

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

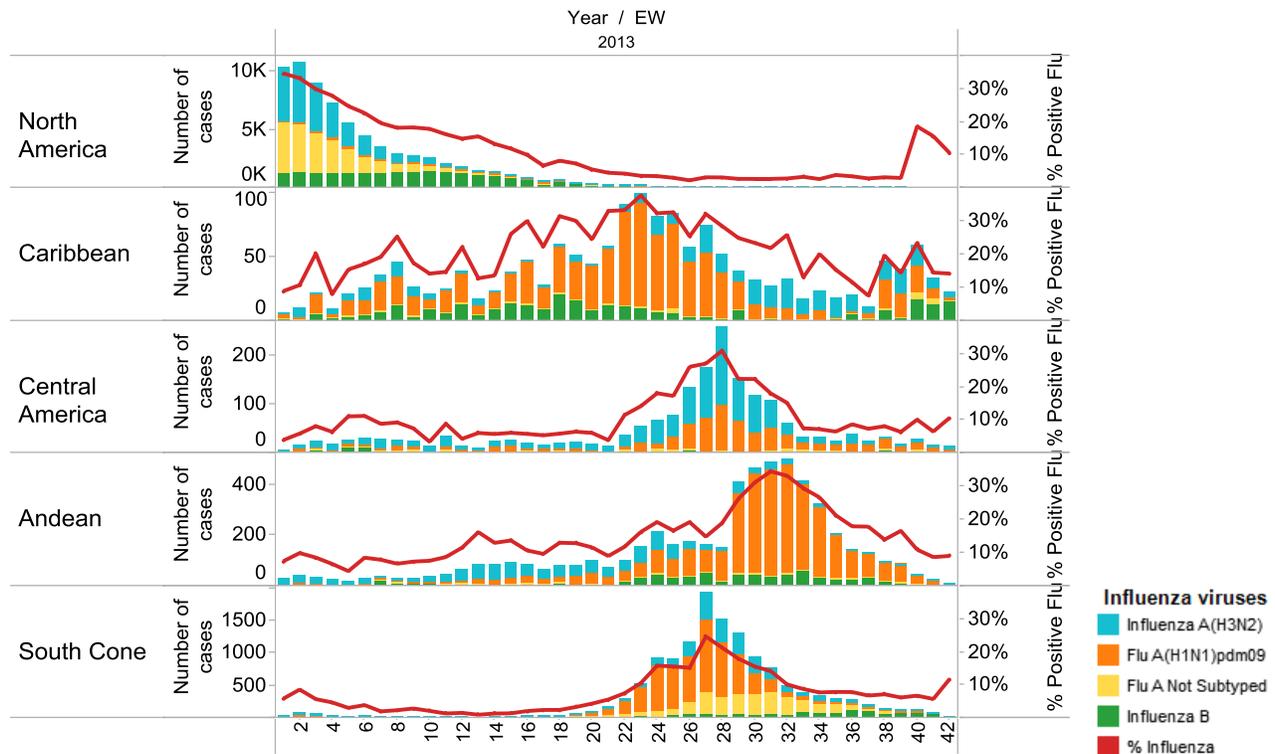
The information presented in this update is based on data provided by Ministries of Health and National Influenza Centers of Member States to the Pan American Health Organization (PAHO) or from updates on the Member States' Ministry of Health web pages.

WEEKLY SUMMARY

- **North America:** Influenza activity in the United States and Canada remained low while some respiratory virus and influenza activity indicators in Mexico showed slight increasing trends. Among the circulating viruses, influenza A predominated.
- **The Caribbean and Central America:** An increased detection of influenza A (co-circulation of A(H1N1)pdm09 and A(H3N2)) was reported by some Caribbean islands (Barbados, Dominica, Jamaica, St. Vincent & the Grenadines, and Trinidad & Tobago) and countries within Central America (Belize, Nicaragua, Honduras). RSV continued to predominate in Cuba, Costa Rica, Guatemala and Honduras.
- **South America – Andean Countries:** After high influenza activity in July and August, acute respiratory virus activity continued a decreasing trend in most countries in the region except Bolivia (Santa Cruz) where influenza A(H1N1)pdm09 activity remained high.
- **South America - South Cone and Brazil:** Acute respiratory virus activity was within the expected level for this time of year in all countries except Paraguay where ILI activity remained high. Currently, co-circulation of influenza B and A(H3N2) continues in most of the countries of this region.

Influenza circulation by region. 2013

Distribution of influenza viruses by region, 2012-13

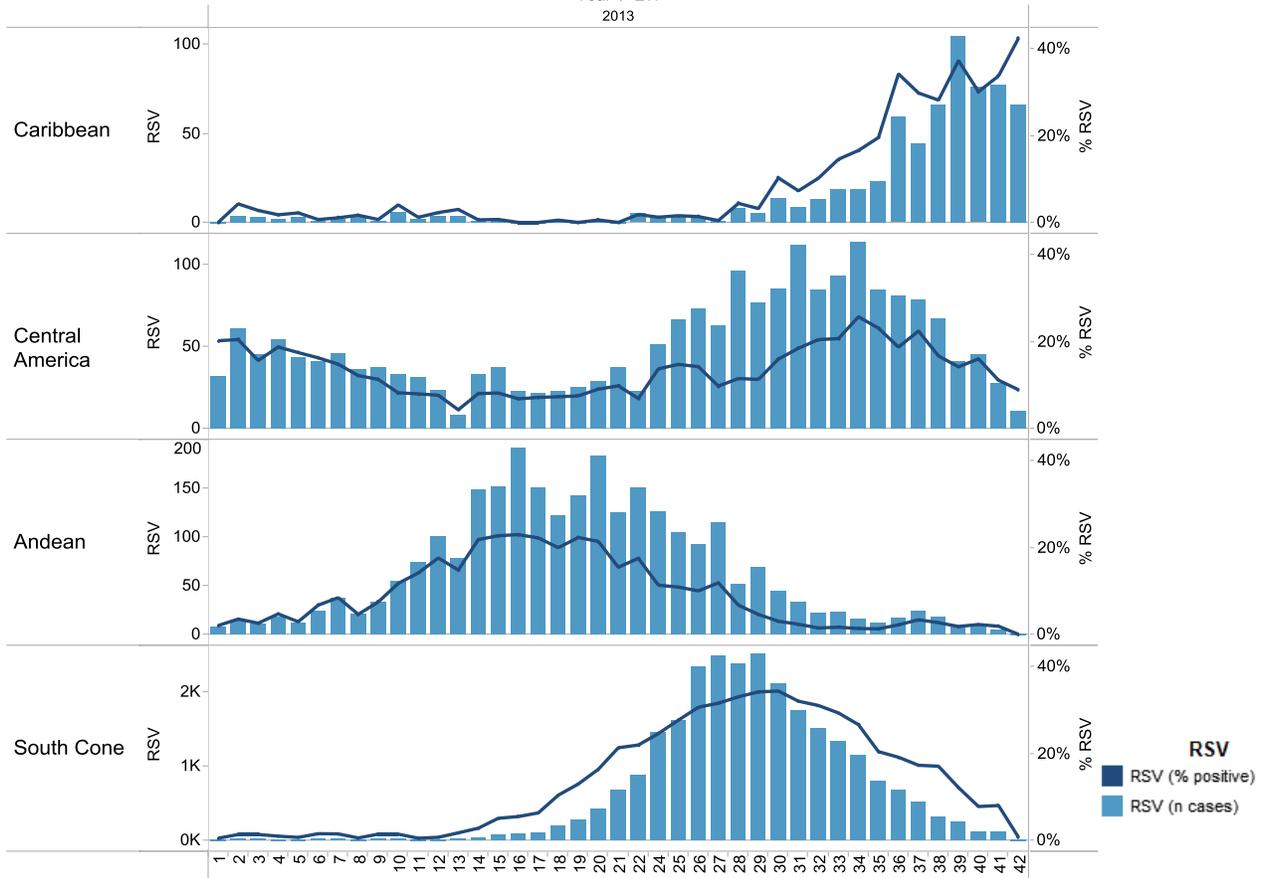


## Respiratory syncytial virus (RSV) circulation by region. 2013

Respiratory Sincicial Virus by region, 2012-13

Year / EW

2013



### 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

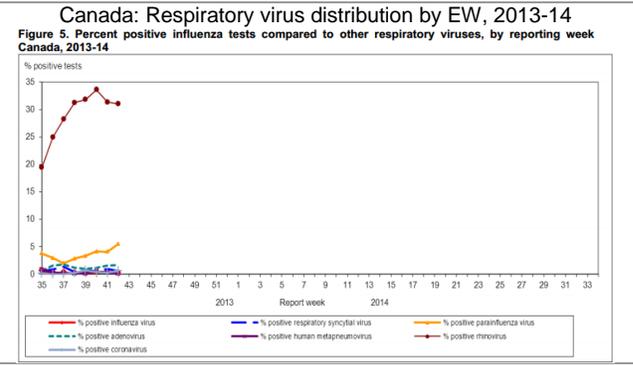
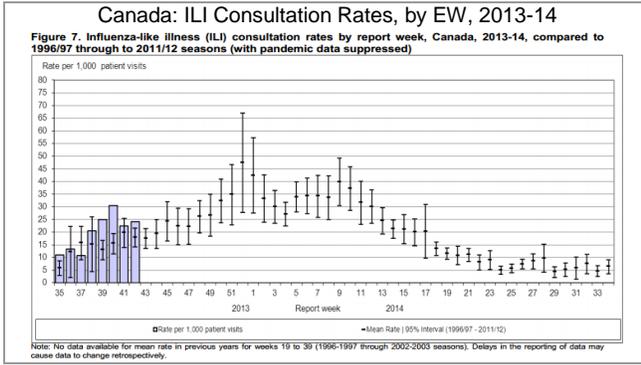
### EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

#### North America:

In Canada<sup>1</sup>, during EW 42, influenza activity remained low. The national influenza-like-illness (ILI) consultation rate was 24.2 per 1,000 patient visits, a slight increase from the previous week. One influenza-associated pediatric death was reported during EW 42. The case was a child 2-4 years of age and was associated with influenza A (not subtyped). Based on laboratory data for EW 42, the overall percentage of positive influenza tests was 0.2% (N=3), all of which were influenza A (not subtyped). Among other respiratory viruses, rhinovirus predominated (31.0% of positive tests), followed by parainfluenza (5.5%), adenovirus (1.7%), RSV (0.6%), coronavirus (0.6%) and human metapneumovirus (0.1%).

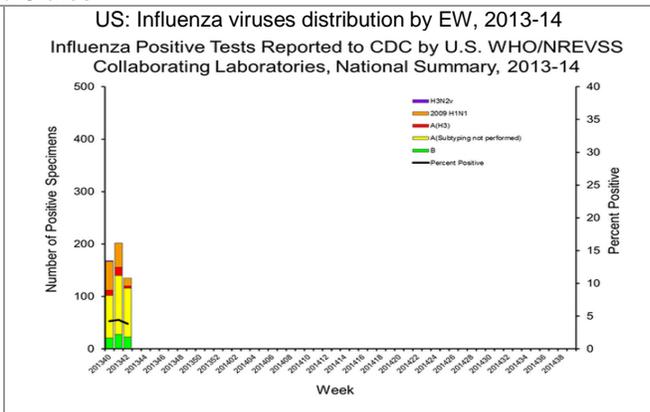
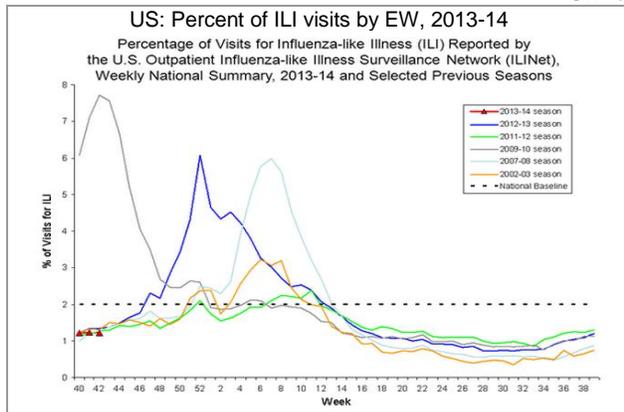
<sup>1</sup> Canada: FluWatch Report. EW 42. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada



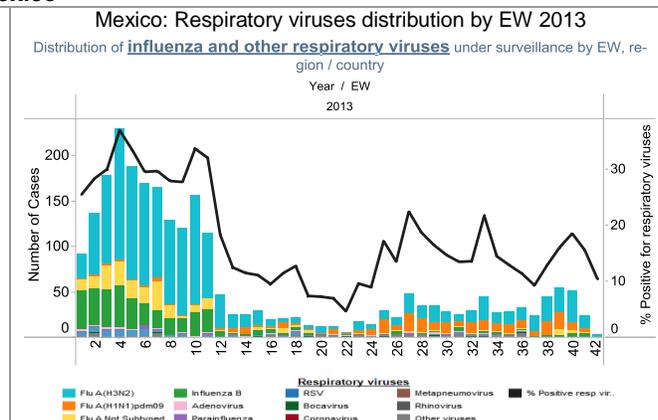
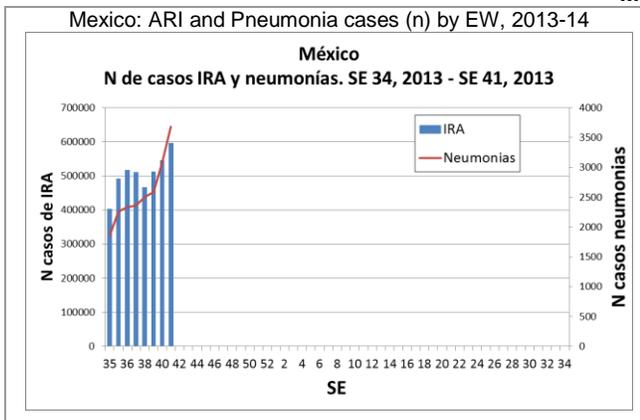
In the United States<sup>2</sup> during EW 42, influenza activity remained low with 1.2% of outpatient visits associated with ILI and 5.8% of deaths associated with pneumonia and influenza. Two influenza-associated pediatric deaths were reported during this time. Both deaths occurred during the 2012-13 influenza season and were associated with influenza B. Based on laboratory data for EW 42, 3,513 samples were analyzed, of which 3.8% were positive for influenza. Among the positive samples (n=135), 83.0% were influenza A (of which 83.0% were not subtyped and 13.4% were A(H1N1)pdm09) and 17.0% were influenza B.

United States



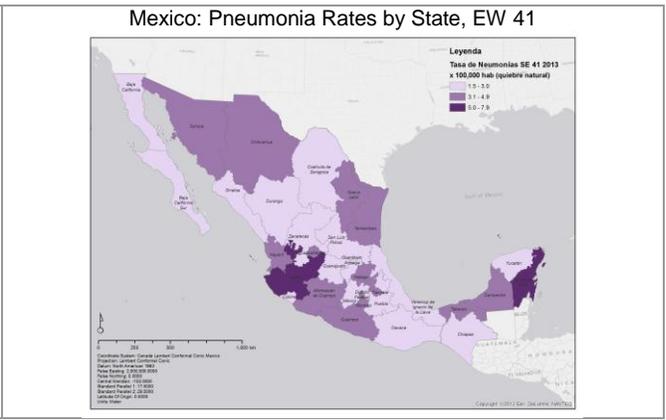
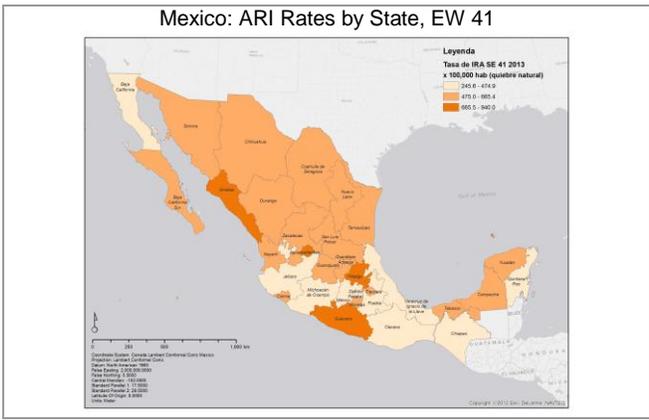
In Mexico<sup>3</sup>, during EW 41 the number of ARI and pneumonia cases increased by 9.2% and 19.5%, respectively, compared to the previous week. The highest levels of ARI activity were reported in Aguascalientes, Hidalgo and Guerrero, and the highest levels of pneumonia activity were reported in Jalisco, Quintana Roo, and Guerrero. According to laboratory data from EW 41-42, 267 samples were tested, of which 14.6% were positive for influenza. Among the positives, 84.6% were influenza A (51.5% were A(H3N2 and 12.1% were A(H1N1)pdm09) and 15.4% were influenza B.

Mexico



<sup>2</sup> USA: CDC FluView report. EW 42. Available at: <http://www.cdc.gov/flu/weekly/>

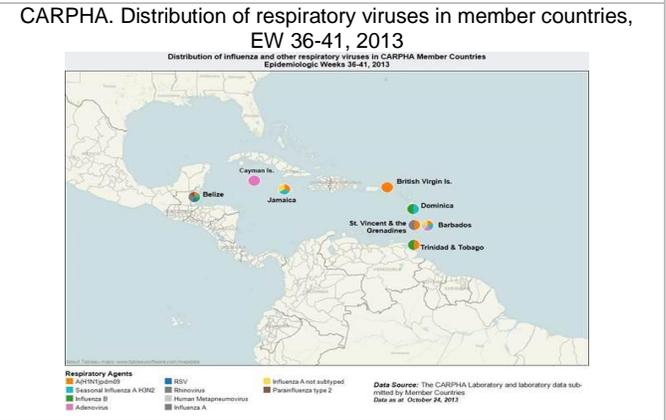
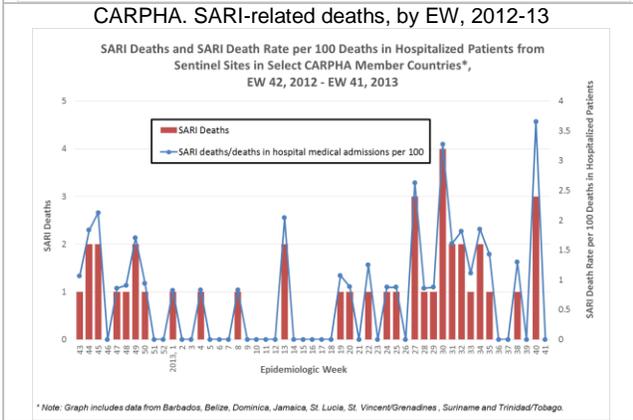
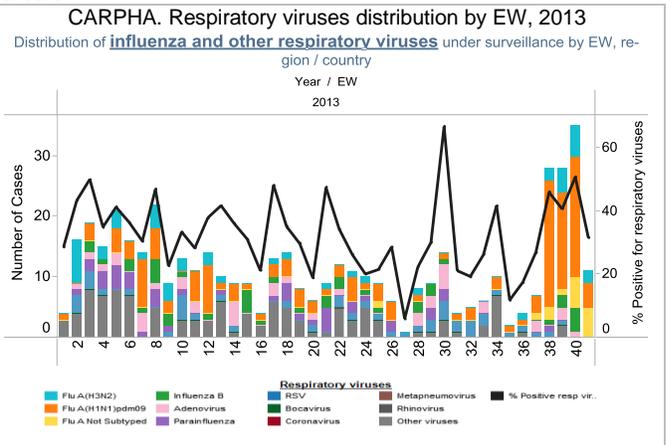
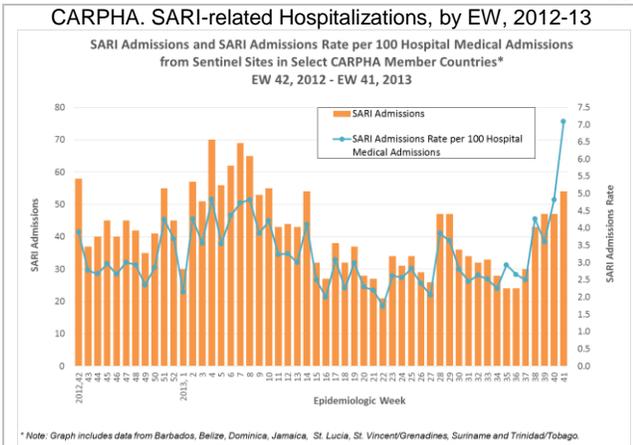
<sup>3</sup> México. Dirección General de Epidemiología. Información epidemiológica. SE 42.



**Caribbean**

CARPHA<sup>4</sup> received weekly SARI/ARI data from five countries for EW 41: Barbados, Belize, Dominica, St. Vincent & the Grenadines and Trinidad & Tobago. During EW 41, the proportion of SARI-associated hospitalizations was 7.1%, with children 6 months to 4 years of age accounting for the largest proportion of these admissions (13.2%). There were no SARI-associated deaths reported during this time. According to laboratory data from EW 38-41, 234 samples were tested, of which 43.6% were positive for a respiratory virus and 40.2% were positive for influenza. Among the positive influenza samples, influenza A(H1N1)pdm09 predominated and was detected in Barbados, Belize, British Virgin Islands, Jamaica, St. Vincent & the Grenadines, and Trinidad & Tobago. For cases with dates of onset between EW 36-41, the following viruses were also reported: influenza A(H3N2) (Belize, Belize, Dominica, Jamaica), influenza B (Belize, Dominica, Trinidad & Tobago), adenovirus (Barbados, Cayman Islands), RSV (Belize) and influenza A, not subtyped (Barbados, Belize, Jamaica).

**CARPHA**

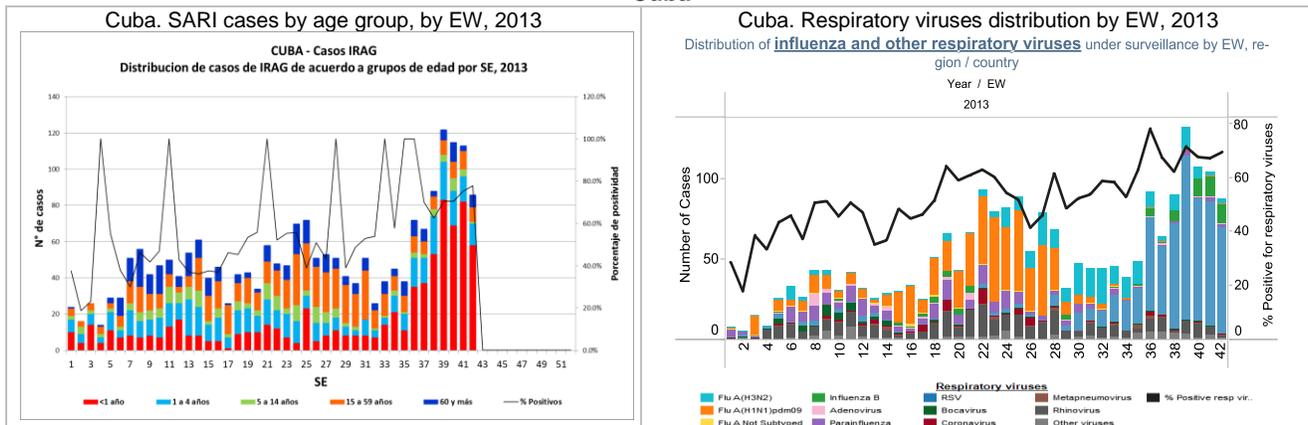


In Cuba during EW 42, the number of SARI-associated hospitalizations decreased compared to the previous EW, but still remains elevated. Children less than one year of age comprised the largest proportion of these

<sup>4</sup> Caribbean Public Health Agency (CARPHA) EW 41

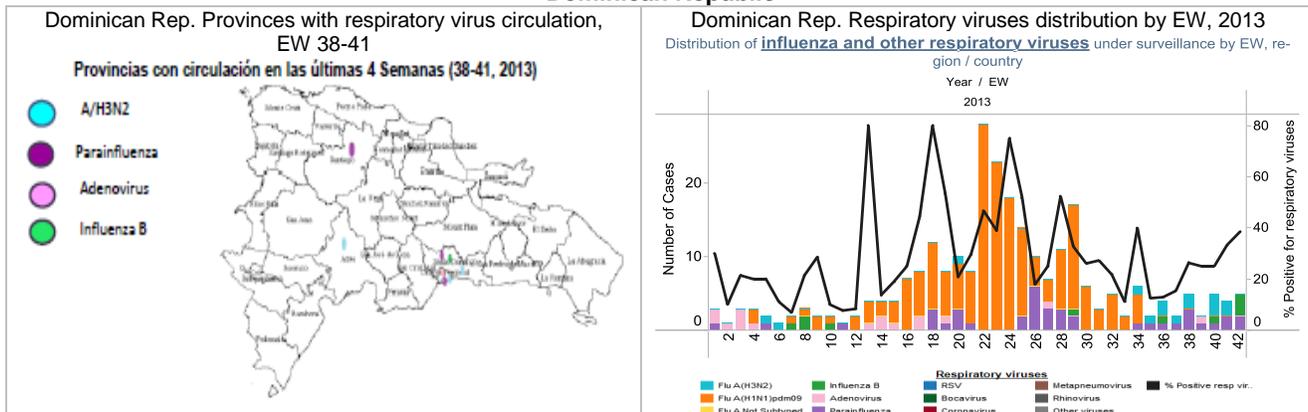
cases. One SARI-associated death was reported during this period, and it was negative for a respiratory virus. According to national laboratory data for EW 39-42, 627 samples were analyzed, of which 68.9% were positive for a respiratory virus and 10.2% were positive for influenza. RSV remained the predominant circulating virus (74.5% of the positives), and among influenza viruses, 100% were A(H3N2).

### Cuba



In the Dominican Republic<sup>5</sup>, the cumulative ILI rate for EW 1-41 was 1,473 per 10,000 inhabitants, and is 15% less than what was reported this period last year. During EW 1-41, 1,344 SARI cases were reported through sentinel surveillance, of which 10 were reported during EW 41. No SARI-associated deaths reported during EW 41. According to laboratory data for EW 39-42, 53 samples were analyzed, of which 30.2% were positive for a respiratory virus and 17.0% were positive for influenza. Among positive influenza samples, 55.6% were influenza A (100% were influenza A(H3N2)) and 44.4% were influenza B. Among other respiratory viruses, parainfluenza (37.5% of positive samples) predominated.

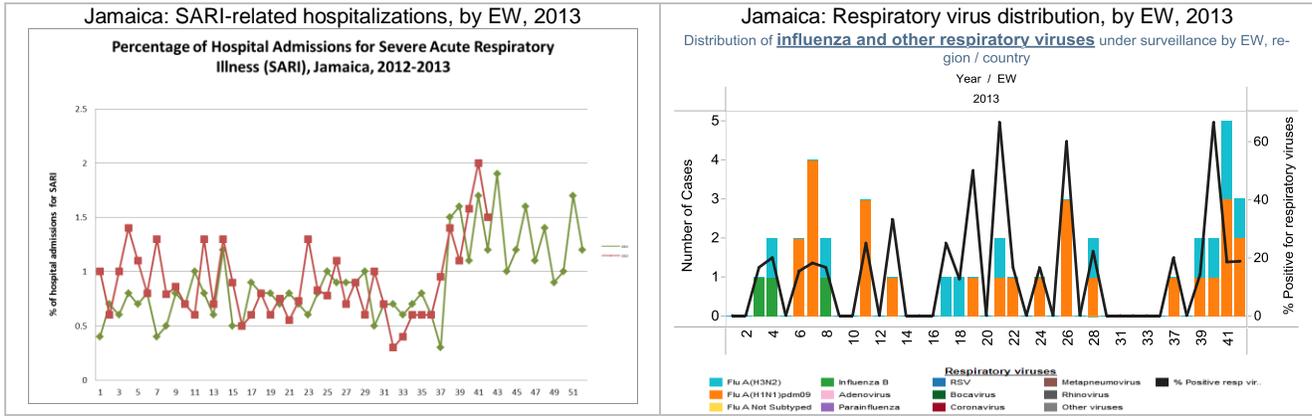
### Dominican Republic



In Jamaica, based on sentinel surveillance data for EW 42, the proportion of ARI-associated consultations was 7.3%, a 0.7% increase from the previous EW. The proportion of SARI-associated hospitalizations (1.5%) continued to increase slightly but was similar to the level observed in 2012. No SARI-associated deaths were reported during this period. Based on laboratory data from EW 42, 16 samples were tested, of which 18.8% were positive for a respiratory virus with co-circulation of Influenza A(H3N2) and A(H1N1)pdm09.

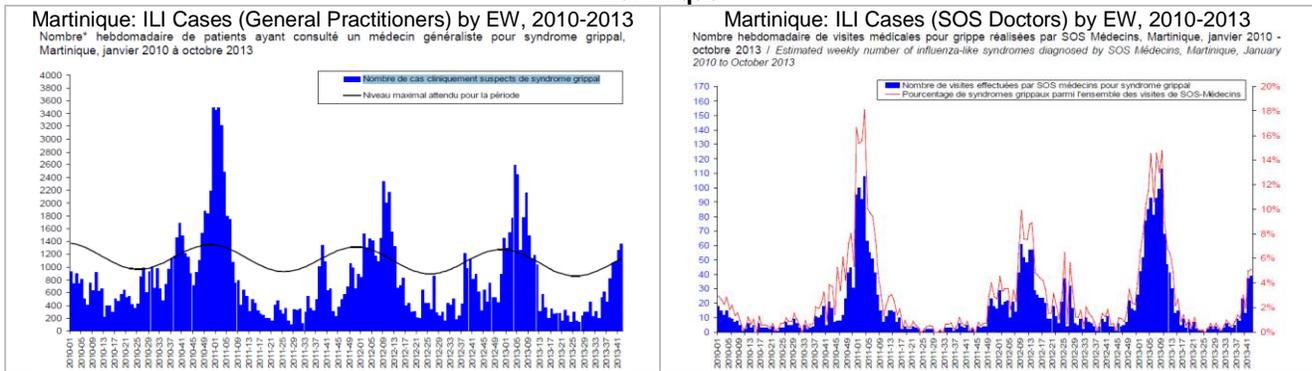
<sup>5</sup> República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 41.

## Jamaica



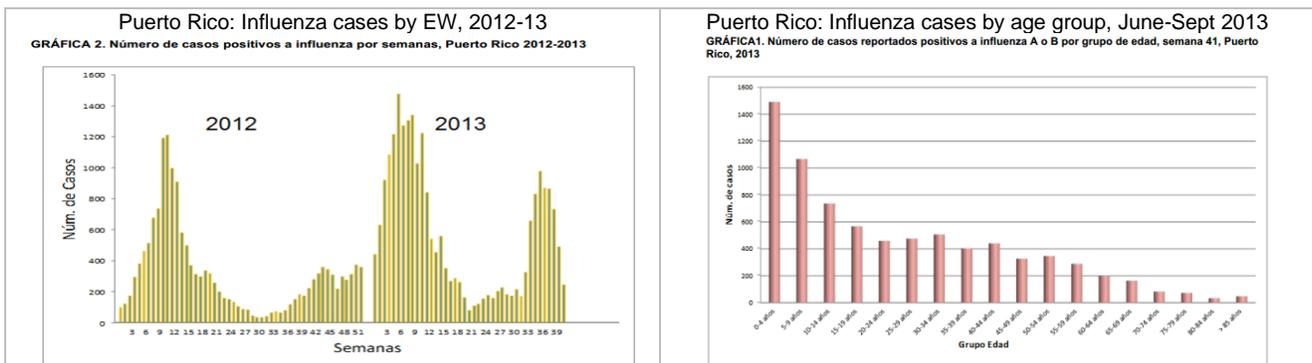
Among French Territories, in Martinique during EW 39, ILI activity continued its increase since EW 34 and was above the expected seasonal maximum values for the last two weeks. Based on laboratory data, the increase in ILI was associated with influenza A circulation (primarily A(H1N1)pdm09) and RSV. Among the other French territories, (Guadeloupe, Saint-Martine, Saint Barthelemy and Guyane) acute respiratory infection activity was within the expected levels.

## Martinique



In Puerto Rico<sup>6</sup> during EW 41, the number of influenza cases (n=245) continued a decreasing trend since peaking in EW 34. Of these, 88.6% were associated with influenza A. Since the beginning of June, 7,778 influenza cases have been reported and children aged 0-14 years accounted for 42% of those cases. Since June, 521 influenza-associated hospitalizations and 16 influenza-associated deaths have been reported.

## Puerto Rico



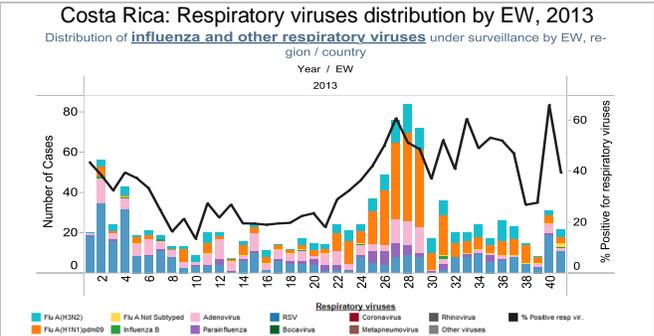
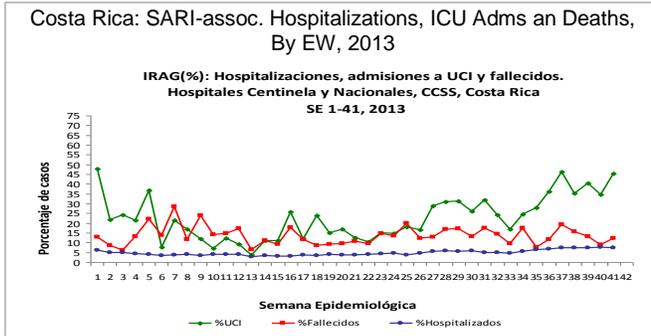
## Central America

In Costa Rica, during EW 41, the percent of SARI-associated hospitalizations (7.4%), ICU-admissions (45% of SARI-associated hospitalizations) and deaths (12.4%) was similar to the previous EW. Based on national

<sup>6</sup> Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 41. <http://www.salud.gov.pr/influenza/Informes%20Influenza/Informe%20Influenza%20Semana%2041.pdf>.

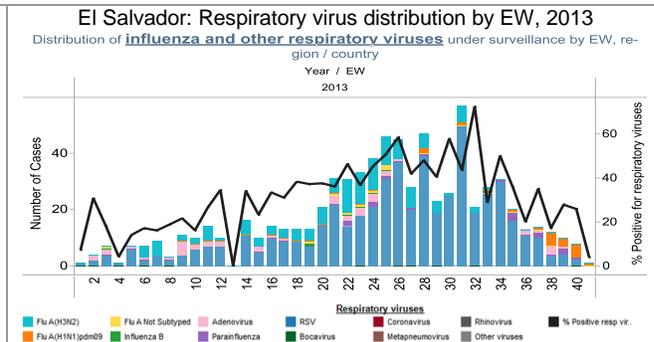
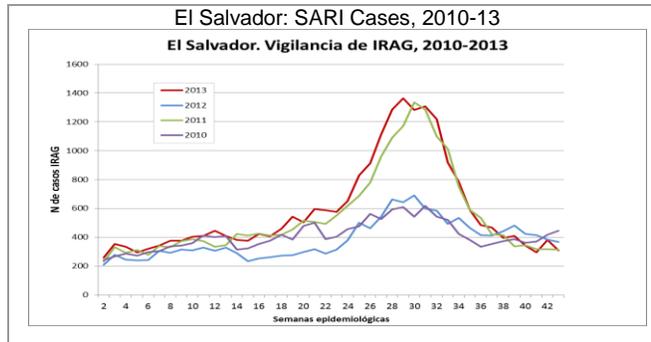
laboratory data from EW 38-41, 188 samples were analyzed, of which 40.4% were positive for a respiratory virus and 14.9% were positive for influenza. Among influenza positive samples, 100% were influenza A (67.9% were A(H1N1)pdm09 and 25.0% were A(H3N2)). Among other respiratory viruses, RSV (50.0% of positive samples) predominated.

### Costa Rica



In El Salvador, during EW 42 respiratory activity remained low and the number of SARI cases continued a decreasing trend since peaking in EW 28. Based on national laboratory data from EW 38-41, 162 samples were analyzed, of which 19.1% were positive for a respiratory virus and 8.6% were positive for influenza. Among influenza positive samples for the last five weeks, 100% were A(H1N1)pdm09. Among other respiratory viruses, RSV predominated (32.3% of positive samples) followed by adenovirus and parainfluenza.

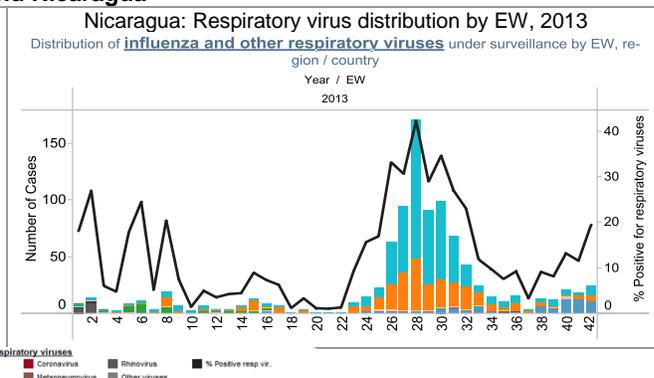
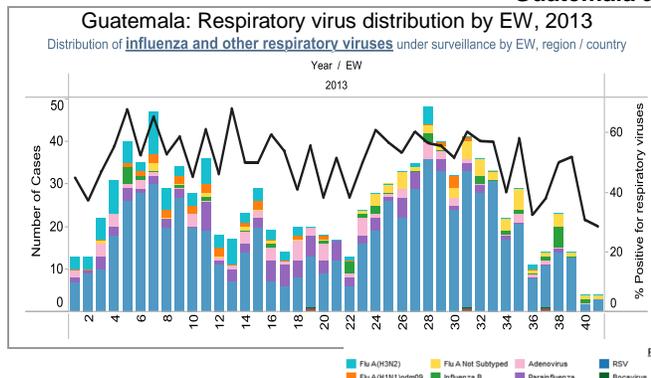
### El Salvador



In Guatemala based on laboratory data from EW 38-41, 100 samples were analyzed, of which 45.0% were positive for a respiratory virus and 12.0% were positive for influenza. Among influenza positive samples, 50.0% were influenza A (none of which were subtyped) and 50.0% were influenza B. Among the other respiratory viruses, RSV predominated (71.1% of positive samples).

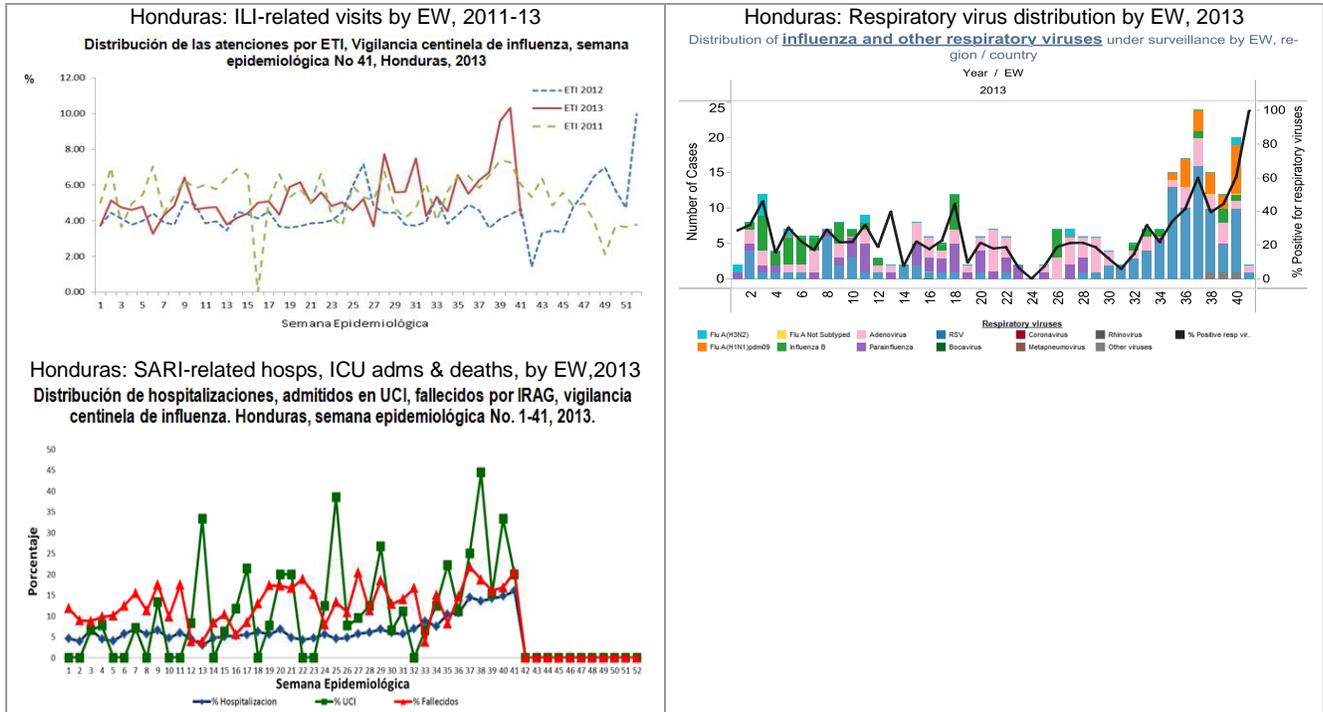
In Nicaragua, based on national laboratory data from EW 39-42, 580 samples were analyzed, of which 12.8% were positive for a respiratory virus and 5.3% were positive for influenza. RSV was the predominant respiratory virus (54.1% of positive samples) and has been increasing for the last four weeks. Among influenza positive samples, 96.8% were influenza A (63.3% were A(H3N2) and 36.7% were A(H1N1)pdm09).

### Guatemala and Nicaragua



In Honduras<sup>7</sup>, based on sentinel surveillance during EW 41, the proportion of ILI-associated visits (4.3%) decreased compared to the previous week while the proportion of SARI-associated hospitalizations increased slightly. Based on national laboratory data for EW 38-41, 100 samples were analyzed, of which 49.0% were positive for a respiratory virus and 16.0% were positive for influenza. Among the positive samples, RSV (46.9%) predominated, followed by influenza A(H1N1)pdm09 (24.5%), which has been increasing for the last six weeks.

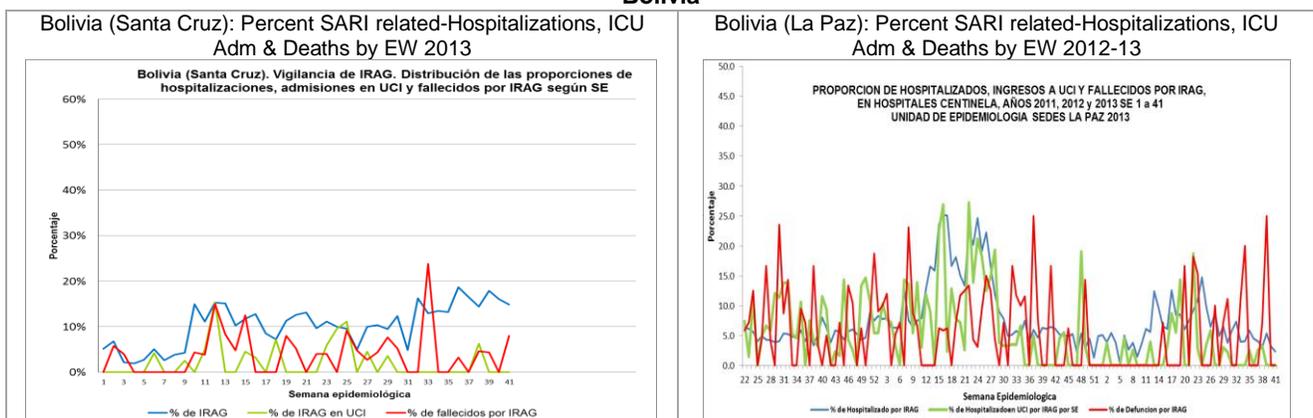
### Honduras



### South America – Andean countries

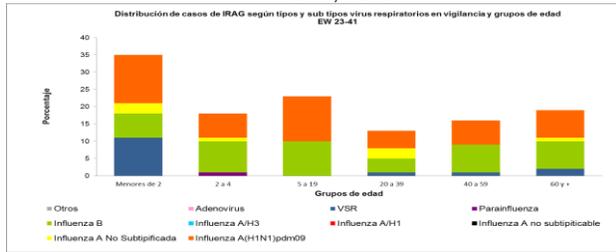
In Bolivia, according to data from Santa Cruz during EW 41, the proportion of SARI hospitalizations (15%) remained elevated compared to this period last year. Additionally, two SARI-associated deaths were reported during this time. Based on laboratory data from CENETROP (Santa Cruz) during EW 37-40, 395 SARI samples were analyzed, of which 27.3% were positive for a respiratory virus. Among the positive samples, influenza A(H1N1)pdm09 (84.3%) predominated and was identified in all age groups. According to data from La Paz, the proportion of SARI-associated hospitalizations in EW 41 (2.3%) continued a decreasing trend. Based on laboratory data from INLASA (La Paz) from EW 38-41, 140 samples were analyzed of which 20.7% were positive for a respiratory virus. Among positive samples, influenza A(H1N1)pdm09 (62.1%) and influenza B (31.0%) predominated.

### Bolivia



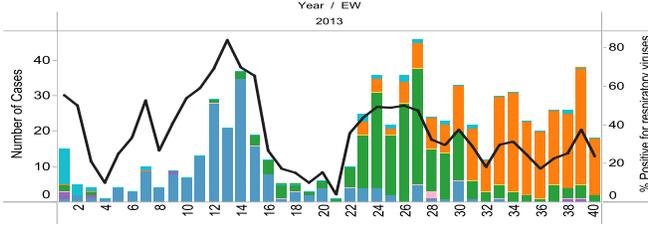
<sup>7</sup> Honduras. Influenza Bulletin, EW 41

Bolivia (Santa Cruz): Distrib. of SARI cases by age and virus, EW 23-41, 2013



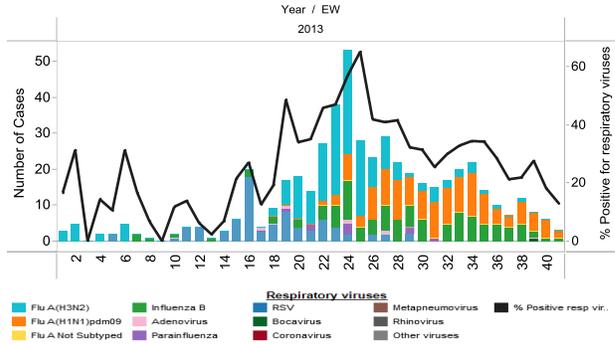
Bolivia (Santa Cruz). CENETROP  
Respiratory viruses distribution by EW, 2013

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



Bolivia (La paz). INLASA.  
Respiratory viruses distribution by EW, 2013

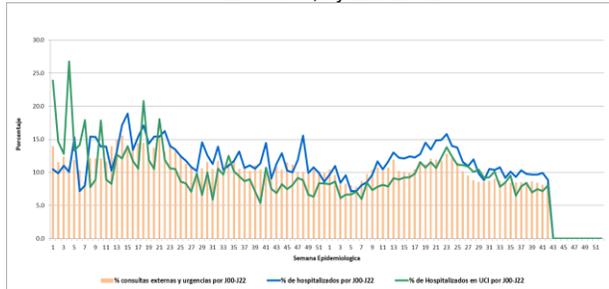
Distribution of influenza and other respiratory viruses under surveillance by EW, region / country



In Colombia, nationally during EW 41, the proportions of outpatient visits (8.9%), ICU admissions (8.0%) and deaths (8.4%) with ARI-associated ICD-10 codes (J00 to J22) have shown a decreasing trend since EW 23. Based on INS national laboratory data from EW 38-41, 618 samples were analyzed, of which 15.9% were positive for a respiratory virus and 2.3% were positive for influenza. Among the positive samples, RSV (30.6%), parainfluenza (18.4%) and adenovirus (16.3%) predominated.

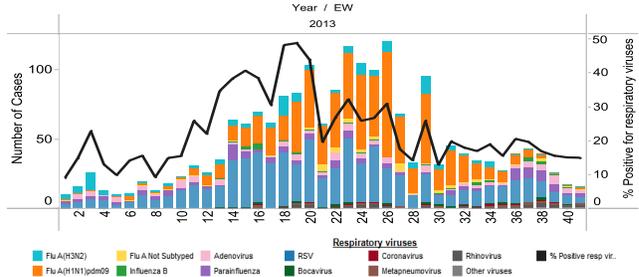
### Colombia

Colombia: Percent Outpatient Visits, Hosps and ICU Adms with J00 to J20 codes, by EW 2012-13



Colombia: Influenza and ORV distribution by EW, 2013

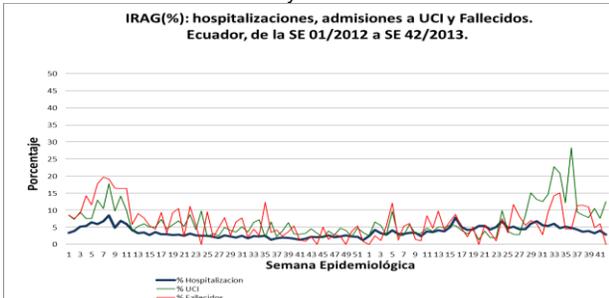
Distribution of influenza and other respiratory viruses under surveillance by EW, region / country



In Ecuador<sup>8</sup>, during EW 42 SARI activity continued to decrease: 3% of hospitalizations, 13% of ICU admissions and 0% of deaths were SARI-associated. Based on national reference laboratory data from EW 39-42, 327 SARI samples were analyzed, of which 13.8% were positive for a respiratory virus and 11.0% were positive for influenza – continuing a decreasing trend since peaking in EW 32. Among the positive samples, influenza A(H1N1)pdm09 predominated (80.0% of positive samples)

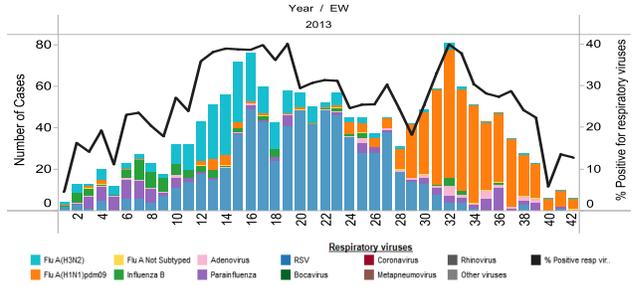
### Ecuador

Ecuador: Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13



Ecuador. Respiratory virus distribution by EW, 2013

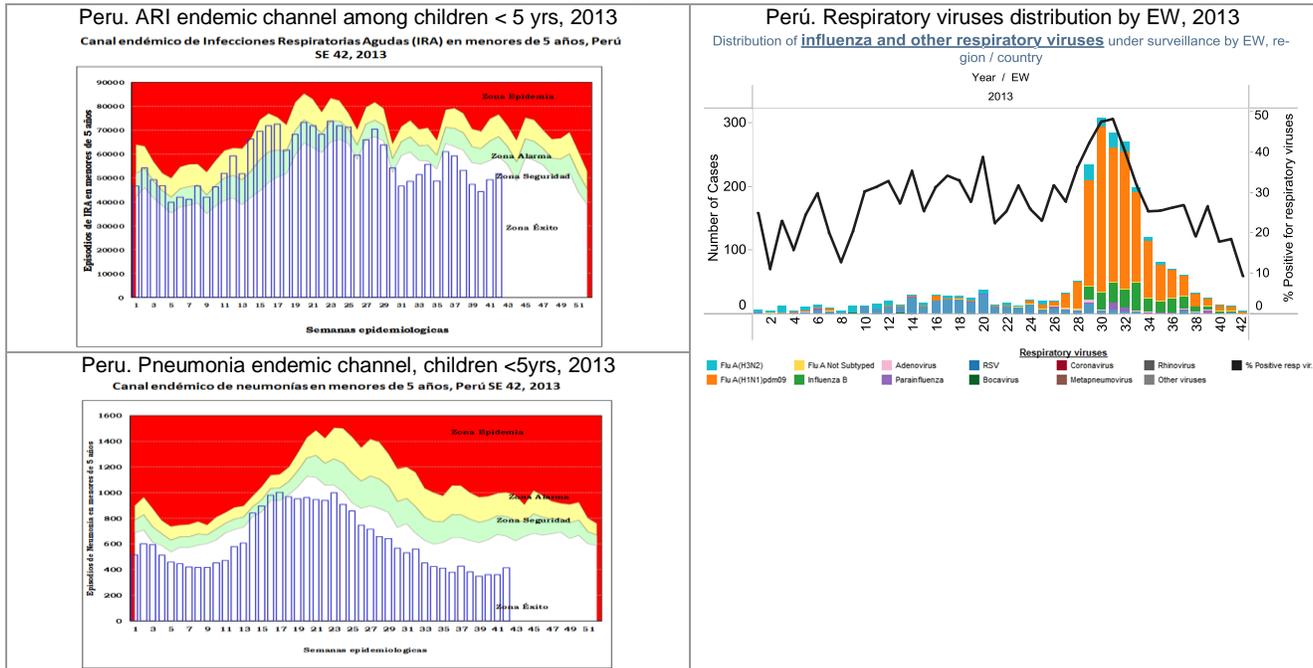
Distribution of influenza and other respiratory viruses under surveillance by EW, region / country



<sup>8</sup> Ecuador: Ministerio de Salud Pública. Actualización Nacional Vigilancia de IRAG, SE 42.

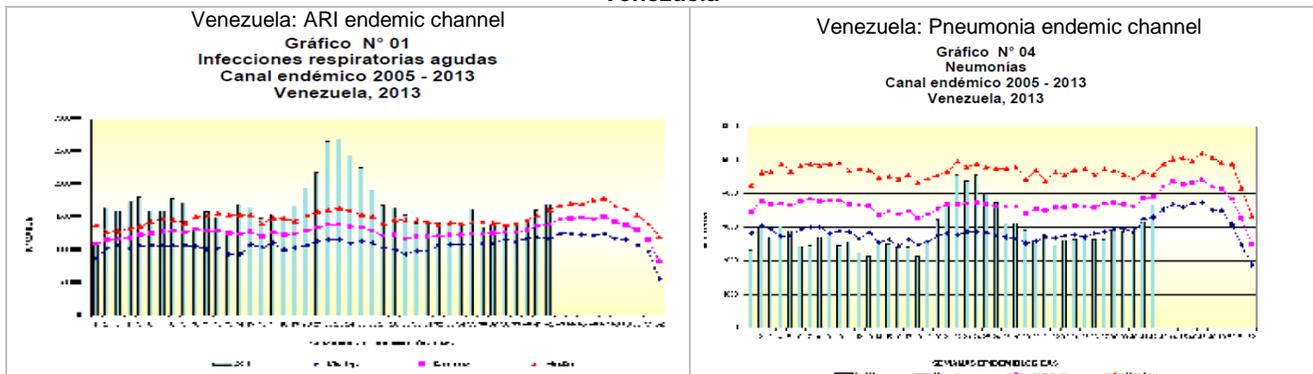
In Peru<sup>9</sup> during EW 42, although the number of ARI and pneumonia reports in children less than 5 years of age increased compared to the previous EW, values remained within the success zone of the endemic channel. Based on national laboratory data from EW 39-42, 290 samples were analyzed, of which 19.3% were positive for a respiratory virus and 14.8% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (51.8%) and influenza B (25.0%) predominated.

### Peru



In Venezuela<sup>10</sup> during EW 42, ARI and pneumonia activity increased compared to the previous EW and were near the expected values for this time of year. During EW 42, 142 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-42, 5,200 samples were analyzed from suspected influenza cases, of which 53.3% were positive for influenza. Among the positive samples, 92.1% were influenza A(H1N1)pdm09. The federal entities with the largest number of suspected influenza cases were Mérida (n=948), Distrito Capital (n=379) and Zulia (n=359).

### Venezuela



### South America – Southern Cone and Brazil

In Argentina<sup>11</sup>, according to reports and calculated estimations, national ILI activity during EW 39 was within the success zone of the endemic channel and has shown a decreasing trend since its peak in EW 26. The proportion of SARI-associated hospitalizations was within the security zone of the endemic channel and also showed a decreasing trend since EW 27. Based on laboratory data from EW 41-42, 407 samples were

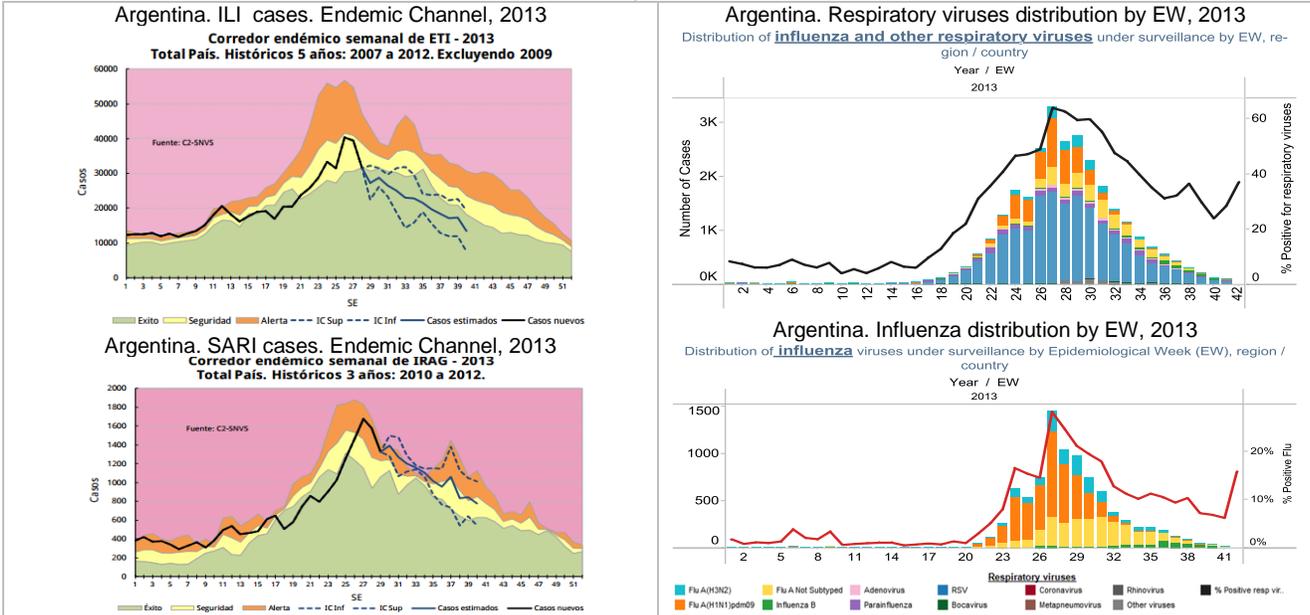
<sup>9</sup> Perú. Sala de Situación de Salud. EW 42, 2013. Ministerio de Salud. Dirección General de Epidemiología

<sup>10</sup> Venezuela. Boletín epidemiológico, EW 42, 2013.

<sup>11</sup> Argentina. Boletín integrado de vigilancia. SE 39.

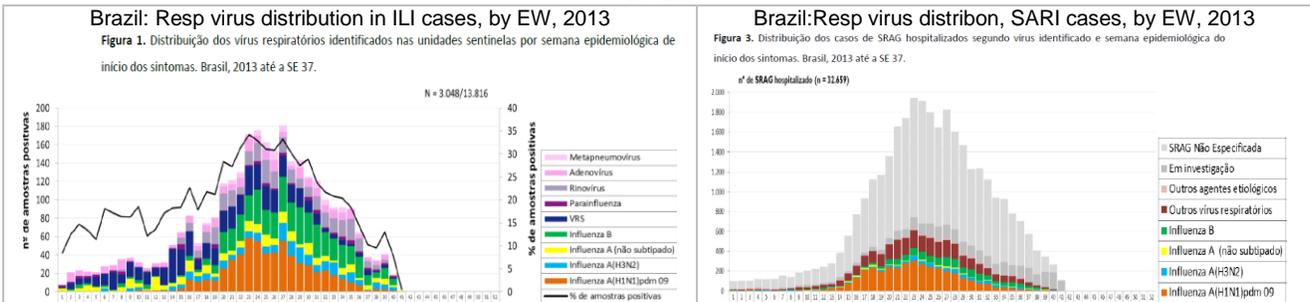
analyzed, of which 28.7% were positive for a respiratory virus and 6.6% for influenza. Among positive samples, RSV predominated (53.0%) but has been decreasing since peaking in EW 27.

### Argentina



In Brazil<sup>12</sup>, according to ILI sentinel surveillance data through EW 41, 13,816 samples have been analyzed, of which 22.1% were positive for influenza or other respiratory viruses. Positivity has decreased since EW 27 and among positive samples in the previous weeks, influenza B predominated. Based on universal SARI surveillance data during this same period, 32,659 SARI cases were reported and 17.4% were positive for influenza. Of these positive samples, influenza A(H1N1)pdm09 predominated (64.2%), followed by influenza B (21.7%) and A(H3N2) (10.7%). Additionally, in 2013, 3,735 SARI-associated deaths have been reported of which 24.7% were positive for influenza, and of these, 80.8% were associated with influenza A(H1N1)pmd09.

### Brazil

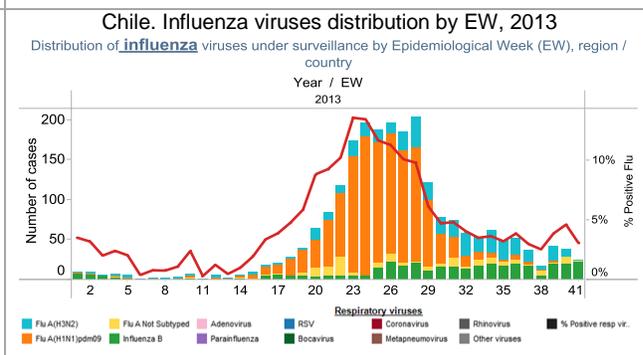
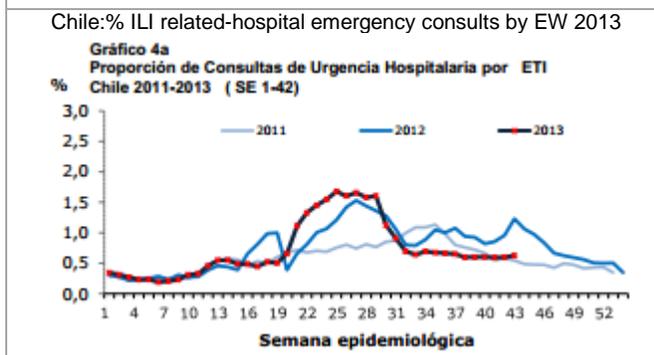
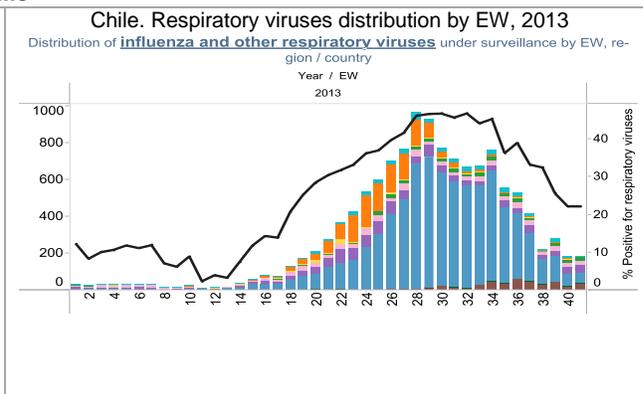
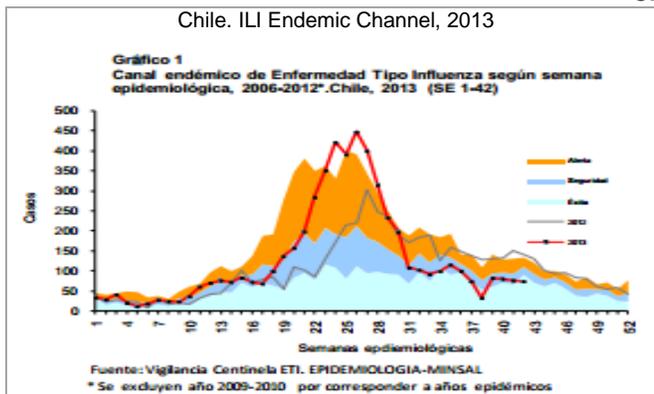


In Chile<sup>13</sup> ILI activity during EW 42 (rate: 4.9 per 100,000 inhabitants) remained low and was within the security zone of the endemic channel. The proportion of ILI-associated hospital emergency consultations was 0.6%, and has been low and stable since peaking in EW 24. Based on laboratory data from EW 40-41, 1,652 samples were tested, of which 22.1% were positive for a respiratory virus and 3.8% were positive for influenza. Among the positive samples, RSV (31.8%), parainfluenza (23.6%) and metapneumovirus (16.7%) predominated.

<sup>12</sup> Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 40, 2013.

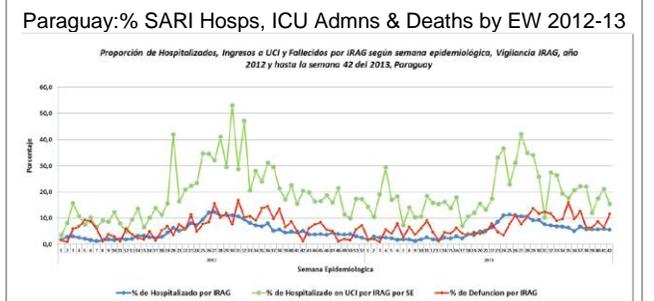
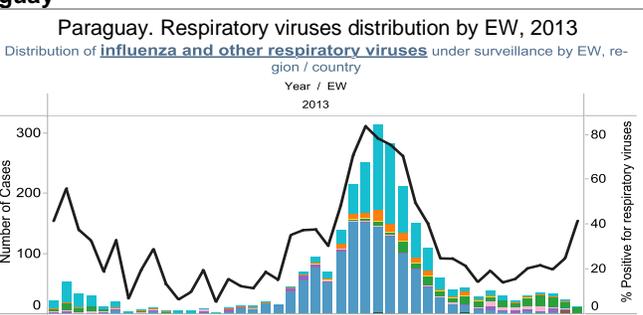
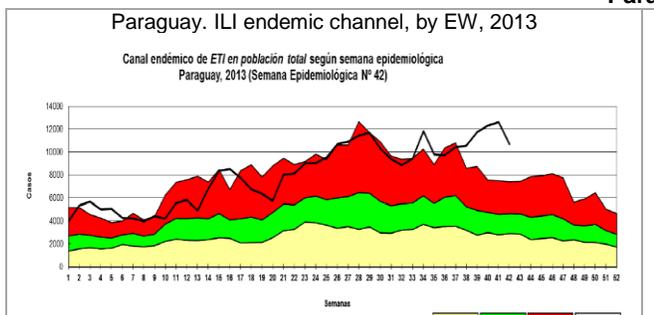
<sup>13</sup> Chile. Informe de situación. EW 41. Available at: <http://epi.minsal.cl/>

Chile



In Paraguay<sup>14</sup> during EW 42, the ILI consultation rate (161.0 per 100,000 inhabitants) decreased compared to the previous EW but was still higher than observed during this same time last year. The proportion of SARI-associated hospitalizations (5.6%) was similar to the previous week and children less than 5 years of age comprised the largest portion (61.5%) of these cases. Based on reference laboratory data from EW 39-42, 575 samples were analyzed, of which 21.2% were positive for a respiratory virus and 13.2% were positive for influenza. Among influenza samples, 82.9% were influenza B and 17.1% were influenza A (mostly A(H3N2)). Among other respiratory viruses, adenovirus (12.3% of positive samples), parainfluenza (11.5%) and metapneumovirus (10.7%) were detected. Among SARI samples, influenza B, parainfluenza and adenovirus predominated.

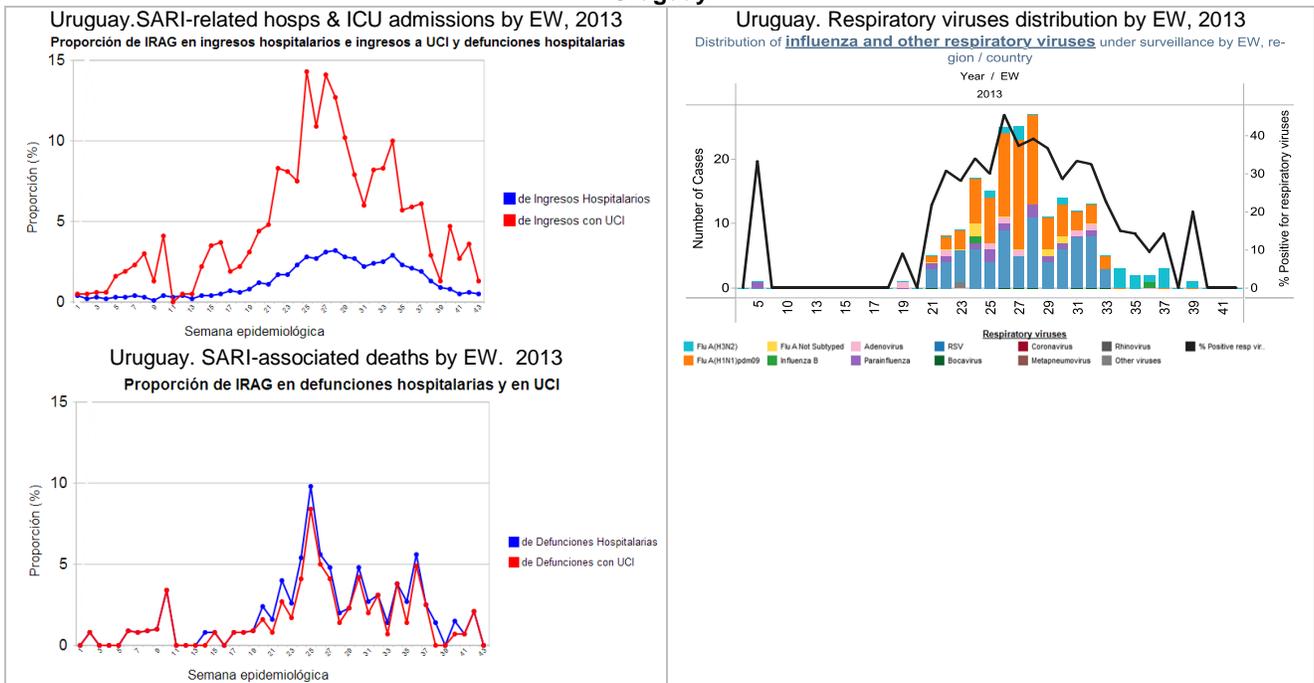
Paraguay



<sup>14</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 42, 2013

In Uruguay<sup>15</sup> during EW 41, the proportions of SARI-associated hospitalizations, ICU admissions and deaths decreased compared to the previous EW, and remain at low levels. Based on laboratory data from EW 39-42, 16 SARI samples were analyzed, of which one was positive, and it was for influenza A(H3N2).

### Uruguay



<sup>15</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública