



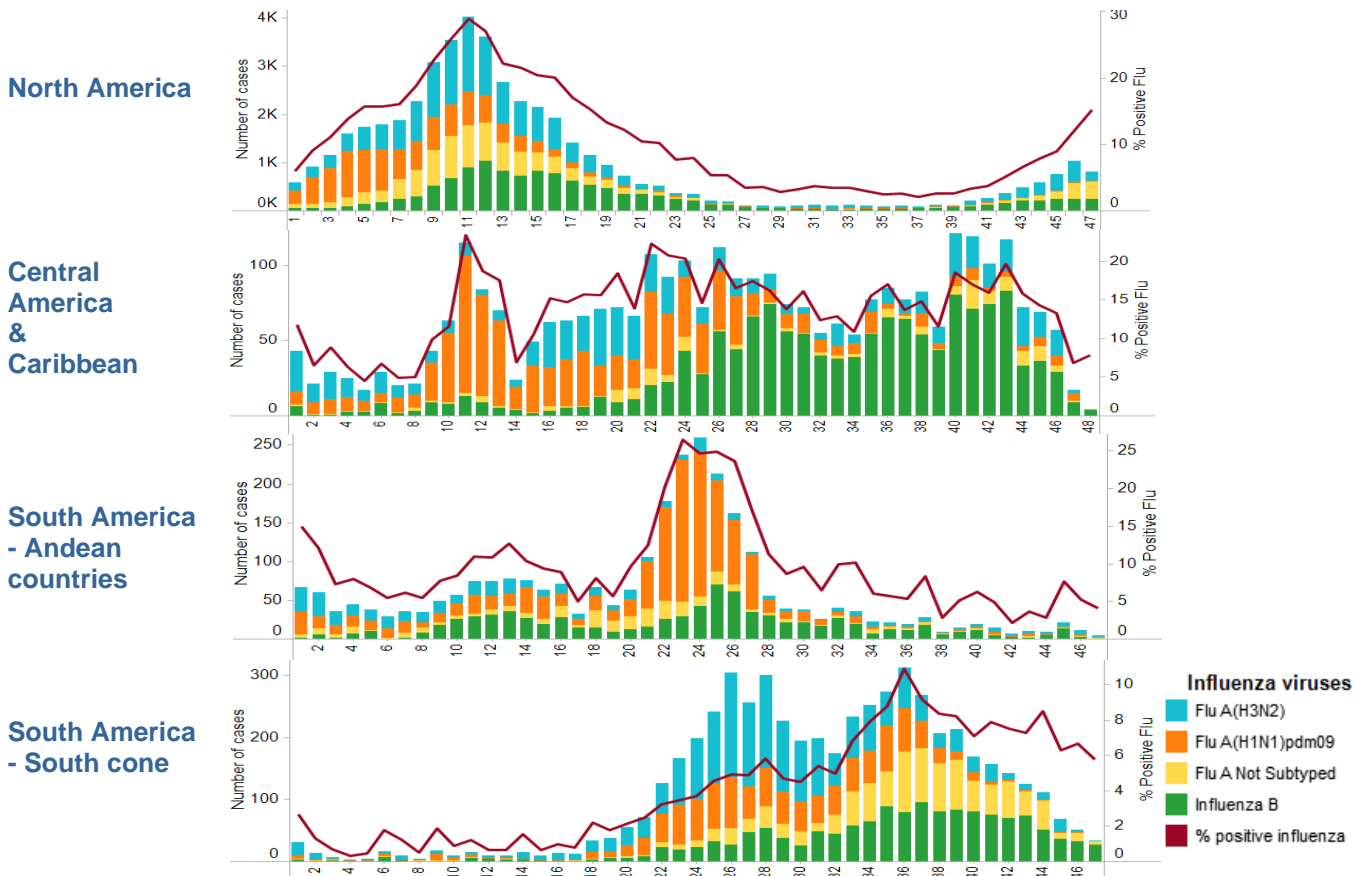
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
 Influenza Regional Reports: www.paho.org/influenzareports

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.

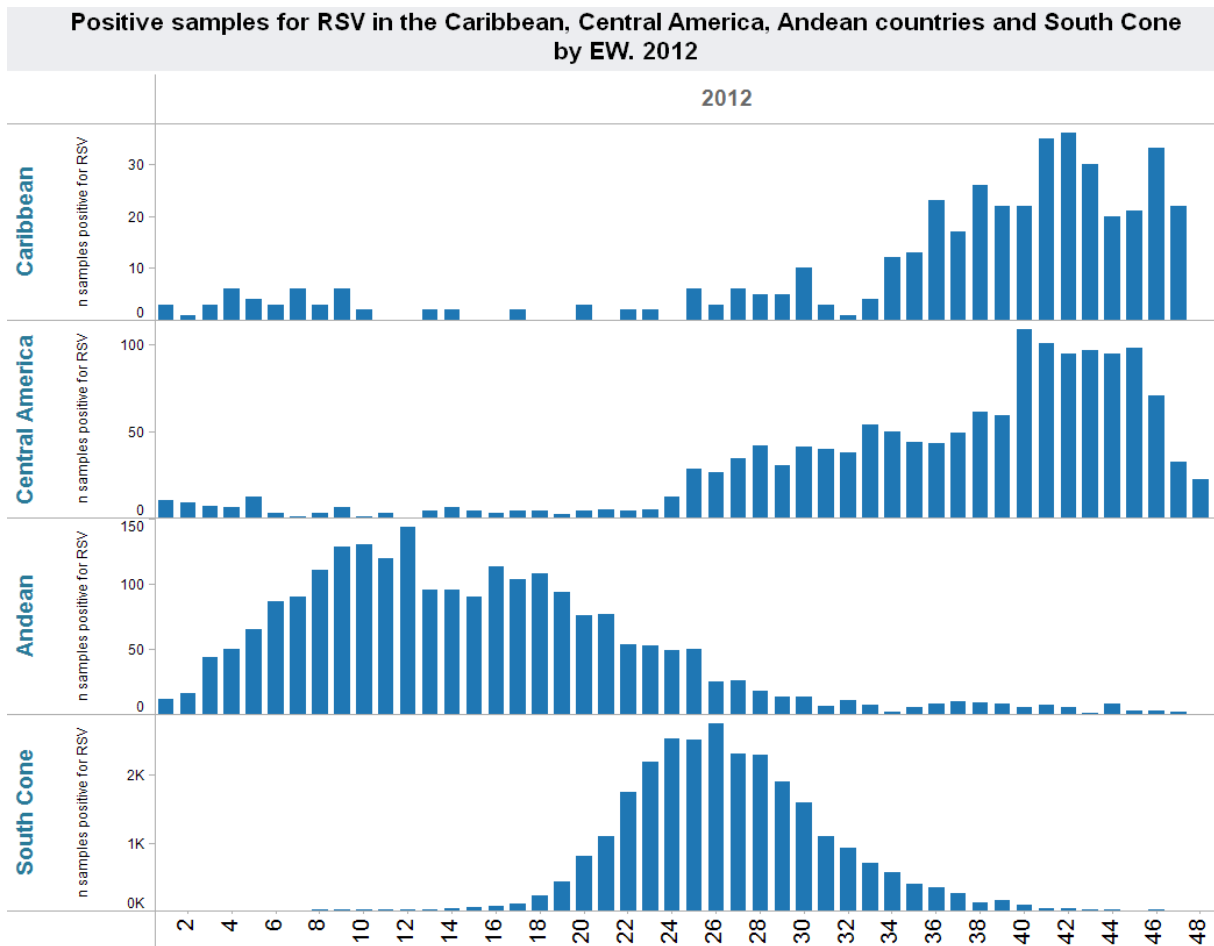
1. WEEKLY SUMMARY

- **North America:** the influenza season has started in Canada & US with increases in most of the influenza indicators observed this week. In US, the proportion of outpatient visits for ILI was at the national baseline and one human infection with a novel influenza A virus was reported. Influenza A(H3) was predominant in Canada and United States.
- **Central America and the Caribbean:** high respiratory infection activity or increased respiratory viruses detection (% of positivity) were observed in some countries of this sub-region (Belize, Costa Rica, Cuba, Honduras, Martinique, Panama and St. Vincent and the Granadines). Among the influenza viruses, influenza B (Barbados, Dominica, Dominican Republic and Nicaragua) co-circulated with influenza A(H3N2) (Barbados, Costa Rica, Honduras and Nicaragua) and influenza A(H1N1)pdm09 (Cuba). Among other respiratory viruses, RSV remained as the predominant circulating virus in several countries of the region (Cuba, Costa Rica, El Salvador, Martinique and Panama)
- **South America:** Severe acute respiratory disease activity remains low and unchanged in the region. Influenza activity in Argentina and Chile remained slightly higher than expected for this time of year. In the current EW, co-circulation of influenza B (Argentina, Brazil, Colombia, Chile and Peru), influenza A(H3) (Argentina and Colombia) and influenza A(H1N1)pdm09 (Peru) was observed among reported influenza detection. Low detection of other respiratory viruses was reported in this sub-region.

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



THE AMERICAS: DISTRIBUTION OF RSV BY EW, 2012



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

North America

In Canada¹, in epidemiological week (EW) 47, 2012, influenza activity increased. In EW 47, the influenza-like illness (ILI) consultation rate increased (28,6/1,000 consultations) but was within expected levels for this time of year. Seven regions reported localized influenza activity (in British Columbia, Alberta, Ontario, Saskatchewan) and 21 regions reported sporadic activity (in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, and Yukon) with the remaining reporting no activity. In EW 47, among the total samples analyzed, the proportion of samples positive for influenza increased (9,6%); of the influenza cases, 97,8% were influenza A (55,9% influenza A(H3) and 43% influenza A untyped). Concerning other respiratory viruses, the percent positive for rhinovirus decreased but remained the highest (15.3%) as compared to other respiratory viruses. 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 77.8% of the influenza B cases).

In the United States², in EW 47, overall influenza activity increased. Nationally, the proportion of ILI consultations (2.2%) was at the baseline (2.2%); and five of ten regions [Regions 2 (northeast), 4(southeast), 5(midwest), 6(southeast) and 7 (midwest)]reported a proportion of outpatient visits for ILI above their region-specific baseline levels. Five states experienced high ILI activity (Alabama, Louisiana, Mississippi, Tennessee, and Texas) and two states experienced moderate activity (Georgia and Missouri). Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 47 (6.3%) was below the epidemic threshold for this time of year (6.7%). In EW 47, no influenza-associated pediatric deaths were reported. Among all samples tested during EW 47 (n=5,342), the percentage of samples positive for influenza (15.2%)

increased as compared to the previous week (13.2%). Nationally, among the positive samples, 70.3% were influenza A [among the subtyped influenza A viruses, 99.5% were influenza A(H3)]. One novel influenza A virus case was reported during EW 47, in whom to date no contact with swine or livestock has been identified, and no cases in contacts have been identified. Since July 12, 2012, a total of 311 infections with influenza A variant viruses (307 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, 100% of the H3N2 cases, and 70.8% of the influenza B cases).

Caribbean

CAREC, in EW 47, received epidemiological information from 8 countries: Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. In EW 47, the proportion of severe acute respiratory infection (SARI) hospitalizations was 3.9% which is higher than what was reported during the prior week (3.6%). The SARI admission rate increased in 2 countries (St. Vincent and the Grenadines and Belize) and remained at nil for one country (Trinidad and Tobago). The highest rate of SARI was among children 6 months to 4 years age (12.6% of hospital medical admissions were due to SARI). One SARI death was reported from Belize; the patient was >65 years age. In the last 4 weeks (EW 44 to 47) 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, Dominica and Trinidad and Tobago). To date in 2012, the overall percentage positivity for samples tested is 38%, with a 20% positivity for influenza.

In Cuba, in EW 47, according to laboratory data, the percentage of positive samples for influenza viruses was 50% among the tested samples (n=96). RSV, Influenza A(H1N1)pdm09, parainfluenza and other respiratory viruses were detected

In Jamaica for EW 47, the proportion of consultations for ARI was 7.2% (0.3% lower than the previous EW). The proportion of admissions due to SARI was 1.1 % (0.5% decrease when compared to the EW before). There was no SARI death reported for epidemiological week 47. No respiratory viruses were detected this week.

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, SRV and Influenza B were detected.

In Guadalupe, in EW 47, the bronchiolitis epidemic associated to RSV circulation decreased and the number of consultations has been below the epidemic threshold during the last 3 weeks.

In Martinique, the epidemic of bronchiolitis associated to RSV, reported in October, has been decreasing since the beginning of November; however, in EW 47, the number of outpatient consultations for bronchiolitis still remains higher than the expected level for this time of the year.

In Saint-Martin and Saint-Barthélemy³, in EW 47, 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 the 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 Salvador⁴, according to data provided by the Ministry of Health, nationally, in EW 47, the number of ARI cases and pneumonia cases were slightly lower 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 (39%) were reported in the children 1-4 years old group. Regionally, the highest pneumonia incidence rates in EWs 44-47, were observed in San Miguel y La Unión. According to laboratory data, in EWs 46-47, of the total samples analyzed, RSV, adenovirus and influenza A(H3N2) were detected.

In Guatemala, according to laboratory data, in EW 46, of the total samples analyzed (n=14), the percentage of positive samples for respiratory viruses was 28%. The respiratory viruses detected in the last EWs were RSV and influenza A(H3N2).

In Honduras⁵, in EW 46, at the national level, the proportion of ILI consultations increased to 5% as compared to the previous EW, and was similar to what was observed in 2011 during this time of the year. The proportion of SARI hospitalizations (9%) decreased as compared to the previous week, however, it remained in a high level as compared to 2012 and higher than observed in 2011. According to laboratory data, in EW 46, of all samples tested, the proportion of positive samples remained high (50%), 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 47, according to laboratory data, among all samples tested (n=42), the percentage of positive samples for respiratory viruses (24%) has been decreasing since its peak in EW 41. Influenza B has been the predominant circulating virus in the last 13 EWs, followed by influenza A(H3N2).

In Panama, according to laboratory data, in EW 48, of the total samples analyzed (n=51), the percentage of positive samples for respiratory viruses was 88%, mainly associated to RSV. In the last EW, low influenza activity (influenza B) was 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 47, the positivity was 5% among the 20 tested samples. Parainfluenza was detected among the positives.

In Colombia, at the national level, in EW 47, the proportion of SARI hospitalizations (12.3%) and ICU admissions (9.5%) slightly increased while ILI consultations (10.5%) remained similar 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 47 a positivity of 14% was reported among the tested samples (n=21) with a predominance of influenza A(H3N2), followed by influenza B.

In Ecuador, in the SARI surveillance system from sentinel units, at the national level in EW 47, the proportion of SARI hospitalizations, SARI ICU admissions and SARI deaths (2%, 1% and 2% respectively) showed no significant changes with respect to the previous EW. According to laboratory data at the national level, in EW 47, a percentage of positivity of 6.5% was reported among tested samples (n=46), detecting parainfluenza virus. No influenza viruses were detected in the last 5 weeks.

In Peru, at the national level and in EW 46, the endemic channel of ARIs and pneumonias in children under 5 years remained within the expected levels for this time of period. At the subnational level, Lambayeque, Madre de Dios and Ucayali reported a pneumonia activity in children under 5 years old above or close to the epidemic threshold of the endemic channel. According to laboratory data, in EW 47, at the national level, the percentage of positive samples for respiratory viruses among samples tested (n=57) was 7%, which was lower with respect to the previous EW, with a predominance of RSV and influenza A(H1N1)pdm09 among the positive samples.

In Venezuela, at the national level, in EW 46, the number of ARIs and pneumonias slightly decreased (of 6.4% and 5.5% respectively) and remained within the 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 46 were 53,12/100,000 population, with 11 states exceeding this rate (Apure, Guarico, Monagas, Yaracuy, Trujillo, Mérida, Vargas, Zulia, Distrito Capital, Tachira and Delta Amacuro). So far, in 2012, 1747 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 Argentina⁶, at the national level, in EW 47, the number of ILI cases remained in the safety zone while SARI cases was slightly higher than the reported values for 2011. At the sub-national level, some provinces such as Buenos Aires, Entre Ríos, Santa Fe, La Rioja, San Juan, San Luis, Formosa, Catamarca, Jujuy, Tucumán and Río Negro showed cumulative rates higher than the last year. 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 47, the percentage of positive samples for influenza viruses was 5% among the tested samples (n=40), just detecting influenza B this week.

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 47, the percentage positivity for respiratory viruses increased to 16.3% among the tested samples (n=535), as compared to the previous EW, and with a predominance of influenza B, parainfluenza and adenovirus. In SARI surveillance, 4 positive samples (1 case associated with influenza B) were reported among the tested samples (n=8).

In Paraguay, in EW 47, the national ILI rate (100.4/100,000 population) showed a slight decrease with respect to the previous EWs with the same proportion of ILI consultations (6%) in sentinel units. In the SARI surveillance system in sentinel units, the proportion of hospitalizations for EW 47 was 2.8%, remaining in a low level and similar to the previous EW. According to laboratory data of SARI surveillance, 13 samples were tested with a percentage positivity of 23%, detecting influenza B, adenovirus and parainfluenza.

In Uruguay⁷, 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

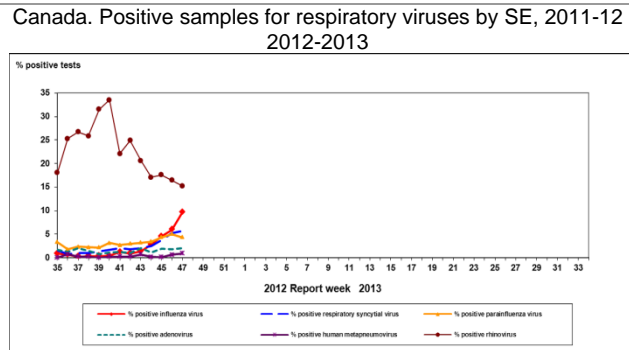
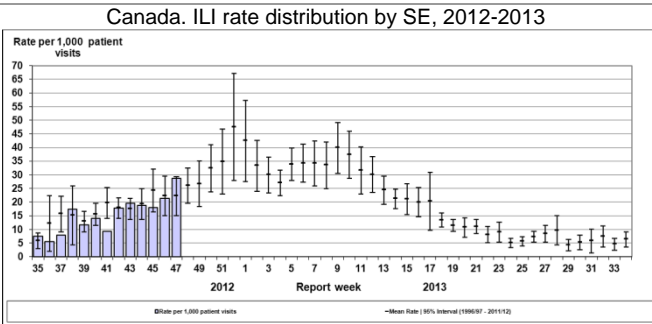
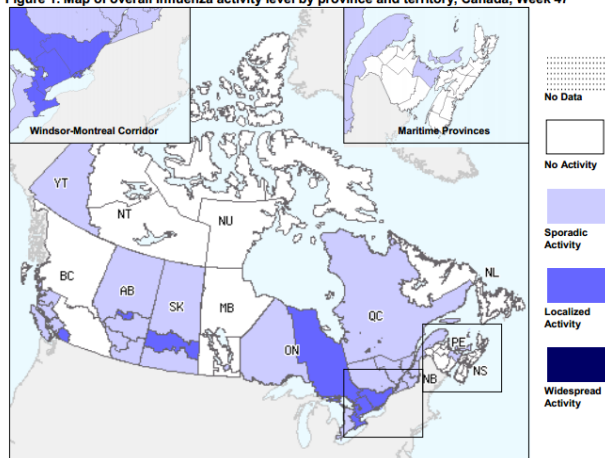
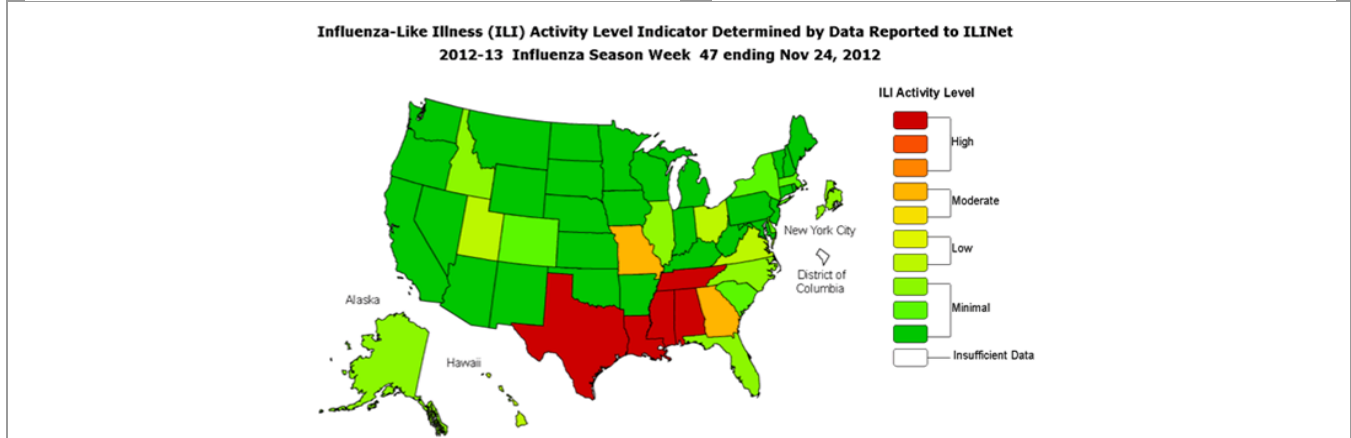
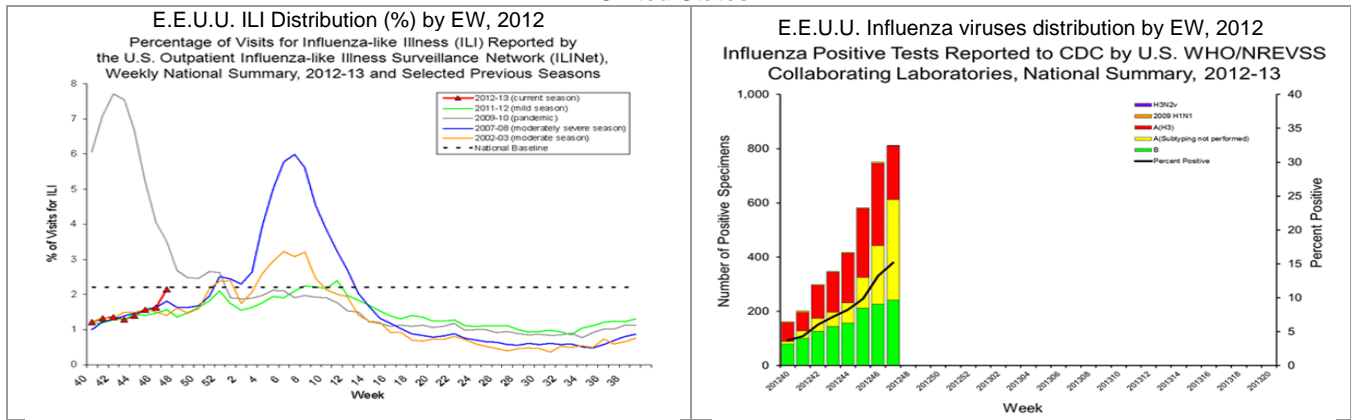


Figure 1. Map of overall Influenza activity level by province and territory, Canada, Week 47

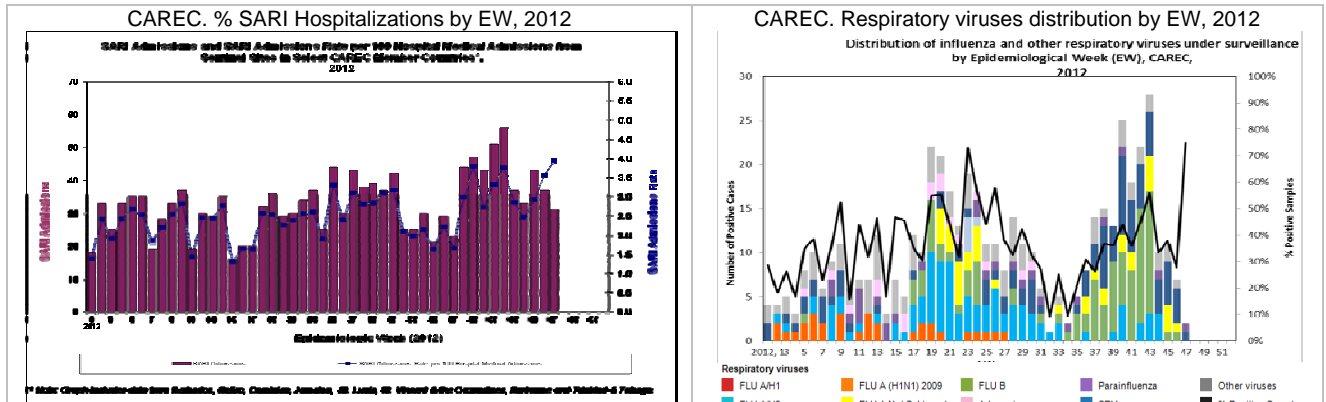


United States

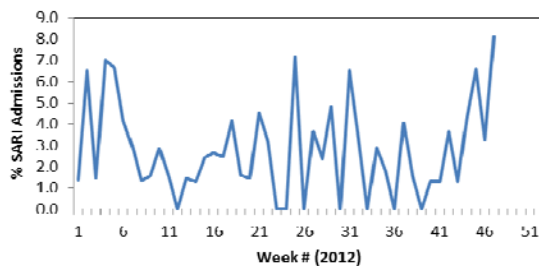


Caribbean

CAREC

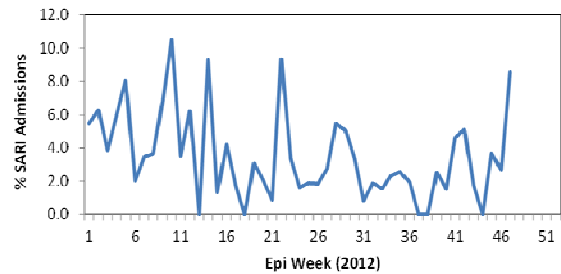


St. Vincent and the Grenadines. SARI cases by EW, 2012
St. Vincent and the Grenadines SARI Rate, 2012

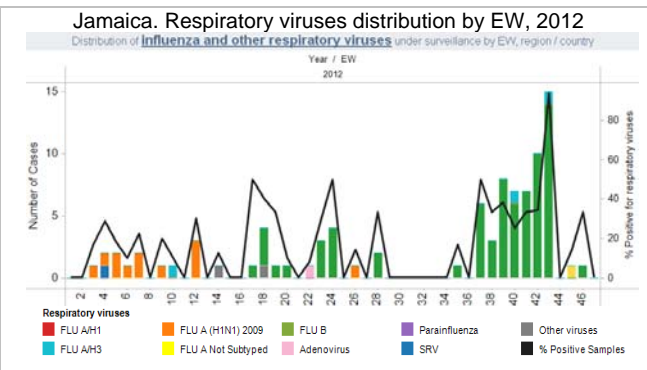
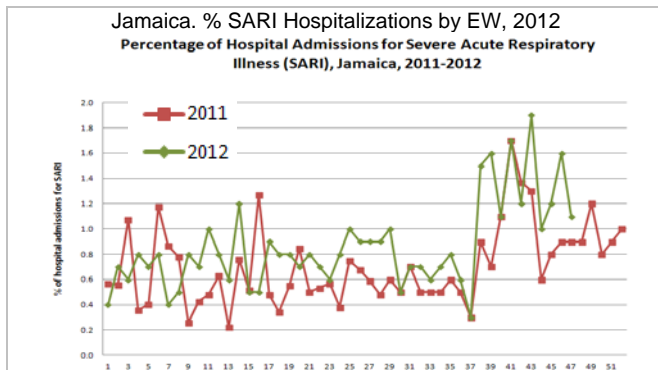


Belize. SARI cases by EW, 2012

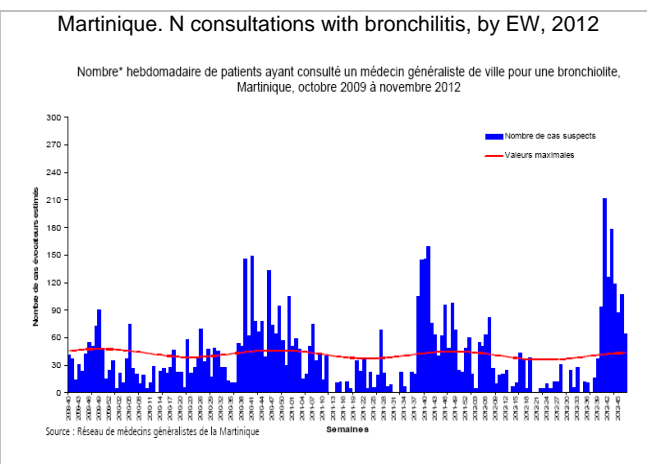
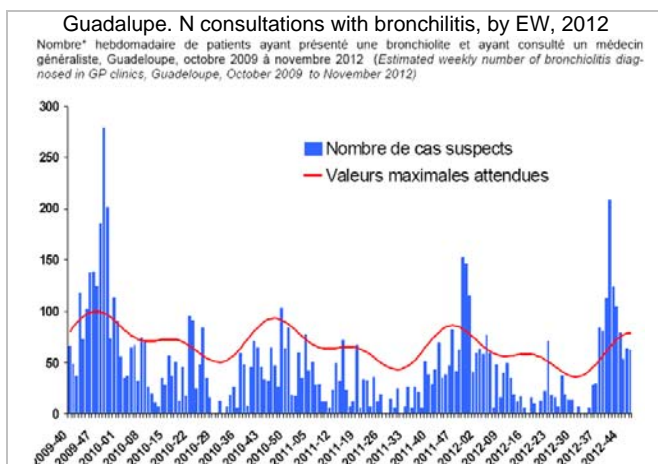
Belize SARI Rate, 2012



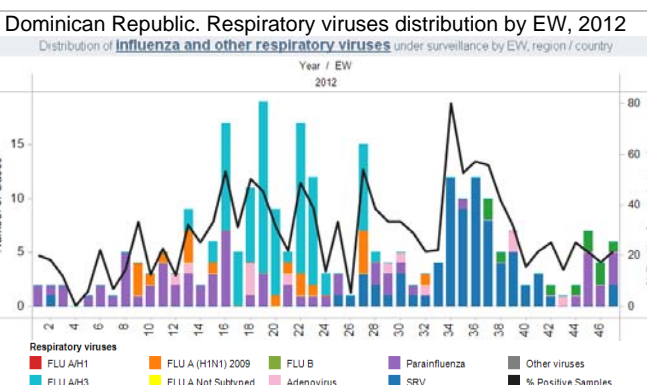
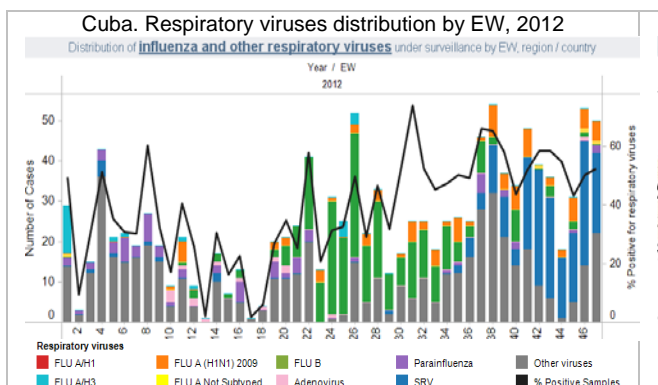
Jamaica



Guadelupe and Martinique

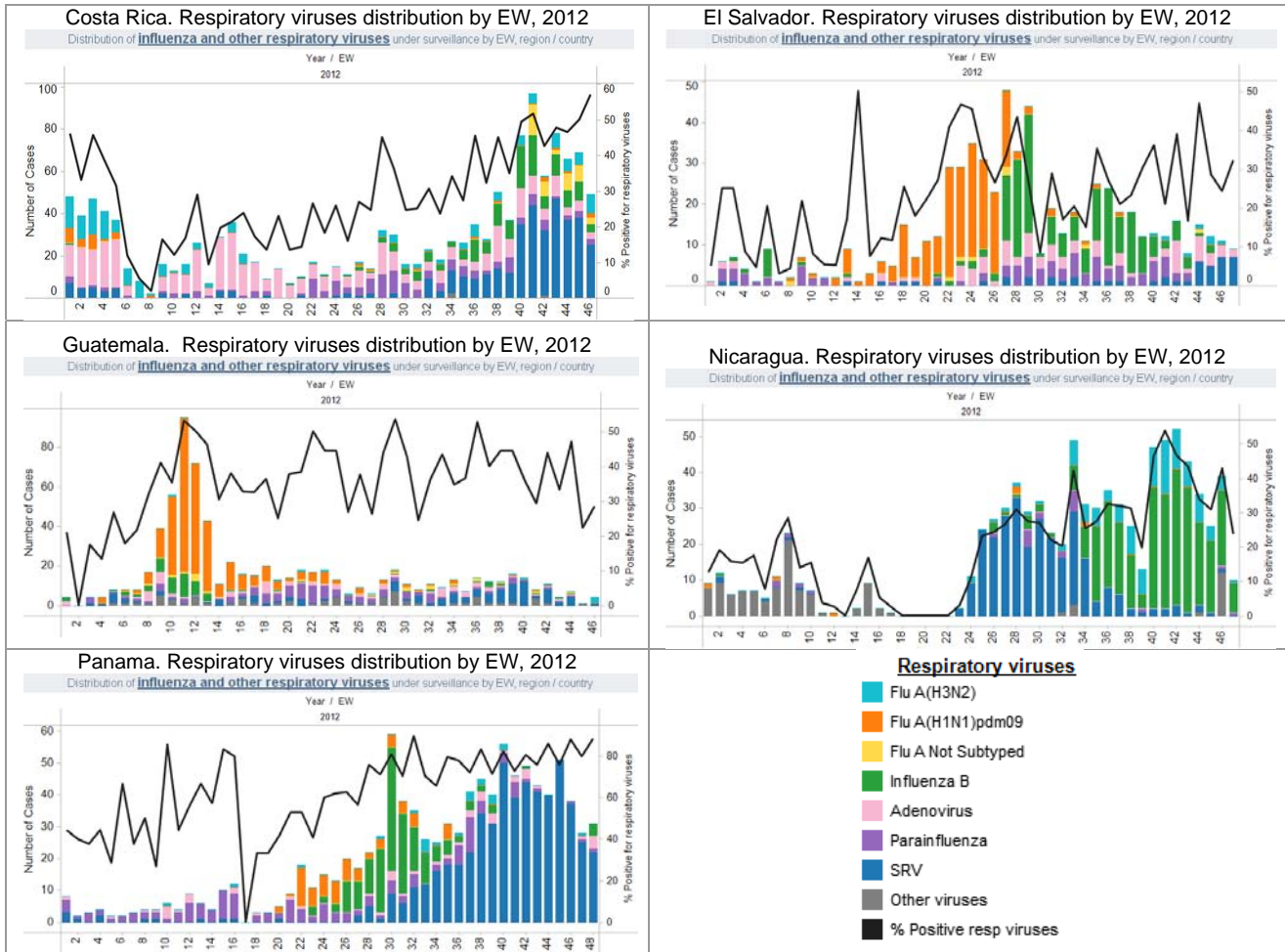


Cuba and Dominican Republic

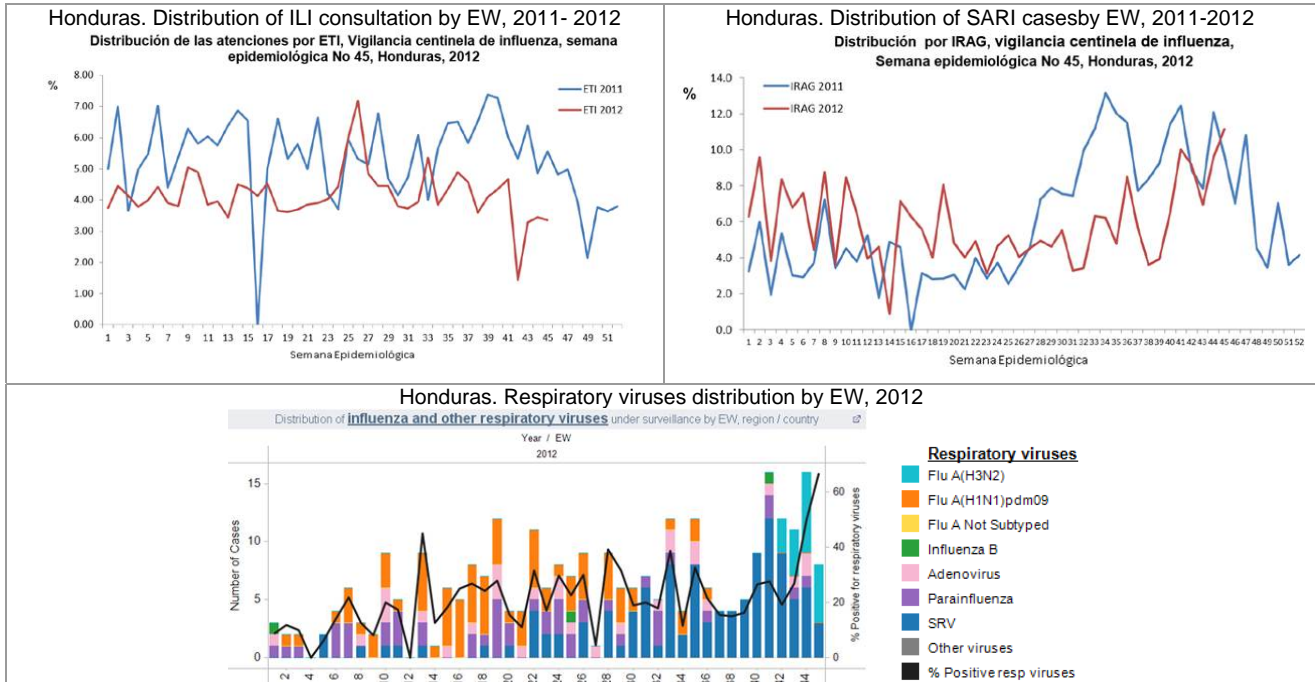


Central America

Costa Rica, El Salvador, Guatemala, Nicaragua and Panama



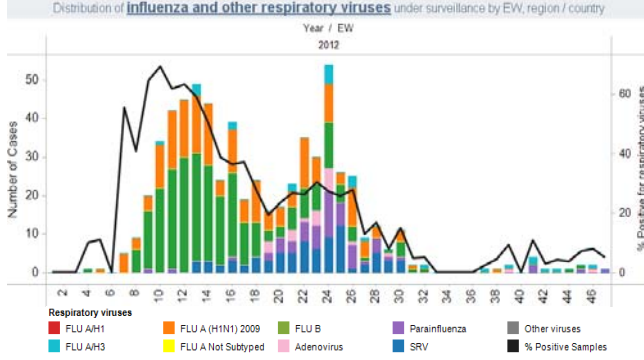
Honduras



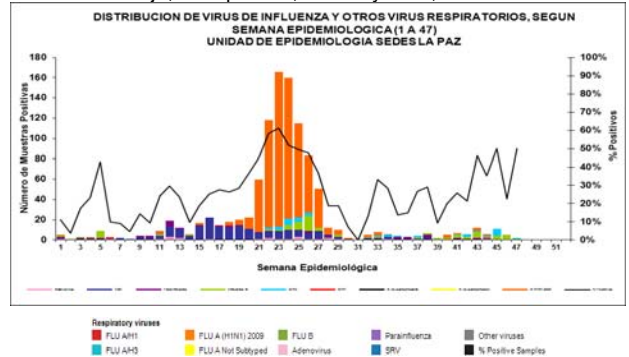
South America - Andean

Bolivia

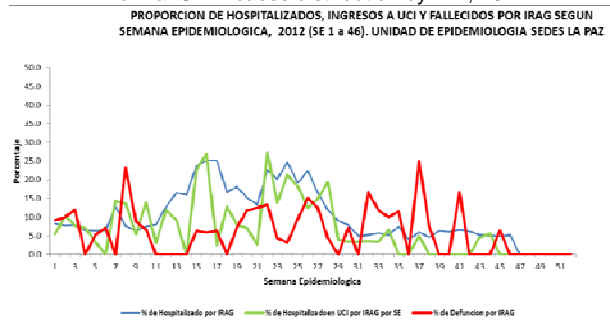
Santa Cruz. Respiratory viruses distribution by EW, 2012-Cenetro



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

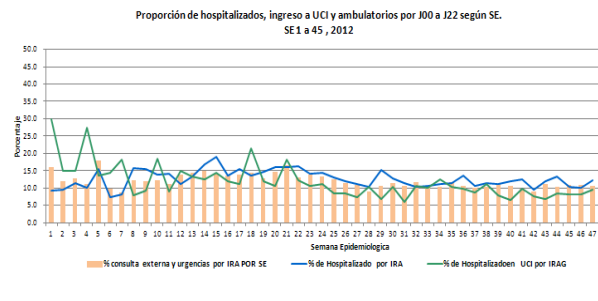


Bolivia. SARI cases distribution by EW, 2012

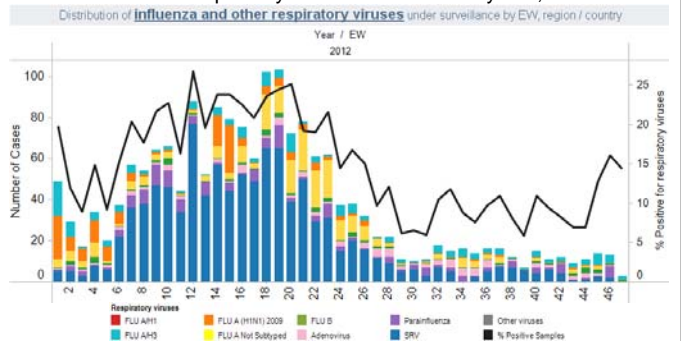


Colombia

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

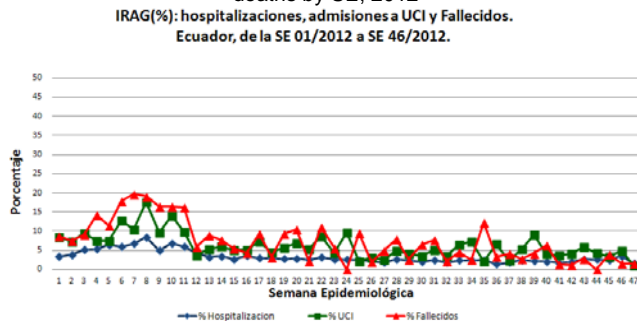


Colombia. Respiratory viruses distribution by EW, 2012

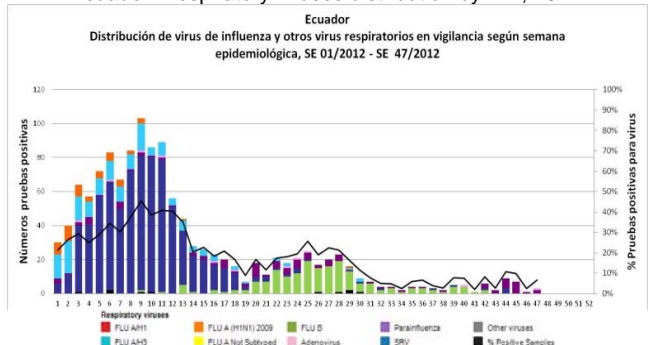


Ecuador

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

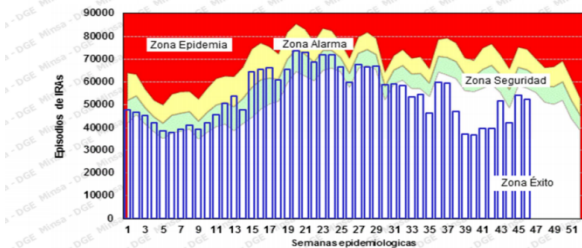


Ecuador. Respiratory viruses distribution by EW, 2012

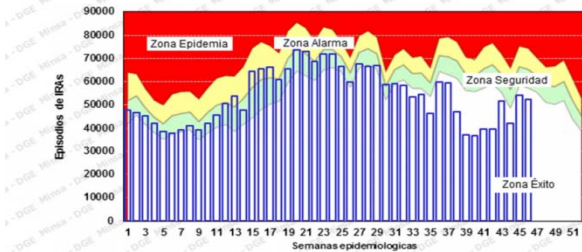


Peru

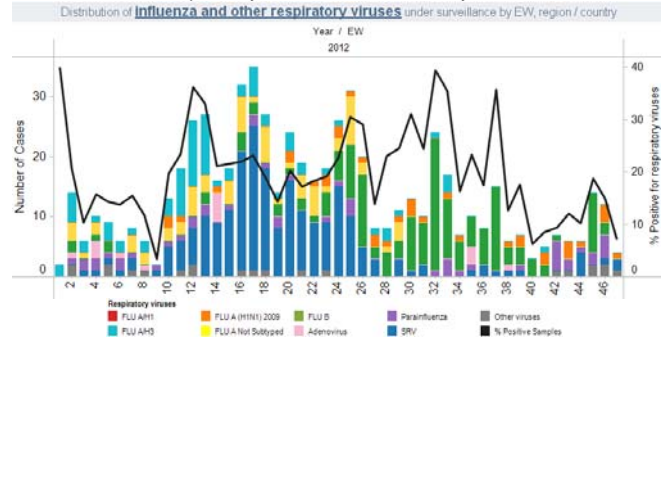
Peru. Endemic channel of ARI, 2012
Canal de Infecciones Respiratorias Agudas (IRA) en menores de 5 años, Perú 2012*



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

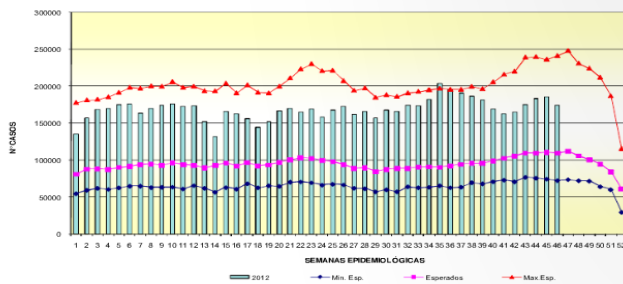


Perú. Respiratory viruses distribution by EW, 2012

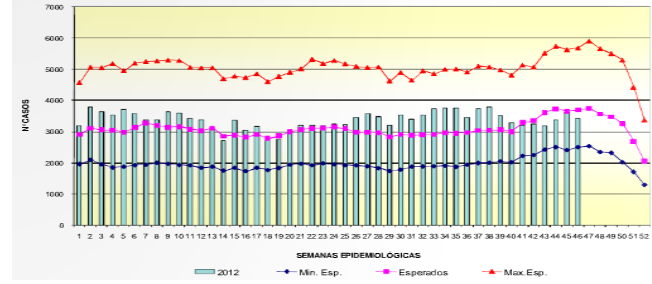


Venezuela

Venezuela. Pneumonia endemic channel, 2012
Infecciones respiratorias agudas Canal endémico 2005 - 2012 Venezuela. 2012



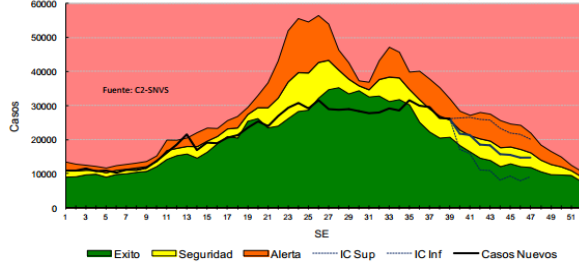
Venezuela. ARIs endemic channel, 2012
Neumonías Canal endémico 2005 - 2012 Venezuela, 2012



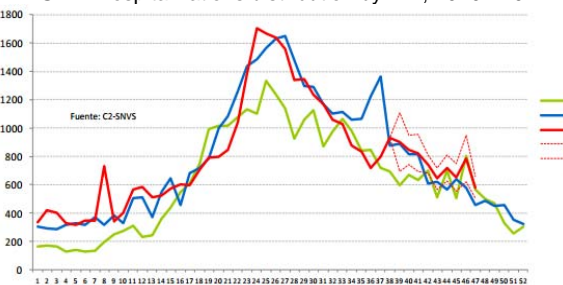
South America, Southern cone

Argentina

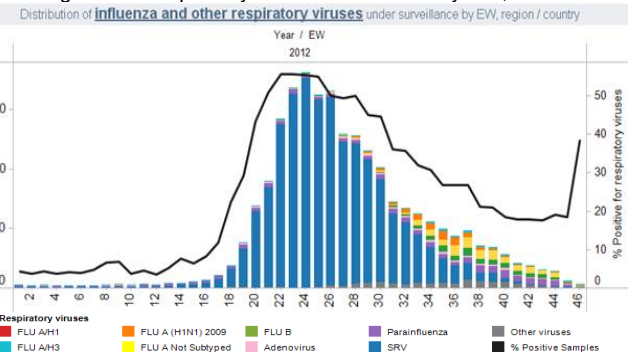
Argentina. ILI endemic channel, 2012
Corredor endémico semanal de ETI-2012 Total País. Históricos 5 años: 2006 a 2011. Excluyendo 2009



SARI Hospitalizations distribution by EW, 2010 - 2012



Argentina. Respiratory viruses distribution by EW, 2012



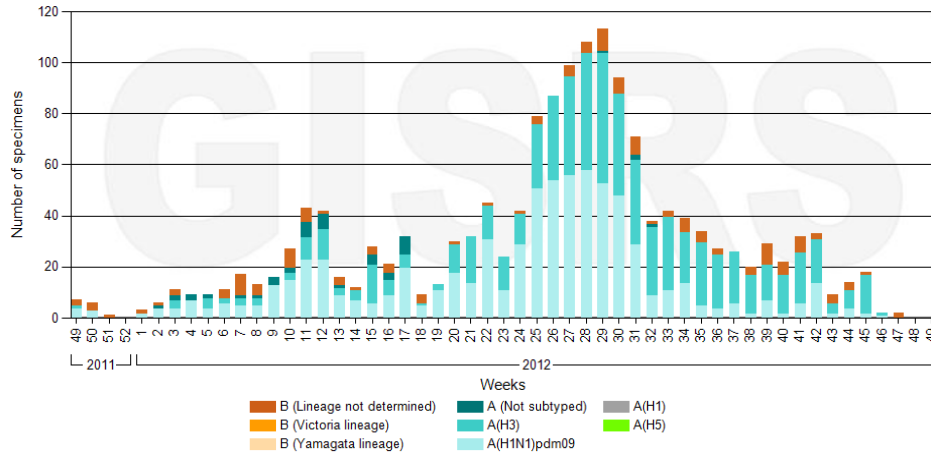
Argentina. Influenza viruses distribution by EW, 2012



Brazil

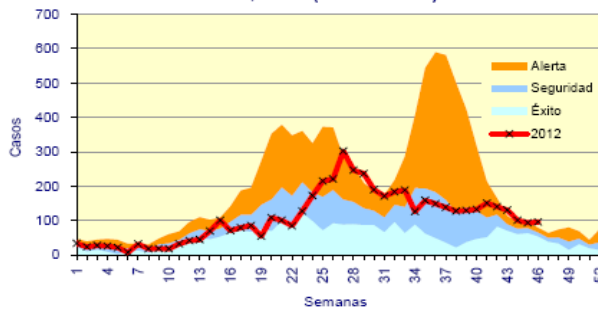
Brazil. Influenza viruses distribution by EW, 2011 - 2012

Number of specimens positive for influenza by subtype

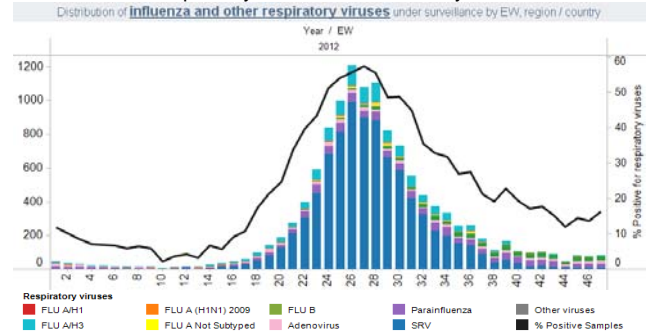


Chile

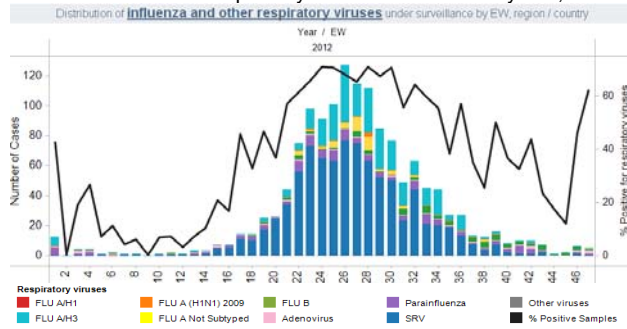
Chile. ILI Endemic Channel, 2012
Canal endémico de Enfermedad Tipo Influenza según semana epidemiológica 2006-2011*. Chile, 2012 (Semana 1-46)



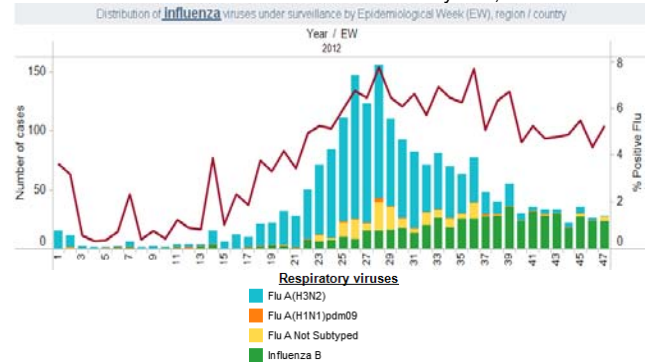
Chile. Respiratory viruses distribution by EW, 2012



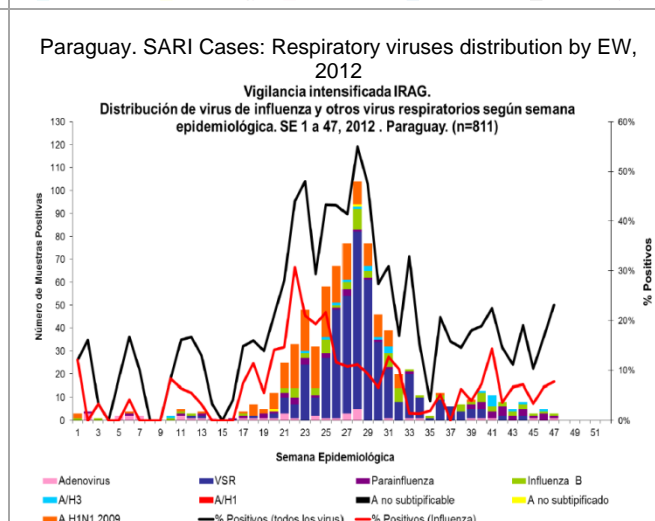
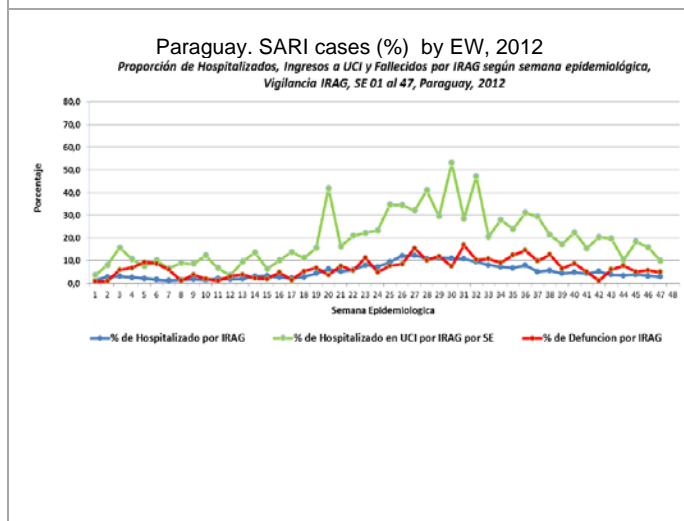
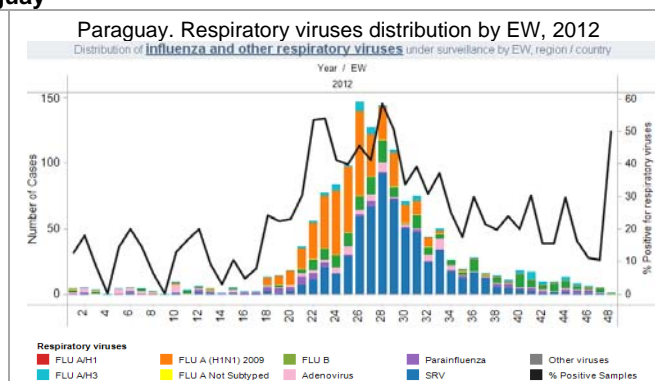
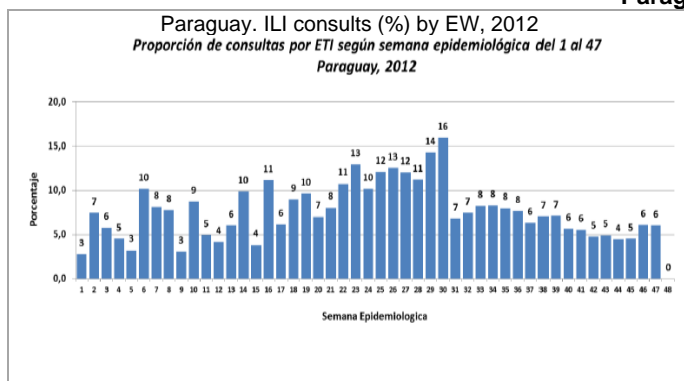
Chile. SARI cases: Respiratory viruses distribution by EW, 2012



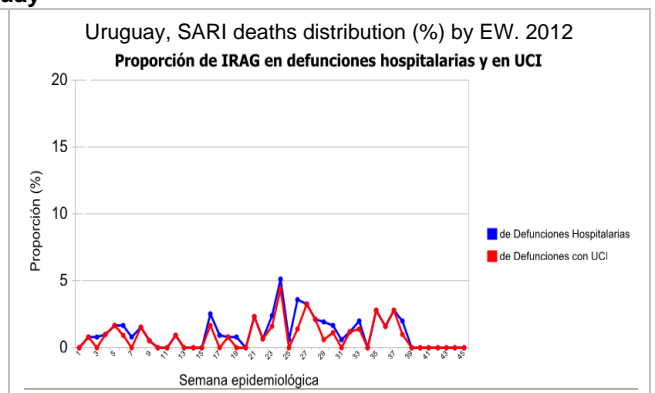
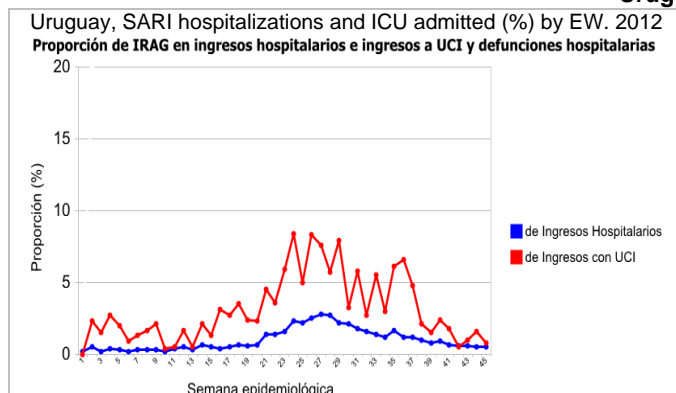
Chile. Influenza viruses distribution by EW, 2012



Paraguay



Uruguay



1 FluWatch Report. EW 47. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

2 US Surveillance Summary. EW 47. Centers for Disease Control and Prevention

3 Bulletin hebdomadaire grippe, Point Au 4/12/2012. Institut de Veille Sanitaire

4 El Salvador. Boletín epidemiológico SE 47 de 2012. MINSAL.

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