



PAHO interactive influenza data: http://ais.paho.org/hiph/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 increased as compared to the previous week. The ILI activity was within the expected levels in Canada but in the US, it 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:** ARI activity is within the expected levels for this time of the year. However, in the last weeks, Argentina, Chile, Peru and Colombia showed a slight ascending trend. In the Andean countries, SRV is the predominant circulating virus, with the exception of La Paz (Bolivia) showing circulation of influenza B. In South America, there is predominance of adenovirus and influenza A virus. In Brazil, up to EW 9, SRV was circulating in the Northeast and Southeast regions.

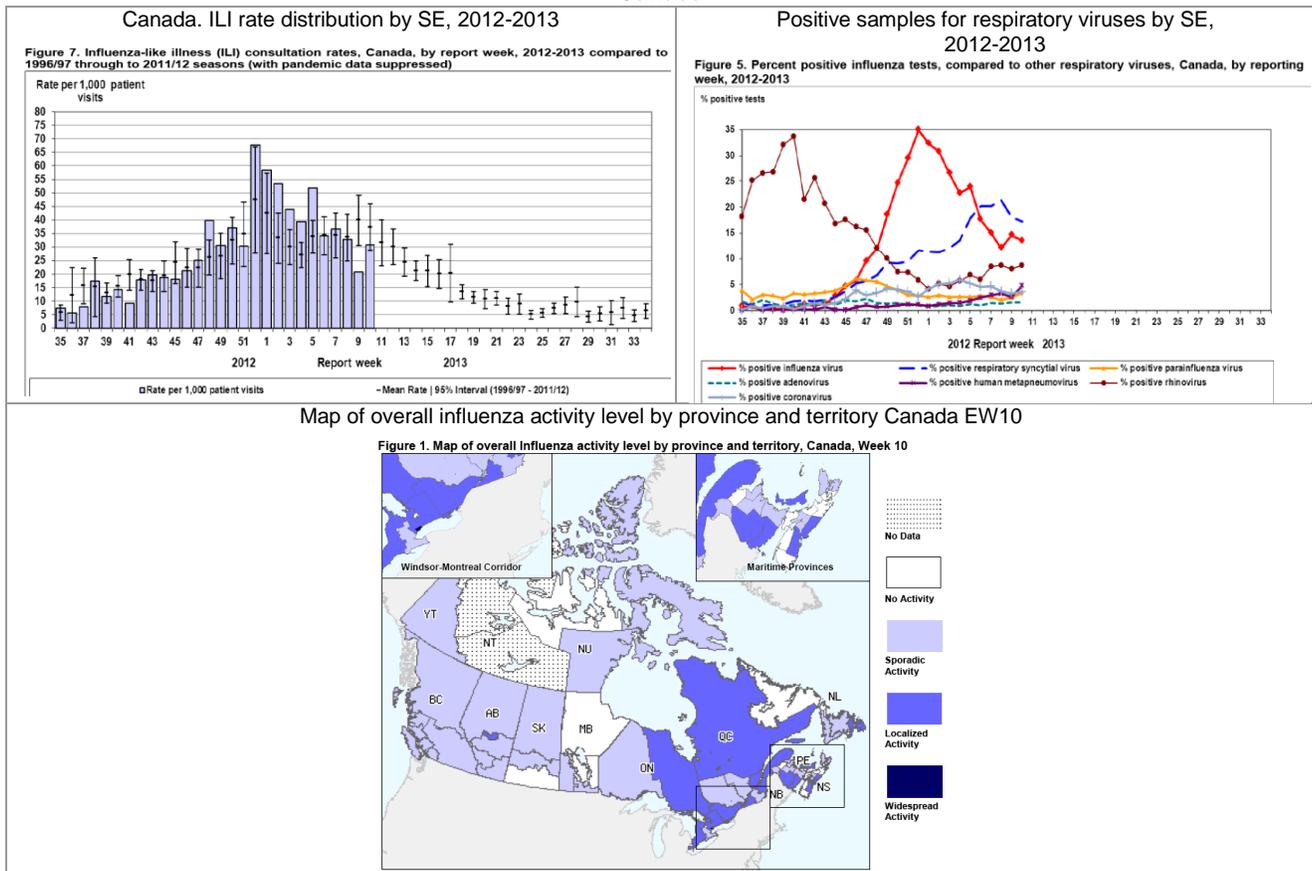
2. EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America

In Canada¹, in epidemiological week (EW) 10, the overall number of influenza cases detected continued to decline with the exception of influenza B virus cases, which in fact increased. The influenza-like illness (ILI) consultation rate increased during EW 10, (30.7 ILI consultations per 1,000 patients), but remained within the expected range for this time of year. The highest consultation rate was reported in children 5-19 years of age (70.1/1,000). Among influenza-associated hospitalizations, the highest proportion of hospitalizations continued to be among adults' ≥65 years of age (54.6%). Among the total samples analyzed, the proportion of influenza positive samples decreased from 14.6% in EW 09 to 13.5% in EW 10. During EW 10, 55.7% of the positive influenza cases were influenza A (26.5% influenza A (H3), 20.4% were A (H1N1) pdm09 and 53.1% influenza A untyped) and 44.3% were influenza B (that has increased over the past 7 weeks from 2.1% in EW 03). As for the other respiratory viruses, the RSV percent positivity decreased slightly from 18.1% in EW 09 to 17.3% in EW 10 this percentage, however, increased for both parainfluenza (3.4%) and hMPV (4.8%). The percentage of tests positive for rhinovirus (8.7%), coronavirus (3.6%) and adenovirus (1.5%) were similar to previous weeks. 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 77.9% of the influenza B cases).

¹ FluWatch Report. EW10. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

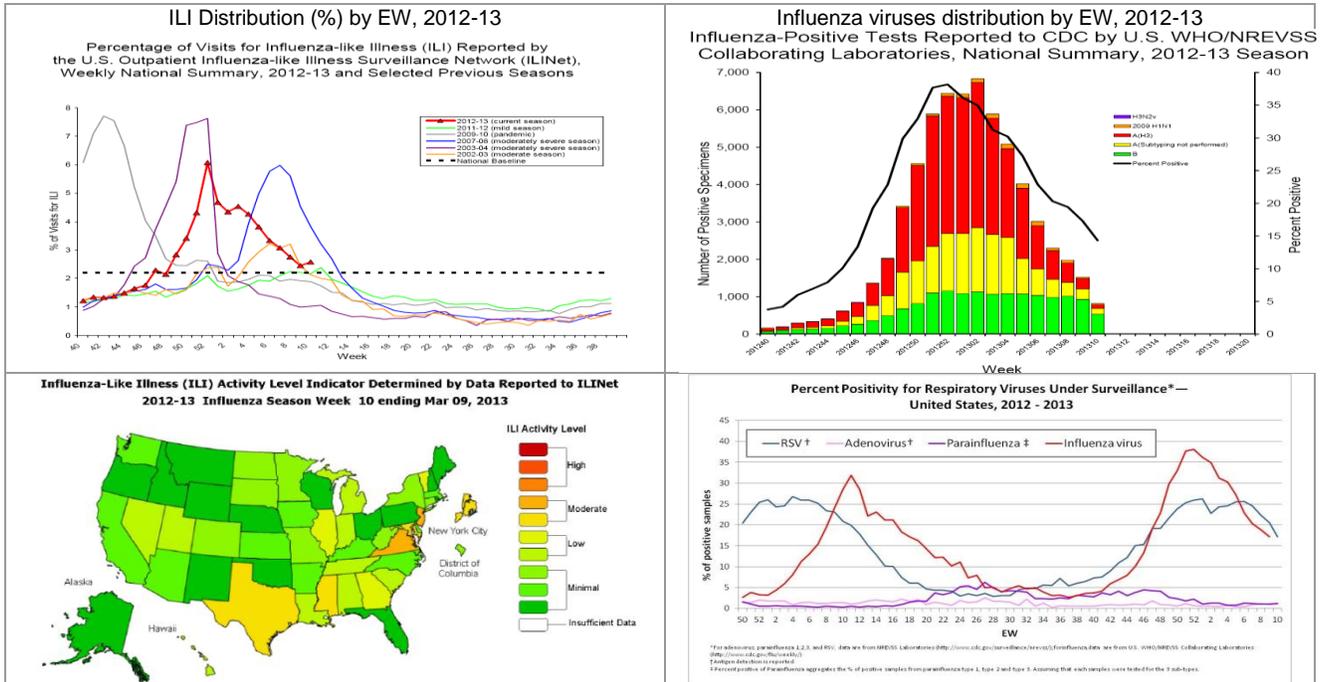
Canada



In the United States² in EW 10, influenza activity remained elevated in the United States, but decreased in most areas. Nationally the proportion of ILI consultations (2.6%) slightly higher as compared to the previous week and remained above the baseline (2.2%); and 6 of 10 regions reported a proportion of outpatient visits for ILI at or above their region-specific baseline levels. No state experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 10 (7.6%) was above the epidemic threshold for this time of year (7.5%). In EW 10, twelve influenza-associated pediatric deaths were reported (one associated with A (H3N2), two with an unsubtype influenza A virus, and nine with influenza B). From October 1, 2012 to March 9 2013 the influenza-associated hospitalization rate was 39.5/100,000 population, with the highest rates in those 65 years of age and older (51% of the cases). Among all samples tested during EW 10 (n=5,747), the percentage of samples positive for influenza (14.3%) continued to decrease. Nationally, among the positive samples, 35.6% were influenza A [36.3% A (H3N2), 9.6% A (H1N1) pdm09 and 54.1% influenza A unsubtype] and 64.4% influenza B. Among the characterized influenza viruses this season, the majority have been the vaccine strains (97.9% of the A (H1N1) pdm09 cases, 99.6% of the A (H3N2) cases, and 72.1% of the influenza B cases). Since October 1, 2012, n=2,406 influenza samples have been tested for resistance to oseltamivir and thus far, only 1 influenza A (H3N2) (0.1%) and 2 influenza A (H1N1) pdm09 (0.5%) has been detected; this virus was 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.

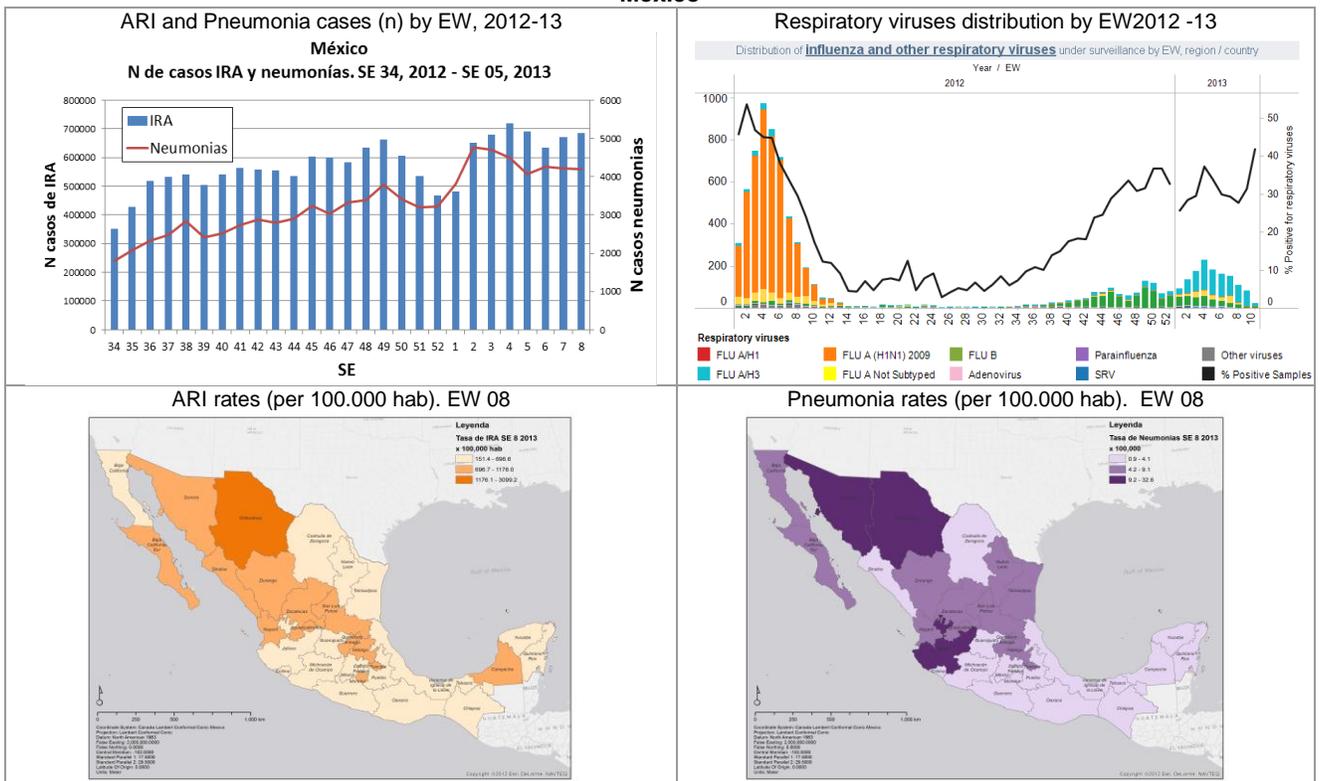
² USA: CDC FluView report. EW10. Available at: <http://www.cdc.gov/flu/weekly/>

United States



In Mexico, nationally in EW08, the number of ARI cases (n=686628) increased 3% as compared to EW 07; while the number of pneumonia cases (n=4201) decreased by 0.3% since EW 07. Regionally, the states that reported the highest rates per 100,000 habitants of pneumonia cases in the country in EW 08 were: Sonora (11.3), Jalisco (10.1), Baja California Sur (7.7), San Luis Potosí (7.1). According to laboratory data, in 2013, between EW 07-10, among the samples tested (n=864) the percent positivity for influenza viruses was 43.5%. In EW 07-10, among the positive influenza cases 86.7% were influenza A (~81% influenza A (H3N2), 1.5% influenza A (H1N1)pdm09 and 14.1% influenza A unsubtype) and 13.3% were influenza

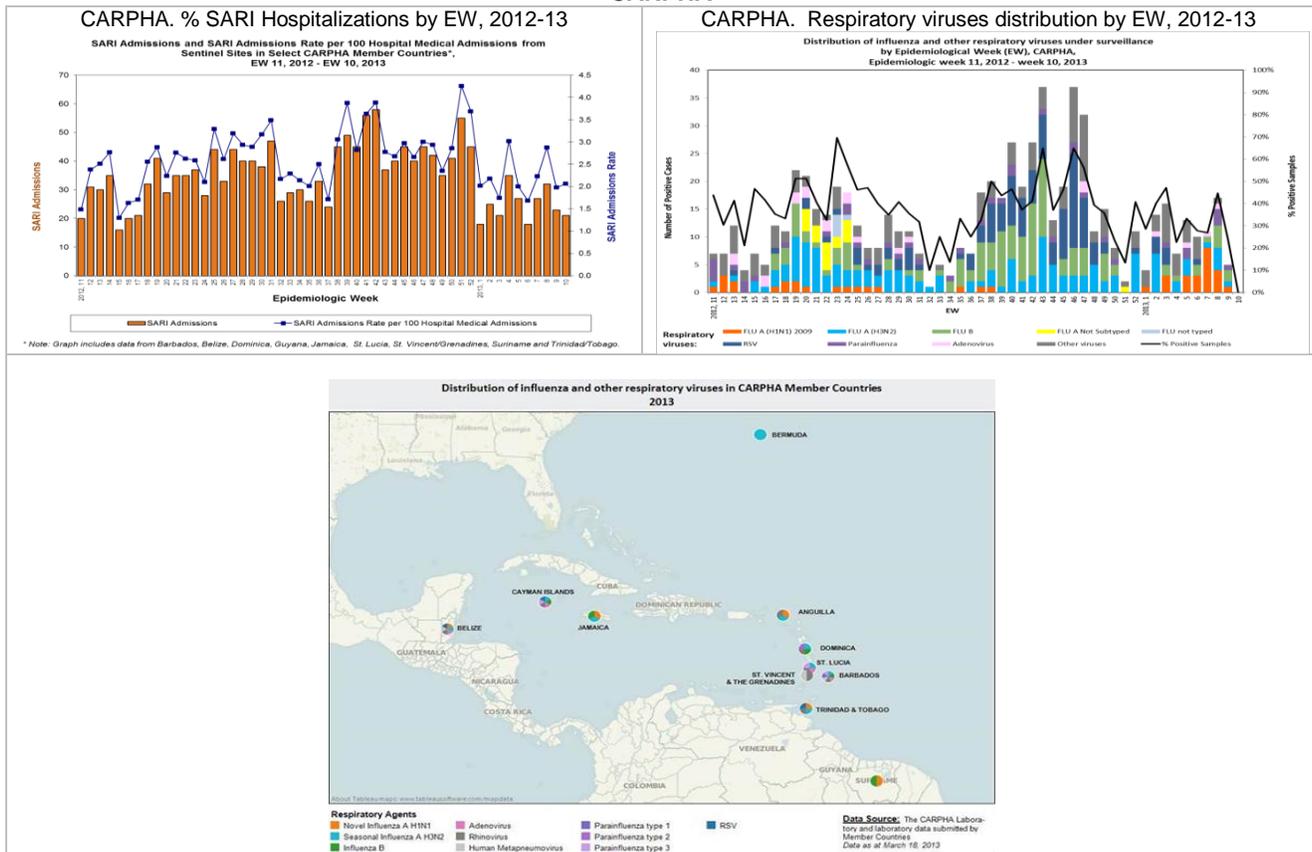
Mexico



Caribbean

CARPHA³ received weekly SARI/ARI data from 5 countries for EW 10, 2013: Barbados, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 10, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.1%. The highest rate of SARI was among children 6 months to 4 years of age (6.5%). No SARI deaths were reported from the region in EWs 09 and 10, 2013. So far in 2013, the following viruses have been laboratory confirmed in member countries: influenza A(H1N1)pdm09 (Anguilla, Belize, Jamaica, Suriname, Trinidad & Tobago); influenza A(H3N2) (Anguilla, Barbados, Bermuda, Belize, Cayman Islands, Dominica, Jamaica, St. Lucia, Trinidad & Tobago); influenza B (Barbados, Cayman Islands, Dominica, Jamaica, Suriname); RSV (Belize, Cayman Islands, Trinidad & Tobago); adenovirus (Barbados, Belize, Cayman Islands, St. Lucia); human metapneumovirus (Barbados, Belize, 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, Suriname, Trinidad & Tobago). For cases with dates of onset in 2013, the overall percentage positivity for samples tested is 32.2%. Since the beginning of 2013, the CARPHA laboratory has confirmed 97 cases as positive for 1 or more respiratory agent.

CARPHA



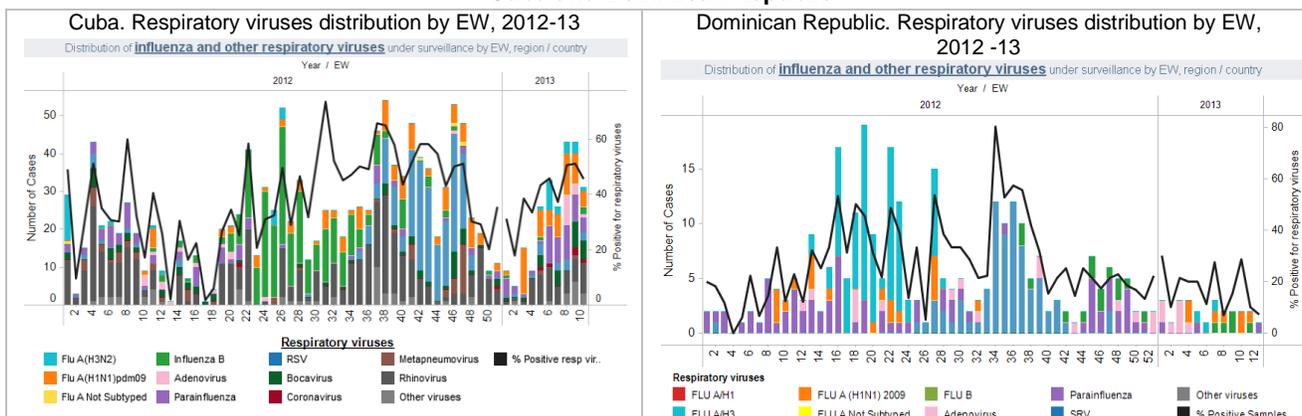
In Cuba, according to national laboratory data, among all samples analyzed in EW 10 (n=68), the percent positivity for respiratory viruses was 45.6% and was 10.3% for influenza viruses. The following viruses were detected during this EW; influenza A (H1N1) pdm09, influenza A (H3N2), influenza B, RSV, parainfluenza, adenovirus, rhinovirus, coronavirus and bocavirus. According to the epidemiological report EW 10, 32.3% of the samples received were of SARI patients and 11.7% ILI patients. The SARI cases occurred mainly in children between 1 to 4 years old, followed by adults' ≥ 65 years. One SARI related death was reported during EW 10.

In the Dominican Republic, according to national laboratory data, among all samples analyzed (n=32) during the period between EW 11 & EW 12, the percent positivity for influenza viruses was 10%. During EW 11

³ Caribbean Public Health Agency (CARPHA) EW 10

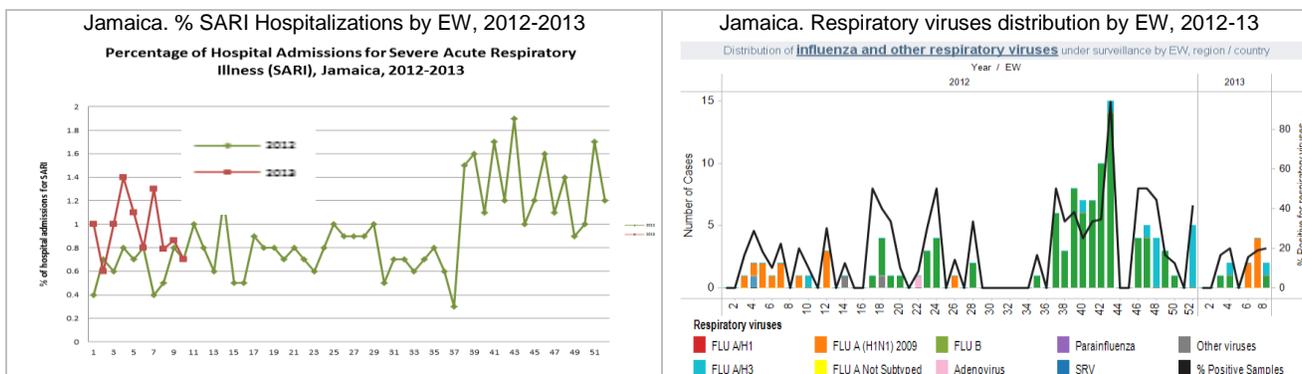
influenza A (H1N1) pdm09 and influenza B were the most dominant viruses. In the EW 12, parainfluenza was the only virus identified.

Cuba and Dominican Republic



In Jamaica, nationally in EW 10, the proportion of consultations for ARI was 5.0% (0.1% higher than the previous week). The proportion of admissions due to SARI was 0.7% (0.16% decrease when compared to the EW 09). There were no SARI deaths reported for EW 10.

Jamaica



In French Territories:

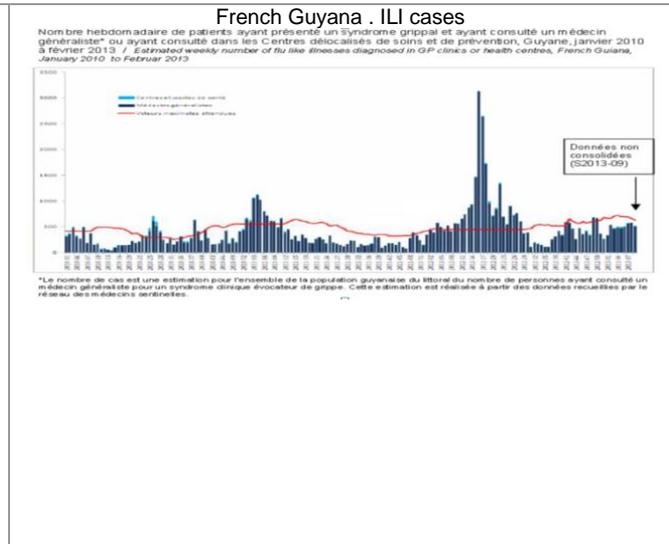
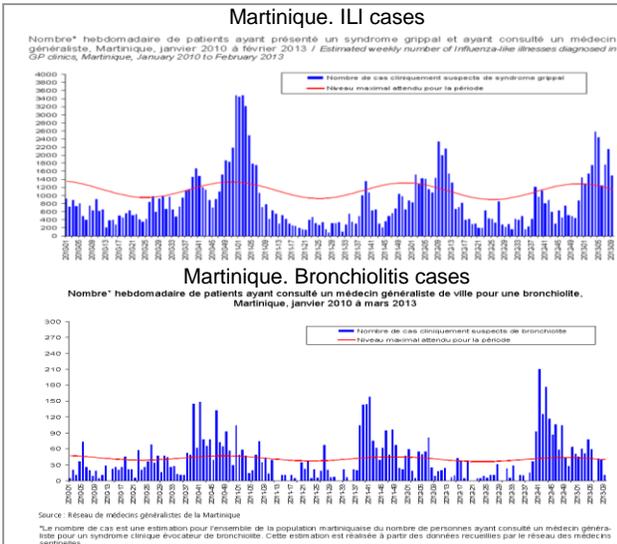
In Martinique⁴, the flu epidemic continues for 10 consecutive weeks. Up to the EW 09, 374 ILI cases per 100.000 inhabitants were reported. Since the last week of December, 2012, the number of ILI cases remained above the maximum level expected for the season. However, in the last weeks, the general trend 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 Guyana⁵, 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.

⁴ Martinique. Le point épidémiologique — EW 09 / 2013. CIRE

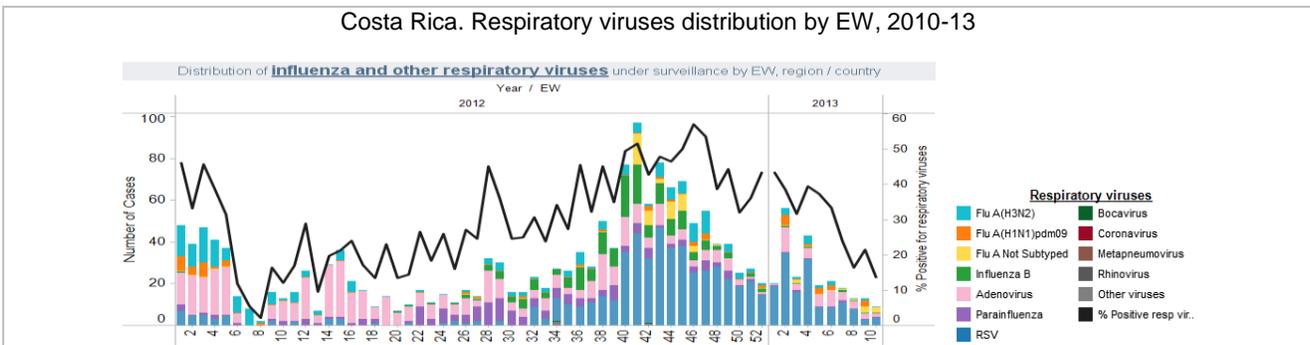
⁵ Guyana. Le point épidémiologique — N° 02 / 2013. CIRE Antilles Guyana

French Territories



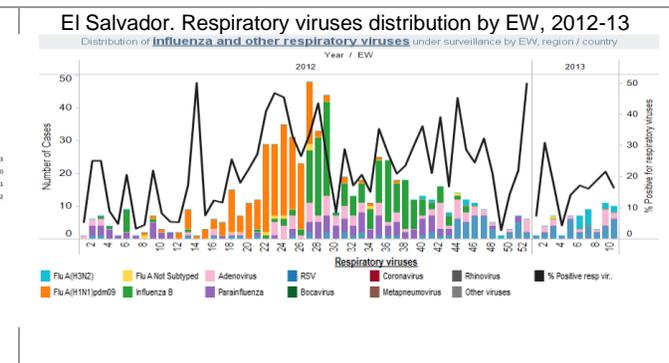
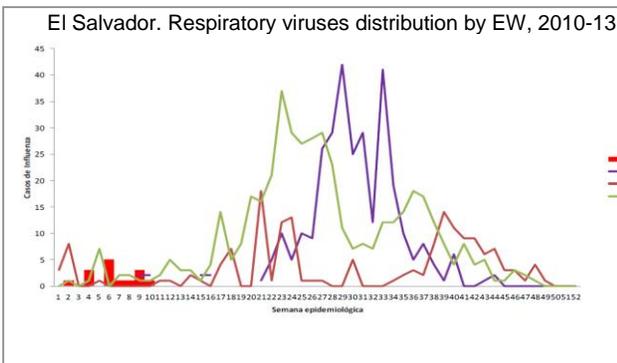
Central America

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 07-10, among all the samples analyzed (n = 185), the percentage of positivity for respiratory viruses was ~ 17.8% and 4.9% for influenza virus (influenza A (H3N2)). RSV was the most dominant virus detected (16/33) followed by influenza A (H3N2) (9/33) and adenovirus (8/33)

El Salvador

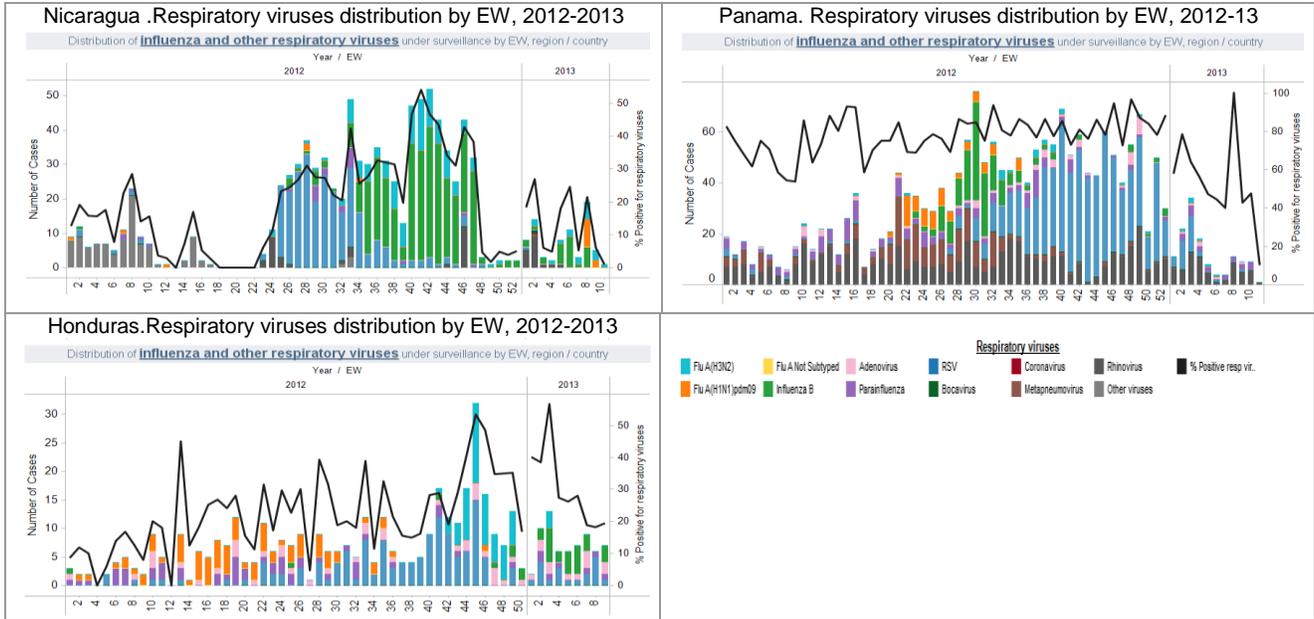


In Nicaragua, nationally, during the period between EWs 07-10, among 339 samples analyzed 8.2% was positive, all for influenza viruses. Among the total positive samples, influenza A (H3N2) virus (11/28) was the most prevalent influenza virus, followed by influenza A (H1N1) pdm09 (10/28) and influenza B (7/28).

In Panama, according to national laboratory data from EWs 08-11, 2013, of all samples tested (n =61), 49.2% were positive for respiratory viruses and none was positive for influenza virus. Rhinovirus (21/30) was the most prevalent virus followed by parainfluenza (7/30).

In Honduras, according to national laboratory data from EWs 06-09, 2013, of all samples tested (n =113), 25.7% were positive for respiratory viruses and 9.7% were positive for influenza virus. Influenza B virus was the most prevalent virus (11/29) followed by RSV (9/29).

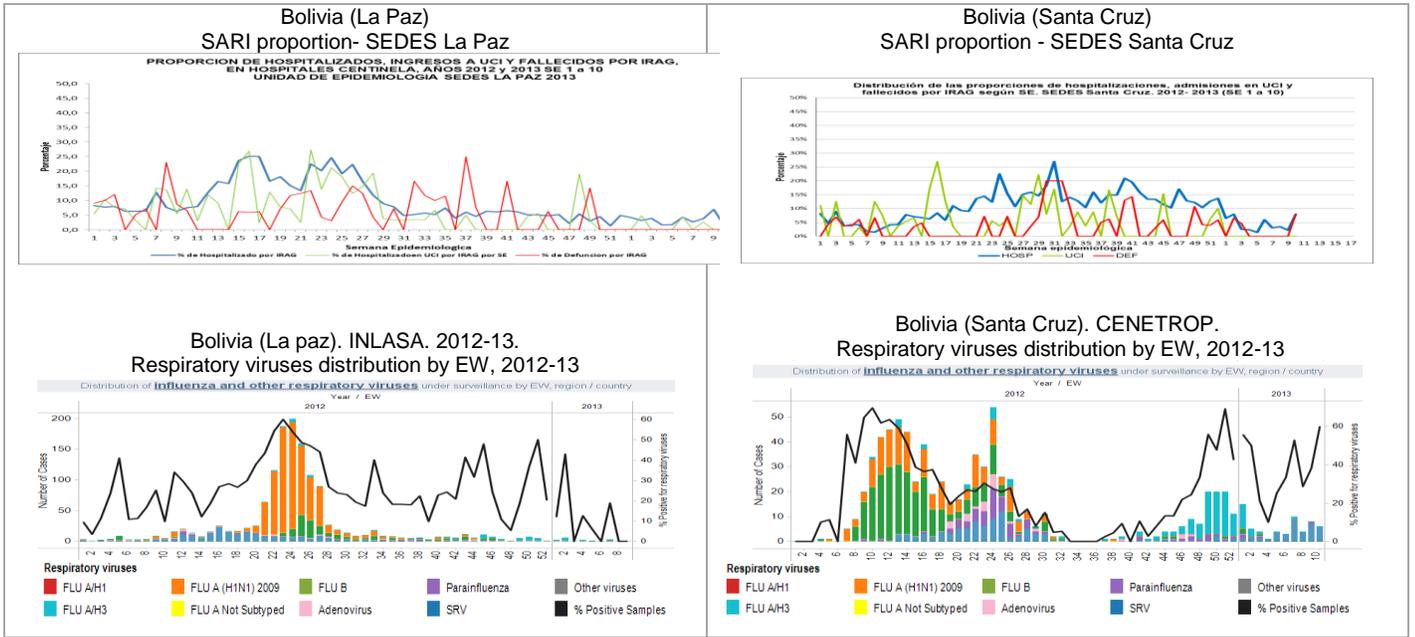
Nicaragua, Panama and Honduras



South America – Andean countries

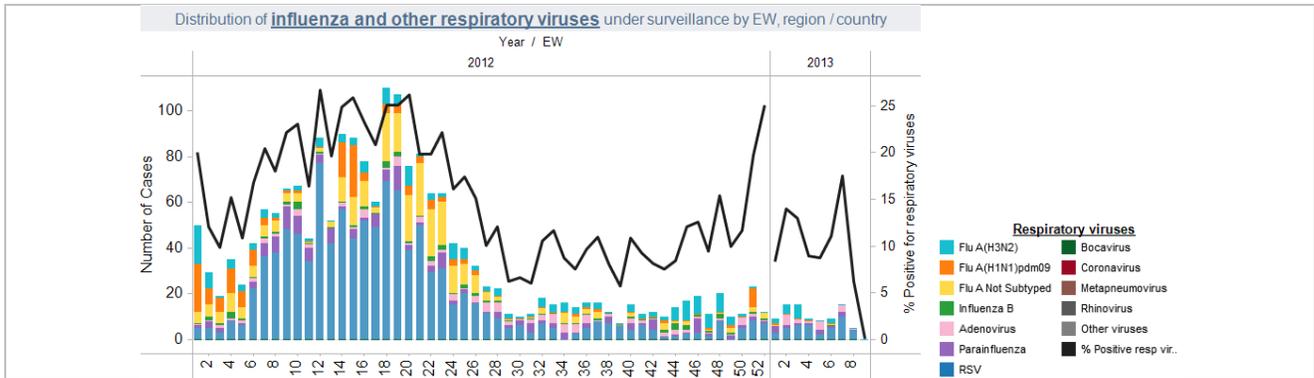
In Bolivia, data from Santa Cruz indicated that the proportion of SARI hospitalizations was higher during EW 10 (8%) than that observed in the previous EW. No SARI-related deaths were reported. According to laboratory data from CENETROP (Santa Cruz), among 31 samples processed between EWs 09-10 of 2013, the percent positivity for all respiratory viruses was 45% (predominantly RSV 13/14). No influenza viruses were detected. Data from La Paz indicated that the proportion of SARI hospitalizations decreased during EW 10 (1.7%) as compare to EW 09. No SARI-related deaths were reported. According to laboratory data from INLASA La Paz, among 27 samples processed between EWs 08-09 of 2013, 4.5% were positive for all respiratory viruses and also 4.5% for influenza viruses (influenza B was detected in one case). All the SARI cases analyzed during this week in La Paz were negative for respiratory viruses.

Bolivia



In Colombia, nationally during EW 10, the proportion of ILI outpatient visits (11%) and SARI hospitalizations (12.5%) both increased since EW 09. According to national INS laboratory, which includes data from the Departments of Bogotá, Antioquia and Nariño, among 60 samples analyzed during EW 09-10 of 2013 the percent positivity was 20% for all respiratory viruses, and 3.3% for influenza viruses. RSV was predominant among all the positives (11/18).

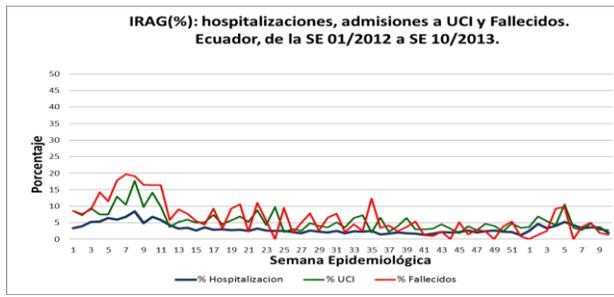
Colombia



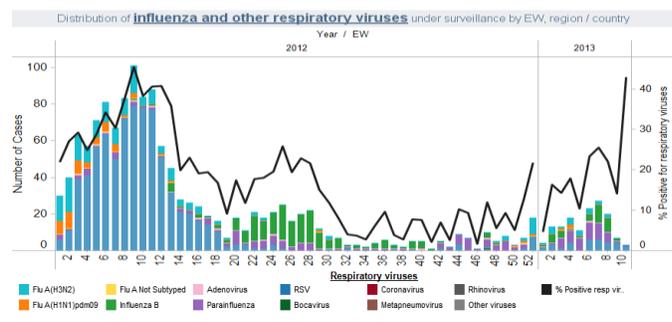
In Ecuador, the proportion of SARI hospitalizations decreased in EW 10, 2013 as compare to the previous weeks. Two SARI-related deaths were reported in the Sierra zone area (central/north part of the country). According to national laboratory data from the NIH, 57 SARI samples were analyzed between EWs 09-10 of 2013, of which 17% were positive for respiratory viruses and 3.5% were positive for influenza viruses. Among all the positive samples, RSV was the most dominant virus.

Ecuador

Ecuador SARI (%) Related-Hospitalizations ,ICU Admissions & Deaths by EW 2012-13



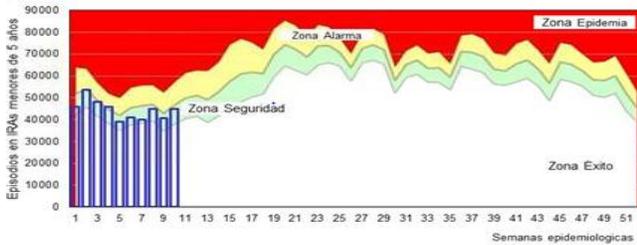
Ecuador. Respiratory viruses distribution by EW, 2012-13



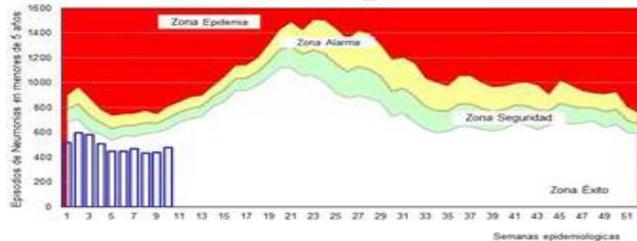
In Peru⁶, nationally, in EW 10 of 2013, the number of ARI cases in children under 5 years of age was within the expected level for this time of the year. The number of pneumonia cases in children under 5 years of age was within the endemic channel levels of success. According to national laboratory data, during EWs 09-10 of 2013, among the 120 samples analyzed, the percentage positivity was 25% for all respiratory viruses and 10% for influenza. RSV (48%) and 5 Influenza A (H3N2) (40%) were the most prevalent viruses during this time.

Peru

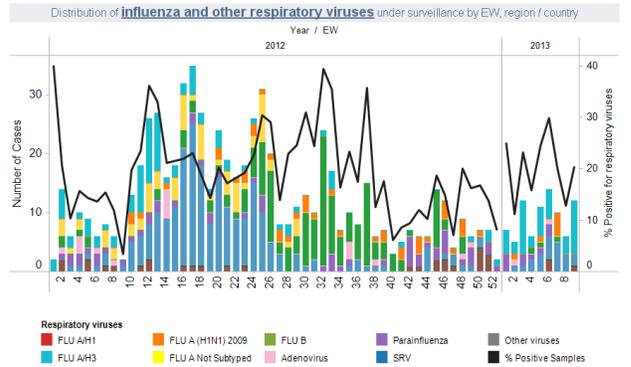
Peru. Endemic channel of ARI, 2013



Peru. Endemic channel of pneumonia, 2013



Perú. Respiratory viruses distribution by EW, 2012-13

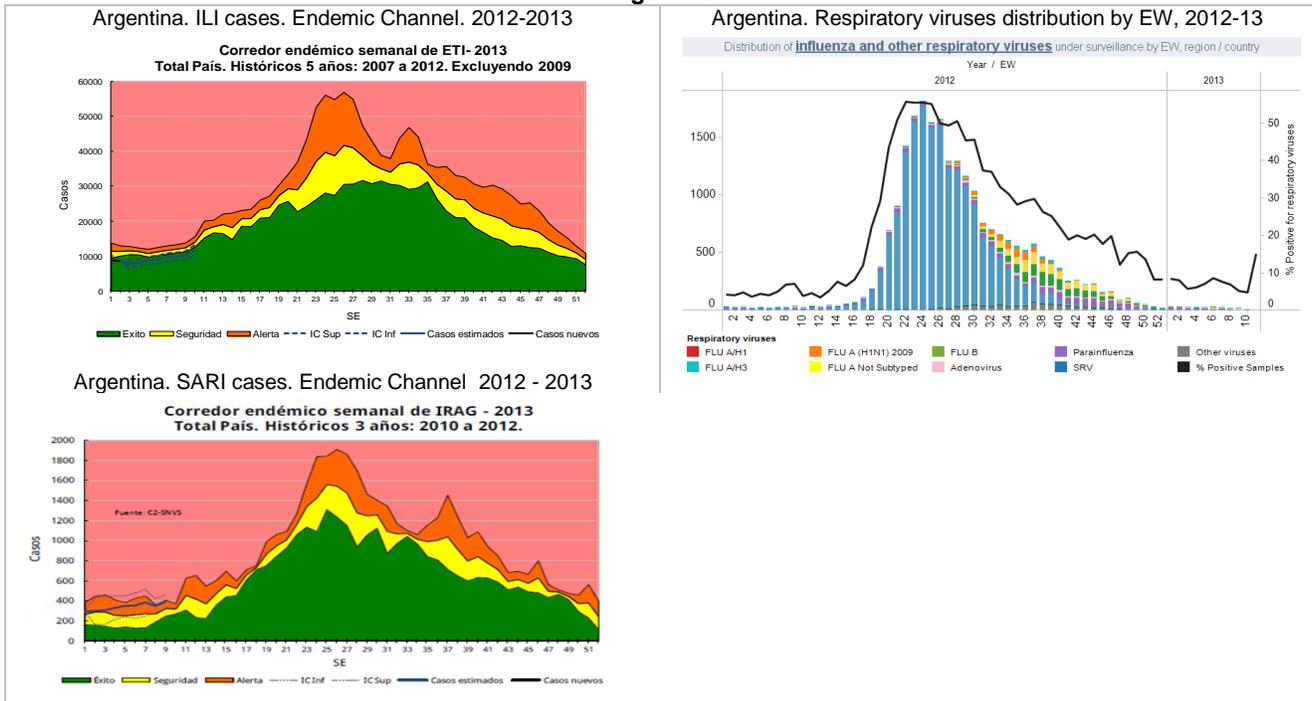


South America – Southern Cone

In Argentina, nationally, ILI activity in EW 10 was within the safety zone of the endemic channel. The number of SARI hospitalizations in EW 10 was at the epidemic threshold. According to laboratory data 496 samples were processed between EWs 09 -10 of 2013, of which 5.4% were positive for all respiratory viruses and 2.4% for influenza viruses. Influenza A and Adenovirus were the most dominant viruses.

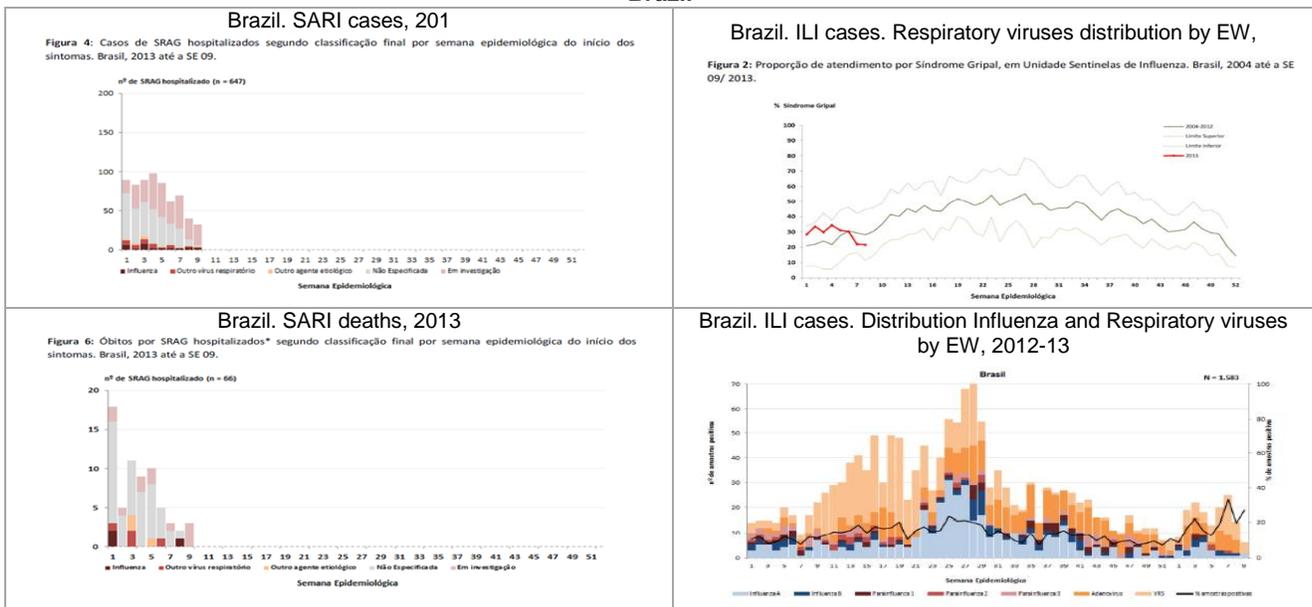
⁶ Perú. Sala de Situación de Salud. EW 10, 2013. Ministerio de Salud. Dirección General de Epidemiología

Argentina



In Brazil⁷, 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



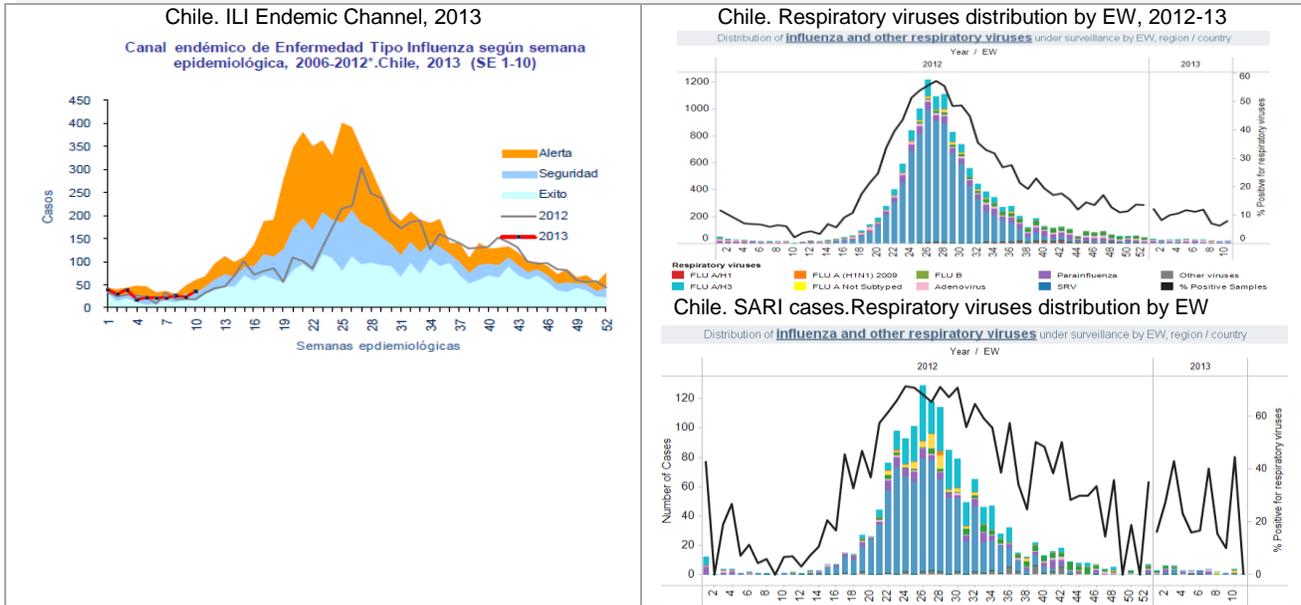
In Chile⁸, nationally in EW 10 of 2013, ILI activity (rate: 2.3 / 100,000 pop.), remained low and within the safety zone of the endemic channel (although slightly increased since last week). The proportion of

⁷ Brasil. Boletín Informativo. Secretaria de Vigilancia en Salud. EW 09-10.

⁸ Chile. Informe de situación. EW10. Disponible en: www.pandemia.cl

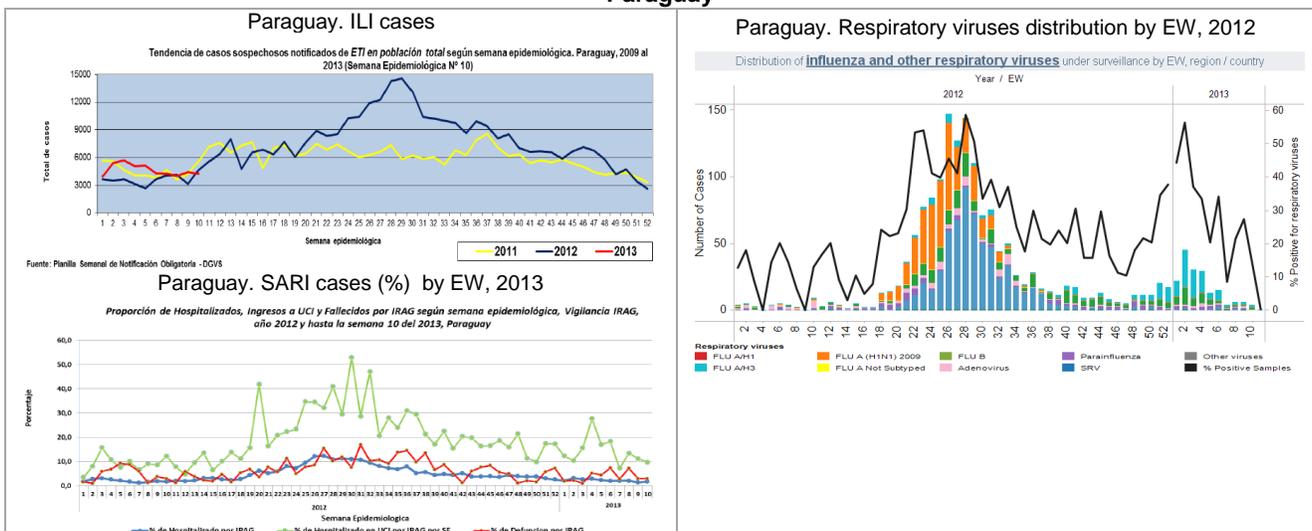
respiratory consultations remained low and within the expected level for this time of the year. According to laboratory data obtained between EW 09-10 of 2013, 533 samples were analyzed, 7.1% of which were positive for respiratory viruses and 1.3% were positive for influenza viruses. Adenovirus was the most prevalent virus (38%) among the positives. In the SARI surveillance system, 19 samples were processed during the same period with influenza A being the most dominant virus detected.

Chile



In Paraguay⁹, nationally, the ILI rate (64/100.000 inhabitants) and the proportion of ILI consultations (2.74%) during EW 10 of 2013, remained low and without significant change from the previous week. The SARI surveillance in EW 10 showed that the proportion of SARI-related hospitalizations (1.7%) remained without significant change from the previous week. According to the national laboratory data, among 51 samples processed between EW 09 - 10, 2013, 20% were positive for all respiratory viruses and 14% were positive for influenza viruses. Among the positive samples, influenza A (H3N2) and influenza B were the most predominant viruses. During the same period 15 SARI samples were processed. RSV and parainfluenza were mainly detected.

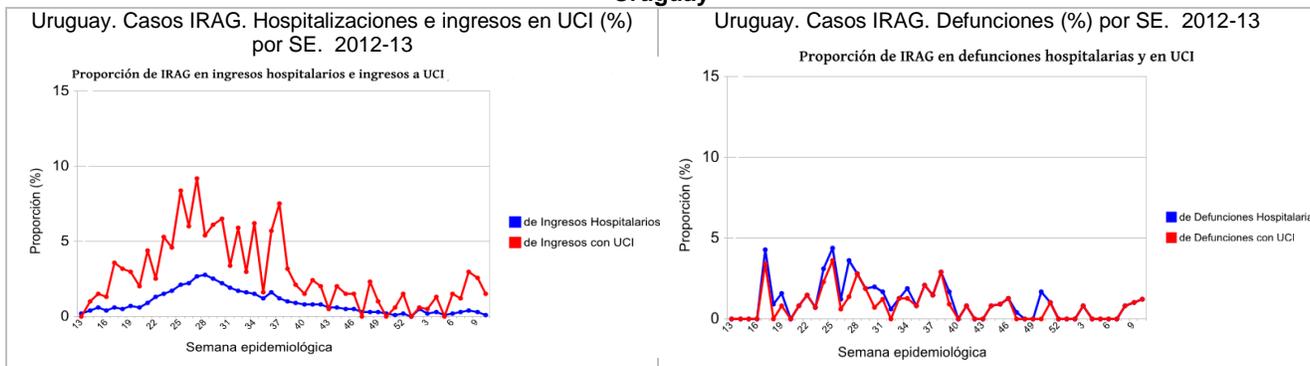
Paraguay



⁹ Paraguay. Informe de situación. DGVS. EW 10, 2013

In Uruguay¹⁰, according to the national SARI surveillance system; 95 SARI cases were reported thus far in 2013, nine of which were laboratory analyzed, resulting in one positive case for paprinfluenza virus (in EW 06). The proportion of SARI-related hospitalizations in EW 10 was at low levels, without significant changes from the previous week. However, there was an increase SARI-related death over the past three weeks.

Uruguay



¹⁰ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública