



## Regional Update EW 31, 2012

**Influenza**  
(August 14, 2012 - 17 h GMT; 12 h EST)

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.

- In North America, influenza activity remains low. In the U.S., from July 12 through August 9, 2012, a total of 153 infections with influenza A (H3N2) variant (H3N2v) viruses have been reported. All cases have reported contact with swine prior to illness onset.
- In Central America and the Caribbean, reported co-circulation of different respiratory viruses. Among influenza viruses, influenza B predominated in Cuba and increased detection in Costa Rica and Panama. Influenza A(H1N1)pdm09 predominated in Honduras.
- In South America, the acute respiratory disease activity remained low (Ecuador) or decreasing (Argentina, Bolivia, Brazil, Chile and Paraguay), associated in several cases to the decreased activity of RSV. Co-circulation of influenza viruses was observed with varying prevalence: influenza B predominates in Ecuador, Peru, influenza A (H3N2) in Chile and influenza A (H1N1)pdm09 in Brazil and Paraguay.

### Epidemiologic and virologic influenza update

#### *North America*

In the United States<sup>1</sup>, in EW 31, 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 31 (5.8%) was below the epidemic threshold for this time of year (6.5%). In EW 31, no pediatric deaths associated with influenza were reported. Among all samples tested during EW 31 (n=345), the percentage of samples positive for influenza (6.69%) increased slightly as compared to the previous week. Nationally, among the positive samples, 66.7% were influenza A [among the subtyped influenza A viruses, mainly influenza A(H3N2)] and 33.3% were influenza B. From July 12 through August 9, 2012, a total of 153 infections with influenza A (H3N2) variant (H3N2v) viruses have been reported in four states (Hawaii [1], Illinois [1], Indiana [120], and Ohio [31]). So far during the current outbreaks, two persons have been hospitalized as a result of their illness; no deaths have occurred. At this time no ongoing human-to-human transmission has been identified and all cases have reported contact with swine prior to illness onset. 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.

#### *Caribbean*

CAREC\*, in EW 31, received epidemiological information from 7 countries: Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 31, the proportion of severe acute respiratory infection (SARI) hospitalizations was 3.1%, which is the same as what was seen in the prior week. The SARI rate increased in 3 countries (Barbados, Dominica and St. Lucia). In the last 4 weeks (EWs 28- 31) the following viruses have been laboratory confirmed: influenza B (Jamaica), respiratory syncytial virus (RSV) ( Barbados), parainfluenza ( St. Vincent & the Grenadines), and rhinovirus (Dominica and St. Vincent & the Grenadines). To date in 2012, the overall percentage positivity for samples tested is 37%, with a 19% positivity for influenza.

In Jamaica for EW 31, the proportion of consultations for Acute Respiratory Illness (ARI) was 3.5% which was similar to the previous week. The proportion of admissions due to SARI was 0.7% which was also similar to the week before. There were no SARI deaths reported for EW 31. No influenza viruses were detected in EW 31.

In Cuba, according to laboratory data in EW 31, among the samples analyzed (n=34), the percent positivity for respiratory viruses was 25% and the percent positivity for influenza, among all samples analyzed, was 19%. Influenza B has been the predominant respiratory virus since EW 23.

In the Dominican Republic, according to laboratory data from EW 32, among the samples analyzed (n=32), the percent positivity for respiratory viruses was 3%. Influenza A(H1N1)pdm09, adenovirus and RSV were detected.

### ***Central America***

In Costa Rica, in EW 32, according to laboratory data, among all samples tested (n=90), the percentage of positive samples for respiratory viruses was 42.2%, which was higher than the previous week (31.4%). RSV, Influenza B, adenovirus, parainfluenza and influenza A(H3) were detected.

In Guatemala, in EW 30, according to laboratory data, among all samples tested (n=23), the percentage of positive samples for respiratory viruses was 8.7%, which was higher than the previous week (3.3%). Parainfluenza and other respiratory viruses were detected.

In Honduras, in EW 31, according to laboratory data, among all samples tested (n=22), the percentage of positive samples for respiratory viruses was 18.2%, which was higher than the previous week (16.1%). Parainfluenza and RSV were detected.

In Nicaragua, in EW 31, according to laboratory data, among all samples tested (n=61), the percentage of positive samples for respiratory viruses was 19.7%, which was lower than the previous week (26.5%). RSV was mainly detected, followed by influenza B .

In Panama, in EW 31, according to laboratory data, among all samples tested (n=24), the percentage of positive samples for respiratory viruses was 70.8%, which was lower than the previous week (85%). Influenza B, influenza A(H3), RSV, influenza A(H1N1)pdm09 and other respiratory viruses were detected.

In El Salvador, in EW 32, according to laboratory data, among all samples tested (n=75), the percentage of positive samples for respiratory viruses was 14.7%, which was lower than the previous week (28.8%). Influenza B, parainfluenza, adenovirus and RSV were detected.

### ***South America – Andean***

In Santa Cruz, Bolivia, according to data from CENETROP laboratory, viral circulation in EW 30 showed an increase with respect to previous EWs with a positivity of 16.7% among the 66 samples analyzed, and with detection of influenza B (4/11), RSV (4/11) and influenza A (H1N1)pdm09 (3/11). According to INLASA laboratory, which reports viral circulation from La Paz, Oruro, Potosí, Tarija, Pando, Beni and Chuquisaca there has been a decreasing percentage of positive samples since EW 24, reaching 13.3% in EW 30 among the 30 samples analyzed (similar viral pattern showed in Santa Cruz). In La Paz, SARI surveillance in EW 31 showed that the proportion of SARI hospitalizations (4.9%) continued to decrease, no SARI-deaths were reported and no respiratory viruses were detected among the samples analyzed (n=10).

In Ecuador, viral circulation shows a decreasing trend since EW 27, reaching a percentage of positive samples 8.9% among the tested samples for SARI (n=45) in EW 31 and with predominance of influenza B virus (3/4). In EW 31, the proportions of hospitalizations for SARI and UCI admitted remain low and without significant changes with respect to previous week, no SARI-deaths were reported on this week.

In Peru<sup>2</sup>, according to laboratory data at the national level, through EW 31 among the samples analyzed (n=41), the percent positivity was 24.4%, which was lower than previous EW, with predominance of influenza B virus (7/10).

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

In Argentina<sup>3</sup>, at the national level, endemic channels showed that the number of ILI and pneumonia cases in EW 31 remained within the expected level for this time of year. The number of SARI cases in EW 31 was lower than what was observed in 2012 and 2011. At the sub-national level, the Northwestern provinces and Cuyo (San Luis, Catamarca and Tucumán) and Southern provinces (Santa Cruz) continued to report higher

rates than what is expected for this time of the year. According to laboratory data, the percentage of positive samples for respiratory viruses has shown a decreasing trend since EW 25, reaching 32.5% among the analyzed samples (n=652) in EW 31, with predominance of RSV (77%) among the positive samples.

In Brazil<sup>4</sup>, in EW 31, the number of SARI cases continued to decrease since its' peak in EW 26. Of the total cases this week, 94% were confirmed to be influenza of which 97% were confirmed to be the influenza A(H1N1)pdm09 virus. In 2012 through EW 31, 1063 SARI deaths were reported (85% of them associated with A(H1N1)pdm09 virus) mainly in the Southern and Southeastern regions, peaking in EW 25; since then there has been a decreasing trend through EW 31 (n=2).

In Chile<sup>5</sup>, in EW 31 at the national level, ILI activity decreased as compared to the previous week, remaining in the alert zone of the endemic channel (10.8/100,000 population). The percent of emergency visits for respiratory causes, showed a decrease and reached 23.4% in EW 31. According to laboratory data at the national level, in the same week, among the samples analyzed (n=1230), the percent positivity for respiratory viruses was 43.9%, which was lower than the previous week, with a predominance of RSV (77.6%) among the positive samples. According to the SARI surveillance system, the proportion of hospitalizations has shown a decreasing trend since EW 27, reaching 3.4% in EW 30. Since the beginning of the year, 61 SARI deaths have been reported and in five, influenza A/H3 was confirmed. There has been an increase in the percent positivity of SARI samples in the recent weeks, reaching 73.9% in EW 31 among all samples analyzed (n=46) with a predominance of RSV (57%) and influenza A/H3 (29%) among the positive samples.

In Paraguay<sup>6</sup>, at the national level, in EW 31, the proportion of ILI consultations (7%) showed a decrease with respect to previous EW. The same pattern was observed with the ILI rate for the same week (155.7/100,000 population). In the SARI surveillance system, the proportion of hospitalizations (8.3%) did not show significant changes with respect to prior EW. Since the beginning of the year, a total of 149 SARI-deaths were reported of which 24 were confirmed for some respiratory virus, of which 15 were for influenza A(H1N1)pdm09, 7 for RSV and 2 for other viruses. For the same week, among the samples analyzed from SARI cases (n=16), the percent positivity for respiratory viruses (18.8%) was lower than the previous week.

**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:

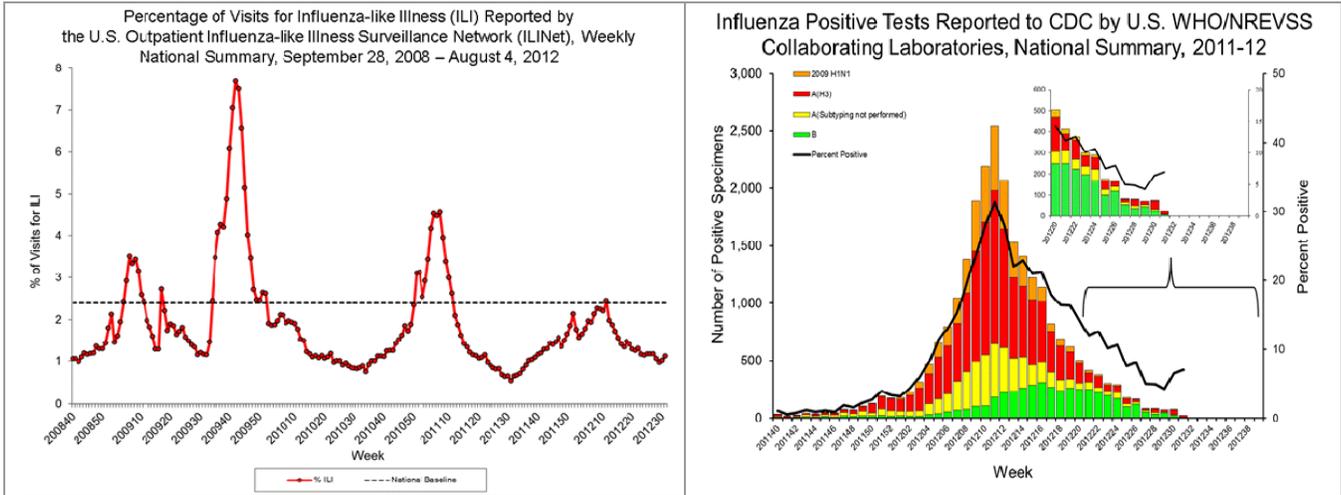
CASE	Inf A	Inf A pdm	H3	H1	H1pdm	B	RESULT
1	+	-	+	-	-	-	Influenza A(H3N2)
2	+	+	+	-	-	-	Influenza A(H3N2)v <sup>1</sup>
3	+	+	-	-	+	-	Influenza A (H1N1)pdm09
4	+	-	-	+	-	-	Influenza A(H1N1)
5	+	-	-	-	-	-	No subtype available <sup>1</sup>

<sup>1</sup> Send sample to CDC

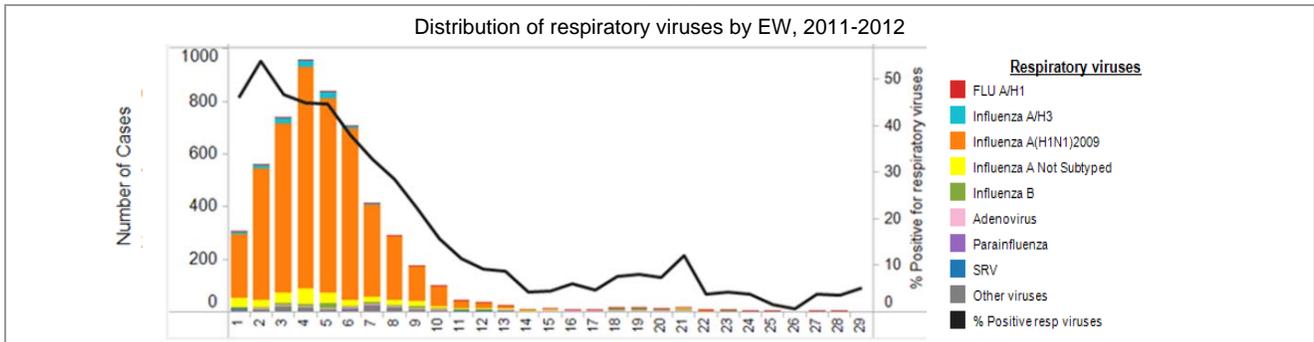
Graphs

North America

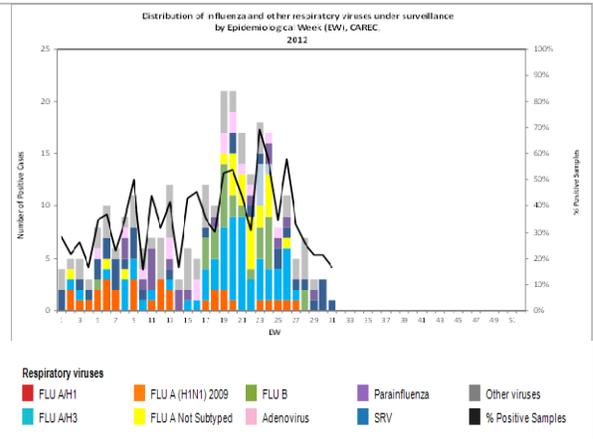
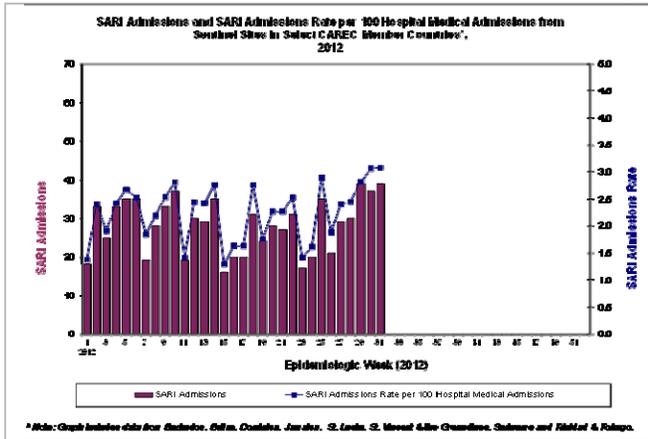
United States



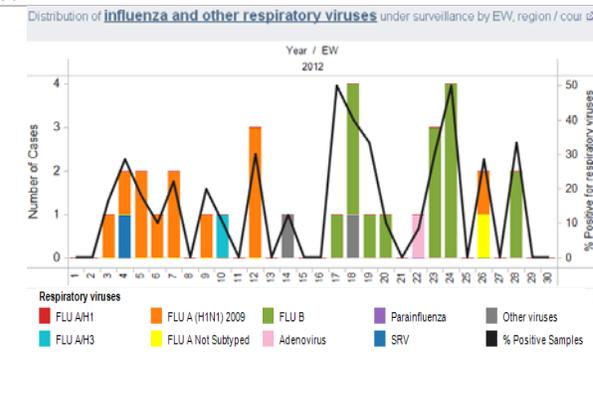
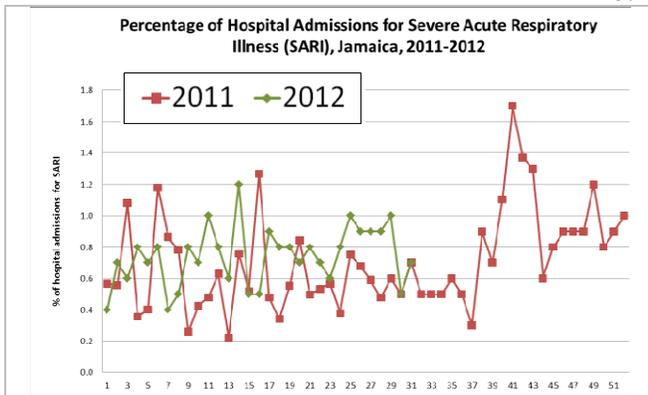
Mexico



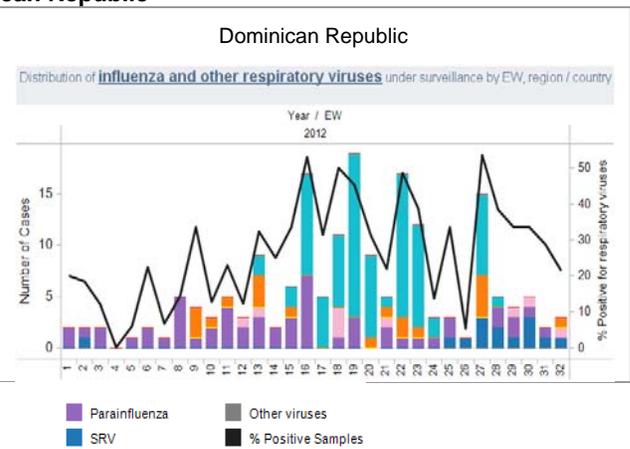
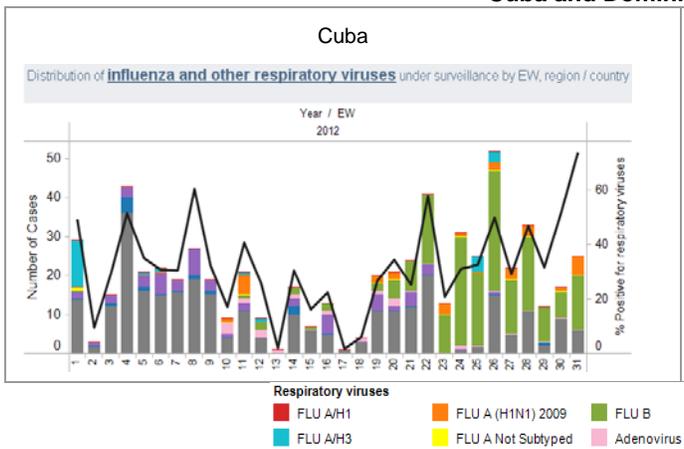
CAREC



Jamaica

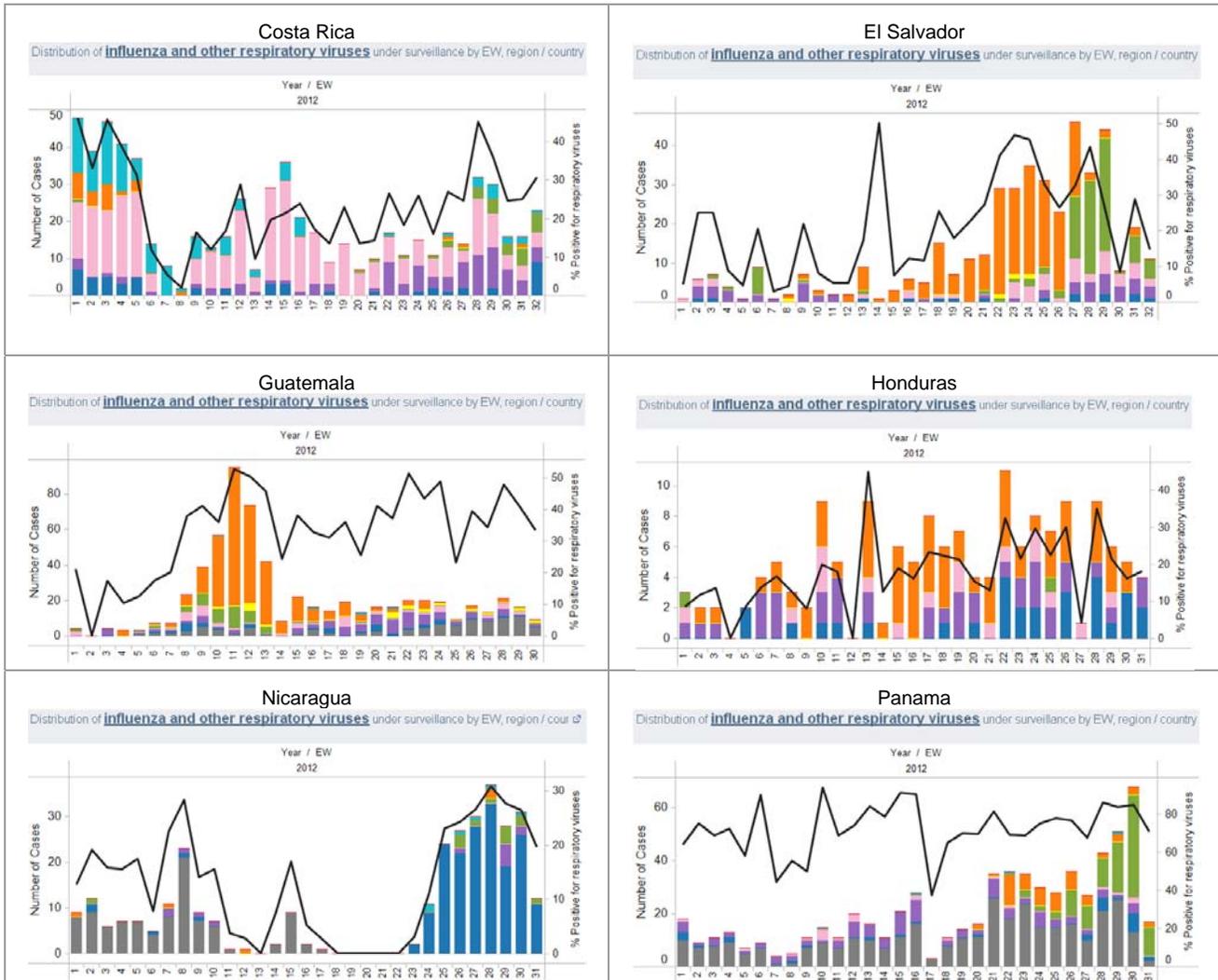


Cuba and Dominican Republic



# Central America

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



### Respiratory viruses

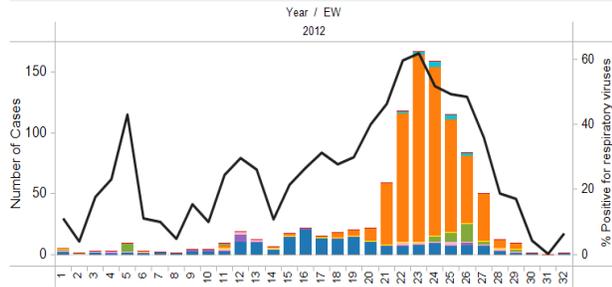
- FLU A/H1
- FLU A (H1N1) 2009
- FLU B
- Parainfluenza
- Other viruses
- FLU A/H3
- FLU A Not Subtyped
- Adenovirus
- SRV
- % Positive Samples

# South America - Andean

## Bolivia

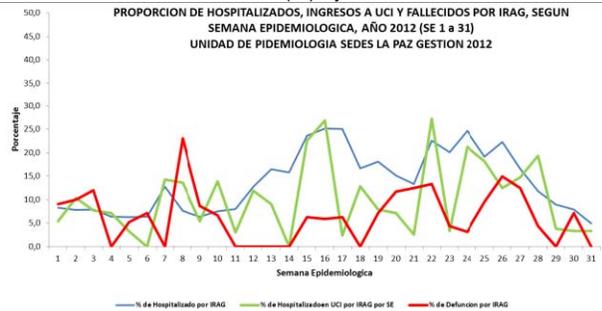
La Paz, Oruro, Potosí, Tarija, Chuquisaca, Pando y Beni (INLASA)

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



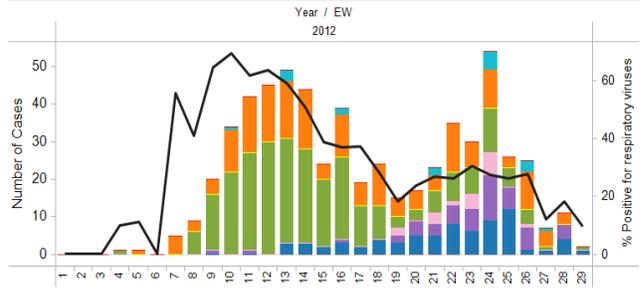
SARI cases (%) by EW, 2012

PROPORCIÓN DE HOSPITALIZADOS, INGRESOS A UCI Y FALLECIDOS POR IRAG, SEGUN SEMANA EPIDEMIOLÓGICA, AÑO 2012 (SE 1 a 31) UNIDAD DE EPIDEMIOLOGIA SEDES LA PAZ GESTION 2012



Santa Cruz (CENETROP)

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



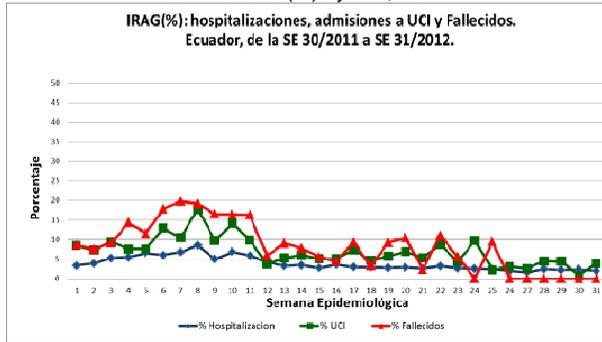
Respiratory viruses

- FLU A/H1
- FLU A (H1N1) 2009
- FLU B
- Parainfluenza
- Other viruses
- FLU A/H3
- FLU A Not Subtyped
- Adenovirus
- SRV
- % Positive Samples

## Ecuador

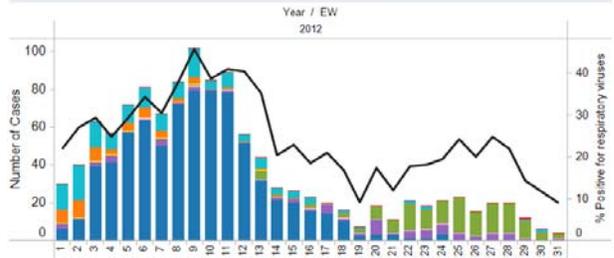
SARI cases (%) by EW, 2012

IRAG(%): hospitalizaciones, admisiones a UCI y Fallecidos. Ecuador, de la SE 30/2011 a SE 31/2012.



Distribution of respiratory viruses by EW 2012

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

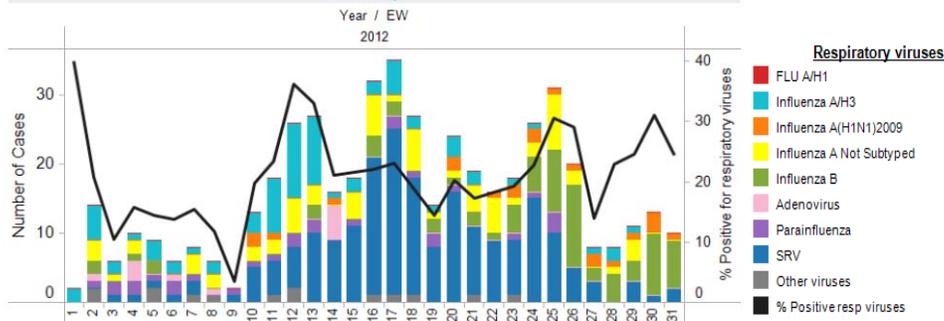


Respiratory viruses

- FLU A/H1
- FLU A (H1N1) 2009
- FLU B
- Parainfluenza
- Other viruses
- FLU A/H3
- FLU A Not Subtyped
- Adenovirus
- SRV
- % Positive Samples

## Peru

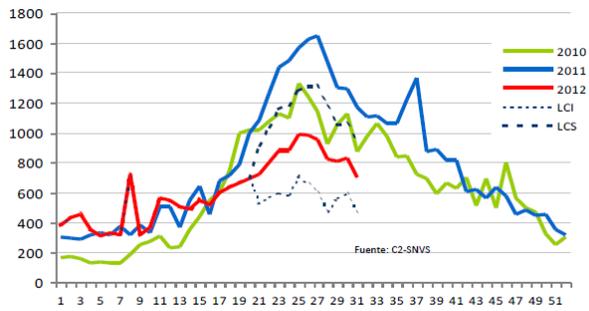
Distribution of influenza and other respiratory viruses under surveillance by EW, region / country



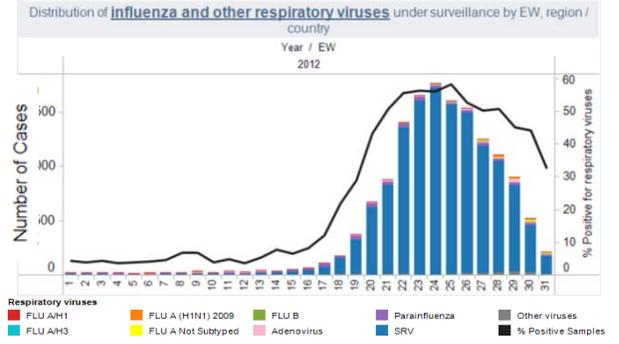
# South America – Southern Cone

## Argentina

Distribution of SARI according EW. Year 2010, 2011 and 2012 estimated since EW 27

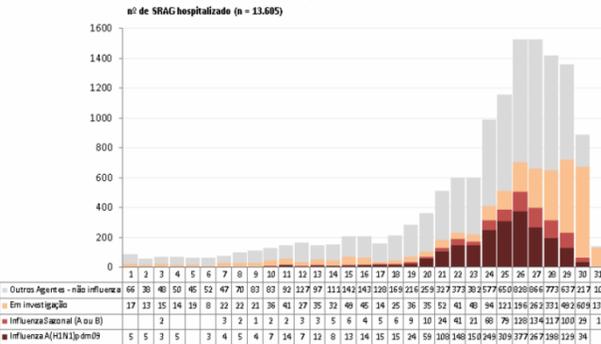


Distribution of respiratory viruses by EW, 2011-2012

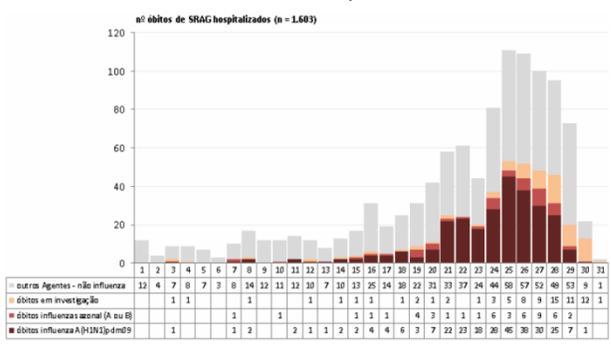


## Brazil

SARI cases by EW, 2012



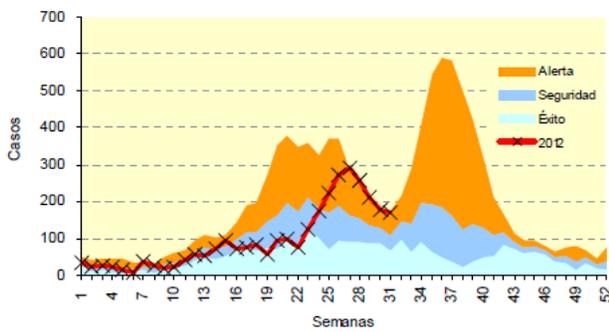
SARI deaths by EW



## Chile

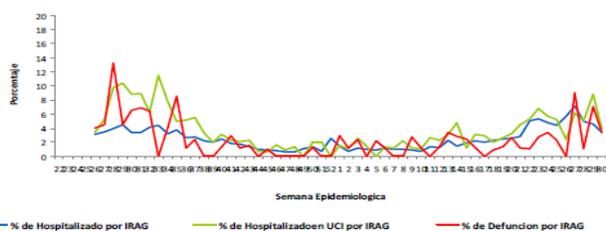
ILI cases by EW 2012

Canal endémico de Enfermedad Tipo Influenza según semana epidemiológica 2006-2011\*. Chile, 2012 (semana 1- 31)

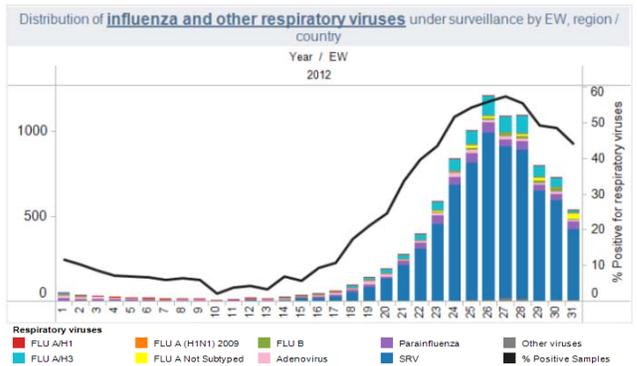


SARI cases (%) by EW, 2012

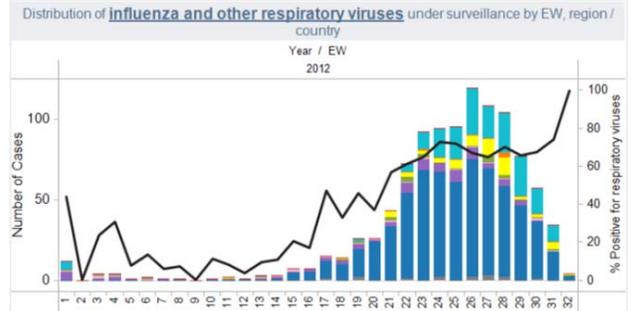
Porcentaje de hospitalizados, ingreso a UCI y fallecidos por IRAG según SE. Chile, Hospitales Centinela. 2011 y SE 1-30 de 2012.



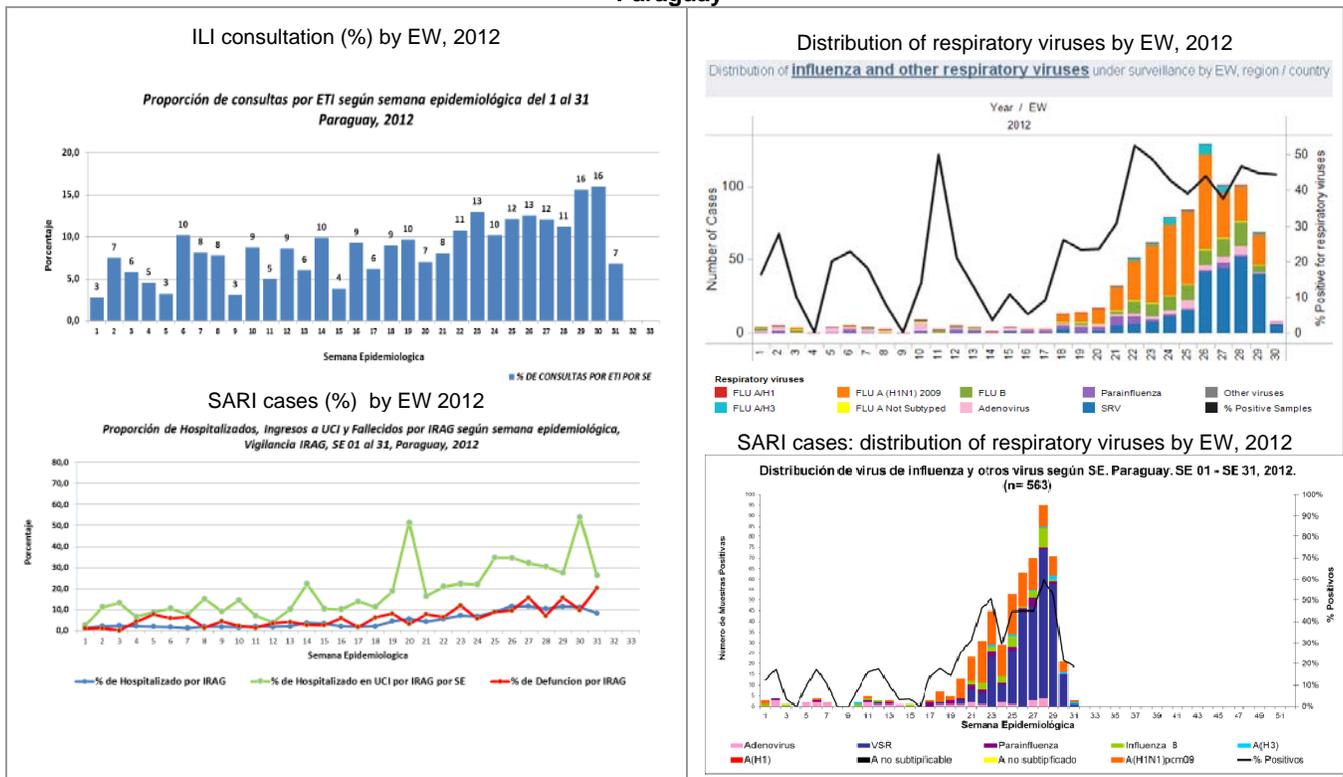
Distribution of respiratory viruses by EW, 2011-2012



SARI cases: Distribution of respiratory viruses, 2012



## Paraguay



- 1 US Surveillance Summary. EW 31. Centers for Disease Control and Prevention
- 2 Peru. Sala de Situación de Salud. SE 30. Ministerio de Salud. Dirección General de Epidemiología
- 3 Argentina. Actualización situación de enfermedades respiratorias 2012. SE 31.
- 4 Brasil. Boletim Informativo SE 31. [http://portalsaude.saude.gov.br/portalsaude/noticia/6184/785/boletim-informativo-\\_influenza.html](http://portalsaude.saude.gov.br/portalsaude/noticia/6184/785/boletim-informativo-_influenza.html)
- 5 Chile. Informe de situación. SE 31. Available at: [www.pandemia.cl](http://www.pandemia.cl)
- 6 Paraguay. Boletín epidemiológico semanal SE 31. Available at: [http://www.vigisalud.gov.py/index.php?option=com\\_phocadownload&view=category&id=18:vigilancia-eti-e-irag-ano-2011&Itemid=86](http://www.vigisalud.gov.py/index.php?option=com_phocadownload&view=category&id=18:vigilancia-eti-e-irag-ano-2011&Itemid=86)