

Influenza Surveillance Report

www.infectiousdisease.dhh.louisiana.gov

Week 16: 4/17/16 - 4/23/16

Influenza activity remains low in Louisiana and is continuing to decrease in the United States. The most commonly reported other respiratory viruses are Rhino/Enterovirus.

The Influenza Surveillance Summary Report describes the results of the tracking done by the Louisiana Office of Public Health Infectious Disease Epidemiology Section (IDEpi). This report relies on data supplied by sentinel surveillance sites, including hospital emergency departments (ED), laboratories and physicians' offices. Sentinel sites provide weekly data on Influenza Like Illness (ILI) and/or laboratory confirmed cases.

Taken together, ILI surveillance and laboratory surveillance provide a clear picture of the influenza activity occurring in Louisiana each week. If you have any questions about our surveillance system or would like more information, please contact Julie Hand at 504-568-8298 or julie.hand@la.gov.

ILI is defined as an illness characterized by cough and/or cold symptoms and a fever of 100° F or greater in the absence of a known cause. While not every case of ILI is a case of influenza, the CDC has found that trends in ILI from sentinel sites are a good proxy measure of the amount of influenza activity in an area. For this reason, all states and territories participating in the national surveillance program monitor weekly ILI ratios from their sentinel surveillance sites.

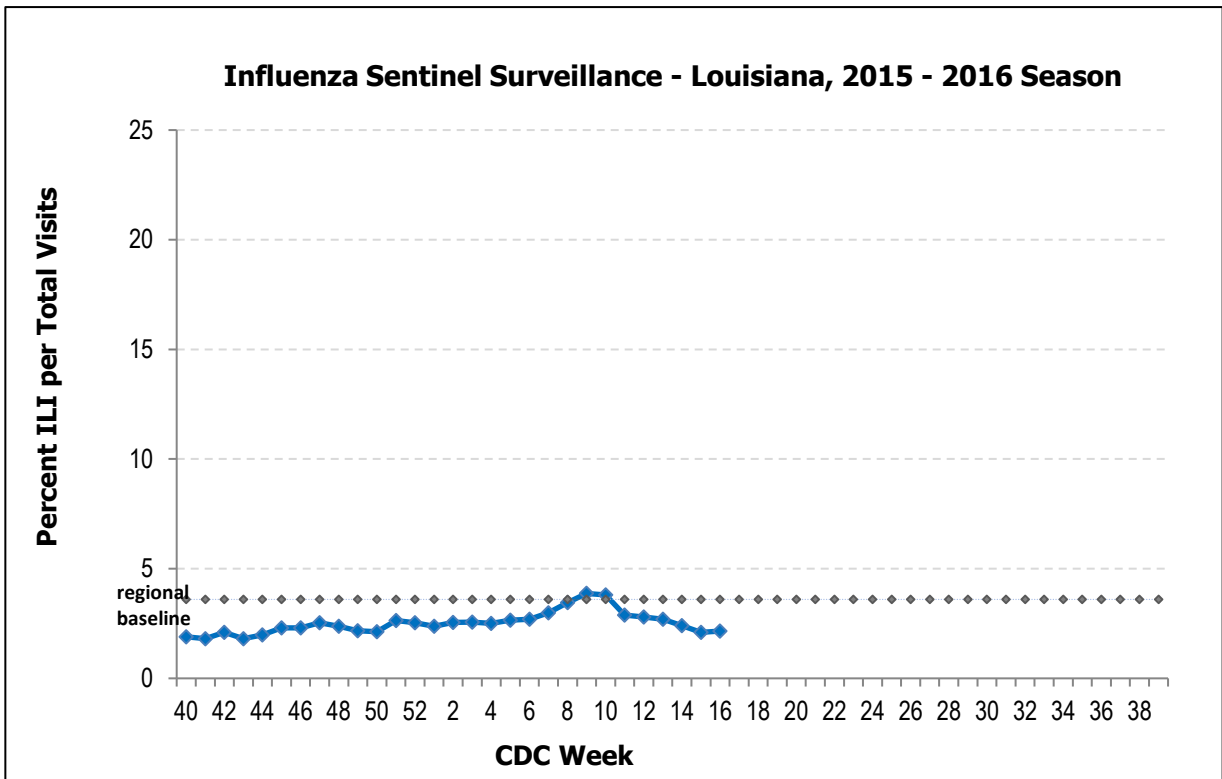


Laboratory testing: Not all sentinel sites have access to laboratory testing. However, many hospitals and physicians' offices do perform some influenza testing. Sites that test for influenza report the number of positive tests each week and the total number of tests performed each week. This information is included on page 3 of this report.

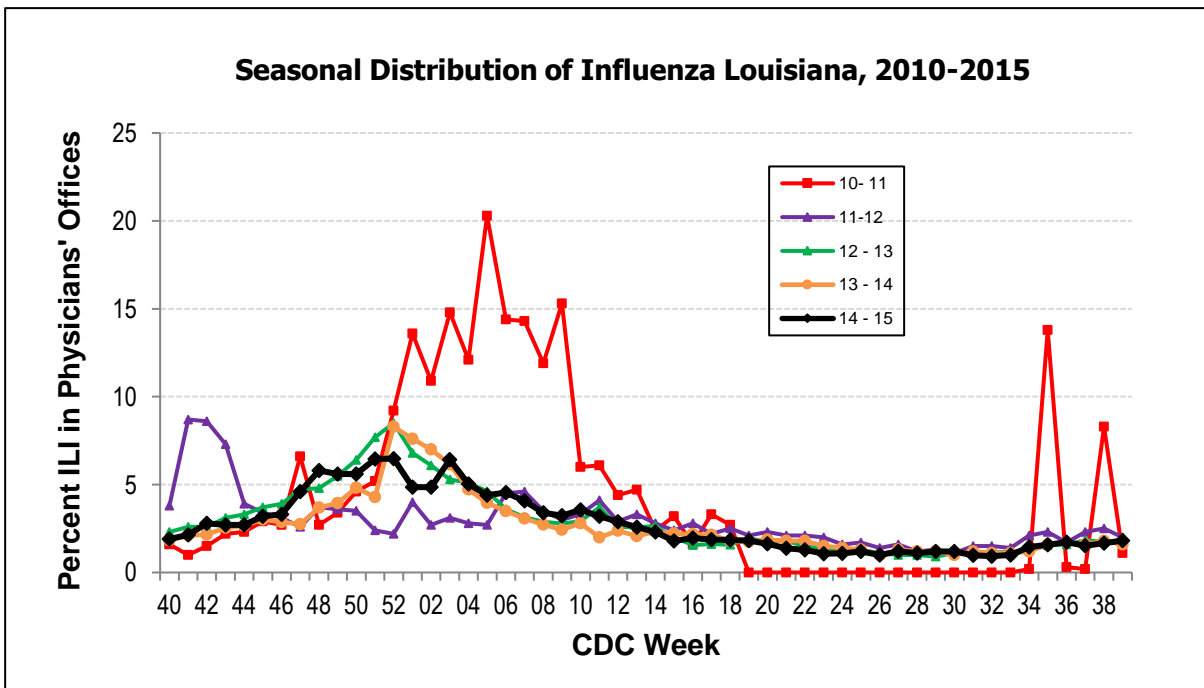
Page 2 : ILI Activity
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Page 4: Geographic Distribution
Page 5: National Data

2015-2016 Season

This graph shows the percentage of visits for ILI over the total number of visits for sentinel surveillance sites. This is the best approach to estimate the magnitude of influenza transmission. ILI counts do include some viral infections other than influenza, but experience over the last 50 years has shown that this approach is a reliable method to estimate influenza transmission. It does not show which strain of influenza virus is responsible. The page on lab surveillance does show the proportion of specimens attributable to each virus strain.

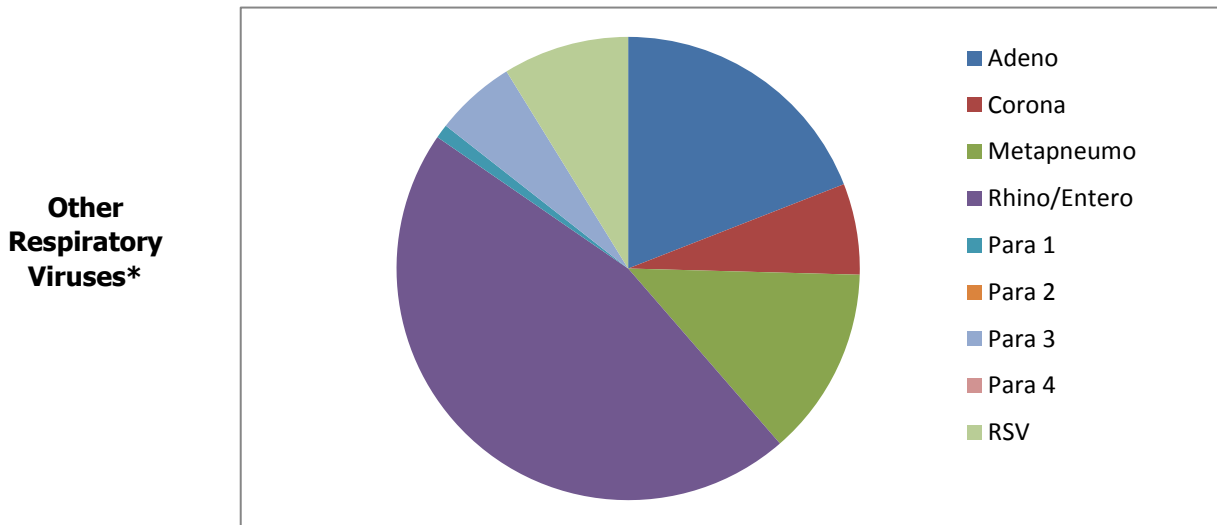
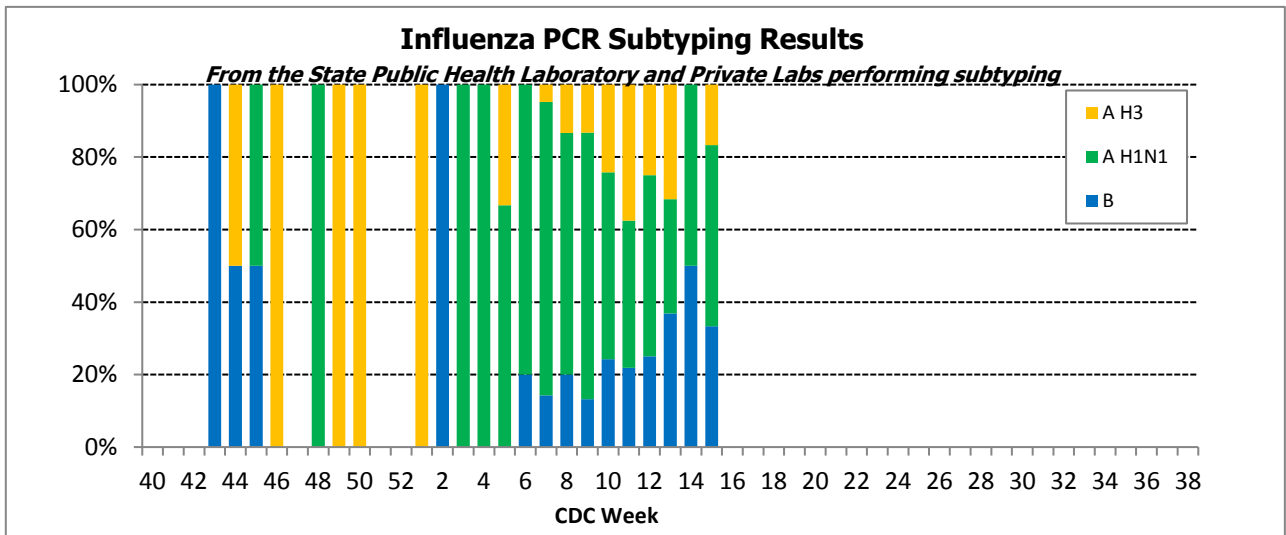
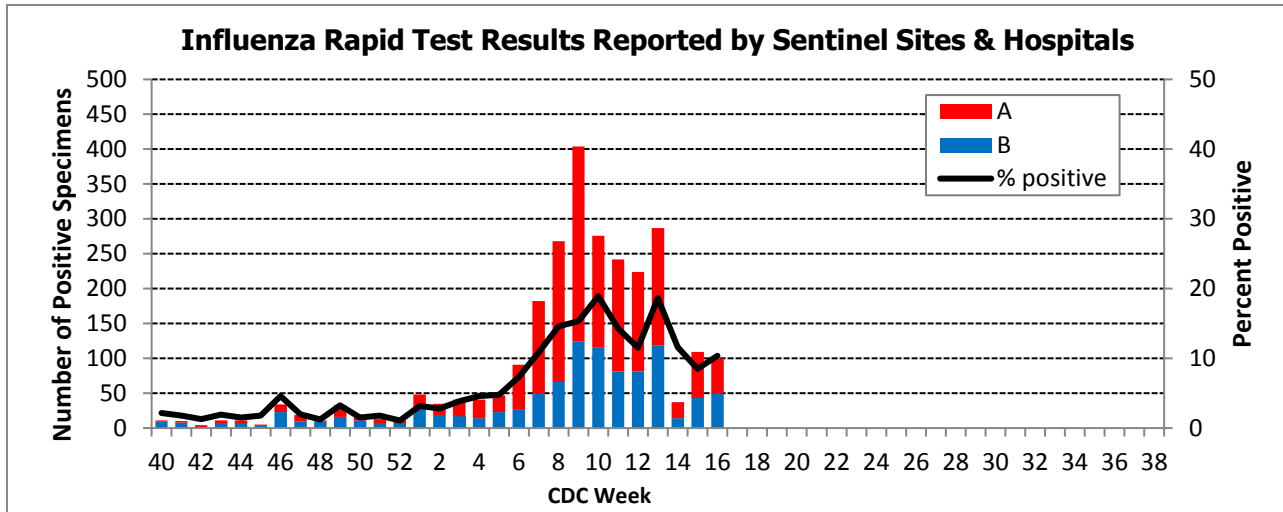


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



2015-2016 Season

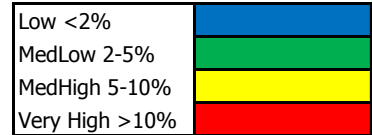
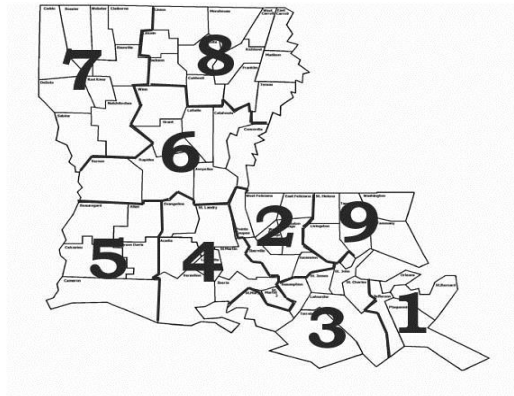
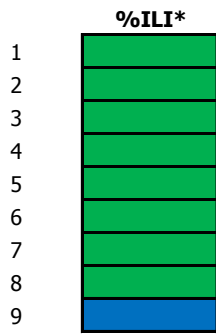
Virologic Surveillance



*Based on results from the State Public Health Laboratory Respiratory Virus Panel (RVP) Testing and other labs reporting RVP results over the last 4 weeks.

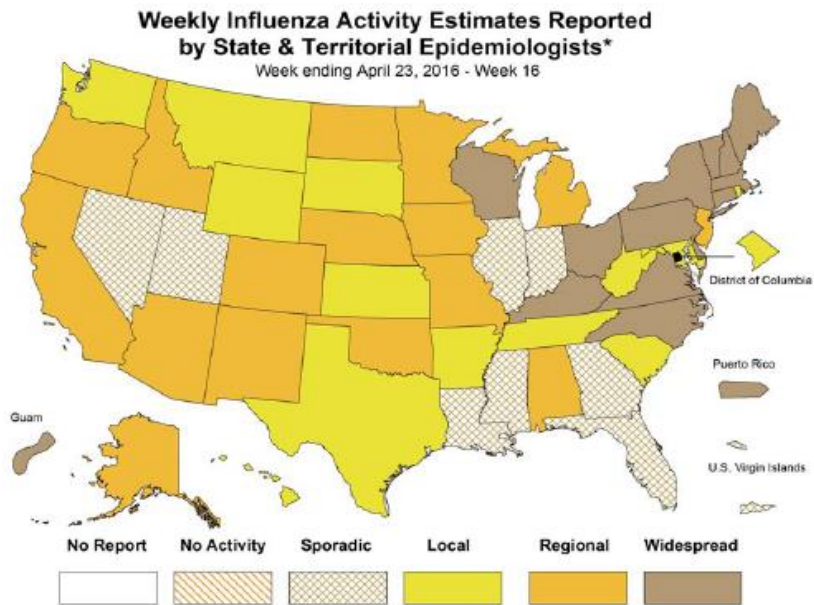
2015-2016 Season

Geographical Distribution of ILI



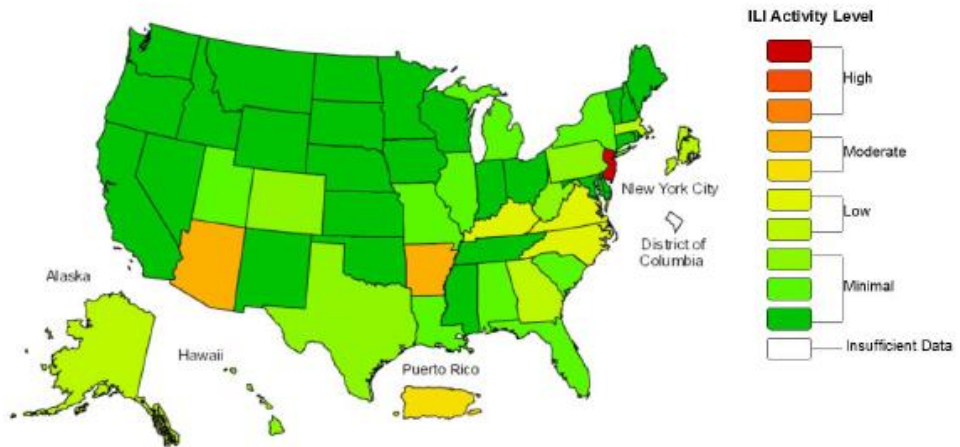
* %ILI over the last 4 weeks based on sentinel surveillance data

Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists



Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2015-16 Influenza Season Week 16 ending Apr 23, 2016

ILINet Activity Indicator Map



2015-2016 Season

National Surveillance

During week 16, influenza activity decreased in the United States.

The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.

Four influenza-associated pediatric deaths were reported.

Proportion of outpatient visits for influenza-like illness (ILI) was 2.0%, which is below the national baseline of 2.1%.

	Week 16	Cumulative
Specimens tested	651	62,542
Positive specimens	224	23,803
Positive specimens by type/subtype		
Influenza A	105 (46.9%)	17,369 (73.0%)
A (2009 H1N1)	76 (72.4%)	13,987 (80.5%)
A (H3)	25 (23.8%)	3,096 (17.8%)
A (subtyping not performed)	4 (3.8%)	286 (1.6%)
Influenza B	110 (53.1%)	6,434 (27.0%)
Yamagata lineage	45 (37.8%)	2,783 (43.3%)
Victoria lineage	31 (26.1%)	1,214 (18.9%)
Lineage not performed	43 (36.1%)	2,437 (37.9%)

Antiviral Resistance:

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2015

	Viruses tested (n)	Resistant Viruses, Number (%)	Viruses tested (n)	Resistant Viruses, Number (%)	Viruses tested (n)	Resistant Viruses, Number (%)
		Oseltamivir		Zanamivir		Peramivir
2009 Influenza A (H1N1)	1,699	13 (0.8%)	830	0 (0%)	1,699	13 (0.8%)
Influenza A (H3N2)	577	0 (0%)	577	0 (0%)	510	0 (0%)
Influenza B	850	0 (0%)	850	0 (0%)	850	0 (0%)

The majority of currently circulating viruses are susceptible to the neuraminidase inhibitor antiviral medications oseltamivir and zanamivir; however, rare sporadic cases of oseltamivir-resistant and peramivir-resistant 2009 influenza A (H1N1) and oseltamivir-resistant 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 greater 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>

Antigenic Characterization:

All 744 (100%) influenza A (H1N1) pdm09 viruses were antigenically characterized as A/California/7/2009-like, the influenza A (H1N1) component of the 2015-2016 Northern Hemisphere vaccine. All 445 H3N2 viruses were genetically sequenced and all viruses belonged to genetic groups for which a majority of viruses antigenically characterized were similar to A/Switzerland/9715293/2013, the influenza A (H3N2) component of the 2015-2016 Northern Hemisphere vaccine. All 359 (100%) B/Yamagata-lineage virus was antigenically characterized as B/Phuket/3073/2013-like, which is included as an influenza B component of the 2015-2016 Northern Hemisphere trivalent and quadrivalent influenza vaccines. 223 of 229 (97.4%) B/Victoria-lineage viruses were antigenically characterized as B/Brisbane/60/2008-like, which is included as an influenza B component of the 2015-2016 Northern Hemisphere quadrivalent influenza vaccines.