Regional Update EW 45, 2013

Influenza and other respiratory viruses
(November 19, 2013)

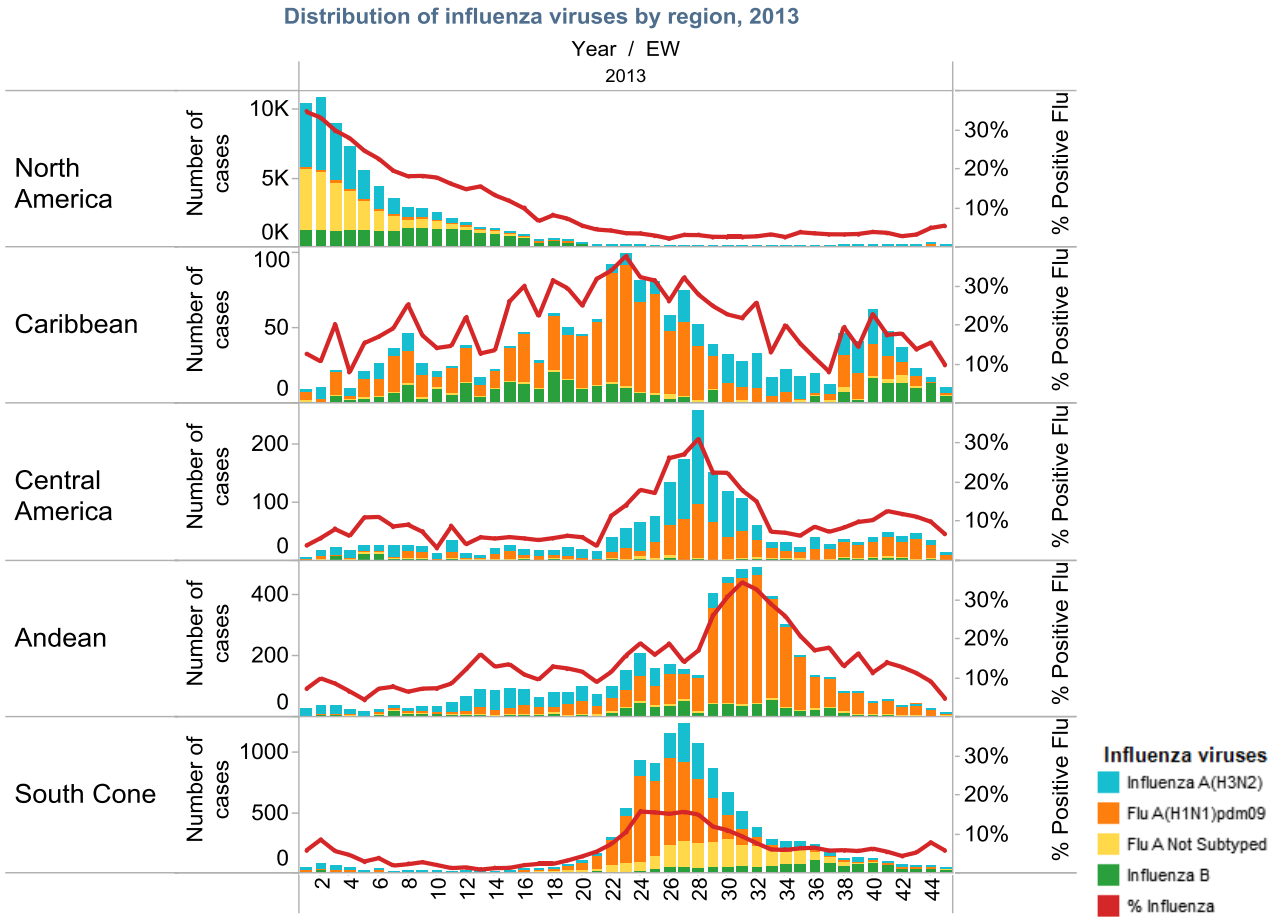
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

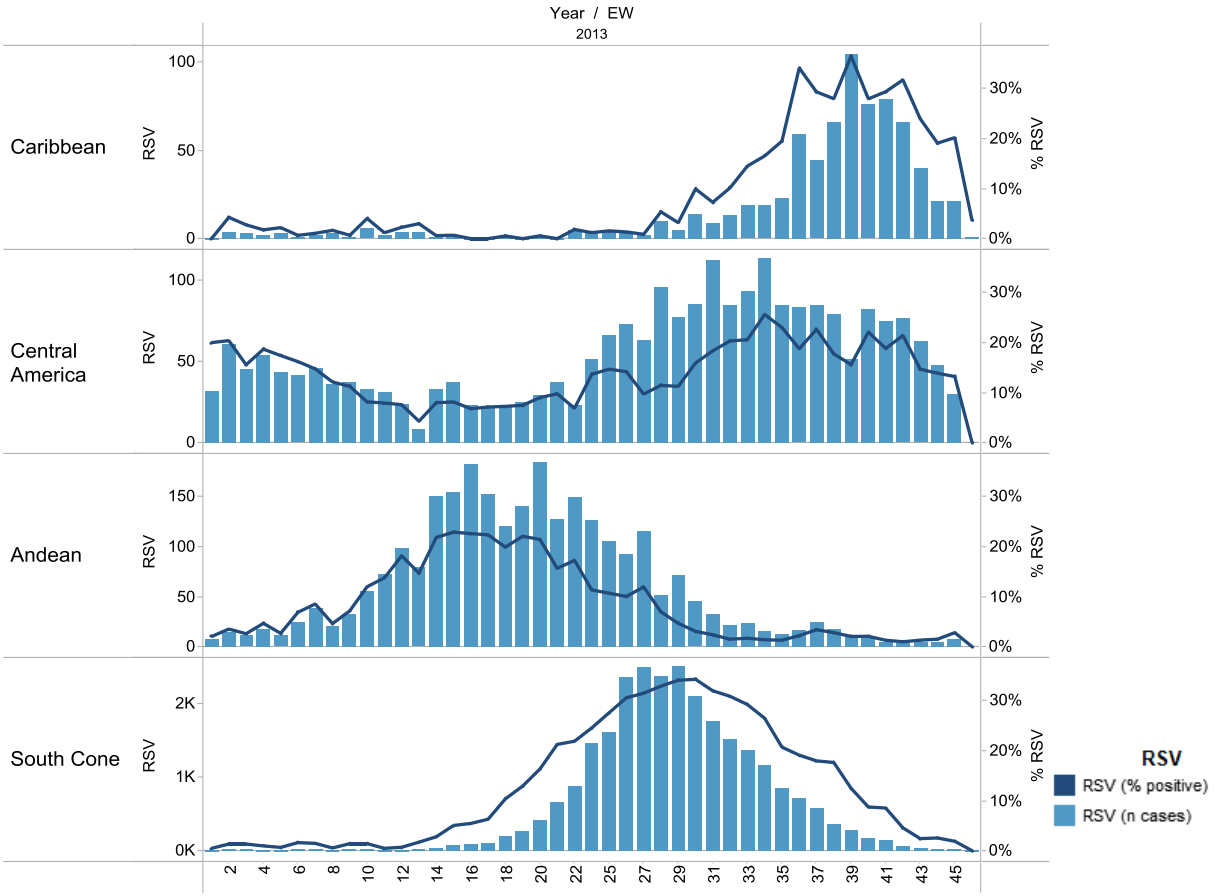
WEEKLY SUMMARY

- North America: Influenza activity remained low, although some indicators in Canada and Mexico showed slight increasing trends. Among circulating influenza viruses, influenza A predominated.
- The Caribbean and Central America: RSV continued circulating in many countries in the region (Cuba, Cost Rica, Guatemala, Honduras, Nicaragua and Panama). Among influenza viruses, influenza B predominated in Cuba and Dominican Republic while influenza A predominated in Costa Rica, El Salvador, Jamaica, Guatemala, Honduras and Nicaragua.
- 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. Among other circulating viruses, parainfluenza predominated (Bolivia (Santa Cruz), Colombia, Ecuador, Peru).
- South America - South Cone and Brazil: Acute respiratory virus activity was low and within the expected level for this time of year in all countries except Paraguay where ILI activity remained high. A slight increase in influenza B circulation was seen in some countries of the region(especially Paraguay).

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

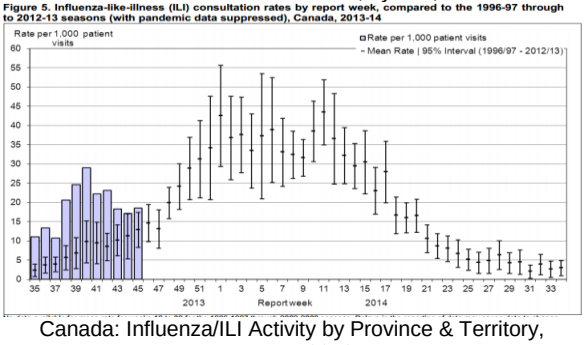
North America:

In Canada[1], during EW 45 influenza activity increased slightly compared to the previous week. The national influenza-like-illness (ILI) consultation rate was 18.6 per 1,000 patient visits, a slight increase from the previous week and within the expected level for this time of year. To date this season, 15 influenza-associated hospitalizations have been reported (7 pediatric and 8 adult), of which two required ICU admission (1 pediatric and 1 adult). No influenza-associated deaths were reported. Based on laboratory data for EW 45, the overall percentage of positive influenza tests was 1.6% (N=36), a slight increase compared to the previous week. Among the positive tests, 87.8% were influenza A, of which 44.4% were influenza A(H1N1)pdm09. Among other respiratory viruses, rhinovirus and parainfluenza predominated.

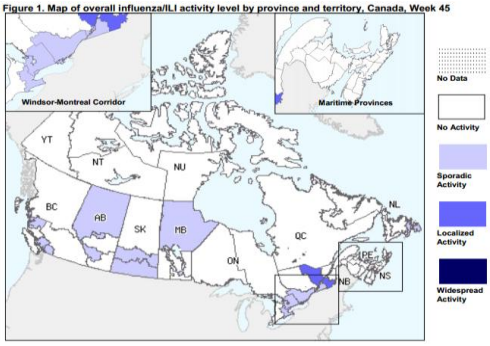
[1] Canada: FluWatch Report. EW 45. Available at http://www.phac-aspc.gc.ca/fluwatch/

Canada

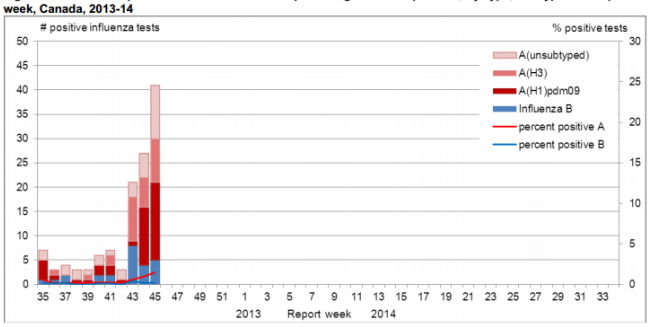
Canada: ILI Consultation Rates, by EW, 2013-14



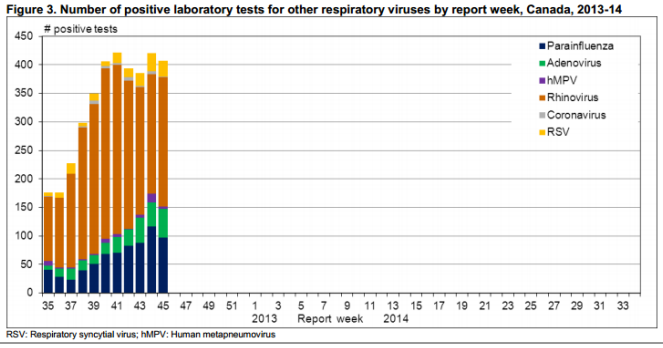
Canada: Influenza/ILI Activity by Province & Territory, EW 45, 2013



Canada: Influenza virus distribution by EW, 2013-14



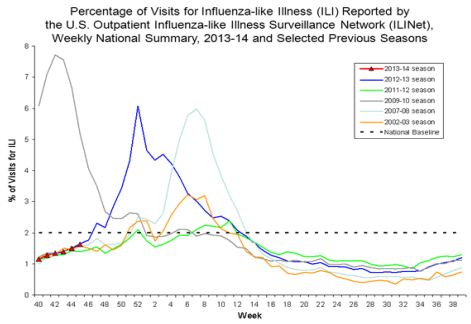
Canada: Respiratory virus distribution by EW, 2013-14



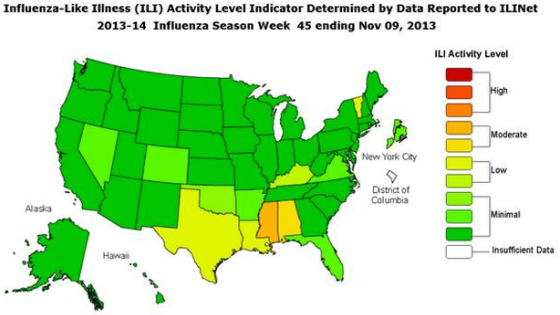
In the United States[2] during EW 45, influenza activity remained low with 1.6% of outpatient visits associated with ILI and 6.1% of deaths associated with pneumonia and influenza. Two influenza-associated pediatric deaths were reported during EW 45. One death occurred during EW 42 and was associated with influenza A (not subtyped) and the other occurred during EW 43 was associated with an influenza A and B co-infection. Based on laboratory data for EW 45, 4,257 samples were analyzed, of which 5.4% were positive for influenza. Among the positive samples, 87.9% were influenza A (59.6% were not subtyped and 31.5% were A(H1N1)pdm09) and 12.1% were influenza B.

United States

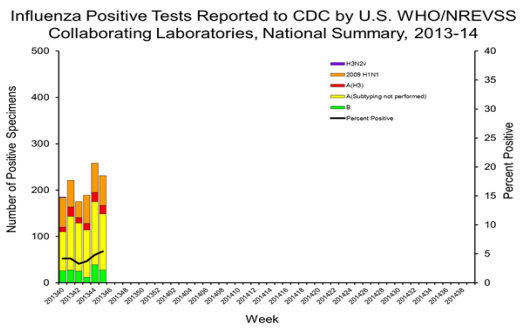
US: Percent of ILI visits by EW, 2013-14



US: ILI Activity by State,EW 45, 2013



US: Influenza viruses distribution by EW, 2013-14

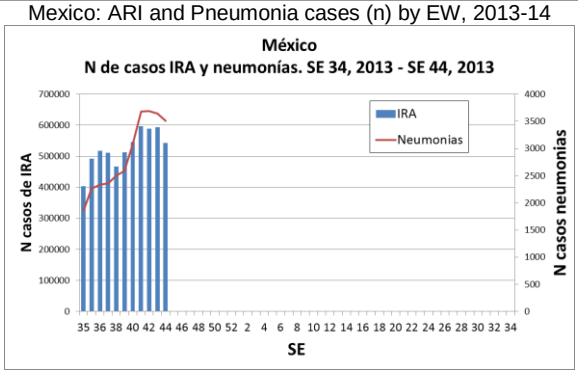


[2] USA: CDC FluView report. EW 45. Available at: http://www.cdc.gov/flu/weekly/

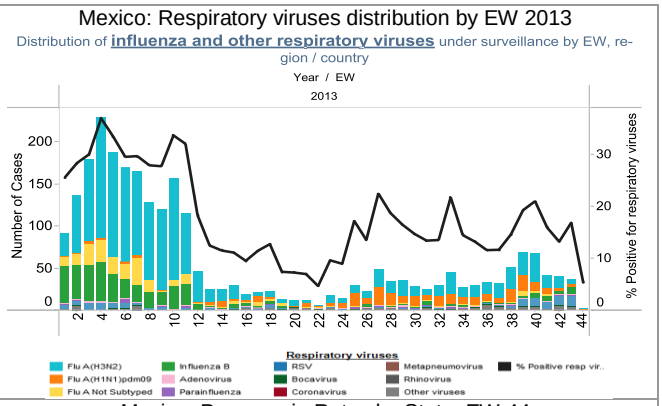
In Mexico[3], during EW 44 the number of ARI and pneumonia cases decreased by 8.6% and 3.9%, respectively, from the previous week. The highest levels of ARI activity were reported in Aguascalientes, Durango and Colima, and the highest levels of pneumonia activity were reported in Jalisco, Colima and Aguascalientes. According to laboratory data from EW 41-44, 892 samples were tested, of which 14.7% were positive for a respiratory virus and 9.1% for influenza. Among the positive influenza samples, 77.8% were influenza A (54.0% were A(H3N2) and 22.2% were A(H1N1)pdm09) and 22.2% were influenza B. Among other respiratory viruses, RSV predominated (25.2% of positive samples).

Mexico

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

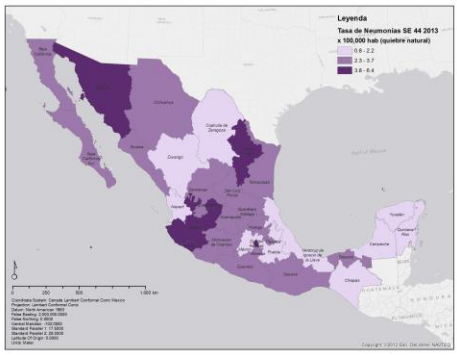


Mexico: Respiratory viruses distribution by EW 2013



Mexico: ARI Rates by State, EW 44

Mexico: Pneumonia Rates by State, EW 44

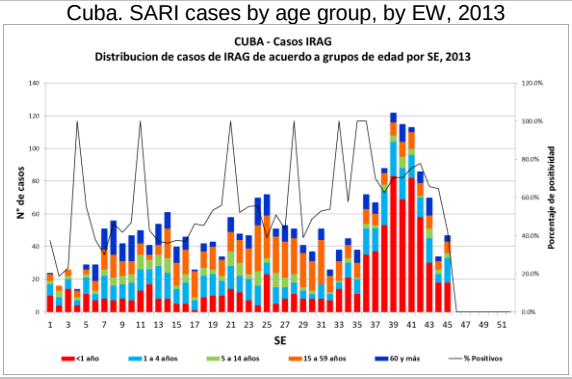


Caribbean

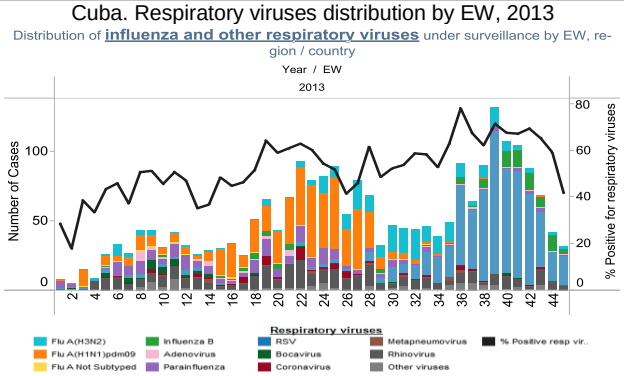
In Cuba during EW 45, the number of SARI-associated hospitalizations increased compared to the previous EW but has shown a decreasing trend since peaking in EW 39. Children less than one year of age comprised the largest proportion of these cases. One SARI-associated death was reported during this period, and was negative for respiratory viruses. According to national laboratory data for EW 42-45, 381 samples were analyzed, of which 60.6% were positive for a respiratory virus and 11.8% were positive for influenza. RSV remained the predominant circulating virus (64.1% of the positives), and among influenza viruses, influenza B predominated, although with a decreasing trend.

Cuba

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



Cuba. Respiratory viruses distribution by EW, 2013



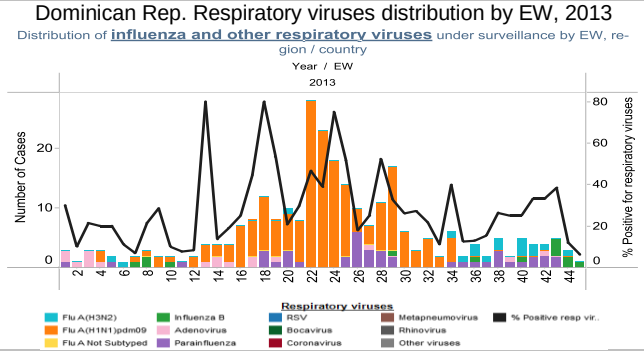
[3] México. Dirección General de Epidemiología. Información epidemiológica. SE 44.

In the Dominican Republic[4], the cumulative ILI rate for EW 1-44 was 1,696 per 10,000 inhabitants, and is 14% less than what was reported this period last year. During EW 1-44, 1,469 SARI cases were reported through sentinel surveillance, of which 10 were reported during EW 44. No SARI-associated deaths were reported during EW 44. According to laboratory data for EW 42-45, 66 samples were analyzed, of which 19.7% were positive for a respiratory virus and 12.1% were positive for influenza. Among positive influenza samples, 75.0% were influenza B and 25.0% were influenza A (all influenza A(H3N2)). Among other respiratory viruses, parainfluenza (30.8% of positive samples) predominated.

Dominican Republic

Dominican Rep. Provinces with respiratory virus circulation, EW 40-43

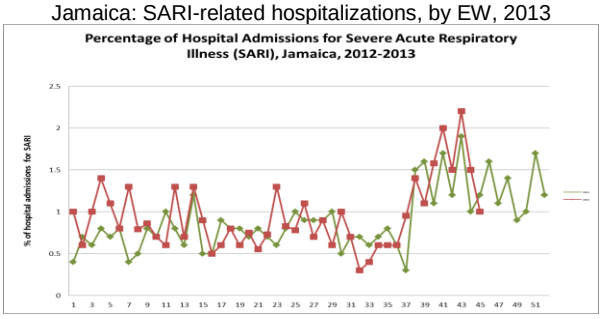
Dominican Rep. Respiratory viruses distribution by EW, 2013



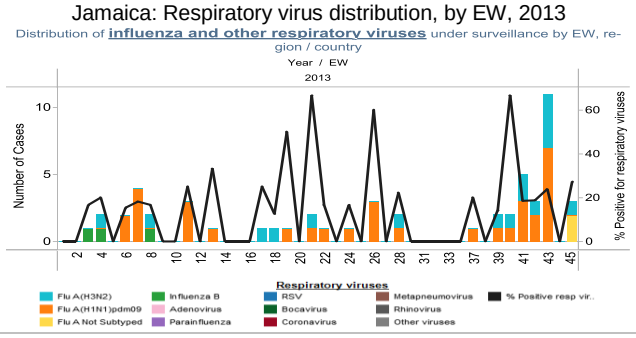
In Jamaica, based on sentinel surveillance data for EW 45, the proportion of ARI-associated consultations was 7.0%, a slight decrease from the previous EW. The proportion of SARI-associated hospitalizations (1.0%) also decreased. No SARI-associated deaths were reported during this period. Based on laboratory data from EW 45, 11 samples were tested, of which 27.3% were positive for a respiratory virus and indicated co-circulation of influenza A(H3N2) and A(H1N1)pdm09.

Jamaica

Jamaica: SARI-related hospitalizations, by EW, 2013



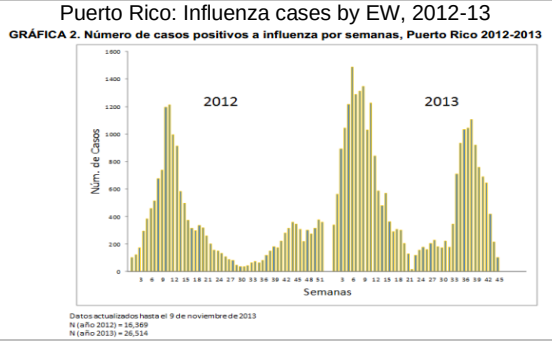
Jamaica: Respiratory virus distribution, by EW, 2013



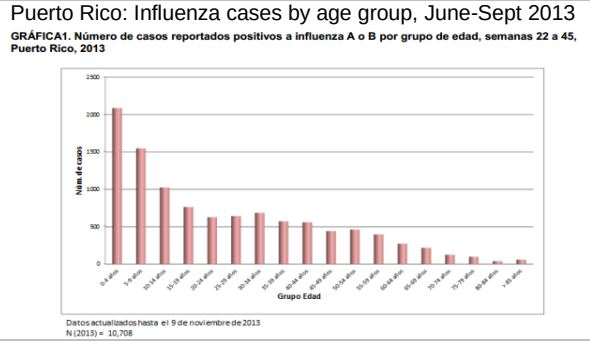
In Puerto Rico[5] during EW 45, the number of influenza cases (n=100) continued a decreasing trend since peaking in EW 37. Of these, 86% were associated with influenza A. Since the beginning of June, 10,708 influenza cases have been reported and children aged 0-14 years accounted for 43% of those cases. Since June, 686 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



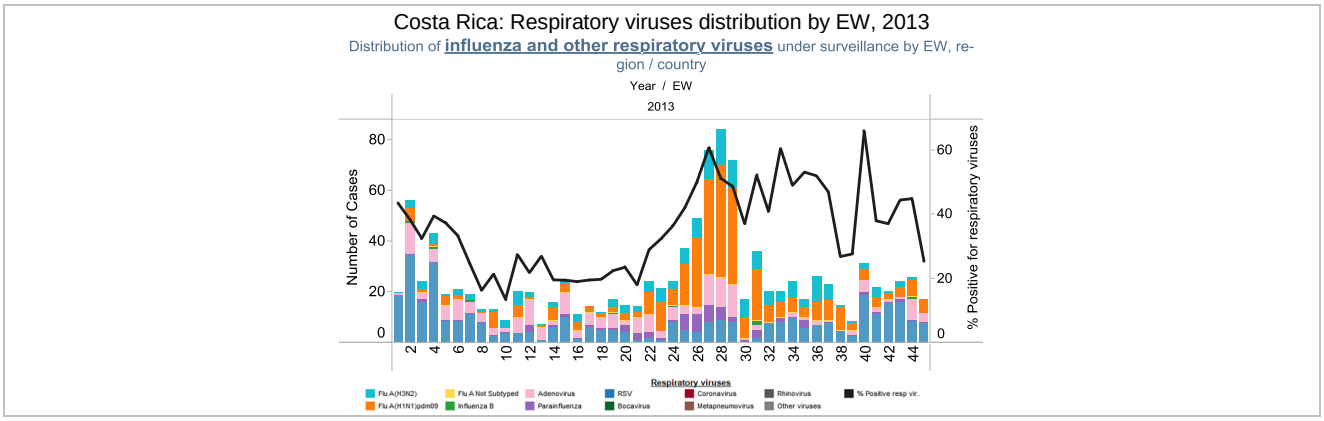
[4] República Dominicana. Dirección Nacional de Vigilancia Epidemiológica. Boletin Semanal SE 44.

[5] Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 45. http://www.salud.gov.pr/influenza/Informes%20Influenza/Informe%20Influenza%20Semana%2045.pdf.

Central America

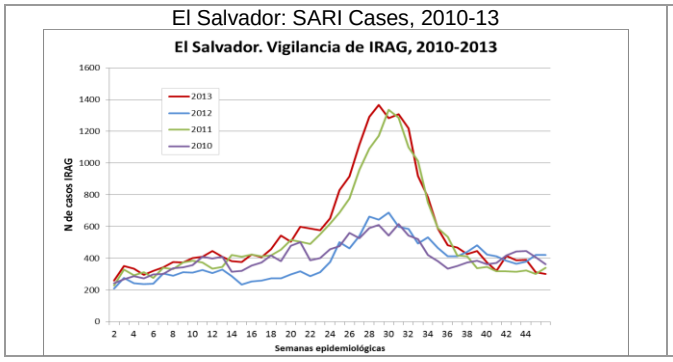
In Costa Rica, based on national laboratory data from EW 42-45, 233 samples were analyzed, of which 37.3% were positive for a respiratory virus and 9.9% were positive for influenza. Among influenza positive samples, 95.7% were influenza A (86.4% were A(H1N1)pdm09 and 13.6% were A(H3N2)). Among other respiratory viruses, RSV predominated (56.3% of positive samples).

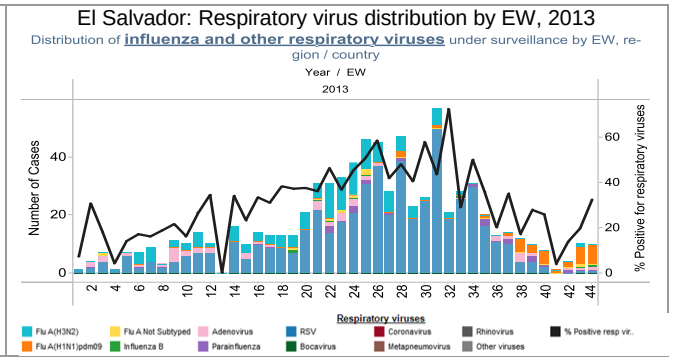
Costa Rica



In El Salvador, during EW 45 respiratory activity remained low and similar to what was observed in previous years. Based on national laboratory data from EW 41-44, 141 samples were analyzed, of which 18.4% were positive for a respiratory virus and 14.2% were positive for influenza. Among influenza positive samples, A(H1N1)pdm09 predominated (84.2%). Among other respiratory viruses, adenovirus, RSV and parainfluenza were detected.

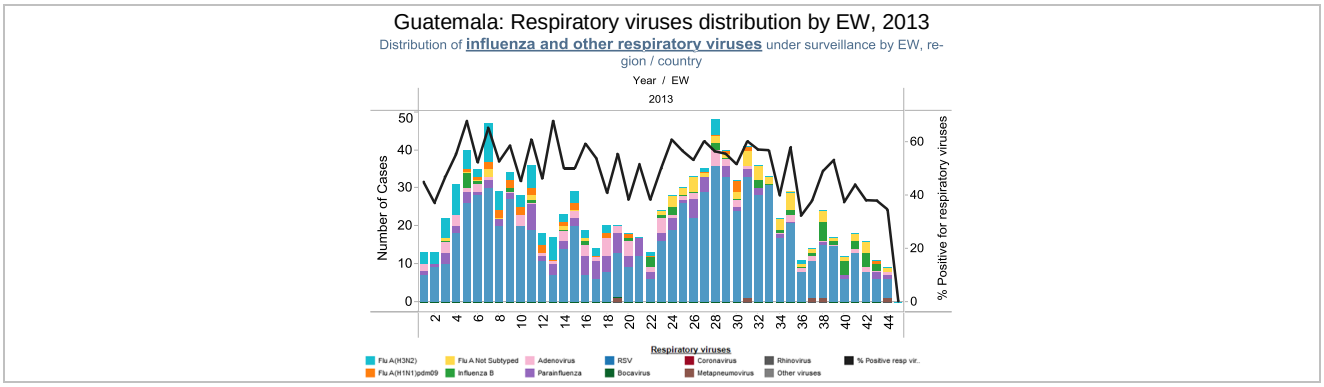
El Salvador





In Guatemala, based on laboratory data from EW 42-45, 99 samples were analyzed, of which 36.4% were positive for a respiratory virus and 11.1% were positive for influenza. Among influenza positive samples, 54.5% were influenza B and 45.5% were influenza A (80% were not subtyped and 20% were A(H1N1)pdm09). Among the other respiratory viruses, RSV predominated (52.8% of positive samples).

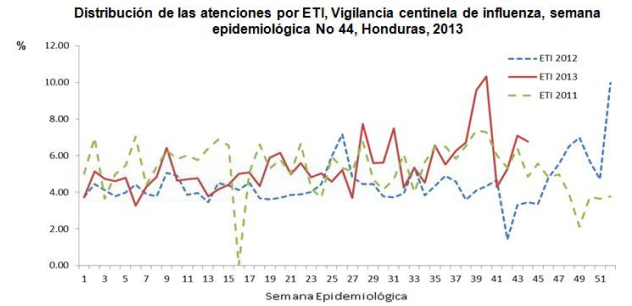
Guatemala



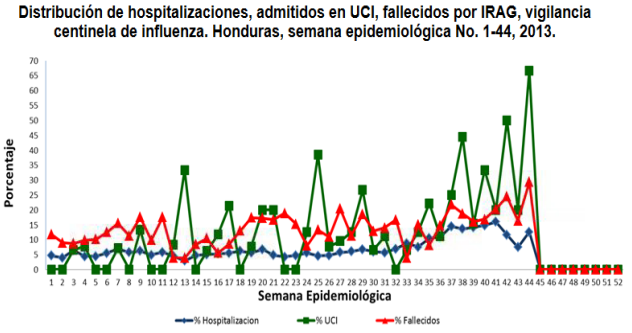
In Honduras[6], during EW 44, the proportion of ILI-associated visits (6.8%) decreased slightly compared to the previous week while the proportions of SARI-associated hospitalizations (11.5%) and deaths (28.8%) increased. Based on national laboratory data for EW 41-44, 209 samples were analyzed, of which 64.1% were positive for a respiratory virus and 32.1% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (44.8%) and RSV (38.8%) predominated.

Honduras

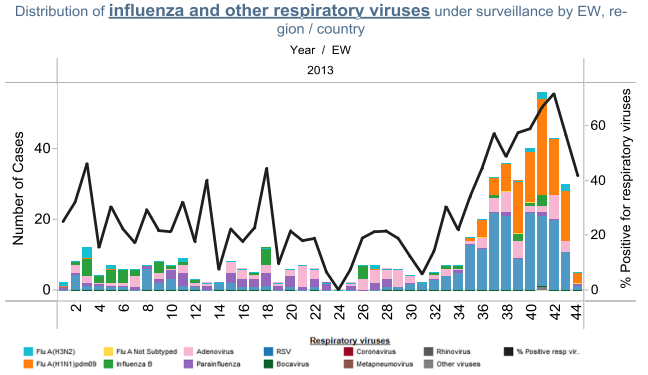
Honduras: ILI-related visits by EW, 2011-13



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



Honduras: Respiratory virus distribution by EW, 2013

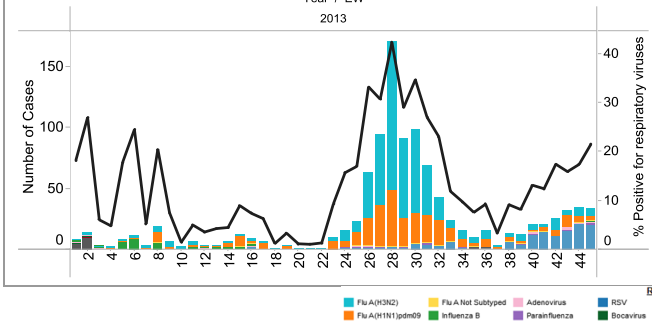


In Nicaragua, based on national laboratory data from EW 42-45, 702 samples were analyzed of which 17.8% were positive for a respiratory virus and 7.1% were positive for influenza. Among influenza positive samples, 96.0% were influenza A (54.2% were A(H3N2) and 45.8% were A(H1N1)pdm09). Among other respiratory viruses, RSV predominated (53.6% of positive samples) and has been increasing for the last several weeks.

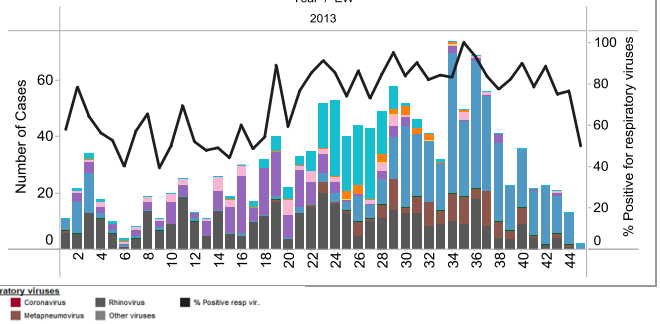
In Panama, based on national laboratory data from EW 42-45, 75 samples were analyzed, of which 78.7% were positive for a respiratory virus. Among positive samples, RSV (79.7%) predominated, followed by rhinovirus (11.9%).

Nicaragua and Panama

Nicaragua: Respiratory virus distribution by EW, 2013



Panama: Respiratory virus distribution by EW, 2013



South America – Andean countries

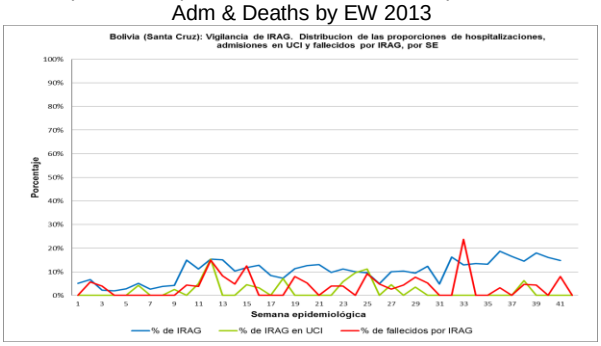
In Bolivia, in Santa Cruz, the proportion of SARI hospitalizations remained elevated compared to this period last year. Based on laboratory data from CENETROP (Santa Cruz) during EW 42-45, 361 SARI samples were analyzed, of which 27.4% were positive for a respiratory virus and 19.4% were positive for influenza.

[6] Honduras. Influenza Bulletin, EW 44

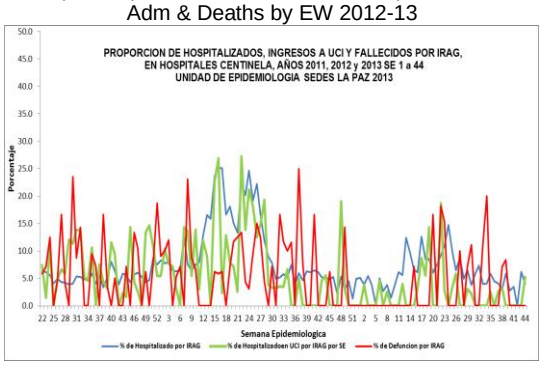
Among the positive samples, influenza A(H1N1)pdm09 (66.7%) predominated, followed by parainfluenza (28.3%). According to data from La Paz, the proportion of SARI-associated hospitalizations in EW 44 (4.0%) continued a decreasing trend. Based on laboratory data from INLASA (La Paz) from EW 41-44, 96 samples were analyzed of which 11.5% were positive for influenza. Among positive samples, influenza A(H1N1)pdm09 (81.8%) and influenza B (18.2%) were detected.

Bolivia

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

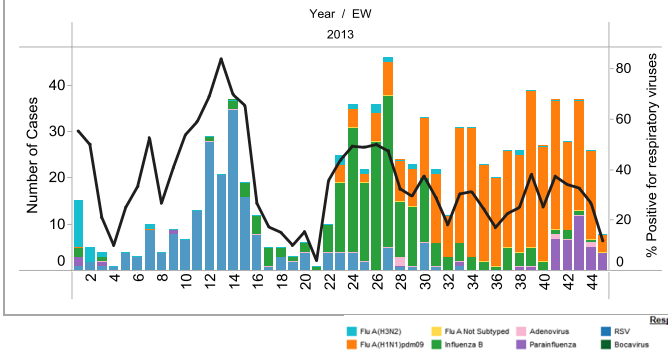


Bolivia (La Paz): Percent SARI related-Hospitalizations, ICU Adm & Deaths by EW 2012-13



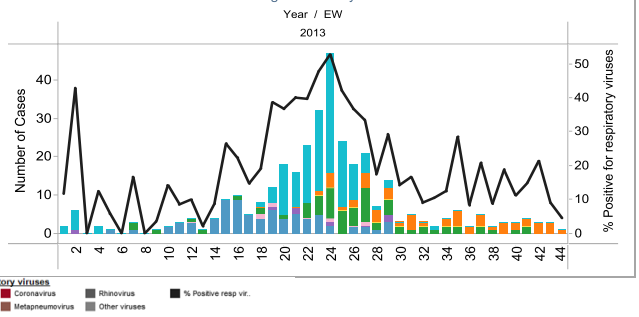
Bolivia (Santa Cruz). CENETROP
Respiratory viruses distribution by EW, 2013

Distribution of **influenza and other respiratory viruses** under surveillance by EW, region / country



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

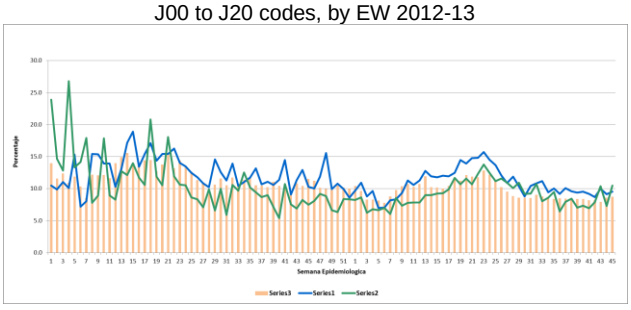
Distribution of **influenza and other respiratory viruses** under surveillance by EW, region / country



In Colombia, nationally during EW 45, the proportions of hospitalizations (9.5%), ICU admissions (10.5%) and deaths (8.7%) with ARI-associated ICD-10 codes (J00 to J22) remained at low levels. Based on INS national laboratory data from EW 42-45, 441 samples were analyzed, of which 13.2% were positive for a respiratory virus and 1.6% were positive for influenza. Among the positive samples, RSV (29.3%) and parainfluenza (17.2%) predominated.

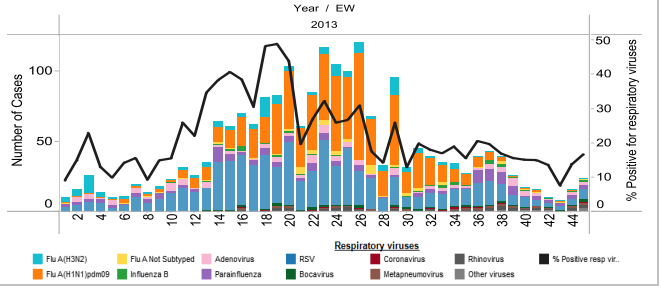
Colombia

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

Distribution of **influenza and other respiratory viruses** under surveillance by EW, region / country

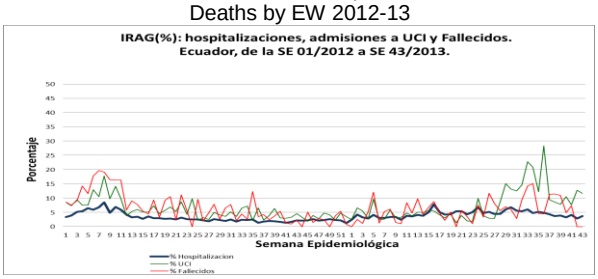


In Ecuador[7], during EW 43 SARI activity continued a decreasing trend: 4% of hospitalizations, 12% of ICU admissions and 0% of deaths were SARI-associated. Based on national reference laboratory data from EW 42-45, 248 SARI samples were analyzed, of which 15.3% were positive for a respiratory virus and 9.7% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (63.2%) and parainfluenza (23.7%) predominated.

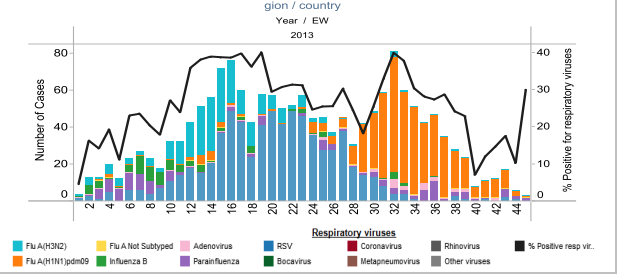
[7] Ecuador: Ministerio de Salud Pública. Actualización Nacional Vigilancia de IRAG, SE 43.

Ecuador

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



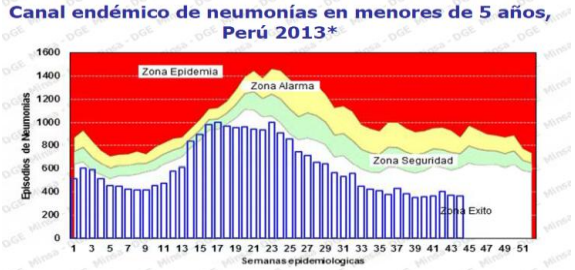
Ecuador. Respiratory virus distribution by EW, 2013



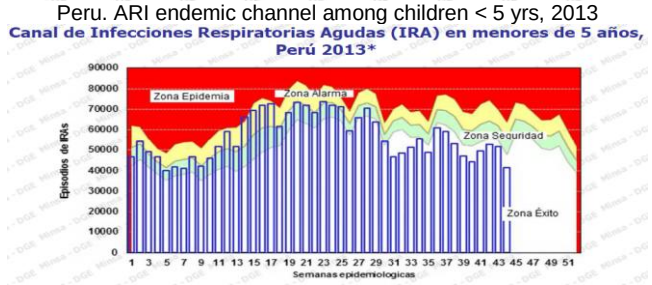
In Peru[8] during EW 44, the number of ARI and pneumonia reports in children less than 5 years of age decreased compared to the previous EW and remained within the success zone of the endemic channel. Among patients older than 5 years, the number of pneumonia reports continued a decreasing trend since peaking during EW 31 and was within the security zone of the endemic channel. Based on national laboratory data from EW 42-45, 190 samples were analyzed, of which 12.6% were positive for a respiratory virus and 8.9% were positive for influenza. Among the positive samples, influenza B predominated (41.7%), followed by influenza A(H1N1)pdm09 (29.2%) and parainfluenza (12.5%).

Peru

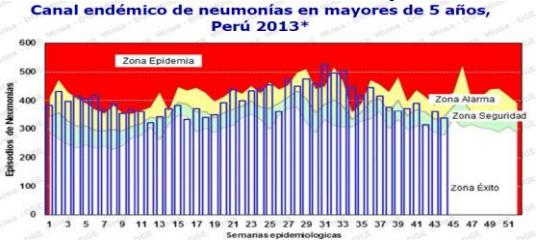
Peru. Pneumonia endemic channel, children <5yrs, 2013



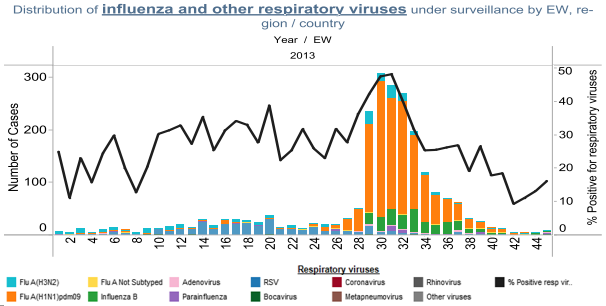
Peru. ARI endemic channel among children < 5 yrs, 2013



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



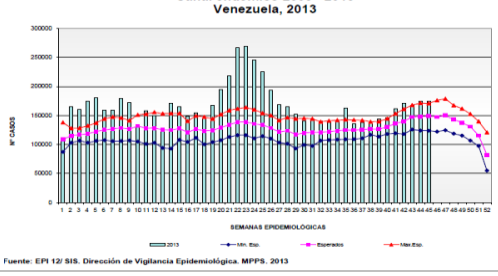
Perú. Respiratory viruses distribution by EW, 2013



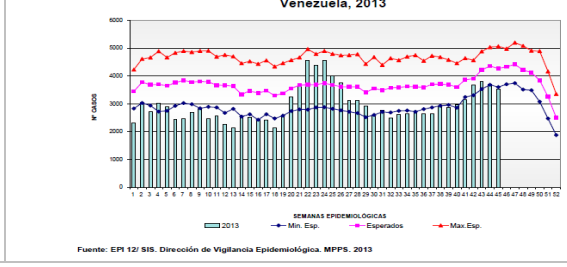
In Venezuela[9] during EW 45, ARI activity was similar to the previous EW, while pneumonia activity decreased by 5%. Both were near the expected values for this time of year. During EW 45, 182 SARI-associated hospitalizations were reported, with children less than 1 year of age comprising the largest proportion of cases. Based on virologic data from EW 1-45, 5,211 samples were analyzed from suspected influenza cases, of which 53.0% were positive for influenza. Among the positive samples, 92.1% were influenza A(H1N1)pdm09.

Venezuela

Venezuela: ARI endemic channel



Venezuela: Pneumonia endemic channel



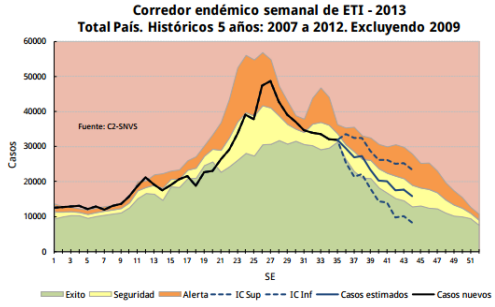
[8] Perú. Sala de Situación de Salud. EW 44, 2013. Ministerio de Salud. Dirección General de Epidemiología
[9] Venezuela. Boletín epidemiológico, EW 45, 2013.

South America – Southern Cone and Brazil

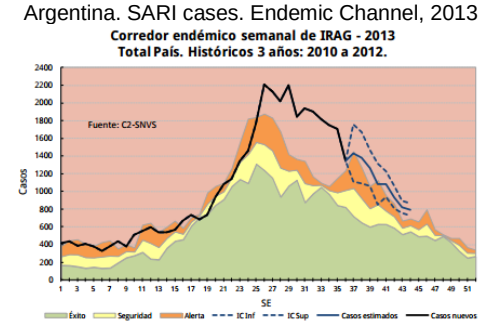
In Argentina[10], according to reports and calculated estimations, national ILI activity during EW 44 was within the security zone of the endemic channel and showed a decreasing trend since its peak in EW 26. The proportion of SARI-associated hospitalizations was within the epidemic zone of the endemic channel, but also showed a decreasing trend since EW 27. Based on laboratory data from EW 41-44, 1,346 samples were analyzed, of which 20.4% were positive for a respiratory virus and 4.4% for influenza. Among positive samples, RSV predominated (50.2%), but has been decreasing since peaking in EW 27.

Argentina

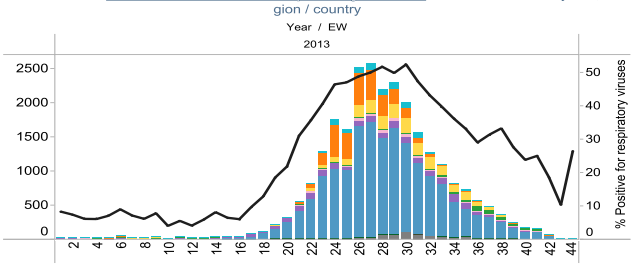
Argentina. ILI cases. Endemic Channel, 2013



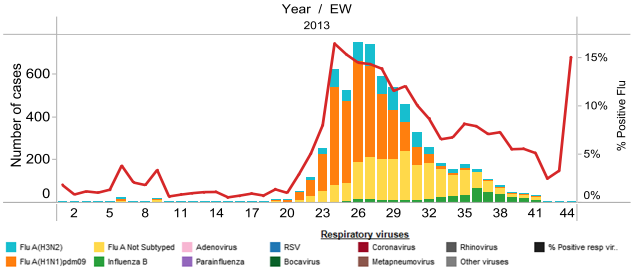
Argentina. SARI cases. Endemic Channel, 2013



Argentina. Respiratory viruses distribution by EW, 2013



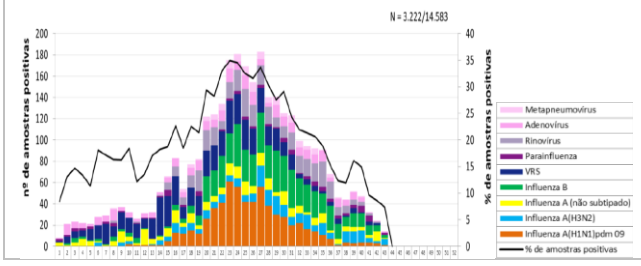
Argentina. Influenza distribution by EW, 2013



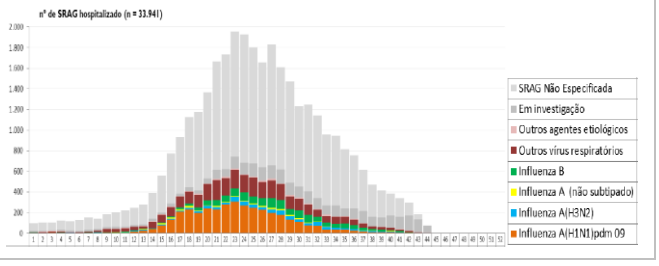
In Brazil[11], according to ILI sentinel surveillance data through EW 44, 14,583 samples have been analyzed, of which 22.1% were positive for influenza or other respiratory virus. Positivity has decreased since EW 27. Based on universal SARI surveillance data during this same period, 33,941 SARI cases were reported and 17.1% were positive for influenza. Of these positive samples, influenza A(H1N1)pdm09 predominated (63.7%), followed by influenza B (22.1%) and A(H3N2) (10.8%). Additionally, in 2013, 3,981 SARI-associated deaths have been reported of which 23.7% were positive for influenza, and of these, 80.4% 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



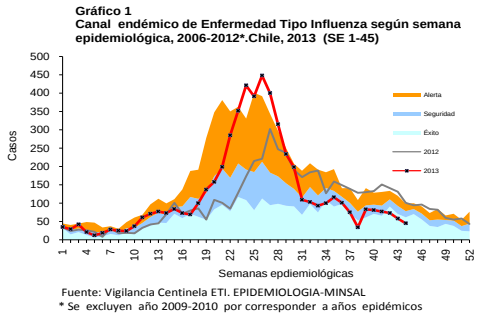
In Chile[12] ILI activity during EW 44 (rate: 2.9 per 100,000 inhabitants) remained low and was within the success zone of the endemic channel. The proportion of ILI-associated hospital emergency consultations was 0.5%, maintaining a low and stable level. Based on laboratory data from EW 44-45, 1,150 samples

[10] Argentina. Boletin integrado de vigilancia. SE 44.
[11] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 44, 2013.
[12] Chile. Informe de situación. EW 44. Available at: http://epi.minsal.cl/

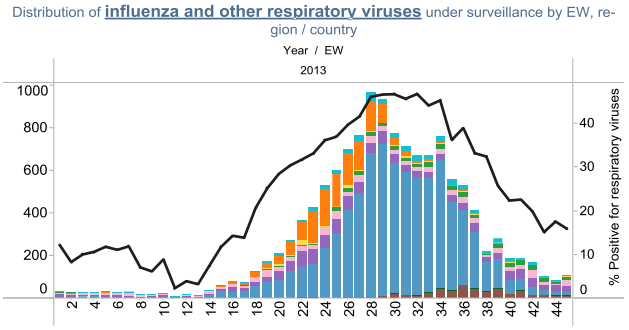
were tested, of which 16.5% were positive for a respiratory virus and 3.3% were positive for influenza. Among the positive samples, parainfluenza (32.6%), adenovirus (17.4%) and RSV (16.3%) were detected.

Chile

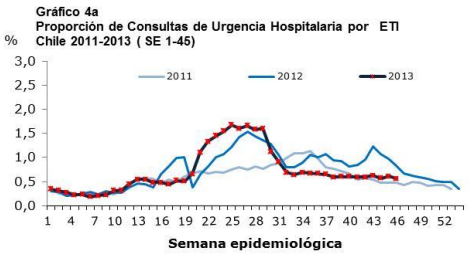
Chile. ILI Endemic Channel, 2013



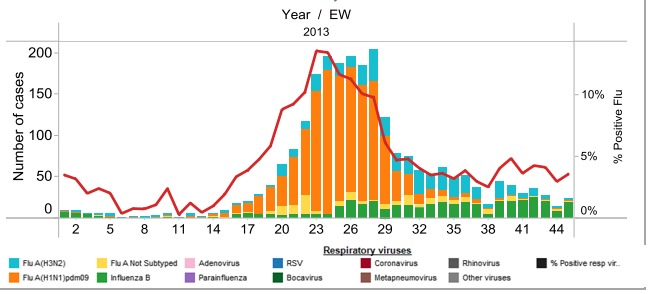
Chile. Respiratory viruses distribution by EW, 2013



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



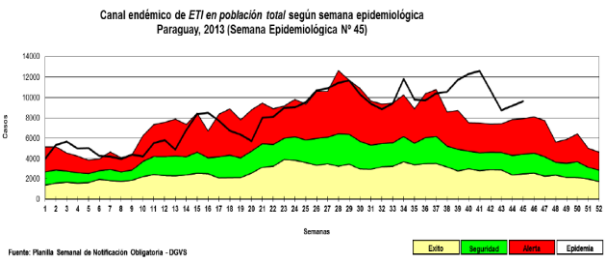
Chile. Influenza viruses distribution by EW, 2013



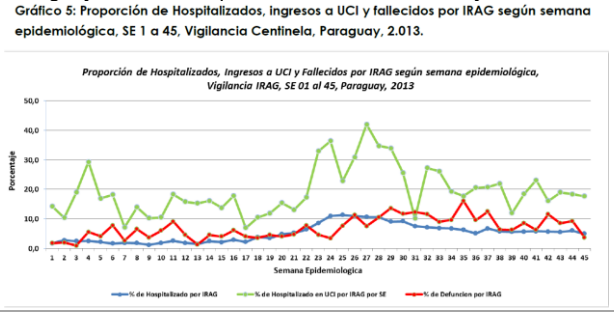
In Paraguay[13] during EW 45, the ILI consultation rate (144.3 per 100,000 inhabitants) increased slightly compared to the previous EW and was higher than observed this time last year. The proportion of SARI-associated hospitalizations (4.9%) decreased compared to the previous week and children less than 5 years of age comprised the largest portion (47.0%) of these cases. Based on reference laboratory data from EW 41-44, 278 SARI samples were analyzed, of which 21.2% were positive for a respiratory virus and 7.2% were positive for influenza. Among influenza samples, 85.0% were influenza B and 15.0% were influenza A (all A(H3N2)). Among other respiratory viruses, parainfluenza (32.2% of positive samples) predominated, followed by metapneumovirus (16.9%) and adenovirus (16.9%).

Paraguay

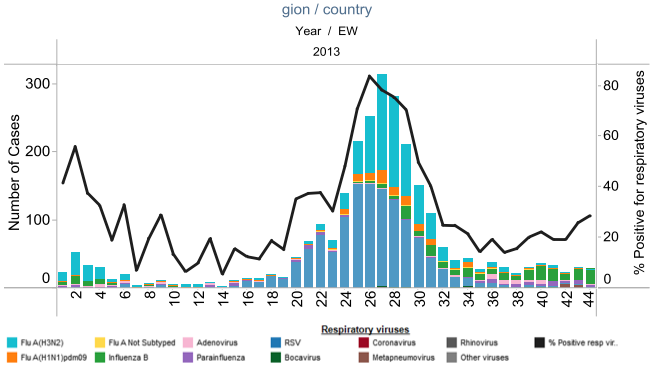
Paraguay. ILI endemic channel, by EW, 2013



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



Paraguay. Respiratory viruses distribution by EW, 2013

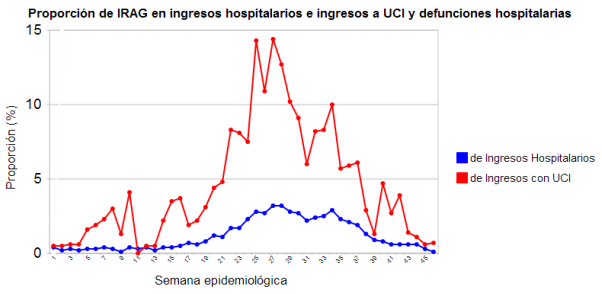


[13] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 45, 2013

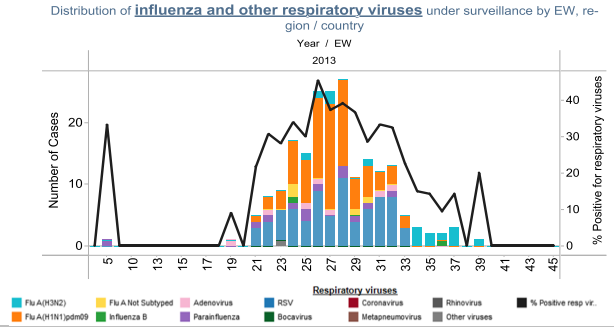
In Uruguay[14] during EW 45, the proportions of SARI-associated hospitalizations, ICU admissions and deaths were similar to the previous EW, and remained at low levels. Based on laboratory data from EW 42-45, 28 SARI samples were analyzed, of which none were positive for a respiratory virus.

Uruguay

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



Uruguay. Respiratory viruses distribution by EW, 2013



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