Regional Update EW 04, 2013
Influenza and other respiratory viruses
(February 5, 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.

1. WEEKLY SUMMARY

- North America: influenza activity showed sings of declining in Canada and the US. In the US, the proportion of deaths attributed to pneumonia and influenza was higher than the previous week and remained above the epidemic threshold for this time of year but decreased as compared to the previous week. In Canada and the US, among all age groups, those 65 years and older had the highest influenza-associated hospitalization rates. . Influenza A (H3N2) was r the most commonly detected influenza virus in Canada. In United States, the majority of influenza samples were A(H3N2), however influenza B accounts for a larger proportion of cases than in Canada. In Mexico, 60% of the influenza cases this year were influenza type A.
- Central America and the Caribbean: similar or decreased respiratory virus activity was reported in this sub-region as compared to previous weeks. In this sub-region, generally, co-circulation of influenza B, influenza A (H3N2) and influenza A (H1N1)pdm09 continued. Among other respiratory viruses, RSV was the predominant circulating virus in Guatemala.
- South America: acute respiratory disease activity remains low or unchanged in this sub-region.

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

North America

In Canada[1], in epidemiological week (EW) 04, 2013, several indicators of influenza activity decreased. In EW 04, the influenza-like illness (ILI) consultation rate decreased (40.3/1,000 consultations) and was above expected levels for this time of year. Seven regions (in Ontario, Quebec, Newfoundland) reported widespread influenza activity and 28 regions reported localized influenza activity (in British Colombia, Alberta, Ontario, Saskatchewan, Quebec, Manitoba, Nova Scotia, Prince Edward Island, and New Brunswick). In EW 01, among the total samples analyzed, the proportion of samples positive for influenza decreased (22.3%); of the influenza cases detected in EW 04, 96.5% were influenza A (29.9% influenza A(H3) and 66.0% influenza A unsubtyped). Concerning other respiratory viruses, the RSV percent positivity increased (13.7%). Among the characterized influenza viruses this season, the majority have been the vaccine strains (100% of the H1N1pdm09 cases, 100% of the H3N2 cases, and 81% of the influenza B cases).

In the United States[2] in EW 04, nationally the proportion of ILI consultations (4.2%) decreased as compared to the previous week but remained above the baseline (2.2%); and seven of ten Regions reported declines in the ILI proportion with all ten above their region-specific baselines. Twenty-four states and New York City experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 04 (9.4%) was above the epidemic threshold for this time of year (7.4%), but decreased as compared to the previous week. In EW 04, eight influenza-associated pediatric deaths were reported (five associated with influenza A/H3, one with an unsubtyped influenza A virus, two with influenza B). From 1 October to 26 January, the influenza-associated hospitalization rate was 25.9/100,000 population, with the highest rates in those 65 years of age and older. Among all samples tested during EW 01 (n=10,581), the percentage of samples positive for influenza (25.5%) decreased as compared to the previous week. Nationally, among the positive samples, 79.3% were influenza A [among the subtyped influenza A viruses, 95.1% were influenza A

[1] FluWatch Report. EW 04. Available at http://www.phac-aspc.gc.ca/fluwatch/
[2] USA: CDC FluView report. Available at: http://www.cdc.gov/flu/weekly/

(H3)]. No novel influenza A virus cases were reported during EW 04; since July 12, 2012, a total of 312 infections with influenza A variant viruses (308 H3N2v viruses, three H1N2v viruses, and one H1N1v) have been reported from 11 states. Among the characterized influenza viruses this season, the majority have been the vaccine strains (100% of the H1N1pdm09 cases, 99.6% of the H3N2 cases, and 70.8% of the influenza B cases). Since October 1, 2012, n=135 influenza A(H1N1)pdm09 samples have been tested for resistance to osteltamvir and thus far, only one resistant virus (0.7%) has been detected; this virus was sensitive to zanamivir.

In Mexico, according to laboratory data, in EW 04, the percent positivity for respiratory viruses was 32.7%, with only influenza viruses detected. This year, among the influenza cases detected (n=320), the majority (63.1%) have been influenza A, with influenza A(H3) predominating among the subtyped viruses.

Caribbean

The Caribbean Public Health Agency (CARPHA) received weekly SARI/ARI data from 4 countries for EW 03, 2013: Barbados, Dominica, St. Vincent & the Grenadines and Trinidad & r. In EW 03, 2013, the proportion of SARI hospitalizations was 1.1%. The highest rate of SARI was among children 6 months to 4 years of age (4.3% of hospital medical admissions for children ages 6 months to 4 years were due to SARI). No SARI deaths were reported from the region in EW 03, 2013. According to laboratory results from EW 52, 2012 to EW 3, 2013, the following viruses have been laboratory confirmed in member countries: influenza A(H3N2) (Anguilla, Barbados, Cayman Islands); influenza B (Jamaica); RSV (St. Vincent & the Grenadines, Trinidad & Tobago) and rhinovirus (Barbados, Trinidad & Tobago). For the period EW 04, 2012 to EW 03, 2013, the overall percentage positivity for samples tested is 38.3%.

In Cuba, according to the national laboratory data for EW 04, among the 27 samples analyzed the percentage of positivity for respiratory viruses was 33.3%. Rhinovirus was the virus predominantly detected, followed by RSV and parainfluenza.No influenza viruses were detected.

In Jamaica, nationally, in EW 04, the proportion of consultations for acute respiratory infection (ARI) was 5.0% (0.9% higher than EW 03). The proportion of SARI-related admissions was 1.4 % (0.4% increase when compared to the EW before). There were no SARI-related deaths reported. According to laboratory data the percentage of positive samples for influenza virus in EW 04 was 20%. Influenza A and B viruses were detected among samples tested in EW 04 (n=10).

In the Dominican Republic, according to national laboratory data, among 10 samples analyzed in EW 05, the percentage positivity for respiratory viruses was 20% and for influenza viruses was 10%. Parainfluenza was the most prevalent virus.

French Terrotories

In Guadalupe[3], the weekly number of consultations for ILI has increased steadily since EW 48 of 2012, exceeding the maximum expected values for this season. During EWs 03 and 04, 2013, the increase in ILI consultations continued; the number of consultations are estimated to be approximately 710 to 840 consultations over the course of these two weeks. Influenza A (H1N1) pdm09 virus had been identified.

In Saint Bartholomew[4], weekly reports showed the number of consultations to be zero for several months. These numbers increased, however, during EW 01 of 2013, to a level well above the maximum values expected for this time of the year. No influenza viruses were identified in the last 2 months.

In Martinique[5] the influenza epidemic continued over the last five weeks with a reported incidence of 637 cases per 100 000 inhabitants. This value is close to that which was observed in metropolitan France. Since the last week of December 2012 (EW 52), the numbers of ILI cases exceeded the maximum levels expected for the season. During the EW 04, the estimated number of ILI consultations were 2500, an increase of 45% as compared to the previous week's estimate. An influenza virus (not subtyped) was identified at the Laboratory of Virology in the CHU Fort de France in a hospitalized patient. Other samples are under analysis at the Pasteur Institute Cayenne.

[3] Guadaloupe. Le point épidémiologique — N° 02 / 2013. CIRE Antilles Guyana.

[4] Saint-Barthelemy. Le point épidémiologique — N° 01/2013. CIRE Antilles Guyana

[5] Martinique. Le point épidémiologique — N° 02 / 2013. CIRE Antilles Guyana

Central America

In Costa Rica, according to laboratory data, in EW 01-03, of all samples tested (n = 265), the percent positivity for respiratory viruses decreased from 43% (EW 01) to 32% (EW 03). RSV virus continued to predominate (26% of the samples tested in 2013), predominating influenza A (92%) over influenza B (8%). Among the influenza A suptyped viruses, influenza A(H3N2) and A(H1N1)pdm09 were detected.

In Guatemala, according to national laboratory data, in EW 05, of all samples tested (n = 7), the percent positivity for respiratory viruses was 71.4%. RSV and parainfluenza were prevalent. No influenza viruses were detected.

In Nicaragua[6], in 2013, through EW 02, the cases of ILI and SARI cases were slightly higher than the observed in 2012 for this time of year. According to laboratory data, between EWs 01-03, according to laboratory data, among all samples analyzed (n =117), the percent positivity for respiratory viruses was 5%. Influenza B, influenza A (H3) and RSV were the viruses detected in circulation.

In Panama, according to laboratory data, in EW 05, of all samples tested (n = 9), 33.3% were positive for respiratory viruses. Only rhinovirus was detected.

South America – Andean countries

In Bolivia, according to data from CENETROP (Santa Cruz), among 8 samples processed in EW 04 of 2013, none were positive for respiratory viruses. According to the data from La Paz for EW 04 of 2013, among 11 samples tested, only 1 was positive for respiratory viruses (influenza A (H3N2)). SARI surveillance for EW 04 showed that the proportion of SARI hospitalization declined to 1.6% (5/305). There were no reports of SARI-related ICU admissions or deaths in this EW.

In Colombia, nationally, and according to the INS laboratory data, including statistics from the Departments of Antioquia and Bogotá, among samples analyzed (n = 73) in EW 03 and EW 04 of 2013, the percent positivity was 20% for all respiratory viruses, and 11% for influenza viruses. Predominant among all the positive samples were influenza A (H3N2) (8/15) and RSV (5/15). The proportion of outpatient visits and hospitalizations for ARI nationally showed no significant changes during the first four weeks of 2013(remaining around 10%).

In Ecuador, according to national laboratory data, among the 110 samples analyzed during EWs 03-04, 2013, there was 13.6% positivity for all respiratory viruses and 8.2% positivity for influenza viruses (influenza B, A (H3N2) and A (H1N1) pdm2009 were detected). In the SARI surveillance, the proportions of SARI hospitalizations and SARI ICU admissions decreased since EW 02, 2013.There were no reports of SARI-related deaths.

In Peru[7], nationally, in EW 04, data from the endemic channels for ARIs and pneumonias in children under 5 years of age were within expected levels for this time of year. According to national laboratory data for EW 04, 2013, among the 32 samples analyzed, the percentage positivity was 16% for respiratory viruses and 8% for influenza. Influenza A (H3N2) and RSV were the most prevalent.

South America – Southern Cone & Brazil

In Argentina nationally, according to the numbers reported, notification of ILI was still within the warning zone during the first weeks of 2013 a trend which began during the last 6 EWs of 2012. The information provided by monitoring of hospitalizations due to ARI, showed that in the first EWs of 2013 reports were below that observed during the same time in 2011 and 2012. In EW 04 of 2013,127 samples were processed nationally,

[6] Nicaragua. Boletín epidemiológico semanal SE 02 de 2013.

[7] Perú. Sala de Situación de Salud. SE 03, 2013. Ministerio de Salud. Dirección General de Epidemiología

and the percent positivity for all respiratory viruses was low (3.9%). Parainfluenza was the most prevalent (3/5).Thus far in 2013,2 cases of influenza A have been detected.

In Brazil[8], among all SARI cases in EWs 01-03, 2013, influenza was detected in 3.5% (4/114). The South and the Southeast regions reported the highest number of SARI cases. 8 SARI related deaths were reported so far this year, of which 87% were due to influenza. In the ILI surveillance, for EWs 01-03, in 10.2% of the cases influenza or other respiratory virus were detected.

In Chile[9], nationally for EW 04 of 2013, ILI activity declined since the previous EW, remaining close to the endemic channel threshold. According to laboratory data in EW 04, 286 samples were analyzed, 9.1% of which were positive for respiratory viruses. Adenovirus was the most prevalent virus. In SARI surveillance, five samples were processed for respiratory viruses, only one was positive for adenovirus.

In Paraguay, in EW 04, 2013, nationally, the ILI rate (75/100,000 population) slightly declined from the previous week; it remained however, within the endemic channel threshold. There was no significant change in the proportion of ILI consultations (5.7% 305/5715) during EW 04. The SARI surveillance for EW 04 showed that the proportion of SARI-related hospitalizations, (1.4% 31/2256), remained without significant changes from the previous week, however the SARI-related ICU admissions (12% 5/42) and SARI-related deaths (4.4% 2 / 45) did increase compared to EW 03.So far this year 6 SARI-related deaths have been reported, none of which were associated with a detection of respiratory viruses. According to the national laboratory data, among 68 samples processed in EW 04, 2013, 34% were positive for all respiratory viruses and 31% for influenza. Among the positive samples, influenza A (H3N2) was the most prevalent. Among the SARI cases, 70 samples were processed thus far in 2013, with influenza A (H3N2) being predominant.

In Uruguay[10], according to the national SARI surveillance system in EWs 01-05, 2013, the proportions of SARI-related hospitalizations and SARI-related ICU admissions were at low levels, without significant changes as compared to previous weeks. No SARI-related deaths were reported.

GRAPHS

[8] Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 03, 2013.

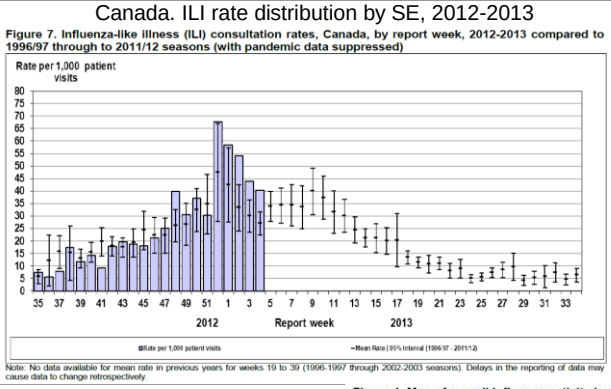
[9] Chile. Informe de situación. SE 04. Disponible en: www.pandemia.cl

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

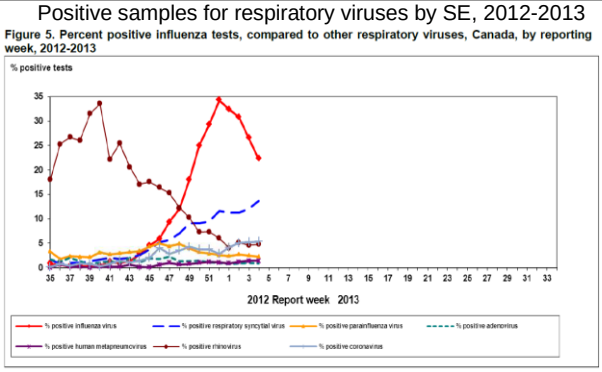
North America

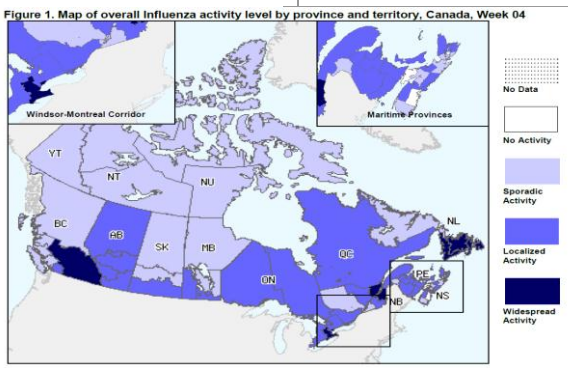
Canada

Canada. ILI rate distribution by SE, 2012-2013



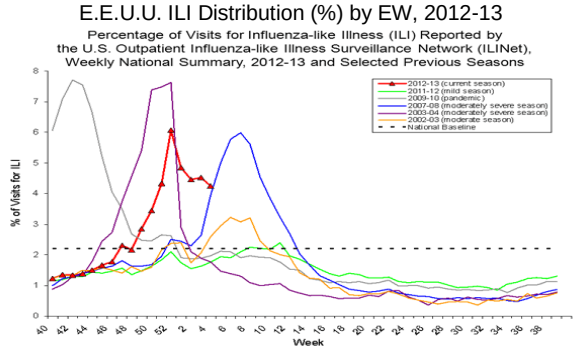
Positive samples for respiratory viruses by SE, 2012-2013



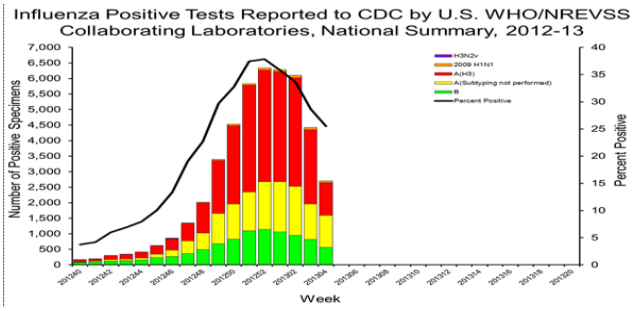


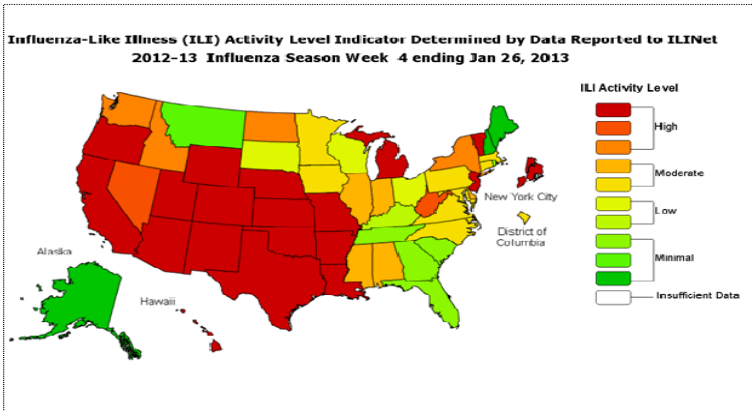
United States

E.E.U.U. ILI Distribution (%) by EW, 2012-13



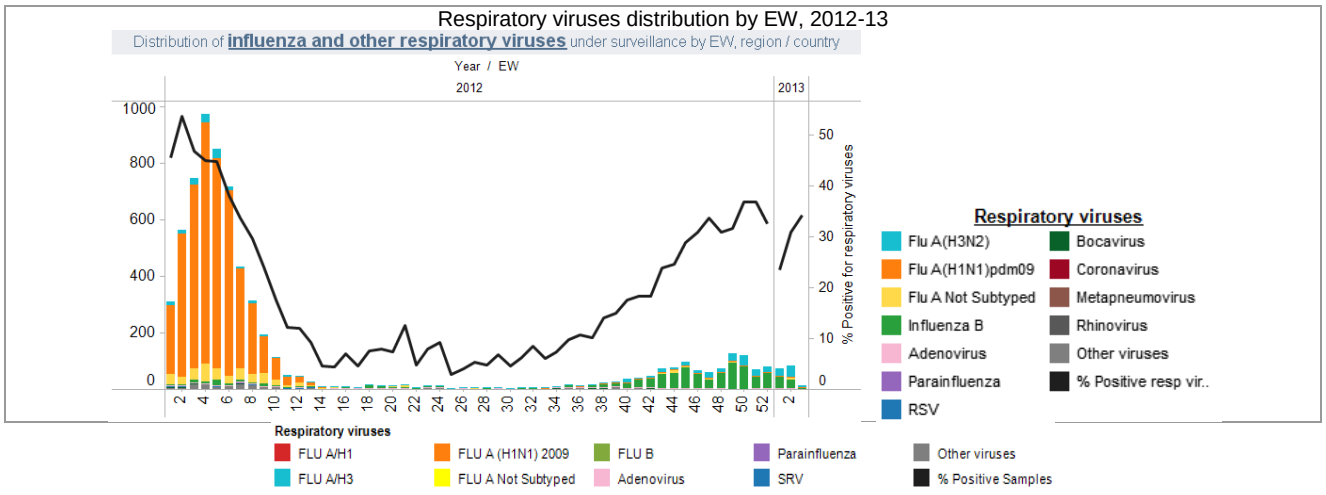
E.E.U.U. Influenza viruses distribution by EW, 2012-13





Mexico

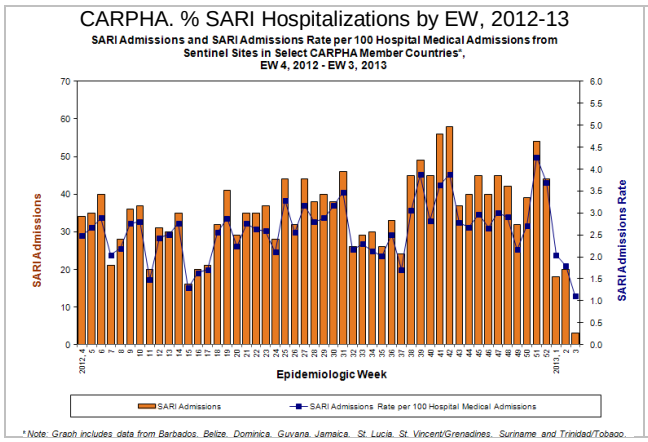
Respiratory viruses distribution by EW, 2012-13



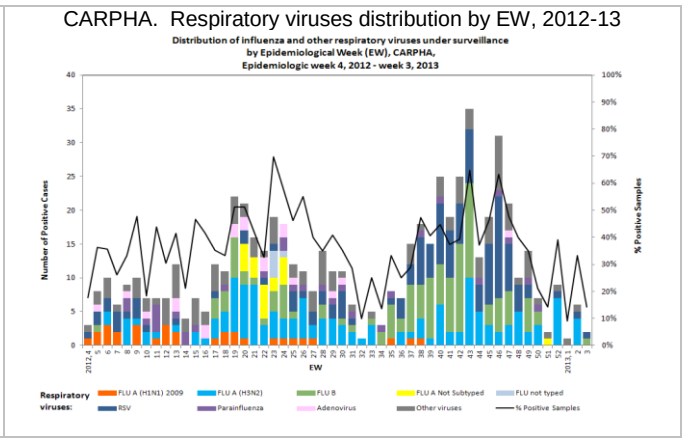
Caribbean

CARPHA

CARPHA. % SARI Hospitalizations by EW, 2012-13

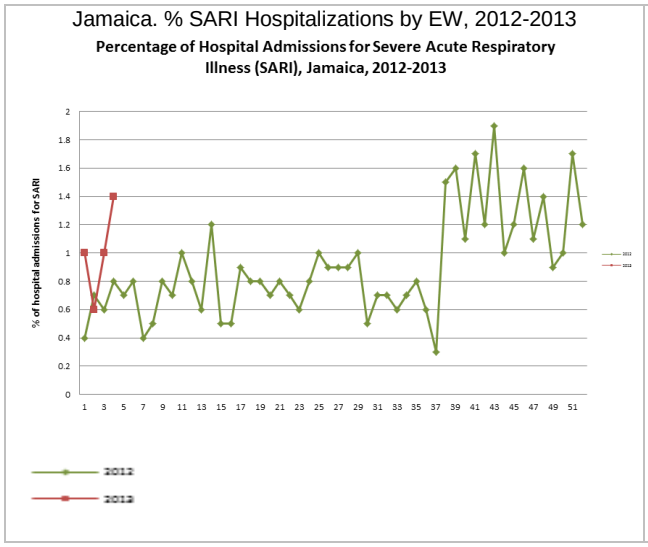


CARPHA. Respiratory viruses distribution by EW, 2012-13

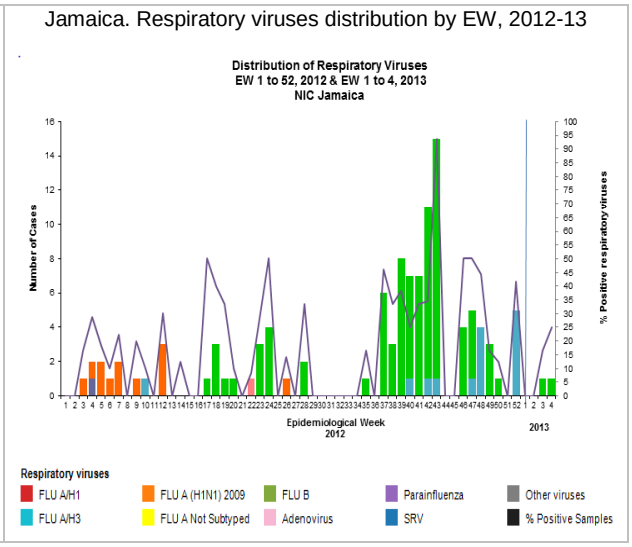


Jamaica

Jamaica. % SARI Hospitalizations by EW, 2012-2013

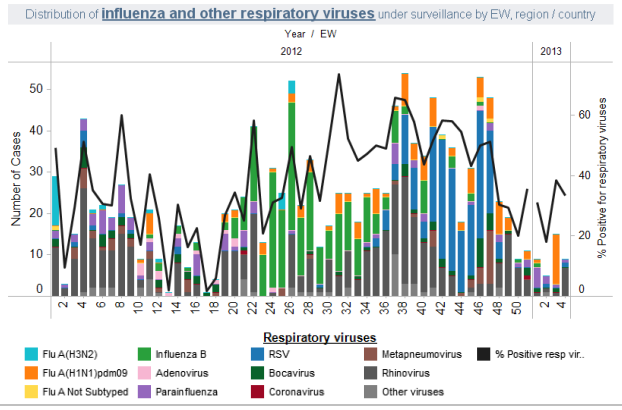


Jamaica. Respiratory viruses distribution by EW, 2012-13

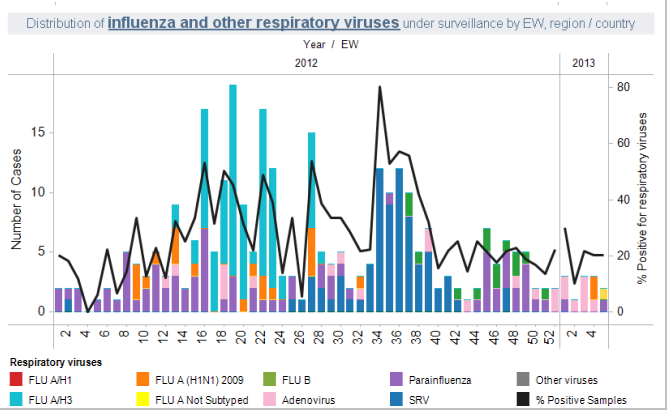


Cuba and Dominican Republic

Cuba. Respiratory viruses distribution by EW, 2012-13

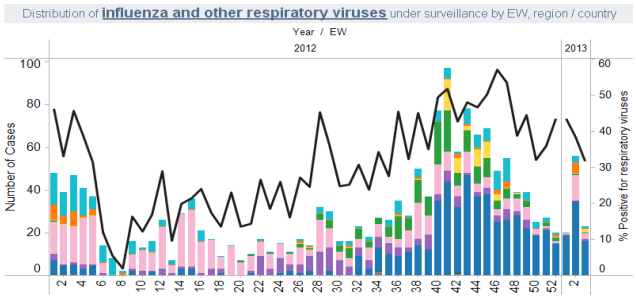


Dominican Republic. Respiratory viruses distribution by EW, 2012 -13

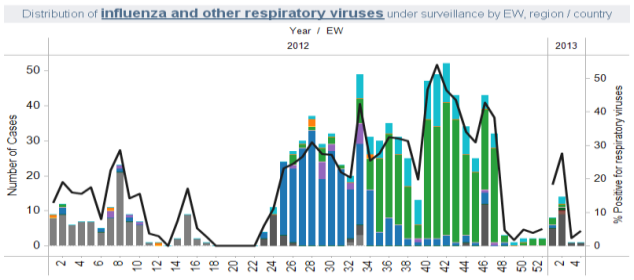


Costa Rica, Nicaragua, Panama and Guatemala

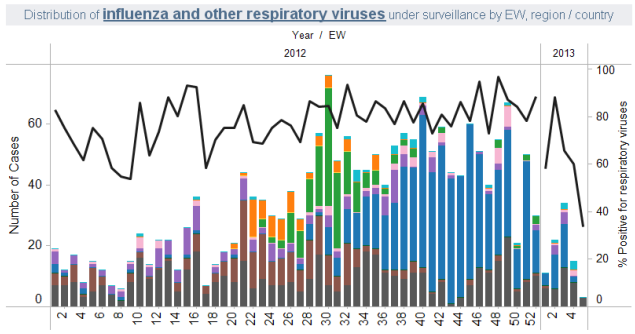
Costa Rica. Respiratory viruses distribution by EW, 2012



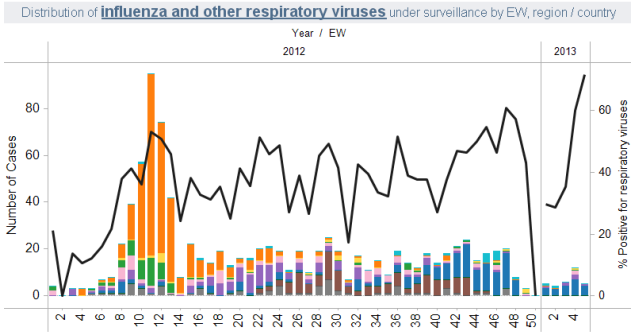
Nicaragua. Respiratory viruses distribution by EW, 2012-13

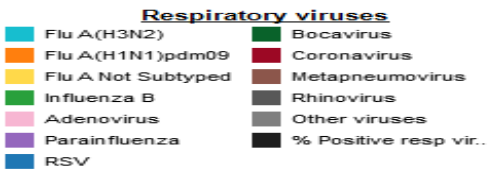


Panama. Respiratory viruses distribution by EW, 2012-13



Guatemala.Respiratory viruses distribution by EW2012-2013



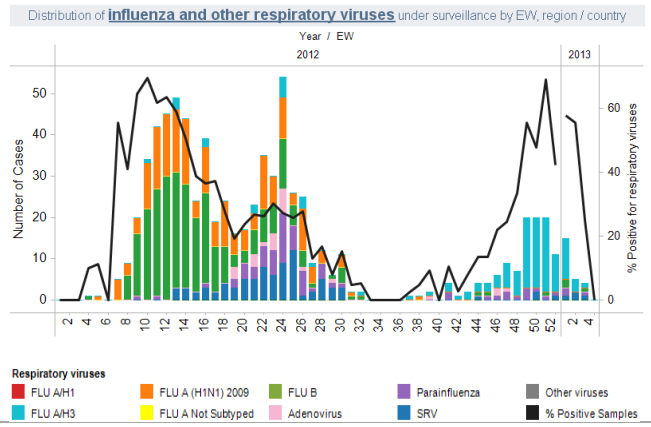


South America - Andean

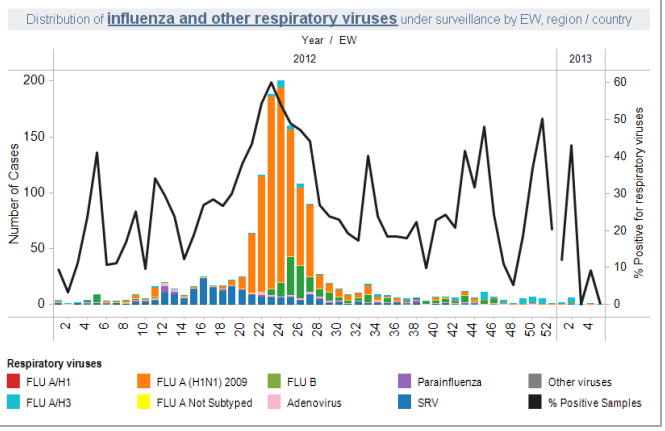
Bolivia

Bolivia (Santa Cruz)

Respiratory viruses distribution by EW, 2012-13

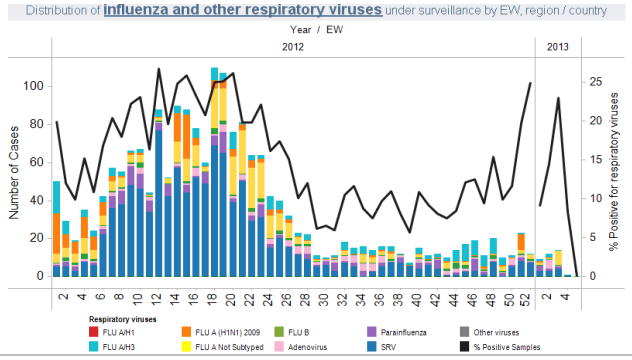


Bolivia (La Paz)
INLASA. 2012-13 (La Paz, Oruro, Potosí, Tarija, Chuquisaca, Pando y Beni)
Respiratory viruses distribution by EW, 2012-13

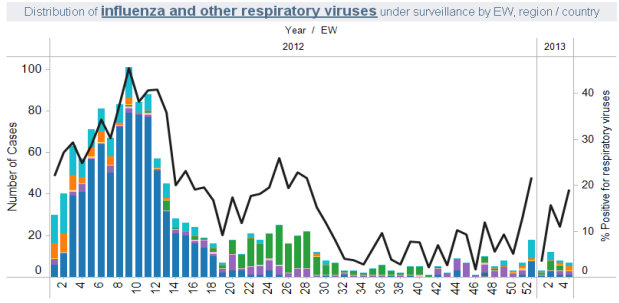


Colombia and Ecuador

Colombia. Respiratory viruses distribution by EW, 2012-13

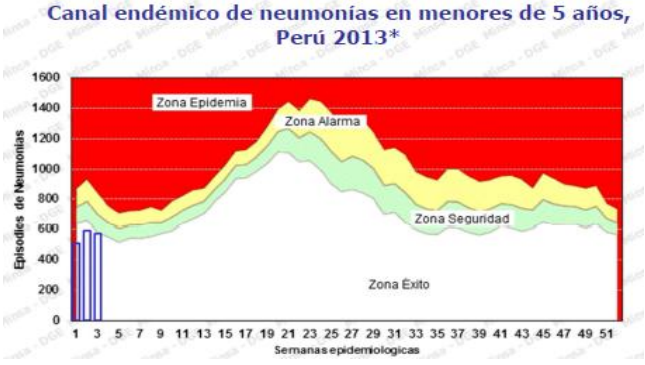


Ecuador. Respiratory viruses distribution by EW, 2012-13

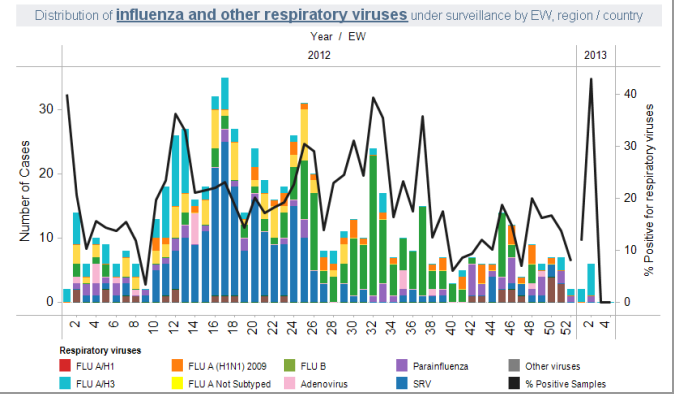


Perú

Peru. Endemic channel of pneumonía, 2013



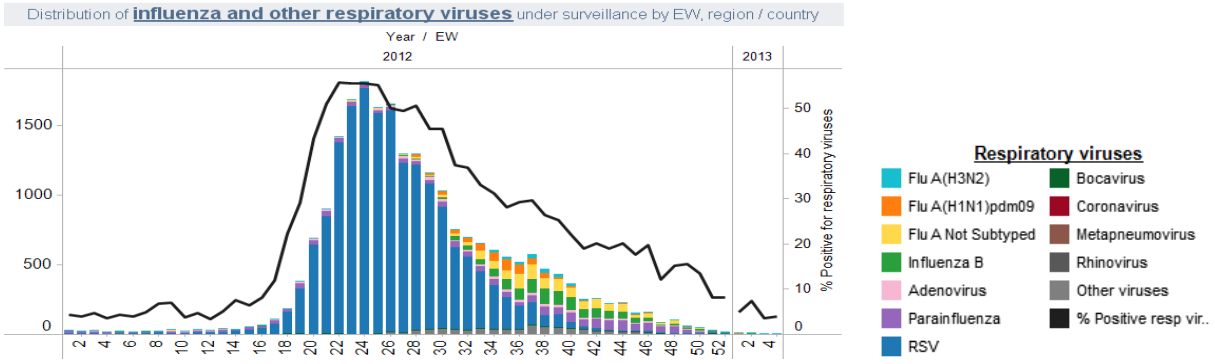
Perú. Respiratory viruses distribution by EW, 2012-13



South America, Southern cone

Argentina

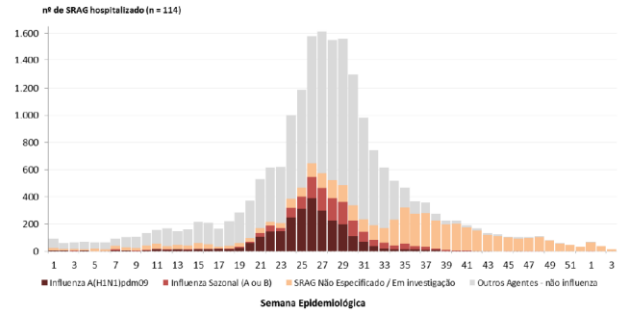
Argentina. Respiratory viruses distribution by EW, 2012,2013



Brazil

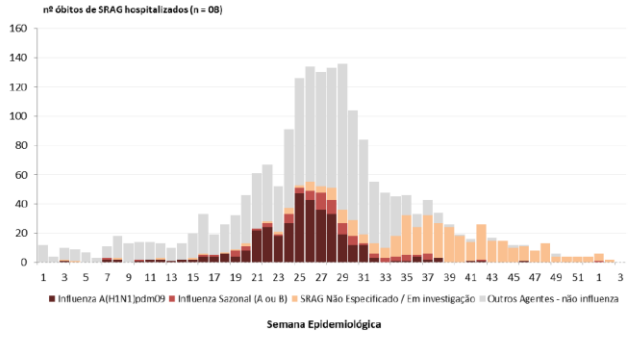
Brazil. SARI cases, 2012-13

Figura 1: Casos de SRAG hospitalizados* segundo vírus identificado e por semana epidemiológica do início dos sintomas. Brasil, SE 01 a 03/2013.



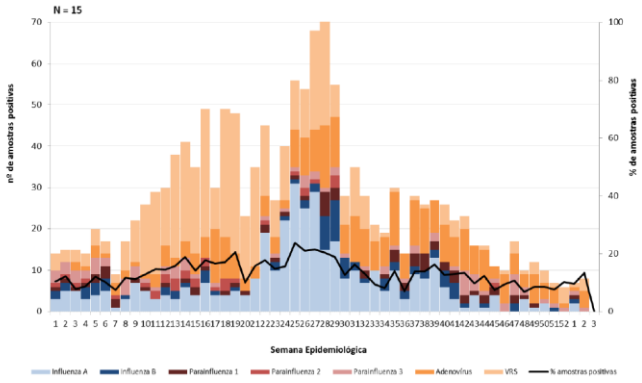
Brazil. SARI deaths, 2012-13

Figura 3: Óbitos por SRAG hospitalizados* segundo vírus identificado e por semana epidemiológica do início dos sintomas. Brasil, SE 01,02 e 03 /2013.



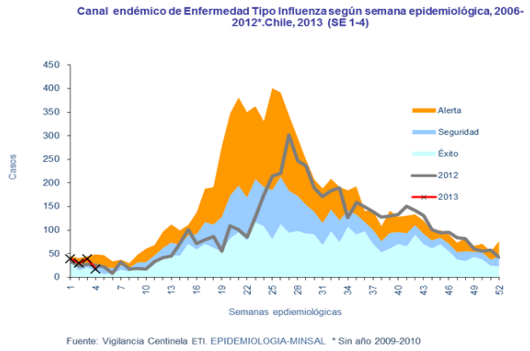
Brasil. ILI cases. Respiratory viruses distribution by EW, 2012-13

Figura 6: Distribuição dos vírus respiratórios identificados nas unidades sentinelas de Síndrome Gripal, por semana epidemiológica de início dos sintomas. Brasil, SE 01 a 03/2013.

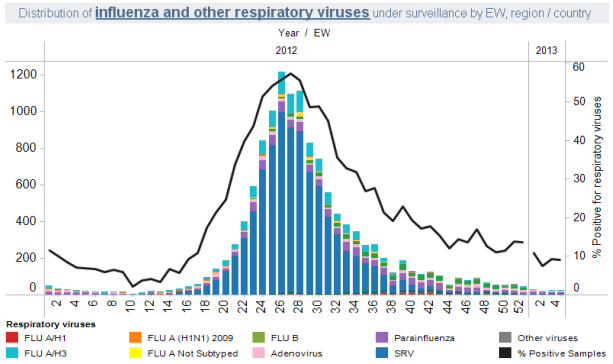


Chile

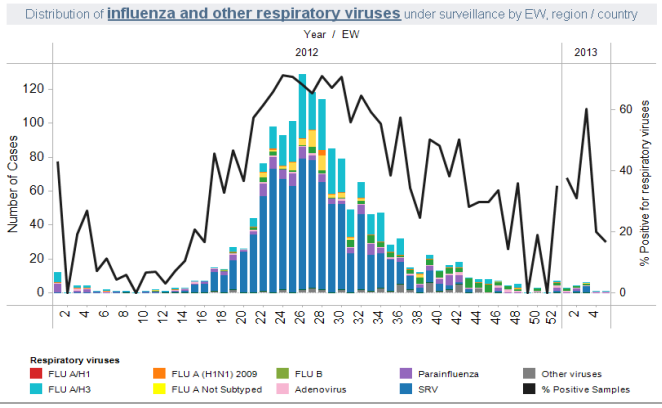
Chile. ILI Endemic Channel, 2013



Chile. Respiratory viruses distribution by EW, 2012-13

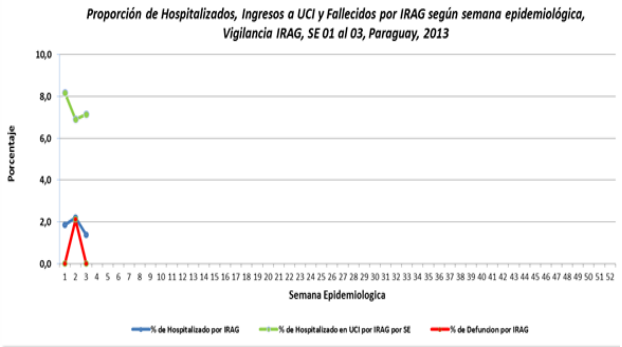


Chile. SARI cases. Respiratory viruses distribution by EW, 2012-13

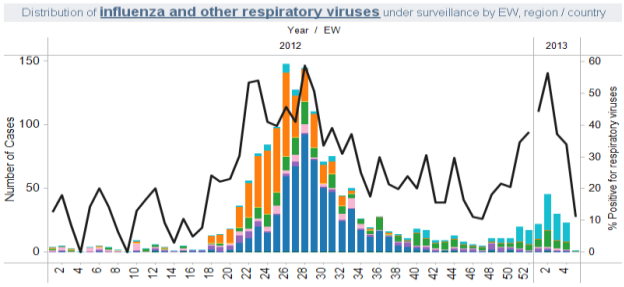


Paraguay

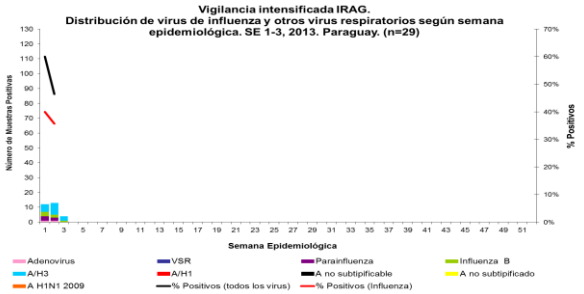
Paraguay. SARI cases (%) by EW, 2013



Paraguay. Respiratory viruses distribution by EW, 2012

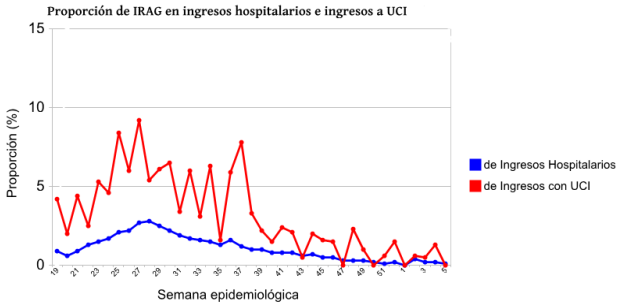


Paraguay. SARI cases. Respiratory viruses distribution by EW, 2012



Uruguay

Uruguay, SARI hospitalizations and ICU admitted (%) by EW. 2012



Uruguay, SARI deaths distribution (%) by EW. 2012