



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

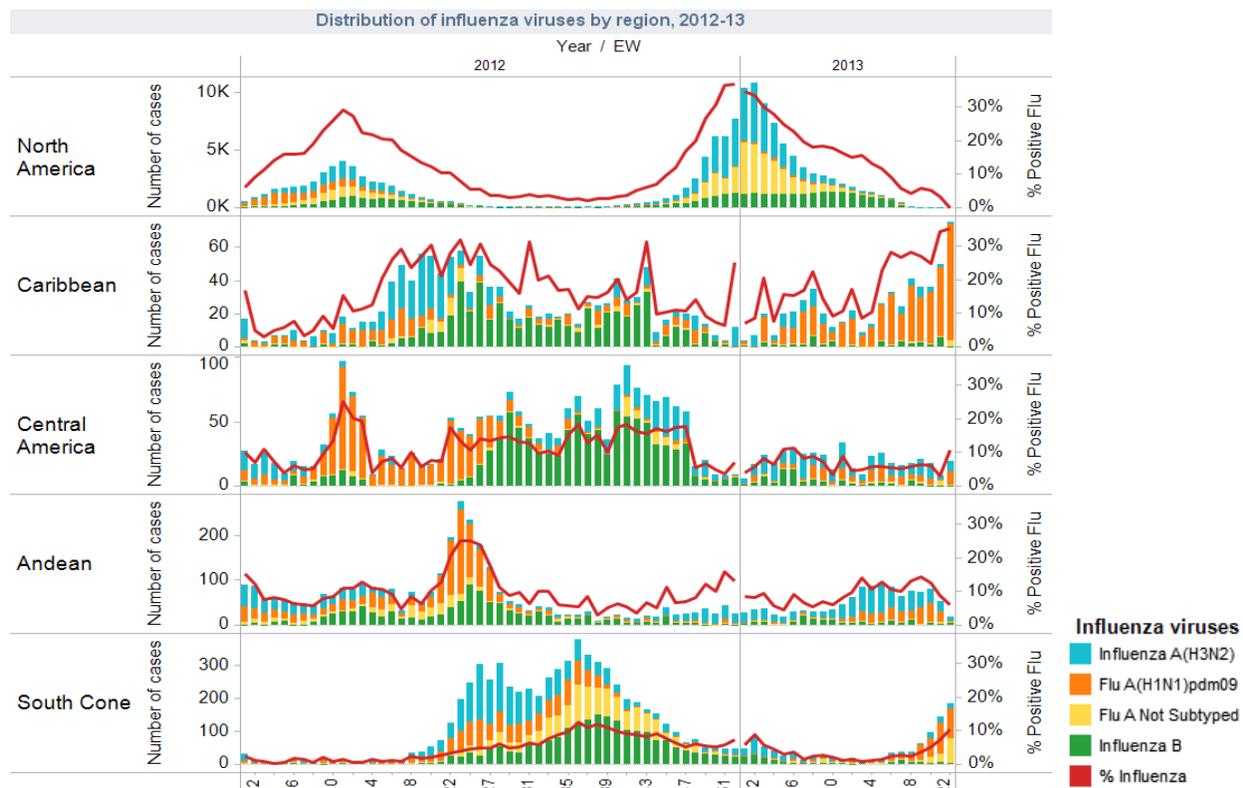
Influenza Regional Reports: [www.paho.org/influenzareports](http://www.paho.org/influenzareports)

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.

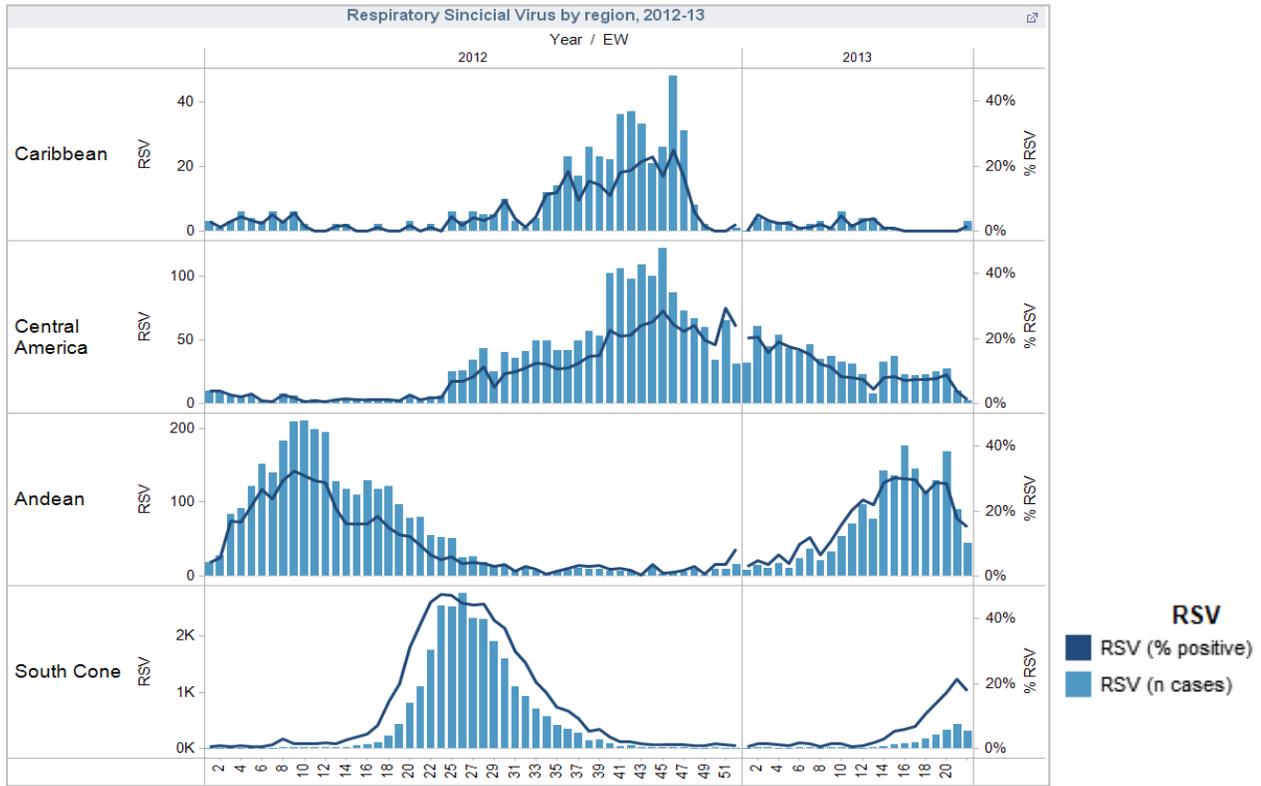
**WEEKLY SUMMARY**

- **North America:** most influenza activity indicators were low and within expected levels for this time of year. Influenza B remained the dominant circulating influenza virus in Canada and the US. In Mexico, influenza A(H3N2) remained the most prevalent virus.
- **Central America and the Caribbean:** the influenza activity in Cuba and Dominican Republic remained high, associated to circulation of influenza A(H1N1)pdm09. Acute respiratory illness in Central America and other countries of the Caribbean remained low or within the expected levels.
- **South America – Andean Countries:** the acute respiratory illness activity remained steady, except in Colombia and Venezuela where influenza A(H1N1)pdm09 continued circulating. Influenza A(H3N2) predominates in Bolivia-La Paz, influenza B in Bolivia-Santa Cruz. RSV continued to decrease and is predominant in the other Andean countries.
- **South America - South Cone:** the acute respiratory illness activity was high and close to or at the epidemic threshold in the endemic channel; remaining the increasing trends. RSV predominates in most countries, with co-circulation of influenza A(H1N1)pdm09 in Argentina, Chile and Uruguay and influenza A(H3N2) in Paraguay. In Brazil, up to EW 22, A(H1N1)pdm09 was predominant, followed by influenza B in some states.

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



## Respiratory Sincial Virus circulation by region. 2012-2013

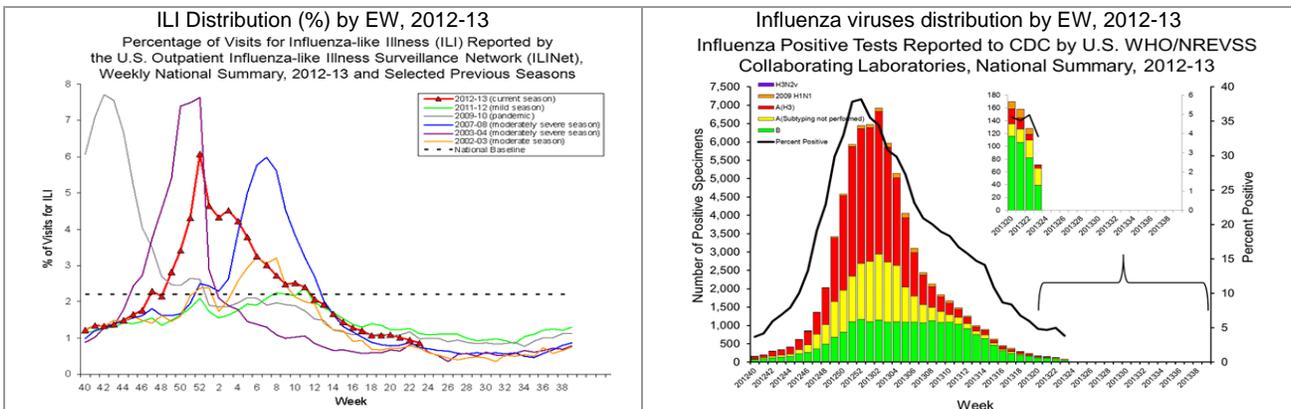


## EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

### North America:

In the United States<sup>1</sup>, during EW 23, influenza activity remained low. Nationally, the proportion of ILI consultations (0.9%) was below the national baseline of 2.2%. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 23 (5.8%) was below the epidemic threshold for this time of year. In EW 23, two influenza-associated pediatric deaths were reported (one associated with influenza A unsubtype and one with influenza B). Among all samples tested during EW 23 (n=1,838), the percentage of samples positive for influenza (3.9%) decreased as compared to the previous week. Nationally, among the positive samples, 54.9% were influenza B and 45.1% were influenza A, with co-circulation of A(H3N2) and A(H1N1)pdm09.

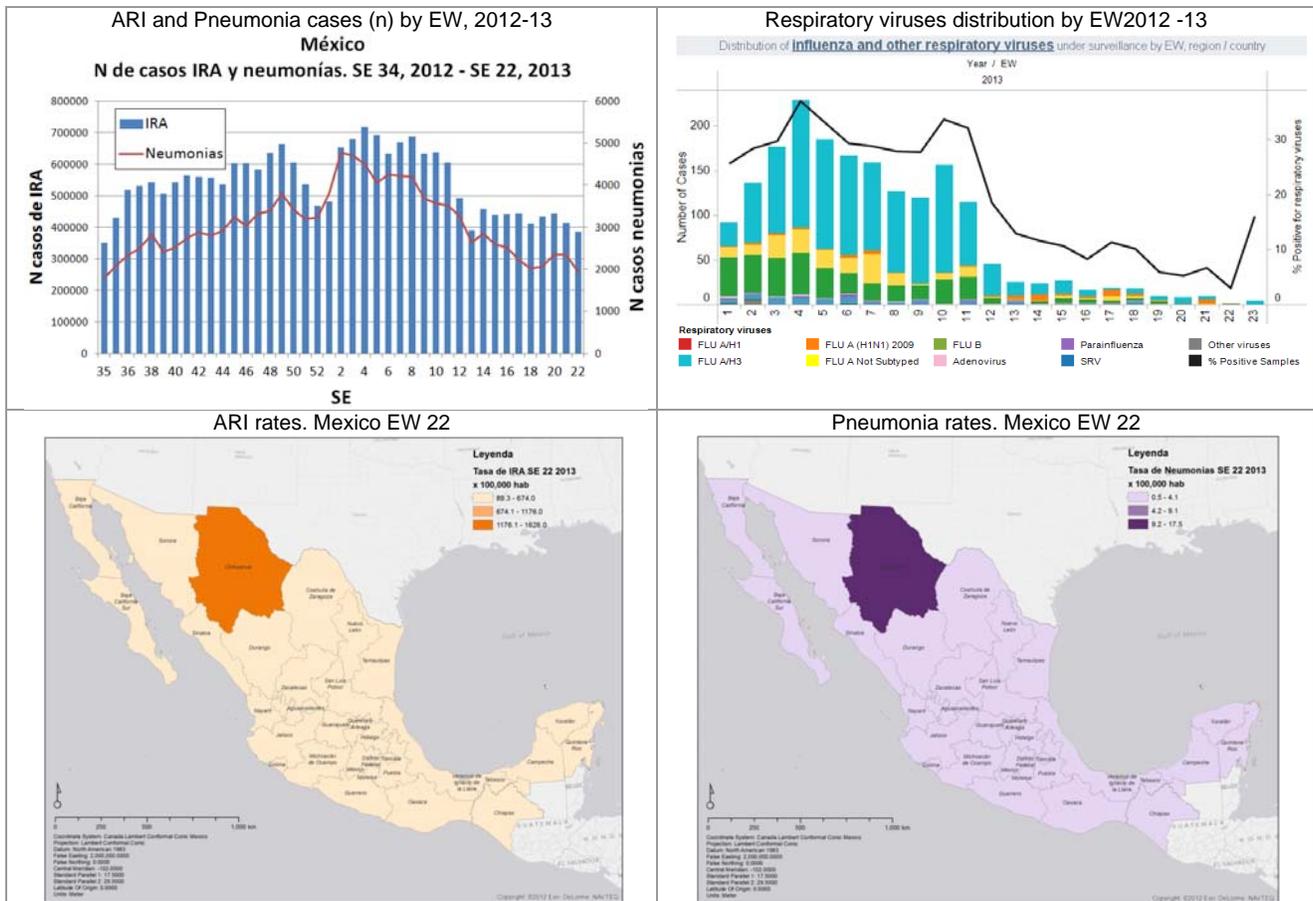
### United States



<sup>1</sup> USA: CDC FluView report. EW 23. Available at: <http://www.cdc.gov/flu/weekly/>

In Mexico<sup>2</sup>, nationally in EW 22, the number of ARI cases decreased by 6.9% as compared to EW 21 and the number of pneumonia cases decreased by 17.6% as compared to the previous week. Regionally, the states that reported the highest rates of pneumonia per 100,000 inhabitants in EW 22 were: Jalisco (4.1), Sonora (3.7), Baja California Sur (3.5) and Nayarit (3.3). According to laboratory data, between EWs 20-23, 7.5% were positive for influenza. Among the positive influenza cases, 95% were influenza A (71.5% influenza A(H3N2) and 28.5% A(H1N1)pdm09) and 5% were influenza B.

### Mexico



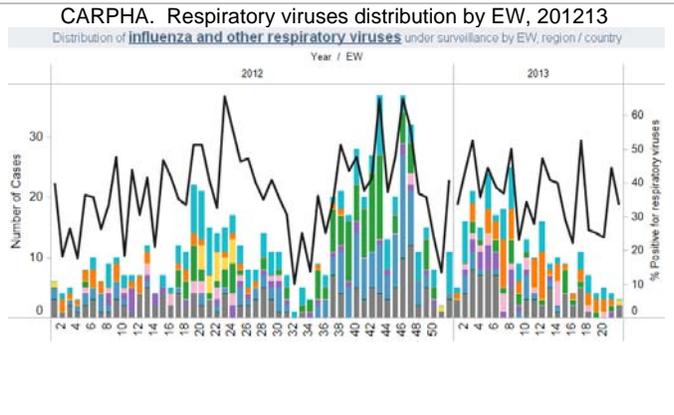
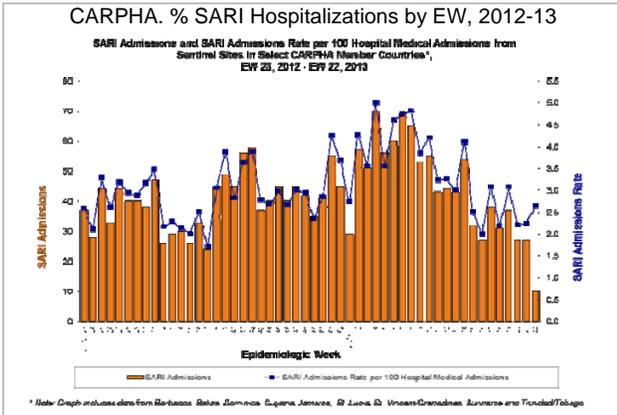
### Caribbean

CARPHA<sup>3</sup>, received weekly SARI/ARI data from 5 countries for EW 22, 2013: Barbados, Belize, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 22, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.6%. The highest rate of SARI was among children 6 months to 4 years of age (8.0%). One SARI death was reported from Barbados in EW 22, 2013. For cases with dates of onset between EW 17 to EW 22, 2013, the following viruses have been laboratory confirmed in member countries: influenza A (H1N1)pdm09 (Jamaica, Suriname); influenza A(H3N2) (Jamaica); influenza B (Suriname), adenovirus (Barbados), human metapneumovirus (St. Vincent & Grenadines), rhinovirus (St. Lucia, St. Vincent & Grenadines, Trinidad & Tobago), influenza A not subtyped (Jamaica). In 2013, to date, the CARPHA laboratory has confirmed 192 cases as positive for 1 or more respiratory agent. For cases with dates of onset in 2013, the overall percentage positivity for specimens tested is 34.7%.

### CARPHA

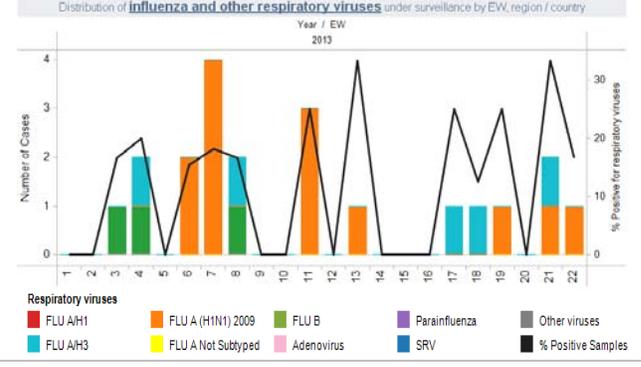
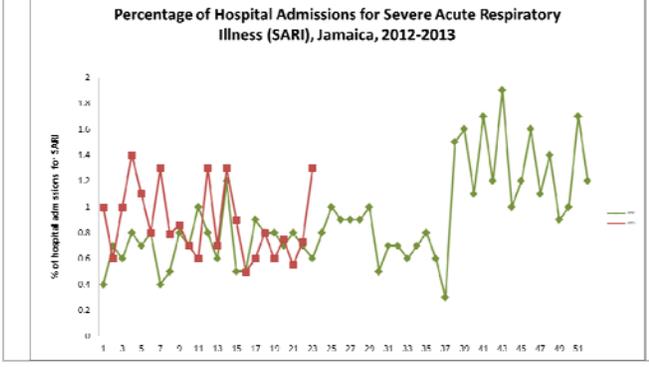
<sup>2</sup> México. Dirección General de Epidemiología. Información epidemiológica. SE 23.

<sup>3</sup> Agencia de Salud Pública del Caribe (CARPHA por sus siglas en inglés) EW 23.



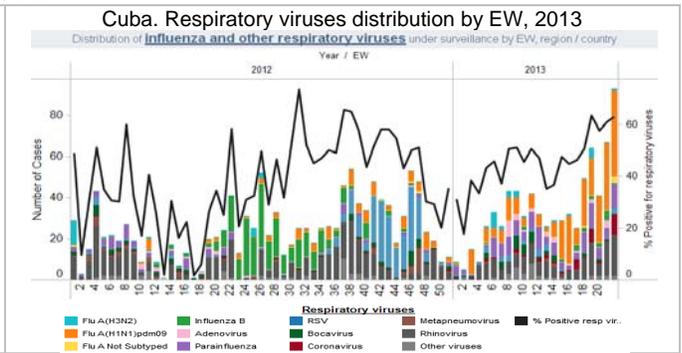
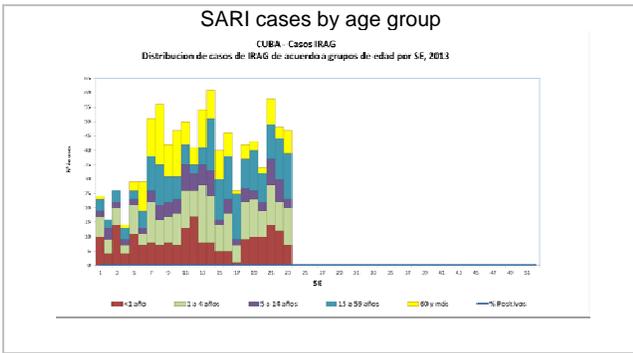
In Jamaica, for EW 23, sentinel data show that the proportion of consultations for Acute Respiratory Illnesses (ARI) was 4.1% which was a 0.1% decrease compared to that reported for EW 22. The proportion of admissions due to SARI was 1.3%, a 0.6% increase compared to the previous week. There was no SARI death reported for EW 23. According to laboratory data, among samples tested in EW 19-22 (n =23), the average percentage positivity for respiratory viruses was 18.8% with influenza A(H1N1)pdm09 and influenza A(H3N2) being the viruses detected.

**Jamaica**



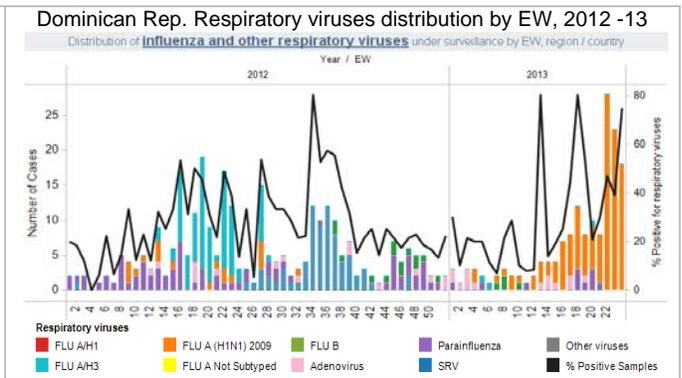
In Cuba, according to national laboratory data, among all samples analyzed (n=462) between EW 20 to 23, the average percent positivity for respiratory viruses was 60,4% and 35,7% for influenza viruses. Of the total of positive samples by influenza A, 96% were Influenza A(H1N1)pdm09 followed by influenza A(H3N2). Also, rhinovirus and parainfluenza are circulating. Of the total of positive samples in the EW 22, 53.7% were ILI cases and 26.8% were SARI cases. Among the SARI cases, 163 samples were analyzed between EW 20 to 23, with influenza A(H1N1)pdm09 and rhinovirus been detected mainly during the same period. The age groups most affected by SARI were those between 15 to 54 years followed by the children between 1 and 4 years old. Deaths associated with SARI were not reported.

Cuba



In the Dominican Republic<sup>4</sup>, from the EW 01 to 22, 2013, a total of 948,355 ILI cases were reported, with a rate of 391.15 by 10,000 inhab, 23% less to what was reported for the same period in 2012 (511.19 by 10,000 inhab). In EWs 01-22, through sentinel surveillance, 603 SARI cases (10% less than the same period in 2012) and 15 SARI deaths (higher than the number observed in 2012 (n=5)) were reported. In 2013, 9 deaths have been confirmed to influenza A(H1N1)pdm09 (1 between January-March and 8 between April-June). Among the eight deaths that occurred between April and June 2013, four were pregnant. According to laboratory data, from EW 20 to 24, among samples analyzed (n=218), the percentage of positive samples for influenza increased from 14.6% (EW 20) to 75% (EW 24). Influenza A(H1N1)pdm09 was the predominant virus detected.

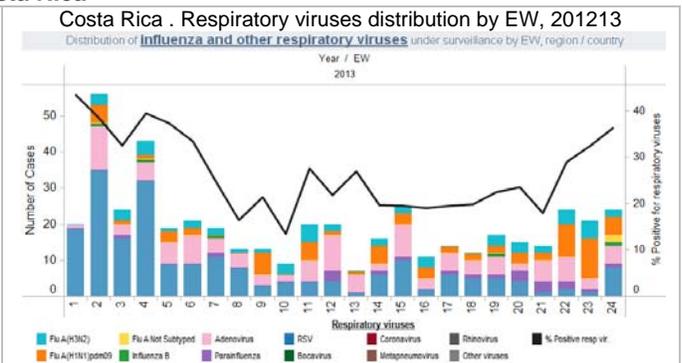
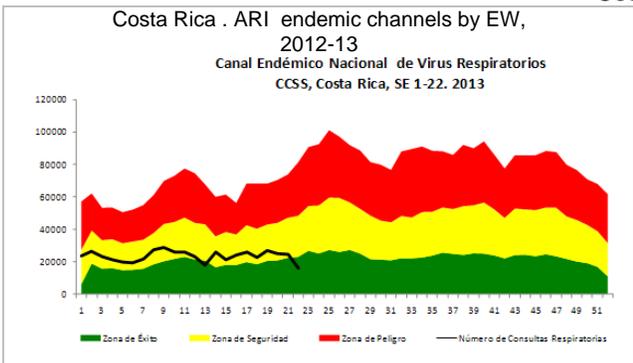
Dominican Republic



Central America

In Costa Rica<sup>5</sup>, in EW 22, ARI activity remained within the expected level for this time of year. According to laboratory data between EW 21-24, among all samples tested (n =292), the percent positivity for respiratory viruses was 28.9% and for influenza viruses was 15.1%, showing an increasing trend. During the period between EW 21-24, among influenza viruses, influenza A predominated (98%) (64% of influenza A(H1N1)pdm09, 31% A(H3N2) and 5% A unsubtype).

Costa Rica



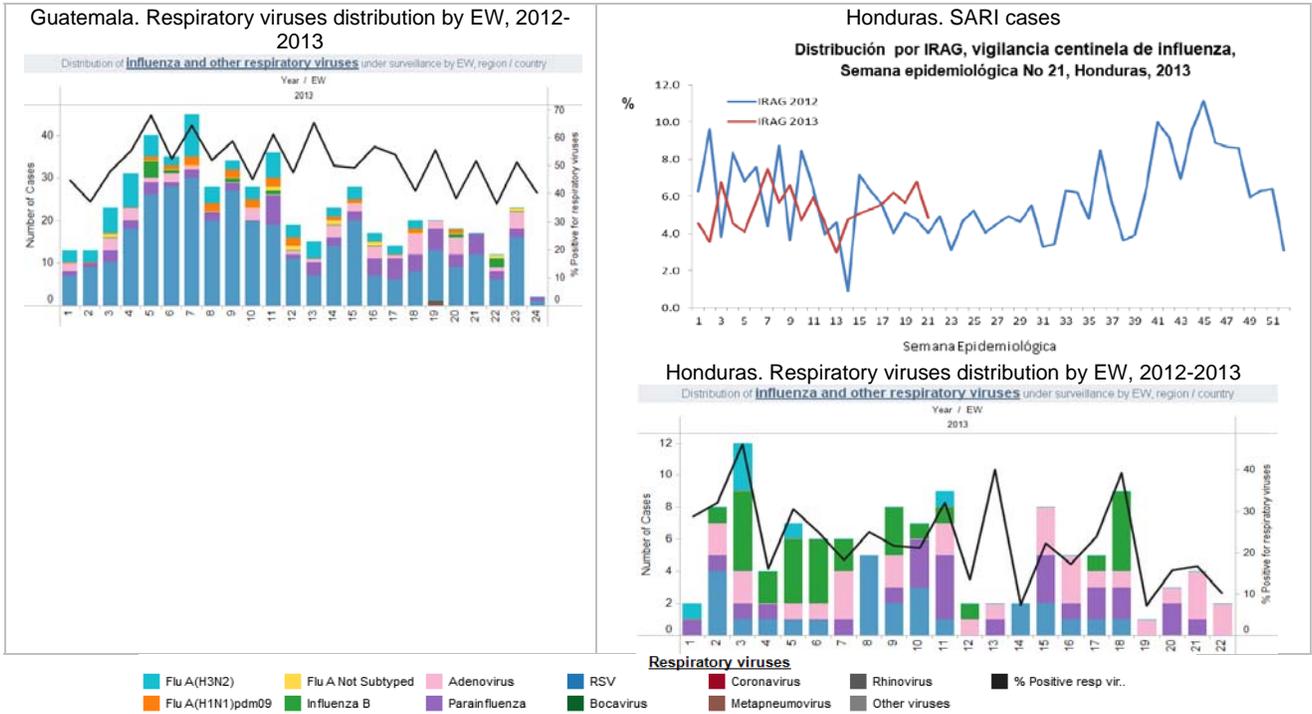
<sup>4</sup> República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletín Semanal SE 23.

<sup>5</sup> Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 22.

In Guatemala, according to national laboratory data from EWs 21-24, of all samples tested (n =116), 44.7% were positive for respiratory viruses and 2.8% for influenza viruses. Regarding other respiratory viruses, among the total samples tested, RSV was the predominant virus (30.2% of positivity) followed by parainfluenza (8.6% of positivity).

In Honduras, in EW 21, the proportions of ILI cases (5%) and SARI cases (4.8%) were lower than the last week and similar to the ones observed last year. According to national laboratory data from EWs 19-22, of all samples tested (n =27), 11.9% were positive for respiratory viruses with no influenza viruses were detected. Adenovirus was the only virus detected.

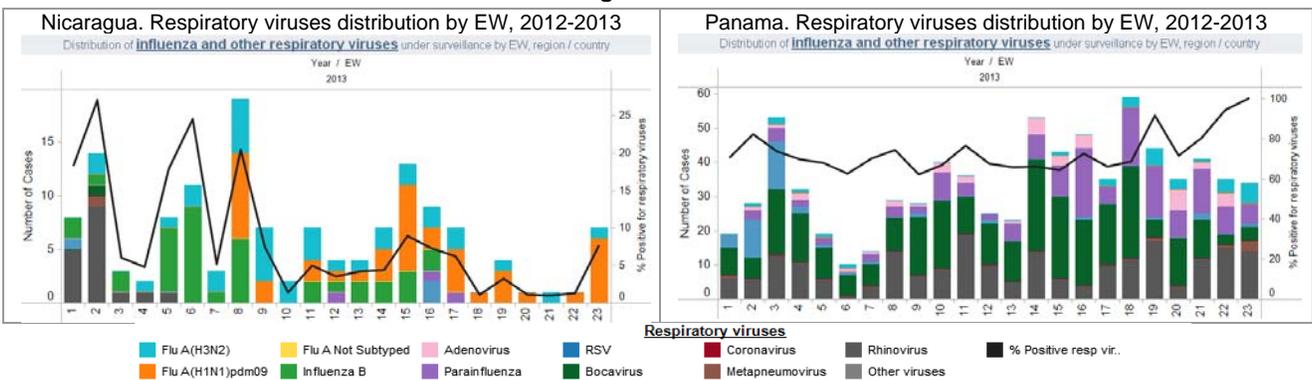
**Guatemala and Honduras**



In Nicaragua, according to national laboratory data from EWs 20-23, of all samples tested (n =357), 2.8% were positive for influenza viruses. Influenza A(H1N1)pdm09 was the predominant respiratory virus detected.

In Panama, according to national laboratory data from EWs 20-23, of all samples tested (n =171), 86.6% were positive for respiratory viruses and 9.1% were positive for influenza viruses. Among the total samples tested, in EWs 20-23, rhinovirus (26% of positivity), parainfluenza (20,5% of positivity) and bocavirus (19%) were the predominant viruses. Among the positive influenza viruses, influenza A(H3N2) was the only virus detected.

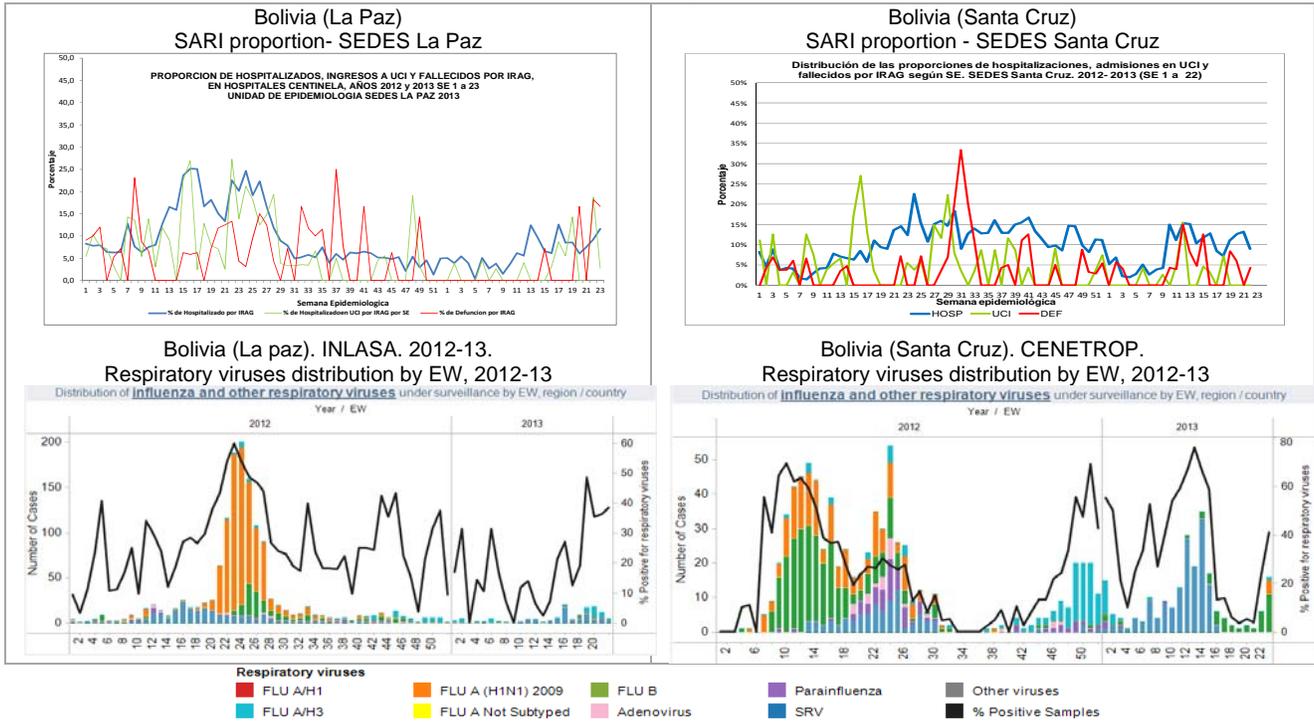
**Nicaragua and Panama**



**South America – Andean countries**

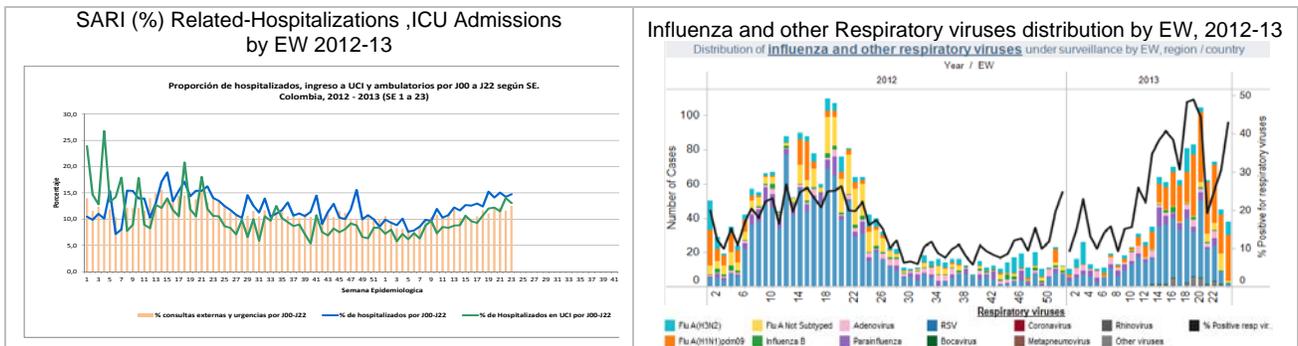
In Bolivia, according to data from Santa Cruz, during EW 22 the proportion of SARI hospitalizations (9%) was lower than the previous week. According to laboratory data from CENETROP (Santa Cruz), among 64 samples analyzed between EWs 22-23 of 2013, the percent positivity for all influenza viruses was 34%. Influenza B (17/22) continued to be the most prevalent respiratory virus. In La Paz, in EW 23, the proportion of SARI hospitalizations increased as compared to the previous week. According to laboratory data from INLASA (La Paz), among 116 samples processed in EWs 22-23 of 2013, the percent positivity for all respiratory viruses was 48%, and for influenza viruses was 40%. Among the positives samples, influenza A(H3N2) (61%), RSV (18%) and influenza B (14%) were the predominant respiratory viruses identified.

**Bolivia**



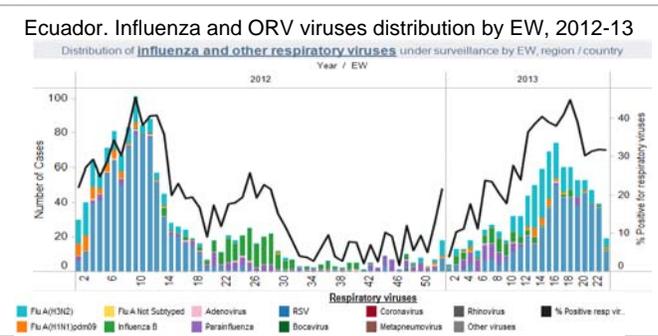
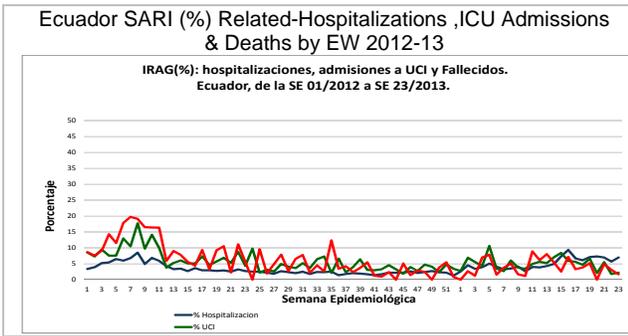
In Colombia, nationally, in EW 23, the proportions of ARI outpatients-J codes (12.5%), SARI hospitalizations (14.7%) and SARI ICU admissions (13.1%) continued to show an upward trend. According to the national laboratory data (INS), among samples viruses analyzed (n=436) in EW 22-23, the positivity was 27% for all respiratory viruses and 17% for influenza viruses, with predominance of influenza A(H1N1)pdm09 (48%), followed by RSV (25%).

**Colombia**



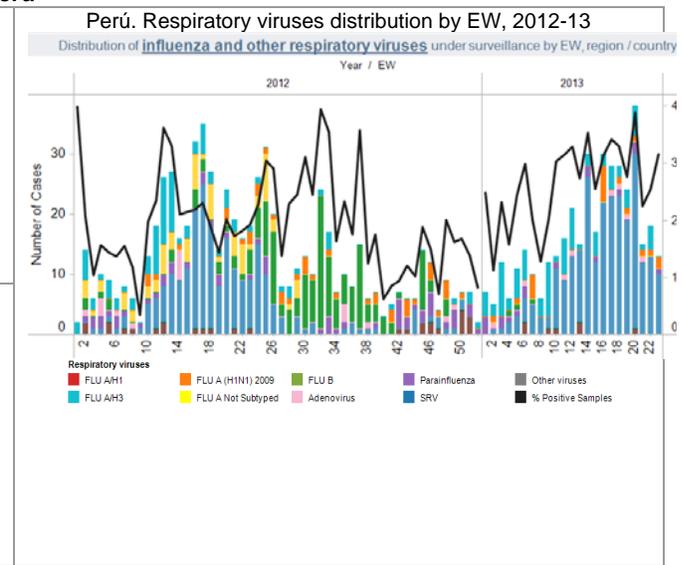
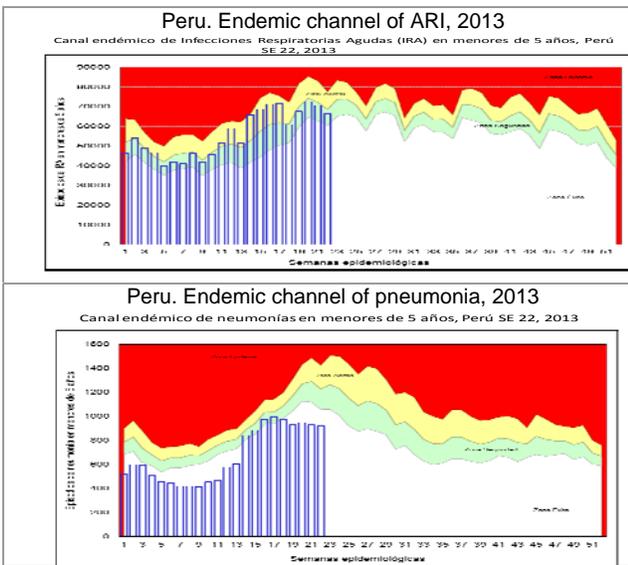
In Ecuador, the proportion of SARI hospitalizations during EW 23 (6%) remained similar to the previous week. According to national laboratory data from the national laboratory (NIH), among 1836 samples tested between EWs 22-23, the percent positivity was 32% for respiratory viruses and 12% for influenza viruses. Among all the positive samples, RSV (84%) and influenza A(H3N2) (15%) were the predominant viruses. Among SARI cases, in EWs 22-23, similar characteristics were observed.

**Ecuador**



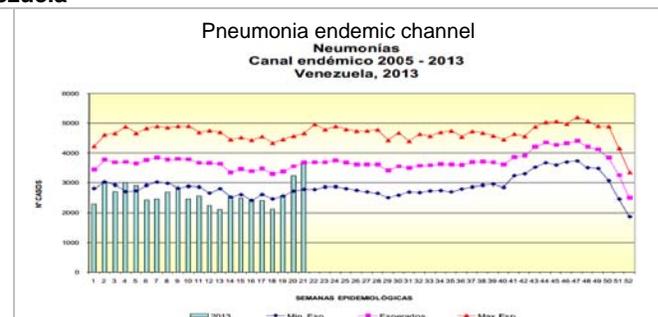
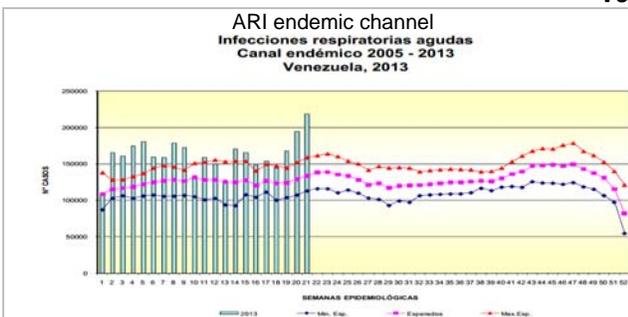
In Peru<sup>6</sup>, nationally, in EW 22, the number of ARI and pneumonia cases in children less than 5 years of age remained similar as compared to the previous week and were within the expected level and with a slight decreasing trend. According to national laboratory data, during EWs 21-22, among the 112 samples analyzed, the percentage positivity was 28% for all respiratory viruses and 6% for influenza viruses. Among all the positive viruses, RSV (74%) was the predominant viruses.

**Peru**



In Venezuela<sup>7</sup>, according to data published up to EW 21, the endemic channel of ARI showed an ARI activity above the epidemic threshold for this time of the year with increasing trend. The pneumonia endemic channel showed an activity within what is expected for this time of the year, but with an increasing trend in the last 3 EWs. The highest incidences for ARI and pneumonia cases were reported in the group of children less than 7 years. Regionally, the highest numbers of pneumonia cases were reported in Zulia, Miranda, Táchira, Falcon, Lara, Barinas, Bolivar and Mérida. In virological surveillance, thus far this year up to EW 21, predominance of influenza A(H1N1)pdm09 (84.2% of the total number of positive samples) was reported, followed by influenza A(H3N2).

**Venezuela**



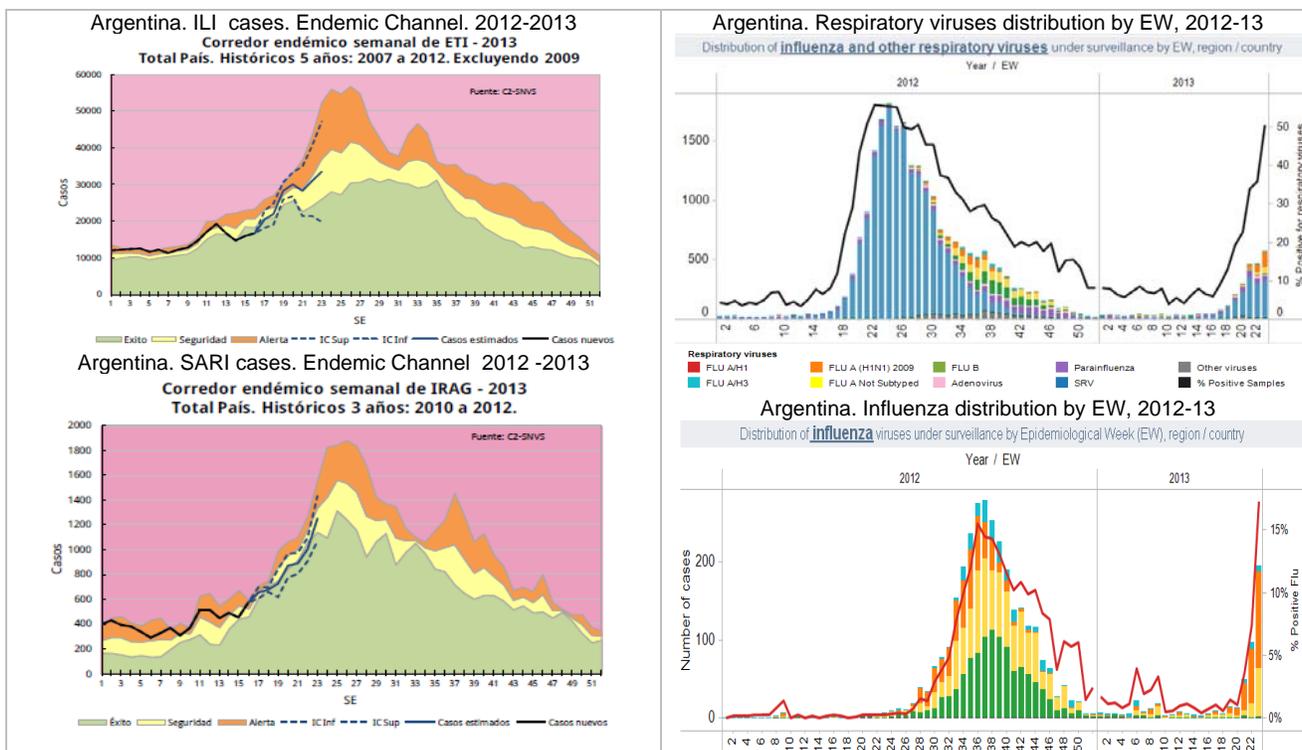
<sup>6</sup> Perú. Sala de Situación de Salud. EW 22, 2013. Ministerio de Salud. Dirección General de Epidemiología

<sup>7</sup> Venezuela. Boletín epidemiológico, SE 21, 2013.

## South America – Southern Cone

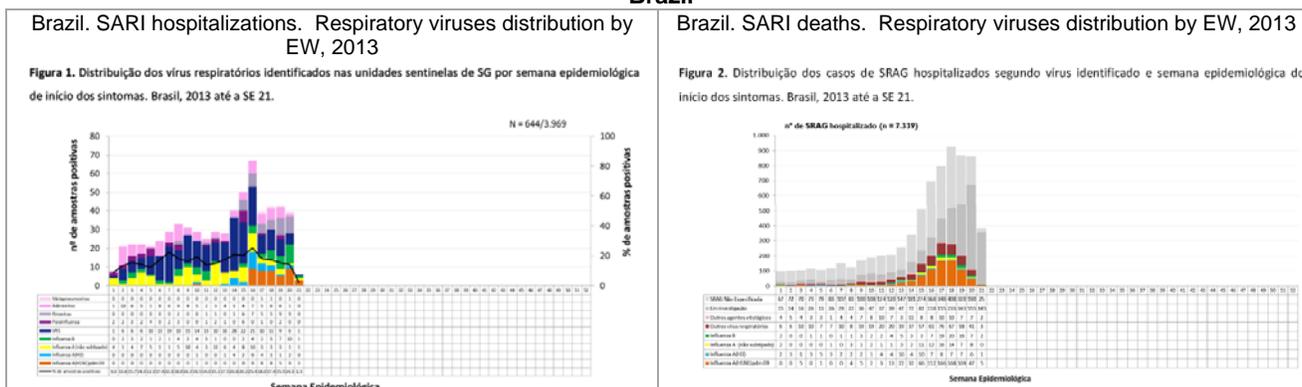
In Argentina<sup>8</sup>, according to national estimates, the activity of ILI and SARI during EW 23 were within the expected level for this time of year, with increasing trends. Regionally, the regions of Northwest and Cuyo, showed SARI rates higher than the observed last year. According to national laboratory data, 2,445 samples were processed between EWs 22-23, of which 43% were positive for all respiratory viruses and 20% for influenza viruses. Among the positive samples, 57% were RSV (the predominant virus) and 18% were A(H1N1)pdm09.

### Argentina



In Brazil<sup>9</sup>, according to the ILI sentinel surveillance system, influenza A(H1N1)pdm09, influenza B and rhinovirus were the predominant viruses, mainly in the Southeast region. In the last weeks the number of SARI cases showed an increasing trend, with predominance of influenza A(H1N1)pdm09, mainly in the Southeast region. Among SARI deaths, similar characteristics were observed.

### Brazil



In Chile<sup>10</sup>, nationally, in EW 23, the ILI activity (rate: 22.7/ 100,000 pop.) increased from the previous EW and was at the epidemic threshold in the endemic channel, and increasing trend. The percentages of urgent visits for ILI increased since EW 20, mainly in the age group 15 - 64 years old. According to national laboratory

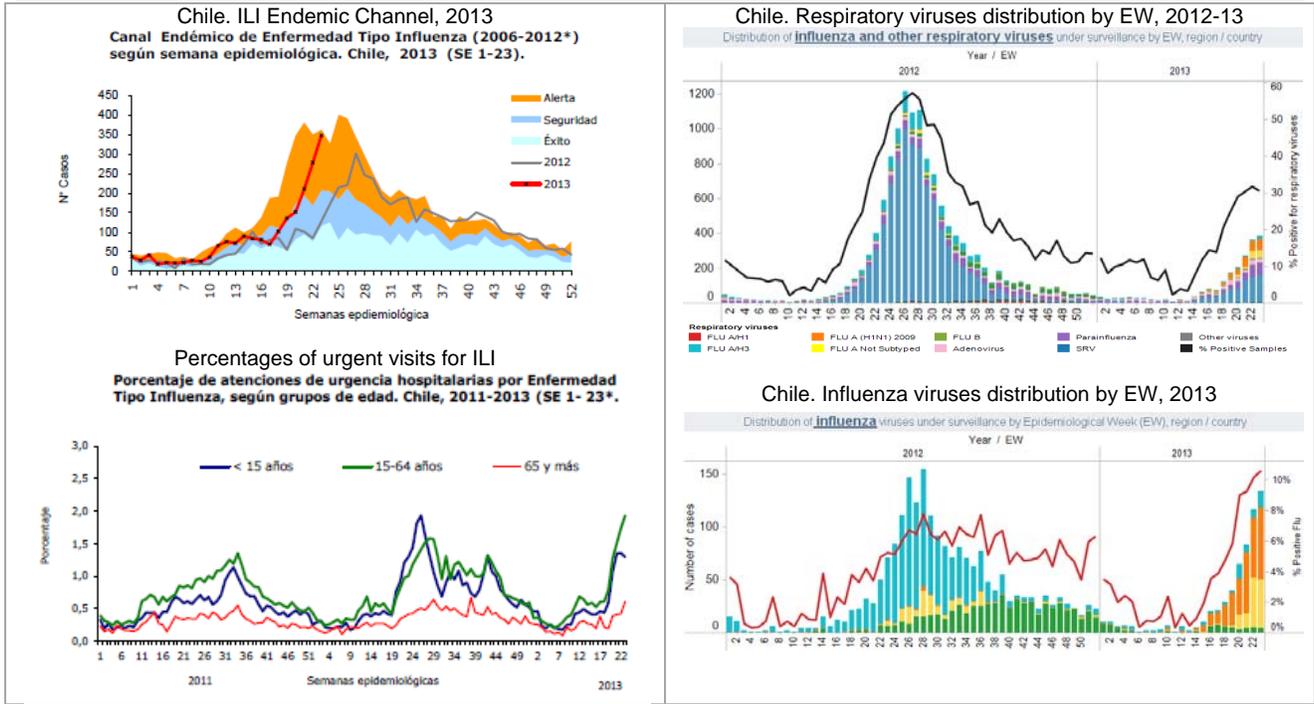
<sup>8</sup> Argentina. Boletín integrado de vigilancia. SE 22.

<sup>9</sup> Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 22, 2013.

<sup>10</sup> Chile. Informe de situación. EW 23. Disponible en: [www.pandemia.cl](http://www.pandemia.cl)

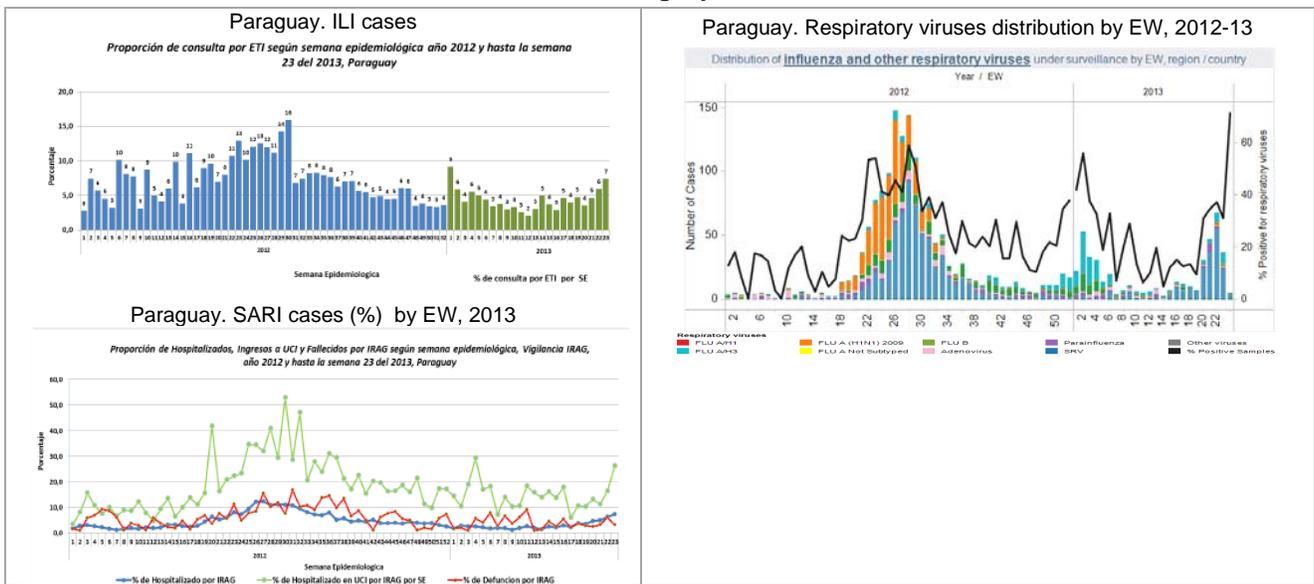
data, in EWs 22-23, 2,405 samples were analyzed, of which 31% were positive for respiratory viruses and 10% for influenza viruses. Among the positive samples, 40% were RSV, which was the most prevalent virus, followed by parainfluenza (18%), influenza A(H1N1)pdm09 (17%) and influenza A not subtyped (12%). Among SARI cases in EWs 22-23 (n=239), RSV and influenza A(H1N1)pdm09 were the most prevalent viruses detected.

### Chile



In Paraguay<sup>11</sup>, nationally in EW 23, the ILI consultation rate (135/100,000 hab) increased as compared to the last week. The ILI proportion (7.4%) and the proportion of SARI-related hospitalizations (7.3%) in the sentinel sites remained increasing as compared to the previous weeks. According to data from the national laboratory, among 289 samples processed between EWs 22-23, 35% were positive for respiratory viruses and 7% for influenza viruses. Among the positive samples, RSV (76%) and influenza A(H3N2) (15%) were the most predominant virus followed by A(H1N1)pdm09. Among the 109 samples from SARI cases, RSV also predominated.

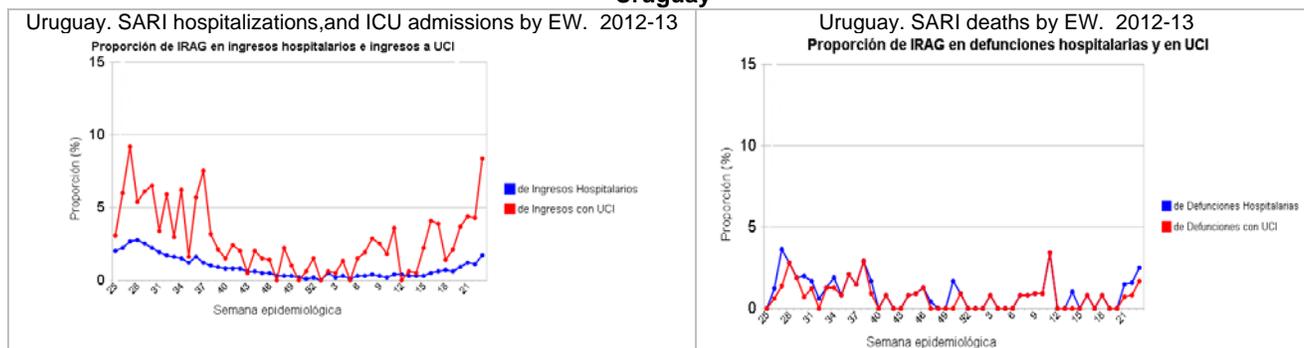
### Paraguay



<sup>11</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 23, 2013

In Uruguay<sup>12</sup>, at the national level, the proportions of SARI hospitalizations and SARI-related ICU admissions in EW 23, increased as compared to the previous week, and remaining the increasing trend since EW 15. According to data from the national laboratory, among 46 samples processed between EWs 22-23, 26% were positive for respiratory viruses and 4% for influenza viruses. RSV was the most predominant virus.

### 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>12</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública