

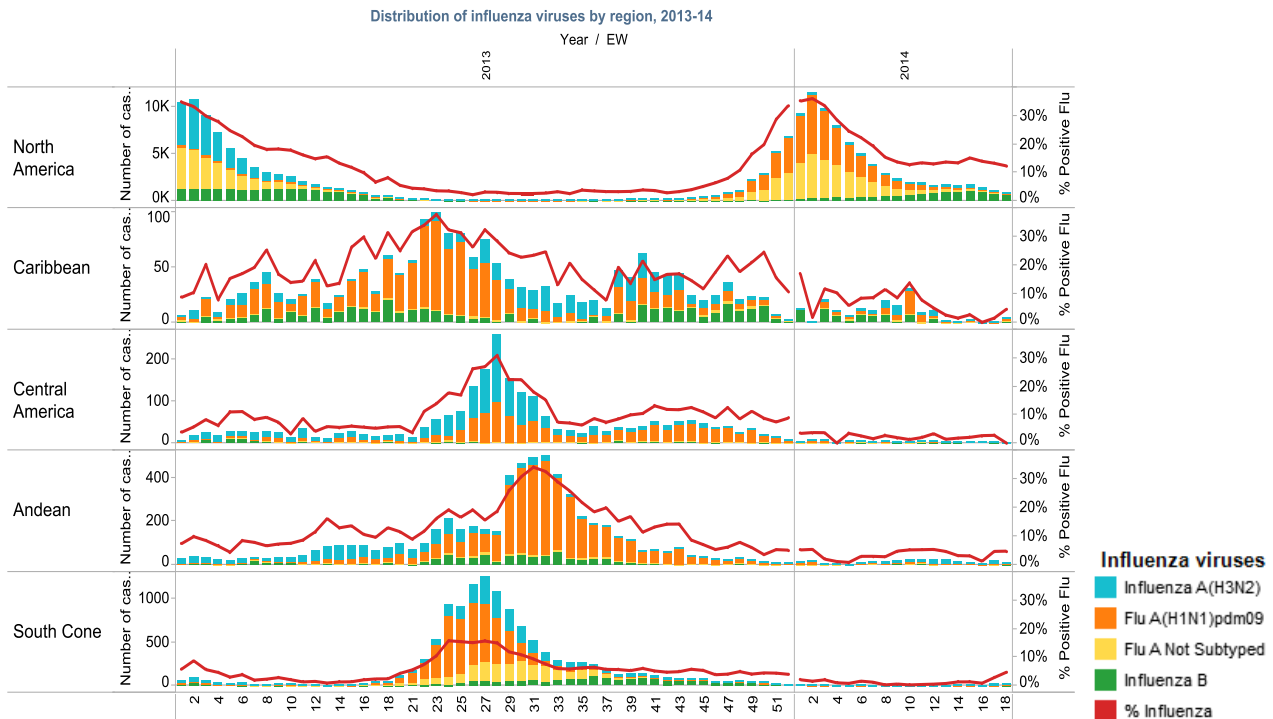
PAHO interactive influenza data: [http://ais.paho.org/phis/viz/ed\\_flu.asp](http://ais.paho.org/phis/viz/ed_flu.asp)  
Influenza Regional Reports: [www.paho.org/influenzareports](http://www.paho.org/influenzareports)

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

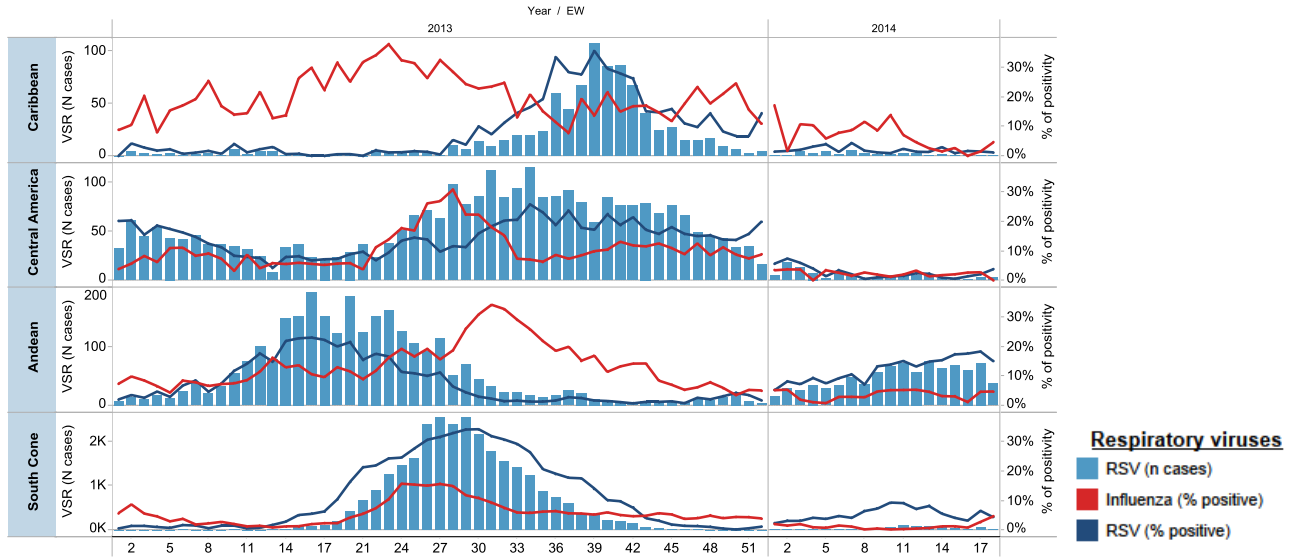
- **North America:** Influenza B continued to predominate in Canada and the United States and most affected adults ≥65 years of age. In Mexico, influenza activity was within expected levels for this time of year and involved co-circulation of influenza B and influenza A(H3N2).
- **The Caribbean and Central America:** Influenza and other respiratory virus activity remained low in the sub-region with the exception of French Guyana and Guadeloupe where the seasonal influenza epidemic continued and included co-circulation of influenza A(H1N1)pdm09, A(H3N2) and influenza B.
- **South America – Andean Countries:** Influenza activity remained low in the sub-region. However, active circulation of RSV was observed in Bolivia, Colombia, Ecuador and Peru.
- **South America - South Cone and Brazil:** Acute respiratory illness activity associated with influenza and other respiratory viruses increased in some South Cone countries but remained within expected levels for this time of year.

Influenza circulation by region. 2013-14



## Respiratory syncytial virus (RSV) circulation by region. 2013-14

Distribution of influenza and other respiratory viruses under surveillance by EW, region / country



### ACRONYMS

<b>ARI</b>	Acute respiratory infection
<b>CARPHA</b>	Caribbean Public Health Agency
<b>CENETROP</b>	Centro de Enfermedades Tropicales (Santa Cruz, Bolivia)
<b>EW</b>	Epidemiological Week
<b>ILI</b>	Influenza-like illness
<b>INLASA</b>	Instituto Nacional de Laboratorios de Salud (La Paz, Bolivia)
<b>INS</b>	Instituto Nacional de Salud
<b>ORV</b>	Other respiratory viruses
<b>SARI</b>	Severe acute respiratory infection
<b>SEDES</b>	Servicio Departamental de Salud (Bolivia)
<b>ICU</b>	Intensive Care Unit
<b>RSV</b>	Respiratory Syncytial Virus

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

#### North America:

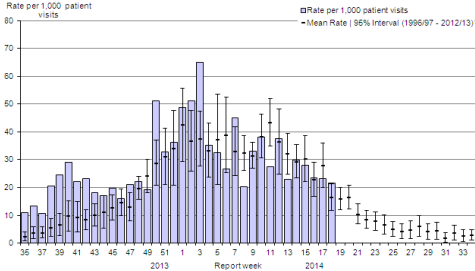
In Canada<sup>1</sup> during EW 18, influenza activity was sustained by continued circulation of influenza B, but was within expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 21.7 per 1,000 patient visits, a decrease compared to the previous week and within expected levels. Since the beginning of the 2013-14 influenza season, 4,623 influenza-associated hospitalizations have been reported, of which 77.6% were associated with influenza A. Although influenza A(N1H1)pdm09 predominated this season and mostly affected adults 20-64 years of age, influenza B is having a greater impact on adults ≥65 years and young persons from 5 -19 years of age. To date this season, 258 deaths have been reported, most of which were associated with influenza A (78.7%). The highest proportion of deaths (49.6%) has been among adults ≥65 years of age followed by adults 20-64 years of age (41.9%). Based on laboratory data for EW 18, the overall percentage of positive influenza tests was 11.7% (N=441), a decrease compared to the previous week. Among the positive tests, 90.0% were influenza B and 10.0% were influenza A, of which 11.4% were influenza A(H1N1)pdm09, 47.7% A(H3) and 40.9% A, not subtyped. Among other circulating respiratory viruses, RSV (decreasing since early February) and rhinovirus (increasing since late March) predominated.

<sup>1</sup> Canada: FluWatch Report. EW 18. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

## Canada

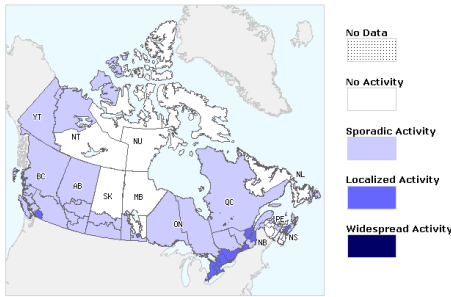
### Canada: ILI Consultation Rates, by EW, 2013-14

Figure 5. Influenza-like-illness (ILI) consultation rates by report week, compared to the 1996-97 through to 2012-13 seasons (with pandemic data suppressed), Canada, 2013-2014



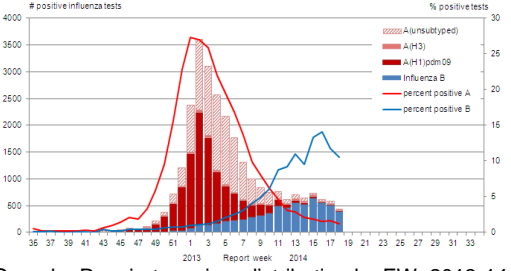
### Canada: Influenza/ILI Activity by region, EW 18, 2014

Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 18



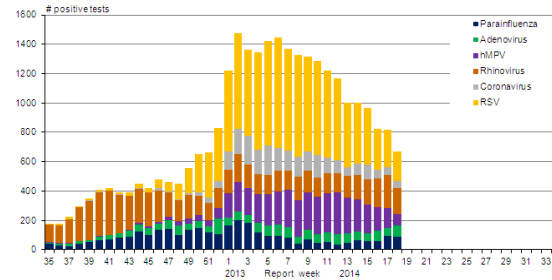
### Canada: Influenza virus distribution by EW, 2013-14

Figure 2. Number of positive influenza tests and percentage of tests positive, by type, subtype and report week, Canada, 2013-14



### Canada: Respiratory virus distribution by EW, 2013-14

Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

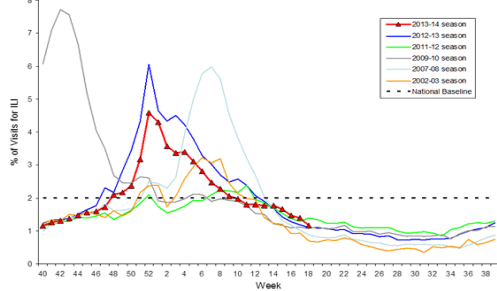


In the United States<sup>2</sup> during EW 18, influenza activity continued to decrease. The national proportion of outpatient visits for influenza-like illness (ILI) was 1.2%, a decrease compared to the previous EW and below the national baseline (2.0%). All 10 regions reported ILI activity below their region-specific baselines. The proportion of deaths attributed to pneumonia and influenza for EW 18 (6.8%) increased slightly compared to the previous EW but was below the epidemic threshold (7.0%). A total of 91 influenza-associated pediatric deaths have been reported this season (no deaths were reported during EW 18). Between October 1, 2013 and April 30, 2014, 9,587 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 35.4 per 100,000 population) and the majority (88.5%) have been associated with influenza A. The highest hospitalization rate was among adults  $\geq 65$  years, however, adults 18-64 years of age comprised approximately 60% of the reported hospitalizations. According to laboratory data for EW 18, 3,692 samples were analyzed, of which 12.5% were positive for influenza. Among the positive samples, 56.1% were influenza B and 43.9% were influenza A (2.5% A(H1N1)pdm09, 39.6% A(H3) and 57.9% not subtyped). Based on antiviral resistance testing, 1.2% (59/5,071) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

## United States

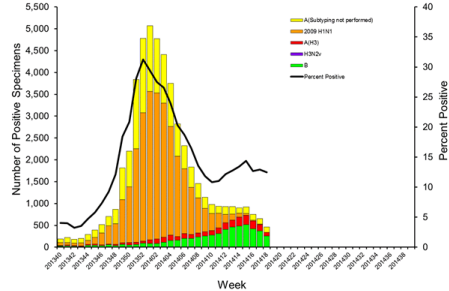
### US: Percent of ILI visits by EW, 2013-14

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2013-14 and Selected Previous Seasons

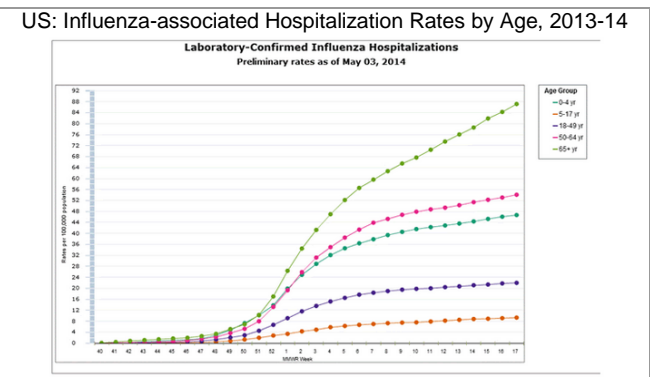
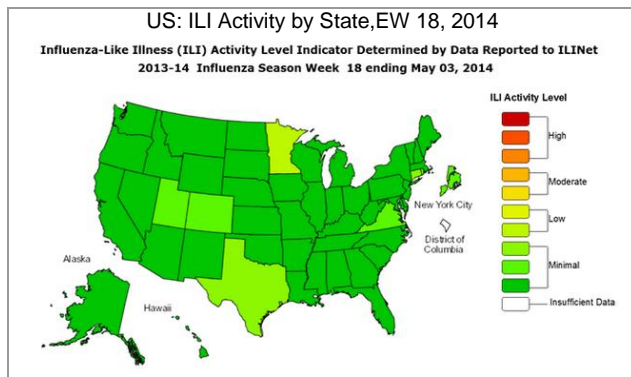


### US: Influenza viruses distribution by EW, 2013-14

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2013-14

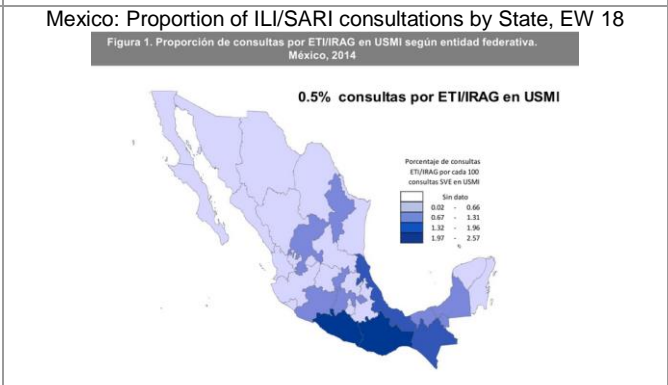
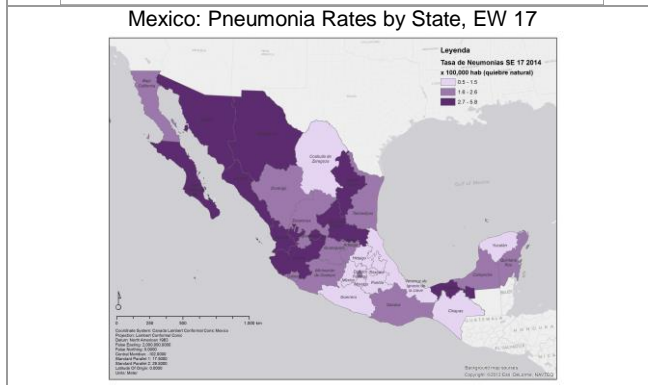
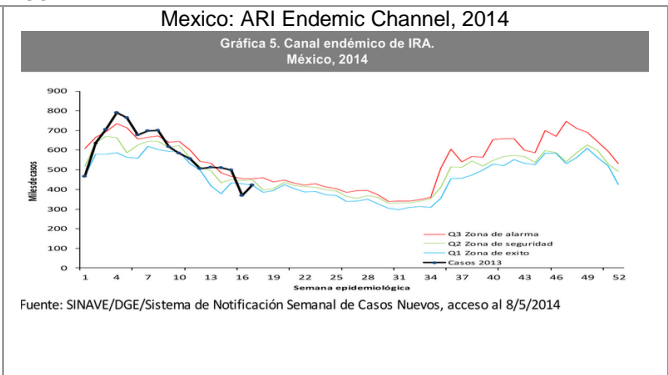
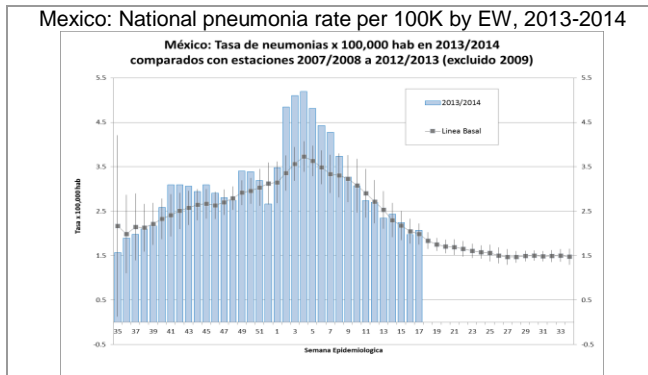


<sup>2</sup> USA: CDC FluView report. EW 18. Available at: <http://www.cdc.gov/flu/weekly/>

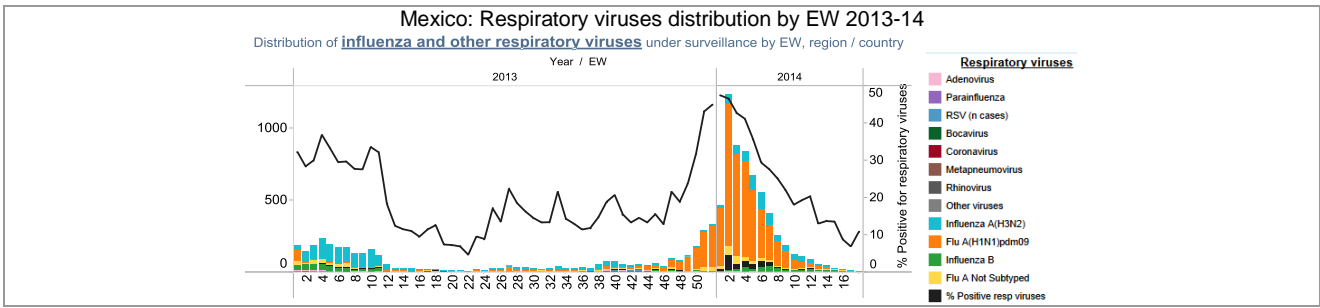


In Mexico<sup>3</sup> during EW 18, influenza activity increased slightly, but remained within expected levels for this time of year. The pneumonia rate (2.1 per 100,000 inhabitants in EW 17) increased slightly compared to previous week and was within the expected level for this time of year. ARI activity increased compared to the previous week and was within the security zone of the endemic channel. Regionally, the highest levels of ARI activity were reported in Aguascalientes, Sinaloa and Campeche, while the highest levels of pneumonia activity were reported in Tabasco, Nuevo Leon and Baja California Sur. Nationally, through May 8, 2014, the proportion of ILI/SARI-associated medical visits was 0.5%, equal to the previous EW. The highest proportions of ILI/SARI-associated medical visits were reported in Guerrero, Oaxaca and Veracruz. During this same period, 713 influenza-associated deaths were reported, of which 91.2% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 17-18, 207 samples were analyzed, of which 7.7% were positive for influenza. Among the positive samples, 56.3% were influenza B and 43.8% were influenza A (100% A(H3N2)).

**Mexico**



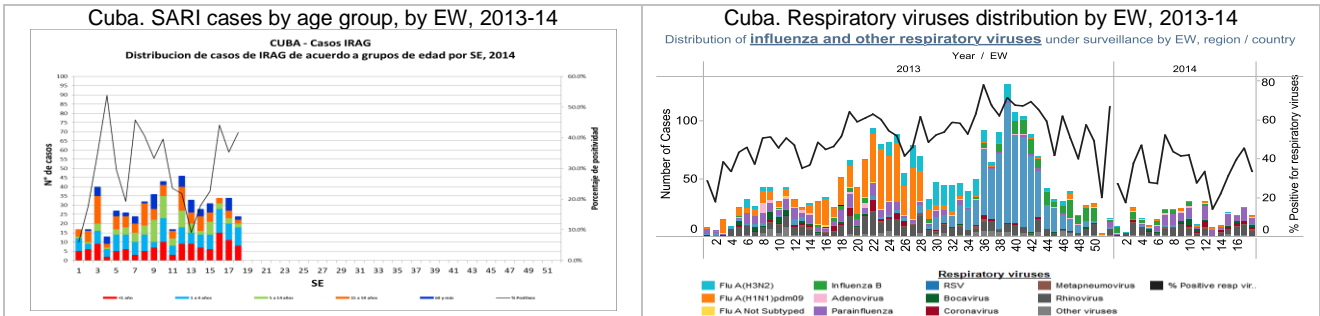
<sup>3</sup> México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.



## Caribbean

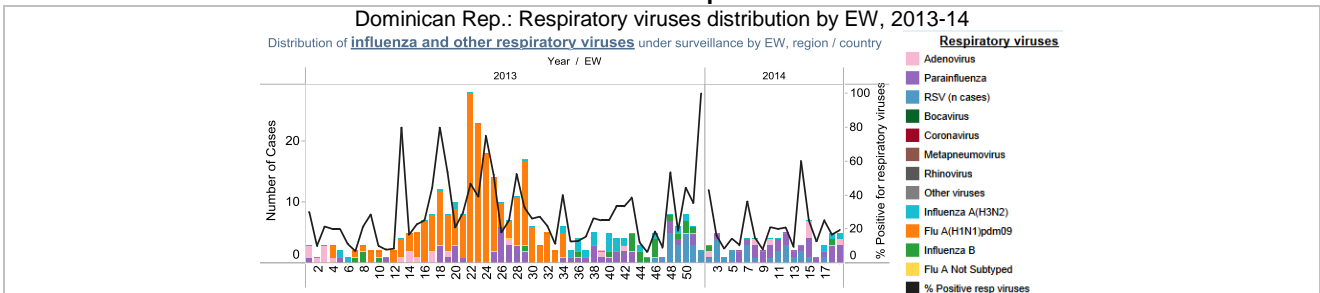
In Cuba during EW 18, the number of SARI-associated hospitalizations (n=24) decreased compared to the previous week. Children 1-4 years of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 15-18, 224 samples were analyzed, of which 37.1% were positive for a respiratory virus and 0.9% were positive for influenza. Among the positive samples, parainfluenza (38.6%) and rhinovirus (33.7%) predominated.

## Cuba



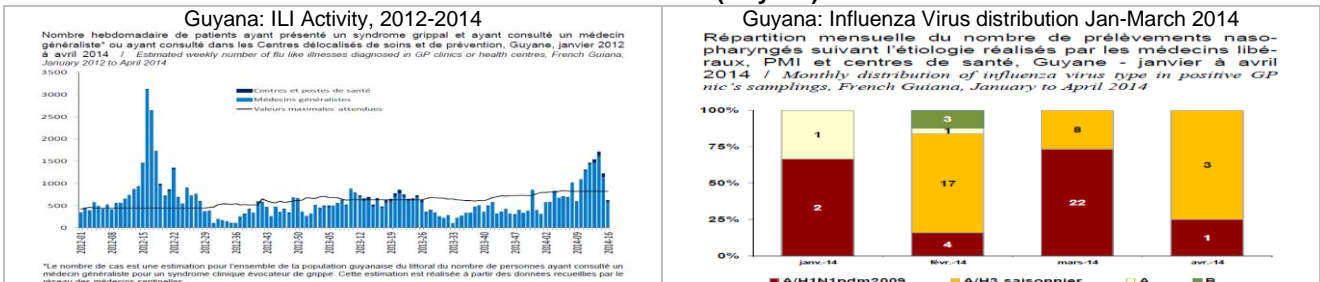
In the Dominican Republic, during EW 16-19, 76 samples were analyzed, of which 18.4% were positive for a respiratory virus and 5.3% were positive for influenza. Among the positive samples, parainfluenza (57.1%) and influenza A(H3N2) (21.4%) predominated.

## Dominican Republic



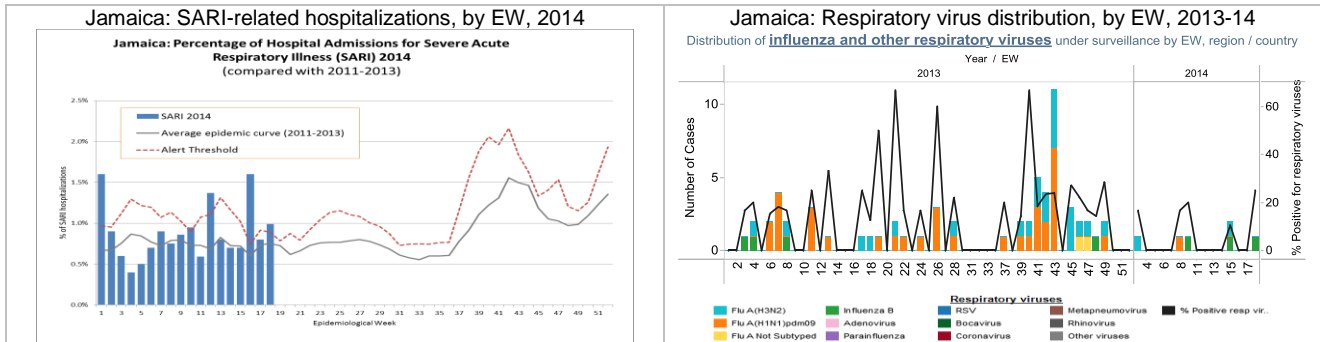
In French Guyana, since the seasonal influenza epidemic began in mid-February there have been 10,620 ILI-associated consultations, of which 1,850 occurred in the past two weeks. According to laboratory data since the beginning of 2014, there has been co-circulation of influenza A(H1N1)pdm09, influenza A(H3N2) and influenza B. Among the other French territories, Guadeloupe also declared the start of their influenza season in EW 3, but Martinique, St. Martin and St. Barthelemy have not reported influenza activity.

## French Territories (Guyana)



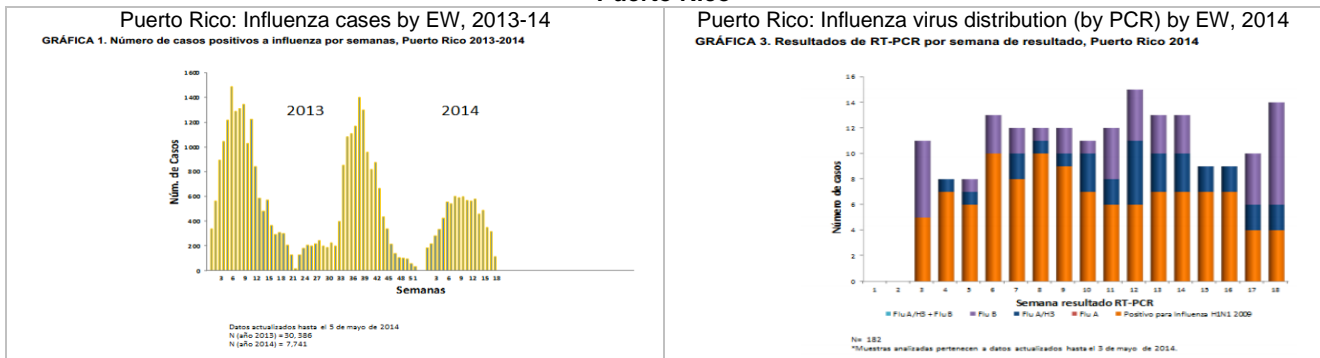
In Jamaica, based on sentinel surveillance data for EW 18, the proportion of ARI-associated consultations (3.4%) decreased compared to the previous week while the proportion of SARI-associated hospitalizations (1.0%) increased. No SARI-associated deaths were reported during EW 18. Based on laboratory data for EW 15-18, 31 samples were analyzed of which three were positive for influenza (influenza B and A(H3N2)).

### Jamaica



In Puerto Rico<sup>4</sup> during EW 18, the number of influenza cases (n=110) remained low. Of these, 62 cases were associated with influenza A, 46 with influenza B and 2 with an influenza A and B co-infection. Since the beginning of 2014, 7,741 influenza cases have been reported (57% influenza A and 42% influenza B) and persons aged 0-19 years accounted for 49% of those cases. During this same period, 400 influenza-associated hospitalizations and 7 influenza-associated deaths were reported.

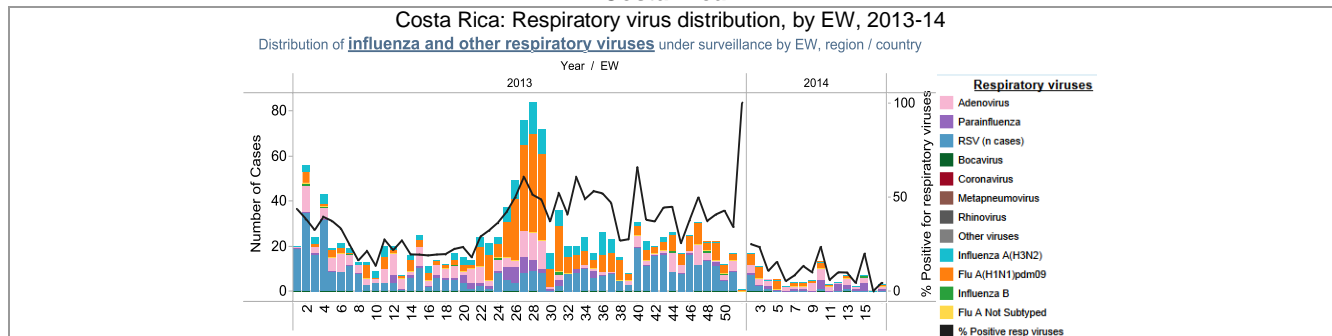
### Puerto Rico



### Central America

In Costa Rica, according to laboratory data from EW 14-17, 151 samples were analyzed of which 7.9% were positive for a respiratory virus and 1.3% were positive for influenza. Among the positive samples, parainfluenza (50.0%) and adenovirus (33.3%) predominated.

### Costa Rica

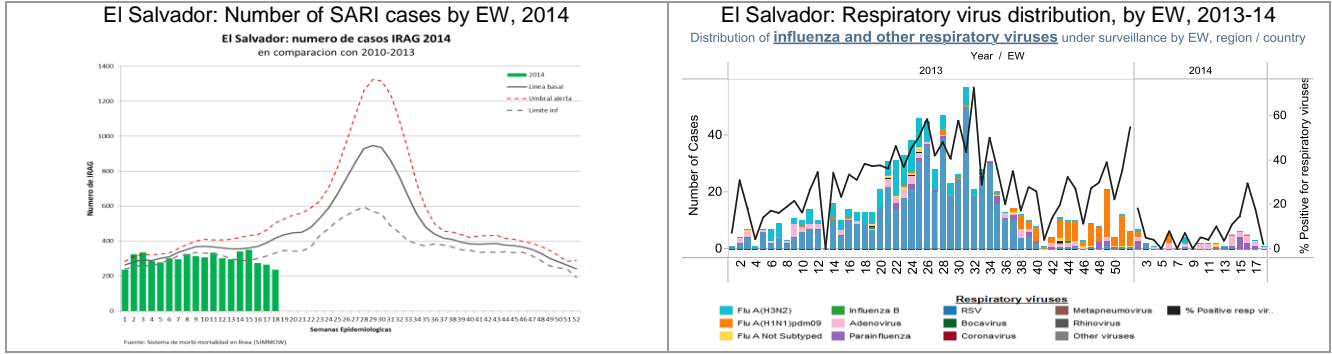


In El Salvador, during EW 18, the proportions of hospitalizations (5.1%) and deaths (6.5%) associated with SARI increased compared to the previous week while the proportions of SARI-associated ICU admissions (0%) remained the same. Based on laboratory data from EW 15-18, 124 samples were analyzed, of which

<sup>4</sup> Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 18

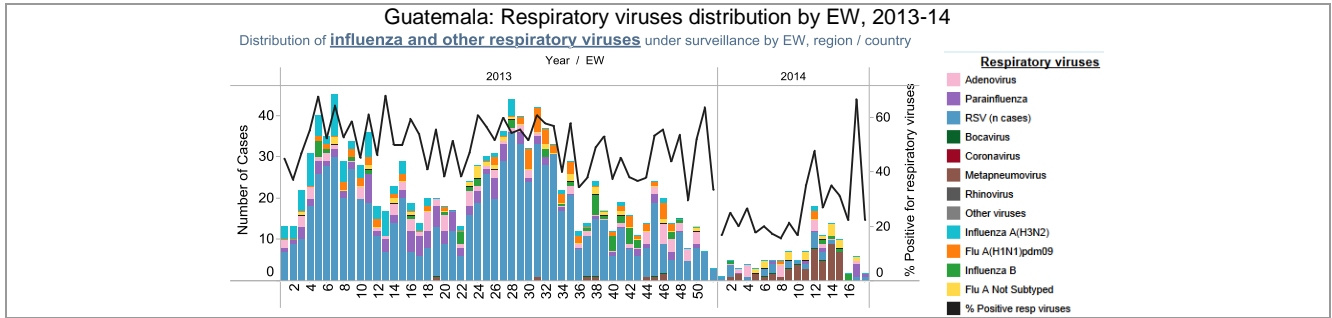
12.1% were positive for a respiratory virus. Among the positive samples, adenovirus (53.3%) and parainfluenza (46.7%) were detected.

**El Salvador**



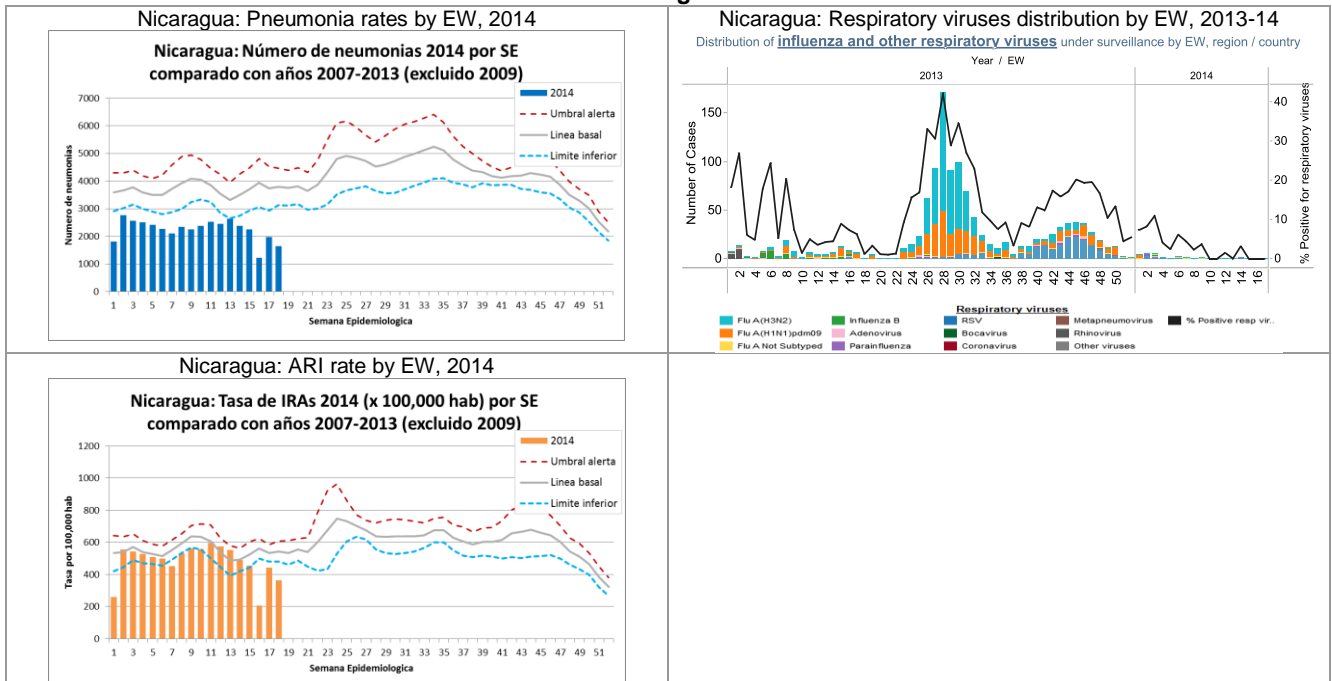
In Guatemala, based on laboratory data from EW 15-18, 59 samples were analyzed, of which 33.9% were positive for a respiratory virus and 10.2% were positive for influenza. Among the influenza positive samples, 50% were influenza A (100% not subtyped) and 50% were influenza B. Among other respiratory viruses, human metapneumovirus (35.0%) predominated.

**Guatemala**



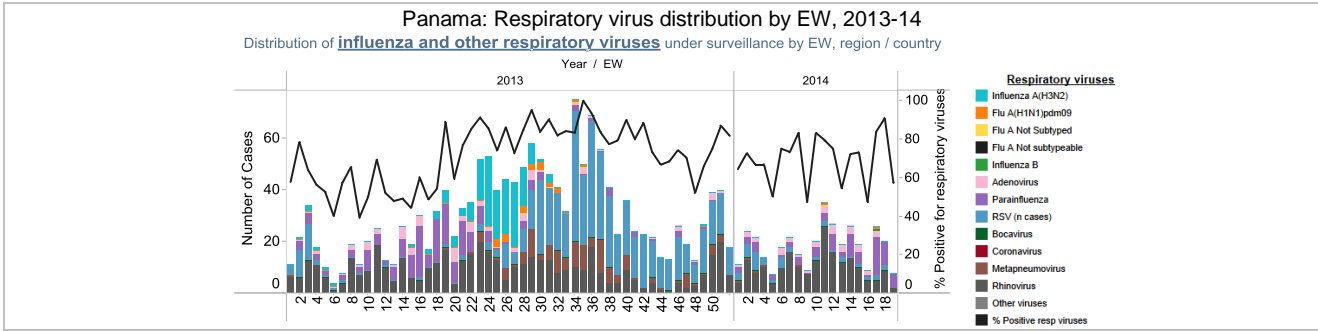
In Nicaragua, during EW 18, the national rates of pneumonia and ARI decreased compared to the previous week and remained within the expected levels for this time of year. Based on laboratory data from EW 14-17, 183 samples were analyzed, of which two (1.1%) were positive for a respiratory virus (parainfluenza).

**Nicaragua**



In Panama, based on national laboratory data from EW 16-19, 86 samples were analyzed, of which 73.7% were positive for a respiratory virus. Among the positive samples, parainfluenza (49.2%) and rhinovirus (33.3%) predominated.

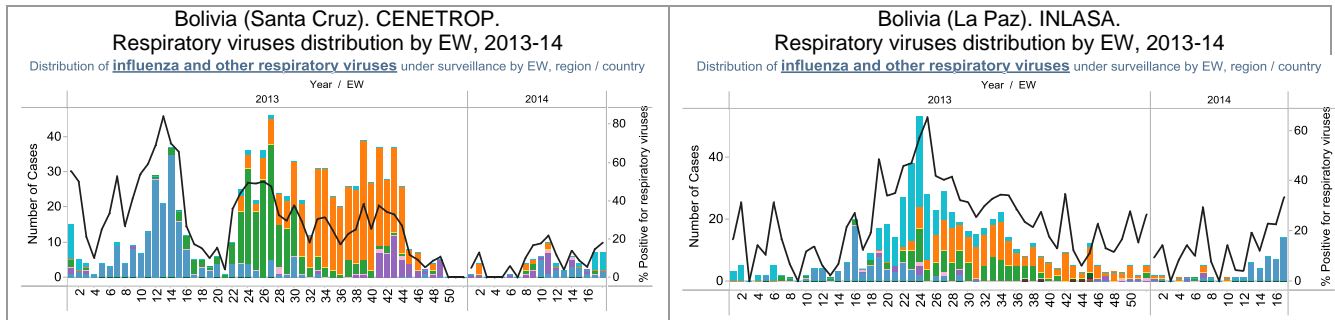
### Panama



### South America – Andean countries

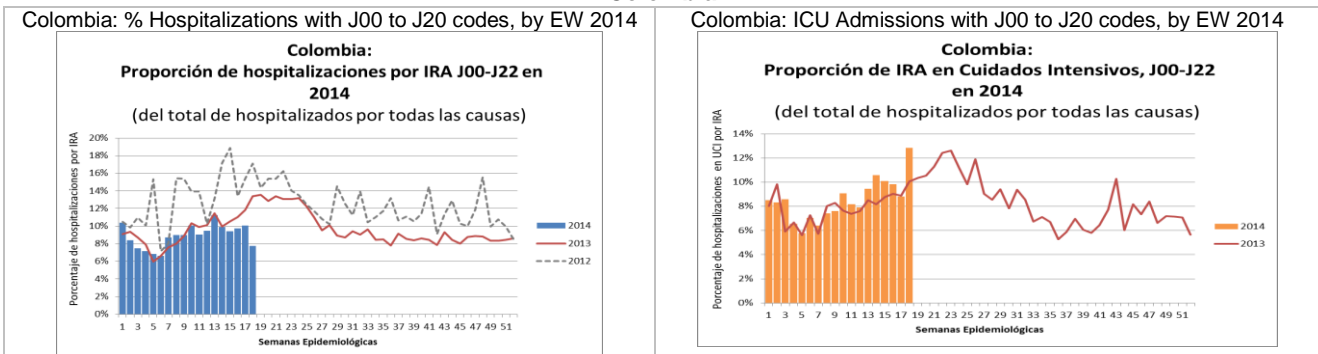
In Bolivia, according to laboratory data from Santa Cruz, (CENETROP) from EW 15-18, 170 samples were analyzed, of which 11.8% were positive for respiratory virus and 7.1% were positive for influenza. Among the positive samples, influenza A(H3N2) (55.0%) and RSV (35.0%) predominated. According to the National Laboratory in La Paz (INLASA) from EW 14-17, 141 samples were analyzed, of which 23.4% were positive for respiratory viruses. Among the positive samples, 100% were RSV.

### Bolivia



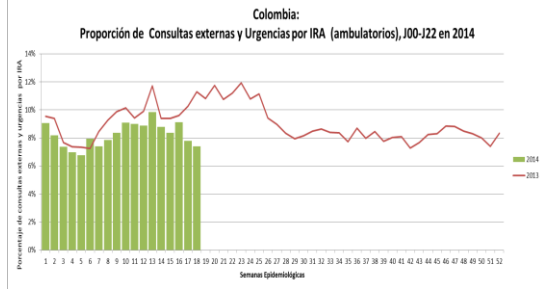
In Colombia, nationally during EW 17, the proportions of hospitalizations (7.8%) and outpatient and urgent visits (7.4%) with SARI/ARI-associated ICD-10 codes (J00 to J22) decreased compared to the previous week, while the proportion of ICU admissions (12.9%) increased. Based on INS laboratory data from EW 15-18, 665 samples were analyzed, of which 29.5% were positive for a respiratory virus and 4.4% were positive for influenza. Among the positive samples, RSV (51.5%), parainfluenza (17.9%) and influenza A(H3N2) (8.2%) predominated.

### Colombia

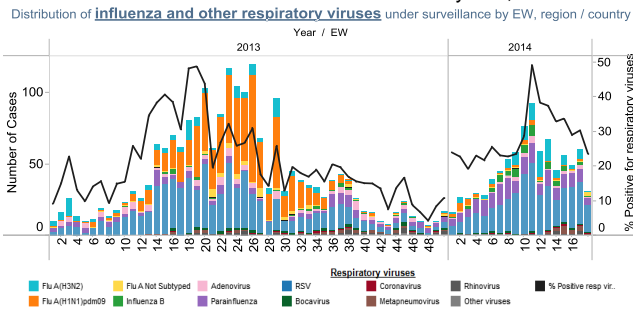




Colombia: ARI outpatient Visits with J00-J20 codes, by EW 2014



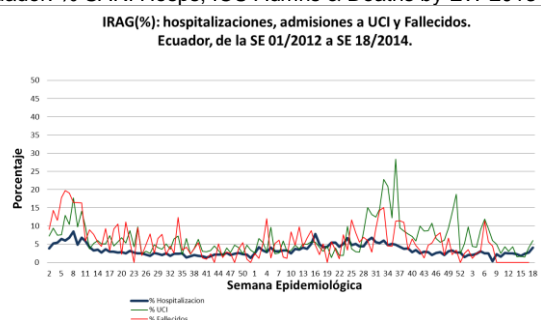
Colombia: Influenza and ORV distribution by EW, 2013-14



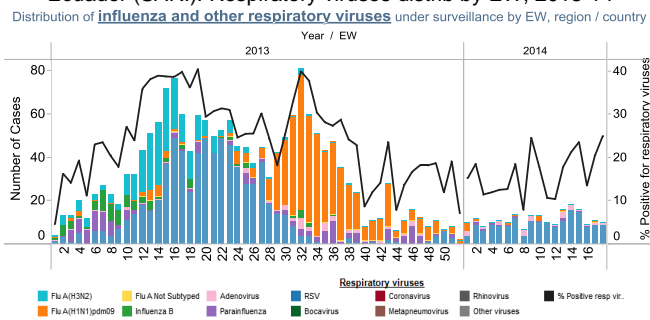
In Ecuador during EW 18, the proportions of SARI-associated hospitalizations (4.1%) and ICU admissions (6.1%) increased compared to the previous week. No SARI-associated deaths were reported during this period. Based on national reference laboratory data from EW 15-18, 229 SARI samples were analyzed, of which 20.1% were positive for a respiratory virus and 0.4% were positive for influenza. Among the positive samples, RSV predominated (89.1%).

Ecuador

Ecuador: % SARI Hosps, ICU Adms & Deaths by EW 2013-14



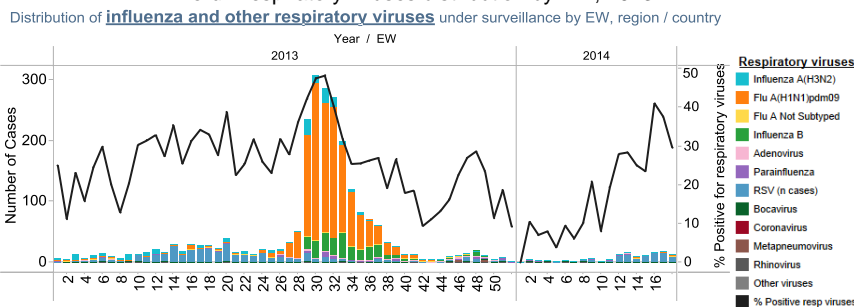
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 15-18, 178 samples were analyzed, of which 32.6% were positive for a respiratory virus and 2.2% were positive for influenza. Among the positive samples, RSV (89.7%) predominated.

Peru

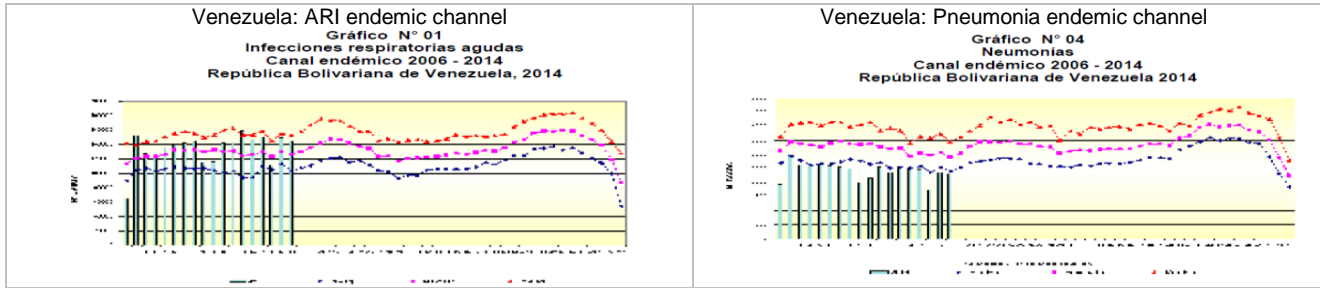
Perú. Respiratory viruses distribution by EW, 2013-14



In Venezuela<sup>5</sup> during EW 18, the number of ARI and pneumonia cases decreased by 3.2% and 2.6%, respectively, compared to the previous EW. However, both were within the expected levels for this time of year. During EW 18, 184 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data since EW 1, 2014, 238 samples have been analyzed from suspected influenza cases and of these, 13.0% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (90.3%).

<sup>5</sup> Venezuela. Boletín epidemiológico, EW 18.

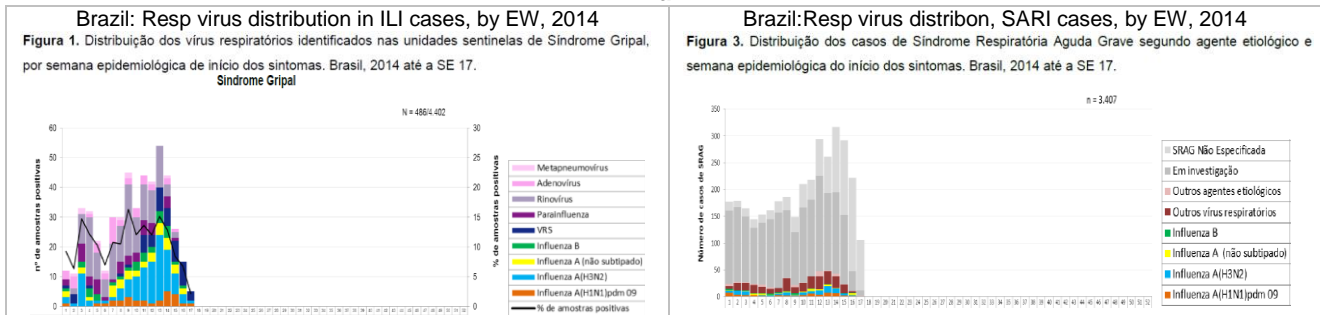
## Venezuela



## South America – South Cone and Brazil

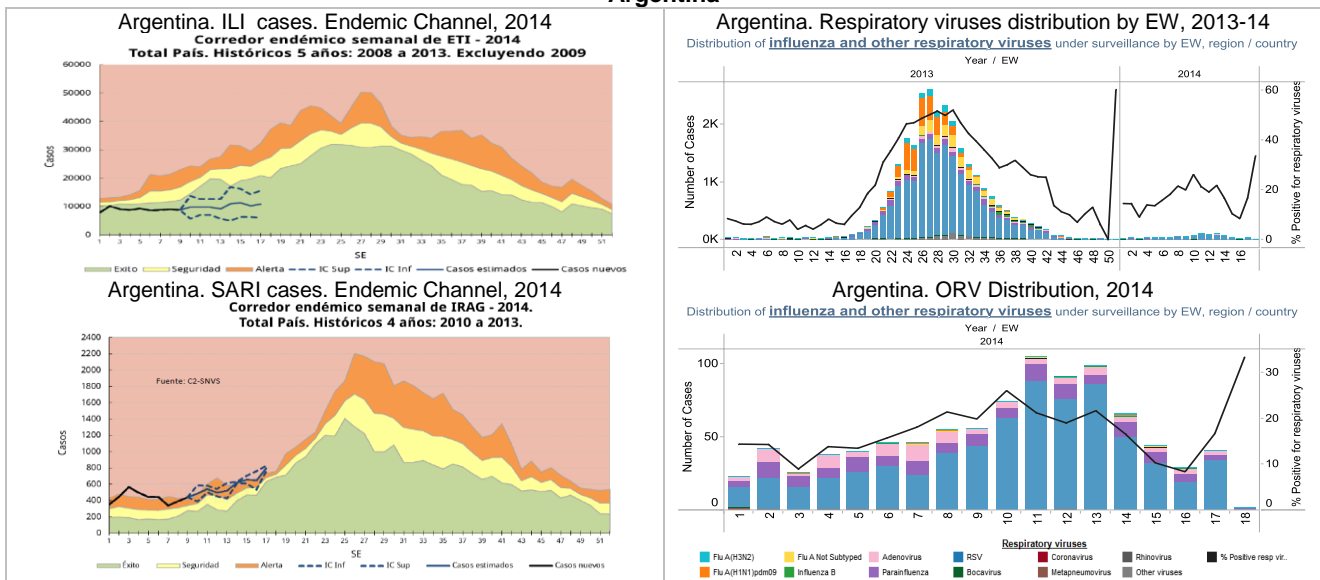
In Brazil<sup>6</sup>, according to ILI sentinel surveillance data through EW 17, 4,402 samples were analyzed, of which 11.0% were positive for influenza or another respiratory virus. Among the positive samples, RSV and influenza A(H3N2) predominated. Based on national SARI surveillance data during this same period, 3,407 SARI cases were reported and 4.9% of these were positive for influenza. Among the influenza positive samples, influenza A(H3N2) predominated. Through EW 17, 336 SARI-associated deaths were reported, of which 5.4% were positive for influenza.

## Brazil



In Argentina<sup>7</sup>, according to reports and calculated estimations, national ILI activity during EW 17 was within the success zone of the endemic channel. The estimated number of SARI-associated hospitalizations was within the alert zone of the endemic channel and corresponded to a cumulative rate (14.0 per 10,000 population) that was approximately 9% higher than the same period last year. Based on laboratory data from EW 15-17, 1,028 samples were analyzed, of which 11.3% were positive for a respiratory virus and 0.2% were positive for influenza. Among the positive samples, RSV (74.1%) predominated.

## Argentina

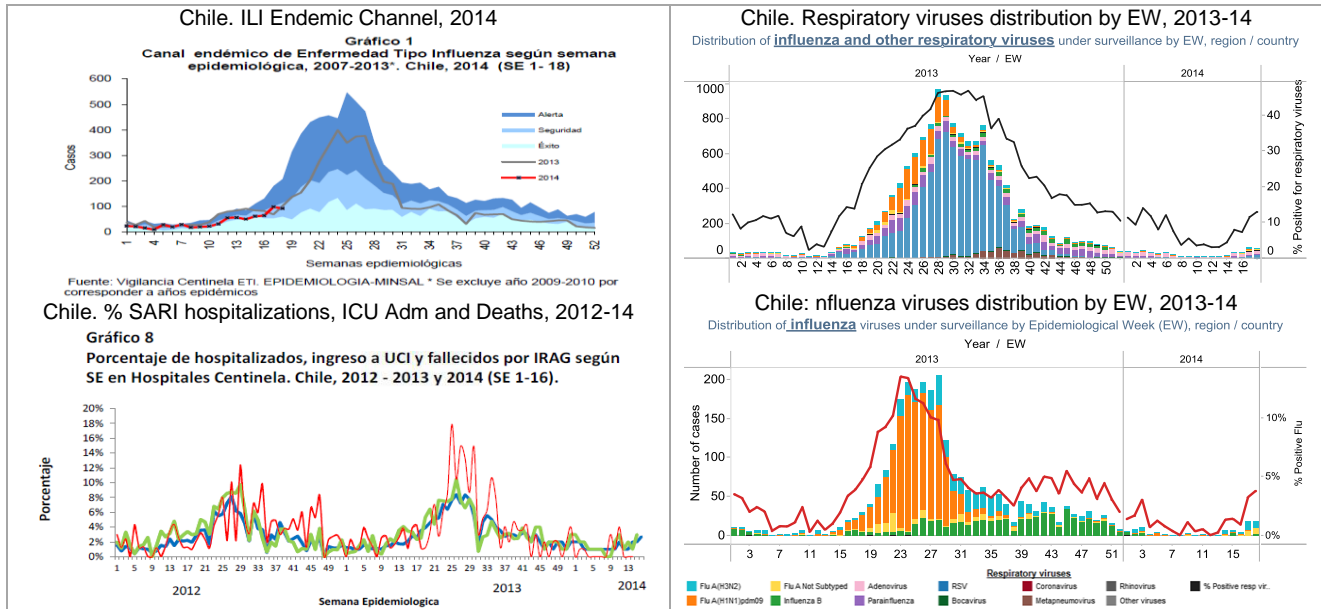


<sup>6</sup> Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 17, 2014.

<sup>7</sup> Argentina. Boletim integrado de vigilância. SE 17.

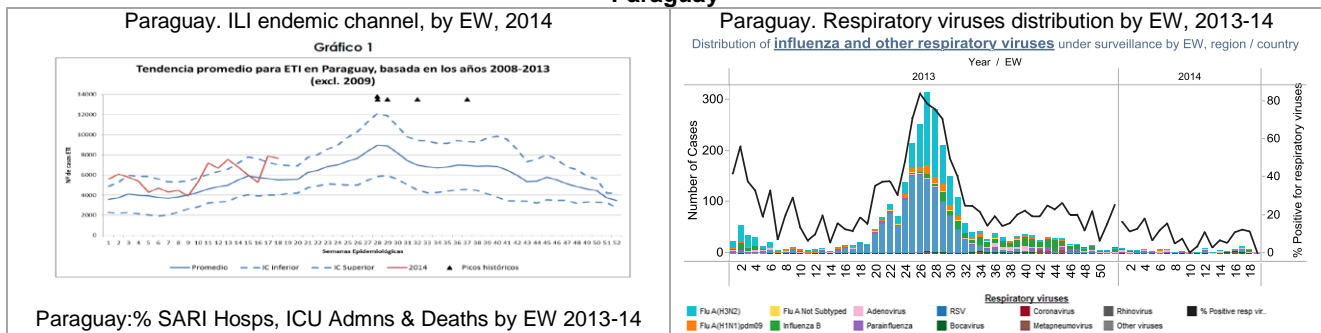
In Chile<sup>8</sup>, ILI activity has been increasing slowly since EW 12 but is within expected levels for this time of the season. During EW 18, the rate of ILI notifications (rate: 6.1 per 100,000 inhabitants) was within the security zone of the endemic channel. Through EW 18, 2014, 434 SARI cases were reported through sentinel surveillance and of these, 11.0% were positive for a respiratory virus. Based on laboratory data from EW 17-18, 1,001 samples were analyzed, of which 12.2% were positive for a respiratory virus and 3.5% were positive for influenza. Among the positive samples, adenovirus (31.1%), RSV (26.2%) and influenza A(H3N2) (14.8%).

### Chile



In Paraguay<sup>9</sup> during EW 18, the ILI consultation rate (114.8 per 100,000 inhabitants) decreased from the previous EW but was slightly higher than expected for this time of year. The proportion of SARI-associated hospitalizations (3.6%) remained within the expected range for this time of year. The most affected age groups were children <5 years of age and adults ≥60 years. Based on reference laboratory data from EW 16-19, 239 samples were analyzed of which 10.5% were positive for a respiratory virus and 2.9% were positive for influenza. Among the positive samples, RSV (44.0%), human metapneumovirus (20.0%) and influenza B (20.0%) predominated.

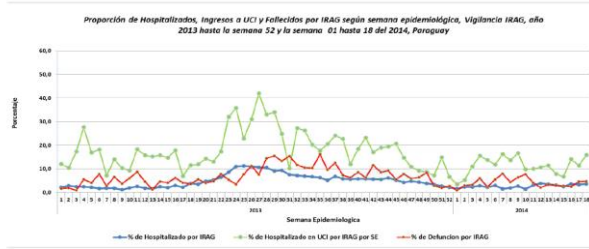
### Paraguay



<sup>8</sup> Chile. Informe de situación. EW 18. Available at: <http://epi.minsal.cl/>

<sup>9</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 18.

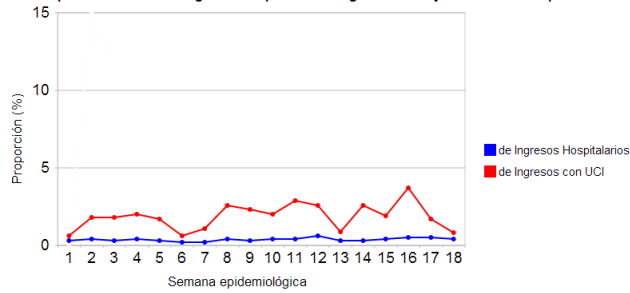
Gráfico 5: Proporción de Hospitalizados, ingresos a UCI y fallecidos por IRAG según semana epidemiológica, SE 1 a 18, Vigilancia Centinela, Paraguay, 2.014.



In Uruguay<sup>10</sup> during EW 18, the proportions of SARI-associated hospitalizations, ICU admissions and deaths remained at low levels. Based on laboratory data from EW 15-18, 19 samples were analyzed and of these, three (15.8%) were positive for a respiratory virus (RSV and adenovirus).

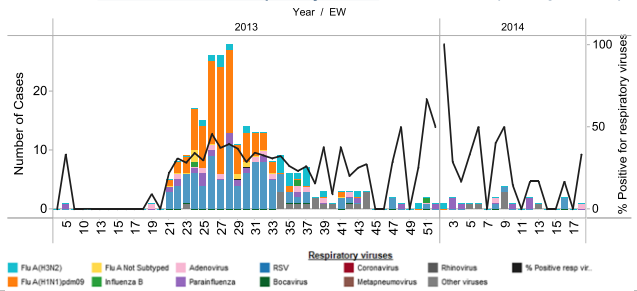
### Uruguay

Uruguay.SARI-related hospis & ICU admissions by EW, 2014  
Proporción de IRAG en ingresos hospitalarios e ingresos a UCI y defunciones hospitalarias



Uruguay. Respiratory viruses distribution by EW, 2013-14

Distribution of influenza and other respiratory viruses under surveillance by EW, region / country



<sup>10</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública