Regional Update EW 18, 2013



Influenza and other respiratory viruses (May 14, 2013)

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

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

WEEKLY SUMMARY

- North America: in Canada and the US, most influenza activity indicators were within the expected level 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.
- <u>Central America and the Caribbean:</u> similar or increasing respiratory virus activity was reported in this sub-region as compared to previous weeks. In this sub-region, among influenza viruses, influenza A(H1N1)pdm09 have been increasing in Cuba and Dominican Republic in the last weeks. Among other respiratory viruses, parainfluenza (Cuba, Dominican Republic, Honduras and Panama) and RSV (Costa Rica) were also reported.
- South America: acute respiratory infection (ARI) activity showed an increasing trend in most countries but remained within the expected levels for this time of the year. In the Andean countries, RSV was the predominant circulating virus, with co-circulation of influenza A(H1N1)pdm09 in Colombia, influenza A(H3N2) in Ecuador, and with influenza B in Bolivia. In the Southern Cone, RSV circulated predominantly. In Brazil, among the SARI cases, influenza A(H1N1)pdm09 was the predominant virus.

Highlights:

Novel coronavirus infection

- WHO. Global Alert and Response: Novel coronavirus infection update (May 14th, 2013) http://www.who.int/csr/don/2013_05_14_ncov/en/index.html
- PAHO. Epidemiological alert: Human infection caused by novel coronavirus update (May 10th, 2013)

http://new.paho.org/hq/index.php?option=com_content&view=article&id=8642%3A10-may-2013-human-infection-caused-by-novel-coronavirus&catid=2103%3A--hsd0104d-most-recent-ea&Itemid=2291&lang=en

Avian influenza A(H7N9) virus

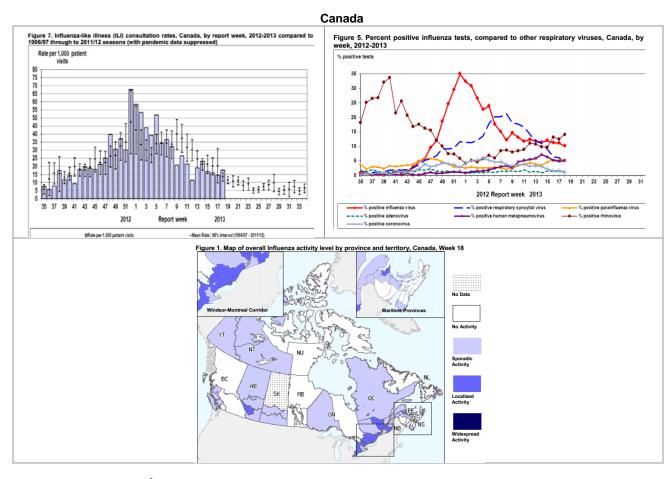
- Human infection with avian influenza A(H7N9) virus in China May 9th update
 http://www.who.int/influenza/human_animal_interface/influenza_h7n9/Data_Reports/en/index.html
- PAHO. Epidemiological alert: Human infection caused by influenza A(H7N9) in China update (May 8th, 2013)

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

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

North America:

In Canada¹, in epidemiological week (EW) 18, influenza activity continued its slow decline. Nationally, the influenza-like-illness (ILI) consultation rate (14.5 ILI consultations per 1,000 patient visits) increased slightly and was above the expected range; however, fewer regions reported localized activity compared to the previous week. During EW 18, the highest consultation rate was observed in children under 5 years of age (63.2/1,000). Among the total samples analyzed, the percentage of positive influenza tests for influenza decreased from 11.2 in EW 17 to 10.0% in EW 18. Of all the positive influenza cases, 86.4% were influenza B (which was the predominant strain, but detections continued to decrease for the second consecutive week) and 13.6% were positive for influenza A viruses [48.8% were A(H1N1)pdm09, 9.8% were influenza A(H3), and 41.5% were influenza A(unsubtyped)]. As for other respiratory viruses, detections of rhinovirus continued to increase, while detections of other respiratory viruses were stable or decreasing in EW 18.

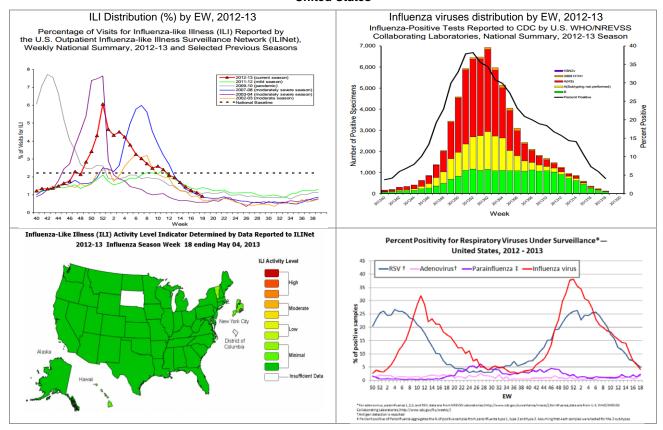


In the United States², during EW 18, influenza activity remained low. Nationally, the proportion of ILI consultations (0.9%) was below the national baseline of 2.2%. Regionally, all 10 regions reported a proportion of outpatient visits for ILI below their region-specific baseline levels. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 18 (7%) was below the epidemic threshold for this time of year. In EW 18, one influenza-associated pediatric death was reported (associated with influenza A unsubtyped). A cumulative rate for the season of 44.2 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 18 (n=3,048), the percentage of samples positive for influenza (4.1%) continued to decrease. Nationally, among the positive samples, 67.2% were influenza B and 32.8% were influenza A [19.5% A(H3N2), 9.8% A(H1N1)pdm09 and 70.7% influenza A unsubtyped]. As for other respiratory viruses, detections of parainfluenza increased slightly to 2.3% and RSV (4.9% among samples tested) continued to decrease in EW 18.

¹ FluWatch Report. EW18. Available at http://www.phac-aspc.gc.ca/fluwatch/

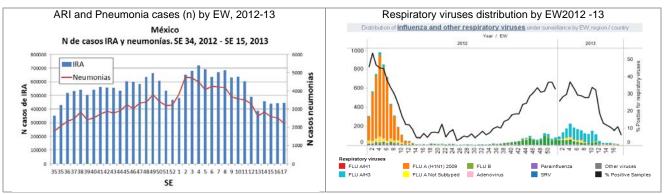
² USA: CDC FluView report. EW 18. Available at: http://www.cdc.gov/flu/weekly/

United States



In Mexico 3 , nationally in EW 17, the number of ARI cases (n= 444,609) increased 1% as compared to EW 16 (n= 441,943). The number of pneumonia cases (n=2,214) decreased and was12% less than the number reported during EW 16 (n=2,517). Regionally, the states that reported the highest rates of pneumonia per 100,000 habitants of in EW 17 were: Sonora (4.9), Jalisco (4.6) Baja California Sur (3.8) and Colima (3.8). According to laboratory data, in 2013, between EWs 15-18, among the samples tested (n=595) the percent positivity for influenza viruses was ~9%. In EWs 15-18, among the positive influenza cases, 83% were influenza A (56.9% influenza A (H3N2), 20.5% A(H1N1)pdm09 and 0.2% influenza A unsubtyped) and 17% were influenza B.



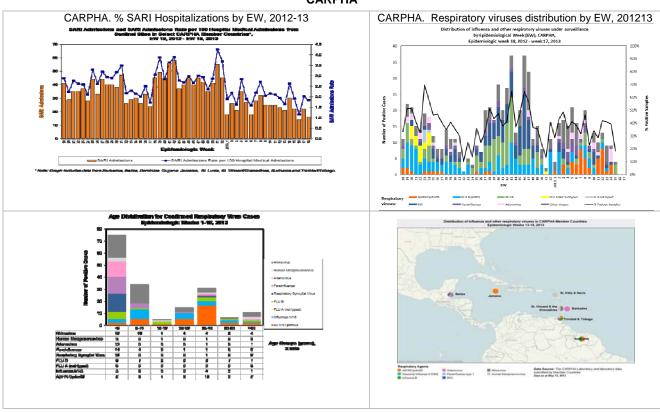


 $^{^{3}}$ México. Dirección General de Epidemiología. Información epidemiológica. SE 18.

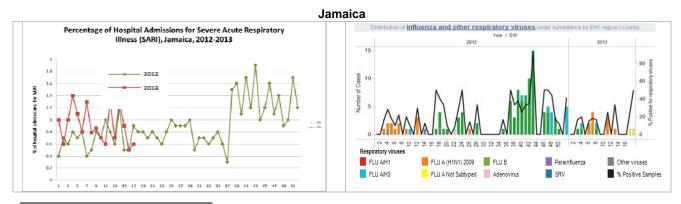
Caribbean

CARPHA⁴, received weekly SARI/ARI data from 5 countries for EW 18, 2013: Barbados, Dominica, Jamaica, St. Lucia, and Trinidad & Tobago. In EW 18, 2013, the proportion of severe acute respiratory infection (SARI) hospitalizations was 1.8%. The highest rate of SARI was among children 6 months to 4 years of age (5.3%). No SARI deaths were reported from the region in EW 18, 2013. For cases with dates of onset between EW 13 to EW 18, 2013, the following viruses have been laboratory confirmed in member countries: influenza A (H1N1)pdm09 (Belize, Jamaica, Suriname, Trinidad & Tobago), influenza A(H3N2) (Belize), influenza B (Suriname, Trinidad & Tobago), adenovirus (Barbados, Belize), human metapneumovirus (St. Vincent & Grenadines, Trinidad & Tobago, St. Kitts & Nevis), parainfluenza type 1 (Belize), rhinovirus (Belize, St. Vincent & Grenadines, Trinidad & Tobago), RSV (Belize). In 2013, to date, the CARPHA laboratory has confirmed 177 cases as positive for one or more respiratory agent. The overall percentage positivity for specimens tested in 2013 is 34.3%.

CARPHA



In Jamaica for EW 18 the proportion of consultations for ARI was 3.8% which was the same as 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 EW18. According to laboratory data 12.5% of samples tested was positive for influenza A (n=8).



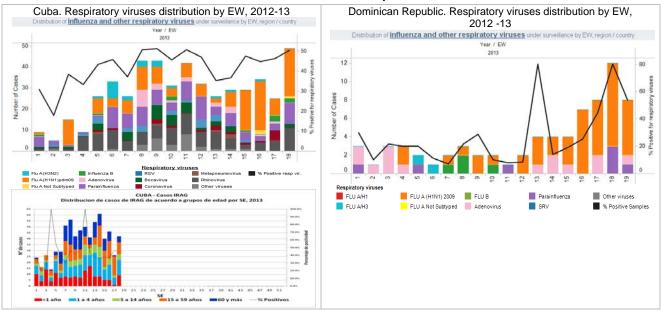
⁴ Agencia de Salud Pública del Caribe (CARPHA por sus siglas en inglés) EW 18.

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In Cuba, according to national laboratory data, among all samples analyzed (n=288) between EW 15 to 18, the average percent positivity for respiratory viruses was 47.3% and 28.5% for influenza viruses. Influenza A(H1N1)pdm09, the predominant virus detected, seems to have a sustained circulation in the last weeks. Among other respiratory viruses, among the samples tested, parainfluenza increased to 10% and rhinovirus to 11% in EW 18. Among the SARI cases, 154 samples were analyzed between EW 15 to 18, with influenza A (H1N1)pdm09 detected mainly during the same period.

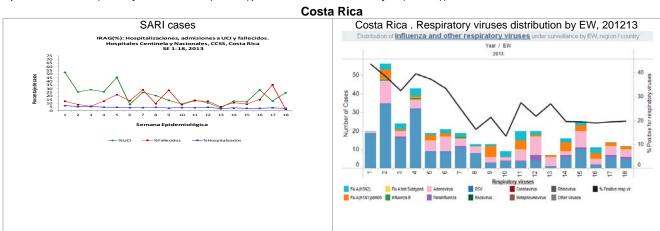
In the Dominican Republic, according to laboratory data, from EWs 16 to 19, among samples analyzed (n=76), the average percentage positive for respiratory viruses were increasing from 14% (EW 14) to 80% (EW18); and slightly decreased in the EW 19 (53%). Influenza A(H1N1)pdm09, the predominant virus detected, seems to have a sustained circulation in the last weeks.

Cuba and Dominican Republic

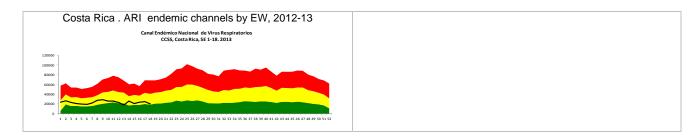


Central America

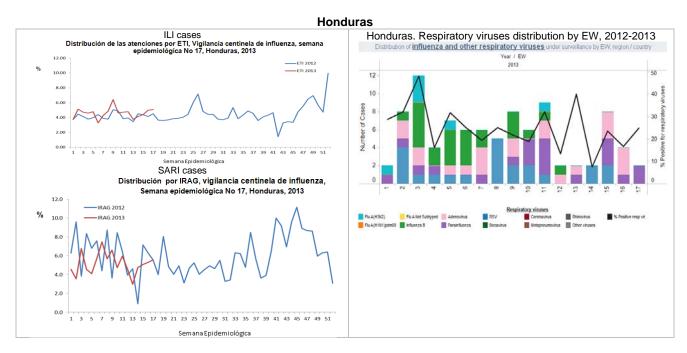
In Costa Rica⁵, the activity of influenza and other respiratory viruses remained low. In EW 18, at national level, the proportion of SARI hospitalizations was 3.3%. The majority of SARI cases occurred among children between 0-4 years of age and adults between 18-49 years. Among all SARI cases reported in EW 18, 24% were admitted to ICU and 2% were reported as SARI-related deaths. According to laboratory data between EW 15-18, among all samples tested (n =320), the percent positivity for respiratory viruses was 19.4% and for influenza viruses was 5%, both remained similar to the previous weeks. During the period between EW 15-18, RSV and adenovirus were the most prevalent viruses. Among influenza viruses, influenza A predominated (mainly influenza A(H1N1)pdm09 and followed by A(H3N2)).



⁵ Costa Rica. Caja Costarricense de Seguro Social, INCIENSA. Influenza y otras virosis respiratorias. SE 18.

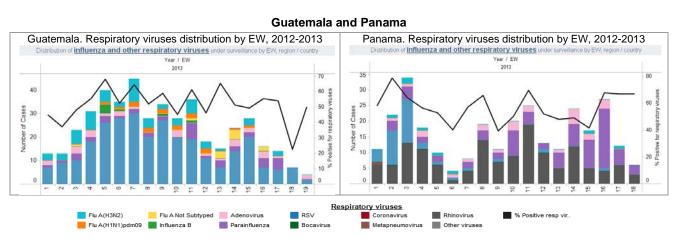


In Honduras, in EW 17, the proportion of ILI consultations (5%) and the proportion of SARI hospitalizations (5%) were similar to the previous weeks, and remained in a similar level as compared to the last year for this time of the year. According to national laboratory data from EWs 14-17, of all samples tested (n =93), 18,2% were positive for respiratory viruses and no influenza viruses were detected. Adenovirus and parainfluenza were the most prevalent detected viruses.



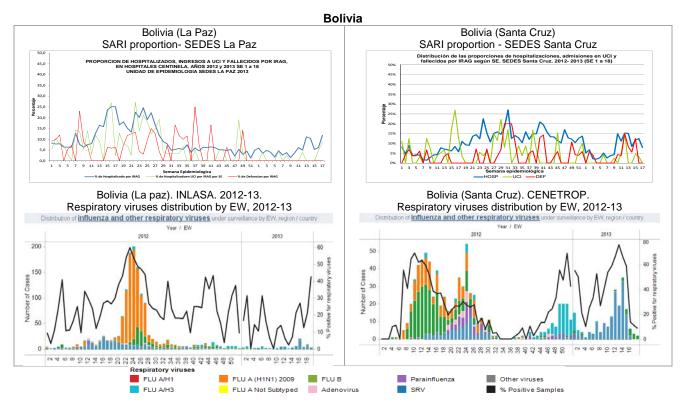
In Guatemala, according to national laboratory data from EWs 16-19, of all samples tested (n =94), 45.4% were positive for all respiratory viruses and 3.6% for influenza viruses. As for other respiratory viruses, RSV was the most dominant virus (23% of positive among the tested samples) followed by parainfluenza and adenovirus.

In Panama, according to national laboratory data from EWs 15-18, of all samples tested (n = 108), 60% were positive for respiratory viruses and only 2% were positive for influenza viruses. Parainfluenza (36/62) and rhinovirus (18/62) were the most prevalent viruses.

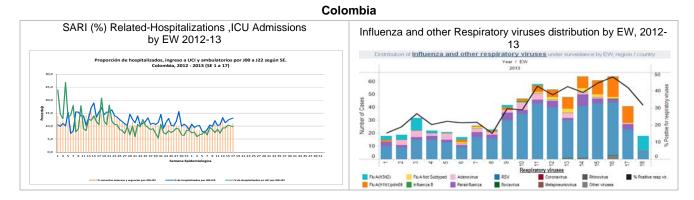


South America - Andean countries

In Bolivia, according to data from Santa Cruz, during EW 18 the proportion of SARI hospitalizations was 8% (decreased since the previous week). According to laboratory data from CENETROP (Santa Cruz), among 50 samples analyzed between EWs 17-18 of 2013, the percent positivity for all respiratory viruses was 10%. Influenza B continued as the most prevalent respiratory virus. In La Paz, in EW 18, the proportion of SARI hospitalizations continued increasing since EW 10. According to laboratory data from INLASA (La Paz), among 74 samples processed in EWs 17-18 of 2013, the percent positivity for all respiratory viruses was 18%, and for influenza viruses was 5%. RSV (8/13) was the predominant respiratory virus identified.

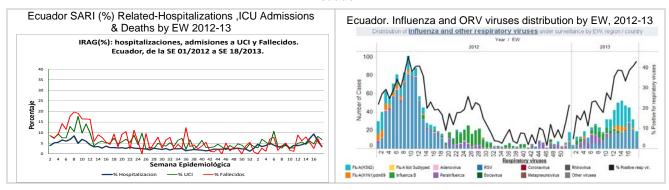


In Colombia, nationally and in EW 17, the proportion of ARI outpatients (J codes) was 11% and the proportion of ARI hospitalizations (J codes) was 13%, showing an upward trend. According to the INS laboratory data including statistics from the Departments of Bogotá, Antioquia and Nariño, between samples and viruses analyzed (n=155) in EW 17-18, the positivity was 38% for all respiratory viruses and 16% for influenza viruses. Among the positive samples for respiratory viruses, 51% were RSV, 22% were influenza A(H1N1)pdm09 (mainly in Bogotá) and 19% were influenza A(H3N2) (mainly in Nariño).

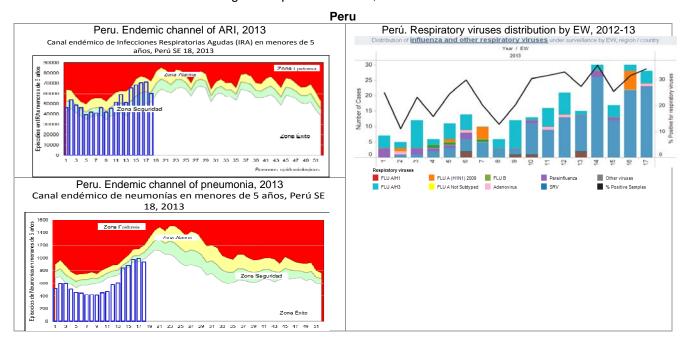


In Ecuador, the proportion of SARI hospitalizations during EW 18 (3%) was lower as compared to the previous week. According to national laboratory data from the national laboratory (NIH), among 123 SARI samples tested between EWs 17-18 of 2013, the percent positivity was 41% for respiratory viruses and 15% for influenza viruses. Among all the positive samples, RSV and influenza A(H3N2) were the most dominant viruses.

Ecuador



In Peru⁶, nationally, in EW 18, the number of ARI cases and pneumonia cases in children less than 5 years of age decreased and remained below the epidemic threshold. According to national laboratory data, during EWs 17-18, among the 167 samples analyzed, the percentage positivity was 33% for all respiratory viruses and 4% for influenza viruses. Among all the positive viruses, 80% were RSV.



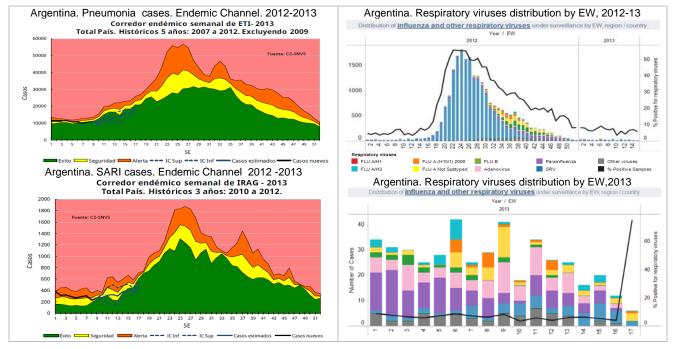
South America - Southern Cone

In Argentina⁷, according to national estimates the activity of ILI and SARI during EW 18 were within the expected levels for this time of year with increasing trends. According to national laboratory data, 871 samples were processed between EWs 17-18 of 2013, of which 12% were positive for all respiratory viruses and 1% for influenza viruses. Among the positives, 52% were RSV (the predominant virus) and 21% were parainfluenza.

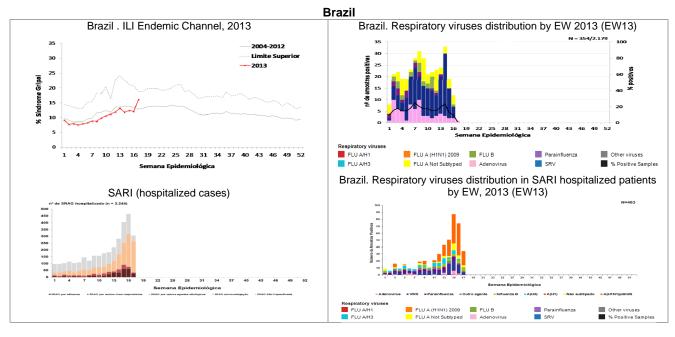
⁶ Perú. Sala de Situación de Salud. EWs 18, 2013. Ministerio de Salud. Dirección General de Epidemiología

⁷ Argentina. Boletin integrado de vigilancia. SE 17.

Argentina



In Brazil⁸, in EW 17, the proportion of ILI consultations was within the expected level for this time of the year showing an upward trend in all regions. Nationally, among all the analyzed ILI samples, RSV and influenza A not subtyped were the most dominant circulating virus. Among SARI cases, an increasing trend was observed in the last weeks, mainly from Sao Paulo and Mina Gerais. Among the SARI cases, influenza A(H1N1)pdm09 was the most dominant circulating virus especially in the State of Sao Paulo.

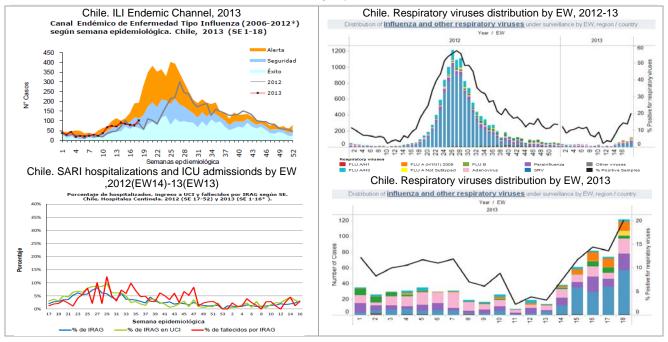


In Chile⁹, nationally, in EW 18, 2013, the ILI activity (rate: 6.5/ 100,000 pop.) increased from the previous EW, remaining at the security zone of the endemic channel. The proportion of SARI hospitalizations in EW 16 (3%) was higher as compared to the previous week. According to national laboratory data, in EW 18, 1,149 samples were analyzed, of which 17% were positive for respiratory viruses and 4% for influenza viruses. Among the positive samples, 47% were RSV, which was the most prevalent virus. Influenza A(H1N1)pdm09 increased in the last weeks.

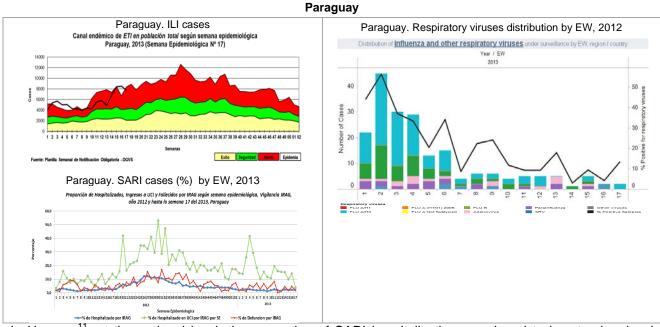
⁸ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 17, 2013.

⁹ Chile. Informe de situación. EW 18. Disponible en: <u>www.pandemia.cl</u>

Chile



In Paraguay¹⁰, nationally in EW 18 of 2013, the rate of ILI consultations (102/100.000) decreased as compared to the previous week, but, remained the increasing trend since EW 10. The proportion of SARI-related hospitalizations remained low (3%) and within the expected range for this time of the year. According to data from the national laboratory, among 11 samples processed between EWs 16-17, 8.3% were positive for respiratory viruses and 3.3% for influenza viruses. RSV and influenza A(H3N2) were the most prevalent viruses. Among the 49 samples from SARI cases, in EWs 17-18, RSV predominated.

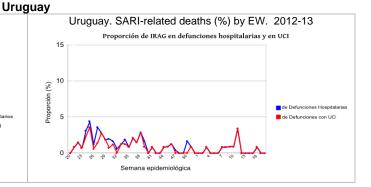


In Uruguay¹¹, at the national level, the proportion of SARI hospitalizations continued to be at a low level during EW 18, with a slight increasing trend in the last weeks. No reported deaths related to SARI in this week.

 $^{\rm 10}$ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 18, 2013

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

Semana epidemiológica



Special Topic:

Novel coronavirus infection

- WHO. Global Alert and Response: Novel coronavirus infection update (May 14th, 2013) http://www.who.int/csr/don/2013_05_14_ncov/en/index.html
- PAHO. Epidemiological alert: Human infection caused by novel coronavirus update (May 10th, 2013)
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Avian influenza A(H7N9) virus

- Human infection with avian influenza A(H7N9) virus in China May 9th update
 http://www.who.int/influenza/human animal interface/influenza h7n9/Data Reports/en/index.html
- PAHO. Epidemiological alert: Human infection caused by influenza A(H7N9) in China update (May 8th, 2013)

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Other links:

- 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_10May 13.pdf
- WHO Risk Assessment. Human infections with influenza A(H7N9) virus. 10 May 2013
 http://www.who.int/influenza/human_animal_interface/influenza_h7n9/RiskAssessment_H7N9_13Apr13.pdf
- Laboratory biorisk management for laboratories handling human specimens suspected or confirmed to contain avian influenza A(H7N9) virus causing human disease. Interim recommendations. 10 May 2013 http://www.who.int/influenza/human animal interface/influenza h7n9/InterimRecLaboratoryBioriskManagementH7N9_10May13.pdf
- Summary of status of development and availability of avian influenza A(H7N9) candidate vaccine viruses.
 10 May 2013
 http://www.who.int/influenza/vaccines/virus/candidates reagents/summary a h7n9 cvv 20130510.pdf
- Standardization of the influenza A(H7N9) virus terminology. 16 April 2013
 http://www.who.int/influenza/human_animal_interface/influenza_h7n9/H7N9VirusNaming_16Apr13.pdf
- Frequently asked questions on human infection with influenza A(H7N9) in China. 30 April 2013 http://www.who.int/influenza/human_animal_interface/faq_H7N9/en/index.html