Regional Update EW 12, 2013

Influenza and other respiratory viruses
(April 02, 2013)

PAHO interactive influenza data: http://ais.paho.org/phip/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 region/state reported widespread activity, and generally there was a decrease in various surveillance indicators, including the influenza like illness (ILI) consultation rate, the number of hospitalizations due to influenza and the proportion of positive samples tested for influenza. The proportion of influenza B virus detections increased. Influenza B has been increasing in the last weeks and now is 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. Among other respiratory viruses, RSV was the predominant circulating virus in some countries.
- South America: Acute respiratory infection (ARI) activity showed an increasing trend in most countries but remains 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. In Brazil, RSV continued to circulate in the Southeastern and Northeastern areas of the country, with low overall viral circulation in the rest of the country.

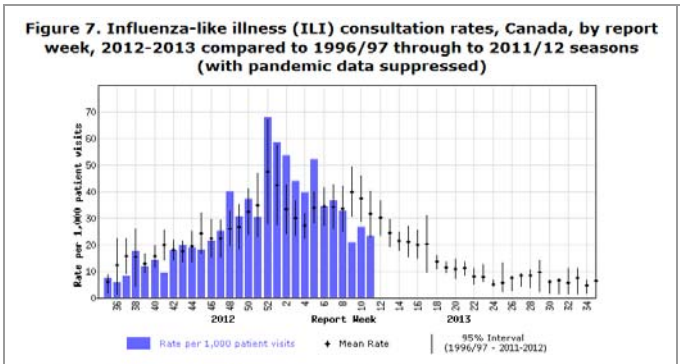
1. EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

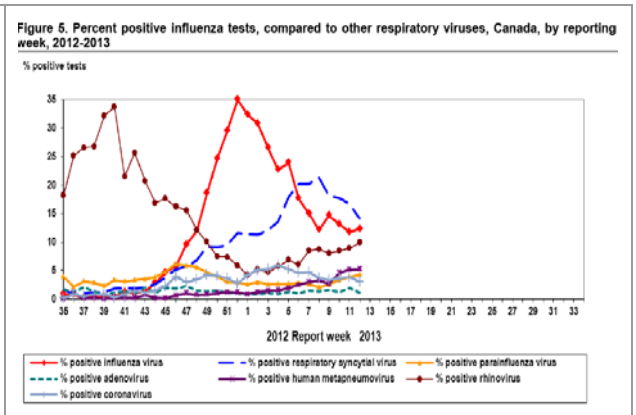
North America

In Canada[1], in epidemiological week (EW) 12, no region reported widespread activity, and generally there was a decrease in the various surveillance indicators, including the ILI consultation rate, antiviral prescription rate and the number of pediatric hospitalizations due to influenza. The national influenza-like-illness (ILI) consultation rate decreased from 21.5 (per 1,000 patient visits) in EW 11, to 13.1 in EW 12 and is now below the expected range. In week 12, the highest consultation rate was observed in children less than 5 years of age (46.8/1,000). Among influenza-associated hospitalizations, the highest proportion of hospitalizations continued to be among adults' ≥65 years of age (46%). Among the total samples analyzed the proportion of influenza positive samples increased slightly from 11.7% in EW 11 to 12.3% in EW 12. Of all the positive influenza cases this week, 34.7% were influenza A (17.6% influenza A (H1N1) pdm09, 14.7% were A (H3) and 67.6% influenza A unsubtyped) and 65.3% were influenza B. The proportion of detections for influenza B has increased significantly over the past 9 weeks (from 2.1% in EW 03 to 65.3% in EW 12). As for the other respiratory viruses, the percent positivity for RSV decreased, from 16.7% in EW 11 to 14.2% in EW 12, nonetheless, the percentage of positive tests for other viruses have increased (rhinovirus (10%), hMPV (5.3%) and parainfluenza (4.2%)). 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 80% of the influenza B cases).

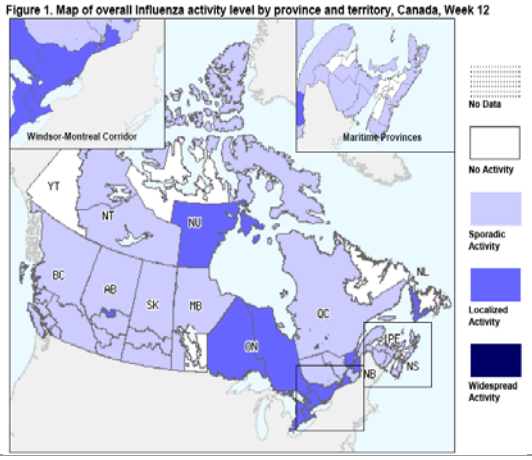
[1] Flu Watch Report. EW12. Available at http://www.phac-aspc.gc.ca/fluwatch/

Canada





Map of overall influenza activity level by province and territory Canada EW11

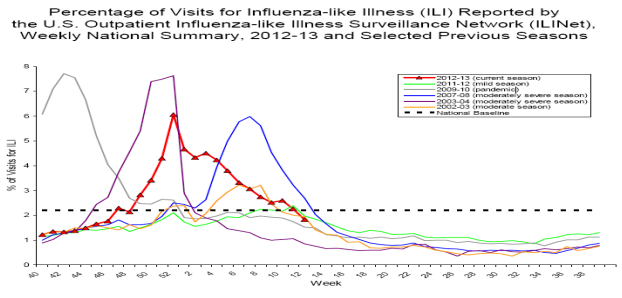


In the United States[2] the overall influenza activity decreased during EW 12. Nationally the proportion of ILI consultations (1.8%) decreased as compared to the previous week and was below the national baseline of 2.2%. Regionally, 3 out of 10 Regions reported a proportion of outpatient visits for ILI 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 12 (7.5%) was at the epidemic threshold for this time of year. In EW 12, five influenza-associated pediatric deaths were reported (one associated with A (H3N2), two with influenza A not subtyped and two with influenza B). From October 1st of 2012 to March 23rd of 2013, the rate was 41.8 (per 100,000 population), with the highest rates in those 65 years of age and older (50% of the reported cases). Among all samples tested during EW 12 (n=5,332), the percentage of samples positive for influenza (13.2%) continued to decrease. Nationally, among the positive samples, 26.5% were influenza A [32.8% A (H3N2), 5.9% A (H1N1) pdm09 and 61.3% influenza A unsubtyped] and 73.5% influenza B. Among the characterized influenza viruses this season, the majority have been the vaccine strains (98.3% of the A (H1N1) pdm09 cases, 99.6% of the A (H3N2) cases, and 70% of the influenza B cases). Since the beginning of October of last year, 2,768 influenza samples have been tested for resistance to neuraminidase inhibitors; in 0.5% of A (H1N1) pdm09 positive samples and 0.1% of A (H3N2) positive samples oseltamivir resistance were reported; however, all of them were sensitive to zanamivir.

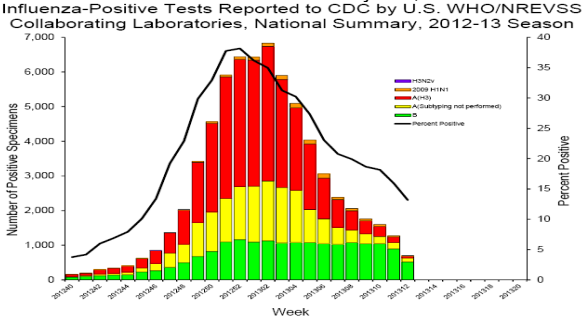
[2] USA: CDC FluView report. EW 11. Available at: http://www.cdc.gov/flu/weekly/

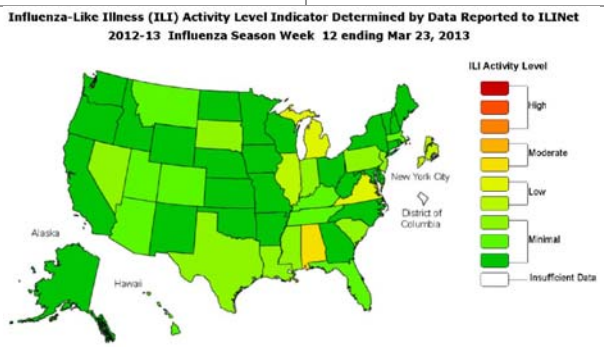
United States

ILI Distribution (%) by EW, 2012-13



Influenza viruses distribution by EW, 2012-13



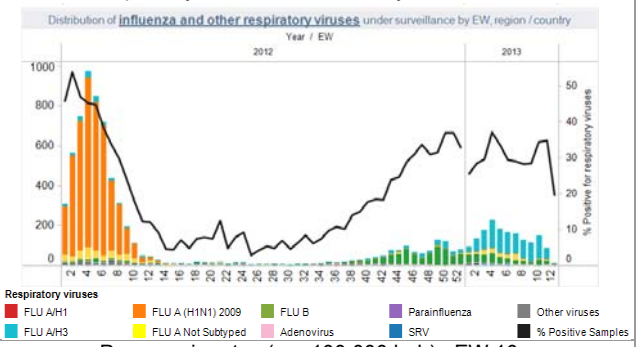


In Mexico, nationally in EW10, the number of ARI cases (n= 636,686) increased by 1% as compared to EW 09; the number of pneumonia cases (n= 3,560) decreased by 3.3% since EW 09. Regionally, the states that reported the highest rates of pneumonia per 100,000 habitants of in EW 09 were: Sonora (11.1), Jalisco (9.2), Chihuahua (5.5), Nuevo Leon and Baja California Sur (5.4). According to laboratory data, in 2013, between EW 09-12, among the samples tested (n=1185) the percent positivity for influenza viruses was 31.1%. In EW 09-12, among the positive influenza cases ~ 84% were influenza A (89.3% influenza A (H3N2), 0.3% influenza A (H1N1) pdm09, 6.1% influenza A unsubtyped) and ~16% were influenza B.

Mexico

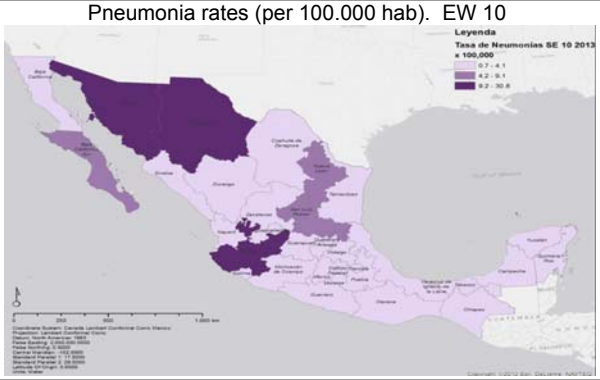
ARI and Pneumonia cases (n) by EW, 2012-13

Respiratory viruses distribution by EW2012 -13



ARI rates (per 100.000 hab). EW 10

Pneumonia rates (per 100.000 hab). EW 10

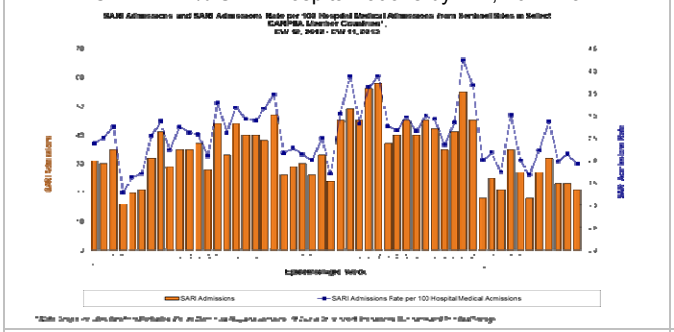


Caribbean

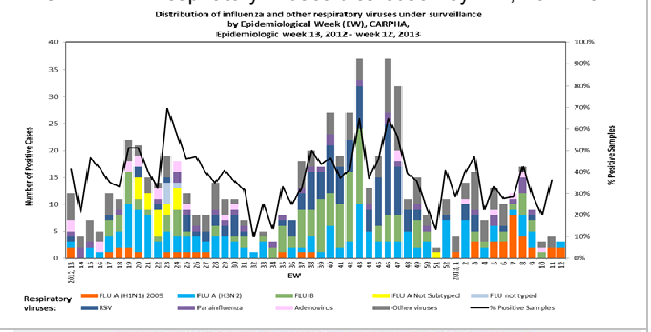
CARPHA[3] received weekly SARI/ARI data from 6 countries for EW 11, 2013: Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 11, 2013, the proportion of SARI hospitalizations was 1.9%. The highest rate of SARI was among children 6 months to 4 years of age (5.3%). No SARI-related deaths were reported from the region in EW 11. In 2013, for cases with dates of symptom onset between EW 09 and EW 12, the following viruses were laboratory confirmed in member countries: adenovirus (Belize); influenza B (Dominica); influenza A(H1N1)pdm09 (Trinidad & Tobago); parainfluenza type 3 (Barbados); rhinovirus (Belize, Dominica, Trinidad & Tobago); RSV (Belize); influenza A(H3N2) (Belize, Dominica, Trinidad & Tobago). For cases with dates of symptom onset in 2013, the overall percentage positivity for specimens tested was 33.6%. In 2013, to date, the CARPHA laboratory has confirmed 112 cases as positive for one or more respiratory agent.

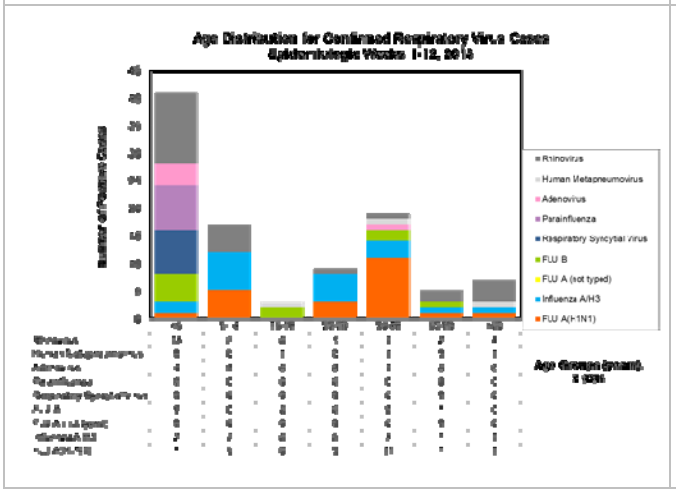
CARPHA

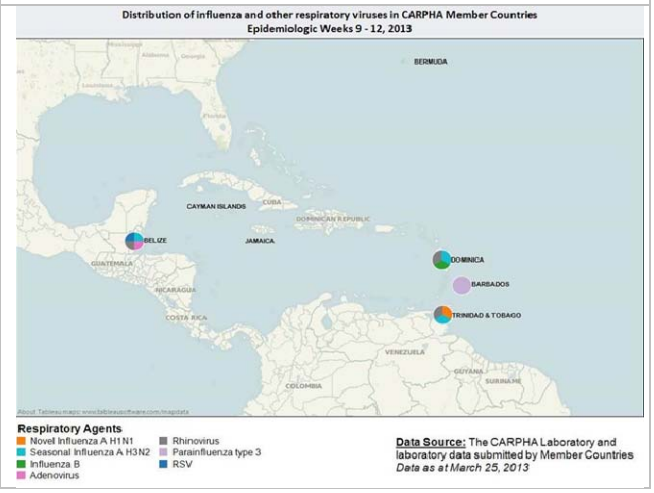
CARPHA. % SARI Hospitalizations by EW, 2012-13



CARPHA. Respiratory viruses distribution by EW, 2012-13



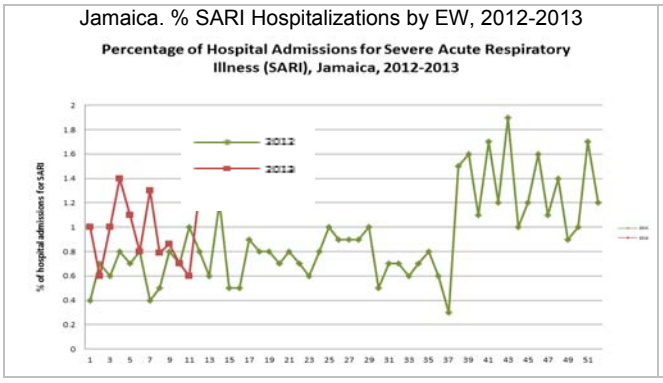




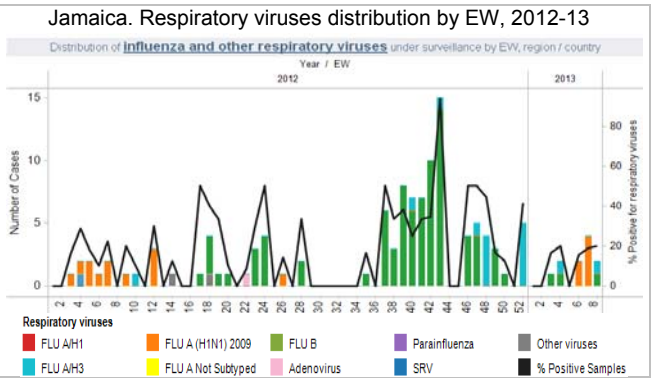
In Jamaica for EW 12, the proportion of ARI consultations was 5.2% (0.4% decrease from EW 11). The proportion of SARI admissions was less than 1.3% (was 0.6% in EW 11). There were no SARI-related deaths reported during EW 12.

Jamaica

Jamaica. % SARI Hospitalizations by EW, 2012-2013



Jamaica. Respiratory viruses distribution by EW, 2012-13



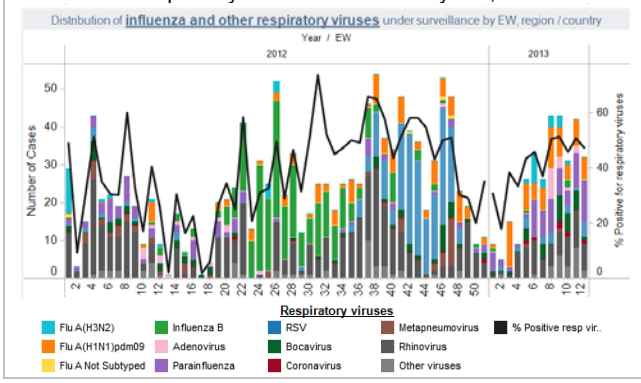
[3] Caribbean Public Health Agency (CARPHA) EW 11

In Cuba, according to the national laboratory data, among all the samples analyzed during EWs11 & 12 (n=151), the percent positivity for respiratory viruses was 48.8% and 8.6% for influenza viruses. Influenza A (H1N1) pdm09, RSV, parainfluenza, adenovirus, rhinovirus, coronavirus and bocavirus were all detected this week. According to the national epidemiological report for EW 12, (53.1%) of the positive samples were taken from SARI patients and 25% from ILI patients. The highest numbers of SARI cases were in children under 1 year. One SARI-related death was reported in EW 12.

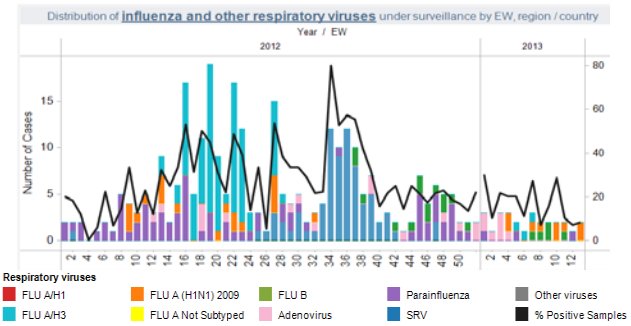
In the Dominican Republic, according to laboratory data among all the samples analyzed during the period between EWs 11-13, the percent positivity for respiratory viruses was 32% and 22.8% for influenza viruses. Influenza A (H1N1) pdm09, adenovirus and parainfluenza were identified during this period.

Cuba and Dominican Republic

Cuba. Respiratory viruses distribution by EW, 2012-13



Dominican Republic. Respiratory viruses distribution by EW, 2012 -13

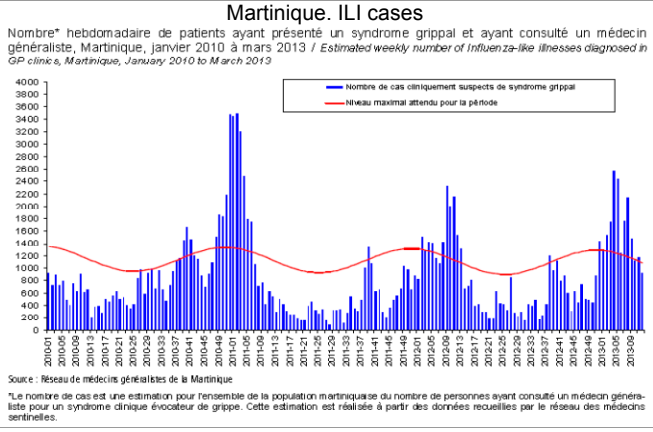


In French Territories:

In Martinique[4], since EW 52, 2012 and up to EW 11, 2013, the number of ILI cases was higher than the maximum expected level for the season. However, in EW 12, the ILI level was below the maximum expected level, with a declining trend. Since the beginning of the epidemic, viral co-circulation of influenza A(H3N2), influenza A(H1N1)pdm09 and influenza B was observed in the territory.

Martinique

Martinique. ILI cases



In Guadeloupe, an ILI epidemic has been reported since the EW 52, 2012. Currently, the influenza activity in Saint Martin and Saint Barthélemy is between the expected range for the season.

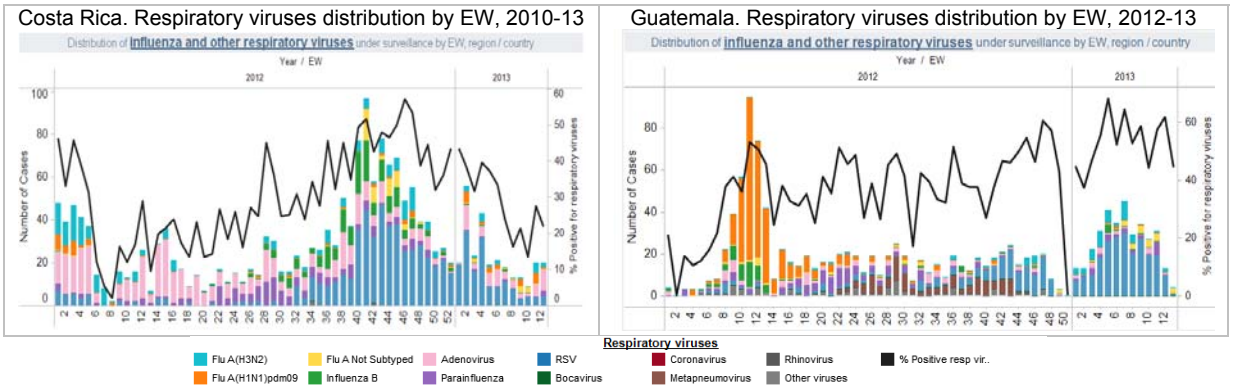
Central America

In Costa Rica, 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).

[4] Guyana. Le point épidémiologique EW12— N° 02 / 2013. CIRE Antilles Guyana

In Guatemala, according to national laboratory data from EWs 09-12, of all samples tested (n =145), 51.7% were positive were positive for respiratory viruses and 9.7% were positive for influenza viruses. RSV was the most prevalent among all the positives (50/75), followed by influenza A unsubtyped (11/75).

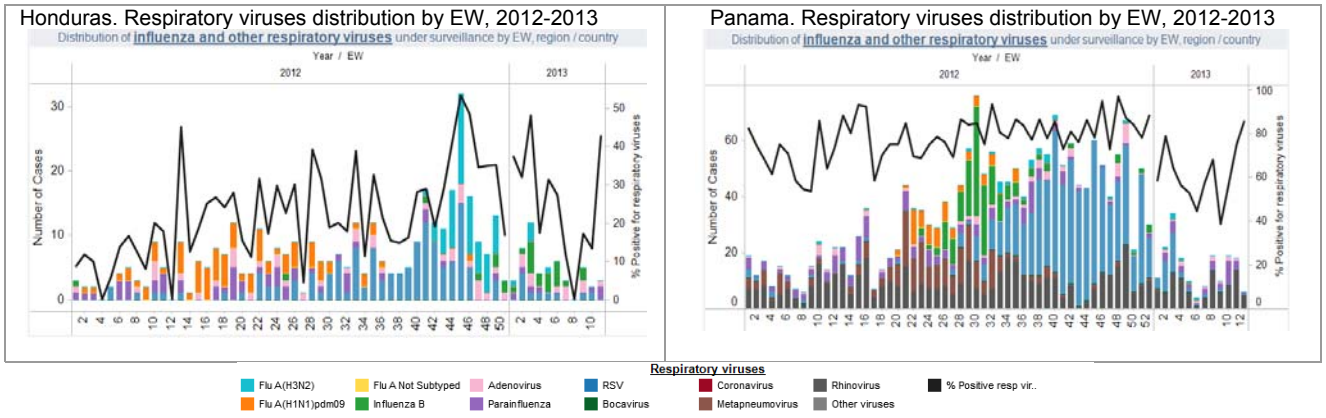
Costa Rica and Guatemala



In Honduras, according to national laboratory data from EWs 08-11, 2013, of all samples tested (n =70), 14.3% (10/70) were positive for respiratory viruses. Among the positive samples, parainfluenza, adenovirus, RSV and influenza B were the viruses detected.

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 and Panama

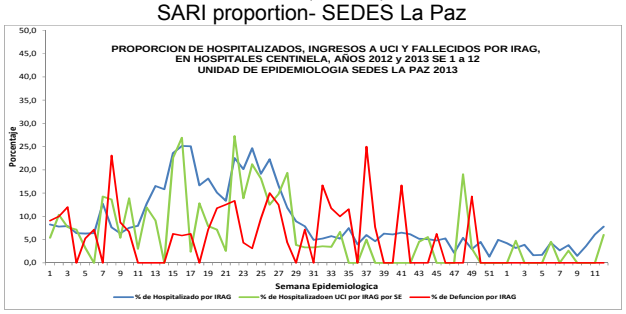


South America – Andean countries

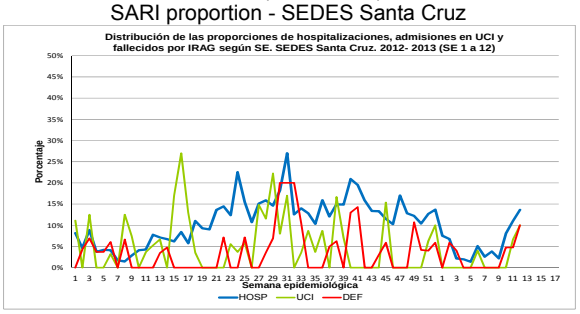
In Bolivia, according to data from Santa Cruz, during EW 12 the proportion of SARI hospitalizations was 14%, which is higher than previous weeks. According to laboratory data from CENETROP (Santa Cruz), among 42 samples analyzed between EWs 11-12 of 2013, the percent positivity for all respiratory viruses was 64% (predominantly RSV). No influenza viruses were detected. In La Paz, the proportion of SARI hospitalizations increased slightly during EW 12 (7.8%) as compare to EW 11. No SARI-related deaths were reported. According to laboratory data from INLASA (La Paz), among 57 samples processed in EWs 11-12 of 2013, the percent positivity for all respiratory viruses was 10%, and no influenza viruses were detected. RSV was predominant among the positives.

Bolivia

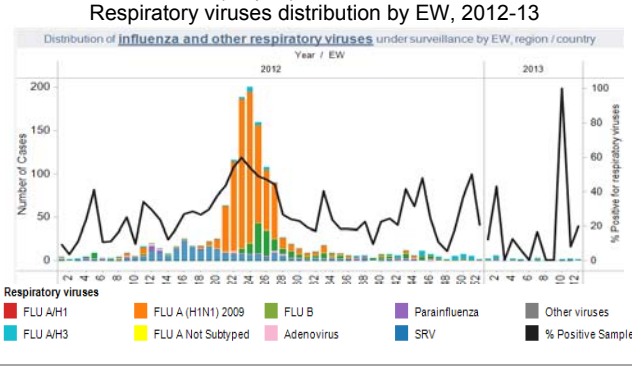
Bolivia (La Paz)
SARI proportion- SEDES La Paz



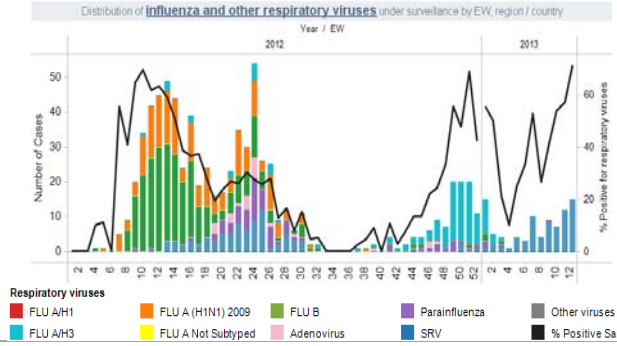
Bolivia (Santa Cruz)
SARI proportion - SEDES Santa Cruz



Bolivia (La paz). INLASA. 2012-13.
Respiratory viruses distribution by EW, 2012-13

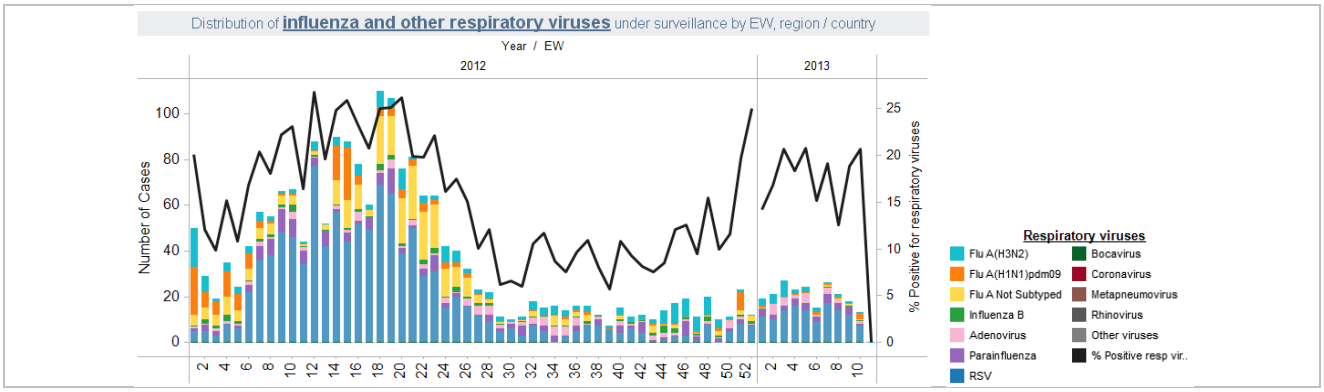


Bolivia (Santa Cruz). CENETROP.
Respiratory viruses distribution by EW, 2012-13



In Colombia, nationally during EW 12, the proportion of ILI outpatient visits (11%) and SARI hospitalizations (11%) showed an upward trend. According to data from the national laboratory (INS), including data from the Departments of Bogotá, Antioquia and Nariño, among 53 samples analyzed during EWs 10-11 of 2013, the percent positivity was 20% for all respiratory viruses, and 6% for influenza viruses. RSV was predominant among all the positives.

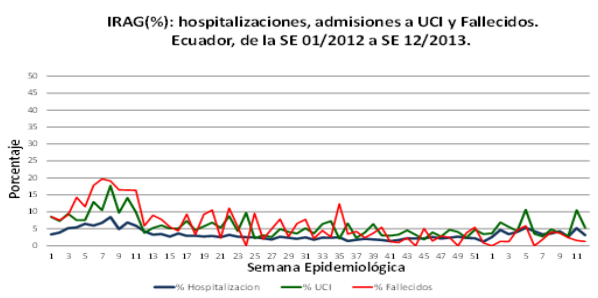
Colombia



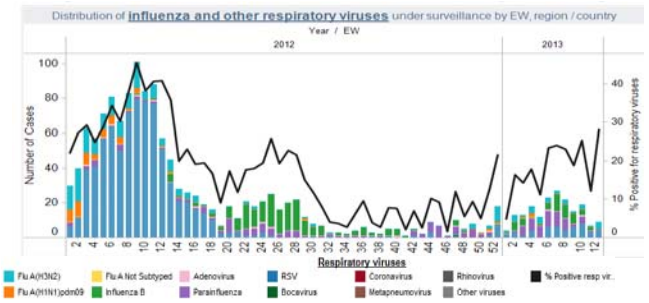
In Ecuador, the proportion of SARI hospitalizations (3%) remained without significant changes during EW 12. One SARI-related death was reported in the Sierra region of the country. According to national laboratory data from the national laboratory (NIH), 149 SARI samples were tested between EWs 11-12 of 2013, the proportion of positive samples for respiratory viruses (23.5%) increased as compared to previous weeks. Among the positives samples, 40% were influenza viruses. Among all the positive samples, RSV and influenza A(H3N2) were the most dominant viruses.

Ecuador

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



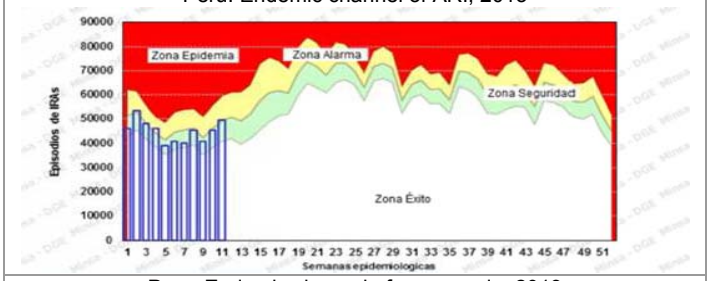
Ecuador. Influenza and other Respiratory viruses distribution by EW, 2012-13



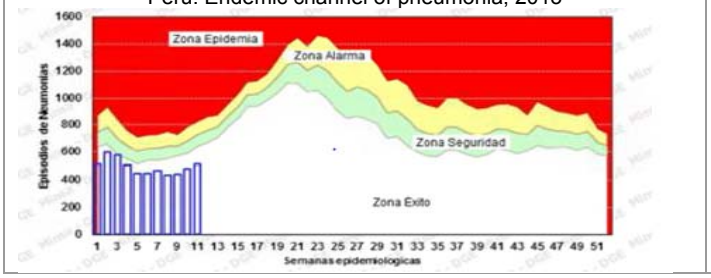
In Peru[5], nationally, in EW 11 of 2013, the number of ARI cases in children less than 5 years of age continued to increase and was at the borderline between the safety zone and the alarm zone of the endemic channels. The number of pneumonia cases in children under 5 years of age increased in the last 2 weeks, but remained within the expected level. According to national laboratory data, during EWs 11-12 of 2013, among the 115 samples analyzed, the percentage positivity was 32% for all respiratory viruses and 11% for influenza viruses. RSV (59%) was the most prevalent virus during this time.

Peru

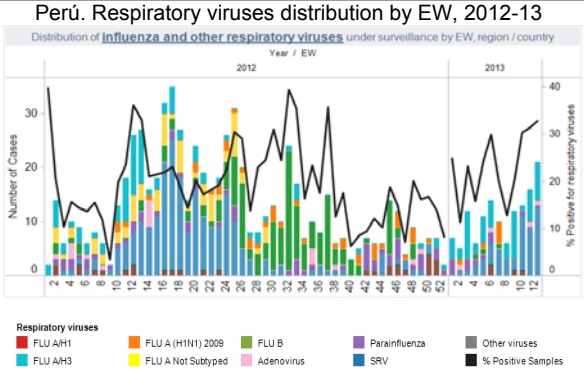
Peru. Endemic channel of ARI, 2013



Peru. Endemic channel of pneumonia, 2013



Perú. Respiratory viruses distribution by EW, 2012-13



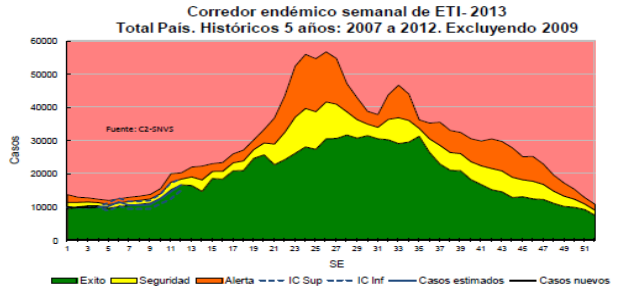
South America – Southern Cone

In Argentina, nationally, it was estimated that the ILI activity in EW 12 is between the safety and alert zones of the endemic channel showing an upward trend. It was also estimated that the number of SARI hospitalizations in EW 12 continues to increase and is at the alert zone. According to national laboratory data, 382 samples were processed between EWs 10-11 of 2013, of which 5% were positive for all respiratory viruses and 1% for influenza viruses. Adenovirus predominated (5/19).

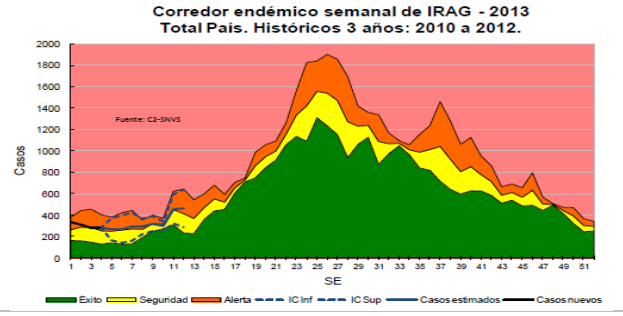
[5] Perú. Sala de Situación de Salud. EWs 11, 2013. Ministerio de Salud. Dirección General de Epidemiología

Argentina

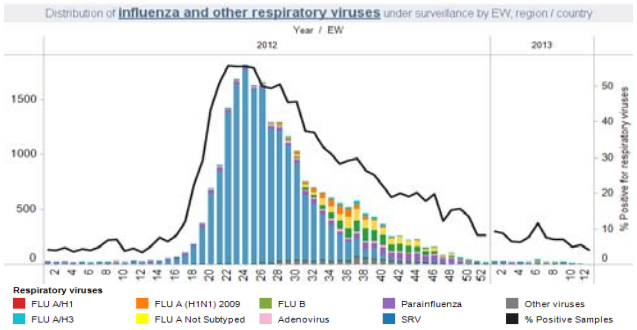
Argentina. ILI cases. Endemic Channel. 2012-2013



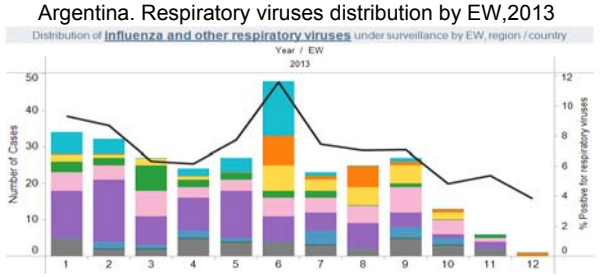
Argentina. SARI cases. Endemic Channel 2012 - 2013



Argentina. Respiratory viruses distribution by EW, 2012-13



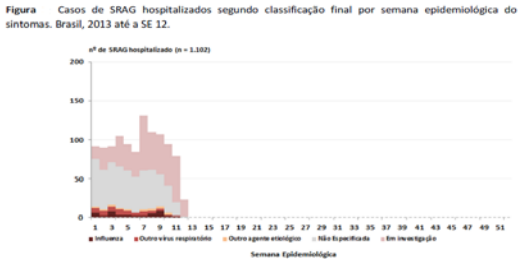
Argentina. Respiratory viruses distribution by EW,2013



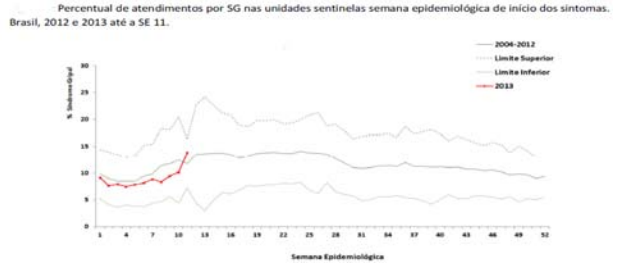
In Brazil, in EW 11, the proportion of ILI cases was within the expected for this time of year, showing an upward trend. Among all the positive ILI samples, RSV predominantly circulated in the Northern and Northeastern parts of the country but had low activity in the rest of the country. Among all SARI samples processed for EW 11, RSV and influenza A(H1N1)pdm09 were mainly identified.

Brazil

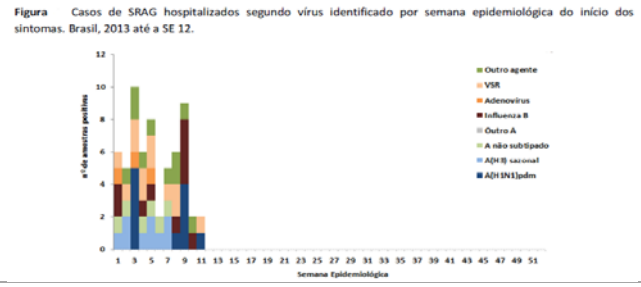
Brazil. SARI cases, 201



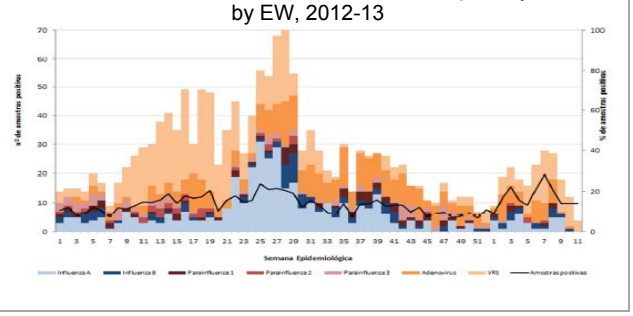
Brazil. ILI cases. Respiratory viruses distribution by EW,



Brazil. Distribution Influenza and Respiratory viruses in SARI cases by EW,2013



Brazil. ILI cases. Distribution Influenza and Respiratory viruses by EW, 2012-13

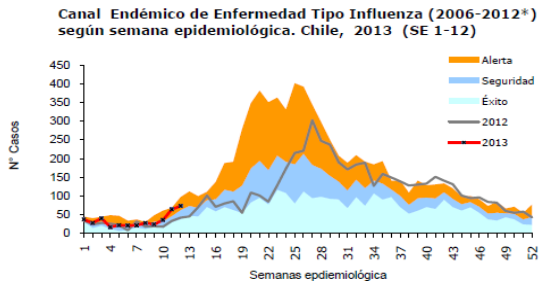


In Chile[6], nationally, in EW 12, 2013, the ILI activity (rate: 4.2/ 100,000 pop.) was at the alert zone of the endemic channel and showed an upward trend. The proportion of respiratory illness consultations in emergency rooms (22%) and hospitalizations (13%) remained within the expected levels for this time of the year (with a slight upward trend). According to national laboratory data, 847samples were analyzed during EWs 11-12, of which 3.2% were positive for respiratory viruses and 0.8% were positive for influenza viruses. Parainfluenza was the most prevalent virus (33%) among the positives, followed by adenovirus (30%). In the SARI surveillance system, 17 samples were processed during the same period, influenza A was identified in some cases.

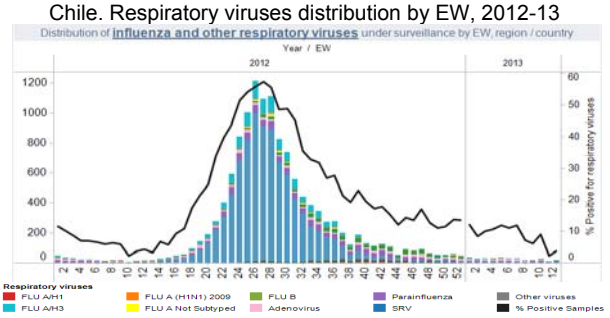
[6] Chile. Informe de situación. EW12. Disponible en: www.pandemia.cl

Chile

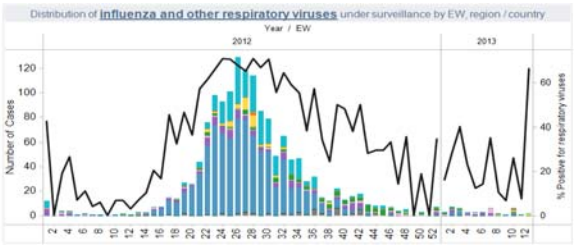
Chile. ILI Endemic Channel, 2013



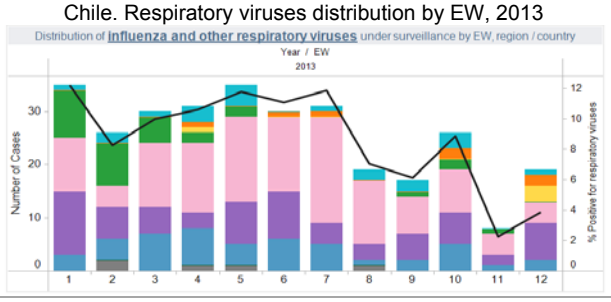
Chile. Respiratory viruses distribution by EW, 2012-13



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



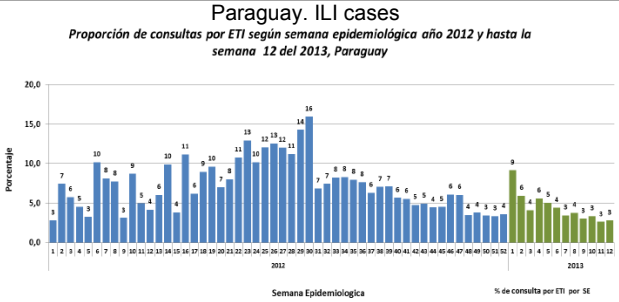
Chile. Respiratory viruses distribution by EW, 2013



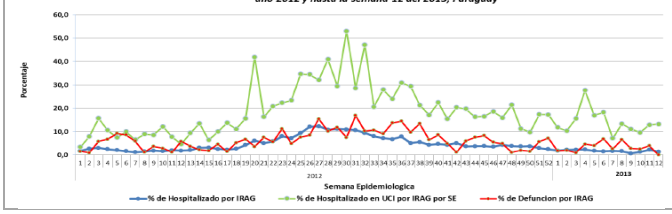
In Paraguay[7], nationally in EW 12 of 2013, the proportion of ILI consultations (3%) remained low and without significant changes from the previous week. The proportion of SARI-related hospitalizations (1.5%) decreased since EW 11 and remains within the expected range for this time of the year. According to national laboratory data, 86 samples were processed between EWs 11-12, 2013; the percent positivity of respiratory viruses was 10.4% and for influenza viruses was 8.3%. Among the positive samples, influenza A(H3N2) was the most dominant virus. During the same period, 43 SARI samples were processed, and RSV, influenza A(H3N2) and adenovirus were detected in some of these cases.

Paraguay

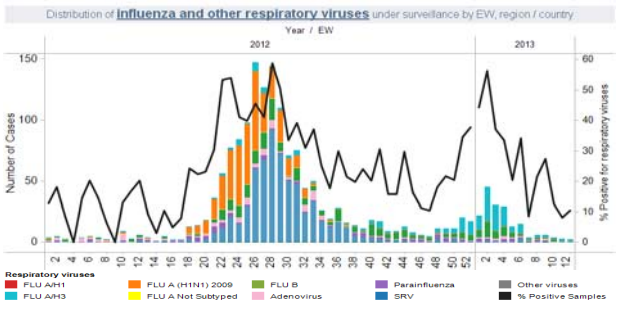
Paraguay. ILI cases



Paraguay. SARI cases (%) by EW, 2013



Paraguay. Respiratory viruses distribution by EW, 2012

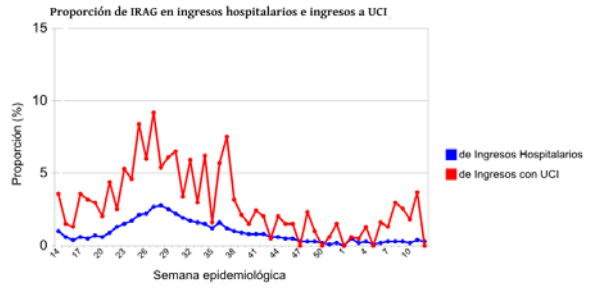


In Uruguay[8], The proportion of SARI-related hospitalizations continued to decline during EW 12, without significant changes from the previous week. There were no reports of SARI-ICU admissions and no reports the SARI-related deaths during this time.

[7] Paraguay. Informe de situación. DGVS. EW 12, 2013
[8] Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública

Uruguay

Uruguay. Casos IRAG. Hospitalizaciones e ingresos en UCI (%) por SE. 2012-13



Uruguay. Casos IRAG. Defunciones (%) por SE. 2012-13