

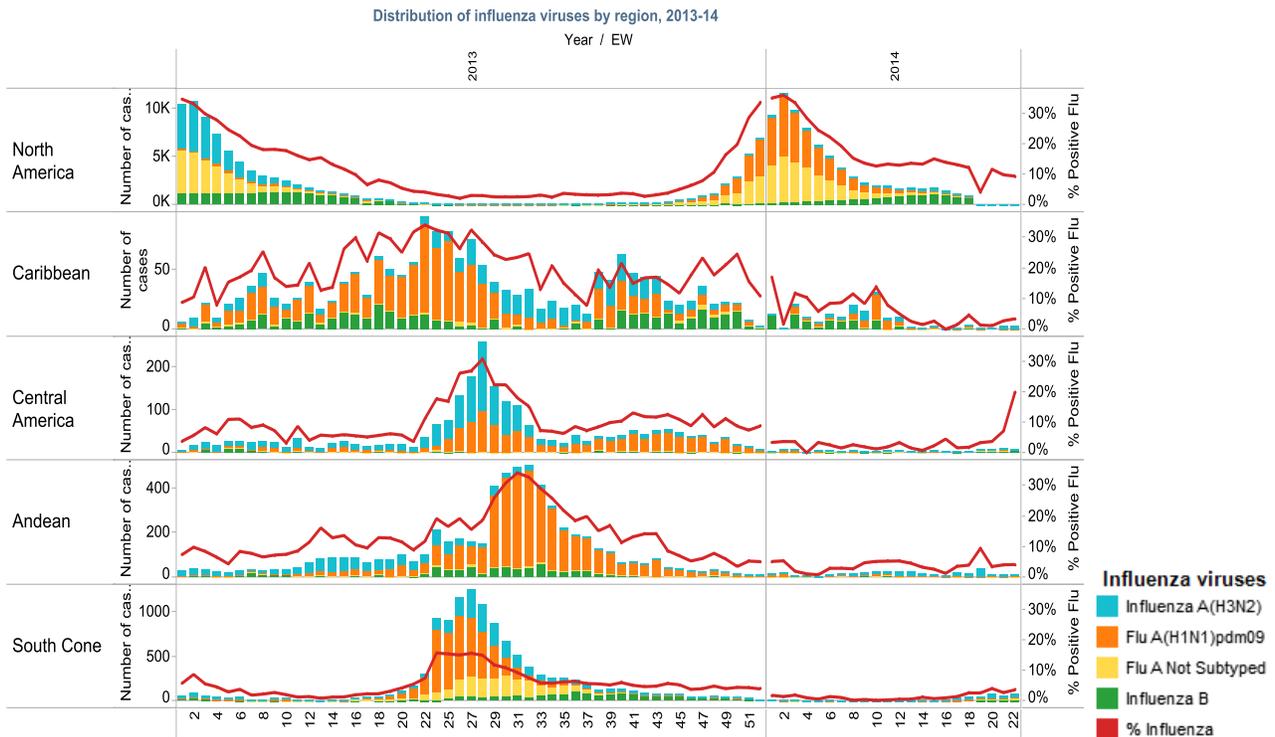
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/influenzareports

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

WEEKLY SUMMARY

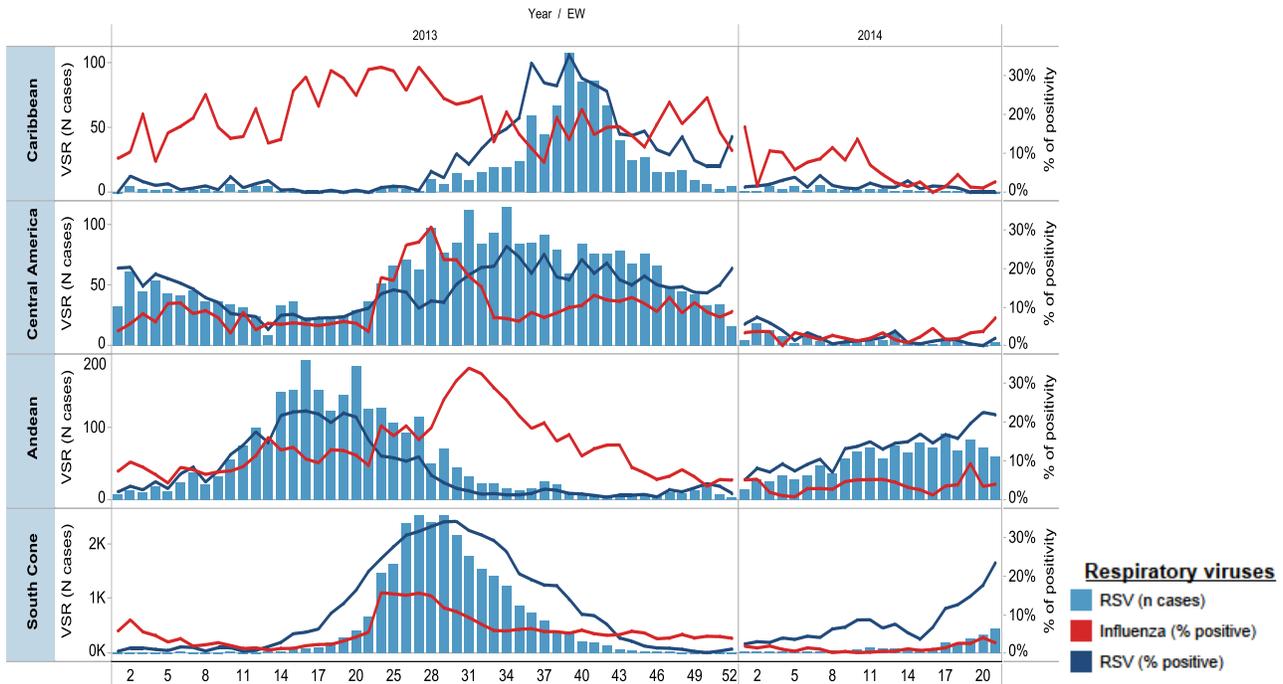
- North America: Influenza activity continued to decline in the sub-region. Although influenza B predominated Canada and Mexico, co-circulation with influenza A(H1N1)pdm09 and A(H3N2) was observed in all countries.
- The Caribbean and Central America: Although respiratory virus activity remained low in the sub-region, increased circulation of influenza A(H3N2) (Dominican Republic) and influenza B (Panama, Honduras, Puerto Rico) was observed.
- South America – Andean Countries: RSV continued to circulate in Bolivia, Colombia, Ecuador and Peru. Although a slight increase in circulation of influenza A(H3N2) was observed in Bolivia, Peru and Venezuela, activity remained at low levels.
- South America - South Cone and Brazil: Most respiratory virus activity indicators in the sub-region increased in recent weeks but remained within expected levels for this time of year. RSV predominated at increasing levels and influenza A(H3N2) circulation was observed in some countries (Brazil and Chile).

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

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

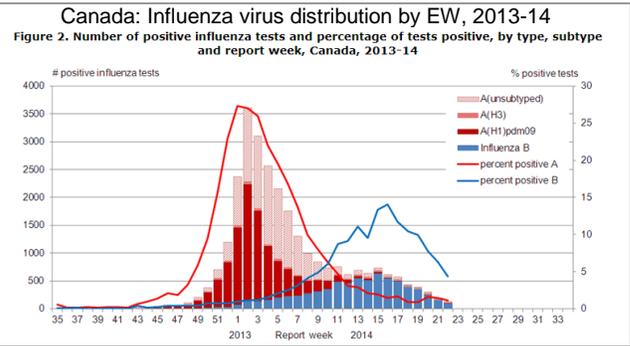
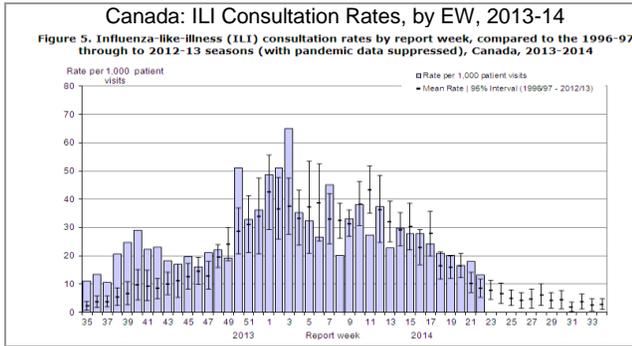
EPIDEMIOLOGIC AND VIROLOGIC UPDATE OF INFLUENZA & OTHER RESPIRATORY VIRUSES BY COUNTRY

North America:

In Canada¹ during EW 22, influenza activity continued to decline and was within expected levels for this time of year. The national influenza-like illness (ILI) consultation rate was 13.2 per 1,000 patient visits, a decrease compared to the previous week, but slightly above expected levels. Since the beginning of the 2013-14 influenza season, 5,086 influenza-associated hospitalizations have been reported, of which 71.4% were associated with influenza A. To date this season, 313 deaths have been reported, most of which were associated with influenza A (68.7%). The highest proportion of deaths (54.3%) has been among adults ≥ 65 years of age. Based on laboratory data for EW 22, the overall percentage of positive influenza tests was 5.5% (N=133). Among the positive tests during EW 21-22, 80.4% were influenza B and 19.6% were influenza A, of which 9.1% were influenza A(H1N1)pdm09, 59.1% were A(H3) and 31.8% were A, not subtyped. Among other circulating respiratory viruses, rhinovirus predominated.

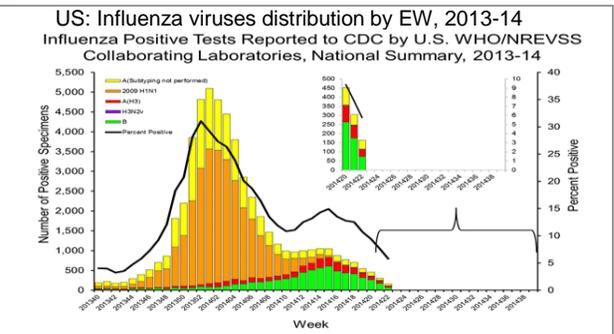
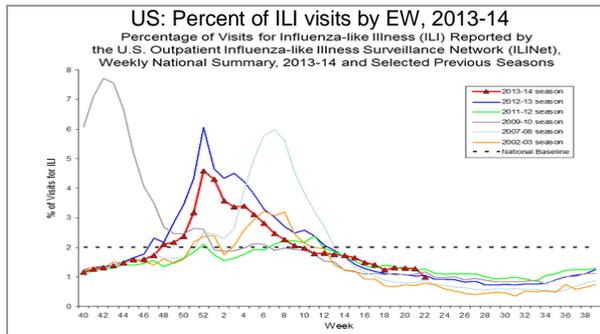
¹ Canada: FluWatch Report. EW 21-22. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

Canada



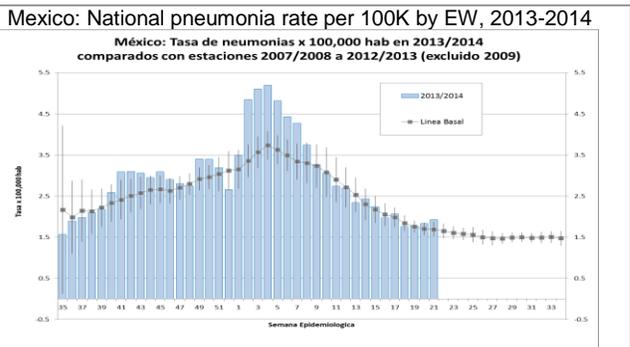
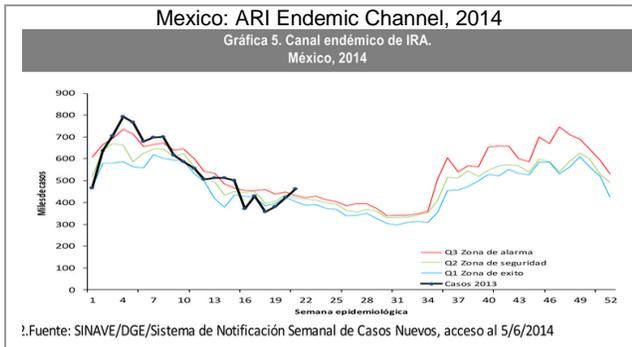
In the United States² during EW 22, influenza activity continued to decrease. The national proportion of ILI-associated outpatient visits was 1.0% and below the national baseline (2.0%). The proportion of deaths attributed to pneumonia and influenza for EW 22 (6.1%) was also below the epidemic threshold (6.7%). A total of 97 influenza-associated pediatric deaths have been reported this season, of which one was reported during EW 22. According to laboratory data for EW 22, 2,827 samples were analyzed, of which 5.8% were positive for influenza. Among the positive samples, 54.6% were influenza A (2.2% A(H1N1)pdm09, 43.8% A(H3) and 53.9% not subtyped) and 45.4% were influenza B.

United States



In Mexico³ during EW 22, influenza activity increased slightly compared to the previous week. ARI activity was within the epidemic zone of the endemic channel, and the highest levels of ARI activity were reported in Hidalgo, Aguascalientes and Zacatecas. Pneumonia activity also increased slightly compared to the previous week (rate: 1.9 per 100,000 inhabitants). The highest levels of pneumonia activity were reported in Baja California Sur, Jalisco and Nuevo Leon. Nationally, through June 5, 2014, the proportion of ILI/SARI-associated medical visits was 0.5%. The highest proportions of ILI/SARI-associated medical visits were reported in Oaxaca, Guerrero and Veracruz. During this same period, 737 influenza-associated deaths were reported, of which 90.4% were associated with influenza A(H1N1)pdm09. Based on laboratory data from EW 19-22, 608 samples were analyzed, of which 8.9% were positive for influenza. Among the positive samples, 77.8% were influenza B and 22.2% were influenza A (16.7% A(H1N1)pdm09, 75.0% A(H3N2) and 8.3% A, not subtyped).

Mexico



² USA: CDC FluView report. EW 22. Available at: <http://www.cdc.gov/flu/weekly/>

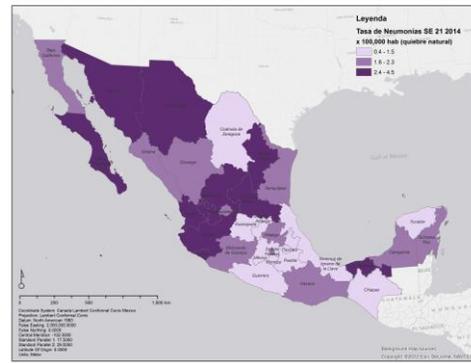
³ México. Dirección General de Epidemiología. Información epidemiológica. Informes Epidemiológicos Semanales 2014.

Mexico: Proportion of ILI/SARI consultations by State, EW 22

Figura 1. Proporción de consultas por ETI/IRAG en USMI según entidad federativa. México, 2014

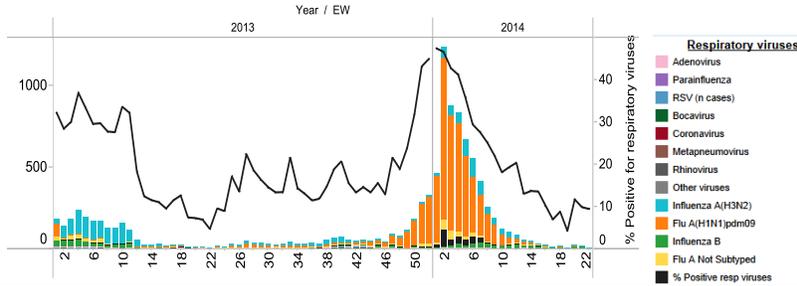


Mexico: Pneumonia Rates by State, EW 21



Mexico: Respiratory viruses distribution by EW 2013-14

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

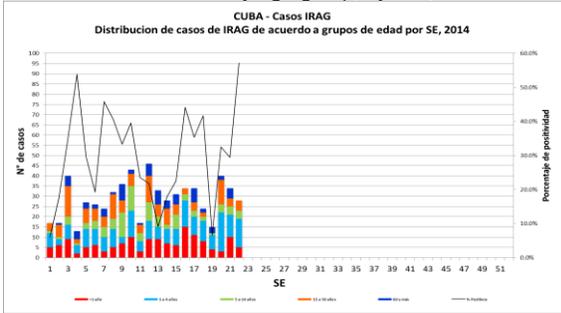


Caribbean

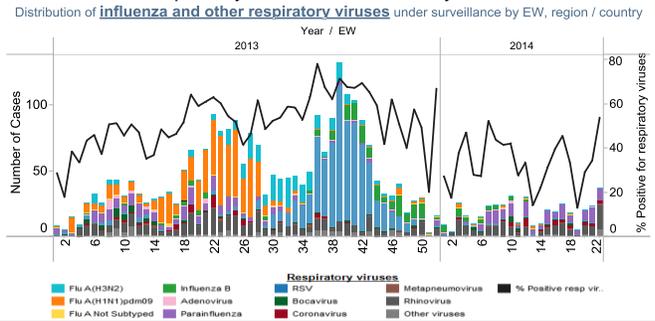
In Cuba during EW 22, the number of SARI-associated hospitalizations (n=28) decreased compared to the previous week. Children 1-4 years of age comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 19-22, 244 samples were analyzed, of which 34.8% were positive for a respiratory virus. Among the positive samples, rhinovirus (38.8%) and parainfluenza (37.6%) predominated.

Cuba

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



Cuba. Respiratory viruses distribution by EW, 2013-14

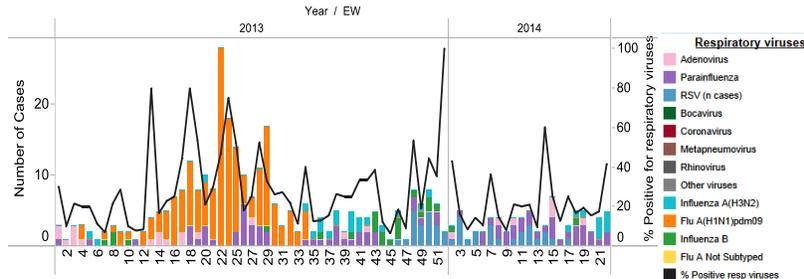


In the Dominican Republic, during EW 19-22, 74 samples were analyzed, of which 21.6% were positive for a respiratory virus and 9.5% were positive for influenza. Among the positive samples, parainfluenza (50.0%) and influenza A(H3N2) (43.8%) predominated.

Dominican Republic

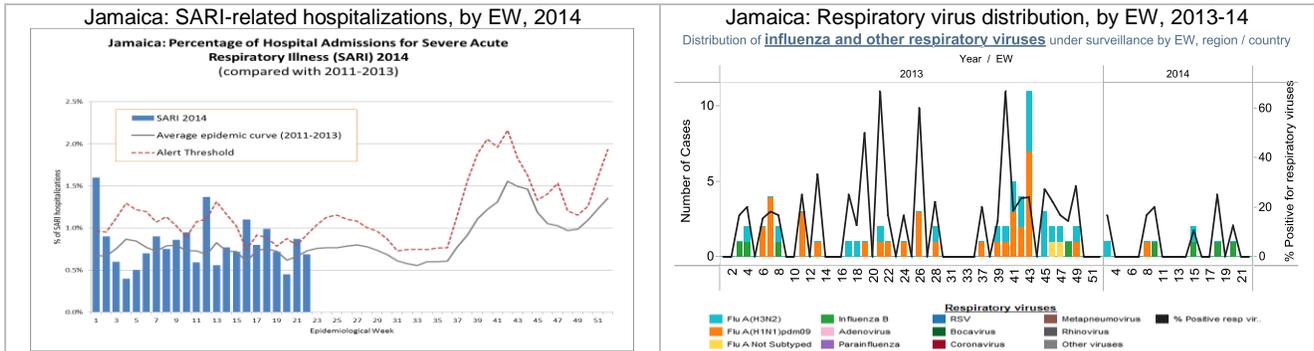
Dominican Rep.: Respiratory viruses distribution by EW, 2013-14

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



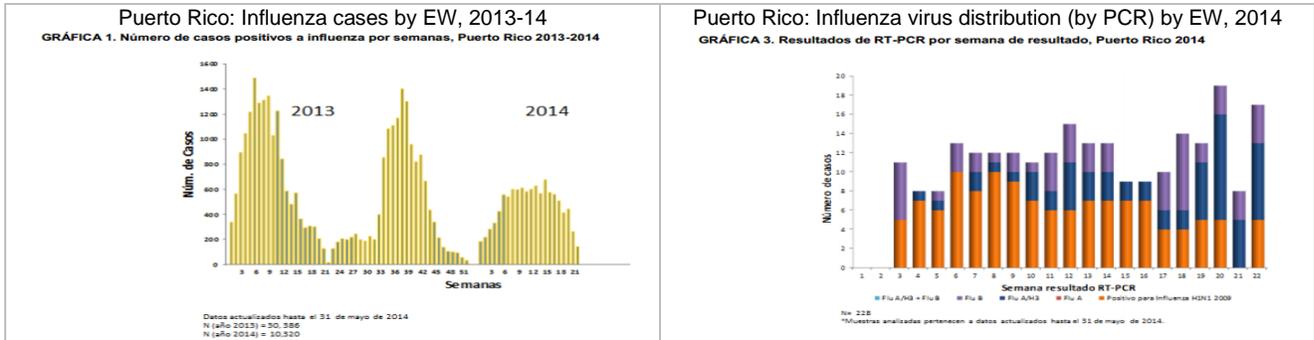
In Jamaica, based on sentinel surveillance data for EW 22, the proportion of ARI-associated consultations (3.8%) increased compared to the previous week while the proportion of SARI-associated hospitalizations (0.7%) decreased. No SARI-associated deaths were reported during this EW. Based on laboratory data for EW 19-22, 46 samples were analyzed, and one tested positive for influenza B.

Jamaica



In Puerto Rico⁴ during EW 22, the number of influenza cases (n=140) decreased compared to the previous week. Of these, 58 cases were associated with influenza A, 77 with influenza B and 5 with an influenza A and B co-infection. Since the beginning of 2014, 10,320 influenza cases have been reported (53% influenza A and 46% influenza B) and persons aged 0-19 years accounted for 50% of those cases. During this same period, 522 influenza-associated hospitalizations and 12 influenza-associated deaths were reported.

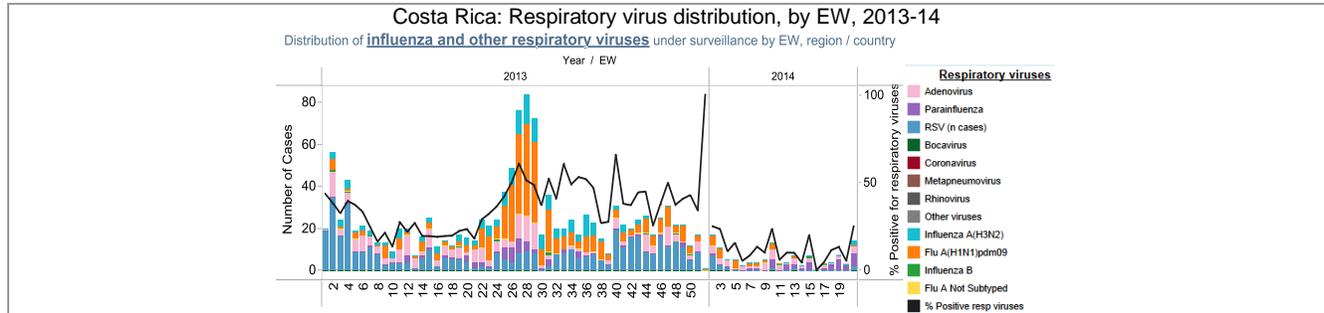
Puerto Rico



Central America

In Costa Rica, according to laboratory data from EW 18-21, 201 samples were analyzed of which 13.9% were positive for a respiratory virus and 1.0% were positive for influenza. Among the positive samples, parainfluenza (57.1%) and adenovirus (28.6%) predominated.

Costa Rica

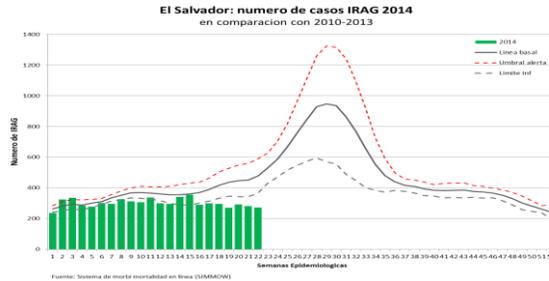


In El Salvador, during EW 22, the proportion of SARI-associated hospitalizations (5.8%) increased compared to the previous week, while the proportion of SARI-associated deaths (4.6%) decreased. There were no SARI-associated ICU admissions reported this week.

⁴ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE 22

El Salvador

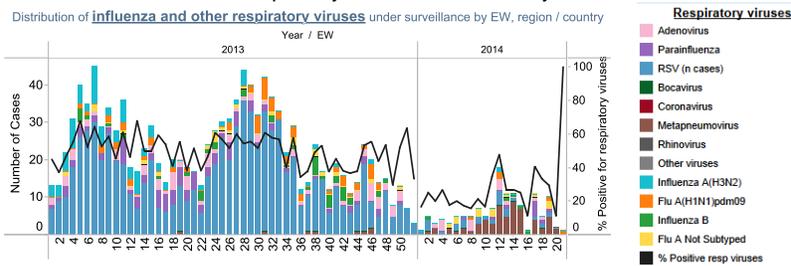
El Salvador: Number of SARI cases by EW, 2014



In Guatemala, based on laboratory data from EW 18-21, 68 samples were analyzed, of which 26.5% were positive for a respiratory virus and 5.9% were positive for influenza. Among the influenza positive samples, 100% were influenza A (50.0% A(H1N1)pdm09 and 50.0% not subtyped). Among other respiratory viruses, human metapneumovirus (50.0% of positive samples) predominated.

Guatemala

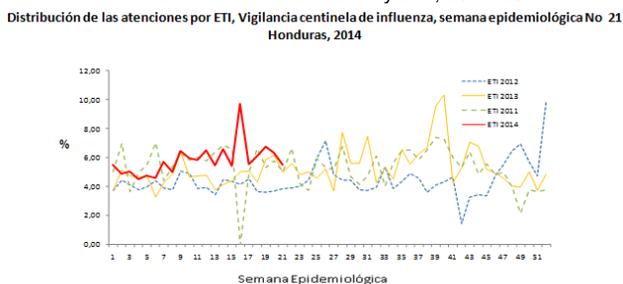
Guatemala: Respiratory viruses distribution by EW, 2013-14



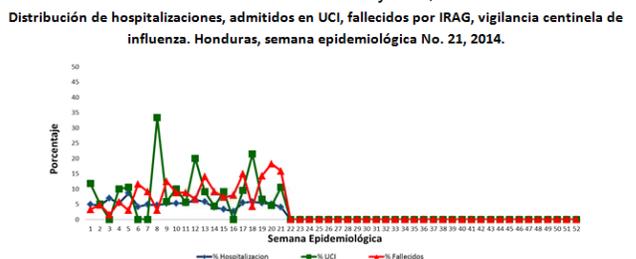
In Honduras, during EW 21, the proportions of ILI-associated medical visits (5.5%), SARI-associated hospitalizations (4.1%) and SARI-associated deaths (15.9%) reported through sentinel surveillance decreased compared to the previous week. During EW 21, influenza B was detected.

Honduras

Honduras: Number of ILI Visits by EW, 2011-2014



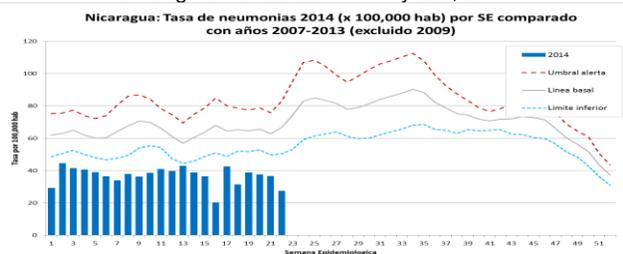
Honduras: Distribution of SARI-Associated Hospitalizations, ICU Admissions and Deaths by EW, 2014



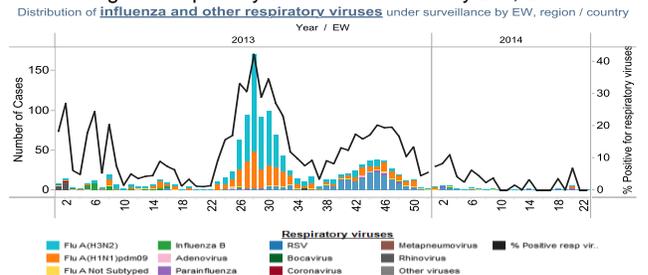
In Nicaragua, during EW 22, the national rates of pneumonia and ARI decreased compared to the previous week and were within expected levels for this time of year. Based on laboratory data from EW 19-22, 224 samples were analyzed, of which five (2.2%) were positive for a respiratory virus (60% parainfluenza and 40% influenza A(H1N1)pdm09).

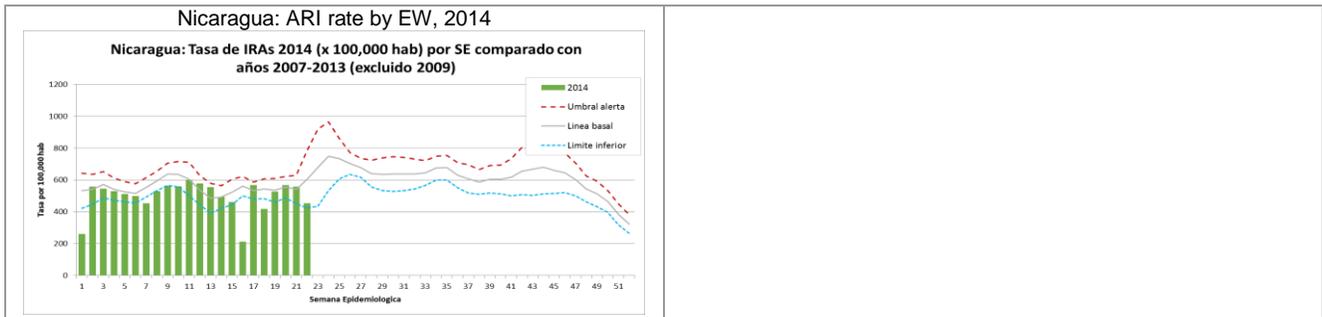
Nicaragua

Nicaragua: Pneumonia rates by EW, 2014

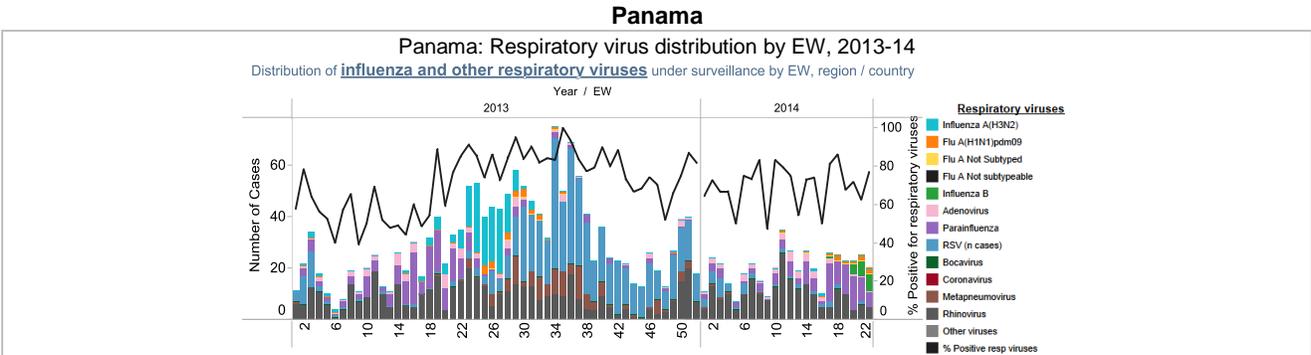


Nicaragua: Respiratory viruses distribution by EW, 2013-14



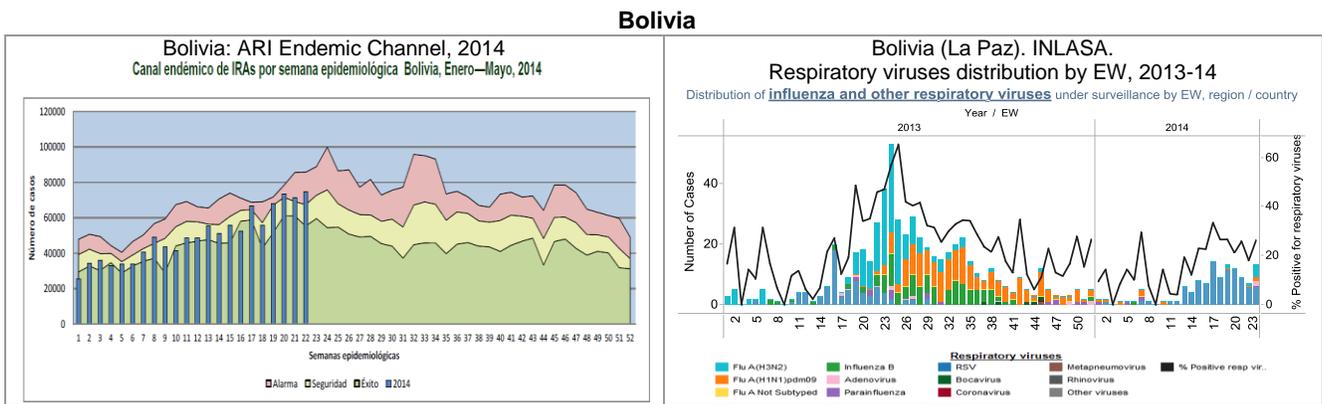


In Panama, based on national laboratory data from EW 19-22, 132 samples were analyzed, of which 68.9% were positive for a respiratory virus and 17.4% were positive for influenza. Among the positive samples, parainfluenza (45.1%), rhinovirus (27.5%) and influenza B (18.7%) predominated.



South America – Andean countries

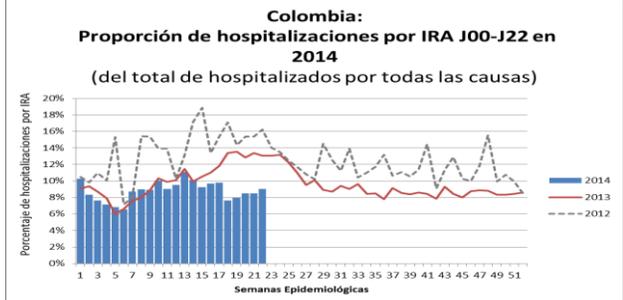
In Bolivia, during EW 22, ARI activity increased compared to the previous week and was within the alarm zone of the endemic channel. According to the National Laboratory in La Paz (INLASA) from EW 19-22, 180 samples were analyzed, of which 22.8% were positive for a respiratory virus and 1.1% were positive for influenza. Among the positive samples, RSV (95.1%) and influenza A(H3N2) (4.9%) were detected.



In Colombia, during EW 22, the proportions of outpatient and urgent visits (8.1%), hospitalizations (9.1%) and ICU admissions (9.6%) with ARI/SARI-associated ICD-10 codes (J00 to J22) were within the expected levels for this time of year. Based on INS laboratory data from EW 19-22, 567 samples were analyzed, of which 28.6% were positive for a respiratory virus and 4.9% were positive for influenza. Among the positive samples, RSV (59.9%) and influenza A(H3N2) (12.3%) predominated.

Colombia

Colombia: % Hospitalizations with J00 to J20 codes, by EW 2014



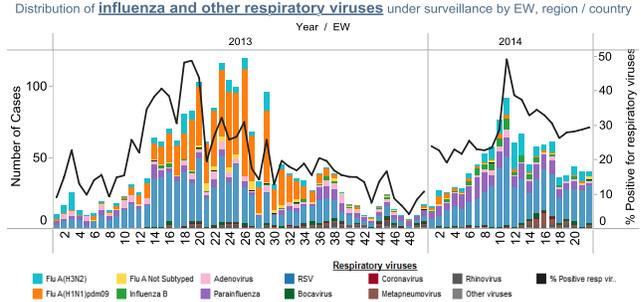
Colombia: ICU Admissions with J00 to J20 codes, by EW 2014



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



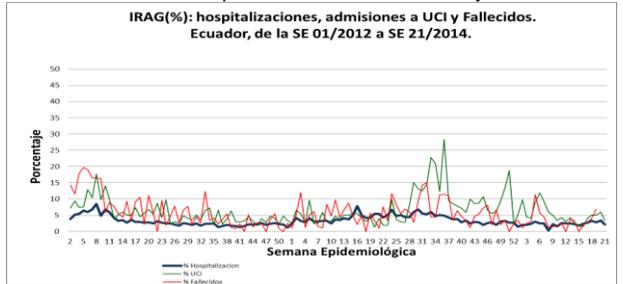
Colombia: Influenza and ORV distribution by EW, 2013-14



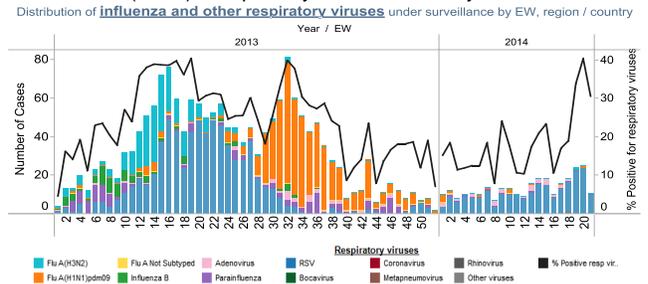
In Ecuador during EW 21, the proportion of SARI-associated hospitalizations (2.1%) and ICU admissions (3.4%) decreased compared to the previous week, while the proportion of SARI-associated deaths (6.9%) increased. Based on national reference laboratory data from EW 18-21, 264 SARI samples were analyzed, of which 29.5% were positive for a respiratory virus and 0.8% were positive for influenza. Among the positive samples, RSV predominated (92.3%).

Ecuador

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



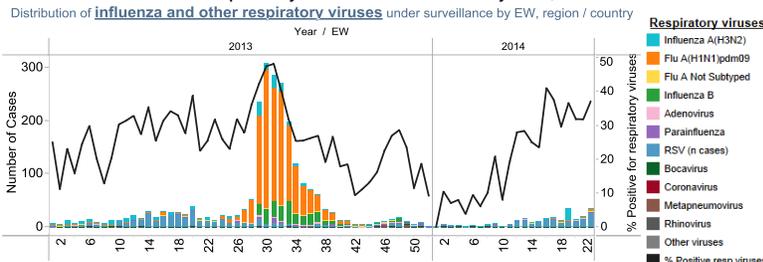
Ecuador (SARI): Respiratory viruses distrib by EW, 2013-14



In Peru, based on national laboratory data from EW 19-22, 292 samples were analyzed, of which 34.9% were positive for a respiratory virus and 9.9% were positive for influenza. Among the positive samples, RSV (64.7%) and influenza A(H3N2) (23.5%) predominated.

Peru

Perú. Respiratory viruses distribution by EW, 2013-14

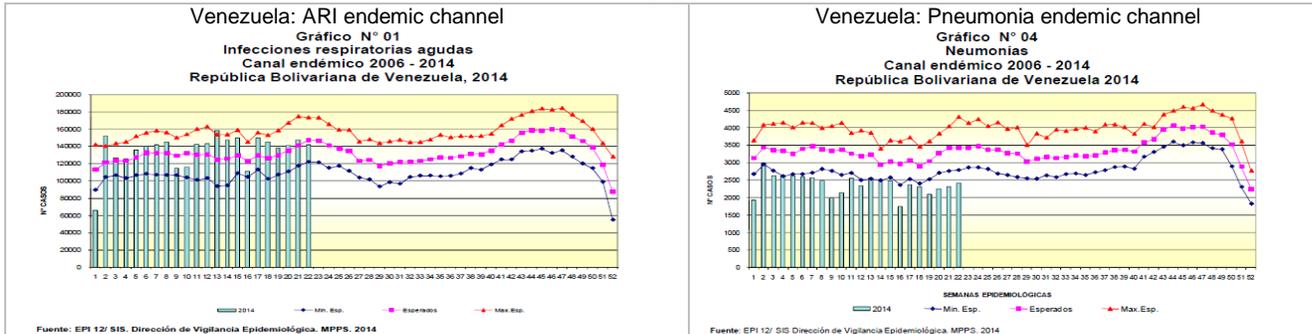


In Venezuela⁵ during EW 22, the number of ARI cases decreased by 3.6% compared to the previous week while the number of pneumonia cases increased by 4.5%. Both were within the expected levels for this time

⁵ Venezuela. Boletín epidemiológico, EW 22.

of year. During EW 22, 64 SARI-associated hospitalizations were reported, with children 1-4 years of age comprising the largest proportion of cases. Based on virologic data from EW 1-22, 279 samples were analyzed from suspected influenza cases and of these, 13.6% were positive for influenza. Among the positive samples, influenza A(H3N2) predominated (73.7%).

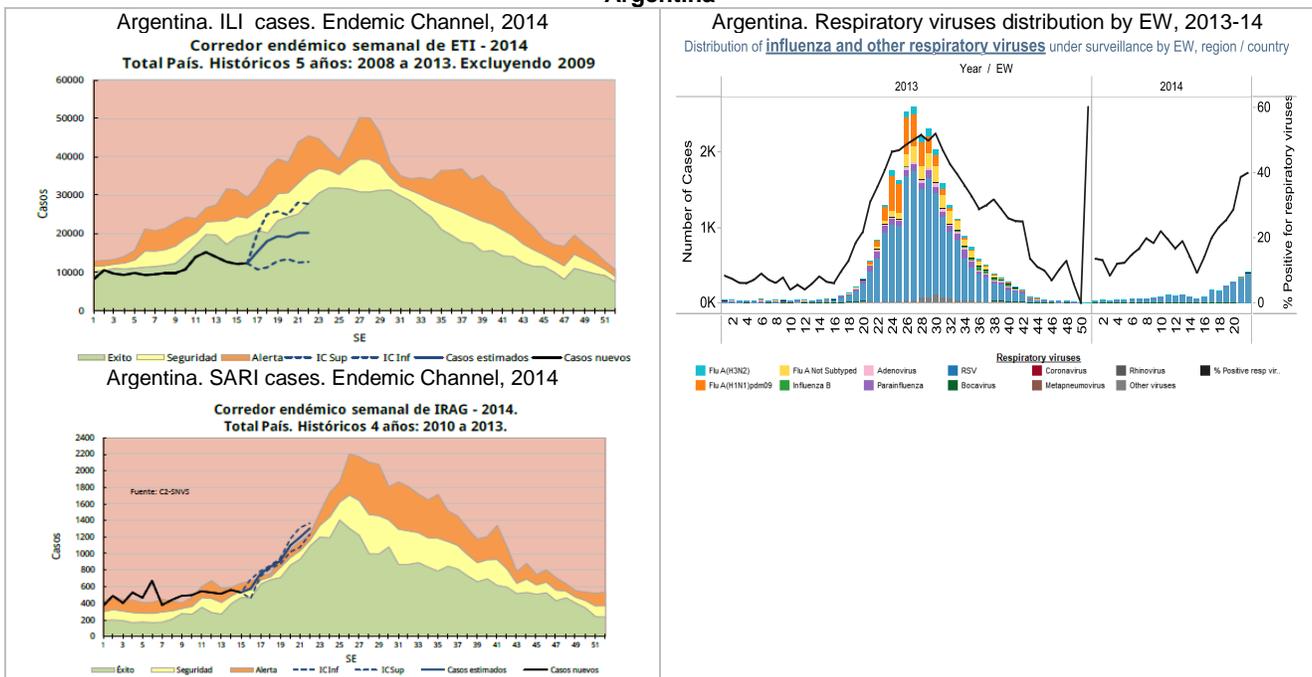
Venezuela



South America – South Cone and Brazil

In Argentina⁶, RSV activity continued to increase while influenza activity remained low. According to reports and calculated estimations, for EW 22 the number of ILI cases was within the success zone of the endemic channel while the estimated number of SARI cases was slightly above the epidemic threshold. Based on laboratory data from EW 21-22, 1,939 samples were analyzed, of which 39.3% were positive for a respiratory virus and 0.6% were positive for influenza. Among the positive samples, RSV (93.7%) predominated.

Argentina



In Brazil⁷, according to ILI sentinel surveillance data through EW 22, 6,314 ILI samples were analyzed, and of these, 14.2% were positive for influenza or another respiratory virus. Among the positive samples, A(H3N2) predominated (24.3% of positive samples). The largest number of positive samples came from the South and Southeast regions of the country. Based on national SARI surveillance data during this same period, 6,896 SARI cases were reported and 6.2% of these were positive for influenza. Among the positive samples, influenza A(H3N2) (50.3%) predominated, followed by influenza A(H1N1)pdm09 (32.9%). The largest number of SARI cases was reported in the Southeast region, primarily in Sao Paulo. Through EW 22, 644 SARI-associated deaths were reported, of which 10.1% were positive for influenza (58.5% A(H1N1)pdm09 and 24.6% A(H3N2)).

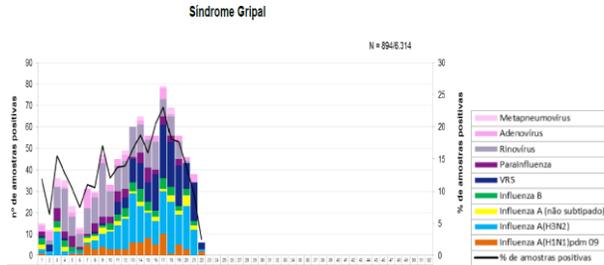
⁶ Argentina. Boletín integrado de vigilancia. SE 22.

⁷ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 22, 2014.

Brazil

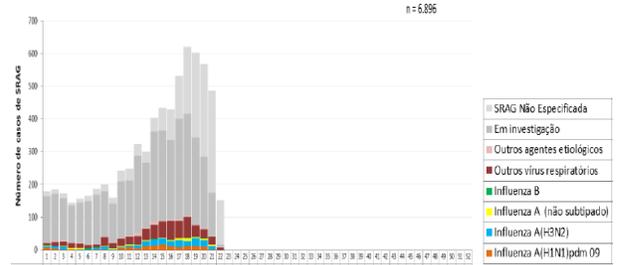
Brazil: Resp virus distribution in ILI cases, by EW, 2014

Figura 1. Distribuição dos vírus respiratórios identificados nas unidades sentinelas de Síndrome Gripal, por semana epidemiológica de início dos sintomas. Brasil, 2014 até a SE 22.



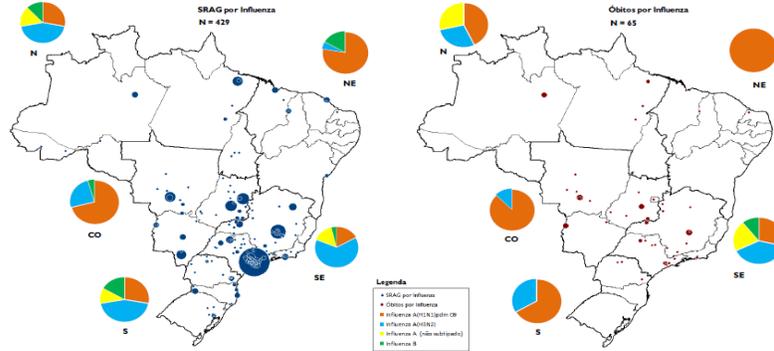
Brazil: Resp virus distribion, SARI cases, by EW, 2014

Figura 3. Distribuição dos casos de Síndrome Respiratória Aguda Grave segundo agente etiológico e semana epidemiológica do início dos sintomas. Brasil, 2014 até a SE 22.



Brazil: Distribution of SARI hospitalizations and deaths by influenza type/subtype by region

Anexo 4. Distribuição espacial dos casos e óbitos por Síndrome Respiratória Aguda Grave confirmados para influenza por município de residência e percentual dos vírus influenza identificados por região. Brasil, 2014 até a SE 22.



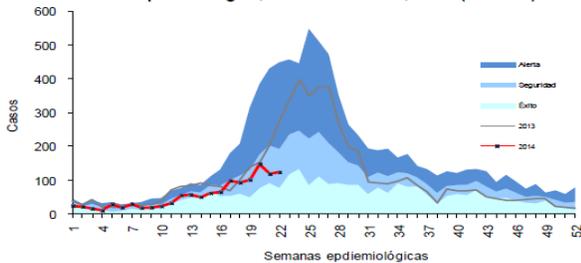
Fonte: SIVIAN Influenza Web. Dados atualizados em 03/06/2014, sujeitos a alteração.
 * O círculo é proporcional ao número de casos e óbitos. N = Norte; NE = Nordeste; SE = Sudeste; S = Sul; e CO = Centro Oeste.

In Chile⁸, influenza and RSV circulation continued to increase. During EW 22, ILI activity (rate: 8.2 per 100,000 inhabitants) increased compared to the previous week and was within the security zone of the endemic channel. Through EW 22, 704 SARI cases were reported through sentinel surveillance and of these, 22% tested positive for a respiratory virus. There were no SARI-associated deaths reported during EW 22. Based on laboratory data from EW 21-22, 1,647 samples were analyzed, of which 29.6% were positive for a respiratory virus and 6.3% were positive for influenza. Among the positive influenza samples, 96.2% were influenza A (53.0% A(H3N2) and 47.0% not subtyped) and 3.8% were influenza B. Among the other respiratory viruses, RSV (47.5% of positive samples) and parainfluenza (18.2%) predominated.

Chile

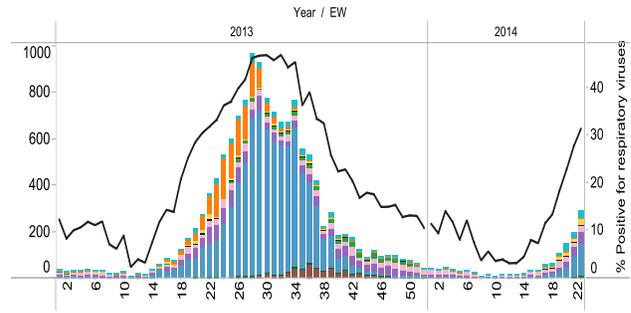
Chile. ILI Endemic Channel, 2014

Gráfico 1
 Canal endêmico de Enfermedad Tipo Influenza según semana epidemiológica, 2007-2013*. Chile, 2014 (SE 1-22)

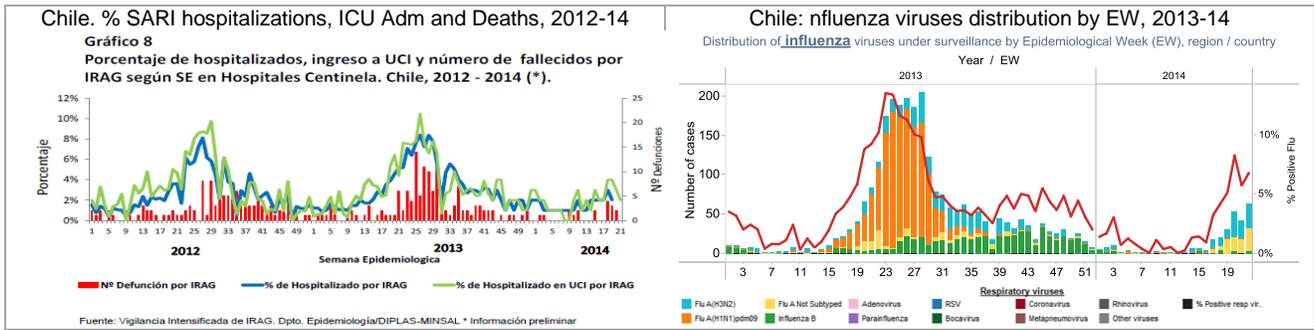


Chile. Respiratory viruses distribution by EW, 2013-14

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

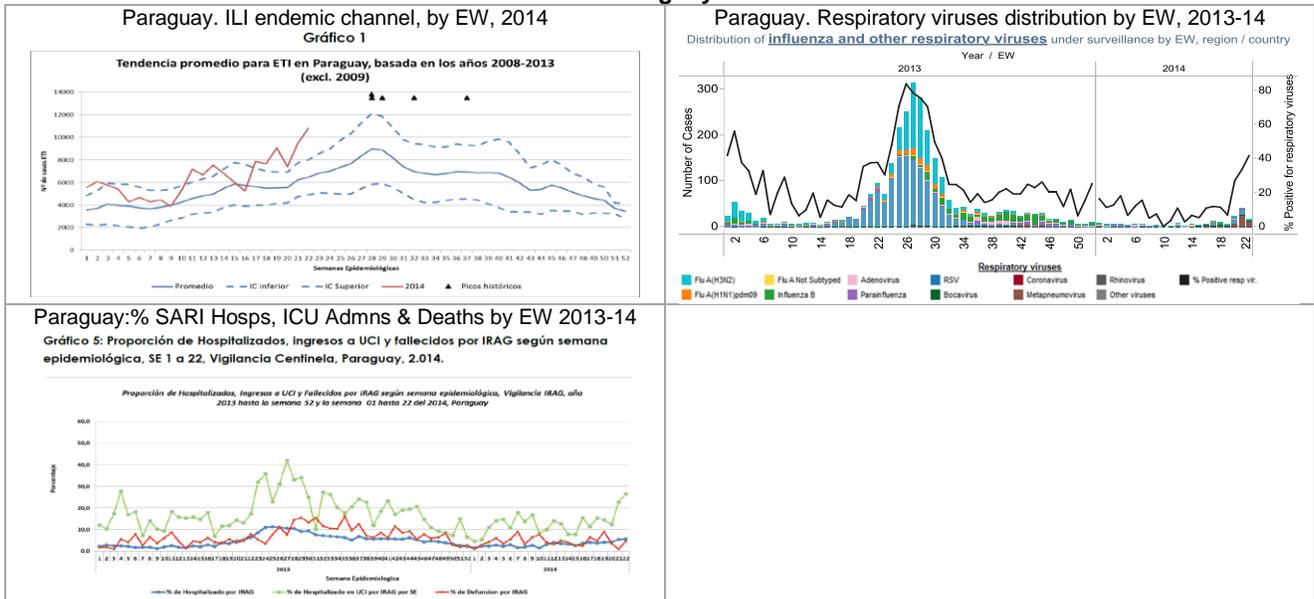


⁸ Chile. Informe de situación. EW 22. Available at: <http://epi.minsal.cl/>

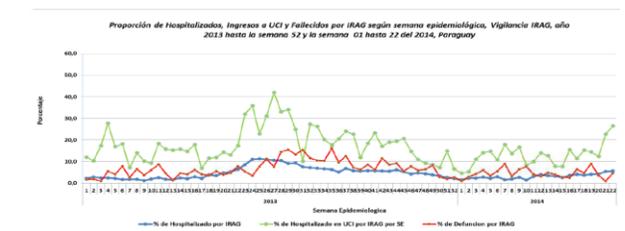


In Paraguay⁹ during EW 22, the ILI consultation rate (162 per 100,000 inhabitants) increased from the previous EW and was above the expected levels for this time of year. The proportion of SARI-associated hospitalizations (5.6%) also increased compared to the previous week. The most affected age groups were children <5 years of age and adults ≥60 years. Based on reference laboratory data from EW 19-22, 336 samples were analyzed of which 25.6% were positive for a respiratory virus and 2.4% were positive for influenza. Among the positive influenza samples, 50% were influenza A(H3N2) and 50% were influenza B. Among the other respiratory viruses, human metapneumovirus (54.7% of positive samples) and RSV (23.3%) predominated.

Paraguay

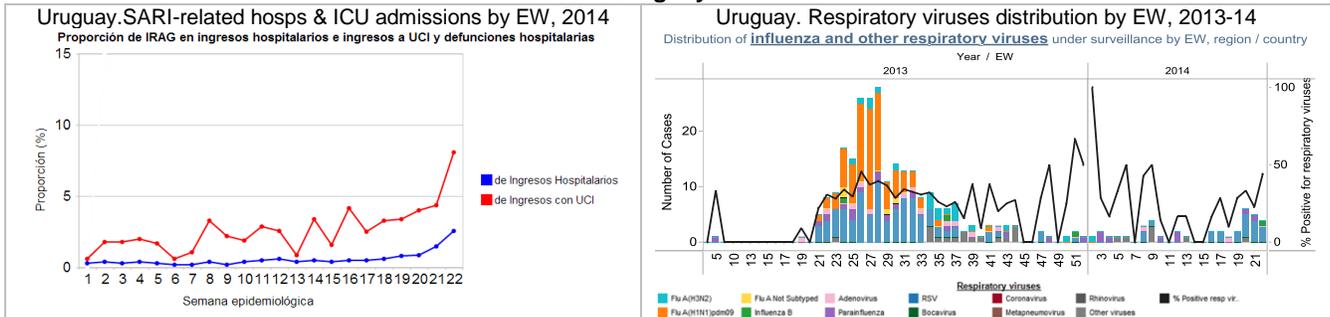


Paraguay: % SARI Hosps, ICU Adms & Deaths by EW 2013-14
Gráfico 5: Proporción de Hospitalizados, Ingresos a UCI y fallecidos por IRAG según semana epidemiológica, SE 1 a 22, Vigilancia Centinela, Paraguay, 2.014.



In Uruguay¹⁰ during EW 22, the proportions of SARI-associated hospitalizations, ICU admissions, and deaths increased compared to the previous week but were within expected levels for this time of year. Based on laboratory data from EW 19-22, 56 samples were analyzed, of which 30.4% were positive for a respiratory virus and 1.8% were positive for influenza. Among the positive samples, RSV (76.5%) predominated.

Uruguay



⁹ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 22.

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