

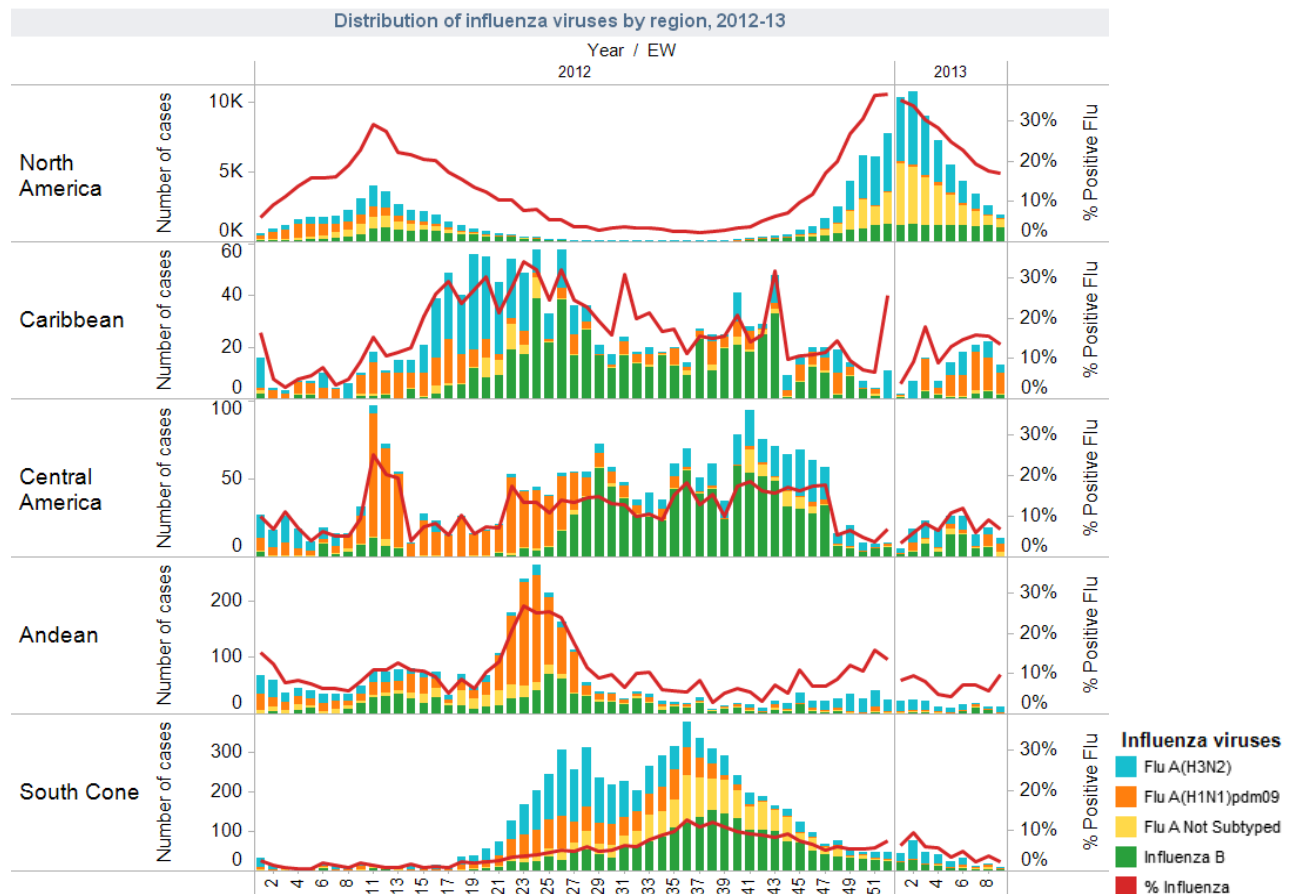


PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
 Influenza Regional Reports: www.paho.org/influenzareports

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:** in Canada and the US, influenza and ILI activity decreased as compared to the previous week. The ILI activity was below the expected levels in Canada, and it decreased in the US, but remained above its national baseline. In the US, the proportion of deaths attributed to pneumonia and influenza was above the expected level for this time of year. In Canada and the US, among all age groups, those 65 years and older had the highest influenza-associated hospitalization rates. In Canada and the US, influenza B has been increasing in the last weeks and now is the dominant circulating influenza virus in the US. In Mexico, influenza A(H3N2) remained as the most prevalent virus.
- **Central America and the Caribbean:** similar or decreased respiratory virus activity was reported in this sub-region as compared to previous weeks. In this sub-region, generally, co-circulation of influenza B, influenza A (H3N2) and influenza A(H1N1)pdm09 continued. Among other respiratory viruses, RSV was the predominant circulating virus in some countries
- **South America:** the respiratory virus activity was within the expected range for this time of the year. In Argentina, a slight SARI increase was reported. In Andean countries, RSV and influenza B predominated, with the exception of Peru, where co-circulation of influenza A(H3N2) and RSV was reported. In the South Cone, adenovirus and influenza A were the prevalent viruses. In Brazil, up to EW 08, RSV predominated in the Northeast and Southeast regions.

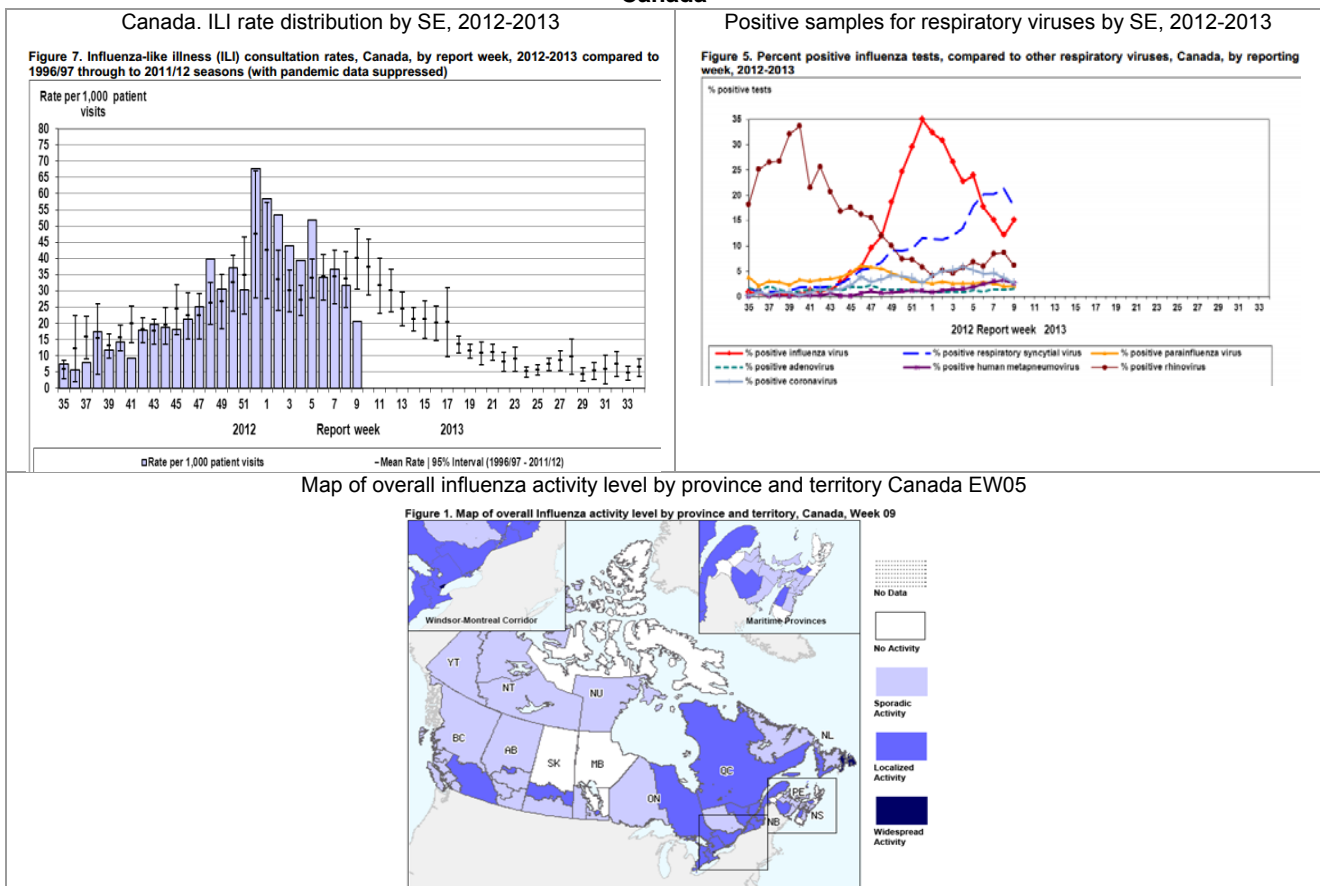


2. EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America

In Canada¹, in epidemiological week (EW) 09, detections of influenza A and B increased slightly, primarily in Eastern Canada. The influenza-like illness (ILI) consultation rate (20.5 ILI consultations per 1,000 patients) decreased and is below the expected range for this time of year. The highest consultation rate was observed in children <5 years of age (28.2/1,000), followed by children 5-19 years of age (25.3/1,000). Among influenza-associated hospitalizations, the highest proportion of hospitalizations continued to be among adults ≥65 years of age (45.5%). Among the total samples analyzed, the proportion of samples positive for influenza increased from 12.1% in EW 08 to 14.9% in EW 09. Of the influenza cases detected in EW 09, 64.2% were influenza A (20.5% influenza A (H3), 17.3% were A (H1N1) pdm09 and 62.2% influenza A unsubtype) and 35.9% were influenza B (increased 2.1% since EW 03). As for other respiratory viruses, the RSV percent positivity decreased slightly from 21.3% in EW 08 to 17.7% in EW 09. The percentage of tests positive for rhinovirus also decreased from 8.7% in week 08 to 6.2% in week 09. 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 78.2% of the influenza B cases).

Canada



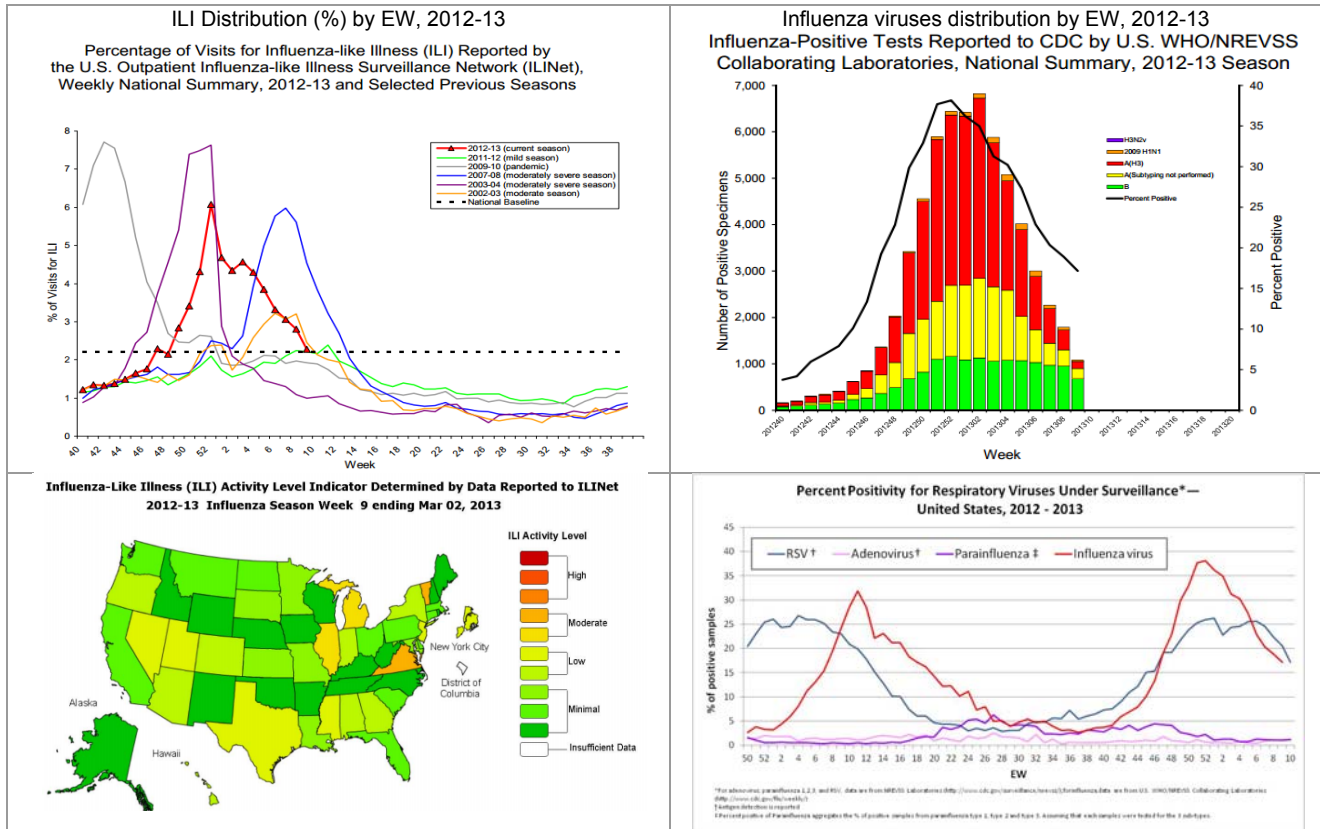
In the United States² in EW 09, the influenza activity remained elevated, but decreased in most areas. Nationally the proportion of ILI consultations (2.3%) decreased as compared to the previous week but remained above the baseline (2.2%); and 7 out of 10 regions reported a proportion of outpatient visits for ILI at or above their region-specific baseline levels. However, no state experienced high ILI activity. Nationally in EW 09, the proportion of deaths attributed to pneumonia and influenza (7.7%) was above the epidemic threshold for this time of year (7.5%). In EW 09, six influenza-associated pediatric deaths were reported (three were associated with A (H3N2), one with an unsubtype influenza A virus, and two with influenza B). Between October 1, 2012 to March 2, 2013 the influenza-associated hospitalization rate was 38.5/100,000 population. The highest rates in were those 65 years of age and older (51% of the cases). Among all

¹ FluWatch Report. EW 09. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

² USA: CDC FluView report. EW 09. Available at: <http://www.cdc.gov/flu/weekly/>

samples tested during EW 09 (n=6,259), the percentage of samples positive for influenza (17.2%) continued to increase. Nationally, among the positive samples, 35.8% were influenza A [38.7% A(H3N2), 5.7% A(H1N1)pdm09 and 55.6% influenza A unsubtype] and 64.2% influenza B. Among the characterized influenza viruses this season, the majority have been the vaccine strains (99% of the A(H1N1)pdm09 cases, 99.6% of the A(H3N2) cases, and 71.6% of the influenza B cases). Since October 1, 2012, 358 samples of influenza A(H1N1)pdm09 have been tested for resistance to oseltamivir and thus far, only two resistant viruses (0.6%) has been detected; these viruses however were sensitive to zanamivir. Among other respiratory viruses, the percentage of positive samples for RSV continued to decrease from its EW 05 peak (25.5% in EW 05) to 17.2% in EW 10.

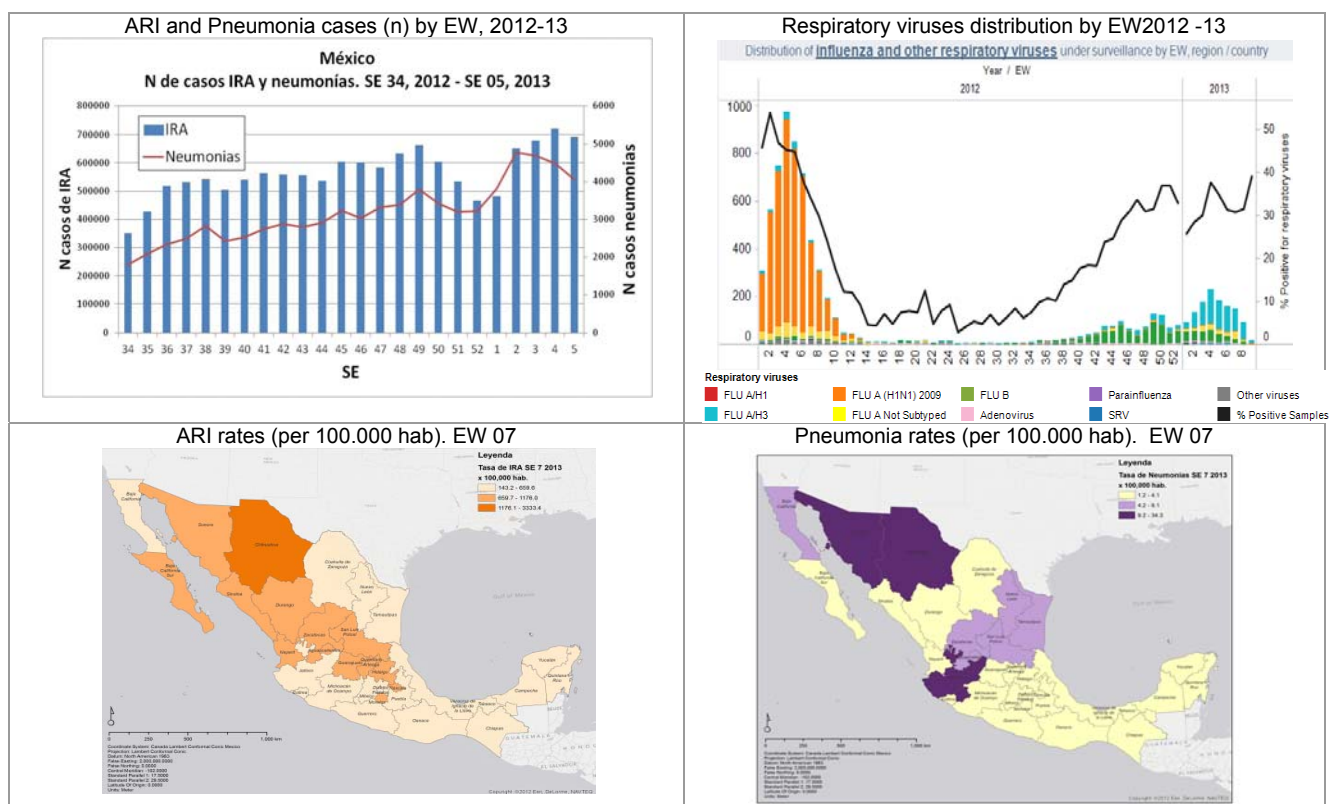
United States



In Mexico³, nationally in EW 07, the number of ARI cases (n=669834) increased 6% as compared to EW 06; while the number of pneumonia cases (n=4212) decreased by 0.9% since EW 06. Regionally, the states that reported the highest rates per 100,000 habitants of pneumonia cases were: Veracruz (2.0), Puebla (1.8), Quintana Roo (1.7), México (1.3) and Chiapas (1.2). According to laboratory data, in 2013, between EW 06-09, among the samples tested (n=1,363) the percent positivity for influenza viruses was 30.3%. In EW 06-09, among the positive influenza cases 86% were influenza A (80.3% influenza A (H3N2), 1.7% influenza A (H1N1)pdm09 and 15.8% influenza A unsubtype] and 14% were influenza B.

³ México. Dirección General de Epidemiología. Información epidemiológica. EW 07.

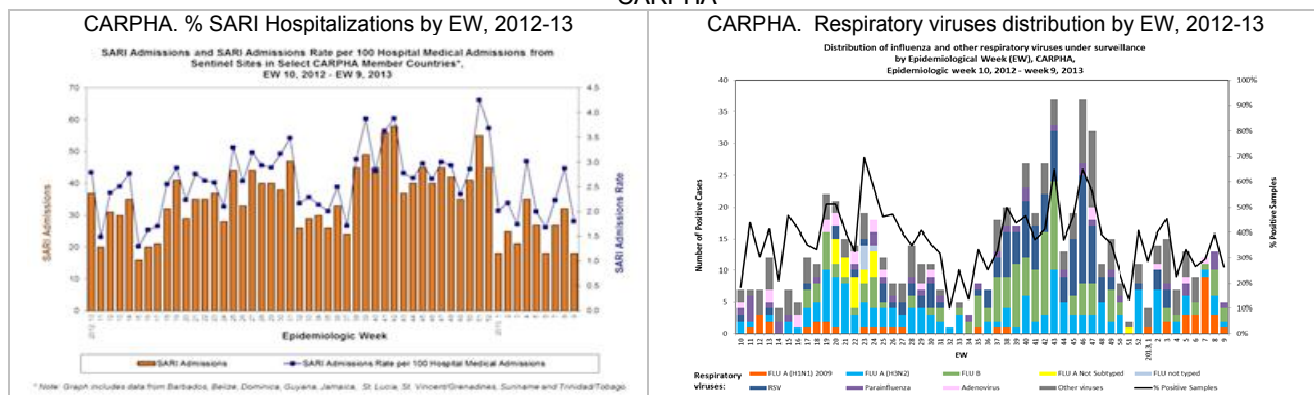
Mexico



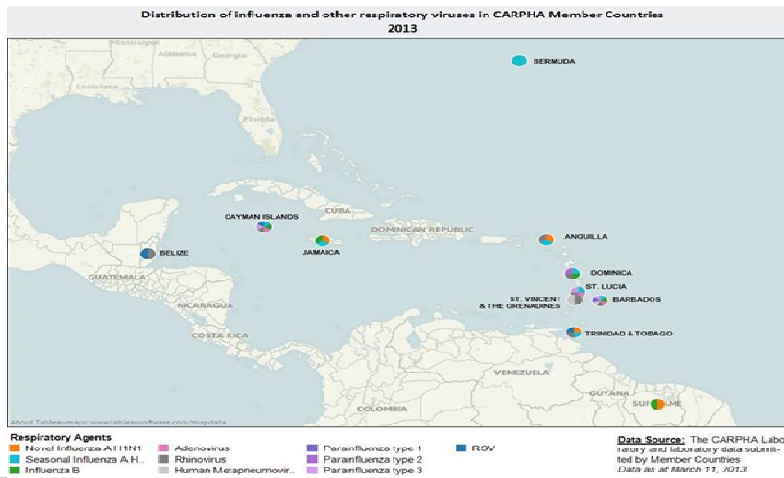
Caribbean

CARPHA⁴ received weekly SARI/ARI data from six countries for EW 09, 2013: Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 09, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 1.8%. The highest rate of SARI was among children between 6 months and 4 years of age (5.6%). One SARI death was reported by Suriname in EW 08, 2013; no SARI deaths were reported from the region in EW 09, 2013. In 2013 the following viruses have been laboratory confirmed in member countries: influenza A(H1N1)pdm09 (Anguilla, Jamaica, Suriname, Trinidad & Tobago); seasonal influenza A(H3N2) (Anguilla, Barbados, Bermuda, Cayman Islands, Dominica, Jamaica, St. Lucia, Trinidad & Tobago); influenza B (Barbados, Cayman Islands, Dominica, Jamaica, Suriname); RSV (Belize, Cayman Islands, Trinidad & Tobago); adenovirus (Barbados, Cayman Islands, St. Lucia); human metapneumovirus (Barbados, St. Vincent & the Grenadines); parainfluenza type 1 (Barbados); parainfluenza type 2 (Dominica); parainfluenza type 3 (Barbados, Cayman Islands, St. Lucia); rhinovirus (Anguilla, Barbados, Belize, Cayman Islands, Dominica, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago). In 2013, to date, the CARPHA laboratory has confirmed 92 cases as positive for 1 or more respiratory agent. The overall percentage positivity for specimens tested was 32.7%.

CARPHA



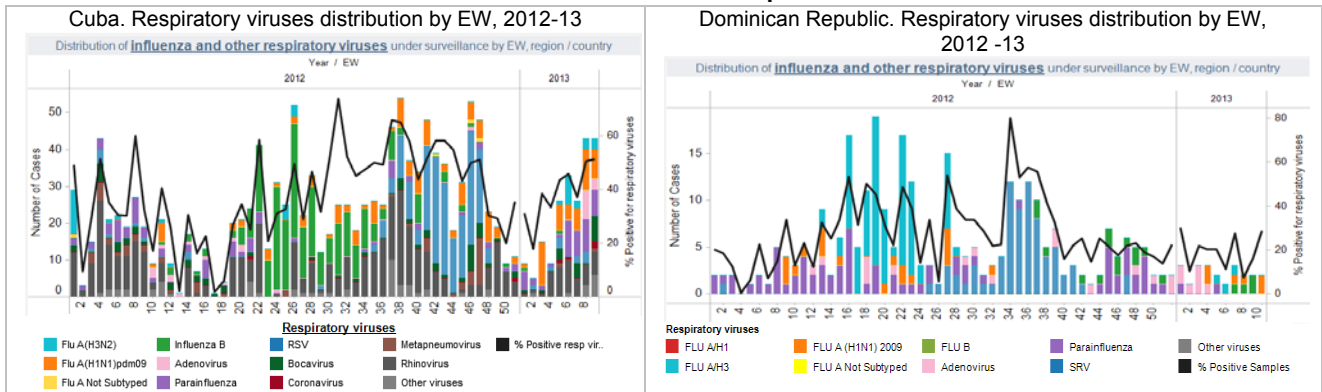
⁴ Caribbean Public Health Agency (CARPHA) EW 09



In Cuba, for the EW 09, according to the laboratory data, among the samples analyzed (n=84), the percentage of positive samples for respiratory viruses was 51.2% and for influenza viruses was of 13.1%, being detected influenza A(H1N1)pdm09, influenza A(H3N2), parainfluenza, adenovirus, rhinovirus, metapneumovirus and bocavirus. In accordance with the epidemiological report for EW 09, 21.4% of the samples received were SARI patients and 22.6% ETI patients. The SARI cases occurred mainly in children between 1 to 4 years old. No deaths were reported in the EW 08.

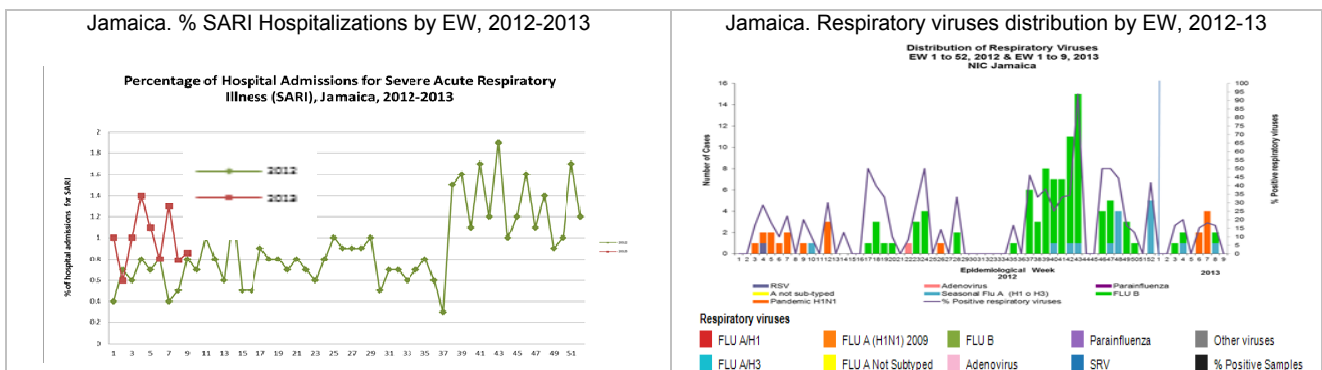
In the Dominican Republic, according to laboratory data, in the EW 10, among samples analyzed (n=7), the percentage positive for influenza viruses was 28.6%. Influenza A(H1N1)pdm09 was the predominant virus.

Cuba and Dominican Republic



In Jamaica for EW 9, the proportion of consultations for ARI was 4.9% (the same rate reported for the previous week). The proportion of admissions due to SARI was 0.86% (0.6% decrease when compared to the EW before). There were no SARI deaths reported for epidemiological week 9. Influenza viruses were not detected in EW 9 among samples tested (n= 12).

Jamaica

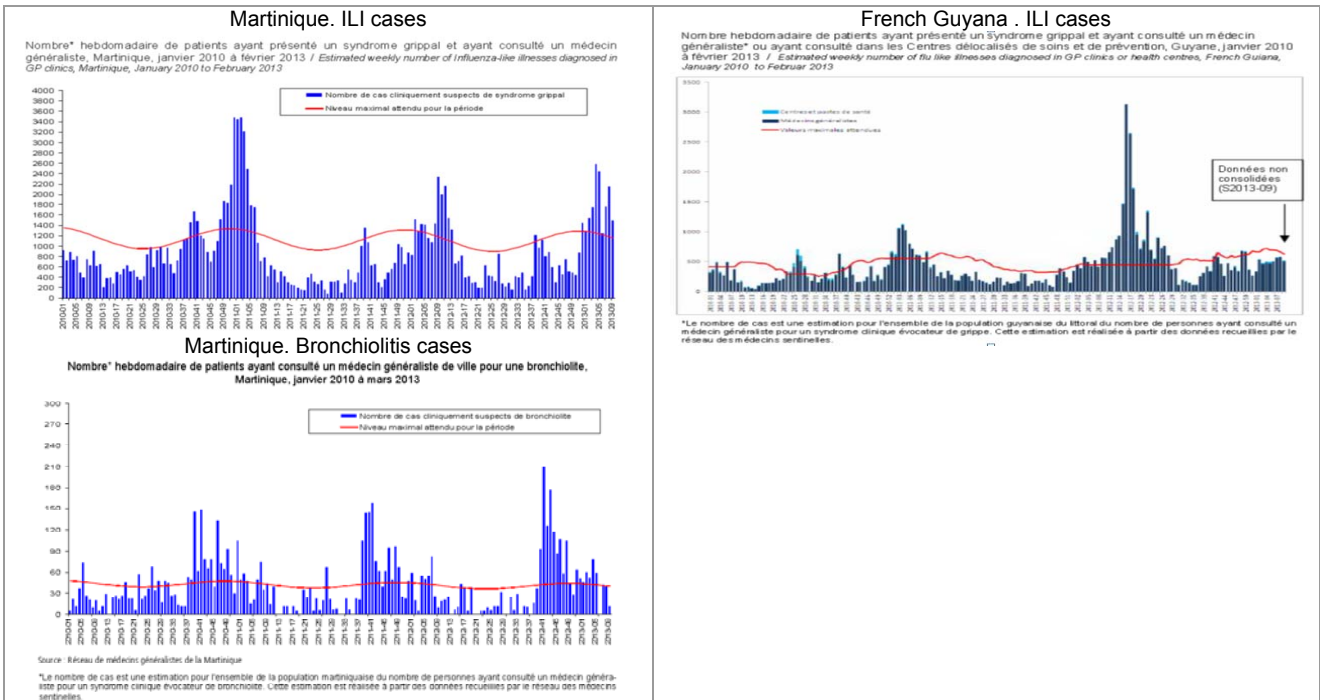


In French Territories:

In Martinique⁵, the flu epidemic continues for 10 consecutive weeks. Up to the EW 09, 374 ILI cases per 100.000 inhabitants were reported. Since the last week of December, 2012, the number of ILI cases remained above the maximum level expected for the season. However, in the last weeks, the general trend of the epidemic was declining. Co-circulation of Influenza A(H3N2), influenza A(H1N1)pdm09 and influenza B was reported. Martinique declared the end of the epidemic of bronchiolitis caused by RSV. During the last two weeks the epidemiological indicators showed that bronchiolitis cases were within the expected levels for the season. The epidemic lasted a total of twenty weeks and about 1,600 cases of bronchiolitis have been estimated.

In French Guyana⁶, during the month of February, ILI activity remained moderate and below the maximum level expected for the season. Influenza A(H1N1)pdm09 and influenza B have been identified.

French Territories



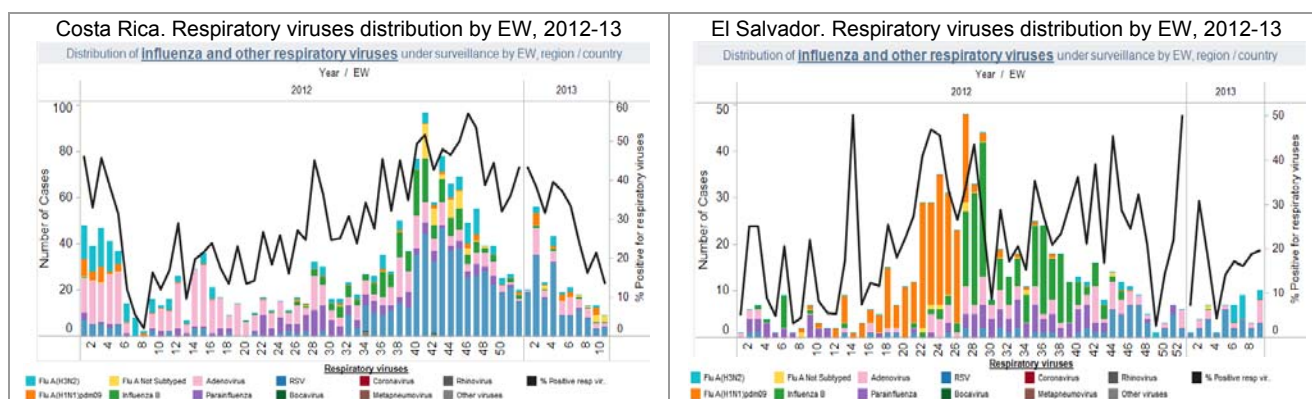
Central America

In Costa Rica, according to laboratory data between EW 07-10, 2013, among all samples tested (n =284), the percent positivity for respiratory was 18.7% and for influenza viruses was 4.6% showed no significant changes. During the period between EW 07-10, RSV continued to be the most prevalent virus followed by adenovirus. Among influenza viruses, influenza A was predominant (mainly influenza A unsubtype).

In El Salvador according to national data, the number of cases of ARI decreased 4.8% during EW 09 as compared to the previous week. During EW 09, the number of pneumonia cases increased 3% as compared to the previous EW, but was less than that observed during the same time last year. According to laboratory data, in EW 06-09, among all the samples analyzed (n = 144), the percentage of positivity for respiratory viruses was ~ 20% .RSV was detected in some cases. No influenza viruses were detected during this time.

⁵ Martinique. Le point épidémiologique — EW 09 / 2013. CIRE
⁶ Guyana. Le point épidémiologique — N° 02 / 2013. CIRE Antilles Guyana

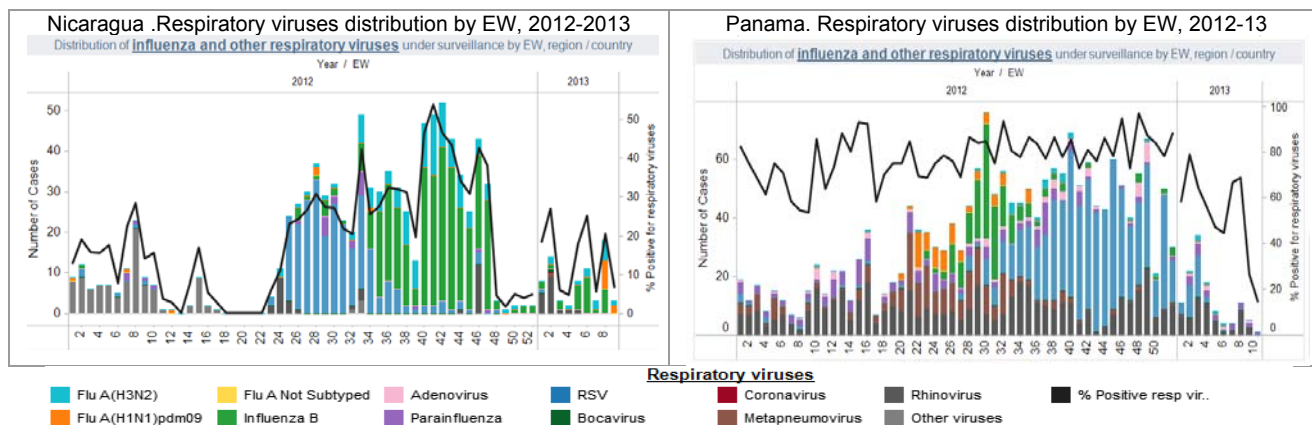
Costa Rica and El Salvador



In Nicaragua, nationally, during the period between EW01-08 of 2013, the ILI activity (650 cases) as well as the SARI activity (492 cases), were both lower than reported during the same period last year. During the period between EWs 06-09, among 232 samples analyzed 15.1% was positive for influenza viruses. Among the total positive samples, influenza B was the most prevalent influenza virus, followed by influenza A (H3N2) virus and influenza A (H1N1) pdm09.

In Panama, according to laboratory data from EWs 07-10, 2013, of all samples tested (n = 48), 43.8% were positive for respiratory viruses and none was positive for influenza virus. Parainfluenza was the most prevalent virus followed by adenovirus.

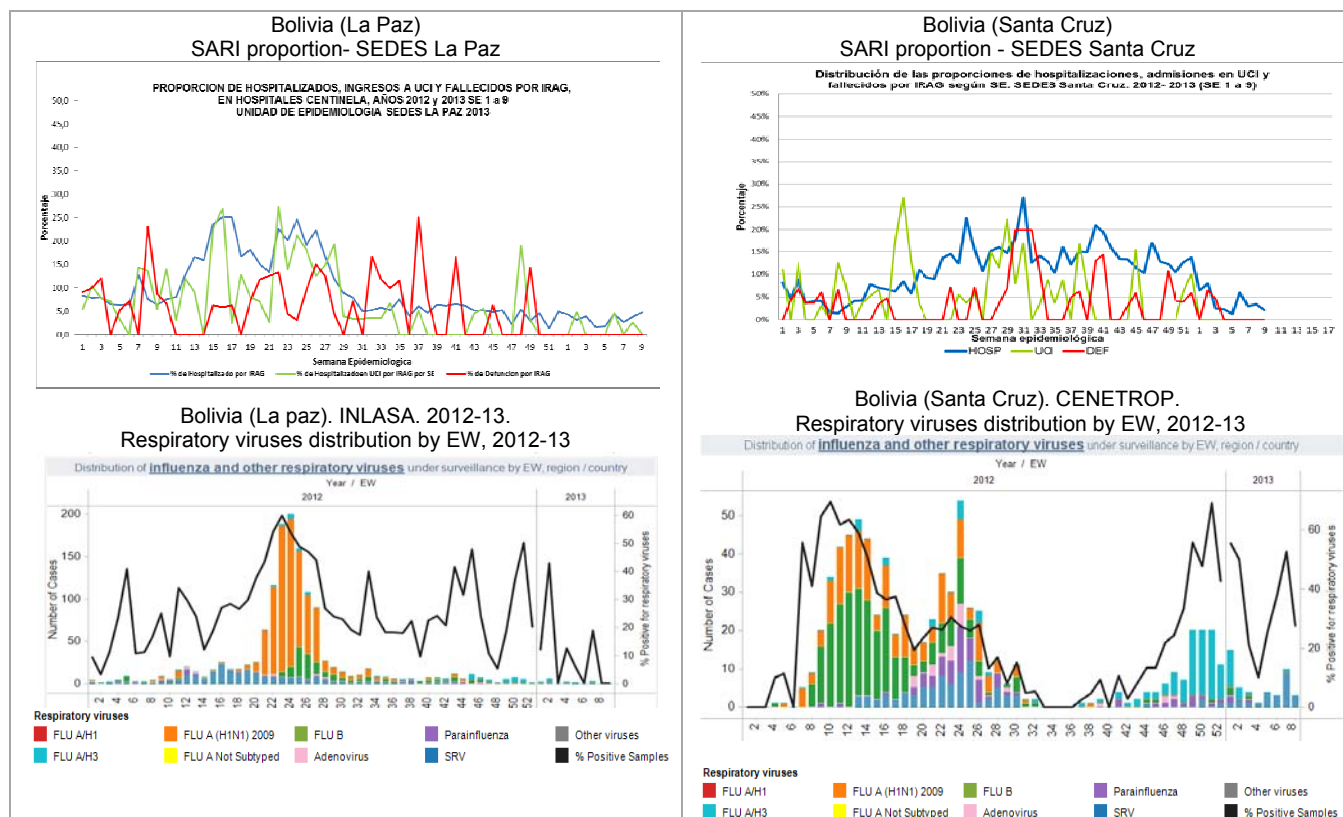
Nicaragua and Panama



South America – Andean countries

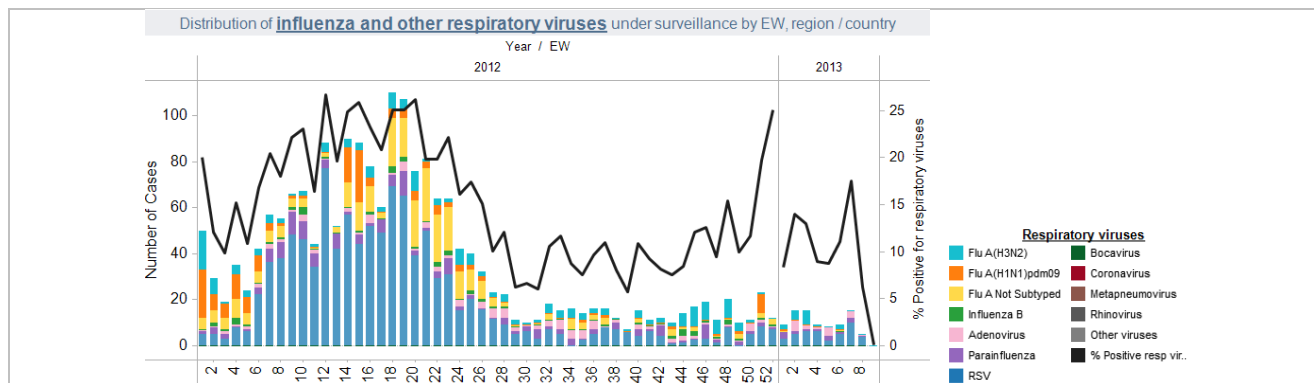
In Bolivia, data from Santa Cruz indicated that the proportion of SARI hospitalizations was lower during EW 09 (2.2%) than that observed in the previous EW. No SARI-related deaths were reported. According to data from CENETROP (Santa Cruz), among 28 samples processed between EWs 08-09 of 2013, there was 36% positivity for all respiratory viruses (predominantly RSV). No influenza viruses were detected. Data from La Paz indicated that the proportion of SARI hospitalizations increased during EW 09 (4.8% -11/238) as compare to EW 08. No SARI-related deaths were reported. According to laboratory data from La Paz, among 27 samples processed between EWs 07-08 of 2013, 11% were positive for all respiratory viruses and 11% for influenza viruses. Influenza B was the most prevalent virus (3/3).

Bolivia



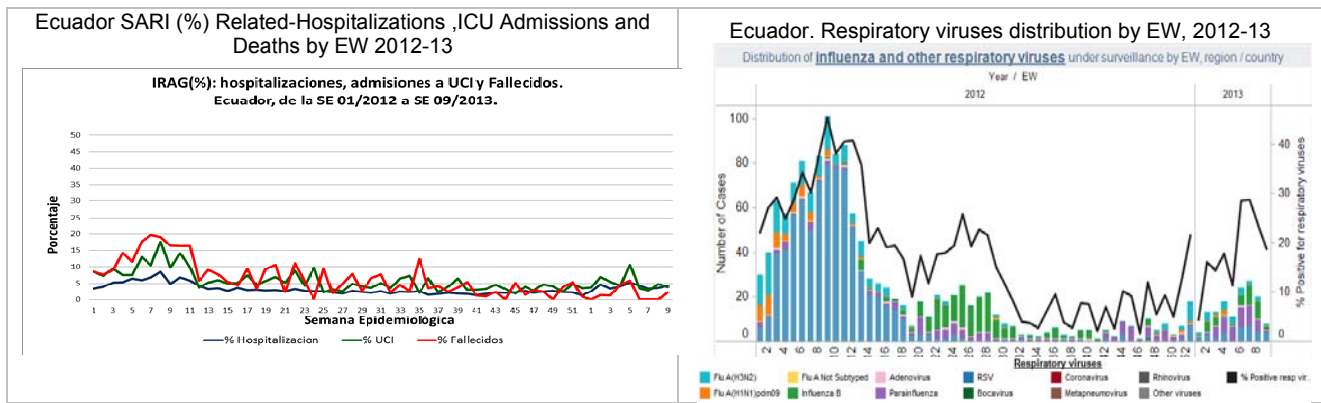
In Colombia, nationally, the proportion of ILI outpatient visits, SARI hospitalizations and SARI ICU admissions increased since EW 07. According to national INS laboratory, which includes data from the Departments of Bogotá, Antioquia and Nariño, among 87 samples analyzed during EW 08-09 of 2013 the percent positivity was 5.7% for all respiratory viruses, and no influenza viruses. RSV was predominant among all the positives (4/5).

Colombia



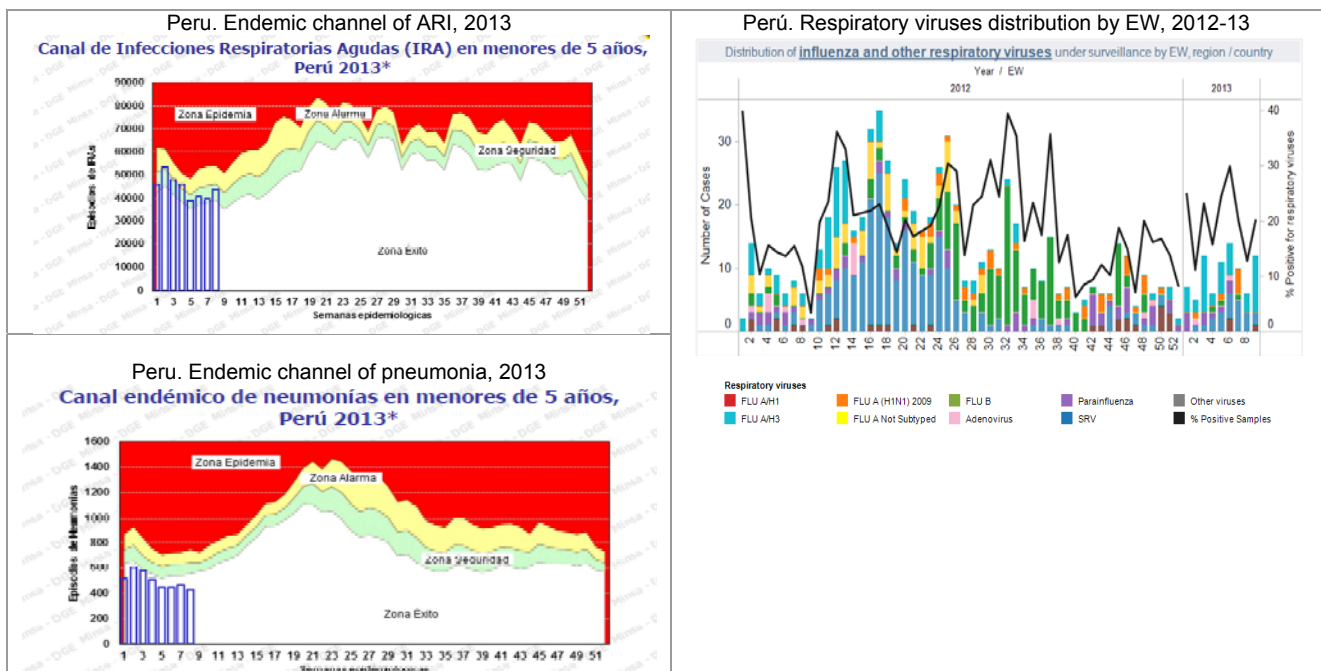
In Ecuador, the proportion of SARI hospitalizations remained without significant changes in recent weeks and was at 4% (93/2151) in EW 09, 2013. One SARI-related death was reported in the central/north part of the country. According to national laboratory data from the NIH, 128 SARI samples were analyzed between EWs 08-09 of 2013, of which 22% were positive for respiratory viruses and 11% were positive for influenza viruses. Among all the positive samples, influenza B (36%), RSV (28%) and parainfluenza (25%) were the most dominant viruses.

Ecuador



In Peru⁷, nationally, in EW 08 of 2013, the number of ARI cases in children under 5 years of age was within the expected level for this time of the year. The number of pneumonia cases in children under 5 years of age was within the endemic channel levels of success. According to national laboratory data, during EWs 08-09 of 2013, among the 88 samples analyzed, the percentage positivity was 17% for all respiratory viruses and 11% for influenza. Influenza A(H3N2) (12/18) and RSV (5/18) were the most prevalent viruses during this time.

Peru

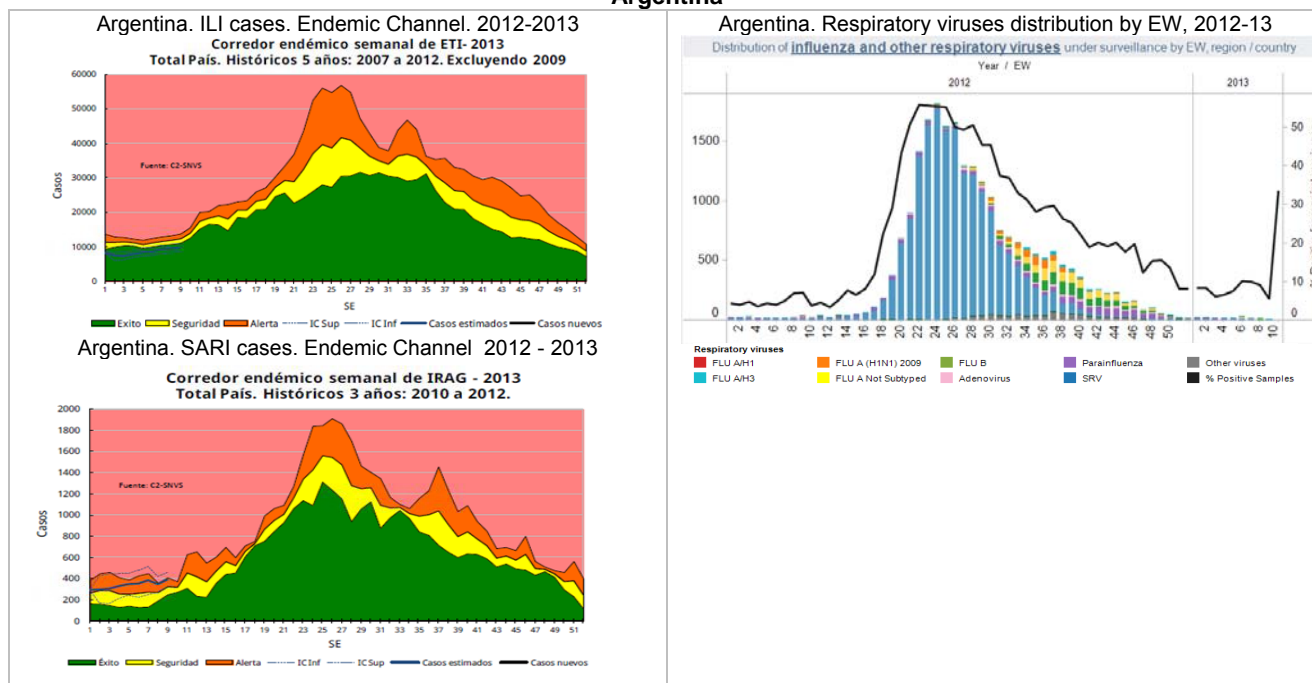


South America – Southern Cone

In Argentina, nationally, ILI activity in EW 09 was within the safety zone of the endemic channel. The number of SARI hospitalizations in EW 09 was at the epidemic threshold. According to laboratory data, in EW 09 of 2013, among 166 samples processed the percent positivity was 5.4% for all respiratory viruses and 2.4% for influenza. Adenovirus and influenza A were the most dominant viruses.

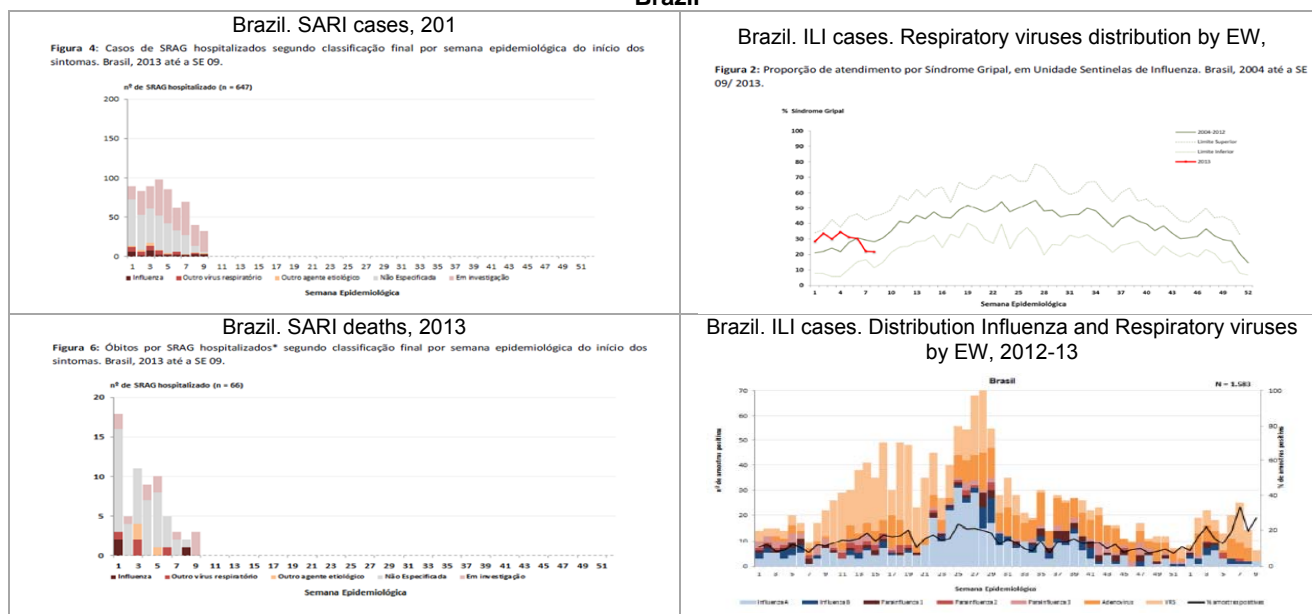
⁷ Perú. Sala de Situación de Salud. EW 09, 2013. Ministerio de Salud. Dirección General de Epidemiología

Argentina



In Brazil⁸, in EW 09, ILI activity was within the expected levels for this time of the year, showing a decreasing trend in the last weeks, predominating RSV in Northeast and Southeast regions, with low circulation in the rest of the regions. Among the hospitalized SARI cases (n= 647), during EWs 01-09 of 2013, influenza was detected in 4.3%. So far this year, 66 SARI related deaths were reported. The South and the Southeast regions reported the highest number of SARI-related deaths.

Brazil

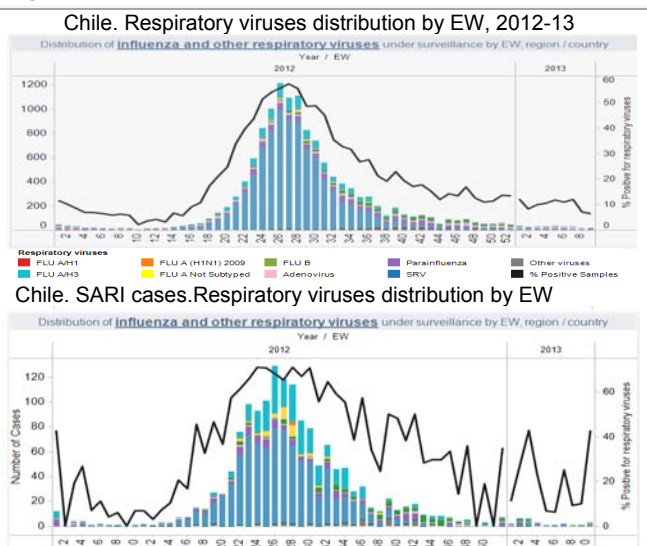
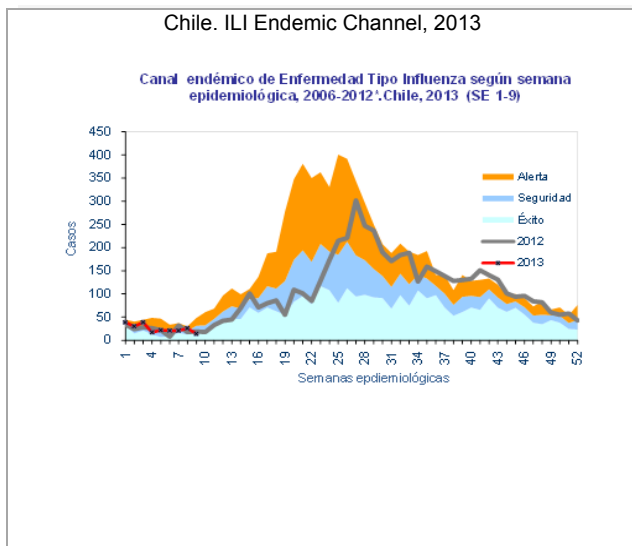


In Chile⁹, nationally in EW 09 of 2013, ILI activity (rate=0.9 /100,000 pop.), remained low, at the safety zone of the endemic channel. According to laboratory data obtained between EW 08-09 of 2013, 538 samples were analyzed, 6.7% of which were positive for respiratory viruses and 0.9% were positive for influenza viruses. Adenovirus was the most prevalent virus (53%) among the positives. In the SARI surveillance system, 21 samples were processed during the same period, two of which were positive (one for parainfluenza and the other for influenza A).

⁸ Brasil. Boletín Informativo. Secretaria de Vigilancia en Salud. SE 09.

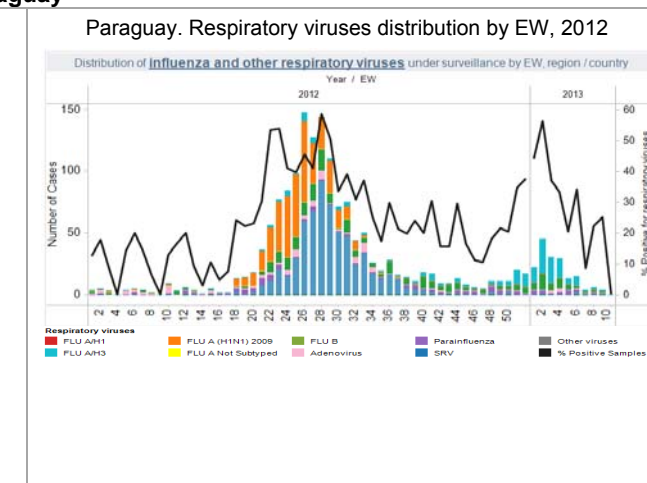
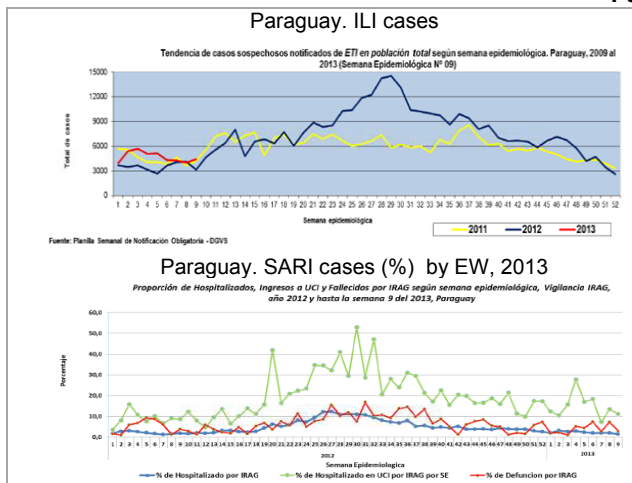
⁹ Chile. Informe de situación. Ew 09. Disponible en: www.pandemia.cl

Chile



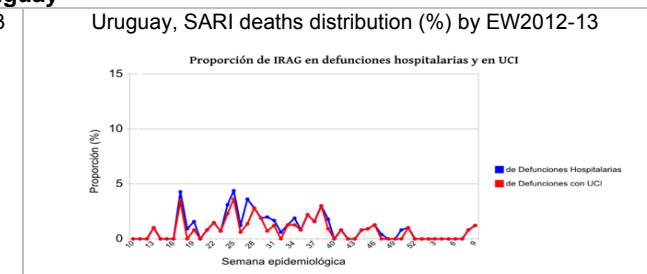
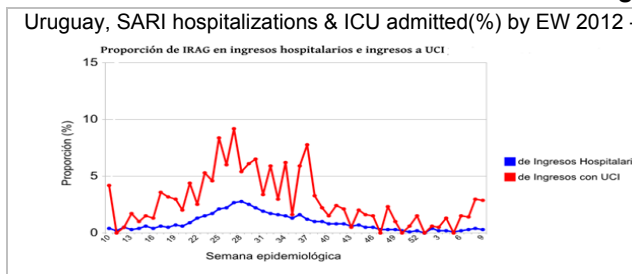
In Paraguay¹⁰, nationally, the ILI rate (66.2/100,000 population) and the proportion of ILI consultations (3.4% -165/4.924) during EW 09 of 2013, remained low and without significant change from the previous week. The SARI surveillance in EW 09 showed that the proportion of SARI-related hospitalizations (1.3% -29/2.307), remained without significant change from the previous week. According to the national laboratory data, among 43 samples processed between EW 08 - 09, 2013, 23% were positive for all respiratory viruses and 16% were positive for influenza viruses. Among the positive samples, influenza A(H3N2) and influenza B were the most predominant viruses.

Paraguay



In Uruguay¹¹, according to the national SARI surveillance system, thus far in 2013, the proportions of SARI-related hospitalizations were at low levels, without significant changes from one week to the other. However, there was an increase in the proportion of SARI ICU admissions and SARI-related deaths since EW 07.

Uruguay



¹⁰ Paraguay. Informe de situación. DGVS. SE 09, 2013

¹¹ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública