Regional Update EW 15, 2013

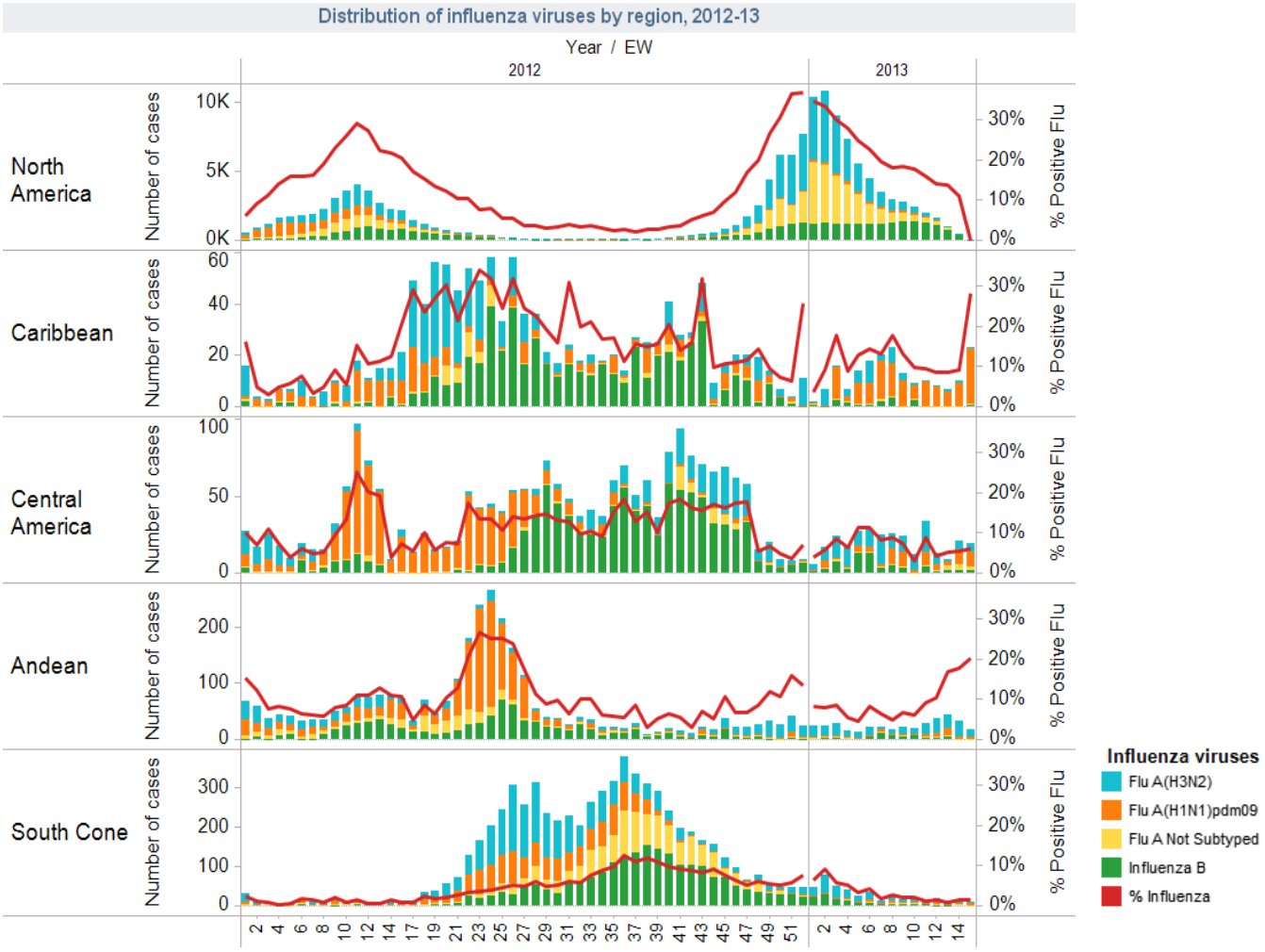
Influenza and other respiratory viruses
(April 23, 2013)

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, 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 influenza A (H1N1) pdm09 (Cuba, Jamaica, Trinidad & Tobago, Dominican Republic) was the predominant circulating virus, followed by influenza A(H3N2). Among other respiratory viruses, RSV was the predominant circulating virus in El Salvador and Guatemala.
- 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 Brazil, RSV circulation was documented in most areas of the country. In the Southern Cone, RSV also, circulated predominantly.

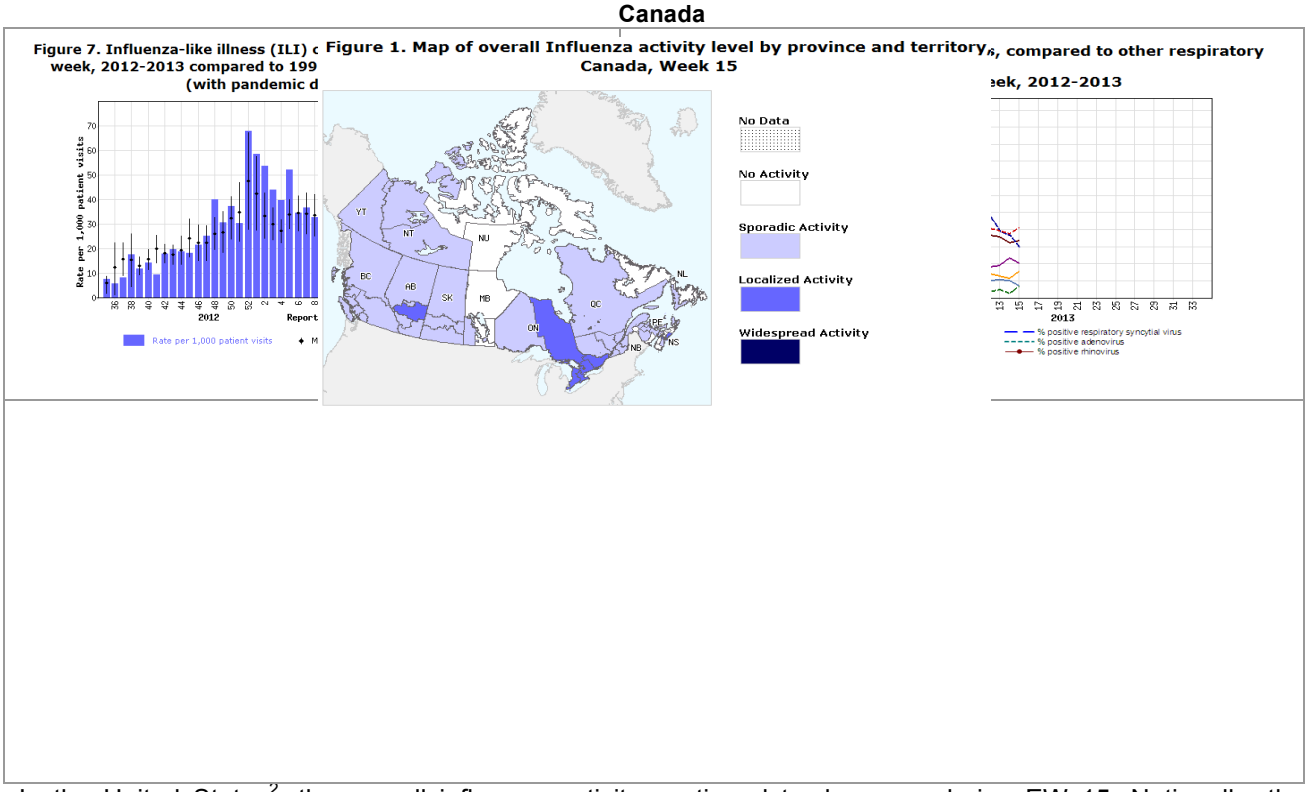


EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In Canada[1], in epidemiological week (EW) 15, none of the regions reported widespread activity. Nationally, the influenza-like-illness (ILI) consultation rate decreased from 23.8 ILI consultations per 1,000 patient visits in EW 14, to 16.4 in EW 15 and remained within the expected range. During EW14, the highest consultation rate was observed in children 5 to 19 years of age (28.1/1,000). As for influenza-associated hospitalizations, the highest proportion of hospitalizations continued to be among adults ≥65 years of age (37.4%). Among the total samples analyzed, the percentage of positive influenza tests increased slightly from 11.4% in EW 14 to 12.4% in EW 15. Of all the positive influenza cases this week, 81.1% were influenza B (continued to increase) and 18.9% were positive for influenza A viruses [of which 32.1% were A(H1N1)pdm09, 13.1% were influenza A(H3), and 54.8% were influenza A(unsubtyped)]. As for other respiratory viruses, the percentage of tests positive for RSV decreased slightly to 8.9% in EW 15, continuing its decline from the peak reported in EW 08. On the other hand, the percentage of positive tests for rhinovirus (10.1%), hMPV (6.2%) and parainfluenza (4.7%) have been increasing gradually over the past weeks.

Canada



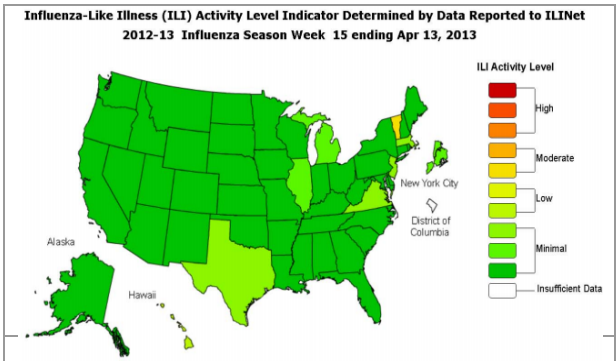
In the United States[2], the overall influenza activity continued to decrease during EW 15. Nationally, the proportion of ILI consultations (1.3%) was below the national baseline of 2.2%. Regionally, 1 out of 10 Regions reported a proportion of outpatient visits for ILI at or above their region-specific baseline levels. No state, however, experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 15 (7.2%) was below the epidemic threshold for this time of year. In EW 15, ten influenza-associated pediatric deaths were reported (one associated with influenza A(H3N2), one with influenza A(H1N1)pdm09, one with influenza A unsubtyped and seven with influenza B). During the period of October 1st of 2012 to April 13th of 2013, the rate of influenza-associated hospitalizations was 43.7 (per 100,000 population), with the highest rates seen in patients 65 years of age and older (50% of the reported cases). Among all samples tested during EW 15 (n=3,802), the percentage of samples positive for influenza (9.3%)

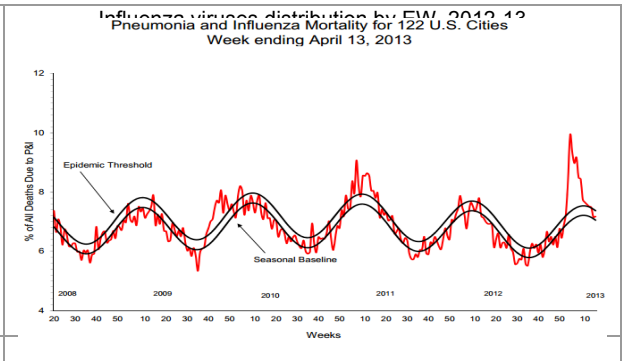
[1] FluWatch Report. EW15. Available at http://www.phac-aspc.gc.ca/fluwatch/

[2] USA: CDC FluView report. EW 15. Available at: http://www.cdc.gov/flu/weekly/

continued to decrease. Nationally, among the positive samples, 73.7% were influenza B and 26.3% were influenza A [19.4% A (H3N2), 17.2% A(H1N1)pdm09 and 63.4% influenza A unsubtyped].

United States

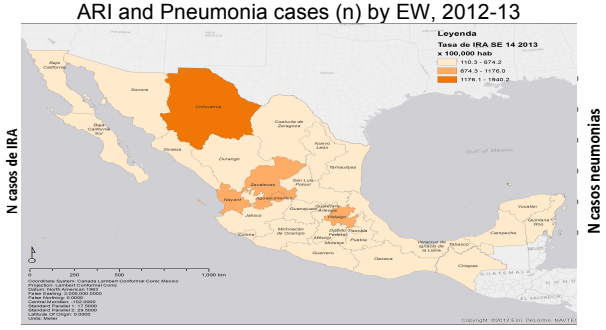




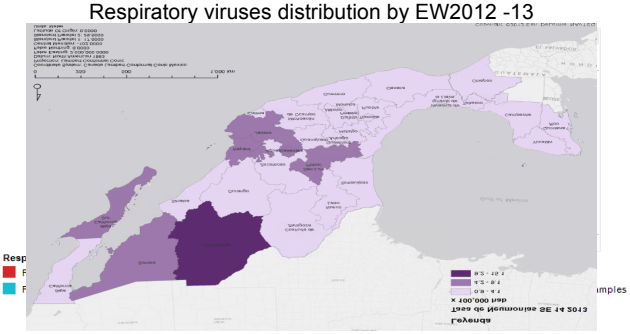
In Mexico[3], nationally in EW 14, the number of ARI cases (n= 456,784) increased by 18% as compared to EW 13 (n=388,637). The number of pneumonia cases (n=2848) also increase and was 8.2% more than the number reported during EW 13 (n=2,631). Regionally, the states that reported the highest rates of pneumonia per 100,000 habitants of in EW 14 were: Jalisco (5.7), Sonora (5.6), Colima (5) and Baja California Sur (4.8). According to laboratory data, in 2013, between EWs 12-15, among the samples tested (n=569) the percent positivity for influenza viruses was 13.7%. In EWs 12-15, among the positive influenza cases, 89.7% were influenza A (75.7% influenza A (H3N2) and 17.1 influenza (H1N1) pdm09) and ~10.3% 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 14

Pneumonia rates (per 100.000 hab). EW 14

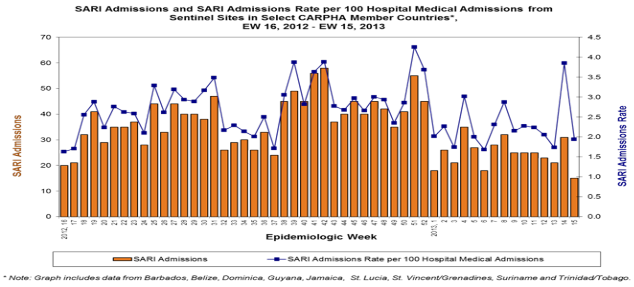
[3] México. Dirección General de Epidemiología. Información epidemiológica. SE 15.

Caribbean

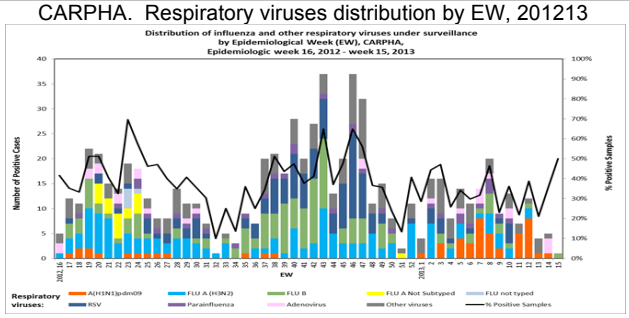
CARPHA[4], received the weekly SARI/ARI data report from 6 countries for EW 15, 2013: Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 15, 2013, the proportion of SARI hospitalizations was 1.9%. The average SARI rates per country from EWs 11-15 were: 6.8% in St. Lucia, 6.8% in Suriname; 5.4% in Barbados; 2.3% in St. Vincent, 1.9% in Jamaica and 1.3% in Dominica. The highest rate of SARI was among children 6 months to 4 years old (4.6%). No SARI-related deaths were reported from the region in EW 15, 2013. For cases with dates of onset between EWs 11-15, 2013, the following viruses have been laboratory confirmed in member countries: influenza A (H1N1) pdm09 (Jamaica, Suriname, Trinidad & Tobago); influenza A (H3N2) (Trinidad & Tobago); influenza B (Belize, Trinidad & Tobago); adenovirus (Barbados); human metapneumovirus (Trinidad and Tobago); rhinovirus (Belize, Dominica, St. Vincent & Grenadines and Trinidad & Tobago). In 2013, to date, the CARPHA laboratory has confirmed 148 cases as positive for one or more respiratory agent. The overall percentage positivity for specimens tested is 33.8%.

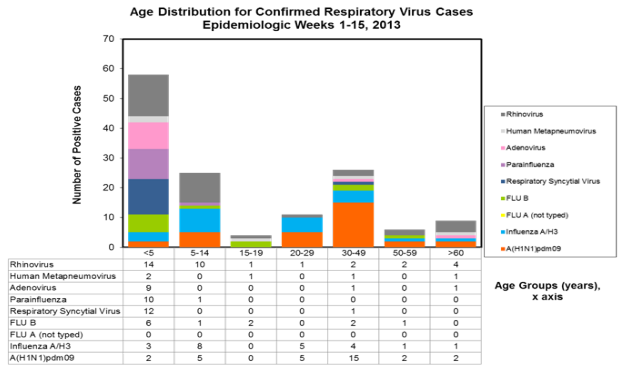
CARPHA

CARPHA. % SARI Hospitalizations by EW, 2012-13

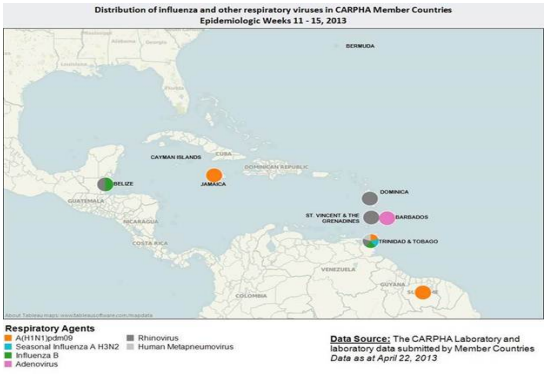


CARPHA. Respiratory viruses distribution by EW, 201213



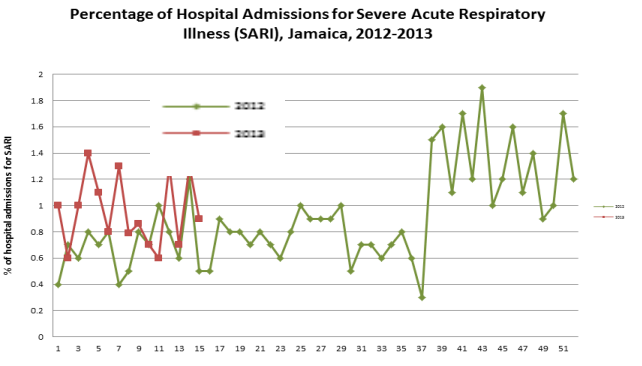


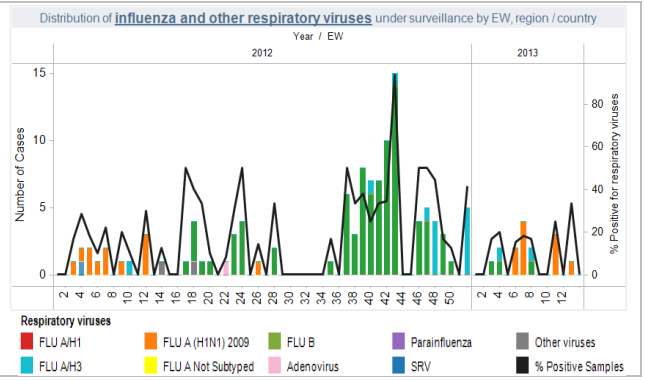
	<5	5-14	15-19	20-29	30-49	50-59	>60
Rhinovirus	14	10	1	1	2	2	4
Human Metapneumovirus	2	0	1	0	1	0	1
Adenovirus	9	0	0	0	1	0	1
Parainfluenza	10	1	0	0	0	0	0
Respiratory Syncytial Virus	12	0	0	0	1	0	0
FLU B	6	1	2	0	2	1	0
FLU A (not typed)	0	0	0	0	0	0	0
Influenza A/H3	3	8	0	5	4	1	1
A(H1N1)pdm09	2	5	0	5	15	2	2



In Jamaica for EW 15, the proportion of consultations for ARI was 3.7% (which was 0.5% lower than EW 14. The proportion SARI-admissions decreased by 0.9% as compared to the previous week. There was one (1) SARI death reported for epidemiological week 15.

Jamaica





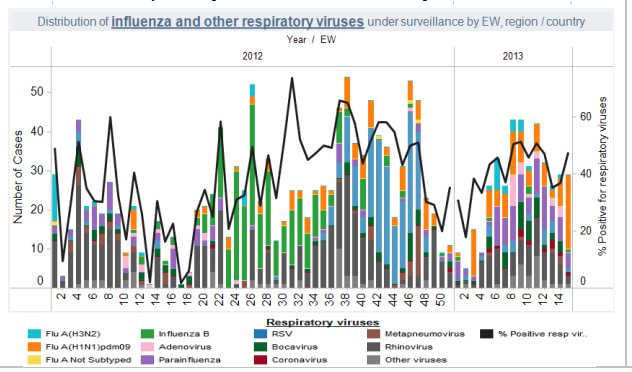
[4] Agencia de Salud Pública del Caribe (CARPHA por sus siglas en inglés) EW15.

In Cuba, according to national laboratory data, among all samples analyzed (n=282) between EW 12 & 15, the average percent positivity for respiratory viruses was 41.6% and 13.9% for influenza viruses. Influenza A (H1N1) pdm09, rhinovirus and parainfluenza. According to the epidemiological report for EW 15, 51.7% of the positive samples were collected from SARI patients and 17.2% from ILI patients. The highest number of SARI cases was among children between 1 to 4 years old (7/29). No SARI-related deaths were reported in EW 15.

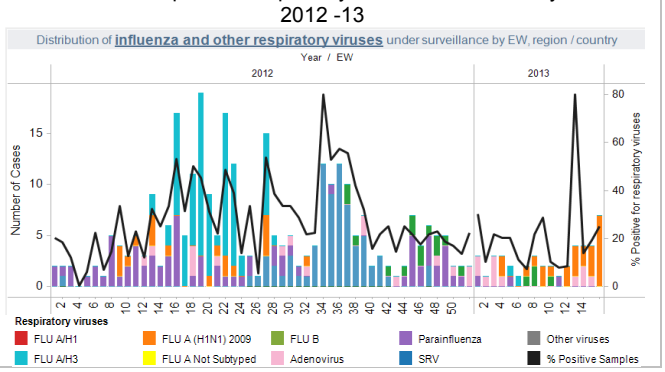
In the Dominican Republic, according to laboratory data, from EWs 13 -16, among samples analyzed (n=83), the average percentage positive for respiratory viruses was 34.5% and for influenza viruses was 26.5%. Between EW 12 to 15, Influenza A (H1N1) pdm09 and adenovirus were identified.

Cuba and Dominican Republic

Cuba. Respiratory viruses distribution by EW, 2012-13



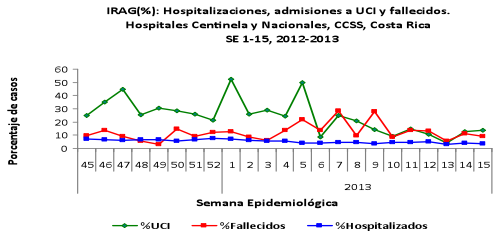
Dominican Republic. Respiratory viruses distribution by EW, 2012 -13



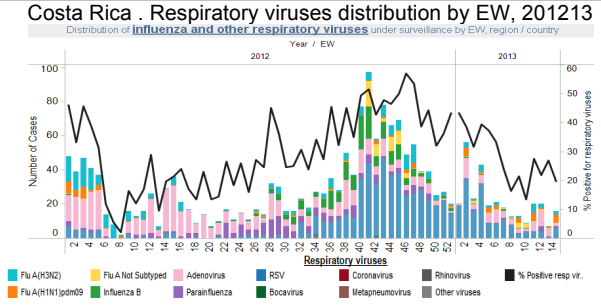
Central America

In Costa Rica[5], the activity of influenza and other respiratory viruses remains low. In EW 15, at national level, the proportion of SARI hospitalizations was 3.4%.the majority of SARI cases occurred among children between 1 day-4 years of age and adults between 18-49 years. Among all SARI cases reported in EW15 the percentage of SARI related ICU-admission was 14% and percentage of SARI-related deaths was 3.4%. According to laboratory data between EW 11-15, 2013, among all samples tested (n =273), the percent positivity for respiratory viruses was 23.1% and for influenza viruses was 7.7%. During the period between EW 11-15, adenovirus was the most prevalent virus followed by RSV. Among influenza viruses, influenza A predominated (both influenza A (H1N1) pdm09 and A (H3N2)).

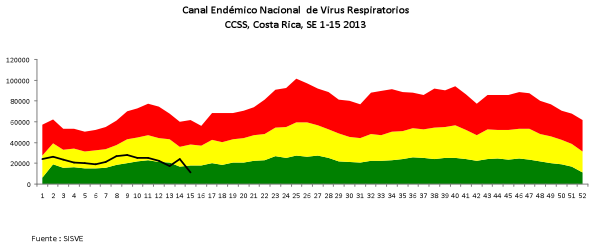
Costa Rica.SARI(%) hospitalization,ICU admissions and Deaths by EW 2012-13



Costa Rica . Respiratory viruses distribution by EW, 201213



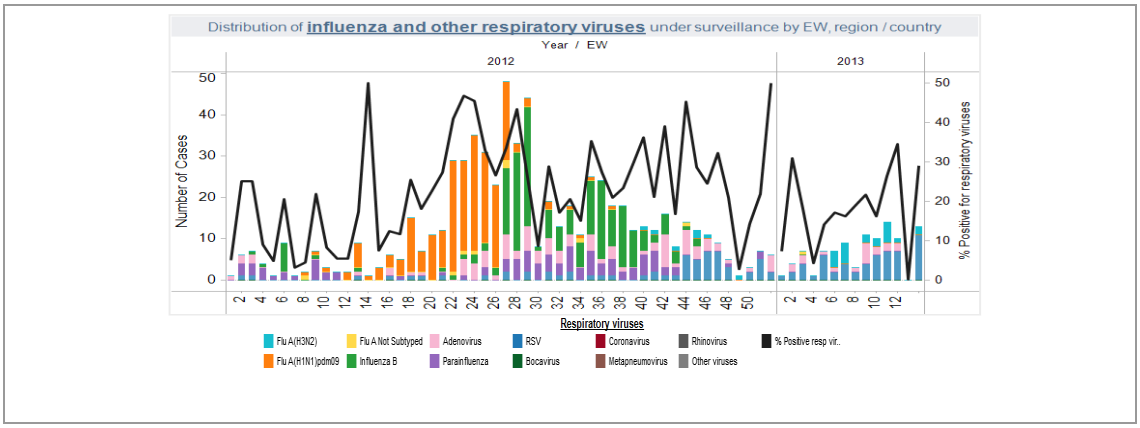
Costa Rica . Respiratory viruses endemic channels by EW, 2012-13



[5] Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 15.

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 for influenza viruses was 5.7%. 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.

El Salvador



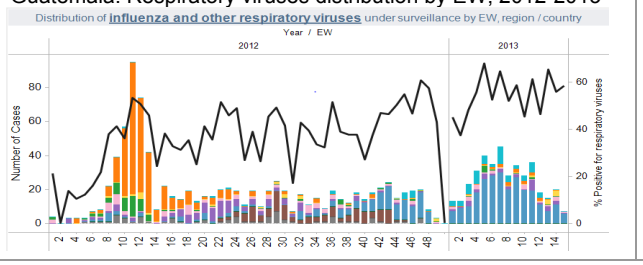
In Guatemala, according to national laboratory data from EWs 13-16, 2013, of all samples tested (n =136), 51.5% were positive for all respiratory viruses and10.3% for influenza viruses (mainly influenza A). Among the positive samples, RSV was the most dominant virus followed by parainfluenza and adenovirus.

In Nicaragua, according to national laboratory data from EWs 12-15, of all samples tested (n =464), 5.8% were positive for influenza viruses. Influenza A (H1N1) pdm09 was the most prevalent among all the positives (11/25), followed by influenza B (7/25) and influenza A (H3N2) (4/25). No other respiratory viruses were detected during this time

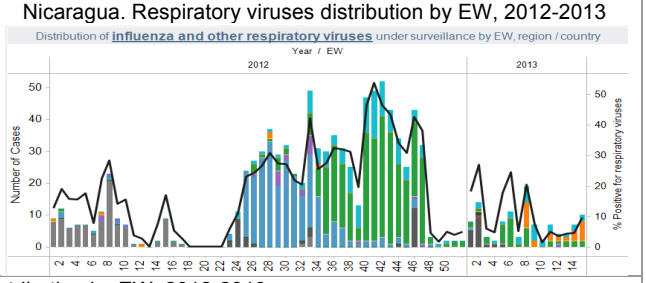
In Panama, according to national laboratory data from EWs 12-15, of all samples tested (n =70), 50% were positive for respiratory viruses and none were positive for influenza viruses. Rhinovirus was the most prevalent virus (21/36) followed by parainfluenza (11/36).

Guatemala, Nicaragua and Panama

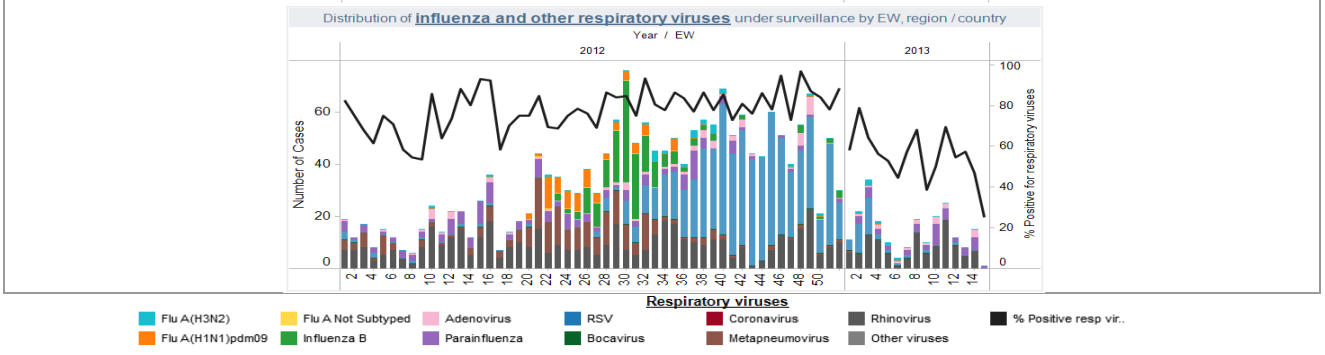
Guatemala. Respiratory viruses distribution by EW, 2012-2013



Nicaragua. Respiratory viruses distribution by EW, 2012-2013



Panama. Respiratory viruses distribution by EW, 2012-2013

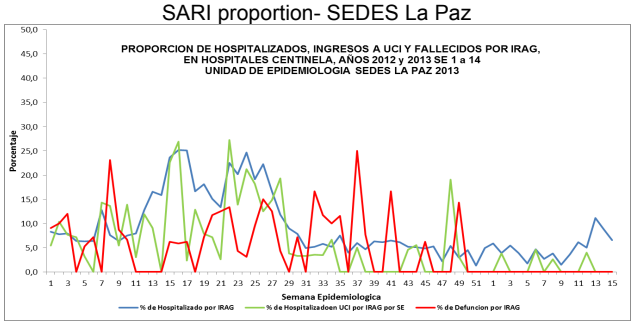


South America – Andean countries

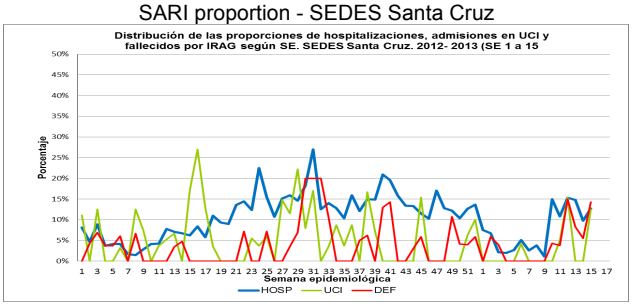
In Bolivia, according to data from Santa Cruz, during EW 15 the proportion of SARI hospitalizations was 13% (increased slightly since the previous week). According to laboratory data from CENETROP (Santa Cruz), among 76 samples analyzed between EWs 14-15 of 2013, the percent positivity for all respiratory viruses was 65%, (predominantly RSV(94%)), and 4% for influenza viruses. RSV was also the most prevalent virus in all analyzed SARI cases (n=25) during this period and among all age group. In La Paz, the proportion of SARI hospitalizations decreased slightly during EW 15 (6.5%) as compared to EW 14, but continued to show an upward trend. No SARI-related deaths were reported. According to laboratory data from INLASA (La Paz), among 63 samples processed in EWs 14-15 of 2013, the percent positivity for all respiratory viruses was 14%. RSV was the only virus identified at this time.

Bolivia

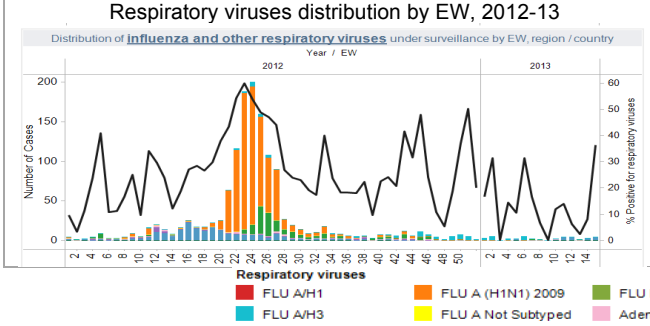
Bolivia (La Paz)
SARI proportion- SEDES La Paz



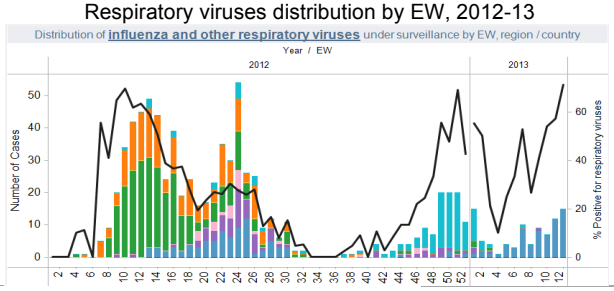
Bolivia (Santa Cruz)
SARI proportion - SEDES Santa Cruz

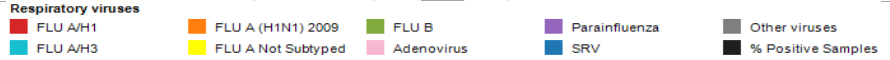


Bolivia (La paz). INLASA. 2012-13.
Respiratory viruses distribution by EW, 2012-13



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

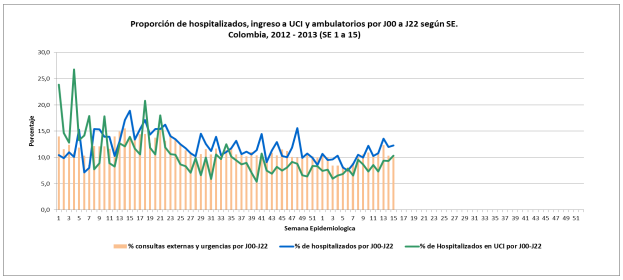




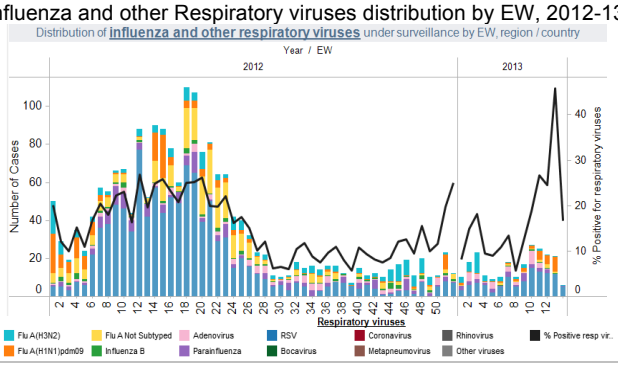
In Colombia, nationally and in the SE 15 outpatient ratios (10%) and ICU admissions (10.3%) continue to show an upward trend. According to the INS laboratory data including statistics from the Departments of Bogotá, Antioquia and Nariño, between samples and viruses analyzed (n = 110) in EW 14 and 15, the positivity was 30% for all respiratory viruses and 3.6% for influenza virus, RSV predominantly between positive.

Colombia

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



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

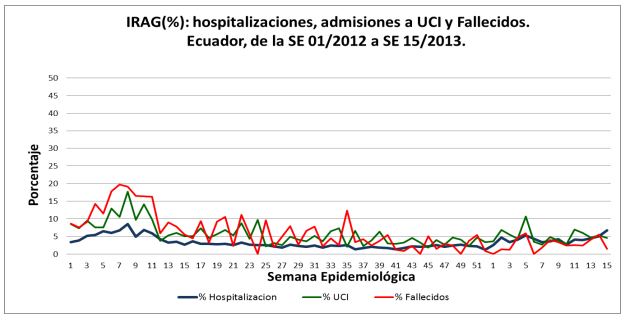


In Ecuador, the proportion of SARI hospitalizations (7%) was higher during EW15 as compare to the previous week. Two SARI-related deaths were reported during this EW. According to national laboratory data from the national laboratory (NIH), among 188 SARI samples tested between EWs 14-15 of 2013, the percent positivity was 44% for respiratory viruses' and 27% for influenza viruses. Among all the positive

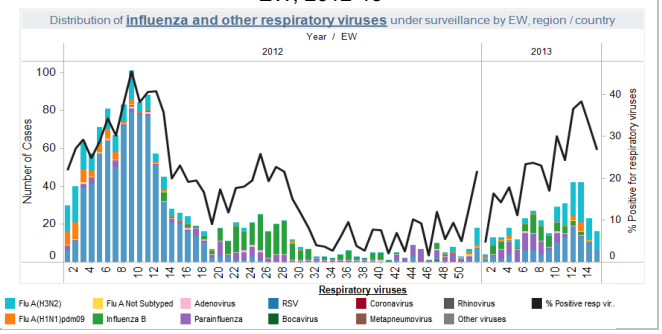
samples, influenza A (H3N2) (49%) and RSV (4-%) were the most dominant viruses. Among the 130 samples analyzed for SARI, similar virus circulation pattern was observed.

Ecuador

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



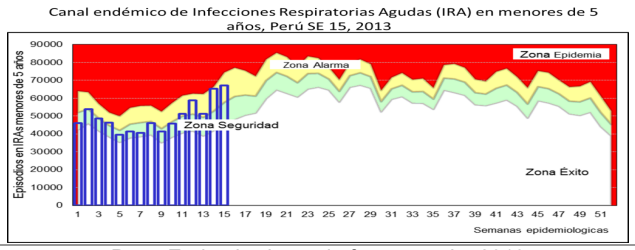
Ecuador. Influenza and other Respiratory viruses distribution by EW, 2012-13



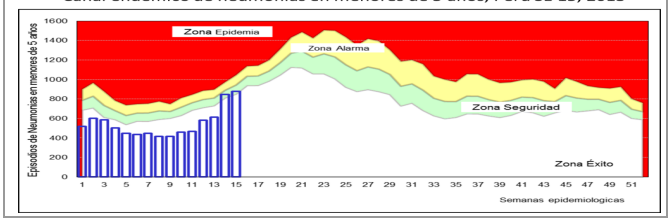
In Peru[6], nationally, in EW 15 of 2013, the number of ARI cases in children less than 5 years of age continued to increase and it is now at the alarm zone of the endemic channels maintaining the upward trend of recent weeks. The number of pneumonia cases in children less than 5 years of age increased significantly since EW 14; but was within the safety zone of the endemic channels. According to national laboratory data, during EWs 14-15 of 2013, among the 152 samples analyzed, the percentage positivity was 31% for all respiratory viruses and 4% for influenza viruses. RSV was the most prevalent virus during this time(80%).

Peru

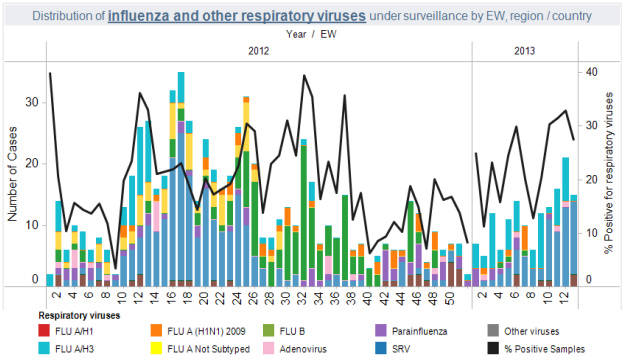
Peru. Endemic channel of ARI, 2013



Peru. Endemic channel of pneumonia, 2013



Perú. Respiratory viruses distribution by EW, 2012-13



South America – Southern Cone

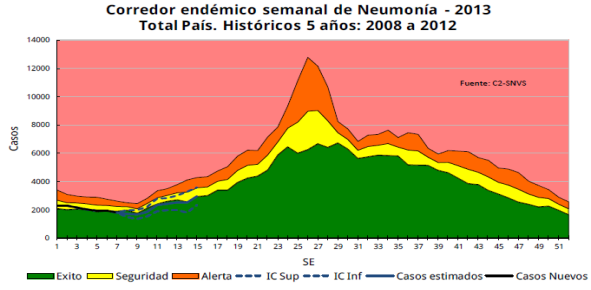
In Argentina[7], according to national estimates the activities of pneumonia and SARI during EW 15 were at the safety zone of their respective endemic channel. According to national laboratory data, 409 samples were processed between EWs 14-15 of 2013, of which 6.4% were positive for all respiratory viruses and 1.7% for influenza viruses. RSV, influenza A virus and parainfluenza virus were predominant among the positives.

[6] Perú. Sala de Situación de Salud. EWs 15, 2013. Ministerio de Salud. Dirección General de Epidemiología

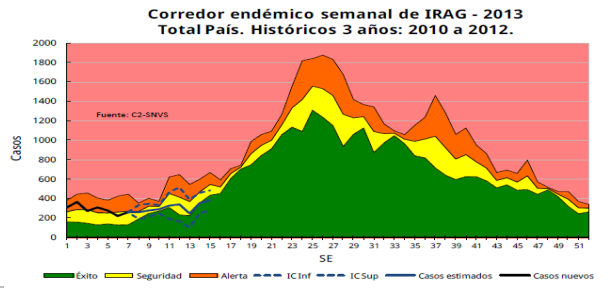
[7] Argentina. Boletin integrado de vigilancia. SE 15.

Argentina

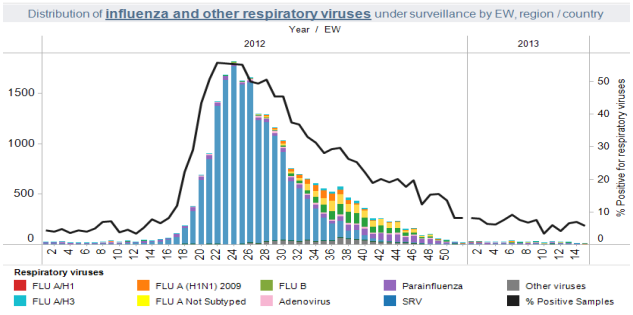
Argentina. Pneumonia cases. Endemic Channel. 2012-2013



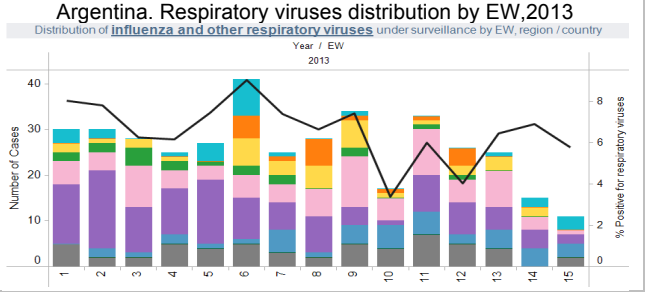
Argentina. SARI cases. Endemic Channel 2012 -2013



Argentina. Respiratory viruses distribution by EW, 2012-13



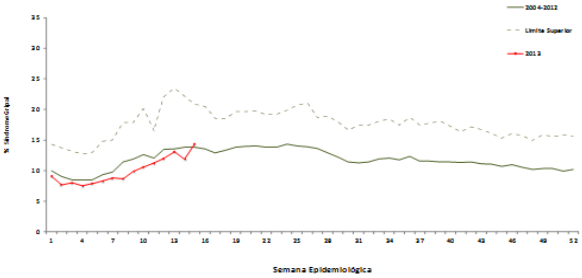
Argentina. Respiratory viruses distribution by EW,2013



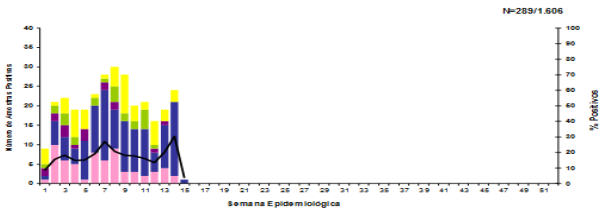
In Brazil[8], in EW 15, the proportion of ILI consultations was within the expected level for this time of the year showing an upward trend in all regions. Nationally, among all the analyzed ILI samples, RSV was the most dominant circulating virus in all regions. Among SARI samples processed for the same week, influenza A(H1N1)pdm09 was the most dominant circulating virus especially in the State of Sao Paulo.

Brazil

Brazil . ILI Endemic Channel, 2013

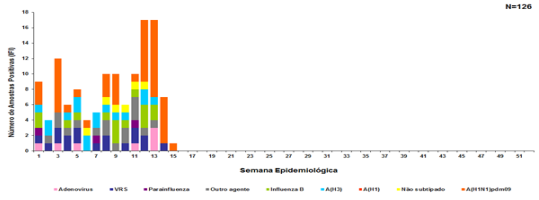


Brazil. Respiratory viruses distribution by EW 2013 (EW13)



Brazil. Respiratory viruses distribution in SARI hospitalized patients by EW, 2013 (EW13)

Figura 5: Casos de SRAG hospitalizados segundo vírus identificado por semana epidemiológica do início dos sintomas. Brasil, 2013 até a SE 15.



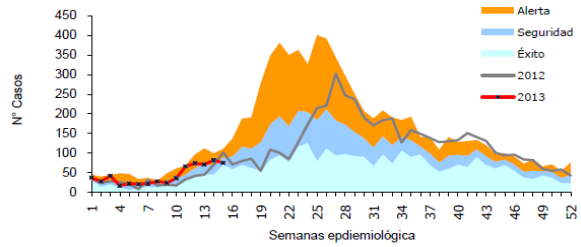
In Chile[9], nationally, in EW 15, 2013, the ILI activity (rate: 4.8/ 100,000 pop.) showed no significant changes from the previous EW and was at the security zone of the endemic channel. The proportion of SARI hospitalizations in EW 15 (2.2%) and the proportion of ICU admissions (4%) were higher as compared to EW 14. According to national laboratory data, 1012 samples were analyzed during EWs 14-15, of which 9 % were positive for respiratory viruses and 0.9% for influenza viruses. RSV, adenovirus and parainfluenza were the most prevalent among the positives. In the SARI surveillance system, 54 samples were processed during the same period, RSV was identified predominantly.

[8] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 15, 2013.

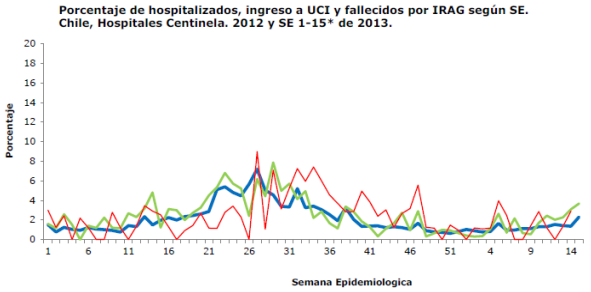
[9] Chile. Informe de situación. EW15. Disponible en: www.pandemia.cl

Chile

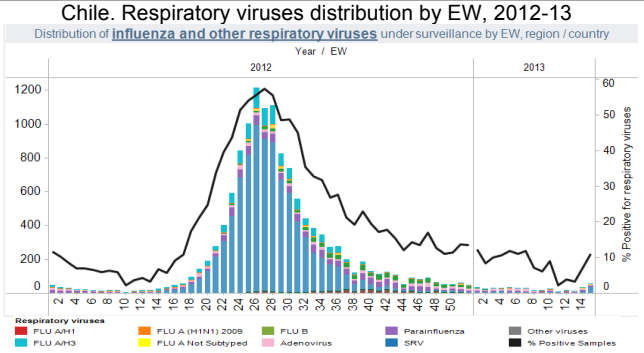
Chile. ILI Endemic Channel, 2013



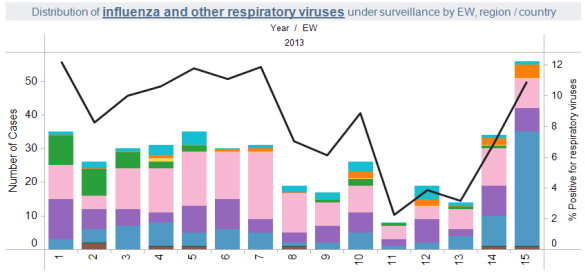
Chile. SARI hospitalizations and ICU admissionds by EW ,2012(EW14)-13(EW13)



Chile. Respiratory viruses distribution by EW, 2012-13



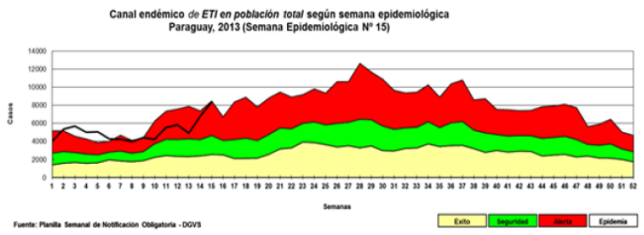
Chile. Respiratory viruses distribution by EW, 2013



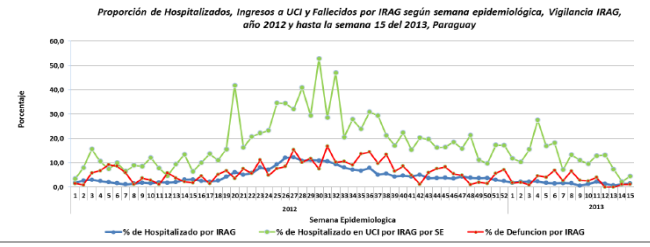
In Paraguay[10], nationally in EW 15 of 2013, the rate of ILI consultations (126/100.000) increased since EW 14 and is now between epidemic and the alert zone of the endemic channels. The proportion of SARI-related hospitalizations remained low and within the expected range for this time of the year. According to data from PSCA, 72 samples were processed between EWs 14-15, 2013 with a low percent positivity. RSV and parainfluenza were identified.

Paraguay

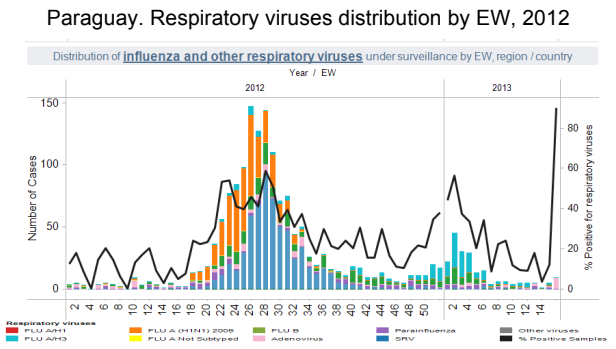
Paraguay. ILI cases



Paraguay. SARI cases (%) by EW, 2013



Paraguay. Respiratory viruses distribution by EW, 2012



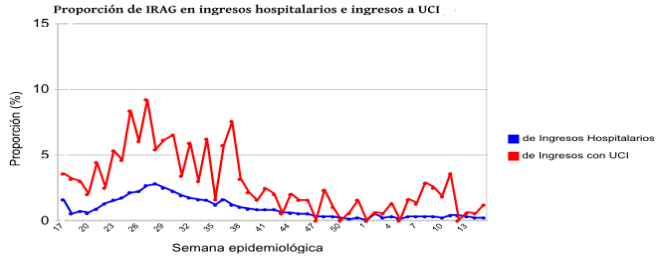
Paraguay. Respiratory viruses distribution by EW, 2012

[10] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 15, 2013

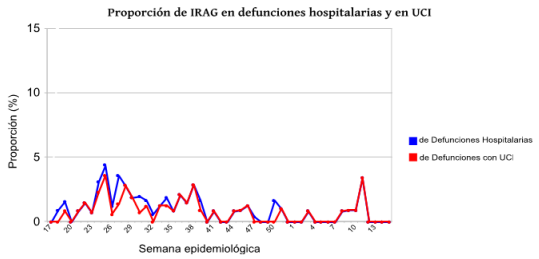
In Uruguay[11], at national level, the proportion of SARI hospitalizations continued to decline during EW 15, ICU admissions increased over the previous EW and there were not reported deaths related to SARI in the same week.

Uruguay

Uruguay. SARI hospitalizations,and ICU admissions by EW. 2012-13



Uruguay. SARI-related deaths (%) by EW. 2012-13



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