



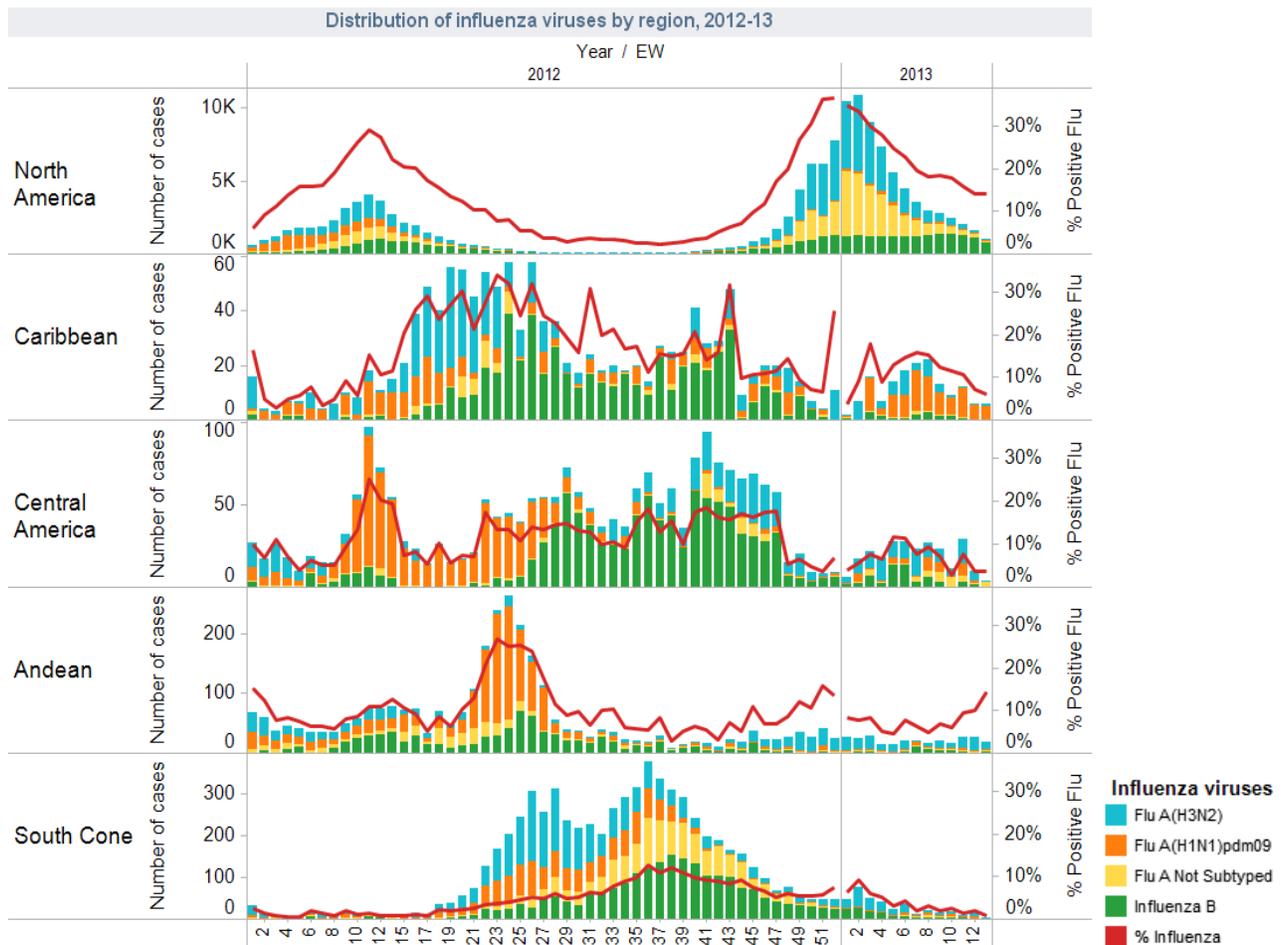
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp

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.

WEEKLY SUMMARY

- **North America:** in Canada and the US, no regions/states reported widespread activity, most of influenza activity indicators were within the expected level for this time of year. Influenza B continued to increase and remained the dominant circulating influenza virus in Canada and the US. In Mexico, influenza A(H3N2) remained the most prevalent virus.
- **Central America and the Caribbean:** similar respiratory virus activity was reported in this sub-region as compared to previous weeks. In this sub-region, generally, co-circulation of influenza A(H3N2), influenza B and influenza A(H1N1)pdm09 continued. Generally, RSV and influenza A(H3N2) were the predominant circulating viruses in this sub-region.
- **South America:** acute respiratory infection (ARI) activity showed an increasing trend in most countries but remained within the expected levels for this time of the year. In the Andean countries, RSV was the predominant circulating virus, with exception of the Ecuador where co-circulation of RSV and influenza A(H3N2) was reported. In the Southern Cone, adenovirus circulated predominantly, except in Paraguay where influenza A(H3N2) prevailed.

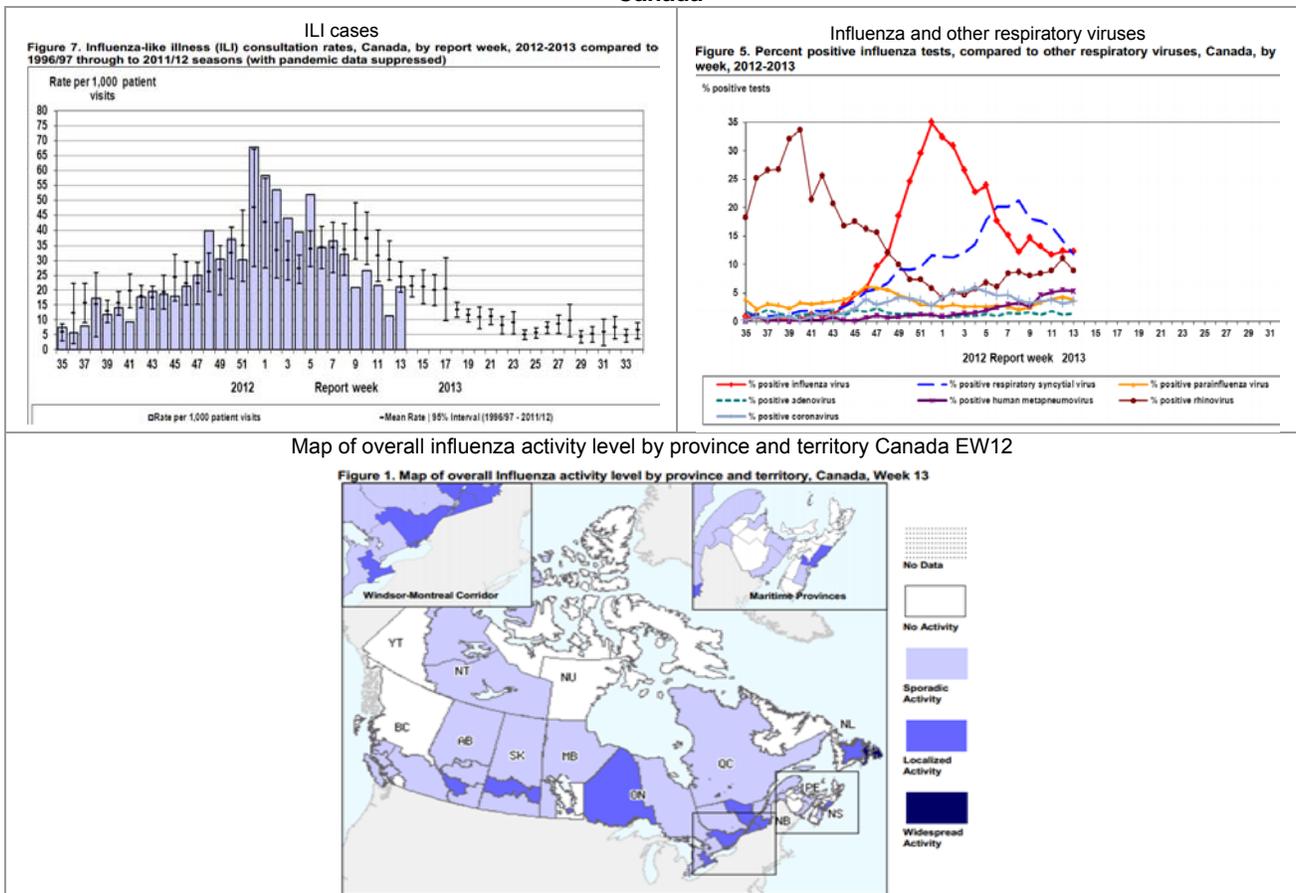


EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America

In Canada¹, in epidemiological week (EW) 13, overall influenza activity continued to decline. The number of regions reporting widespread or localized activity decreased. Nationally, the influenza-like-illness (ILI) consultation rate increased slightly from 11.3 (per 1,000 patient visits) in EW 12, to 21.2 in EW 13, but was within the expected range for this time of year. In EW 13, the highest ILI consultation rate was observed in children less than 5 years of age (47.9/1,000). As for influenza-associated hospitalizations, the highest proportion of hospitalizations continued to be among adults ≥65 years of age (55.1%). Among the total samples analyzed, the proportion of influenza positive samples was stable for the third consecutive week and was 12.2% in EW 13. Of all the positive influenza cases this week, 25.9% were influenza A, (26.8% influenza A (H1N1) pdm09, 16.1% A (H3N2) and 57.1% influenza A unsubtype), and 74.1% were influenza B. As for other respiratory viruses, the percent positivity for RSV decreased to 11.8% in EW 13. Among the characterized influenza viruses this season, the majority have been the vaccine strains (100% of the H1N1pdm09 cases, 100% of the A (H3N2) cases, and 80.2% of the influenza B cases).

Canada



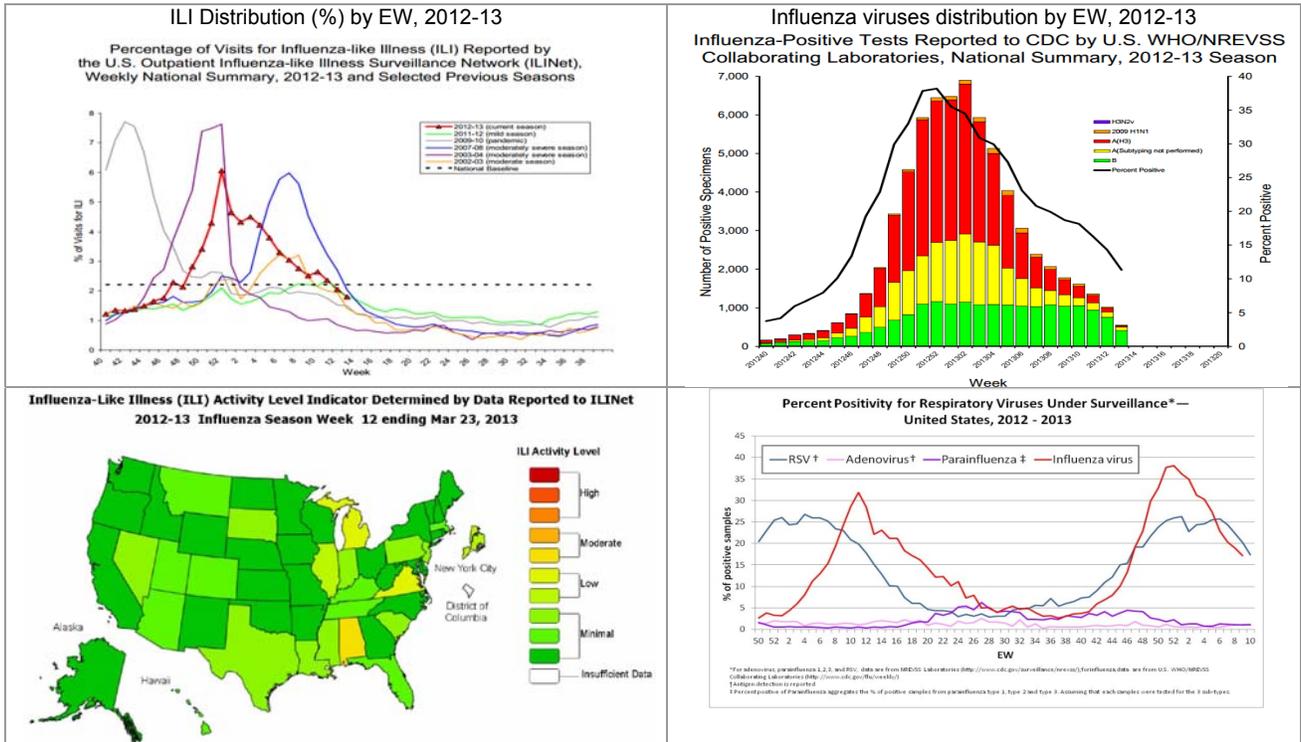
In the United States², the overall influenza activity continued to decrease during EW 13. Nationally, the proportion of ILI consultations (1.8%) was below the national baseline of 2.2%. Regionally, 3 out of 10 Regions reported a proportion of outpatient visits for ILI at or above their region-specific baseline levels. None of the states, however, experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 13 (7.4%) was below the epidemic threshold for this time of year. In EW 13, one influenza-associated pediatric death was reported (associated with influenza A not subtyped). From October 1st of 2012 to March 30th of 2013, the rate was 42.3 (per 100,000 population), with the highest rates

¹ Flu Watch Report. EW13. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

² USA: CDC FluView report. EW13. Available at: <http://www.cdc.gov/flu/weekly/>

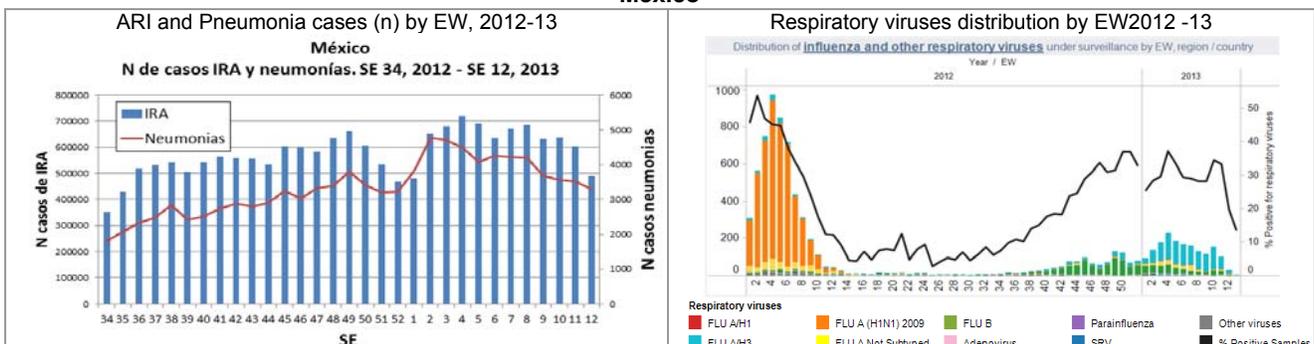
in those 65 years of age and older (50% of the reported cases). Among all samples tested during EW 13 (n=4,909), the percentage of samples positive for influenza (11.3%) continued to decrease. Nationally, among the positive samples, 74.8% were influenza B and 25.2% were influenza A [25.7% A (H3N2), 11.4% A (H1N1) pdm09 and 62.9% influenza A unsubtype]. Among the characterized influenza viruses this season, the majority have been the vaccine strains (98.5% of the A (H1N1) pdm09 cases, 99.7% of the A (H3N2) cases, and 70% of the influenza B cases). Since the beginning of October of last year, 2,871 influenza samples have been tested for resistance to neuraminidase inhibitors; 0.4% of influenza A (H1N1)pdm09 samples were resistant to oseltamivir and 0.1% of influenza A(H3N2) samples were resistant to oseltamivir; all, however, were sensitive to zanamivir. Among other respiratory viruses, the percentage of positive samples for RSV continued decreasing from EW 06 (25.7%) to EW 13 (11.7%).

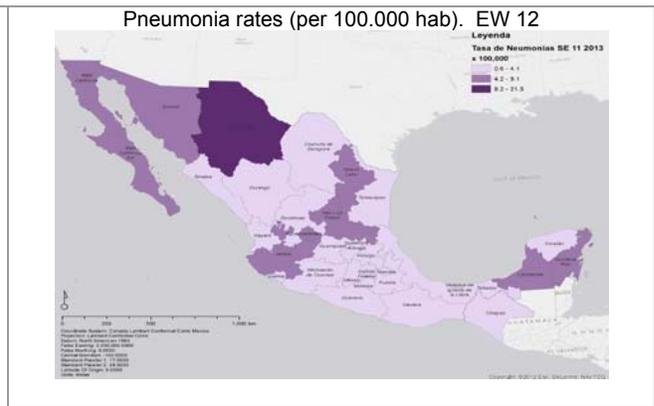
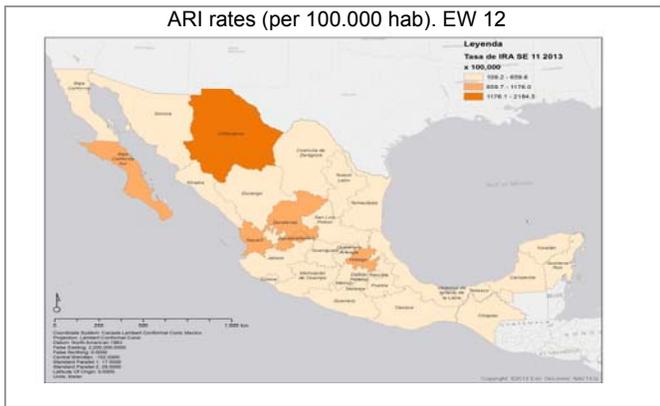
United States



In Mexico, nationally in EW12, the number of ARI cases (n= 490.643) decreased significantly by 19% as compared to EW 11 (n=604.048). The number of pneumonia cases (n= 3.274) also continued to decrease and was 6.9% less than the number reported during EW 11 (n=3.516). Regionally, the states that reported the highest rates of pneumonia per 100,000 habitants of in EW 09 were: Sonora (7.8), Jalisco (6.8), Campeche (6.8), Nuevo Leon (5.6) and Aguascalientes (5). According to laboratory data, in 2013, between EW 10-13, among the samples tested (n=950) the percent positivity for influenza viruses was 30.4%. In EW 10-13, among the positive influenza cases, 82.4% were influenza A (87.4% influenza A (H3N2), 6.2% influenza A unsubtype) and ~17.7% were influenza B.

Mexico

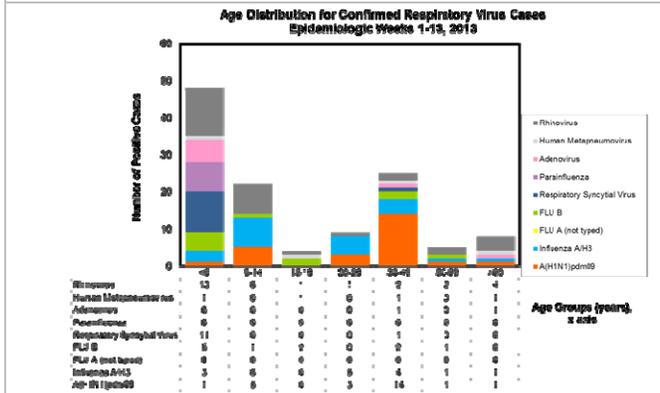
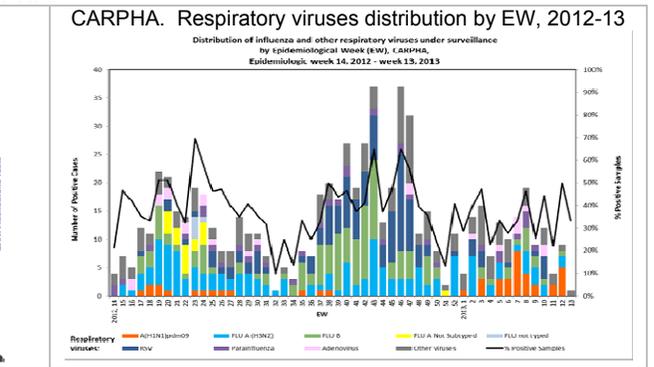
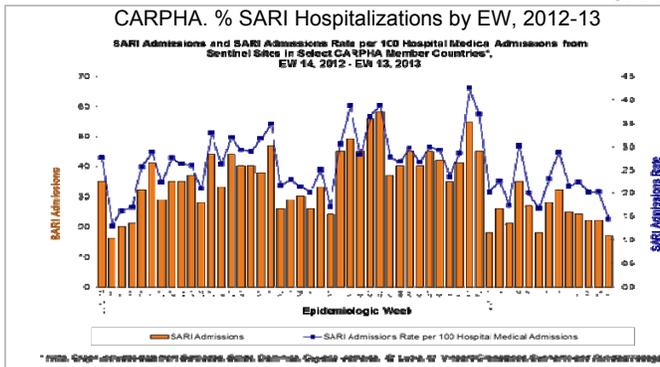




Caribbean

CARPHA³ received the weekly SARI/ ARI data from 6 countries for EW 13, 2013: Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 13, 2013, the proportion of SARI hospitalizations was 1.4%. The highest rate of SARI was among children 6 months to 4 years of age (3.8%). One SARI death was reported from Barbados during EW 13, 2013. For cases with dates of onset between EW 09 to EW 13 of 2013, the following viruses were laboratory confirmed in member countries: influenza A (H1N1) pdm09 (Trinidad & Tobago), influenza A (H3N2) (Belize, Dominica, St. Vincent & Grenadines and Trinidad & Tobago) Influenza B (Belize, Dominica) Adenovirus (Belize) parainfluenza type 3 (Barbados) rhinovirus (Barbados, Belize, Dominica, St. Vincent & Grenadines and Trinidad & Tobago) RSV (Belize). Thus far in 2013 the CARPHA laboratory has confirmed 132 cases as positive for 1 or more respiratory agent. The overall percentage positivity for specimens tested was 35.5%.

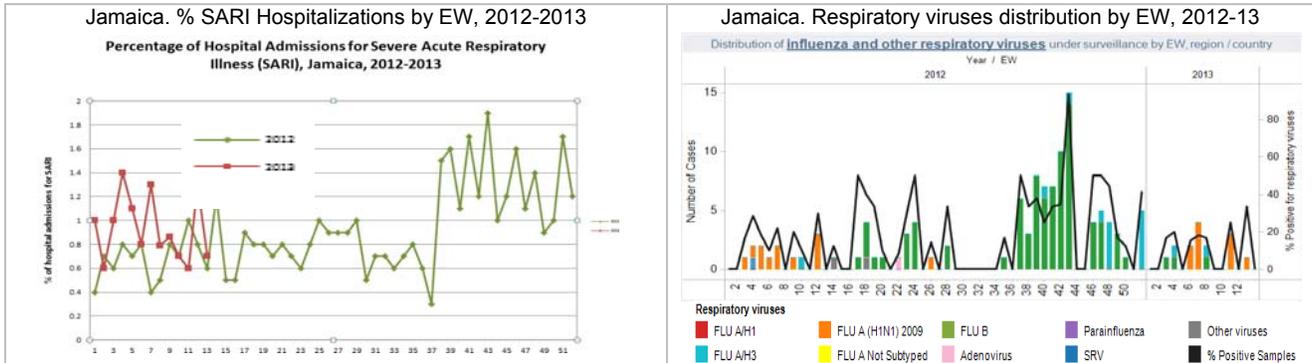
CARPHA



In Jamaica for EW 13, the proportion of ARI consultations was 4.9% (0.3% lower than EW12). The proportion of SARI admissions was less than 1% and stable when compared to EW 12. There were no SARI related deaths reported in EW 13. According to laboratory data, the percentage of positive samples for influenza virus in EW 13 was 33.3% among samples tested (n=3).

³ Caribbean Public Health Agency (CARPHA) EW 11

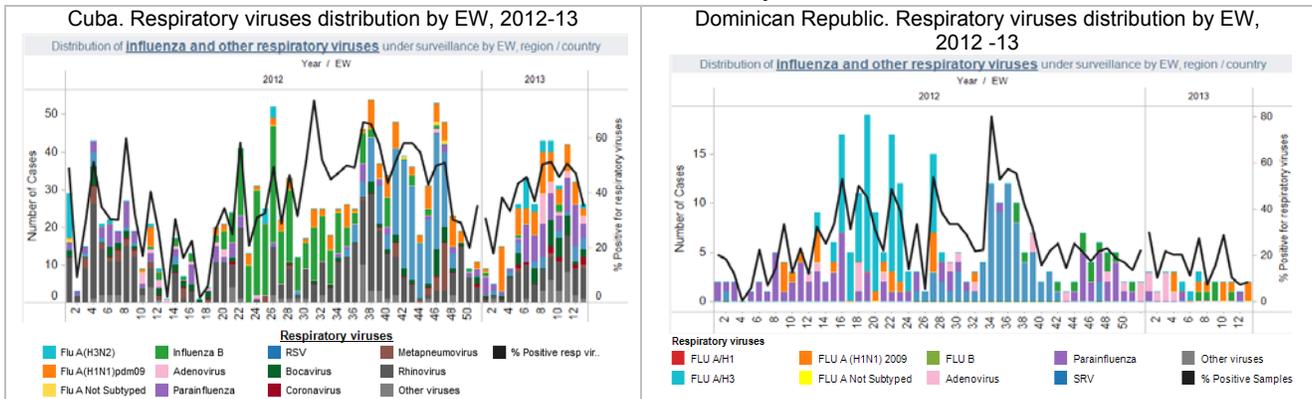
Jamaica



In Cuba, according to national laboratory data, among all samples analyzed (n=293) between EW 10 & 13, the percent positivity for respiratory viruses was 44.6% and 7.9% for influenza viruses. Rhinovirus was the predominant virus among all the positives followed by parainfluenza. Influenza (H1N1) was the most detected influenza virus this EW. According to the epidemiological report for EW 13, 76.9% of the positive samples were collected from SARI patients and 11.5% from ILI patients. The highest number of SARI cases was among children between 1 to 4 years (9/20). Two SARI-related deaths were reported in EW 13.

In the Dominican Republic, according to laboratory data, from EWs 11 to 14, among samples analyzed (n=71), the average percentage positive for respiratory viruses was 27.5% and for influenza viruses was 18.8%. Between EW 11 to 14, influenza A (H1N1) pdm09, adenovirus and parainfluenza were identified.

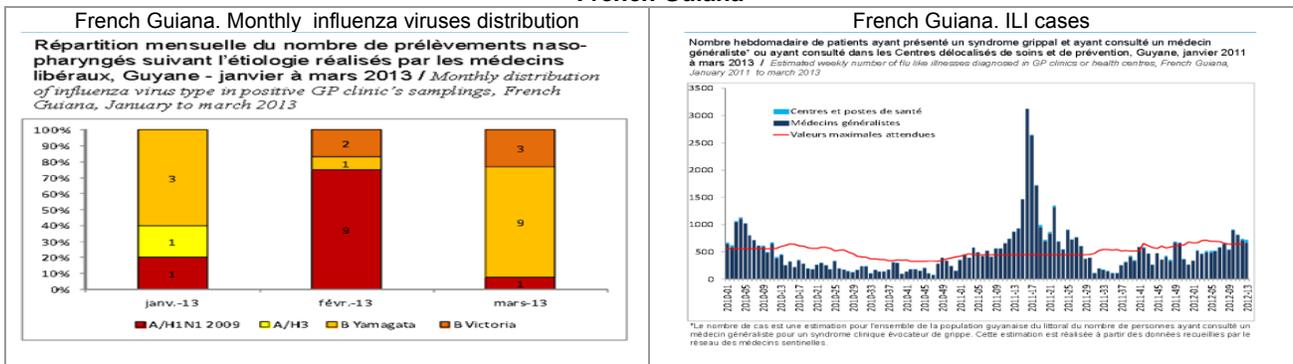
Cuba and Dominican Republic



In French Territories:

In French Guiana, the influenza epidemic continued during the last two weeks of March (EW 11 to 13). During this period, the number of ILI patients decreased; nevertheless this number remained higher than the maximum values expected for the time of the year. Cases have been identified throughout the territory with a marked increase in Maroni. Influenza A(H1N1)pdm2009, influenza B/Victoria and influenza B/Yamagata have been identified.

French Guiana

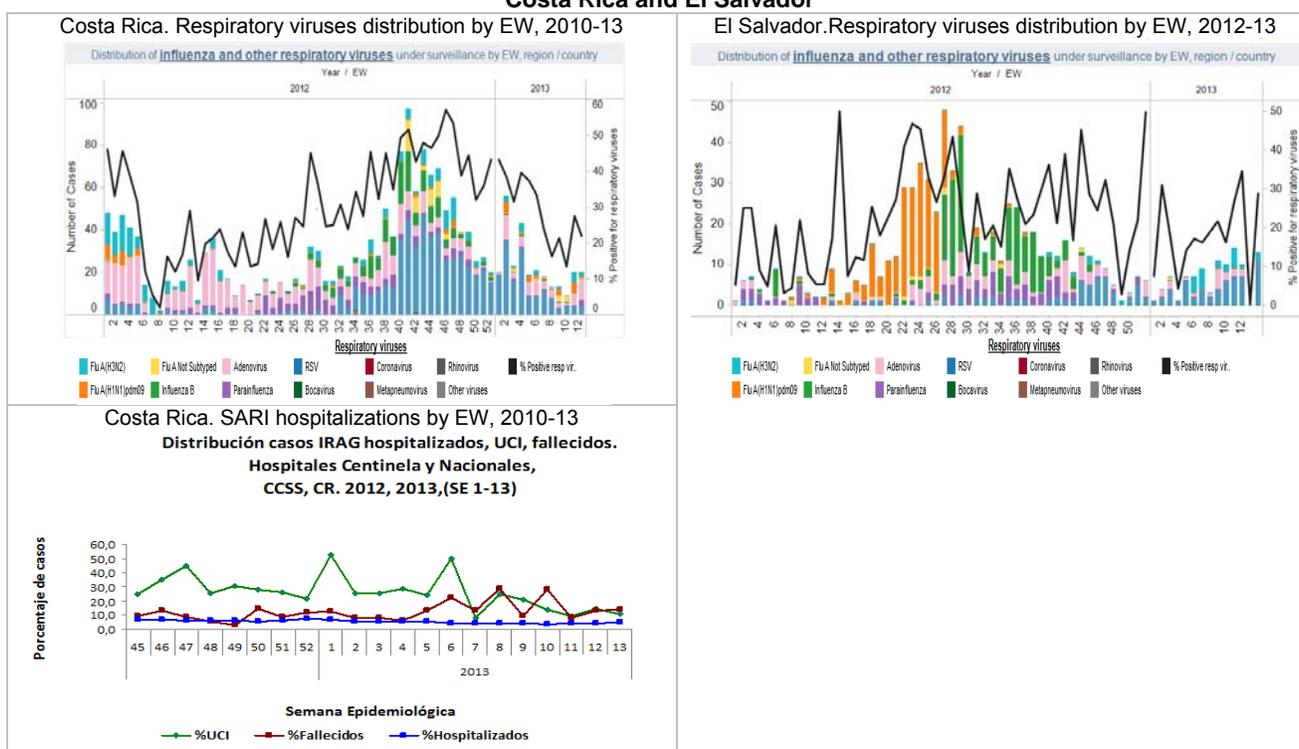


Central America

In Costa Rica, influenza and other respiratory virus activity remained stable during EW 13. The proportion of ILI cases was 11.5% during this EW. The proportion of SARI hospitalizations was 4.8%, mostly of which occurred in two age groups: children 0-4 years old and adults 18-49 years old. 10.8% of all the SARI hospitalized cases required intensive care. To date this year, four SARI-related deaths were reported. Influenza virus was not detected in any of these cases. According to laboratory data between EW 09-12, 2013, among all samples tested (n =293), the percent positivity for respiratory viruses was 21% and for influenza viruses was 8.2% and showed no significant changes. During the period between EW 09-12, adenovirus was the most prevalent virus followed by RSV. Among influenza viruses, influenza A predominated (both influenza A (H3N2) and A (H1N1) pdm09).

In El Salvador, according to laboratory data between EW 11-14, 2013, among all samples tested (n =140), the percent positivity for respiratory viruses was 26.4% and 5.7% for influenza viruses. During the period between EW 11-14, RSV was the most prevalent virus (25/37) followed by influenza A(H3N2); the latter was also the only influenza virus detected during this time.

Costa Rica and El Salvador

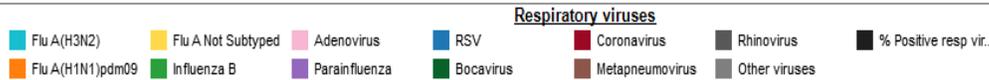
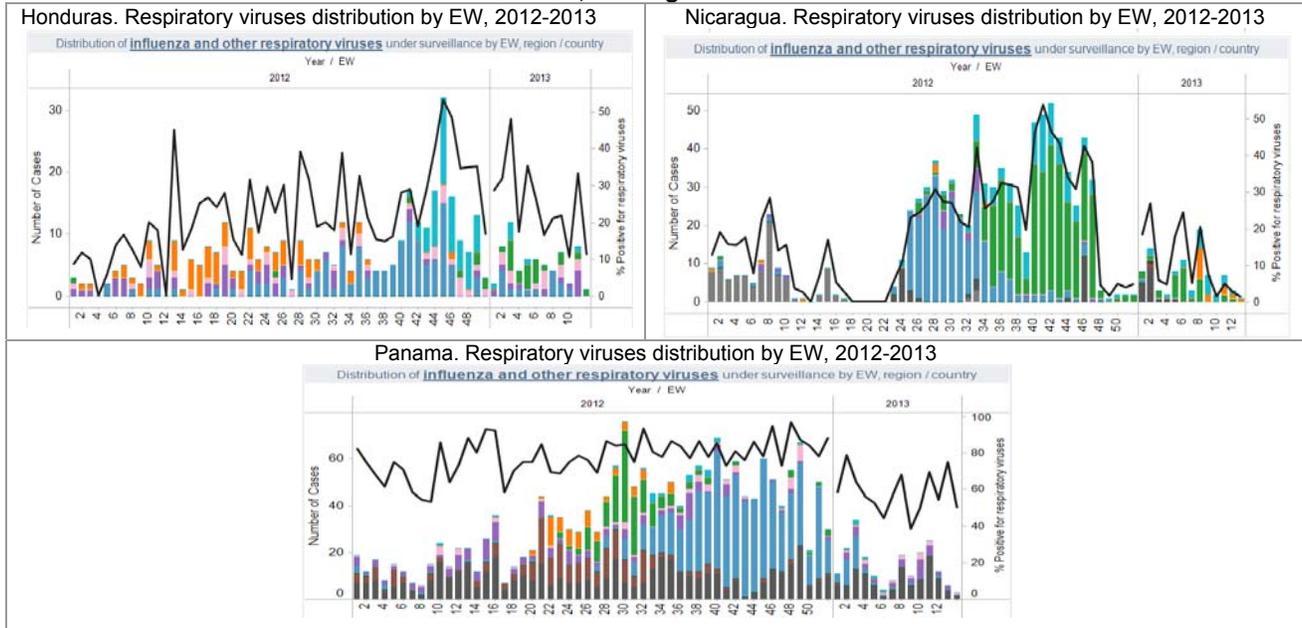


In Honduras, according to national laboratory data from EWs 09-12, 2013, of all samples tested (n =84), 21.4% (18/84) were positive for all respiratory viruses and 6% (5/84) for influenza viruses. Among the positive samples, parainfluenza was the most dominant virus followed by, adenovirus and influenza B virus.

In Nicaragua, according to national laboratory data from EWs 10-13, of all samples tested (n =470), 2.8% were positive for influenza viruses. Influenza A (H3N2) was the most prevalent among all the positives (6/13), followed by influenza A (H1N1) pdm09 (4/13) and influenza B (3/13). No other respiratory viruses were detected during this time

In Panama, according to national laboratory data from EWs 10-13, of all samples tested (n =87), 62.1% were positive for respiratory viruses and none were positive for influenza viruses. Rhinovirus was the most prevalent virus (35/54) followed by parainfluenza (15/54).

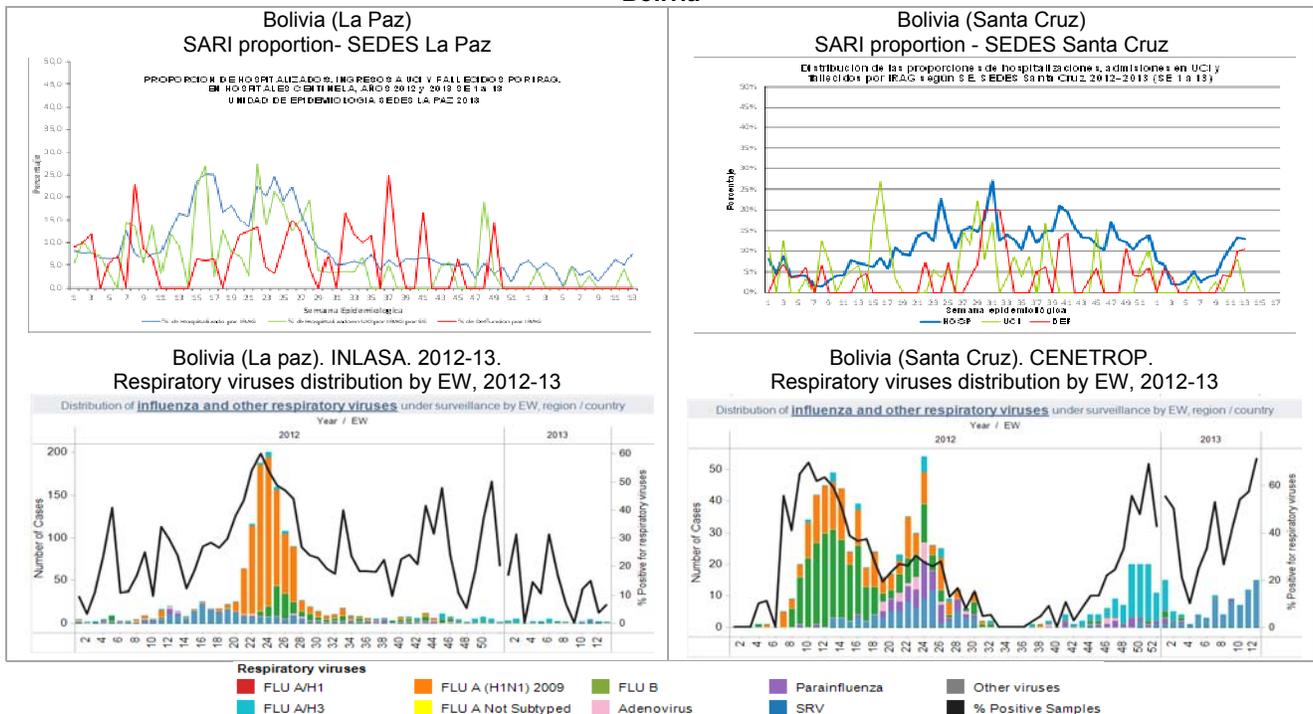
Honduras, Nicaragua and Panama



South America – Andean countries

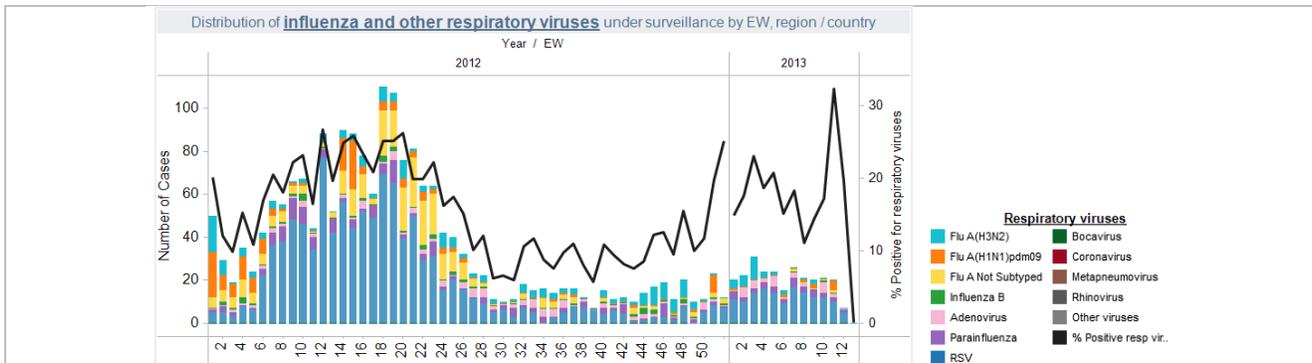
In Bolivia, according to data from Santa Cruz, during EW 13 the proportion of SARI hospitalizations was 13%, and remained without significant change from the previous week. According to laboratory data from CENETROP (Santa Cruz), among 56 samples analyzed between EWs 12-13 of 2013, the percent positivity for all respiratory viruses was 71% (predominantly RSV) and was 1.8% for influenza viruses. In La Paz, the proportion of SARI hospitalizations decreased slightly during EW 13 (7.6%) as compared to EW 12 but continued to show an upward trend. No SARI-related deaths were reported. According to laboratory data from INLASA (La Paz), among 70 samples processed in EWs 12-13 of 2013, the percent positivity for all respiratory viruses was 4.3%, and 1.4% for influenza viruses. RSV was predominant among the positives.

Bolivia



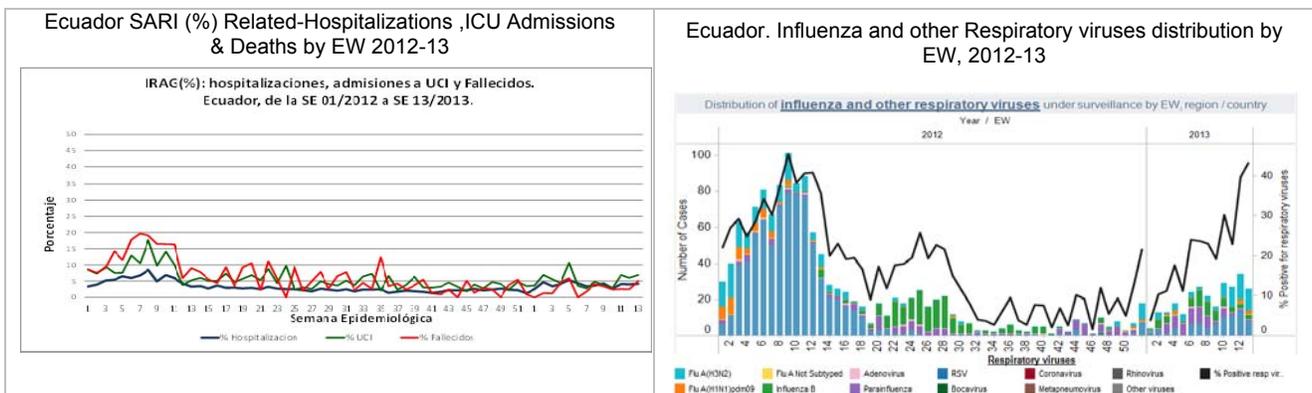
In Colombia, nationally during EW 13, the proportion of ILI outpatient visits (12%) and SARI hospitalizations (14%) showed an upward trend. According to data from the national laboratory (INS), including data from the Departments of Bogotá, Antioquia and Nariño, among 31 samples analyzed during EWs 12-13 of 2013, the percent positivity was 18% for all respiratory viruses. RSV was predominant among all the positives. No influenza viruses were detected during this time.

Colombia



In Ecuador, the proportion of SARI hospitalizations (4%) remained without significant changes during EW 13. Two SARI-related deaths were reported during this EW. According to national laboratory data from the national laboratory (NIH), among 146 SARI samples tested between EWs 12-13 of 2013, the percent positivity was 41.1% for respiratory viruses and 25% for influenza viruses. Among all the positive samples, influenza A (H3N2) and RSV were the most dominant viruses.

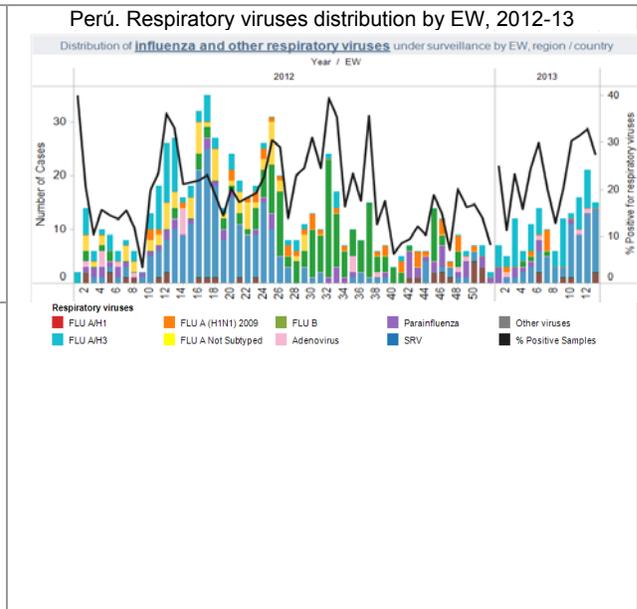
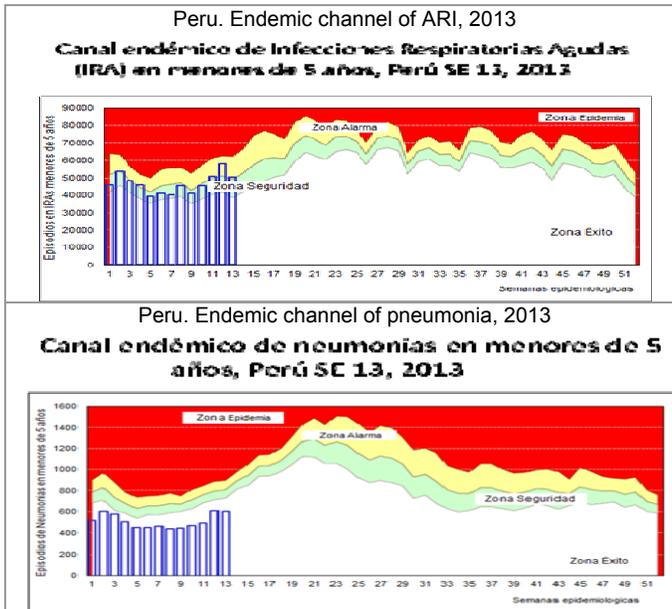
Ecuador



In Peru⁴, nationally, in EW 13 of 2013, the number of ARI cases in children less than 5 years of age continued to increase and was at the borderline between the safety zone and the alarm zone of the endemic channels. The number of pneumonia cases in children less than 5 years of age, was within the success level of the endemic channels with an upward trend. According to national laboratory data, during EWs 12-13 of 2013, among the 119 samples analyzed, the percentage positivity was 30% for all respiratory viruses and 7% for influenza viruses. RSV (59%) was the most prevalent virus during this time.

⁴ Perú. Sala de Situación de Salud. EWs 13, 2013. Ministerio de Salud. Dirección General de Epidemiología

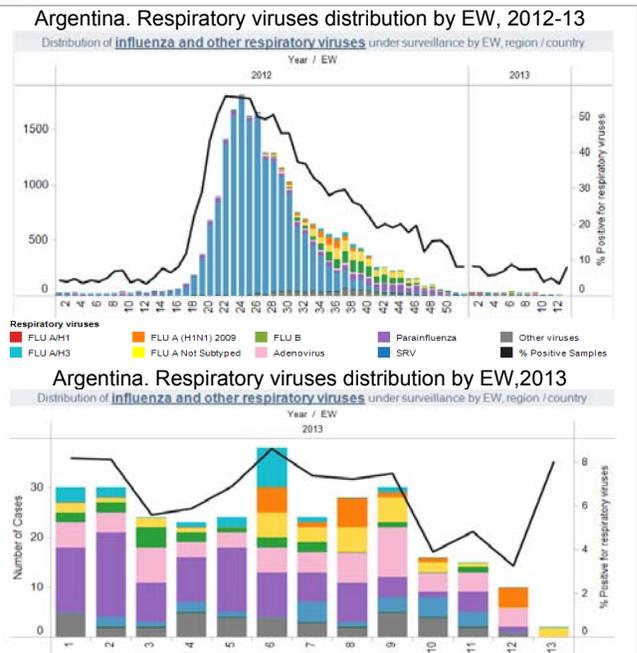
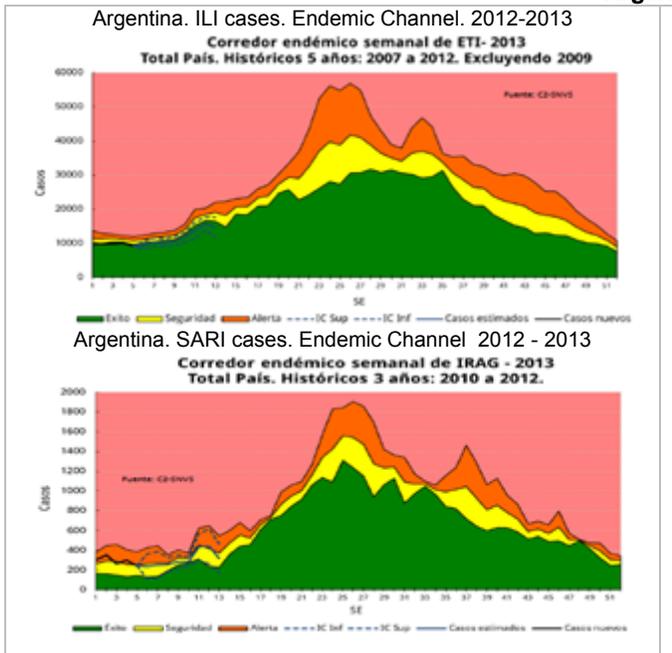
Peru



South America – Southern Cone

In Argentina, nationally, it was estimated that the ILI activity in EW 13 was at the success zone of the endemic channel with an upward trend. It was also estimated that the number of SARI hospitalizations declined during EW 13 and is now at the safety zone of the endemic channels zone. According to national laboratory data, 333 samples were processed between EWs 12-13 of 2013, of which 3.6% were positive for all respiratory viruses and 1.8% for influenza viruses. Adenovirus and influenza A (H1N1) predominated among the positives.

Argentina

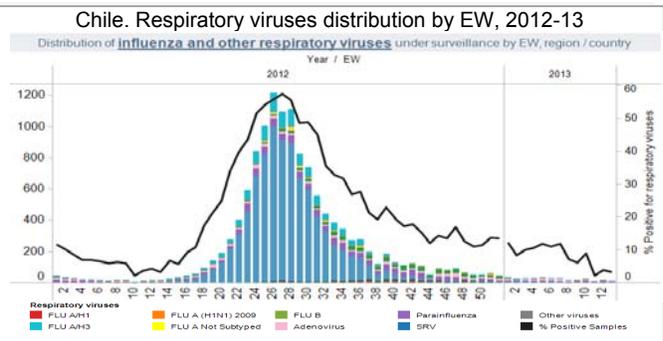
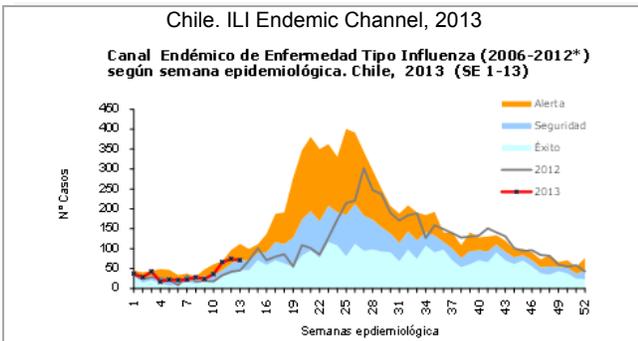


In Chile, nationally, in EW 13, 2013, the ILI activity (rate: 4.5/ 100,000 pop.) showed no significant change since EW 12 and was between the security and the alert zones of the endemic channel (upward trend). The proportion of respiratory illness consultations in emergency rooms (21%) and hospitalizations (13%)

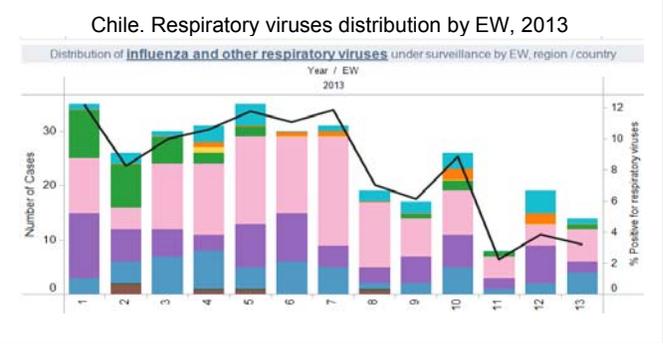
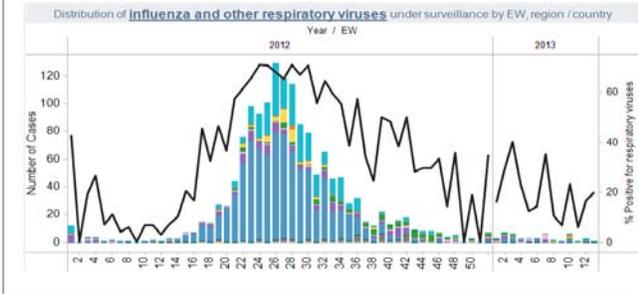
⁵ Chile. Informe de situación. EW13. Disponible en: www.pandemia.cl

remained within the expected levels for this time of the year (with a slight upward trend). According to national laboratory data, 929 samples were analyzed during EWs 12-13, of which 3.6 % were positive for respiratory viruses and 0.9% was positive for influenza viruses. Adenovirus and parainfluenza were the most prevalent among the positives, (30%). In the SARI surveillance system, 19 samples were processed during the same period, influenza A (H3N2) and RSV were identified in some cases.

Chile

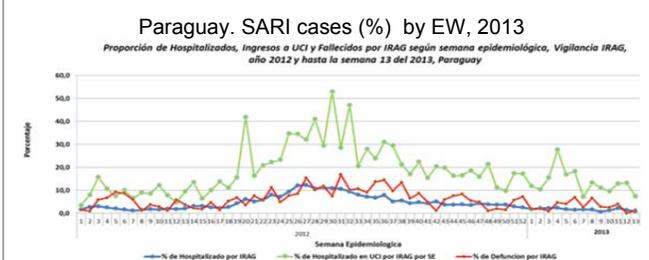
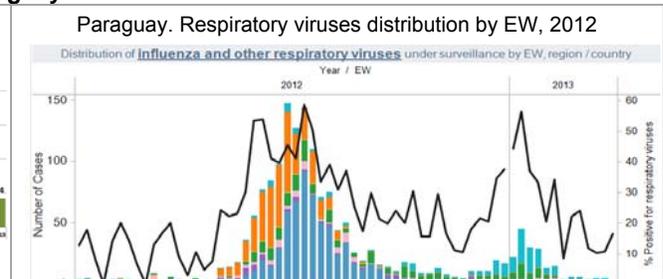
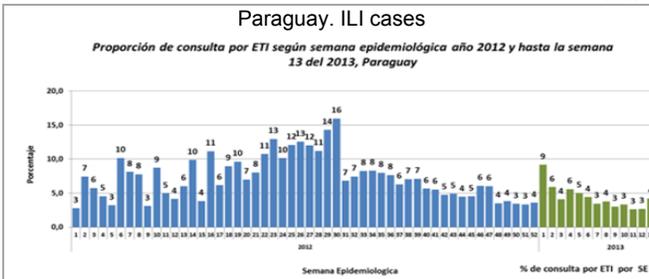


Chile. SARI cases. Respiratory viruses distribution by EW ,2012-13



In Paraguay⁶, nationally in EW 13 of 2013, the proportion of ILI consultations (4.2%) remained low and without significant changes from the previous week. The proportion of SARI-related hospitalizations (0.8%) continued to decrease and remained within the expected range for this time of the year. According to data from PSCA, 67 samples were processed between EWs 12-13, 2013 with a percent positivity of 9.5% for respiratory viruses and 5.4% for influenza viruses. Influenza A (H3N2) and adenovirus were the most dominant viruses.

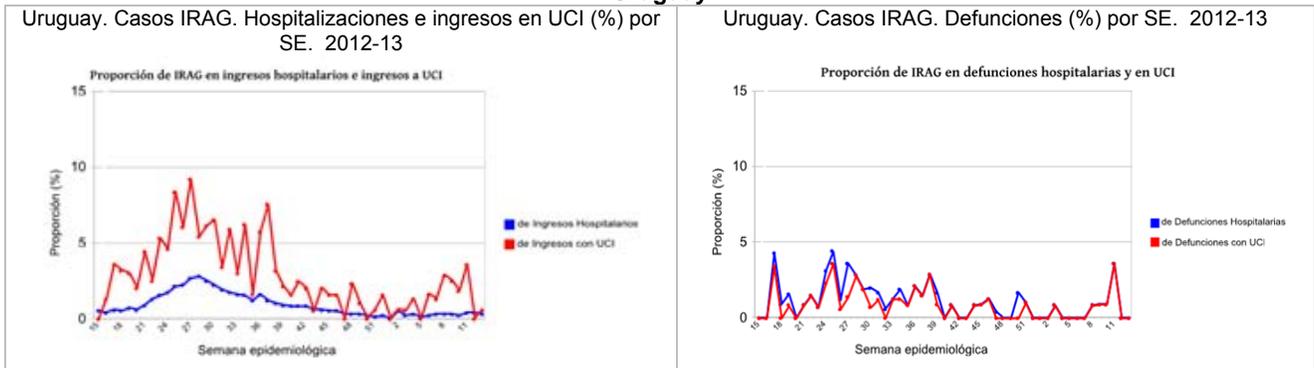
Paraguay



⁶ Paraguay. Informe de situación. DGVS. EW 12, 2013

In Uruguay⁷, The proportion of SARI-related hospitalizations continued to decline during EW 13, without significant changes from the previous week. There were no reports of SARI-ICU admissions and no reports the SARI-related deaths during this time.

Uruguay



⁷ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública

Human infection with influenza A (H7N9) virus in China - update

9 April 2013 - As of 9 April 2013 (14:00 CET), the National Health and Family Planning Commission notified WHO of an additional three laboratory-confirmed cases of human infection with influenza A(H7N9) virus.

The latest laboratory-confirmed cases include two patients from Jiangsu – an 85 -year-old man who became ill on 28 March 2013 and a 25-year-old pregnant woman who became ill on 30 March 2013. Both are in severe condition. The third patient is a 64-year-old man from Shanghai who became ill on 1 April 2013, and died on 7 April 2013.

To date, a total of 24 cases have been laboratory confirmed with influenza A(H7N9) virus in China, including seven deaths, 14 severe cases and three mild cases.

More than 600 close contacts of the confirmed cases are being closely monitored. In Jiangsu, investigation is ongoing into a contact of an earlier confirmed case who developed symptoms of illness.

The Chinese government is actively investigating this event and has heightened disease surveillance. Retrospective testing of recently reported cases with severe respiratory infection may uncover additional cases that were previously unrecognized. An inter-government task force has been formally established, with the National Health and Family Planning Commission leading the coordination along with the Ministry of Agriculture and other key ministries. The animal health sector has intensified investigations into the possible sources and reservoirs of the virus.

WHO is in contact with national authorities and is following the event closely. The WHO-coordinated international response is also focusing on work with WHO Collaborating Centers for Reference and Research on Influenza and other partners to ensure that information is available and that materials are developed for diagnosis and treatment and vaccine development. No vaccine is currently available for this subtype of the influenza virus. Preliminary test results provided by the WHO Collaborating Centre in China suggest that the virus is susceptible to the neuraminidase inhibitors (oseltamivir and zanamivir).

At this time there is no evidence of ongoing human-to-human transmission.

WHO does not advise special screening at points of entry with regard to this event, nor does it recommend that any travel or trade restrictions be applied.

http://www.who.int/csr/don/2013_04_09/en/index.html

Related links:

- Frequently asked questions on human infection with influenza A(H7N9) in China
http://www.who.int/influenza/human_animal_interface/faq_H7N9/en/index.html
- Influenza WHO
<http://www.who.int/topics/influenza/en/>
- Influenza at the Human-Animal interface (HAI)
http://www.who.int/influenza/human_animal_interface/en/
- Avian influenza fact sheet
http://www.who.int/mediacentre/factsheets/avian_influenza/en/