

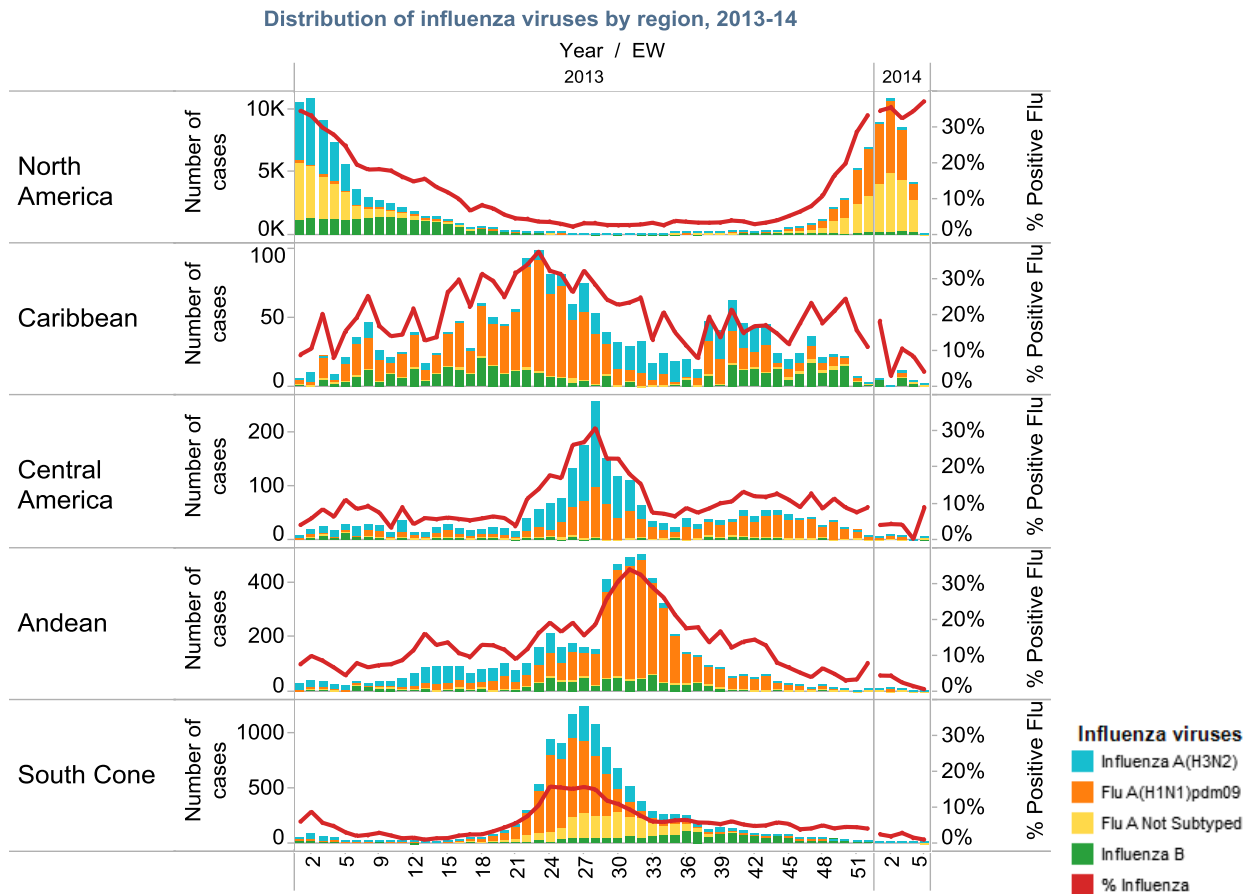
PAHO interactive influenza data: http://ais.paho.org/phis/viz/ed_flu.asp
Influenza Regional Reports: www.paho.org/reportesinfluenza

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.

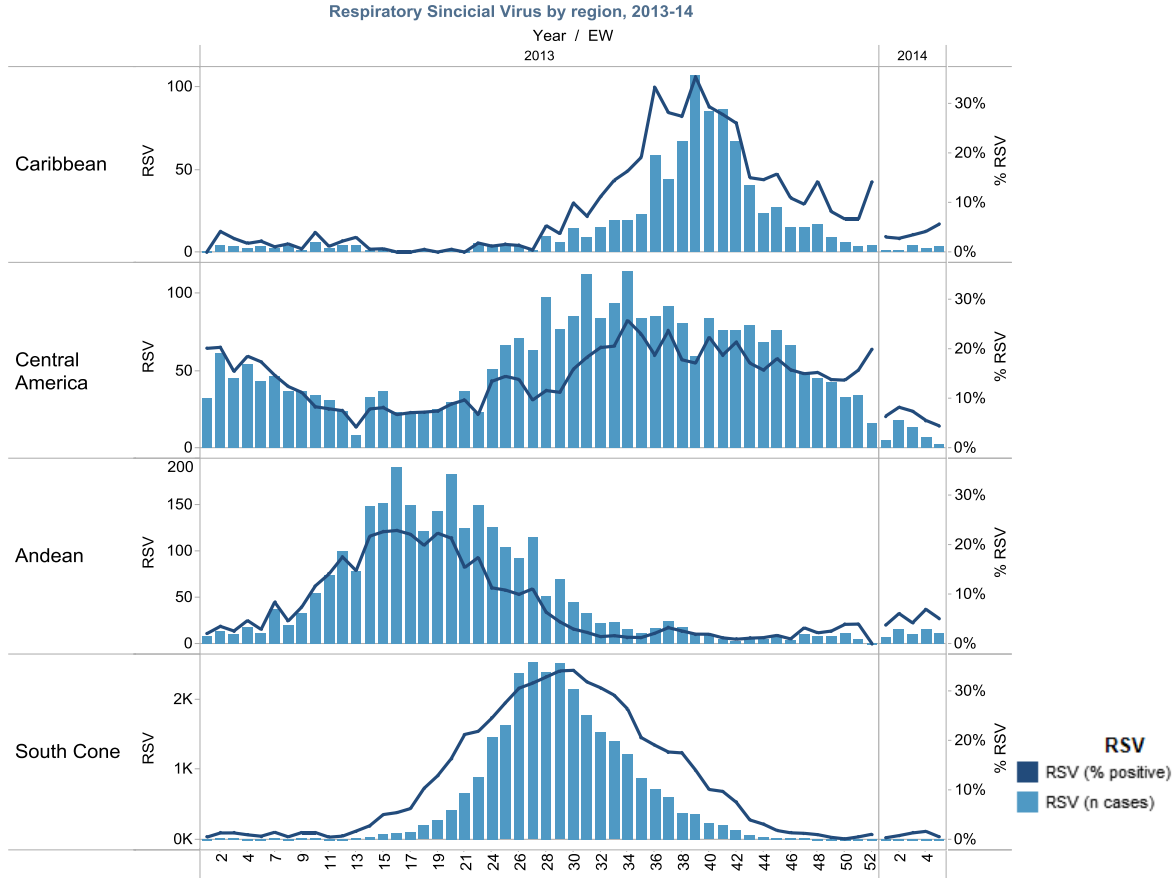
WEEKLY SUMMARY

- North America: Although influenza activity remained high in Canada and the United States, several indicators continued to decrease. In Mexico, influenza activity remained elevated. Influenza A(H1N1)pdm09 continued to be the predominant circulating virus in the region.
- The Caribbean and Central America: Influenza and other respiratory viruses activity in the region remained low.
- South America – Andean Countries: Acute respiratory illness activity as well as influenza and other respiratory viruses activity remained low in the region.
- South America - South Cone and Brazil: Acute respiratory illness activity as well as influenza and other respiratory viruses activity was low and within the expected level for this time of year in all countries of the region.

Influenza circulation by region. 2013-14



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



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

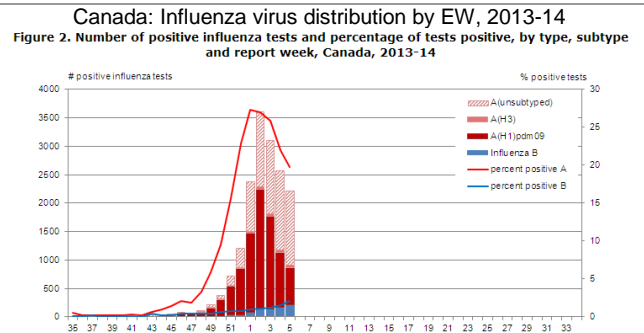
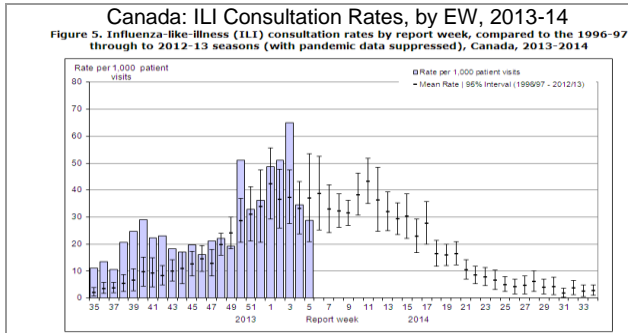
North America:

In Canada¹ during EW 5, overall influenza activity decreased compared to the previous week. The national influenza-like illness (ILI) consultation rate was 28.8 per 1,000 patient visits, a decrease compared to the previous week and was within the expected levels for this time of year. Since the beginning of the 2013-14 influenza season, 2,588 influenza-associated hospitalizations have been reported and the majority (58%) of these cases have been adults ≥ 45 years of age. There have been 250 ICU admissions reported and of these, 71% have been among adults 20-64 years of age. To date this season, 138 deaths have been reported (compared to 203 during the same period of the 2012-13 season) and 97.6% were associated influenza A. The highest proportion of these deaths (51%) occurred among adults 20-64 years of age, followed by adults ≥ 65 years (36%). Based on laboratory data for EW 5, the overall percentage of positive influenza tests was 21.9% (N=2,219), a decrease compared to the previous week. Among the positive tests,

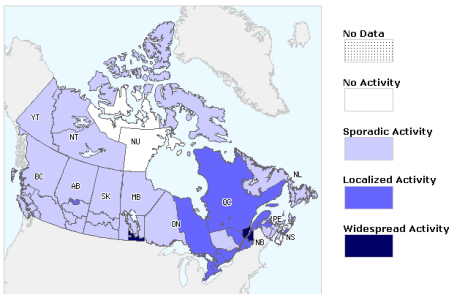
¹ Canada: FluWatch Report. EW 5. Available at <http://www.phac-aspc.gc.ca/fluwatch/>

90.5% were influenza A (32.8% influenza A(H1N1)pdm09, 2.3% A(H3N2) and 65.0% not subtyped) and 9.5% were influenza B. Among other circulating respiratory viruses, RSV continued to predominate.

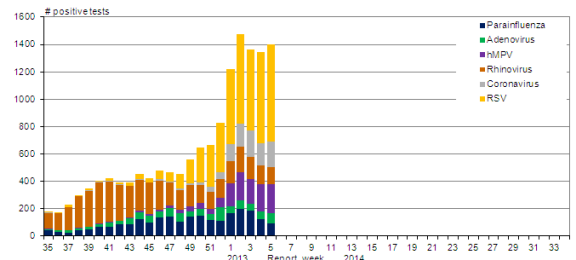
Canada



Canada: Influenza/ILI Activity by region, EW 5, 2014
 Figure 1. Map of overall influenza/ILI activity level by province and territory, Canada, Week 05

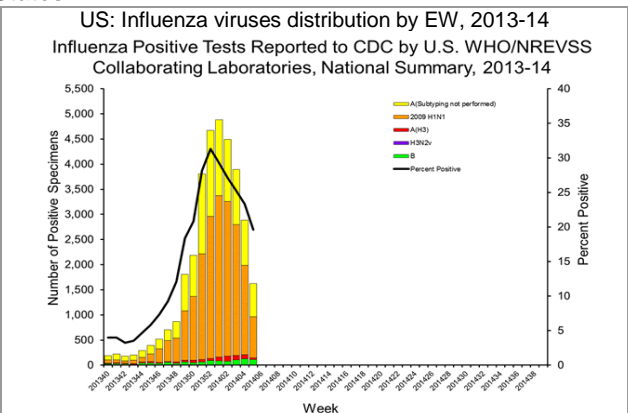
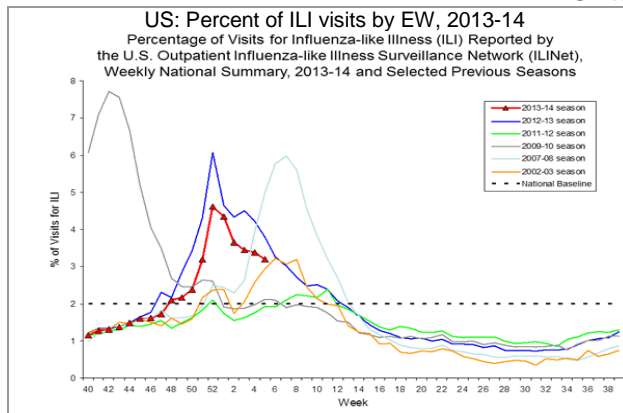


Canada: Respiratory virus distribution by EW, 2013-14
 Figure 3. Number of positive laboratory tests for other respiratory viruses by report week, Canada, 2013-14

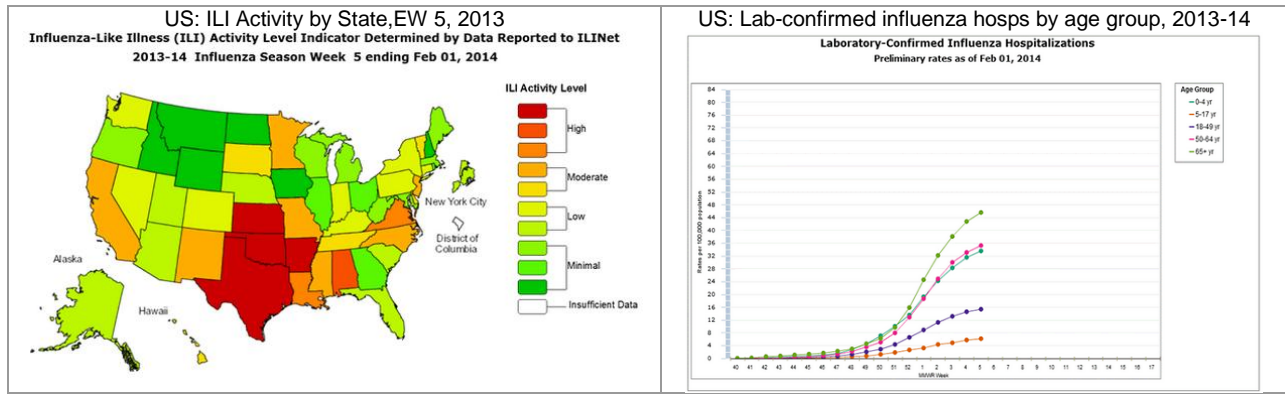


In the United States² during EW 5, influenza activity remained high, although some indicators continued to decrease. The proportion of outpatient visits for influenza-like illness (ILI) was 3.2%, above the national baseline of 2.0%, but a slight decrease compared to the previous EW. All 10 regions reported ILI activity above region-specific baseline levels. The proportion of deaths attributed to pneumonia and influenza for EW 5 (8.6%) decreased slightly from the previous EW, but was above the epidemic threshold (7.3%). A total of 40 influenza-associated pediatric deaths have been reported this season, of which three were reported during EW 5. All of these deaths were with associated influenza A (not subtyped) and occurred during EW 1, 3 and 4. Since October 1, 2013, 6,081 laboratory confirmed influenza-associated hospitalizations have been reported (rate: 22.5 per 100,000 population). The highest hospitalization rates were among adults ≥65 years followed by 50-64 years and children 0-4 years. Adults aged 18-64 years comprised more than 60% of the reported hospitalizations. According to laboratory data for EW 5, 8,282 samples were analyzed, of which 19.6% were positive for influenza. Among the positive samples, 92.9% were influenza A (54.0% A(H1N1)pdm09, 2.1% A(H3N2) and 43.9% not subtyped) and 7.1% were influenza B. Based on antiviral resistance testing, 0.8% (23/2,778) of the influenza A(H1N1)pdm09 samples tested were oseltamivir resistant.

United States

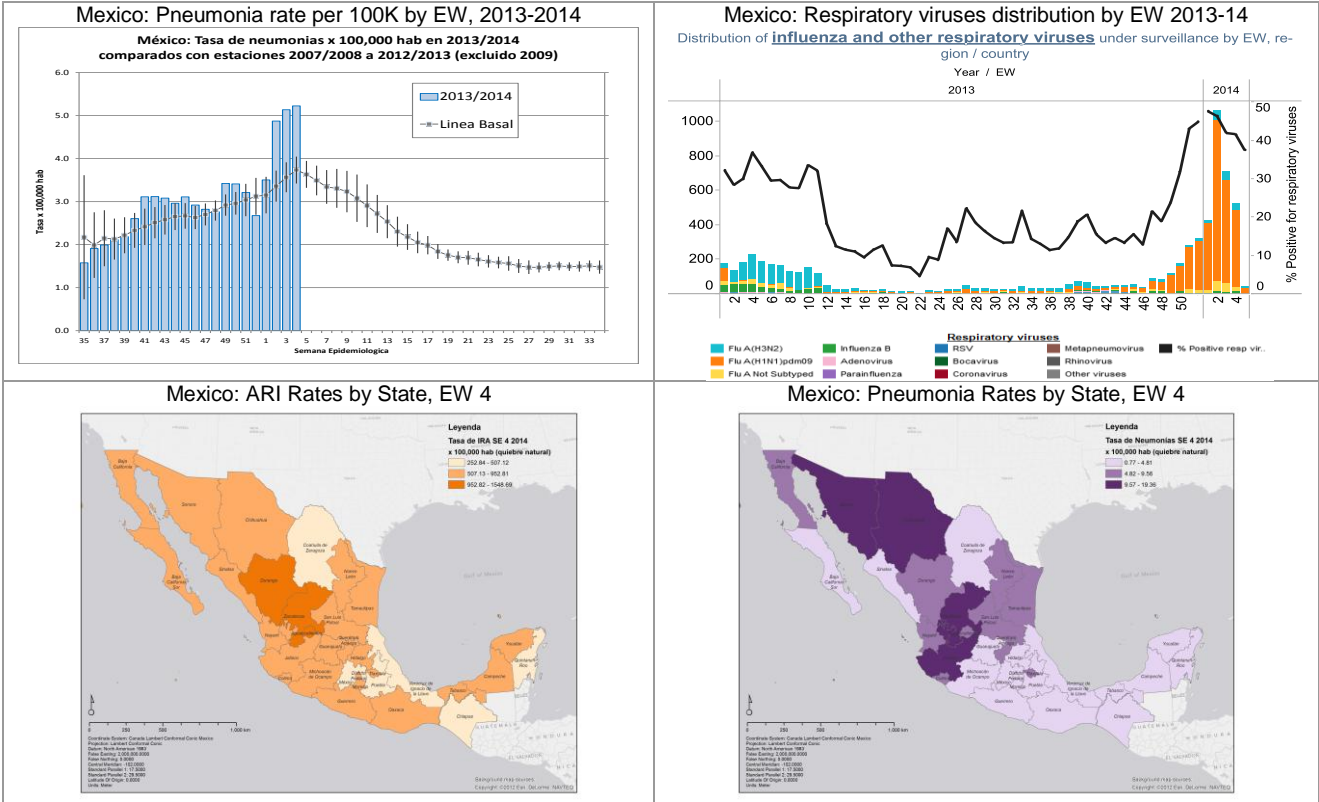


² USA: CDC FluView report. EW 5. Available at: <http://www.cdc.gov/flu/weekly/>



In Mexico³, during EW 4 influenza activity remained elevated. Both ARI and pneumonia rates increased from the previous EW and were above expected levels for this time of year. The highest levels of ARI activity were reported in Zacatecas, Aguascalientes and Durango, and the highest levels of pneumonia activity were reported in Chihuahua, Aguascalientes and Sonora. Nationally, through February 6, 2014, the proportion of ILI/SARI-associated medical visits was 3.8%, an increase compared to the previous EW. During this same period, 374 influenza-associated deaths were reported, of which 92.2% were associated with influenza A(H1N1)pdm09. According to laboratory data during EW 4-5, 1,430 samples were analyzed, of which 41.1% were positive for influenza. Among the positive influenza samples, 96.8% were influenza A (83.5% A(H1N1)pdm09 and 8.1% A(H3N2)) and 3.2% were influenza B.

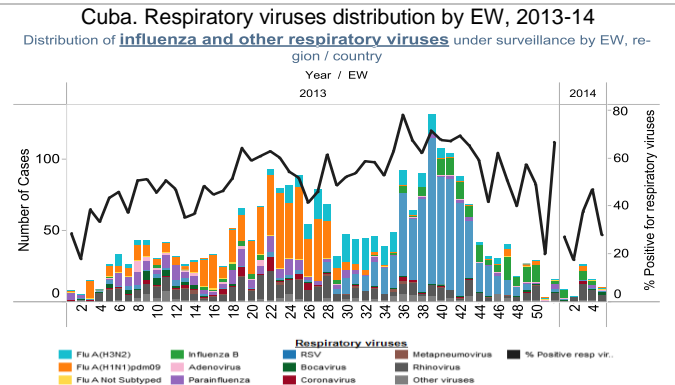
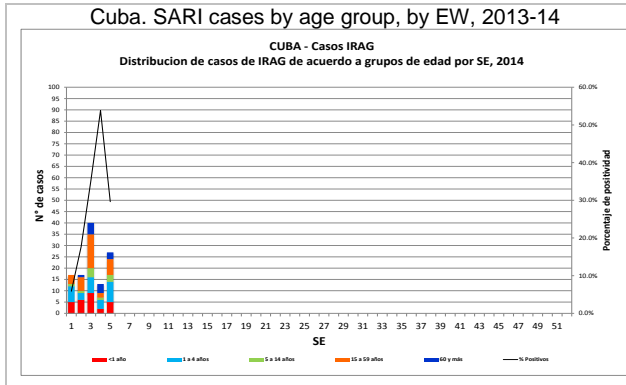
Mexico



Caribbean
 In Cuba during EW 5, the number of SARI-associated hospitalizations increased compared to the previous week. Children aged 1-4 years comprised the largest proportion of these cases. No SARI-associated deaths were reported during this period. According to national laboratory data for EW 2-5, 162 samples were analyzed, of which 34.6% were positive for a respiratory virus and 9.9% were positive for influenza. Among positive samples, rhinovirus (50.0%) and influenza B (17.9%) were predominant.

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

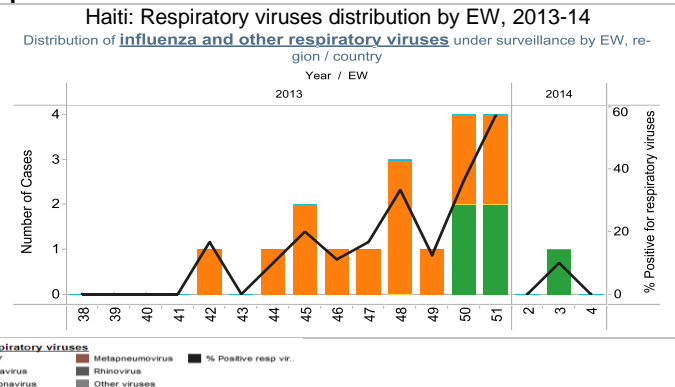
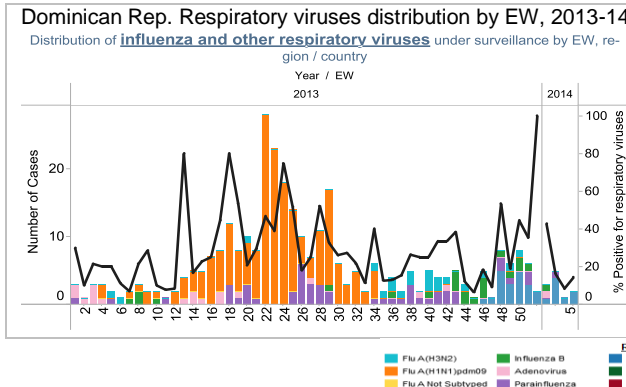
Cuba



In the Dominican Republic, based on laboratory data for EW 2-5, 64 samples were analyzed, of which 17.2% were positive for a respiratory virus and 1.6% were positive for influenza. Among positive influenza samples, 100% were influenza B. Among other respiratory viruses, RSV (72.7% of positive samples) predominated.

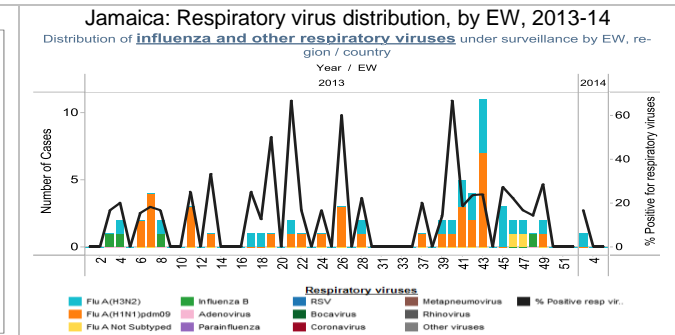
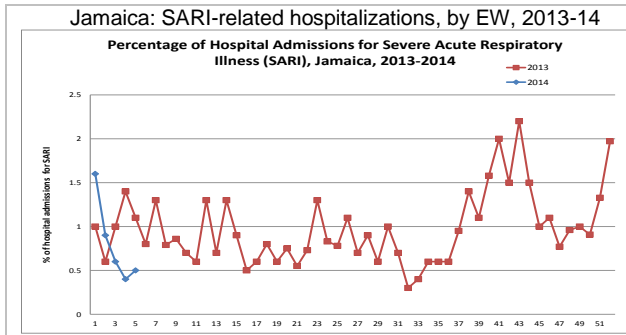
In Haiti, based on laboratory data for EW 1-4, 17 samples were analyzed, of which one was positive for influenza B.

Dominican Republic and Haiti



In Jamaica, based on sentinel surveillance data for EW 5, the proportions of ARI-associated consultations (4.7%) and SARI-associated hospitalizations (0.5%) increased compared to the previous week. One SARI-associated death was reported during this period and occurred during EW 4. Based on laboratory data for EW 2-5, 10 samples were analyzed of which one was positive for influenza A(H3N2).

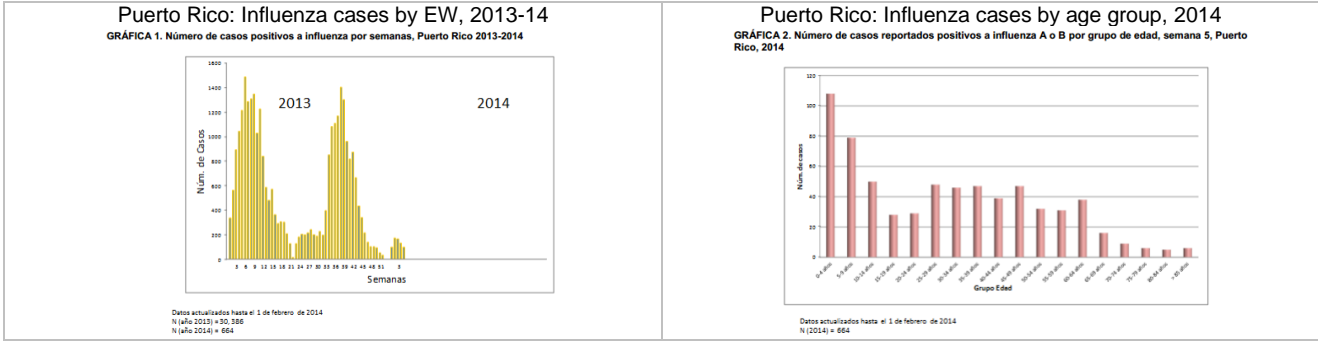
Jamaica



In Puerto Rico⁴ during EW 5, the number of influenza cases (n=98) remained low. Of these, 81 cases were associated with influenza A, 16 with influenza B and 1 with an influenza A and B co-infection. Since the beginning of 2014, 664 influenza cases have been reported and persons aged 0-19 years accounted for 40% of those cases. During this same period, 50 influenza-associated hospitalizations and no influenza-associated deaths were reported.

⁴ Puerto Rico. Departamento de Salud. Vigilancia de influenza de Puerto Rico SE.5

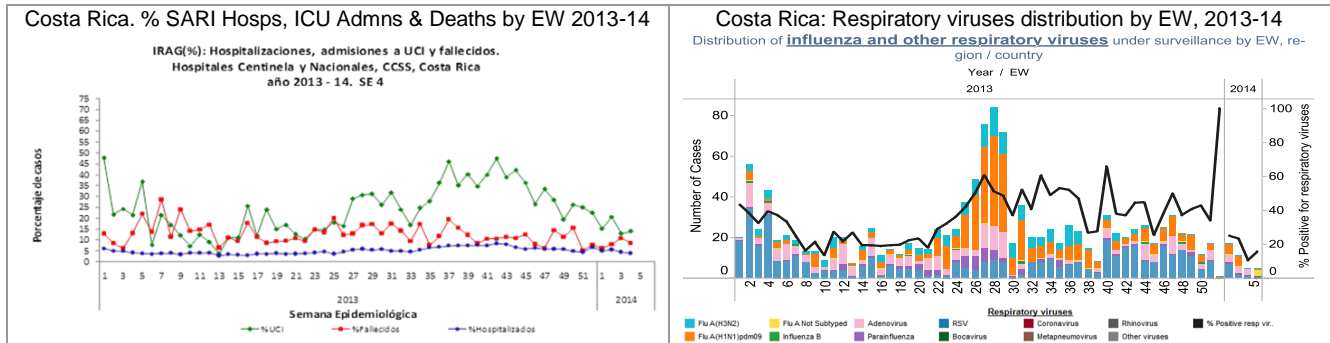
Puerto Rico



Central America

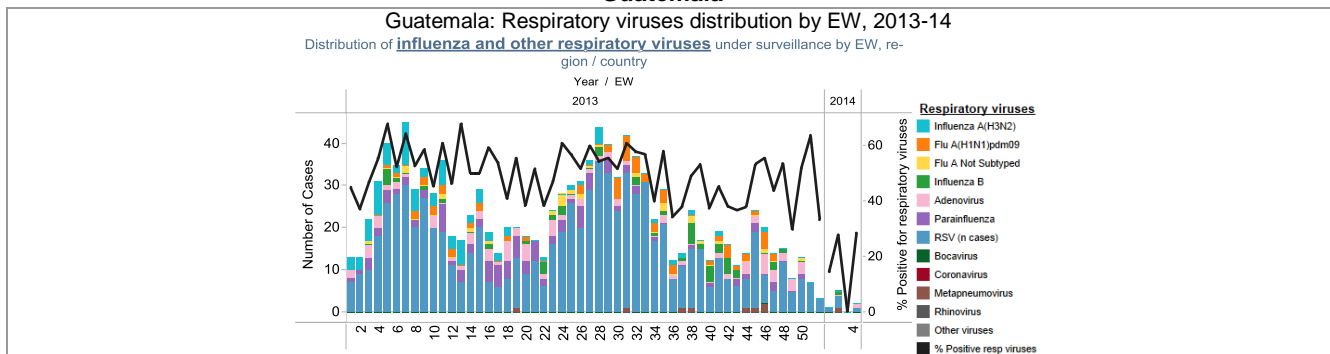
In Costa Rica, according to ILI/SARI surveillance data, influenza and other respiratory virus activity remained low during EW 4. The proportions of SARI-associated hospitalizations (3.9%), SARI-associated ICU admissions (14%) and SARI-associated deaths (8.5%) were similar to the previous EW. Based on laboratory data from EW 2-5, 194 samples were analyzed, of which 19.6% were positive for a respiratory virus and 7.2% were positive for influenza. Among the positive influenza samples, 100% were influenza A (78.6% A(H1N1)pdm09). Among other respiratory viruses, RSV (26.3% of positive samples), adenovirus (26.3%) and parainfluenza (10.5%) were detected.

Costa Rica



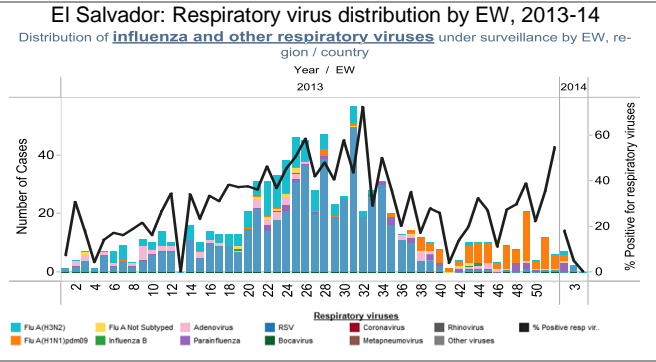
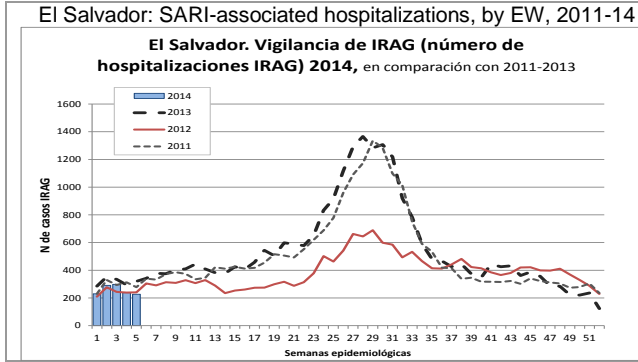
In Guatemala, based on laboratory data from EW 1-4, 38 samples were analyzed, of which 21.1% were positive for a respiratory virus and 2.6% were positive for influenza. Among the positive influenza samples, 100% were influenza B. Among other respiratory viruses, RSV predominated (62.5% of positive samples).

Guatemala



In El Salvador, during EW 5, the proportions of SARI-associated hospitalizations (4.6%), ICU admissions (0%) and deaths (4.5%) remained low and within the expected levels for this time of year. According to national laboratory data from EW 1-4, 92 samples were analyzed, of which 9.8% were positive for a respiratory virus and 3.3% were positive for influenza. Among influenza positive samples, 100% were influenza A (66.7% A(H1N1)pdm09 and 33.3% A(H3N2)). Among other respiratory viruses, parainfluenza (33.3% of positive samples), RSV (22.2%) and adenovirus (11.1%) were detected.

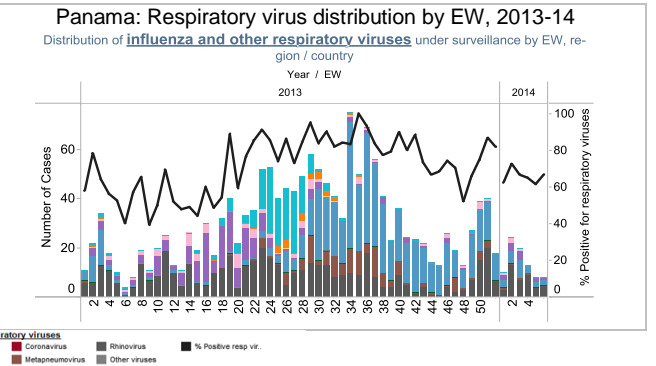
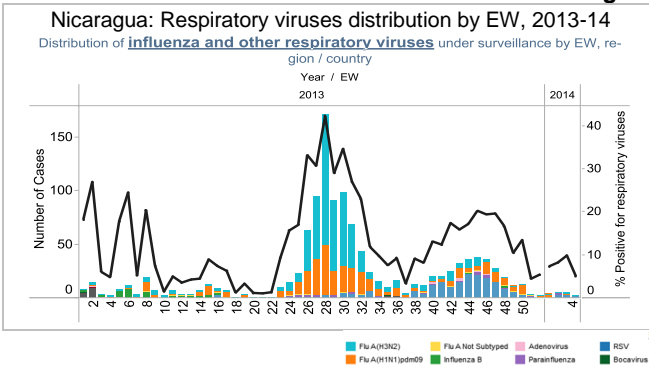
El Salvador



In Nicaragua, according to national laboratory data from EW 1-4, 207 samples were analyzed of which 7.7% were positive for a respiratory virus and 2.4% were positive for influenza. Among influenza positive samples, 100% were influenza A (80.0% A(H1N1)pdm09 and 20.0% A(H3N2)). Among other respiratory viruses, RSV (50.0% of positive samples) and parainfluenza (18.8%) were detected.

In Panama, based on national laboratory data from EW 3-6, 75 samples were analyzed of which 65.3% were positive for a respiratory virus. Among the positive samples, rhinovirus (51.0%), RSV (28.6%) and parainfluenza (14.3%) predominated.

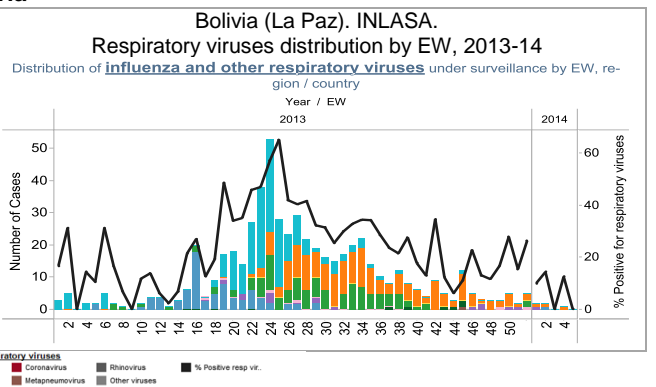
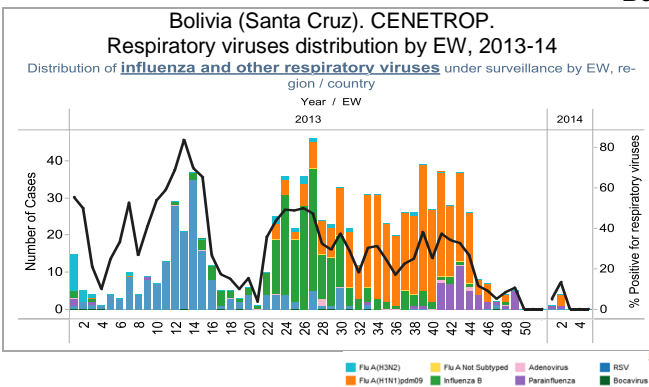
Nicaragua and Panama



South America – Andean countries

In Bolivia, according to laboratory data from CENETROP (Santa Cruz), from EW 2-5, 78 samples were analyzed of which 5.1% were positive for a respiratory virus and 3.8% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (75.0%) and parainfluenza (25.0%) were detected. According to laboratory data from INLASA (La Paz) from EW 2-5, 33 samples were analyzed of which 9.1% were positive for a respiratory virus and 6.1% were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 (66.7%) and RSV (33.3%) were detected.

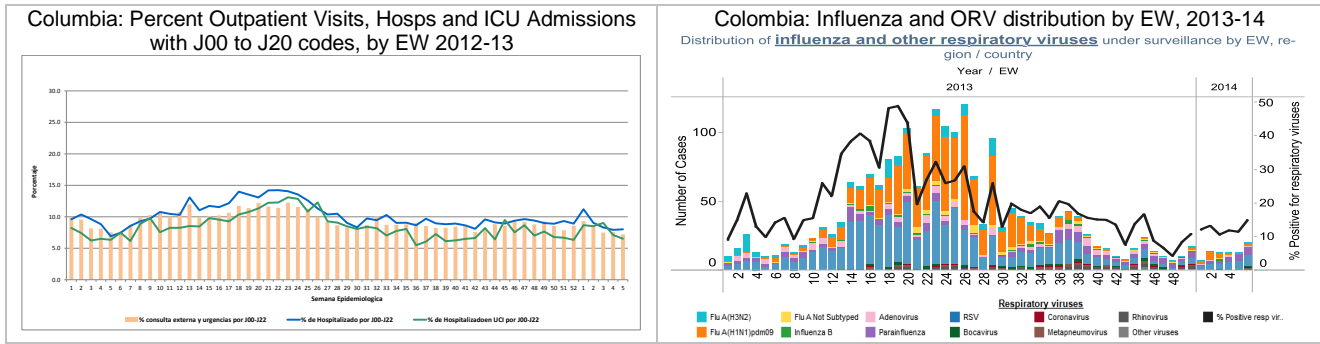
Bolivia



In Colombia, nationally during EW 5, the proportions of hospitalizations (8.0%), ICU admissions (6.5%), and outpatient and urgent visits (7.2%) with ARI-associated ICD-10 codes (J00 to J22) remained at low levels. Based on INS national laboratory data from EW 3-6, 481 samples were analyzed, of which 12.3% were

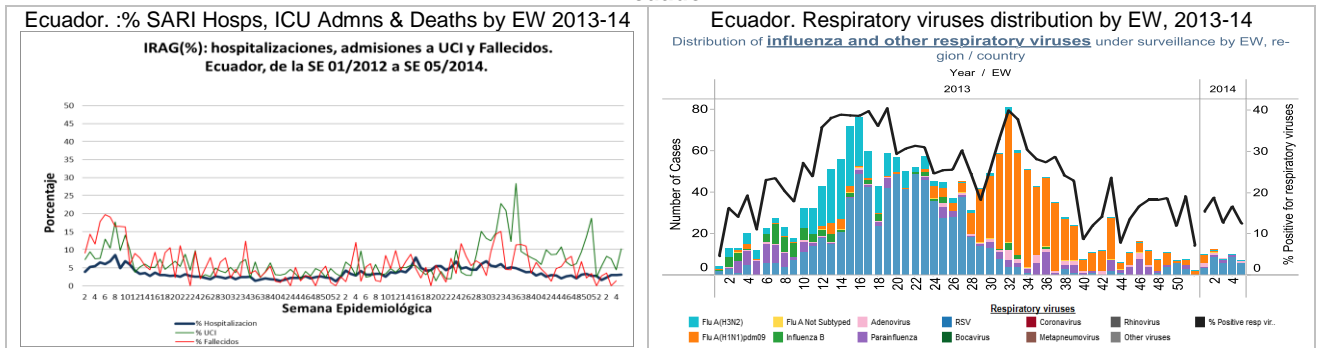
positive for a respiratory virus and 2.3% were positive for influenza. Among the positive influenza samples, 81.8% were influenza A, of which 88.9% were A(H1N1)pdm09. Among other respiratory viruses, RSV (37.3% of positive samples) and parainfluenza (30.5%) predominated.

Colombia



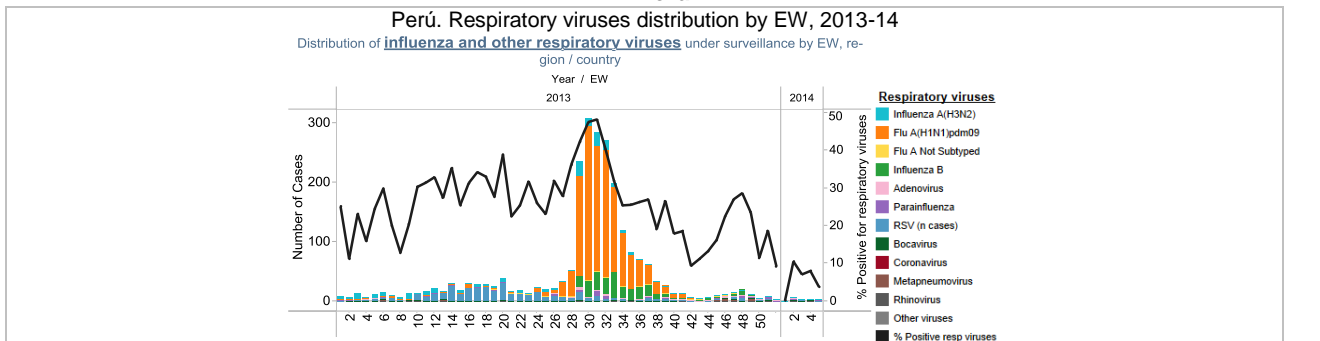
In Ecuador during EW 5, the proportion of SARI-associated hospitalizations (3.1%), ICU admissions (10.2%) and deaths (13.0%) increased compared to the previous week but remained at low levels. Based on national reference laboratory data from EW 2-5, 202 SARI samples were analyzed, of which 18.8% were positive for a respiratory virus and 2.5% were positive for influenza. Among the positive samples influenza samples, 100% were influenza A(H1N1)pdm09. Among the other respiratory viruses, RSV predominated (73.7% of positive samples).

Ecuador



In Peru, based on national laboratory data from EW 2-5, 183 samples were analyzed, of which 7.1% were positive for a respiratory virus. Among the positive samples, RSV (46.2%), adenovirus (30.8%) and human metapneumovirus (15.4%) predominated.

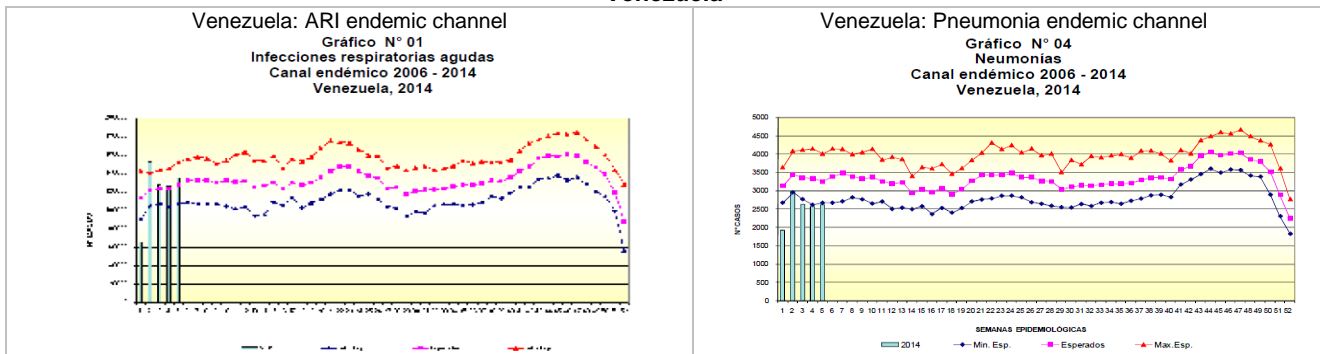
Peru



In Venezuela⁵ during EW 5, the number of ARI and pneumonia cases increased by 7.4% and 1.9%, respectively, compared to the previous EW. Both were within the expected levels for this time of year. During EW 5, 81 SARI-associated hospitalizations were reported, with children ≤1 year of age comprising the largest proportion of cases. Based on virologic data from January 1, 2013 to February 1, 2014, 5,325 samples were analyzed from suspected influenza cases, of which 52.4% were positive for influenza. Among the positive samples, 91.7% were influenza A(H1N1)pdm09.

⁵ Venezuela. Boletín epidemiológico, EW 5.

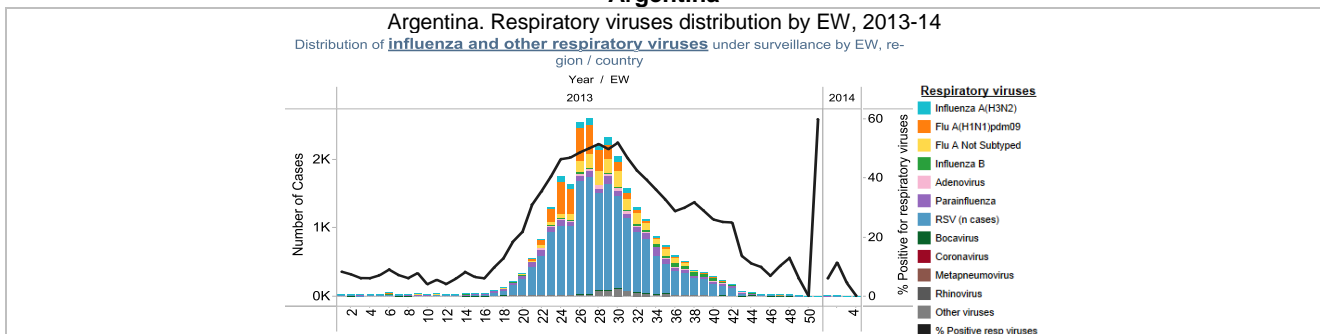
Venezuela



South America – South Cone and Brazil

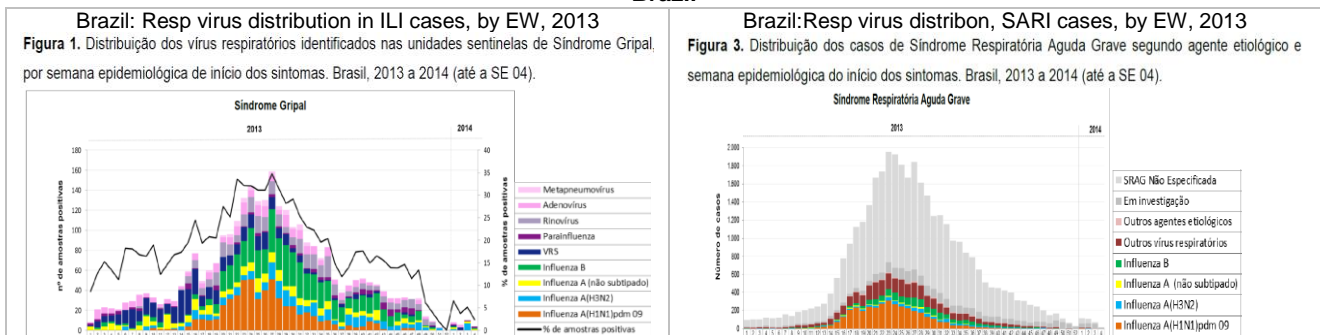
In Argentina, according to laboratory data from EW 1-4, 229 samples were analyzed of which 8.3% were positive for a respiratory virus. Among the positive samples, parainfluenza (52.6%) predominated followed by adenovirus (31.6%).

Argentina



In Brazil⁶, according to ILI sentinel surveillance data through EW 4, 645 samples were analyzed, of which 4.3% were positive for influenza or another respiratory virus. Based on universal SARI surveillance data during this same period, 311 SARI cases were reported and 6.1% of these were positive for influenza. Among the positive samples, influenza A(H1N1)pdm09 and A(H3N2) predominated. Additionally, through EW 4, 21 SARI-associated deaths were reported, of which 4.8% were positive for influenza.

Brazil

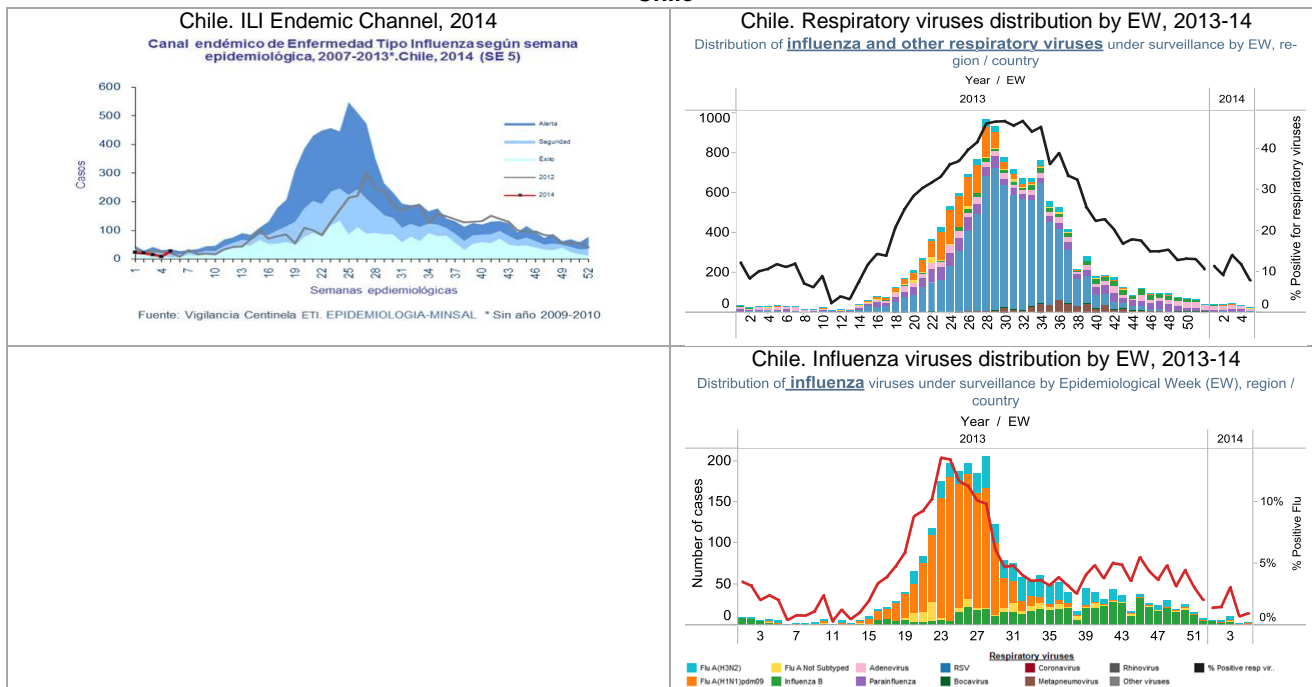


In Chile⁷, ILI activity during EW 5 remained low (rate: 1.8 per 100,000 inhabitants) and was in the security zone of the endemic channel. Based on laboratory data from EW 4-5, 620 samples were analyzed, of which 9.7% were positive for a respiratory virus and 0.8% were positive for influenza. Among the positive influenza samples, 100% were influenza A (60.0% A(H1N1)pdm09 and 40.0% A(H3N2)). Among other respiratory viruses, adenovirus predominated (51.7% of positive samples).

⁶ Brasil. Boletim informativo. Secretaria de Vigilância em Saúde. SE 4, 2013.

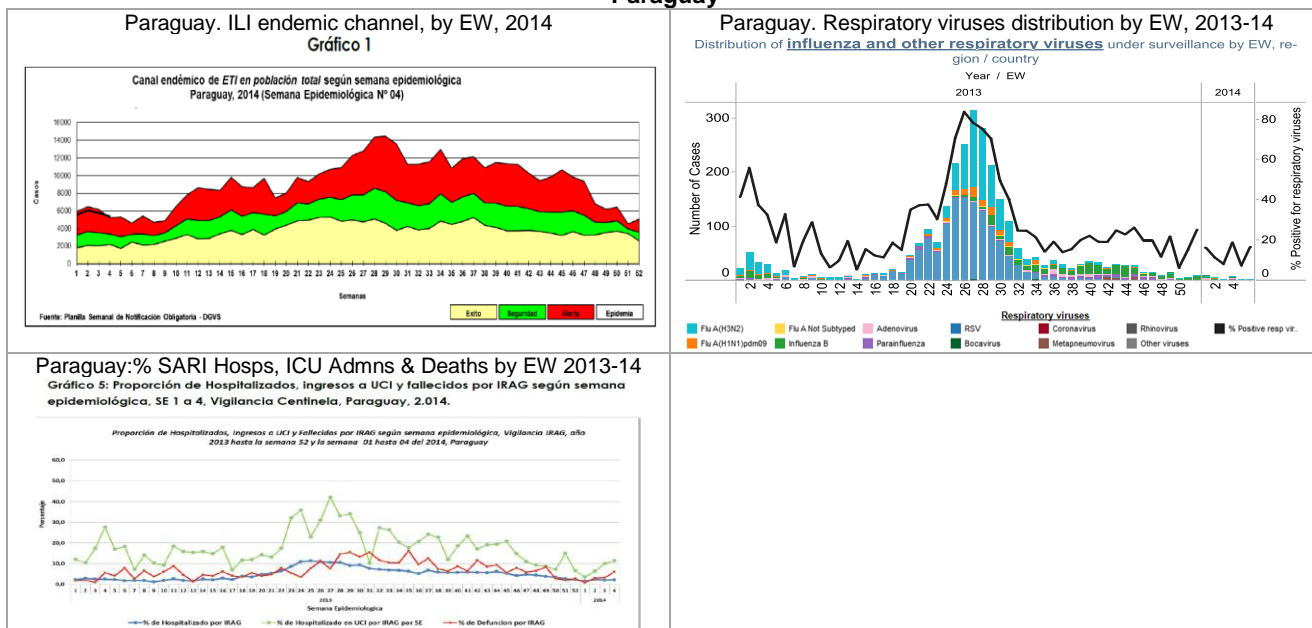
⁷ Chile. Informe de situación. EW 5. Available at: <http://epi.minsal.cl/>

Chile



In Paraguay⁸ during EW 4, the ILI consultation rate (81.1 per 100,000 inhabitants) decreased from the previous EW and was within the alert zone of the endemic channel. The proportion of SARI-associated hospitalizations (2.1%) 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 3-6, 121 samples were analyzed, of which 11.6% were positive for a respiratory virus and 4.1% were positive for influenza. Among the positive samples, influenza B (35.7%), parainfluenza (21.4%) and human metapneumovirus (21.4%) predominated.

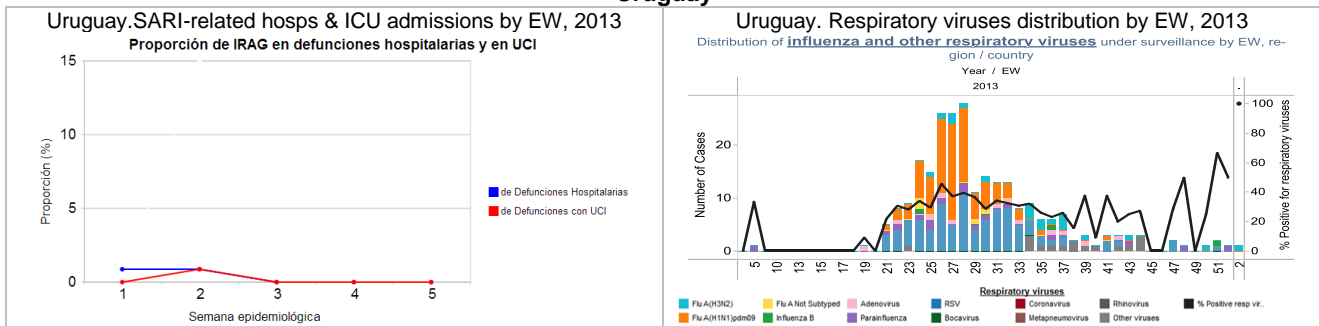
Paraguay



In Uruguay⁹ during EW 5, 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 2-5, one sample was analyzed and it tested positive for influenza A(H3N2).

⁸ Paraguay. Informe de situación. Vigilancia de ETI e IRAG. SE 4.
⁹ Uruguay. Generador de gráficos de la división de epidemiología, Dirección General de Salud – Ministerio de Salud Pública

Uruguay



EMERGING RESPIRATORY PATHOGENS

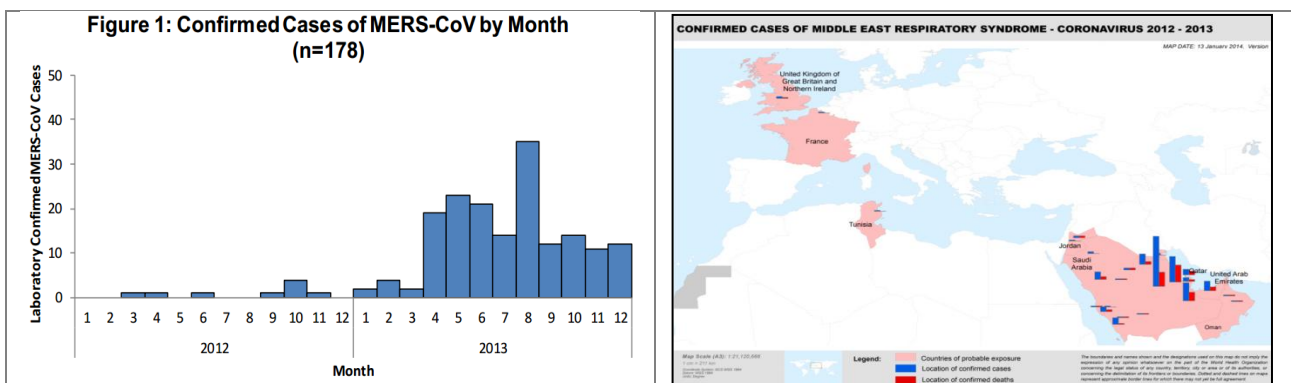
Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

As of January 20, 2014: Since April 2012, 178 laboratory-confirmed cases of human infection with Middle East respiratory syndrome coronavirus (MERS-CoV) have been reported to WHO, including 76 deaths (Figure 1). The median age of all lab-confirmed cases (n=178) is 52 years; this varies by the presumed type of exposure. For primary cases, those who have no history of exposure to other human cases, median age is 58 years; for secondary cases, those who appear to have been infected by other humans, median age is 44 years. Overall, 62% are male; distribution by sex also varies by presumed exposure (76% male among primary cases; 53% among secondary cases).

To date, affected countries in the Middle East include Jordan, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE); in Europe countries affected include: France, Germany, Italy and the United Kingdom (UK) and; and in North Africa: Tunisia.

All cases have a link to the Middle East. For those cases reported outside the Middle East, the link is either through recent travel to the region or exposure to a patient who acquired infection in the region. Since the last update of 22 November 2013, 21 laboratory-confirmed cases, including seven deaths, were reported to WHO. The geographic distribution of these 21 cases is 14 cases, including four deaths, from Saudi Arabia; six cases, including two deaths, from UAE; and one fatal case from Oman.

WHO Coronavirus infections http://www.who.int/csr/disease/coronavirus_infections/en/



Avian Influenza A(H7N9)

As of January 31, 2014: The laboratory-confirmed cases of influenza A(H7N9) have been reported from 13 provinces/municipalities in eastern mainland China, Hong Kong, Special Administrative Region, China, and the Taipei Centers for Disease Control (Taipei CDC). Most cases are presumed to have contracted the infection directly from infected animals or their environment, particularly as a result of visiting live animal markets. Only a few small clusters with possible human-to-human transmission have occurred among family members, but there has been no evidence of sustained human-to-human transmission to date.

As of 28 January 2014, the case fatality rate of all confirmed cases is 22%, but many cases are still hospitalized. Of all cases, 67% were male. The median age of reported cases is 58 years and that of fatal cases is 66 years.

Cases occurred in a first wave (n=133) from February through May 2013. Reports of human infection decreased during the summer, with only two cases reported; they have increased since October, demonstrating a second wave, likely in conjunction with cooler temperatures.

WHO does not advise special screening at points of entry with regard to this event, nor does it currently recommend any travel or trade restrictions.

WHO Avian influenza A(H7N9) Virus

http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/

