



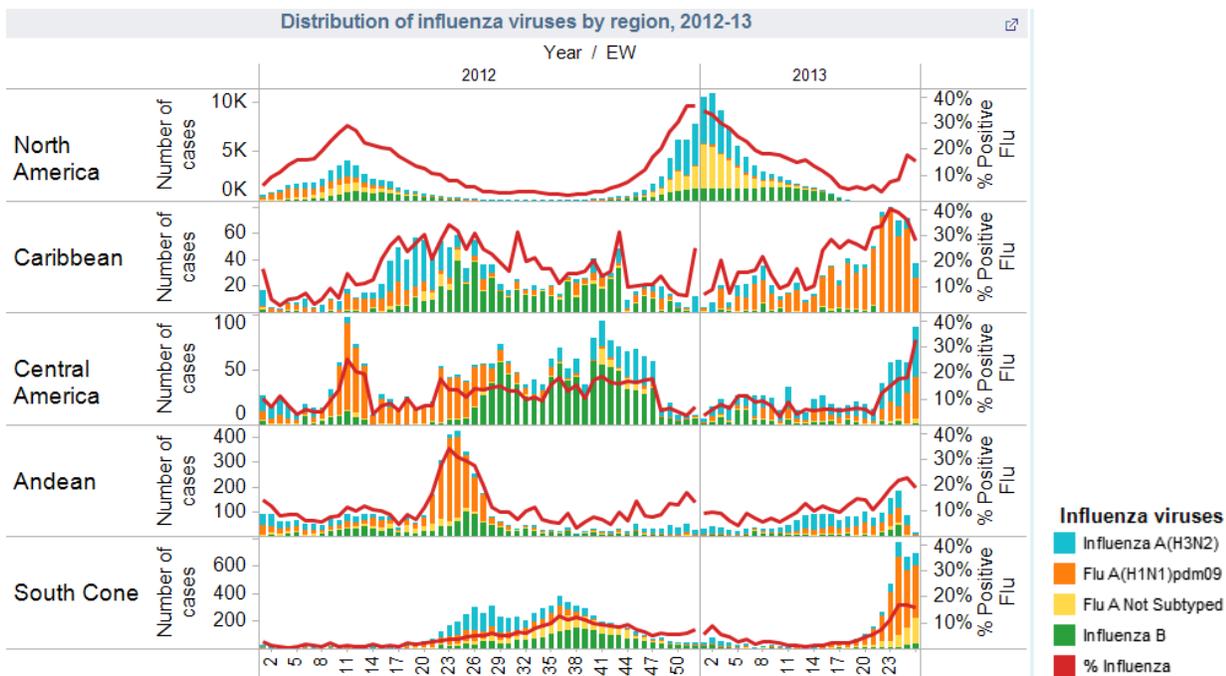
PAHO interactive influenza data: [http://ais.paho.org/phis/viz/ed\\_flu.asp](http://ais.paho.org/phis/viz/ed_flu.asp)  
 Influenza Regional Reports: [www.paho.org/influenzareports](http://www.paho.org/influenzareports)

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:** most influenza activity indicators were low and within expected levels for this time of year. In the United States, 12 cases of influenza A(H3N2v) have been reported (no hospitalizations or deaths have been reported) and mostly these infections have been associated with prolonged exposure to pigs at agricultural fairs.
- **The Caribbean and Central America:** the influenza A(H1N1)pdm09 activity in Cuba and Dominican Republic remained high, but with decreasing trends in the last weeks. In Central America, influenza A activity has been increasing in the last 4 weeks, A(H1N1)pdm09 in Costa Rica and Nicaragua and A(H3N2) in El Salvador, Nicaragua and Panama. Among respiratory viruses, RSV has been also increasing in El Salvador and Guatemala in the last weeks..
- **South America – Andean Countries:** acute respiratory illness activity was high in Colombia and Venezuela, but with some decreasing indicators in the last 3 weeks. In the rest of the Andean region, acute respiratory illness remained within the expected levels. Among respiratory viruses, RSV predominates in Ecuador and Peru, influenza A(H1N1)pdm09 in Colombia and Venezuela, A(H3N2) in Bolivia-La Paz, and influenza B in Bolivia-Santa Cruz.
- **South America - South Cone:** acute respiratory illness activity was high with increasing trends. In Chile and Argentina, ILI activity was above the expected level during the last weeks. RSV predominated in most countries, with co-circulation of influenza A(H1N1)pdm09 in Argentina, Chile and Uruguay, and influenza A(H3N2) in Paraguay. In Brazil, through EW 24, influenza A(H1N1)pdm09 predominated, followed by influenza B, which increased in some States.

**Influenza circulation by region. 2012-2013**

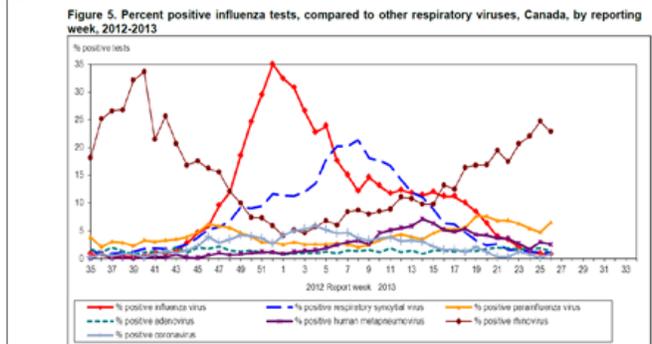
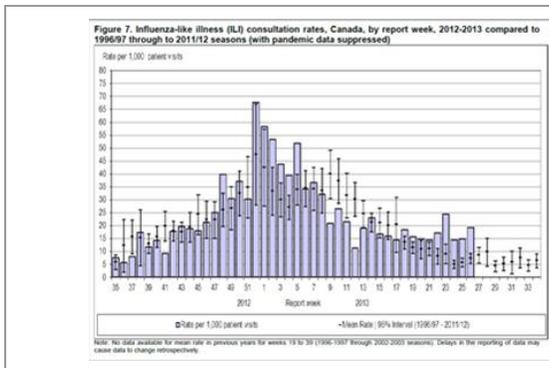


## EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

### North America:

In Canada<sup>1</sup>, in epidemiological weeks (EWs) 25 & 26, influenza activity continued to decline with only one region reporting localized activity during this 2-week period. Nationally, the influenza-like-illness (ILI) consultation rate (19.3 ILI consultations per 1,000 patient visits in EW 26) has been similar for the past twelve weeks. The ILI rates observed in EWs 18 to 26 were above the expected range. Among the total samples analyzed, the percentage of positive influenza tests decreased, and was 0.8% in EW 25 and 0.7% in EW 26. Of these positive influenza cases, 85.1% were influenza A (34.4% A(H3), 4.7% A(H1N1)pdm09 and 60.9% A unsubtype), and 14.9% were influenza B viruses. Among other respiratory viruses, the percentage of positive tests for rhinovirus continued their upward trend since EW 01 (24.8% in EW 25 and 22.9% in EW 26). The percentage of positive tests for parainfluenza increased from 4.7% in EW 25 to 6.5% in EW 26. The percentage of positive tests for human metapneumovirus increased slightly to 2.6% in EW 26, and remained low for other respiratory viruses (RSV, coronavirus, and adenovirus). During the 2012-13 season, 1453 influenza viruses have been antigenically characterized: 100% of influenza A(H3N2) and A(H1N1)pdm09 viruses were antigenically similar to the vaccine strain. Among the influenza B viruses, 77.6% (n=439) were antigenically similar to the vaccine strain B/Wisconsin/01/2010 (Yamagata lineage) and 22.4% (n=127) were similar to B/Brisbane/60/2008 (Victoria lineage). During the 2012-13 season, 1422 influenza viruses have been tested for oseltamivir resistance and 1419 for zanamivir resistance; among these, one A(H3N2) virus was resistant to oseltamivir and zanamivir, one A(H1N1)pdm09 virus was resistant to oseltamivir, and one influenza B virus was resistant to oseltamivir and zanamivir.

### Canada

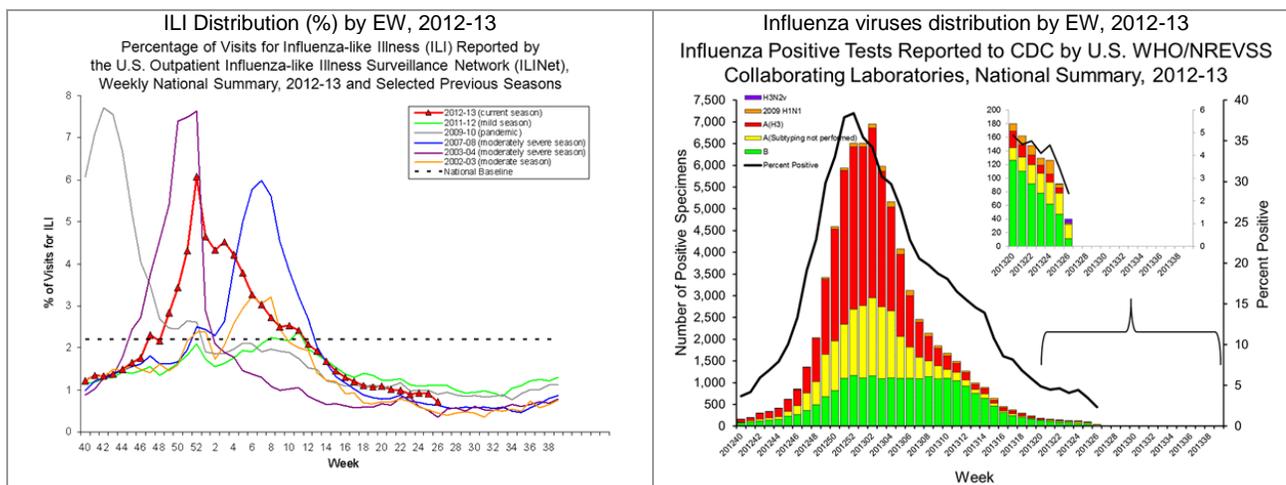


In the United States<sup>2</sup>, during EW 26, influenza activity remained low. Nationally, the proportion of ILI consultations (0.7%) was below the national baseline of 2.2%. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 26 (6.2%) was below the epidemic threshold for this time of year. In EW 26, one influenza-associated pediatric was reported and was associated with influenza B. Among all samples tested during EW 26 (n=1,720), the percentage of samples positive for influenza (2.3%) decreased from the previous week. Nationally, among the positive samples, 67.6% were influenza A (majority A not subtyped) and 32.4% were influenza B. Recently, 12 human infections with an influenza A(H3N2) variant (H3N2v) were reported by Indiana. None of these persons were hospitalized and no deaths have occurred. At this time, no ongoing human-to-human transmission has been identified. Public health and agriculture officials are investigating the disease among humans and swine and more cases may be identified as the investigation continues.

<sup>1</sup> FluWatch Report. EW 25&26. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

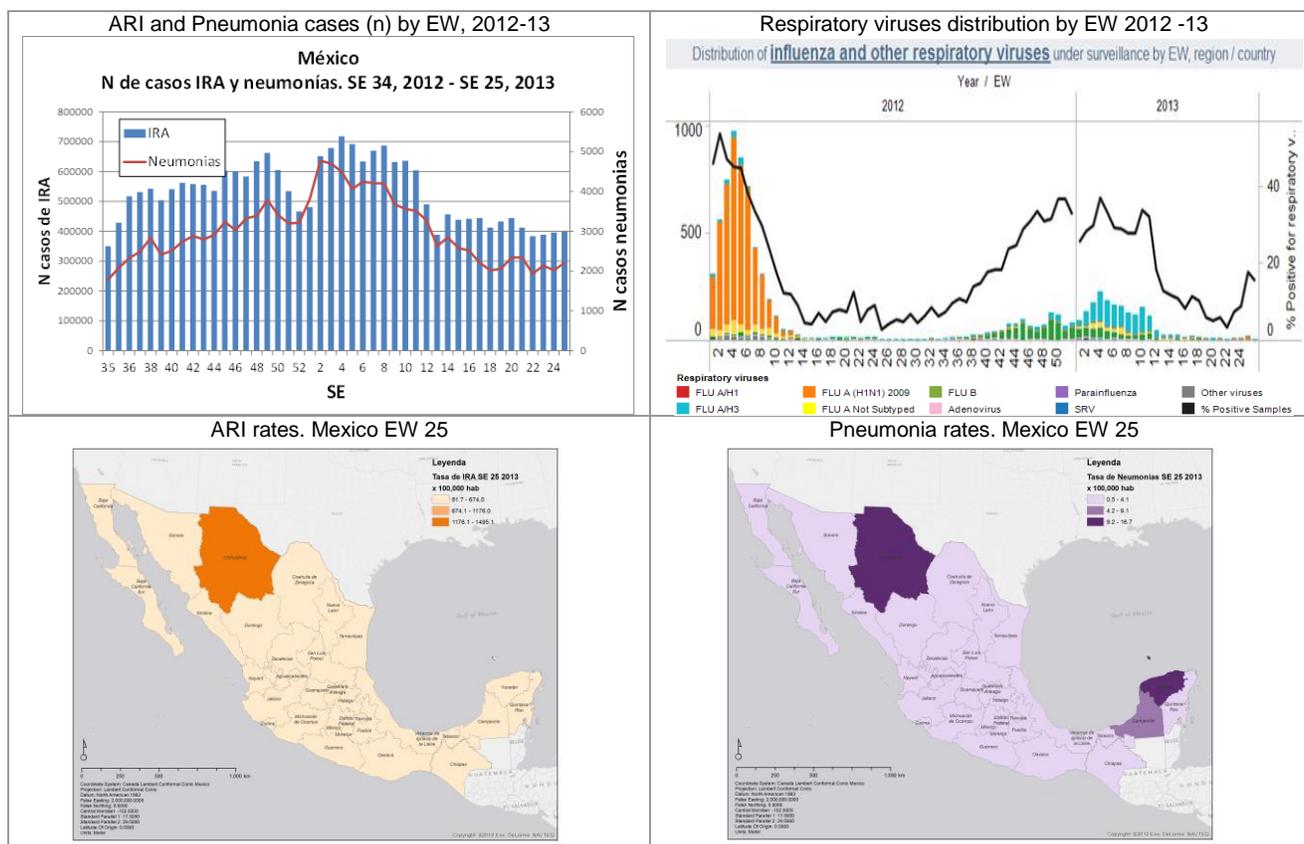
<sup>2</sup> USA: CDC FluView report. EW 26. Available at: <http://www.cdc.gov/flu/weekly/>

## United States



In Mexico<sup>3</sup>, nationally in EW 25, the number of ARI cases increased by 0.7% and the number of pneumonia cases increased by 9.0% compared to EW 24; however, since their peaks (EW 04 for ARI and EW 02 for pneumonia), both showed decreasing trends during 2013. According to laboratory data, between EWs 23-26, 457 samples tested, of which 10.7% were positive for influenza. Among the positive influenza cases, 93.9% were influenza A (50.0% were A(H1N1)pdm09 and 47.8% were A(H3N2)) and 6.1% were influenza B.

## Mexico



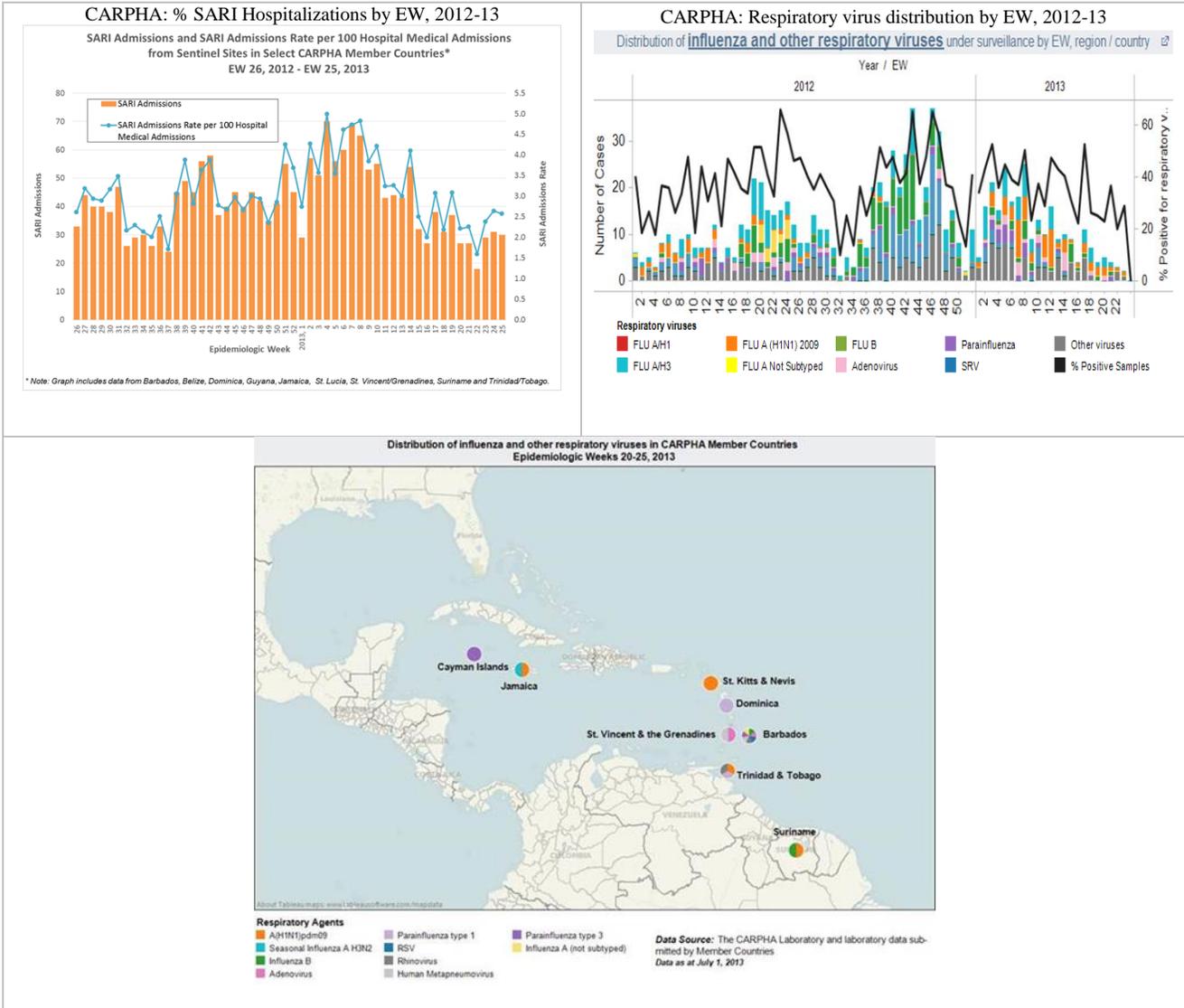
## Caribbean

CARPHA received weekly SARI/ARI data from 7 countries for EWs 24 and 25, 2013: Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago. In EW 25, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.6%. The highest rate of SARI was among children under 6 months of age (13.8%). One SARI death was reported by Barbados for

<sup>3</sup> México. Dirección General de Epidemiología. Información epidemiológica. SE 26.

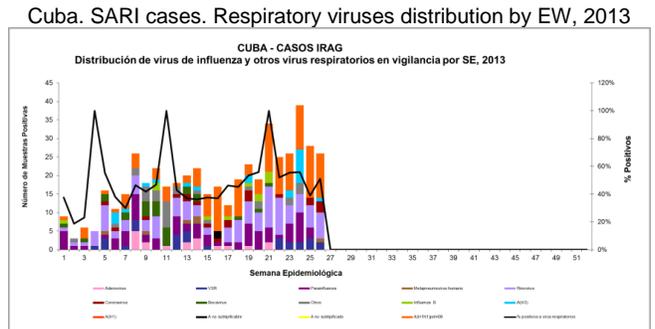
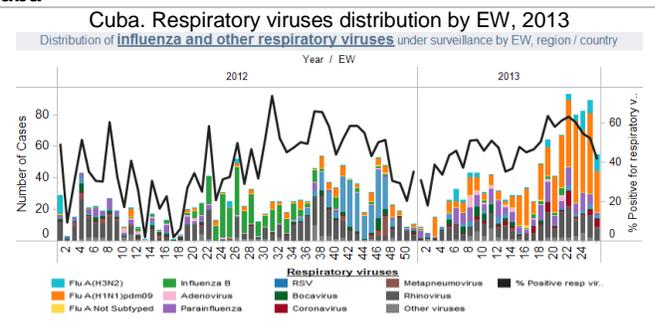
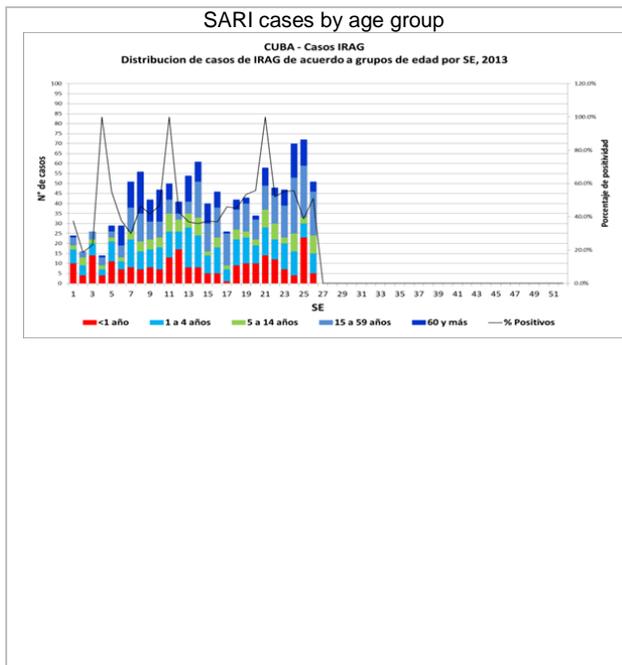
EW 24; no SARI deaths were reported from the region in EW 25. For cases with dates of onset between EW 20 and EW 25, the following viruses were laboratory confirmed in member countries: influenza A (H1N1)pdm09 (Jamaica, Suriname, Trinidad and Tobago); influenza A(H3N2) (Jamaica); influenza B (Barbados, Suriname); adenovirus (Barbados, St. Vincent and the Grenadines); human metapneumovirus (Barbados, St. Vincent and the Grenadines); parainfluenza 1 (Dominica, Trinidad and Tobago); parainfluenza 3 (Barbados, Cayman islands); rhinovirus (Barbados, Trinidad and Tobago); influenza A not subtyped (Barbados). In 2013, to date, the CARPHA laboratory has confirmed 207 cases as positive for one or more respiratory virus. For cases with dates of onset in 2013, the overall percentage positivity for specimens tested is 33.9%.

**CARPHA**



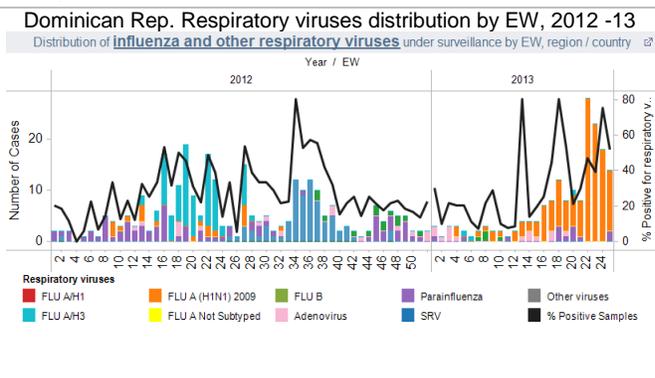
In Cuba, according to national laboratory data, among all samples analyzed (n=589) between EW 23 to 26, the average percent positivity for respiratory viruses was 51.9% and 34.5% for influenza viruses. Of the total positive samples for influenza A, 81.5% were influenza A(H1N1)pdm09 followed by influenza A(H3N2) (18.5%). Also, rhinovirus and parainfluenza (7.1% & 4.7% of positivity, respectively) were circulating. Of the total of positive samples in EW 26, 49% were from ILI cases and 47.2% were SARI cases. Among the SARI cases, 240 samples were analyzed between EW 23 to 26, with influenza A(H1N1)pdm09 as the predominant virus, with co-circulation of rhinovirus and parainfluenza. The age group most affected by SARI was those between 15 to 54 years.

**Cuba**



In the Dominican Republic<sup>4</sup>, from EW 01 to 25, 2013, a total of 1,175,045 ILI cases were reported, This is a rate of 550 per 10,000 inhabitants, 16% less than what was reported for the same period in 2012 (655 per 10,000 inhabitants). Between EWs 01-25, through sentinel surveillance, 754 SARI cases (2.8% less than the same period in 2012) were reported, primarily from Santo Domingo and Santiago provinces. In this same period, 16 SARI deaths (higher than the number observed in 2012 (n=5)) were reported. In 2013, 12 deaths associated with influenza A(H1N1)pdm09 have been confirmed. According to laboratory data, from EW 23 to 26, among samples analyzed (n=166), the average percent positivity for respiratory viruses was 45.9% for influenza viruses. Influenza A(H1N1)pdm09 was the predominant virus detected, followed by parainfluenza.

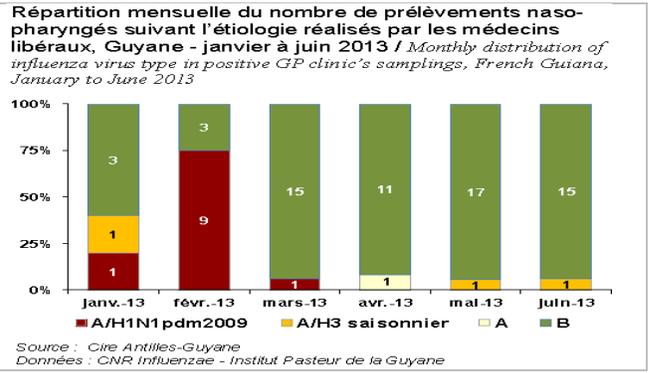
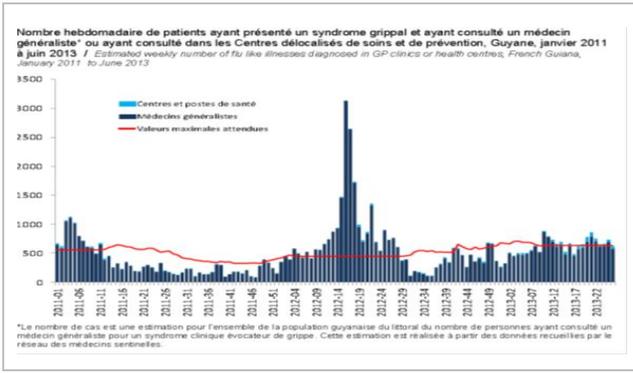
**Dominican Republic**



In French Guiana, up to EW 27, the number of consultations by ILI has remained relatively stable and close to the maximum values expected. The number of weekly consultations was between 620 and 735 over this period for across the Department. Since the beginning of the epidemic (early March), near 11795 consultations for ILI were estimated for the whole Department. According to lab data, circulation of influenza B(Victoria and Yamagata lineages), and influenza A(H1N1)pdm2009 were reported.

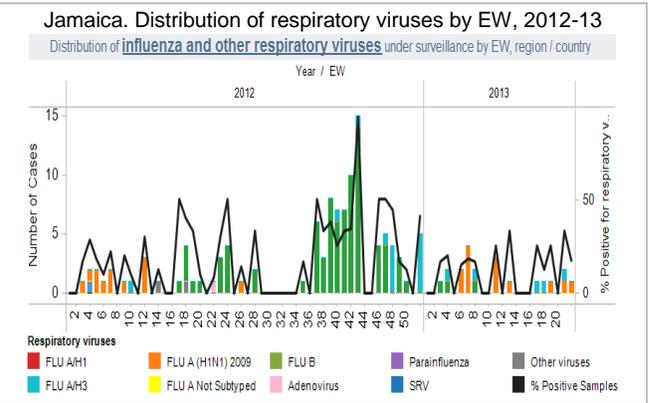
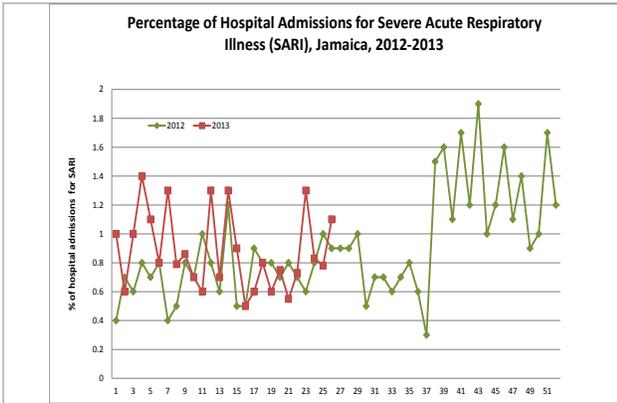
**French Guiana**

<sup>4</sup> Republica Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 25.



In Jamaica for epidemiological week 26 sentinel data showed that the proportion of consultations for Acute Respiratory Illnesses (ARI) was 4.1% which was a 0.1% increase compared to that reported for EW 25. The proportion of admissions due to SARI was 1.1% , a 0.3% increase compared to the previous week. There was no SARI death reported for EW 26.

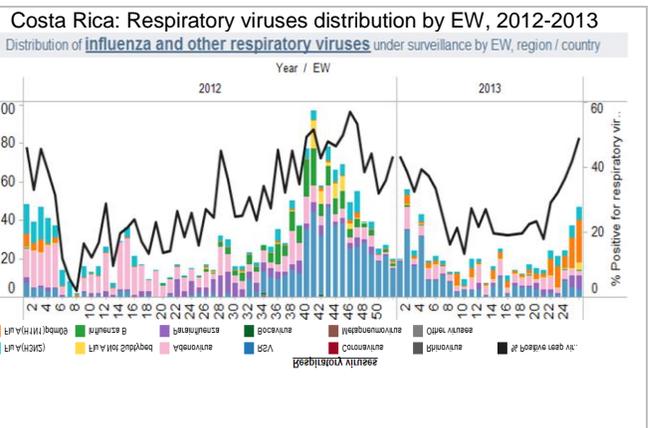
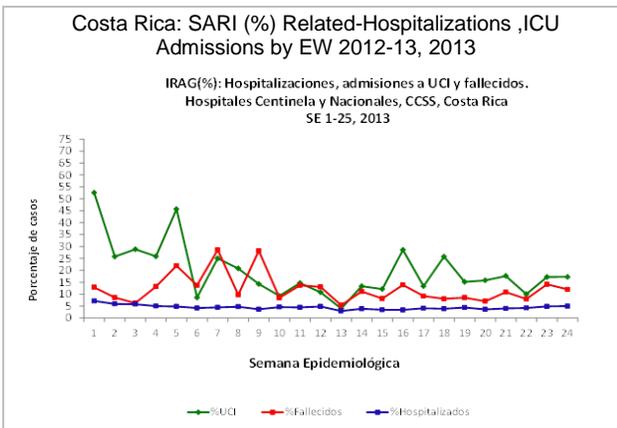
**Jamaica**



**Central America**

In Costa Rica<sup>5</sup>, nationally, in EW 25, 2013, 3,621 SARI hospitalizations were reported, accounting for 4% of all hospitalized patients. Of the total hospitalized SARI cases, 21.2% (n=298) were transferred to an ICU and 14.8% (n=267) of the patients died. In EW 26, two adenovirus-associated deaths and 1 influenza A(H1N1)pdm09 were reported. According to laboratory data in EW 26, among circulating respiratory viruses, there was a significant increase in influenza A(H1N1)pdm09 and A(H3N2), as well as adenovirus and parainfluenza. In recent weeks influenza A(H1N1)pdm09 predominated among influenza viruses. Among circulating respiratory viruses, RSV was most common in the 0-4 years age group, and influenza A in the 18 to 64 years age group.

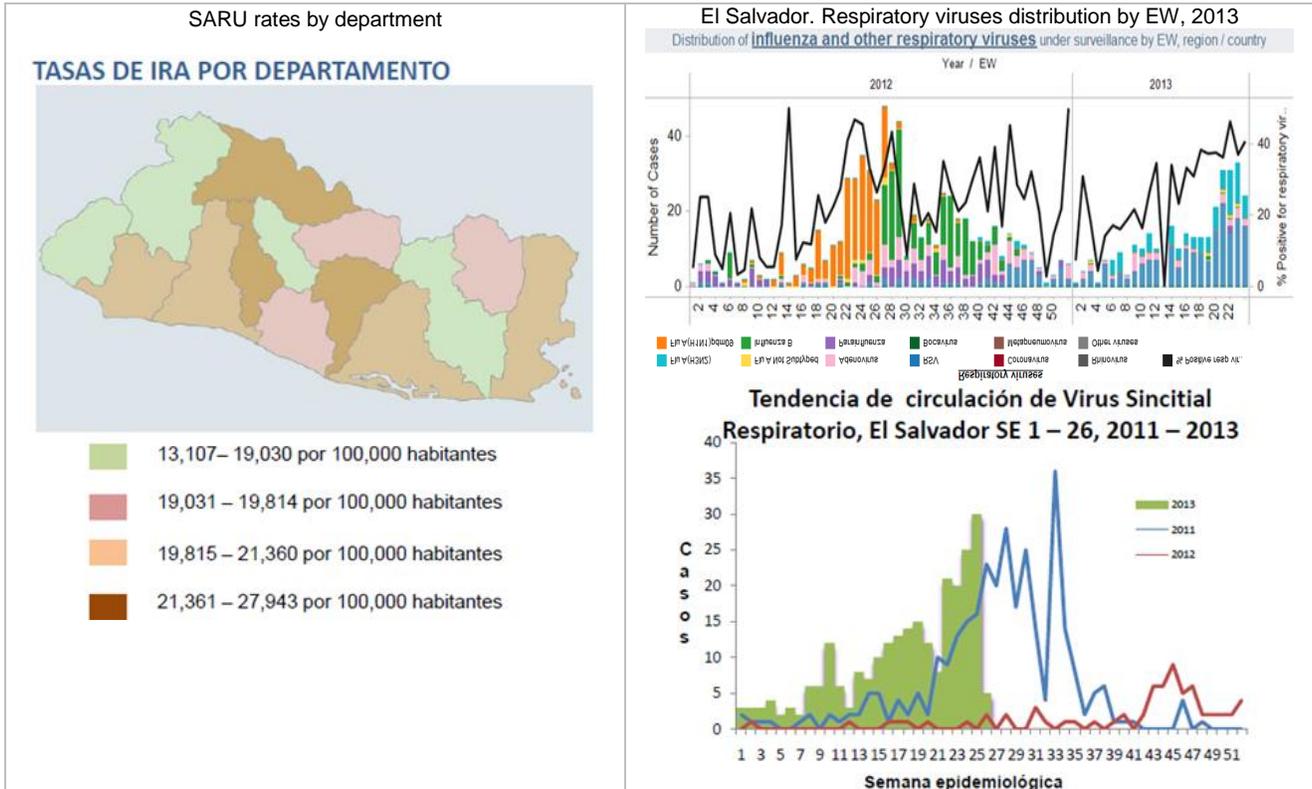
**Costa Rica**



<sup>5</sup> Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 26.

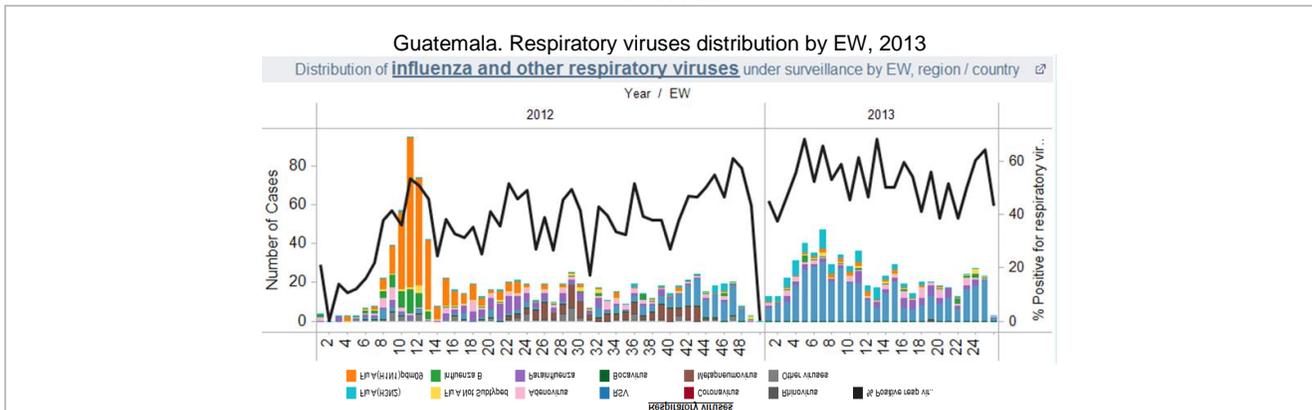
In El Salvador<sup>6</sup>, nationally, in EW 26 there were 55,698 cases of SARI, 4.4% less than those reported in the previous week (n=58,289 cases). The number of cumulative SARI cases between EW 01-26, 2013 (n=1,376,411) is similar to that observed in the same period of 2012. The number of cases of pneumonia in the SE 26 (n=1,967) showed an increase of 11.6% over the previous week. Regionally, the highest SARI rates per 100,000 population were reported in the departments of Chalatenango (27.9), San Salvador (27.4) and San Vicente (23.9). During EW 26, there was 59.5% positivity for respiratory viruses. RSV had a 44.0% positivity, the highest observed to date. The influenza virus circulation was 13.8% positivity with influenza A(H3N2) predominating.

### El Salvador



In Guatemala, according to national laboratory data, between EWs 23 and 26, 136 samples were analyzed of which 56.5% were positive for respiratory viruses and 5.9% were positive for influenza. Among the influenza virus, influenza A not subtyped was most prevalent. Among the other respiratory viruses, RSV predominated (41.9% of positives), followed by adenovirus (5.1%) and parainfluenza (3.7%).

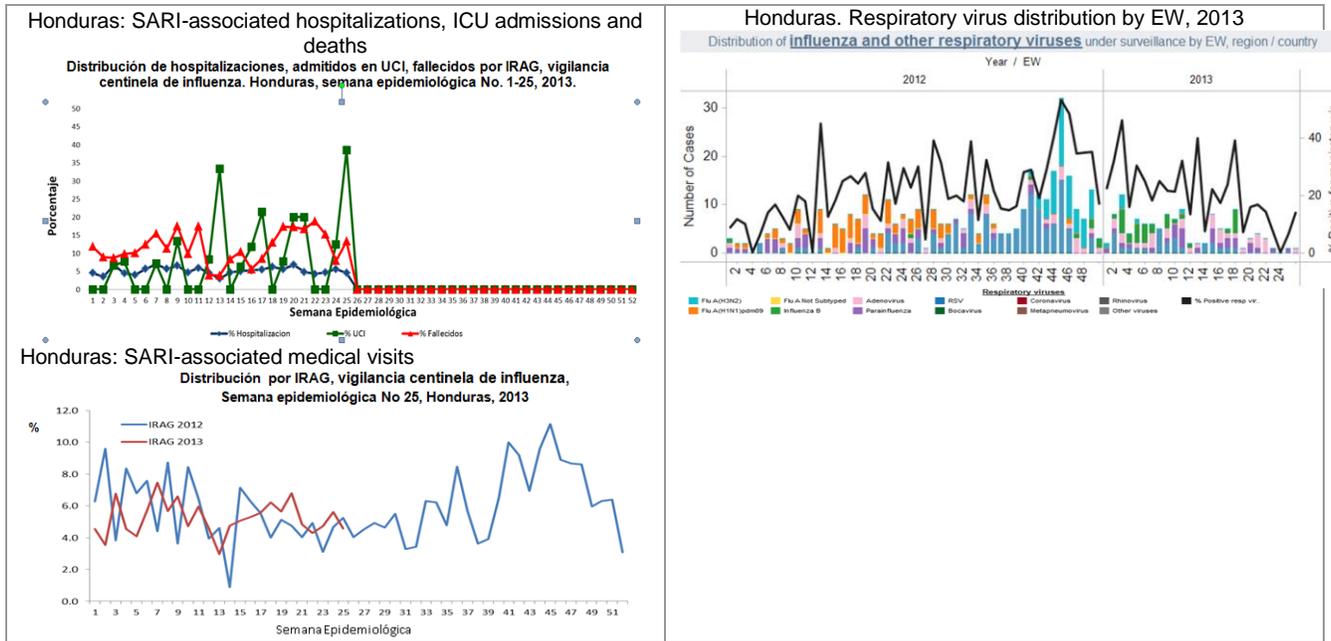
### Guatemala



<sup>6</sup> El Salvador. Boletín epidemiológico SE 25.

In Honduras<sup>7</sup>, during EW 25, 2013, based on sentinel surveillance, ILI accounted for 4.57% (534/11.678) of visits, similar to that recorded in the previous week (5.0%). Patients less than 1 year of age were the most affected group. SARI accounted for 4.6% (44/895) of hospitalizations, with 1-4 year olds being the most affected age group (6/22), followed by those under 1 year (11.1%, (4/36)). SARI mortality was 13.33% (8/60), slightly higher than the previous week (7.9%). According to laboratory information, just a few respiratory viruses were detected in the last weeks.

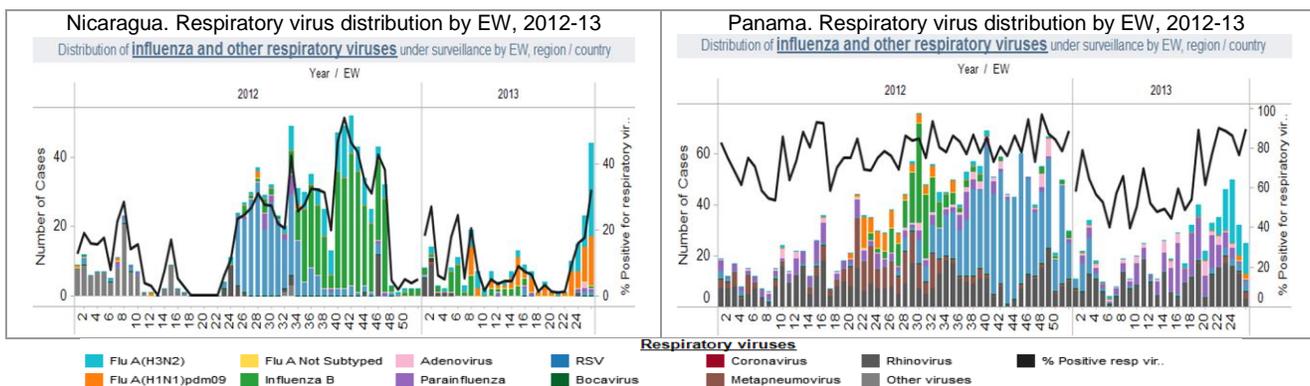
### Honduras



In Nicaragua, according to national laboratory, of the samples tested between EW 23-26 (n = 472), the percentage of positive samples increased from 9.3% (SE 23) to 32.1% (SE 26). Influenza A(H1N1)pdm09 and A(H3N2) predominated.

In Panama, according to national laboratory data from EWs 22-25, of all samples tested (n =150), 88.7% were positive for respiratory viruses and 28.7% were positive for influenza viruses. Among the influenza positive samples in EWs 22-25, 100% were influenza A(H3N2). Among other respiratory viruses, rhinovirus (33% of positive samples) and parainfluenza (12.7% of positive samples) predominated.

### Nicaragua and Panama

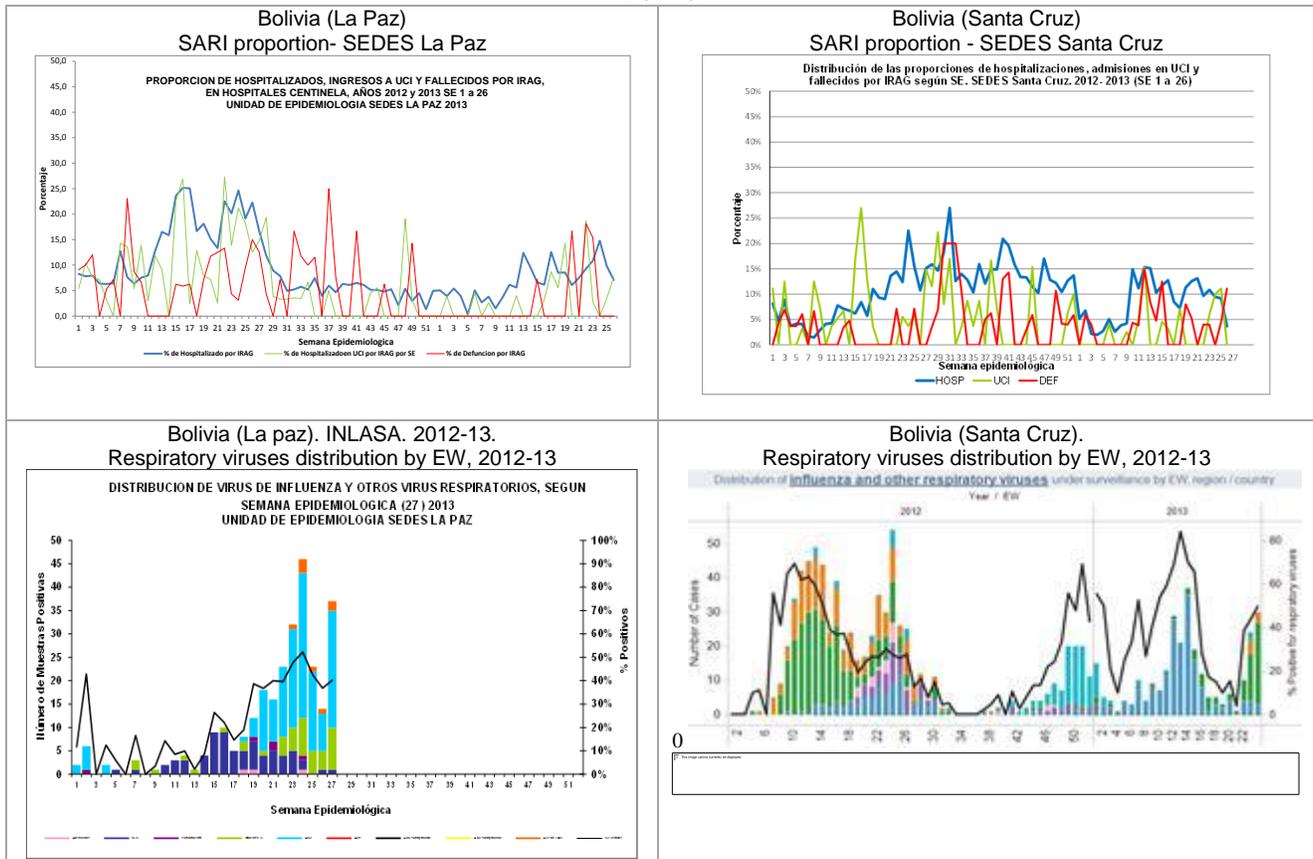


### South America – Andean countries

<sup>7</sup> Honduras. Boletín de influenza SE 25.

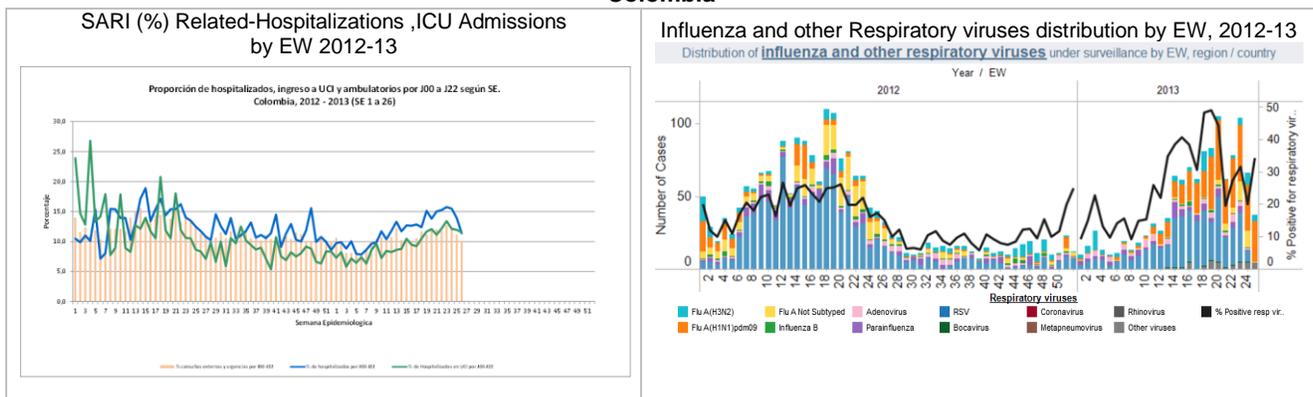
In Bolivia, according to data from Santa Cruz, during EW 26 the proportion of SARI hospitalizations (4%) decreased compared to previous weeks. Based on laboratory data from CENETROP (Santa Cruz), among 30 samples analyzed from SARI cases during EWs 24 to 25, 27% were positive for respiratory viruses and 23% were positive for influenza viruses. Influenza B (7/8) continued to be the most prevalent respiratory virus. In La Paz, in EW 25, the proportion of SARI hospitalizations (7.7%) decreased as compared to the previous week. According to laboratory data from INLASA (La Paz), among 92 samples processed during EWs 25-26, 40% were positive for respiratory viruses and 39% were positive for influenza viruses. Among the positives samples, influenza A(H3N2) (67%) predominated.

### Bolivia



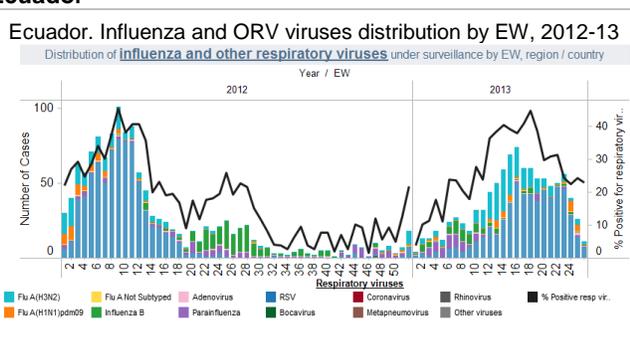
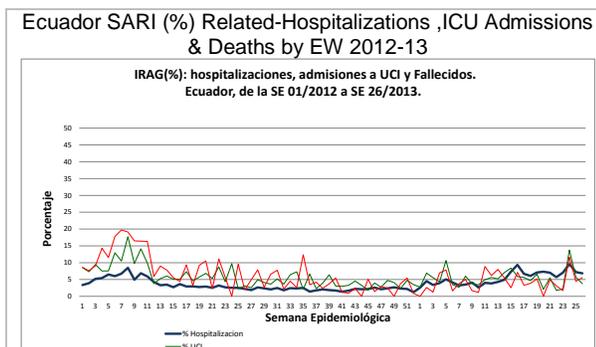
In Colombia, nationally, in EW 26, the proportions of ARI outpatients-J codes (10%), SARI hospitalizations (11%) and SARI ICU admissions (11%) decreased as compared to the previous week. According to the national laboratory data (INS), among virus samples tested (n=685) in EW 25-26, 26% were positive for respiratory viruses and 18% were positive for influenza viruses. Among the positive samples, influenza A(H1N1)pdm09 and influenza A not subtyped predominated in Antioquia (63%) and RSV (24%) in Bogota.

### Colombia



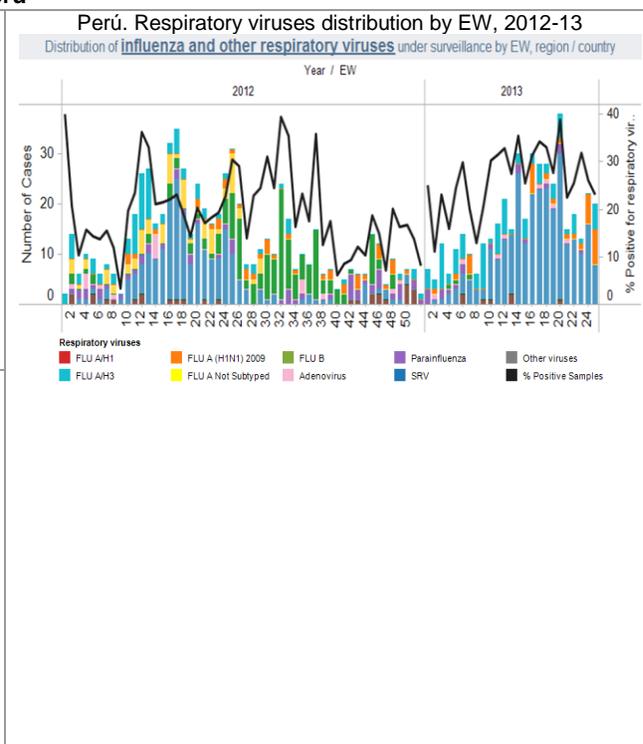
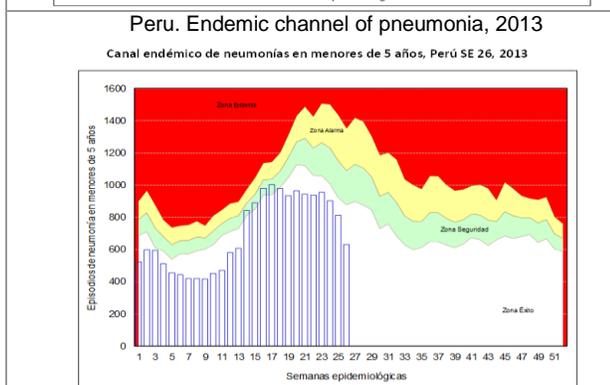
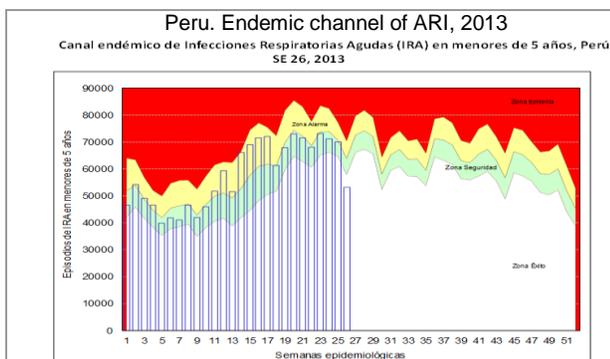
In Ecuador, during EW 26, the proportion of SARI hospitalizations (7%), SARI ICU admissions (4%) and SARI deaths (6%) did not change significantly from the previous week. According to national laboratory data, among 155 samples tested between EWs 25 and 26, 24% were positive for respiratory viruses and 8% were positive for influenza viruses. RSV was the predominant virus, accounting for 57% of the positive samples. Among the SARI samples analyzed, RSV was also the predominant virus.

### Ecuador



In Peru<sup>8</sup>, nationally, in EW 26, the number of ARI and pneumonia cases in children less than 5 years of age remained within the expected level for this time of year. According to national laboratory data, during EWs 25-26, among the 153 samples analyzed, 27% were positive for respiratory viruses and 13% were positive for influenza viruses. Among all the positive viruses, RSV (39%) and influenza A(H1N1)pdm09 (29%) predominated.

### Peru

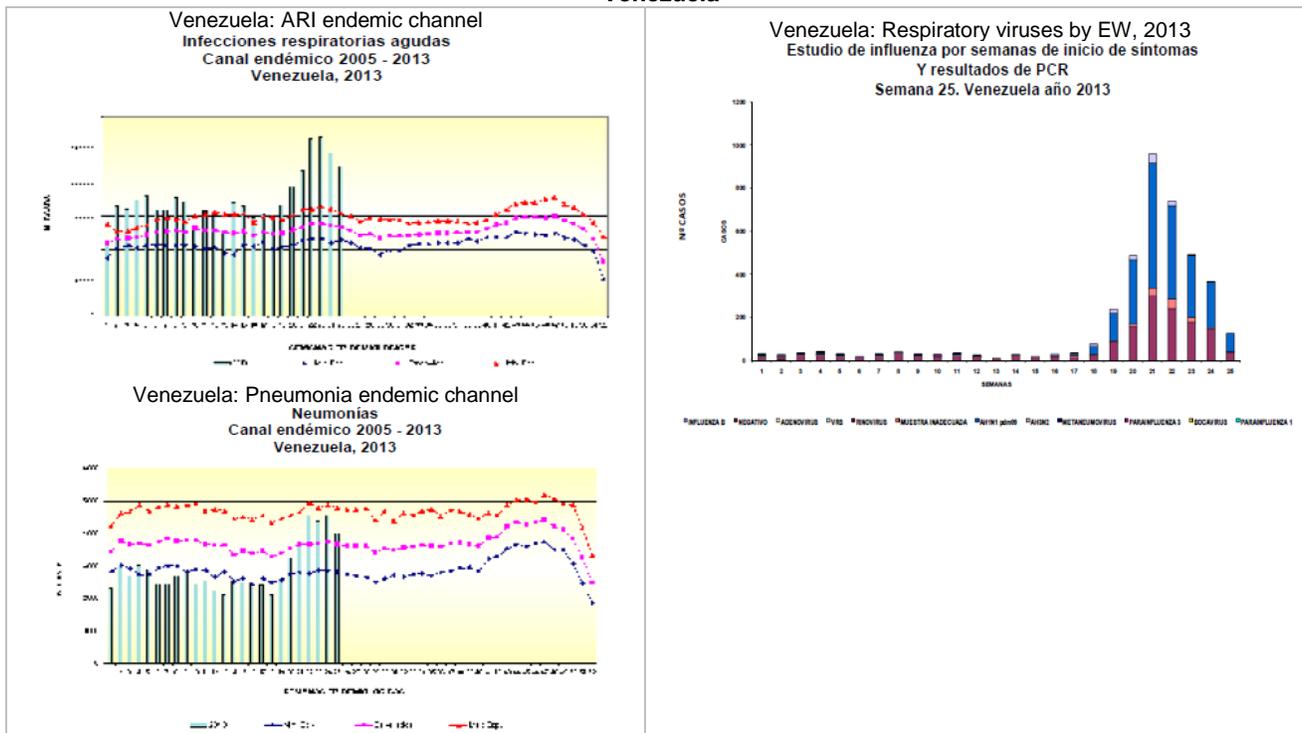


In Venezuela<sup>9</sup>, according to data published through EW 25, the ARI and pneumonia endemic channels showed activity above the epidemic threshold for this time of the year with decreasing trend in the last two weeks. Regionally, the highest numbers of pneumonia cases were reported in Zulia. Based on virologic surveillance through EW 25, there is a predominance of influenza A(H1N1)pdm09 (92% of positive samples), followed by influenza A(H3N2) (7% of positive samples).

<sup>8</sup> Perú. Sala de Situación de Salud. EW 26, 2013. Ministerio de Salud. Dirección General de Epidemiología

<sup>9</sup> Venezuela. Boletín epidemiológico, SE 25, 2013.

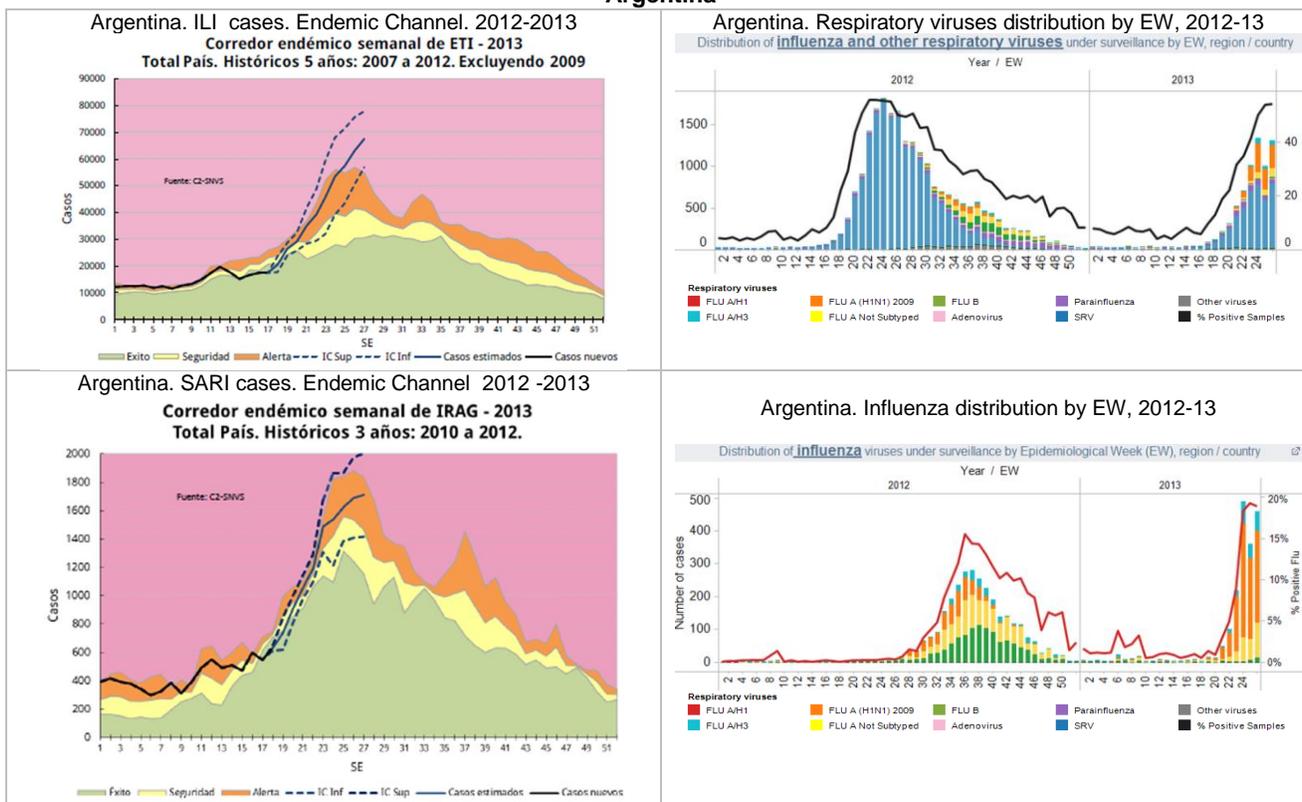
## Venezuela



## South America – Southern Cone

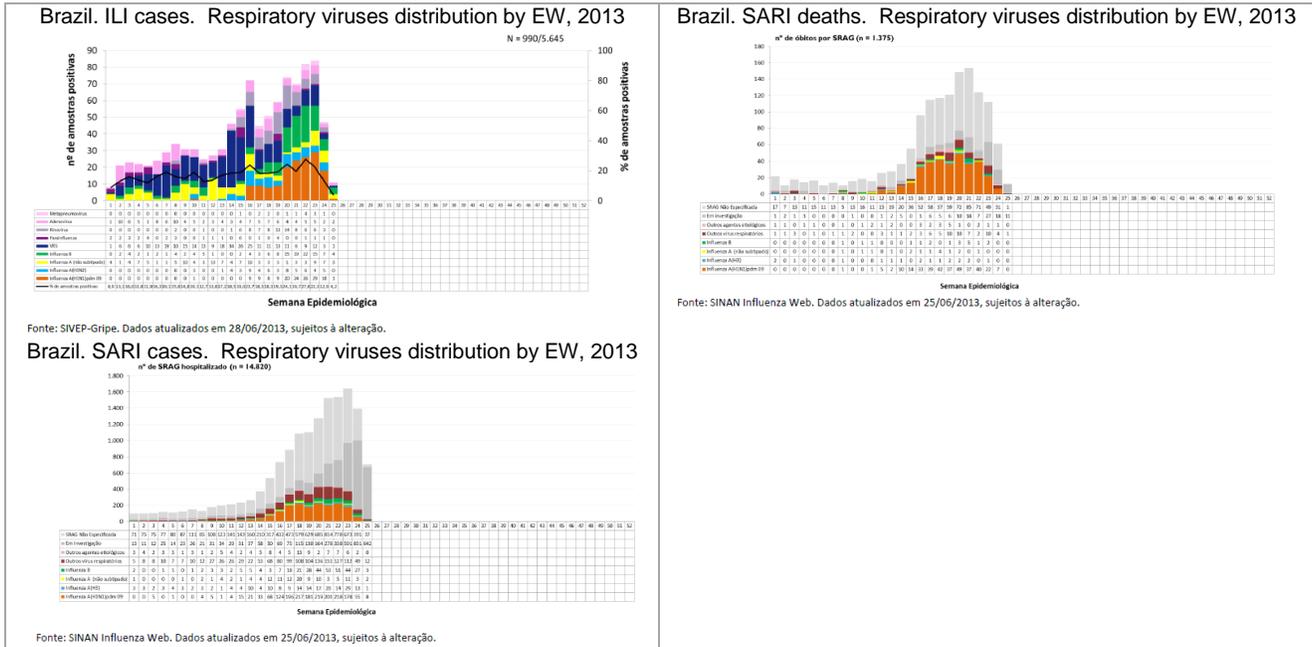
In Argentina, at the national level, based on previous reported estimates, ILI and SARI hospitalizations showed an upward trend, approaching epidemic level. SARI rates in the Northwest and Cuyo regions exceeded those reported during this same period last year. According to laboratory data, between EW 25 and 26, 2,423 samples were processed. The positivity for all respiratory viruses was 54% and 19% for influenza. RSV predominated (54%), followed by influenza A(H1N1)pdm09 and influenza A, not subtyped (29%).

## Argentina



In Brazil<sup>10</sup>, the proportion of ILI cases (from the sentinel surveillance system) began to rise in EW 9 with a predominance of RSV but since EW 16, influenza A(H1N1)pdm09 has predominated. The number of SARI cases and deaths continues to increase. Of the 16.2% of samples positive for influenza, 73.3% were influenza A(H1N1)pdm09. Among SARI-associated deaths, 28.4% were positive for influenza, of which 86.5% were due to influenza A(H1N1)pdm09. Sao Paulo continued an increase in the number of SARI cases and deaths. Through EW 26, there were 1614 confirmed cases of influenza, of which 81% were influenza A(H1N1)pdm. In Minas Gerais, the southeast and the southern states, there has been an increase in the number of cases and deaths associated with influenza A(H1N1)pdm09, with the exception of Santa Catarina where influenza A(H3N2) and B are also circulating.

**Brazil**

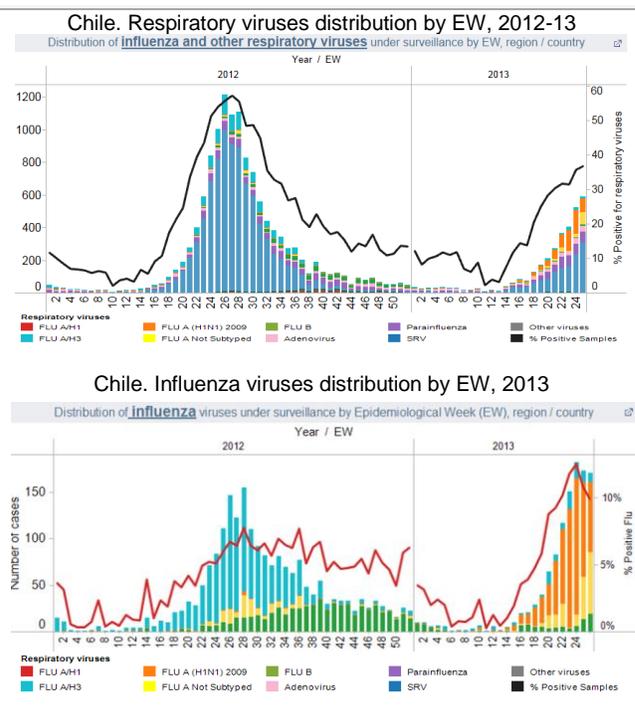
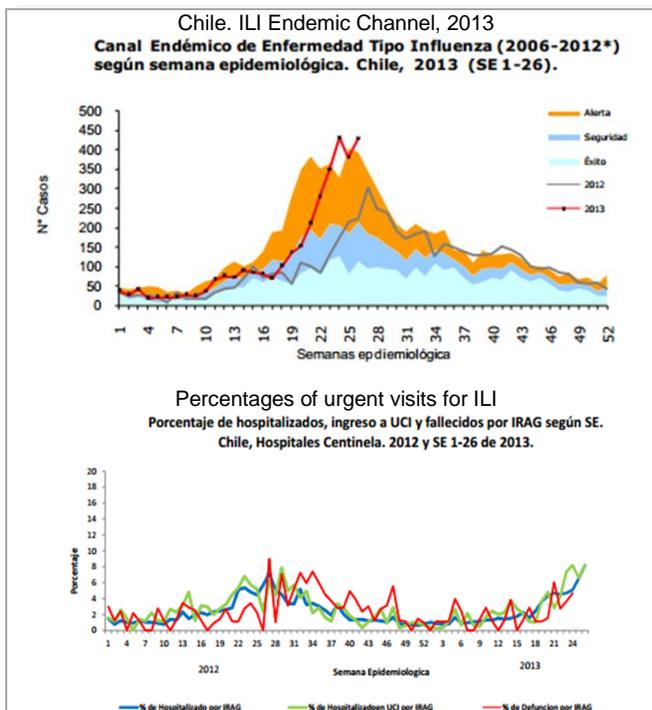


In Chile<sup>11</sup>, nationally, in EW 25, ILI activity (rate: 27/100.000 hab.) decreased and was below the epidemic threshold (alert zone) of the endemic channel. Regionally, Tarapaca (north) and Magallanes (south) showed significant increases over the previous week. The proportion of SARI hospitalizations has shown an upward trend since EW 16. According to laboratory data, between EW 25 and 26, 3,060 samples were analyzed with a positivity of 37% for all viruses and 10% for influenza virus, RSV predominated (56%) followed by influenza A(H1N1)pdm09 and influenza A not subtyped (23%). Among the 250 samples test from SARI patients during the same period, influenza A(H1N1)pdm09 and influenza A not subtyped predominated (55%), followed by RSV (36%).

<sup>10</sup> Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 25, 2013.

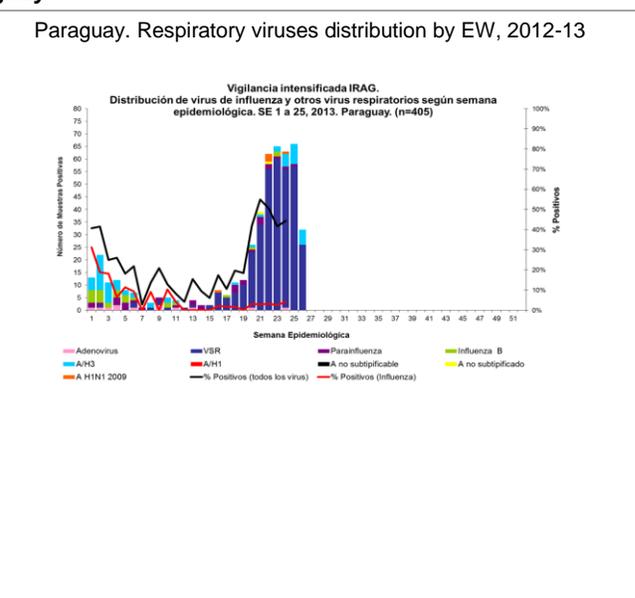
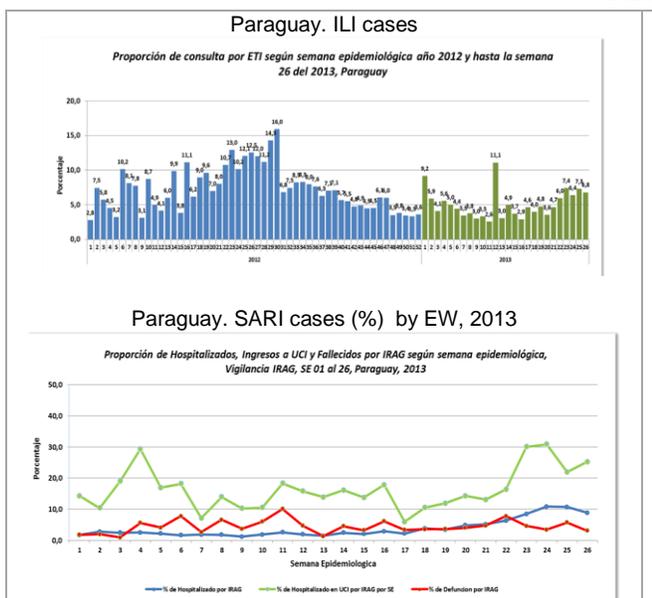
<sup>11</sup> Chile. Informe de situación. EW 26. Disponible en: [www.pandemia.cl](http://www.pandemia.cl)

Chile



In Paraguay<sup>12</sup>, through EW 26, there were 167,616 ILI consultations, indicating an increase of 1126 inquiries (n=10,696 for EW 26) compared to the previous week. This is a consult rate of 160.3 per 100,000 population. The rate is similar in magnitude to this period last year, and is on the fringe between the warning and epidemic levels in the endemic corridor. The proportion of SARI hospitalizations was 8.9% (206/2.320), of which 68% were among children under 5 years (140/206). The proportion of SARI patients admitted to the ICU was 25.3% (23/91), and the proportion of SARI-associated deaths was 3.1% (4/129). Of the total SARI cases between EW 1 and 26, 12 have died and all were associated with respiratory viruses (1 adenovirus, 1 parainfluenza, 6 RSV, 1 influenza B, and 3 Influenza A H3). According to laboratory data for EW 26, the positivity for respiratory viruses is increasing, reaching 34.3% (490/1.428) in the last week. Among circulating viruses, RSV (72%) predominated, followed by influenza A(H3N2) (13%), parainfluenza (6%), influenza B (5%), adenovirus (3%), and Influenza A(H1N1)pdm09 (0.5%). Among SARI respiratory samples analyzed last week, RSV predominated, followed by Influenza A(H3N2).

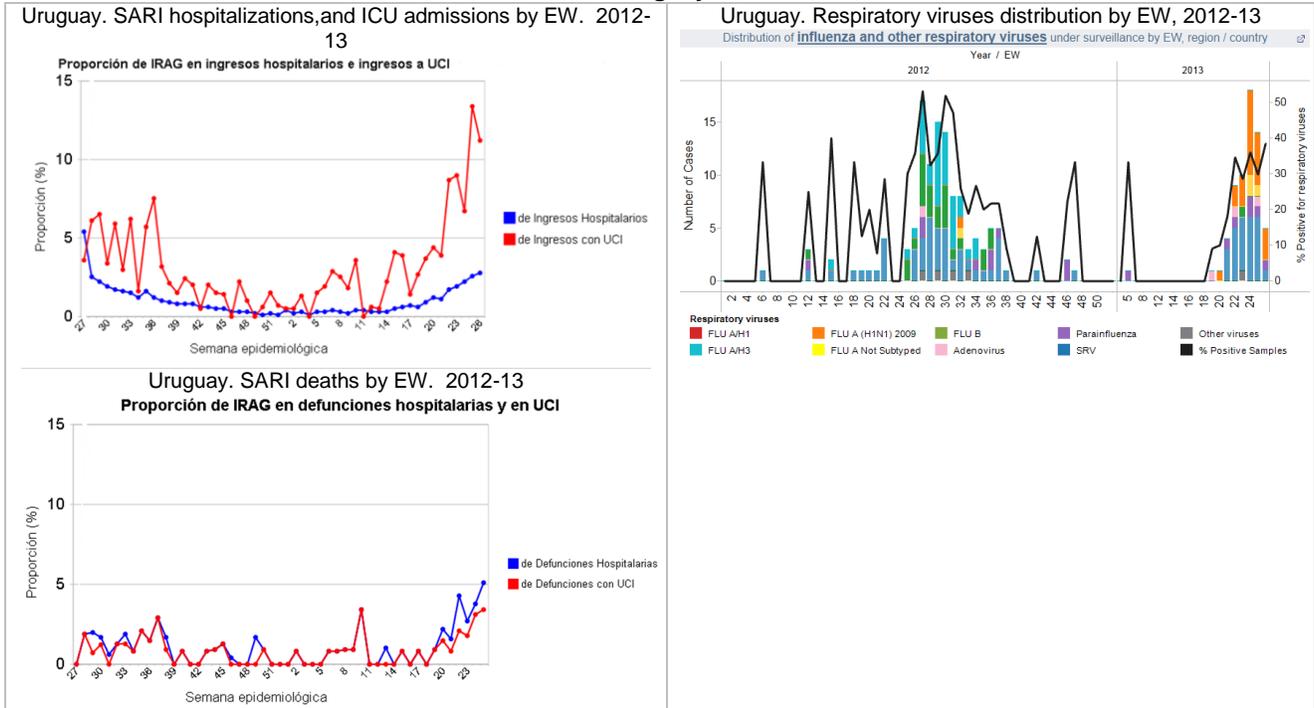
Paraguay



<sup>12</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 26, 2013

In Uruguay<sup>13</sup>, at the national level, the proportions of SARI-associated hospitalizations, ICU admissions, and deaths have shown an upward trend since EW 18. ICU admissions and deaths exceed what was observed in the same period last year. Between EW 25 and 26, 92 samples were processed for respiratory viruses showing a positivity of 39% for all respiratory viruses and 21% for influenza, with a predominance of influenza A(H1N1)pdm09 (50%) and RSV (31%).

### Uruguay



### Special Topics:

Novel coronavirus infection  
[http://new.paho.org/hq/index.php?option=com\\_content&view=article&id=8665&Itemid=39987+&lang=en](http://new.paho.org/hq/index.php?option=com_content&view=article&id=8665&Itemid=39987+&lang=en)

Avian influenza A(H7N9) virus  
[http://new.paho.org/hq/index.php?option=com\\_content&view=article&id=8575&Itemid=39968&lang=en](http://new.paho.org/hq/index.php?option=com_content&view=article&id=8575&Itemid=39968&lang=en)

<sup>13</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública