



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

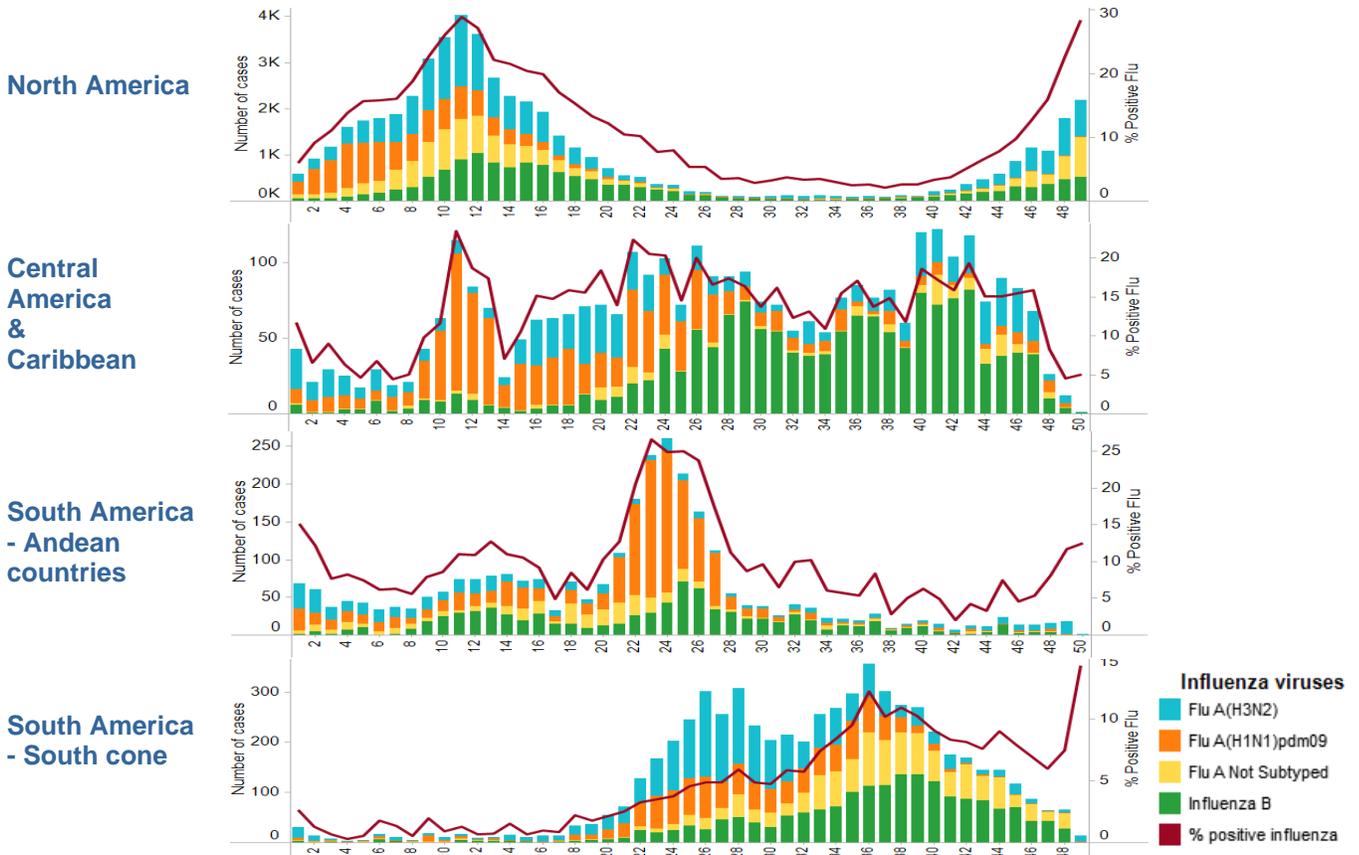
Influenza Regional Reports: [www.paho.org/influenzareports](http://www.paho.org/influenzareports)

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.

**1. WEEKLY SUMMARY**

- **North America:** influenza activity continued to increase in Canada & US, with increases in most of the influenza indicators. In Mexico, the percentage of positive samples for influenza viruses remained high and similar to the previous weeks. Influenza A(H3) was predominant in Canada and United States, while influenza B was predominant in Mexico. In US, an influenza A(H3N2) variant virus (H3N2v) was reported in EW 49. Among other respiratory viruses, RSV remained increasing in Canada & US.
- **Central America and the Caribbean:** high respiratory infection activity or increased respiratory viruses detection (% of positivity) were observed in some countries of this sub-region (Cost Rica and Panama). Among the influenza viruses, influenza B (Barbados, Costa Rica, Dominica, Dominican Republic, Nicaragua and Panama) co-circulated with influenza A(H3N2) (Barbados, Costa Rica and Nicaragua) and influenza A(H1N1)pdm09 (Cuba). Among other respiratory viruses, RSV remained as the predominant circulating virus in several countries of the region (Barbados, Costa Rica, Dominica, El Salvador and Panama).
- **South America:** severe acute respiratory disease activity remains low and unchanged in the region. Influenza activity in Argentina and Chile remained slightly higher than expected for this time of year. In Bolivia (Santa Cruz), influenza A(H3) activity increased in the last weeks. In this sub-region, co-circulation of influenza A(H3) (Argentina, Bolivia, Colombia, Ecuador, Peru), influenza B (Argentina, Chile and Peru), and influenza A(H1N1)pdm09 (Peru) was observed among reported influenza detection in the last EWs. Low detection of other respiratory viruses was reported.

**2. THE AMERICAS: DISTRIBUTION OF INFLUENZA VIRUSES BY EW, 2012**



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

#### *North America*

In Canada<sup>1</sup>, in epidemiological week (EW) 49, 2012, influenza activity increased. In EW 49, the influenza-like illness (ILI) consultation rate decreased (33.6/1,000 consultations) and was within expected levels for this time of year. One region (in Ontario) reported widespread influenza activity, 13 regions reported localized influenza activity (in British Columbia, Alberta, Ontario, Saskatchewan, Quebec, New Brunswick, and Newfoundland) and 16 regions reported sporadic activity (in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, and Yukon) with the remaining reporting no activity. In EW 49, among the total samples analyzed, the proportion of samples positive for influenza increased (17.8%); of the influenza cases, 96.4% were influenza A (46.3% influenza A(H3) and 52% influenza A untyped). Concerning other respiratory viruses, the percent positive for rhinovirus decreased (9.3%) and remained below the percent positivity for influenza; the RSV percent positivity increased (6,7%). 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 70% of the influenza B cases).

In the United States<sup>2</sup>, in EW 49, nationally the proportion of ILI consultations (2.8%) increased as compared to the previous week and was above the baseline (2.2%); and seven of ten regions [Regions 1 (northeast), 2 (northeast), 3 (northeast), 4(southeast), 5(midwest), 6(southeast) and 7(midwest)] reported a proportion of outpatient visits for ILI above their region-specific baseline levels. Eight states experienced high ILI activity (Alabama, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas) and two states experienced moderate activity (Missouri and Virginia). Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 49 (6.4%) was below the epidemic threshold for this time of year (6.9%). In EW 49, one influenza-associated pediatric deaths was reported (associated with influenza B). From 1 October to 8 December, the influenza-associated hospitalization rate was 2.4/100,000 population. Among all samples tested during EW 49 (n=7,663), the percentage of samples positive for influenza (28.3%) increased as compared to the previous week. Nationally, among the positive samples, 76.2% were influenza A [among the subtyped influenza A viruses, 98.3% were influenza A(H3)]. One novel influenza A virus cases were reported during EW 49; since July 12, 2012, a total of 312 infections with influenza A variant viruses (308 H3N2v viruses, three H1N2v viruses, and one H1N1v) have been reported from 11 states. Among the characterized influenza viruses this season, the majority have been the vaccine strains (100% of the H1N1pdm09 cases, 98.9% of the H3N2 cases, and 66.3% of the influenza B cases). Among other respiratory viruses, RSV activity remained increasing (in EW 49, the RSV positivity was ~20% among the samples analyzed).

In Mexico, according to laboratory data, in EWs 48-49, of the total samples analyzed (n=140), the percentage of positive samples for respiratory viruses remained high and similar to the previous weeks (25%). The predominant respiratory viruses detected in the last EWs was influenza B, followed by influenza A(H3).

#### *Caribbean*

CAREC, in EW 48, received epidemiological information from 4 countries: Belize, Dominica, St. Vincent and the Grenadines and Trinidad and Tobago. In EW 48, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.6% which is lower than what was reported during the prior week (3.9%). The SARI admission rate increased in Dominica and remained at the same level for two countries (Trinidad and Tobago). The highest rate of SARI was among children 6 months to 4 years age (8.7% of hospital medical admissions were due to SARI). No SARI deaths were reported from the región. In the last 4 weeks (EW 45 to 48) the following viruses have been laboratory confirmed in CAREC member countries: influenza A(H3N2) (Barbados), influenza B (Barbados, Dominica and Jamaica), parainfluenza type 2 (Cayman Islands) and respiratory syncytial virus (Barbados, Dominica and Trinidad and Tobago). To date in 2012, the overall percentage positivity for samples tested is 33%, with a 25% positivity for influenza.

In Cuba, in EW 49, according to laboratory data, the percentage of positive samples for respiratory viruses was 29% and for influenza viruses was 4.6% among the tested samples (n=65). Rhinovirus was the most predominant virus detected, followed by influenza A(H1N1)pdm09.

In Jamaica for EW 49, the proportion of consultations for ARI was 5.9% (1.2% lower than the previous EW). The proportion of admissions due to SARI was 0.9% (0.5% decrease when compared to the EW before).

There was no SARI death reported for epidemiological week 49. According to laboratory data no influenza viruses were detected among tested samples (n=10) in EW 49

In the Dominican Republic, according to laboratory data from EW 49-50, among the samples analyzed (n=39), the percent positivity for respiratory viruses was 18% and for influenza viruses was 2.6%. Parainfluenza was the most predominant respiratory virus detected, followed by influenza B and adenovirus.

In Guadalupe, in EW 49, the bronchiolitis epidemic associated to RSV circulation continued to decrease and the number of consultations remained below the epidemic threshold.

In Martinique, the epidemic of bronchiolitis associated to RSV, reported in October, has been decreasing since the beginning of November. In however, in EW 49, the number of outpatient consultations for bronchiolitis was below the expected level for this time of the year.

In Saint-Martin and Saint-Barthélemy<sup>3</sup>, in EW 49, no influenza or other respiratory virus activity was reported.

### **Central America**

In Costa Rica, in EW 49, according to laboratory data, among all samples tested (n=88), the percentage of positive samples for respiratory viruses increased from 38% (EW 48) to 44%. RSV remained as the predominant circulating virus. Among influenza viruses, co-circulation of influenza B and influenza A(H3) was observed.

In El Salvador, according to laboratory data, in EWs 48, of the total samples analyzed (n=34), 23.5% were positives for respiratory viruses, being RSV the predominant virus. This week, no influenza viruses were detected.

In Nicaragua, in EW 48, according to laboratory data, among all samples tested (n=33), the percentage of positive samples for respiratory viruses (6%) has been decreasing since its peak in EW 41. In the last weeks, influenza B has been the predominant circulating virus, followed by influenza A(H3N2).

In Panama, according to laboratory data, in the EWs 49-50, of the total samples analyzed (n=82), the percentage of positive samples for respiratory viruses was 75%, mainly associated to RSV. In the last EW, low influenza activity was reported.

### **South America – Andean**

In Bolivia, Santa Cruz, according to laboratory data from CENETROP institute, the positivity for respiratory viruses continued to increase from EW 42 (3%) to EW 49 (60%) among the tested samples (n=20 in EW 49), associated to influenza A(H3N2) as the predominant virus detected. In La Paz, Bolivia, according to SARI surveillance data, in EW 48, the percentage of SARI hospitalizations (4%) and SARI deaths (0%) remained low; however, the proportion of ICU admissions increased to 14%. According to laboratory data, in La Paz (INLASA) for EWs 47- 48, a positivity for respiratory viruses of 10% was reported among the tested samples (n=38) with predominance of influenza A(H3N2), followed by influenza B among the positives.

In Colombia, at the national level in EW 49, the proportions of SARI hospitalizations (10%) and ICU admissions (5.6%) decreased as compared to the previous EW, while the proportion of ILI consultations (10%) did not change as compared to the previous week. According to data from the INS, including the departments of Antioquia, Bogotá and Nariño, in EW 49, the respiratory virus positivity was 11% among the samples analyzed (n=11). In the last two weeks, influenza A(H3N2) and influenza B were detected.

In Ecuador, according to the SARI surveillance system, nationally in EW 49, among the samples analyzed (n = 46), the percent positivity for respiratory viruses was 11%, with detection of influenza A (H3) and parainfluenza.

In Peru<sup>4</sup>, at the national level in EW 48, the ARI endemic channel and pneumonia endemic channel in children under 5 years showed activity within expected levels for this time of year and slightly lower activity than the previous week. According to laboratory data for EW 49, nationally, among the samples analyzed (n = 37), the percent positivity for respiratory viruses was 16%, with a predominance of parainfluenza. Among

influenza viruses, in recent weeks influenza A (H1N1) pdm09, influenza A (H3) and influenza B were detected.

### **South America –Southern Cone & Brazil**

In Argentina<sup>5</sup>, at the national level, in EW 48, the estimated number of ILI and pneumonia cases remain in the safety zone. The number of SARI cases in EW 48, was similar to the reported values for 2011 and 2010. According to laboratory data, in EWs 48-49, among the tested samples (n=345), the percentage positivity for respiratory viruses (22%) remained similar to previous weeks. Influenza A was the predominant virus (specially influenza A(H3) among the subtyped samples), followed by parainfluenza and influenza B.

In Brazil, in EW 48, among the tested samples (n=35), no respiratory viruses were detected.

In Chile, in EW 48, according to laboratory data, at the national level, the percentage positivity for respiratory viruses decreased from 16% (EW 47) to 12%, among the tested samples (n=522). Influenza B was reported as the predominant virus, followed by adenovirus, human metapneumovirus, parainfluenza, influenza A(H3) and RSV. SARI surveillance reported no respiratory viruses detected in EW 49.

In Paraguay, in EW 49, the national ILI rate (62.2 / 100,000 population) declined from the previous EW, while the proportion of ILI consultations (4%) in sentinel units remained the same. According to the sentinel SARI surveillance system, the proportion hospitalizations for EW 49 was 3.1%, which was low and similar to the previous week, but there was a slight increase in the proportion of SARI ICU admissions (12%). This week there were 2 SARI deaths. According to laboratory data from the SARI surveillance system, in EW 49, few samples were positive for respiratory viruses (influenza B).

In Uruguay<sup>6</sup>, at the national level, in EW 49, the proportions of SARI hospitalizations and SARI ICU admissions showed no significant changes. No SARI deaths were reported.

## **4. SPECIAL TOPIC**

### **Novel coronavirus infection – update**

Over the past two months, nine cases of human infection with a novel coronavirus have been reported to WHO. Thus far, the cases have been reported from Jordan, Qatar, and Saudi Arabia. All patients were very ill and five died. Two clusters in Jordan and Saudi Arabia have raised the possibility of person-to-person transmission, or exposure to a common source. Investigations are ongoing to better characterize the outbreak. Additional information is available at:

[http://www.who.int/csr/disease/coronavirus\\_infections/update\\_20121130/en/index.html](http://www.who.int/csr/disease/coronavirus_infections/update_20121130/en/index.html).

Based on the current situation and available information:

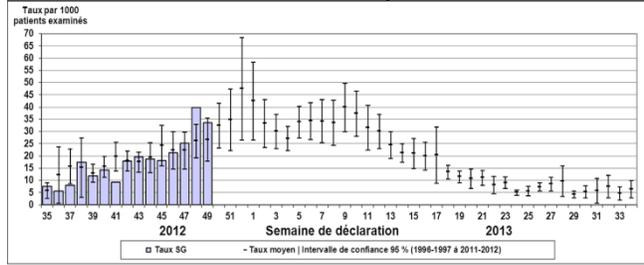
- Member States should continue their surveillance for severe acute respiratory infections (SARI) and carefully review any unusual patterns of illness
- Testing for the new coronavirus in patients with unexplained pneumonias should be considered, especially in persons residing in or returning from the Arabian peninsula and neighboring countries. Any new cases should be promptly reported both to national health authorities and to WHO.
- Any clusters of SARI or SARI in health care workers should be thoroughly investigated, regardless of where in the world they occur. These investigations will help determine whether the virus is distributed more widely in the human population beyond the three countries that have identified cases.
- WHO does not advise special screening at points of entry with regard to this event nor does it recommend that any travel or trade restrictions be applied

5. GRAPHS

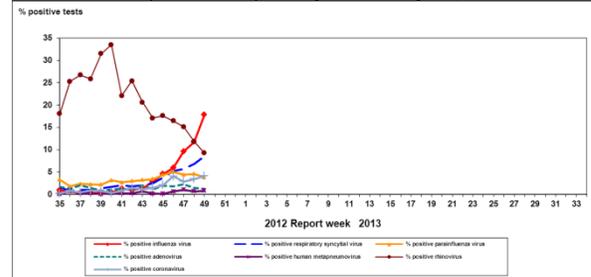
North America

Canada

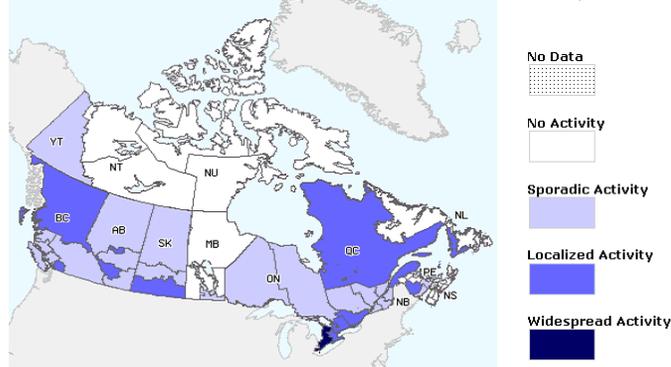
Canada. ILI rate distribution by SE, 2012-2013



Positive samples for respiratory viruses by SE, 2012-2013



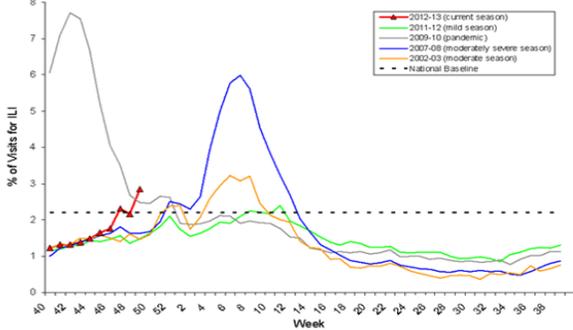
Map of overall Influenza activity level by province and territory, Canada



United States

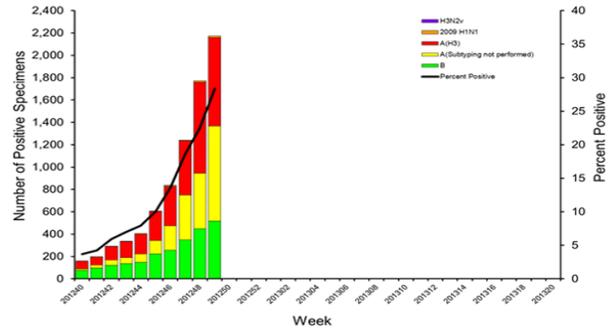
E.E.U.U. ILI Distribution (%) by EW, 2012

Percentage of Visits for influenza-like illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2012-13 and Selected Previous Seasons

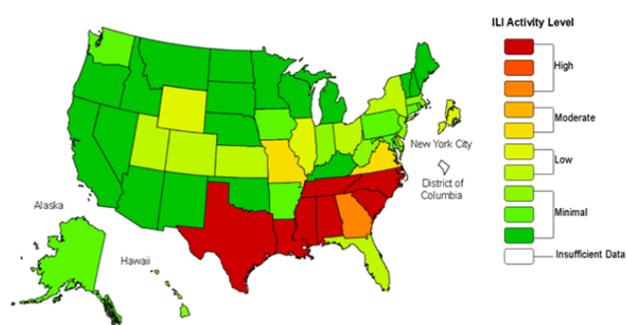


E.E.U.U. Influenza viruses distribution by EW, 2012

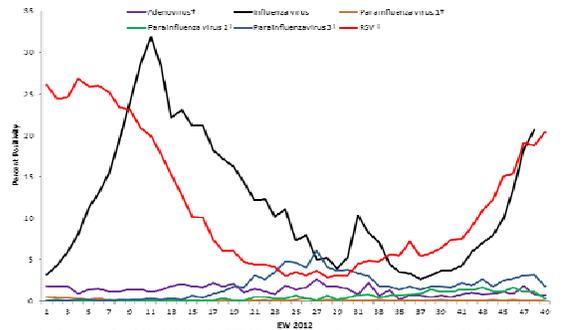
Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2012-13



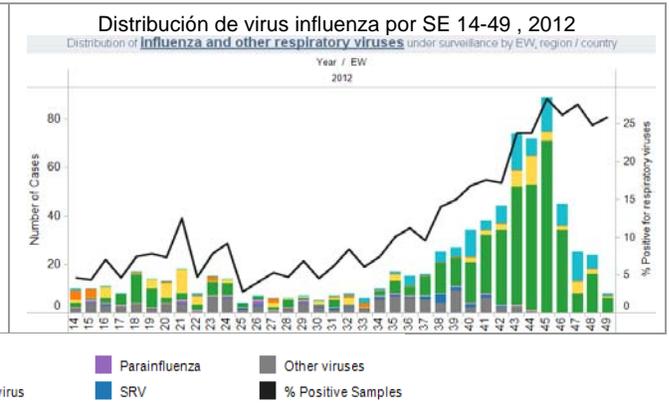
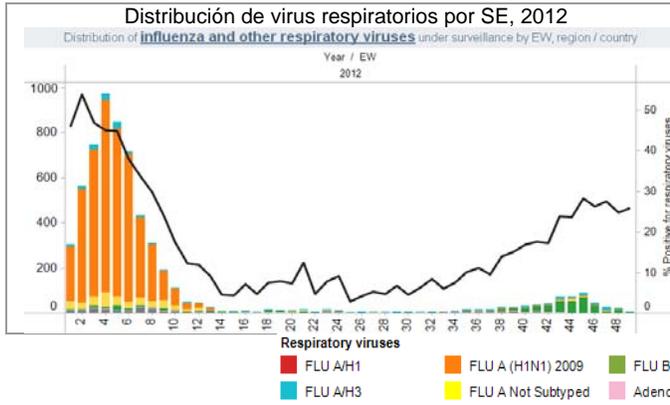
Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2012-13 Influenza Season Week 49 ending Dec 08, 2012



Percent Positivity for Respiratory Viruses Under Surveillance\*—United States, EW1–49 2012

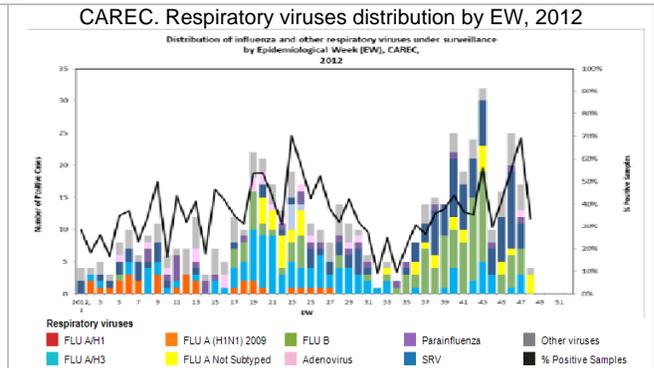
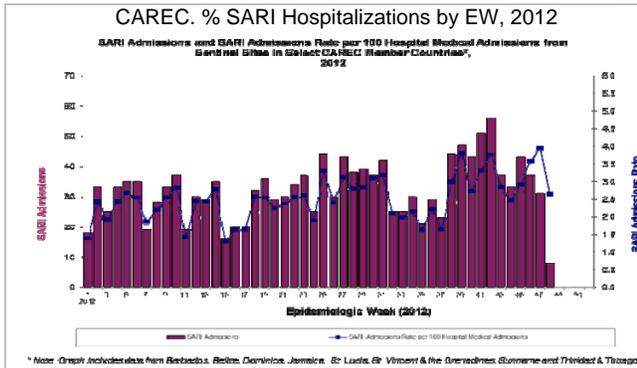


Mexico

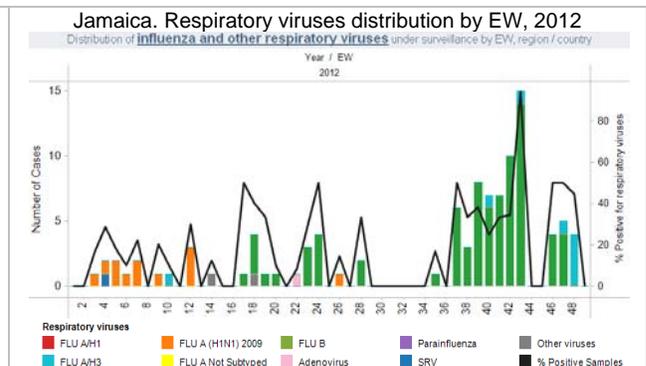
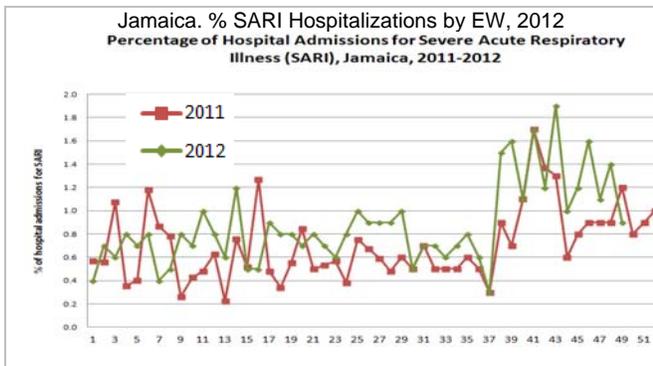


## Caribbean

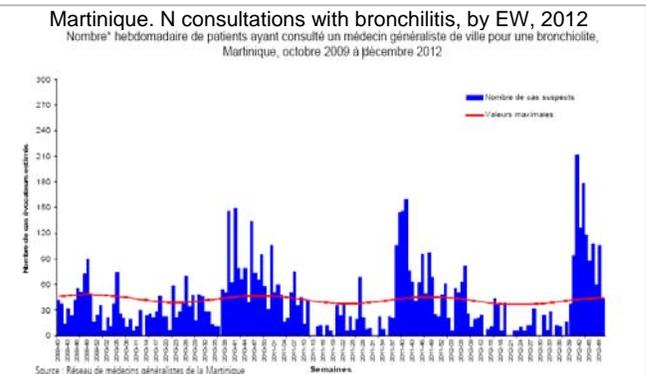
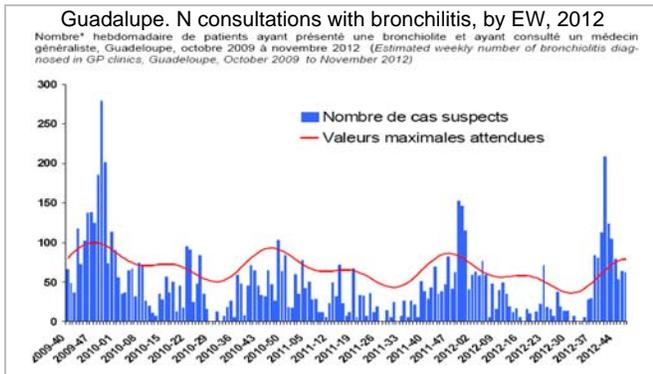
### CAREC



### Jamaica

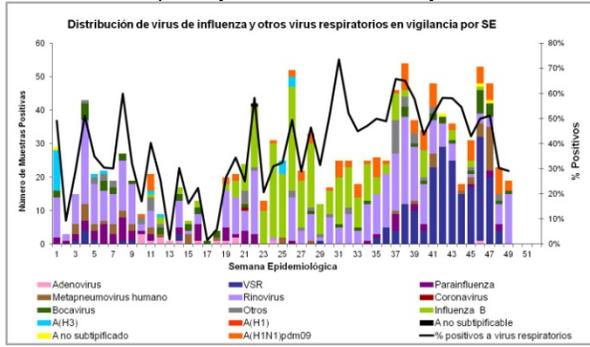


### Guadalupe and Martinique

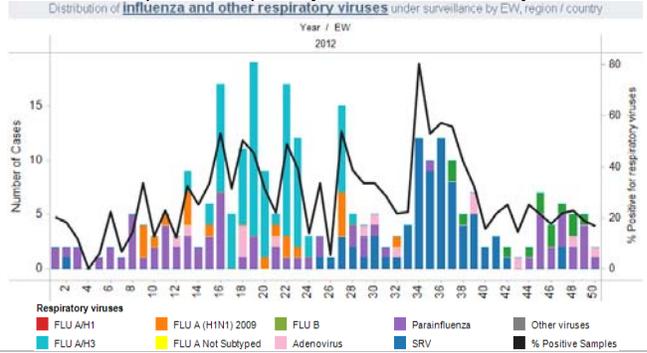


### Cuba and Dominican Republic

Cuba. Respiratory viruses distribution by EW, 2012



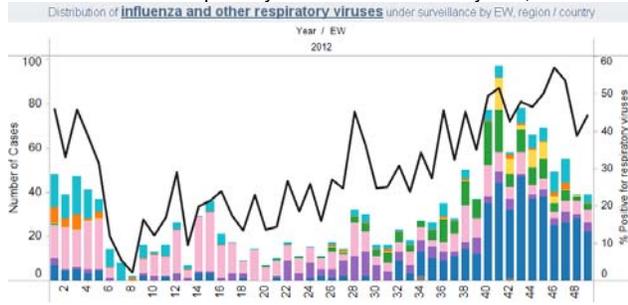
Dominican Republic. Respiratory viruses distribution by EW, 2012



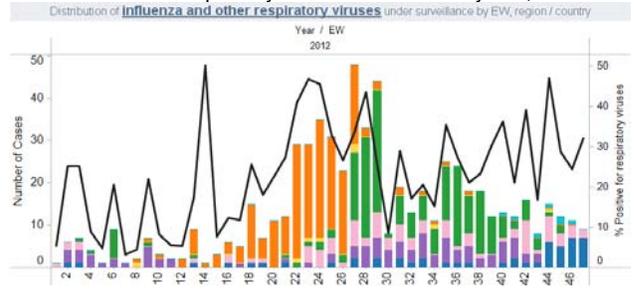
## Central America

### Costa Rica, El Salvador, Nicaragua and Panama

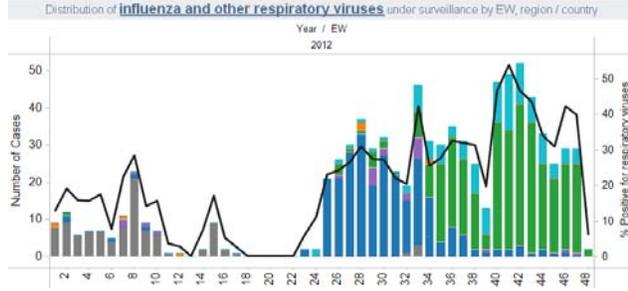
Costa Rica. Respiratory viruses distribution by EW, 2012



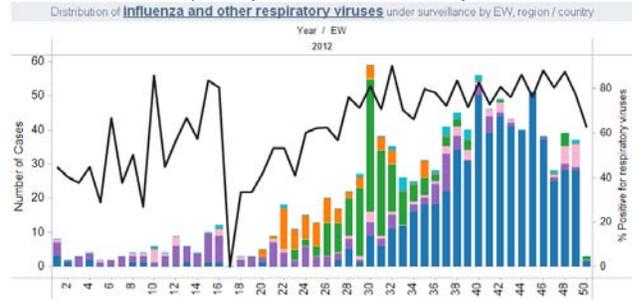
El Salvador. Respiratory viruses distribution by EW, 2012



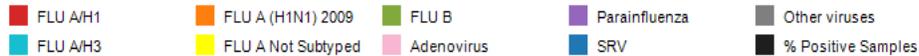
Nicaragua. Respiratory viruses distribution by EW, 2012



Panama. Respiratory viruses distribution by EW, 2012



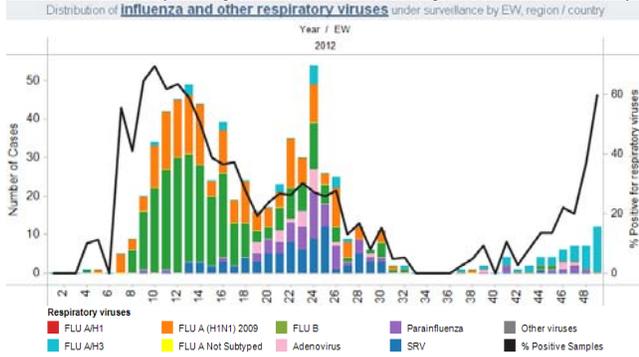
#### Respiratory viruses



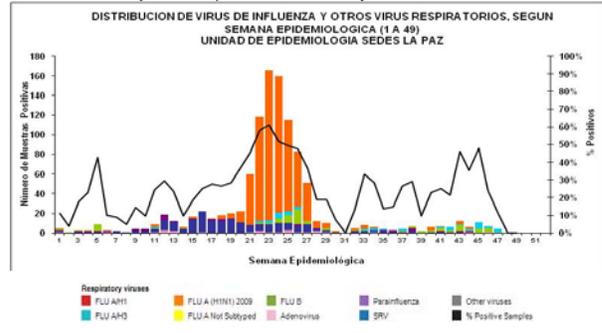
# South America - Andean

## Bolivia

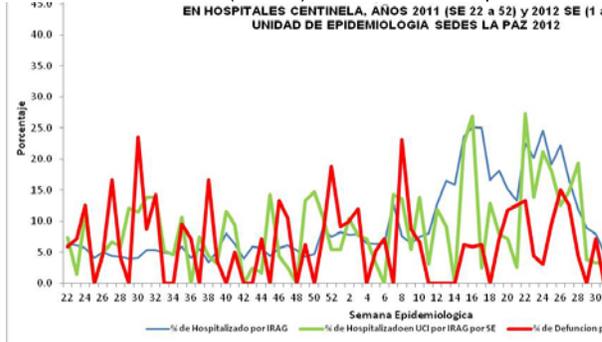
Santa Cruz. Respiratory viruses distribution by EW, 2012-Cenetro



Respiratory viruses distribution by EW, 2012-La Paz, Oruro, Potosí, Tarija, Chuquisaca, Pando y Beni, INLASA

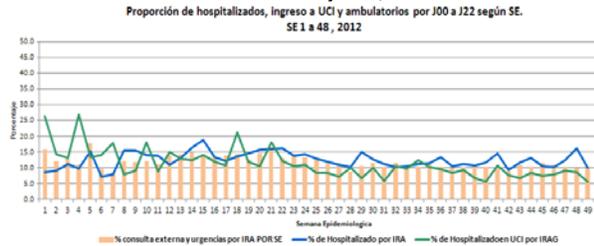


SARI surveillance (La Paz). % of SARI cases per EW

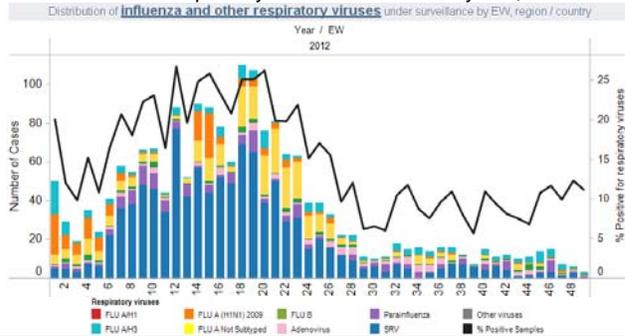


## Colombia

Colombia. Proportion of ILI consultations, SARI admissions and ICU admissions by EW, 2012

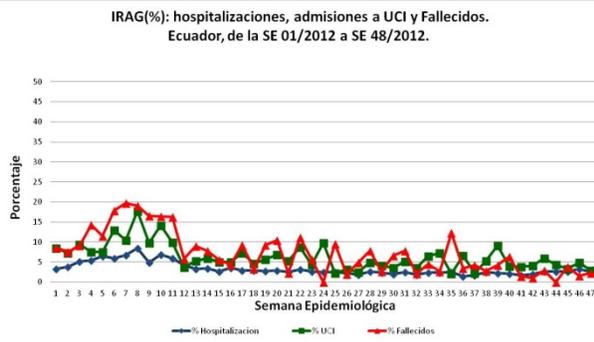


Colombia. Respiratory viruses distribution by EW, 2012

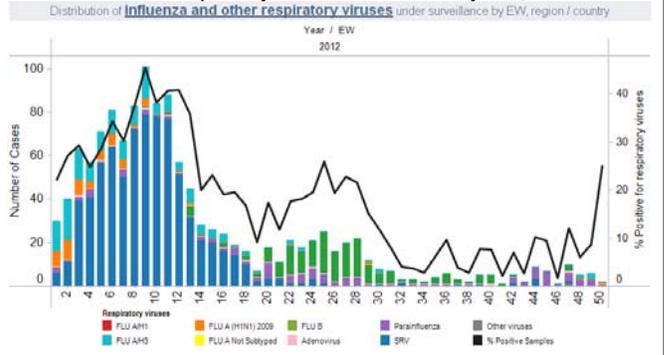


## Ecuador

Ecuador. Proportion of SARI Hospitalizations, ICU admitted and deaths by SE, 2012

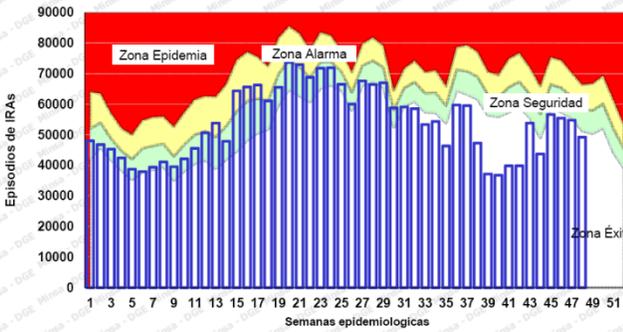


Ecuador. Respiratory viruses distribution by EW, 2012

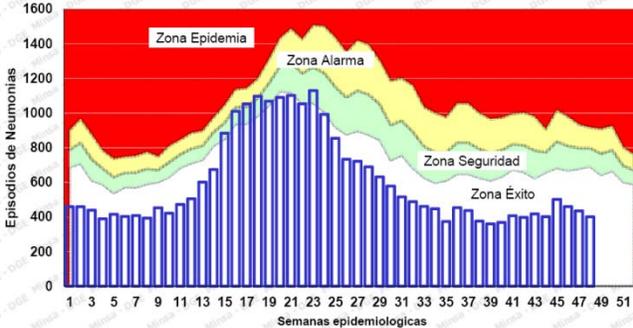


Peru

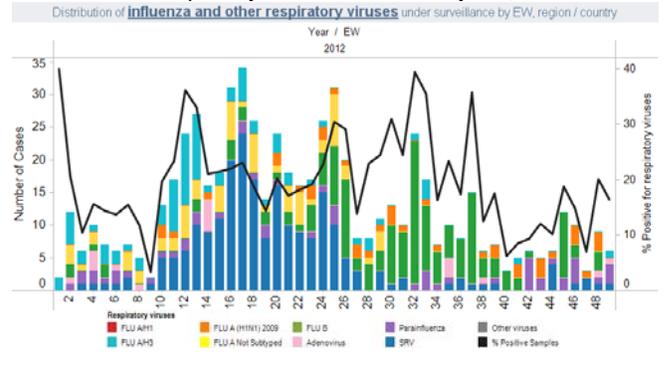
Peru. Endemic channel of ARI, 2012  
**Canal de Infecciones Respiratorias Agudas (IRA) en menores de 5 años, Perú 2012\***



Peru. Endemic channel of pneumonia, 2012  
**Canal endémico de neumonías en menores de 5 años, Perú 2012\***



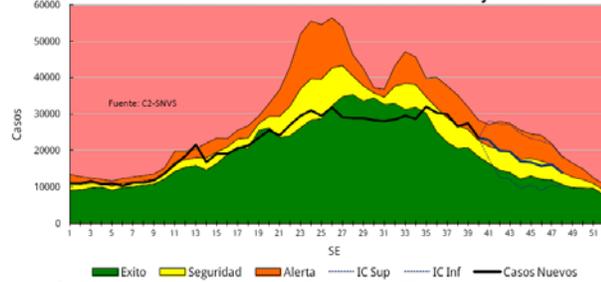
Perú. Respiratory viruses distribution by EW, 2012



South America, Southern cone

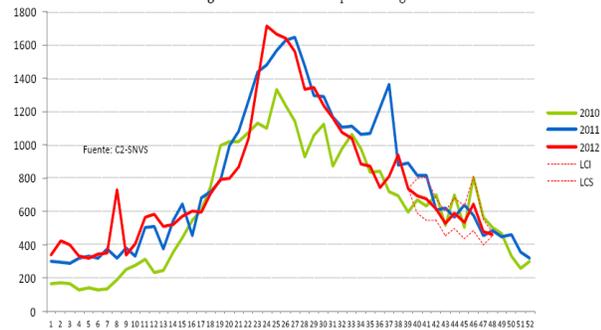
Argentina

Argentina. ILI endemic channel, 2012  
**Corredor endémico semanal de ETI- 2012**  
**Total País. Históricos 5 años: 2006 a 2011. Excluyendo 2009**

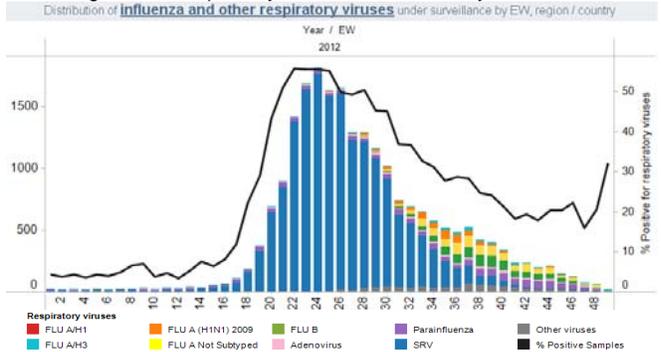


SARI Hospitalizations distribution by EW, 2010 - 2012

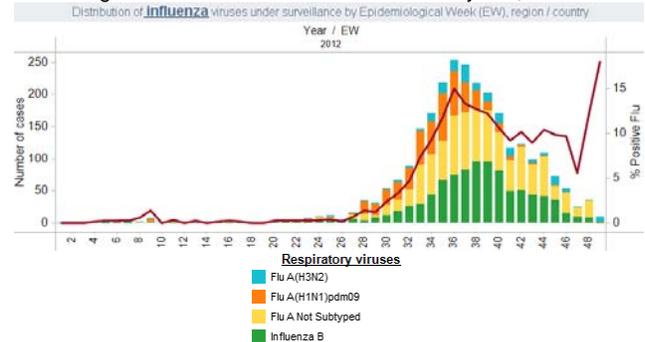
Figura 1: Casos de IRAG por SE, Argentina 2012.



Argentina. Respiratory viruses distribution by EW, 2012



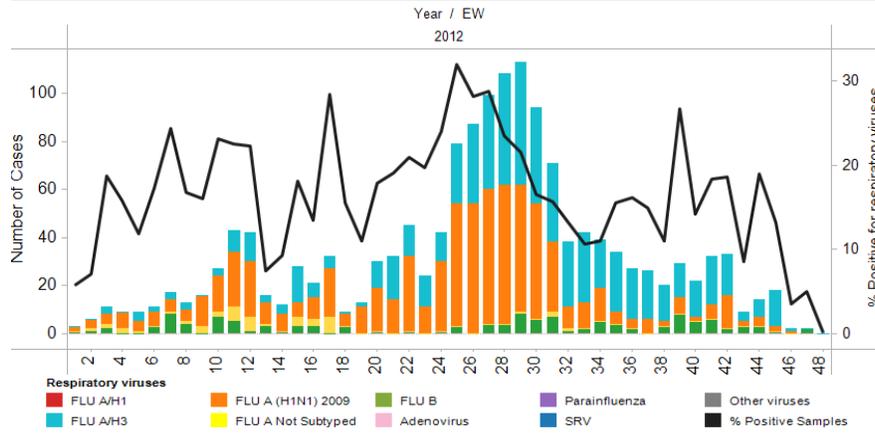
Argentina. Influenza viruses distribution by EW, 2012



## Brazil

Brazil. Influenza viruses distribution by EW, 2011 - 2012

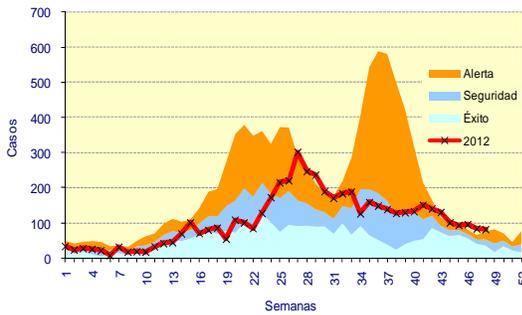
Distribution of **influenza and other respiratory viruses** under surveillance by EW, region / country



## Chile

Chile. ILI Endemic Channel, 2012

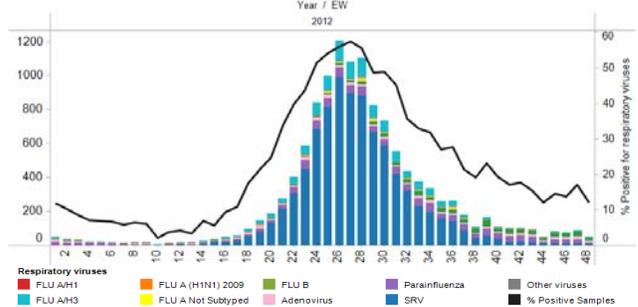
Canal endémico de Enfermedad Tipo Influenza según semana epidemiológica 2006-2011\*. Chile, 2012 (Semana 1-48)



Fuente: Vigilancia Centinela ETI. EPIDEMIOLOGIA-MINSAL \* Sin año 2009

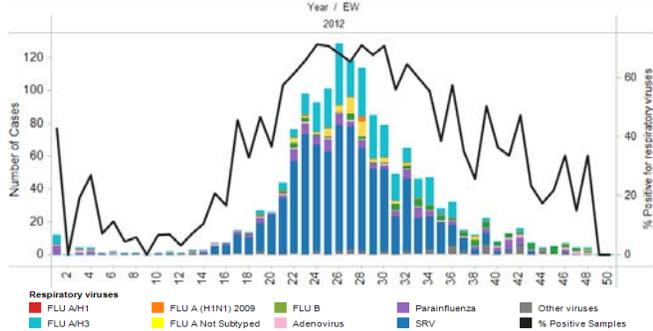
Chile. Respiratory viruses distribution by EW, 2012

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



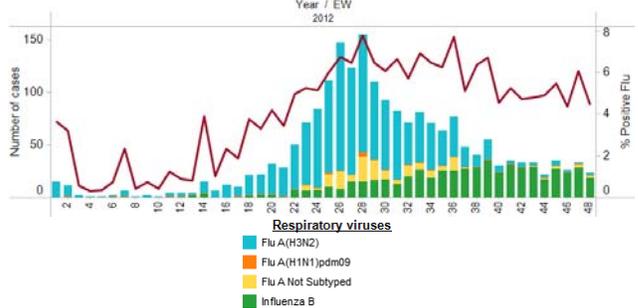
Chile. SARI cases: Respiratory viruses distribution by EW, 2012

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

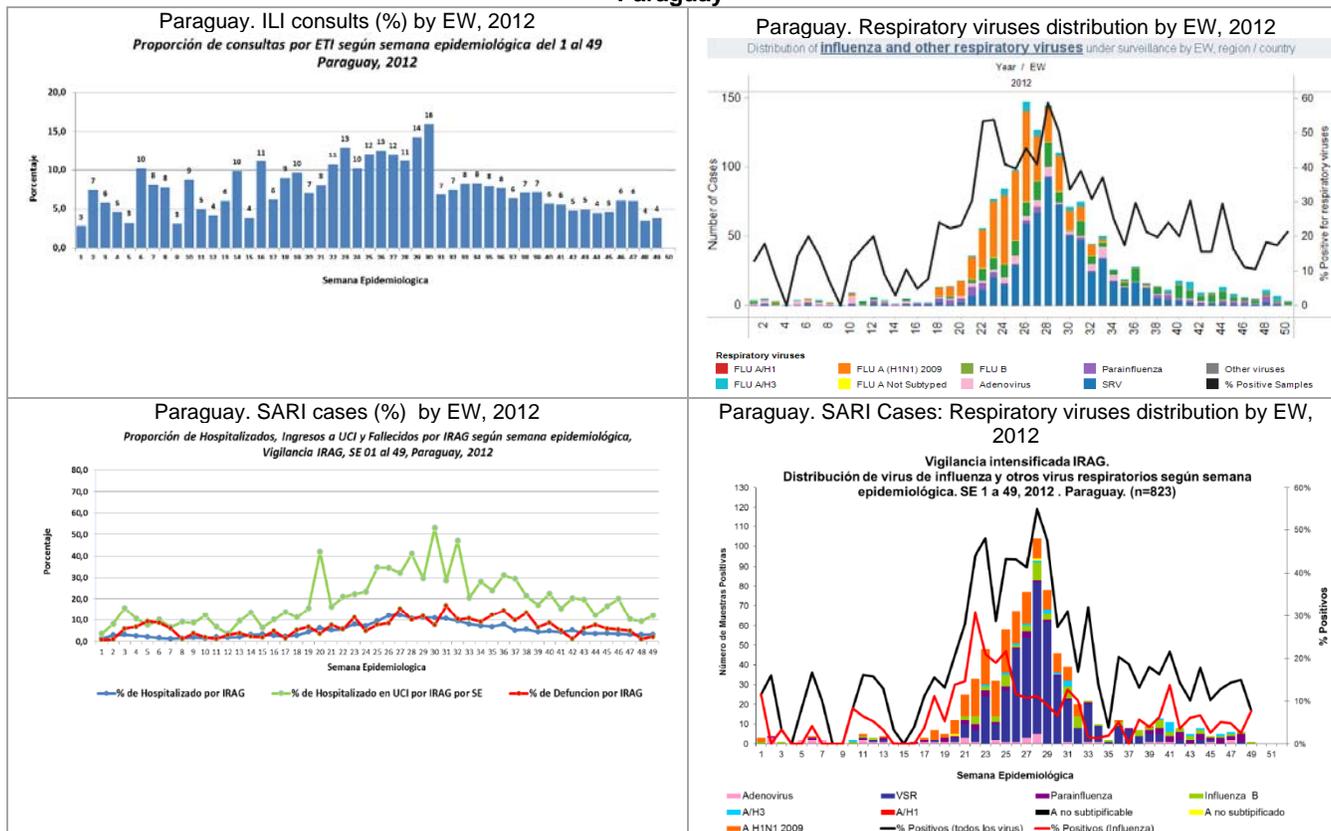


Chile. Influenza viruses distribution by EW, 2012

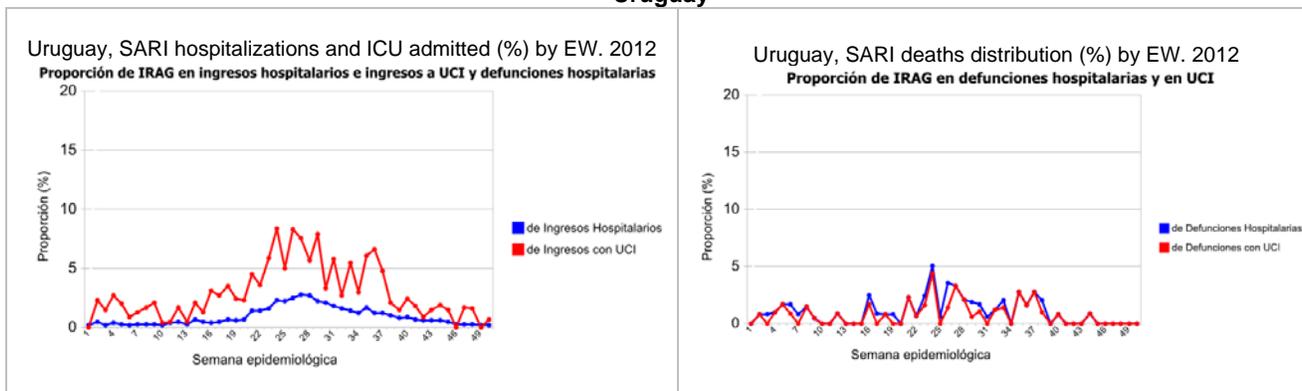
Distribution of **influenza** viruses under surveillance by Epidemiological Week (EW), region / country



## Paraguay



## Uruguay



- 1 FluWatch Report. EW 49. Available at <http://www.phac-aspc.gc.ca/fluwatch/>
- 2 US Surveillance Summary. EW 49. Centers for Disease Control and Prevention
- 3 Bulletin hebdomadaire grippe, Point Au 13/12/2012. Institut de Veille Sanitaire
- 4 Perú. Ministerio de Salud. Dirección general de Epidemiología. Boletín Epidemiológico SE 48.
- 5 Argentina. Actualización situación de enfermedades respiratorias 2012. SE 48.
- 6 Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública