



## Regional Update EW 11, 2013

### Influenza and other respiratory viruses (March 26, 2013)

PAHO interactive influenza data: [http://ais.paho.org/hip/viz/ed\\_flu.asp](http://ais.paho.org/hip/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:** in Canada, the number of influenza cases detected and influenza like illness (ILI) activity continued to decline, however the proportion of influenza B virus detections increased. In the US, influenza activity remained elevated but decreased in most areas. ILI activity declined since EW 10 and the proportion of deaths attributed to pneumonia and influenza was above the expected level for this time of year. In Canada and the US, among all age groups, those 65 years of age and older had the highest influenza-associated hospitalization rates. Influenza B has been increasing in the last weeks and now is 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:** similar or decreased respiratory virus activity was reported in this sub-region as compared to previous weeks. In this sub-region, generally, co-circulation of influenza B, influenza A (H3N2) and influenza A (H1N1) pdm09 continued. Among other respiratory viruses, RSV was the predominant circulating virus in some countries.
- **South America:** Acute respiratory infection (ARI) activity was within the expected levels for this time of the year. A slight increasing trend was observed in the Southern Cone and Santa Cruz (Bolivia). In the Andean countries, RSV was the predominant circulating virus. In South America, there was a predominance of adenovirus and influenza A virus.

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

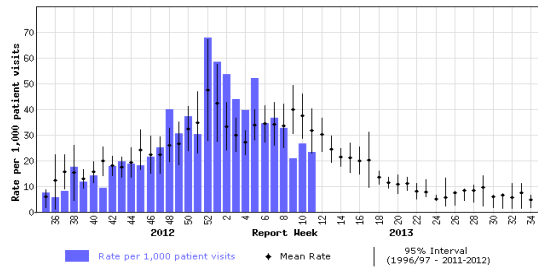
##### North America

In Canada<sup>1</sup>, in epidemiological week (EW) 11, the overall number of influenza cases detected continued to decline however the proportion of influenza B virus detections increased. The national influenza-like-illness (ILI) consultation rate decreased from 26.5 ILI consultations per 1,000 patient visits in EW 10, to 23.2 in EW 11 and was within the expected range. The highest consultation rate was reported in children 5-19 years of age (68.6/1,000). Among influenza-associated hospitalizations, the highest proportion of hospitalizations continued to be among adults' ≥65 years of age (69.2% of adult hospitalizations reported through the PCIRN-SOS network in EW 11). Among the total samples analyzed, the proportion of influenza positive samples decreased from 13.1% in EW 10 to 12.2% in EW 11. During EW 11, 44.6% of the positive influenza cases were influenza A (22.6% influenza A (H3), 20.8% were A (H1N1) pdm09) and 56.6% influenza A unsubtype). The proportion of influenza B detections has increased over the past 8 weeks from 2.1% in EW 03 to 55.4% in EW 11. As for the other respiratory viruses, the percent positivity decreased for RSV, from 17.6% in week 10 to 15.4% in EW 11, however, the percentage of positive tests increased for all other viruses: rhinovirus (9.4%), hMPV (5.2%), coronavirus (4.2%), parainfluenza (4.1%) and adenovirus (1.9%). Among the characterized influenza viruses this season, the majority have been the vaccine strains (100% of the H1N1pdm09 cases, 100% of the H3N2 cases, and 80% of the influenza B cases).

<sup>1</sup> Flu Watch Report. EW11. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

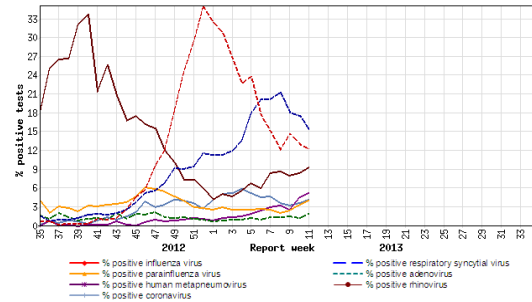
## Canada

**Figure 7. Influenza-like illness (ILI) consultation rates, Canada, by report week, 2012-2013 compared to 1996/97 through to 2011/12 seasons (with pandemic data suppressed)**

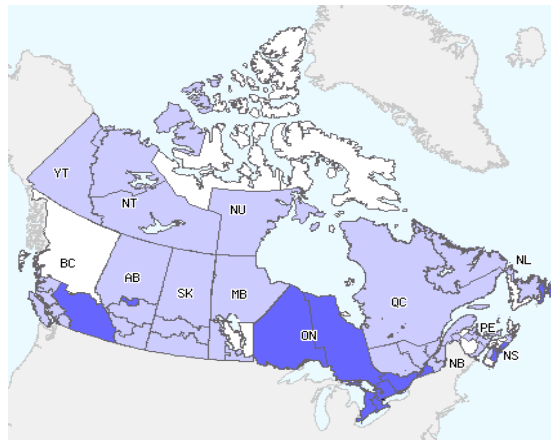


**Note:** No data available for mean rate in previous years for weeks 19 to 39 (1996-1997 through 2002-2003 seasons). Delays in the reporting of data may cause data to change retrospectively.

**Figure 5. Percent positive influenza tests, compared to other respiratory viruses, Canada, by reporting week, 2012-2013**



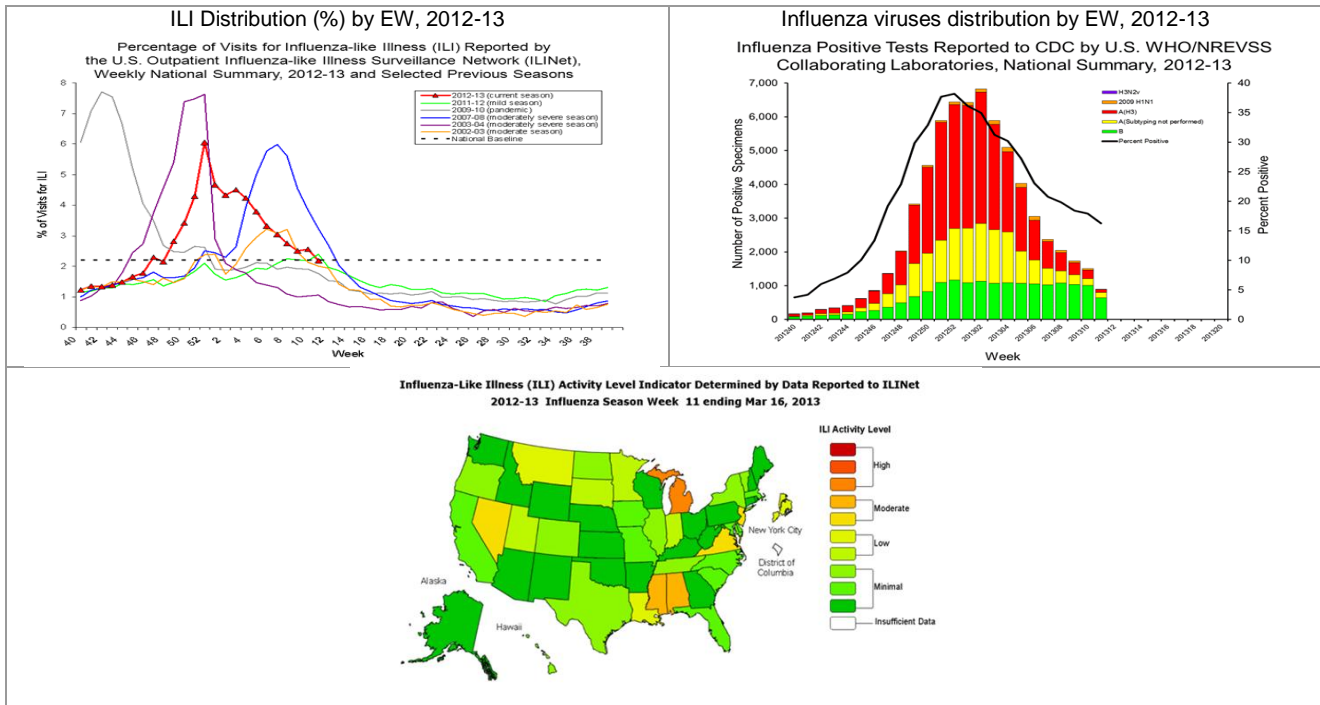
Map of overall influenza activity level by province and territory Canada EW11



In the United States<sup>2</sup> in EW 11, influenza activity remained elevated, but decreased in most areas. Nationally the proportion of ILI consultations (2.2%) decreased as compared to the previous week. This ILI-percentage was at the national baseline of 2.2%; 3 of 10 Regions reported a proportion of outpatient visits for ILI above their region-specific baseline levels. One state (Michigan) experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 11 (7.6%) was above the epidemic threshold for this time of year (7.5%). In EW 11, six influenza-associated pediatric deaths were reported (one associated with A (H1N1), and five with influenza B). From October 1, 2012 to March 16 2013, 11,307 laboratory-confirmed influenza-associated hospitalizations were reported. This was a rate of 40.6 per 100,000 population, with the highest rates in those 65 years of age and older (51% of the reported cases). Among all samples tested during EW 11 (n=5,526), the percentage of samples positive for influenza (16.3%) continued to decrease. Nationally, among the positive samples, 28.1% were influenza A [34.4% A (H3N2), 4.7% A (H1N1) pdm09 and 60.9% influenza A untyped] and 71.9% influenza B. Among the characterized influenza viruses this season, the majority have been the vaccine strains (97.9% of the A (H1N1) pdm09 cases, 99.6% of the A (H3N2) cases, and 70.7% of the influenza B cases). Since October 1, 2012, n=2,590 influenza samples have been tested for resistance to neuraminidase inhibitors (oseltamivir and zanamivir), two (0.5%) A (H1N1) pdm09 and one (0.1%) (H3N2) oseltamivir-resistant viruses have been reported to date this season.

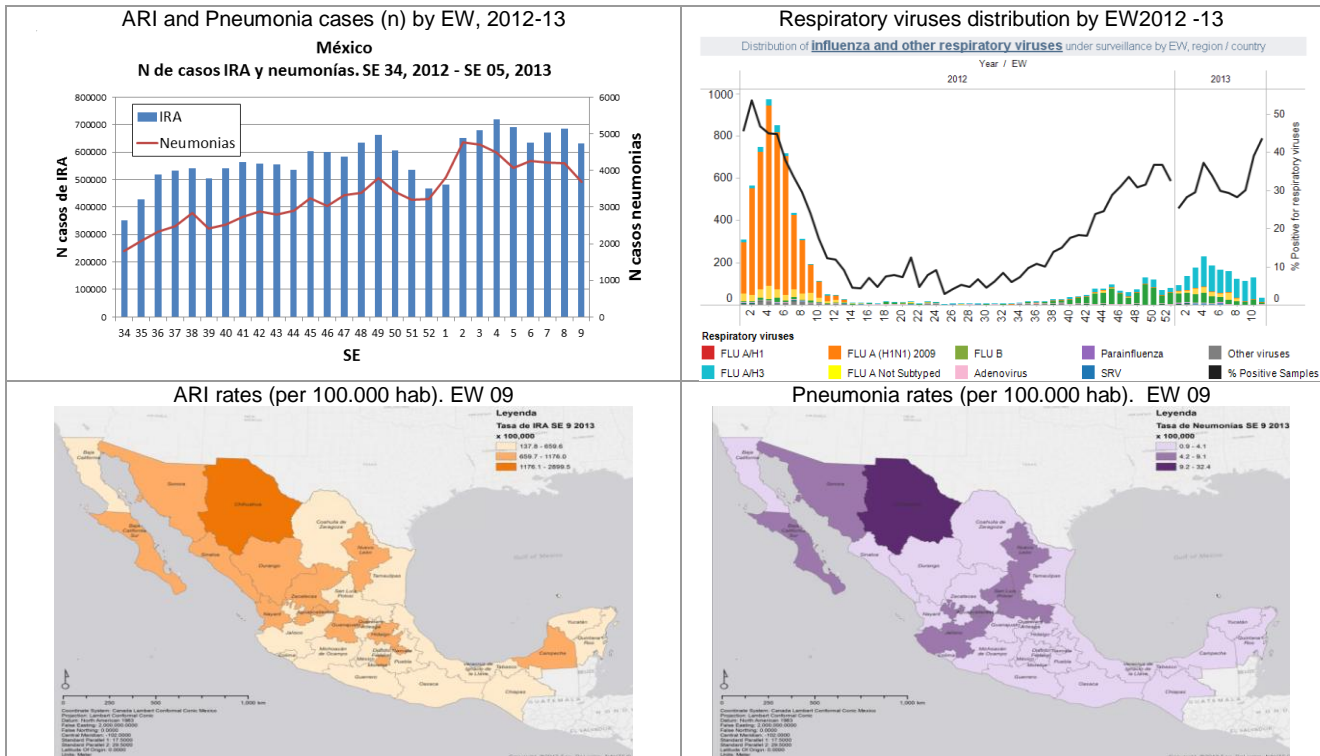
<sup>2</sup> USA: CDC FluView report. EW 11. Available at: <http://www.cdc.gov/flu/weekly/>

## United States



In Mexico, nationally in EW09, the number of ARI cases (n= 632,348) decreased 8% as compared to EW 08; the number of pneumonia cases (n= 3,682) decreased by 12.4% since EW 08. Regionally, the states that reported the highest rates of pneumonia per 100,000 habitants of in EW 09 were: Sonora (8.9), Jalisco (8.5), Aguascalientes (6.3), Nuevo Leon (6.1). According to laboratory data, in 2013, between EW 08-11, among the samples tested (n=1262) the percent positivity for influenza viruses was 32.4%. In EW 08-11, among the positive influenza cases 84.9% were influenza A (75.6% influenza A (H3N2), 0.5% influenza A(H1N1)pdm09, 5.9% influenza A unsubtype) and 15.2% were influenza B.

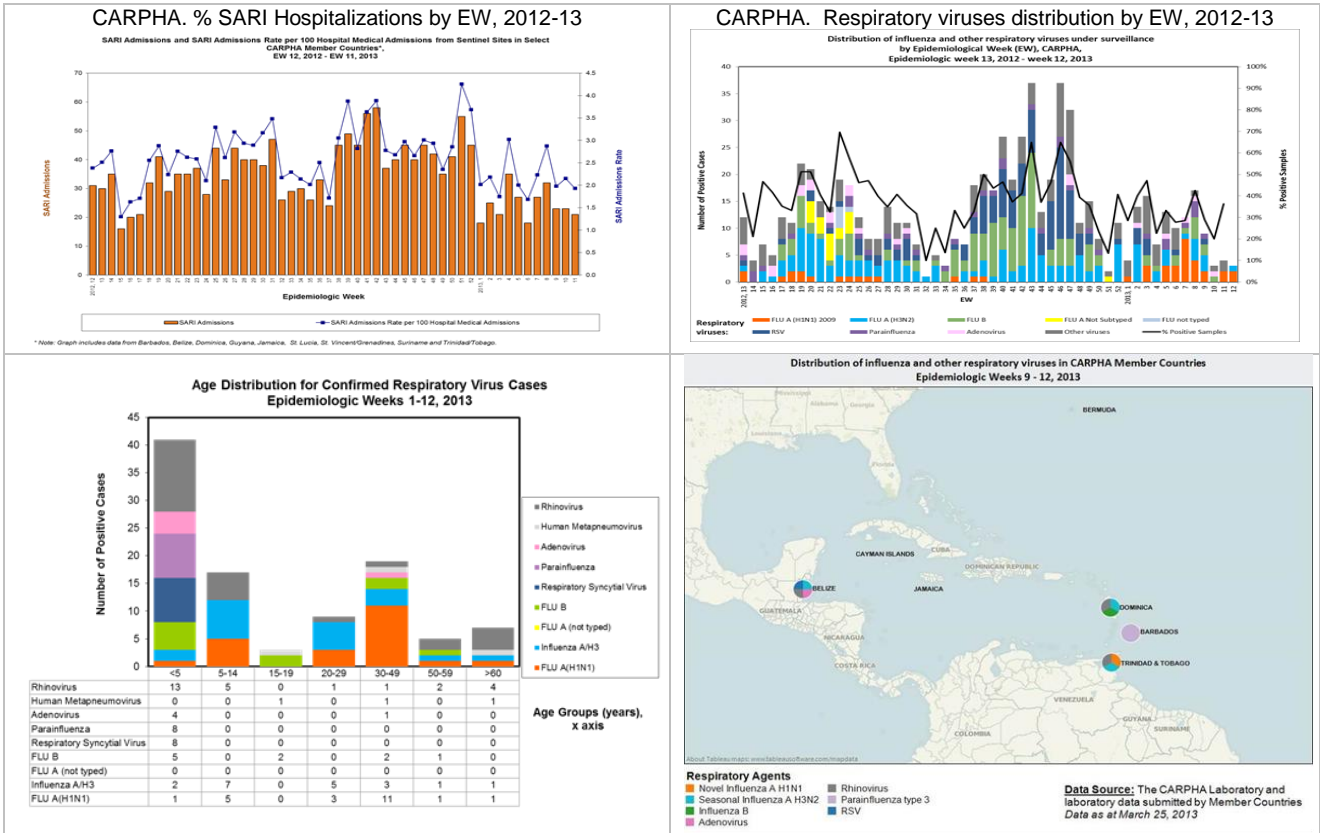
## Mexico



**Caribbean**

CARPHA<sup>3</sup> received weekly SARI/ARI data from 6 countries for EW 11, 2013: Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 11, 2013, the proportion of SARI hospitalizations was 1.9%. The highest rate of SARI was among children 6 months to 4 years of age (5.3%). No SARI-related deaths were reported from the region in EW 11. In 2013, for cases with dates of symptom onset between EW 09 and EW 12, the following viruses were laboratory confirmed in member countries: adenovirus (Belize); influenza B (Dominica); influenza A(H1N1)pdm09 (Trinidad & Tobago); parainfluenza type 3 (Barbados); rhinovirus (Belize, Dominica, Trinidad & Tobago); RSV (Belize); influenza A(H3N2) (Belize, Dominica, Trinidad & Tobago). For cases with dates of symptom onset in 2013, the overall percentage positivity for specimens tested was 33.6%. In 2013, to date, the CARPHA laboratory has confirmed 112 cases as positive for one or more respiratory agent.

**CARPHA**

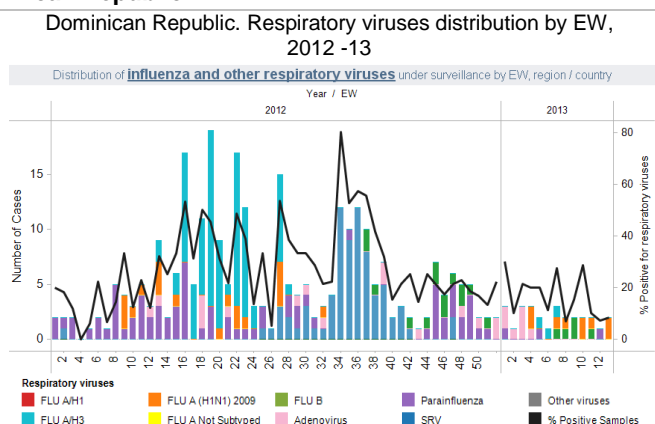
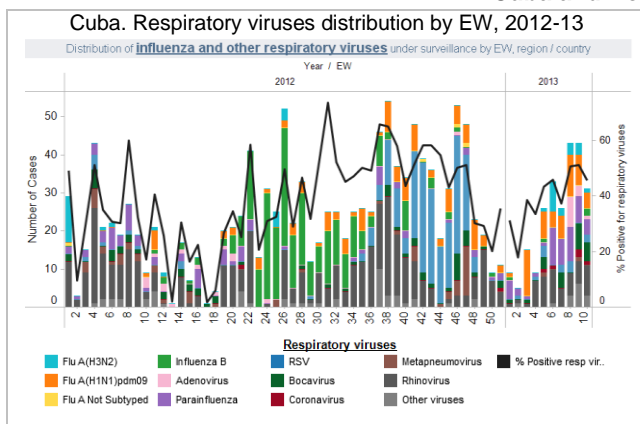


In Cuba, according to national laboratory data, among all samples analyzed in EW 11 (n=42), the percent positivity for respiratory viruses was 50.6% and was 8.4% for influenza viruses. According to the epidemiological report of EW 11, 64.2% of the samples received were of SARI patients and 19% were of ILI patients. The highest numbers of SARI cases were in children between 1 to 4 years old, followed by children under 1 year. No SARI-related deaths were reported during EW 11.

In the Dominican Republic, according to laboratory data, from EWs 10 to 13, 65 samples were analyzed. The percent positivity for respiratory viruses was 13.5% and 11.7% for influenza viruses. Influenza A (H1N1)pdm09, influenza B and parainfluenza were identified.

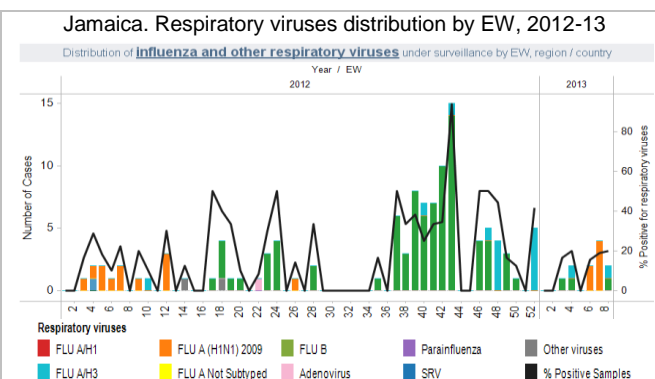
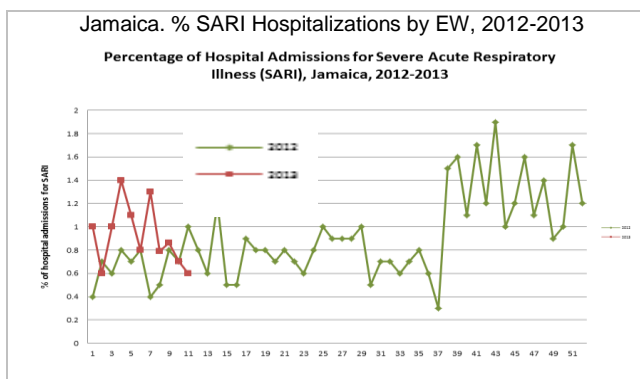
<sup>3</sup> Caribbean Public Health Agency (CARPHA) EW 11

## Cuba and Dominican Republic



In Jamaica for EW 11, the proportion of ARI consultations was 4.8% (0.2% decrease from EW 10). The proportion of SARI admissions was less than 1% and remained stable compared to the previous week. There were no SARI-related deaths reported during EW 11. No virological data was reported.

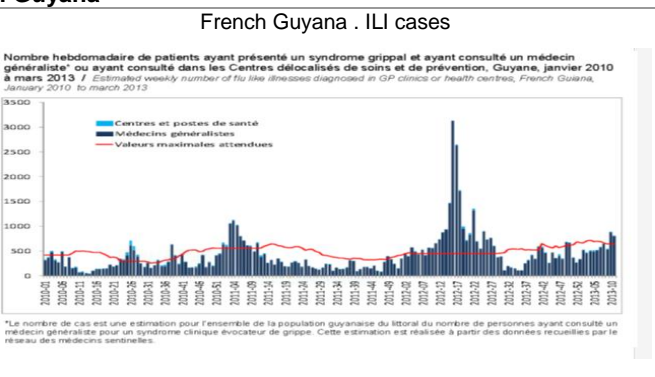
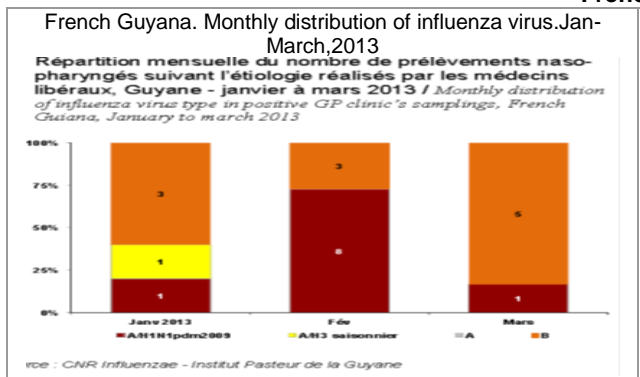
### Jamaica



In French Territories:

In French Guyana<sup>4</sup>, there was moderate influenza activity during the first two months of the year. However this activity intensified during the first half of March (SE 10 and 11), showing a 40% increase in the number of ILI consultations, higher than expected for this time of year. Influenza A (H1N1) and influenza B were detected during this period.

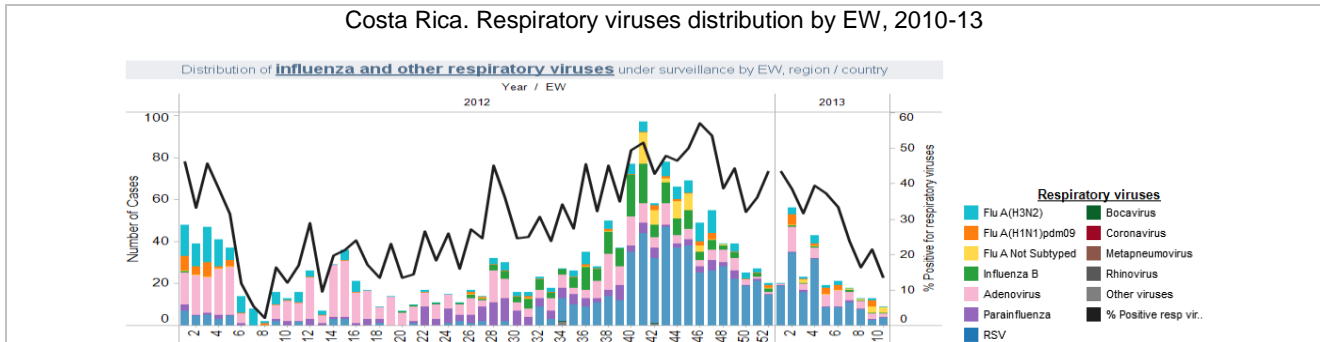
### French Guyana



<sup>4</sup> Guyana. Le point épidémiologique EW11— N° 02 / 2013. CIRE Antilles Guyana

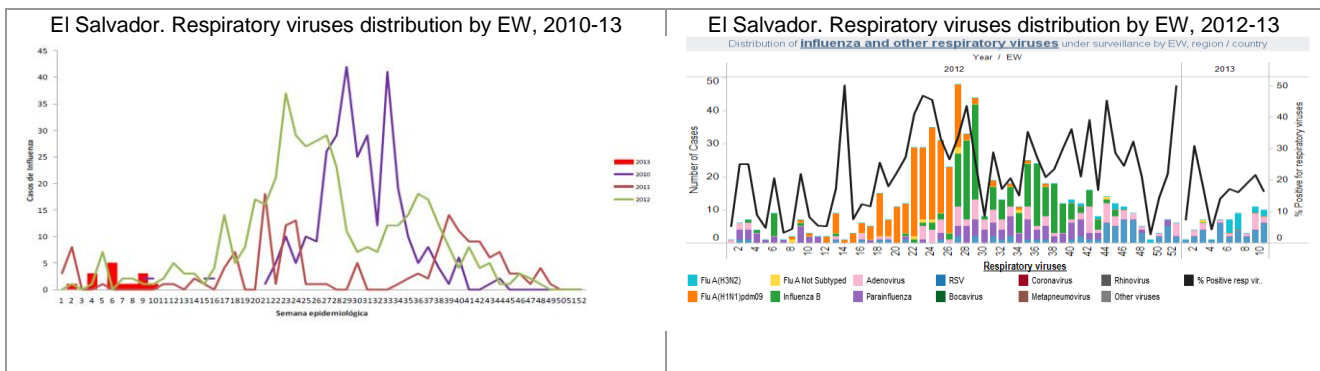
## Central America

In Costa Rica, according to laboratory data between EW 07-10, 2013, among all samples tested (n =284), the percent positivity for respiratory viruses was 18.7% and for influenza viruses was 4.6% and showed no significant changes. During the period between EW 07-10, RSV continued to be the most prevalent virus followed by adenovirus. Among influenza viruses, influenza A predominated (mainly influenza A unsubtype).



In El Salvador, according to national laboratory data, in EWs 07-10, among all the samples analyzed (n = 185), the percentage of positivity for respiratory viruses was ~ 17.8% and 4.9% for influenza virus (influenza A (H3N2)). RSV predominated (16/33) followed by influenza A (H3N2) (9/33) and adenovirus (8/33)

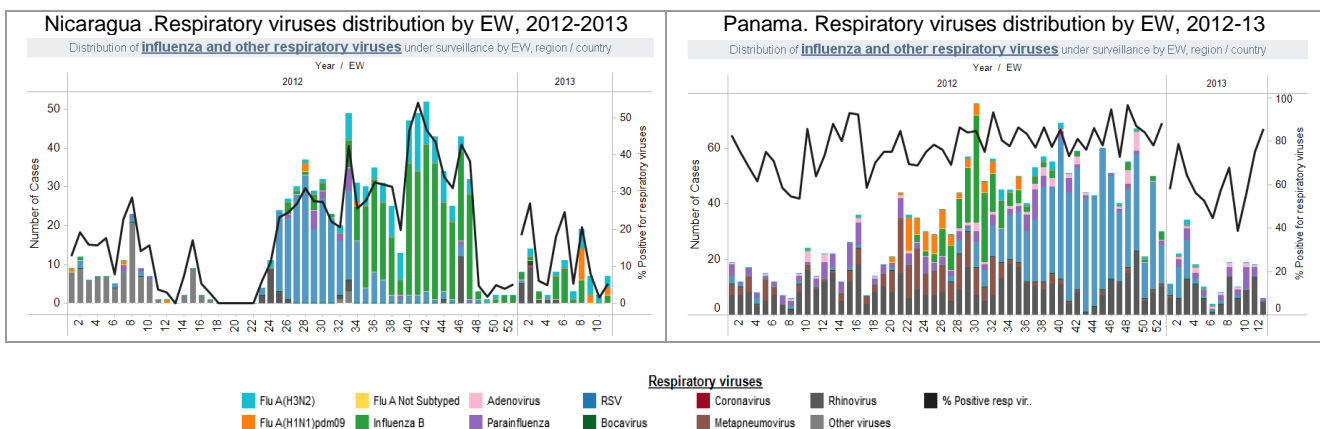
## El Salvador



In Nicaragua, nationally, during the period between EWs 08-11, among the 455 samples analyzed, the percent positivity was 7.7% for influenza viruses. Among the total positive samples, 77% were influenza A, (65% influenza A (H3N2) and 44% influenza A (H1N1) pdm09), and 23% were influenza B.

In Panama, according to national laboratory data from EWs 09-12, of all samples tested (n =38), 58% were positive for respiratory viruses and none were positive for influenza viruses. Parainfluenza was the most prevalent virus followed by adenovirus.

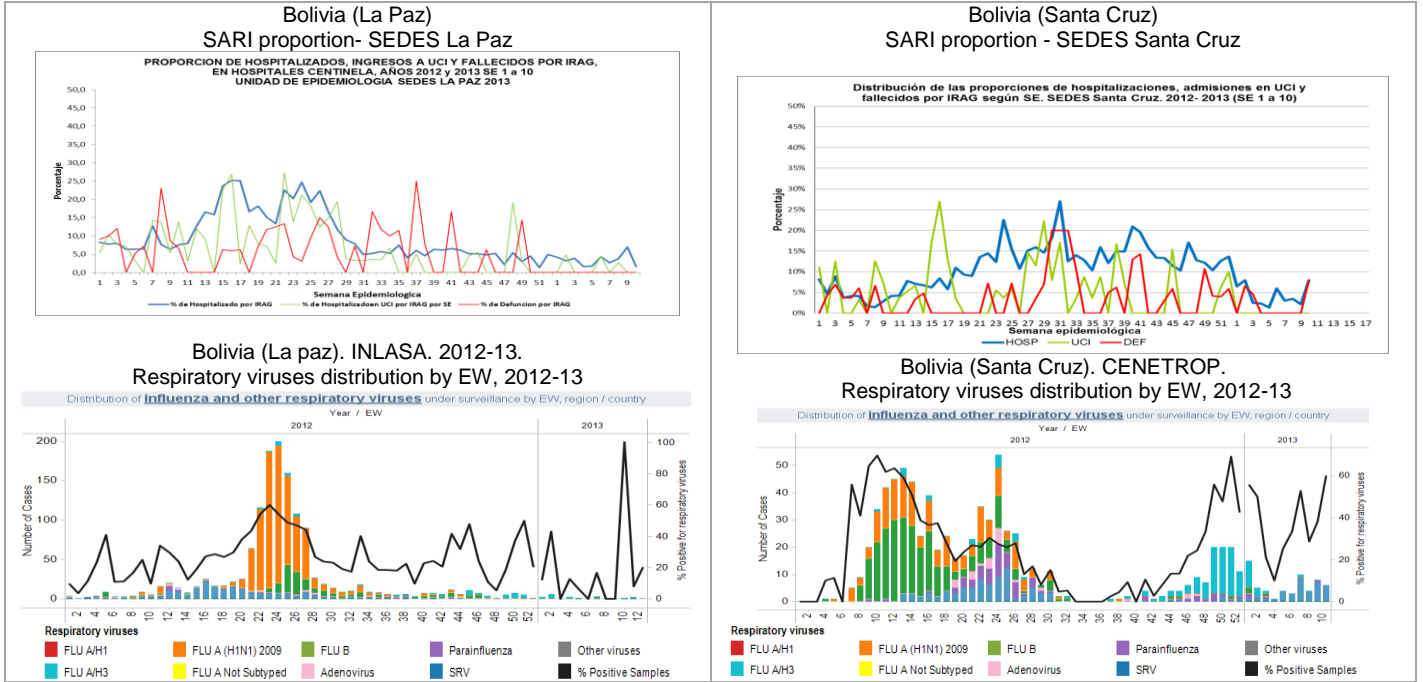
## Nicaragua Panama



**South America – Andean countries**

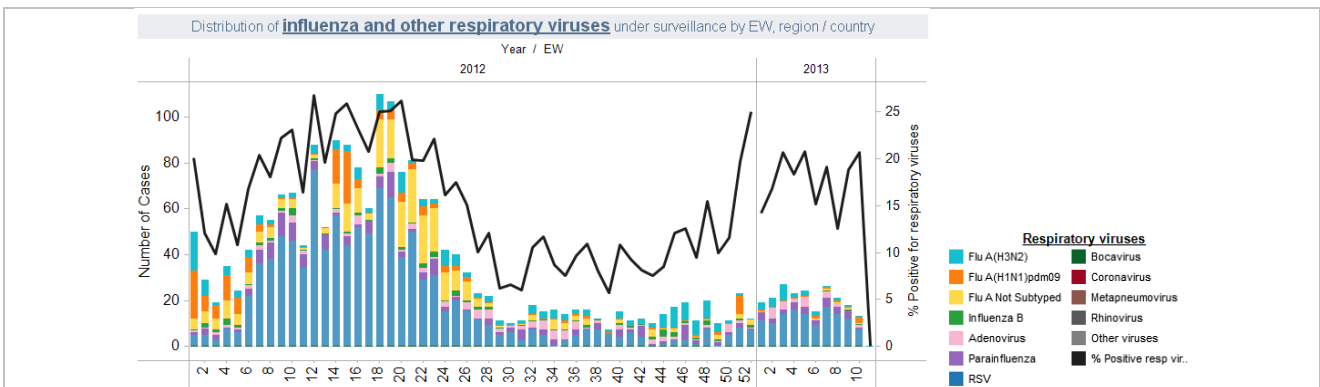
In Bolivia, data from Santa Cruz indicated that during EW 11 the proportion of SARI hospitalizations was higher during (11%) than that observed in the previous EW. According to laboratory data from CENETROP (Santa Cruz), among 241 samples processed between EWs 10-11 of 2013, the percent positivity for all respiratory viruses was 67% (predominantly RSV). No influenza viruses were detected. Data from La Paz indicated that the proportion of SARI hospitalizations increased slightly during EW 11 (3.4%) as compare to EW10. No SARI-related deaths were reported. According to laboratory data from INLASA La Paz, among 26 samples processed between EWs 10-11 of 2013 RSV was predominant.

**Bolivia**



In Colombia, nationally during EW 11, the proportion of ILI outpatient visits (10%) and SARI hospitalizations (10%) showed no significant changes from EW 10. According to the national INS laboratory, which includes data from the Departments of Bogotá, Antioquia and Nariño, among 53 samples analyzed during EW 10-11 of 2013 the percent positivity was 20% for all respiratory viruses, and 6% for influenza viruses. RSV was predominant among all the positives.

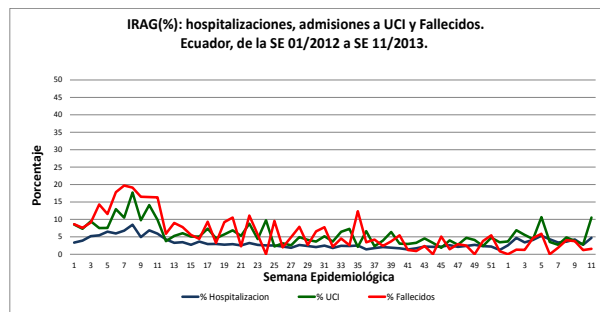
**Colombia**



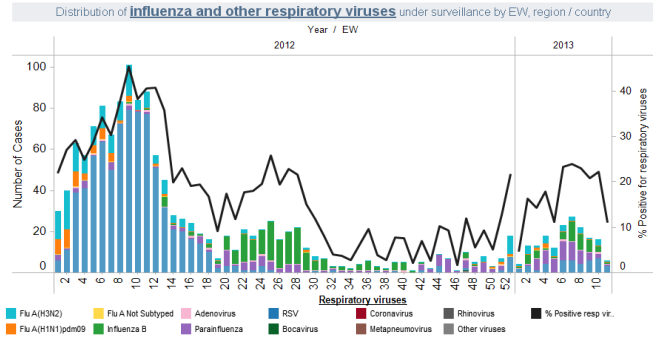
In Ecuador, the proportion of SARI hospitalizations (5%) remained without significant changes in EW 11 as compared to the previous weeks. One SARI-related death was reported in the coastal region of the country. According to national laboratory data from the NIH, 137 SARI samples were analyzed between EWs 10-11 of 2013, of which 17% were positive for respiratory viruses and 6% were positive for influenza viruses. Among all the positive samples, RSV was the most dominant virus.

## Ecuador

Ecuador SARI (%) Related-Hospitalizations ,ICU Admissions & Deaths by EW 2012-13



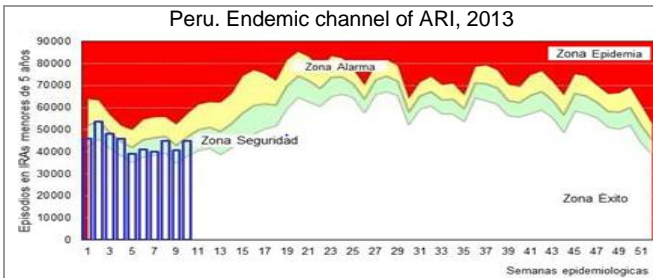
Ecuador. Respiratory viruses distribution by EW, 2012-13



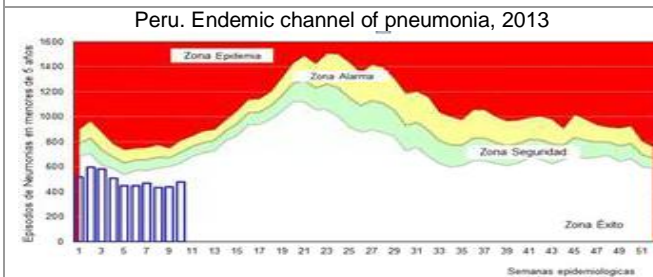
In Peru<sup>5</sup>, nationally, in EW 10 of 2013, the number of ARI cases in children under 5 years of age was within the expected level for this time of the year. The number of pneumonia cases in children under 5 years of age was within the endemic channel levels of success. According to national laboratory data, during EWs 09-10 of 2013, among the 120 samples analyzed, the percentage positivity was 25% for all respiratory viruses and 10% for influenza. RSV (48%) and influenza A (H3N2) (40%) were the most prevalent viruses during this time.

## Peru

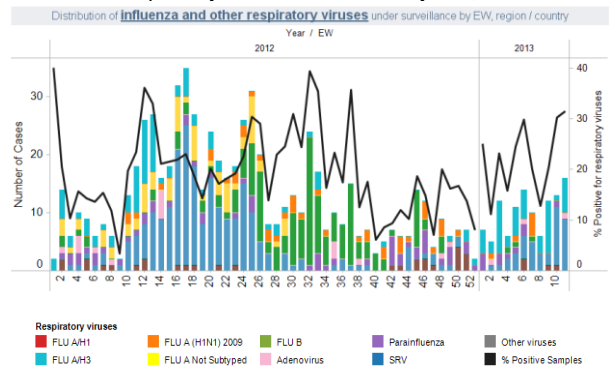
Peru. Endemic channel of ARI, 2013



Peru. Endemic channel of pneumonia, 2013



Perú. Respiratory viruses distribution by EW, 2012-13



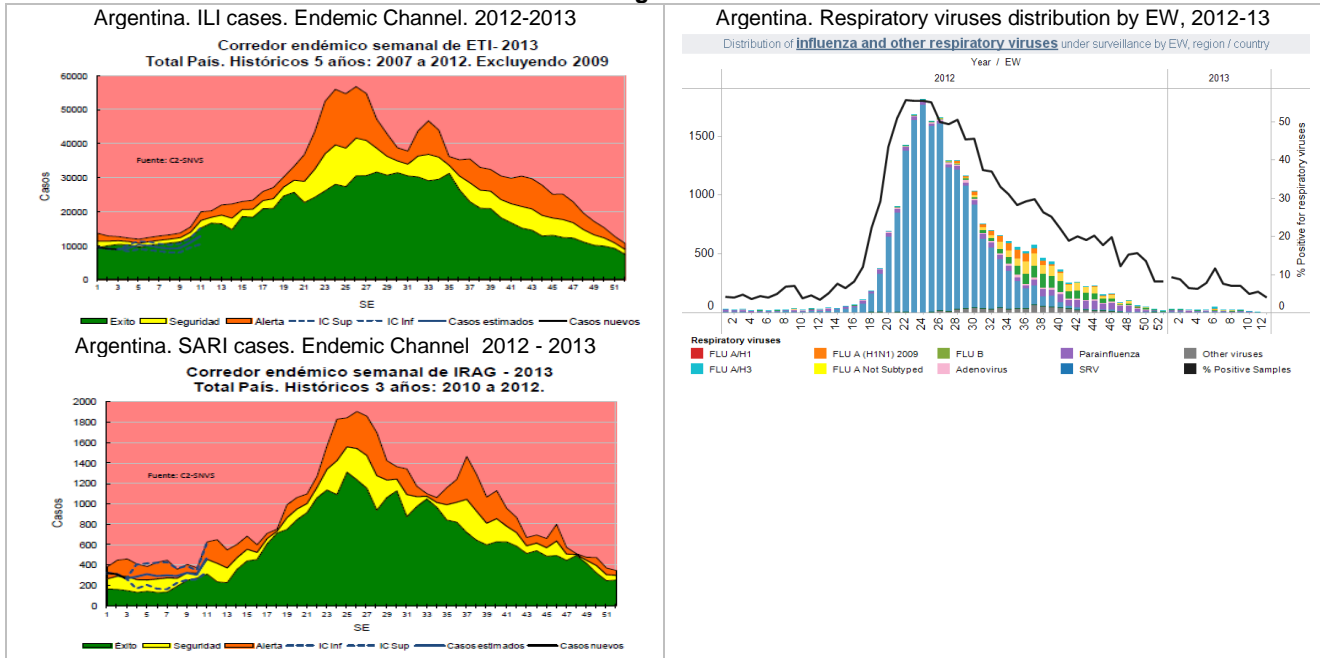
## South America – Southern Cone

In Argentina, nationally, ILI activity in EW 11 was within the safety zone of the endemic channel. The number of SARI hospitalizations in EW 11 was at the epidemic threshold. According to laboratory data 382 samples were processed between EWs 10-11 of 2013, of which 5% were positive for all respiratory viruses and 1% for influenza viruses. Adenovirus predominated (5/19).

<sup>5</sup> Perú. Sala de Situación de Salud. EWs 10-11, 2013. Ministerio de Salud. Dirección General de Epidemiología

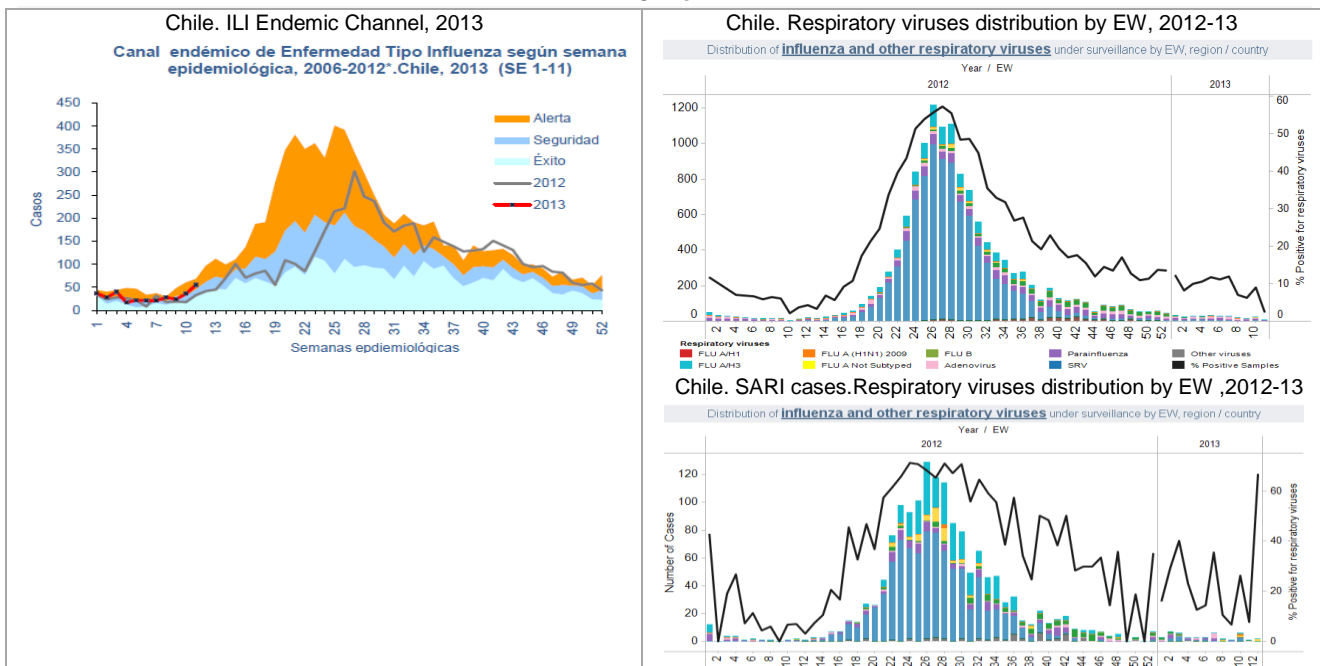


## Argentina



In Chile<sup>6</sup>, nationally in EW 11 of 2013, ILI activity (rate: 3.5/ 100,000 pop.), remained low and within the safety zone of the endemic channel (although with upward trend). The proportion of respiratory illness consultations including both in emergency room consultations (18%) and inpatient cases (11.5%) remained within the expected level for this time of the year (with an increasing trend). According to laboratory data obtained between EW 10-11 of 2013, 648 samples were analyzed, 5.2% of which were positive for respiratory viruses and 1.2% were positive for influenza viruses. Adenovirus was the most prevalent virus (35%) among the positives. In the SARI surveillance system, 16 samples were processed during the same period and both influenza A and B viruses have been identified.

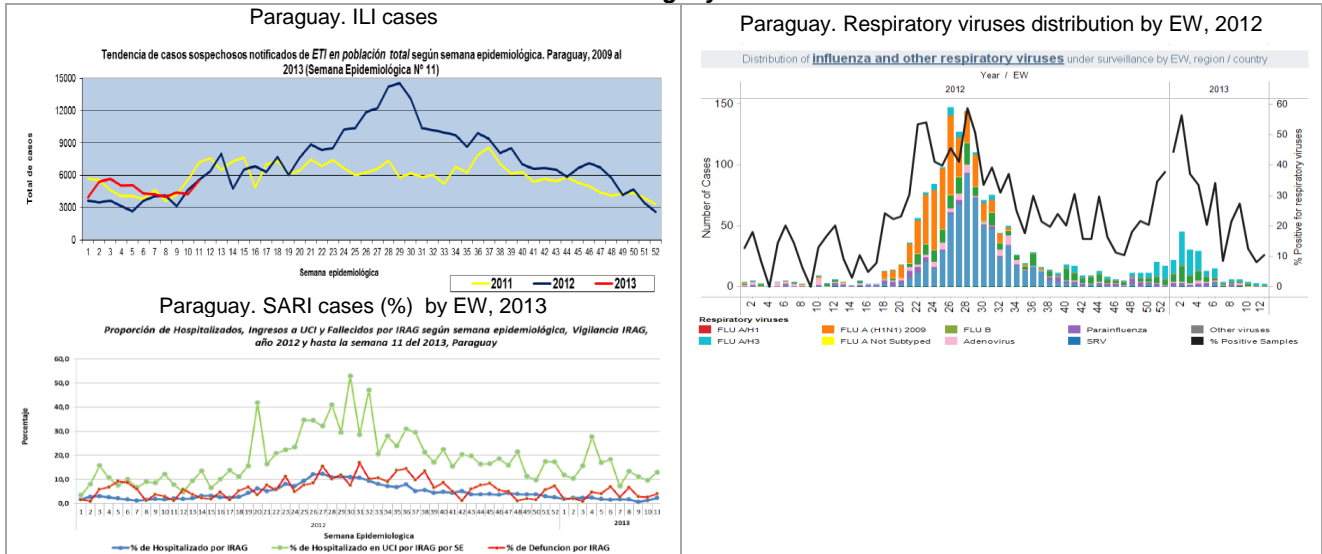
## Chile



<sup>6</sup> Chile. Informe de situación. EW11. Disponible en: [www.pandemia.cl](http://www.pandemia.cl)

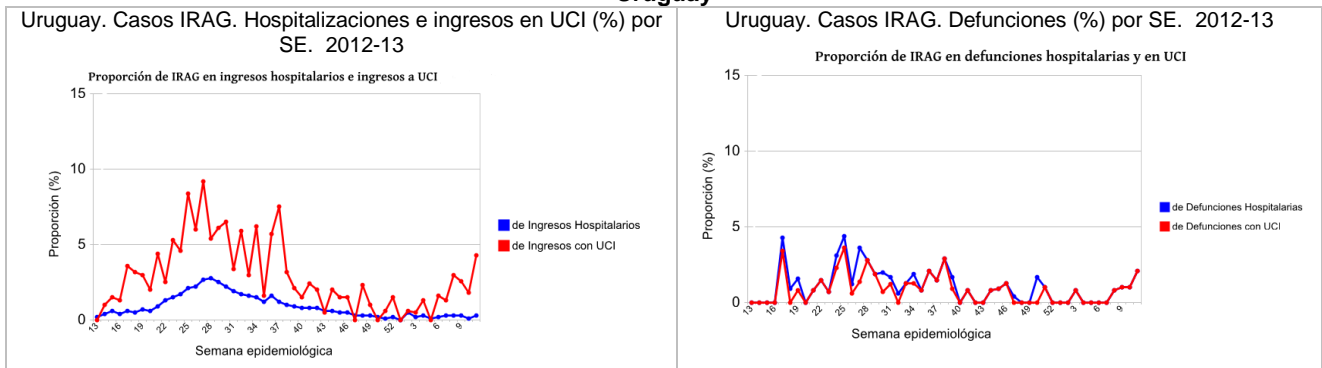
In Paraguay<sup>7</sup>, nationally, the ILI rate (83/100.000 population) increased since the previous EW but remained within the expected range for this time of the year .However, the proportion of ILI consultations (2.6%) during EW 11 of 2013, remained low and without significant changes from the previous week. SARI surveillance in EW 11 showed that the proportion of SARI-related hospitalizations (2.2%) increased since the previous EW but remained within the expected range for this time of the year. According to the national laboratory data, among 70 samples processed between EW 10-11, 2013, the percent positivity of influenza viruses was 10 % ( no other respiratory viruses were detected). Among the positive samples, influenza A (H3N2) and influenza B were the only detected viruses. During the same period 41 SARI samples were processed. RSV and influenza A (H3N2) were mainly detected.

### Paraguay



In Uruguay<sup>8</sup>, The proportion of SARI-related hospitalizations in EW 11 was at low levels, without significant changes from the previous week. However, there was an increase SARI-ICU admissions and the SARI-related deaths over the past three weeks.

### Uruguay



<sup>7</sup> Paraguay. Informe de situación. DGVS. EW 11, 2013

<sup>8</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública