

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/reportesinfluenza](http://www.paho.org/reportesinfluenza)

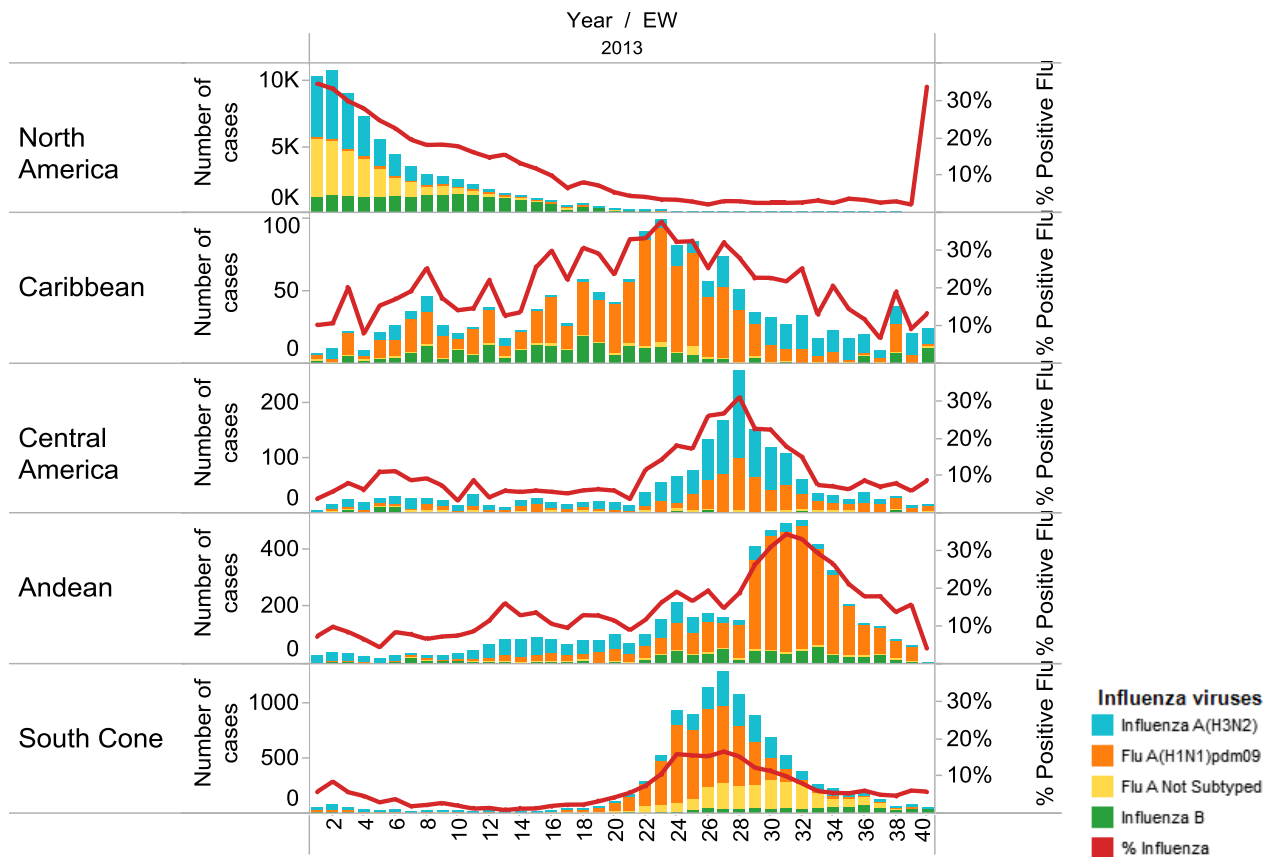
The information presented in this update is based on data provided by Ministries of Health and National Influenza Centers of Member States to the Pan American Health Organization (PAHO) or from updates on the Member States' Ministry of Health web pages.

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 slightly increasing trends. In the United States, 20 cases of variant influenza infections have been reported (18 A(H3N2v) and 2 A(H1N1v)); all infections have been associated with prolonged exposure to pigs and no ongoing human-to-human transmission has occurred.
- 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 and countries within Central America. RSV continued to predominate in Cuba, Costa Rica, Guatemala, El Salvador, Honduras, and Panama.
- 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 has been increasing.
- 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 was increasing. Currently, co-circulation of influenza B and A(H3N2) continues in most of the countries of this region. RSV continued to predominate in some countries (Argentina and Chile), although it showed a decreasing trend.

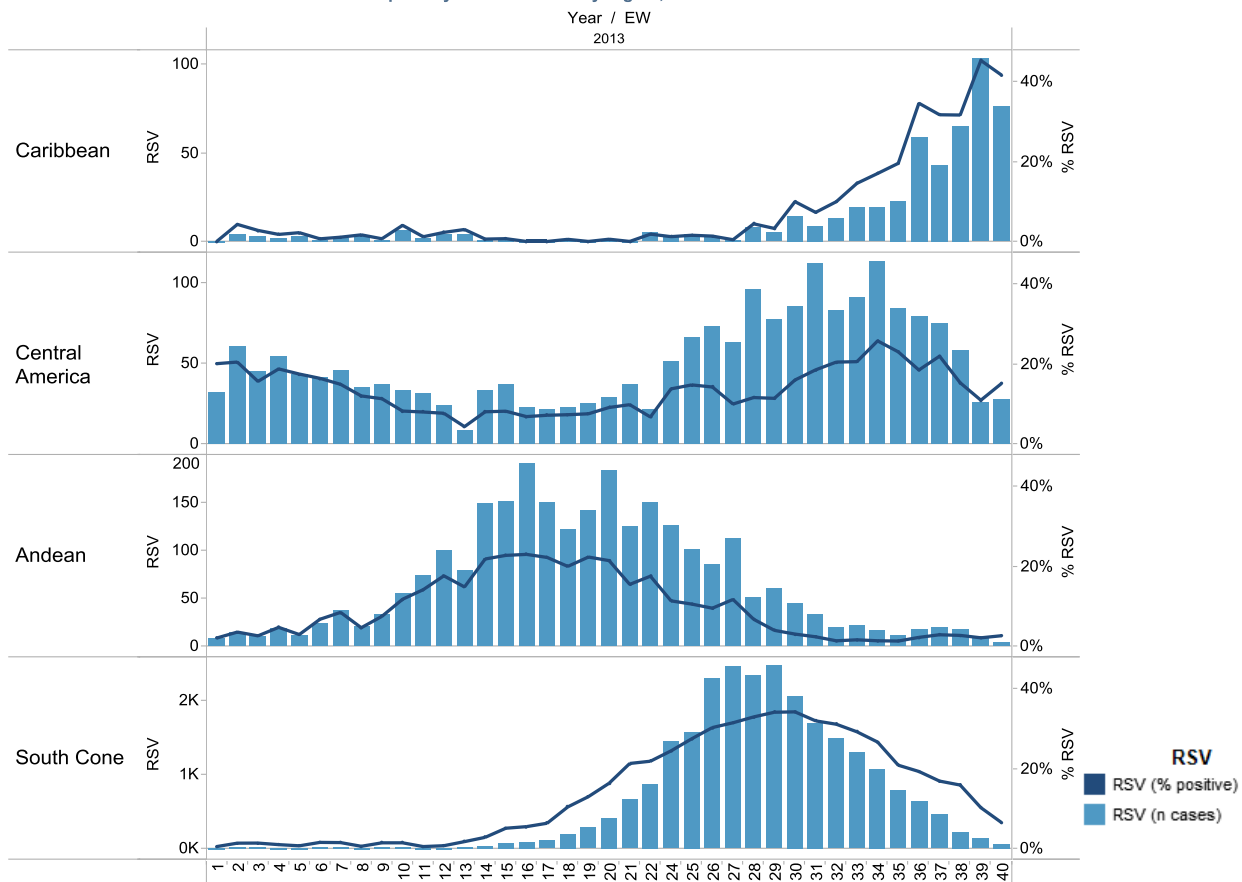
Influenza circulation by region. 2013

Distribution of influenza viruses by region, 2012-13



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

Respiratory Sincial Virus by region, 2012-13



## 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

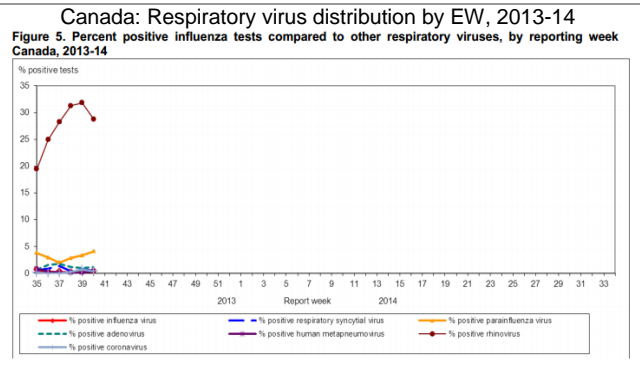
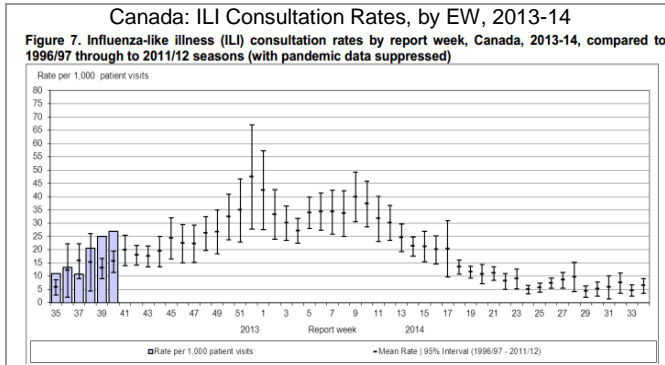
## EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

### North America:

In Canada<sup>1</sup>, during EW 39-40, influenza activity remained low with national influenza-like-illness (ILI) consultation rates of 24.9 and 26.9 per 1,000 patient visits, respectively. No influenza-associated pediatric deaths were reported during this period. Based on laboratory data for EW 39-40, the overall percentages of positive influenza tests were 0.2% and 0.3%, respectively. Among the positive samples (N=9), 77.8% were with influenza A (42.9% were A(H1N1)pdm09 and 42.9% were not subtyped) and 22.2% were influenza B. Among other respiratory viruses, rhinovirus predominated (28.8% of positive tests), followed by parainfluenza (4.1%), adenovirus (1.2%), RSV (0.4%), coronavirus (0.4%) and human metapneumovirus (0.4%).

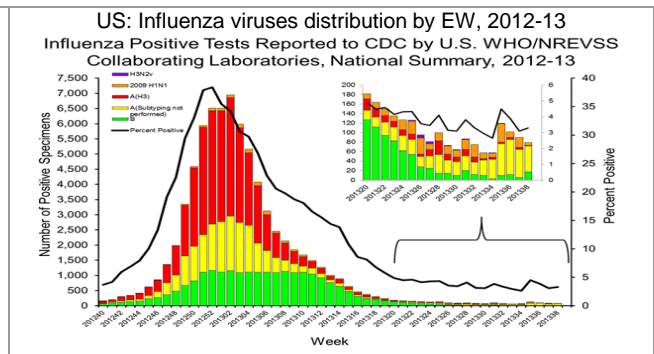
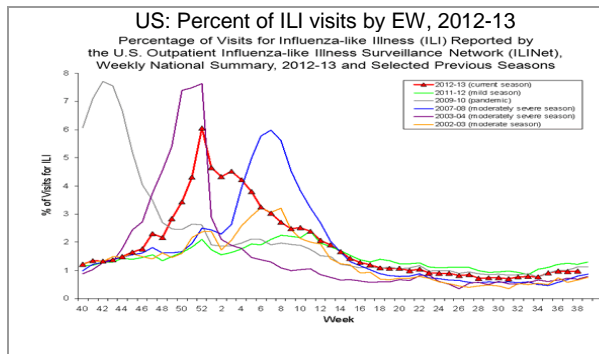
<sup>1</sup> Canada: FluWatch Report. EW 39-40. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

## Canada



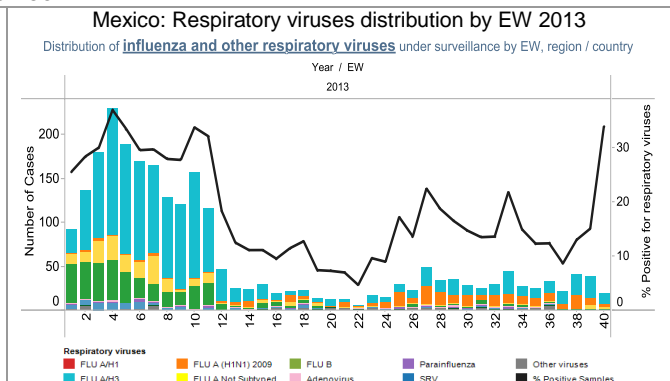
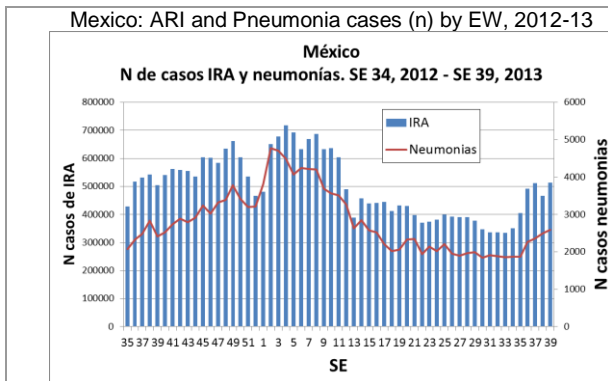
In the United States<sup>2</sup> during EW 38, influenza activity remained low with 1.0% of outpatient visits associated with ILI and 5.7% of deaths associated with pneumonia and influenza. No influenza-associated pediatric deaths were reported during EW 37. Based on laboratory data for EW 38, 2,393 samples were analyzed, of which 3.3% were positive for influenza. Among the positive samples (n=79), 78.5% were influenza A (of which 88.7% were not subtyped and 9.7% were A(H1N1)pdm09) and 21.5% were influenza B. No new novel influenza A infections were reported during EW 38. There have been a total of 18 H3N2v infections (Illinois: 1, Indiana: 14, Michigan: 2, Ohio: 1) and 2 H1N1v infections (Arkansas: 2) reported this summer. There has been one hospitalization associated with an H3N2v infection, and no deaths have occurred. All 20 cases have reported close contact with swine in the week prior to illness onset, and no ongoing human-to-human transmission has been identified.

## United States



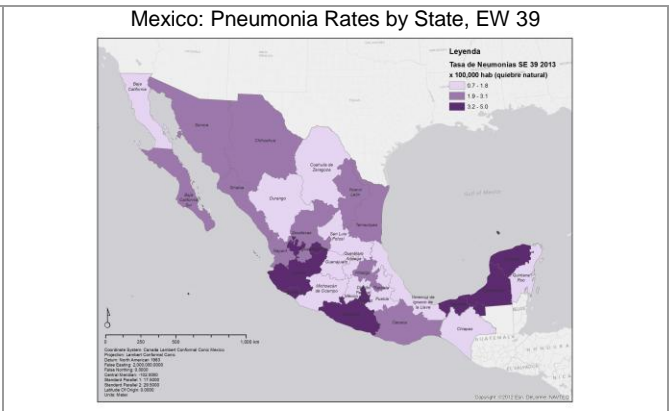
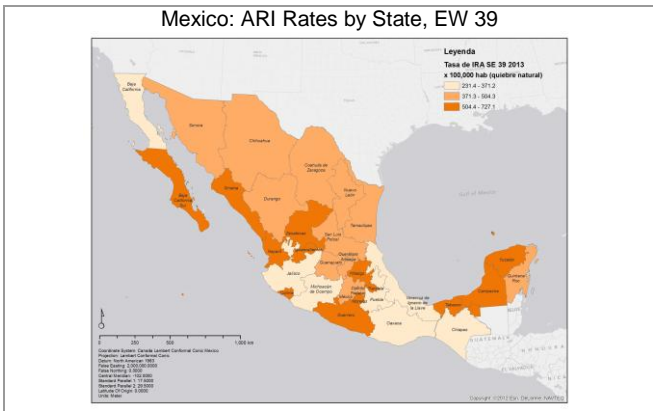
In Mexico<sup>3</sup>, during EW 39 the number of ARI and pneumonia cases increased by 10.0% and 3.4%, respectively, compared to the previous week. The highest levels of ARI activity were reported in Guerrero, Aguascalientes and Tabasco, and the highest levels of pneumonia activity were reported in Colima, Campeche and Jalisco. According to laboratory data from EW 39-40, 318 samples were tested, of which 18.9% were positive for influenza. Among the positives, 95.0% were influenza A (62.3% were A(H3N2) and 19.3% were A(H1N1)pdm09) and 5.0% were influenza B.

## Mexico



<sup>2</sup> USA: CDC FluView report. EW 38. Available at: <http://www.cdc.gov/flu/weekly/>

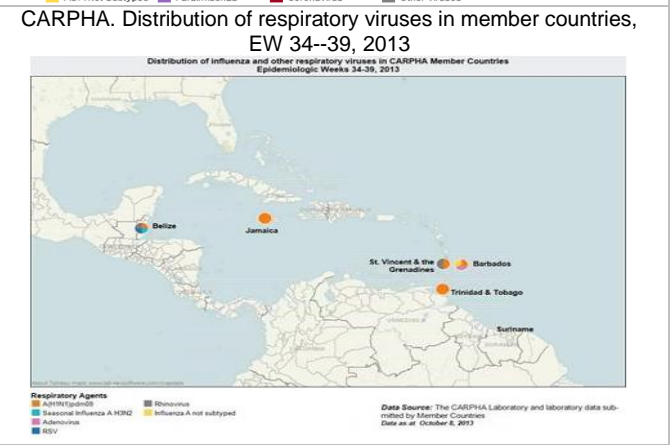
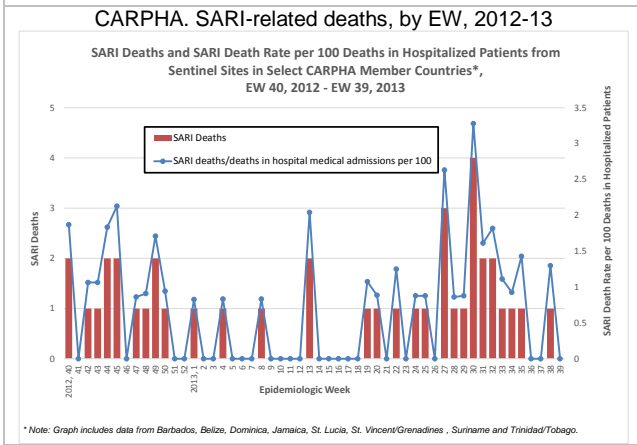
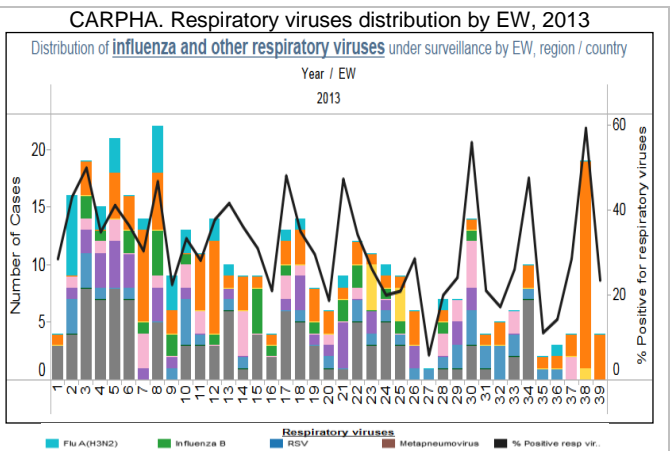
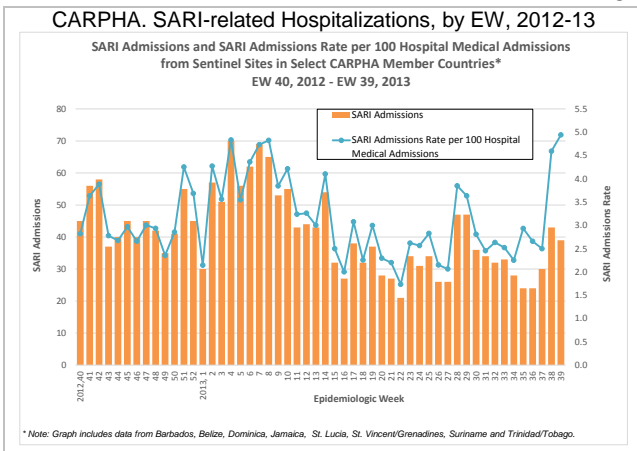
<sup>3</sup> México. Dirección General de Epidemiología. Información epidemiológica. SE 40.



**Caribbean**

CARPHA<sup>4</sup> received weekly SARI/ARI data from six countries for EW 39: Barbados, Belize, Dominica, Jamaica, St. Vincent & the Grenadines and Trinidad & Tobago. During EW 38, the proportion of SARI-associated hospitalizations was 4.9%, with the highest proportion of SARI admissions occurring in children 6 months to 4 years of age (10.1% of admissions). No SARI-associated deaths were reported in the region. According to CARPHA, laboratory data for EW 1-39, 31.6% of specimens were positive for at least on respiratory virus. For cases with dates of onset between EW 34-39, the following viruses were laboratory confirmed in member countries: influenza A(H1N1)pdm09 (Barbados, Belize, Jamaica, St. Vincent & the Grenadines and Trinidad & Tobago); influenza A(H3N2) (Belize), adenovirus (Barbados), rhinovirus (Belize, St. Vincent & the Grenadines), RSV (Belize) and influenza A, not subtyped (Barbados).

**CARPHA**

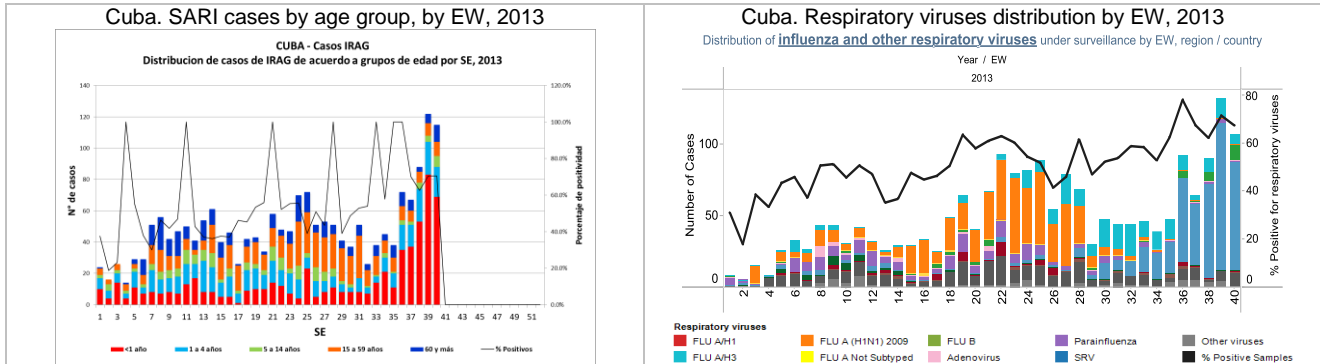


In Cuba during EW 40, the number of SARI-associated hospitalizations decreased compared to the previous EW, but still remains elevated. Children less than one year of age comprised the largest proportion of these cases. One SARI-associated death was reported during this period and it was negative for respiratory

<sup>4</sup> Caribbean Public Health Agency (CARPHA) EW 39

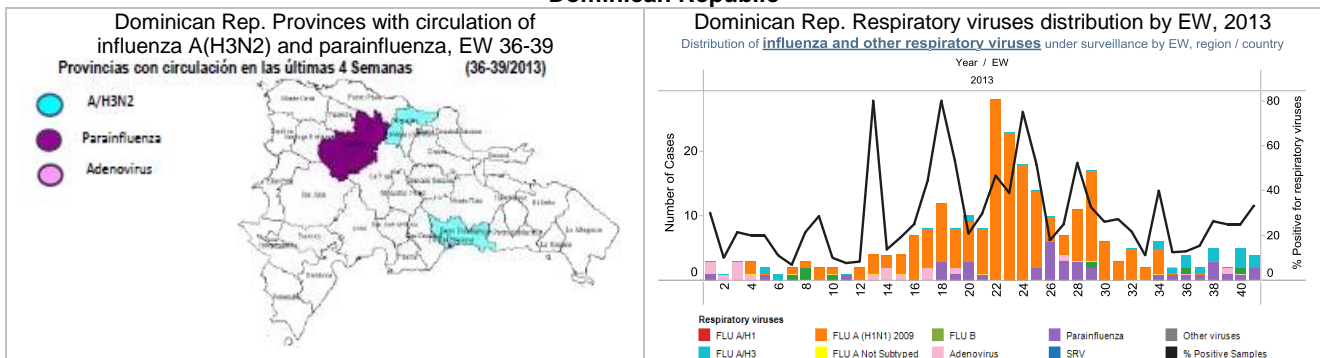
viruses. According to national laboratory data for EW 37-40, 584 samples were analyzed, of which 67.3% were positive for a respiratory virus and 8.9% were positive for influenza. RSV remained the predominant circulating virus (73.0% of the positives), and among influenza viruses, 100% were A(H3N2).

### Cuba



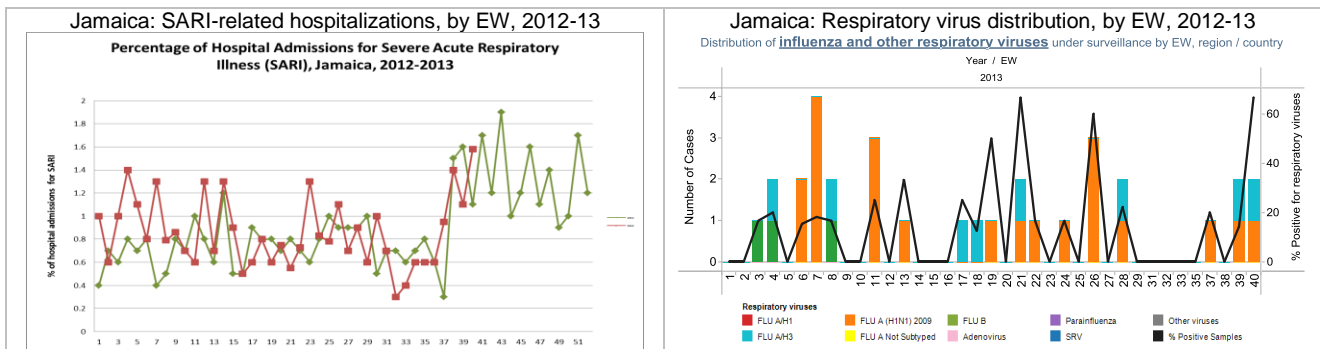
In the Dominican Republic<sup>5</sup>, the cumulative ILI rate for EW 1-39 was 1,324 per 10,000 inhabitants, and is 15% less than what was reported for the same period in 2012. During the same period, 1,289 SARI cases were reported through sentinel surveillance, of which 11 were reported during EW 39. There were no SARI-associated deaths reported during EW 39; there have been 27 SARI-associated deaths reported this year (compared to 5 in 2012). According to laboratory data for EW 37-40, 60 samples were analyzed, of which 23.3% were positive for a respiratory virus and 11.7% were positive for influenza. Among positive influenza samples, 85.7% were influenza A (100% were influenza A(H3N2), increasing slightly since EW 34) and 14.3% were influenza B. Among other respiratory viruses, parainfluenza (42.9% of positive samples) predominated.

### Dominican Republic



In Jamaica, based on sentinel surveillance data for EW 40, the proportion of ARI-associated consultations was 6.2%, a 0.5% increase from the previous EW. The proportion of SARI-associated hospitalizations was 1.6%, continuing an increasing trend from EW 32 (0.3%) to 40 (1.6%). No SARI-associated deaths were reported during this period. Based on laboratory data from EW 39-40, co-circulation of influenza A(H1N1)pdm09 and A(H3N2) was observed.

### Jamaica

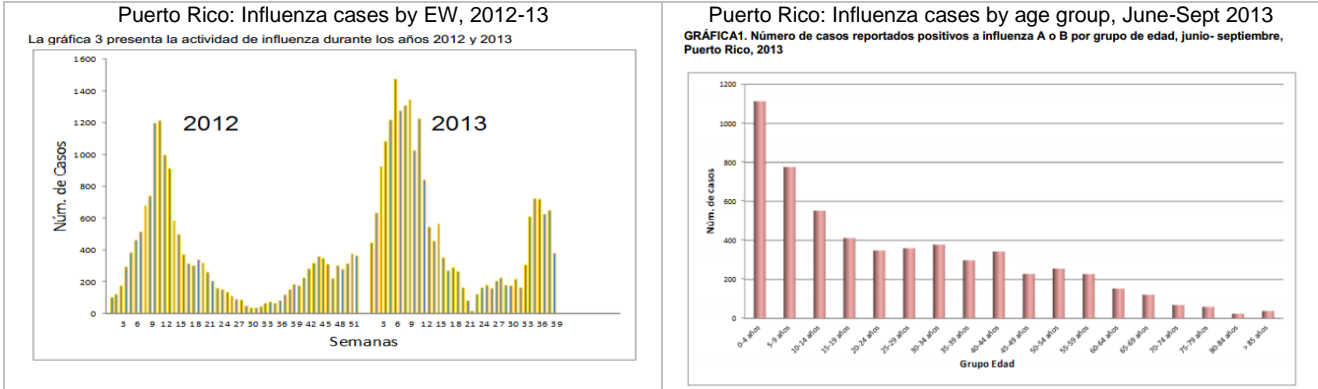


<sup>5</sup> República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 39.



In Puerto Rico<sup>6</sup>, during EW 39, the number of influenza cases (n=378) continued a decreasing trend since peaking in EW 34. Of these, 96.0% were associated with influenza A. Since the beginning of June, 5,801 influenza cases have been reported and children 0-14 years of age accounted for 42% of those cases. Since June, 251 influenza-associated hospitalizations and 9 influenza-associated deaths were reported.

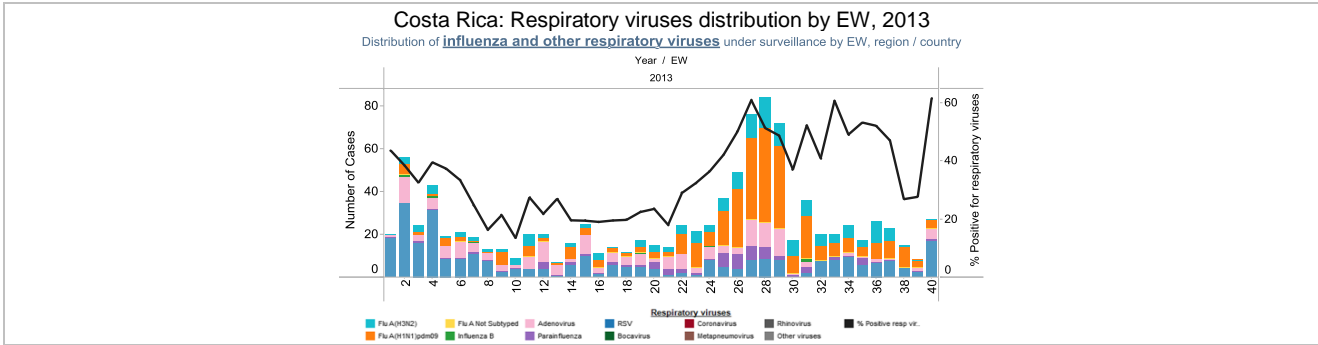
**Puerto Rico**



**Central America**

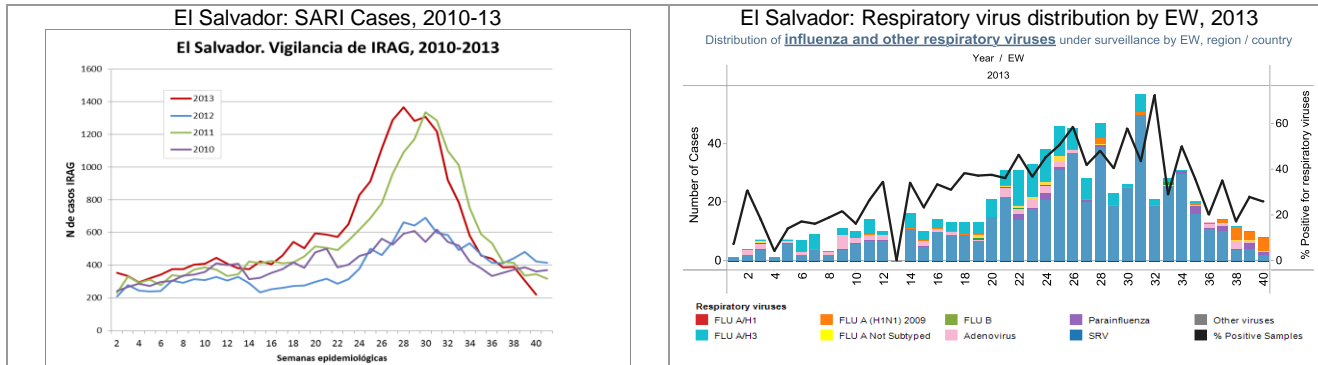
In Costa Rica, based on national laboratory data from EW 34-40, 178 samples were analyzed, of which 41.0% were positive for a respiratory virus and 17.4% were positive for influenza. Among influenza positive samples, 100% were influenza A (77.4% A(H1N1)pdm09 and 22.6% A(H3N2)). Among other respiratory viruses, RSV (45.2% of positive samples) predominated.

**Costa Rica**



In El Salvador, during EW 39 respiratory activity remained low and the number of SARI cases continued to decrease since its peak in EW 28. Based on national laboratory data from EW 37-40, 177 samples were analyzed, of which 24.9% were positive for a respiratory virus and 7.9% were positive for influenza. Among influenza positive samples for the last four weeks, 100% were A(H1N1)pdm09. Among other respiratory viruses, RSV predominated (45.5% of positive samples) followed by adenovirus and parainfluenza.

**El Salvador**

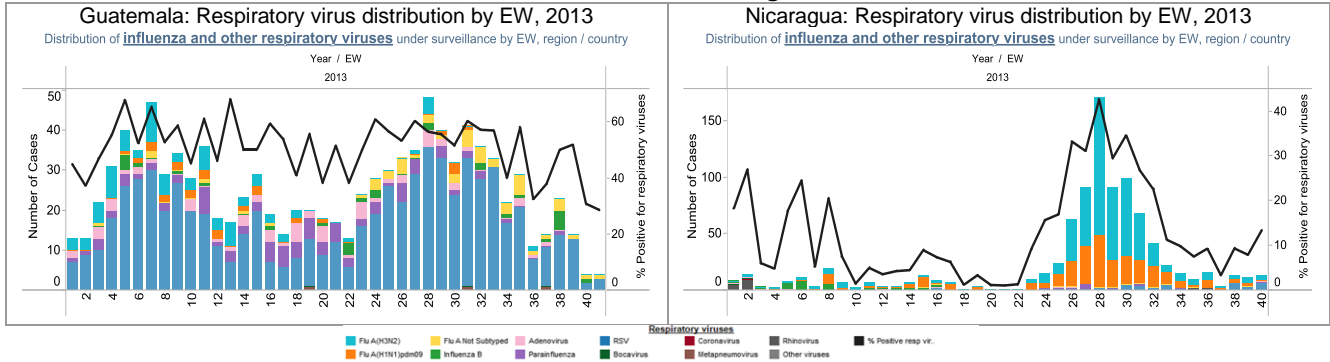


<sup>6</sup> Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 39. <http://www.salud.gov.pr/influenza/Informes%20Influenza/Informe%20Influenza%20Semana%2039.pdf>.

In Guatemala, based on laboratory data from EW 37-40, 123 samples were analyzed, of which 44.7% were positive for a respiratory virus and 10.6% were positive for influenza. Among influenza positive samples, 46.2% were influenza A (none of which were subtyped) and 53.8% were influenza B. Among the other respiratory viruses, RSV predominated (70.9% of positive samples).

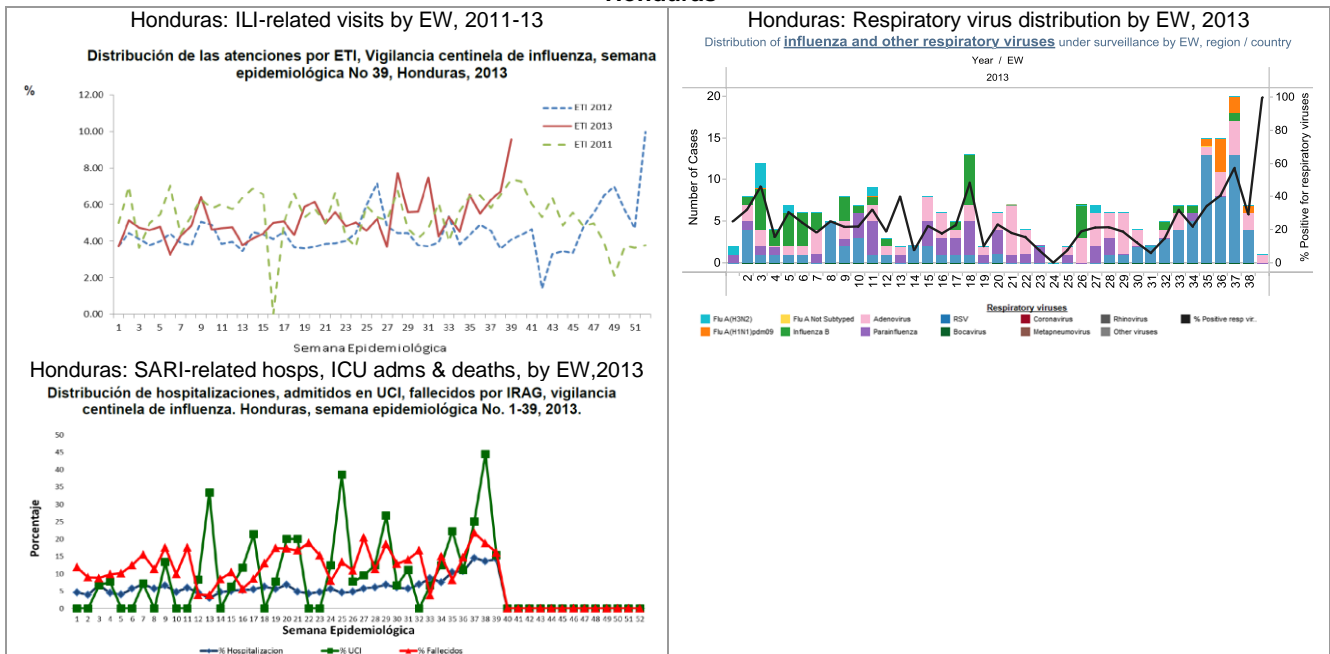
In Nicaragua, based on national laboratory data from EW 37-40, 500 samples were analyzed, of which 8.2% were positive for a respiratory virus and 4.4% were positive for influenza. Among influenza positive samples, 95.5% were influenza A (66.7% were A(H3N2) and 33.3% were A(H1N1)pdm09). Among other respiratory viruses, RSV predominated (41.5% of positive samples).

### Guatemala and Nicaragua



In Honduras<sup>7</sup>, based on sentinel surveillance during EW 39, the proportions of ILI-associated visits (9.6%) and SARI-associated hospitalizations (14.2%) continued an increasing trend observed since August 2013. Based on national laboratory data for EW 36-39, 97 samples were analyzed, of which 44.3% were positive for respiratory viruses and 8.2% were positive for influenza. Among the positive samples, RSV (58.1%) and adenovirus (23.3%) predominated. Among influenza viruses, A(H1N1)pdm09 has been detected for the last five weeks.

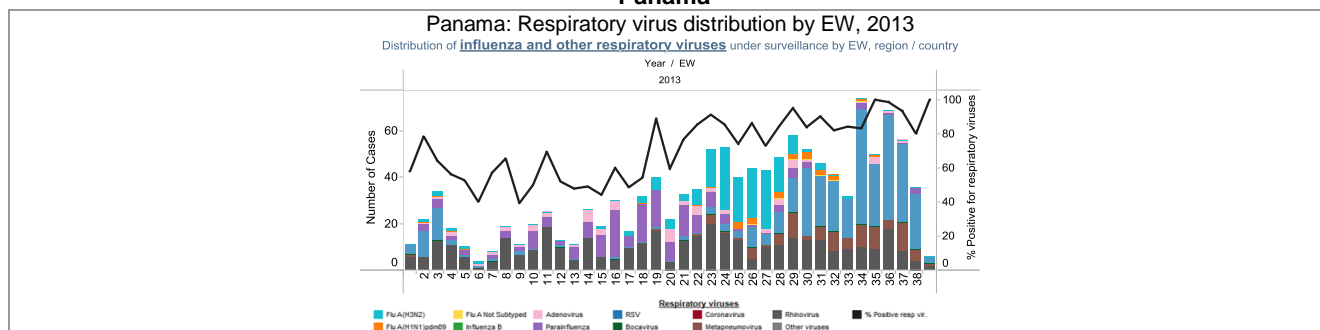
### Honduras



In Panama, based on national laboratory data from EW 36-39, 181 samples were analyzed, of which 92.3% were positive for a respiratory virus. Among positive samples, RSV (63.5%) predominated, followed by rhinovirus (19.2%) and metapneumovirus (13.8%).

<sup>7</sup> Honduras. Influenza Bulletin, EW 39

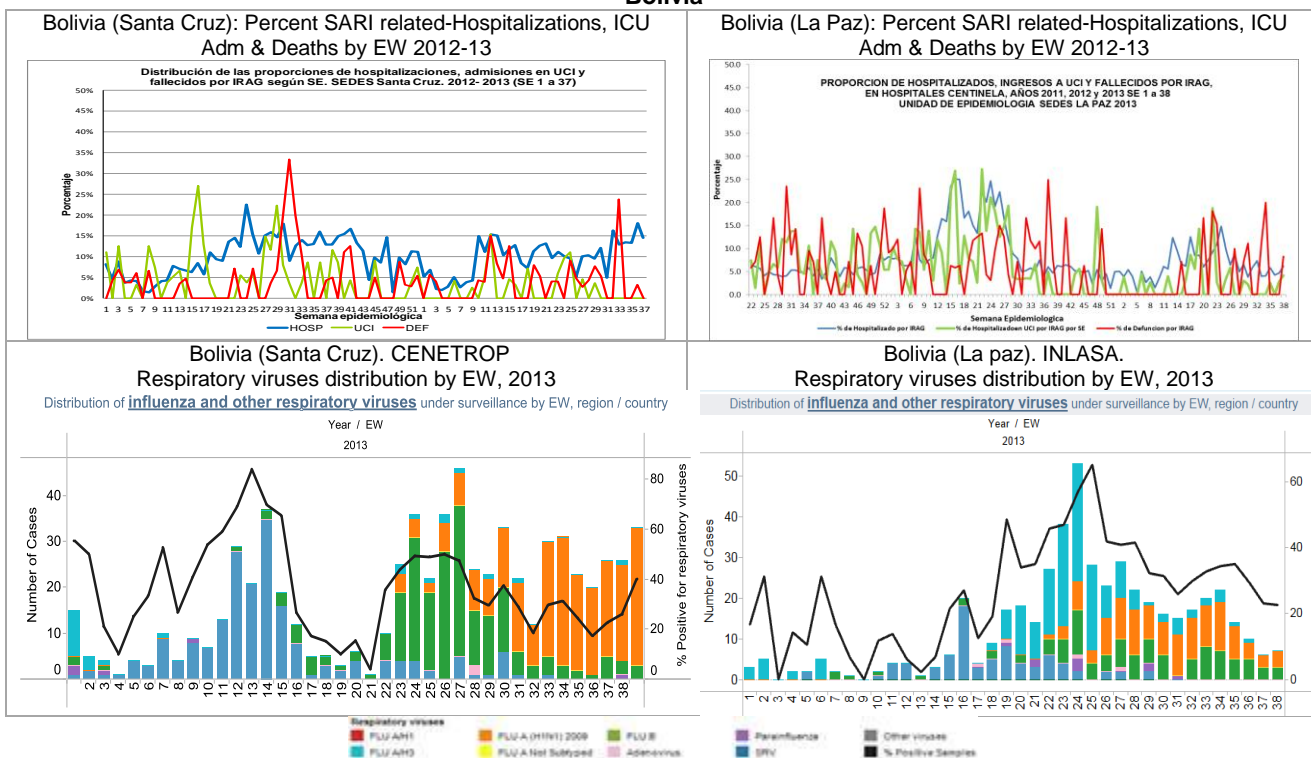
## Panama



## South America – Andean countries

In Bolivia, according to data from Santa Cruz during EW 37, the proportion of SARI hospitalizations (14%) remained elevated compared to this period last year. Based on laboratory data from CENETROP (Santa Cruz) during EW 38-39, 182 SARI samples were analyzed, of which 33.0% were positive for a respiratory virus. Among the positive samples, influenza A(H1N1)pdm09 (86.4%) predominated. According to data from La Paz, the proportion of SARI-associated hospitalizations in EW 38 (6.2%) increased compared to the previous weeks but remains low. Based on laboratory data from INLASA (La Paz) from EW 37-38, 57 samples were analyzed of which 22.8% were positive for a respiratory virus. Among positive samples, influenza A(H1N1)pdm09 (53.8%) and influenza B (46.7%) predominated.

## Bolivia

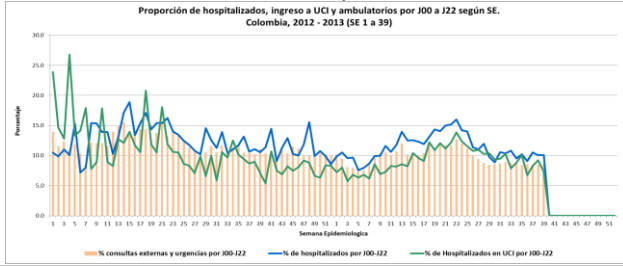


In Colombia, nationally during EW 39, the proportions of outpatient visits (8.6%), hospitalizations (10.1%), and ICU admissions (7.3%) with ARI-associated ICD-10 codes (J00 to J22) did not change significantly from the previous EW and are similar to what was observed during this same period last year. Based on INS national laboratory data from EW 39-40, 245 samples were analyzed, of which 13.5% were positive for a respiratory virus and 1.6% were positive for influenza. Among the positive samples, RSV (33.3%) and parainfluenza (21.2%) predominated.

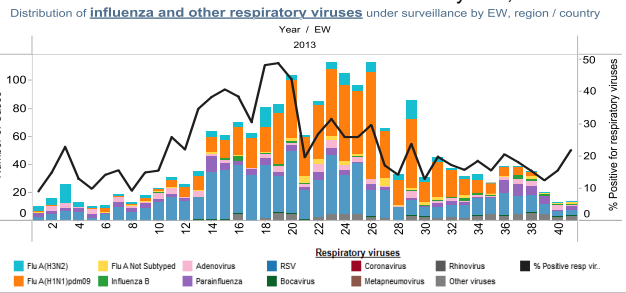


## Colombia

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



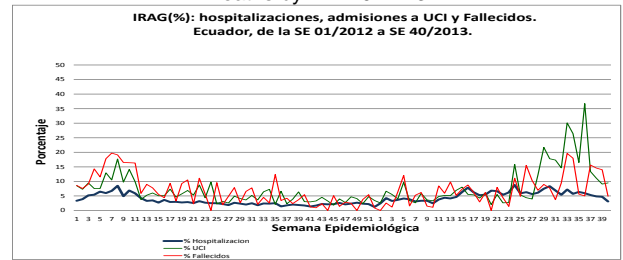
Colombia: Influenza and ORV distribution by EW, 2013



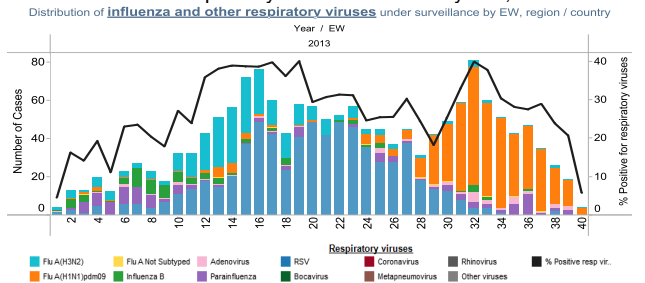
In Ecuador<sup>8</sup>, based on SARI surveillance data from EW 40, 3% of hospitalizations, 9% of ICU admissions and 5% of deaths were SARI-associated. Based on national reference laboratory data from EW 37-40, 392 SARI samples were analyzed, of which 21.4% were positive for a respiratory virus and 18.1% were positive for influenza – both showing a decrease since peaking in EW 32. Among the positive samples, influenza A(H1N1)pdm09 (83.3%) predominated.

## Ecuador

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



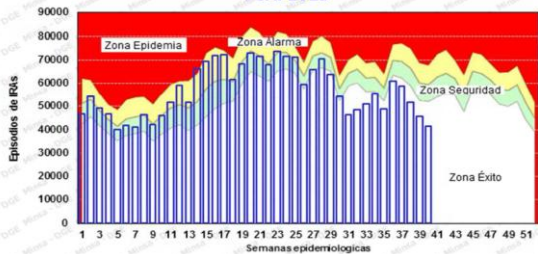
Ecuador. Respiratory virus distribution by EW, 2013



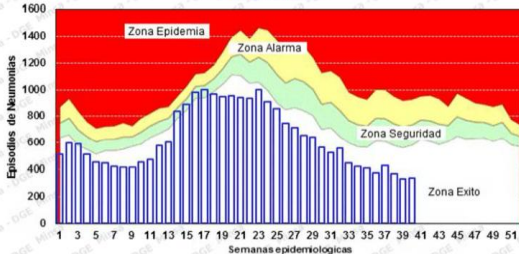
In Peru<sup>9</sup> during EW 40, ARI reports in children less than 5 years of age continued a decreasing trend since EW 36 and were within the success zone of the endemic channel. Pneumonia reports in the same age group were also within the success zone and continued a decreasing trend. Based on national laboratory data from EW 36-39, 760 samples were analyzed, of which 24.9% were positive for a respiratory virus and 21.8% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (57.1%) and influenza B (30.2%) predominated.

## Peru

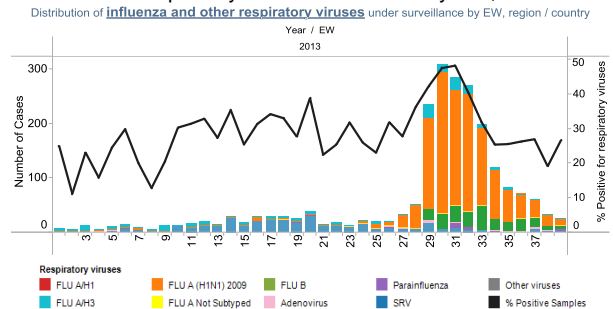
Peru. ARI endemic channel among children < 5 yrs, 2013  
Canal de Infecciones Respiratorias Agudas (IRA) en menores de 5 años, Perú 2013\*



Peru. Pneumonia endemic channel, children <5yrs, 2013  
Canal endémico de neumonías en menores de 5 años, Perú 2013\*



Perú. Respiratory viruses distribution by EW, 2013

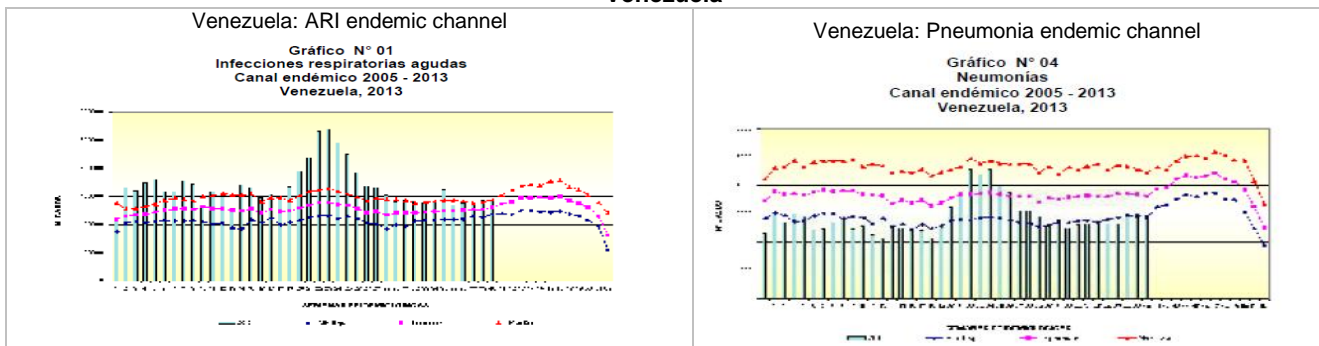


<sup>8</sup> Ecuador: Ministerio de Salud Pública. Actualización Nacional Vigilancia de IRAG, SE 40.

<sup>9</sup> Perú. Sala de Situación de Salud. EW 37, 2013. Ministerio de Salud. Dirección General de Epidemiología

In Venezuela<sup>10</sup>, ARI and pneumonia activity during EW 40 were within the expected values for this time of year. During this time, 93 SARI-associated hospitalizations were reported, with children less than 1 year of age comprising the largest proportion of cases. Based on virologic data from EW 1-40, 5,190 samples were analyzed from suspected influenza cases, of which 53.3% were positive for influenza. Among the positive samples, 92.3% 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=360).

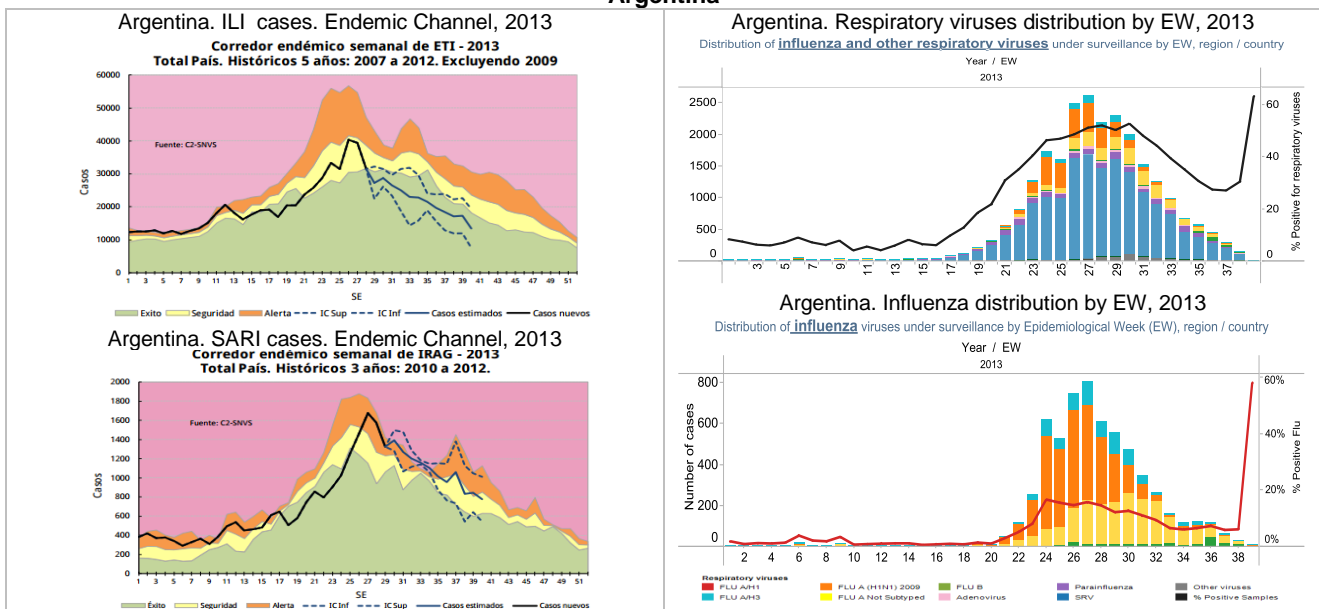
### Venezuela



### South America – Southern Cone and Brazil

In Argentina<sup>11</sup>, according to reports and calculated estimations, national ILI activity during EW 39 is within the success zone of the endemic channel and has shown a decreasing trend since its peak in EW 25-27. The proportion of SARI-associated hospitalizations was within the security zone of the endemic channel and also showed a decreasing trend. Based on laboratory data from EW 38-39, 532 samples were analyzed, of which 31.6% were positive for a respiratory virus and 7.9% for influenza. Among positive samples, RSV predominated (53.6%) but has been decreasing since peaking in EW 27.

### Argentina



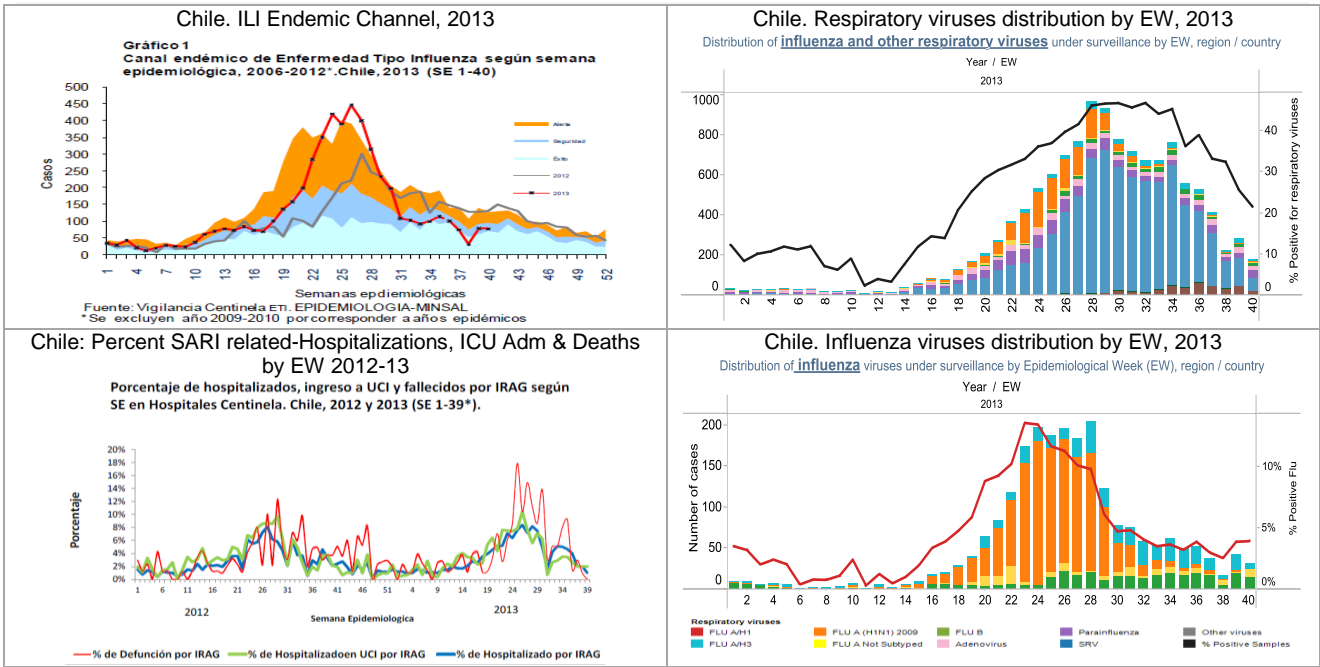
In Chile<sup>12</sup> ILI activity during EW 40 (rate: 5.1 per 100,000 inhabitants) remained low and was within the security zone of the endemic channel. The proportion of SARI-associated hospitalizations and SARI-associated ICU admissions continued to show a decreasing trend since peaking in EW 25-26 (9.8% and 18.0%, respectively) and currently are below 2%. Based on laboratory data from EW 37-40, 131 IRAG samples were tested, of which 45.0% were positive for a respiratory virus and 10.7% were positive for influenza. Among the positive samples, metapneumovirus (35.6%), parainfluenza (20.3%) and RSV (16.9%) predominated.

<sup>10</sup> Venezuela. Boletín epidemiológico, EW 40, 2013.

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

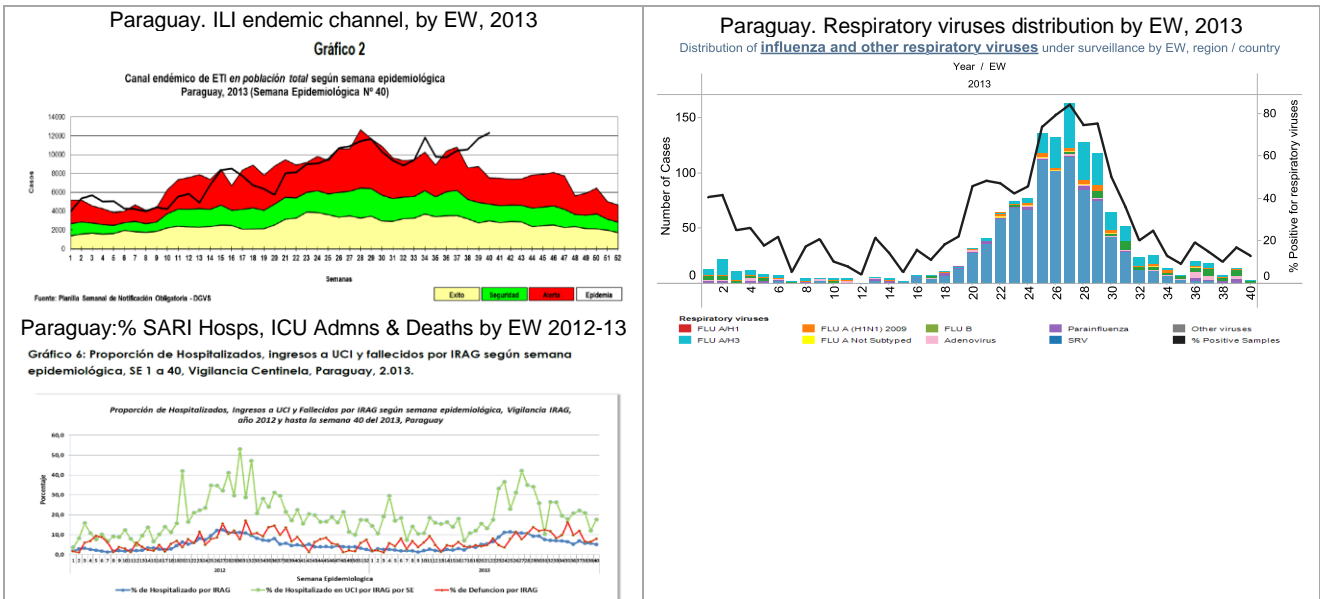
<sup>12</sup> Chile. Informe de situación. EW 39-40. Disponible en: <http://epi.minsal.cl/>

Chile



In Paraguay<sup>13</sup> during EW 40, the ILI consultation rate (185 per 100,000 inhabitants) increased compared to the previous EW and was higher than expected for this time of year. The proportion of SARI-associated hospitalizations (5.0%) was similar to the previous week and children less than 5 years of age comprised the largest portion (47.5%) of these cases. Based on reference laboratory data from EW 37-40, 296 SARI samples were analyzed, of which 14.2% were positive for a respiratory virus and 8.1% were positive for influenza. Among influenza samples, 75% were influenza B and 25% were A(H3N2). Among the other respiratory viruses, adenovirus predominated (21.4% of positive samples).

Paraguay



In Uruguay<sup>14</sup>, the proportions of SARI-associated hospitalizations decreased compared to the previous EW while the proportion of SARI-associated deaths did not change. Based on laboratory data from EW 36-37, 39 SARI samples were analyzed, of which 12.8% were positive for influenza. Among the positive samples (n=5), 80% were influenza A (of which 100% were A(H3N2)) and 20% were influenza B.

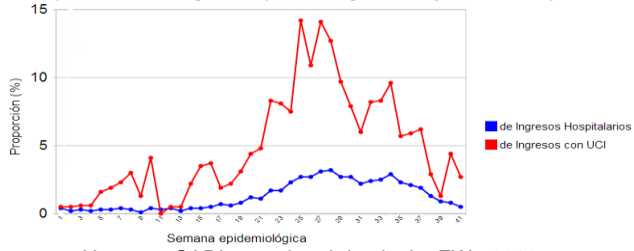
<sup>13</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 40, 2013

<sup>14</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública

# Uruguay

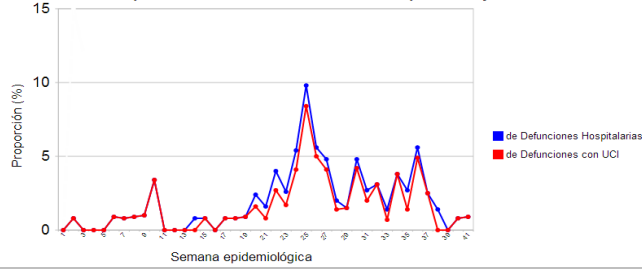
Uruguay.SARI-related hospis & ICU admissions by EW, 2013

Proporción de IRAG en ingresos hospitalarios e ingresos a UCI y defunciones hospitalarias



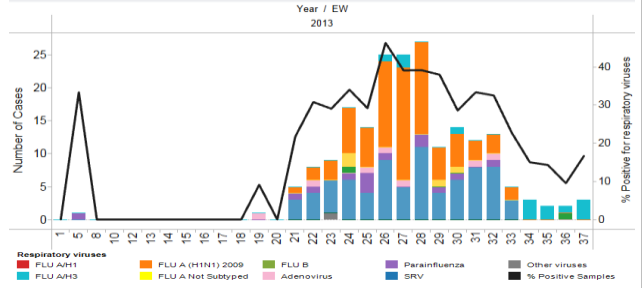
Uruguay. SARI-associated deaths by EW. 2013

Proporción de IRAG en defunciones hospitalarias y en UCI



Uruguay. Respiratory viruses distribution by EW, 2013

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



Respiratory viruses

FLU A(H1N1) 2009

FLU A Not Subtyped

FLU B

Adenovirus

Parainfluenza

SRV

Other viruses

% Positive Samples