# Regional Update EW 43, 2013

**Influenza and other respiratory viruses**
**(November 5, 2013)**

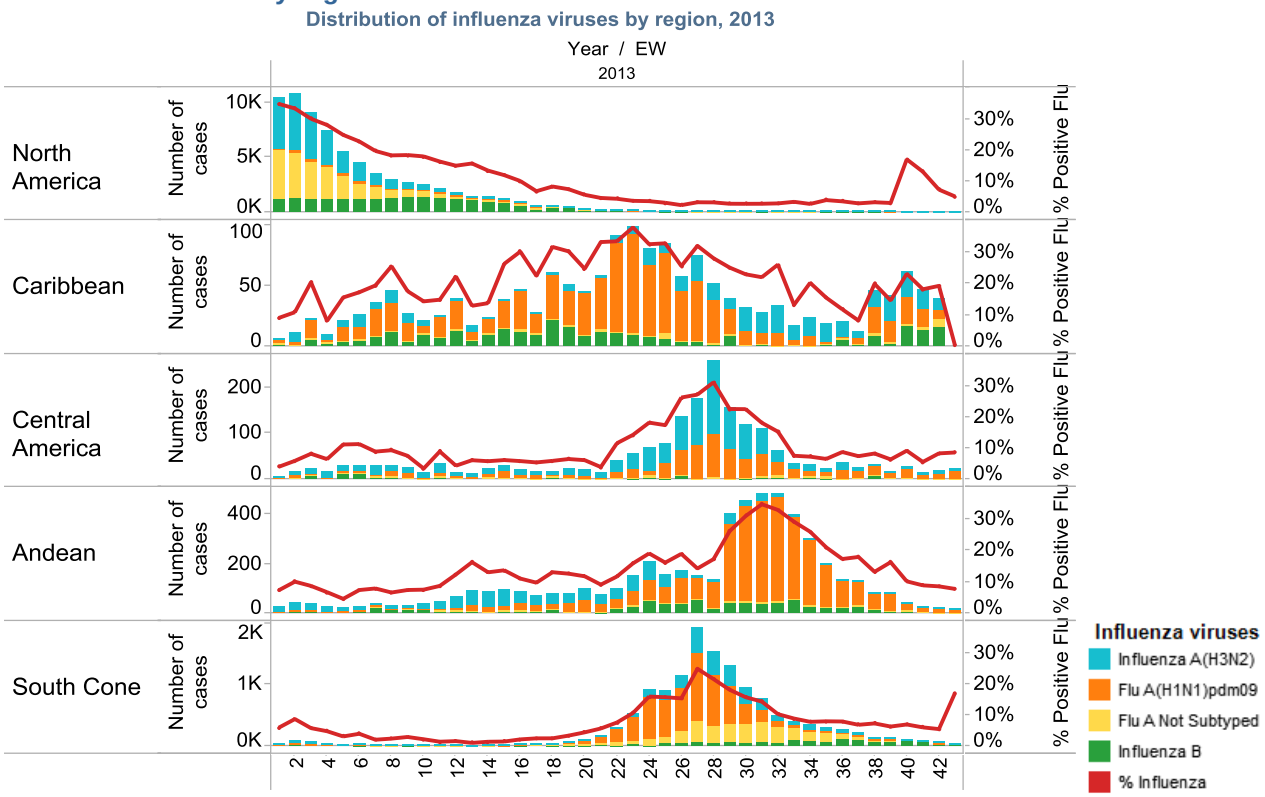
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

*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.*

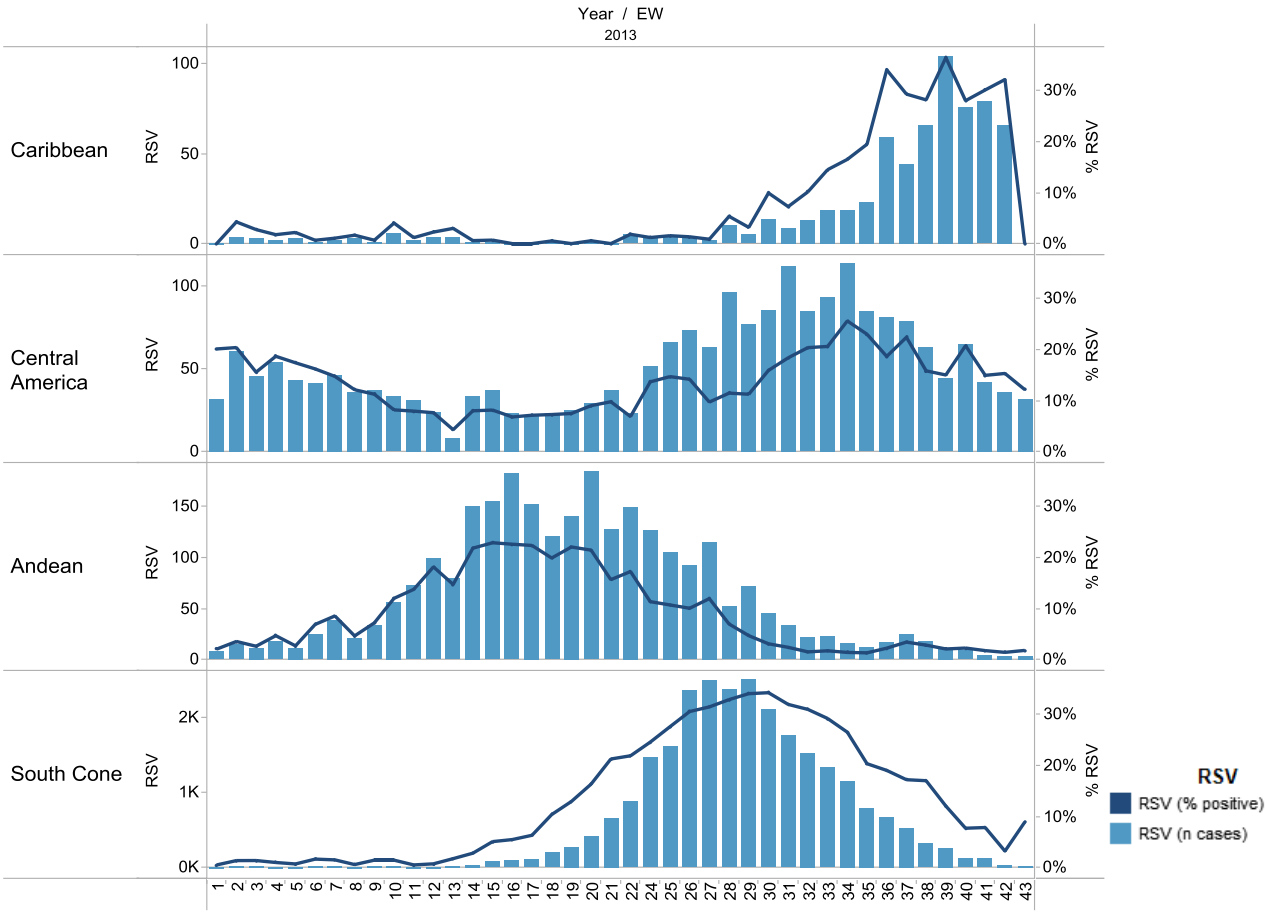
## WEEKLY SUMMARY

- North America: Influenza activity remained low, although some respiratory virus and influenza activity indicators in Canada and Mexico showed slight increasing trends. Among the circulating viruses, influenza A predominated.
- The Caribbean and Central America: An increased detection of influenza A (co-circulation of A(H1N1)pdm09 and A(H3N2)) was reported by some Caribbean islands (Barbados, Dominica, Jamaica, St. Vincent & the Grenadines, and Trinidad & Tobago) and countries within Central America (Belize, Nicaragua, Honduras). RSV continued to predominate in Cuba, Costa Rica, Guatemala, Honduras and Panamá.
- South America – Andean Countries: Acute respiratory virus activity remained low in most countries in the region except Bolivia (Santa Cruz) where influenza A(H1N1)pmd09 activity remained high.
- South America - South Cone and Brazil: Acute respiratory virus activity was within the expected level for this time of year in all countries except Paraguay where ILI activity remained high. Currently, co-circulation of influenza B and A(H3N2) has been reported in most of the countries in the region.

## Influenza circulation by region. 2013



## Respiratory syncytial virus (RSV) circulation by region. 2013




## ACRONYMS

| | |
|---|---|
| **ARI** | Acute respiratory infection |
| **CARPHA** | Caribbean Public Health Agency |
| **CENETROP** | Centro de Enfermedades Tropicales (Santa Cruz, Bolivia) |
| **EW** | Epidemiological Week |
| **ILI** | Influenza-like illness |
| **INLASA** | Instituto Nacional de Laboratorios de Salud (La Paz, Bolivia) |
| **INS** | Instituto Nacional de Salud |
| **ORV** | Other respiratory viruses |
| **SARI** | Severe acute respiratory infection |
| **SEDES** | Servicio Departamental de Salud (Bolivia) |
| **ICU** | Intensive Care Unit |
| **RSV** | Respiratory Syncytial Virus |

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

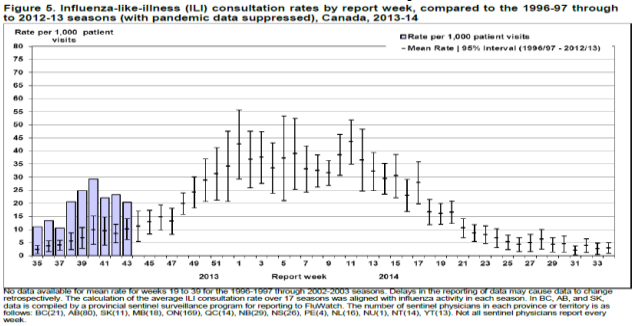
### *North America:*

In Canada[1], during EW 43 influenza activity increased slightly compared to the previous week. The national influenza-like-illness (ILI) consultation rate was 20.4 per 1,000 patient visits, a slight decrease from the previous week. To date this season, 10 influenza-associated hospitalizations have been reported (5 pediatric and 5 adult), of which two required ICU admission (1 pediatric and 1 adult). No influenza-associated deaths were reported. Based on laboratory data for EW 43, the overall percentage of positive influenza tests was 1.0% (N=21), a slight increase compared to the previous week. Among the positive tests, 62% were influenza A, of which 69.2% were influenza A(H3). Among other respiratory viruses, rhinovirus and parainfluenza predominated.

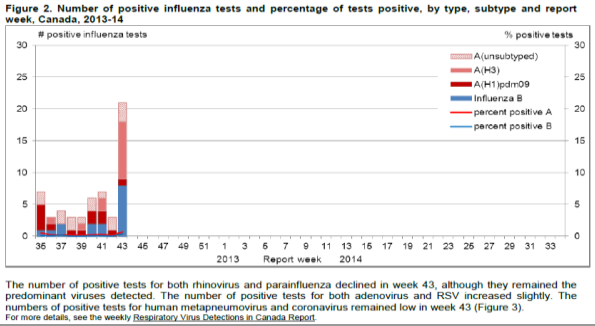
[1] Canada: FluWatch Report. EW 43. Available at http://www.phac-aspc.gc.ca/fluwatch/

**Canada**

Canada: ILI Consultation Rates, by EW, 2013-14




Canada: Influenza virus distribution by EW, 2013-14

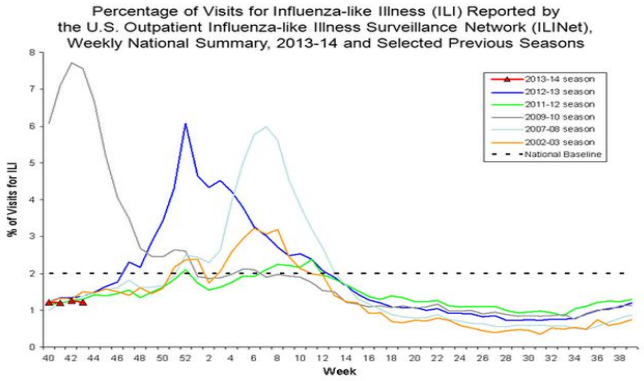



The number of positive tests for both rhinovirus and parainfluenza declined in week 43, although they remained the predominant viruses detected. The number of positive tests for both adenovirus and RSV increased slightly. The numbers of positive tests for human metapneumovirus and coronavirus remained low in week 43 (Figure 3).
For more details, see the weekly Respiratory Virus Detections in Canada Report.

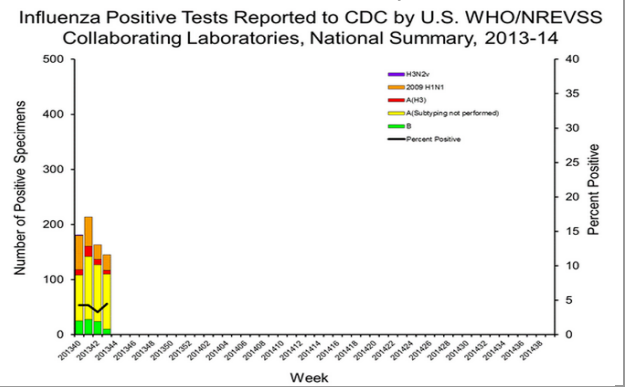
In the United States[2] during EW 43, influenza activity remained low with 1.2% of outpatient visits associated with ILI and 5.6% of deaths associated with pneumonia and influenza. No influenza-associated pediatric deaths were reported during this time. Based on laboratory data for EW 43, 3,241 samples were analyzed, of which 4.5% were positive for influenza. Among the positive samples (n=145), 93.1% were influenza A (of which 74.1% were not subtyped and 20.7% were A(H1N1)pdm09) and 6.9% were influenza B.

**United States**

US: Percent of ILI visits by EW, 2013-14



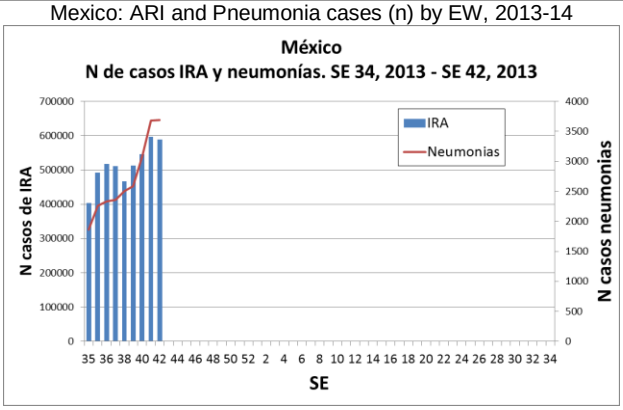

US: Influenza viruses distribution by EW, 2013-14



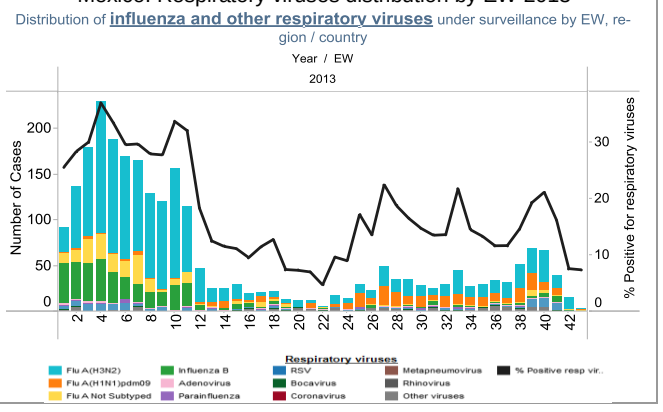

In Mexico[3], during EW 42 the number of ARI cases decreased by 1.3% while the number of pneumonia remained similar to the previous week. The highest levels of ARI activity were reported in Aguascalientes, Hidalgo and Sinaloa, and the highest levels of pneumonia activity were reported in Jalisco, Guerrero and Sonora. According to laboratory data from EW 41-42, 267 samples were tested, of which 6.7% were positive for influenza. Among the positives, 100% were influenza A (72.2% were A(H3N2 and 11.1% were A(H1N1)pdm09).

**Mexico**

Mexico: ARI and Pneumonia cases (n) by EW, 2013-14



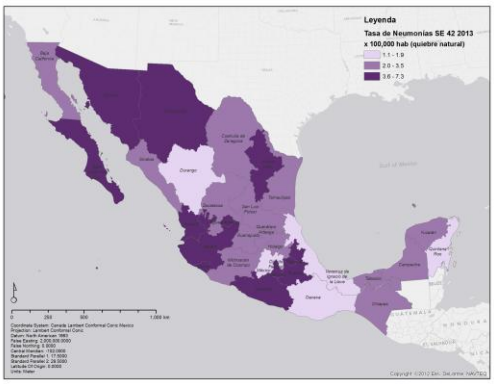

Mexico: Respiratory viruses distribution by EW 2013




[2] USA: CDC FluView report. EW 43. Available at: http://www.cdc.gov/flu/weekly/
[3] México. Dirección General de Epidemiología. Información epidemiológica. SE 42.

Mexico: ARI Rates by State, EW 42


Mexico: Pneumonia Rates by State, EW 42

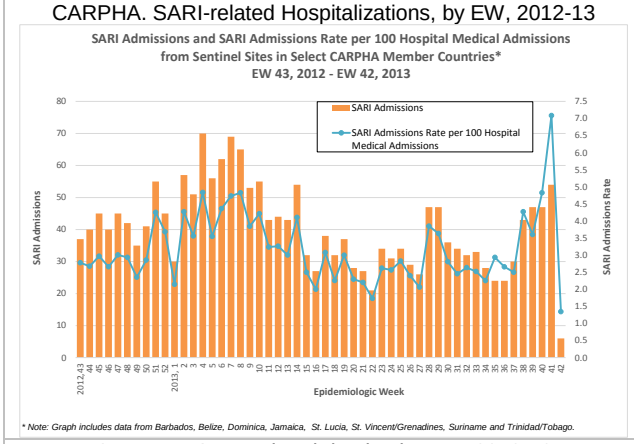



## *Caribbean*

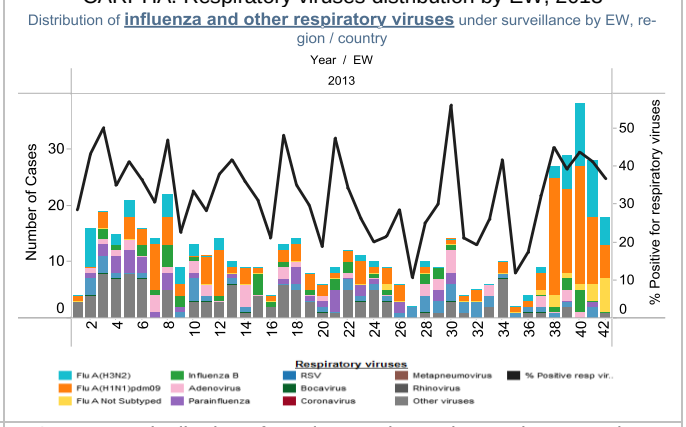
CARPHA[4] received weekly SARI/ARI data from four countries for EW 42: Dominica, Jamaica, St. Vincent & the Grenadines and Trinidad & Tobago. During EW 43, the proportion of SARI-associated hospitalizations was 4.3%, with children 6 months to 4 years having the highest rate of SARI admissions (9.3 per 1,000 hospital admissions). There were no SARI-associated deaths reported during this time. There were no SARI-associated deaths reported during this time. According to laboratory data from EW 39-42, 278 samples were tested, of which 40.6% were positive for a respiratory virus and 37.1% were positive for influenza. Among the positive influenza samples, influenza A(H1N1)pdm09 predominated and was detected in Barbados, Belize, British Virgin Islands, Dominica, Grenada, Jamaica, St. Vincent & the Grenadines, and Trinidad & Tobago. For cases with dates of onset between EW 37-42, the following viruses were also reported: influenza A(H3N2) (Barbados, Belize, Dominica, Jamaica), influenza B (Belize, Dominica, Trinidad & Tobago), adenovirus (Barbados, Cayman Islands), rhinovirus (Belize, Cayman Islands, Montserrat), RSV (Aruba, Belize), human metapneumovirus (Barbados) and parainfluenza 2 (Belize).

**CARPHA**

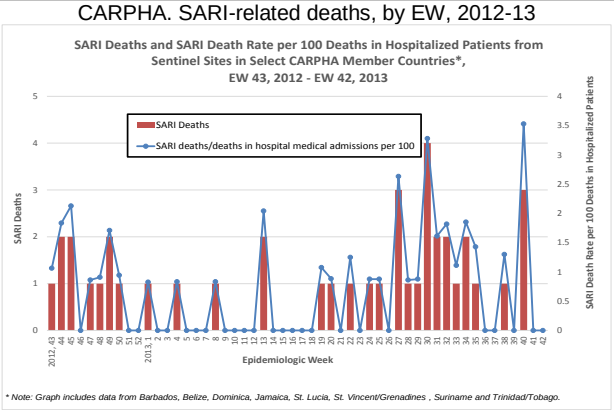
CARPHA. SARI-related Hospitalizations, by EW, 2012-13



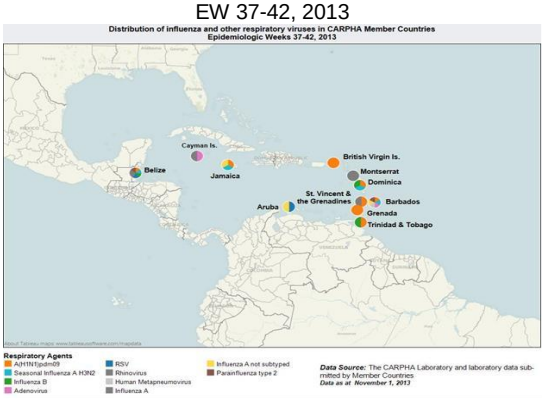

CARPHA. Respiratory viruses distribution by EW, 2013




CARPHA. SARI-related deaths, by EW, 2012-13




CARPHA. Distribution of respiratory viruses in member countries, EW 37-42, 2013

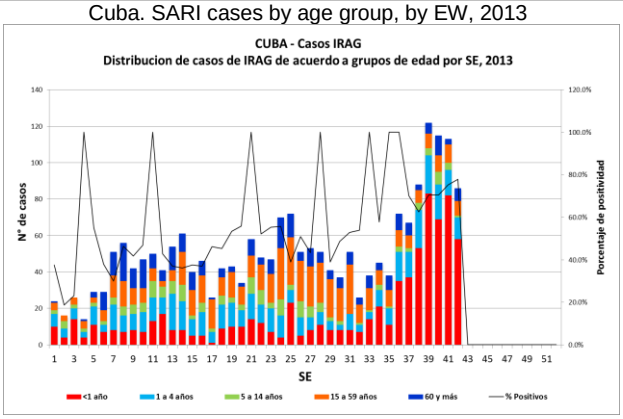



[4] Caribbean Public Health Agency (CARPHA) EW 42

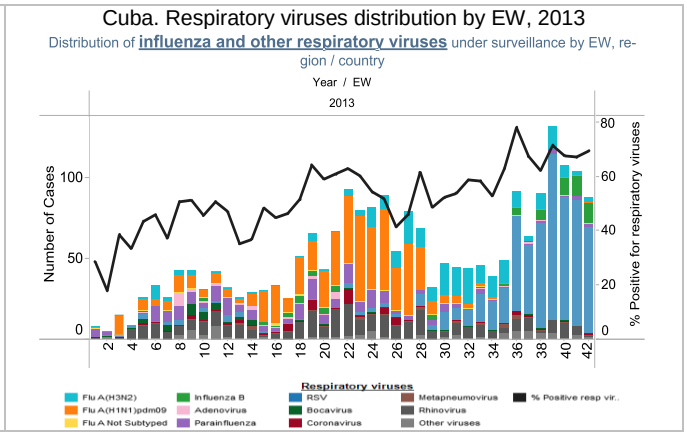
In Cuba during EW 42, the number of SARI-associated hospitalizations decreased compared to the previous EW, but still remains elevated. Children less than one year of age comprised the largest proportion of these cases. One SARI-associated death was reported during this period, and it was negative for a respiratory virus. According to national laboratory data for EW 39-42, 627 samples were analyzed, of which 68.9% were positive for a respiratory virus and 10.2% were positive for influenza. RSV remained the predominant circulating virus (74.5% of the positives), and among influenza viruses, 100% were A(H3N2).

**Cuba**

Cuba. SARI cases by age group, by EW, 2013



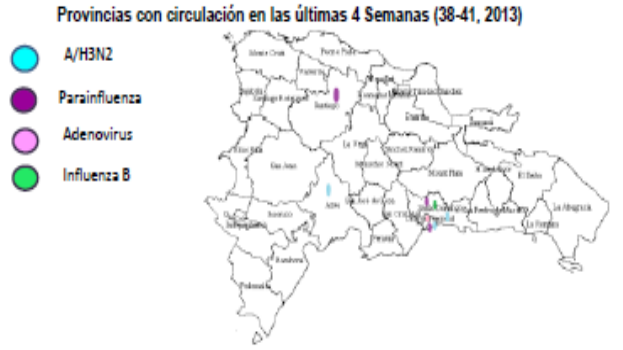

Cuba. Respiratory viruses distribution by EW, 2013



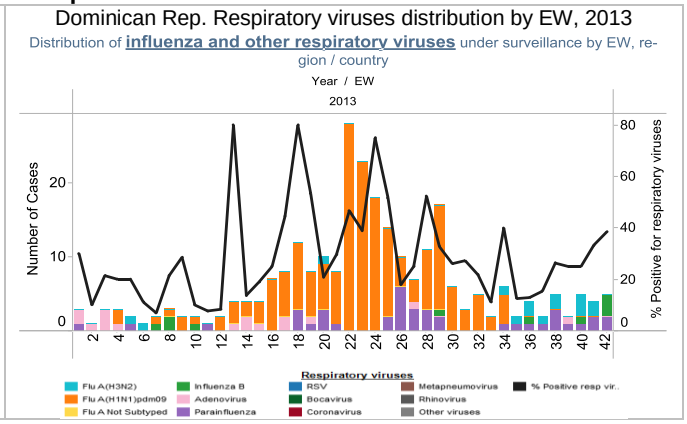

In the Dominican Republic[5], the cumulative ILI rate for EW 1-42 was 1,548 per 10,000 inhabitants, and is 15% less than what was reported this period last year. During EW 1-42, 1,370 SARI cases were reported through sentinel surveillance, of which 14 were reported during EW 42. One SARI-associated death was reported during EW 42. It occurred in a 10-month old child in Santo Domingo. According to laboratory data for EW 39-42, 53 samples were analyzed, of which 30.2% were positive for a respiratory virus and 17.0% were positive for influenza. Among positive influenza samples, 55.6% were influenza A (100% were influenza A(H3N2)) and 44.4% were influenza B. Among other respiratory viruses, parainfluenza (37.5% of positive samples) predominated.

**Dominican Republic**

Dominican Rep. Provinces with respiratory virus circulation, EW 38-41




Dominican Rep. Respiratory viruses distribution by EW, 2013

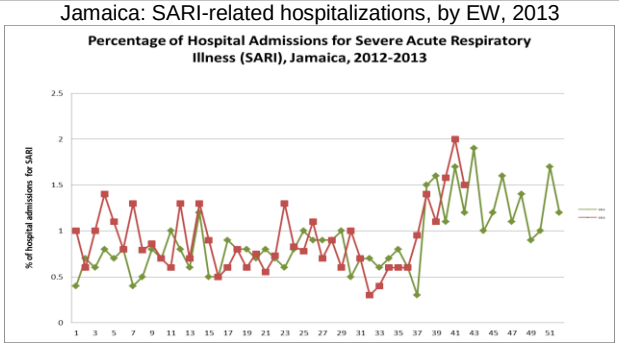



In Jamaica, based on sentinel surveillance data for EW 42, the proportion of ARI-associated consultations was 7.3%, a 0.7% increase from the previous EW. The proportion of SARI-associated hospitalizations (1.5%) continued to increase slightly but was similar to the level observed in 2012. No SARI-associated deaths were reported during this period. Based on laboratory data from EW 42, 16 samples were tested, of which 18.8% were positive for a respiratory virus with co-circulation of Influenza A(H3N2) and A(H1N1)pdm09.

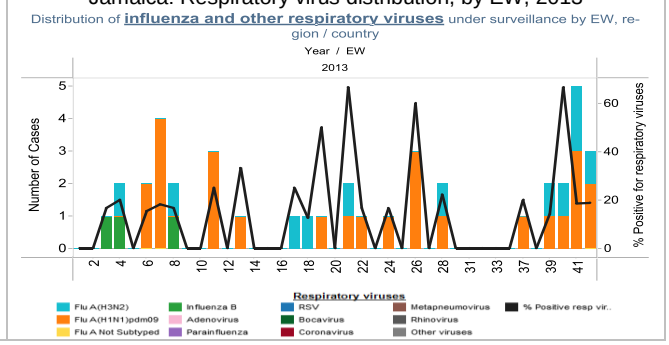
[5] República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletin Semanal SE 42.

**Jamaica**

Jamaica: SARI-related hospitalizations, by EW, 2013



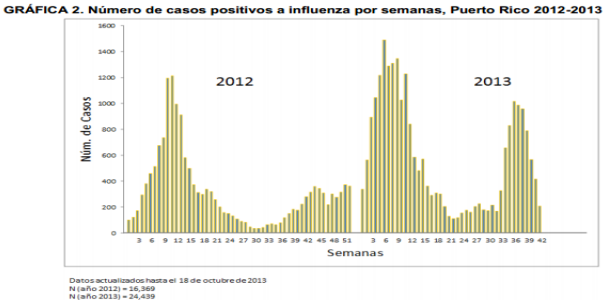

Jamaica: Respiratory virus distribution, by EW, 2013



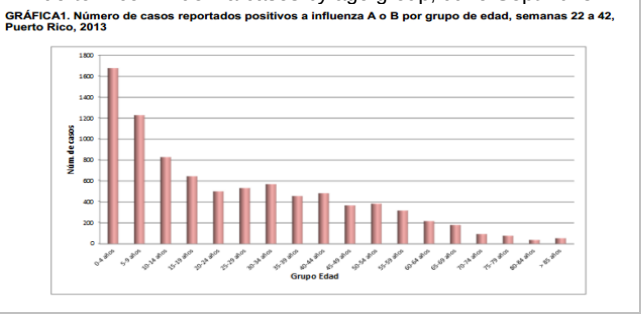

In Puerto Rico[6] during EW 42, the number of influenza cases (n=208) continued a decreasing trend since peaking in EW 34. Of these, 91.7% were associated with influenza A. Since the beginning of June, 8,732 influenza cases have been reported and children aged 0-14 years accounted for 43% of those cases. Since June, 546 influenza-associated hospitalizations and 16 influenza-associated deaths have been reported.

**Puerto Rico**

Puerto Rico: Influenza cases by EW, 2012-13




Puerto Rico: Influenza cases by age group, June-Sept 2013

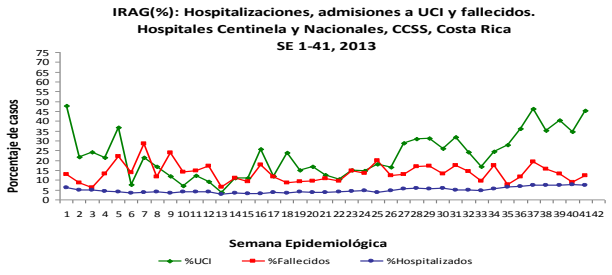



## *Central America*

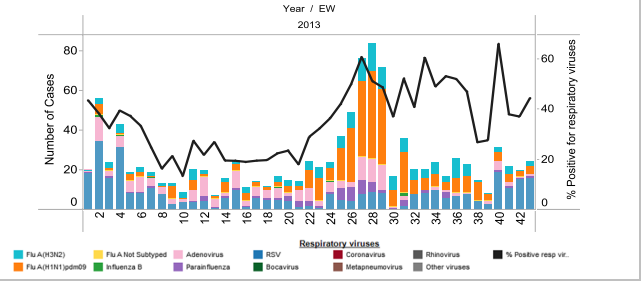
In Costa Rica, during EW 41, the percent of SARI-associated hospitalizations (7.4%), and SARI deaths (12.4%) was similar to the previous EW. Based on national laboratory data from EW 40-43, 213 samples were analyzed, of which 45.5% were positive for a respiratory virus and 10.8% were positive for influenza. Among influenza positive samples, 100% were influenza A (65.2% were A(H1N1)pdm09 and 34.8% were A(H3N2)). Among other respiratory viruses, RSV (63.9% of positive samples) predominated.

**Costa Rica**

Costa Rica: SARI-assoc. Hospitalizations, ICU Adms an Deaths, By EW, 2013




Costa Rica: Respiratory viruses distribution by EW, 2013

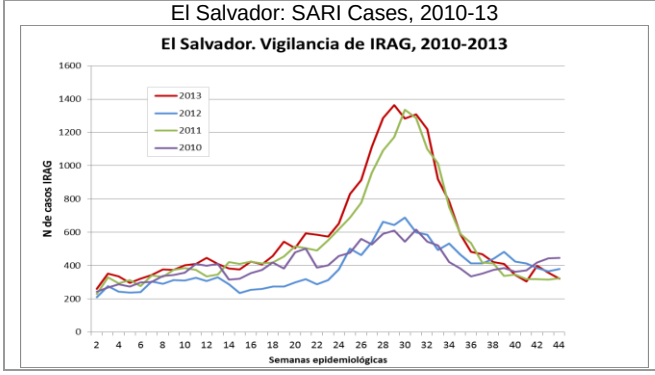



In El Salvador, during EW 43 respiratory activity remained low and similar to was has been observed in previous years. Based on national laboratory data from EW 40-43, 141 samples were analyzed, of which 17.0% were positive for a respiratory virus and 12.1% were positive for influenza. Among influenza positive samples, A(H1N1)pdm09 predominated (82.4%). Among other respiratory viruses there has been circulation of RSV (12.5% of positive samples) followed by adenovirus and parainfluenza.

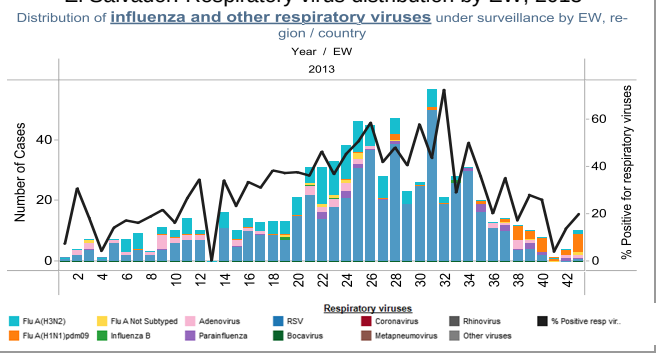
[6] Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 42. http://www.salud.gov.pr/influenza/Informes%20Influenza/Informe%20Influenza%20Semana%2042.pdf.

**El Salvador**

El Salvador: SARI Cases, 2010-13



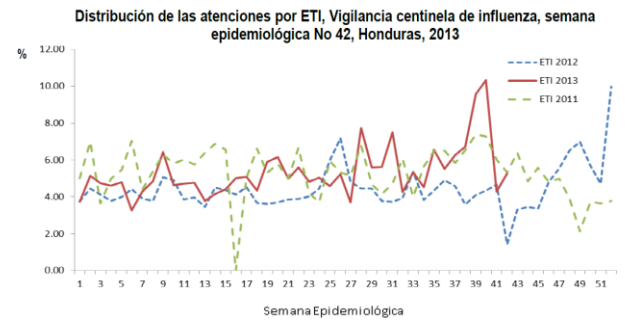

El Salvador: Respiratory virus distribution by EW, 2013



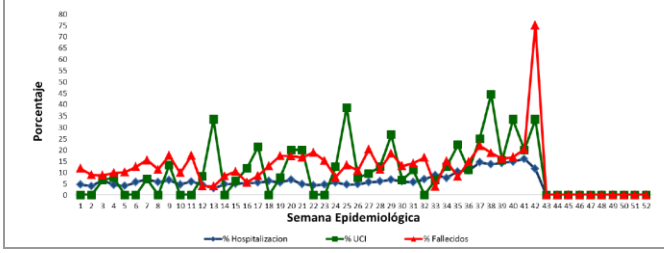

In Honduras[7], during EW 42, the proportion of ILI-associated visits (5.3%) increased slightly compared to the previous week while the proportion of SARI-associated hospitalizations (11.6%) decreased. Three SARI-associated deaths were reported during EW 42 (two in Tegucigalpa and one in San Pedro Sula). Based on national laboratory data for EW 38-41, 100 samples were analyzed, of which 49.0% were positive for a respiratory virus and 16.0% were positive for influenza. Among the positive samples, RSV (46.9%) predominated, followed by influenza A(H1N1)pdm09 (24.5%), which has been increasing for the last six weeks.

**Honduras**

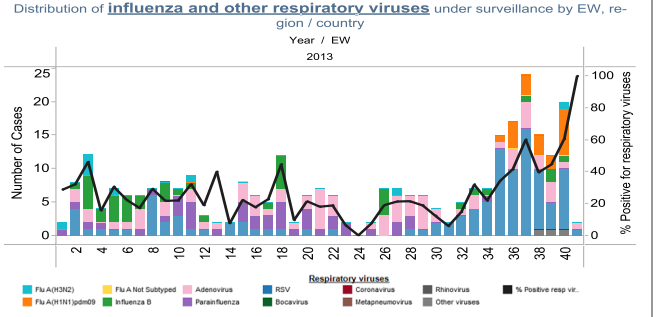
Honduras: ILI-related visits by EW, 2011-13




Honduras: SARI-related hosps, ICU adms & deaths, by EW,2013




Honduras: Respiratory virus distribution by EW, 2013

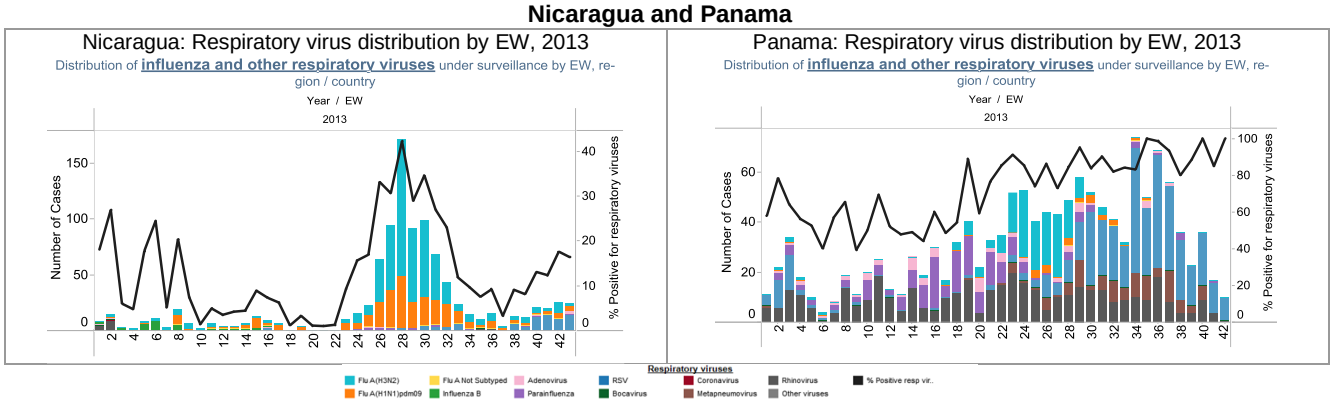



In Nicaragua, based on national laboratory data from EW 40-43, 610 samples were analyzed, of which 14.8% were positive for a respiratory virus and 5.2% were positive for influenza. RSV was the predominant respiratory virus (58.9% of positive samples) and has been increasing for the last four weeks. Among influenza positive samples, 96.9% were influenza A (45.2% were A(H3N2) and 54.8% were A(H1N1)pdm09).

In Panama, based on national laboratory data from EW 38-42, 92 samples were analyzed, of which 93.5% were positive for a respiratory virus. Among positive samples, RSV (67.4%) predominated, followed by rhinovirus (20.9%) and metapneumovirus (10.5%).

[7] Honduras. Influenza Bulletin, EW 42

**Nicaragua and Panama**

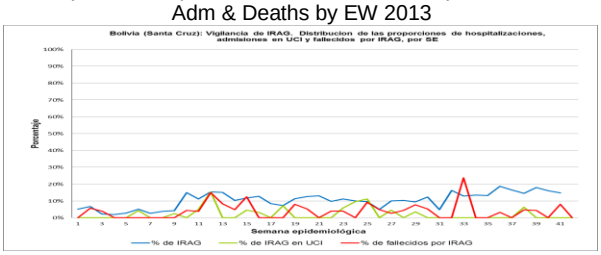



## *South America – Andean countries*

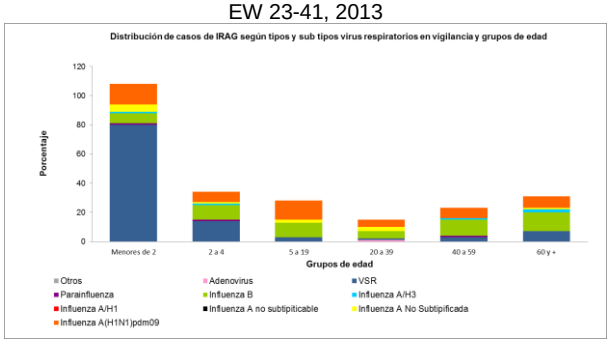
In Bolivia, according to data from Santa Cruz during EW 42, the proportion of SARI hospitalizations (15%) remained elevated compared to this period last year. No SARI-associated deaths were reported during this time. Based on laboratory data from CENETROP (Santa Cruz) during EW 37-40, 395 SARI samples were analyzed, of which 27.3% were positive for a respiratory virus. Among the positive samples, influenza A(H1N1)pdm09 (84.3%) predominated and was identified in all age groups. According to data from La Paz, the proportion of SARI-associated hospitalizations in EW 41 (3.5%) continued a decreasing trend. Based on laboratory data from INLASA (La Paz) from EW 40-43, 85 samples were analyzed of which 14.1% were positive for a respiratory virus. Among positive samples, influenza A(H1N1)pdm09 (75.0%) and influenza B (25.0%) predominated.

**Bolivia**

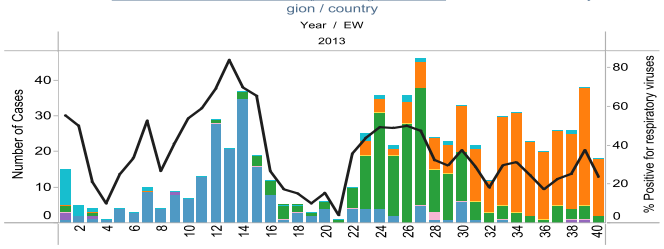
Bolivia (Santa Cruz): Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2013



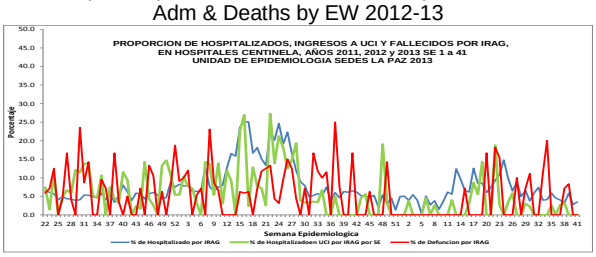

Bolivia (Santa Cruz): Distrib. of SARI cases by age and virus, EW 23-41, 2013



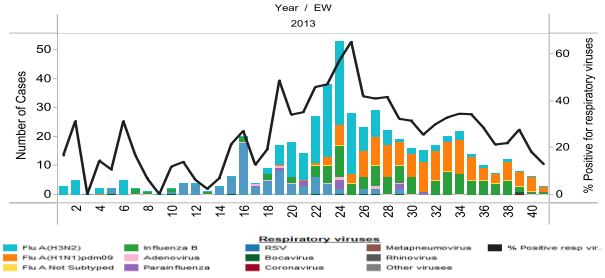

Bolivia (Santa Cruz). CENETROP
Respiratory viruses distribution by EW, 2013




Bolivia (La Paz): Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13




Bolivia (La paz). INLASA.
Respiratory viruses distribution by EW, 2013

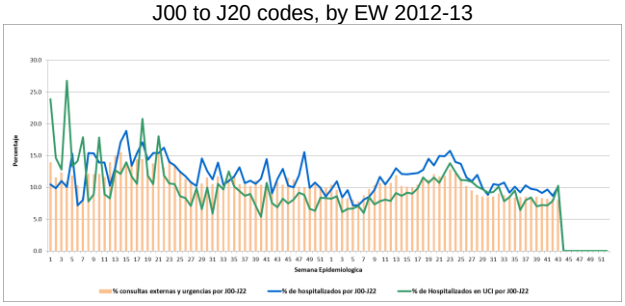



In Colombia, nationally during EW 43, the proportions of hospitalizations (10.1%), ICU admissions (10.3%) and deaths (8.0%) with ARI-associated ICD-10 codes (J00 to J22) have shown a decreasing trend since EW 23. Based on INS national laboratory data from EW 40-43, 400 samples were analyzed, of which 12.8%

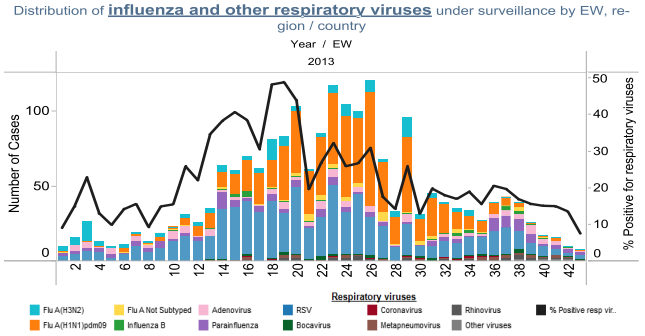
were positive for a respiratory virus and 1.8% were positive for influenza. Among the positive samples, RSV (33.3%), parainfluenza (15.7%) and adenovirus (15.7%) predominated.

**Colombia**

Columbia: Percent Outpatient Visits, Hosps and ICU Admns with J00 to J20 codes, by EW 2012-13



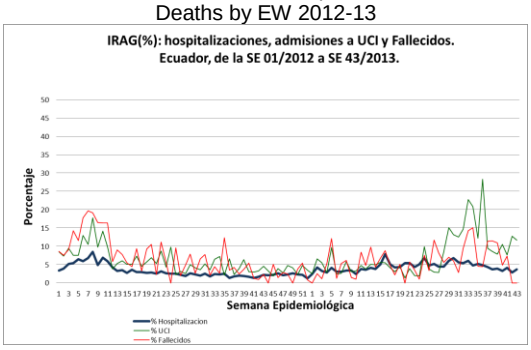

Colombia: Influenza and ORV distribution by EW, 2013



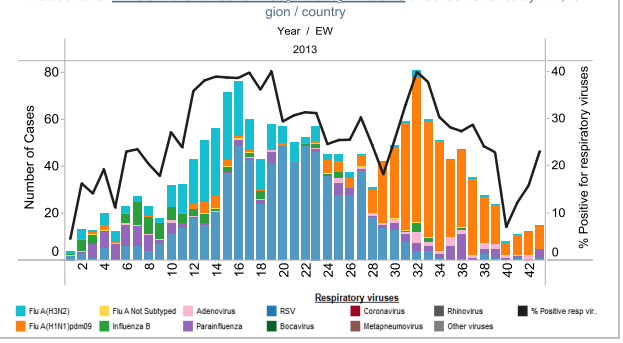

In Ecuador[8], during EW 43 SARI activity continued a decreasing trend: 4% of hospitalizations, 12% of ICU admissions and 0% of deaths were SARI-associated. Based on national reference laboratory data from EW 40-43, 345 SARI samples were analyzed, of which 13.3% were positive for a respiratory virus and 10.1% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 predominated (76.1% of positive samples)

**Ecuador**

Ecuador: Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13



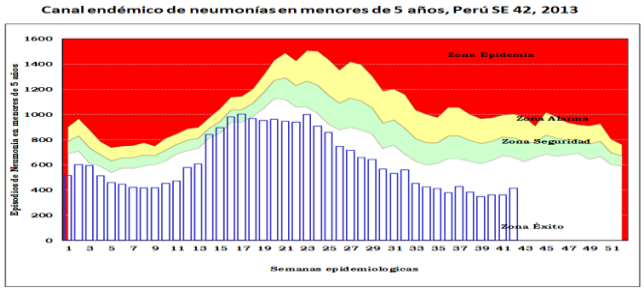

Ecuador. Respiratory virus distribution by EW, 2013



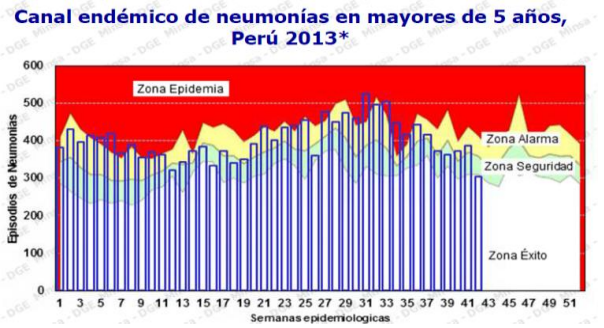

In Peru[9] during EW 42, although the number of ARI and pneumonia reports in children less than 5 years of age increased compared to the previous EW, values remained within the success zone of the endemic channel. Among patients older than 5 years, the number of pneumonia reports has shown a decreasing trend since peaking during EW 30 and is now within the success zone of the endemic channel. Based on national laboratory data from EW 40-43, 228 samples were analyzed, of which 14.9% were positive for a respiratory virus and 12.3% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (52.9%) predominated, followed by influenza B (29.4%).

**Peru**

Peru. Pneumonia endemic channel, children <5yrs, 2013



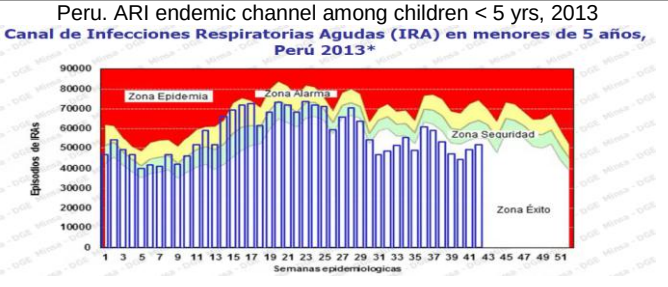

Peru. Pneum. endemic channel, children >5yrs & adults, 2013



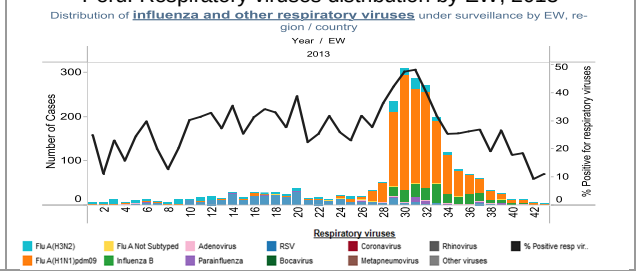

[8] Ecuador: Ministerio de Salud Pública. Actualización Nacional Vigilancia de IRAG, SE 43.

[9] Perú. Sala de Situación de Salud. EW 42, 2013. Ministerio de Salud. Dirección General de Epidemiología

Peru. ARI endemic channel among children < 5 yrs, 2013



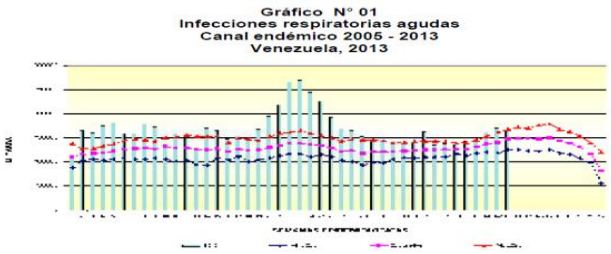

Perú. Respiratory viruses distribution by EW, 2013



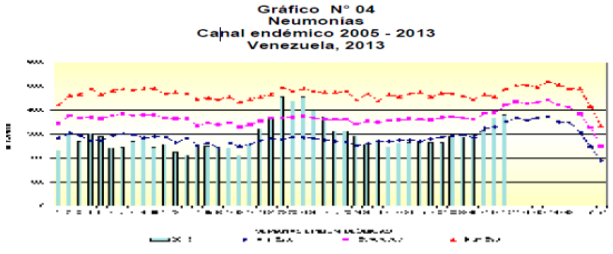

In Venezuela[10] during EW 43, ARI activity decreased while pneumonia activity increased compared to the previous EW, but both were near the expected values for this time of year. During EW 42, 130 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-43, 5,200 samples were analyzed from suspected influenza cases, of which 53.3% were positive for influenza. Among the positive samples, 92.1% were influenza A(H1N1)pdm09.

**Venezuela**

Venezuela: ARI endemic channel




Venezuela: Pneumonia endemic channel

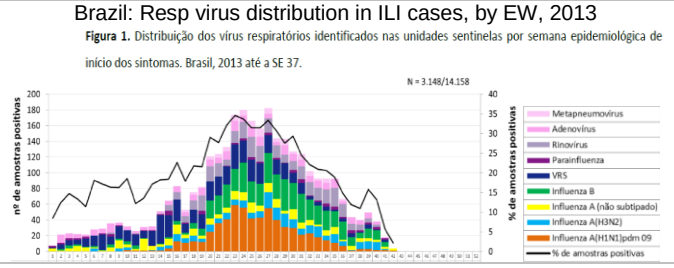



### *South America – Southern Cone and Brazil*

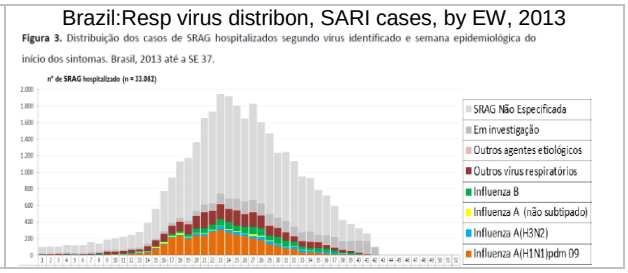
In Brazil[11], according to ILI sentinel surveillance data through EW 42, 14,158 samples have been analyzed, of which 22.2% were positive for influenza or other respiratory viruses. Positivity has decreased since EW 27 and among positive samples during EW 42, influenza A (not subtyped) predominated. Based on universal SARI surveillance data during this same period, 33,082 SARI cases were reported and 17.3% were positive for influenza. Of these positive samples, influenza A(H1N1)pdm09 predominated (64.0%), followed by influenza B (21.9%) and A(H3N2) (10.8%). Additionally, in 2013, 3,813 SARI-associated deaths have been reported of which 24.4% were positive for influenza, and of these, 80.5% were associated with influenza A(H1N1)pmd09.

**Brazil**

Brazil: Resp virus distribution in ILI cases, by EW, 2013




Brazil:Resp virus distribon, SARI cases, by EW, 2013

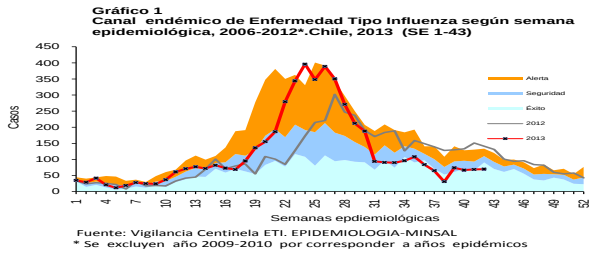



In Chile[12] ILI activity during EW 43 (rate: 3.9 per 100,000 inhabitants) remained low and was within the security zone of the endemic channel. The proportion of ILI-associated hospital emergency consultations was 0.5%, maintaining a low and stable level. Based on laboratory data from EW 41-42, 1,676 samples were tested, of which 21.2% were positive for a respiratory virus and 3.9% were positive for influenza. Among the positive samples, parainfluenza (25.9%), RSV (24.2%) and metapneumovirus (16.7%) were detected. Among SARI samples from EW 40-43, metapneumovirus predominated.

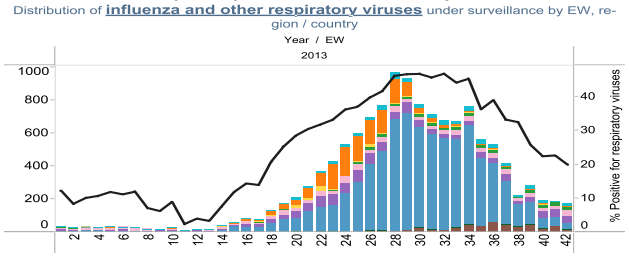
[10] Venezuela. Boletín epidemiológico, EW 43, 2013.
[11] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 42, 2013.
[12] Chile. Informe de situación. EW 43. Available at: http://epi.minsal.cl/

**Chile**

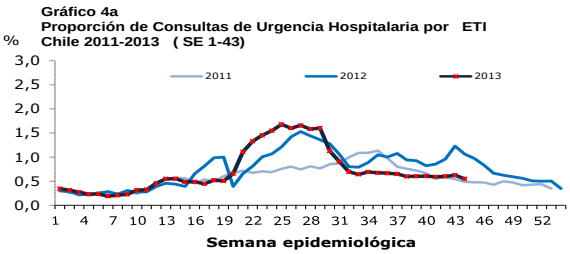
Chile. ILI Endemic Channel, 2013



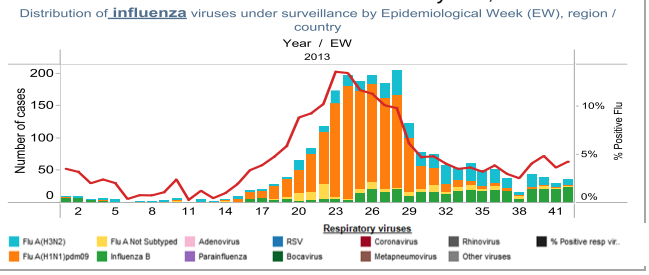

Chile. Respiratory viruses distribution by EW, 2013




Chile:% ILI related-hospital emergency consults by EW 2013



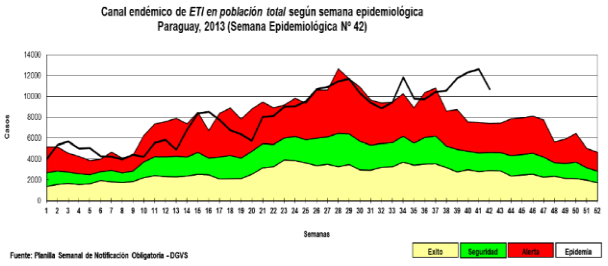

Chile. Influenza viruses distribution by EW, 2013



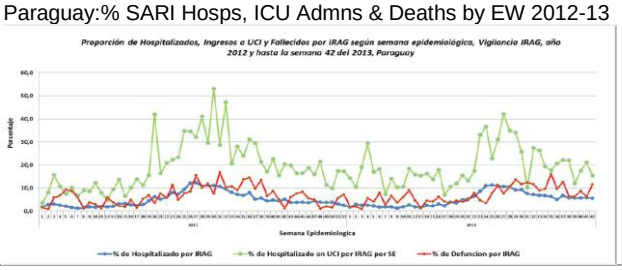

In Paraguay[13] during EW 42, the ILI consultation rate (161.0 per 100,000 inhabitants) decreased compared to the previous EW but was still higher than observed during this same time last year. The proportion of SARI-associated hospitalizations (5.6%) was similar to the previous week and children less than 5 years of age comprised the largest portion (61.5%) of these cases. Based on reference laboratory data from EW 40-43, 556 samples were analyzed, of which 21.6% were positive for a respiratory virus and 13.3% were positive for influenza. Among influenza samples, 87.8% were influenza B and 12.2% were influenza A (all A(H3N2)). Among other respiratory viruses, parainfluenza (13.3% of positive samples), metapneumovirus (12.5%) and adenovirus (10.8%) were detected. Among SARI samples, influenza B, parainfluenza and adenovirus predominated.

**Paraguay**

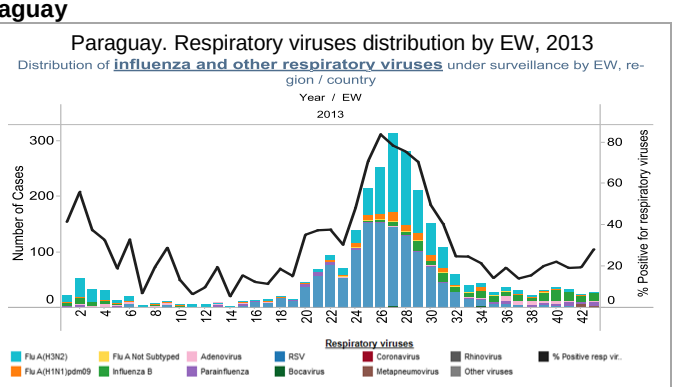
Paraguay. ILI endemic channel, by EW, 2013




Paraguay:% SARI Hosps, ICU Admns & Deaths by EW 2012-13




Paraguay. Respiratory viruses distribution by EW, 2013

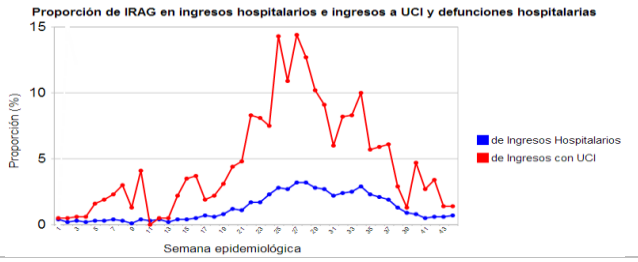



In Uruguay[14] during EW 43, the proportions of SARI-associated hospitalizations, ICU admissions and deaths were similar to the previous EW, and remain at low levels. Based on laboratory data from EW 40-43, 22 SARI samples were analyzed, of which none were positive for a respiratory virus.

[13] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 42, 2013
[14] Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública

## Uruguay

Uruguay.SARI-related hosps & ICU admissions by EW, 2013




Uruguay. Respiratory viruses distribution by EW, 2013