Regional Update EW 22, 2013

Influenza and other respiratory viruses
(June 11, 2013)

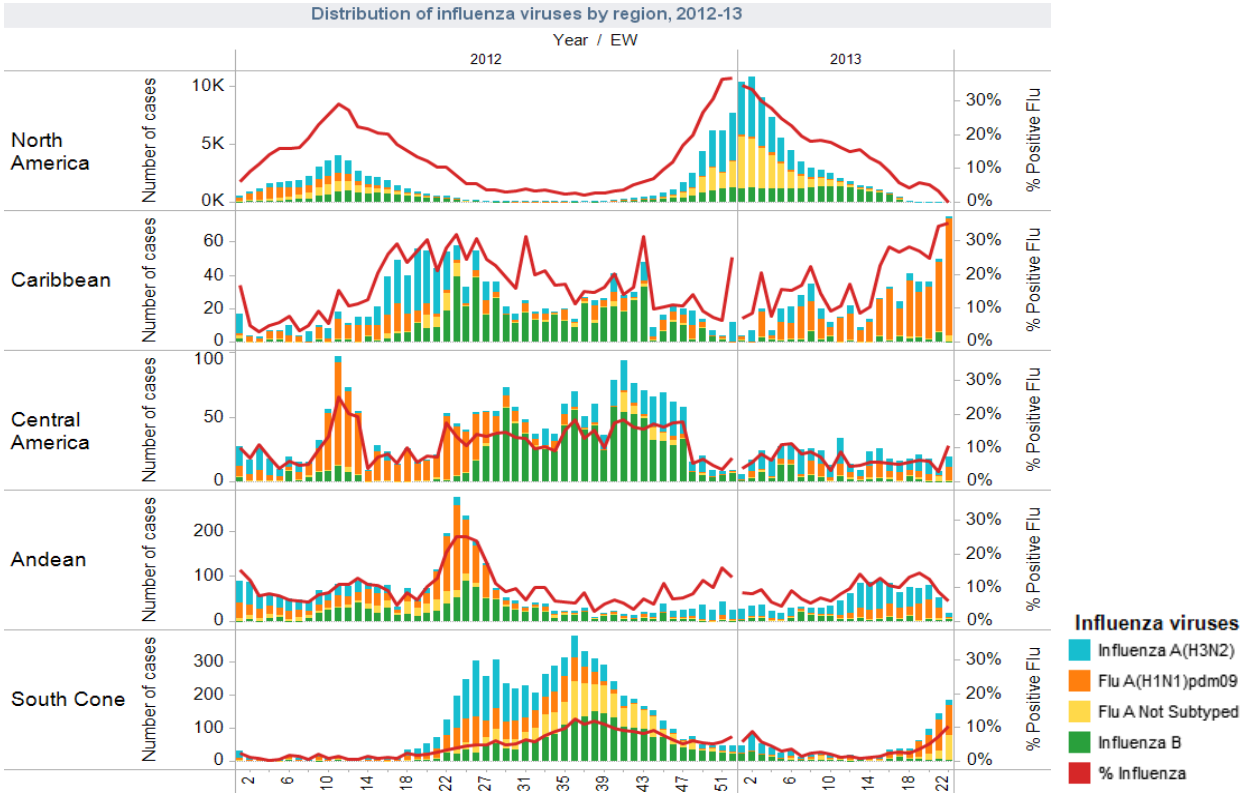
PAHO interactive influenza data: http://ais.paho.org/phip/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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.

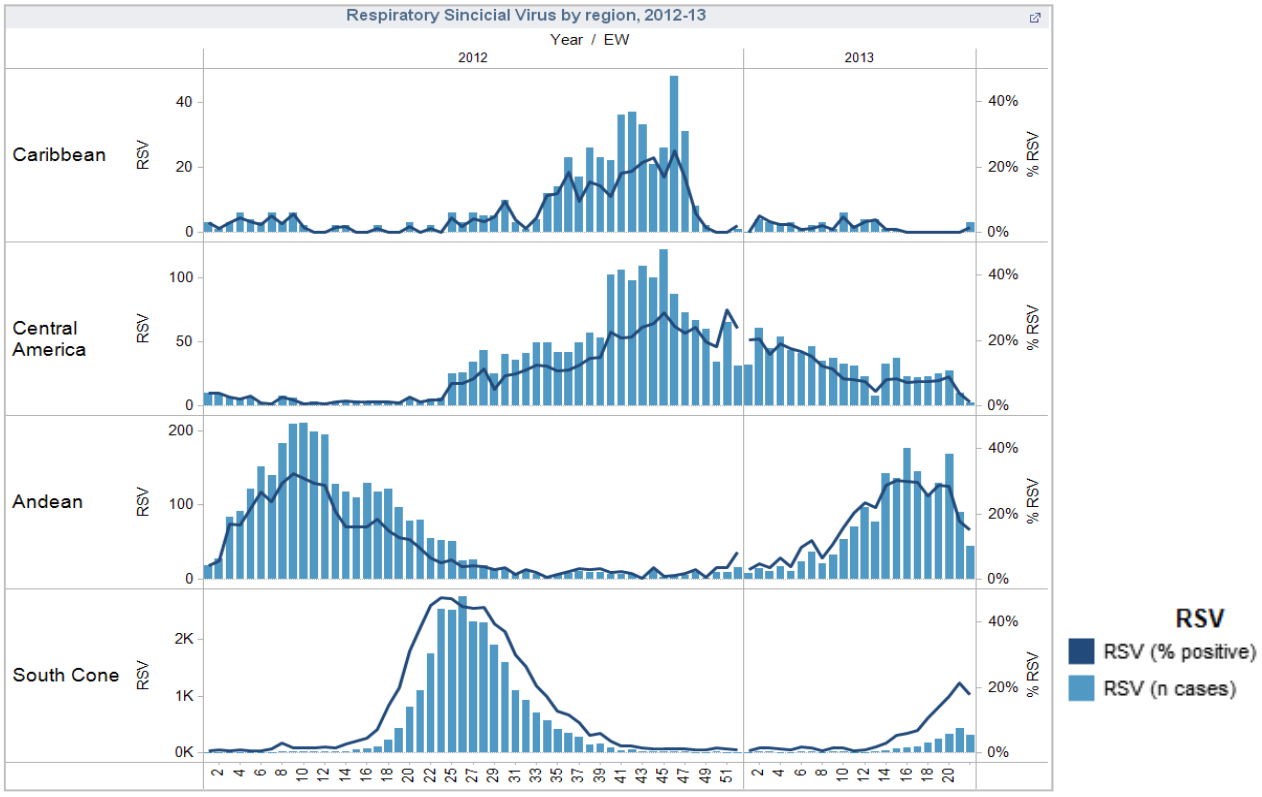
WEEKLY SUMMARY

- North America: most influenza activity indicators were within expected levels for this time of year. Influenza B 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: the activity of respiratory viruses remained low and/or similar as compared to previous weeks, except in Cuba and Dominican Republic, where circulation of influenza A(H1N1)pdm09 was reported in the last weeks.
- South America: acute respiratory infection (ARI) activity was high, with increasing trend in most countries but remained within expected levels for this time of the year. RSV predominates in most countries, with co-circulation of influenza A(H1N1)pdm09 in Argentina and Chile. In Brazil, A(H1N1)pdm09 was predominant, followed by influenza B in some states. In the Andean countries, influenza activity remained low, except in Colombia and Venezuela where influenza A was increasing. RSV continued as the predominant circulating virus, with co-circulation of influenza A(H3N2) in Bolivia-La Paz, Ecuador and Peru, and influenza A(H1N1)pdm09 in Colombia and Venezuela.

Influenza circulation by region. 2012-2013



Respiratory Sincicial Virus circulation by region. 2012-2013

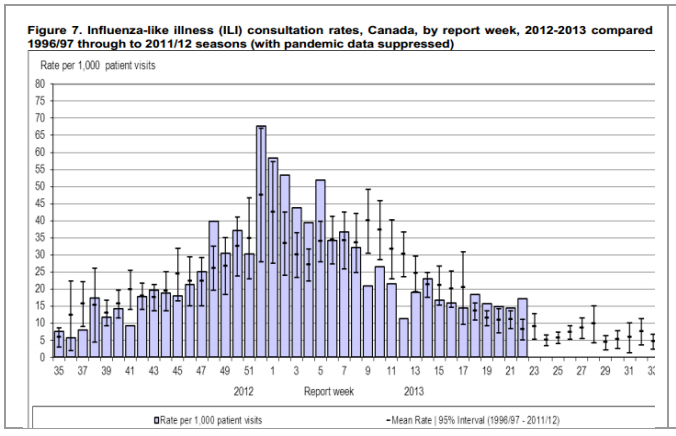


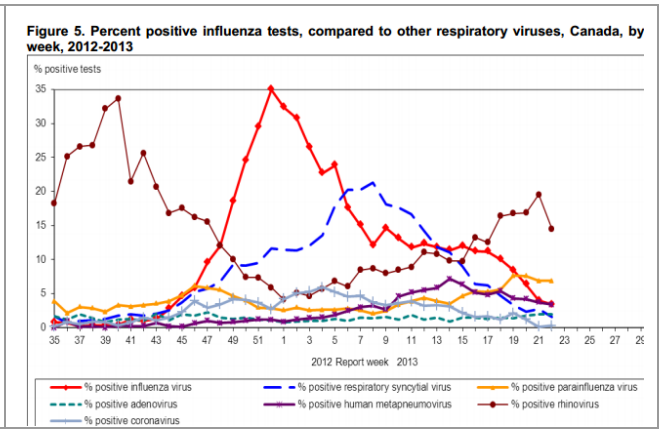
EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In Canada[1], in epidemiological weeks (EWs) 21 & 22, influenza activity continued to slowly decline. Nationally, the influenza-like-illness (ILI) consultation rate (17.1 ILI consultations per 1,000 patient visits in EW 22) has been stable over the past eight weeks. The ILI rates observed in EWs 18 to 22 were above the expected range. In both EWs 21 and 22, the highest consultation rate was observed in children under 5 years of age (34.8/1,000 visits in week 22). Among the total samples analyzed, the percentage of positive influenza tests decreased from 4% in EW 21 to 3.4% in EW 22. Of all the positive influenza cases in EWs 21 & 22, 81.9% were influenza B and 18.1% were positive for influenza A viruses [30.8% were A(H1N1)pdm09, 11.5% were influenza A(H3), and 57.7% were influenza A(unsubtyped)]. As for other respiratory viruses, detections of rhinovirus decreased from 19.5% in EW 21 to 14.5% in EW 22, interrupting the upward trend observed since EW 01. The percentage of positive tests for parainfluenza (6.8%) was stable in EWs 21-22.

Canada



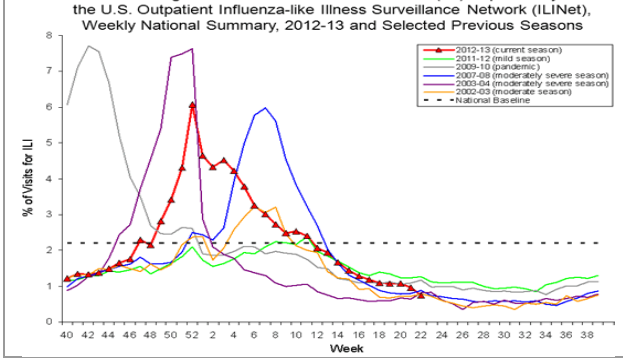


[1] FluWatch Report. EW 22. Available at http://www.phac-aspc.gc.ca/fluwatch/

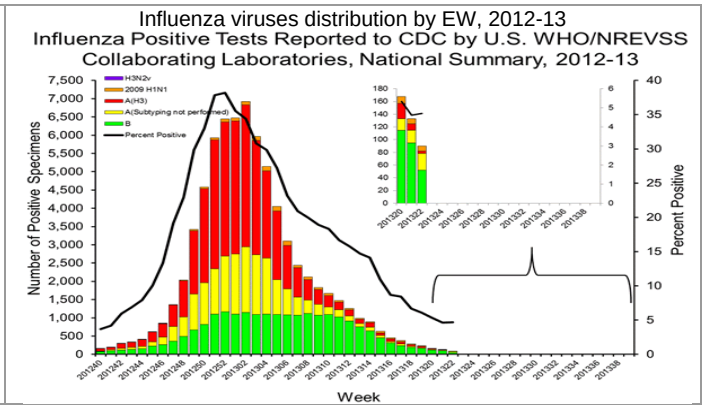
In the United States[2], during EW 22, influenza activity remained low. Nationally, the proportion of ILI consultations (0.7%) was below the national baseline of 2.2%. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 22 (5.9%) was below the epidemic threshold for this time of year. In EW 22, one influenza-associated pediatric death was reported (associated with influenza B). Among all samples tested during EW 22 (n=1,910), the percentage of samples positive for influenza (4.7%) remained stable as compared to the previous week. Nationally, among the positive samples, 57.8% were influenza B and 42.2% were influenza A, with co-circulation of A(H3N2) and A(H1N1)pdm09.

United States

ILI Distribution (%) by EW, 2012-13



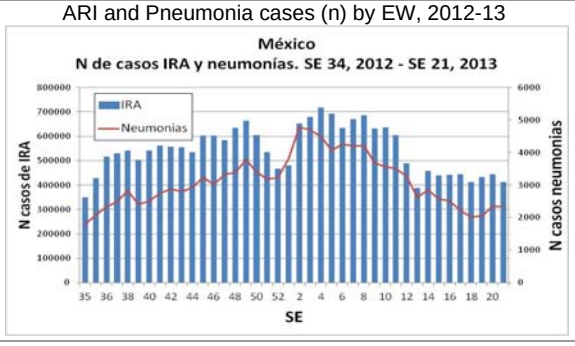
Influenza viruses distribution by EW, 2012-13



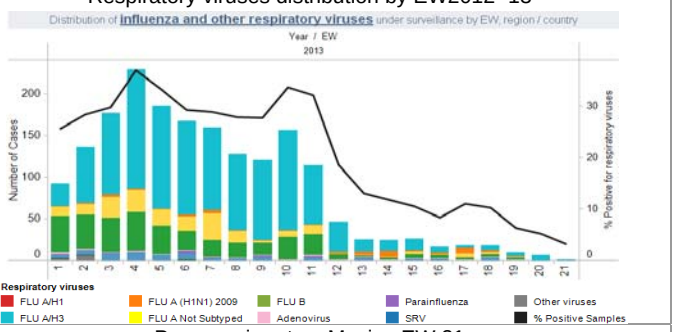
In Mexico[3], nationally in EW 21, the number of ARI cases decreased by 7.3% as compared to EW 20 and the number of pneumonia cases remained similar to the previous week. Regionally, the states that reported the highest rates of pneumonia per 100,000 inhabitants in EW 19 were: Jalisco (4.9), Zacatecas (4.2), Sonora (4.1) and Nuevo Leon (4.0). According to laboratory data, in 2013, the percent positivity for influenza viruses continued to decrease from 33.4% (EW 10) to 3.1% (EW 21). Between EWs 18-21, among the positive influenza cases, 83% were influenza A (66.7% influenza A(H3N2), 16.7% A(H1N1)pdm09 and 16.7% influenza A unsubtyped) and 17.2% were influenza B.

Mexico

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



Respiratory viruses distribution by EW2012 -13



ARI rates. Mexico EW 21

Pneumonia rates. Mexico EW 21

[2] USA: CDC FluView report. EW 22. Available at: http://www.cdc.gov/flu/weekly/

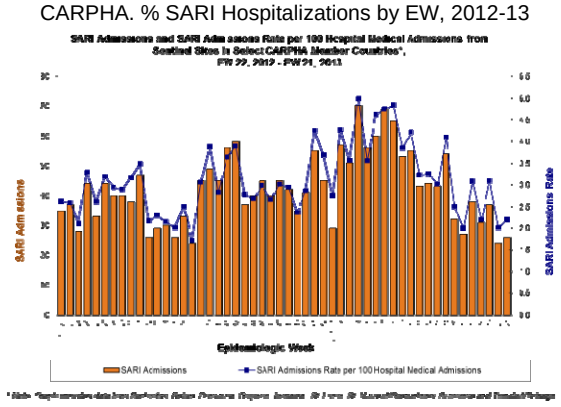
[3] México. Dirección General de Epidemiología. Información epidemiológica. SE 22.

Caribbean

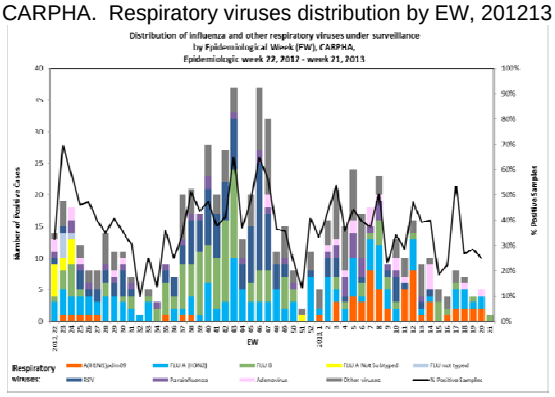
CARPHA[4], received weekly SARI/ARI data from 7 countries for EW 21, 2013: Belize, Barbados, Dominica, Jamaica, St. Vincent & the Grenadines, Suriname and Trinidad & Tobago. In EW 21, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.2%. The highest rate of SARI was among children 6 months to 4 years of age (5.7%). No SARI deaths were reported from the region in EW 21, 2013. For cases with dates of onset between EW 16 to EW 21, 2013, the following viruses have been laboratory confirmed in member countries: influenza A (H1N1)pdm09 (Barbados, Jamaica, Suriname); influenza A(H3N2) (Jamaica); influenza B (Suriname), adenovirus (Barbados), human metapneumovirus (St. Vincent & Grenadines, St. Kitts & Nevis), rhinovirus (St. Vincent & Grenadines, Trinidad & Tobago). In 2013, to date, the CARPHA laboratory has confirmed 181 cases as positive for 1 or more respiratory agent. For cases with dates of onset in 2013, the overall percentage positivity for specimens tested is 33.7%.

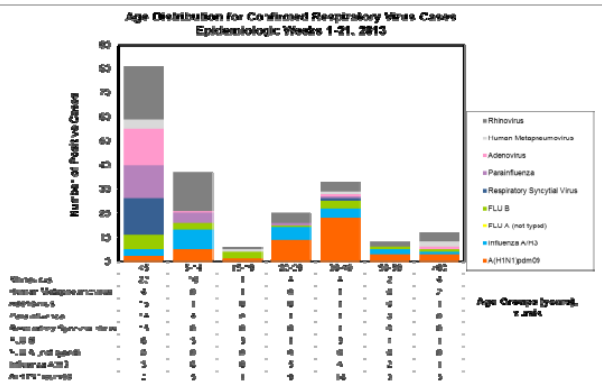
CARPHA

CARPHA. % SARI Hospitalizations by EW, 2012-13



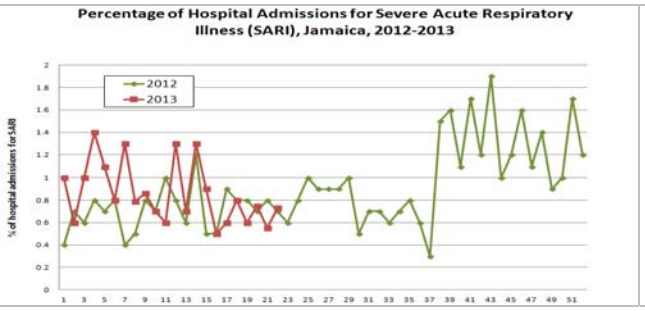
CARPHA. Respiratory viruses distribution by EW, 201213

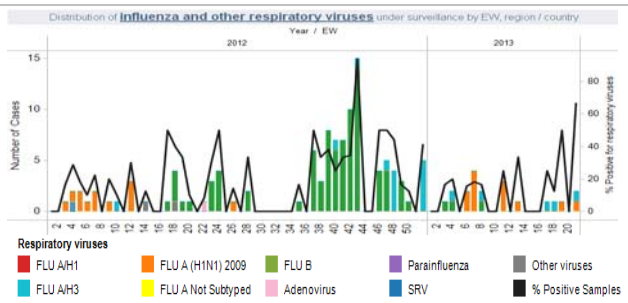




In Jamaica, in EW 22, sentinel data showed that the proportion of consultations for ARI was 4.2% which was a 0.2% increase compared to that reported for EW 21. The proportion of admissions due to SARI was less than 1% and stable compared to the previous week. There were no SARI deaths reported for EW 22. Influenza A was detected in the last weeks.

Jamaica





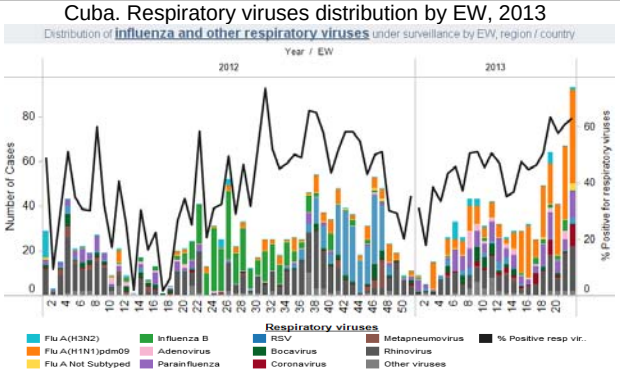
[4] Agencia de Salud Pública del Caribe (CARPHA por sus siglas en inglés) EW 22.

In Cuba, according to national laboratory data, among all samples analyzed (n=430) between EW 19 to 22, the average percent positivity for respiratory viruses was 61,2% and 31,4% for influenza viruses. Influenza A(H1N1)pdm09, the predominant virus detected, has continued to circulate in the last weeks. Also, rhinovirus and parainfluenza are circulating. Of the total of positive samples in the EW 22, 53.7% were ILI cases and 26.8% were SARI cases. Among the SARI cases, 159 samples were analyzed between EW 19 to 22, with influenza A (H1N1)pdm09 and rhinovirus detected during the same period. The age groups most affected by SARI were those between 15 to 54 years followed by the children under one year of age. A death associated with SARI was reported.

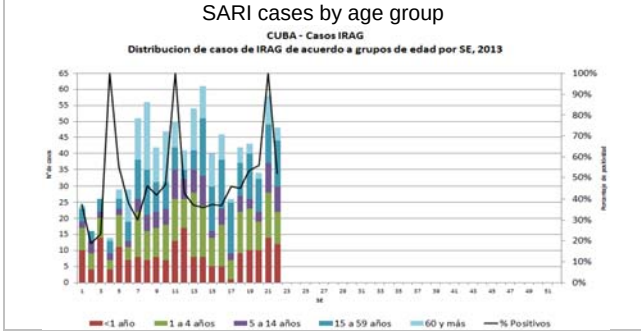
In the Dominican Republic, according to laboratory data, from EWs 20 to 23, among samples analyzed (n=189), the average percentage positive for respiratory viruses was 34.6% and 32% for influenza viruses. Influenza A(H1N1)pdm09, the predominant virus detected, continued to circulate in the last weeks.

Cuba and Dominican Republic

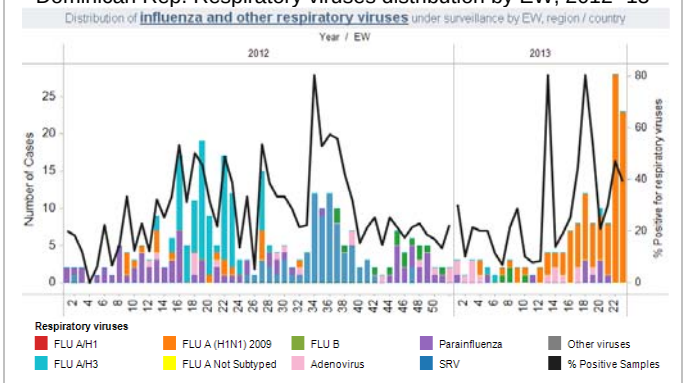
Cuba. Respiratory viruses distribution by EW, 2013



SARI cases by age group



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



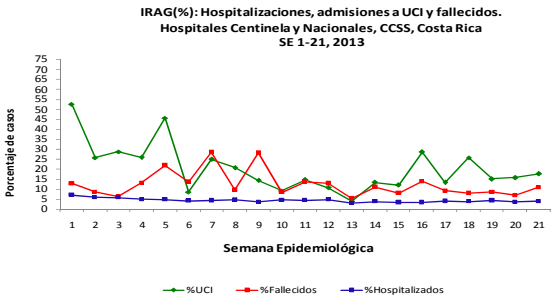
Central America

In Costa Rica[5], the activity of influenza and other respiratory viruses remains stable. In EW 21, at the national level, the proportion of SARI hospitalizations was 3.7%. The majority of SARI cases occurred among children between 0-4 years of age and adults between 18-49 years. Among all SARI cases reported in EW 21, 9.1% were admitted to ICU and 5.8% were reported as SARI-related deaths. According to laboratory data between EW 19-22, among all samples tested (n =302), the percent positivity for respiratory viruses was 23.4% and for influenza viruses was 9.8%. During the period between EW 19-22, among influenza viruses, influenza A predominated (97%) (co-circulation of influenza A(H1N1)pdm09 and A(H3N2)). Among other respiratory viruses, adenovirus (6.6% of positivity) and RSV (4% of positivity) were the most prevalent viruses.

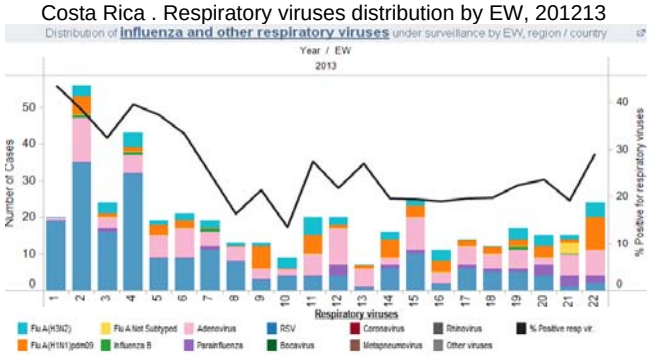
[5] Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 22.

Costa Rica

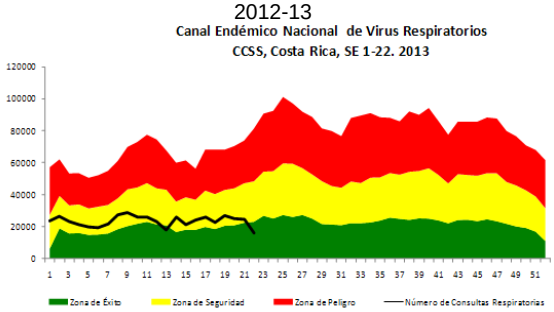
Costa Rica.SARI(%) hospitalization,ICU admissions and Deaths by EW 2012-13



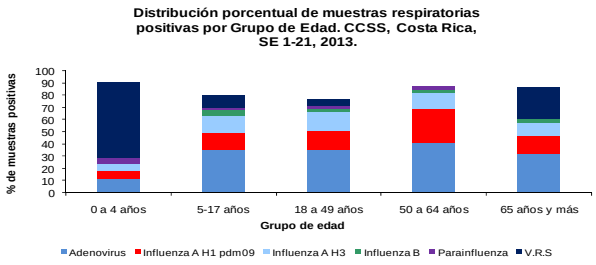
Costa Rica . Respiratory viruses distribution by EW, 201213



Costa Rica . ARI endemic channels by EW, 2012-13



Costa Rica . Respiratory viruses distribution by age groups.EW 2012-13



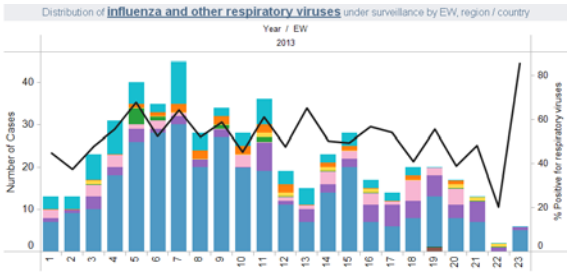
v

In Guatemala, according to national laboratory data from EWs 19-22, of all samples tested (n =117), 40.6% were positive for respiratory viruses and 4.6% for influenza viruses. Regarding other respiratory viruses, among the total samples tested, RSV was the predominant virus (23.1% of positivity) followed by parainfluenza (12% of positivity).

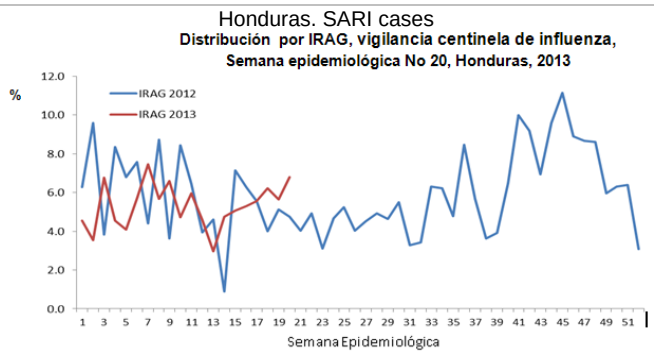
In Honduras, the proportions of ILI cases (6.2%) and SARI cases (6.8%) were higher than the last 2 weeks and higher than the one observed last year. According to national laboratory data from EWs 19-22, of all samples tested (n =27), 11.9% were positive for respiratory viruses with no influenza viruses were detected. Adenovirus was the only virus detected.

Guatemala and Honduras

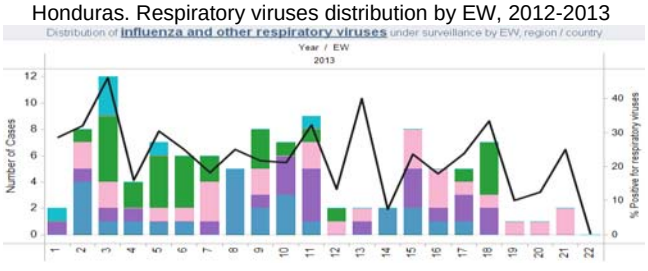
Guatemala. Respiratory viruses distribution by EW, 2012-2013

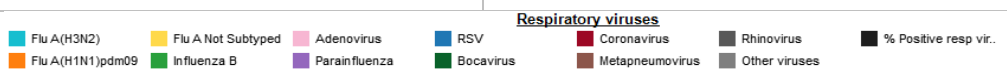


Honduras. SARI cases



Honduras. Respiratory viruses distribution by EW, 2012-2013

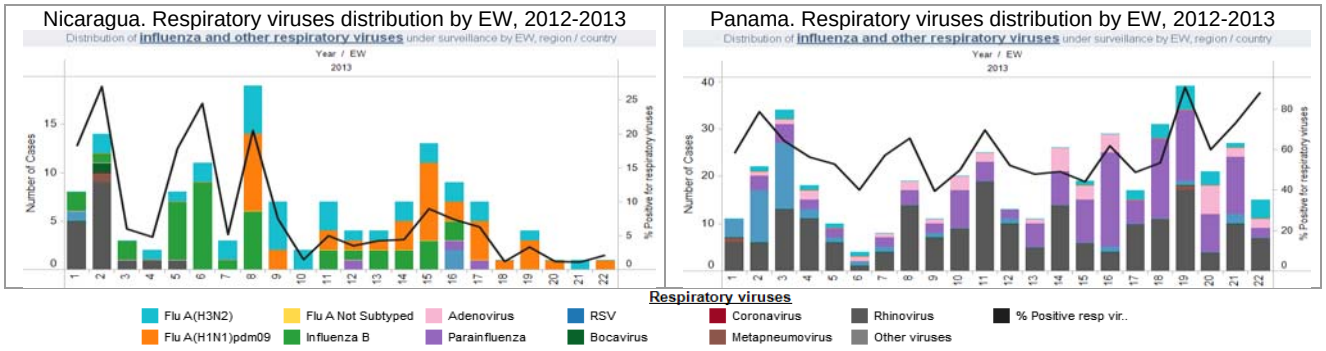




In Nicaragua, according to national laboratory data from EWs 19-22, of all samples tested (n =351), 1.9% were positive for influenza viruses. Influenza A(H1N1)pdm09 was the predominant respiratory virus detected.

In Panama, according to national laboratory data from EWs 19-22, of all samples tested (n =132), 78% were positive for respiratory viruses and 11.6% were positive for influenza viruses. Among the total samples tested, in EWs 19-22, rhinovirus (29% of positivity) and parainfluenza (28% of positivity) were the predominant viruses. Among the positive influenza viruses, influenza A(H3N2) was the only virus detected.

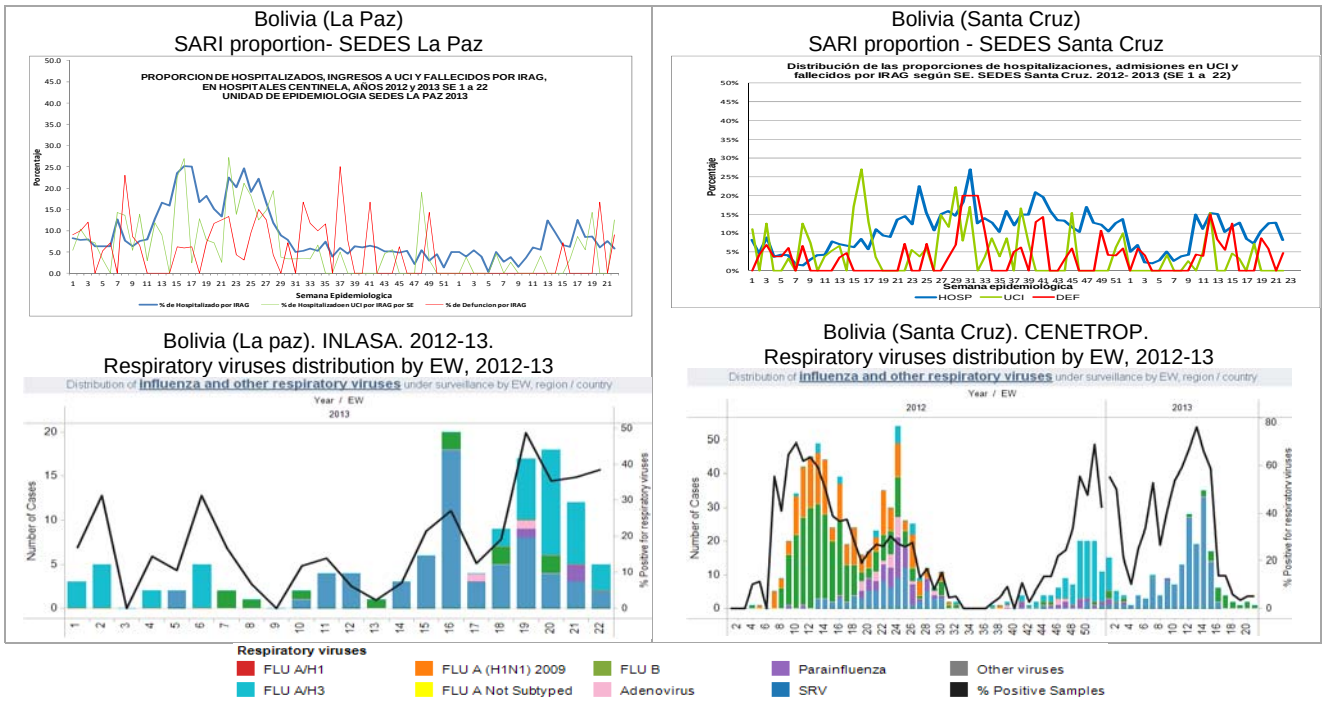
Nicaragua and Panama



South America – Andean countries

In Bolivia, according to data from Santa Cruz, during EW 22 the proportion of SARI hospitalizations (8%) was lower than the previous week. According to laboratory data from CENETROP (Santa Cruz), among 48 samples analyzed between EWs 21-22 of 2013, the percent positivity for all influenza viruses was 14%. Influenza B continued to be the most prevalent respiratory virus. In La Paz, in EW 22, the proportion of SARI hospitalizations decreased as compared to the previous week. According to laboratory data from INLASA (La Paz), among 54 samples processed in EWs 20-21 of 2013, the percent positivity for all respiratory viruses was 36%, and for influenza viruses was 25%. RSV and influenza A(H3N2) were the predominant respiratory viruses identified.

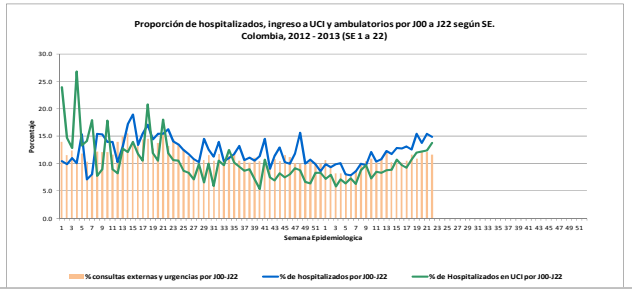
Bolivia



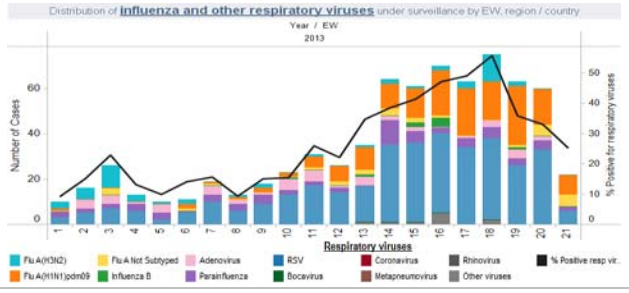
In Colombia, nationally, in EW 22, the proportion of ARI outpatients-J codes (11.6%), the proportion of SARI hospitalizations (14.8%) and the proportion of SARI ICU admissions (13.7%) continued to show an upward trend, but, was within the expected levels for this time of year. According to the national laboratory data (INS) (Bogota data for EW 22 not included), among samples viruses analyzed (n=408) in EW 21-22, the positivity was 14% for all respiratory viruses and 7% for influenza viruses. Among the positive samples, RSV remained as the predominant virus (39%), followed by influenza A(H1N1)pdm09 (32%).

Colombia

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



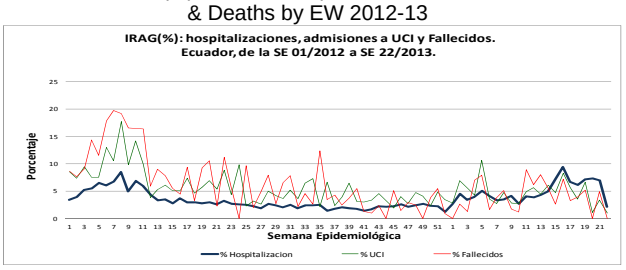
Influenza and other Respiratory viruses distribution by EW, 2012-13



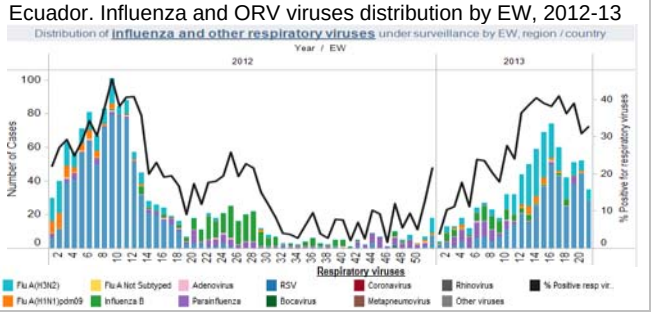
In Ecuador, the proportion of SARI hospitalizations during EW 22 (7%) remained similar to the previous week. According to national laboratory data from the national laboratory (NIH), among 276 samples tested between EWs 20-21, the percent positivity was 31% for respiratory viruses and 5% for influenza viruses. Among all the positive samples, RSV (84%) and influenza A(H3N2) (15%) were the most dominant viruses. Among SARI cases, in EWs 21-22, RSV was the predominant circulating virus, followed by influenza A(H3N2).

Ecuador

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



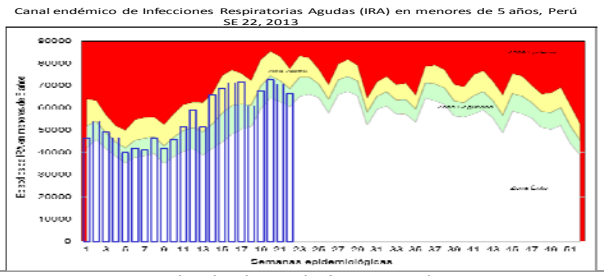
Ecuador. Influenza and ORV viruses distribution by EW, 2012-13



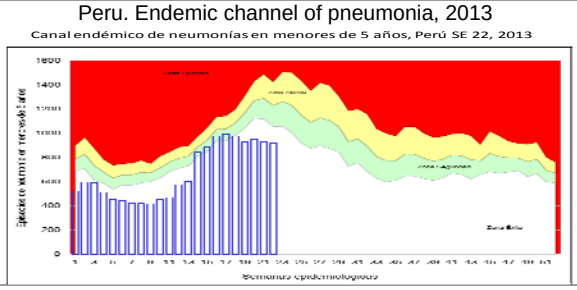
In Peru[6], nationally, in EW 21, the number of ARI and pneumonia cases in children less than 5 years of age remained similar as compared to the previous week and were below the epidemic threshold, but with a slight increasing trend. According to national laboratory data, during EWs 21-22, among the 105 samples analyzed, the percentage positivity was 24% for all respiratory viruses and 5% for influenza viruses. Among all the positive viruses, RSV (76%) was the predominant viruses.

Peru

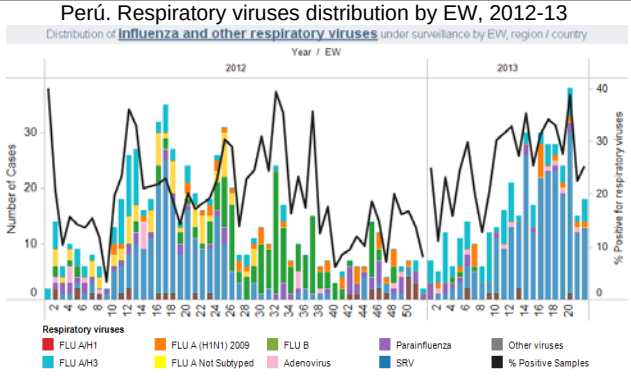
Peru. Endemic channel of ARI, 2013



Peru. Endemic channel of pneumonia, 2013



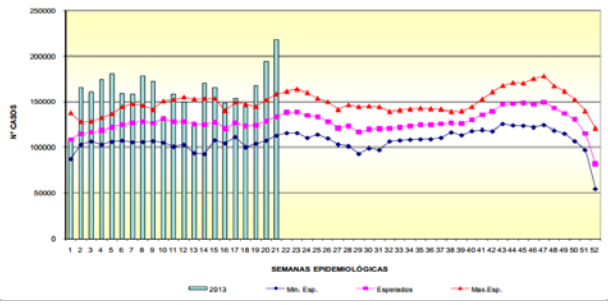
Perú. Respiratory viruses distribution by EW, 2012-13



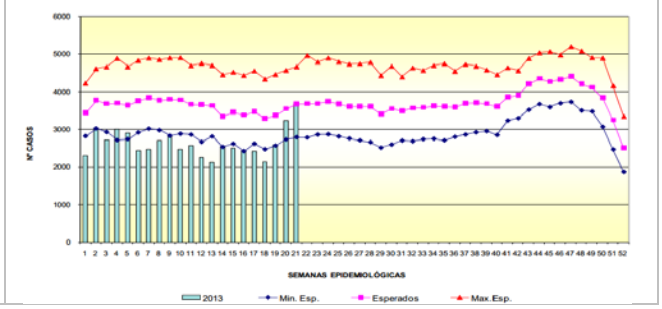
[6] Perú. Sala de Situación de Salud. EW 22, 2013. Ministerio de Salud. Dirección General de Epidemiología

In Venezuela[7], according to data published up to EW 21, the endemic channel of ARI showed an ARI activity above the epidemic threshold for this time of the year with increasing trend. The pneumonia endemic channel showed an activity within what is expected for this time of the year, but with an increasing trend in the last 3 EWs. The highest incidences for ARI and pneumonia cases were reported in the group of children less than 7 years. Regionally, the highest numbers of pneumonia cases were reported in Zulia, Miranda, Táchira, Falcon, Lara, Barinas, Bolivar and Mérida. In virological surveillance, thus far this year up to EW 21, predominance of influenza A(H1N1)pdm09 (84.2% of the total number of positive samples) was reported, followed by influenza A(H3N2).

ARI endemic channel



Pneumonia endemic channel

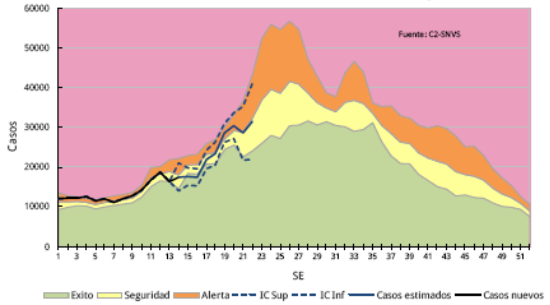


South America – Southern Cone

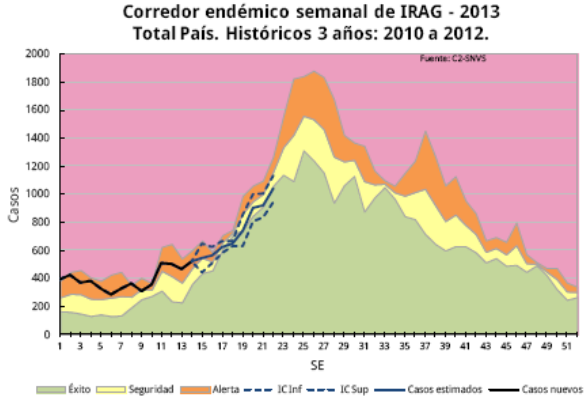
In Argentina[8], according to national estimates, the activity of ILI and SARI during EW 22 were within the expected level, with increasing trends. According to national laboratory data, 1,748 samples were processed between EWs 20-21, of which 28% were positive for all respiratory viruses and 3% for influenza viruses. Among the positive samples, 71% were RSV (the predominant virus).

Argentina

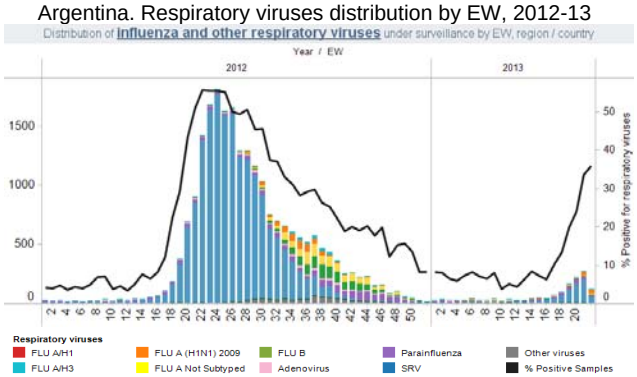
Argentina. ILI cases. Endemic Channel. 2012-2013



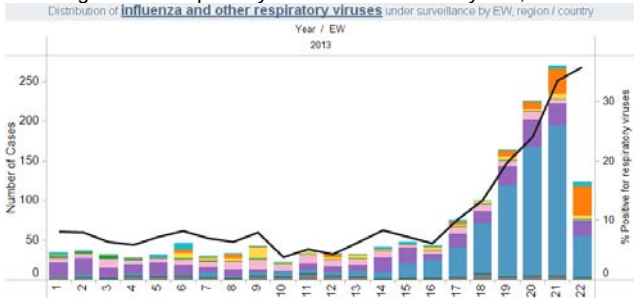
Argentina. SARI cases. Endemic Channel 2012 -2013



Argentina. Respiratory viruses distribution by EW, 2012-13



Argentina. Respiratory viruses distribution by EW,2013

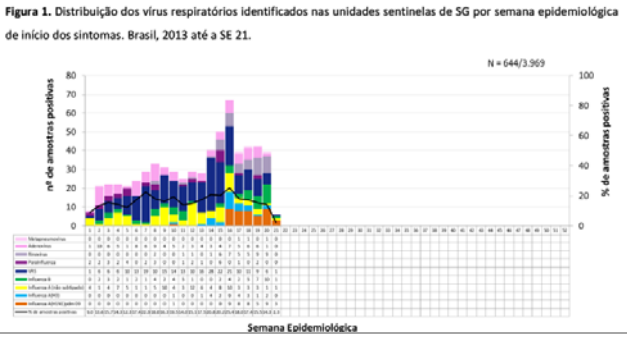


[7] Venezuela. Boletin epidemiológico, SE 21 , 2013.
[8] Argentina. Boletin integrado de vigilancia. SE 22.

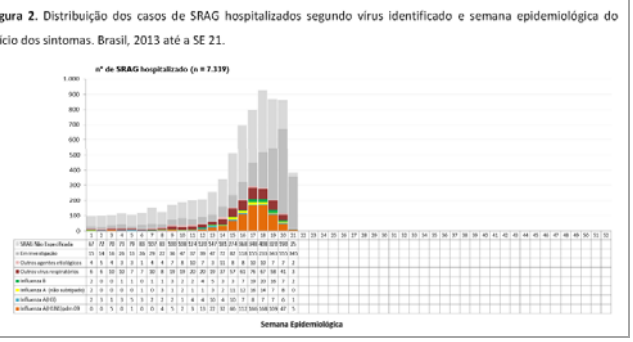
In Brazil[9], according to the ILI sentinel surveillance system, influenza A(H1N1)pdm09, influenza B and rhinovirus were the predominant viruses, mainly in the Southeast region. In the last weeks the number of SARI cases showed an increasing trend, with predominance of influenza A(H1N1)pdm09, mainly in the Southeast region. Among SARI deaths, similar characteristics were observed.

Brazil

Brazil. SARI hospitalizations. Respiratory viruses distribution by EW, 2013



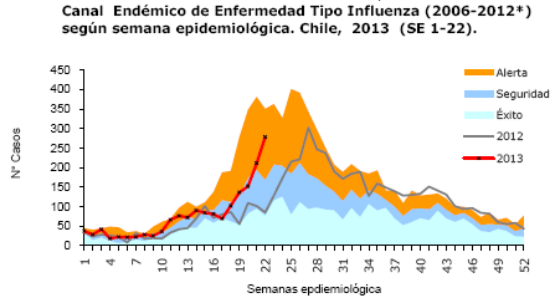
Brazil. SARI deaths. Respiratory viruses distribution by EW, 2013



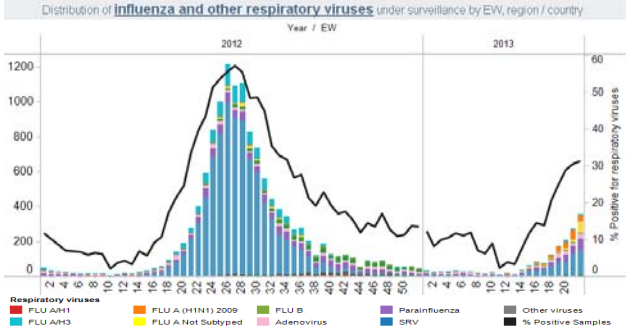
In Chile[10], nationally, in EW 22, the ILI activity (rate: 16.7/ 100,000 pop.) increased from the previous EW and remained in the alert zone of the endemic channel. The percentage of SARI hospitalizations in EW 21 was lower that the observed number last week, showing an increasing trend in the last 5 EWs. According to national laboratory data, in EWs 21-22, 2,027 samples were analyzed, of which 31% were positive for respiratory viruses and 9.6% for influenza viruses. Among the positive samples, 43% were RSV, which was the most prevalent virus, followed by parainfluenza (17%), influenza A(H1N1)pdm09 (14%) and influenza A not subtyped (13%). Among SARI cases, RSV and influenza A(H1N1)pdm09 were the most prevalent viruses detected.

Chile

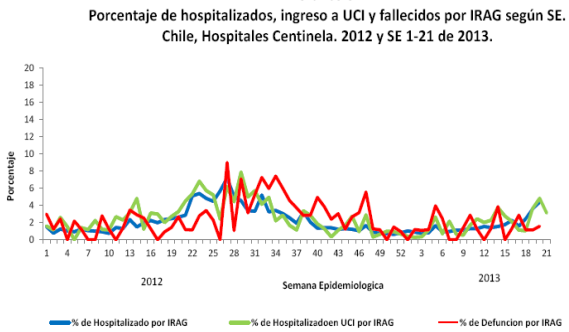
Chile. ILI Endemic Channel, 2013



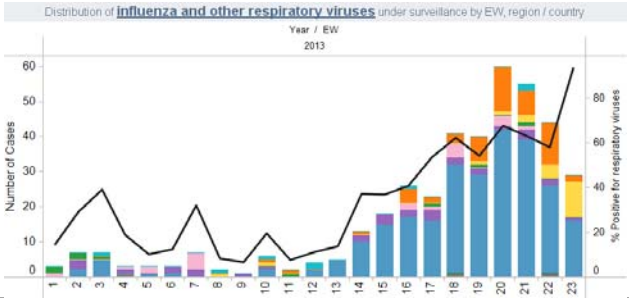
Chile. Respiratory viruses distribution by EW, 2012-13



Chile. % of SARI cases (hospitalizations, ICU admissions and deaths) by EW ,2011-13



Chile. SARI cases. Respiratory viruses distribution by EW, 2013



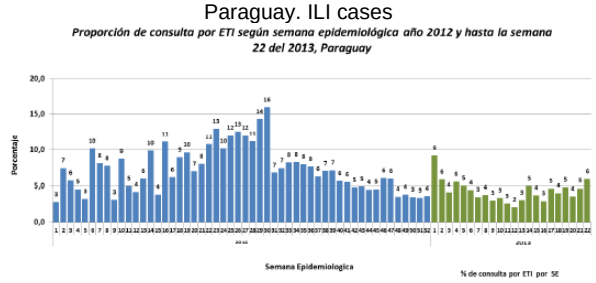
In Paraguay[11], nationally in EW 22, the ILI consultation rate (121.6/100,000 hab) remained similar as compared to that observed last week; however, the ILI proportion (6%) and the proportion of SARI-related

[9] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 22, 2013.
[10] Chile. Informe de situación. EW 22. Disponible en: www.pandemia.cl
[11] Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 22, 2013

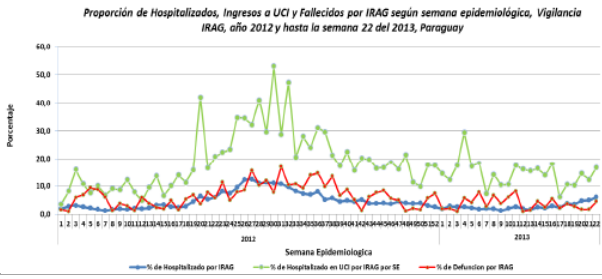
hospitalizations (6%) in the sentinel sites increased as compared to the previous week. According to data from the national laboratory, among 286 samples processed between EWs 21-22, 40% were positive for respiratory viruses and 4% for influenza viruses. RSV was the most predominant virus. Among the 112 samples from SARI cases, RSV also predominated.

Paraguay

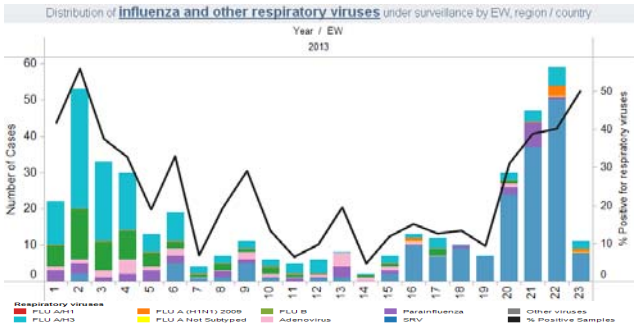
Paraguay. ILI cases



Paraguay. SARI cases (%) by EW, 2013



Paraguay. Respiratory viruses distribution by EW, 2012-13



In Uruguay[12], at the national level, the proportions of SARI hospitalizations and SARI-related ICU admissions in EW 22, remained similar to the previous week; showing an increasing trend since EW 15. According to data from the national laboratory, among 30 samples processed between EWs 21-22, 16.7% were positive for respiratory viruses and 3% for influenza viruses. RSV was the most predominant virus.

Uruguay

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

Uruguay. SARI deaths by EW. 2012-13

Special Topics:

Novel coronavirus infection

http://new.paho.org/hq/index.php?option=com_content&view=article&id=8665&Itemid=39987+&lang=en

Avian influenza A(H7N9) virus

http://new.paho.org/hq/index.php?option=com_content&view=article&id=8575&Itemid=39968&lang=en

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