



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

Influenza Regional Reports: www.paho.org/influenzareports

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

1. WEEKLY SUMMARY

- **North America:** influenza activity remains in high levels in Canada and US; however, some indicators showed a decreasing trend in the last 2 weeks. 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 proportion of samples positive for respiratory viruses continued to decrease since EW 50, 2012. Among other respiratory viruses, RSV decreased in Canada.
- **Central America and the Caribbean:** similar or decreased respiratory virus activity was reported in this sub-region as compared to previous weeks. In Martinique and Guadeloupe, ILI levels were above the expected levels for this time of the year. Among the influenza viruses, co-circulation of influenza B, influenza A(H3N2) and influenza A(H1N1)pdm09 was reported. Among other respiratory viruses, RSV remained as the predominant circulating virus in some countries of the region (Costa Rica, and Panama).
- **South America:** acute respiratory disease activity remains low or unchanged in the region. However, in Santa Cruz (Bolivia), the proportion of samples positive for influenza A(H3N2) remains high.

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

North America

In Canada¹, in epidemiological week (EW) 02, 2013, influenza activity increased. In EW 02, the influenza-like illness (ILI) consultation rate increased (62.1/1,000 consultations) and was above expected levels for this time of year. Fifteen regions (in British Columbia, Alberta, Ontario, Quebec, Newfoundland) reported widespread influenza activity and 25 regions reported localized influenza activity (in British Columbia, Alberta, Ontario, Saskatchewan, Quebec, Manitoba, Nova Scotia, Newfoundland, Nunavut, and New Brunswick). In EW 02, among the total samples analyzed, the proportion of samples positive for influenza decreased (30.7%); of the influenza cases detected in EW 02, 97.8% were influenza A (34.6% influenza A(H3) and 63.9% influenza A un-sub-typed). Concerning other respiratory viruses, the RSV percent positivity was similar to the previous week (10.4%). 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 77.5% of the influenza B cases).

In the United States², in EW 02, nationally the proportion of ILI consultations (4.6%) decreased as compared to the previous week but remained above the baseline (2.2%); and six regions reported declines in the ILI proportion but all were above their baseline. Thirty states and New York City experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 02 (8.3%) was slightly above the epidemic threshold for this time of year (7.3%). In EW 02, nine influenza-associated pediatric deaths were reported (two associated with influenza A/H3, four with un-sub-typed influenza A virus, and three with influenza B). From 1 October to 12 January, the influenza-associated hospitalization rate was 18.8/100,000 population, with the highest rates in those 65 years of age and older. Among all samples tested during EW 02 (n=12,360), the percentage of samples positive for influenza (29.4%) decreased as compared to the previous week. Nationally, among the positive samples, 82.5% were influenza A [among the subtyped influenza A viruses, 97.3% were influenza A(H3)]. No novel influenza A virus cases were reported during EW 02; 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, 99.5% of the H3N2 cases, and 66.7% of the influenza B cases).

In Mexico, according to the laboratory data, the percent positivity for respiratory viruses decreased from 38% in EW 50, 2012 to 23% in EW 02, 2013. In EWs 01-02, there were no influenza A(H1N1) pdm09 detections and the predominant virus at the national level was influenza type B followed by influenza A(H3).

Caribbean

CARPHA, for EW 02 of 2013, received weekly severe acute respiratory infection (SARI)/acute respiratory infection (ARI) data from 5 countries—Barbados, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 2, 2013, the proportion SARI hospitalizations was 1.6%. The highest rate of SARI admissions was among children 5-14 years of age (5.8% of hospital medical admissions for children ages 5-14 years were due to SARI). No SARI-related deaths were reported from the region in EW 02, 2013. From EW 51, 2012 to EW 3, 2013 the following viruses were confirmed by various laboratories in member countries: influenza A (H3N2) in Anguilla, Cayman Islands and Jamaica; influenza B in Jamaica, RSV in St. Vincent & the Grenadines, Trinidad & Tobago, rhinovirus in Barbados in Trinidad & Tobago. For the period EW 4, 2012 to EW 3, 2013, the overall percentage positivity for samples tested was 38.5%.

In Cuba, according to the laboratory data, the percentage of positive samples for respiratory viruses in EW 2, 2013 was 17.9%. Among all the samples analyzed (n=28), the only viruses detected were parainfluenza virus, RSV, and rhinovirus.

In Jamaica for EW 2 of 2013, the proportion of ARI-related consultations was 4.0 which was lower than EW 01. The proportion of admissions due to SARI was 0.6%, showing a 0.4% decrease when compared to the previous EW. There was no SARI-related deaths reported for EW 2. According to laboratory data the percentage of samples positive for influenza virus in EW 03 was 16.7%. Only influenza B virus was detected among tested samples in EW 03 (n=6).

In the Dominican Republic, according to laboratory data, among the samples analyzed, in EW 3, (n=14), the percentage of samples positive for respiratory viruses was 21.4%. Adenovirus was the only virus detected this week.

In French Territories, Martinique is currently experiencing an important increase in the number of Influenza-like- illness (ILI) consultation, according to data published by the CIRE and the Institut de Veille Sanitaire. Since EW 52, 2012 up to EW 2, 2013, the number of ILI has been estimated at 4,200, and had exceeded the maximum value expected for the season since EW 52. According to reports from the Institute Pasteur de la Guyane, no Influenza virus has been identified in Martinique.

In Guadalupe, according to data published by the CIRE and the Institut de Veille Sanitaire, the weekly number of consultations for influenza-like illness (ILI) in general practice has increased steadily since the last week of November 2012 (EW-48) and kept this tendency from EW 01 to EW 03, 2013; the reports had reached the maximum values expected for the season. No Influenza virus has been identified in Guadalupe.

Central America

In Costa Rica, according to laboratory data, in EW 01-03, of all samples tested (n = 265), the overall percentage of positive respiratory viruses decreased from 43% in EW 01 to 32% in EW 03. RSV virus continued to predominate (26% of the samples tested in 2013). Among all the influenza viruses (3% positive of the total number of samples analyzed in 2013), influenza A was found to be the most prevalent at 92% compare to influenza B (only 8%). Among all influenza viruses subtyped, influenza A (H3N2) and influenza A (H1N1) pdm09 were detected.

In El Salvador, according to laboratory data, in EWs 01-02, among the analyzed samples (n = 25), the percent positivity for respiratory viruses was 4%, with detection of RSV predominating. This week, there were no influenza viruses detected.

In Guatemala, in EWs 01-02, 2013, among the total samples analyzed (n 16), the percent positivity for respiratory viruses was 38%, being RSV the predominant virus and followed by influenza A(H3N2).

In Nicaragua, between EWs 01-02, according to laboratory data, among all samples analyzed (n =85), the percent positivity for respiratory viruses was 6%. Influenza B, influenza A (H3) and RSV were the viruses detected in circulation.

In Panama, according to laboratory data, for EWs 01-03, of all samples tested (n = 82), 68% were positive for respiratory viruses and only 3% were positive for influenza virus. RSV has continued to predominate, followed by rhinovirus, a trend seen since EW 34.

South America – Andean countries

In Bolivia, according to data from CENETROP (Santa Cruz), among the 29 samples processed in the first 2 weeks of 2013, the positivity for all respiratory viruses was 62% and for influenza viruses was 48%, mainly influenza A(H3N2). According to the data from La Paz for the same weeks of 2013, among the 28 samples tested, 25% were positive for respiratory viruses and 21% for influenza viruses (mainly influenza A (H3N2)). The proportion of SARI hospitalizations for La Paz remained at 3.2% (9/281); only one SARI case was admitted to the ICU (1/21) and no SARI -related deaths were reported.

In Colombia, nationally, and according to the INS laboratory data ,including statistics from the Departments of Antioquia and Bogotá, among virus samples analyzed (n = 73) in EWs 01 and 02 of 2013,the positivity was 11% for all respiratory viruses, and 5.5% for influenza viruses. RSV (3/8) and influenza A (H3N2) (3/8) were predominant among all the positive samples

In Ecuador, according to laboratory data, among the 153 samples analyzed at the national level in EWs 1 and 2, 2013, a low positivity was found (4%) for all respiratory viruses. However, among the positive samples, the positivity for influenza A virus was 50% with influenza A (H3N2) being prevalent.

In Peru³, nationally, 52 cases of ARI and pneumonia in children under 5 years of age were reported. This figure is said to be within the expected levels for this age group for this time of the year.The number is slightly lower than that of the previous EW. According to laboratory data for EWs 01 and 2,2013, among the samples analyzed nationally (n = 73), 16.4% were positive for respiratory viruses and 9.6% positive for influenza, with a predominance of influenza A (H3N2) and parainfluenza viruses.

South America – Southern Cone & Brazil

In Argentina, nationally, in the first two weeks of 2013, 167 samples were processed and at the percent positivity for respiratory viruses was 28.7% with a predominance of influenza B, parainfluenza, and adenovirus

In Chile⁴, nationally there were no significant changes in ILI activity in EW 02, 2013. The ILI endemic channel showed ILI activity slightly higher than expected for this time of year. According to national data from 578 laboratory samples analyzed in EWs 01 and 02, the percent positivity for all respiratory viruses was 9.2% and for influenza viruses was 2.1%. Parainfluenza virus, adenovirus and influenza B virus were prevalent. In the SARI surveillance, 5 samples were processed between EWs 01-02, and influenza B virus was predominant.

In Paraguay⁵, in EW 02, 2013, the national ILI rate (80.4 / 100,000) showed an increase of 35% over the previous week, remaining in the endemic channel alert region. However, the proportion of ILI consultations (6%) and the proportion of SARI-related hospitalizations (2.7%) when measured in sentinel units, showed no significant changes as compared to the previous week. Thirty-four SARI samples were processed and analyzed in EWs 01 and 02, 2013, with a positive rate of 62%. Of the positive samples, influenza A (H3N2) virus (10/21) was prevalent. In 2013, two SARI-related deaths were reported and in both cases, no respiratory viruses were identified.

In Uruguay⁶, the national SARI surveillance in EWs 01-02, 2013 showed the proportions of SARI-related hospitalizations at (0.2%.The SARI-related ICU admissions were (0.5%), reflecting low levels and no significant changes as compared to previous weeks. No SARI-related deaths were reported and the processed samples were negative for respiratory viruses.

EPIDEMIOLOGICAL ALERT

In North America, especially in the United States, there has been an early and intense circulation of the influenza virus. In addition to increased outpatient visits and increased circulation intensity, the earlier occurrence of influenza activity might be causing an increase in hospital admissions, outbreaks in health care services, as well as an increase in antiviral prescriptions. At this time, as of EW 01, 2013, it appears that activity might be starting to decline.

In light of this situation, PAHO/WHO recommends that Member States which might face increased circulation of influenza viruses:

1. ensure adequate clinical management of patients
2. implement prevention and control measures, while enhancing the preparedness of their health services to cope with a potential influx of patients and
3. continue routine ambulatory and hospitalized surveillance for influenza.

PAHO/WHO does not recommend any travel restrictions including screening at points of entry and reiterates the recommendations made in the 13 March 2012 Epidemiological Alert. More detailed information is available in the attachment titled: 14-January-2013 Influenza.

Available in:
http://new.paho.org/hq/index.php?option=com_content&view=article&id=8171%3A14-january-2013-increase-of-influenza-activity-in-north-america&catid=2103%3A--hsd0104d-most-recent-ea&Itemid=2291&lang=en

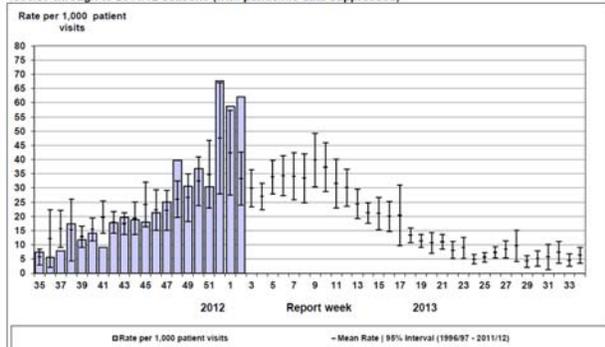
3. GRAPHS

North America

Canada

Canada. ILI rate distribution by SE, 2012-2013

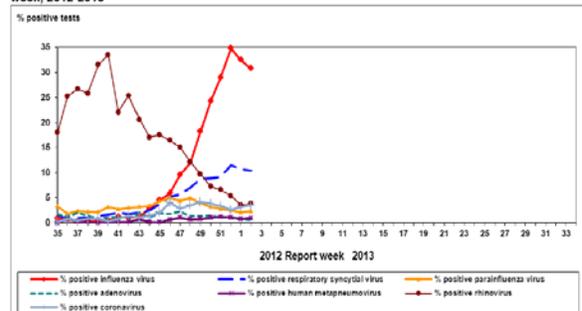
Figure 7. Influenza-like illness (ILI) consultation rates, Canada, by report week, 2012-2013 compared to 1996/97 through to 2011/12 seasons (with pandemic data suppressed)



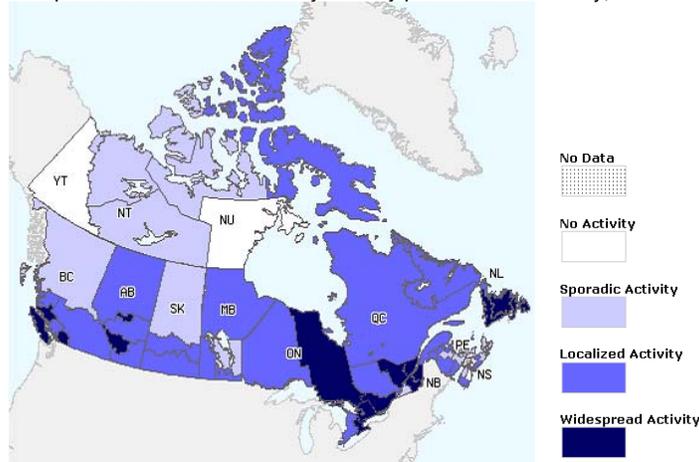
Note: No data available for mean rate in previous years for weeks 19 to 39 (1996-1997 through 2002-2003 seasons). Delays in the reporting of data may cause data to change retrospectively.

Positive samples for respiratory viruses by SE, 2012-2013

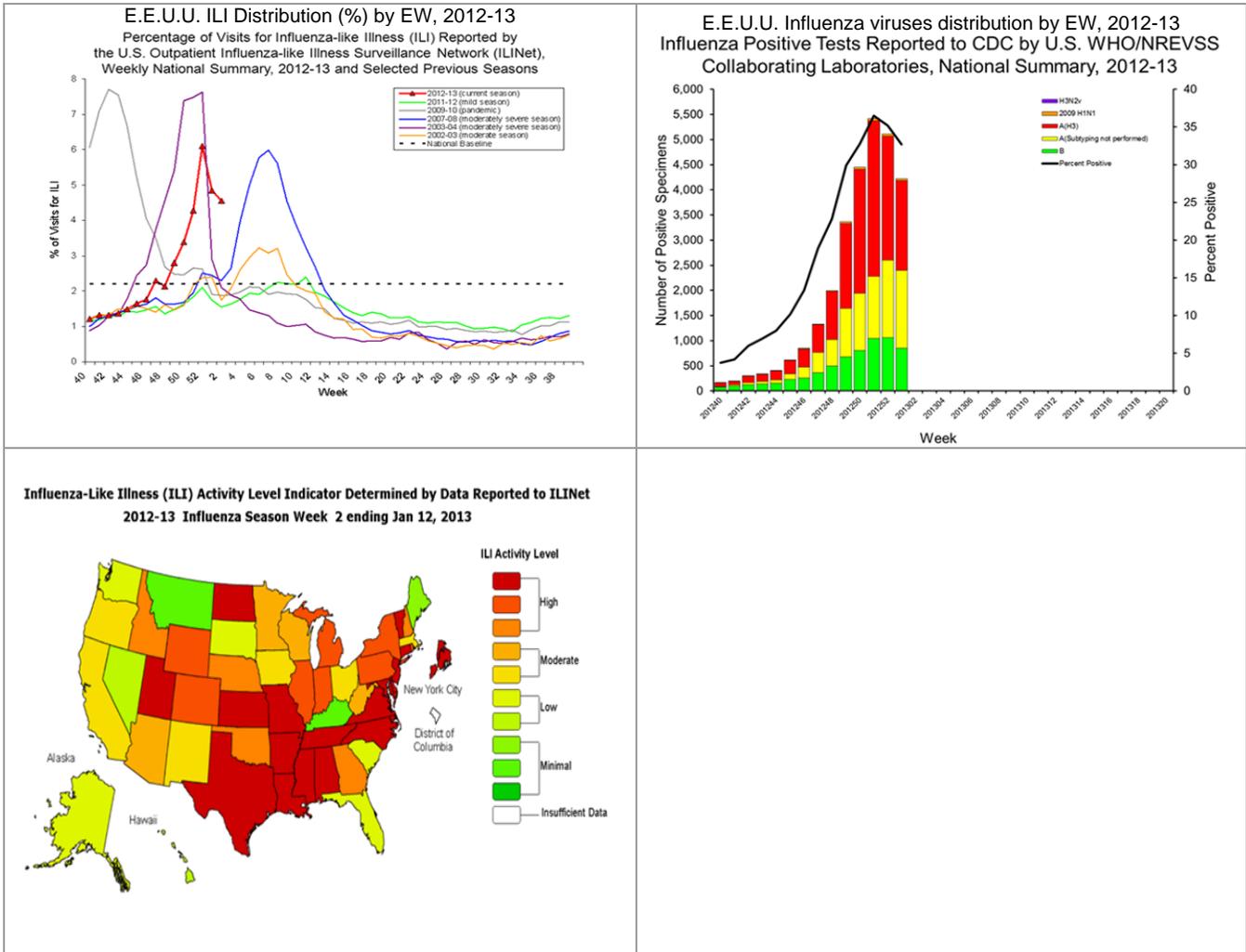
Figure 5. Percent positive influenza tests, compared to other respiratory viruses, Canada, by reporting week, 2012-2013



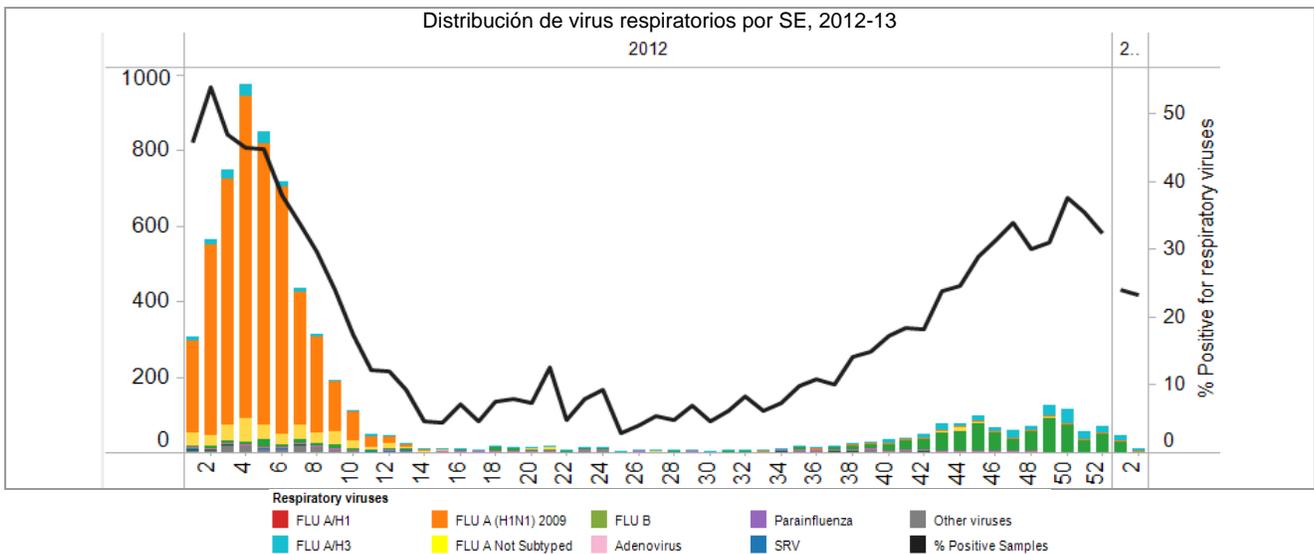
Map of overall Influenza activity level by province and territory, Canada



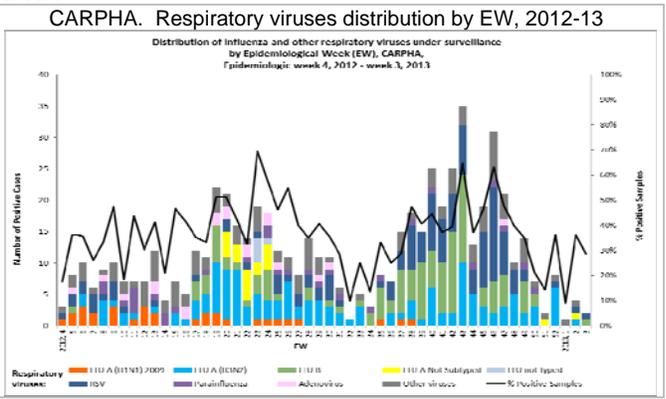
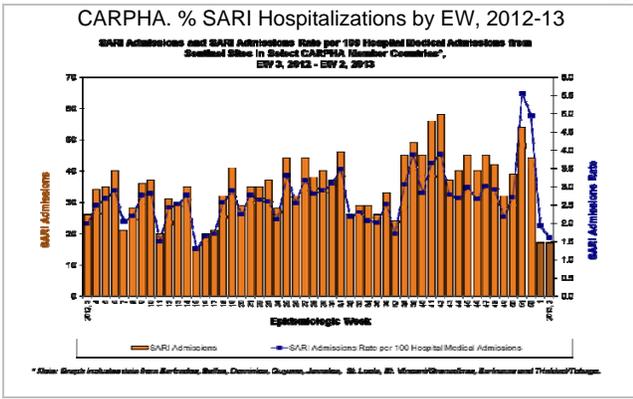
United States



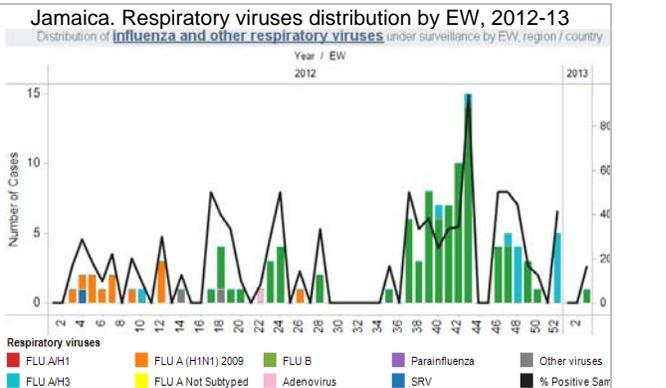
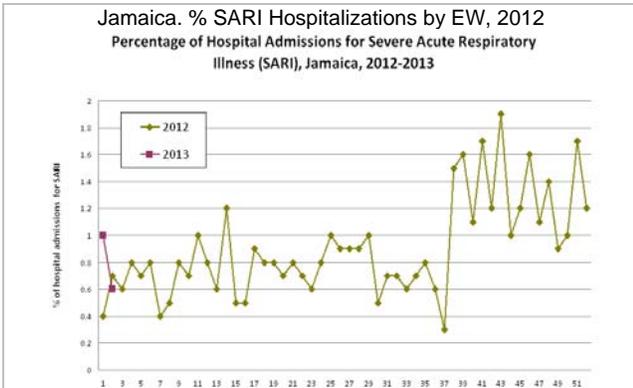
Mexico



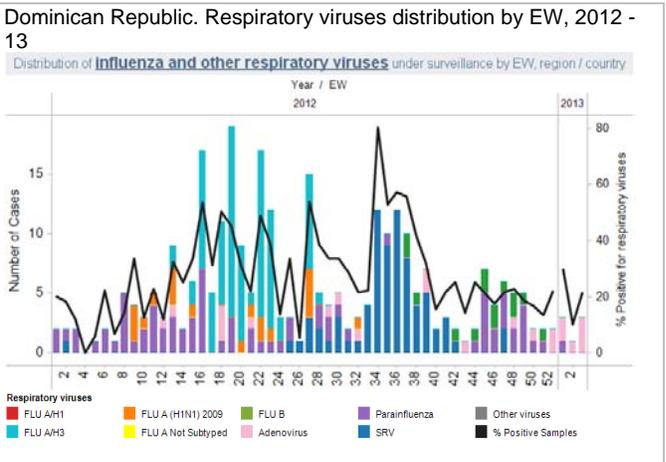
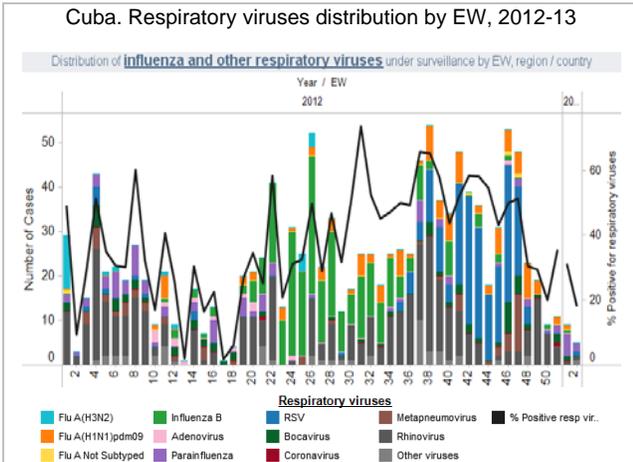
CARPHA



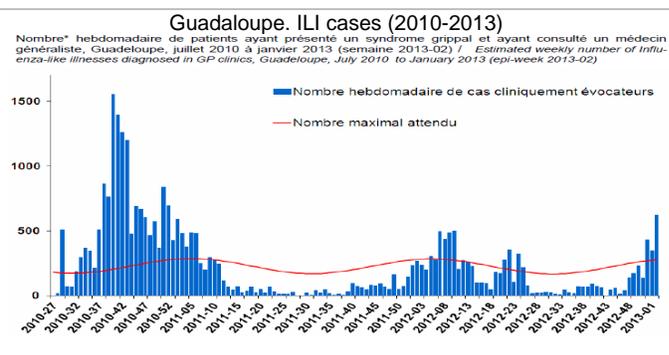
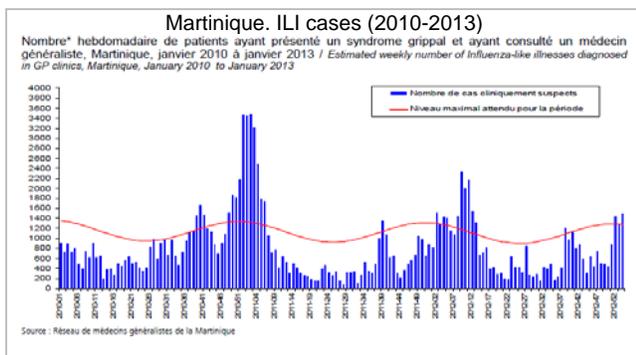
Jamaica



Cuba and Dominican Republic

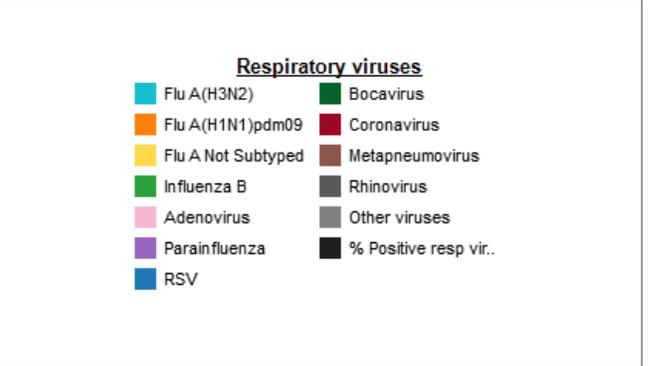
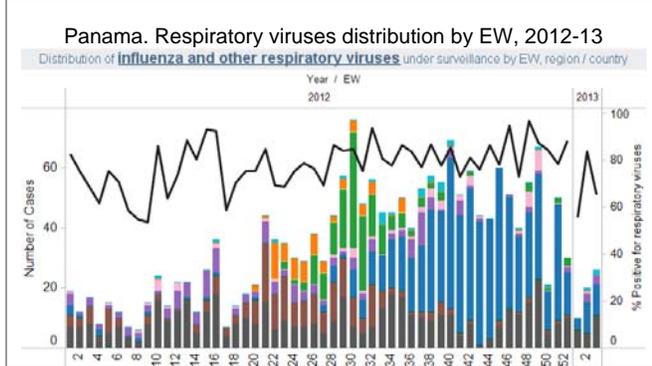
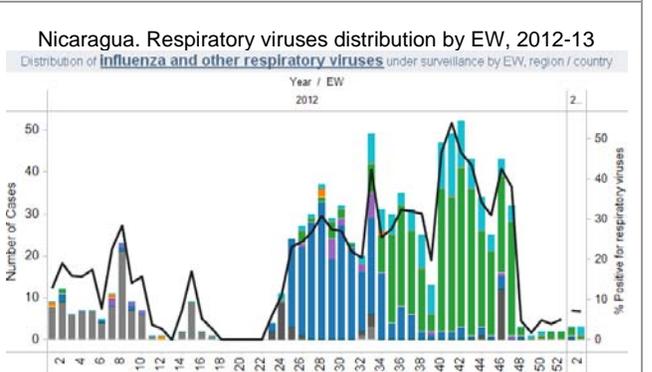
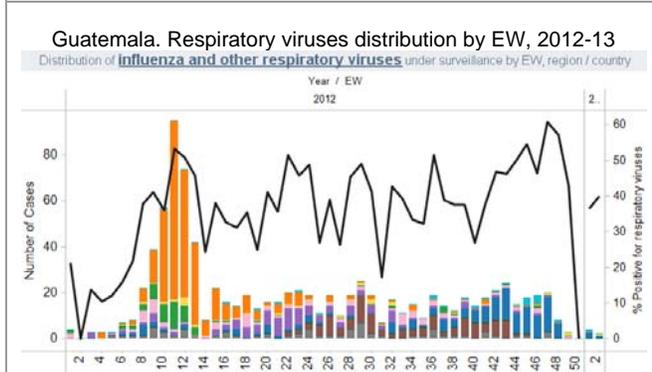
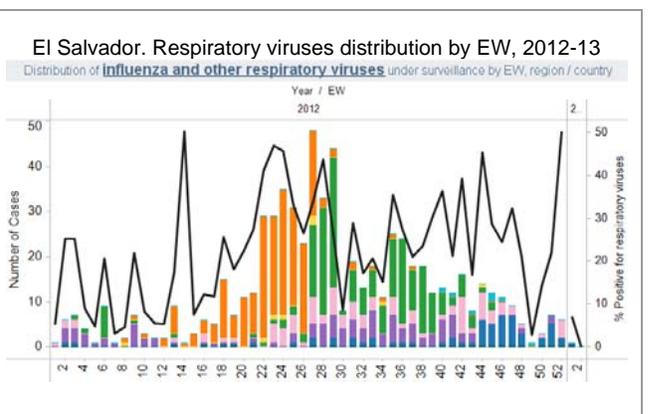
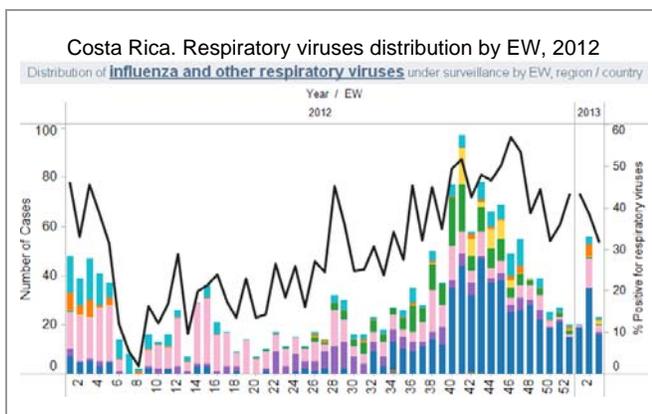


Martinique and Guadeloupe



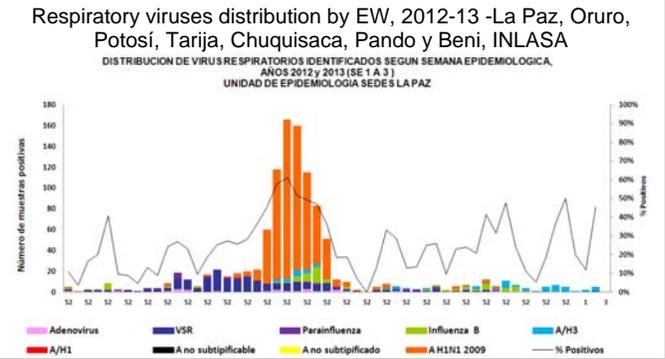
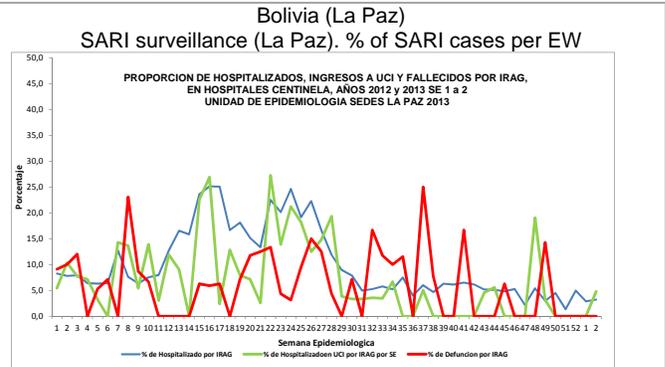
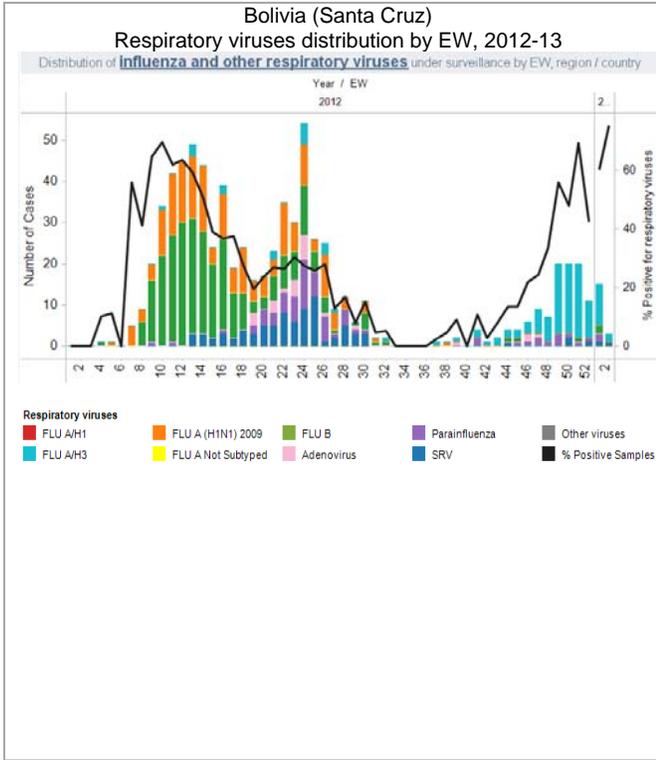
Central America

Costa Rica, El Salvador, Guatemala, Nicaragua and Panamá

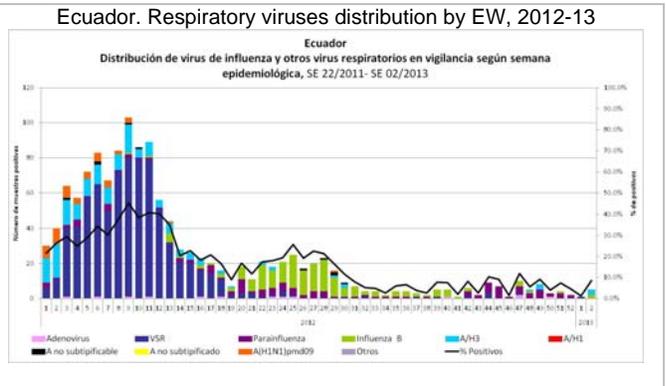
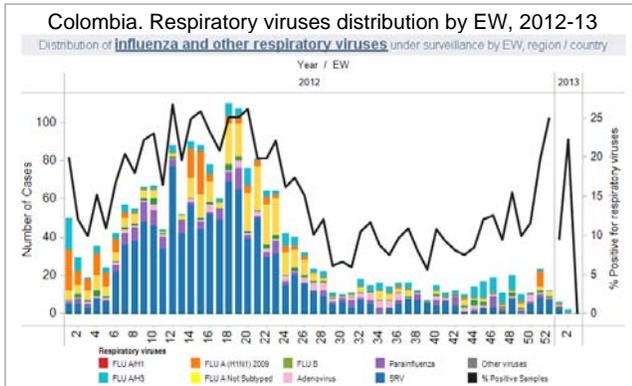


South America - Andean

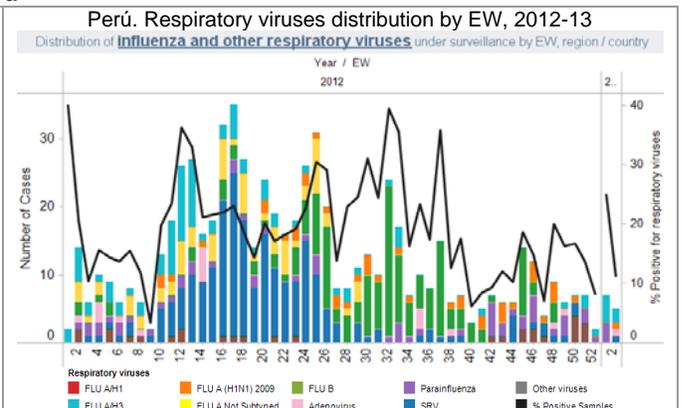
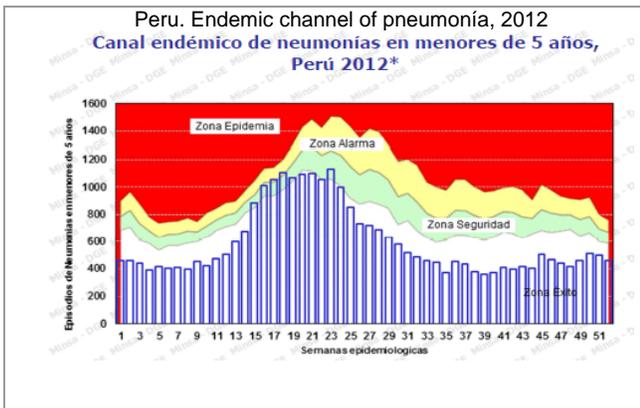
Bolivia



Colombia and Ecuador



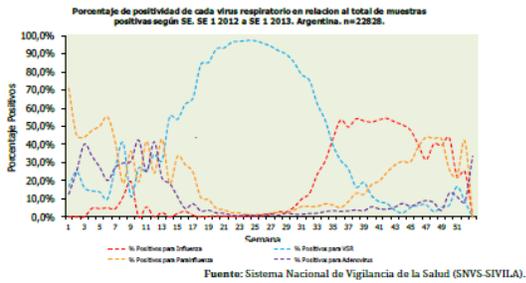
Peru



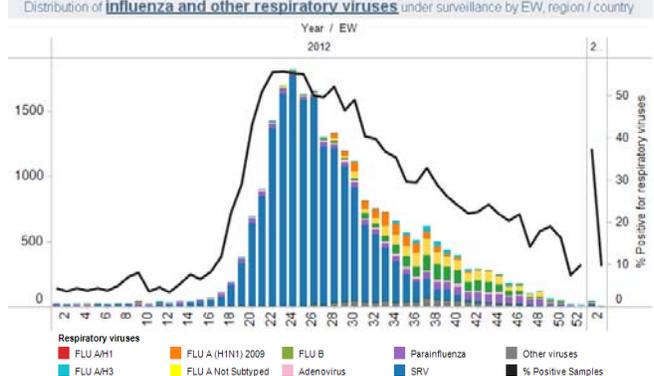
South America, Southern cone

Argentina

Positive samples for respiratory viruses by EW, 2012 - 2013



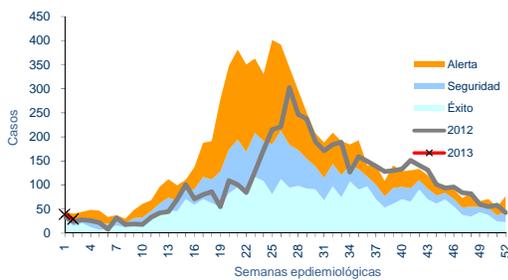
Argentina. Respiratory viruses distribution by EW, 2012,2013



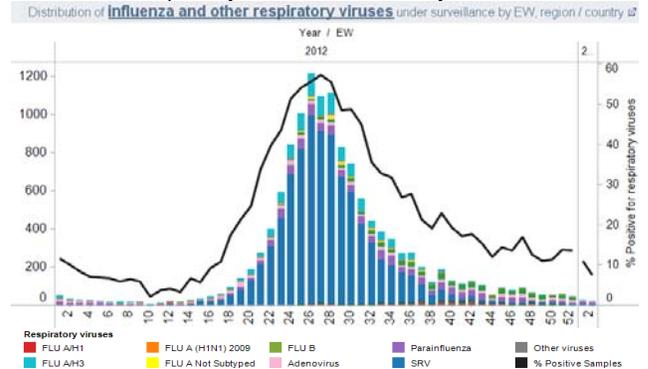
Chile

Chile. ILI Endemic Channel, 2012

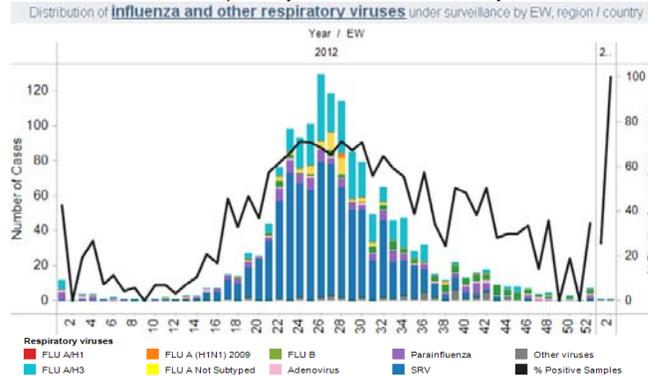
Canal endémico de Enfermedad Tipo Influenza según semana epidemiológica, 2006-2012*. Chile, 2013 (SE 1-2)



Chile. Respiratory viruses distribution by EW, 2012-13



Chile. SARI cases: Respiratory viruses distribution by EW, 2012-13



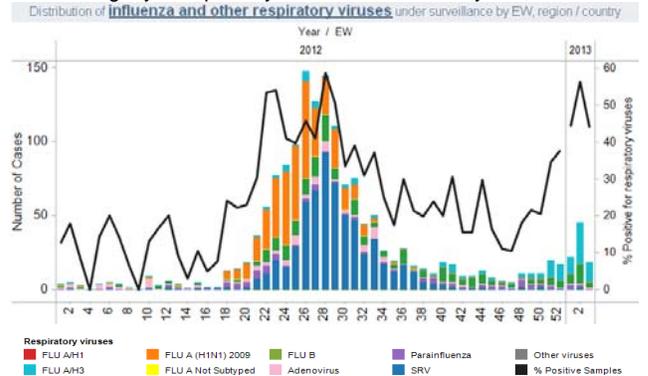
Paraguay

Paraguay. SARI cases (%) by EW, 2013

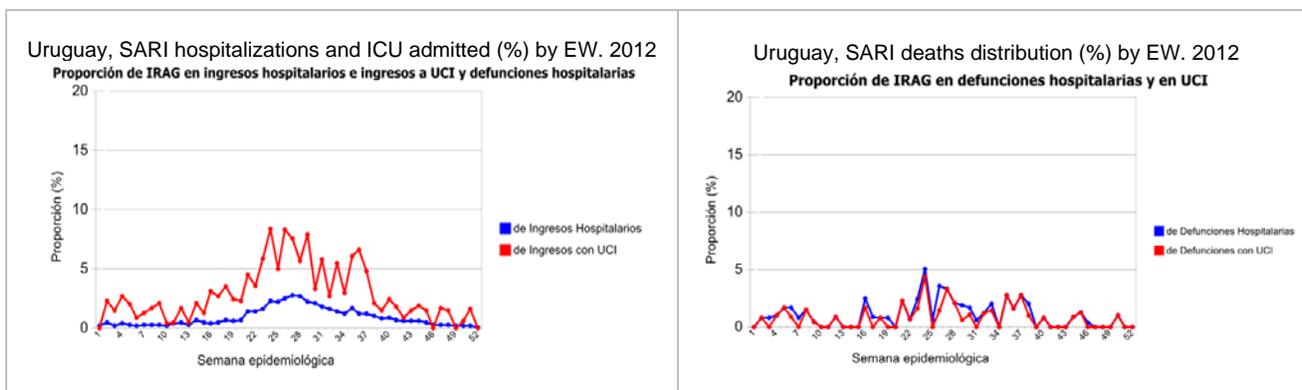
Proporción de Hospitalizados, Ingresos a UCI y Fallecidos por IRAG según semana epidemiológica, Vigilancia IRAG, SE 01 a 02, Paraguay, 2013



Paraguay. Respiratory viruses distribution by EW, 2012



Uruguay



1 FluWatch Report. EW 02. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

2 US Surveillance Summary. EW 02. Centers for Disease Control and Prevention

3 Perú. Sala de Situación de Salud. SE 01, 2013. Ministerio de Salud. Dirección General de Epidemiología

4 Chile. Informe de situación. SE 02, 2013. Disponible en: www.pandemia.cl

5 Paraguay. Boletín epidemiológico semanal SE 02, 2013.

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