



PAHO interactive influenza data: http://ais.paho.org/hip/viz/ed_flu.asp
Influenza Regional Reports: 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.

- In North America, influenza activity remains low. In the U.S., from July 12 through September 20, 2012, a total of 305 infections with influenza A (H3N2) variant (H3N2v) viruses have been reported in 10 states, with one death reported, without evidence of ongoing human-to-human transmission. Also one case with influenza A(H1N1) variant (H1N1v) and 3 cases with influenza A(H1N2) variant (H1N2v) were reported in the same country, since July 2012.
- In Central America and the Caribbean, respiratory disease activity remained low. Co-circulation of different respiratory viruses was reported. Among the influenza viruses, influenza B predominated (Costa Rica, Jamaica, Nicaragua), with co-circulation of influenza A(H3N2) (Costa Rica, Nicaragua). Among other respiratory viruses, RSV was reported in several countries of the region.
- In South America, severe acute respiratory disease continued to decrease (Bolivia, Chile and Paraguay). Co-circulation of influenza viruses was observed: influenza A(H1N1)pdm09 (Argentina), influenza B (Argentina, Chile and Peru) and influenza A(H3N2) (Bolivia and Brasil). Among the other respiratory viruses RSV predominated (Argentina, Colombia, Chile, Paraguay y Paraguay).

Epidemiologic and virologic influenza update

North America

In the United States¹ in EW 37, nationally, the proportion of ILI consultations (1.1%) was below the baseline (2.4%). Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 37 (6.3%) was below the epidemic threshold for this time of year (6.5%). In EW 37, no pediatric deaths associated with influenza were reported. Among all samples tested during EW 37 (n=1,646), the percentage of samples positive for influenza (2%) decreased slightly as compared to the previous week. Nationally, among the positive samples, 63.6% were influenza B. From July 12 through September 20, 2012, a total of 305 infections with influenza A (H3N2) variant (H3N2v) viruses have been reported in ten states (Hawaii [1], Illinois [4], Indiana [138], Maryland [12], Michigan [6], Minnesota[4], Ohio [106], Pennsylvania [11], West Virginia [3], and Wisconsin [20]). So far during the current outbreaks, 16 confirmed cases have been hospitalized as a result of their illness; one death has occurred. The vast majority of cases have been associated with swine exposure though likely instances of [human-to-human transmission](#) have been identified. At this time no ongoing human-to-human transmission has been identified. Public health and agriculture officials are investigating the extent of disease among humans and swine, and additional cases are likely to be identified as the investigation continues. One infection with influenza A (H1N1) variant (H1N1v) virus has been detected and three infections with influenza A(H1N2) variant (H1N2v) virus have been detected since July 2012.

In Mexico, according to laboratory data, in EW 37, of the samples analyzed (n=19), one case of influenza B was detected.

Caribbean

CAREC, in EW 36, reported that the proportion of severe acute respiratory infection (SARI) hospitalizations was 1.0% which was lower than what was seen in the prior week (1.6%). The highest rate of SARI was among children 6 months to 4 years (4.1%). No SARI-related deaths were reported in EW 37. In the last 4 weeks (EW 34 to 37) the following viruses have been laboratory confirmed in CAREC member countries: influenza B (Barbados, Dominica & Jamaica), and respiratory syncytial virus (Barbados). In EW 37, untyped influenza A and RSV in Barbados were observed among the tested samples (n=14). To date in 2012, the overall percentage positivity for samples tested is 36.7%, with a 19.2% positivity for influenza.

In Jamaica for EW 37, the proportion of acute respiratory infection (ARI) consultations was 4.6% (0.5% higher than the previous EW). The proportion of admissions due to SARI was 0.3% (0.3% decrease when compared to the EW before). There were no SARI deaths reported for EW 37. According to laboratory data from EW 37, among the samples analysed (n=13), the percent positivity for respiratory viruses was 46.2% with the same percent positivity for influenza because only influenza B was detected among positive samples.

Central America

In Costa Rica, in EW 37, according to laboratory data, among all samples tested (n=87), the percentage of positive samples for respiratory viruses was 32.2% which was lower than what was seen in the prior week. The predominant virus was RSV, followed by adenovirus. Predominance among positive samples for influenza virus was mainly of influenza B and influenza A(H3N2), to a lesser extent.

In Nicaragua, in EW 37, according to laboratory data, the percentage of positive samples for respiratory viruses was 32% among the tested samples (n=75). The predominant virus reported in last three EWs was influenza B, followed by influenza A(H3N2).

In Panama, in EW 37, according to laboratory data, among all samples tested (n=32), the percentage of positive samples for respiratory viruses was 78%, with RSV predominating, followed by parainfluenza. This EW no influenza viruses were detected.

South America – Andean

In Santa Cruz, Bolivia. According to data from CENETROP in EW 37, only one positive sample (influenza A H3N2) was reported among the 22 tested samples. In Department of Santa Cruz, the proportion of SARI hospitalization (10%) showed a decrease as compared with the previous EW. No SARI-deaths were reported in the same EW. In Department of La Paz, viral circulation in EW 37, showed a percentage of positive samples of 25% among the 12 tested samples, with two samples for influenza A (H3N2) and one for parainfluenza virus. The proportion of SARI –hospitalizations reached 4,8%, with no significant changes in last 6 EWs. No SARI-deaths were reported in this EW.

In Colombia, at the national level, a slight increase in the number of consultations and hospitalizations for ARI between EWs 12 – 27 was observed. In EW 37, there were no significant changes with respect to last 5 EWs. According to laboratory data from INS including data from the Departments of Antioquia and Nariño, an increase in RSV circulation between EWs 7 and 26 was observed. In EW 37, the percent positivity for respiratory viruses was low (7.1%) among the tested samples (n=28)

In Ecuador, according to laboratory data at the national level and in EW 37, all the 38 tested samples for respiratory viruses were negatives. In the same EW, according to the SARI surveillance system from sentinel units, all the 10 samples tested for respiratory viruses were negatives. The proportion of hospitalizations (2%) in EW 37 showed no significant changes with respect to previous EWs and no SARI-deaths were reported in this EW. From August 24 through September 13, an influenza B group of cases within a family with extent to the community was detected in the province of Loja. 4 family members were affected and 2 deaths occurred in persons 17 and 54 years of age. 14 persons related to the family presented with similar symptoms (with contact during the wake and in the school), all of whom recovered. *Streptococcus pneumoniae* was also detected among the analyzed agents. Samples were sent to the WHO Collaborating Center for additional analyses.

In Peru, at the national level in EW 37, according to laboratory data, the percentage of positive samples for respiratory viruses among samples tested (n=47) was 32%, which was higher than previous EW, with predominance of influenza B virus (14/15).

South America –Southern Cone

In Argentina², at the national level, according to laboratory data and in EW 37, percentage of positive samples for respiratory viruses was higher than the previous EW, reaching 38.8% among the analyzed samples (n=363) with a predominance of influenza A(H1N1)pdm09 (20%), RSV (18%) and influenza B (16%) among the positive samples.

In Brasil, in EW 37, percentage of positive samples for influenza virus was 15.2% among the tested samples (n=92), with a predominance of influenza A(H3) (12/14)

En Chile, in EW 37, at the national level, ILI activity reached a rate of 8/100,000 population, which was lower than that observed in previous EWs and remained in safety zone of the endemic channel. According to laboratory data, at the national level and in EW 37, the positivity percentage for respiratory viruses was 20.4% among the tested samples (n=905), which was lower compared with previous EW, and RSV (45.6%), parainfluenza (18%), and influenza B (11%) continued to predominate. According to the SARI surveillance system, in the current EW, 5 samples were tested, with a predominance of RSV (3/5) among the positive samples. The proportion of SARI hospitalizations reached 2,4 % in EW 36, with no significant changes with respect to previous week. From the beginning of the year through EW 36, 103 SARI-deaths were reported in sentinel units and viral etiology was confirmed in 13.5% with a predominance of influenza A (H3N2) (9/14) virus among the positive samples.

In Paraguay³, at the national level, in EW 37, the proportion of ILI consultations (6%) in sentinel units was lower as compared to previous EW and the same trend was observed for the national ILI rate (140.7/100,000 population). In the SARI surveillance system, the proportion of hospitalizations (4.8%, 93/1951) continued to show a decreasing trend. Since the beginning of the year, a total of 209 SARI-deaths were reported of which 18 were due to influenza A(H1N1)pdm09, 10 due to RSV and 3 due to other viruses For EW 37, 9 samples were analyzed from SARI cases, with just one positive sample for RSV.

In Uruguay⁴, at the national level, in EW 38, in the SARI surveillance system, the proportion of hospitalizations and ICU admissions did not show significant changes with respect to prior EW. The number of SARI-deaths did increase slightly. According to laboratory data, at the national level in EW 37, the percentage of positive samples for respiratory viruses was of 14.3% among tested samples (n=14), with 2 positive samples for RSV.

Information for the National Influenza Centers:

Identification of the virus of influenza A(H3N2)v

The virus of **influenza A(H3N2)v** is the result of the incorporation of gene M of virus A(H1N1) pdm09 in the swine-origin triple reassortant influenza A(H3N2) virus. For the detection of the circulation of this virus it is necessary to test the influenza samples according to the following algorithm:

- Use the kit of the CDC for the typing of influenza viruses A/B (CDC Influenza Virus rRT-PCR TO/B typing panel (RUO) CDC # FluRUO-01).
- Evaluate all the positive samples for influenza A with the kits of the CDC for subtyping of influenza A, using the primers/probes with its controls for H1 and H3 seasonal, InfApdm and H1pdm for the virus of the pandemic of 2009, respectively (CDC Influenza Virus rRT-PCR A subtyping panel (RUO) CDC # FluRUO-04 & Pooled Influenza Positive Control (RUO) CDC# VA2716).

Interpretation of results:

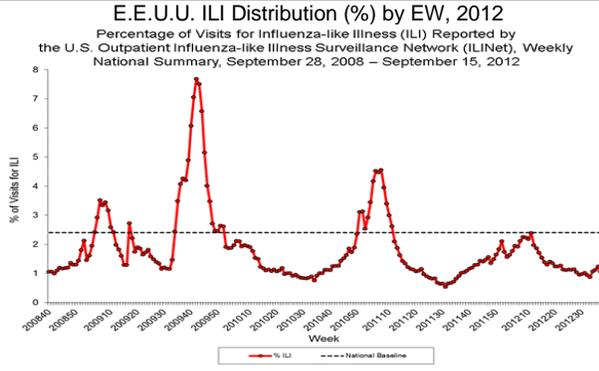
CASE	Inf A	Inf A pdm	H3	H1	H1pdm	B	RESULT
1	+	-	+	-	-	-	Influenza A(H3N2)
2	+	+	+	-	-	-	Influenza A(H3N2)v ¹
3	+	+	-	-	+	-	Influenza A (H1N1)pdm09
4	+	-	-	+	-	-	Influenza A(H1N1)
5	+	-	-	-	-	-	No subtype available ¹

¹ Send sample to CDC

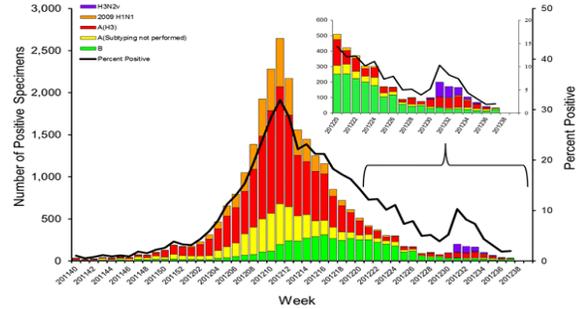
Graphs

North America

United States

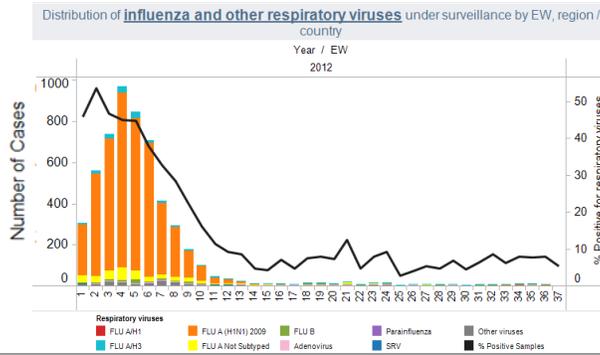


E.E.U.U. Influenza viruses distribution by EW, 2012
 Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2011-12



Mexico

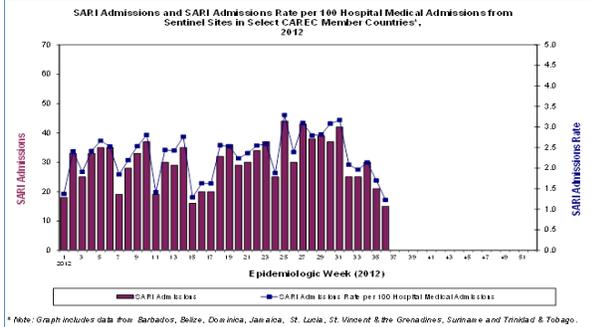
Mexico. Respiratory viruses distribution by SE, 2012



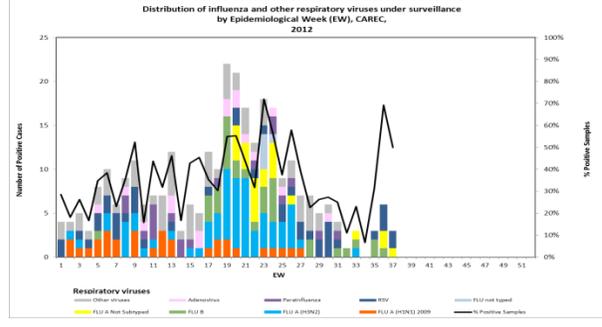
Caribbean

CAREC

% Hospitalizaciones de IRAG

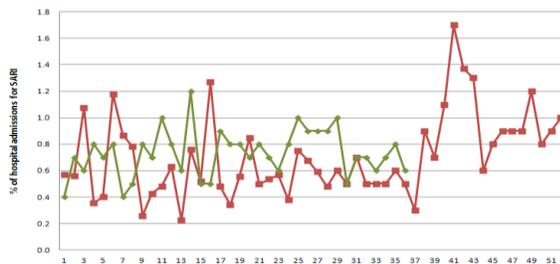


CAREC. Respiratory viruses distribution by EW, 2012

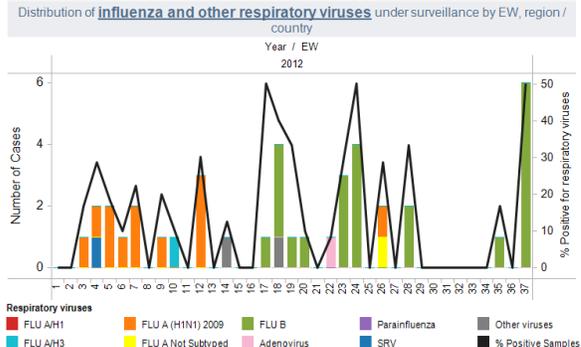


Jamaica

Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI), Jamaica, 2011-2012

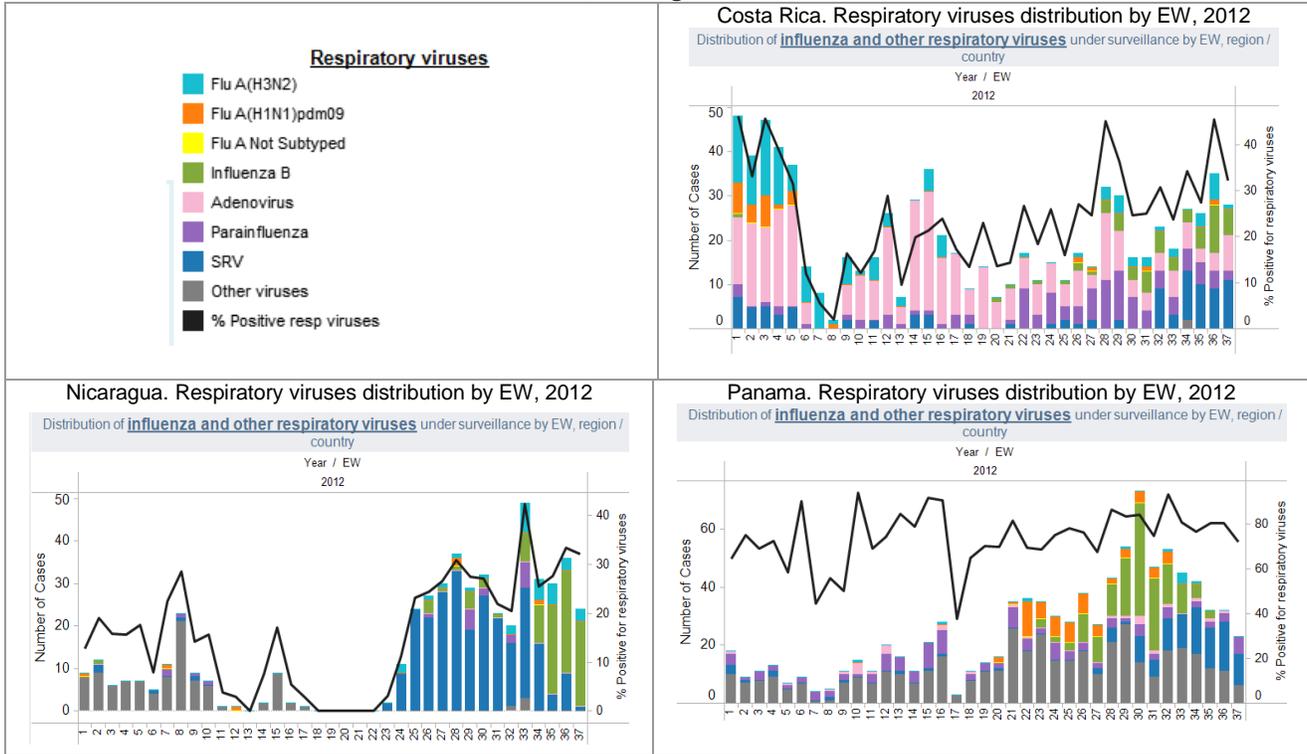


Jamaica. Distribución de virus respiratorios por SE, 2012



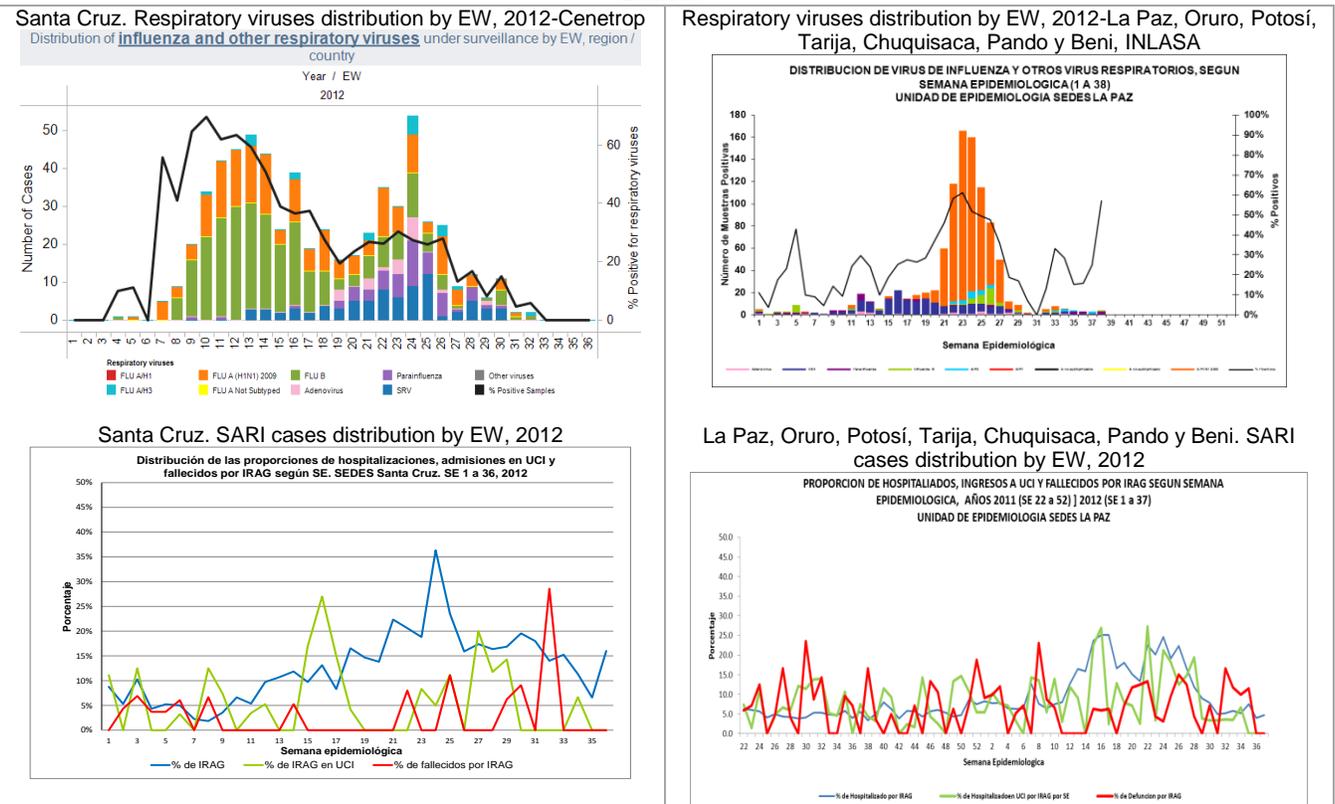
Central America

Costa Rica, Nicaragua and Panama



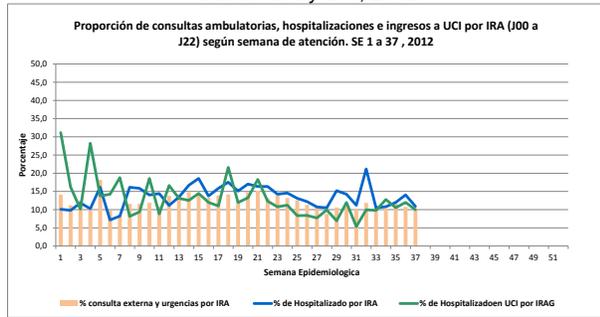
South America - Andean

Bolivia

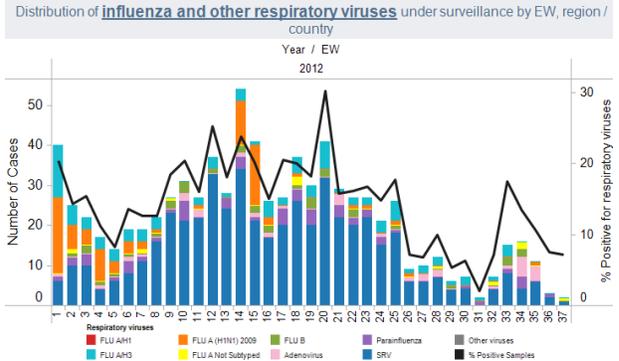


Colombia

Colombia. Proportion of ambulatory, Hospitalizations and ICU admitted by EW, 2012

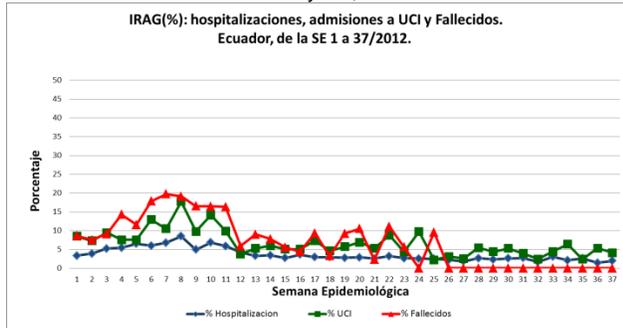


Colombia. Respiratory viruses distribution by EW, 2012

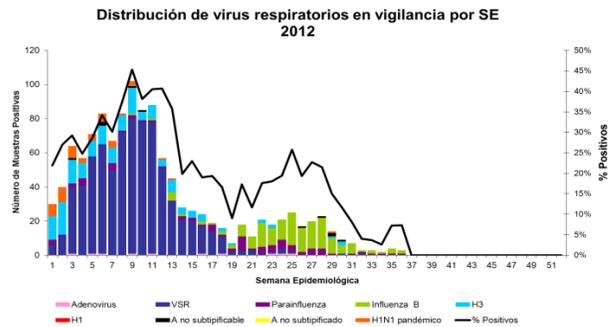


Ecuador

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

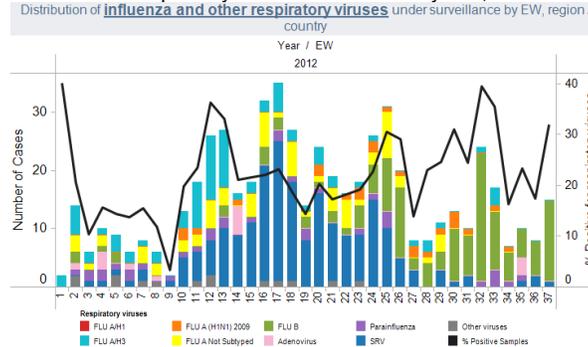


Ecuador. Respiratory viruses distribution by EW, 2012



Peru

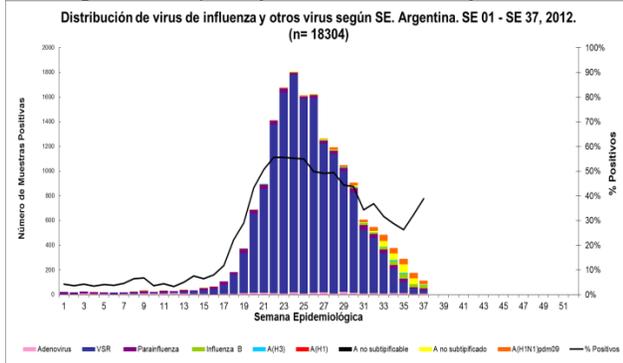
Perú. Respiratory viruses distribution by EW, 2012



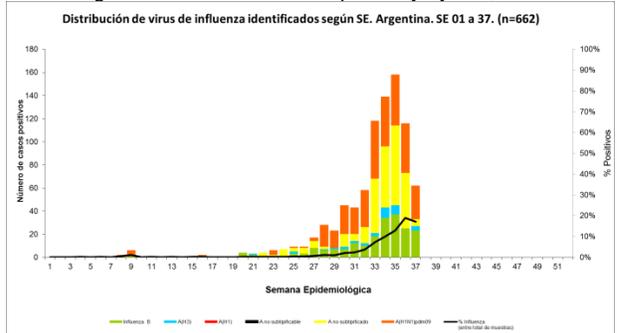
South America, Southern cone

Argentina

Argentina. Respiratory viruses distribution by EW, 2012

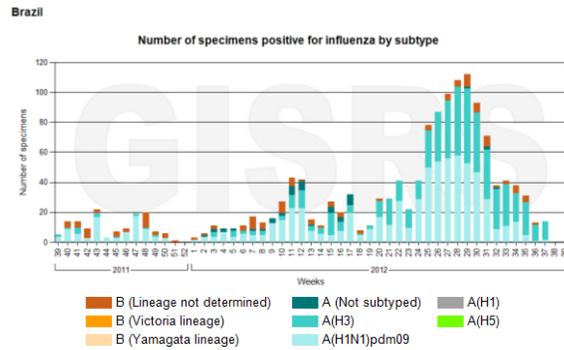


Argentina. Influenza viruses positivity by EW, 2012



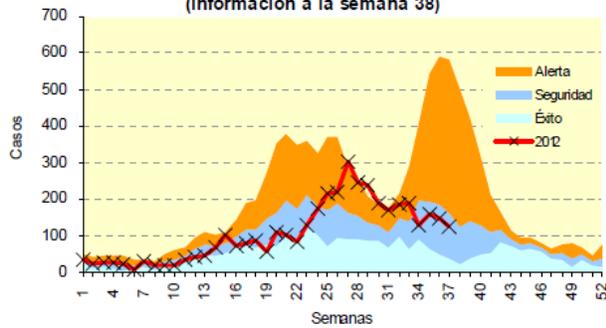
Brazil

Brazil. Influenza viruses distribution by EW, 2011 - 2012



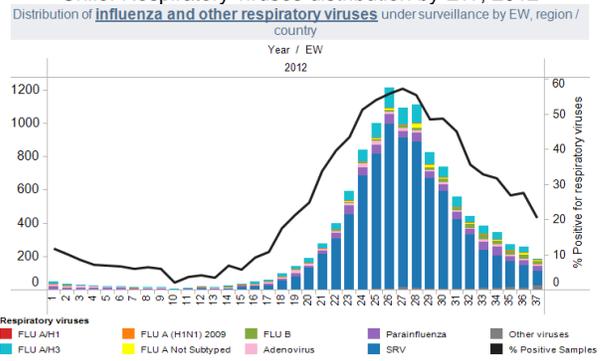
Chile

Chile. ETI endemic channel, 2012
Canal endémico de Enfermedad Tipo Influenza según semana epidemiológica 2006-2011*. Chile, 2012 (información a la semana 38)

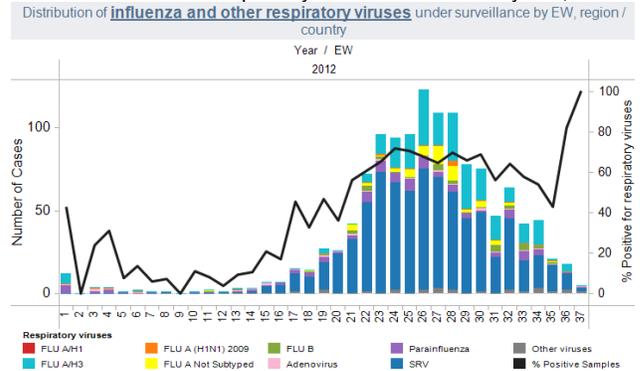


Fuente: Vigilancia Centinela ETI. EPIDEMIOLOGIA-MINSAL * Sin año 2009

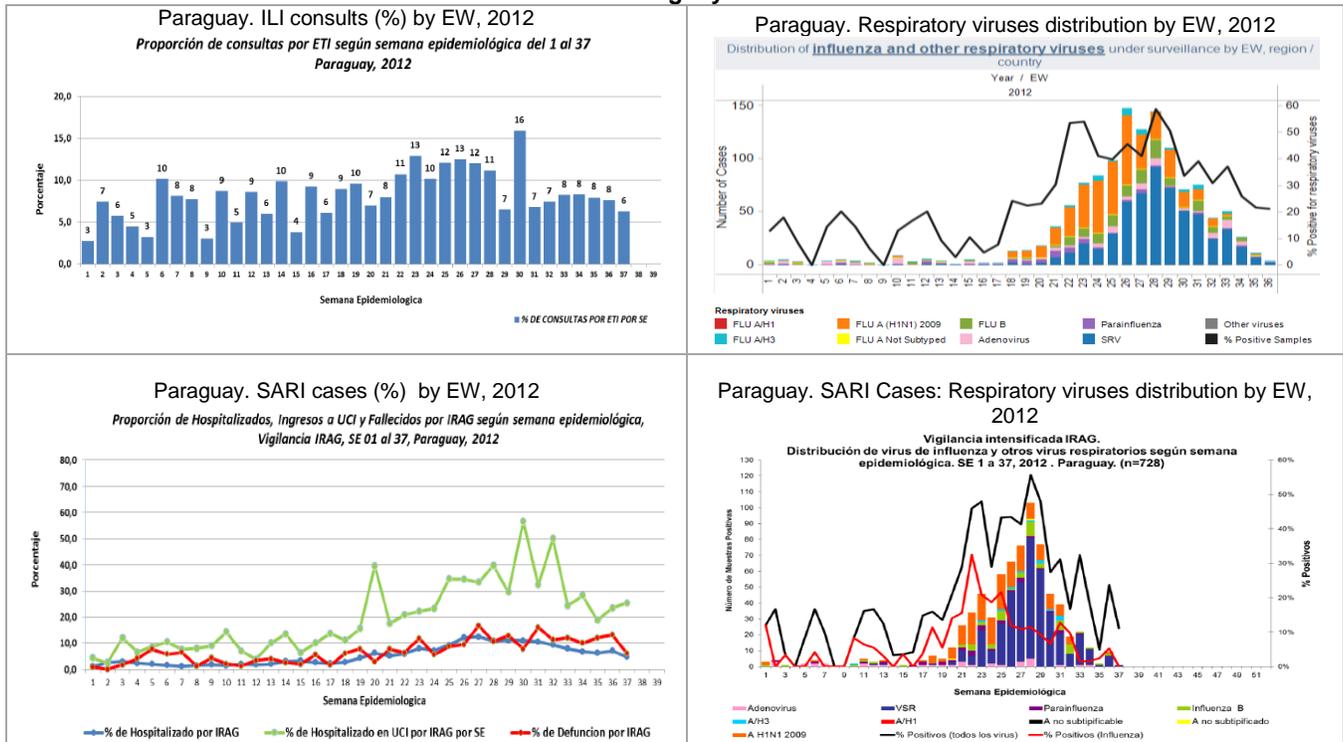
Chile. Respiratory viruses distribution by EW, 2012



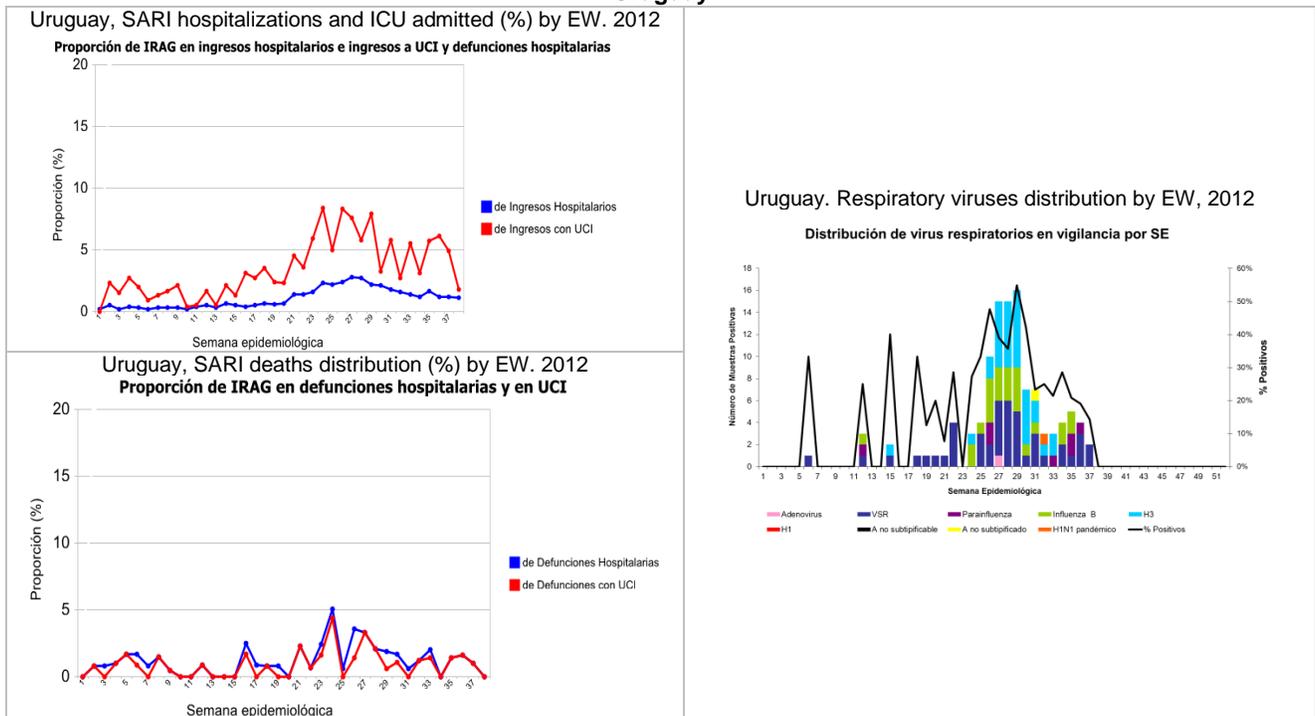
Chile. SARI Cases: respiratory viruses distribution by EW, 2012



Paraguay



Uruguay



1 US Surveillance Summary. EW 37. Centers for Disease Control and Prevention

2 Argentina. Actualización situación de enfermedades respiratorias 2012. SE 37.

3 Paraguay. Boletín epidemiológico semanal SE 37. Available at:

http://www.vigisalud.gov.py/index.php?option=com_phocadownload&view=category&id=18:vigilancia-eti-e-irag-ano-2011&Itemid=86

4 Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública