



Regional Update EW 20, 2013

Influenza and other respiratory viruses (May 29, 2013)

PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp

Influenza Regional Reports: www.paho.org/influenzareports

The information presented in this update is based on data provided by Ministries of Health and National Influenza Centers of Member States to the Pan American Health Organization (PAHO) or from updates on the Member States' Ministry of Health web pages.

WEEKLY SUMMARY

- **North America:** in Canada and the US, most influenza activity indicators were within expected levels for this time of year. Influenza B remained as 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 maintained circulation of influenza A(H1N1)pdm09 was reported in the last weeks.
- **South America:** acute respiratory infection (ARI) activity showed an increasing trend in most countries but remained within expected levels for this time of the year. In the Andean countries, RSV continued as the predominant circulating virus, with co-circulation of influenza A(H1N1)pdm09 (in Colombia and Venezuela), influenza A(H3N2) (in Bolivia, Ecuador and Perú) and influenza B (in Santa Cruz-Bolivia). In the Southern Cone, RSV also predominates in all countries; with steady increase of influenza A(H1N1)pdm09 in Argentina, Brazil and Chile.

Highlights:

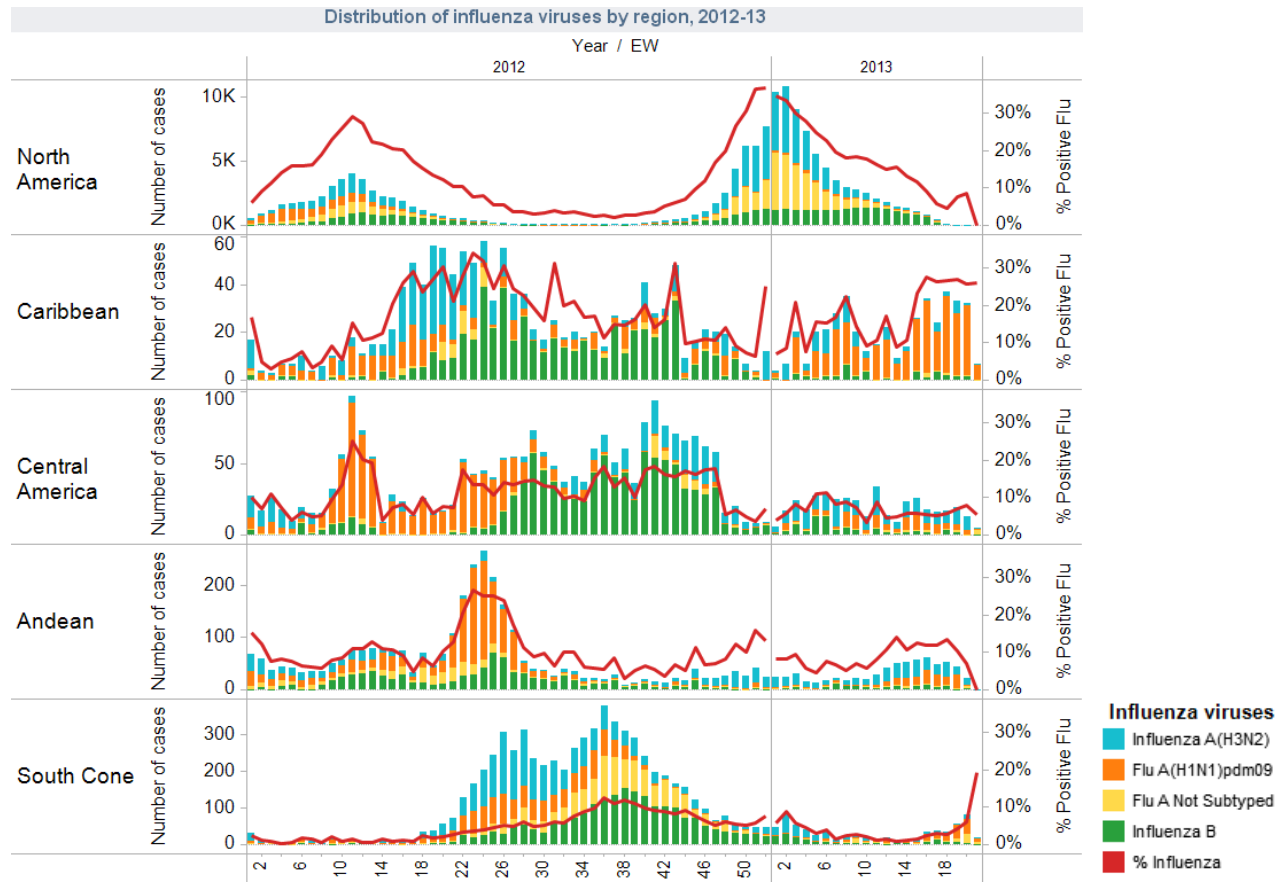
Novel coronavirus infection

- WHO. Global Alert and Response: Novel coronavirus infection – update (May 29th, 2013)
http://www.who.int/csr/don/2013_05_29_ncov/en/index.html
- PAHO. Epidemiological alert: Human infection caused by novel coronavirus – update (May 17th, 2013)
http://new.paho.org/hq/index.php?option=com_content&view=article&id=8683%3A17-may-2013-middle-east-respiratory-syndrome-coronavirus-mers-cov-update-&catid=2103%3A--hsd0104d-most-recent-ea&Itemid=2291&lang=en

Avian influenza A(H7N9) virus

- Human infection with avian influenza A(H7N9) virus in China – May 29th update
http://www.who.int/csr/don/2013_05_29/en/index.html
- PAHO. Epidemiological alert: Human infection caused by influenza A(H7N9) in China – update (May 8th, 2013)
http://new.paho.org/hq/index.php?option=com_content&view=article&id=8632%3A8-may-2013-human-infection-caused-by-avian-influenza-ah7n9-in-china-update&catid=2103%3A--hsd0104d-most-recent-ea&Itemid=2291&lang=en

Influenza circulation by región. 2012-2013



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

North America:

In Canada¹, in epidemiological week (EW) 20, influenza activity continued its slow decline. Nationally, the influenza-like-illness (ILI) consultation rate (13.0 ILI consultations per 1,000 patient visits) decreased and was within the expected range. During EW 20, the highest consultation rate was observed in children less than 5 years of age (31/1,000). Among the total samples analyzed, the percentage of positive influenza tests decreased from 8.4% in EW 19 to 6.7% in EW 20. Of all the positive influenza cases, 80.1% were influenza B and 18.8% were positive for influenza A viruses [28.1% were A(H1N1)pdm09, 18.8% were influenza A(H3), and 53.1% were influenza A(unsubtyped)]. As for other respiratory viruses, detections of rhinovirus increased slightly to 17.2% in EW 20, continuing its upward trend since EW 01. The percentage of positive tests for parainfluenza (7.7%) also continued the gradual increase observed since EW 08. Detections of most other respiratory viruses were stable or decreasing in EW 20.

¹ FluWatch Report. EW 20. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada

Figure 7. Influenza-like illness (ILI) consultation rates, Canada, by report week, 2012-2013 compared 1996/97 through to 2011/12 seasons (with pandemic data suppressed)

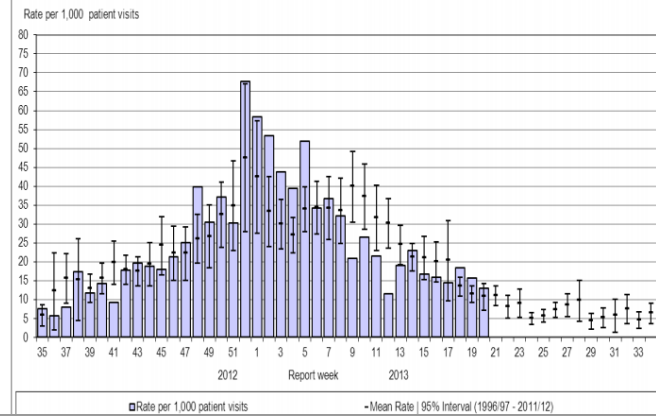


Figure 5. Percent positive influenza tests, compared to other respiratory viruses, Canada, by reporting week, 2012-2013

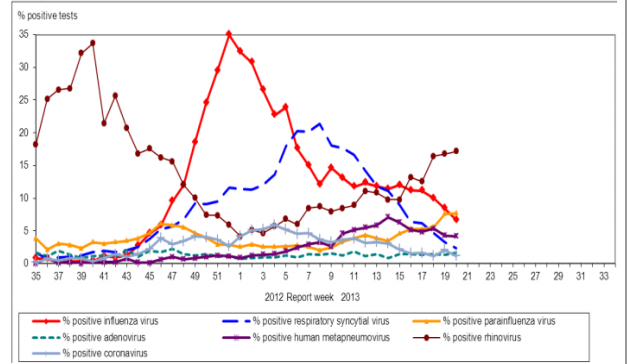
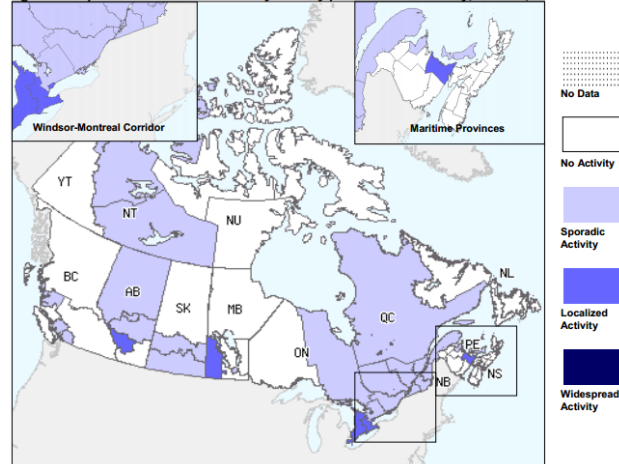


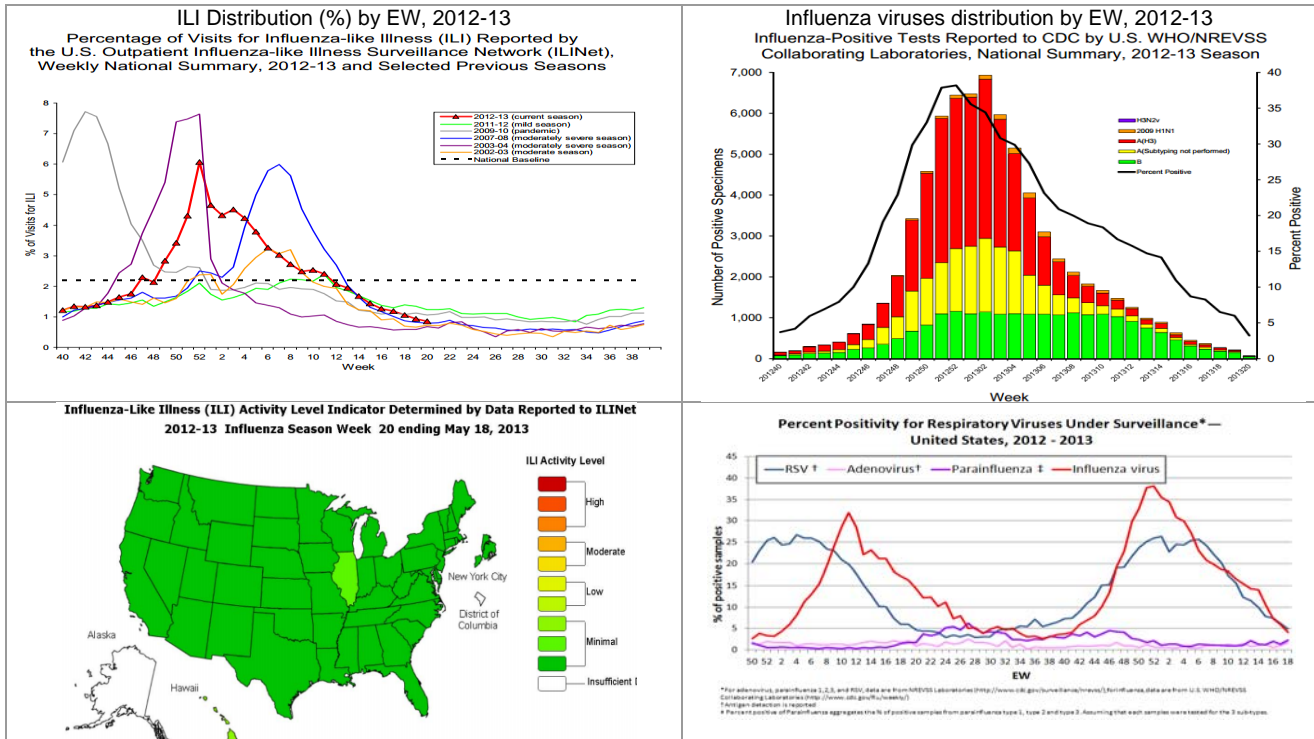
Figure 1. Map of overall Influenza activity level by province and territory, Canada, Week 20



In the United States², during EW 20, influenza activity remained low. Nationally, the proportion of ILI consultations (0.9%) was below the national baseline of 2.2%. Regionally, all 10 regions reported a proportion of outpatient visits for ILI below their region-specific baseline levels. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 20 (6.7%) was below the epidemic threshold for this time of year. In EW 20, seven influenza-associated pediatric death were reported (one associated with influenza A(H3N2), one with influenza A untyped, one with an influenza virus for which the type was not determined and four with influenza B). A cumulative rate for the season of 44.3 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported; 50% of hospitalizations were among adults 65 years and older. Among all samples tested during EW 20 (n=2,104), the percentage of samples positive for influenza (3.2%) decreased as compared to the previous week. Nationally, among the positive samples, 73.5% were influenza B and 26.5% were influenza A [27.8% A(H3N2), 16.7% A(H1N1)pdm09 and 55.6% influenza A untyped]. In EW 18, as for other respiratory viruses, detections of parainfluenza increased slightly to 2.3% and RSV (4.9% among samples tested) continued to decrease.

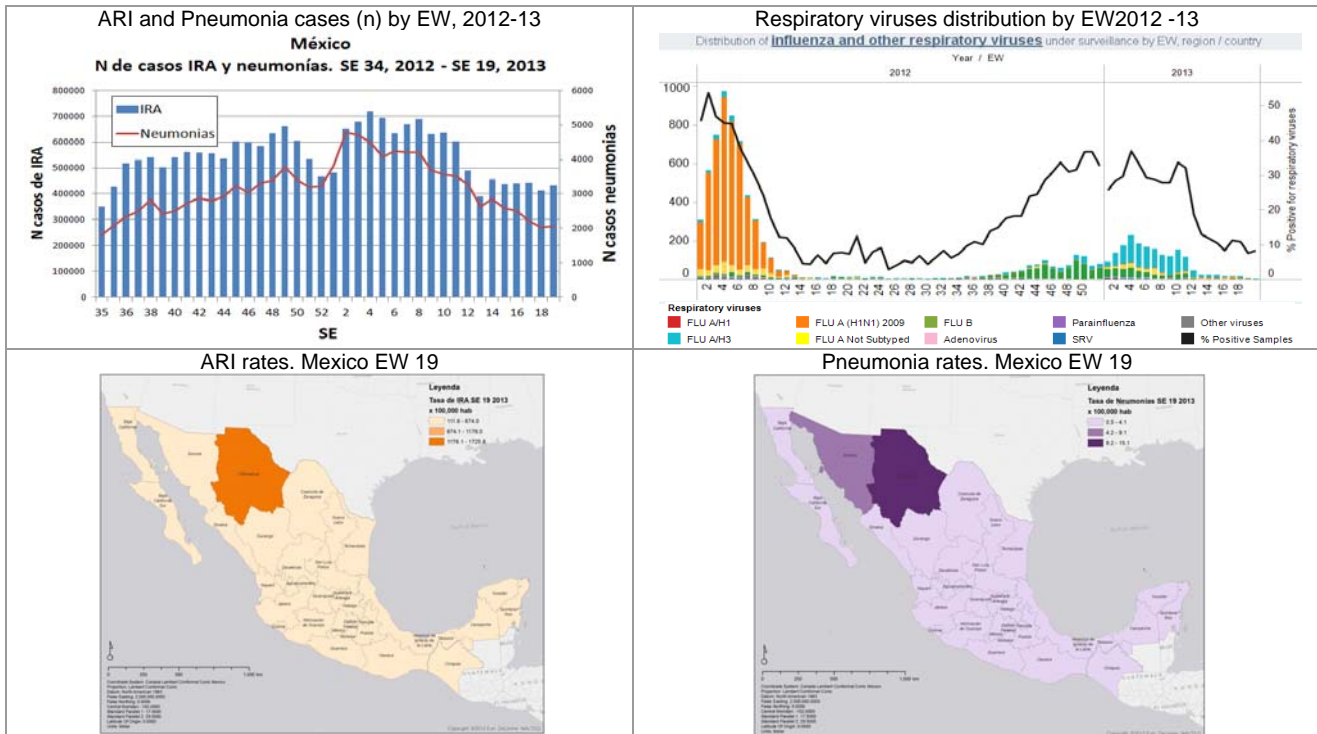
² USA: CDC FluView report. EW 20. Available at: <http://www.cdc.gov/flu/weekly/>

United States



In Mexico³, nationally in EW 19, the number of ARI cases increased by 4.9% as compared to EW 18 and the number of pneumonia cases also increased 1.8%. Regionally, the states that reported the highest rates of pneumonia per 100,000 habitants of in EW 19 were: Colima (4.9) Sonora (4.2), Nuevo Leon (3.9) and Jalisco (3.7). According to laboratory data, in 2013, between EWs 17-20, among the samples tested (n=495) the percent positivity for influenza viruses remained in ~9%. In EWs 17-20, among the positive influenza cases, 83% were influenza A (44.1% influenza A(H3N2), 29.4% A(H1N1)pdm09 and 26.4% influenza A unsubtype) and 17% were influenza B.

Mexico

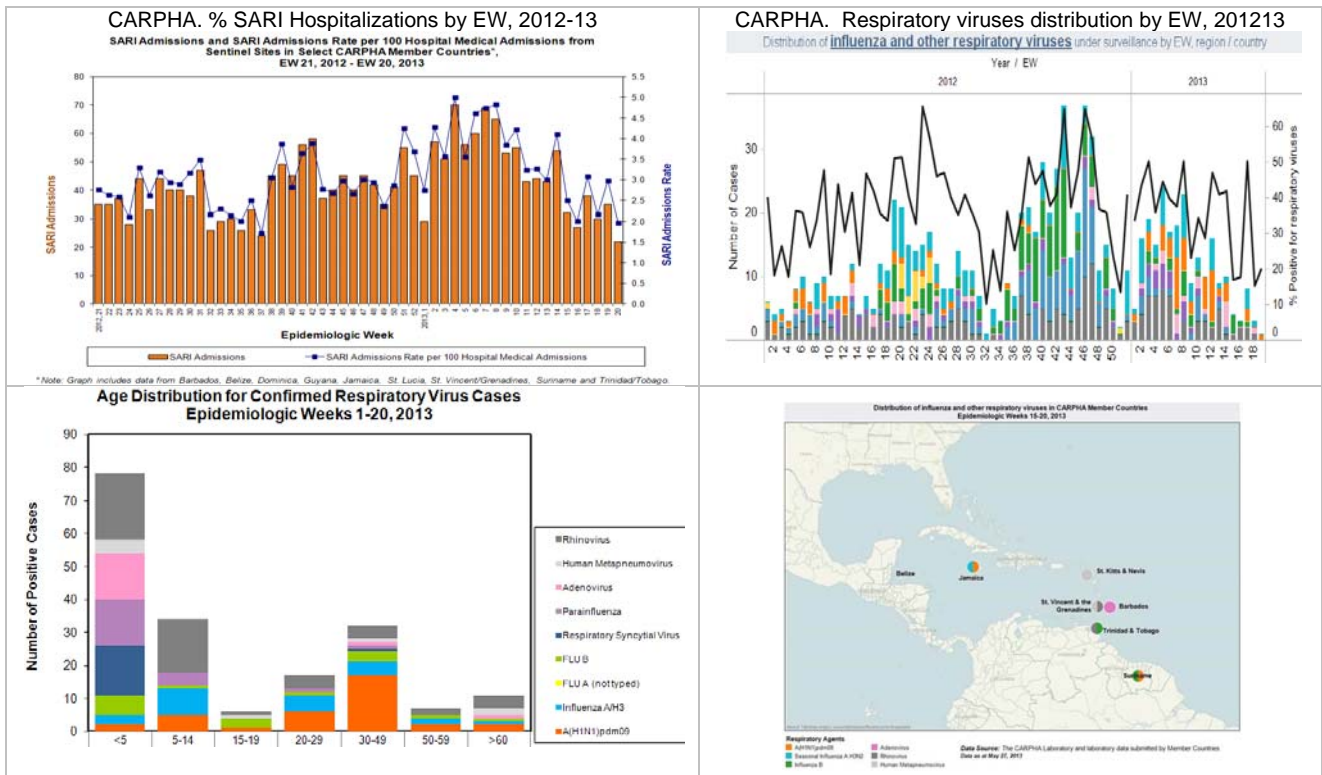


³ México. Dirección General de Epidemiología. Información epidemiológica. SE 20.

Caribbean

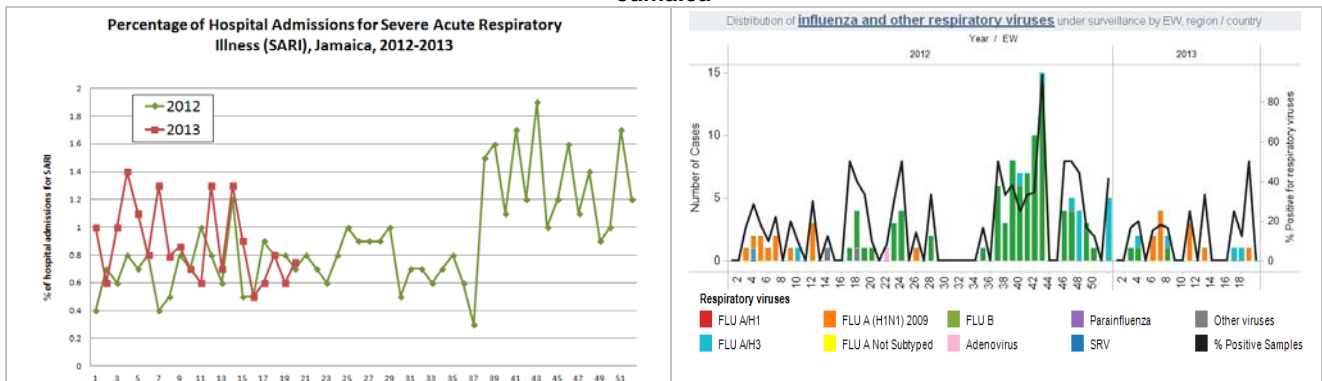
CARPHA⁴, received weekly SARI/ARI data from 5 countries for EW 20, 2013: Belize, Barbados, Jamaica, St. Vincent & the Grenadines and Trinidad & Tobago. In EW 20, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 2.0%. The highest rate of SARI was among children 6 months to 4 years of age (6.8%). One SARI deaths was reported by Barbados in EW 20, 2013. For cases with dates of onset between EW 15 to EW 20, 2013, the following viruses have been laboratory confirmed in member countries: influenza A(H1N1)pdm09 (Jamaica, Suriname); influenza A(H3N2) (Jamaica); influenza B (Suriname, Trinidad and Tobago); adenovirus (Barbados); human metapneumovirus (St. Vincent & Grenadines, St. Kitts & Nevis); rhinovirus (St. Vincent & Grenadines, Trinidad and Tobago). For cases with dates of onset in 2013, the overall percentage positivity for specimens tested is 34.2%. In 2013, to date, the CARPHA laboratory has confirmed 179 cases as positive for 1 or more respiratory agent.

CARPHA



In Jamaica EW 20, sentinel data show that the proportion of consultations for ARI was 4.2% which was a 0.1% increase compared to that reported for the previous week. The proportion of admissions due to SARI was less than 1% and stable compared to the previous week. There was no SARI death reported for EW20. According to laboratory data, among samples tested in EW 20 (n = 6), non influenza viruses were identified.

Jamaica

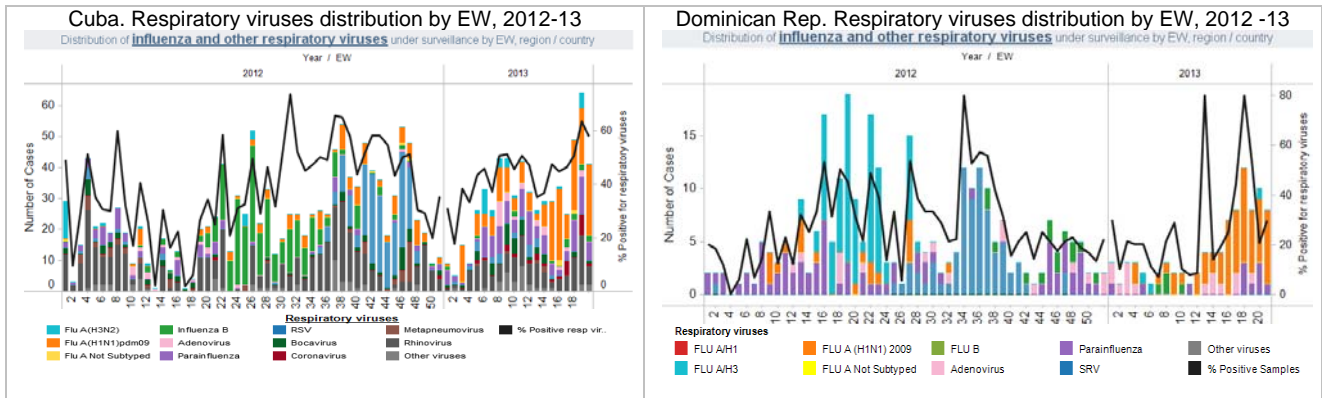


⁴ Agencia de Salud Pública del Caribe (CARPHA por sus siglas en inglés) EW 20.

In Cuba, according to national laboratory data, among all samples analyzed (n=323) between EW 17 to 20, the average percent positivity for respiratory viruses was 54.5% and 26.8% for influenza viruses. Influenza A(H1N1)pdm09, the predominant virus detected, has had sustained circulation in the last week, followed by influenza B and influenza A(H3N2). Among other respiratory viruses, among the samples tested, rhinovirus and parainfluenza co-circulates in the island. Among the SARI cases, 145 samples were analyzed between EW 17 to 20, with influenza A (H1N1)pdm09, parainfluenza and rhinovirus detected mainly during the same period.

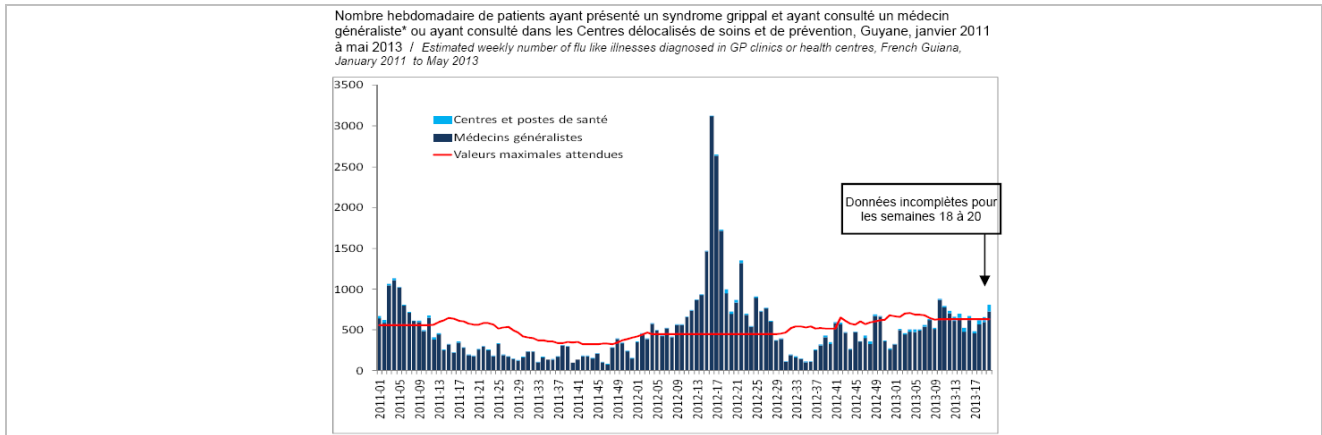
In the Dominican Republic, according to laboratory data, from EWs 18 to 21, among samples analyzed (n=100), the average percentage positive for respiratory viruses was 46.6% and 35.6% for influenza viruses. Influenza A(H1N1)pdm09, the predominant virus detected, has had sustained circulation in the last weeks, followed by parainfluenza and influenza A(H3N2).

Cuba and Dominican Republic



In French Guiana, the ILI epidemic continues with a moderate magnitude. The number of ILI cases has increased during the first three weeks of the month of May and exceeds the values expected for this period; it is estimated between 624 and 806 weekly consultations in May. All of the territory has been affected. Predominantly influenza B/Yamagata and B/Victoria viruses circulate.

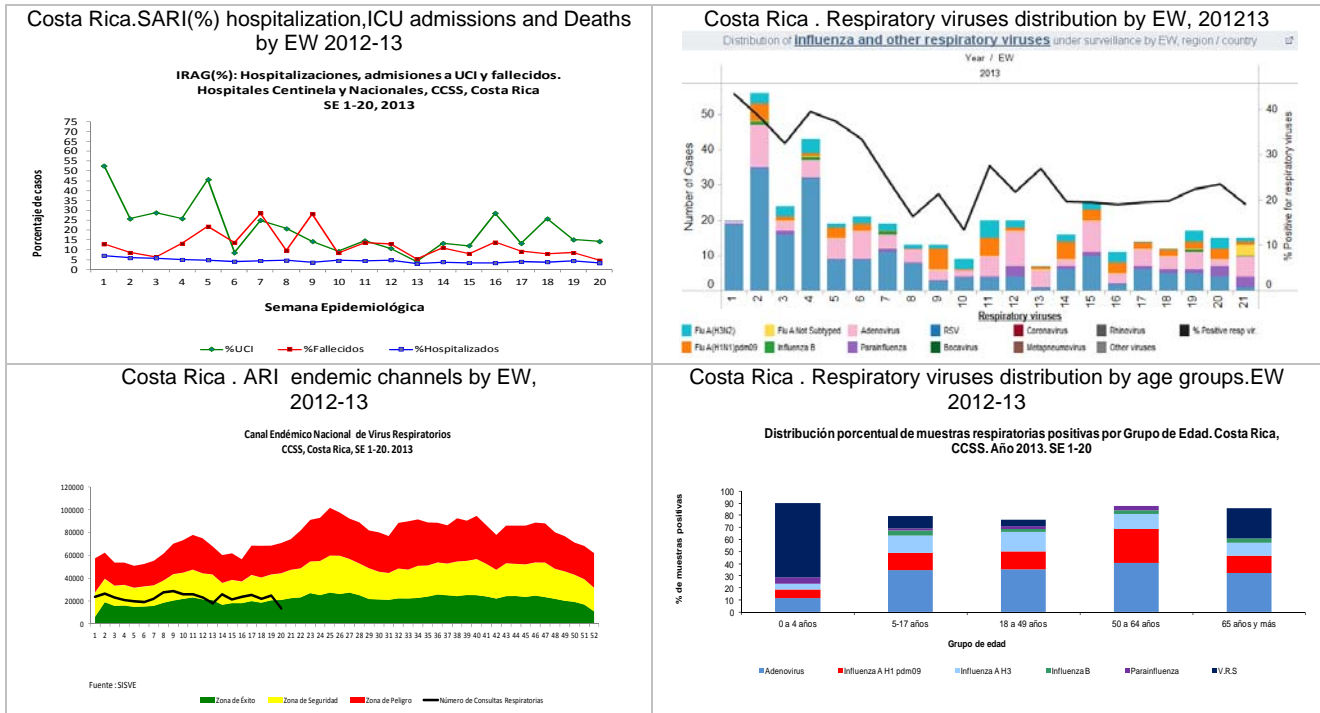
French Guiana



Central America

In Costa Rica⁵, the activity of influenza and other respiratory viruses remains steady. In EW 20, at national level, the proportion of SARI hospitalizations was 3.3%. 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 20, 14.3% were admitted to ICU and 4,7% were reported as SARI-related deaths. According to laboratory data between EW 18-21, among all samples tested (n =280), the percent positivity for respiratory viruses was 21.1% and for influenza viruses was 6.7%. During the period between EW 18-21, among influenza viruses, influenza A predominated (95%) (co-circulation of influenza A(H1N1)pdm09 and A(H3N2)). Among other respiratory viruses, adenovirus (5,4% of positivity) and RSV (5,4% of positivity) were the most prevalent viruses.

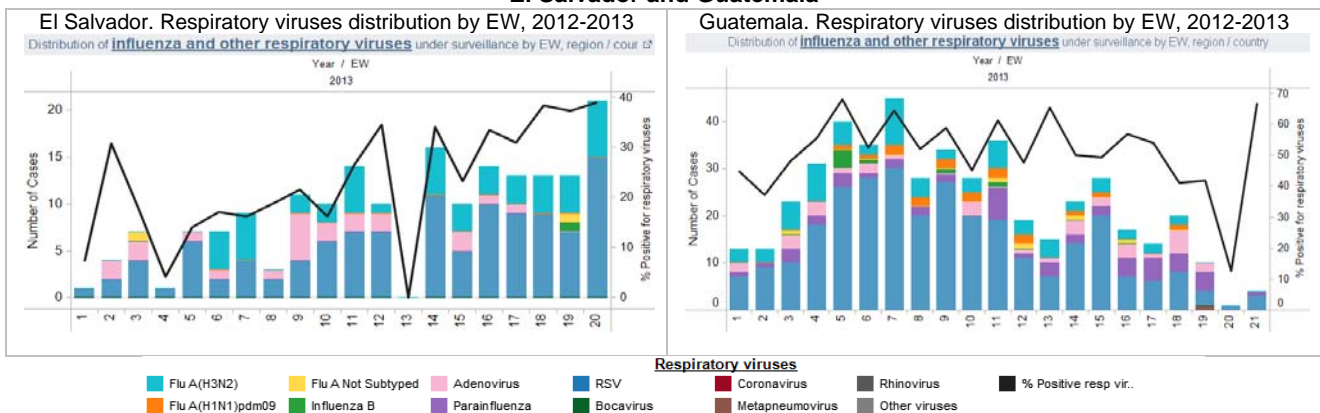
Costa Rica



In El Salvador, according to national laboratory data from EWs 17-20, of all samples tested (n =165), 36.3% were positive for all respiratory viruses and 11.8% for influenza viruses. Among the total samples tested, RSV was the most dominant virus (24.2% of positivity), followed by influenza A(H3N2).

In Guatemala, according to national laboratory data from EWs 18-21, of all samples tested (n =87), 40.4% were positive for respiratory viruses and 1.5% for influenza viruses. As for other respiratory viruses, among the total samples tested, RSV was the most dominant virus (17.2% of positivity) followed by parainfluenza (10.3% of positivity).

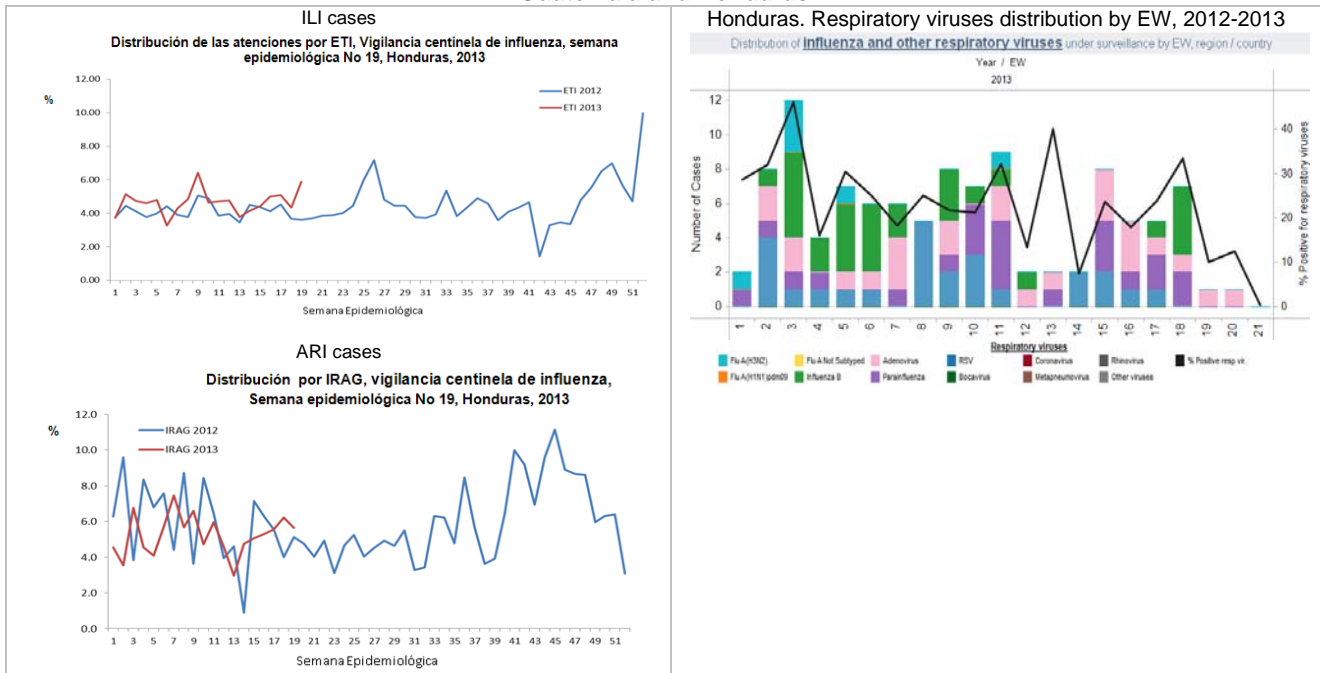
El Salvador and Guatemala



⁵ Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 20.

In Honduras, in EW 19, the proportion of ILI consultations (5.9%) were slightly higher than the previous week, and higher than the observed the last year for this time of the year. The proportion of SARI hospitalizations (5.6%) remained similar to the last year for this time of the year. According to national laboratory data from EWs 18-21, of all samples tested (n =40), 14% were positive for respiratory viruses and 4.8% for influenza viruses were detected. Influenza B was the most prevalent detected viruses, followed by adenovirus and parainfluenza.

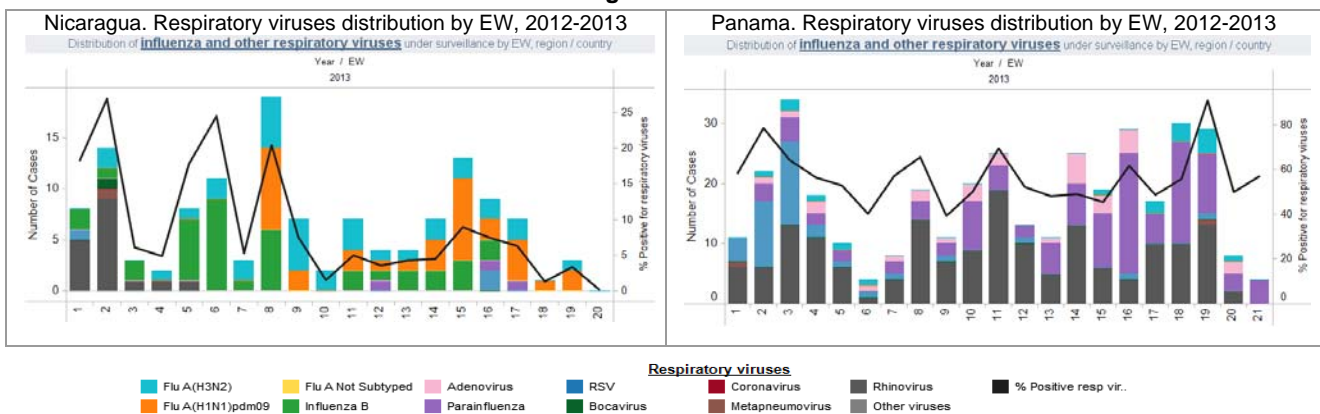
Guatemala and Honduras



In Nicaragua, according to national laboratory data from EWs 17-20, of all samples tested (n =302), 2.7% were positive for all respiratory viruses and 2.5% for influenza viruses. Influenza A(H1N1)pdm09 and influenza A(H3N2) were the predominant respiratory viruses detected.

In Panama, according to national laboratory data from EWs 18-21, of all samples tested (n =109), 63.3% were positive for respiratory viruses and only 6.1% were positive for influenza viruses. Among the total samples tested, in EWs 18-21, parainfluenza was the most dominant virus (31.2% of positivity), followed by rhinovirus (23% of positivity). Among positive influenza viruses, influenza A(H3N2) was the predominant virus detected.

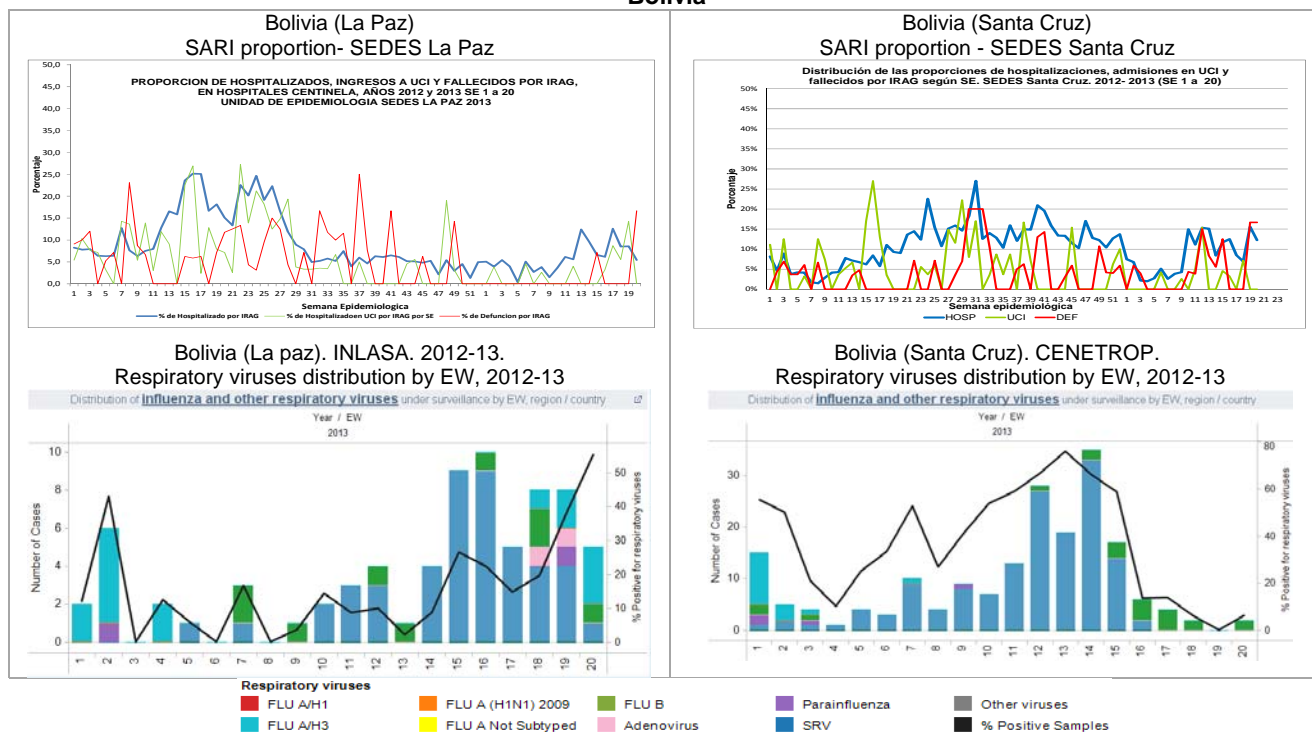
Nicaragua and Panama



South America – Andean countries

In Bolivia, according to data from Santa Cruz, during EW 20 the proportion of SARI hospitalizations was 12% (decreased since the previous week). According to laboratory data from CENETROP (Santa Cruz), among 56 samples analyzed between EWs 19-20 of 2013, the percent positivity for all respiratory viruses was 3.6%. Influenza B continued to be the most prevalent respiratory virus. In La Paz, in EW 20, the proportion of SARI hospitalizations decreased as compared to the previous week. According to laboratory data from INLASA (La Paz), among 40 samples processed in EWs 19-20 of 2013, the percent positivity for all respiratory viruses was 47%, and for influenza viruses was 25%. RSV and influenza A(H3N2) were the predominant respiratory viruses identified.

Bolivia

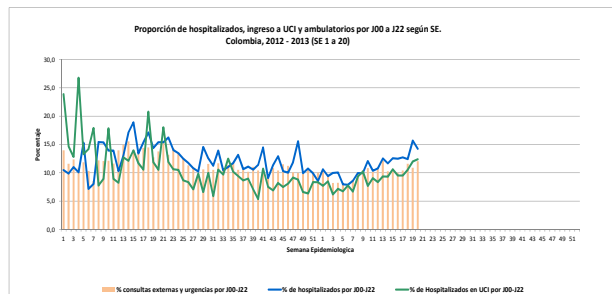


In Colombia⁶, nationally, in EW 20, the proportion of ARI outpatients-J codes (12%), the proportion of SARI hospitalizations (14%) and the proportion of SARI ICU admissions (12%) continued showing an upward trend, but, within the expected level for this time of year. The highest hospitalization proportion was reported in the children less than 5 years of age. Up to EW 19, the number of deaths associated with ARI in the children less than 5 years of age, was lower as compared to the previous years. According to the national laboratory data (INS) including statistics from the Departments of Bogotá, Antioquia and Nariño, between samples and viruses analyzed (n=109) in EW 20-21, the positivity was 4.8% for all respiratory viruses and 2.4% for influenza viruses. These proportions were lower than the previous weeks and the peak was reported in EW 18. Between EWs 18-21, RSV (15% of positive samples) was the predominant virus detected, followed by influenza A(H1N1)pdm09 (mainly detected in Bogotá) and influenza A(H3N2) (mainly detected in Nariño).

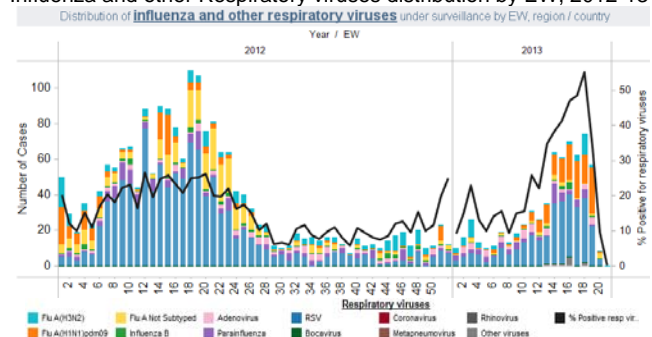
⁶ Colombia. Ministerio de Salud y Protección Social. Rueda de Prensa IRAG. 25 de Mayo, 2013 y Boletín de infección Respiratoria Aguda SE 19, 2013.

Colombia

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

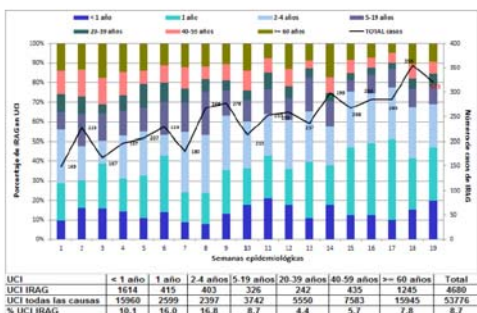


Influenza and other Respiratory viruses distribution by EW, 2012-13



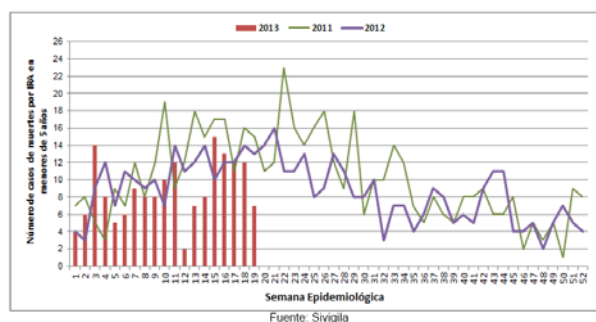
SARI ICU admissions by age groups

Figura 3. Porcentaje de casos de IRAG en UCI entre el total de hospitalizaciones en UCI atendidas en la UPGD en todos los grupos de edad por semana epidemiológica. SE 1 a 19 de 2013.



Number of ARI deaths in children <5 y.o.

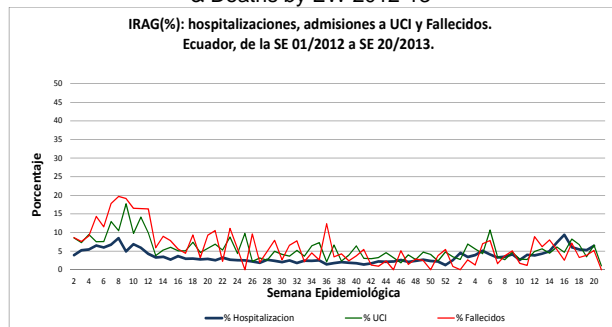
Figura 5. Comportamiento notificación casos de mortalidad por IRA en menores de 5 años ajustado a semana de defunción. Colombia 2011 2012 y 2013 SE 19.



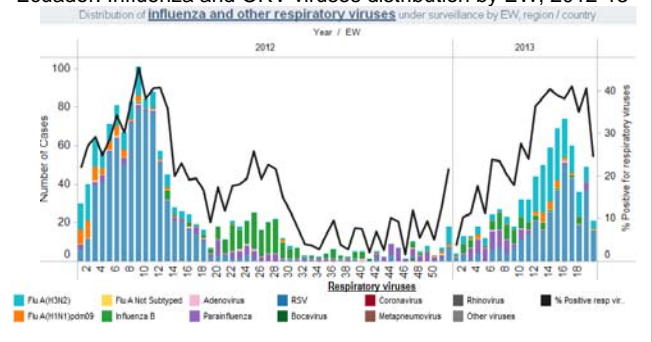
In Ecuador, the proportion of SARI hospitalizations during EW 20 (5%) remained similar to the previous week. According to national laboratory data from the national laboratory (NIH), among 207 SARI samples tested between EWs 19-20, the percent positivity was 34% for respiratory viruses and 6% for influenza viruses. Among all the positive samples, RSV and influenza A(H3N2) were the most dominant viruses.

Ecuador

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



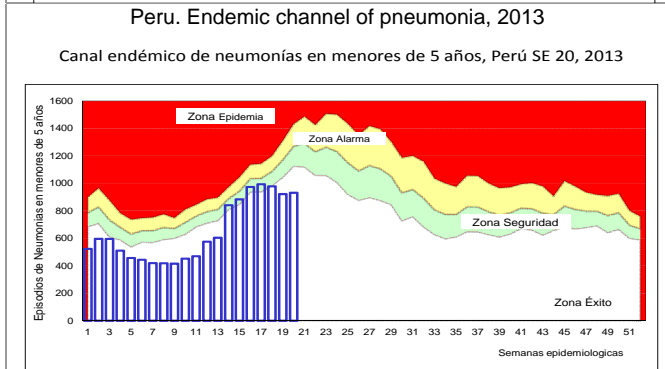
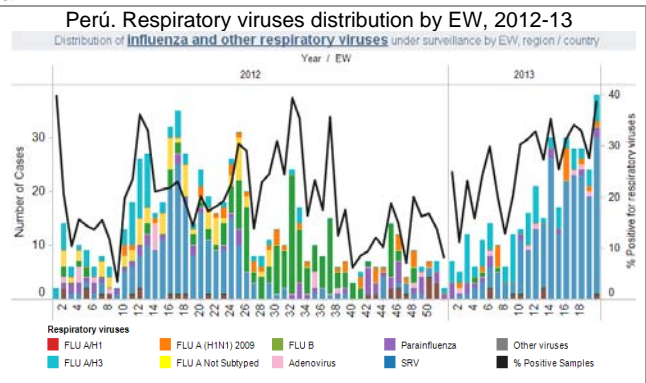
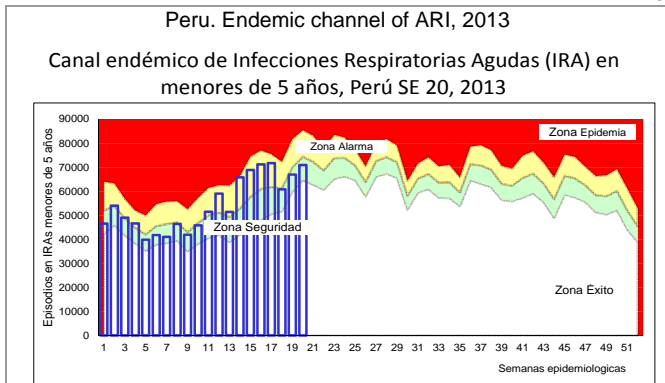
Ecuador. Influenza and ORV viruses distribution by EW, 2012-13



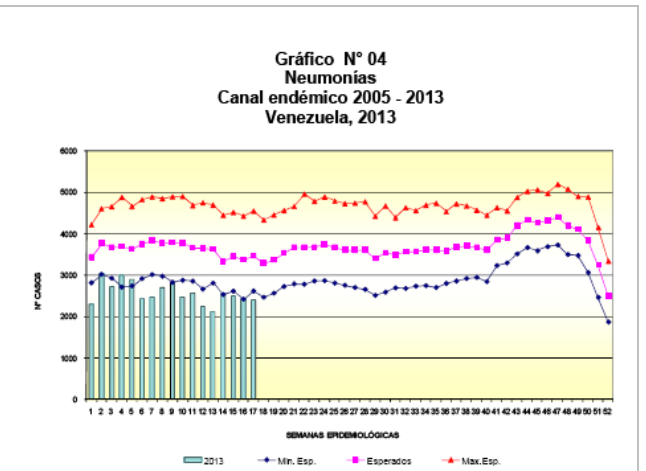
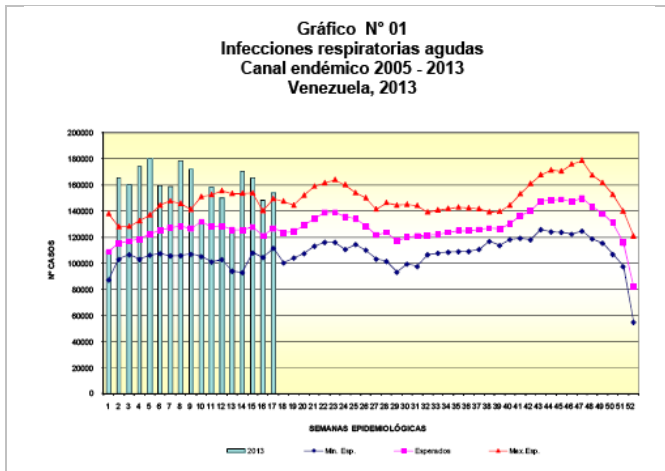
In Peru⁷, nationally, in EW 20, the number of ARI cases in children less than 5 years of age increased slightly and remained below the epidemic threshold. The number of pneumonia cases in children less than 5 years of age remained similar as compared to the last week and below the epidemic threshold. According to national laboratory data, during EWs 19-20, among the 185 samples analyzed, the percentage positivity was 33% for all respiratory viruses and 5% for influenza viruses. Among all the positive viruses, RSV was the predominant virus.

⁷ Perú. Sala de Situación de Salud. EW 20, 2013. Ministerio de Salud. Dirección General de Epidemiología

Peru



In Venezuela⁸, according to data published up to EW 17, the endemic channel of ARI showed an ARI activity above the epidemic threshold for this time of the year; while the endemic channel of pneumonias, showed an activity within what is expected for this time of the year. The highest incidences for ARI and pneumonia cases were reported in the group of children less than 7 years. In virological surveillance, thus far this year up to EW 17, predominance of influenza A(H1N1) pdm09 was reported, followed by influenza A(H3N2).

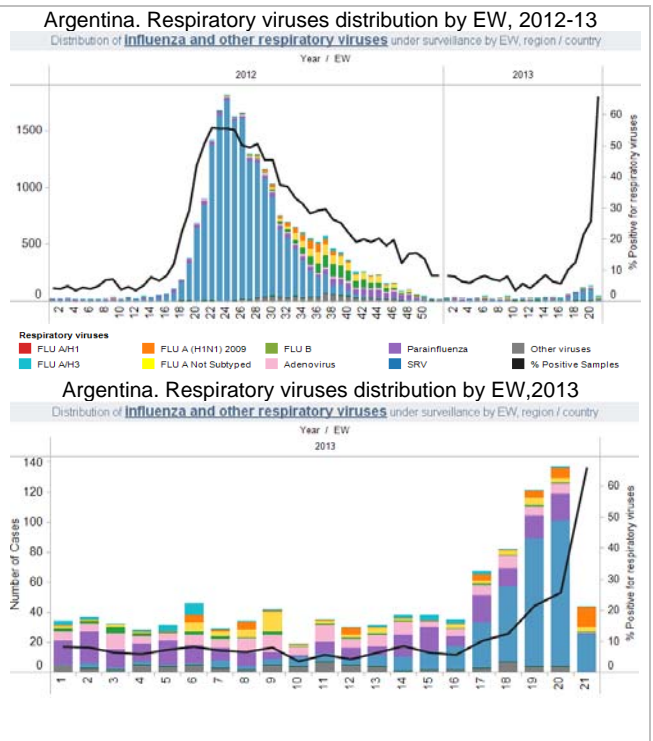
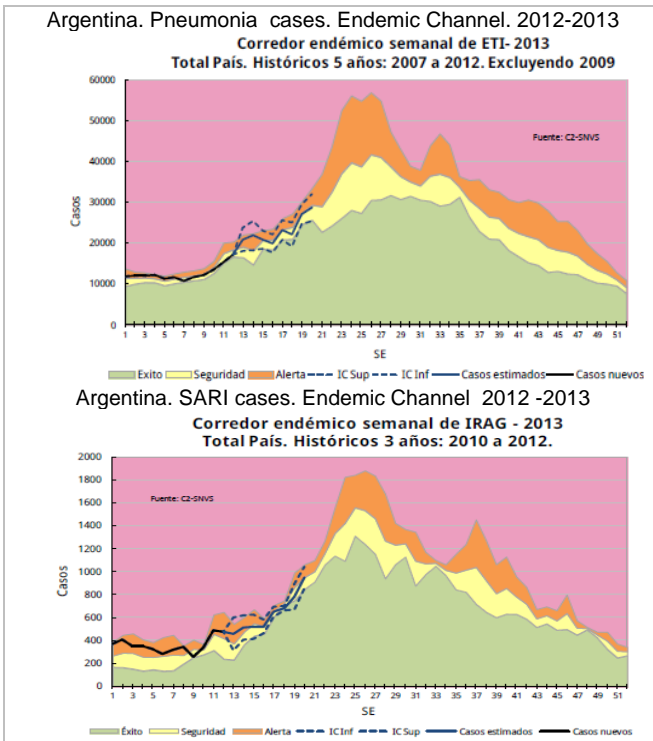


South America – Southern Cone

In Argentina⁹, according to national estimates, the activity of ILI and SARI during EW 20 were within the expected levels for this time of year with increasing trends. According to national laboratory data, 1,105 samples were processed between EWs 19-20, of which 23% were positive for all respiratory viruses and 2% for influenza viruses. Among the positive samples, 70% were RSV (the predominant virus).

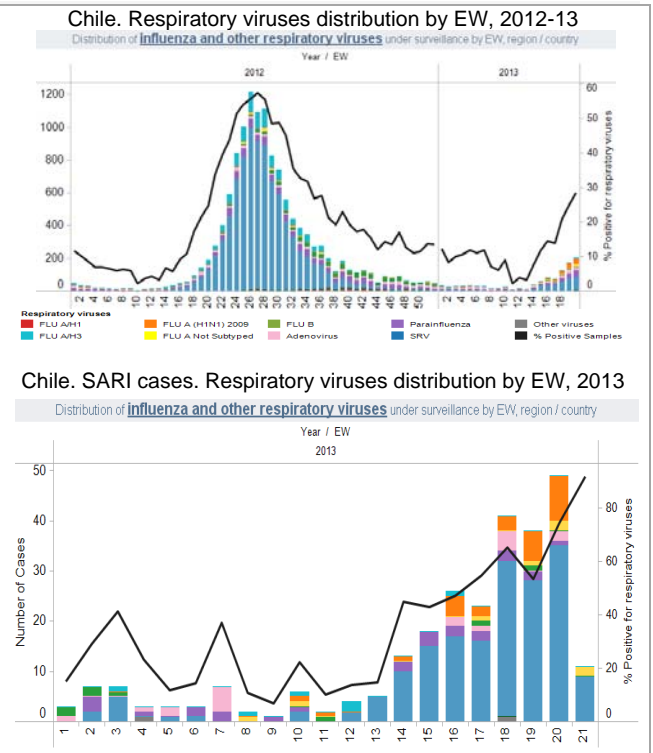
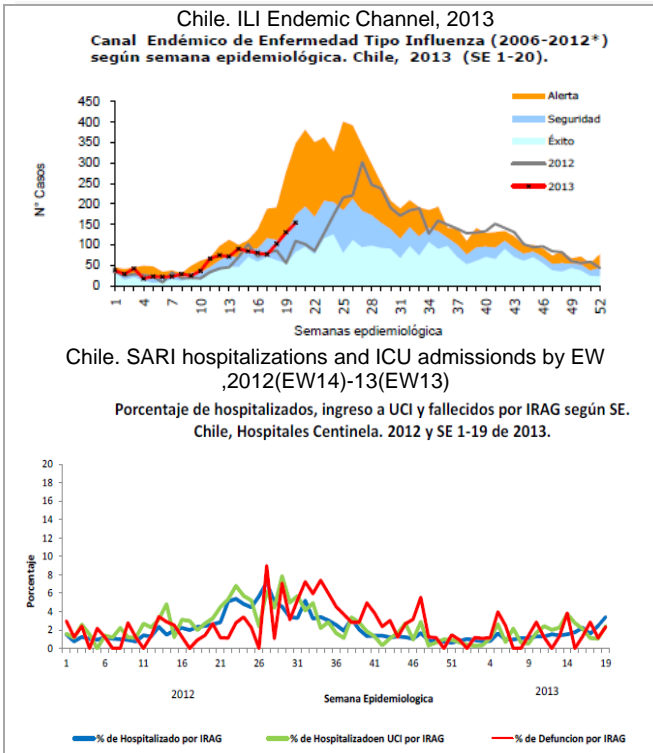
⁸ Venezuela. Boletín epidemiológico, SE 17, 2013.
⁹ Argentina. Boletín integrado de vigilancia. SE 20.

Argentina



In Chile¹⁰, nationally, in EW 20, 2013, the ILI activity (rate: 9.7/ 100,000 pop.) increased from the previous EW and remained in the alert zone of the endemic channel. The proportion of SARI hospitalizations in EW 19 (3.4%) was higher as compared to the previous week. According to national laboratory data, in EWs 19-20, 1399 samples were analyzed, of which 27% were positive for respiratory viruses and 7% for influenza viruses. Among the positive samples, 42% were RSV, which was the most prevalent virus. Influenza A(H1N1)pdm09 increased in the last weeks. Among SARI cases, RSV was the most prevalent virus detected.

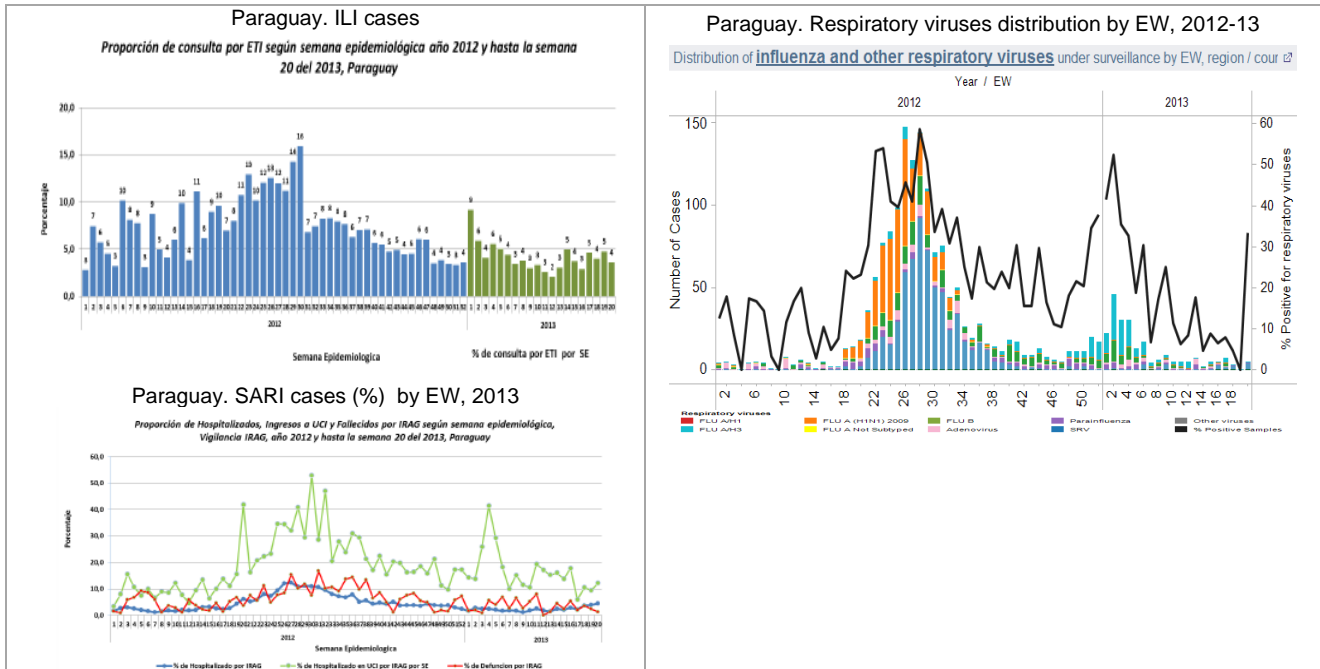
Chile



¹⁰ Chile. Informe de situación. EW 20. Disponible en: www.pandemia.cl

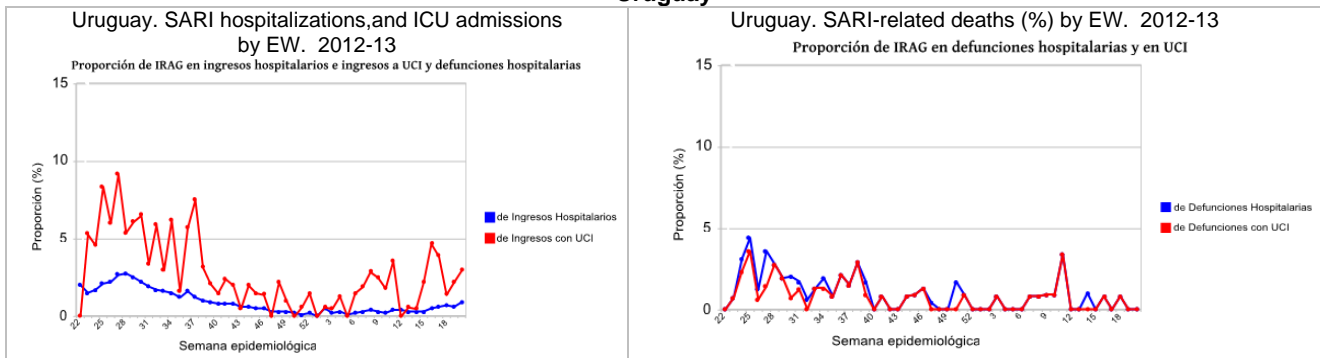
In Paraguay¹¹, nationally in EW 20, the proportion of ILI consultations (3.6%) remained in a low level and similar to the one observed last week. The proportion of SARI-related hospitalizations (4.4%) increased as compared to the previous week. According to data from the national laboratory, among 107 samples processed between EWs 19-20, 11% were positive for respiratory viruses and 1.7% for influenza viruses. RSV and parainfluenza were the viruses detected. Among the 46 samples from SARI cases, in EWs 19-20, RSV predominated.

Paraguay



In Uruguay¹², at the national level, the proportion of SARI hospitalizations in EW 20, increased as compared to the previous week; showing an increasing trend since EW 15. No reported deaths related to SARI in this week.

Uruguay



¹¹ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 20, 2013

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

Special Topics:

Novel coronavirus infection

- WHO. Global Alert and Response: Novel coronavirus infection – update (May 29th, 2013)
http://www.who.int/csr/don/2013_05_29_ncov/en/index.html
- PAHO. Epidemiological alert: Human infection caused by novel coronavirus – update (May 17th, 2013)
http://new.paho.org/hq/index.php?option=com_content&view=article&id=8683%3A17-may-2013-middle-east-respiratory-syndrome-coronavirus-mers-cov-update-&catid=2103%3A--hsd0104d-most-recent-ea&Itemid=2291&lang=en

Avian influenza A(H7N9) virus

- Human infection with avian influenza A(H7N9) virus in China – May 29th update
http://www.who.int/csr/don/2013_05_29/en/index.html
- PAHO. Epidemiological alert: Human infection caused by influenza A(H7N9) in China – update (May 8th, 2013)
http://new.paho.org/hq/index.php?option=com_content&view=article&id=8632%3A8-may-2013-human-infection-caused-by-avian-influenza-ah7n9-in-china-update&catid=2103%3A--hsd0104d-most-recent-ea&Itemid=2291&lang=en

Other links:

- Candidate vaccine viruses for avian influenza A(H7N9). 25 May 2013
http://www.who.int/influenza/vaccines/virus/candidates_reagents/a_h7n9/en/index.html
- Interim WHO surveillance recommendations for human infection with avian influenza A(H7N9) virus. 10 May 2013
http://www.who.int/influenza/human_animal_interface/influenza_h7n9/InterimSurveillanceRecH7N9_10May13.pdf
- WHO Risk Assessment. Human infections with influenza A(H7N9) virus. 10 May 2013
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