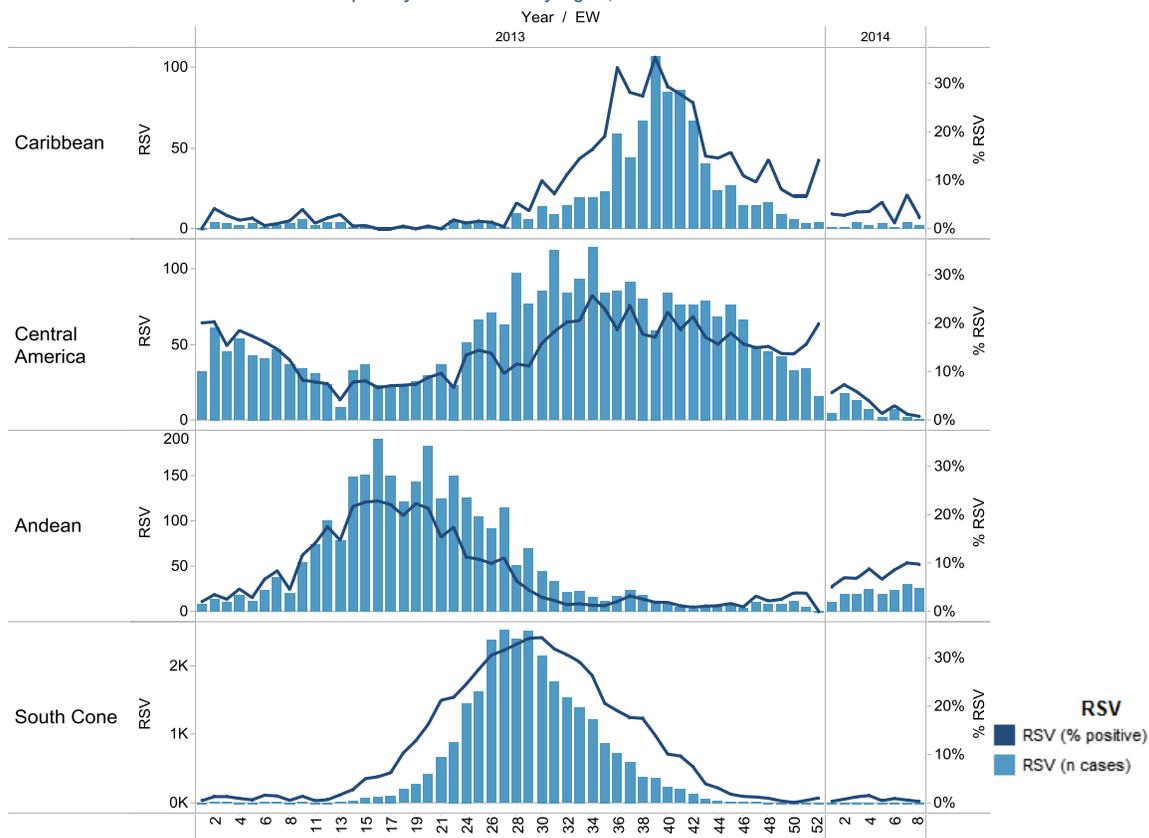




## Respiratory syncytial virus (RSV) circulation by region. 2013-14

Respiratory Sincicial Virus by region, 2013-14



### 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

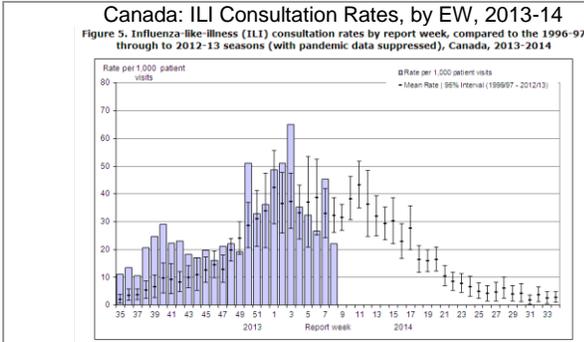
#### North America:

In Canada<sup>1</sup> during EW 8, influenza activity continued to decline. The national influenza-like illness (ILI) consultation rate was 22.0 per 1,000 patient visits, a decrease compared to the previous week, and below the expected range for this time of year. Since the beginning of the 2013-14 influenza season, 3,093 influenza-associated hospitalizations have been reported and most of them have been associated with influenza A (96.8%). The majority (57.5%) of these cases have been adults ≥45 years of age. There have been 298 ICU admissions reported and of these, 67.4% were among adults 20-64 years of age. To date this season, 171 deaths have been reported (compared to 243 during the same period of the 2012-13 season) and 95.9% were associated with influenza A. The highest proportion of these deaths (52.6%) occurred among adults 20-64 years of age, followed by adults ≥65 years (38.0%). Based on laboratory data for EW 8, the overall percentage of positive influenza tests was 14.3% (N=1,014), a decrease compared to the previous week. Among the positive tests, 71.3% were influenza A (26.4% influenza A(H1N1)pdm09, 3.5%

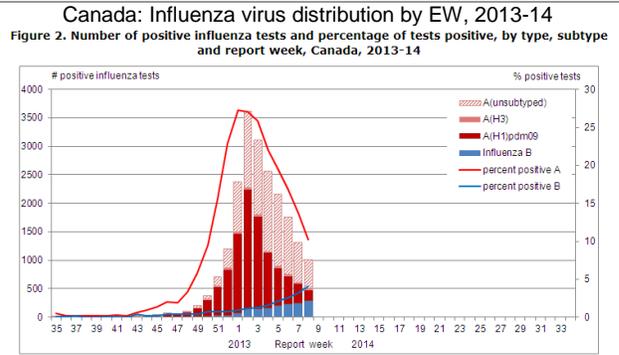
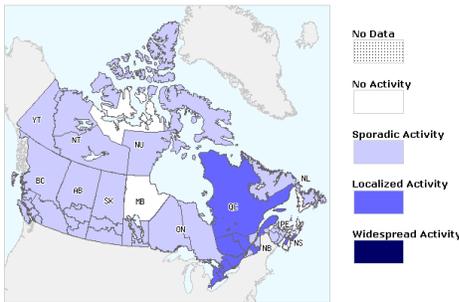
<sup>1</sup> Canada: FluWatch Report. EW 8. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

A(H3N2) and 70.1% not subtyped) and 28.7% were influenza B. Among other circulating respiratory viruses, RSV continued to predominate.

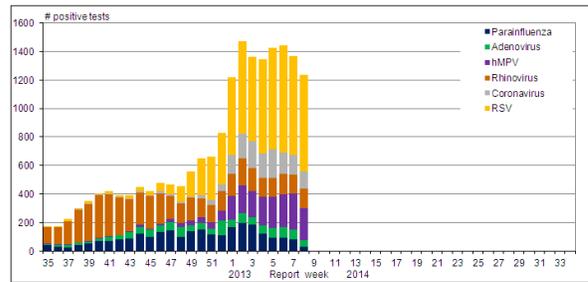
### Canada



Canada: Influenza/ILI Activity by region, EW 8, 2014  
 Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 08

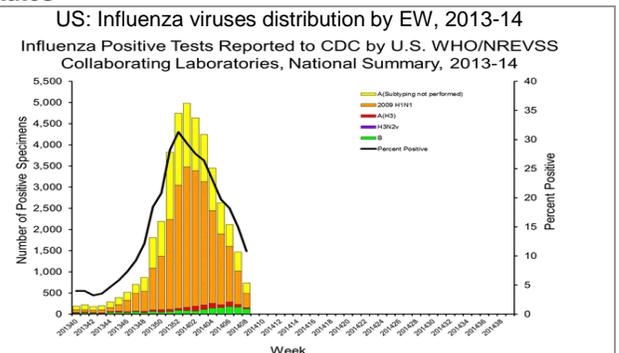
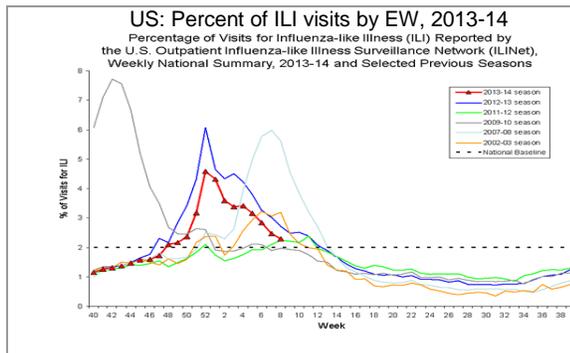


Canada: Respiratory virus distribution by EW, 2013-14  
 Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

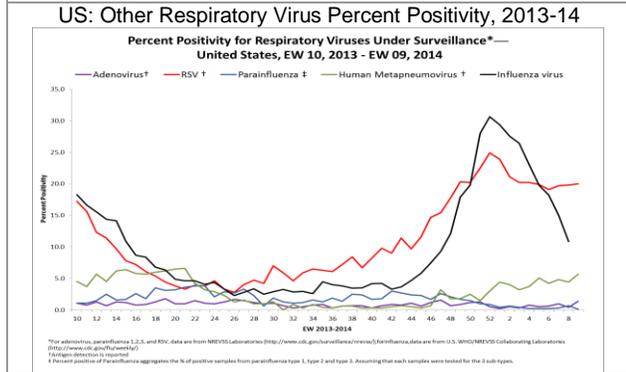
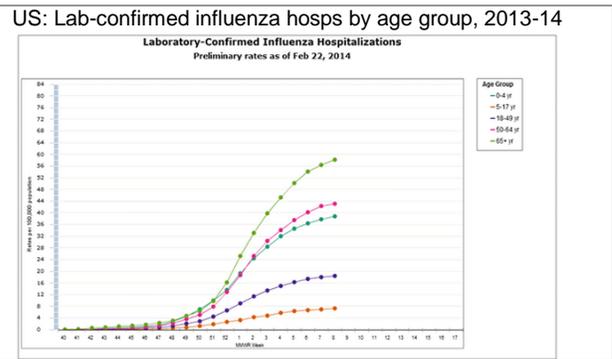
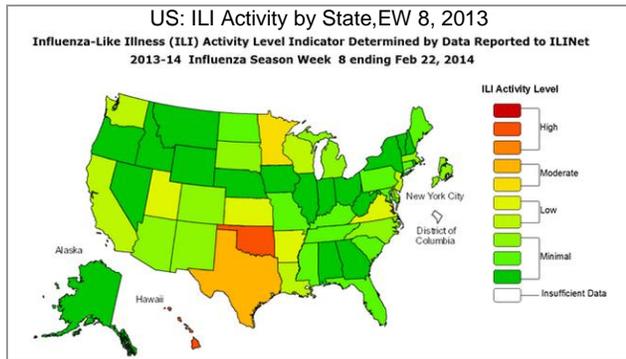


In the United States<sup>2</sup> during EW 8, influenza activity decreased, but still remained elevated. The proportion of outpatient visits for influenza-like illness (ILI) was 2.3%, above the national baseline of 2.0%, but a decrease compared to the previous EW. Eight of the 10 regions reported ILI activity above their region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 8 (7.6%) decreased from the previous EW, but was above the epidemic threshold (7.4%). A total of 61 influenza-associated pediatric deaths have been reported this season, of which nine were reported during EW 8. Of these, five deaths were associated with influenza A(H1N1)pdm09 and occurred during EW 1, 3, 6 and 7, three deaths were associated with influenza A (not subtyped) and occurred during EW 3 and 6, and one death was associated with influenza B and occurred during EW 8. Since October 1, 2013, 7,406 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 27.4 per 100,000 population). The highest hospitalization rates were among adults ≥65 years followed by adults 50-64 years and children 0-4 years. However, adults aged 18-64 years comprised more than 60% of the reported hospitalizations. According to laboratory data for EW 8, 6,813 samples were analyzed, of which 10.8% were positive for influenza. Among the positive samples, 82.9% were influenza A (55.1% A(H1N1)pdm09, 4.1% A(H3) and 40.8% not subtyped) and 17.1% were influenza B. Based on antiviral resistance testing, 0.8% (28/3,733) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant. Among other circulating respiratory viruses, RSV activity was high with percent positivity around 20%.

### United States

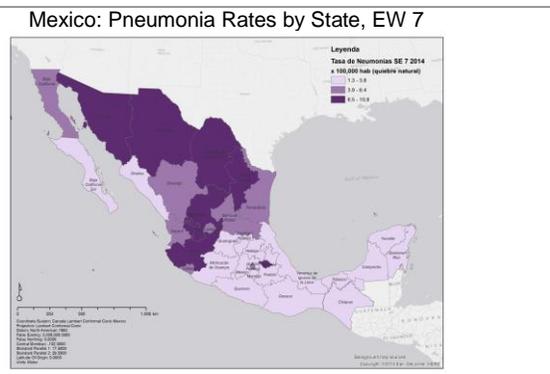
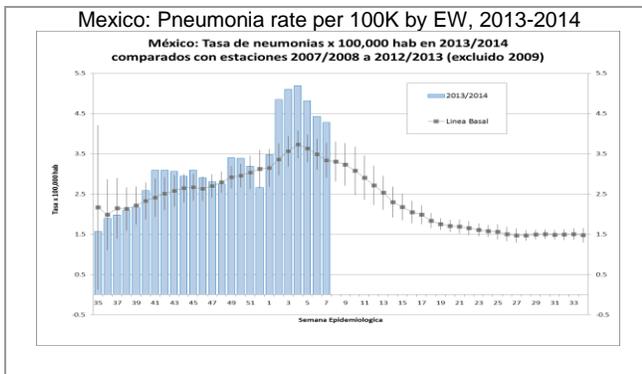


<sup>2</sup> USA: CDC FluView report. EW 8. Available at: <http://www.cdc.gov/flu/weekly/>

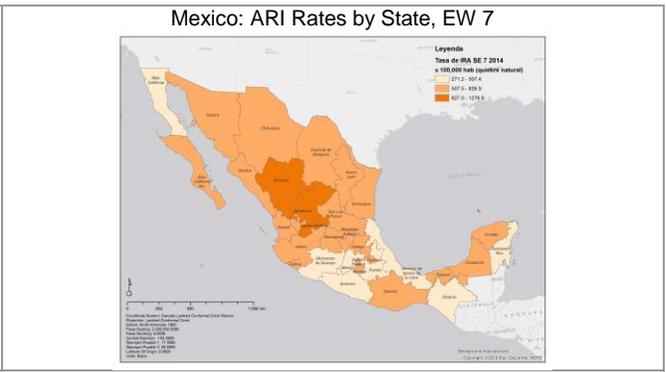
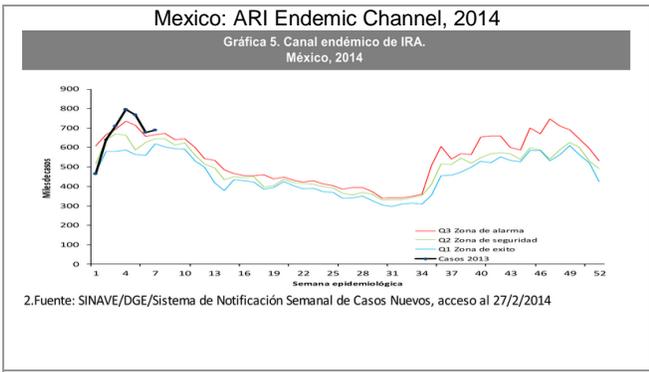


In Mexico<sup>3</sup> during EW 7, although some indicators decreased, influenza activity remained elevated. The pneumonia rate decreased for the third consecutive week but remained above the expected level for this time of year. ARI activity increased slightly from the previous week and remained in the epidemic zone of the endemic channel. The highest levels of ARI activity were reported in Zacatecas, Aguascalientes, and Durango, and the highest levels of pneumonia activity were reported in Chihuahua, Sonora and Jalisco. Nationally through February 27, 2014, the proportion of ILI/SARI-associated medical visits was 2.8%, a decrease compared to the previous EW. During this same period, 633 influenza-associated deaths were reported, of which 90.7% were associated with influenza A(H1N1)pdm09. According to laboratory data during EW 7-8, 1,447 samples were analyzed, of which 27.2% were positive for influenza. Among the positive influenza samples, 91.6% were influenza A (70.4% A(H1N1)pdm09 and 18.8% A(H3N2)) and 8.4% were influenza B.

### Mexico

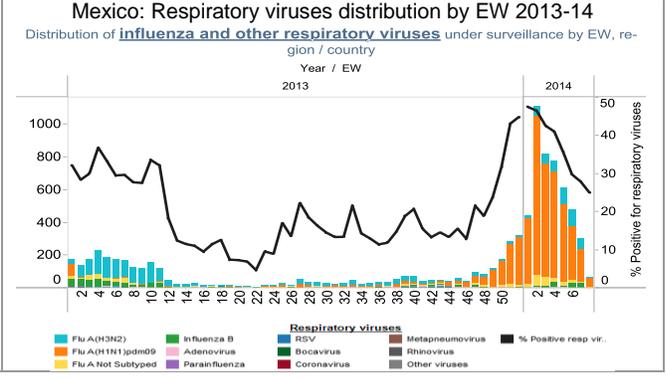


<sup>3</sup> México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.



**Caribbean**

In Cuba during EW 8, the number of SARI-associated hospitalizations increased slightly compared to the previous week. Persons aged 5-59 years comprised the largest proportion of these cases. One SARI-associated death was reported during this period and tested negative for a respiratory virus. According to national laboratory data for EW 5-8, 190 samples were analyzed, of which 37.9% were positive for a respiratory virus and 7.4% were positive for influenza. Among the positive samples, parainfluenza (33.3%), rhinovirus (29.2%) and influenza B (16.7%) were predominant.



**Cuba**

Cuba. SARI cases by age group, by EW, 2013-14

Cuba. Respiratory viruses distribution by EW, 2013-14

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

In the Dominican Republic, based on laboratory data for EW 6-9, 82 samples were analyzed, of which 14.6% were positive for a respiratory virus. Among the positive samples, parainfluenza (58.3%) and RSV (33.3%) predominated.

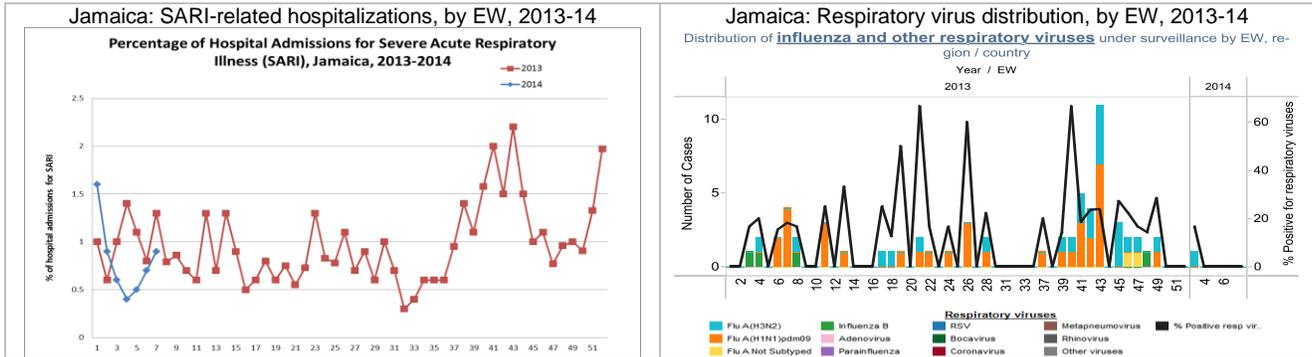
**Dominican Republic**

Dominican Rep. Respiratory viruses distribution by EW, 2013-14

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

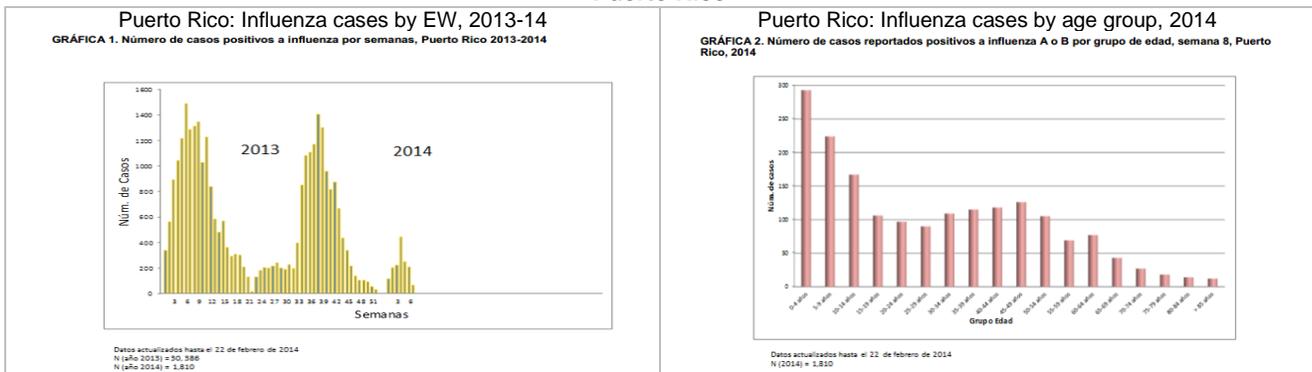
In Jamaica, based on sentinel surveillance data for EW 8, the proportions of ARI-associated consultations (4.4%) and SARI-associated hospitalizations (0.8%) decreased compared to the previous EW. No SARI-associated deaths were reported during EW 8. Based on laboratory data for EW 5-8, 12 samples were analyzed and all were negative for influenza.

### Jamaica



In Puerto Rico<sup>4</sup> during EW 8, the number of influenza cases (n=106) remained low. Of these, 93 cases were associated with influenza A and 13 with influenza B. Since the beginning of 2014, 1,810 influenza cases have been reported and persons aged 0-19 years accounted for 44% of those cases. During this same period, 135 influenza-associated hospitalizations and one influenza-associated death were reported.

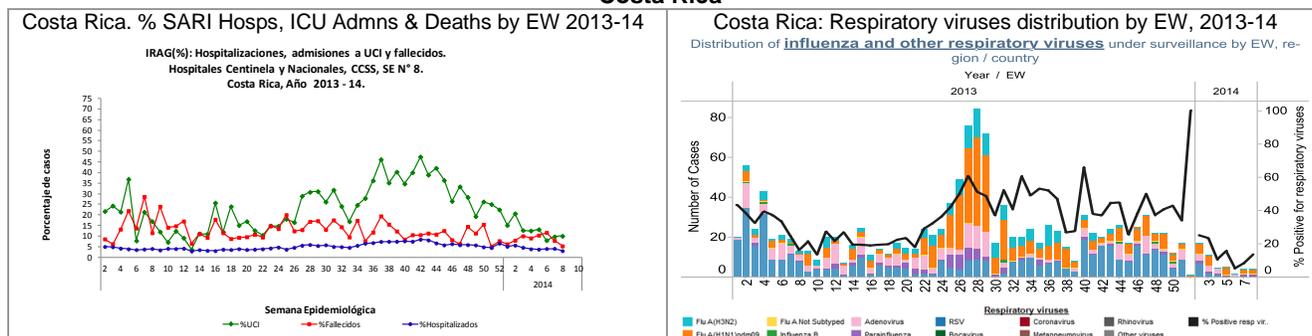
### Puerto Rico



### Central America

In Costa Rica, according to ILI/SARI surveillance data, influenza and other respiratory virus activity remained low during EW 8. The proportions of SARI-associated hospitalizations (3.0%), SARI-associated ICU admissions (10%) and SARI-associated deaths (5.0%) were similar to the previous EW. Based on laboratory data from EW 5-8, 145 samples were analyzed, of which 10.1% were positive for a respiratory virus and 5.4% were positive for influenza. Among the positive influenza samples, 100% were influenza A(H1N1)pdm09. Among other respiratory viruses, adenovirus (26.7% of positive samples) and parainfluenza (20.0%) were detected.

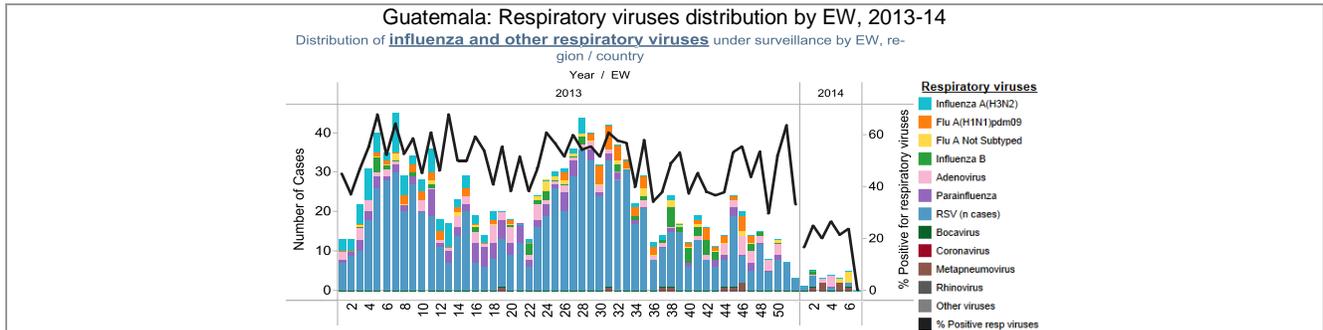
### Costa Rica



<sup>4</sup> Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 8

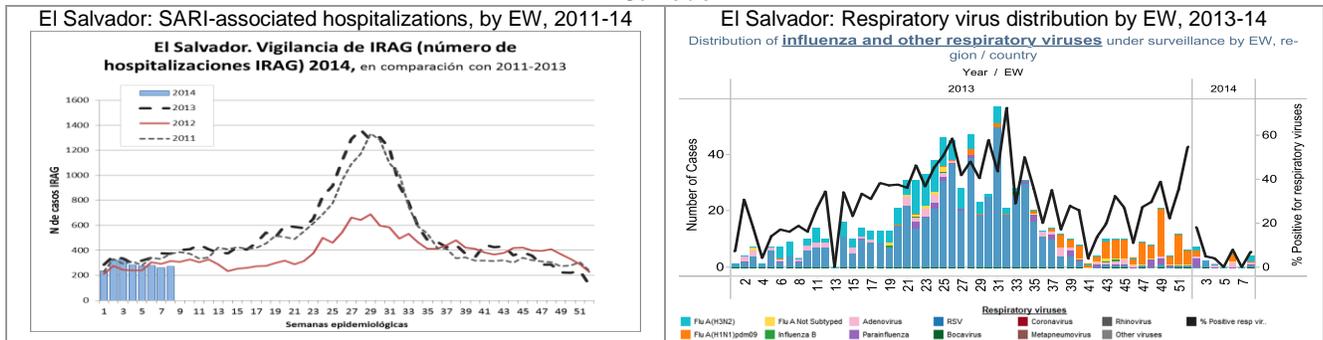
In Guatemala, based on laboratory data from EW 4-7, 58 samples were analyzed, of which 20.7% were positive for a respiratory virus and 6.9% were positive for influenza. Among the positive influenza samples, 100% were influenza A, not subtyped. Among other respiratory viruses, adenovirus (25.0% of positive samples), human metapneumovirus (25.0%) and RSV (16.7%) were detected.

### Guatemala



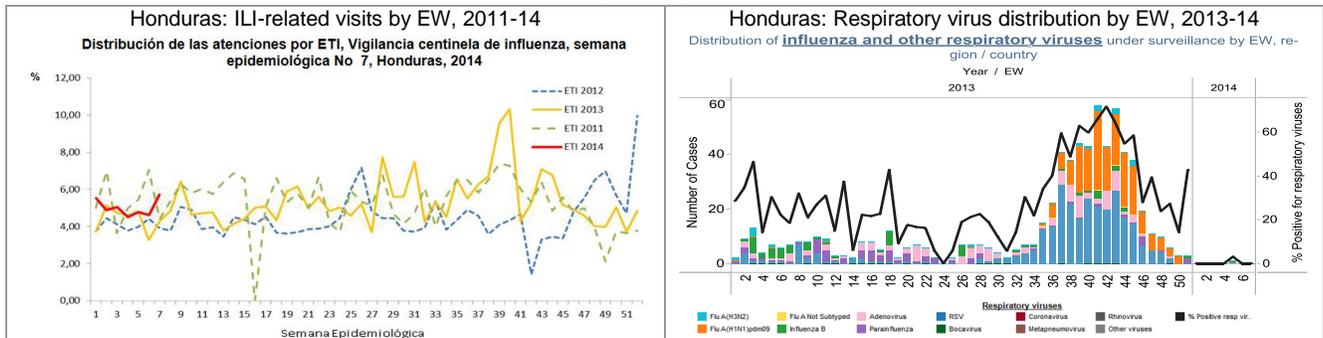
In El Salvador, during EW 8, the proportions of SARI-associated hospitalizations (4.7%), ICU admissions (4.0%) and deaths (3.8%) remained low and within the expected levels for this time of year. According to national laboratory data from EW 5-8, 156 samples were analyzed, of which 5.8% were positive for a respiratory virus and 3.2% were positive for influenza. Among the positive influenza samples, 100% were influenza A (60.0% A(H1N1)pdm09 and 40.0% A(H3N2)). Among other respiratory viruses, adenovirus (33.3% of positive samples) and RSV (11.1%) were detected.

### El Salvador



In Honduras<sup>5</sup>, during EW 7, the proportions of ILI-associated visits (5.7%) and SARI-associated hospitalizations (4.9%) increased slightly compared to the previous EW, while the proportion of SARI-associated deaths (9.2%) decreased. Based on national laboratory data for EW 4-7, 99 samples were analyzed, of which one was positive for a respiratory virus.

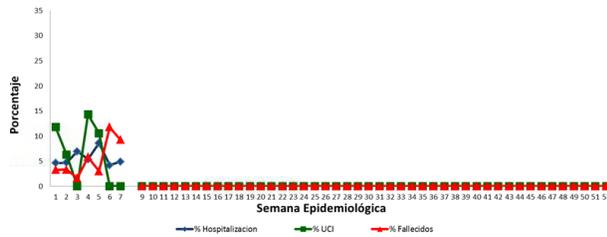
### Honduras



<sup>5</sup> Honduras. Influenza Bulletin, EW 7

Honduras: SARI-related hosps, ICU adms & deaths, by EW, 2014

Distribución de hospitalizaciones, admitidos en UCI, fallecidos por IRAG, vigilancia centinela de influenza. Honduras, semana epidemiológica No. 7, 2014.



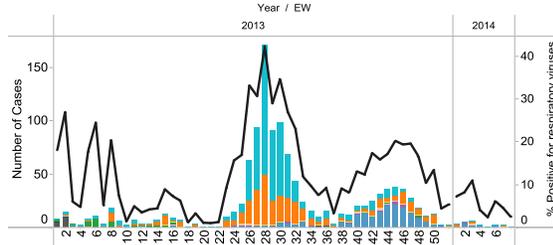
In Nicaragua, according to national laboratory data from EW 5-8, 176 samples were analyzed of which 4.0% were positive for a respiratory virus and 1.7% were positive for influenza. Among the positive samples, RSV (42.9%) and influenza A(H1N1)pdm09 (28.6%) predominated.

In Panama, based on national laboratory data from EW 5-8, 66 samples were analyzed of which 68.2% were positive for a respiratory virus. Among the positive samples, rhinovirus (62.2%) predominated.

Nicaragua and Panama

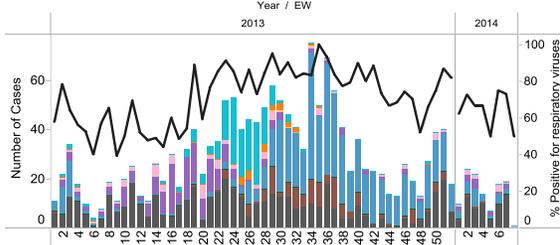
Nicaragua: Respiratory viruses distribution by EW, 2013-14

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



Panama: Respiratory virus distribution by EW, 2013-14

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



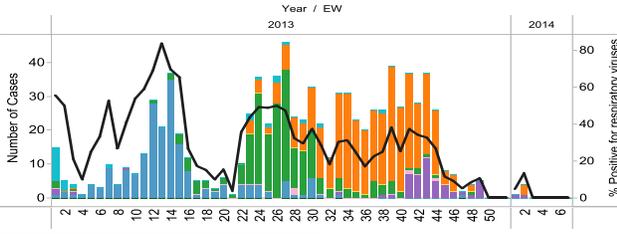
South America – Andean countries

In Bolivia, according to laboratory data from CENETROP (Santa Cruz), from EW 4-7, 60 samples were analyzed and all were negative for the tested respiratory viruses, including influenza. According to laboratory data from INLASA (La Paz) from EW 4-7, 41 samples were analyzed of which 17.1% were positive for a respiratory virus and 9.8% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09, influenza B and parainfluenza were detected.

Bolivia

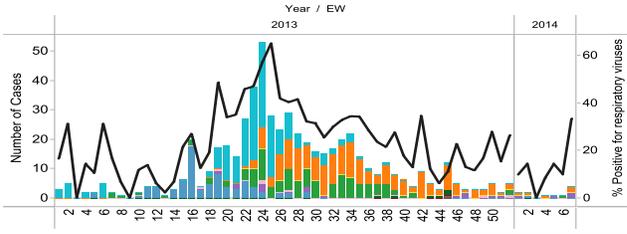
Bolivia (Santa Cruz). CENETROP. Respiratory viruses distribution by EW, 2013-14

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



Bolivia (La Paz). INLASA. Respiratory viruses distribution by EW, 2013-14

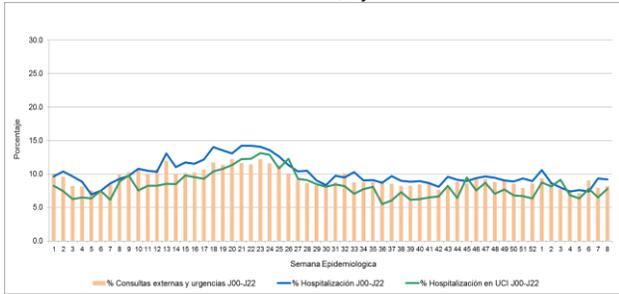
Distribution of influenza and other respiratory viruses under surveillance by EW, region / country



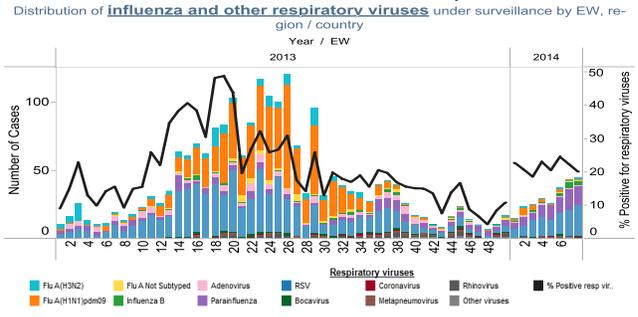
In Colombia, nationally during EW 8, the proportions of hospitalizations (9.2%), ICU admissions (7.8%), and outpatient and urgent visits (8.2%) with ARI-associated ICD-10 codes (J00 to J22) remained low. Based on INS national laboratory data from EW 5-8, 696 samples were analyzed, of which 21.7% were positive for a respiratory virus and 2.7% were positive for influenza. Among the positive influenza samples, 36.8% were influenza A (71.4% A(H1N1)pdm09 and 28.6% A(H3N2)) and 63.2% were influenza B. Among other respiratory viruses, RSV (46.4% of positive samples) and parainfluenza (33.8%) increased slightly.

## Colombia

Colombia: Percent Outpatient Visits, Hosps and ICU Admissions with J00 to J20 codes, by EW 2012-13



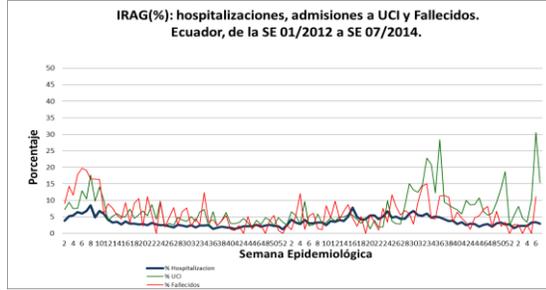
Colombia: Influenza and ORV distribution by EW, 2013-14



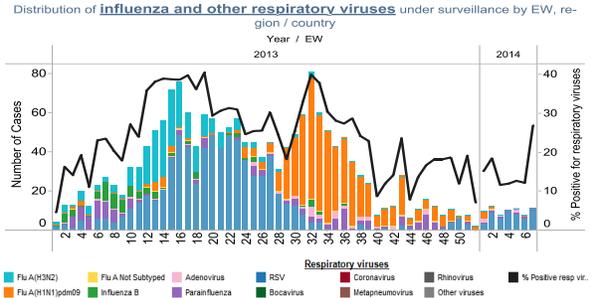
In Ecuador respiratory virus activity remained low. During EW 7, the proportions of SARI-associated hospitalizations (2.9%) and ICU admissions (15.4%) decreased compared to the previous week while the proportion of SARI-associated deaths (11.1%) increased. Based on national reference laboratory data from EW 4-7, 278 SARI samples were analyzed, of which 14.4% were positive for a respiratory virus and 0.4% were positive for influenza. Among the positive samples, RSV predominated (82.5%).

## Ecuador

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



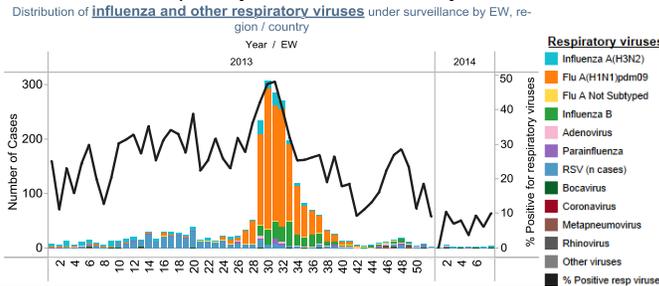
Ecuador. Respiratory viruses distribution by EW, 2013-14



In Peru, based on national laboratory data from EW 5-8, 159 samples were analyzed, of which 6.9% were positive for a respiratory virus. Among the positive samples, RSV (63.6%), and human metapneumovirus (18.2%) predominated.

## Peru

Perú. Respiratory viruses distribution by EW, 2013-14



## South America – South Cone and Brazil

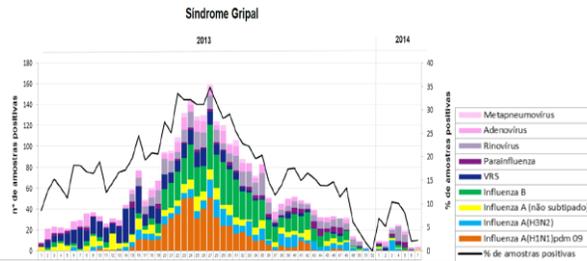
In Brazil<sup>6</sup>, according to ILI sentinel surveillance data through EW 7, 1,296 samples were analyzed, of which 6.9% were positive for influenza or another respiratory virus. During EW 7, 2.3% of samples were positive for a respiratory virus, and among these adenovirus and influenza A (not subtyped) were detected. Based on universal SARI surveillance data during this same period, 737 SARI cases were reported and 4.7% of these were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 and A(H3N2) predominated. Through EW 7, 71 SARI-associated deaths were reported, of which 5.6% were positive for influenza.

<sup>6</sup> Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 7, 2013.

## Brazil

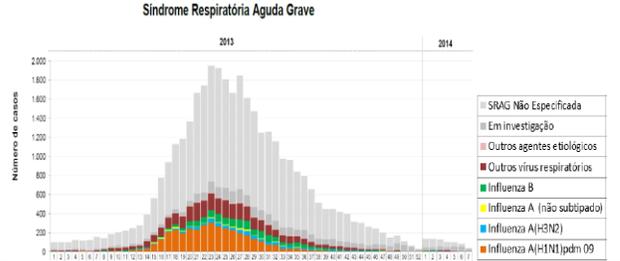
Brazil: Resp virus distribution in ILI cases, by EW, 2013

Figura 1. Distribuição dos vírus respiratórios identificados nas unidades sentinelas de Síndrome Gripal, por semana epidemiológica de início dos sintomas. Brasil, 2013 a 2014 (até a SE 07).



Brazil: Resp virus distribon, SARI cases, by EW, 2013

Figura 3. Distribuição dos casos de Síndrome Respiratória Aguda Grave segundo agente etiológico e semana epidemiológica do início dos sintomas. Brasil, 2013 a 2014 (até a SE 07).

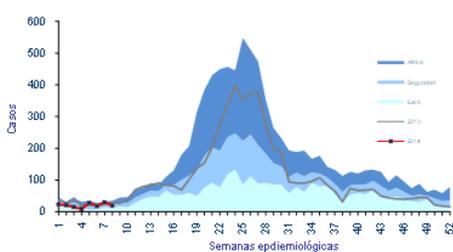


In Chile<sup>7</sup>, ILI activity during EW 8 remained low (rate: 1.0 per 100,000 inhabitants) and was in the security zone of the endemic channel. Based on laboratory data from EW 7-8, 554 samples were analyzed, of which 5.6% were positive for a respiratory virus and 0.2% were positive for influenza. Among the positive samples, adenovirus predominated (80.6%).

## Chile

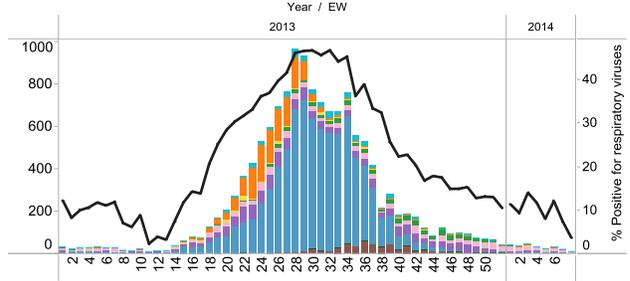
Chile. ILI Endemic Channel, 2014

Canal endêmico de Enfermedad Tipo Influenza según semana epidemiológica, 2007-2013\*. Chile, 2014 (SE 8)



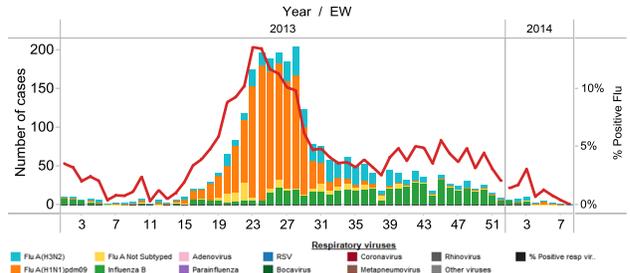
Chile. Respiratory viruses distribution by EW, 2013-14

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



Chile. Influenza viruses distribution by EW, 2013-14

Distribution of influenza viruses under surveillance by Epidemiological Week (EW), region / country

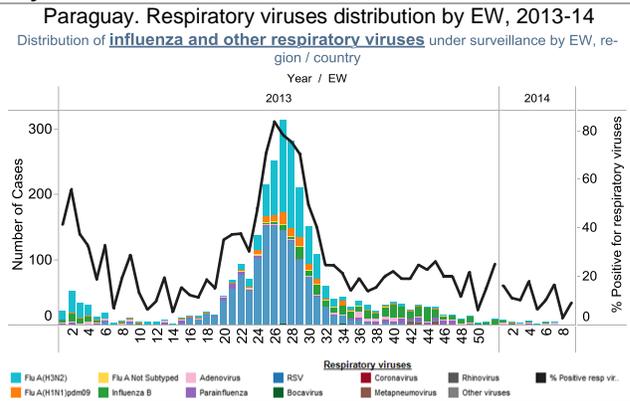
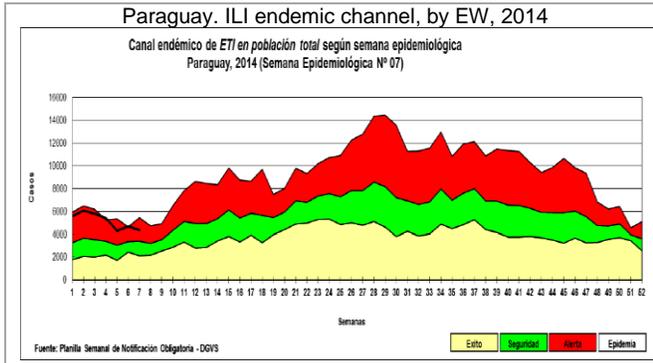


In Paraguay<sup>8</sup> during EW 7, the ILI consultation rate (64.7 per 100,000 inhabitants) decreased slightly from the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (1.6%) was within the expected range for this time of year. The most affected age groups were children <2 years of age and adults ≥60 years. Based on laboratory data from EW 6-9, 130 samples were analyzed, of which 10.0% were positive for a respiratory virus and 3.1% were positive for influenza. Among the positive samples, adenovirus (46.2%) and influenza B (30.8%) predominated.

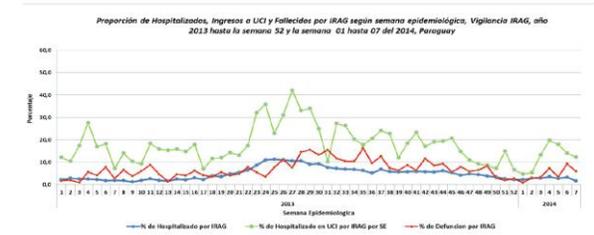
<sup>7</sup> Chile. Informe de situación. EW 8. Available at: <http://epi.minsal.cl/>

<sup>8</sup> Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 7.

## Paraguay

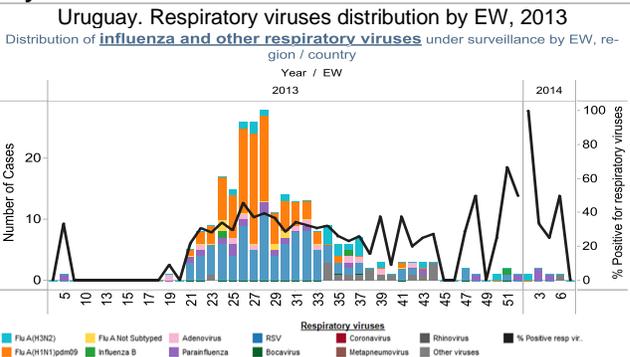
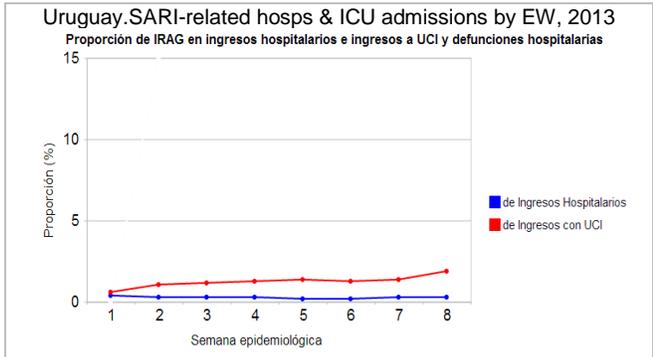


**Paraguay:% SARI Hosps, ICU Adms & Deaths by EW 2013-14**  
Gráfico 5: Proporción de Hospitalizados, ingresos a UCI y fallecidos por IRAG según semana epidemiológica, SE 1 a 7, Vigilancia Centinela, Paraguay, 2.014.



In Uruguay<sup>9</sup> during EW 8, the proportions of SARI-associated hospitalizations, ICU admissions and deaths were similar to the previous EW, and remained at low levels. Based on laboratory data from EW 5-8, 3 samples were analyzed of which one was positive for a respiratory virus.

## Uruguay



<sup>9</sup> Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública