



Regional Update EW 50-52, 2012

Influenza and other respiratory viruses
(January 8, 2013 - 17 h GMT; 12 h EST)

PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp

Influenza Regional Reports: www.paho.org/influenzareports

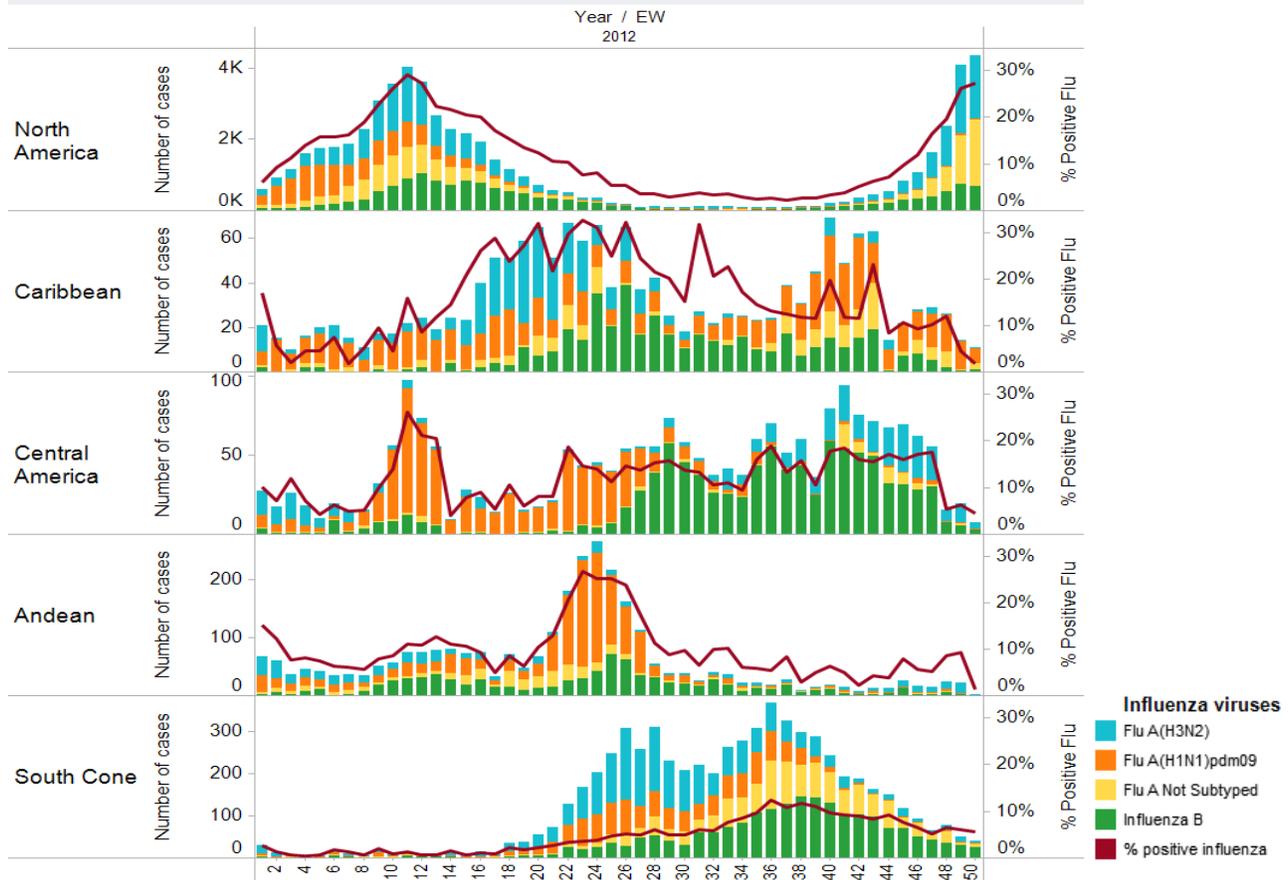
The information presented in this update is based on data provided by Ministries of Health and National Influenza Centers of Member States to the Pan American Health Organization (PAHO) or from updates on the Member States' Ministry of Health web pages.

1. WEEKLY SUMMARY

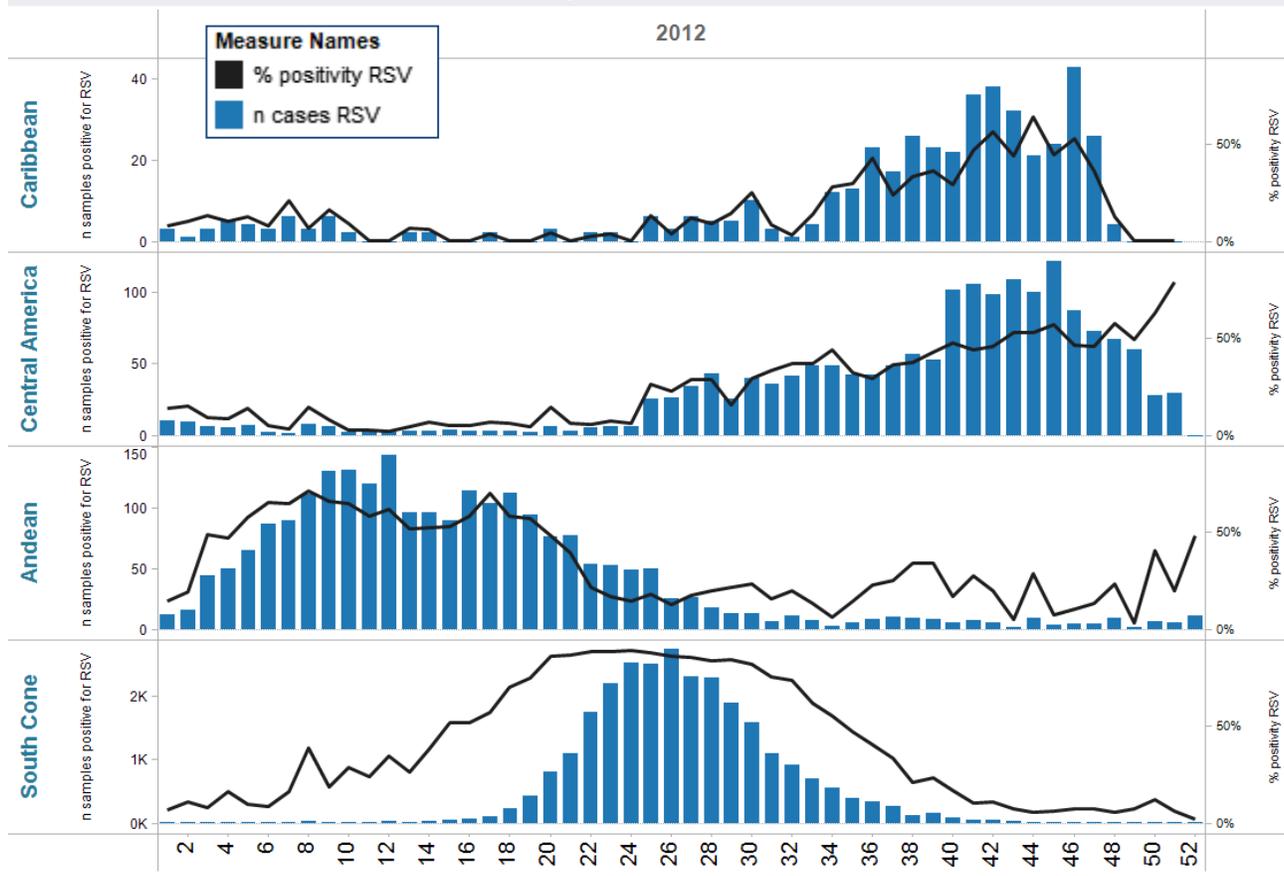
- **North America:** influenza activity continued to increase in Canada & US, with increases in most of the influenza indicators; however, in US the percentage of samples positive for influenza decreased as compared to the previous week. Influenza A(H3N2) is by far the most commonly detected influenza virus in Canada. In United States, the majority of influenza samples are A(H3N2), however influenza B accounts for a larger proportion of cases than in Canada. In Mexico, the percentage of positive samples for influenza viruses continued to increase and co-circulation of influenza A(H3) and influenza B was reported. Among other respiratory viruses, RSV continued to increase in Canada & US.
- **Central America and the Caribbean:** similar or decreased respiratory virus activity was reported in this sub-region as compared to previous weeks. Jamaica reported an increase in the proportion of SARI. Among the influenza viruses, influenza B (Barbados, Cayman Islands, Honduras and Dominican Republic) co-circulated with influenza A(H3N2) (Anguilla, Cayman Islands, Costa Rica, Honduras, Montserrat and St. Vincent & the Grenadines) and influenza A(H1N1)pdm09 (Cuba). Among other respiratory viruses, RSV remained as the predominant circulating virus in some countries of the region (Barbados, Costa Rica, El Salvador and Panama).
- **South America:** acute respiratory disease activity remained low or unchanged in the region.

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

Distribution of influenza viruses by region, 2012 (EW 1- 50)



Positive samples for RSV in the Caribbean, Central America, Andean countries and South Cone by EW. 2012



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

North America

In Canada¹, in epidemiological weeks (EW) 51 & 52, 2012, influenza activity increased. In EW 52, the influenza-like illness (ILI) consultation rate increased (66.3/1,000 consultations) but was within expected levels for this time of year. Five regions (in Alberta, Ontario, Quebec, Newfoundland) reported widespread influenza activity and 17 regions reported localized influenza activity (in British Columbia, Alberta, Ontario, Saskatchewan, Quebec, Manitoba, Prince Edward Island, and Newfoundland). In EW 52, among the total samples analyzed, the proportion of samples positive for influenza increased (31.1%); of the influenza cases detected in EWs 51 & 52, 97.7% were influenza A (25.7% influenza A(H3) and 73.6% influenza A unsubtype). Concerning other respiratory viruses, the percent positive for rhinovirus decreased (7.3%) and remained below the percent positivity for influenza; the RSV percent positivity increased (11.3). 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 83.3% of the influenza B cases).

In the United States², in EW 52, nationally the proportion of ILI consultations (5.6%) increased as compared to the previous week for the fourth consecutive week, remaining above the baseline (2.2%); and nine of ten regions [Region 9 (west) below its baseline] reported a proportion of outpatient visits for ILI above their region-specific baseline levels. Twenty-nine states and New York City experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 52 (7.1%) was below the epidemic threshold for this time of year (7.2%). In EW 52, two influenza-associated pediatric deaths were reported (associated with influenza B). From 1 October to 29 December, the influenza-associated hospitalization rate was 8.1/100,000 population, with the highest rates in those 65 years of age and older. Among all samples tested during EW 52 (n=9,363), the percentage of samples positive for influenza (31.6%) decreased as compared to the previous week. Nationally, among the positive samples, 79.2% were influenza

A [among the subtyped influenza A viruses, 98% were influenza A(H3)]. No novel influenza A virus cases were reported during EW 52; 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, 99.3% of the H3N2 cases, and 68.7% of the influenza B cases). Regarding other respiratory virus circulation in the United States, the percent positivity for RSV was 25% in EW 52, with low detections of adenovirus and parainfluenza 1,2, and 3.

In Mexico, in EW 52, the percent positivity for influenza was 46% among all samples tested (n=13) with influenza A(H3) and influenza B detected.

Caribbean

CARPHA received weekly SARI/ARI data from 4 countries for EW 52, 2012: Barbados, Jamaica, St. Lucia, Trinidad & Tobago. In EW 52, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.7%. The highest rate of SARI was among children 6 months to 4 years age (7.2%). No SARI deaths were reported from the region in EW 52. In the last 4 weeks (EW 49 to 52) the following viruses have been laboratory confirmed in CARPHA member countries: influenza A(H3N2) (Anguilla, Cayman Islands, Montserrat, St. Vincent & the Grenadines), influenza B (Cayman Islands, Barbados), respiratory syncytial virus (Barbados, Dominica, St. Vincent & the Grenadines), human metapneumovirus (St. Vincent & the Grenadines) and Rhinovirus (Belize, Montserrat). Up to the EW 52, 2012, the overall percentage positivity for samples tested is 39%.

In Jamaica for EW 51, the proportion of consultations for ARI was 5.5% (0.6% lower than EW 50). The proportion of admissions due to SARI was 1.7 % (0.7% increase when compared to the EW before). There was no SARI death reported for epidemiological week 51. According to laboratory data the percentage of positive samples for influenza virus in EW 50 was 42.9%. Only influenza B virus was detected among tested samples (n=7). Since the start of the 2012 season the overall percentage positivity for samples tested (n=429) was 24.7%, with 23.3% positivity for influenza viruses. Of the positive samples (n=106), Influenza B has been the most predominant virus circulating in Jamaica (76.4%), followed by influenza A (19.8%), influenza A (H1N1) pdm09 (12%), influenza H3N2 (7.5%) and influenza H1N1 (0.9%).

In Cuba, for EW 52, according to the laboratory data, the percentage of positive samples for respiratory viruses was 50% and for influenza virus was 12.5% between all the tested samples (n=32), Rhinovirus, influenza A(H1N1) pdm09 and influenza B were detected. From the beginning of 2012, in Cuba 3218 samples have been processed, of which 12.1% turned out positive to influenza A and B; 27% corresponded to other respiratory viruses and 60% of the samples were negative. For the year 2012, rhinovirus, followed by influenza B, RSV and influenza A(H1N1) pdm09 were the predominant circulating viruses.

In the Dominican Republic, according to laboratory data from EW 51, among the samples analyzed (n=15), the percent positivity for respiratory viruses was 13.3% and for influenza viruses was 6.7%. Influenza B and parainfluenza were detected.

In Suriname, from the EW 46 to the 50 there are not reported admissions nor deaths associated by SARI. With regard to the circulation of respiratory viruses in 2012, from EW 17 to the 25, Suriname reported an outbreak of influenza A(H3N2) and from the EW 29 to the 39, influenza B was the only virus detected. Other respiratory viruses that circulated in Suriname during 2012 include rhinovirus, adenovirus, RSV, and metapneumovirus.

Central America

In Costa Rica, according to laboratory data, in EW 50, of all samples tested (n = 78), the percent positivity for respiratory viruses decreased from 44% (EW 49) to 32%. RSV virus continued to predominate, followed by adenovirus and influenza A (H3).

In El Salvador, according to laboratory data, in EW 50, among the analyzed samples (n = 34), the percent positivity for respiratory viruses was 9%, with RSV predominating. This week, there were no influenza viruses detected.

In Guatemala, in Ews 50-52, among the total samples analyzed (n = 6), no positive samples were detected.

In Honduras, in EW 50, according to laboratory data, among the total samples analyzed (n = 18), the proportion of samples positive for respiratory viruses decreased from 35% (EW49) to 17%. Among the detected viruses, influenza B predominated.

In Nicaragua, between Ews 49-50, according to laboratory data, among all samples analyzed (n = 60), no respiratory viruses were detected. Influenza B was predominant in EW 35-48, peaking in EW 41.

In Panama, according to laboratory data, in EW 51, of all samples tested (n = 37), 72.5% were positive for respiratory viruses and only 2% were positive for influenza virus. RSV has continued to predominate since EW 34.

South America – Andean

In Bolivia, in La Paz, according SARI surveillance data, in EWs 51-52, the proportion of SARI hospitalizations remained low (1.3 and 1.4% respectively). There were no reported deaths or ICU admissions associated with SARI. Of the samples tested in EWs 51-52 (n = 15), the percentage of samples positive for respiratory viruses was 28%, with detection of influenza A (H3N2).

In Colombia, nationally, in EW 50, the proportion of SARI hospitalizations, SARI ICU admissions, and ILI consultations (11%, 6% and 13%, respectively) showed no significant change compared to the previous EW. According to the INS laboratory data, including the Departments of Antioquia, Nariño, and Bogotá, in EWs 50-52, among all samples analyzed (n = 98), there was a 30% positivity for respiratory viruses and 13% positivity for influenza virus. In EWs 50-52, the prevalent virus was RSV, followed by influenza A (H1N1) pdm09.

In Ecuador, according to the national SARI surveillance system, in EWs 50-52, the proportion of SARI hospitalizations, ICU admissions and SARI-associated deaths (2%, 3% and 3% respectively) remained similar to previous weeks. According to laboratory data, in EWs 50-52, among the samples analyzed (n = 198), the percent positivity for respiratory viruses was 13%, and for influenza virus was 6%. The predominant viruses were influenza A (H3) and RSV, which showed a progressive increase from EW 50 to EW 51.

In Peru³, nationally in EW 51, the ARI and pneumonia endemic channels in children under 5 years of age showed levels which were within expected ranges for this time of year and slightly lower than the previous week. Regionally, the pneumonia endemic channel in children under five years of age showed levels higher than expected in the departments of Ica, Loreto, Moquegua and Tacna. According to laboratory data, between EWs 50-51, among the samples analyzed (n = 93), the percent positivity for respiratory viruses (15%) and influenza virus (3%) remained similar to previous weeks. Among respiratory viruses, influenza A (H3), influenza A (H1N1) pdm09, RSV and parainfluenza were detected.

South America –Southern Cone & Brazil

In Argentina⁴, In Argentina [ii], nationally, in EW 52, the estimate of ILI cases was above expected levels for this time of year and the estimation of pneumonia cases was within expected levels. Nationally, the estimated number of SARI cases was similar to 2011 and 2010 for the same time period. According to reported laboratory data, between EWs 50-51, n=332 samples were analyzed, with a declining percent positivity for respiratory viruses (16% EW 50 and 8% EW 51). Influenza virus was the predominant virus.

In Brazil, between EWs 50-52, few influenza viruses were detected, with influenza A (H3) predominating.

In Chile, in EW 50, the ILI rate continued to trend downward, remaining slightly higher than expected for this time of year. According to the SARI surveillance system, in EWs 49-50 no respiratory viruses were detected associated with SARI cases. According to laboratory data, nationally, among the samples analyzed from EWs 50-52 (n = 1218), the percent positivity for respiratory viruses remained at ~ 12%. Influenza B virus predominated, followed by parainfluenza, adenovirus, human metapneumovirus, RSV and influenza A (H3).

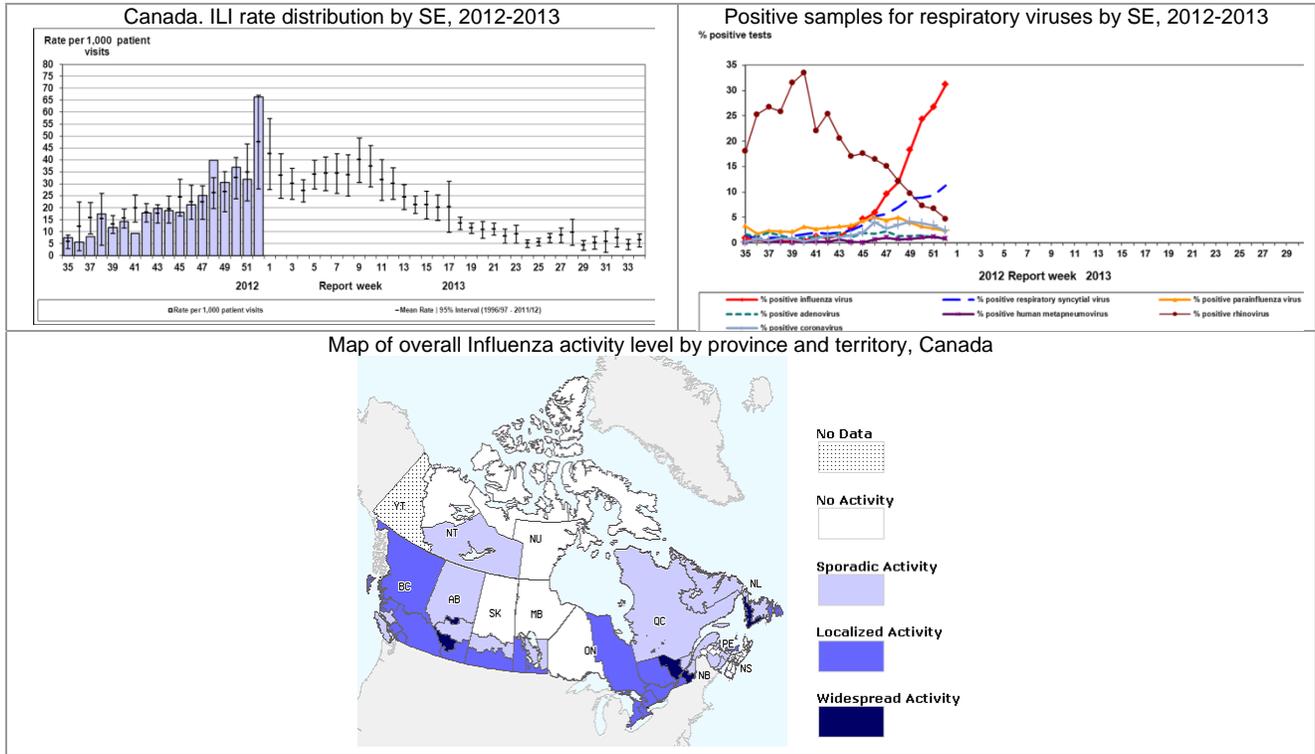
In Paraguay, in EW 50, the national rate of ILI (70.3 / 100,000 population) showed a slight increase from the previous EWs, while the proportion of ILI consultations (3%) in sentinel units remained similar. In SARI surveillance in sentinel units in EW 50, the proportion of SARI hospitalizations, ICU admissions and SARI-associated deaths (3%, 10% and 2% respectively) remained low and similar to the previous week. According to laboratory data, the percent positivity for respiratory viruses increased from 21% (EW 50) to 39% (EW 51), with a predominance of influenza A (H3), followed by influenza B and parainfluenza.

In Uruguay⁵, nationally in EW 52, according to the SARI surveillance system, the proportions of SARI hospitalizations and SARI ICU admissions were low and no significant changes were observed as compared to previous weeks. No SARI-deaths were reported this week.

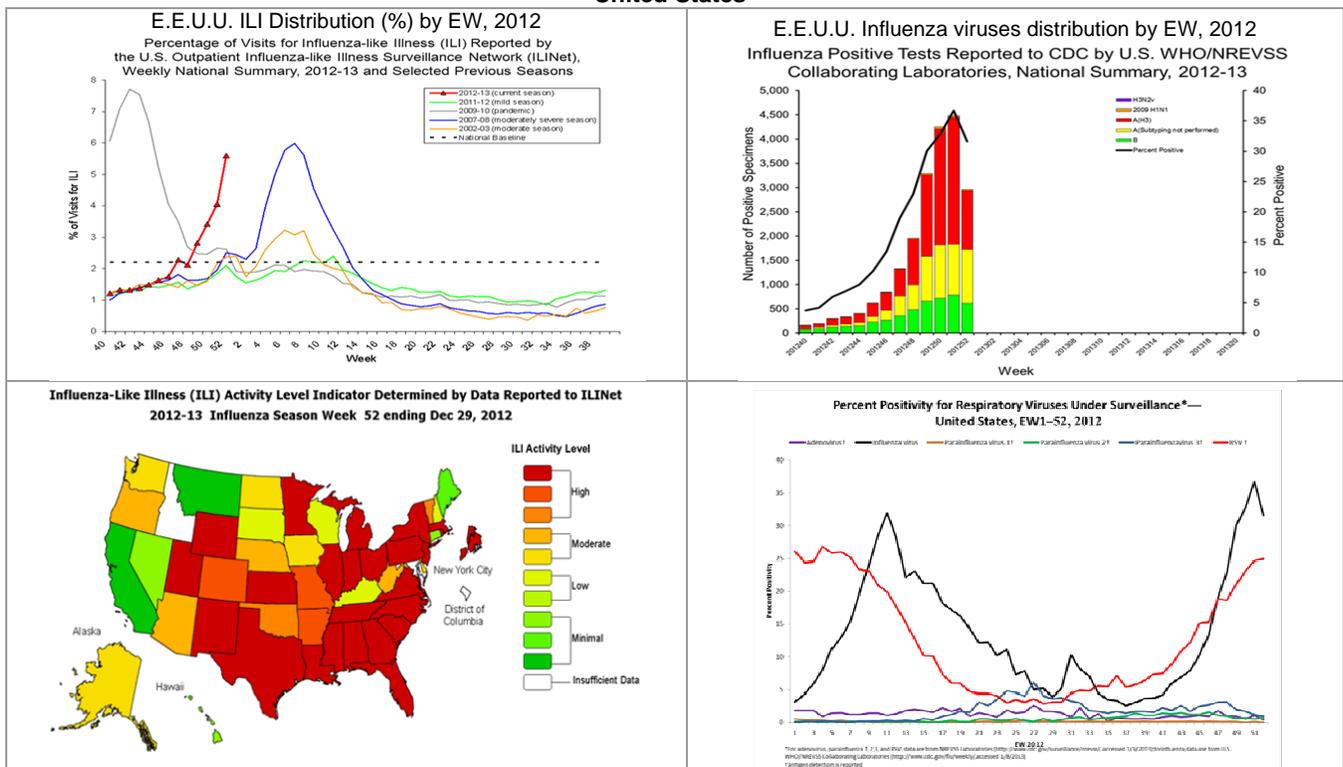
4. GRAPHS

North America

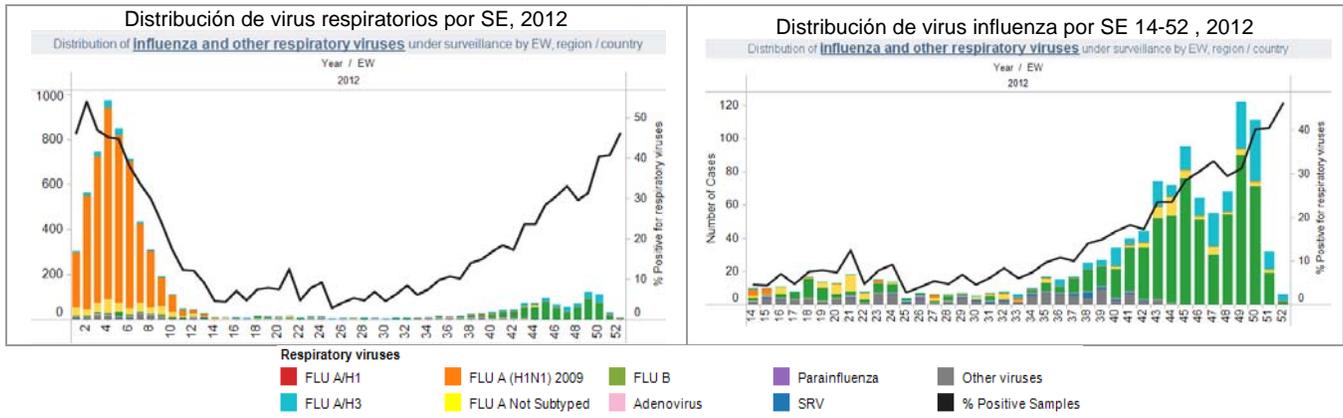
Canada



United States

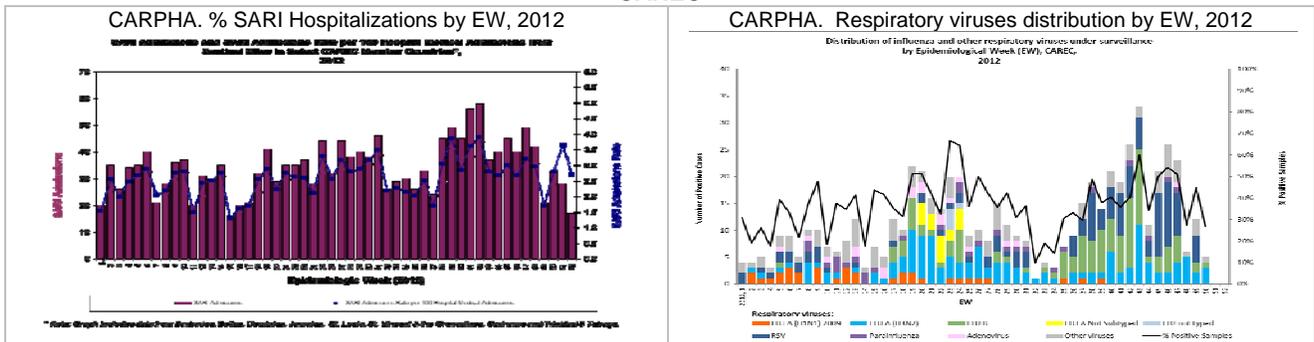


Mexico

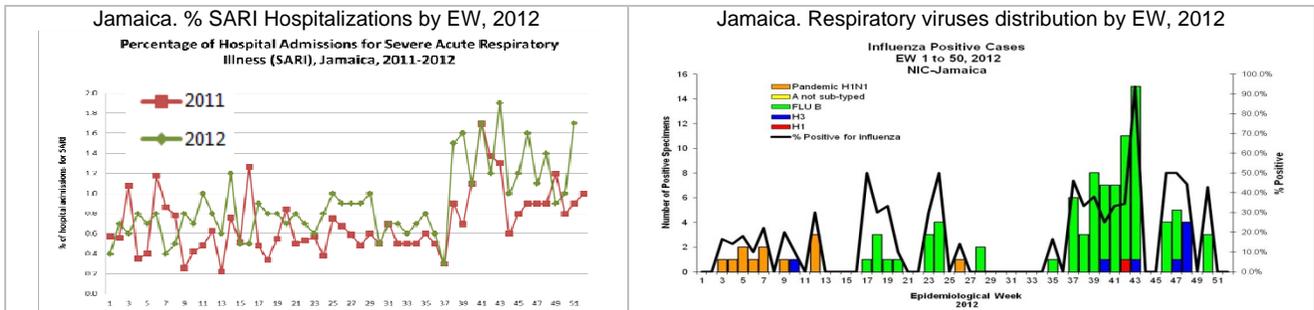


Caribbean

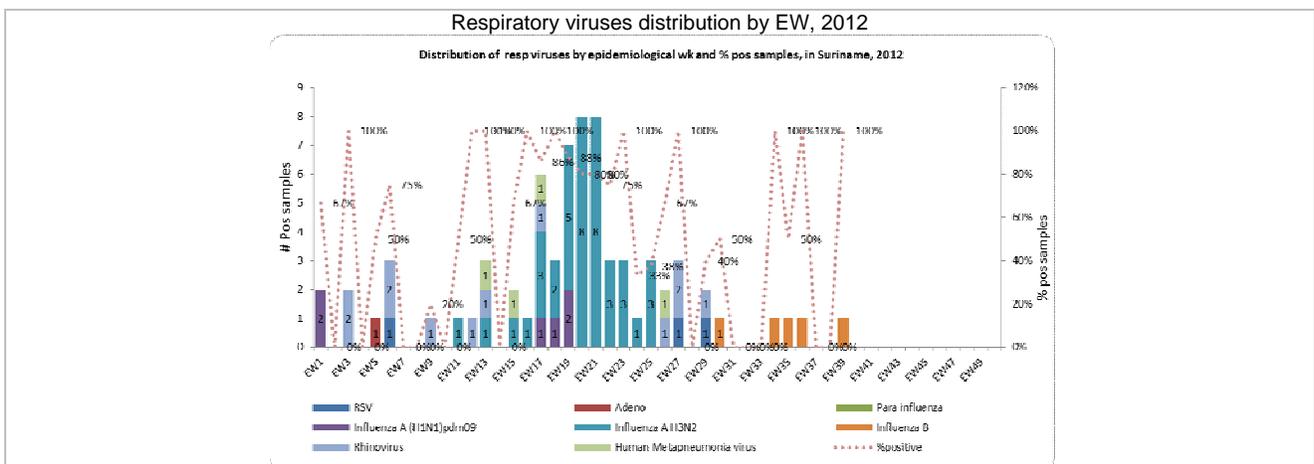
CARPHA



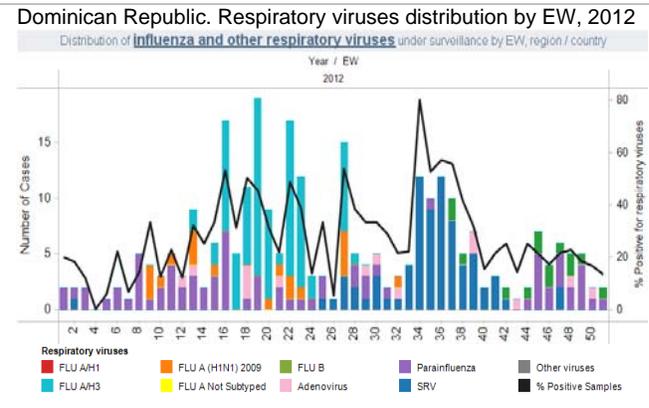
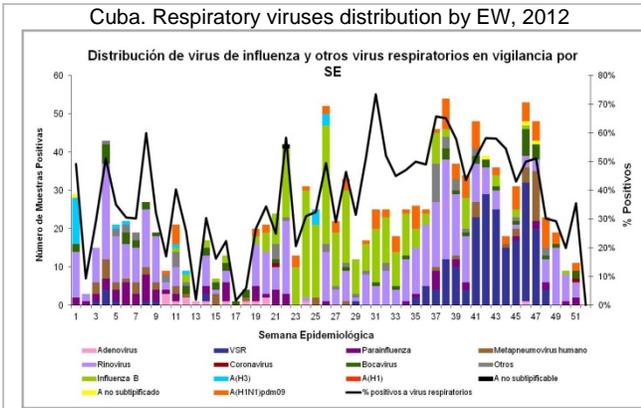
Jamaica



Suriname

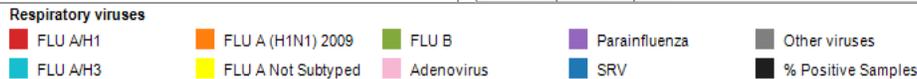
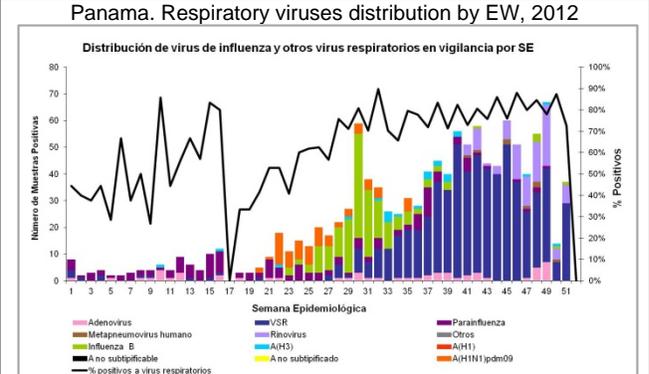
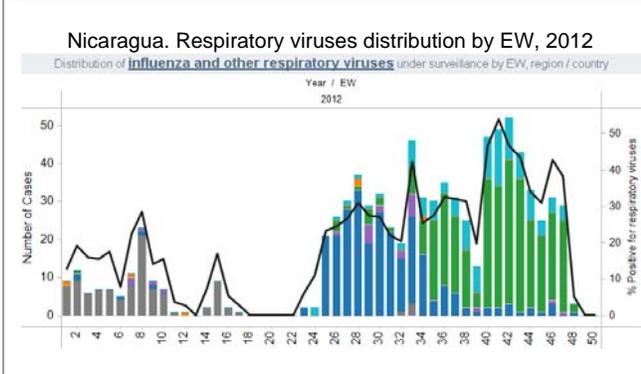
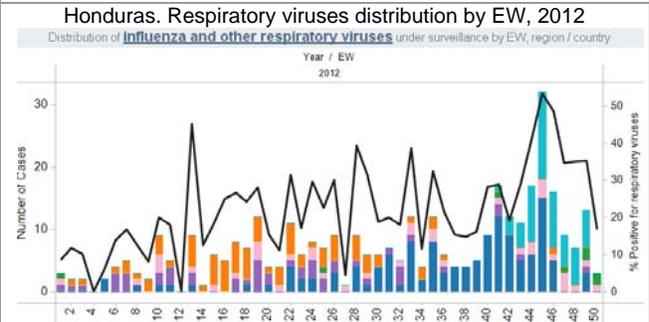
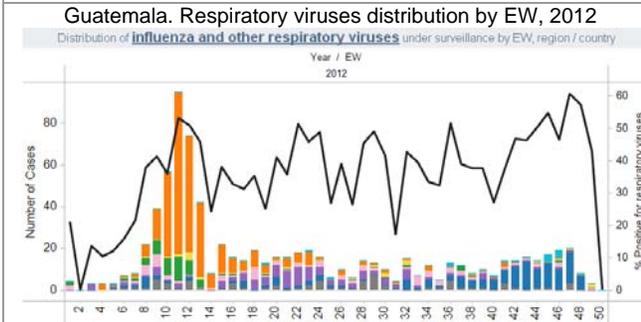
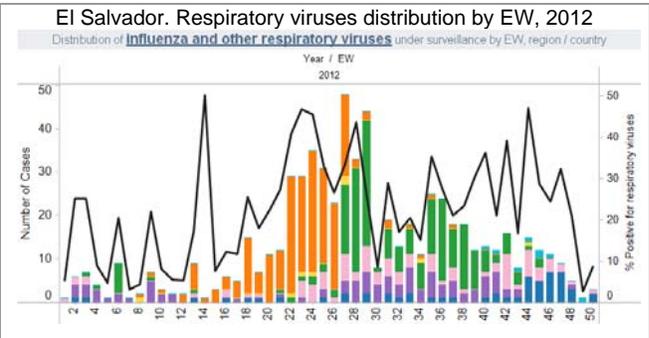
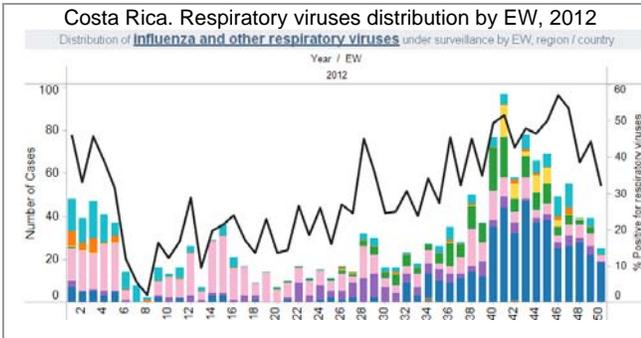


Cuba and Dominican Republic



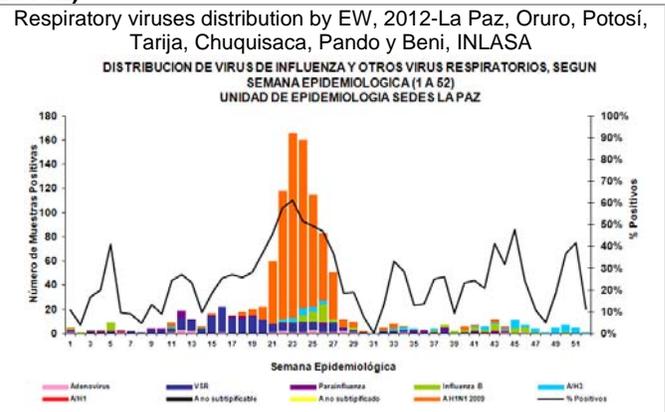
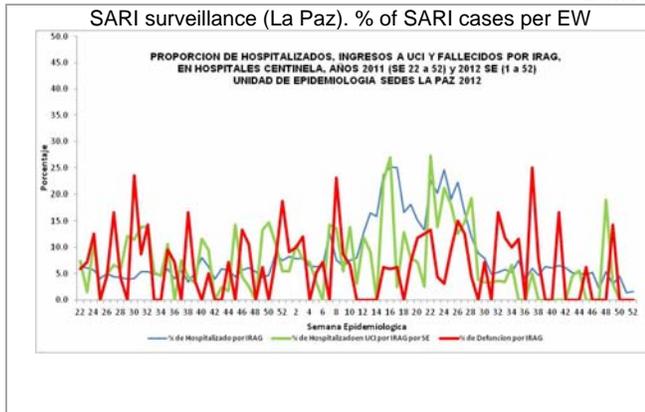
Central America

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

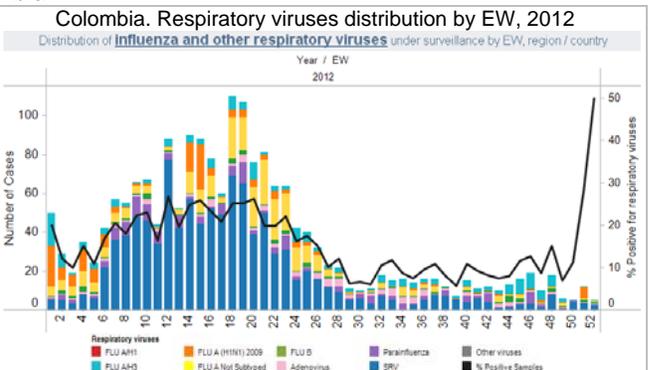
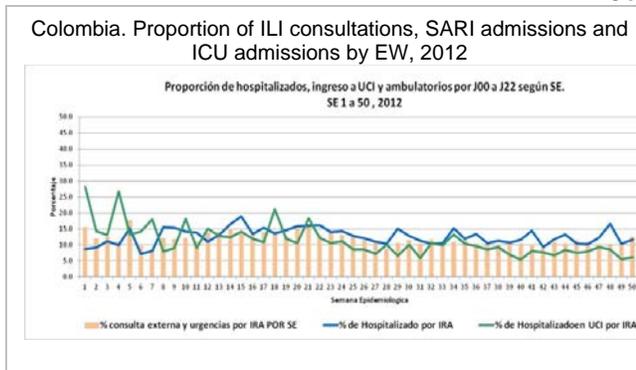


South America - Andean

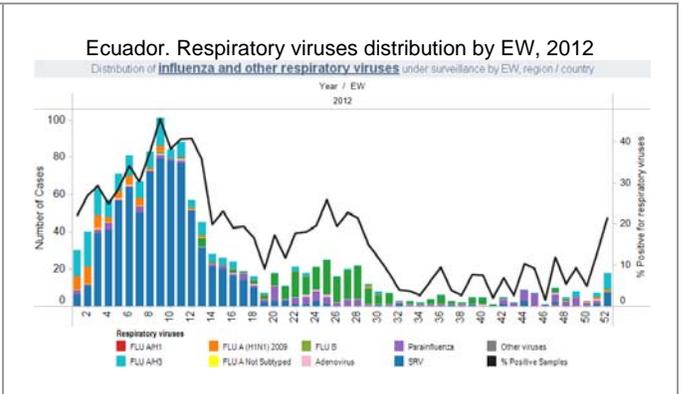
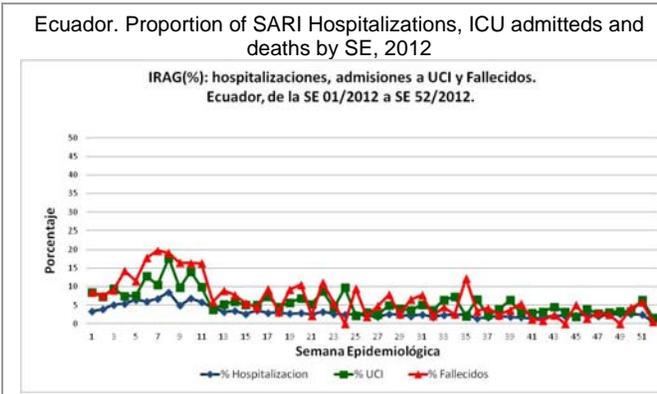
Bolivia (La Paz)



Colombia

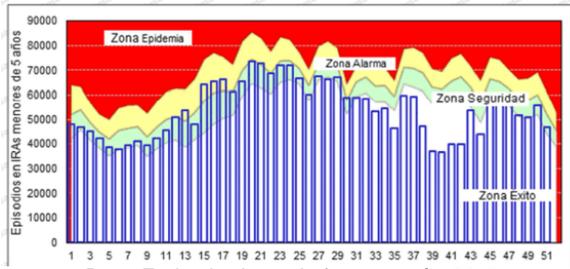


Ecuador

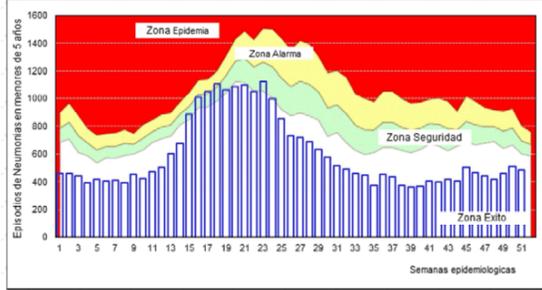


Peru

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

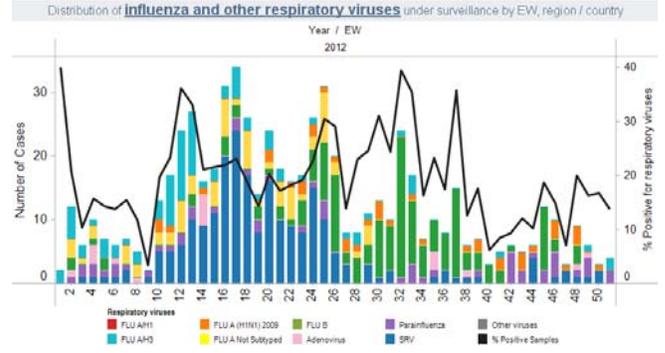


Peru. Endemic channel of pneumonia, 2012
Canal endémico de neumonías en menores de 5 años, Perú 2012*



Hasta la SE 51 notificaron 30 379 episodios de neumonías. La IA de las neumonías en el Perú es de 103.91 episodios por cada 10 000 niños menores de 5 años.

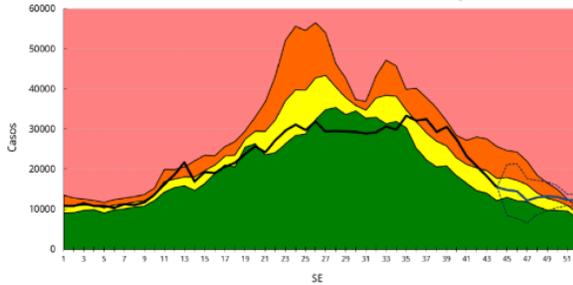
Perú. Respiratory viruses distribution by EW, 2012



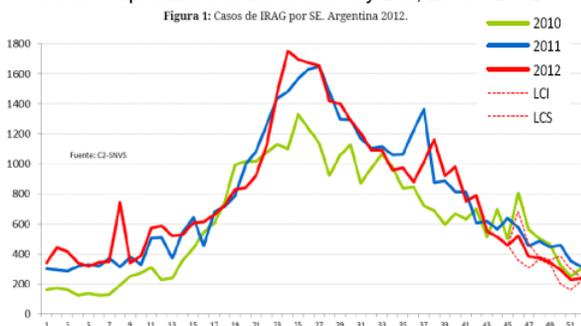
South America, Southern cone

Argentina

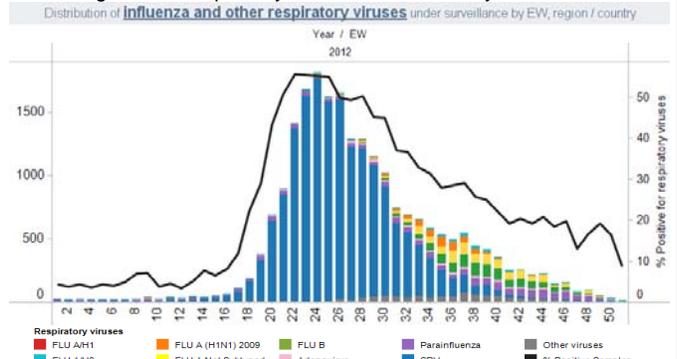
Argentina. ILI endemic channel, 2012
Corredor endémico semanal de ETI-2012
Total País. Históricos 5 años: 2006 a 2011. Excluyendo 2009



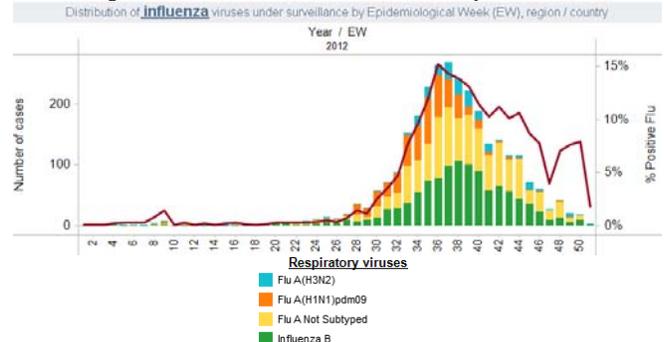
SARI Hospitalizations distribution by EW, 2010 - 2012



Argentina. Respiratory viruses distribution by EW, 2012

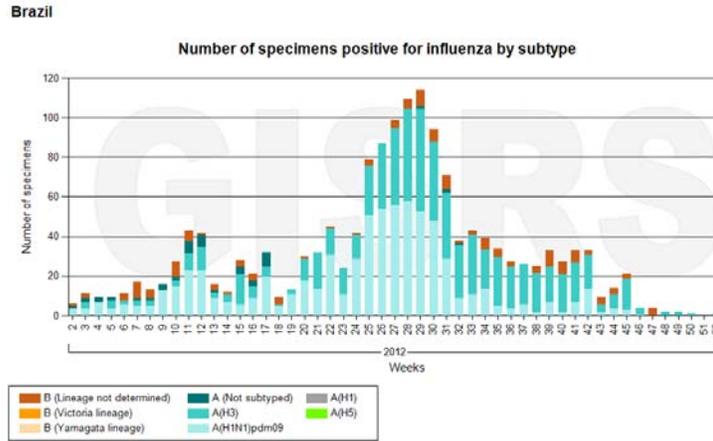


Argentina. Influenza viruses distribution by EW, 2012



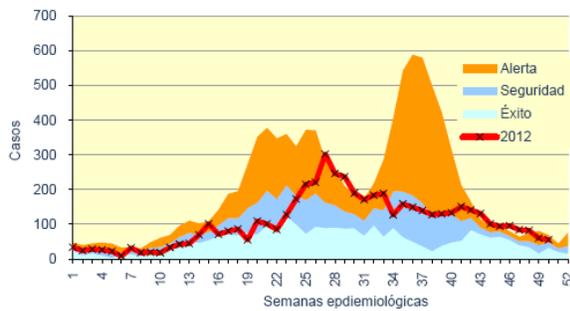
Brazil

Brazil. Influenza viruses distribution by EW, 2011 - 2012



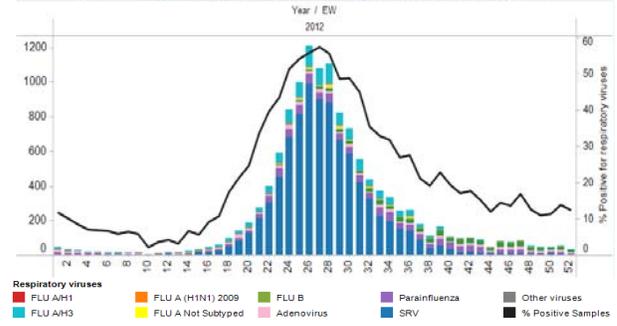
Chile

Chile. ILI Endemic Channel, 2012
Canal endémico de Enfermedad Tipo Influenza según semana epidemiológica, 2006-2011*. Chile, 2012 (SE 1-50)



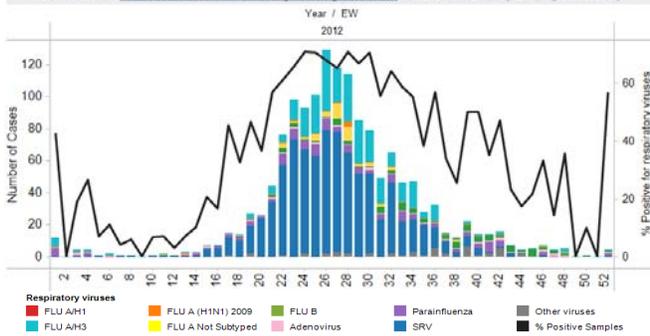
Chile. Respiratory viruses distribution by EW, 2012

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



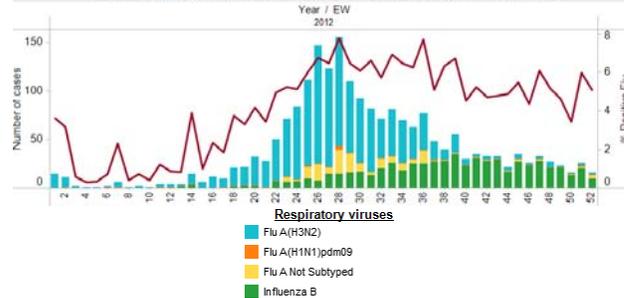
Chile. SARI cases: Respiratory viruses distribution by EW, 2012

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

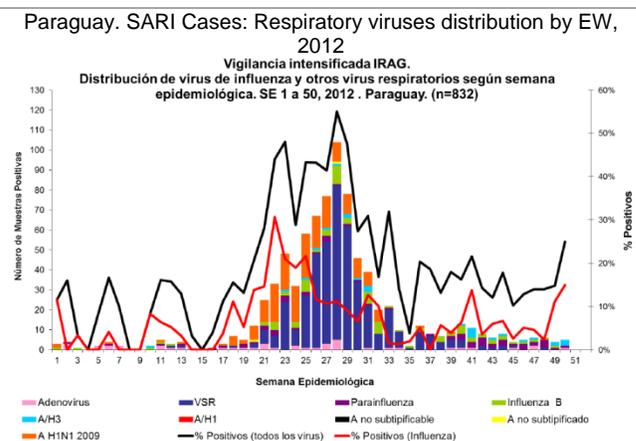
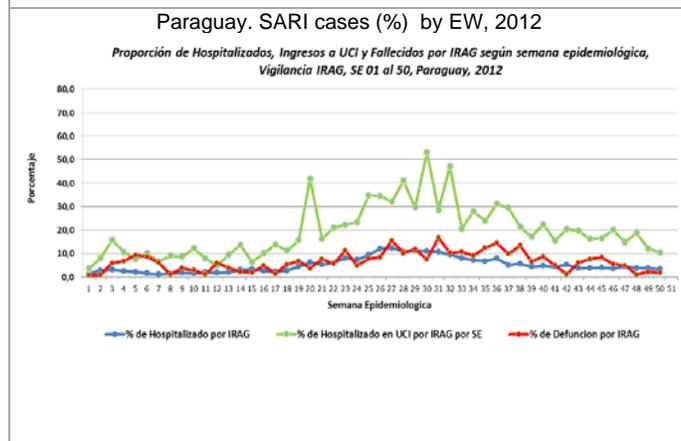
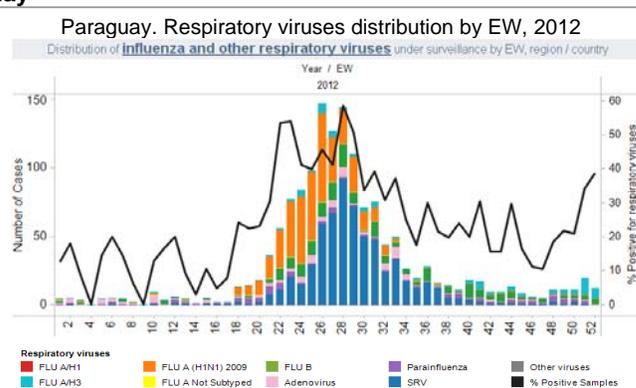
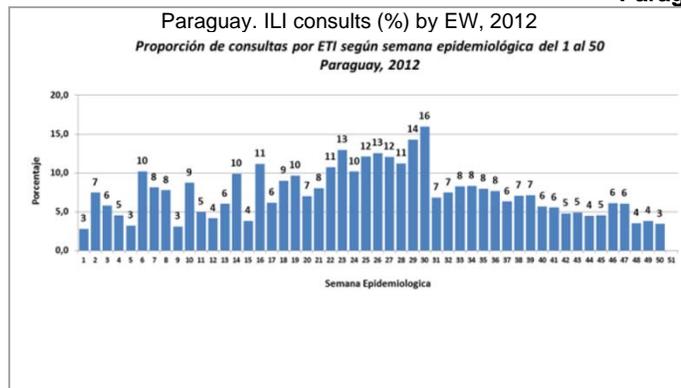


Chile. Influenza viruses distribution by EW, 2012

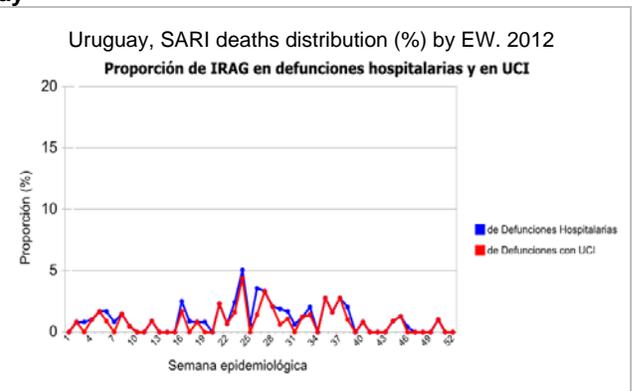
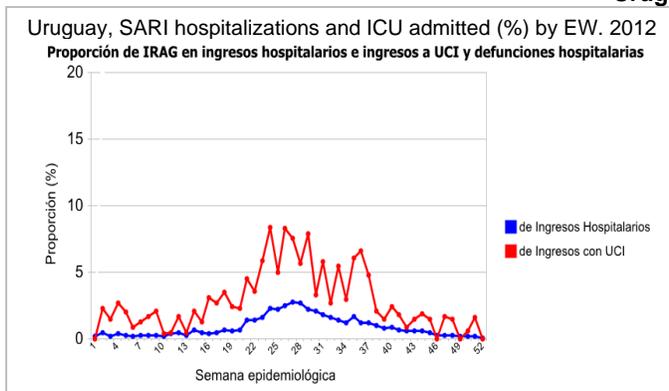
Distribution of **influenza** viruses under surveillance by Epidemiological Week (EW), region / country



Paraguay



Uruguay



- 1 FluWatch Report. EW 52. Available at <http://www.phac-aspc.gc.ca/fluwatch/>
- 2 US Surveillance Summary. EW 52. Centers for Disease Control and Prevention
- 3 Perú. Ministerio de Salud. Dirección general de Epidemiología. Boletín Epidemiológico SE 51.
- 4 Argentina. Actualización situación de enfermedades respiratorias 2012. SE 52.
- 5 Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública