FLUVIEW

A Weekly Influenza Surveillance Report Prepared by the Influenza Division

2014-2015 Influenza Season
Week 17 ending May 2, 2015

All data are preliminary and may change as more reports are received.

Synopsis: During week 17 (April 26-May 2, 2015), influenza activity continued to decrease in the United States.

- **Viral Surveillance**: Of 8,269 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 17, 451 (5.5%) were positive for influenza.
- **Novel Influenza A Virus**: One human infection with a novel influenza A virus was reported.
- **Pneumonia and Influenza Mortality**: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- **Influenza-associated Pediatric Deaths**: Three influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations**: A cumulative rate for the season of 64.8 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.
- **Outpatient Illness Surveillance**: The proportion of outpatient visits for influenza-like illness (ILI) was 1.4%, which is below the national baseline of 2.0%. All 10 regions reported ILI below region-specific baseline levels. Puerto Rico and one state experienced low ILI activity; New York City and 49 states experienced minimal ILI activity; and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza**: The geographic spread of influenza in two states was reported as widespread; Guam and seven states reported regional activity; Puerto Rico and 12 states reported local activity; the District of Columbia and 26 states reported sporadic activity; and the U.S. Virgin Islands and three states reported no influenza activity.

National and Regional Summary of Select Surveillance Components

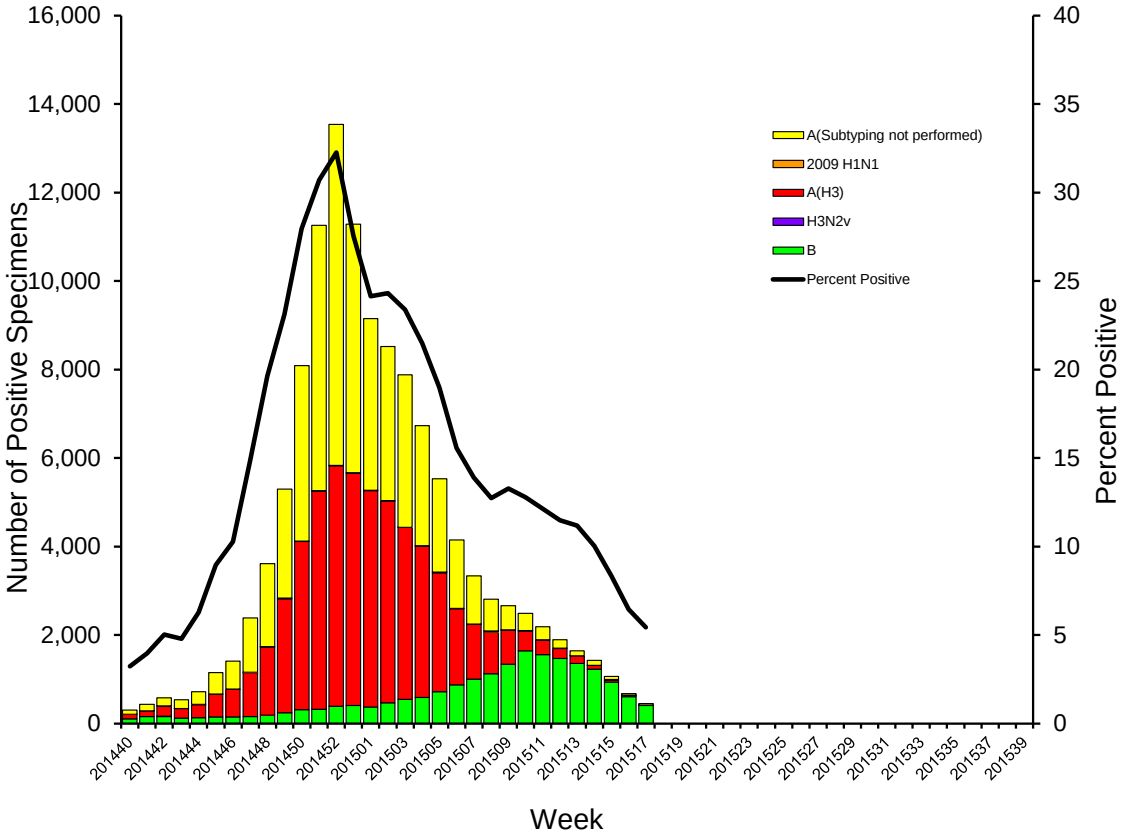
	Data for current week			Data cumulative since September 28, 2014 (week 40)				
HHS Surveillance Regions*	**Out-patient ILI†**	**Number of jurisdictions reporting regional or widespread activity§**	**% respiratory specimens positive for flu‡**	**A(H1N1) pdm09**	**A (H3)**	**A (Subtyping not performed)**	**B**	**Pediatric Deaths**
Nation	Normal	10 of 54	5.5%	238	52,064	51,634	19,315	136
Region 1	Normal	5 of 6	10.0%	11	2,970	2,920	972	3
Region 2	Normal	1 of 4	7.5%	59	4,136	5,272	1,631	7
Region 3	Normal	0 of 6	7.8%	15	6,208	4,828	1,134	10
Region 4	Normal	0 of 8	4.3%	12	3,695	12,565	3,827	22
Region 5	Normal	0 of 6	11.6%	17	8,341	7,965	3,544	28
Region 6	Normal	0 of 5	2.7%	31	5,249	8,043	3,267	30
Region 7	Normal	0 of 4	5.0%	10	1,784	2,464	1,134	7
Region 8	Normal	1 of 6	7.7%	27	5,800	3,437	1,866	10
Region 9	Normal	2 of 5	7.0%	44	9,630	3,421	1,462	17
Region 10	Normal	1 of 4	5.7%	12	4,251	719	478	2

*****http://www.hhs.gov/iea/regional/
† Elevated means the % of visits for ILI is at or above the national or region-specific baseline.
§ Includes all 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands.
‡ National data are for current week; regional data are for the most recent three weeks.

U.S. Virologic Surveillance: WHO and NREVSS collaborating laboratories located in all 50 states, Puerto Rico, and the District of Columbia report to CDC the number of respiratory specimens tested for influenza and the number positive by influenza virus type and influenza A virus subtype. The results of tests performed during the current week and totals for the influenza season to date are summarized in the table below.

	Week 17	Data Cumulative since September 28, 2014 (Week 40)
No. of specimens tested	8,269	661,982
No. of positive specimens (%)	451 (5.5%)	123,252 (18.6%)
Positive specimens by type/subtype		
Influenza A	42 (9.3%)	103,937 (84.3%)
A(H1N1)pmd09	1 (2.4%)	238 (0.2%)
H3	12 (28.6%)	52,064 (50.1%)
Subtyping not performed	29 (69.0%)	51,634 (49.7%)
Influenza B	409 (90.7%)	19,315 (15.7%)

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2014-15



Since the start of the season, influenza A (H3N2) viruses have predominated nationally; however since early March, the proportion of influenza B viruses has been increasing. During week 17, 91% of all influenza positive specimens reported were influenza B viruses, and influenza B viruses predominated in all 10 regions.

Novel Influenza A Virus: One human infection with a novel influenza A virus was reported by the state of Ohio. The person was infected with an influenza A (H1N1) variant (H1N1v) virus and died from complications as a result of the infection. The patient worked at a livestock facility that housed swine but no direct contact with swine was reported in the week prior to illness onset. No ongoing human-to-human transmission has been identified.

Early identification and investigation of human infections with novel influenza A viruses are critical in order to evaluate the extent of the outbreak and possible human-to-human transmission. Additional information on influenza in swine, variant influenza infection in humans, and strategies to interact safely with swine can be found at http://www.cdc.gov/flu/swineflu/index.htm.

Influenza Virus Characterization*: CDC has characterized 1,910 influenza viruses [50 A(H1N1)pdm09, 1,227 A(H3N2), and 633 influenza B viruses] collected by U.S. laboratories since October 1, 2014.

Influenza A Virus [1,277]

- **A(H1N1)pdm09 [50]:** All 50 H1N1 viruses tested were characterized as A/California/7/2009-like, the influenza A (H1N1) component of the 2014-2015 Northern Hemisphere influenza vaccine.

- **A(H3N2) [1,227]:** 243 (19.8%) of the 1,227 H3N2 viruses tested have been characterized as A/Texas/50/2012-like, the influenza A (H3N2) component of the 2014-2015 Northern Hemisphere influenza vaccine. 984 (80.2%) of the 1,227 viruses tested showed either reduced titers with antiserum produced against A/Texas/50/2012 or belonged to a genetic group that typically shows reduced titers to A/Texas/50/2012. Among viruses that showed reduced titers with antiserum raised against A/Texas/50/2012, most were antigenically similar to A/Switzerland/9715293/2013, the H3N2 virus selected for the 2015 Southern Hemisphere influenza vaccine. A/Switzerland/9715293/2013 is related to, but antigenically and genetically distinguishable from, the A/Texas/50/2012 vaccine virus. A/Switzerland-like H3N2 viruses were first detected in the United States in small numbers in March of 2014 and began to increase through the spring and summer.

Influenza B Virus [633]

443 (70.0%) of the influenza B viruses tested belong to B/Yamagata/16/88 lineage and the remaining 190 (30.0%) influenza B viruses tested belong to B/Victoria/02/87 lineage.

- **Yamagata Lineage [443]:** 432 (97.5%) of the 443 B/Yamagata-lineage viruses were characterized as B/Massachusetts/2/2012-like, which is included as an influenza B component of the 2014-2015 Northern Hemisphere trivalent and quadrivalent influenza vaccines. Eleven (2.5%) of the B/Yamagata-lineage viruses tested showed reduced titers to B/Massachusetts/2/2012.

- **Victoria Lineage [190]:** 185 (97.4%) of the 190 B/Victoria-lineage viruses were characterized as B/Brisbane/60/2008-like, the virus that is included as an influenza B component of the 2014-2015 Northern Hemisphere quadrivalent influenza vaccine. Five (2.6%) of the B/Victoria-lineage viruses tested showed reduced titers to B/Brisbane/60/2008.

*CDC routinely uses hemagglutination inhibition (HI) assays to antigenically characterize influenza viruses year-round to compare how similar currently circulating influenza viruses are to those included in the influenza vaccine, and to monitor for changes in circulating influenza viruses. However, a portion of recent influenza A (H3N2) viruses do not grow to sufficient hemagglutination titers for antigenic characterization by HI. For many of these viruses, CDC is also performing genetic characterization to infer antigenic properties.

2015-2016 Influenza Season – U.S. Influenza Vaccine Composition: The World Health Organization (WHO) has recommended vaccine viruses for the 2015-2016 influenza season Northern Hemisphere vaccine composition, and the Food and Drug Administration's Vaccines and Related Biological Products Advisory Committee (VRBPAC) has made the vaccine composition recommendation to be used in the United States. Both agencies recommend that trivalent vaccines contain an A/California/7/2009 (H1N1)pdm09-like virus, an A/Switzerland/9715293/2013 (H3N2)-like virus, and a B/Phuket/3073/2013-like (B/Yamagata lineage) virus. It is recommended that quadrivalent vaccines, which have two influenza B viruses, contain the viruses recommended for the trivalent vaccines, as well as a B/Brisbane/60/2008-like (B/Victoria lineage) virus. This represents a change in the influenza A (H3) and influenza B (Yamagata lineage) components compared with the composition of the 2014-2015 influenza vaccine. These vaccine recommendations were based on several factors, including global influenza virologic and epidemiologic surveillance, genetic characterization, antigenic characterization, antiviral resistance, and the candidate vaccine viruses that are available for production.

Antiviral Resistance: Testing of influenza A(H1N1)pdm09, A(H3N2), and influenza B virus isolates for resistance to neuraminidase inhibitors (oseltamivir, zanamivir, and peramivir) is performed at CDC using a functional assay. Additional A(H1N1)pdm09 and A(H3N2) clinical samples are tested for mutations of the virus known to confer oseltamivir resistance. The data summarized below combine the results of both testing methods. These samples are routinely obtained for surveillance purposes rather than for diagnostic testing of patients suspected to be infected with antiviral-resistant virus.

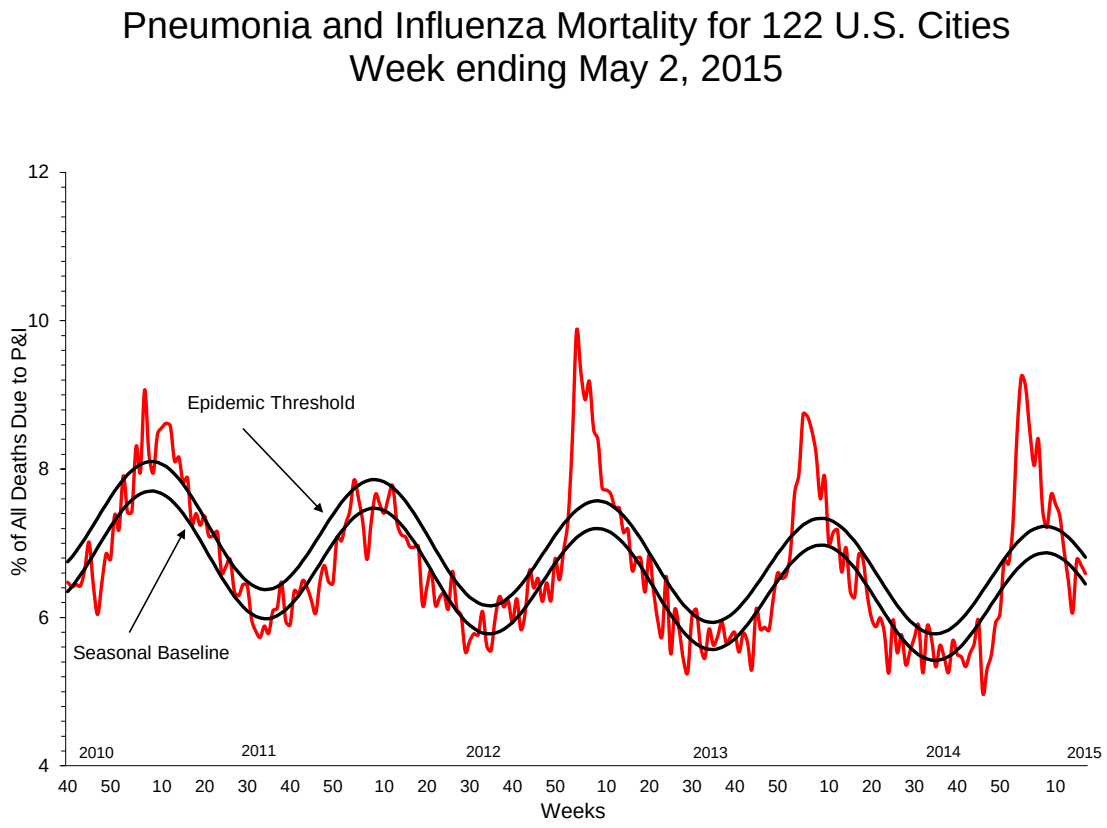
High levels of resistance to the adamantanes (amantadine and rimantadine) persist among A(H1N1)pdm09 and A(H3N2) viruses (the adamantanes are not effective against influenza B viruses). Therefore, data from adamantane resistance testing are not presented below.

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2014

	Oseltamivir		Zanamivir		Peramivir	
	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
Influenza A(H1N1)pmd09	55	1 (1.8)	49	0 (0.0)	55	1 (1.8)
Influenza A (H3N2)	3,084	0 (0.0)	3,084	0 (0.0)	1,619	0 (0.0)
Influenza B	684	0 (0.0)	684	0 (0.0)	684	0 (0.0)

In the United States, the vast majority of recently circulating influenza viruses have been susceptible to the neuraminidase inhibitor antiviral medications, oseltamivir, zanamivir, and peramivir; rare sporadic instances of oseltamivir-resistant A(H1N1)pdm09 and A(H3N2) viruses have been detected worldwide. Antiviral treatment is recommended as early as possible for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at high risk for serious influenza-related complications. Additional information on recommendations for treatment and chemoprophylaxis of influenza virus infection with antiviral agents is available at http://www.cdc.gov/flu/antivirals/index.htm.

Pneumonia and Influenza (P&I) Mortality Surveillance: During week 17, 6.6% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 6.8% for week 17.

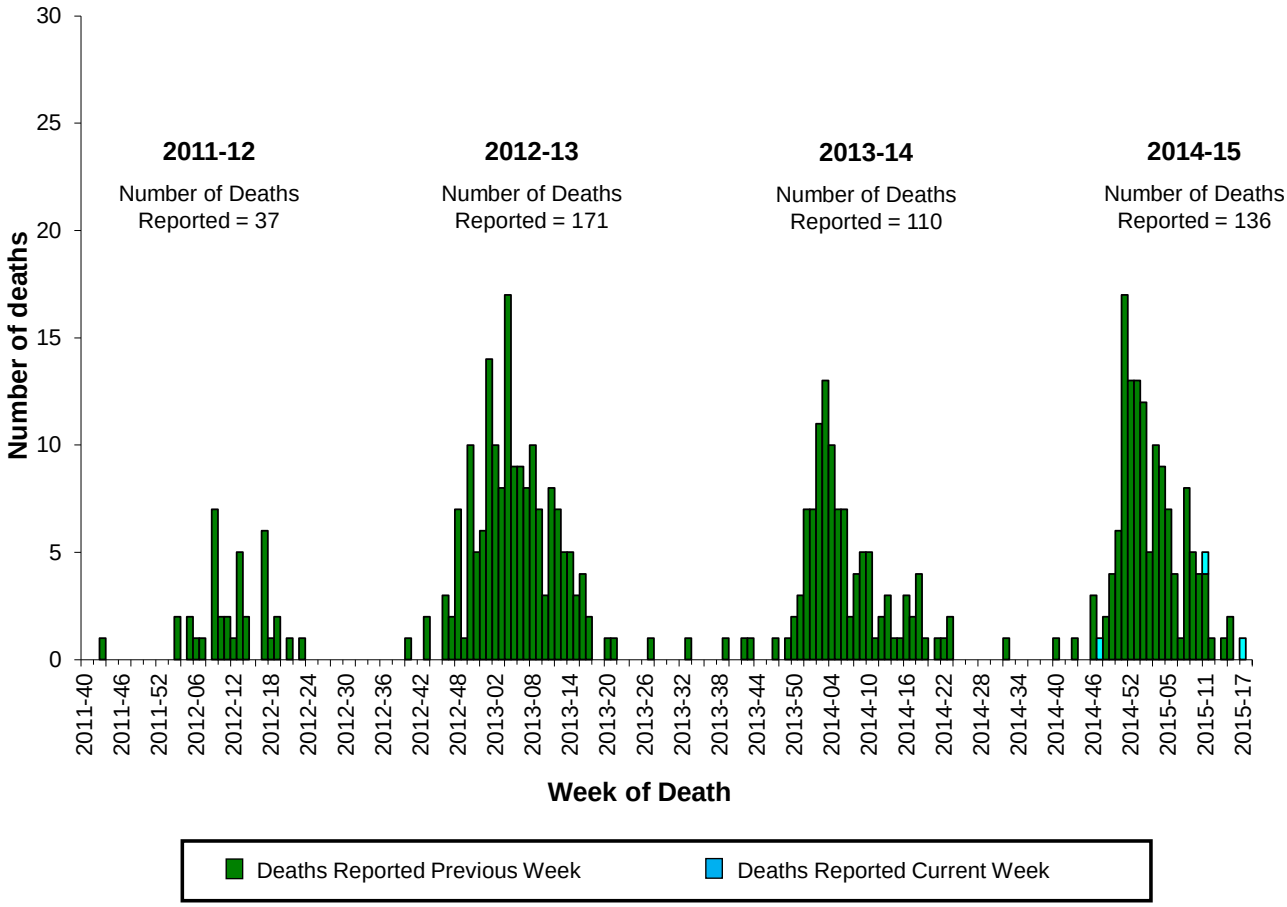


For the 2014-2015 influenza season, CDC/Influenza Division and the National Center for Health Statistics (NCHS) are collaborating on a pilot project to use NCHS mortality surveillance data for the rapid assessment of pneumonia and influenza (P&I) mortality. To view the data, please click here.

Influenza-Associated Pediatric Mortality: Three influenza-associated pediatric deaths were reported to CDC during week 17. One death was associated with an influenza A (H3) virus and occurred during week 11 (the week ending March 21, 2015). Two deaths were associated with an influenza B virus and occurred during weeks 47 and 17 (the weeks ending November 22, 2014 and May 2, 2015, respectively).

A total of 136 influenza-associated pediatric deaths have been reported during the 2014-2015 season from New York City [3] and 39 states (Arizona [3], Arkansas [4], California [6], Colorado [6], Florida [3], Georgia [1], Illinois [3], Indiana [1], Iowa [3], Kansas [2], Kentucky [3], Louisiana [2], Maryland [1], Massachusetts [1], Michigan [2], Minnesota [10], Mississippi [1], Missouri [1], Nebraska [1], Nevada [8], New Jersey [1], New Mexico [1], New York [3], North Carolina [2], Ohio [6], Oklahoma [7], Oregon [1], Pennsylvania [3], Rhode Island [2], South Carolina [3], South Dakota [1], Tennessee [9], Texas [16], Utah [2], Virginia [5], Washington [1], Wisconsin [6], West Virginia [1], and Wyoming [1]).

Number of Influenza-Associated Pediatric Deaths by Week of Death:
2011-2012 season to present



Influenza-Associated Hospitalizations: The Influenza Hospitalization Surveillance Network (FluSurv-NET) conducts population-based surveillance for laboratory-confirmed influenza-related hospitalizations in children younger than 18 years of age (since the 2003-2004 influenza season) and adults (since the 2005-2006 influenza season).

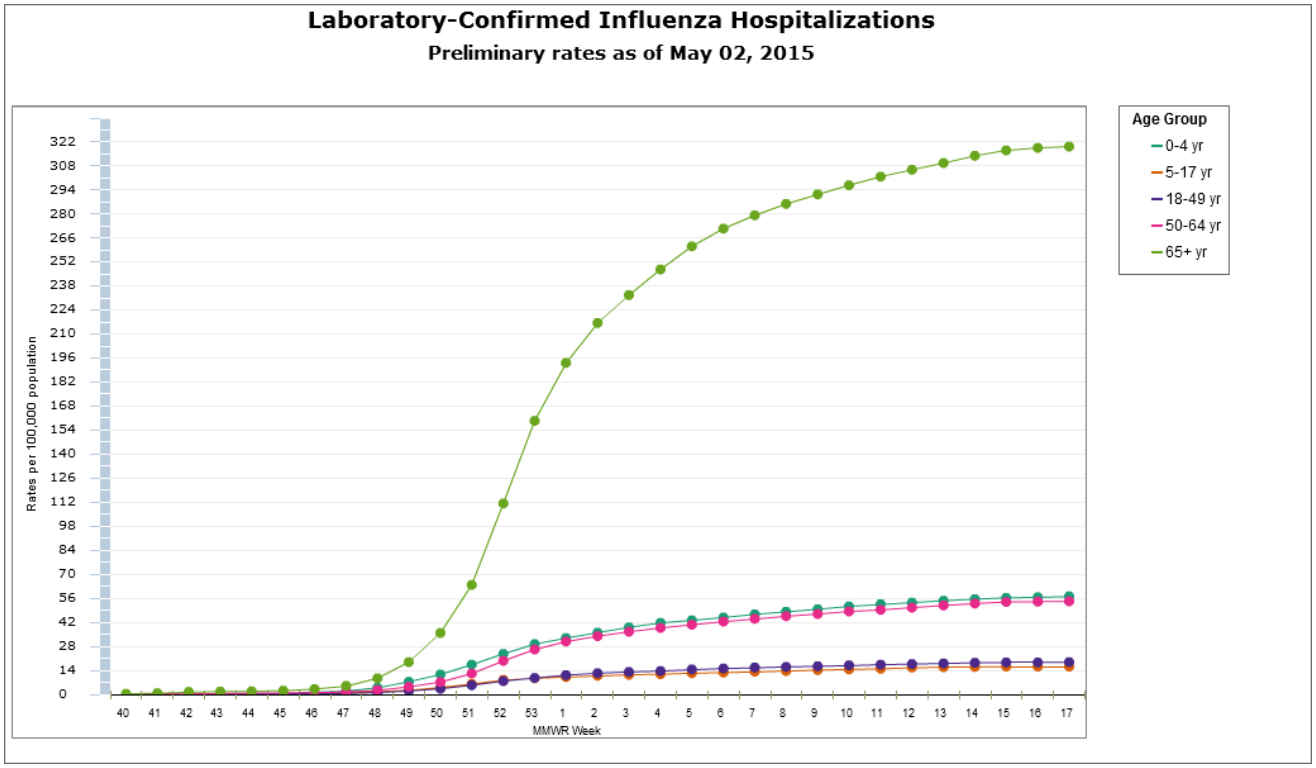
The FluSurv-NET covers more than 70 counties in the 10 Emerging Infections Program (EIP) states (CA, CO, CT, GA, MD, MN, NM, NY, OR, and TN) and additional Influenza Hospitalization Surveillance Project (IHSP) states. The IHSP began during the 2009-2010 season to enhance surveillance during the 2009 H1N1 pandemic. IHSP sites included IA, ID, MI, OK and SD during the 2009-2010 season; ID, MI, OH, OK, RI, and UT during the 2010-2011 season; MI, OH, RI, and UT during the 2011-2012 season; IA, MI, OH, RI, and UT during the 2012-2013 season; and MI, OH, and UT during the 2013-2014 and 2014-2015 seasons.

Data gathered are used to estimate age-specific hospitalization rates on a weekly basis, and describe characteristics of persons hospitalized with severe influenza illness. The rates provided are likely to be an underestimate as influenza-related hospitalizations can be missed, either because testing is not performed, or because cases may be attributed to other causes of pneumonia or other common influenza-related complications.

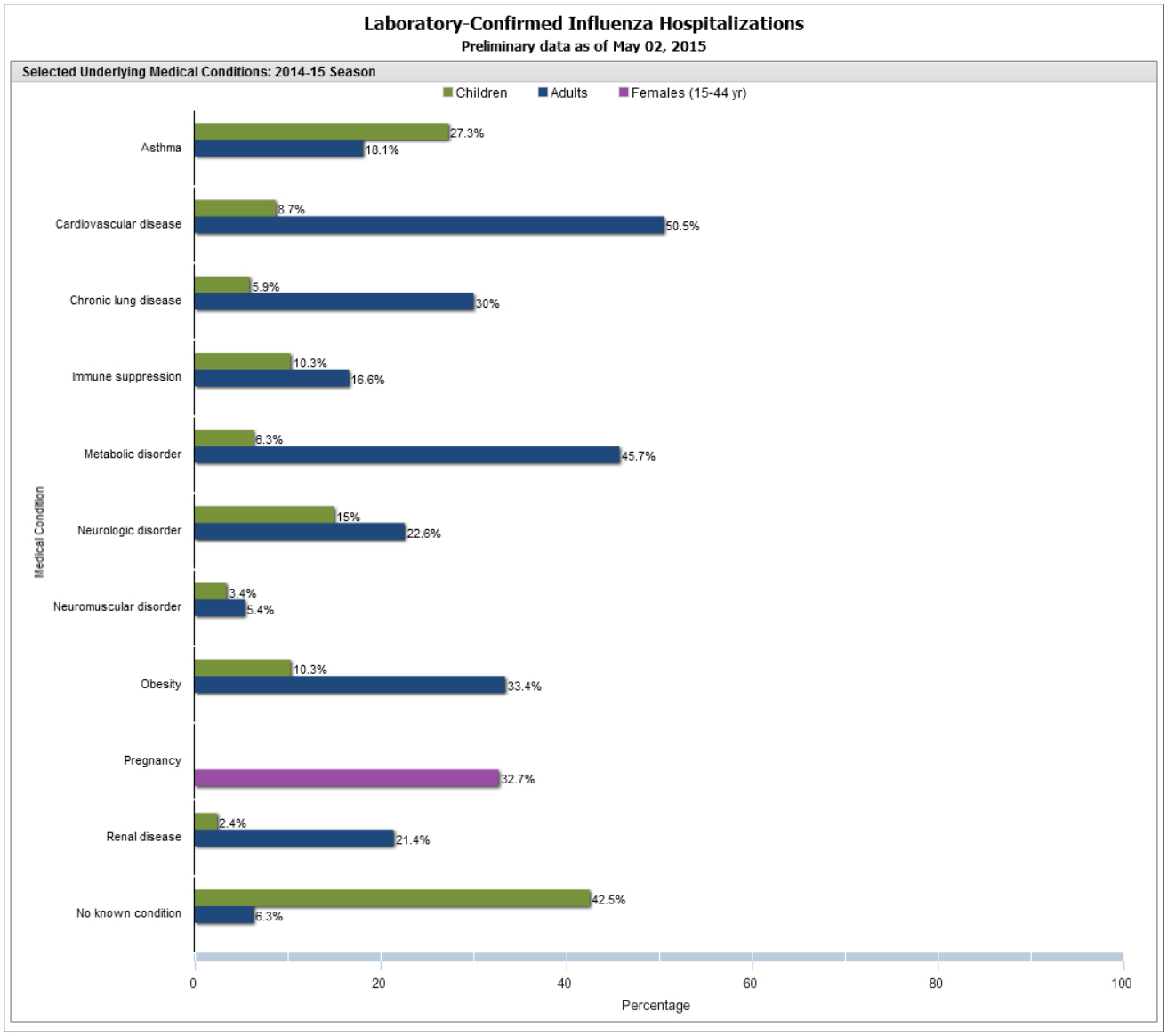
Between October 1, 2014 and April 30, 2015, 17,735 laboratory-confirmed influenza-associated hospitalizations were reported. The overall hospitalization rate was 64.8 per 100,000 population. The highest rate of hospitalization was among adults aged ≥65 years (319.2 per 100,000 population), followed by children aged 0-4 years (57.1 per 100,000 population). Among all hospitalizations, 15,224 (85.8%) were associated with influenza A, 2,360 (13.3%) with influenza B, 93 (0.5%) with influenza A and B co-infection, and 58 (0.3%) had no virus type information. Among those with influenza A subtype information, 5,418 (99.7%) were A(H3N2) and 15 (0.3%) were A(H1N1)pdm09.

Clinical findings are preliminary and based on 7,857 (44.3%) cases with complete medical chart abstraction. The majority (93.7%) of hospitalized adults had at least one reported underlying medical condition; the most commonly reported were cardiovascular disease, metabolic disorders, and obesity. There were 878 hospitalized children with complete medical chart abstraction, 373 (42.5%) had no identified underlying medical conditions. The most commonly reported underlying medical conditions among pediatric patients were asthma, neurologic disorders, and obesity. Among the 562 hospitalized women of childbearing age (15-44 years), 184 (32.7%) were pregnant.

Additional FluSurv-NET data can be found at: http://gis.cdc.gov/GRASP/Fluview/FluHospRates.html and http://gis.cdc.gov/grasp/fluview/FluHospChars.html.



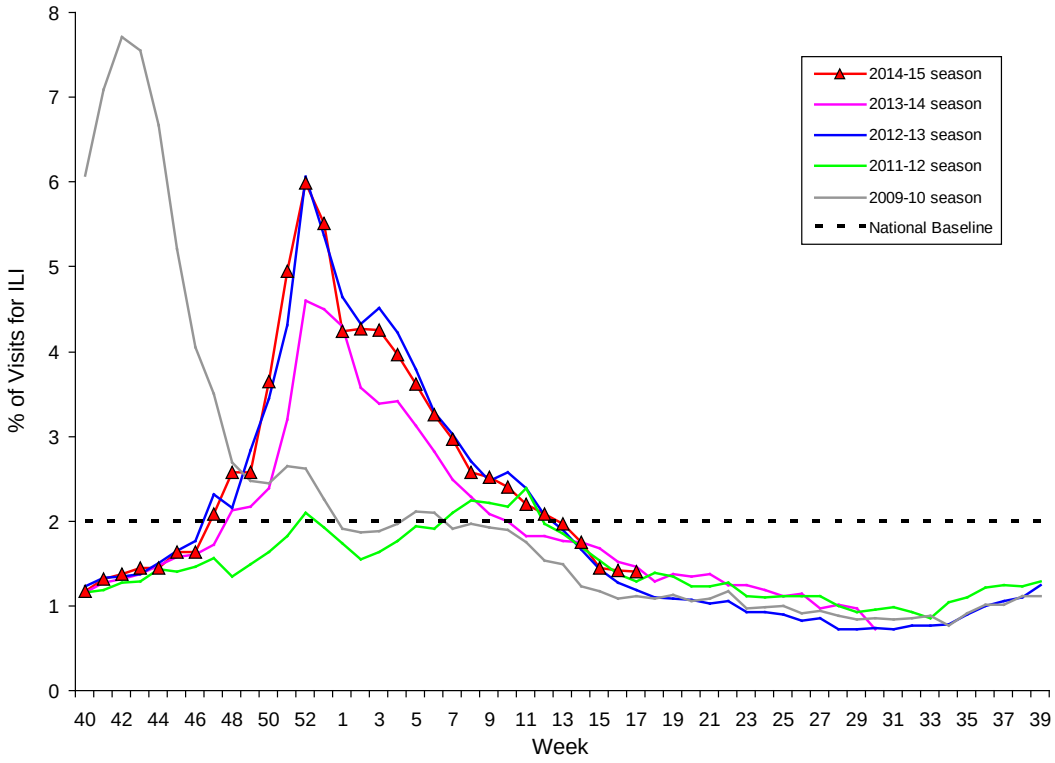
Data from the Influenza Hospitalization Surveillance Network (FluSurv-NET), a population-based surveillance for influenza related hospitalizations in children and adults in 13 U.S. states. Cumulative incidence rates are calculated using the National Center for Health Statistics' (NCHS) population estimates for the counties included in the surveillance catchment area.



FluSurv-NET data are preliminary and displayed as they become available. Therefore, figures are based on varying denominators as some variables represent information that may require more time to be collected. Data are refreshed and updated weekly. Asthma includes a medical diagnosis of asthma or reactive airway disease; Cardiovascular diseases include conditions such as coronary heart disease, cardiac valve disorders, congestive heart failure, and pulmonary hypertension; does not include isolated hypertension; Chronic lung diseases include conditions such as chronic obstructive pulmonary disease, bronchiolitis obliterans, chronic aspiration pneumonia, and interstitial lung disease; Immune suppression includes conditions such as immunoglobulin deficiency, leukemia, lymphoma, HIV/AIDS, and individuals taking immunosuppressive medications; Metabolic disorders include conditions such as diabetes mellitus; Neurologic diseases include conditions such as seizure disorders, cerebral palsy, and cognitive dysfunction; Neuromuscular diseases include conditions such as multiple sclerosis and muscular dystrophy; Obesity was assigned if indicated in patient's medical chart or if body mass index (BMI) >30 kg/m^2; Pregnancy percentage calculated using number of female cases aged between 15 and 44 years of age as the denominator; Renal diseases include conditions such as acute or chronic renal failure, nephrotic syndrome, glomerulonephritis, and impaired creatinine clearance; No known condition indicates that the case did not have any known high risk medical condition indicated in medical chart at the time of hospitalization.

Outpatient Illness Surveillance: Nationwide during week 17, 1.4% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is below the national baseline of 2.0%. *(ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat.)*

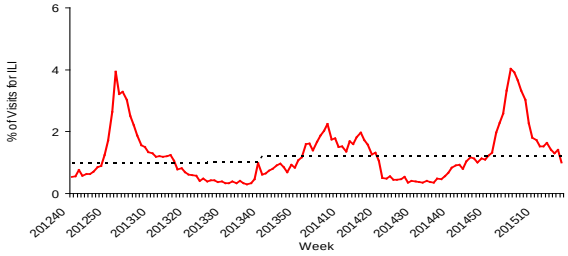
Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2014-2015 and Selected Previous Seasons



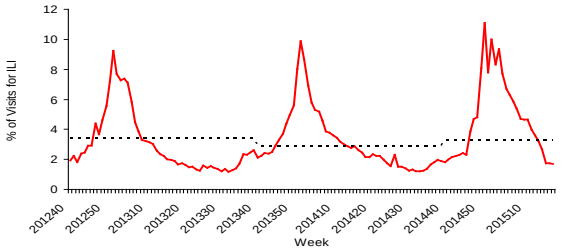
There was no week 53 in the previous influenza seasons displayed above; therefore the week 53 data point for those seasons is an average of weeks 52 and 1.

On a regional level, the percentage of outpatient visits for ILI ranged from 0.7% to 2.2% during week 17. All 10 regions reported a proportion of outpatient visits for ILI below their region-specific baseline levels.

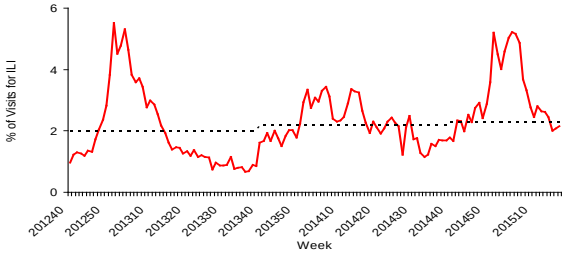
Region 1 - CT, ME, MA, NH, RI, VT



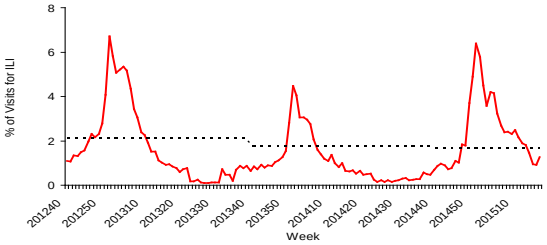
Region 6 - AR, LA, NM, OK, TX



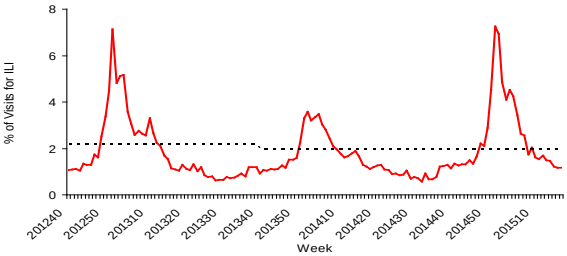
Region 2 - NJ, NY, PR, USVI



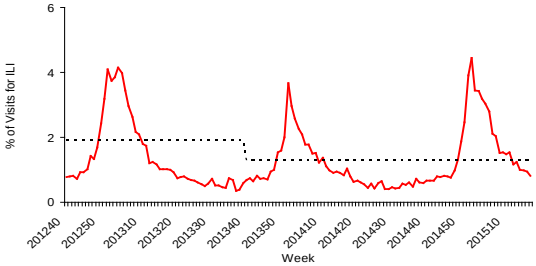
Region 7 - IA, KS, MO, NE



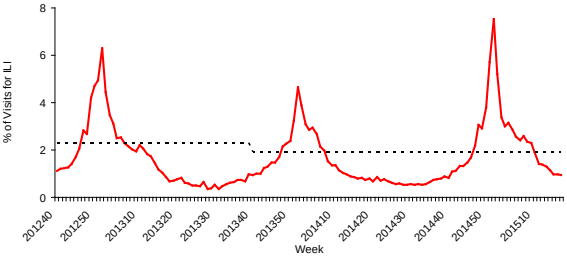
Region 3 - DE, DC, MD, PA, VA, WV



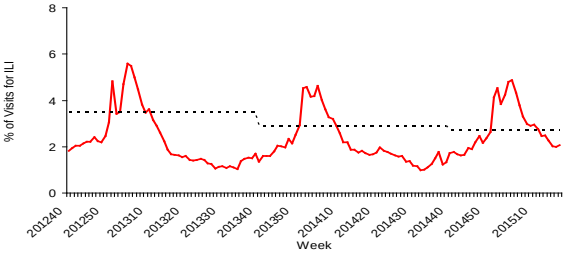
Region 8 - CO, MT, ND, SD, UT, WY



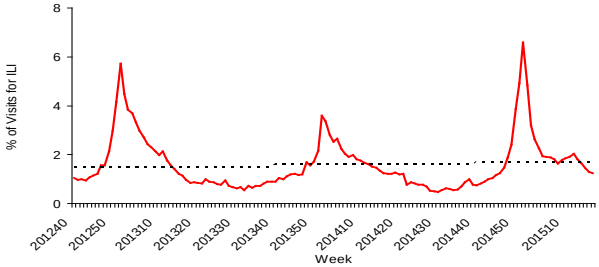
Region 4 - AL, FL, GA, KY, MS, NC, SC, TN



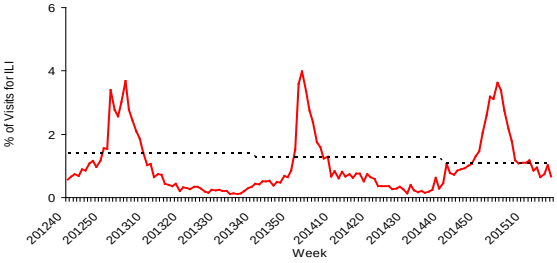
Region 9 - AZ, CA, HI, NV



Region 5 - IL, IN, MI, MN, OH, WI



Region 10 - AK, ID, OR, WA

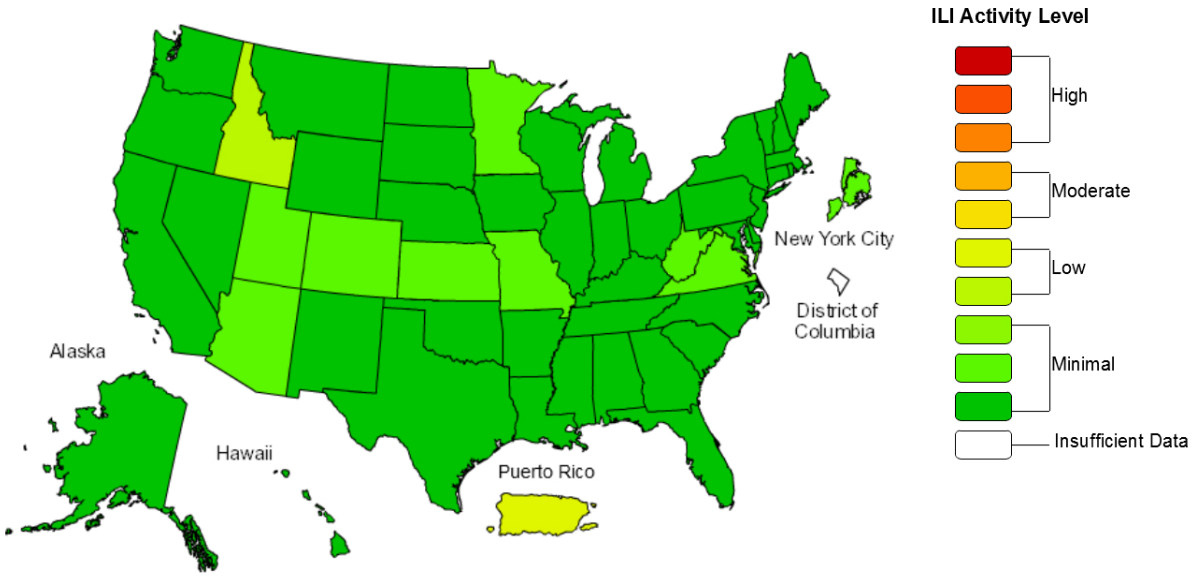


ILINet Activity Indicator Map: Data collected in ILINet are used to produce a measure of ILI activity* by state. Activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during weeks with little or no influenza virus circulation. Activity levels range from minimal, which would correspond to ILI activity from outpatient clinics being below or only slightly above the average, to high, which would correspond to ILI activity from outpatient clinics being much higher than average.

During week 17, the following ILI activity levels were calculated:

- Puerto Rico and one state (Idaho) experienced low ILI activity.
- New York City and 49 states (Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming) experienced minimal ILI activity.
- Data were insufficient to calculate an ILI activity level from the District of Columbia.

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2014-15 Influenza Season Week 17 ending May 02, 2015

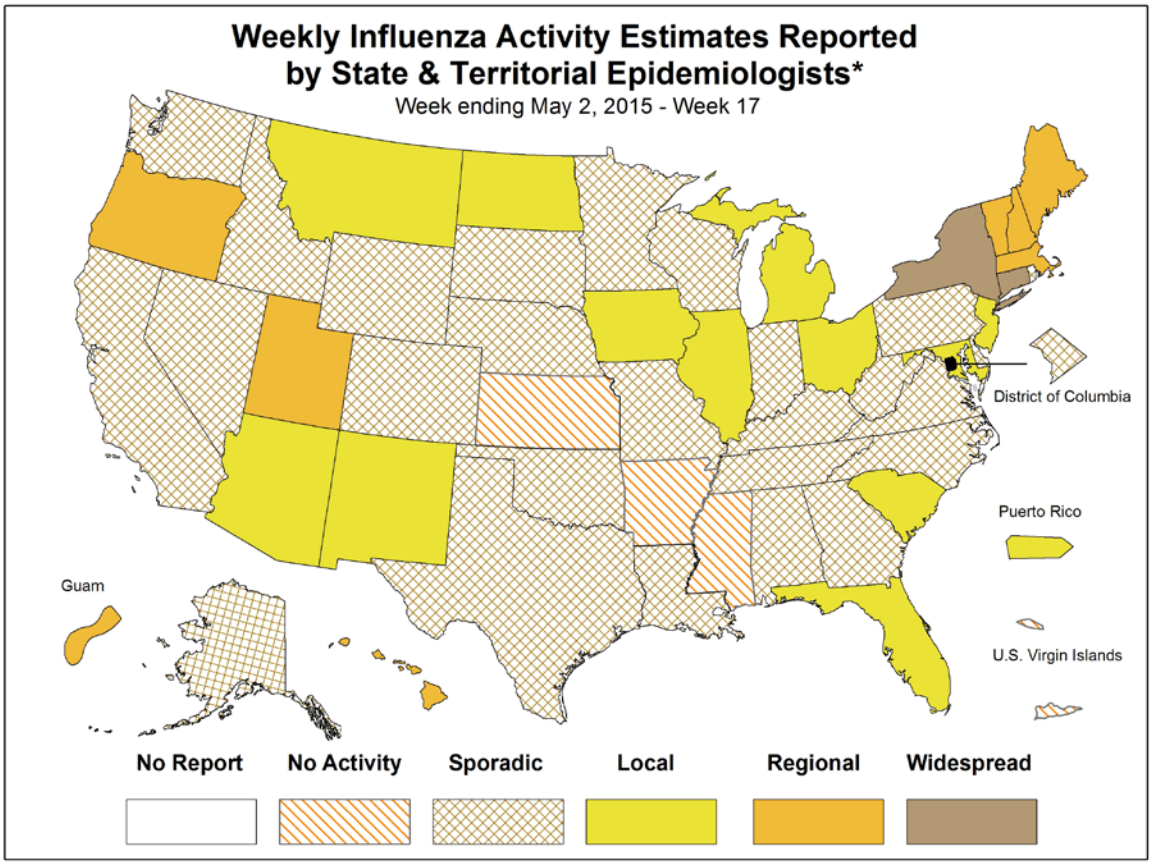


*This map uses the proportion of outpatient visits to health care providers for ILI to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.
Data collected in ILINet may disproportionally represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state.
Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map is based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data are received. Differences in the data presented here by CDC and independently by some state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.

Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists: The influenza activity reported by state and territorial epidemiologists indicates geographic spread of influenza viruses, but does not measure the severity of influenza activity.

During week 17, the following influenza activity was reported:

- Two states (Connecticut and New York) reported widespread influenza activity.
- Guam and seven states (Hawaii, Maine, Massachusetts, New Hampshire, Oregon, Utah, and Vermont) reported regional influenza activity.
- Puerto Rico and 12 states (Arizona, Florida, Illinois, Iowa, Maryland, Michigan, Montana, New Jersey, New Mexico, North Dakota, Ohio, and South Carolina) reported local activity.
- The District of Columbia and 26 states (Alabama, Alaska, California, Colorado, Delaware, Georgia, Idaho, Indiana, Kentucky, Louisiana, Minnesota, Missouri, Nebraska, Nevada, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin, and Wyoming) reported sporadic activity.
- The U.S. Virgin Islands and three states (Arkansas, Kansas, and Mississippi) reported no influenza activity.



* This map indicates geographic spread & does not measure the severity of influenza activity

Additional National and International Influenza Surveillance Information

FluView Interactive: FluView includes enhanced web-based interactive applications that can provide dynamic visuals of the influenza data collected and analyzed by CDC. These FluView Interactive applications allow people to create customized, visual interpretations of influenza data, as well as make comparisons across flu seasons, regions, age groups and a variety of other demographics. To access these tools, visit http://www.cdc.gov/flu/weekly/fluviewinteractive.htm.

U.S. State and local influenza surveillance: Click on a jurisdiction below to access the latest local influenza information.

Alabama	Alaska	Arizona	Arkansas	California
Colorado	Connecticut	Delaware	District of Columbia	Florida
Georgia	Hawaii	Idaho	Illinois	Indiana
Iowa	Kansas	Kentucky	Louisiana	Maine
Maryland	Massachusetts	Michigan	Minnesota	Mississippi
Missouri	Montana	Nebraska	Nevada	New Hampshire
New Jersey	New Mexico	New York	North Carolina	North Dakota
Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island
South Carolina	South Dakota	Tennessee	Texas	Utah
Vermont	Virginia	Washington	West Virginia	Wisconsin
Wyoming	New York City	Puerto Rico	Virgin Islands	

Google Flu Trends: Google Flu Trends uses aggregated Google search data in a model created in collaboration with CDC to estimate influenza activity in the United States. For more information and activity estimates from the United States and worldwide, see http://www.google.org/flutrends/.

World Health Organization: Additional influenza surveillance information from participating WHO member nations is available through FluNet and the Global Epidemiology Reports.

WHO Collaborating Centers for Influenza located in Australia, China, Japan, the United Kingdom, and the United States (CDC in Atlanta, Georgia).

Europe: WHO/Europe at http://www.flunewseurope.org/ and the European Centre for Disease Prevention and Control at http://ecdc.europa.eu/en/publications/surveillance_reports/influenza/Pages/weekly_influenza_surveillance_overview.aspx

Public Health Agency of Canada: The most up-to-date influenza information from Canada is available at http://www.phac-aspc.gc.ca/fluwatch/.

Public Health England: The most up-to-date influenza information from the United Kingdom is available at https://www.gov.uk/government/statistics/weekly-national-flu-reports.

Any links provided to non-Federal organizations are provided solely as a service to our users. These links do not constitute an endorsement of these organizations or their programs by CDC or the Federal Government, and none should be inferred. CDC is not responsible for the content of the individual organization web pages found at these links.

An overview of influenza surveillance, including a description of the NCHS mortality surveillance data, is available at: http://www.cdc.gov/flu/weekly/overview.htm.

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