

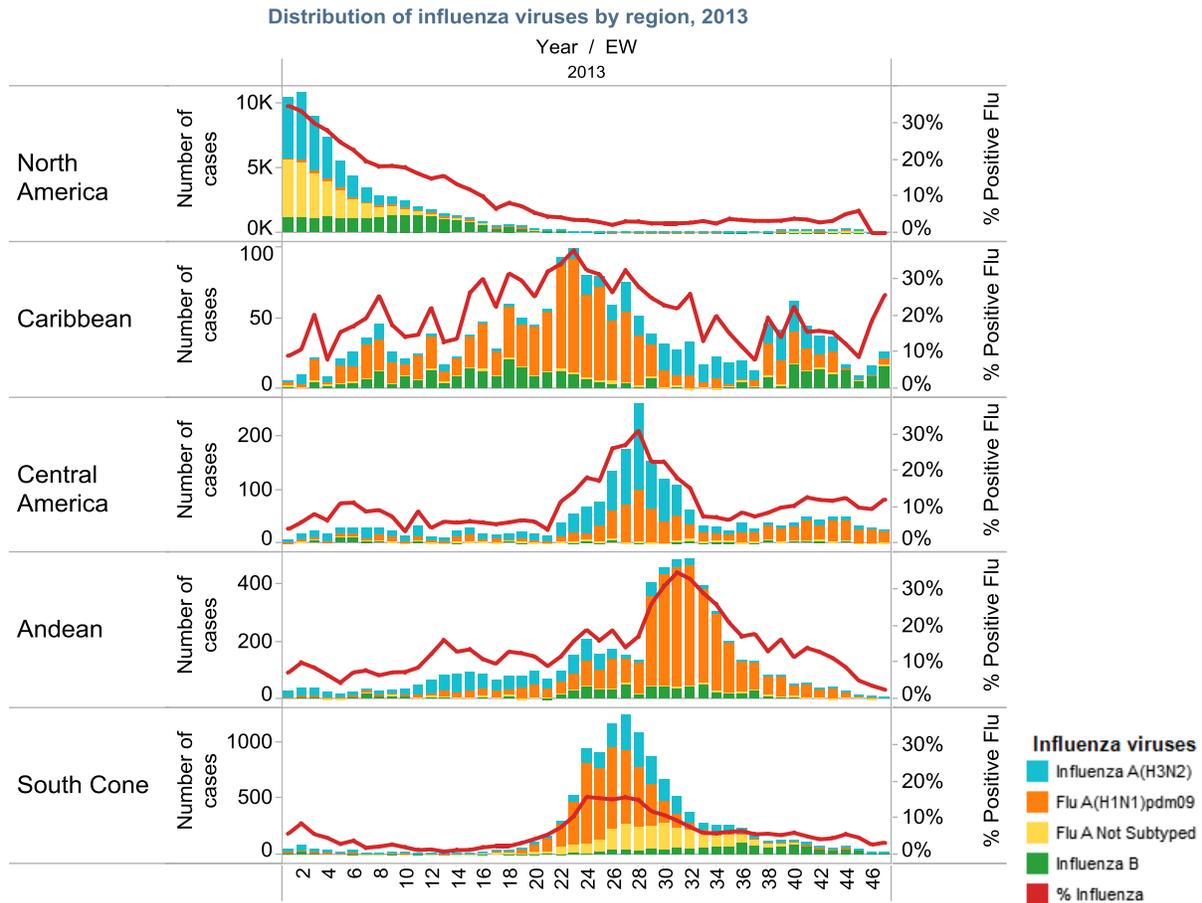
PAHO interactive influenza data: [http://ais.paho.org/phis/viz/ed\\_flu.asp](http://ais.paho.org/phis/viz/ed_flu.asp)  
Influenza Regional Reports: [www.paho.org/reportesinfluenza](http://www.paho.org/reportesinfluenza)

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

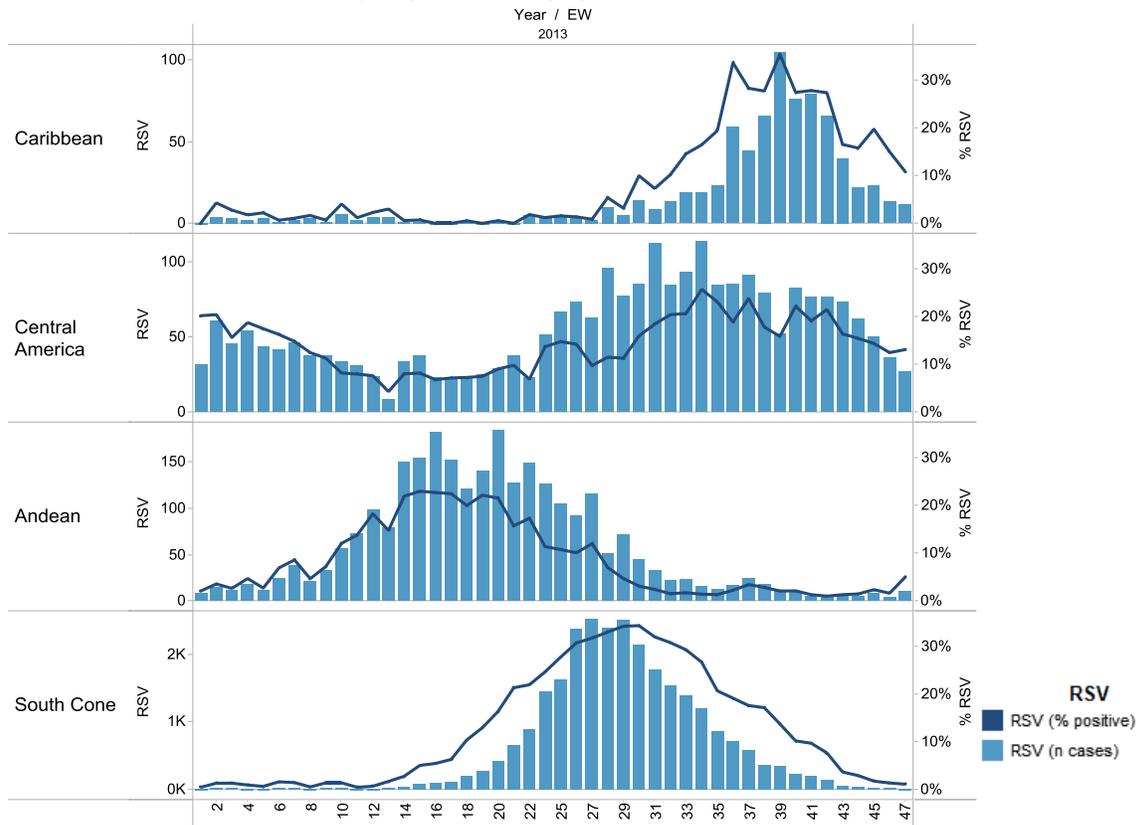
- **North America:** Influenza activity remained low, although some indicators in Canada and Mexico showed slight increasing trends. Among circulating influenza viruses, influenza A predominated.
- **The Caribbean and Central America:** RSV continued circulating in many countries in the region (Cuba, Costa Rica, Guatemala and Nicaragua). Among influenza viruses, influenza B predominated in Cuba and Dominican Republic while influenza A predominated in Costa Rica, El Salvador, Guatemala, Jamaica and Nicaragua.
- **South America – Andean Countries:** Acute respiratory virus activity remained low in most countries in the region. Among circulating respiratory viruses, parainfluenza (Colombia, Ecuador), RSV (Colombia, Peru) and influenza B (Peru) were detected.
- **South America - South Cone and Brazil:** Acute respiratory virus activity was low and within the expected level for this time of year. Parainfluenza continued to circulate in the region (Argentina, Chile, Paraguay) and influenza B continued to predominate in Paraguay.

Influenza circulation by region. 2013



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

Respiratory Sincicial Virus by region, 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:

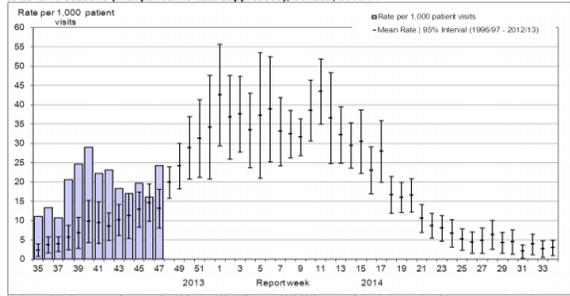
In Canada<sup>1</sup>, during EW 47 influenza activity continued its increasing trend. The national influenza-like illness (ILI) consultation rate was 24.3 per 1,000 patient visits, an increase compared to the previous week. To date this season, 35 influenza-associated hospitalizations have been reported (19 pediatric and 16 adult), of which three required ICU admission (2 pediatric and 1 adult). No influenza-associated deaths were reported. Based on laboratory data for EW 47, the overall percentage of positive influenza tests was 2.2% (N=63), an increase compared to the previous week. Among the positive tests, 82.5% were influenza A, of which 55.8% were influenza A(H1N1)pdm09. Among other respiratory viruses, rhinovirus and parainfluenza continued to predominate.

<sup>1</sup> Canada: FluWatch Report. EW 47. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada

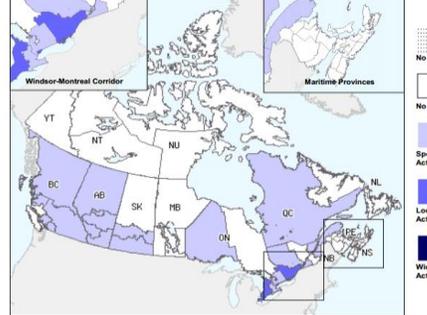
Canada: ILI Consultation Rates, by EW, 2013-14

Figure 5. Influenza-like-illness (ILI) consultation rates by report week, compared to the 1996-97 through to 2012-13 seasons (with pandemic data suppressed), Canada, 2013-14



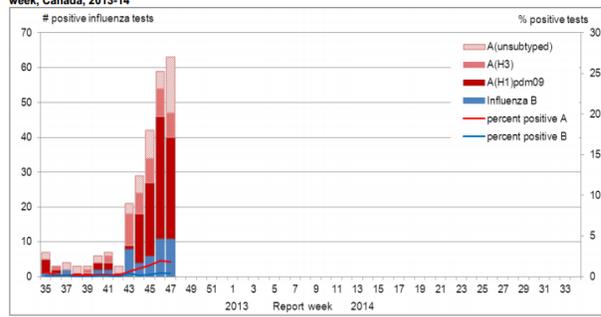
Canada: Influenza/ILI Activity by Province & Territory, EW 47, 2013

Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 47



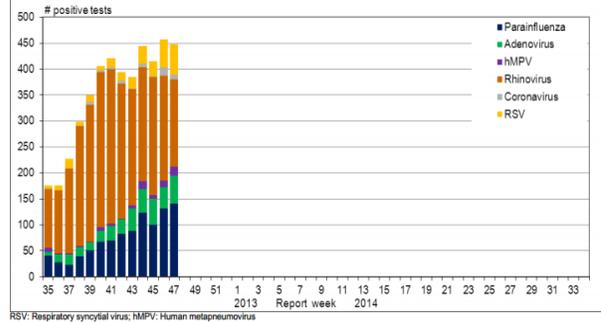
Canada: Influenza virus distribution by EW, 2013-14

Figure 2. Number of positive influenza tests and percentage of tests positive, by type, subtype and report week, Canada, 2013-14



Canada: Respiratory virus distribution by EW, 2013-14

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

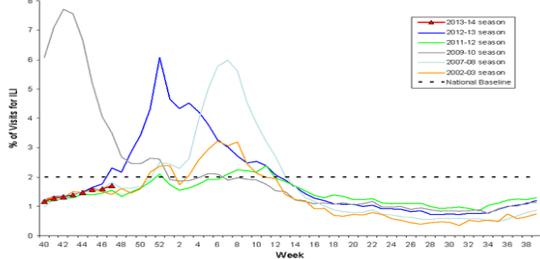


In the United States<sup>2</sup> during EW 47, influenza activity increased slightly, with 1.7% of outpatient visits associated with ILI and 5.8% of deaths associated with pneumonia and influenza. No influenza-associated pediatric deaths were reported during EW 47. According to laboratory data for EW 47, 4,996 samples were analyzed, of which 7.9% were positive for influenza. Among the positive samples, 87.7% were influenza A (60.3% were A(H1N1)pdm09) and 12.3% were influenza B. Based on antiviral resistance testing, 2.8% (6/217) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

United States

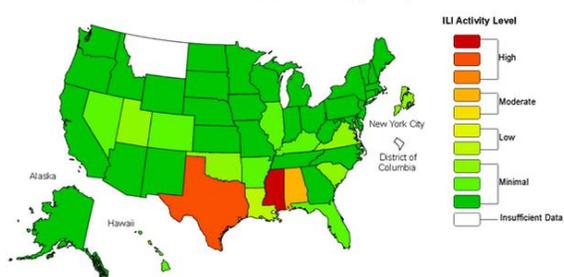
US: Percent of ILI visits by EW, 2013-14

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2013-14 and Selected Previous Seasons

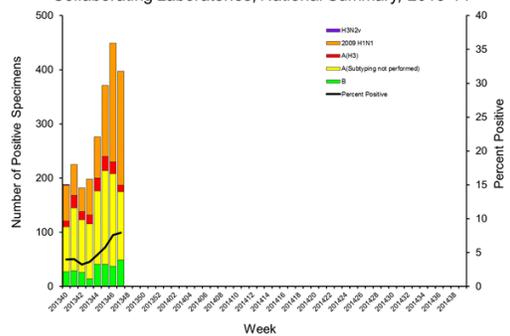


US: ILI Activity by State, EW 47, 2013

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2013-14 Influenza Season Week 47 ending Nov 23, 2013



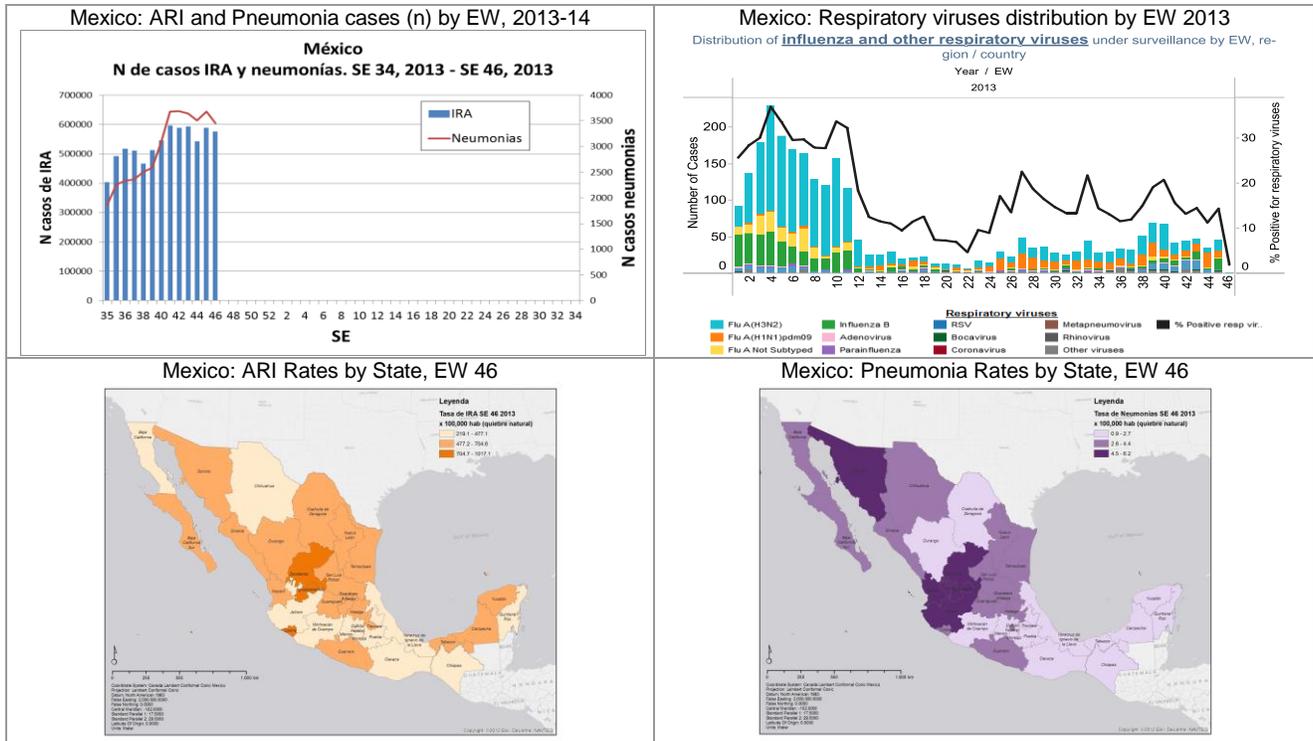
US: Influenza viruses distribution by EW, 2013-14  
Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2013-14



<sup>2</sup> USA: CDC FluView report. EW 47. Available at: <http://www.cdc.gov/flu/weekly/>

In Mexico<sup>3</sup>, during EW 46 the number of ARI and pneumonia cases decreased by 2.0% and 6.1%, respectively, from the previous week. The highest levels of ARI activity were reported in Aguascalientes, Zacatecas and Colima, and the highest levels of pneumonia activity were reported in Nayarit, Sonora and Jalisco. According to laboratory data from EW 43-46, 1,006 samples were tested, of which 12.7% were positive for a respiratory virus and 9.5% for influenza. Among the positive influenza samples, 71.9% were influenza A (60.9% were A(H1N1)pdm09 and 37.7% were A(H3N2)) and 28.1% were influenza B. Among other respiratory viruses, RSV predominated (17.2% of positive samples).

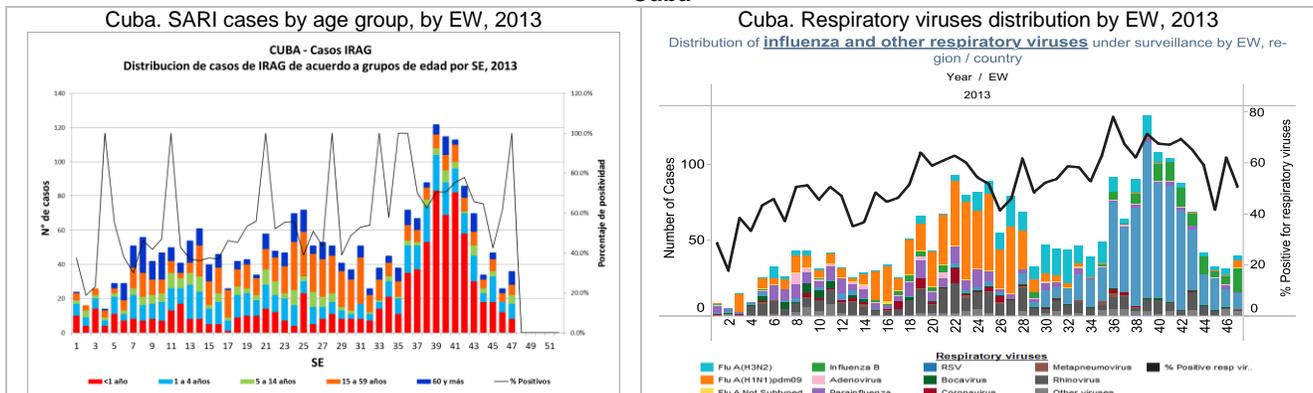
### Mexico



### Caribbean

In Cuba during EW 47, the number of SARI-associated hospitalizations increased slightly compared to the previous week, but has shown a decreasing trend since peaking in EW 39. Children 1 to 4 years of age comprised the largest proportion of these cases. Two SARI-associated deaths were reported during this period, of which one tested positive for a respiratory virus. According to national laboratory data for EW 44-47, 277 samples were analyzed, of which 52.3% were positive for a respiratory virus and 19.5% were positive for influenza. RSV remained the predominant circulating virus (44.1% of the positives), and among influenza viruses, influenza B predominated.

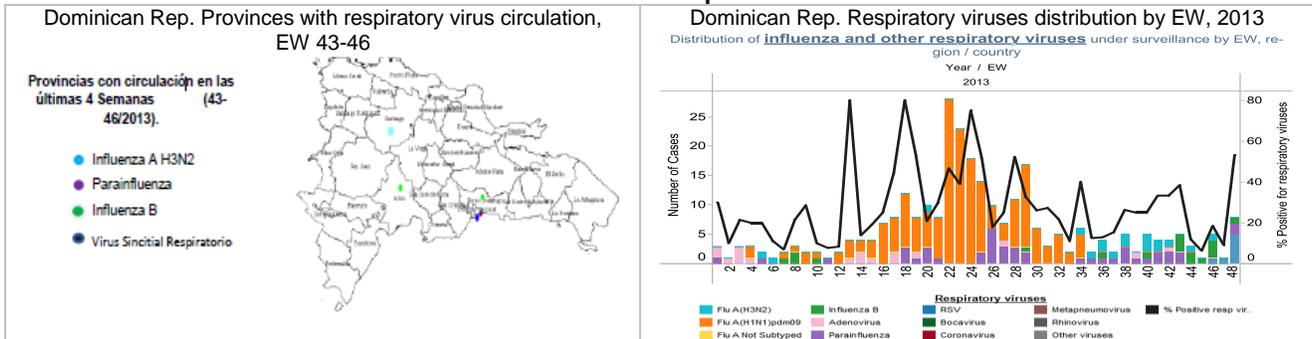
### Cuba



<sup>3</sup> México. Dirección General de Epidemiología. Información epidemiológica. SE 46.

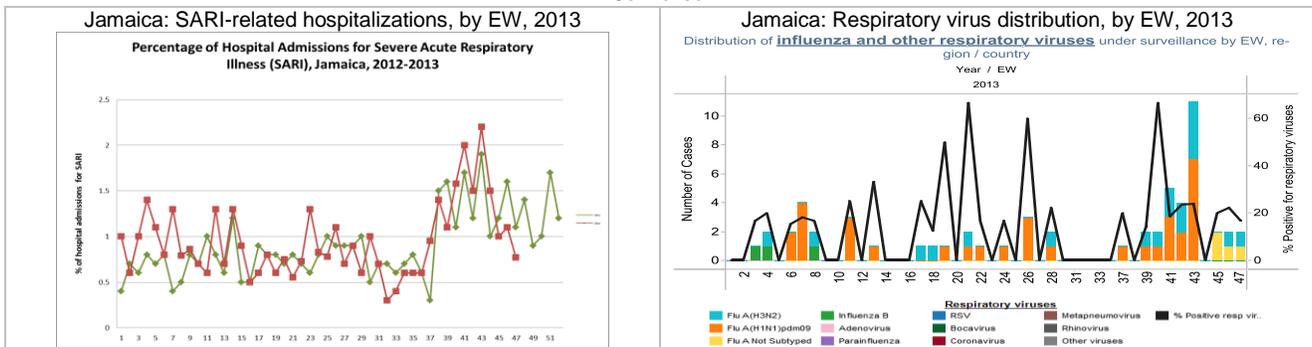
In the Dominican Republic<sup>4</sup>, the cumulative ILI rate for EW 1-46 was 1,874 per 10,000 inhabitants, and is 13% less than what was reported this period last year. Additionally, during this period 1,570 SARI cases were reported through sentinel surveillance, of which 9 were reported during EW 46. Two SARI-associated deaths in children less than two years of age were reported during EW 46. According to laboratory data for EW 45-48, 69 samples were analyzed, of which 21.7% were positive for a respiratory virus and 8.7% were positive for influenza. Among positive influenza samples, 83.3% were influenza B and 16.7% were influenza A (all influenza A(H3N2)). Among other respiratory viruses, RSV (46.7% of positive samples) predominated.

### Dominican Republic



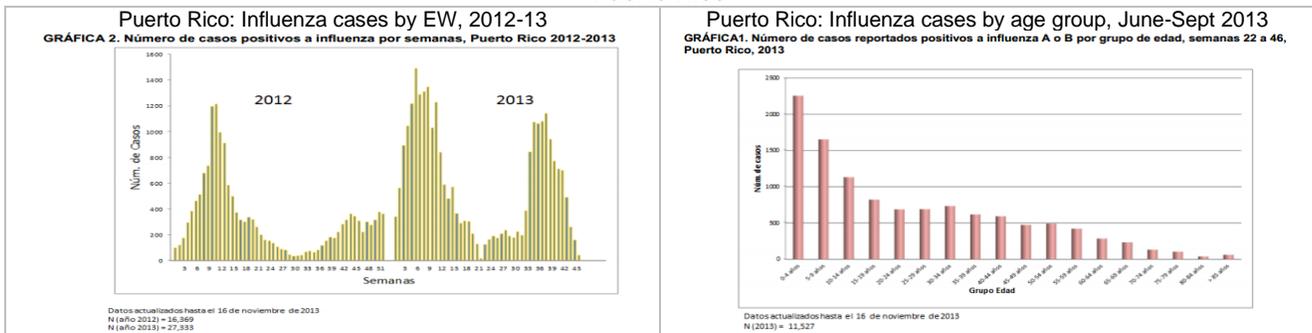
In Jamaica, based on sentinel surveillance data for EW 47, the proportion of ARI-associated consultations (7.2%) increased slightly compared to the previous week while the proportion of SARI-associated hospitalizations (0.8%) decreased. No SARI-associated deaths were reported during this period. Based on laboratory data from EW 47, 12 samples were tested, of which 16.7% were positive for influenza A.

### Jamaica



In Puerto Rico<sup>5</sup> during EW 46, the number of influenza cases (n=40) continued a decreasing trend since peaking in EW 37. Of these, 70% were associated with influenza A. Since the beginning of June, 11,527 influenza cases have been reported and children aged 0-14 years accounted for 44% of those cases. Since June, 715 influenza-associated hospitalizations and 16 influenza-associated deaths have been reported.

### Puerto Rico



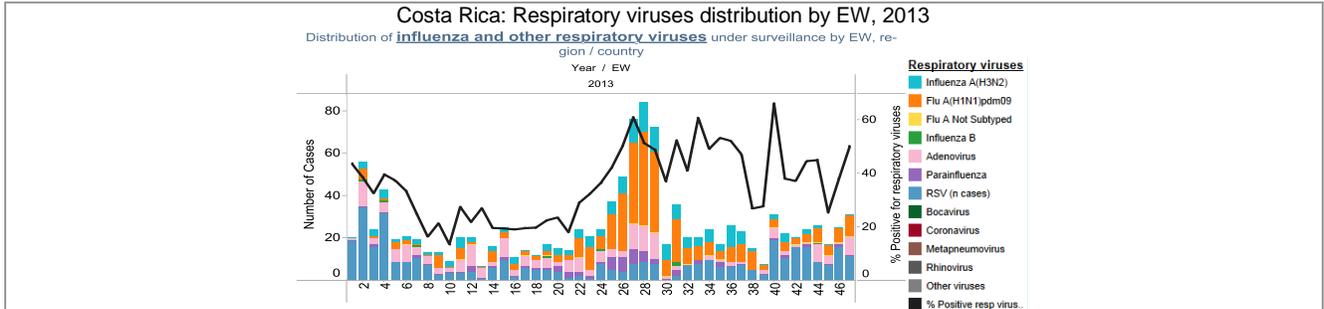
<sup>4</sup> República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 46.

<sup>5</sup> Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 46.

## Central America

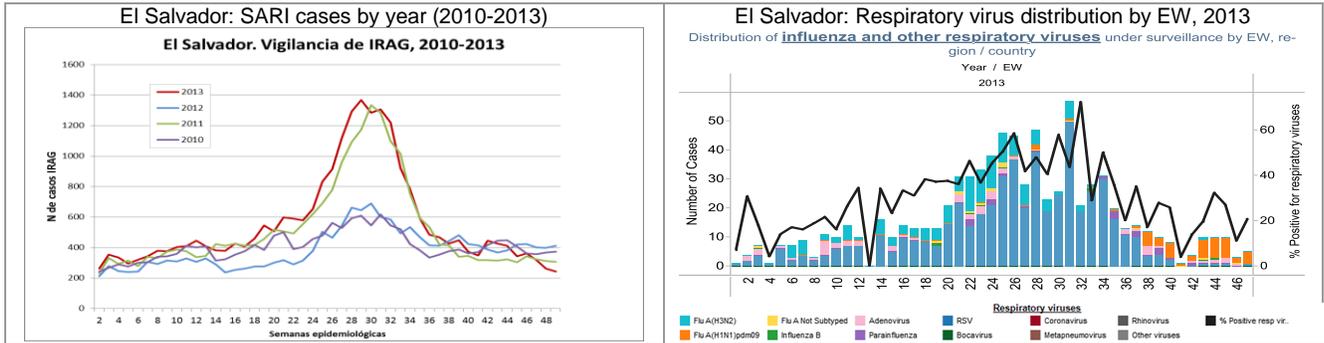
In Costa Rica, based on national laboratory data from EW 44-47, 253 samples were analyzed, of which 39.1% were positive for a respiratory virus and 12.3% were positive for influenza. Among influenza positive samples, 96.8% were influenza A (96.7% were A(H1N1)pdm09). Among other respiratory viruses, RSV predominated (45.5% of positive samples).

### Costa Rica



In El Salvador during EW 47 respiratory activity remained low and similar to what was observed in previous years. Based on national laboratory data from EW 44-47, 119 samples were analyzed, of which 23.5% were positive for a respiratory virus and 17.6% were positive for influenza. Among influenza positive samples, 95.2% were influenza A (100% A(H1N1)pdm09). Among other respiratory viruses, adenovirus and RSV were detected.

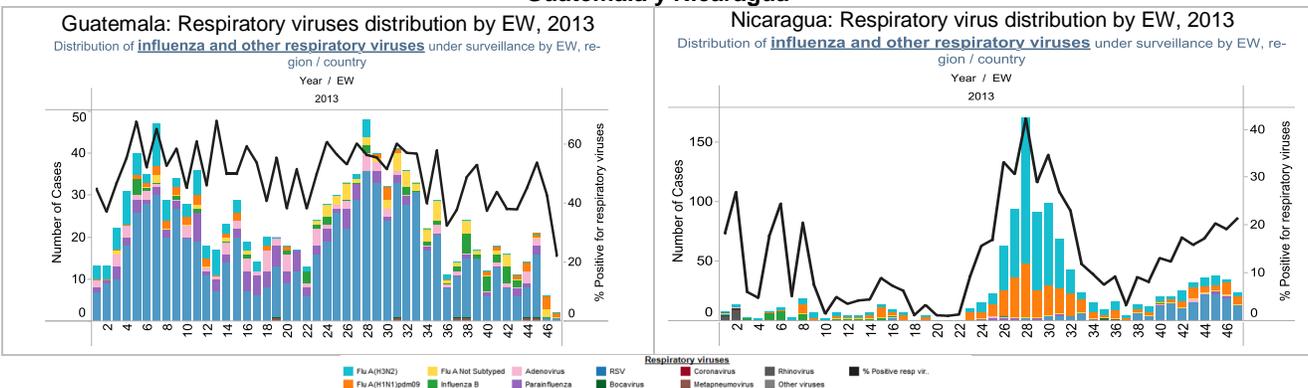
### El Salvador



In Guatemala, based on laboratory data from EW 44-47, 93 samples were analyzed, of which 46.2% were positive for a respiratory virus and 9.7% were positive for influenza. Among influenza positive samples, 100% were influenza A (77.8% were A(H1N1)pdm09). Among the other respiratory viruses, RSV predominated (55.8% of positive samples).

In Nicaragua, based on national laboratory data from EW 44-47, 692 samples were analyzed of which 19.2% were positive for a respiratory virus (increasing positivity has been observed since EW 39) and 7.1% were positive for influenza. Among influenza positive samples, 95.9% were influenza A (57.4% were A(H1N1) and 42.6% were A(H3N2)). Among other respiratory viruses, RSV predominated (57.1% of positive samples) and has been increasing for the last several weeks.

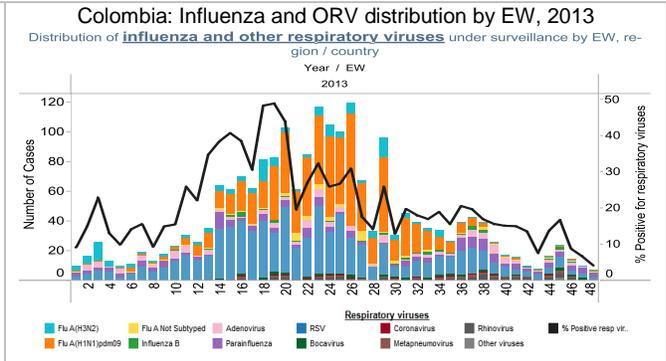
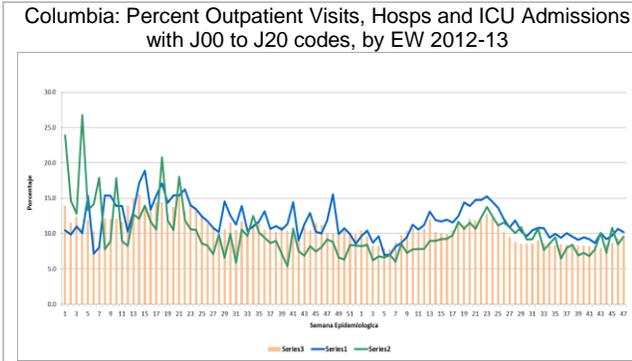
### Guatemala y Nicaragua



**South America – Andean countries**

In Colombia, nationally during EW 47, the proportions of hospitalizations (10.2%), ICU admissions (9.6%) and deaths (9.4%) with ARI-associated ICD-10 codes (J00 to J22) remained at low levels. Based on INS national laboratory data from EW 45-48, 621 samples were analyzed, of which 8.9% were positive for a respiratory virus and 1.0% were positive for influenza. Among the positive samples, RSV (27.3%) and parainfluenza (25.5%) predominated.

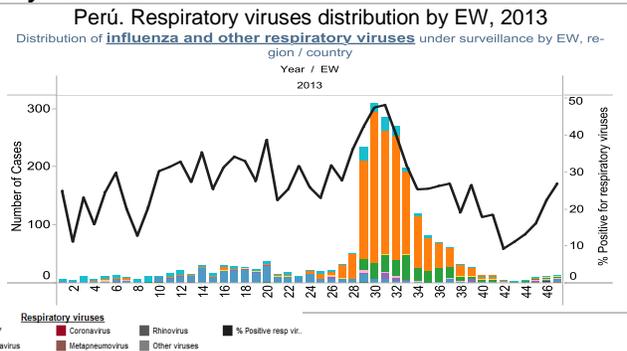
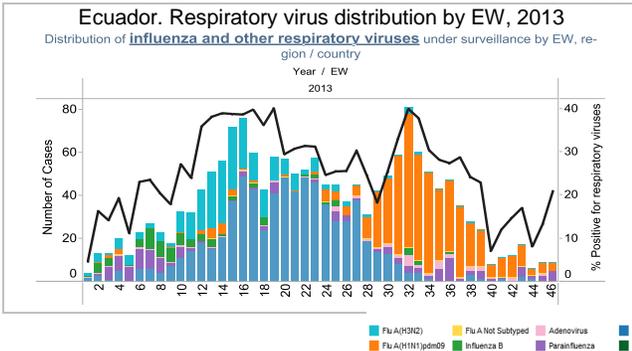
**Colombia**



In Ecuador, based on national reference laboratory data from EW 43-46, 286 SARI samples were analyzed, of which 14.3% were positive for a respiratory virus and 7.7% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (53.7%) and parainfluenza (36.6%) predominated.

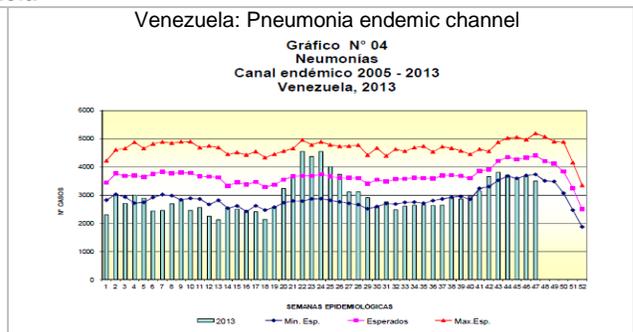
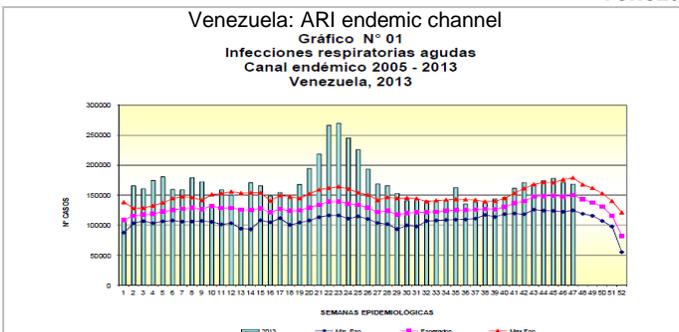
In Peru based on national laboratory data from EW 44-47, 201 samples were analyzed, of which 19.9% were positive for a respiratory virus and 8.5% were positive for influenza. Among the positive samples, influenza B predominated (32.5%), followed by RSV (22.5%) and metapneumovirus (20.0%).

**Ecuador y Peru**



In Venezuela<sup>6</sup> during EW 47, ARI and pneumonia activity decreased by 1.5% and 4.7%, respectively, compared to the previous EW. Both were within the expected values for this time of year. During EW 47, 158 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 1-47, 5,287 samples were analyzed from suspected influenza cases, of which 52.5% were positive for influenza. Among the positive samples, 91.9% were influenza A(H1N1)pdm09.

**Venezuela**

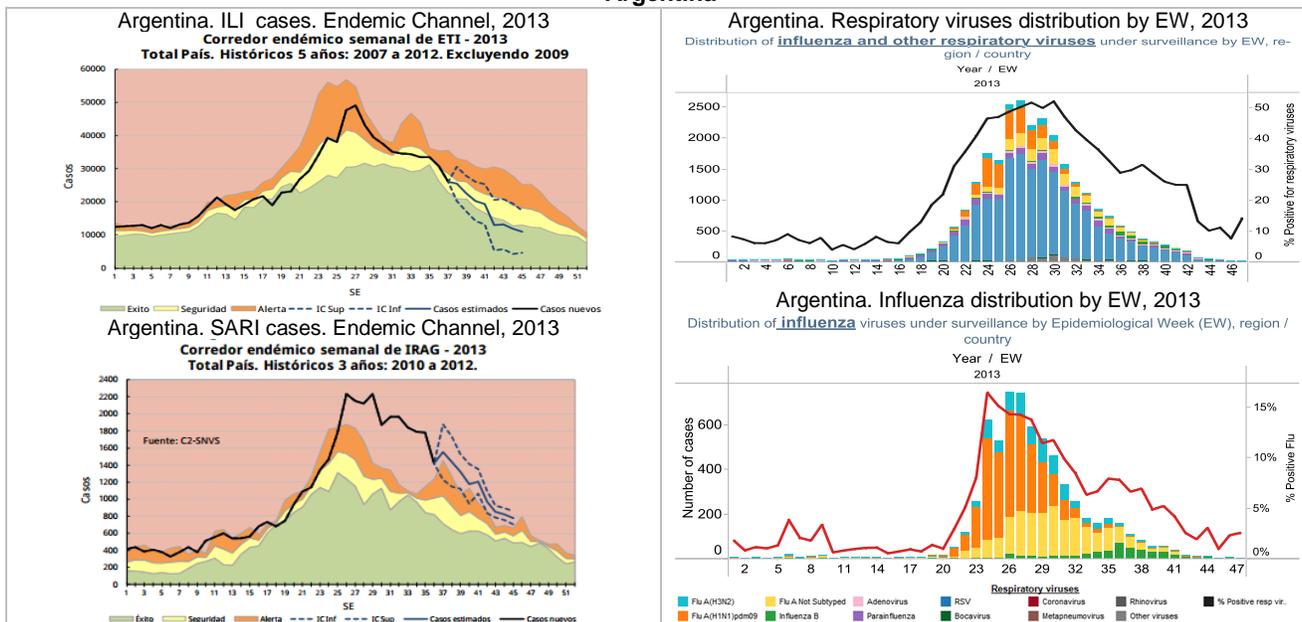


<sup>6</sup> Venezuela. Boletín epidemiológico, EW 47, 2013.

## South America – Southern Cone and Brazil

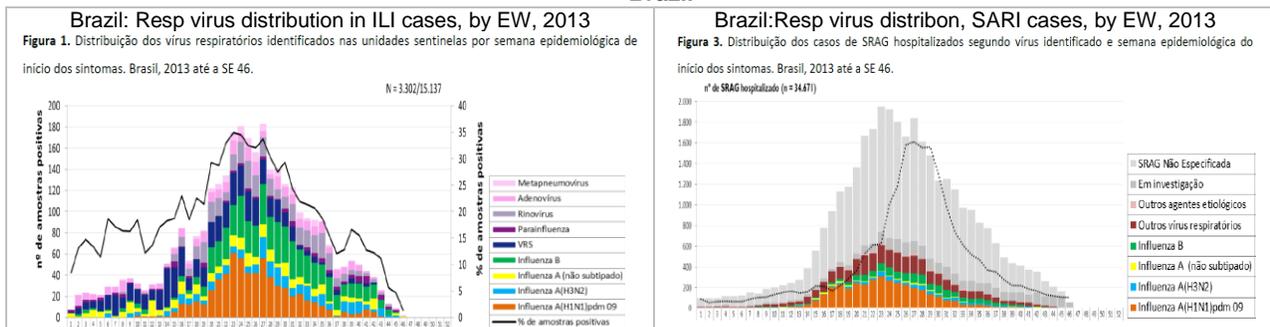
In Argentina<sup>7</sup>, according to reports and calculated estimations, national ILI activity during EW 45 was within the success zone of the endemic channel and continued a decreasing trend since its peak in EW 26. The proportion of SARI-associated hospitalizations was within the epidemic zone of the endemic channel, but also showed a decreasing trend since EW 26. Based on laboratory data from EW 44-47, 1,289 samples were analyzed, of which 10.2% were positive for a respiratory virus and 2.3% for influenza. Among positive samples, RSV (25.8%), parainfluenza (25.8%) and adenovirus (15.9%) were detected.

### Argentina



In Brazil<sup>8</sup>, according to ILI sentinel surveillance data through EW 46, 15,137 samples have been analyzed, of which 21.8% were positive for influenza or another respiratory virus. Positivity has decreased since EW 27 and among positives samples during EW 46, adenovirus and influenza A (not subtyped) were detected. Based on universal SARI surveillance data during this same period, 34,671 SARI cases were reported and 16.9% were positive for influenza. Of these positive samples, influenza A(H1N1)pdm09 predominated (63.4%), followed by influenza B (22.3%) and A(H3N2) (10.9%). Additionally, in 2013, 4,069 SARI-associated deaths have been reported of which 23.3% were positive for influenza, and of these, 80.5% were associated with influenza A(H1N1)pdm09.

### Brazil



In Chile<sup>9</sup> ILI activity during EW 47 (rate: 2.6 per 100,000 inhabitants) remained low and was within the success zone of the endemic channel. The proportion of ILI-associated hospital emergency consultations was 0.5%, and also maintained a low and stable level. Based on laboratory data from EW 46-47, 1,244 samples were tested, of which 13.4% were positive for a respiratory virus and 2.3% were positive for

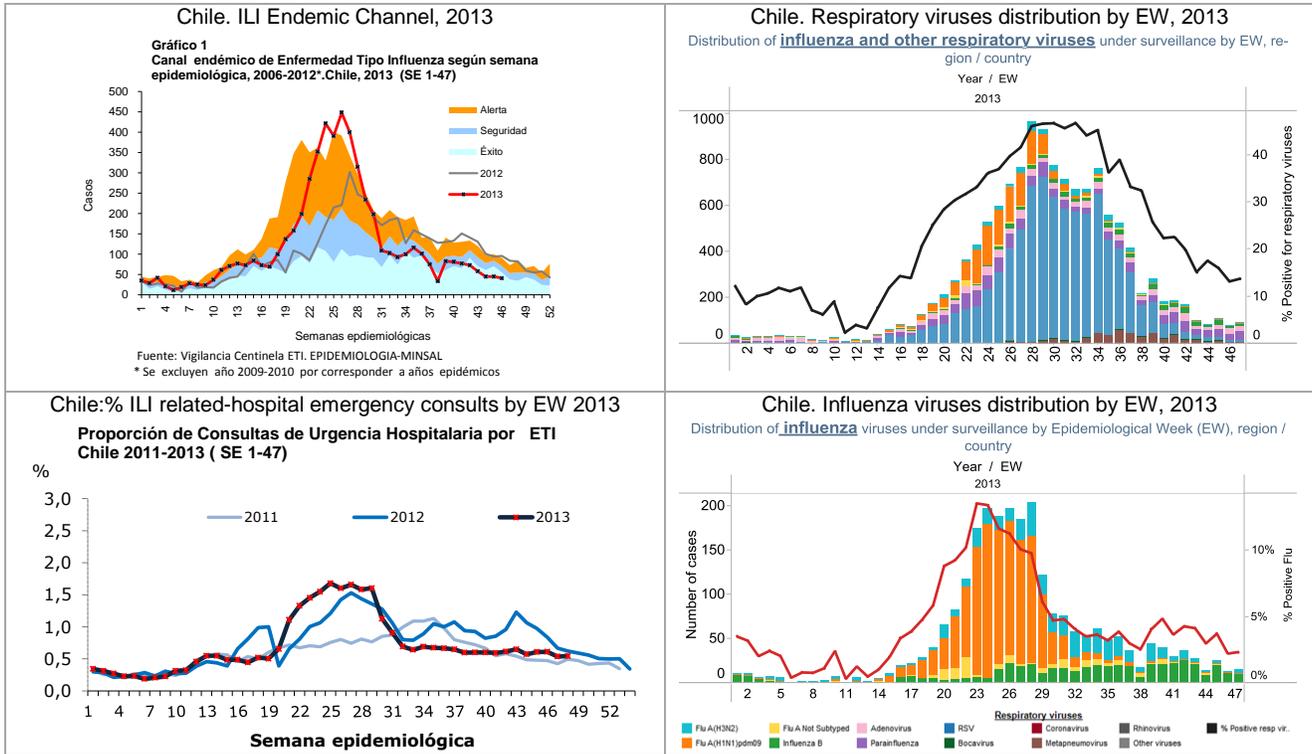
<sup>7</sup> Argentina. Boletín integrado de vigilancia. SE 45.

<sup>8</sup> Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 46, 2013.

<sup>9</sup> Chile. Informe de situación. EW 47. Available at: <http://epi.minsal.cl/>

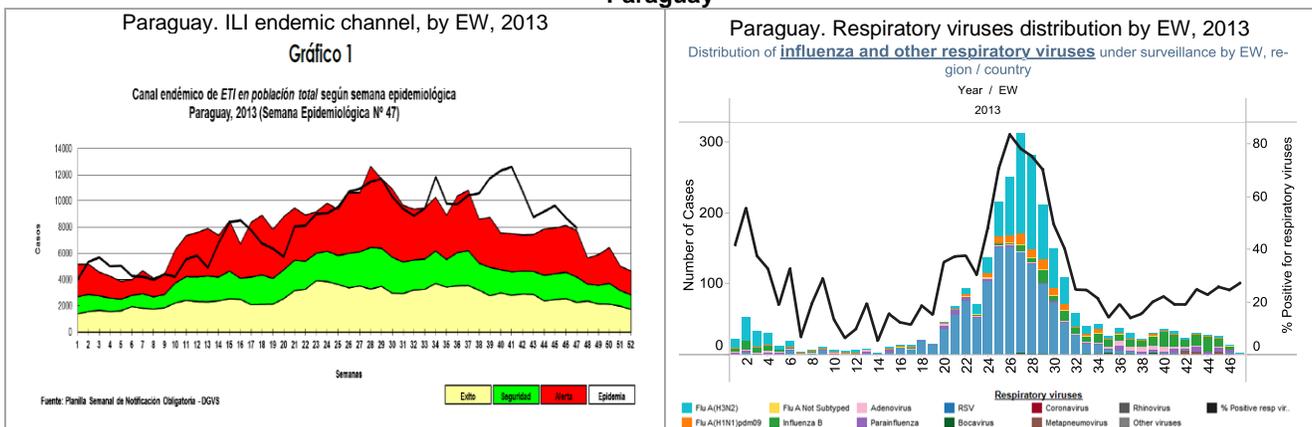
influenza. Among the positive samples, parainfluenza (40.7%), adenovirus (24.0%) and metapneumovirus (10.2%) were detected.

### Chile



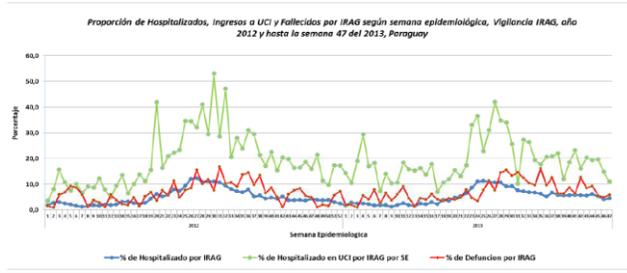
In Paraguay<sup>10</sup> during EW 47, the ILI consultation rate (119 per 100,000 inhabitants) decreased compared to the previous EW and bordered on the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (4.5%) was within the expected range for this time of year and children less than 5 years of age comprised the largest portion (56.0%) of these cases. Based on reference laboratory data from EW 44-47, 296 samples were analyzed, of which 24.3% were positive for a respiratory virus and 15.5% were positive for influenza. Among influenza samples, 89.1% were influenza B and 10.9% were influenza A (80.0% A(H3N2)). Among other respiratory viruses, parainfluenza (22.2% of positive samples) predominated, followed by metapneumovirus (11.1%).

### Paraguay



<sup>10</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 47, 2013

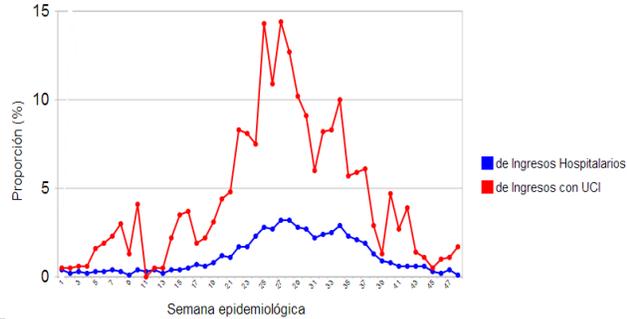
Paraguay:% SARI Hosps, ICU Admsns & Deaths by EW 2013  
 Gráfico 5: Proporción de Hospitalizados, ingresos a UCI y fallecidos por IRAG según semana epidemiológica, SE 1 a 47, Vigilancia Centinela, Paraguay, 2.013.



In Uruguay<sup>11</sup> during EW 47, the proportions of SARI-associated hospitalizations, ICU admissions and deaths were similar to the previous EW, and remained at low levels. Based on laboratory data from EW 44-47, 17 SARI samples were analyzed, of which none were positive for a respiratory virus.

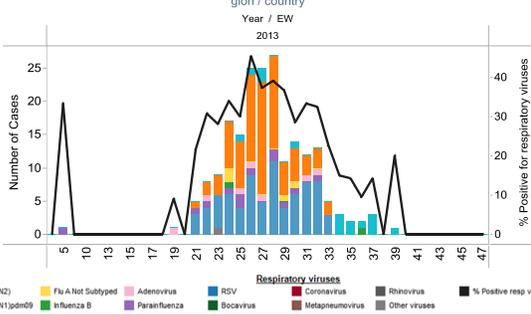
### Uruguay

Uruguay.SARI-related hosps & ICU admissions by EW, 2013  
 Proporción de IRAG en ingresos hospitalarios e ingresos a UCI y defunciones hospitalarias



Uruguay. Respiratory viruses distribution by EW, 2013

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



<sup>11</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública