



Regional Update EW 03, 2013

Influenza and other respiratory viruses (January 29, 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 remains in high levels in Canada and the US; however, some indicators showed a decreasing trend in the last 3 weeks. 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. In Canada and the US, among all age groups, those 65 years and older had the highest hospitalization rate. Influenza A(H3N2) is by far the most commonly detected influenza virus in Canada. In United States, the majority of influenza samples are A(H3N2), however influenza B accounts for a larger proportion of cases than in Canada. In Mexico, almost half of all positive influenza cases was influenza B and the other half was influenza A(H3N2).
- **Central America and the Caribbean:** similar or decreased respiratory virus activity was reported in this sub-region as compared to previous weeks. In Cuba, an increased number of influenza A(H1N1)pdm09 was reported this week. In this sub-region, generally, co-circulation of influenza B, influenza A(H3N2) and influenza A(H1N1)pdm09 continued. Among other respiratory viruses, RSV remained the predominant circulating virus in some countries (Costa Rica and Panama).
- **South America:** acute respiratory disease activity remains low or unchanged in the region.

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

North America

In Canada¹, in epidemiological week (EW) 03, 2013, influenza activity was decreased. The ILI consultation rate decreased (43.8 consultations per 1,000 visits), but continued to be above the expected range for this time of year, possibly due in part to the circulation of both influenza and RSV in many regions. Ten regions (in British Columbia, Alberta, Ontario, Quebec, Newfoundland) reported widespread influenza activity and 29 regions reported localized influenza activity (in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island). In EW 03, among the total samples analyzed, the proportion of samples positive for influenza decreased from 30.8% in EW 02 to 27.1%. Of the influenza cases detected in EW 03, 97.9% were positive for influenza A viruses [of which 35.6% were A(H3N2), 3.7% were A(H1N1)pdm09, and 60.8% were A(untyped)]; and 2.1% were influenza B. Concerning other respiratory viruses, the percentage of tests positive for RSV was steady at 11.4% in EW 03. Among the characterized influenza viruses this season, the majority have been antigenically similar to the vaccine strains (100% of the (H1N1)pdm09 cases, 100% of the H3N2 cases, and 79% of the influenza B cases).

In the United States², in EW 03, nationally, the proportion of ILI consultations (4.3%) decreased in the last three consecutive weeks but remained above the baseline (2.2%); and 5 regions reported declines in the ILI proportion but all were above their baseline. Regionally, twenty six states and New York City experienced high ILI activity. Nationally, the proportion of deaths attributed to pneumonia and influenza for EW 03 (9.8%) that was higher than the previous week and above the epidemic threshold for this time of year (7.3%). In EW 03, eight influenza-associated pediatric deaths were reported (two were associated with untyped influenza A virus, and six with influenza B). From October 1st to January 19, the influenza-associated hospitalization rate was 22.2/100,000 population, with the highest rates in those 65 years of age and older. Among all samples tested during EW 03 (n=11,984), the percentage of samples positive for influenza continued to decrease for the 3rd week in the row (26.1%). Among the all positive samples for influenza, 80.4% were influenza A [62.8% influenza A(H3N2), 35% were influenza A untyped, and 2.3% were A(H1N1)pdm09] and 19.6% were influenza B. Among the characterized influenza viruses this season, the majority have been

antigenically similar to the vaccine strains (100% of the A(H1N1)pdm09 cases, 99.6% of the H3N2 cases, and 69% of the influenza B cases).

In Mexico, according to the laboratory data, in 2013, from EW 01 to EW 03, the percent positivity for respiratory viruses was 27.4%. So far in 2013 through EW 03, among all positive samples, 45.6% were influenza B, 41.5% were influenza A(H3N2), 0.6% were A(H1N1)pdm09 and 2.9% were other respiratory 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 laboratory data, among the samples analyzed, the percentage of positive samples for respiratory viruses increased from 17.9% (EW 02) to 38.5% (EW 03), mainly associated to the detection of influenza A(H1N1)pdm09 (12 cases).

In Jamaica, in EW 03 of 2013, the proportion of consultations for ARI was 4.1% (0.1% higher than EW 1). The proportion of admissions due to SARI was 1 % (0.4% increase when compared to the EW before). There was no SARI death reported for EW 03. According to laboratory data the percentage of positive samples for influenza virus in EW 03 was 16.7%. Only influenza B virus was detected among tested samples in EW 03 (n=6).

In the Dominican Republic, according to laboratory data, among the samples analyzed, in EW 04, (n=15), the percentage of samples positive for respiratory viruses was 20% and for influenza viruses was 13%. Influenza A(H1N1)pdm09 and adenovirus were detected.

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 Nicaragua³, 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 EWs 01-04, of all samples tested (n = 107), 62% were positive for respiratory viruses and only 4% were positive for influenza virus. RSV and rhinovirus were the predominant circulating viruses.

South America – Andean countries

In Bolivia, according to data from CENETROP (Santa Cruz), among 47 samples processed between EW 01 and EW 03 of 2013, the positivity was 47% for all respiratory viruses and 32% for influenza viruses, predominantly influenza A(H3N2) (12/22). According to the data from La Paz for the same weeks of 2013, among the 43 samples tested, 18% were positive for all respiratory viruses and 16% for influenza viruses (mainly influenza A(H3N2)).

In Colombia, nationally, and according to the INS laboratory data, including statistics from the Departments of Antioquia and Bogotá, among samples analyzed (n = 23) in EW 03 of 2013, the positivity was 26% for all

respiratory viruses, and 9% for influenza viruses. RSV (3/6) and influenza A(H3N2) (2/6) were predominant among all the positive samples.

In Ecuador, according to national laboratory data, among the 190 samples analyzed from EW 01-03, 2013, there was 8% positivity for all respiratory viruses and 7% for influenza viruses. Influenza B and A(H3N2) were the most prevalent. In the SARI surveillance, the proportions of SARI hospitalizations and SARI ICU admissions showed a slight increase since EW 01, 2013, specifically at the Coastal Region.

In Peru⁴, nationally, in the EW 02, data from the endemic channels for IRAs 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 03, 2013; among the samples analyzed (n = 52), the percentage of positivity was 23% for respiratory viruses and 17% for influenza. Influenza A(H3N2) was the most prevalent.

South America – Southern Cone & Brazil

In Argentina, nationally, in EW 03 of 2013, 157 samples were processed and the percent positivity for all respiratory viruses was low (4.3%). Adenovirus, parainfluenza and influenza B were detected.

In Brazil⁵, 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 Chile⁶, nationally for EW 03 of 2013, the ILI activity showed no significant changes from the previous EW, remaining close to the endemic channel threshold. According to laboratory data on EW 03; 295 samples were analyzed and 9.2% were positive for respiratory viruses. Adenovirus was the most prevalent.

In Paraguay, in EW 03, 2013, nationally, the ILI rate (85.6/100,000 population), the proportion of ILI consultations (4.6% -264/5711) and the proportion of SARI related hospitalizations (1,4% - 31/2256) remained in low levels without significant changes as compared to the previous week. According to the national laboratory data, among the 41 samples processed in EW 03, 2013, 44% were positive for all respiratory viruses and 41% for influenza. Among the positive samples, influenza A(H3N2) was the most prevalent. Among the SARI cases, 58 samples were processed so far in 2013, showing influenza A H3N2 as the predominant virus.

In Uruguay⁷, according to the national SARI surveillance in EWs 01-04, 2013, the proportions of SARI-related hospitalizations (0.2%) and SARI-related ICU admissions (0.6%) were at low levels, without significant changes compare to previous weeks. No SARI-related deaths were reported.

3. SPECIAL TOPIC

“Ethical considerations in developing a public health response to pandemic influenza”

http://www.who.int/csr/resources/publications/WHO_CDS_EPR_GIP_2007_2c.pdf is a WHO publication that helps incorporate ethical considerations into national influenza pandemic preparedness plans. The document was published in 2007 but it remains completely valid. Ethical issues, such as those that arise when determining priority-access to medications, adopting isolation measures, or establishing the obligations of health-care workers during an outbreak of pandemic influenza, should be addressed in planning, because it will not be possible to address them once the pandemic occurs. For more information contact Carla Saenz, Regional Bioethics Advisor at saenzcar@paho.org

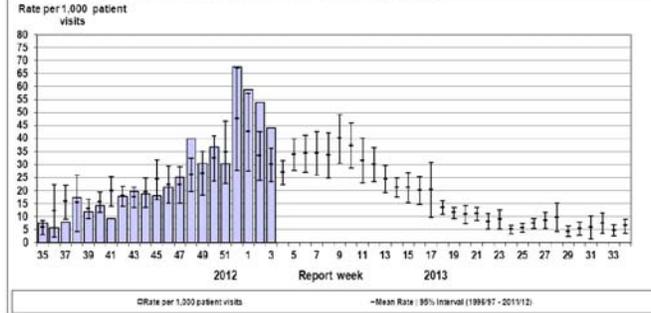
4. GRAPHS

North America

Canada

Canada. ILI rate distribution by SE, 2012-2013

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



Positive samples for respiratory viruses by SE, 2012-2013

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

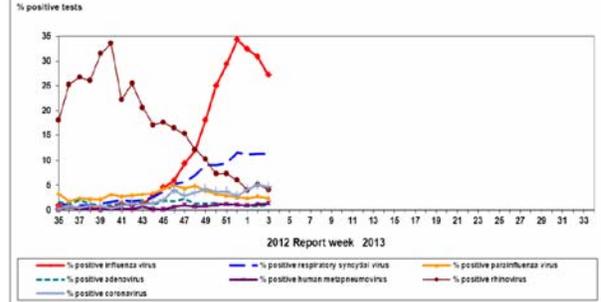
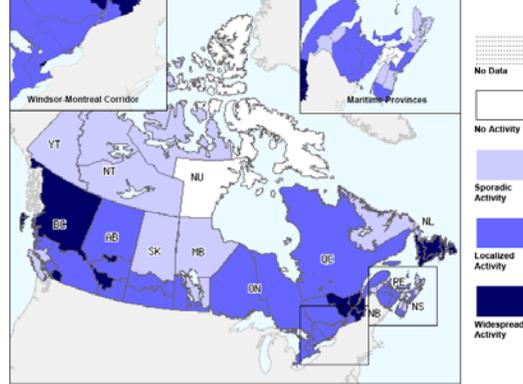


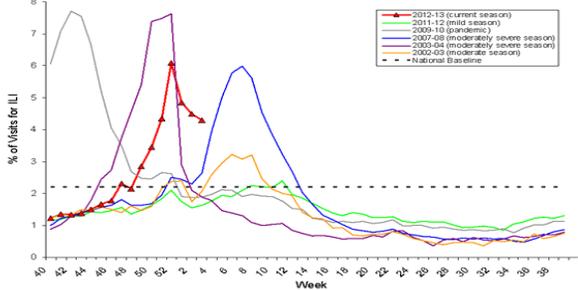
Figure 1. Map of overall influenza activity level by province and territory, Canada, Week 03



United States

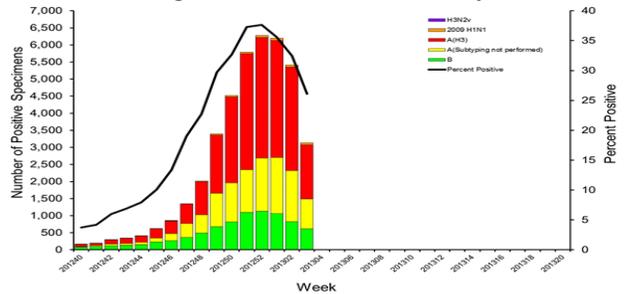
E.E.U.U. ILI Distribution (%) by EW, 2012-13

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2012-13 and Selected Previous Seasons

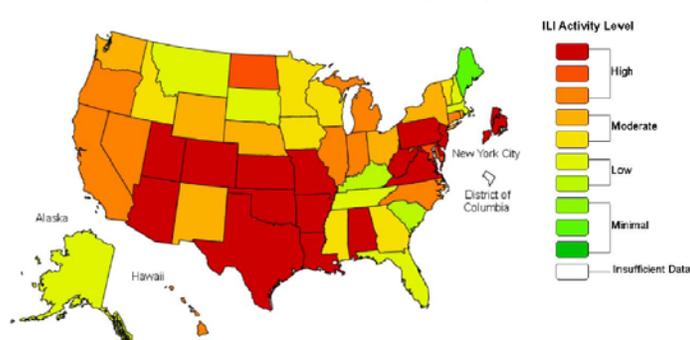


E.E.U.U. Influenza viruses distribution by EW, 2012-13

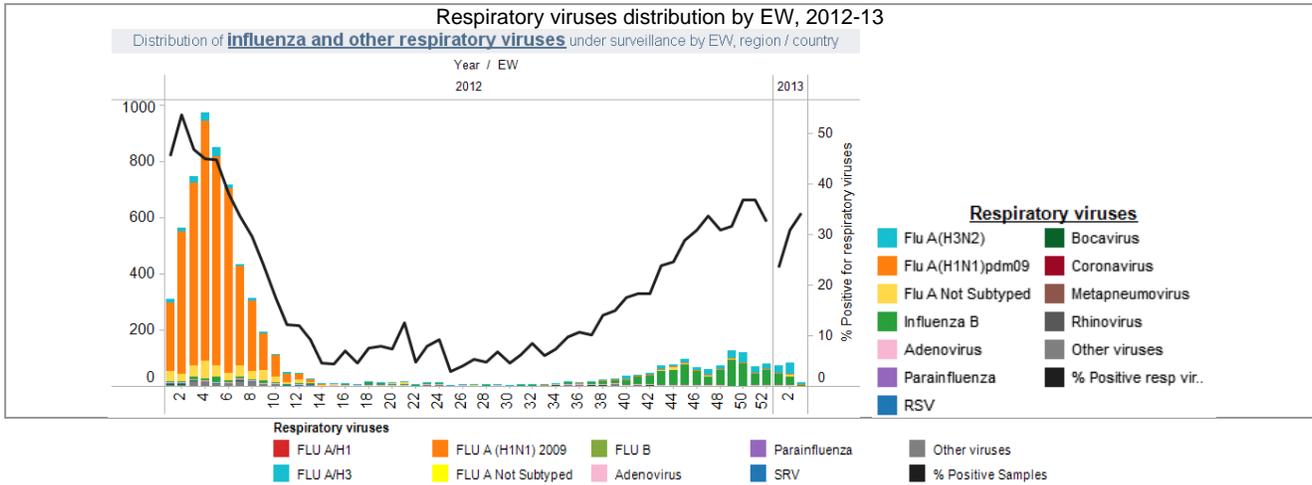
Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2012-13



Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2012-13 Influenza Season Week 3 ending Jan 19, 2013

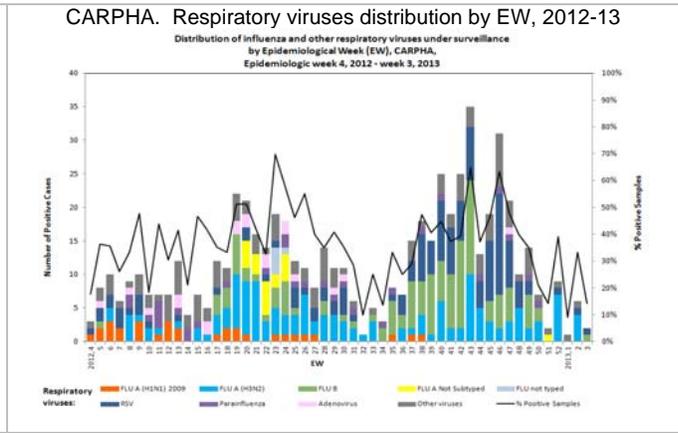
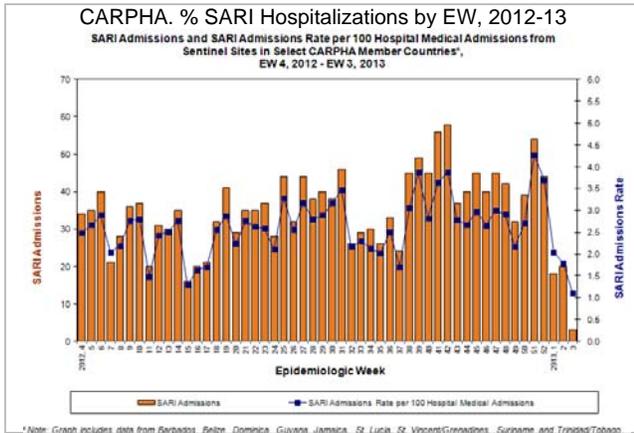


Mexico

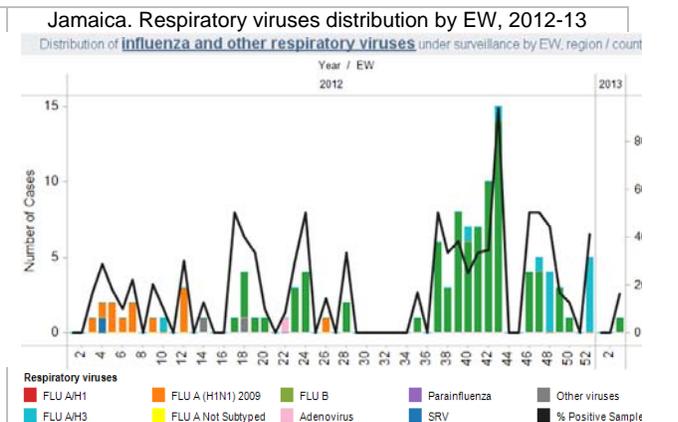
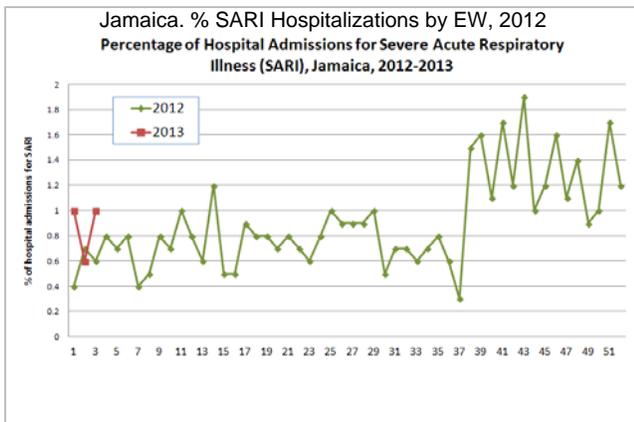


Caribbean

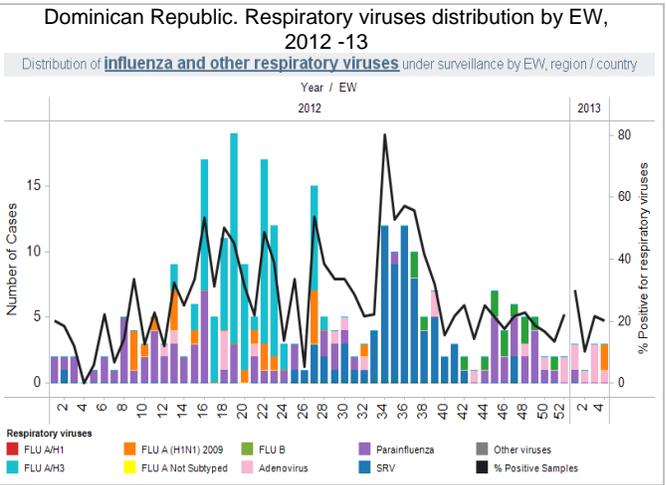
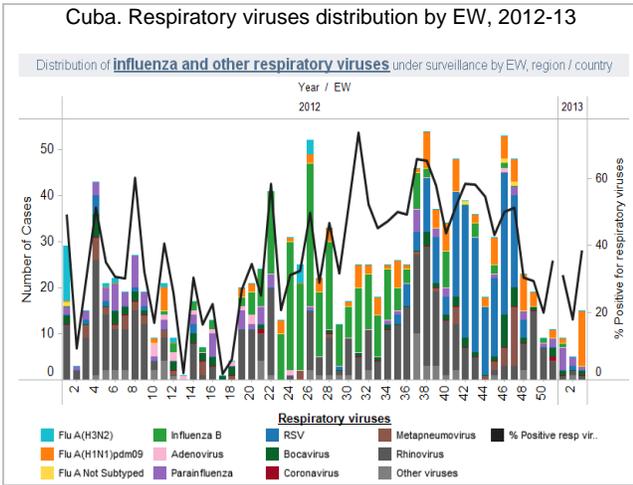
CARPHA



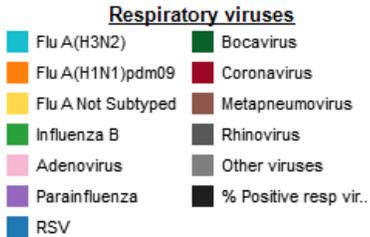
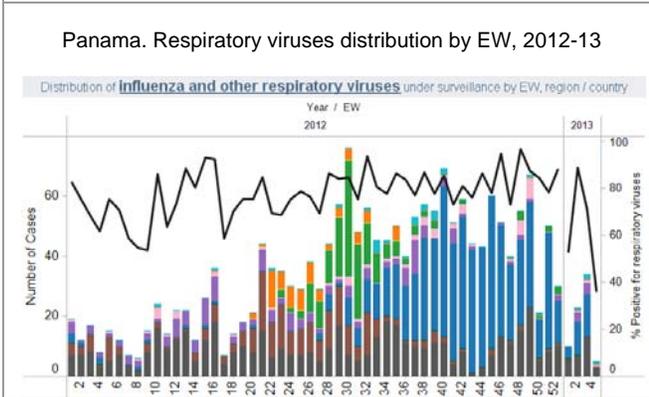
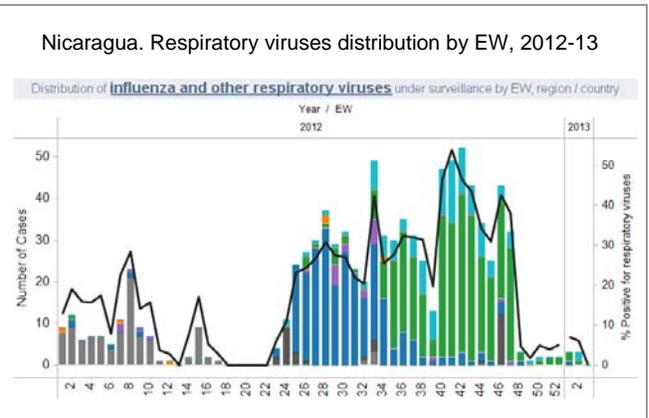
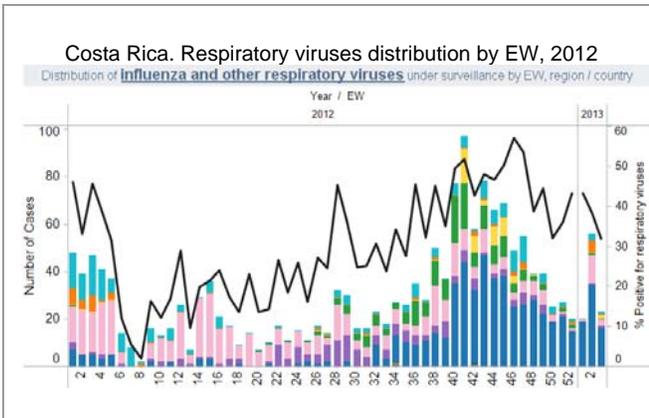
Jamaica



Cuba and Dominican Republic

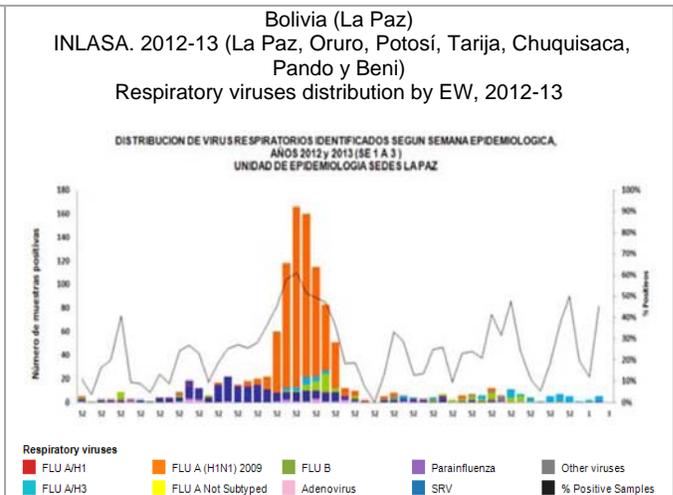
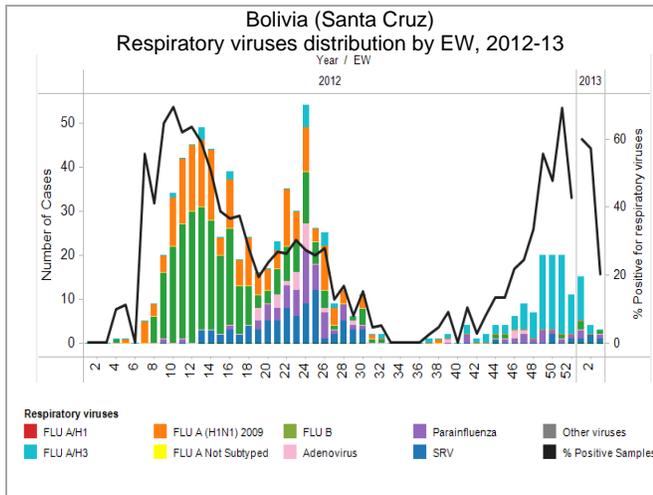


Costa Rica, Nicaragua and Panama

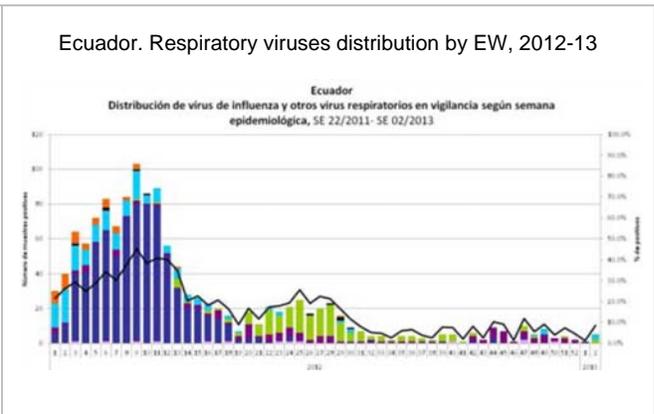
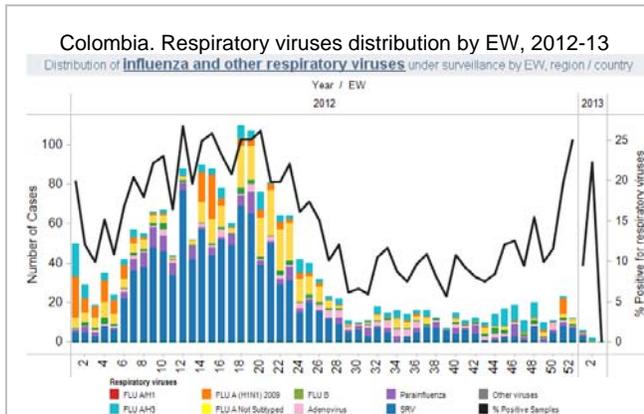


South America - Andean

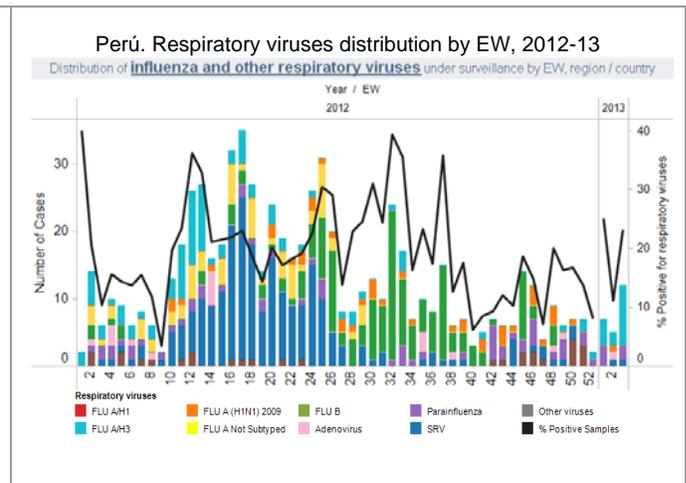
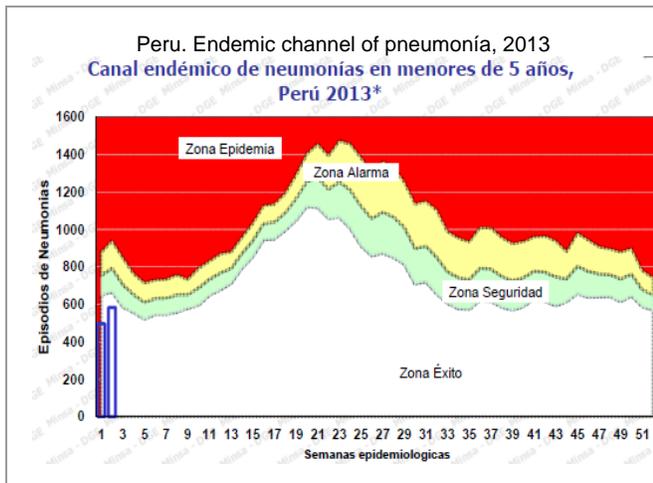
Bolivia



Colombia and Ecuador

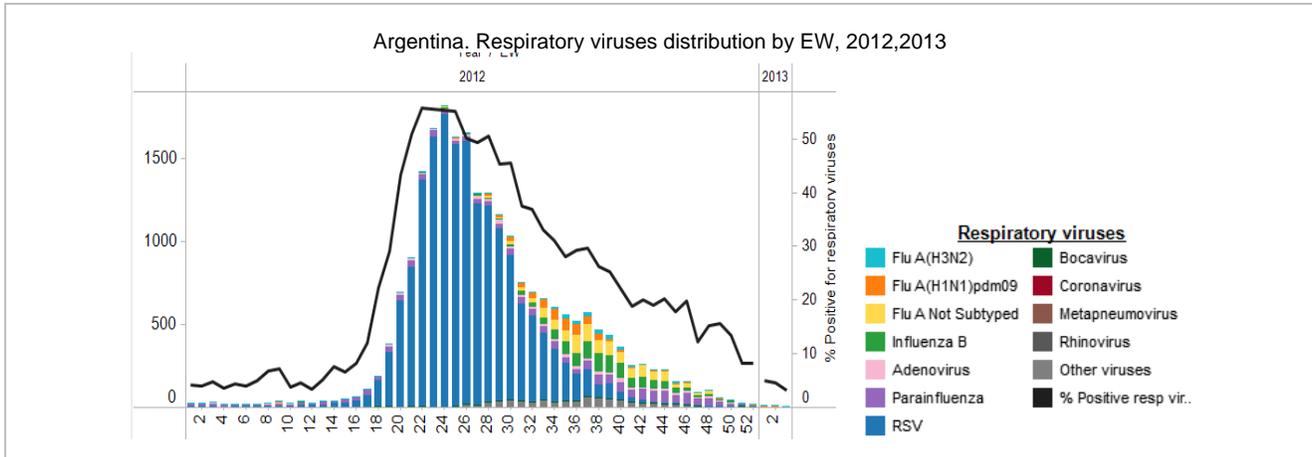


Perú



South America, Southern cone

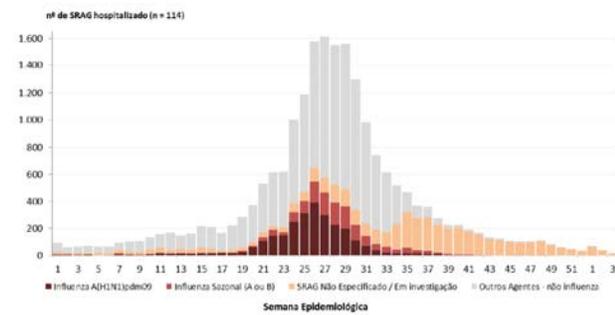
Argentina



Brazil

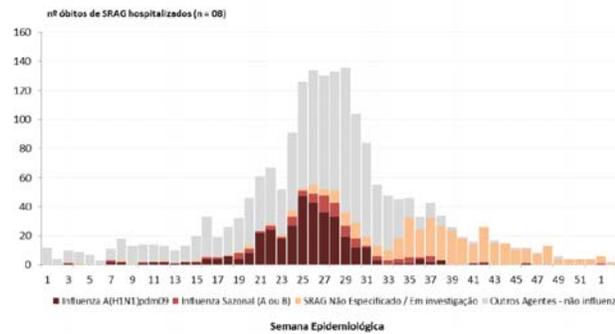
Brazil. SARI cases, 2012-13

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



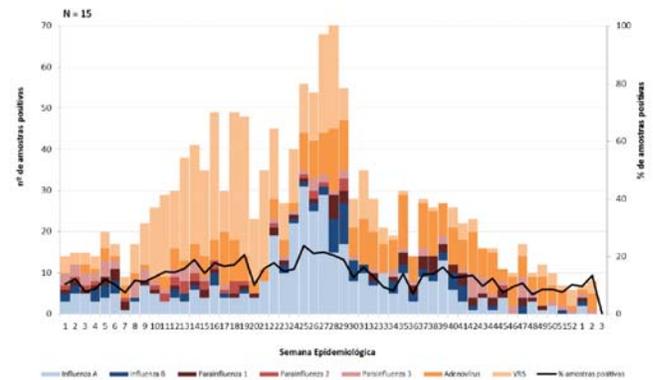
Brazil. SARI deaths, 2012-13

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

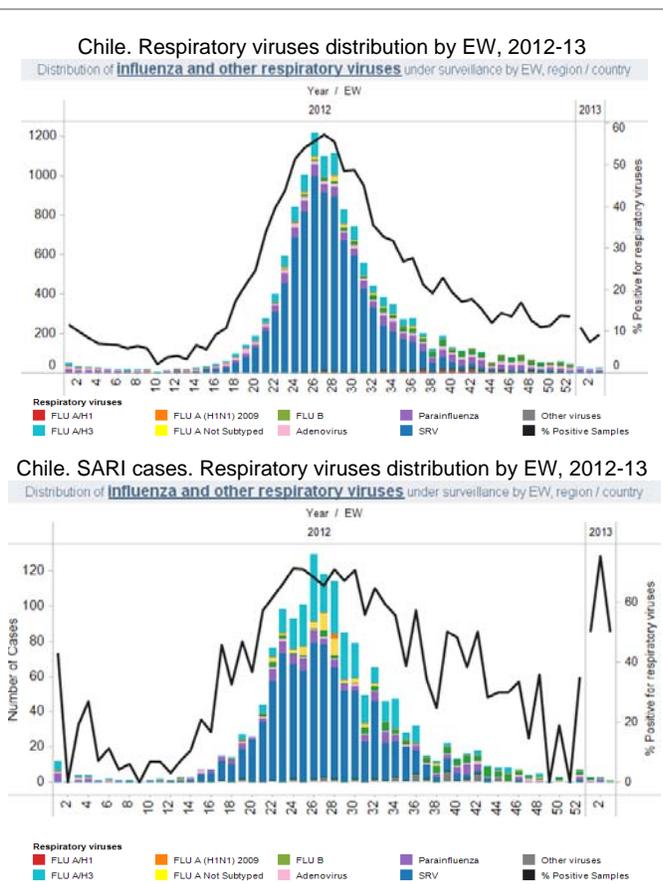
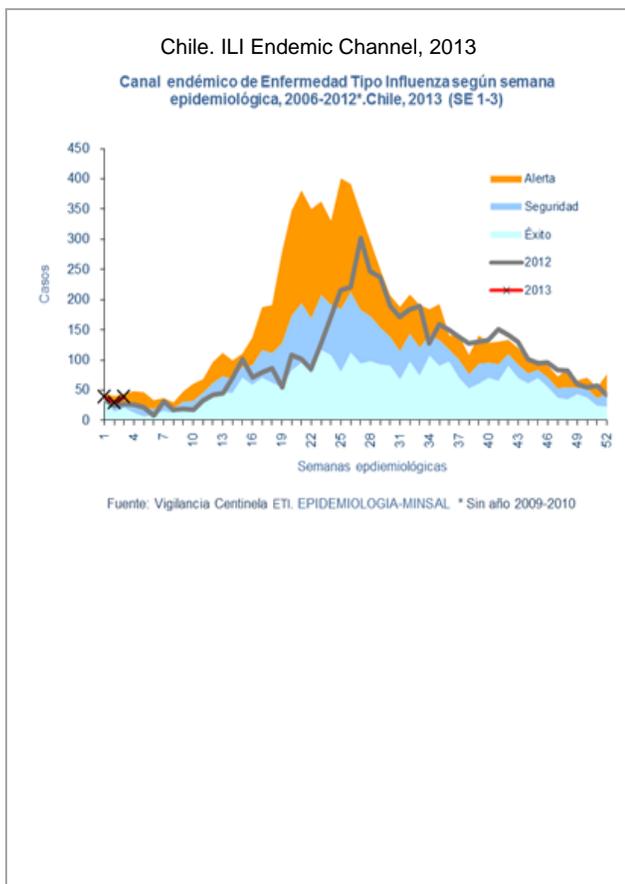


Brazil. ILI cases. Respiratory viruses distribution by EW, 2012-13

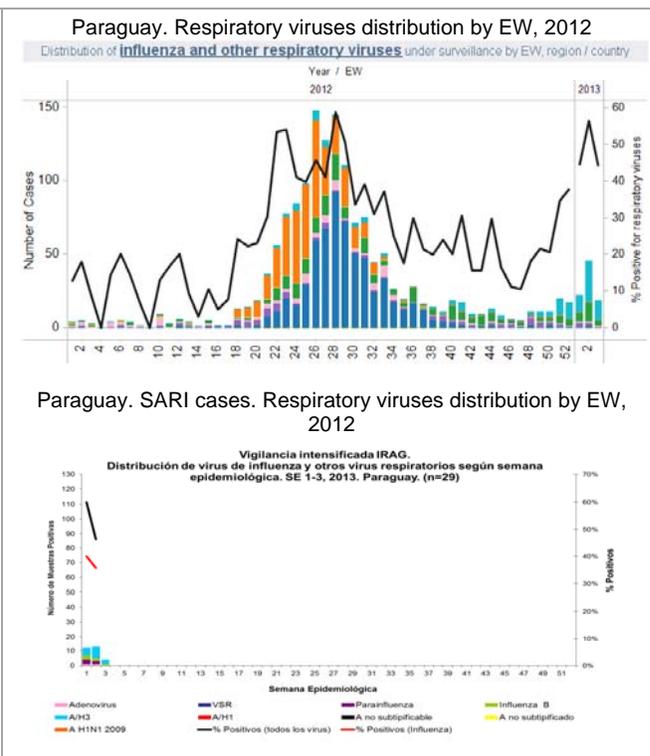
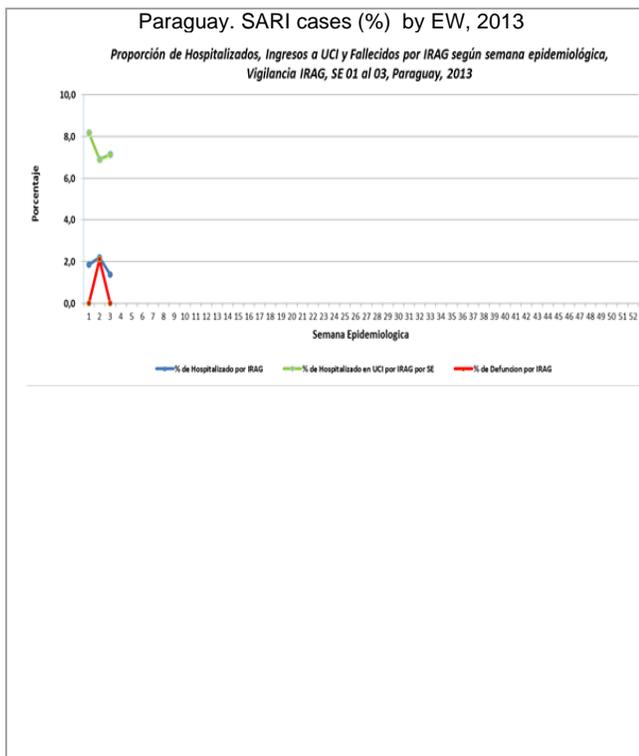
Figura 6: Distribuição dos virus respiratórios identificados nas unidades sentinelas de Síndrome Gripal, por semana epidemiológica de início dos sintomas. Brasil, SE 01 a 03/2013.



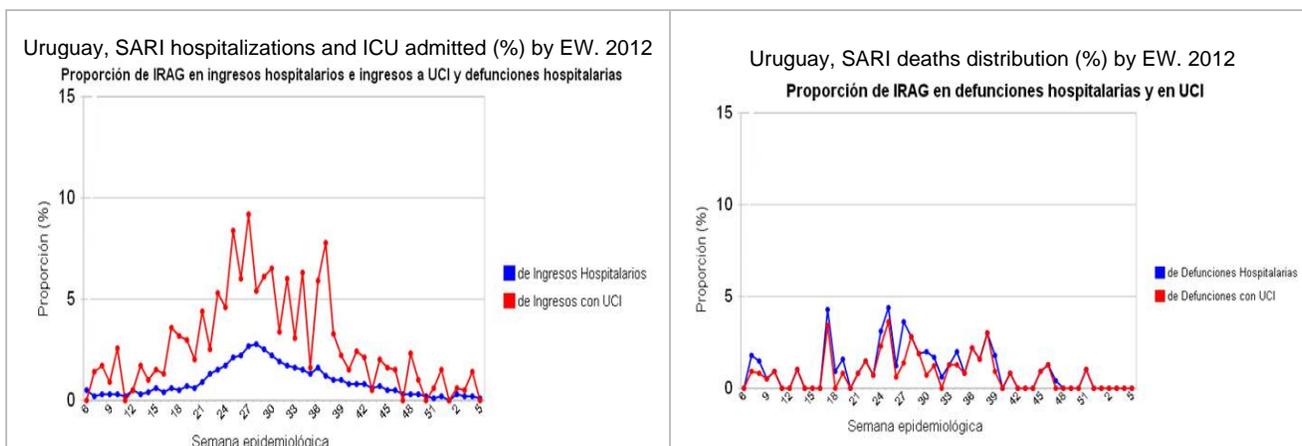
Chile



Paraguay



Uruguay



¹ FluWatch Report. EW 03. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

² US Surveillance Summary. EW 03. Centers for Disease Control and Prevention

³ Nicaragua. Boletín epidemiológico semanal SE 02 de 2013.

⁴ Perú. Sala de Situación de Salud. SE 02, 2013. Ministerio de Salud. Dirección General de Epidemiología

⁵ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 03, 2013.

⁶ Chile. Informe de situación. SE 03. Disponible en: www.pandemia.cl

⁷ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública