Regional Update EW 46, 2012

Influenza and other respiratory viruses
(November 27, 2012 - 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 increased but remained within the expected level for this time of the year. Influenza A(H3) was predominant in Canada and United States, and influenza B in Mexico.
- Central America and the Caribbean: high respiratory infection activity or increased respiratory viruses detection (positivity) were observed in some countries of this sub-region (Costa Rica, Cuba, Honduras and Panama). Among the influenza viruses, influenza B (Barbados, Cuba, Dominica, Dominican R., El Salvador, Jamaica and Nicaragua) co-circulated with influenza A(H3N2) (Barbados, Costa Rica, El Salvador, Honduras and Nicaragua). Among other respiratory viruses, RSV remained as predominant circulating virus in several countries of the region
- South America: Severe acute respiratory disease activity remains low and unchanged in the region. Slight increase of activity was observed in Bolivia, Colombia and Paraguay. In the current EW, co-circulation of influenza B (Bolivia, Chile, Paraguay and Peru), influenza A(H3) (Bolivia, Brazil, Colombia and Paraguay) and influenza A(H1N1)pdm09 (Brazil) was observed among reported influenza detection. Among the other respiratory viruses, parainfluenza (Chile, Ecuador, Peru and Paraguay) predominated.

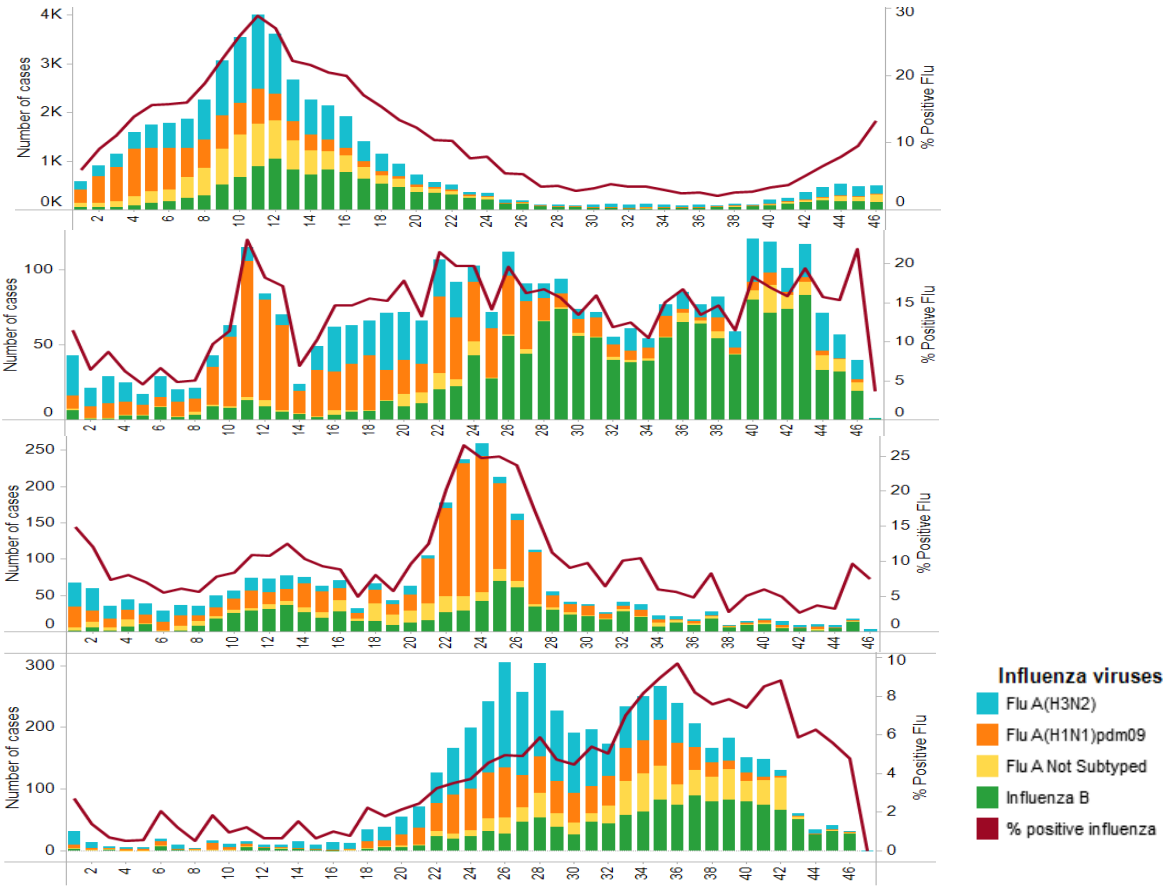
2. THE AMERICAS: DISTRIBUTION OF INFLUENZA VIRUSES BY EW, 2012

North America

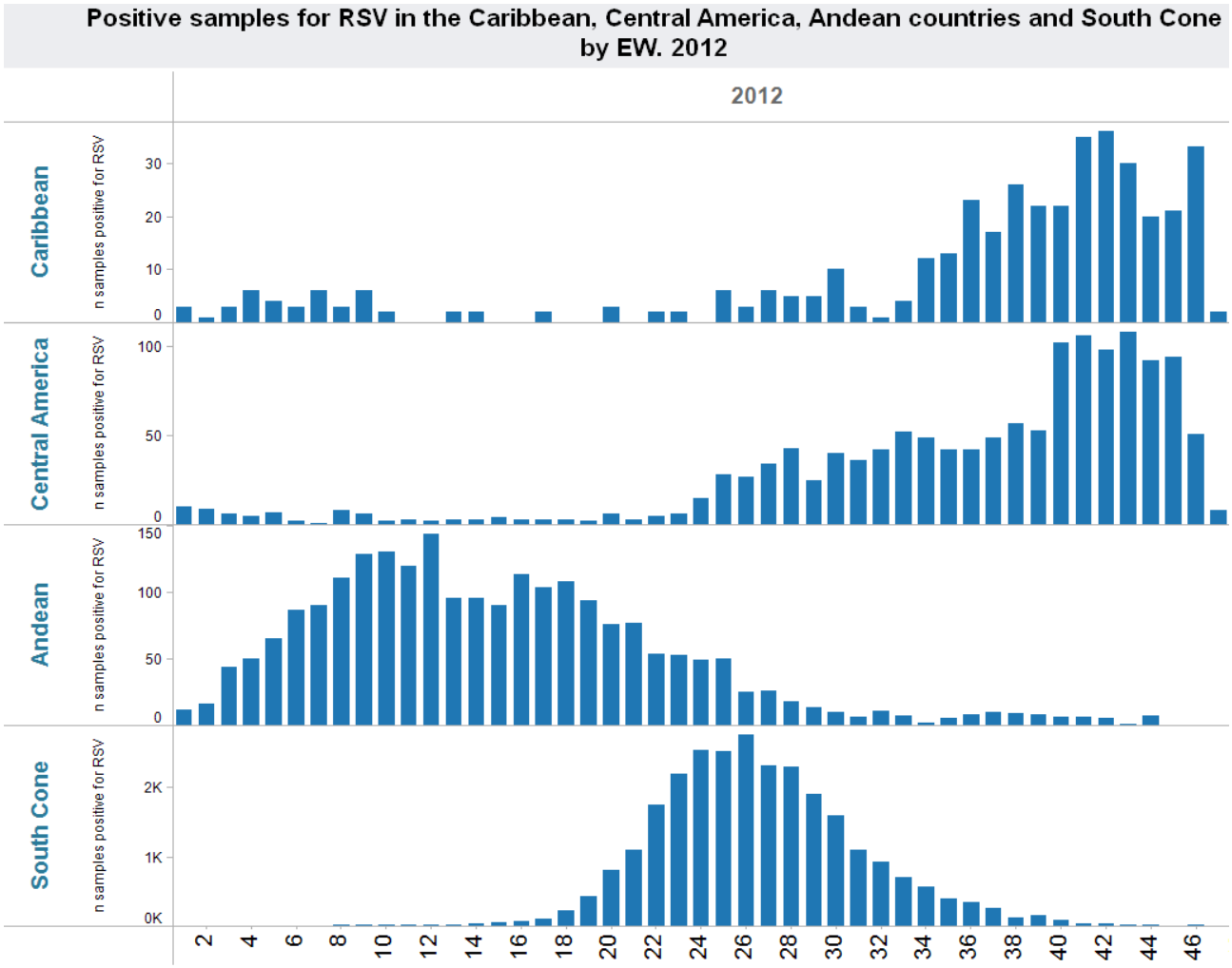
Central America & Caribbean

South America - Andean countries

South America - South cone



THE AMERICAS: DISTRIBUTION OF RSV BY EW, 2012



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

North America

In Canada[1], in epidemiological week (EW) 46, 2012, influenza activity increased. In EW 46, the influenza-like illness (ILI) consultation rate increased (27.2/1,000 consultations) but was within expected levels for this time of year. In EW 46, among the total samples analyzed, the proportion of samples positive for influenza increased (6.0%); of the influenza cases, 93.4% were influenza A (60.3% influenza A(H3) and 36.2% influenza A unsubtyped). Concerning other respiratory viruses, the percent positive for rhinovirus decreased but remained the highest (15.1%) as compared to other respiratory viruses.

In the United States[2], in EW 46, nationally, the proportion of ILI consultations (1.6%) was below the baseline (2.2%); and all 10 regions reported a proportion of outpatient visits for ILI below their region-specific baseline levels. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 46 (6.4%) was above the epidemic threshold for this time of year (6.6%). In EW 46, one influenza-associated pediatric deaths was reported, associated with an influenza A(H3) virus. Among all samples tested during EW 46 (n=3,742), the percentage of samples positive for influenza (13.2%) increased as compared to the previous week. Nationally, among the positive samples, 67.6% were influenza A [among the subtyped influenza A viruses, 97.2% were influenza A(H3)]. No novel influenza A virus infections were reported during EW 46, and since July 12, 2012, a total of 310 infections with influenza A variant viruses (306 H3N2v viruses, 3 H1N2v viruses, and one H1N1v) have been reported from 10 states.

In EW 45, in Mexico, among the 43 samples tested, 69.8% were positive for respiratory viruses with a predominance of influenza B (84.6%) among the positives (n=13).

Caribbean

CAREC, in EW 46, received epidemiological information from 6 countries: Barbados, Belize, Dominica, Jamaica, St. Lucia and Trinidad and Tobago. In EW 46, the proportion of severe acute respiratory infection (SARI) hospitalizations was 3.6% which was higher than what was reported during the prior week (2.9%). The SARI admission rate increased in Barbados, Jamaica and St. Lucia remained at nil in Trinidad and Tobago. The highest rate of SARI was among children 6 months to 4 years age (8.2% of hospital medical admissions were due to SARI). No SARI deaths were reported from the region. In the last 4 weeks (EW 43 to 46) the following viruses have been laboratory confirmed in CAREC member countries: influenza A(H3N2) (Barbados), influenza A not further typed (Barbados and Jamaica), influenza B (Barbados, Dominica and Jamaica), parainfluenza type 2 (Cayman Islands) and respiratory syncytial virus (Barbados, Cayman Islands, Dominica and Trinidad and Tobago), and human metapneumovirus (Belize). To date in 2012, the overall percentage positivity for samples tested is 38%, with 20% positivity for influenza.

In Cuba, in EW 46, according to laboratory data, the percentage of positive samples for influenza viruses was 50% among the tested samples (n=106). RSV, Influenza B, adenovirus and other respiratory viruses were detected.

In Jamaica for EW 46, the proportion of consultations for ARI was 7.5% (0.6% lower than the previous EW). The proportion of admissions due to SARI was 1.6 % (0.4% increase when compared to the EW before). There was no SARI death reported for EW 46. According to laboratory data, influenza B was detected among tested samples (n=3) in EW 46.

In the Dominican Republic, according to laboratory data from EW 47, among the samples analyzed (n=28), the percent positivity for respiratory viruses was 21.4%. Parainfluenza, RSV and influenza B were detected.

In French Guyana[3], in EW 45, ILI activity has decreased and stabilized to below the expected maximum values. In Guadalupe, Martinique, Saint-Barthélemy and Saint-Martin in EW 45, no influenza or other respiratory virus activity was reported.

Central America

In Costa Rica, in EW 46, according to laboratory data, in EW 46, among all samples tested (n=86), the percentage of positive samples for respiratory viruses (57%) was higher than the previous weeks. RSV remained as predominant circulating virus. Among influenza viruses, from the total samples tested, influenza A (16%) was more prevalent than influenza B (5%). Among the influenza A subtyped, mainly influenza A(H3N2) was detected.

In El Salvador[4], according to data provided by the Ministry of Health, nationally, in EW 45, the number of ARI cases and pneumonia cases were higher than the previous EW. The cumulative number of ARI cases in 2012 was higher as compared to the same period in 2011; and the cumulative number of pneumonia cases in 2012 was lower as compared to the same period in 2011. The highest percentages of ARI cases (21%) and pneumonia cases (38.5%) were reported in the children 1-4 years old group. Regionally, the highest pneumonia incidence rates in EWs 41-44, were observed in Chalatenango, San Vicente, San Miguel y La Unión. According to laboratory data, in EWs 44-45, of the total samples analyzed, RSV, adenovirus, influenza B and influenza (H3N2) were detected.

In Guatemala, according to laboratory data, in EW 46, of the total samples analyzed (n=12), the percentage of positive samples for respiratory viruses was 33%. The respiratory viruses detected in the last EWs were RSV, Human metapneumovirus and influenza A unsuptyped.

In Honduras[5], in EW 45, at the national level, the proportion of ILI consultations was similar (<5%) to the previous EW, and lower than observed in 2011 during this time of the year. The proportion of SARI hospitalizations (11%) increased in the last 2 EWs and was higher than observed in 2011. According to laboratory data, in EW 45, of all samples tested (n=12), the proportion of positive samples has increased in the last 3 EWs, associated with higher circulation of influenza A(H3N2). RSV, which was the predominant virus since the end of July, decreased in the last EW.

In Nicaragua, in EW 46, according to laboratory data, among all samples tested (n=62), the percentage of positive samples for respiratory viruses (29%) has been decreasing since its peak in EW 41. Influenza A(H3N2) has been the predominant circulating virus in the last 12 EWs, followed by influenza A(H3N2).

In Panama, according to laboratory data, in EW 46, of the total samples analyzed (n=37), the percentage of positive samples for respiratory viruses was 86%, mainly associated to RSV. During the last EWs, low influenza activity were reported.

South America – Andean

In La Paz, Bolivia, according to SARI surveillance data, in EW 46, the percentage of SARI (5.3%) admissions slightly increased with respect to the previous EW with no ICU admissions and no SARI-deaths reported. According to laboratory data, in La Paz (INLASA) for EW 46, a positivity for respiratory viruses of 22.7% was reported among the 22 tested samples with predominance of influenza B (n=4) viruses among the positives. In Santa Cruz (CENETROP), in EW 46, the positivity was 18.2% among the 11 tested samples with influenza A(H3) and adenovirus among the positives.

In Colombia, at the national level, in EW 46, the proportion of ILI consultations (11,2%) and ICU admissions (8.2%) slightly increased while SARI hospitalizations (10.3%)did not show significant changes with respect to previous EW. According to laboratory data from the national laboratory (INS) which includes data from the Departments of Antioquia, Bogota and Nariño, in EW 46 a positivity of 11.1% was reported among the tested samples (n=18) with a predominance of influenza (H3) virus.

In Ecuador, in the SARI surveillance system from sentinel units, at the national level in EW 46, the proportion of SARI hospitalizations and ICU admissions (3% and 2% respectively) showed no significant changes with respect to the previous EW and no SARI-deaths were reported in this EW. According to laboratory data at the national level, in EW 46, a percentage of positivity of 9.1% was reported among the 11 tested samples, which was lower than previous EW and with only one positive sample for parainfluenza virus.

In Peru, at the national level and in EW 45, the cumulative number of pneumonias in children under 5 years reached a rate of 94.2/10,000 population remaining in the success zone of endemic channel. At the subnational level, in Lima, Moquegua, Pasco and Ucayali, pneumonia reports in children under 5 years old remained in the epidemic zone of the endemic channel. According to laboratory data, in EW 45, at the national level, the percentage of positive samples for respiratory viruses among samples tested (n=75) was 18.7%, which was higher with respect to the previous EW, with a predominance of influenza B (71.4%) and parainfluenza virus among the positive samples.

In Venezuela, at the national level, in EW 45, the number of ARIs and pneumonias slightly increased (1.4% and 7.2% respectively) but remained in safety zone of endemic channel. For both ARI and pneumonia, children less than one year were the most affected age group. At the national level, SARI rate in EW 45 were 54.2/100,000 population, with 11 states exceeding this rate. So far, in 2012, 1748 samples were tested showing an a cumulative positivity of 8.6% with predominance of influenza B (33.8%), influenza A(H3N2) (13.3%) and RSV (21.2%) among the positives.

South America –Southern Cone & Brazil

In Argentina[6], at the national level, in EW 46, the number of ILI cases remained in the safety zone while SARI cases for the same EW remained below the reported values for 2010 and 2011. At the sub-national level, some provinces such as Formosa, San Juan and Tucumán showed cumulative rates higher than the expected values for the period. According to laboratory data in EW 46, the percentage of positive samples for respiratory viruses was 38.6% showing a significant increase with respect to the previous EWs, among the analyzed samples (n=83) with a predominance of not subtyped influenza A (46.9%) among the positive samples.

In Brazil, in EW 46, the percentage of positive samples for influenza viruses was 10.5% among the tested samples (n=19), which was lower with respect to previous EW and with detections of influenza A(H3) virus and A(H1N1)pdm09.

In Chile, in EW 46, at the national level, activity of ILI was 6.1 per 100.000 population, with no significant changes with respect to the previous EW and remaining in alert zone of the endemic channel. According to laboratory data, at the national level and in EW 46, the percentage positivity for respiratory viruses was 13.2% among the tested samples (n=597), with no significant change with respect to previous EW, and with

a predominance of influenza B (30.4%) and parainfluenza (30.4%). In SARI surveillance, 4 positive samples (1 case associated with influenza B) were reported among the tested samples (n=6).

In Paraguay, in EW 46, the national ILI rate (106.8/100,000 population) showed an increase with respect to the previous EWs with the same proportion of ILI consultations (6.1%) in sentinel units. According to laboratory data in EW 46 at the national level, 53 samples were tested for respiratory viruses with a percentage positivity of 17%, which was higher with respect to the previous EW and with presence of influenza B, influenza A(H3) and parainfluenza virus. In the SARI surveillance system in sentinel units, the proportion of hospitalizations for EW 46 was 2.5%, showing a decrease with respect to the previous EW. According to laboratory data of SARI surveillance, 16 samples were tested with a percentage positivity of 18.8% and with one positive sample for influenza A(H3) reported.

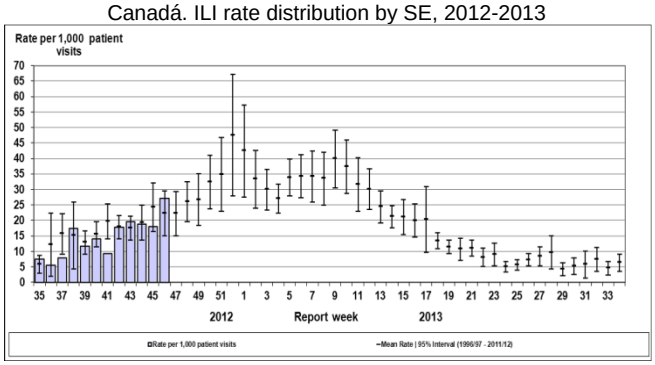
In Uruguay[7], at the national level, in EW 47, in the SARI surveillance system, the proportion of hospitalizations showed no significant change, while proportion of ICU admissions slightly increased with respect to the prior EW. No SARI-deaths were reported in EW 47.

4. GRAPHS

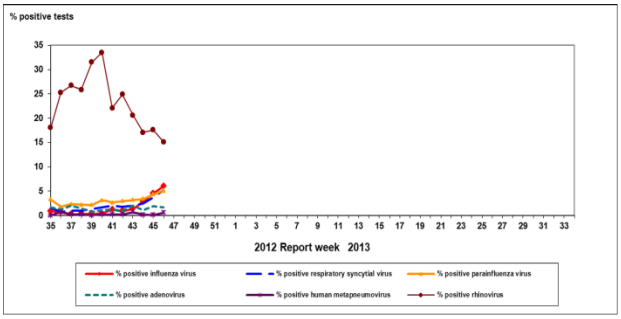
North America

Canada

Canadá. ILI rate distribution by SE, 2012-2013

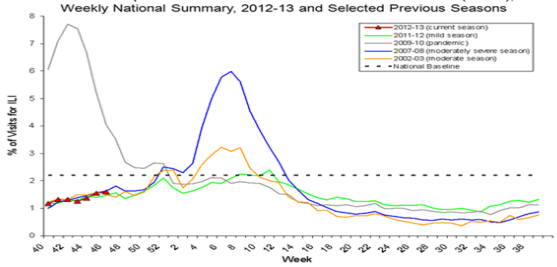


Canadá. Positive samples for respiratory viruses by SE, 2011-12 2012-2013

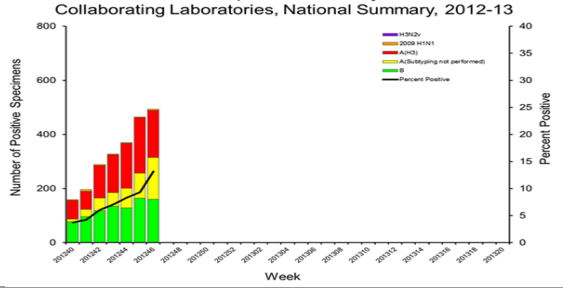


United States

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

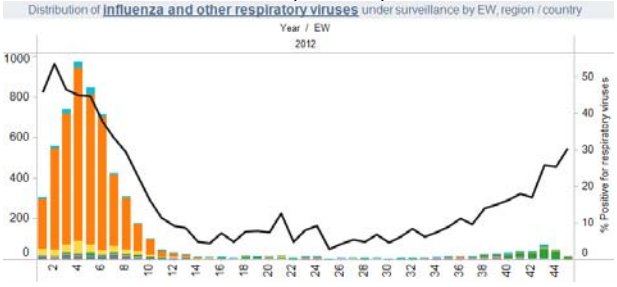


E.E.U.U. Influenza viruses distribution by EW, 2012

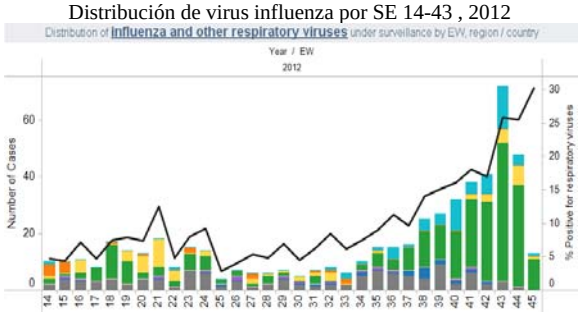


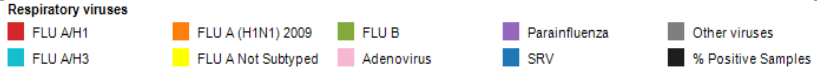
Mexico

Distribución de virus respiratorios por SE1-43, 2012



Distribución de virus influenza por SE 14-43 , 2012

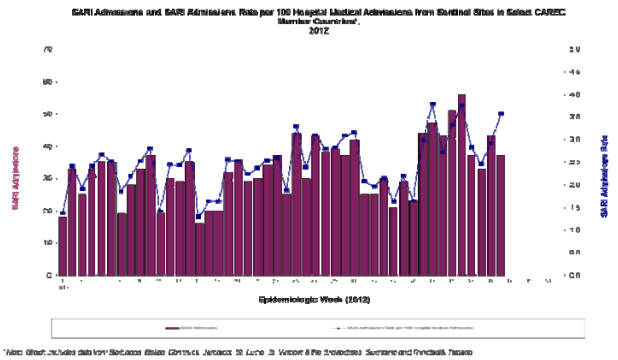




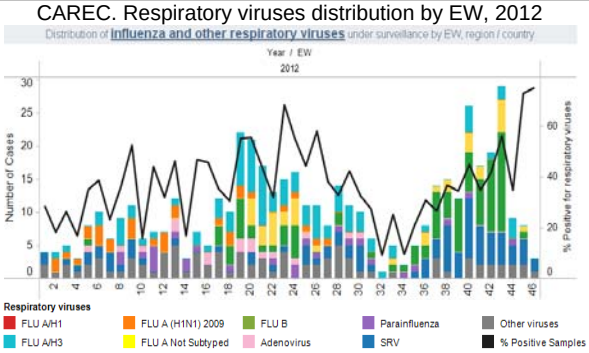
Caribbean

CAREC

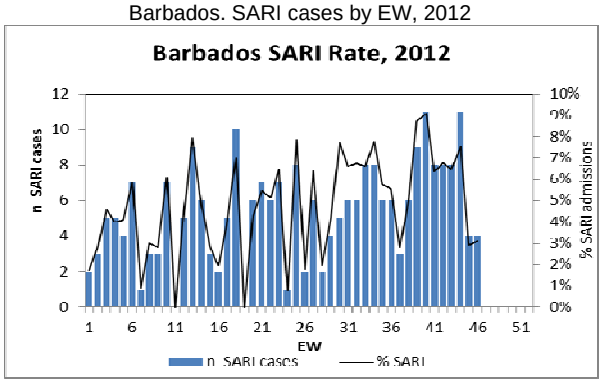
CAREC. % SARI Hospitalizations by EW, 2012



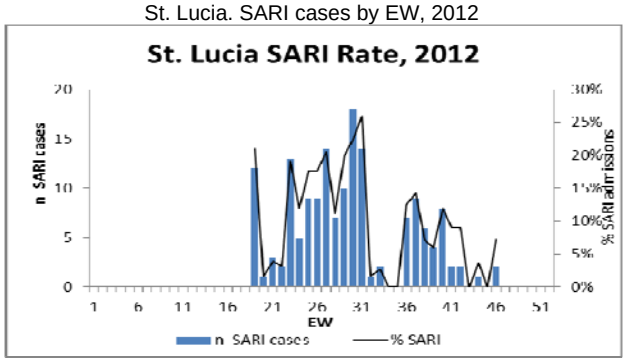
CAREC. Respiratory viruses distribution by EW, 2012



Barbados. SARI cases by EW, 2012

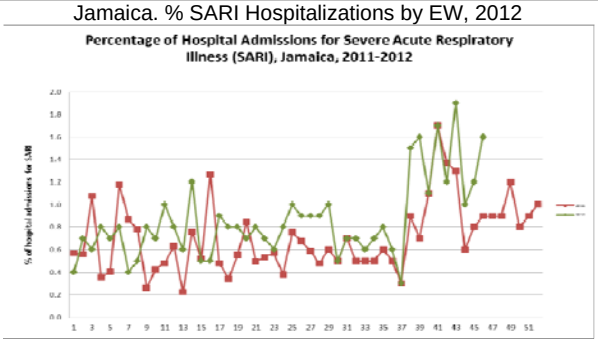


St. Lucia. SARI cases by EW, 2012

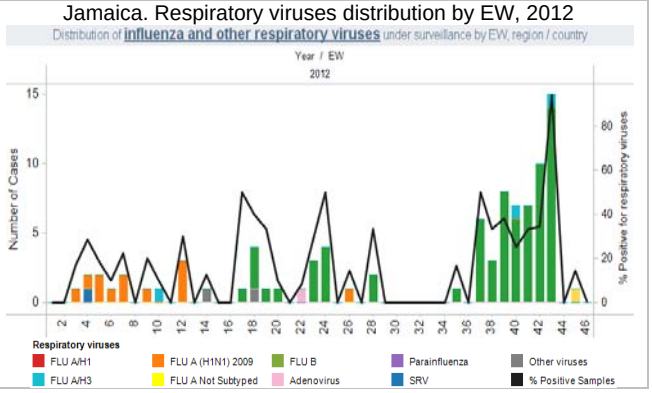


Jamaica

Jamaica. % SARI Hospitalizations by EW, 2012

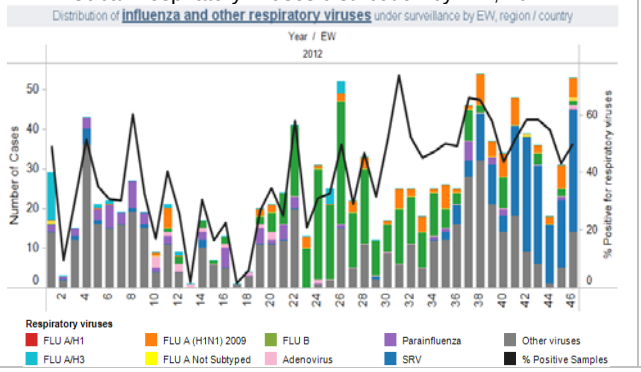


Jamaica. Respiratory viruses distribution by EW, 2012

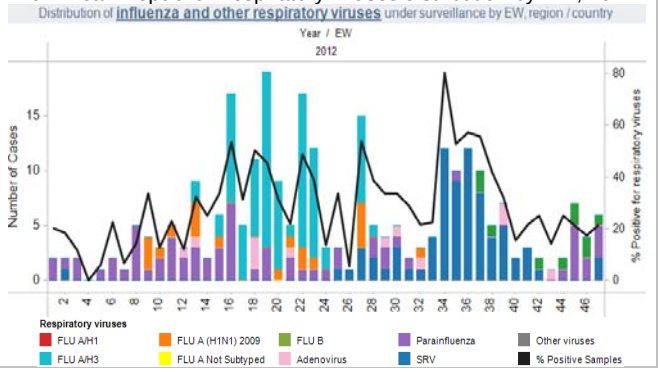


Cuba and Dominican Republic

Cuba. Respiratory viruses distribution by EW, 2012



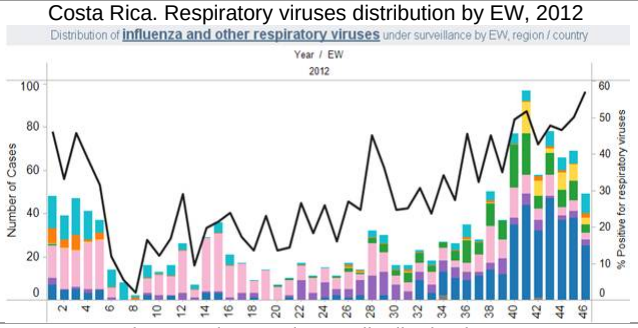
Dominican Republic. Respiratory viruses distribution by EW, 2012



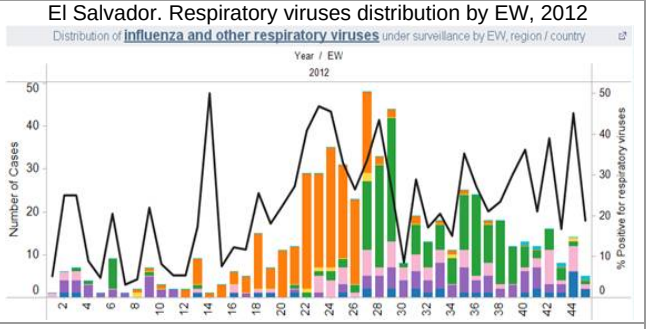
Central America

Costa Rica, El Salvador, Guatemala, Nicaragua and Panama

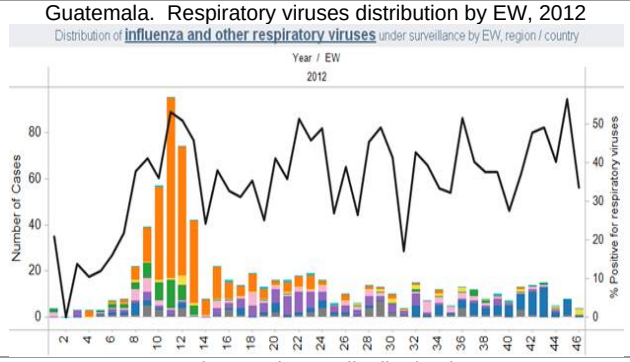
Costa Rica. Respiratory viruses distribution by EW, 2012



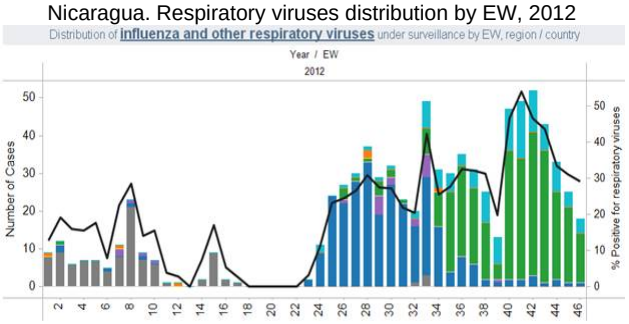
El Salvador. Respiratory viruses distribution by EW, 2012



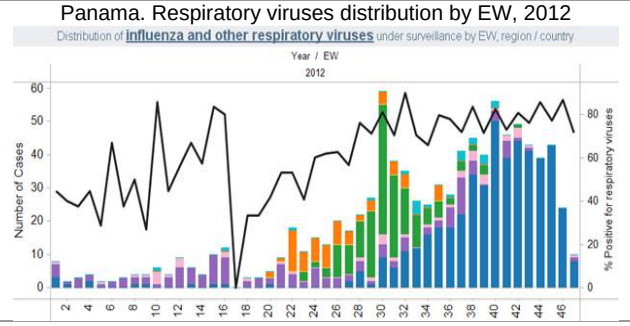
Guatemala. Respiratory viruses distribution by EW, 2012

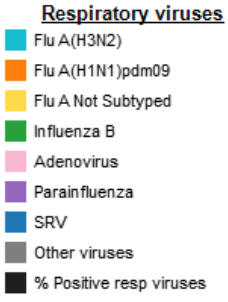


Nicaragua. Respiratory viruses distribution by EW, 2012



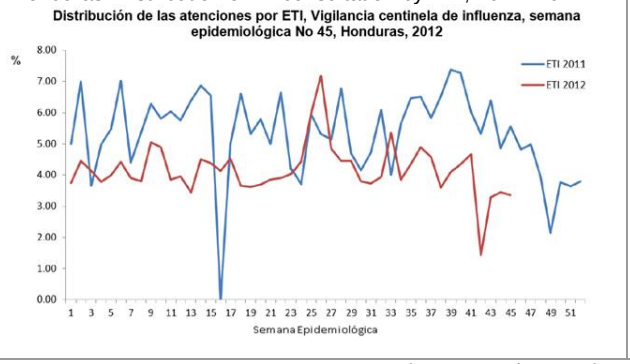
Panama. Respiratory viruses distribution by EW, 2012



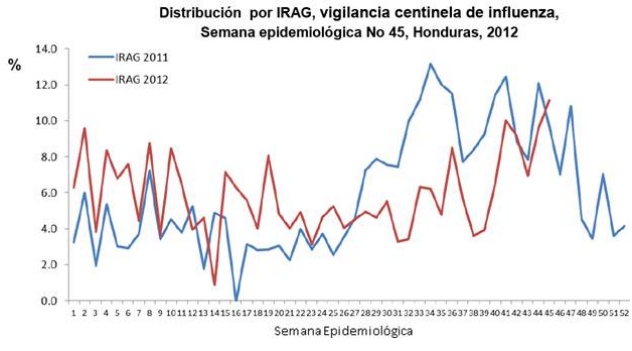


Honduras

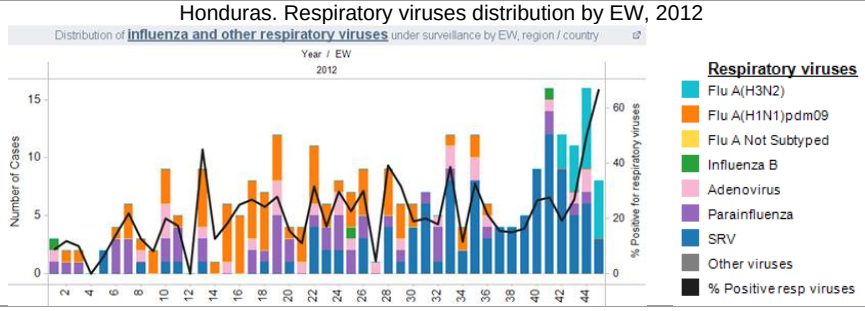
Honduras. Distribution of ILI consultation by EW, 2011- 2012



Honduras. Distribution of SARI casesby EW, 2011-2012



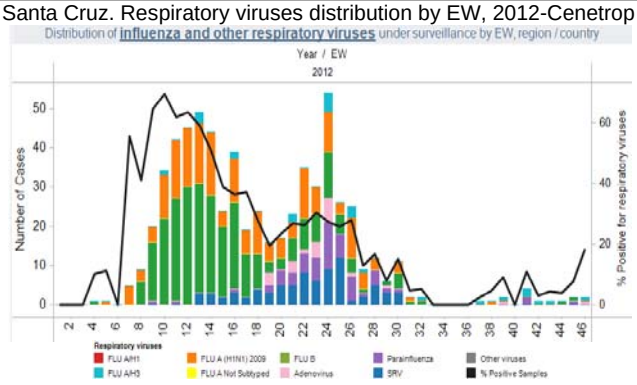
Honduras. Respiratory viruses distribution by EW, 2012



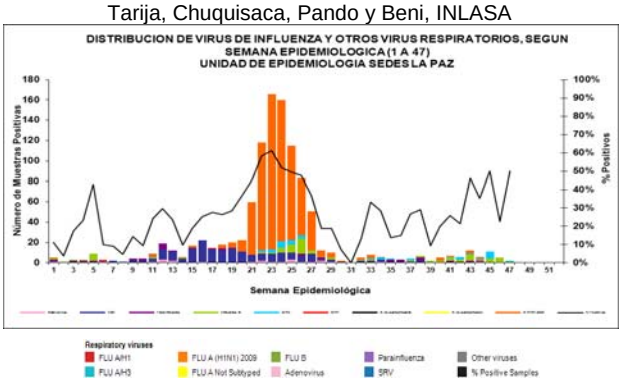
South America - Andean

Bolivia

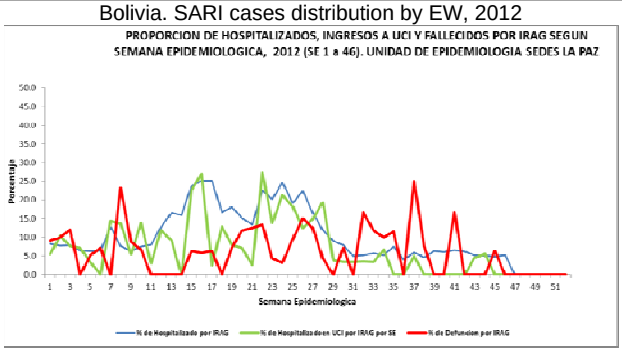
Santa Cruz. Respiratory viruses distribution by EW, 2012-Cenetrop



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

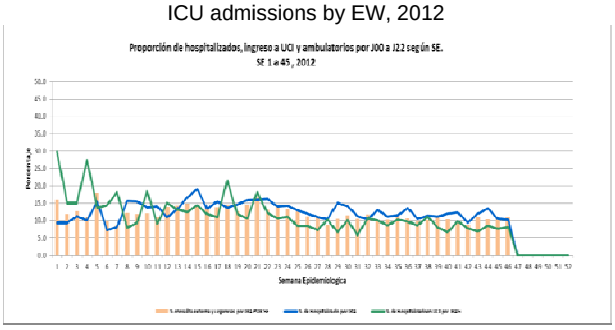


Bolivia. SARI cases distribution by EW, 2012

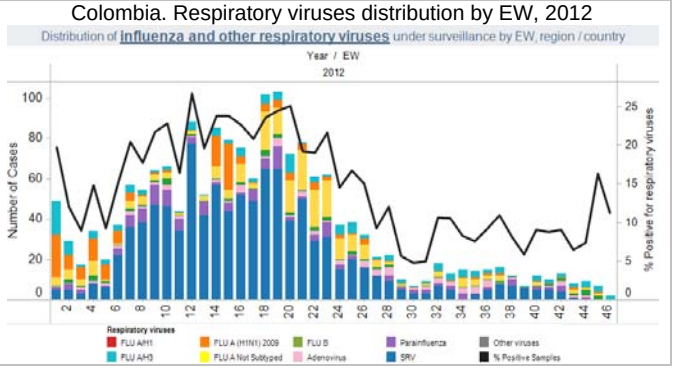


Colombia

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

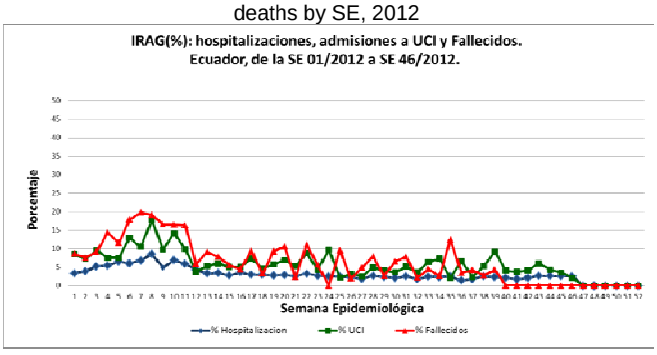


Colombia. Respiratory viruses distribution by EW, 2012

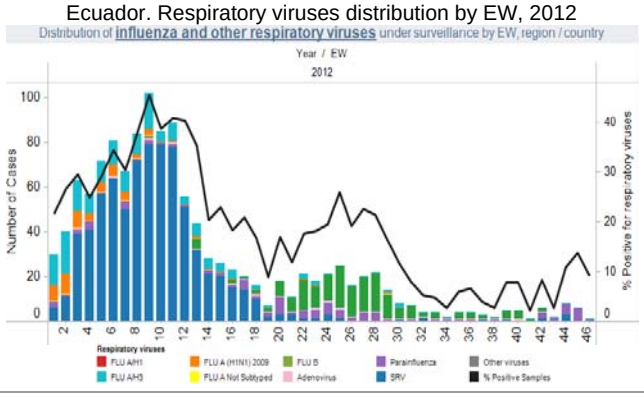


Ecuador

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

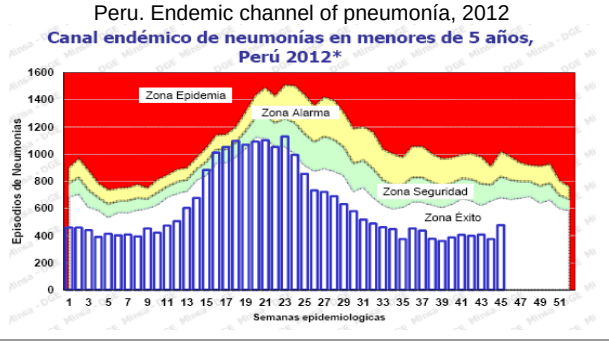


Ecuador. Respiratory viruses distribution by EW, 2012

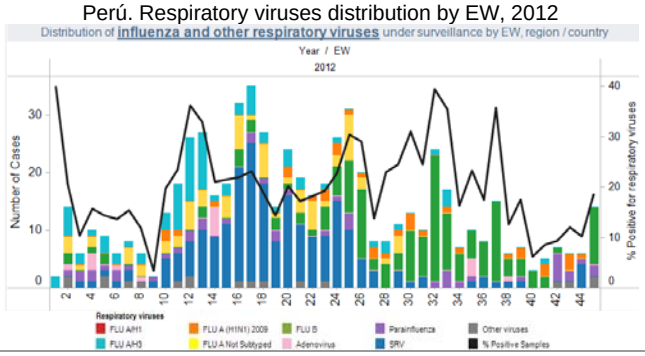


Peru

Peru. Endemic channel of pneumonía, 2012

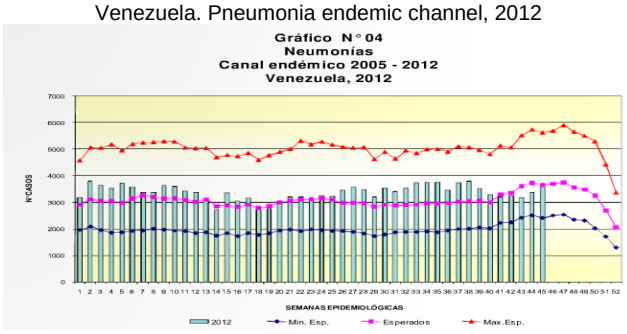


Perú. Respiratory viruses distribution by EW, 2012

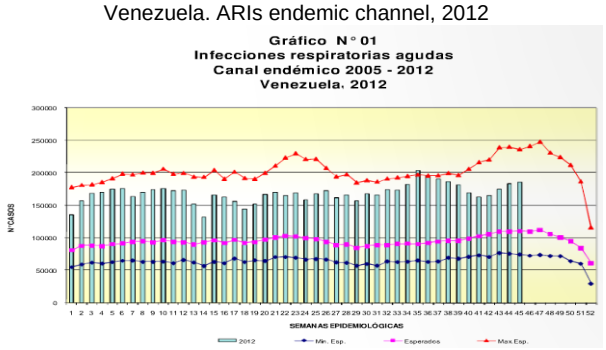


Venezuela

Venezuela. Pneumonia endemic channel, 2012



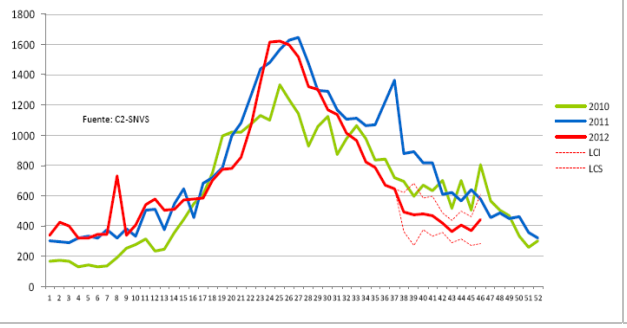
Venezuela. ARIs endemic channel, 2012



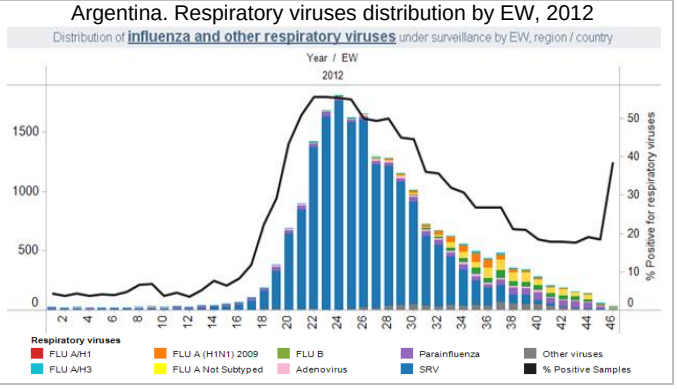
South America, Southern cone

Argentina

Argentina. SARI Hospitalizations distribution by EW, 2010 - 2012

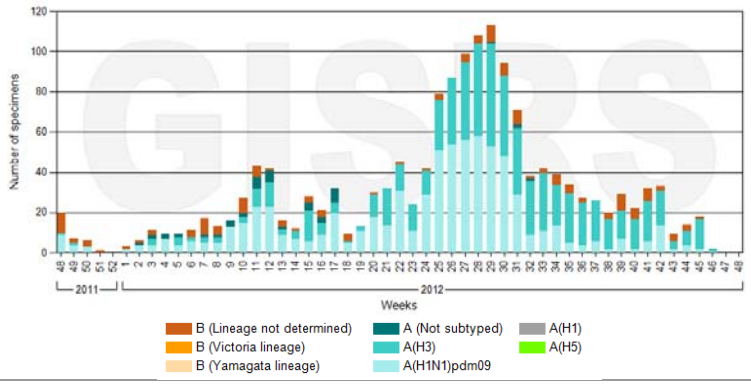


Argentina. Respiratory viruses distribution by EW, 2012



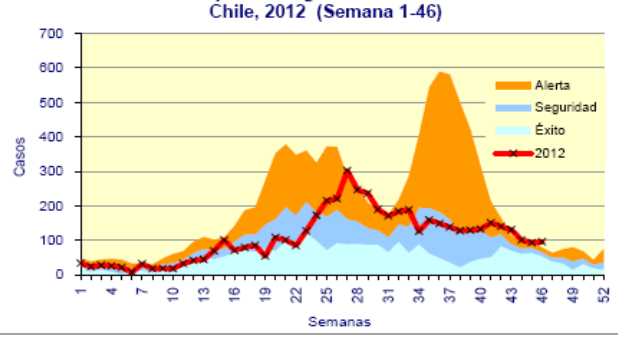
Brazil

Brazil. Influenza viruses distribution by EW, 2011 - 2012

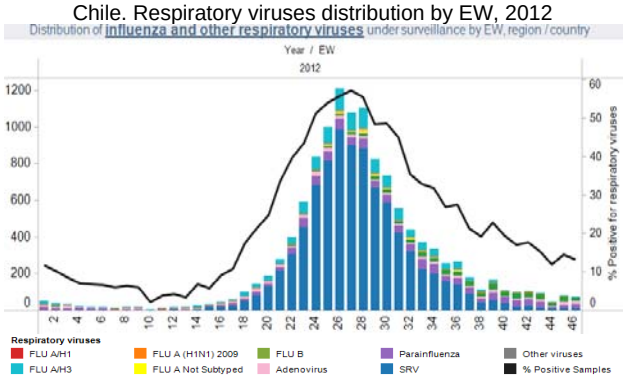


Chile

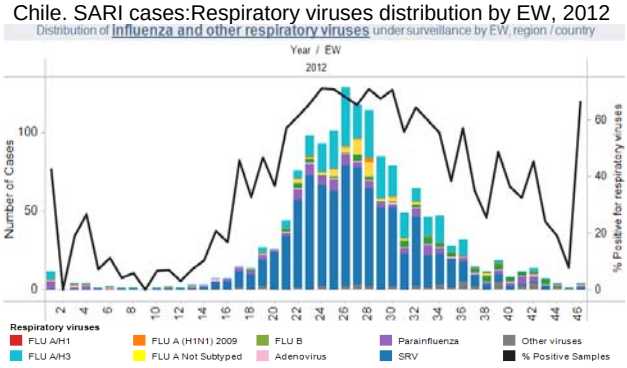
Chile. ILI Endemic Channel, 2012



Chile. Respiratory viruses distribution by EW, 2012

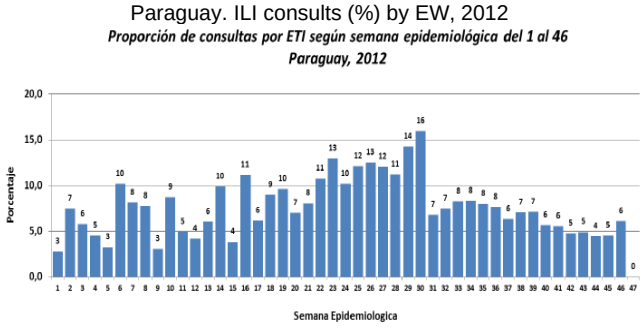


Chile. SARI cases:Respiratory viruses distribution by EW, 2012

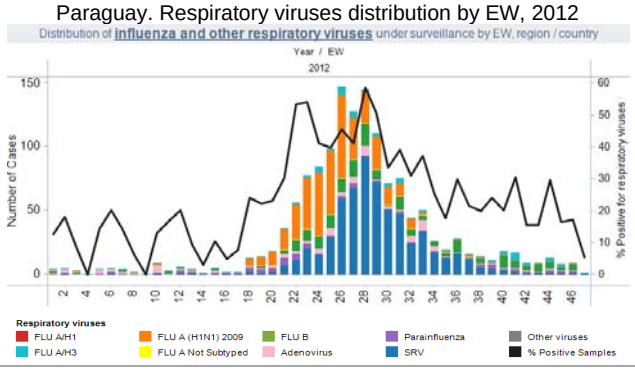


Paraguay

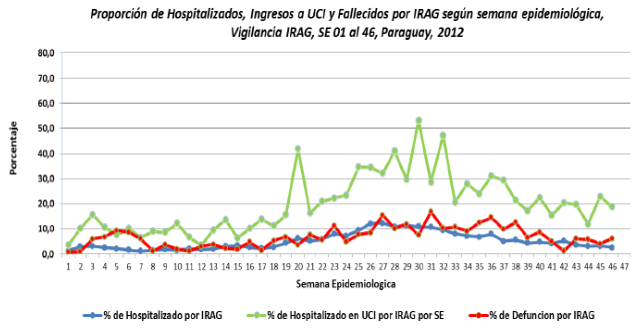
Paraguay. ILI consults (%) by EW, 2012



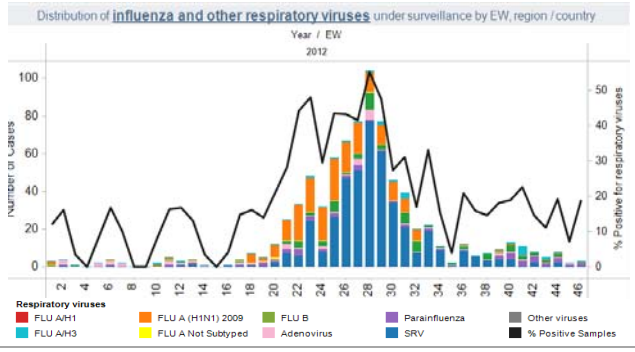
Paraguay. Respiratory viruses distribution by EW, 2012



Paraguay. SARI cases (%) by EW, 2012

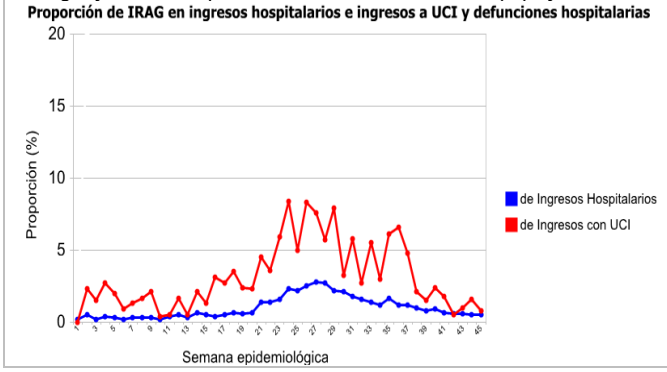


Paraguay. SARI Cases: Respiratory viruses distribution by EW, 2012

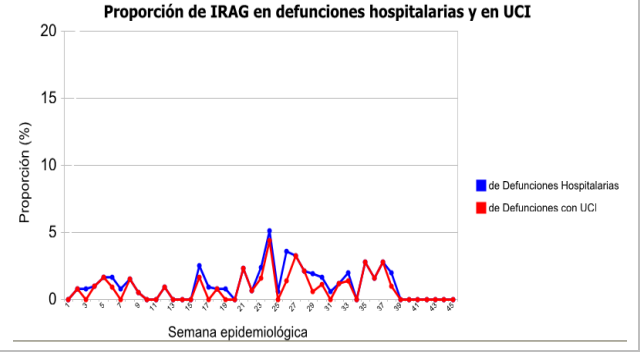


Uruguay

Uruguay, SARI hospitalizations and ICU admitted (%) by EW. 2012



Uruguay, SARI deaths distribution (%) by EW. 2012



1 FluWatch Report. EW 46. Available at http://www.phac-aspc.gc.ca/fluwatch/
2 US Surveillance Summary. EW 46. Centers for Disease Control and Prevention
3 Bulletin hebdomadaire grippe, Point Au 20/11/2012. Institut de Veille Sanitaire (11/20/2012)
4 El Salvador. Boletin epidemiológico SE 46 de 2012. MINSAL.
5 Honduras. Vigilancia centinela de Tegucigalpa y San Pedro Sula. SE 46
6 Argentina. Actualización situación de enfermedades respiratorias 2012. SE 46.
7 Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública