

Influenza Surveillance Report

www.infectiousdisease.dhh.louisiana.gov

Week 9: 2/23/14 - 3/1/14

Influenza activity continued to decrease in Louisiana this week. The main circulating respiratory viruses reported this week, other than influenza, are Rhino/Enterovirus and Coronavirus.

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.

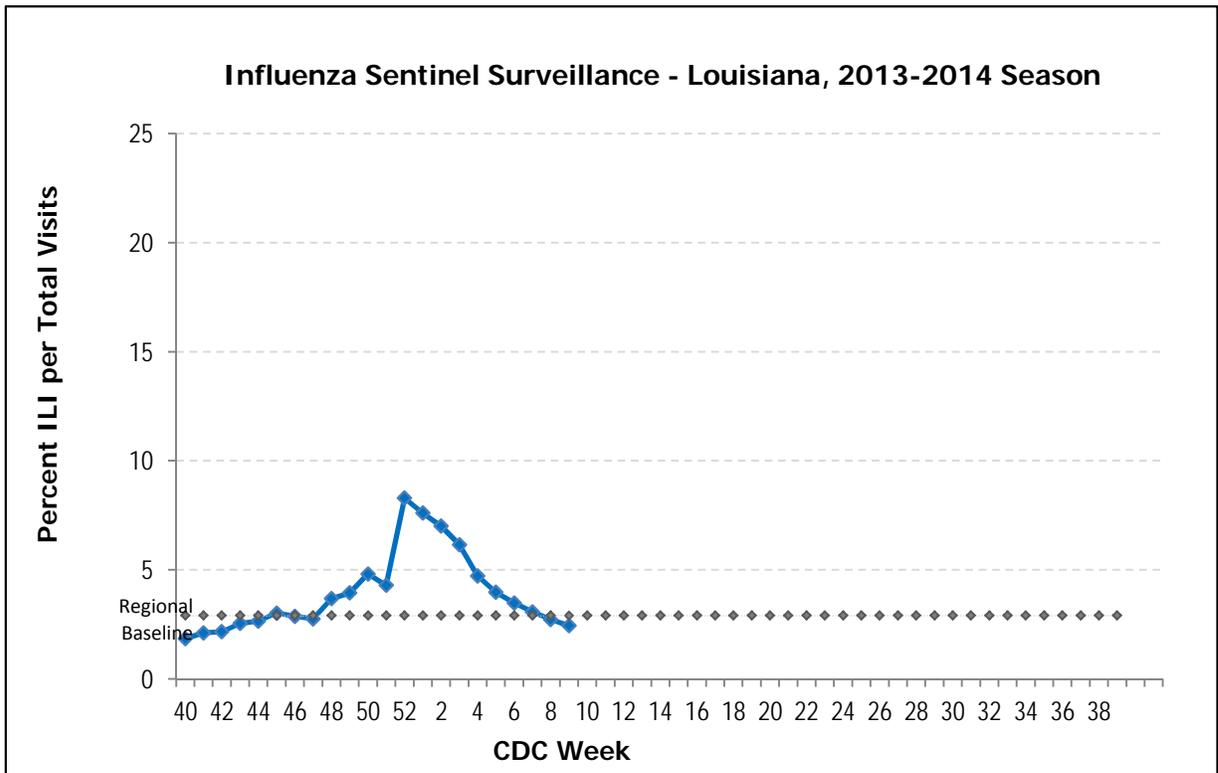


Laboratory testing: Not all sentinel sites have access to laboratory testing. However, many hospitals and physicians' offices do perform some influenza testing. Sites that test for influenza report the number of positive tests each week and the total number of tests performed each week. This information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

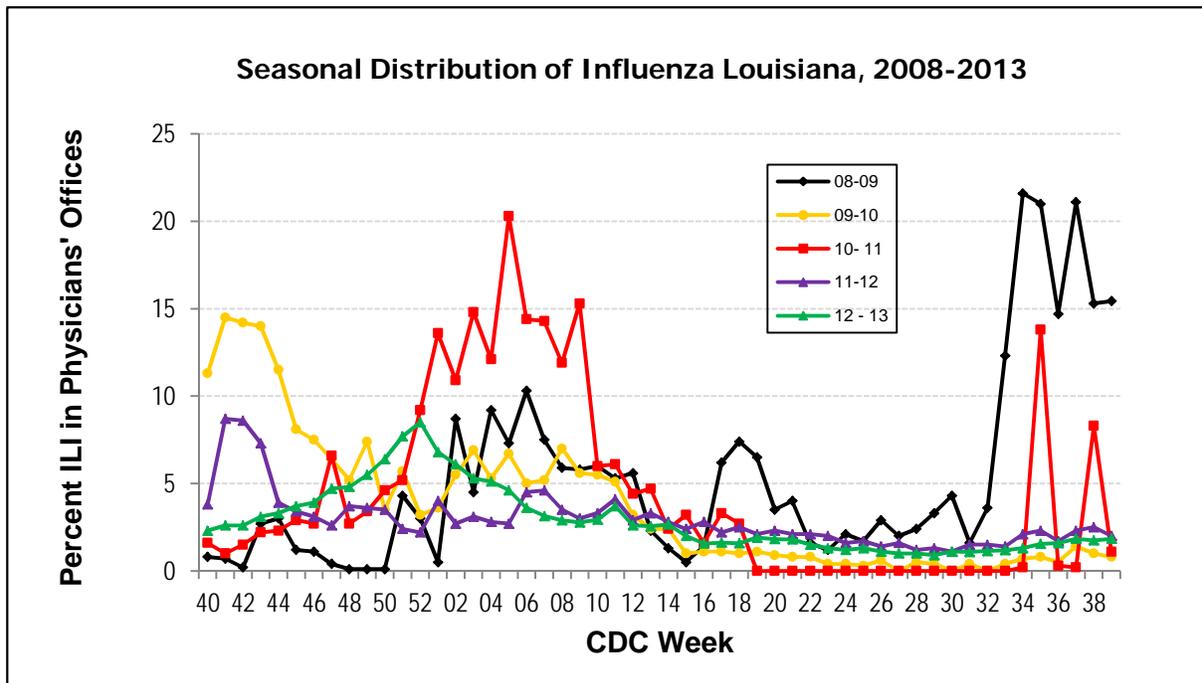
- Page 2 : ILI Activity
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- Page 5: National Surveillance

2013-2014 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.

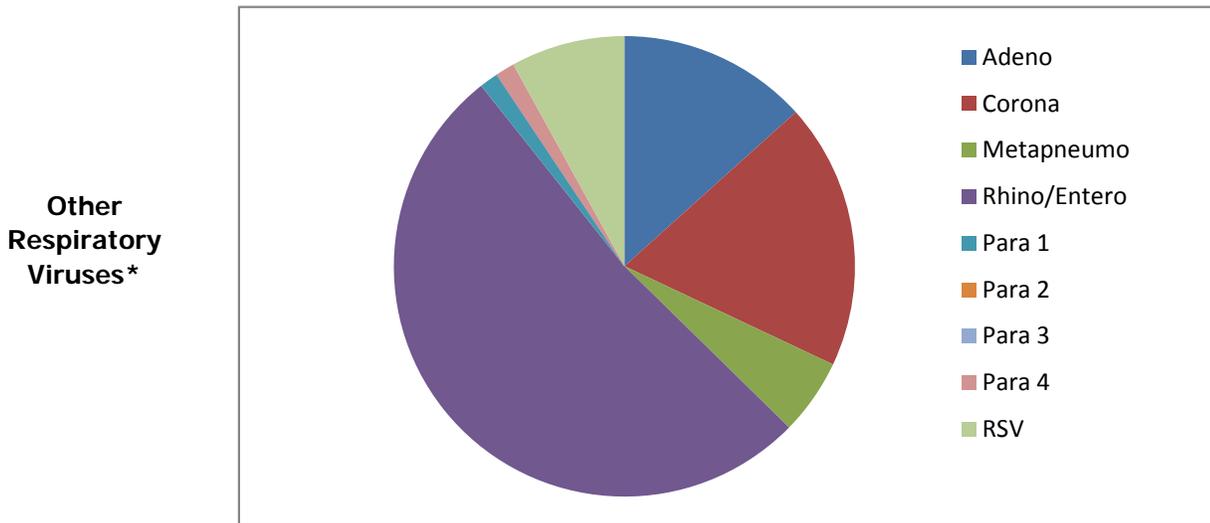
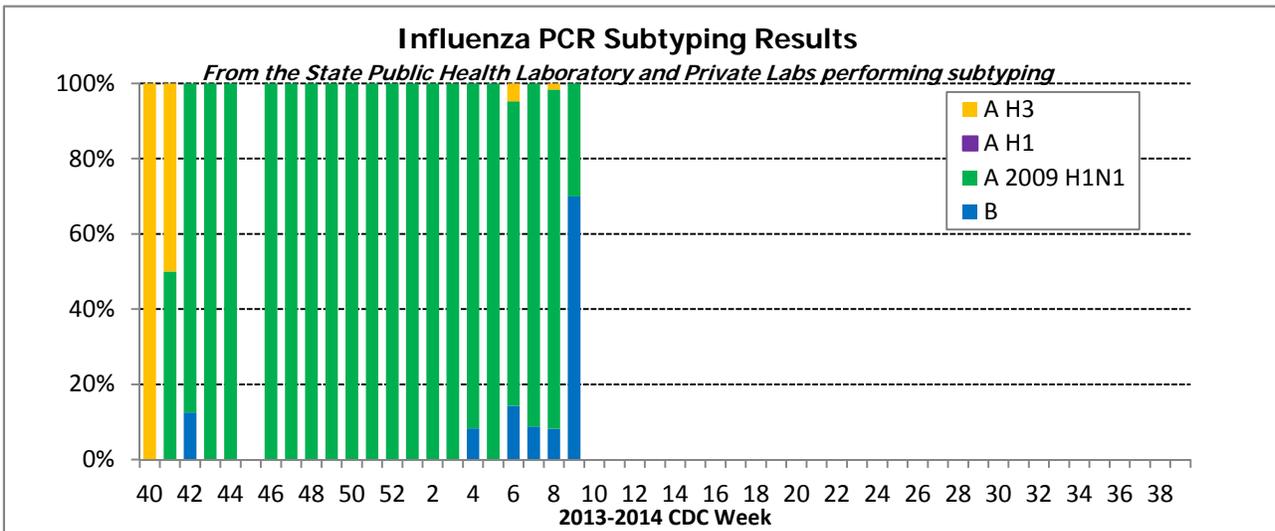
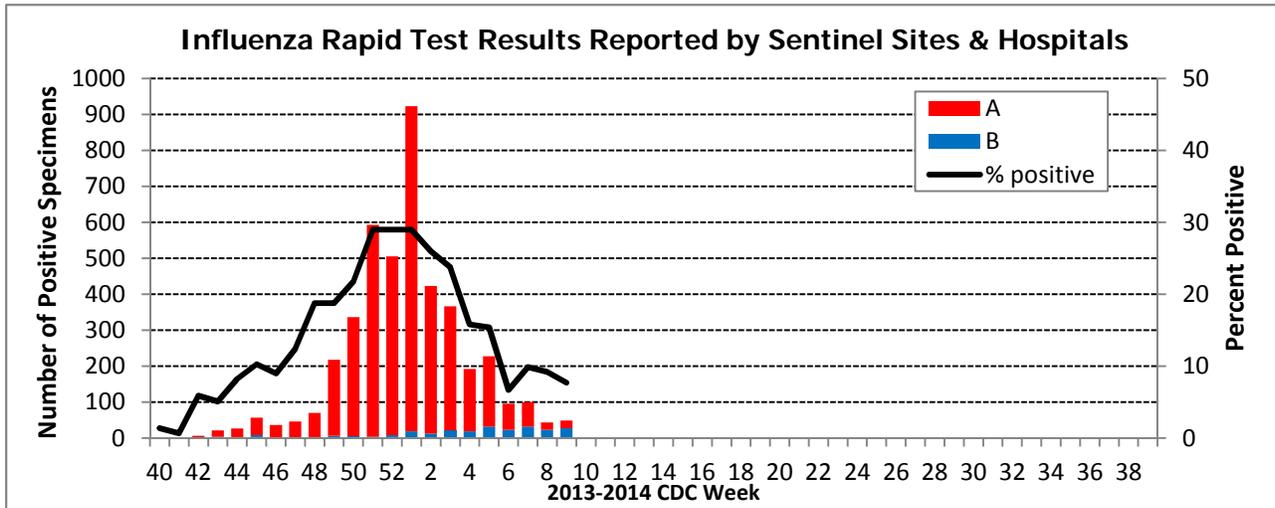


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



2013-2014 Season

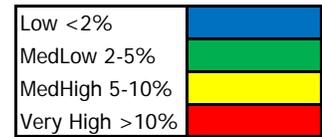
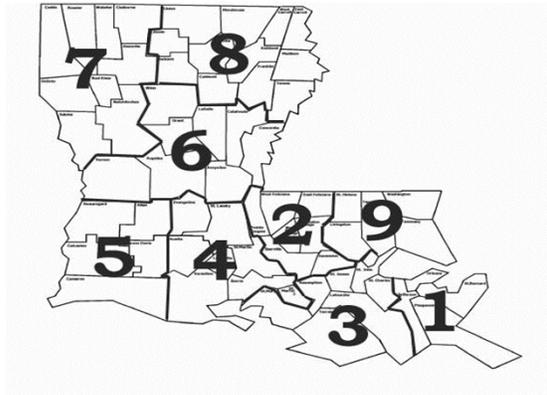
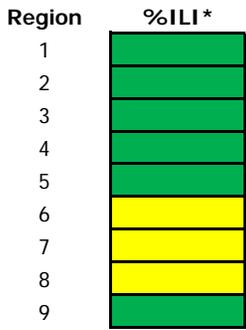
Virologic Surveillance



*Based on results from the State Public Health Laboratory Respiratory Virus Panel (RVP) Testing and other labs reporting RVP results during the current reporting week.

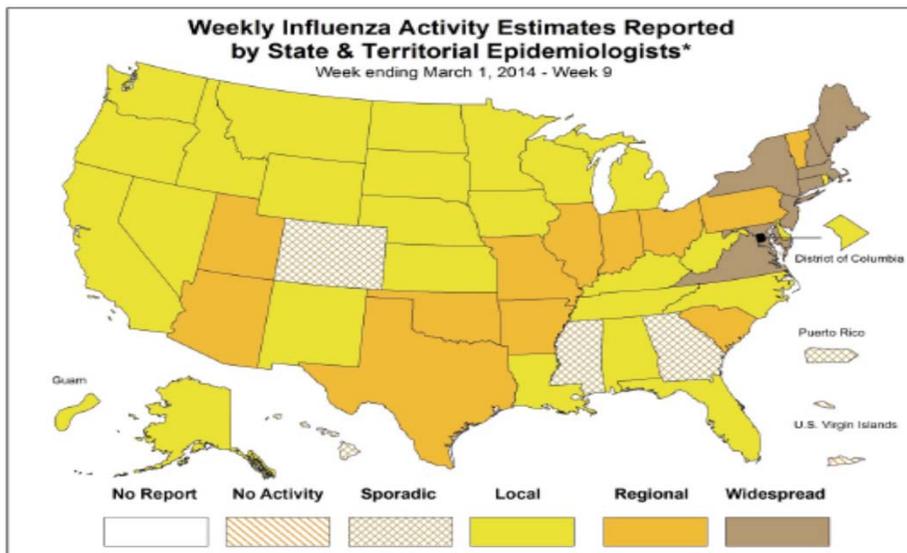
2013-2014 Season

Geographical Distribution of ILI



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

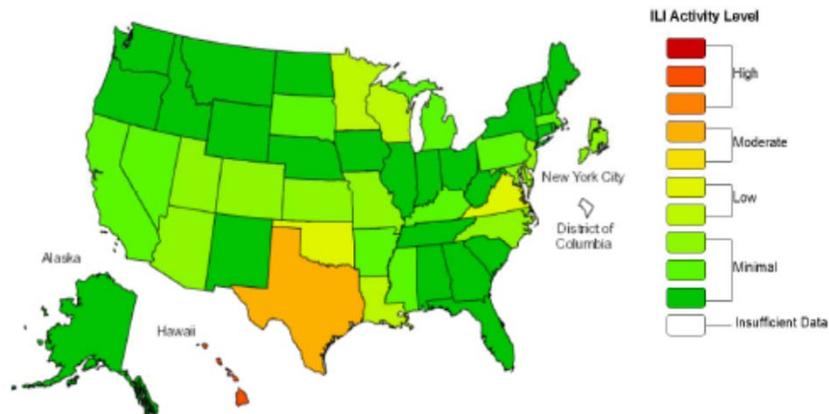
Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists



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

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2013-14 Influenza Season Week 9 ending Mar 01, 2014

ILINet Activity Indicator Map



2013-2014 Season

National Surveillance

During week 9, influenza activity decreased in the United States.

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

Four influenza-associated pediatric deaths were reported.

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

		Week 9
Specimens tested		6,748
Positive specimens		587 (8.7%)
<i>Positive specimens by type/subtype</i>		
Influenza A		470 (80.1%)
A (2009 H1N1)		204 (43.4%)
A (H3)		49 (10.4%)
A (subtyping not performed)		217 (46.2%)
Influenza B		117 (19.9%)

Antiviral Resistance:

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2013

	Viruses tested (n)	Resistant Viruses, Number (%)	Viruses tested (n)	Resistant Viruses, Number (%)
		Oseltamivir		Zanamivir
Influenza A (H3N2)	270	0 (0.0%)	270	0 (0.0%)
Influenza B	114	0 (0.0%)	114	0 (0.0%)
2009 Influenza A (H1N1)	4,002	34 (0.8%)	1,423	0 (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 2009 influenza A (H1N1) and A (H3N2) viruses have been detected worldwide. Antiviral treatment with oseltamivir or zanamivir 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:

CDC has antigenically characterized 1,541 influenza viruses (1,321 2009 H1N1 viruses, 170 influenza A H3N2 viruses, and 50 influenza B virus) collected by U.S. Laboratories since October 1, 2013 by hemagglutination inhibition (HI). 1,320 (99.9%) of 1,321 2009 H1N1 viruses tested were characterized as A/California/7/2009-like, the influenza A (H1N1) component of the 2013-2014 Northern Hemisphere influenza vaccine, one (0.1%) showed reduced titers with antiserum produced against A/California/7/2009. All 170 influenza A (H3N2) viruses tested have been characterized as A/Texas/50/2012-like, the influenza A (H3N2) component of the 2013-2014 Northern Hemisphere influenza vaccine. 31 (62%) of the 50 influenza B viruses were characterized as B/Massachusetts/02/2012-like, which is included as an influenza B component in both the 2013-2014 Northern Hemisphere trivalent and quadrivalent vaccine. 19 (38%) of the 50 influenza B viruses tested were characterized as B/Brisbane/60/2008-like, which is included as a component of the Northern Hemisphere quadrivalent influenza vaccine.