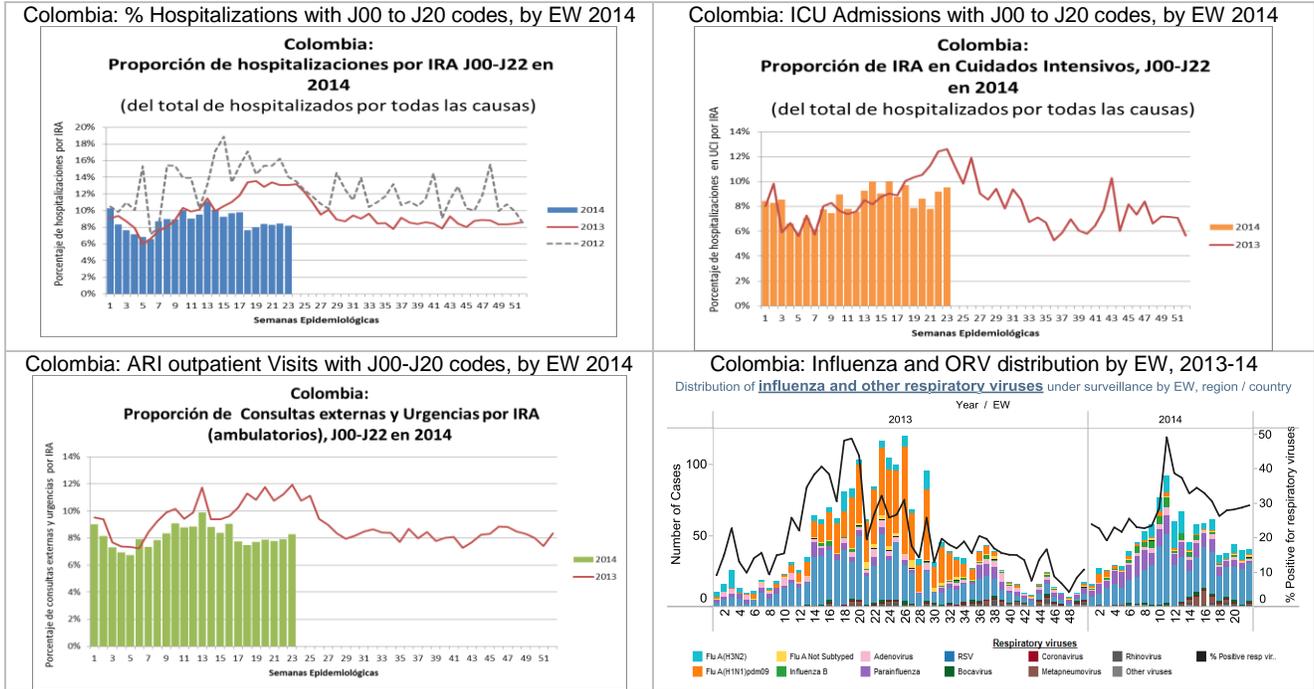
In Bolivia, increased influenza and RSV activity was observed. According to laboratory data from Santa Cruz (CENETROP), during EW 20-23, 374 samples were analyzed, of which 61.0% were positive for a respiratory virus and 50.3% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (68.0%), followed by RSV (17.5%). According to the National Laboratory in La Paz (INLASA) from EW 20-23, 181 samples were analyzed, of which 22.7% were positive for a respiratory virus and 3.3% were positive for influenza. Among the positive samples, RSV (80.5%) predominated followed by influenza A(H3N2) (12.2%).

Bolivia



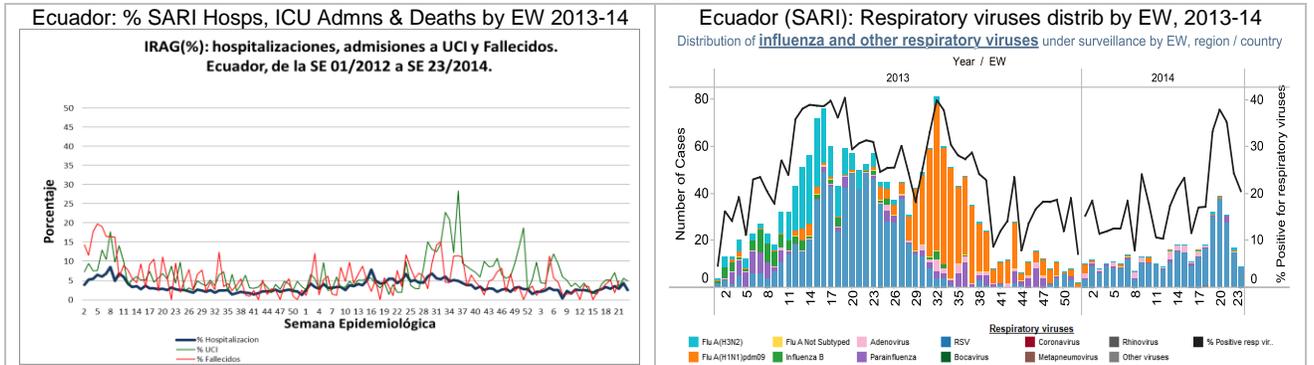
In Colombia, during EW 23, the proportions of outpatient and urgent visits (8.3%), hospitalizations (8.2%) and ICU admissions (9.5%) with ARI/SARI-associated ICD-10 codes (J00 to J22) were within the expected levels for this time of year. Based on INS laboratory data from EW 19-22, 567 samples were analyzed, of which 28.6% were positive for a respiratory virus and 4.9% were positive for influenza. Among the positive samples, RSV (59.9%) and influenza A(H3N2) (12.3%) predominated.

Colombia



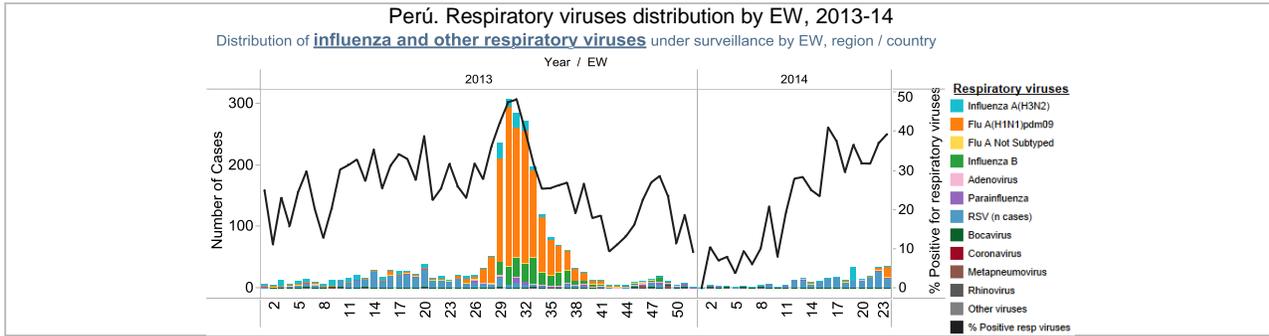
In Ecuador during EW 23, the proportion of SARI-associated hospitalizations (2.5%) and ICU admissions (4.9%) decreased compared to the previous week, while the proportion of SARI-associated deaths (4.8%) increased. Based on national reference laboratory data from EW 20-23, 305 SARI samples were analyzed, of which 31.5% were positive for a respiratory virus and 1.0% were positive for influenza. Among the positive samples, RSV predominated (93.8%).

Ecuador



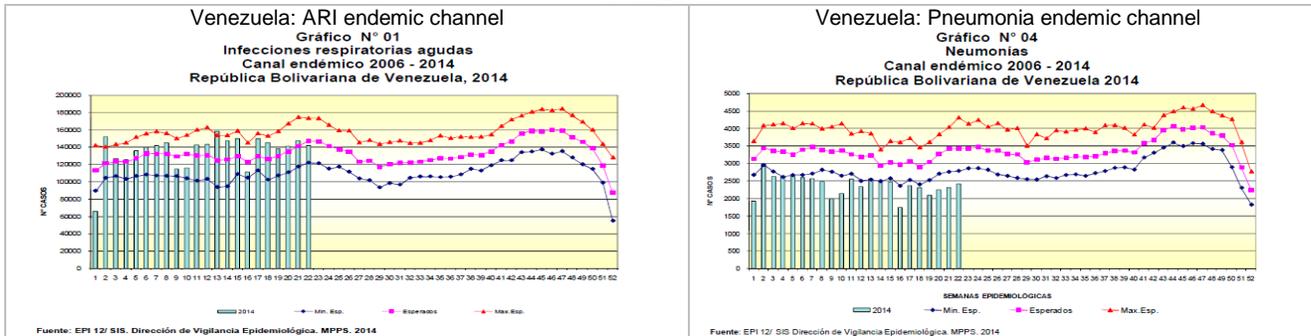
In Peru, based on national laboratory data from EW 20-23, 288 samples were analyzed, of which 35.8% were positive for a respiratory virus and 9.0% were positive for influenza. Among the positive samples, RSV (67.0%) predominated, followed by influenza A(H1N1)pdm09 (17.5%).

Peru



In Venezuela⁵ during EW 22, the number of ARI cases decreased by 3.6% compared to the previous week while the number of pneumonia cases increased by 4.5%. Both were within the expected levels for this time of year. During EW 22, 64 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-22, 279 samples were analyzed from suspected influenza cases and of these, 13.6% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (73.7%).

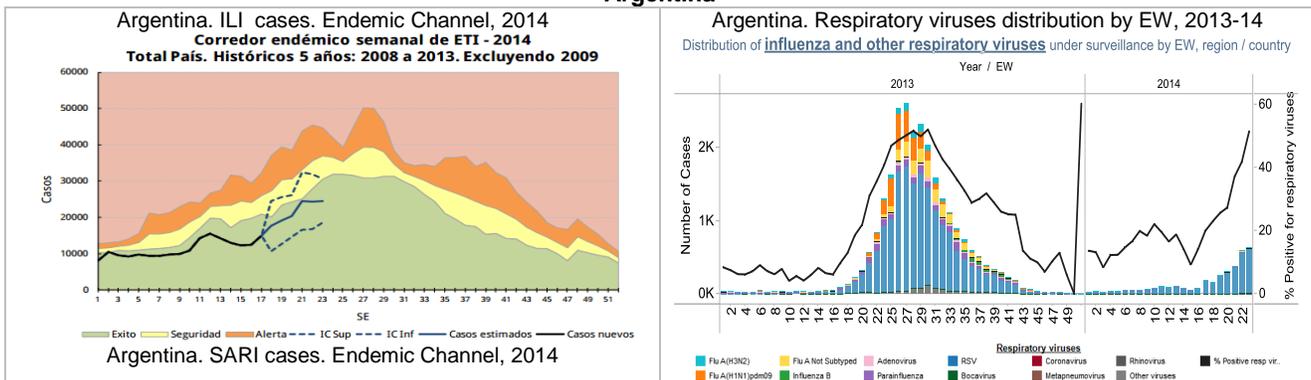
Venezuela



South America – South Cone and Brazil

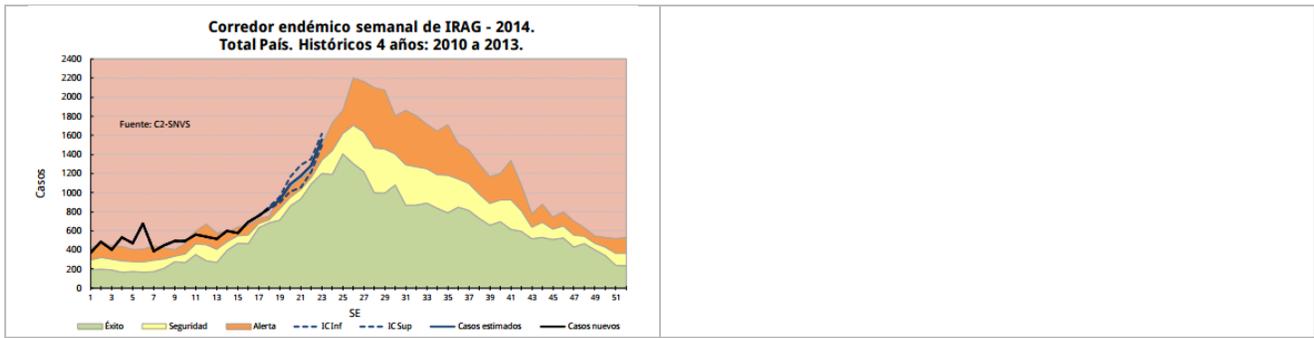
In Argentina⁶, RSV activity continued to increase while influenza activity remained low. According to reports and calculated estimations, for EW 23 the number of ILI cases was within the success zone of the endemic channel while the estimated number of SARI cases was slightly above the epidemic threshold. Based on laboratory data from EW 22-23, 2,648 samples were analyzed, of which 46.3% were positive for a respiratory virus and 1.2% were positive for influenza. Among the positive samples, RSV (93.4%) predominated.

Argentina



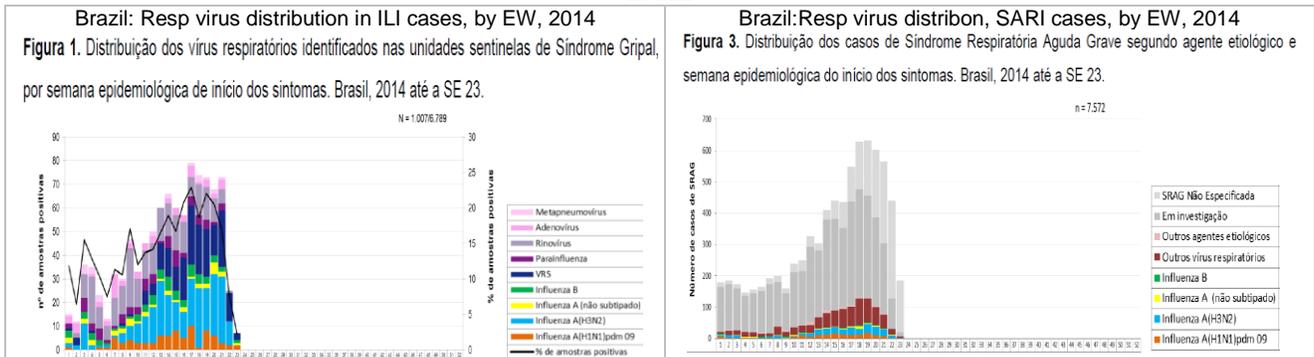
⁵ Venezuela. Boletín epidemiológico, EW 22.

⁶ Argentina. Boletín integrado de vigilancia. SE 23.



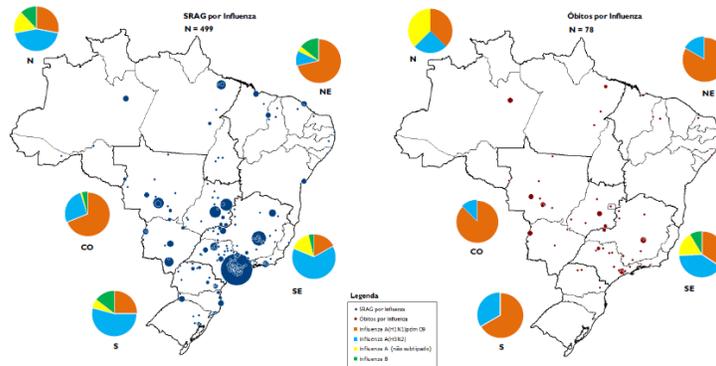
In Brazil⁷, according to ILI sentinel surveillance data through EW 23, 6,789 ILI samples were analyzed, and of these, 14.8% were positive for influenza or another respiratory virus. Among the positive samples, A(H3N2) predominated (25.2% of positive samples). The largest number of positive samples came from the South and Southeast regions of the country. Based on national SARI surveillance data during this same period, 7,572 SARI cases were reported and 6.6% of these were positive for influenza. Among the positive samples, influenza A(H3N2) (51.5%) predominated, followed by influenza A(H1N1)pdm09 (32.9%). The largest number of SARI cases was reported in the Southeast region, primarily in Sao Paulo. Through EW 23, 728 SARI-associated deaths were reported, of which 10.7% were positive for influenza (57.5% A(H1N1)pdm09 and 26.9% A(H3N2)).

Brazil



Brazil: Distribution of SARI hospitalizations and deaths by influenza type/subtype by region

Anexo 4. Distribuição espacial dos casos e óbitos por Síndrome Respiratória Aguda Grave confirmados para influenza por município de residência e percentual dos vírus influenza identificados por região. Brasil, 2014 até a SE 23.



Fonte: SINAN Influenza Web. Dados atualizados em 10/06/2014, sujeitos à alteração.
* O círculo é proporcional ao número de casos e óbitos. N = Norte; NE = Nordeste; SE = Sudeste; S = Sul; e CO = Centro Oeste.

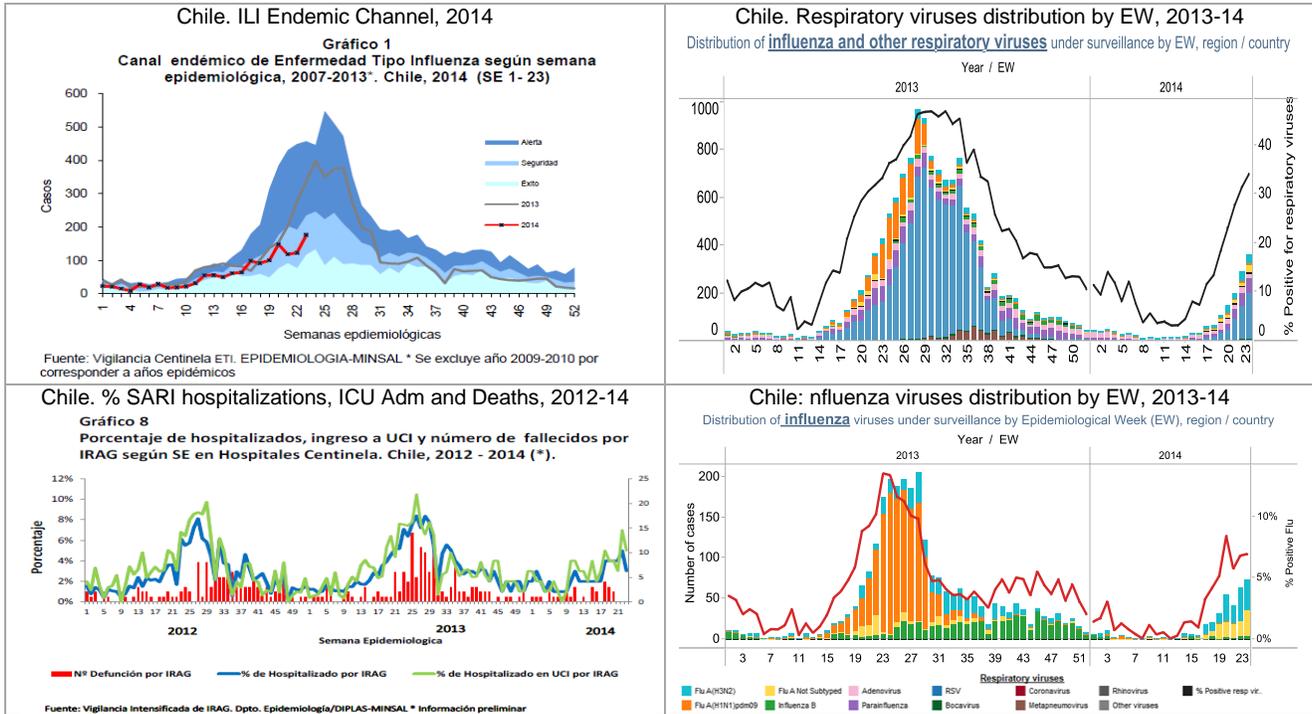
In Chile⁸, seasonal ILI activity continued to increased and remained within expected levels for this time of year. During EW 23, ILI activity increased compared to the previous week (rate: 11.7 per 100,000 inhabitants) and was within the security zone of the endemic channel. Through EW 23, 812 SARI cases were reported through sentinel surveillance and of these, 24% tested positive for a respiratory virus and 7% were positive for influenza. During this same period, 60 SARI-associated deaths were reported. Based on laboratory data from EW 22-23, 1,982 samples were analyzed, of which 32.6% were positive for a respiratory

⁷ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 23, 2014.

⁸ Chile. Informe de situación. EW 23. Available at: <http://epi.minsal.cl/>

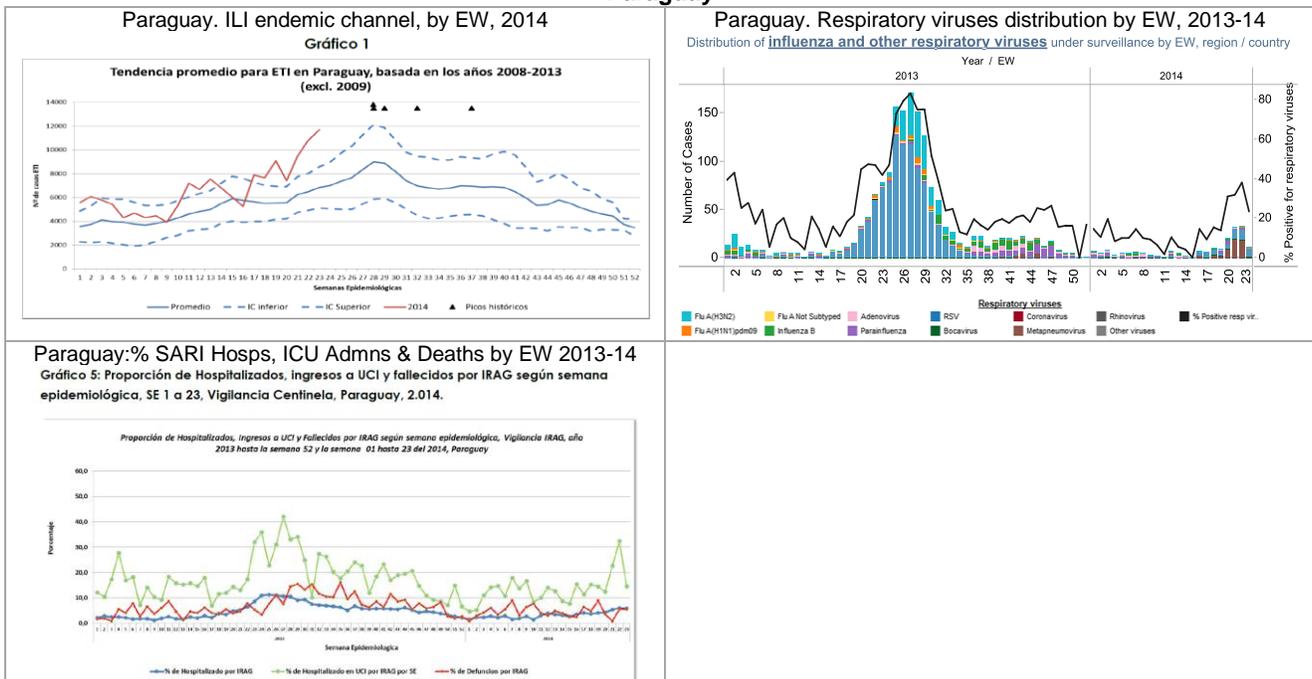
virus and 6.9% were positive for influenza. Among the positive influenza samples, 95.6% were influenza A (60.0% A(H3N2) and 40.0% not subtyped) and 4.4% were influenza B. Among the other respiratory viruses, RSV (51.0% of positive samples) predominated, followed by parainfluenza (17.3%).

Chile



In Paraguay⁹ during EW 23, the ILI consultation rate (175 per 100,000 inhabitants) increased from the previous EW and was above the expected levels for this time of year. The proportion of SARI-associated hospitalizations (5.8%) also increased compared to the previous week. The most affected age groups were children <5 years of age and adults ≥60 years. Based on reference laboratory data from EW 20-23, 303 SARI samples were analyzed of which 32.0% were positive for a respiratory virus and 2.0% were positive for influenza. Among the positive samples, human metapneumovirus (49.5%) and RSV (36.1%) predominated.

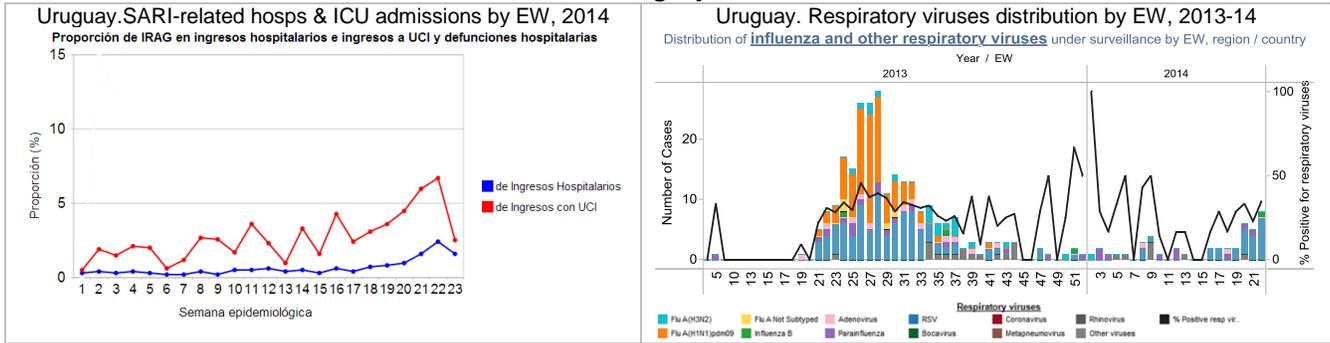
Paraguay



⁹ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 23.

In Uruguay¹⁰ during EW 23, the proportions of SARI-associated hospitalizations, ICU admissions, and deaths decreased compared to the previous week and were within expected levels for this time of year. Based on laboratory data from EW 20-23, 63 samples were analyzed, of which 30.2% were positive for a respiratory virus and 1.6% were positive for influenza. Among the positive samples, RSV (78.9%) predominated.

Uruguay



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