

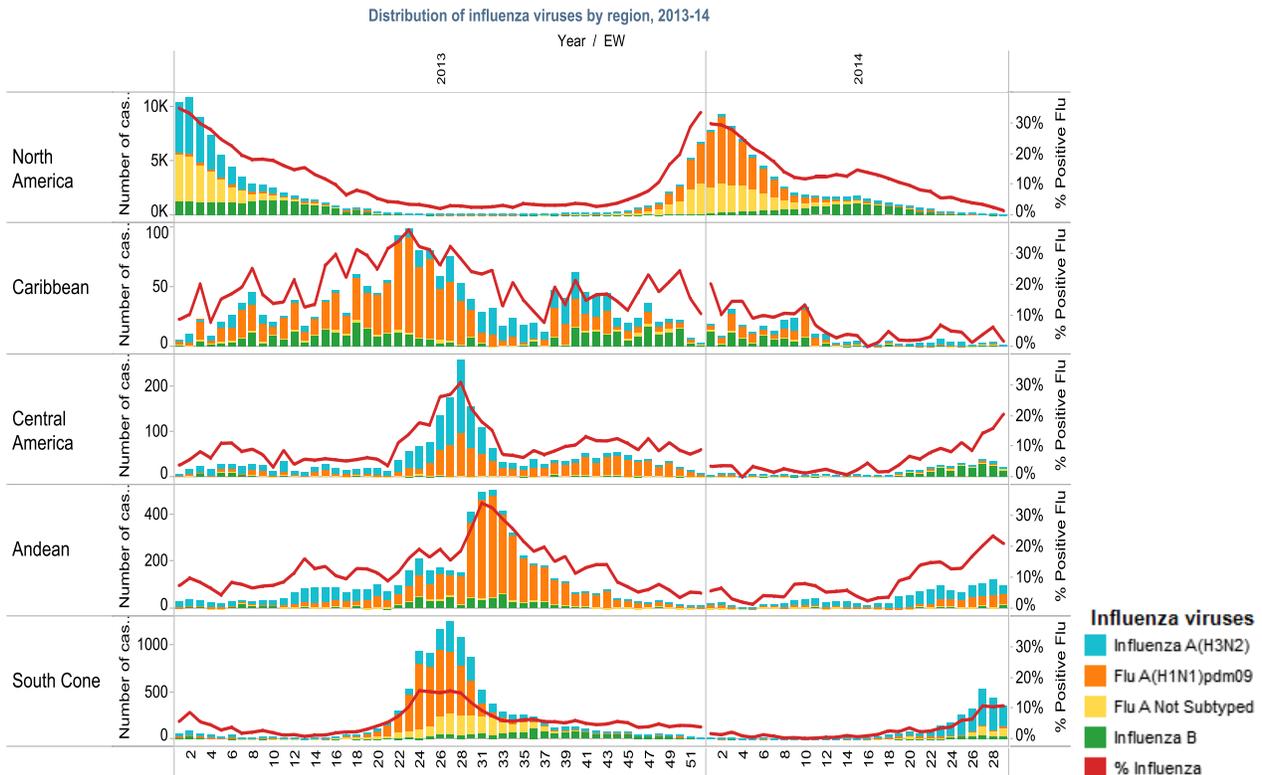
PAHO interactive influenza data: [http://ais.paho.org/phis/viz/ed\\_flu.asp](http://ais.paho.org/phis/viz/ed_flu.asp)  
Influenza Regional Reports: [www.paho.org/influenzareports](http://www.paho.org/influenzareports)

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.

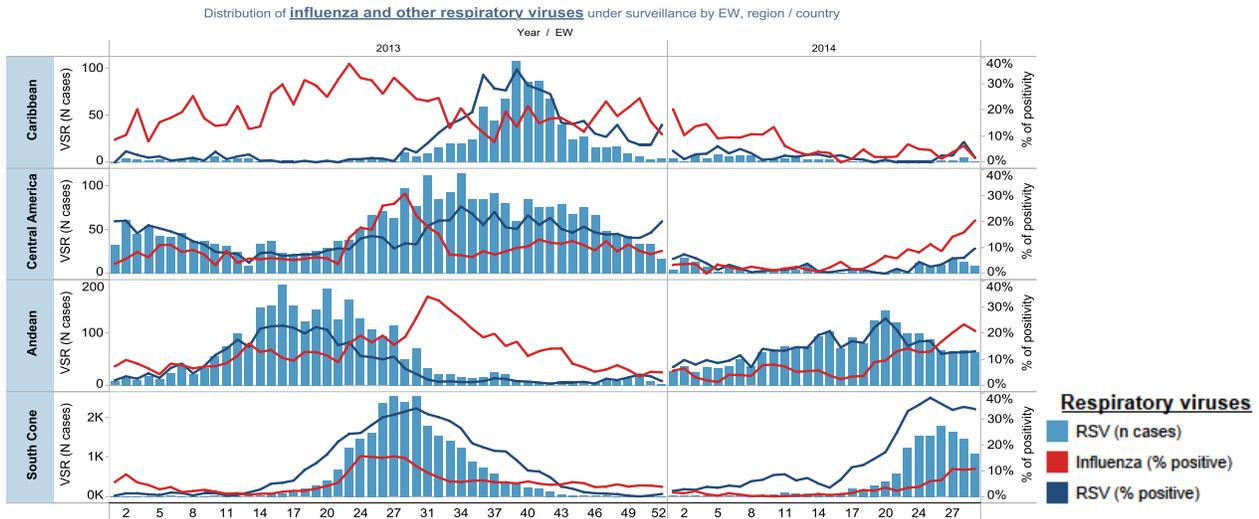
WEEKLY SUMMARY

- North America: Influenza activity remained low in the sub-region with co-circulation of influenza B and A(H3N2).
- The Caribbean and Central America: Circulation of influenza B was observed in several countries (Costa Rica, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Panama, Puerto Rico), as well as influenza A(H3) in Puerto Rico and A(H1N1)pdm09 in Panama.
- South America – Andean Countries: RSV continued to circulate in most countries of the sub-region. Increased circulation of influenza was observed in Bolivia, with co-circulation of A(H3N2) and A(H1N1)pdm09. Although activity remained low in the rest of the sub-region, increased co-circulation of influenza A and B was observed.
- South America - South Cone and Brazil: Most acute respiratory illness activity indicators in the sub-region continued to increase. RSV circulation was still observed, and among influenza viruses, A(H3N2) predominated (Argentina, Brazil, Chile, Paraguay, Uruguay).

Influenza circulation by region. 2013-14



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



## ACRONYMS

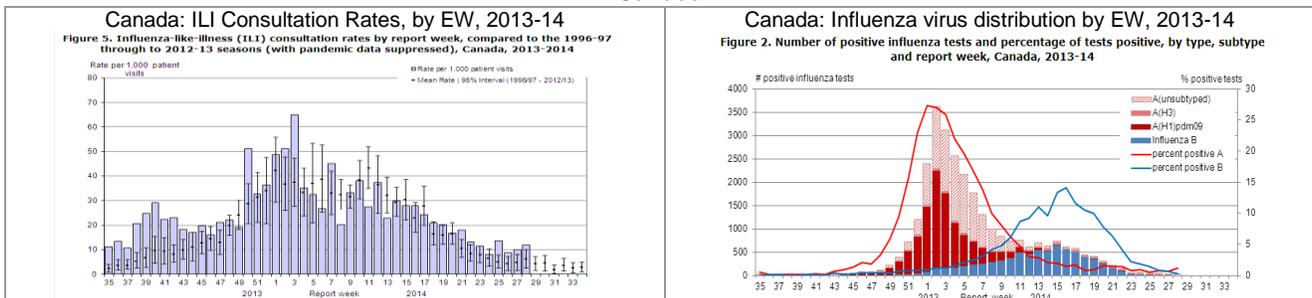
<b>ARI</b>	Acute respiratory infection
<b>CARPHA</b>	Caribbean Public Health Agency
<b>CENETROP</b>	Centro de Enfermedades Tropicales (Santa Cruz, Bolivia)
<b>EW</b>	Epidemiological Week
<b>ILI</b>	Influenza-like illness
<b>INLASA</b>	Instituto Nacional de Laboratorios de Salud (La Paz, Bolivia)
<b>INS</b>	Instituto Nacional de Salud
<b>ORV</b>	Other respiratory viruses
<b>SARI</b>	Severe acute respiratory infection
<b>SEDES</b>	Servicio Departamental de Salud (Bolivia)
<b>ICU</b>	Intensive Care Unit
<b>RSV</b>	Respiratory Syncytial Virus

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

### North America:

In Canada<sup>1</sup> during EW 28, influenza activity was low. The national ILI consultation rate was 11.8 per 1,000 patient visits, an increase compared to the previous week and slightly above expected levels. Since the beginning of the 2013-14 influenza season, 5,414 influenza-associated hospitalizations have been reported, of which 68.5% were associated with influenza A. During this same period, 340 deaths were reported, most of which were associated with influenza A (64.4%). The highest proportion of deaths (56.8%) has been among adults  $\geq 65$  years of age. Based on laboratory data for EW 28 the overall percentage of positive influenza tests was 1.5% (N=20). Among the positive tests during EW 27-28, 63.4% were influenza A (7.7% were influenza A(H1N1)pdm09, 73.1% were A(H3) and 19.2% were not subtyped) and 36.6% were influenza B. Among other circulating respiratory viruses, rhinovirus predominated.

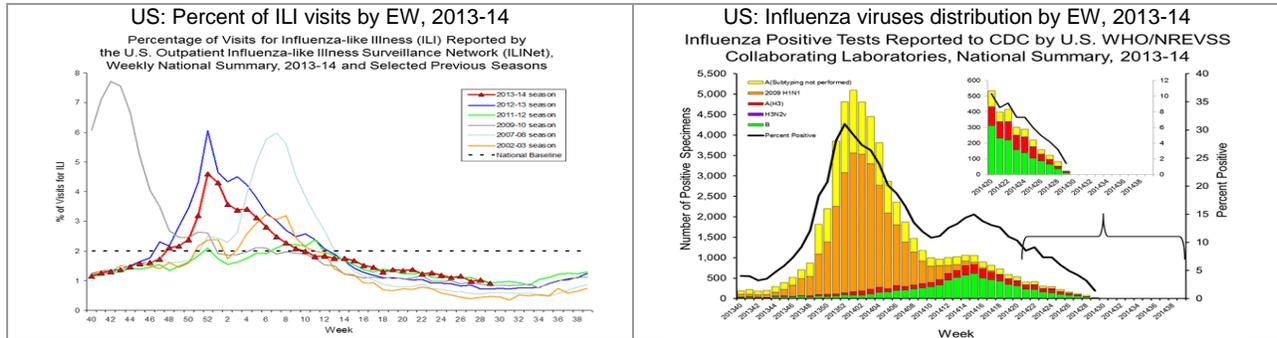
### Canada



<sup>1</sup> Canada: FluWatch Report. EW 27-28. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

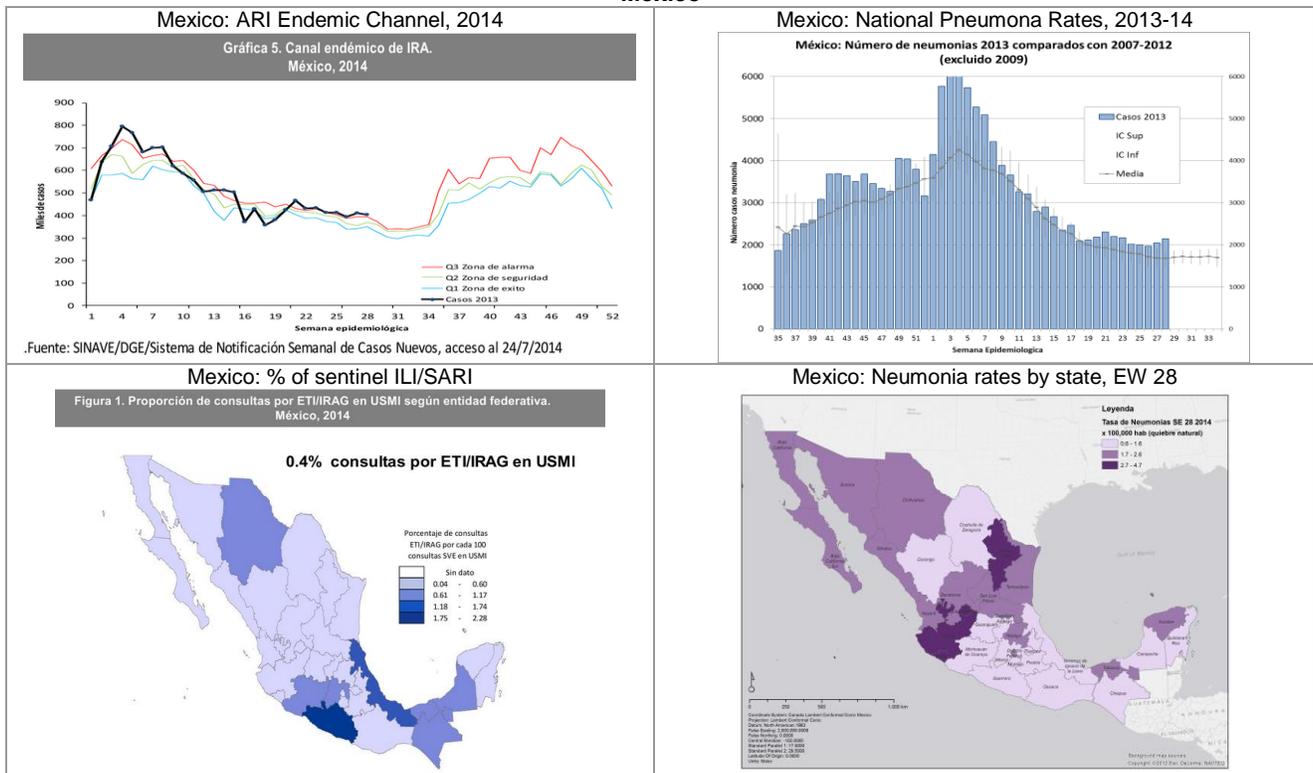
In the United States<sup>2</sup> during EW 29, influenza activity was low. The national proportion of ILI-associated outpatient visits (0.9%) was below the national baseline (2.0%). The proportion of deaths attributed to pneumonia and influenza (5.5%) was also below the epidemic threshold (6.1%). A total of 105 influenza-associated pediatric deaths have been reported this season (four deaths were reported during EW 29). According to laboratory data for EW 29, 1,649 samples were analyzed, of which 1.4% were positive for influenza. Among the positive samples, 52.2% were influenza A (0% A(H1N1)pdm09, 66.7% A(H3) and 33.3% not subtyped) and 47.8% were influenza B.

### United States



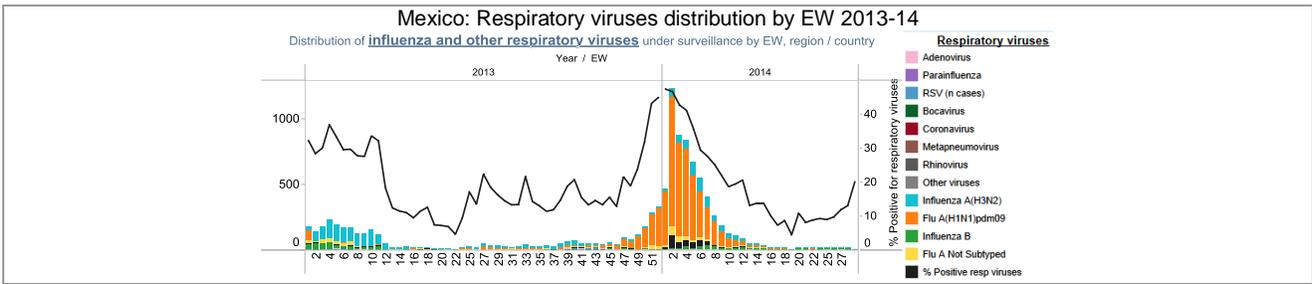
In Mexico<sup>3</sup> during EW 29, influenza activity remained low. ARI activity decreased from the previous week and was within the epidemic zone of the endemic channel. Pneumonia activity decreased compared to the previous week (rate: 1.8 per 100,000 inhabitants). The highest levels of pneumonia activity were reported in Aguascalientes, Campeche and Zacatecas. Nationally, through July 24, 2014, the proportion of ILI/SARI-associated medical visits was 0.4%. The highest proportions of ILI/SARI-associated medical visits were reported in Guerrero, Veracruz and Tabasco. During this same period, 757 influenza-associated deaths were reported, of which 90.2% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 26-29, 596 samples were analyzed, of which 11.1% were positive for influenza. Among the positive samples, influenza B predominated (79.4%), followed by influenza A(H3N2) (13.2%).

### Mexico



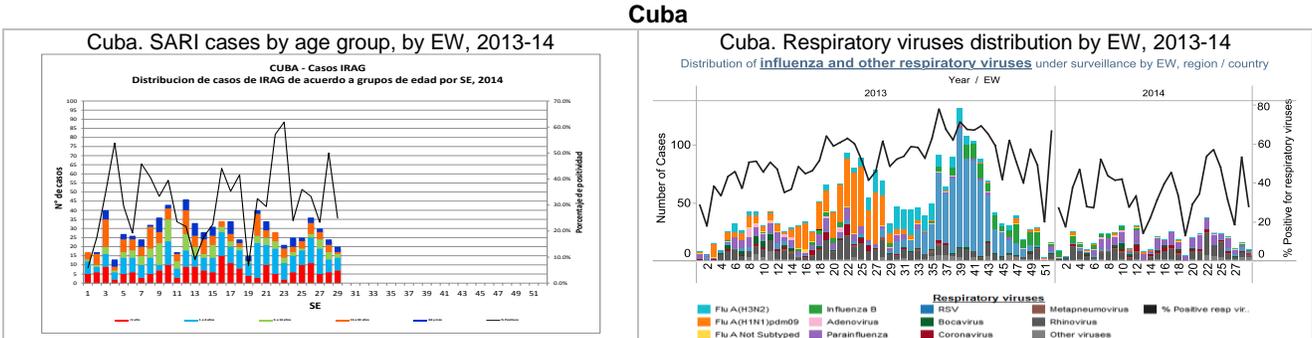
<sup>2</sup> USA: CDC FluView report. EW 29. Available at: <http://www.cdc.gov/flu/weekly/>

<sup>3</sup> México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

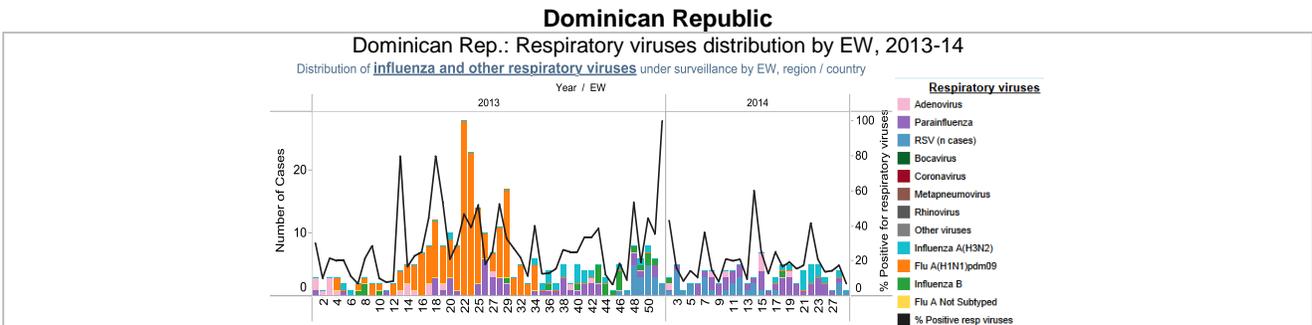


### Caribbean

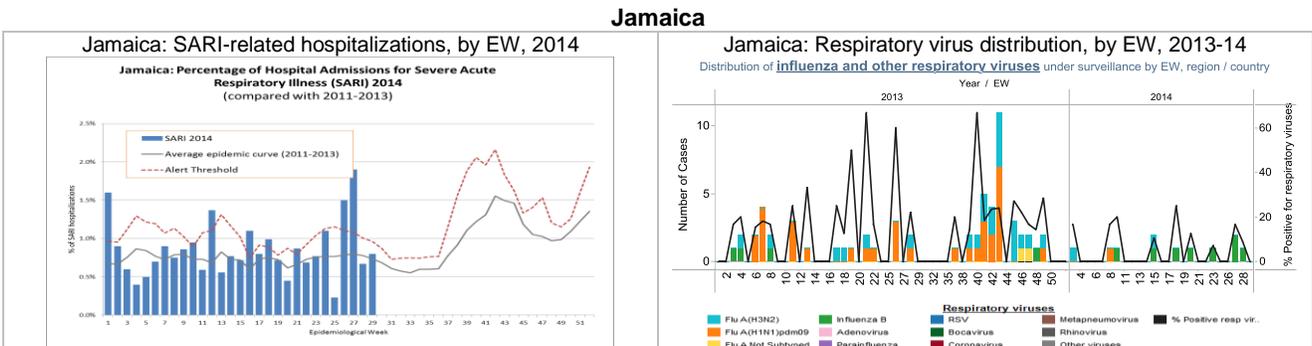
In Cuba during EW 29, the number of SARI-associated hospitalizations (n=20) decreased from the previous week. Children <4 years of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 26-29, 193 samples were analyzed, of which 30.1% were positive for a respiratory virus and 2.6% were positive for influenza. Among the positive samples, parainfluenza (29.3%) and rhinovirus (24.1%) predominated.



In the Dominican Republic, during EW 26-29, 44 samples were analyzed, of which 13.6% were positive for a respiratory virus and 2.3% were positive for influenza. Among the positive samples, RSV (50.0%), parainfluenza (33.3%) and influenza A(H3N2) (16.7%) were detected.

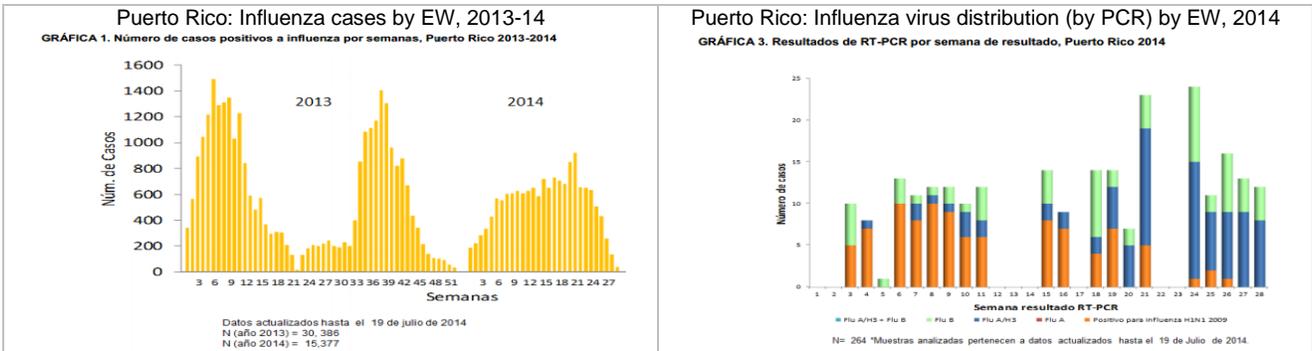


In Jamaica, based on sentinel surveillance data for EW 29, the proportion of ARI-associated consultations (2.9%) decreased compared to the previous week, while the proportion of SARI-associated hospitalizations (0.8%) increased. No SARI-associated deaths were reported during this EW. Based on laboratory data for EW 26-29, 41 samples were analyzed, of which three (7.3%) were positive for influenza B.



In Puerto Rico<sup>4</sup> during EW 29, the number of influenza cases (n=35) decreased compared to the previous week. Of these, 18 cases were associated with influenza A, 17 with influenza B and 0 with an influenza A and B co-infection. Since the beginning of 2014, 15,377 influenza cases have been reported (45% influenza A, 54% influenza B and 1% influenza A and B) and persons aged 0-19 years accounted for 50% of those cases. During this same period, 753 influenza-associated hospitalizations and 13 influenza-associated deaths were reported.

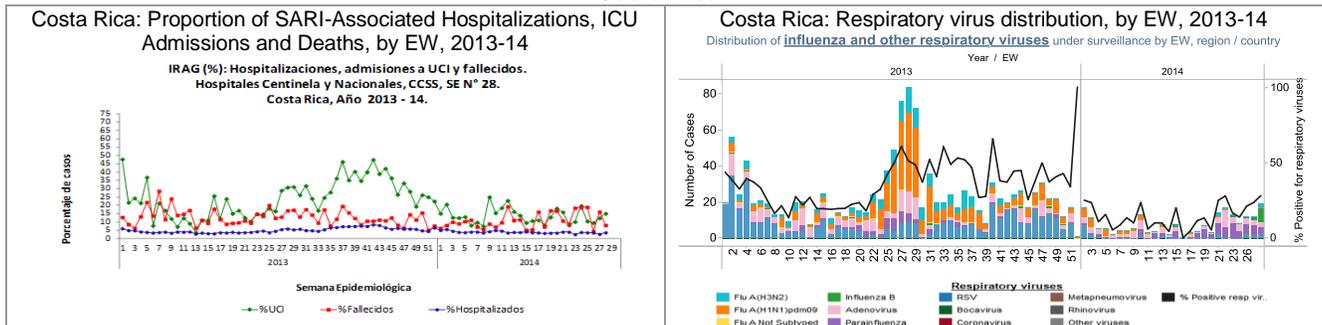
### Puerto Rico



### Central America

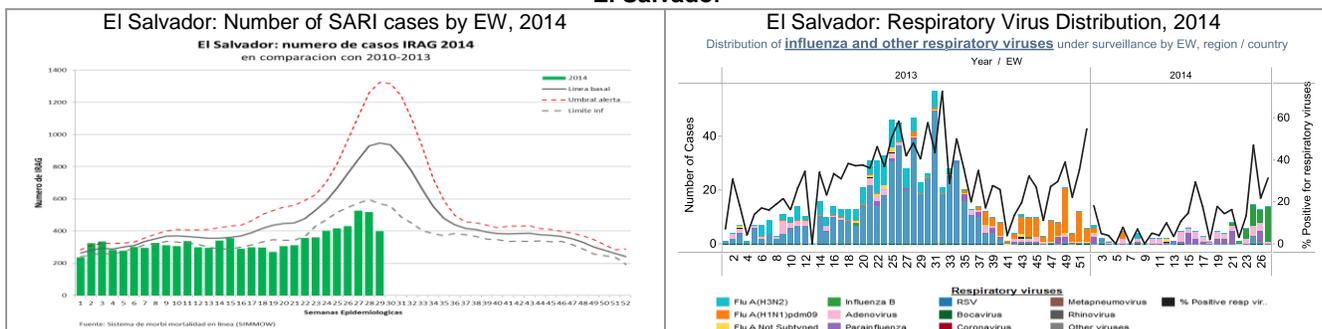
In Costa Rica, during EW 28, the proportions of SARI-associated hospitalizations (3.6%) and ICU admissions (16.0%) increased from the previous week, while the proportion of SARI-associated deaths (8.0%) decreased. According to laboratory data from EW 25-28, 234 samples were analyzed of which 21.8% were positive for a respiratory virus and 5.6% were positive for influenza. Among the positive samples, parainfluenza (39.2%), adenovirus (25.5%) and influenza B (21.6%) predominated.

### Costa Rica



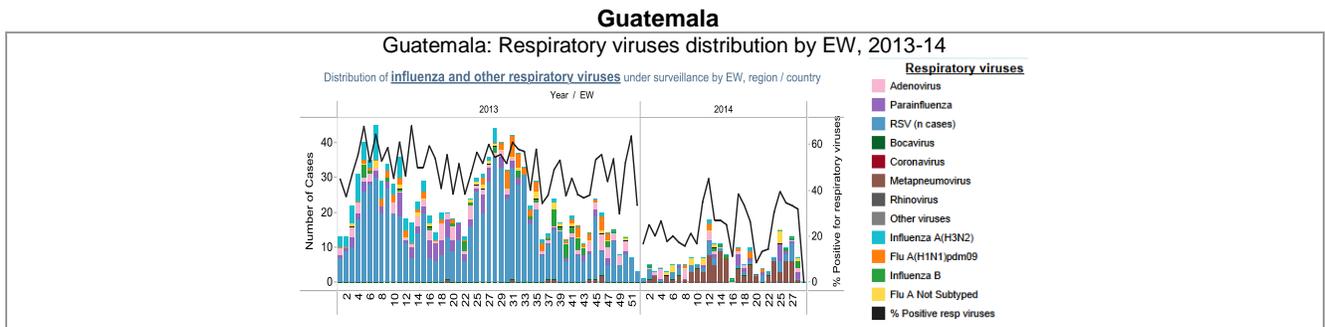
In El Salvador, during EW 29, the proportions of SARI-associated hospitalizations (7.7%), ICU admissions (7.7%) and deaths (8.9%) were within expected levels for this of year. According to laboratory data from EW 24-27, 175 samples were analyzed of which 28.6% were positive for a respiratory virus and 16.6% were positive for influenza. Among the positive samples, influenza B (58.0%) and adenovirus (26.0%) predominated.

### El Salvador

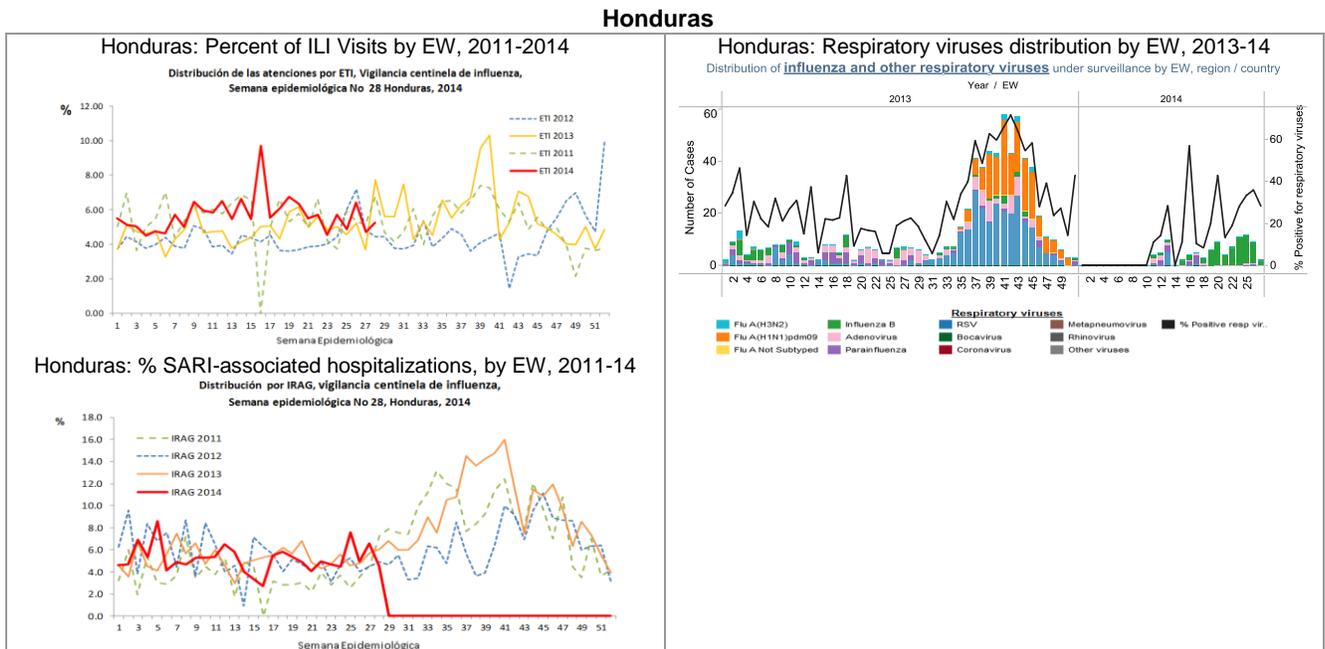


<sup>4</sup> Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 29

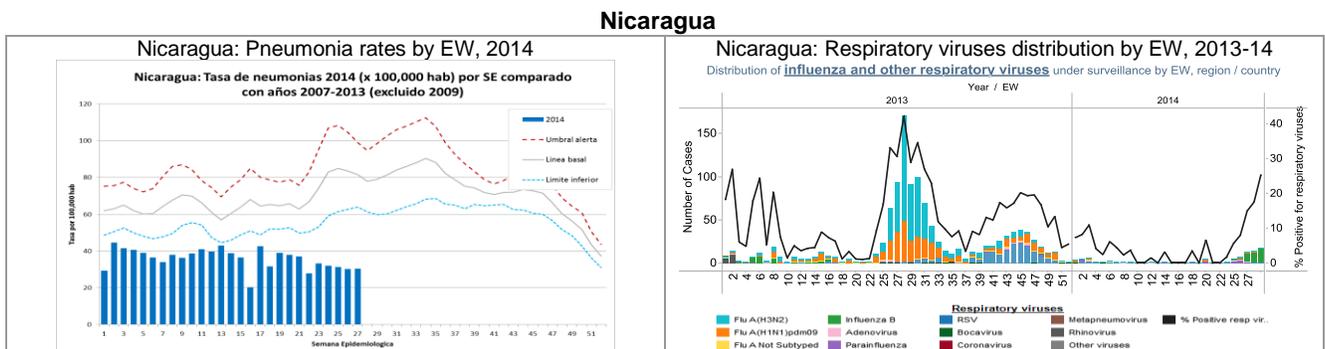
In Guatemala, based on laboratory data from EW 26-29, 91 samples were analyzed, of which 33.0% were positive for a respiratory virus and 5.5% were positive for influenza. Among the positive samples, human metapneumovirus (43.3%), RSV (23.3%), parainfluenza (13.3%) and influenza B (13.3%) predominated.

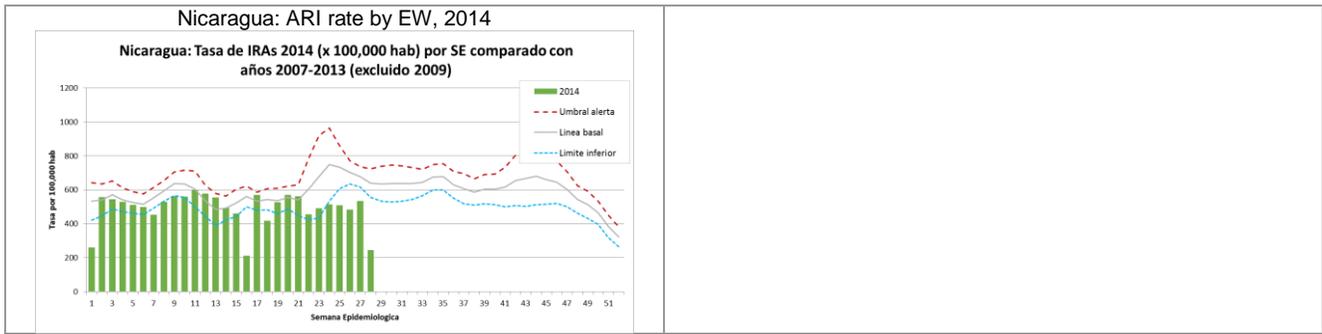


In Honduras, during EW 28, the proportion of ILI-associated medical visits (5.3%) increased compared to the previous week while the proportion of SARI-associated hospitalizations (4.6%) decreased. According to laboratory data from EW 24-27, 98 samples were analyzed, of which 29.6% were positive for a respiratory virus and 25.5% were positive for influenza. Among positive samples, influenza B predominated (86.2%).



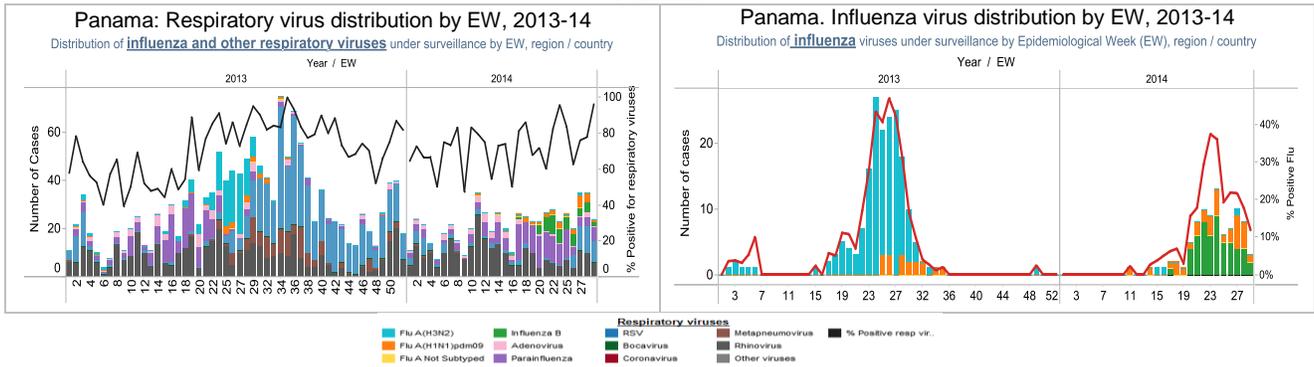
In Nicaragua, during EW 28, the national rates of pneumonia (30.4 per 100,000 population) and ARI (245.7 per 100,000 population) were within expected levels for this time of year. Based on laboratory data from EW 26-29, 322 samples were analyzed, of which 15.8% were positive for a respiratory virus and 13.4% were positive for influenza. Among the positive samples, influenza B (78.4%) predominated.





In Panama, based on national laboratory data from EW 26-29, 148 samples were analyzed, of which 77.0% were positive for a respiratory virus and 18.9% were positive for influenza. Among the positive samples, RSV (30.7%) and rhinovirus (27.2%) predominated. Among the influenza positive samples, 53.6% were influenza B and 46.4% were influenza A (92.3% A(H1N1)pdm09 and 7.7% A(H3N2)).

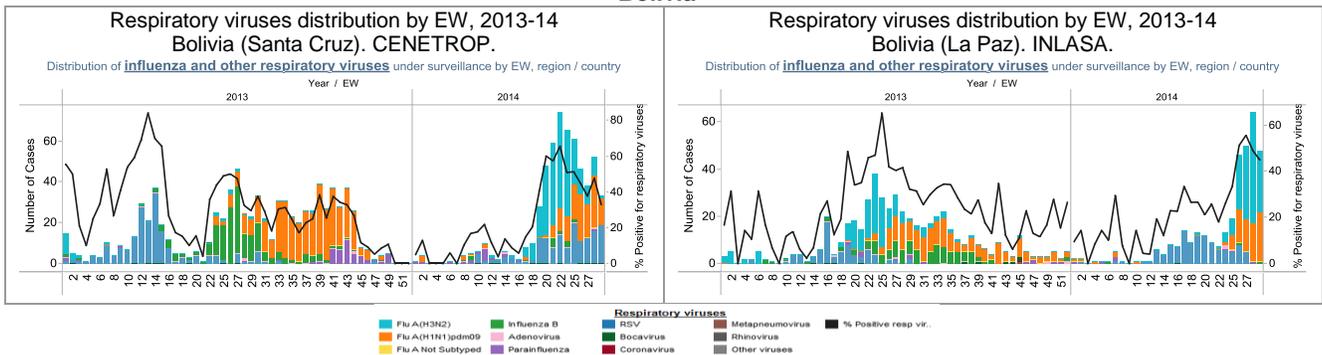
**Panama**



**South America – Andean countries**

In Bolivia, according to laboratory data from Santa Cruz (CENETROP) from EW 26-29, 413 samples were analyzed, of which 40.9% were positive for a respiratory virus and 26.4% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (45.6%), RSV (34.9%) and influenza A(H3N2) (18.3%) predominated. Based on data from the National Laboratory in La Paz (INLASA) from EW 26-29, 418 samples were analyzed, of which 49.8% were positive for a respiratory virus and 46.4% were positive for influenza. Among the positive samples, influenza A(H3N2) (61.1%) and influenza A(H1N1)pdm09 (31.3%) predominated.

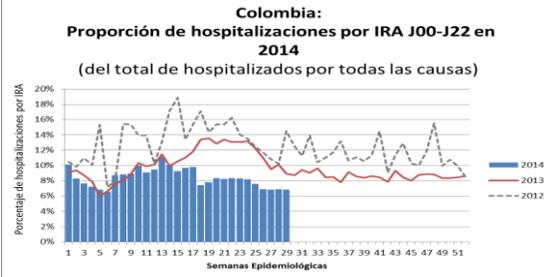
**Bolivia**



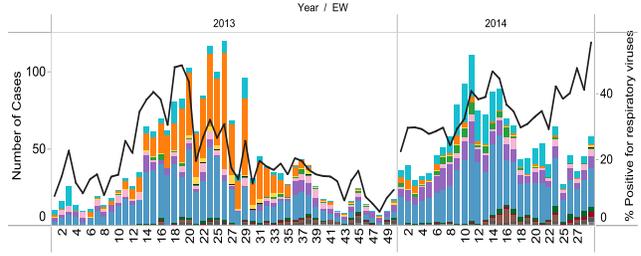
In Colombia, during EW 29 the proportions of outpatient and urgent visits (6.9%), hospitalizations (6.8%) and ICU admissions (7.1%) with ARI/SARI-associated ICD-10 codes (J00 to J22) were within the expected levels for this time of year. Based on INS laboratory data from EW 26-29, 400 samples were analyzed, of which 46.0% were positive for a respiratory virus and 5.8% were positive for influenza. Among the positive samples, RSV (46.7%) and parainfluenza (13.6%) predominated. Among the influenza viruses, influenza A(H3N2) predominated.

## Colombia

Colombia: % Hospitalizations with J00 to J20 codes, by EW 2014



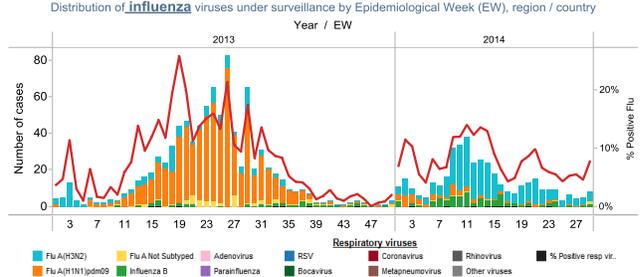
Colombia: Respiratory virus distribution by EW, 2013-14



Colombia: ARI outpatient Visits with J00-J20 codes, by EW 2014



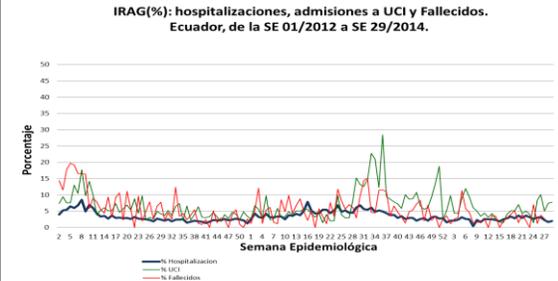
Colombia. Influenza virus distribution by EW, 2013-14



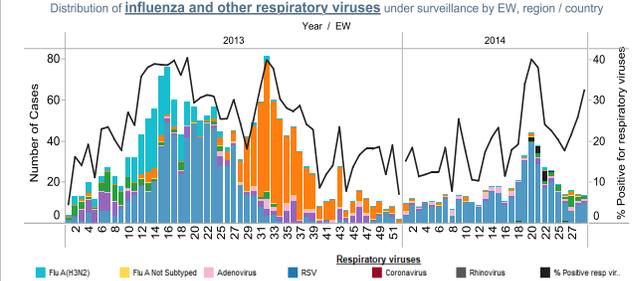
In Ecuador during EW 29, the proportions of SARI-associated hospitalizations (1.9%), ICU admissions (7.7%) and deaths (2.7%) were similar to the previous week. Based on national reference laboratory data from EW 26-29, 250 SARI samples were analyzed, of which 23.2% were positive for a respiratory virus and 6.0% were positive for influenza. Among the positive samples, RSV predominated (58.6%). Among the influenza viruses, a co-circulation of influenza B (19.0% of positive samples) and A(H1N1)pdm09 (5.2%) was observed.

## Ecuador

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



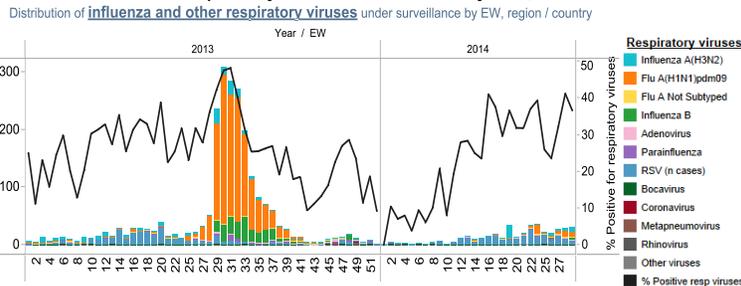
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 26-29, 319 samples were analyzed, of which 32.9% were positive for a respiratory virus and 17.6% were positive for influenza. Among the positive samples, RSV predominated (40.0%), followed by influenza A(H1N1)pdm09 (21.9%), influenza A(H3N2) (20.0%) and influenza B (11.4%).

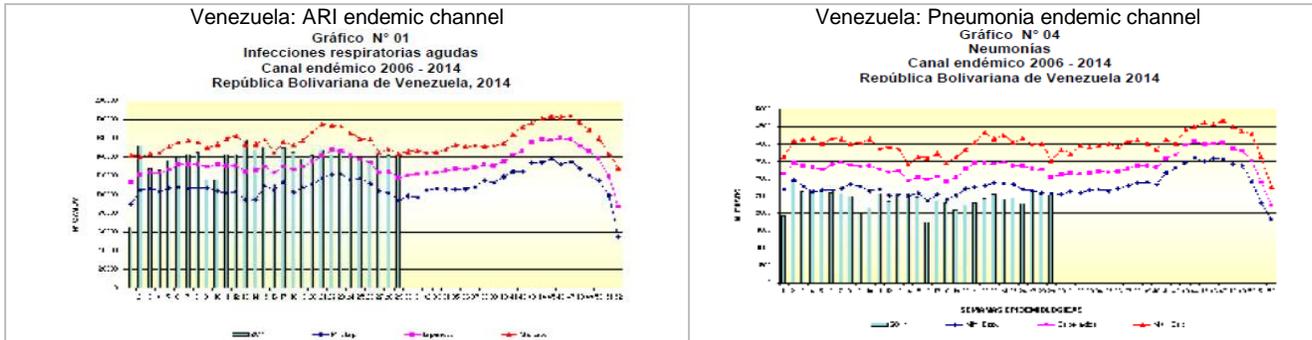
## Peru

Perú. Respiratory viruses distribution by EW, 2013-14



In Venezuela<sup>5</sup> during EW 29, the numbers of ARI and pneumonia cases decreased by 0.3% and 1.1%, respectively, compared to the previous week. Both were within the expected levels for this time of year. During EW 29, 386 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-29, 412 samples were analyzed from suspected influenza cases and of these, 15.0% were positive for a respiratory virus. Among the positive samples, influenza A(H3N2) predominated (48.4%).

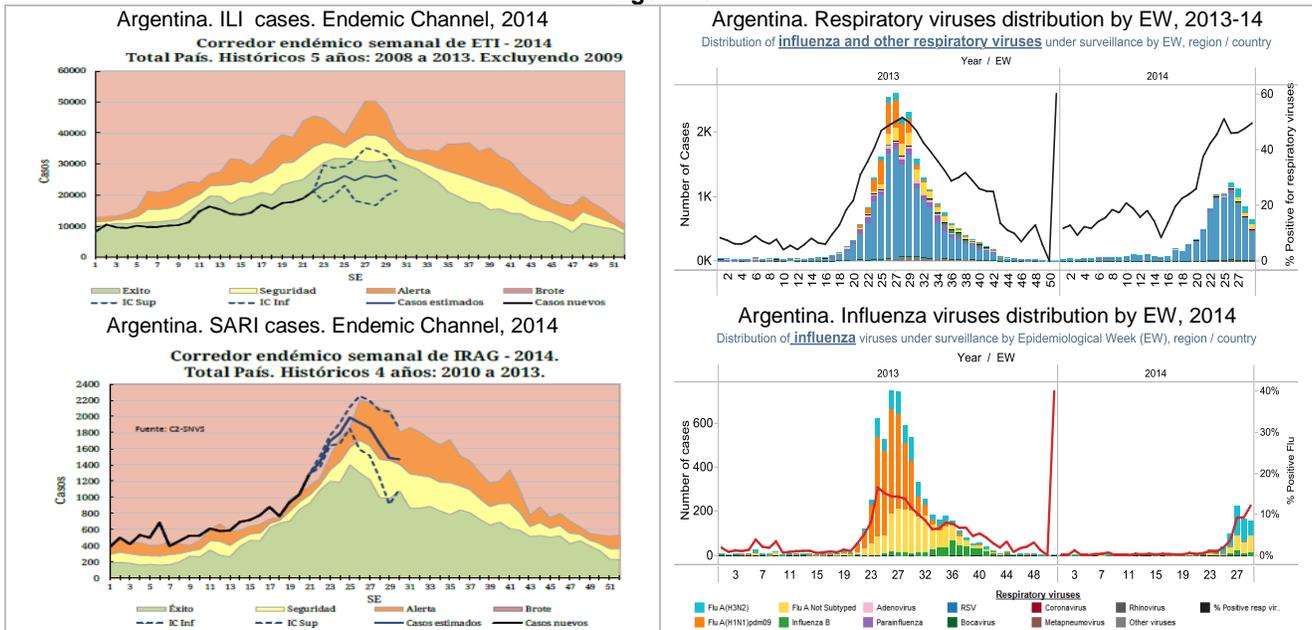
### Venezuela



### South America – South Cone and Brazil

In Argentina<sup>6</sup>, according to reports and estimations calculated for EW 29, ILI activity was within the success zone of the endemic channel while the estimated number of SARI cases was within the alert zone of the endemic channel. Based on laboratory data from EW 28-29, 3,079 samples were processed, of which 48.4% were positive for a respiratory virus and 10.4% were positive for influenza. Among the positive samples, RSV (73.0%) predominated. Among the influenza viruses, influenza A (92.2%) predominated (55.9% A(H3N2) and 43.7% influenza A not subtyped).

### Argentina



In Brazil<sup>7</sup>, according to ILI sentinel surveillance data through EW 29, 9,301 samples were analyzed, and of these, 17.4% were positive for influenza or another respiratory virus. Among the positive samples, influenza A(H3N2) and rhinovirus predominated. Although the largest number of positive samples came from the southern region, virus circulation varied by region with RSV and influenza B predominating in the north, and influenza A(H1N1)pdm09 and A(H3N2) in the west. Based on national SARI surveillance data during this same period, 11,342 SARI cases were reported and 8.2% of these were positive for influenza. Among the positive samples, influenza A(H3N2) (59.1%) predominated, followed by influenza A(H1N1)pdm09 (28.5%).

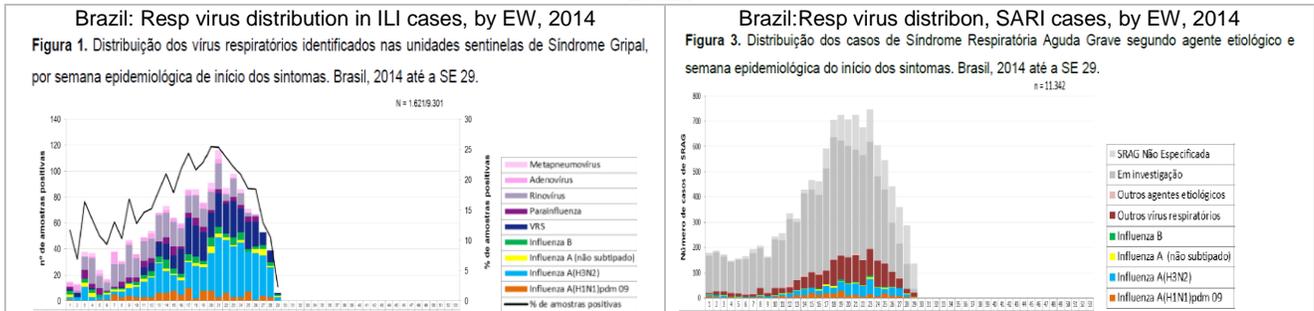
<sup>5</sup> Venezuela. Boletín epidemiológico, EW 29.

<sup>6</sup> Argentina. Boletín integrado de vigilancia. SE 29.

<sup>7</sup> Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 29, 2014.

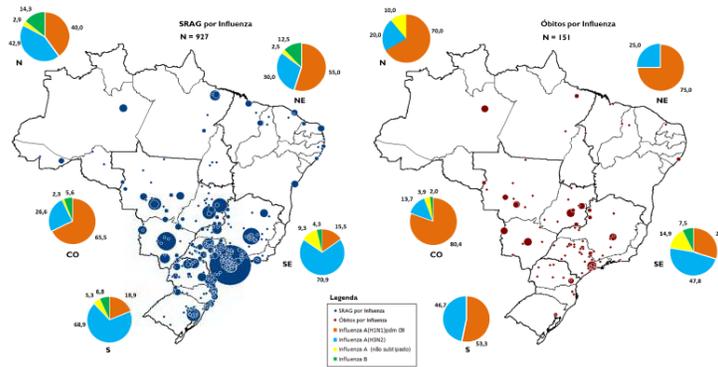
The largest number of SARI cases was reported in the southeast region, primarily in Sao Paulo. Through EW 29, 1,188 SARI-associated deaths were reported, of which 12.7% were positive for influenza (54.3% A(H1N1)pdm09 and 33.1% A(H3N2)).

### Brazil



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

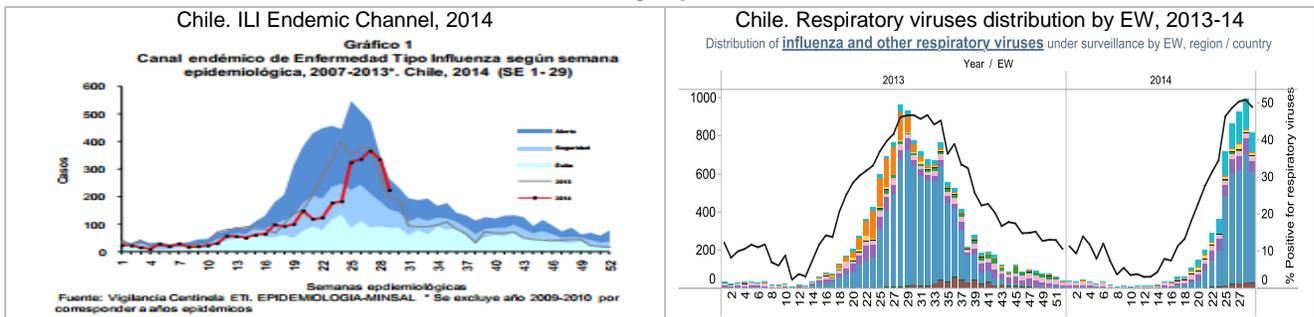
Anexo 4. Distribuição espacial dos casos e óbitos por Síndrome Respiratória Aguda Grave confirmados para influenza por município de residência e percentual dos vírus influenza identificados por região. Brasil, 2014 até a SE 29.



Fonte: SINAN Influenza Web. Dados atualizados em 22/07/2014, sujeitos a alteração.  
 \* O círculo é proporcional ao número de casos e óbitos. N = Norte, NE = Nordeste, SE = Sudeste, S = Sul, e CO = Centro Oeste.

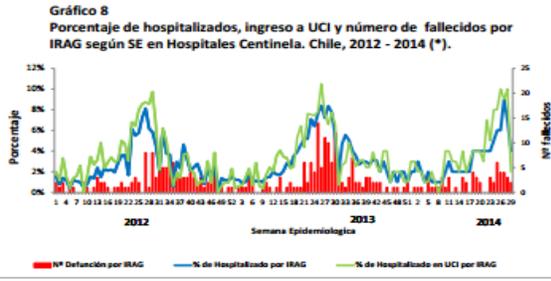
In Chile<sup>8</sup>, during EW 29, ILI activity (rate: 14.8 per 100,000 inhabitants) decreased compared to the previous EW and was within the alert zone of the endemic channel. Through EW 29, 1,808 SARI cases were reported through sentinel surveillance and of these, 47% were positive for respiratory virus. Among the positive SARI cases, RSV predominated (60%), followed by influenza A(H3N2) (18%). During this same period, 55 SARI-associated deaths were reported. Based on laboratory data from EW 28-29, 3,631 samples were analyzed, of which 49.9% were positive for a respiratory virus and 8.5% were positive for influenza. Among the positive samples, RSV predominated (69.6%). Among the influenza samples, 95.1% were influenza A (87.4% A(H3N2) and 12.6% A not subtyped) and 4.9% were influenza B.

### Chile

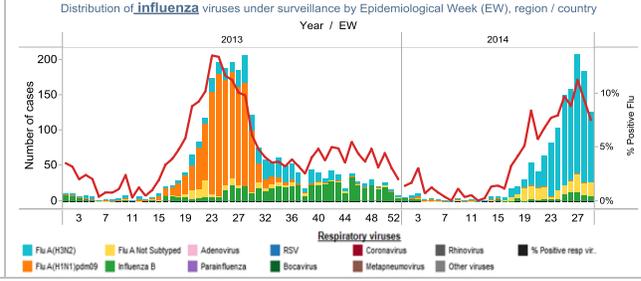


<sup>8</sup> Chile. Informe de situación. EW 29. Available at: <http://epi.minsal.cl/>

Chile. % SARI hospitalizations, ICU Adm and Deaths, 2012-14



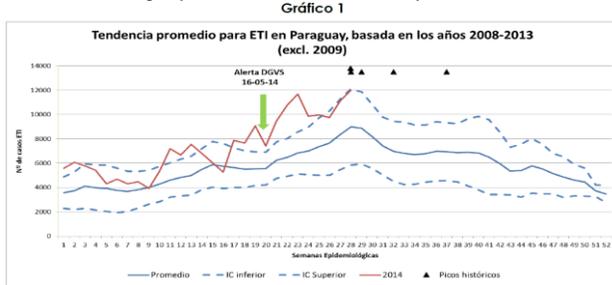
Chile: Influenza viruses distribution by EW, 2013-14



In Paraguay<sup>9</sup> during EW 28, the ILI consultation rate (179.9 per 100,000 inhabitants) increased by compared to the previous EW and was slightly above the expected levels for this time of year. The proportion of SARI-associated hospitalizations (7.9%) increased compared to the previous week. The most affected age group was children <5 years of age (59.5% of reported cases). From EW 1-28, 163 SARI-associated deaths were reported and 13 (8.0%) were positive for a respiratory virus. Based on laboratory data from EW 26-29, 605 samples were analyzed, of which 39.5% were positive for a respiratory virus and 27.1% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (58.2%) followed by RSV (29.3%).

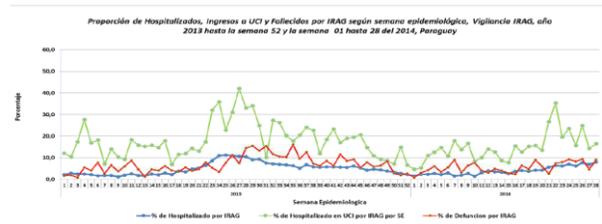
Paraguay

Paraguay. ILI endemic channel, by EW, 2014

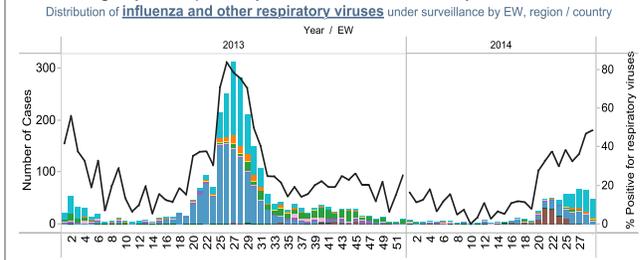


Paraguay: % SARI Hosps, ICU Adms & Deaths by EW 2013-14

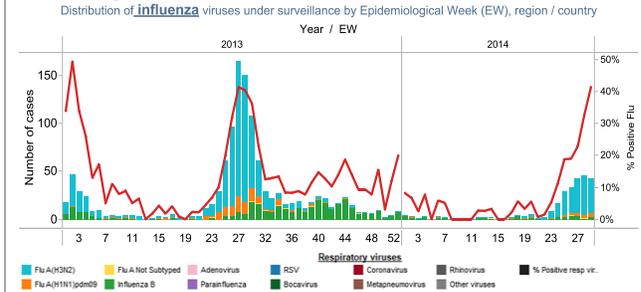
**Gráfico 5: Proporción de Hospitalizados, Ingresos a UCI y fallecidos por IRAG según semana epidemiológica, SE 1 a 28, Vigilancia Centinela, Paraguay, 2.014.**



Paraguay. Respiratory viruses distribution by EW, 2013-14



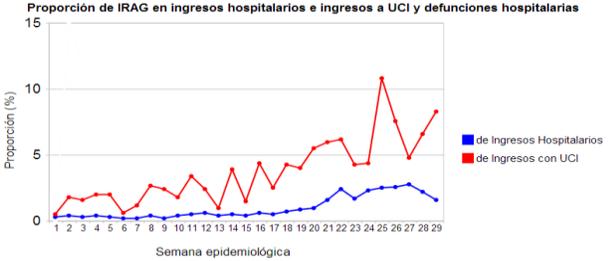
Paraguay: Influenza viruses distribution by EW, 2013-14



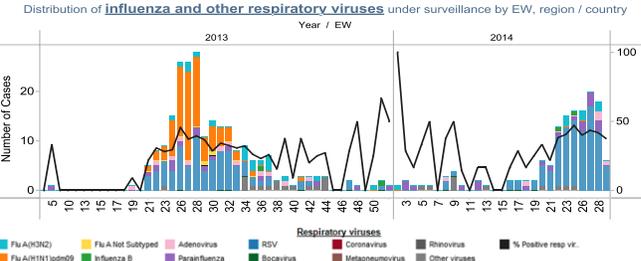
In Uruguay<sup>10</sup> during EW 29, the proportion of SARI-associated hospitalizations decreased compared to the previous week while the proportion of SARI-associated ICU admissions increased. Based on laboratory data from EW 26-29, 145 samples were analyzed, of which 41.4% were positive for a respiratory virus and 2.8% were positive for influenza. Among the positive samples, RSV (76.7%) predominated. Among the positive influenza samples, 100% were influenza A(H3N2).

Uruguay

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



Uruguay. Respiratory viruses distribution by EW, 2013-14



<sup>9</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 28.

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