

# Influenza Surveillance Report

[www.infectiousdisease.dhh.louisiana.gov](http://www.infectiousdisease.dhh.louisiana.gov)

Week 10: 3/5/17 - 3/11/17

**Influenza activity remains elevated in Louisiana. The percent of influenza positives remains high at both clinical labs and the state public health laboratory. Higher activity of other respiratory viruses is also being reported with Rhino/Enterovirus, RSV, Metapneumovirus, Coronavirus, and Adenovirus being the most prevalent.**

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](mailto: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.

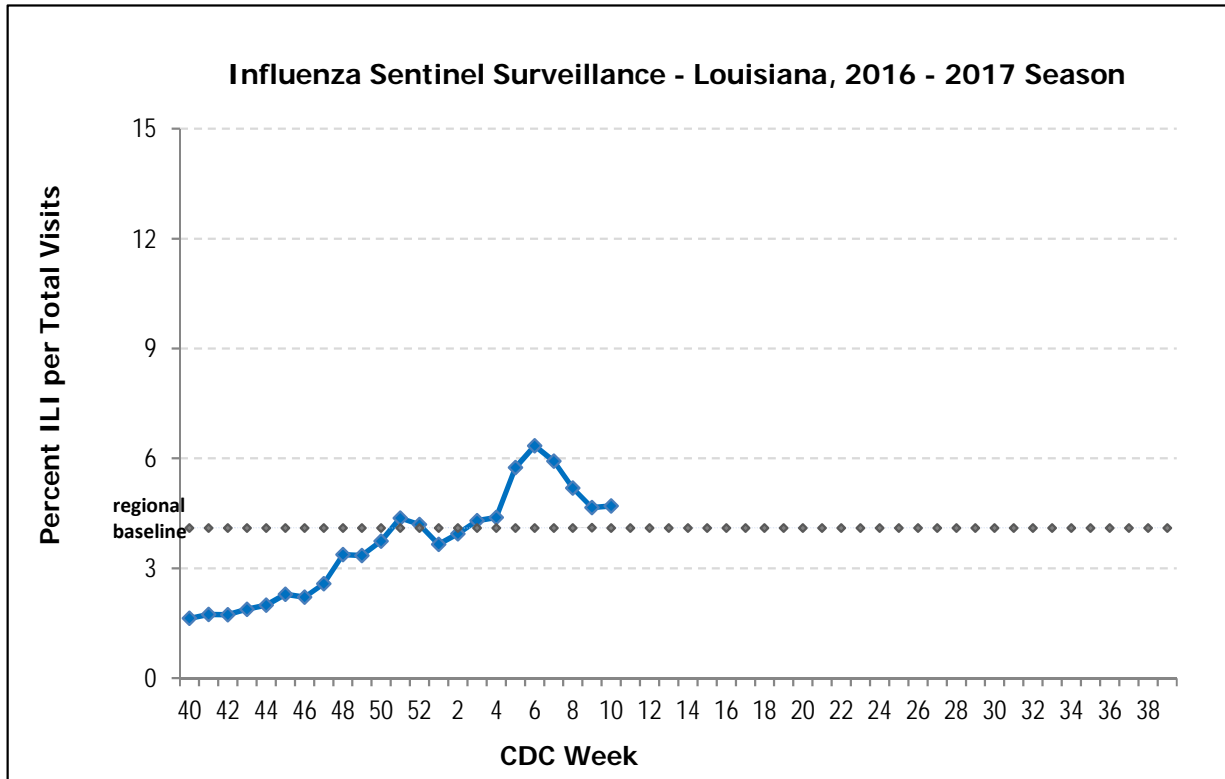


**Laboratory testing:** Not all sentinel sites have access to laboratory testing. However, many hospitals and physicians' offices do perform some influenza testing. Sites that test for influenza report the number of positive tests each week and the total number of tests performed each week. This information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

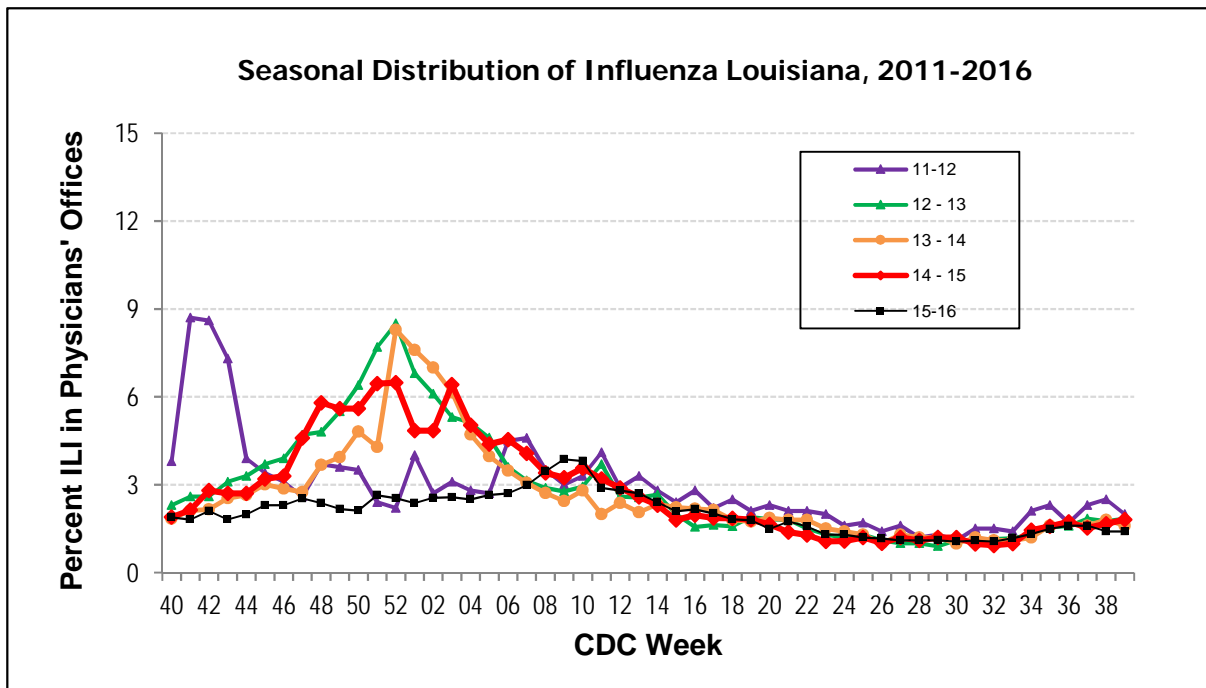
- Page 2 : ILI Activity
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- Page 4: Geographic Distribution
- Page 5-6: Regional & National Data

## 2016-2017 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.

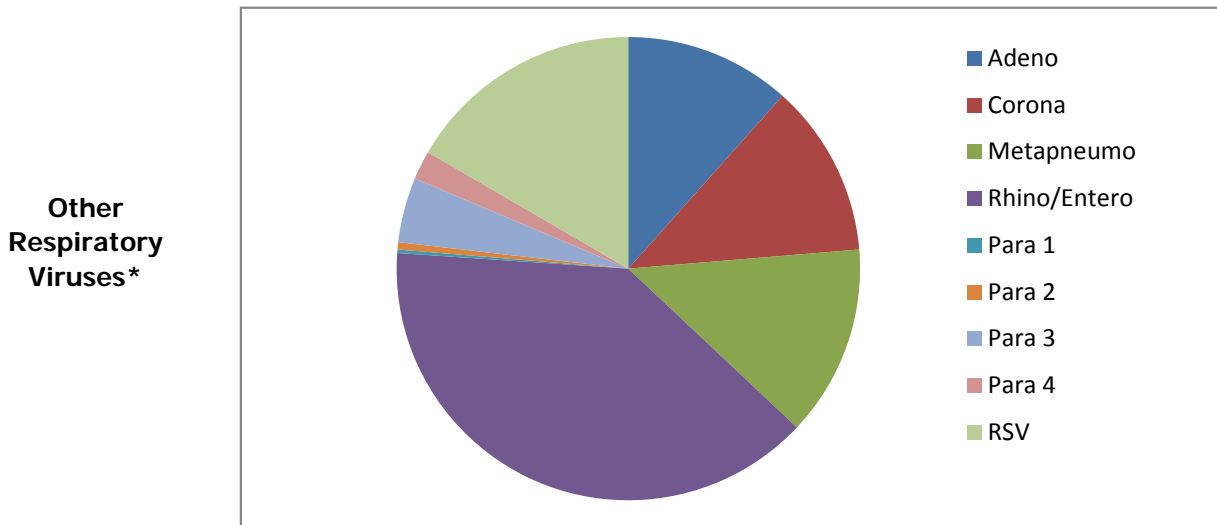
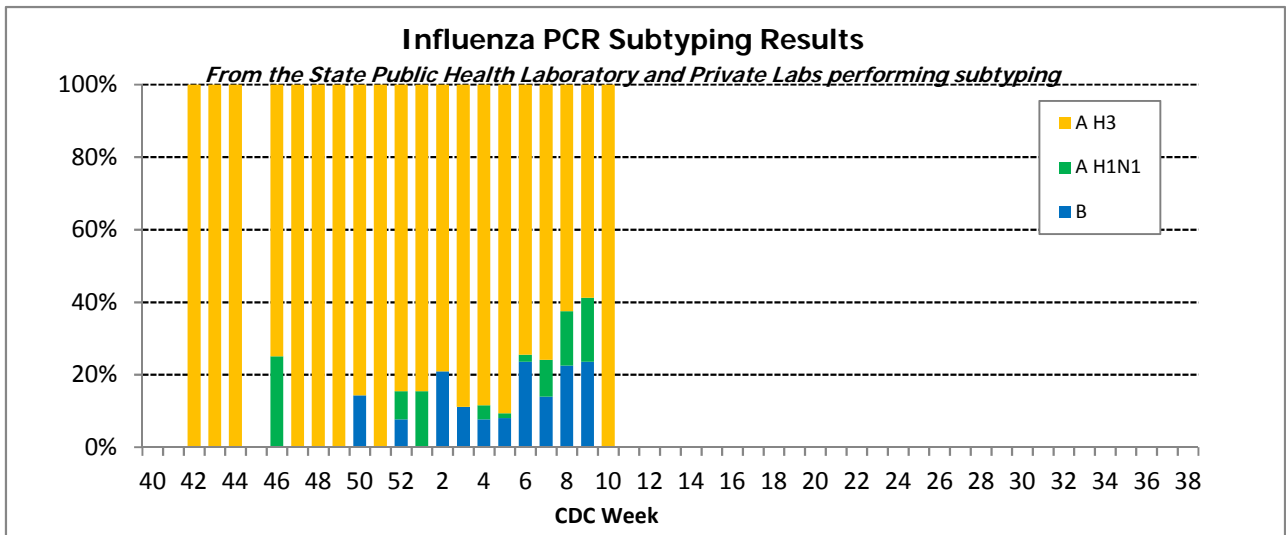
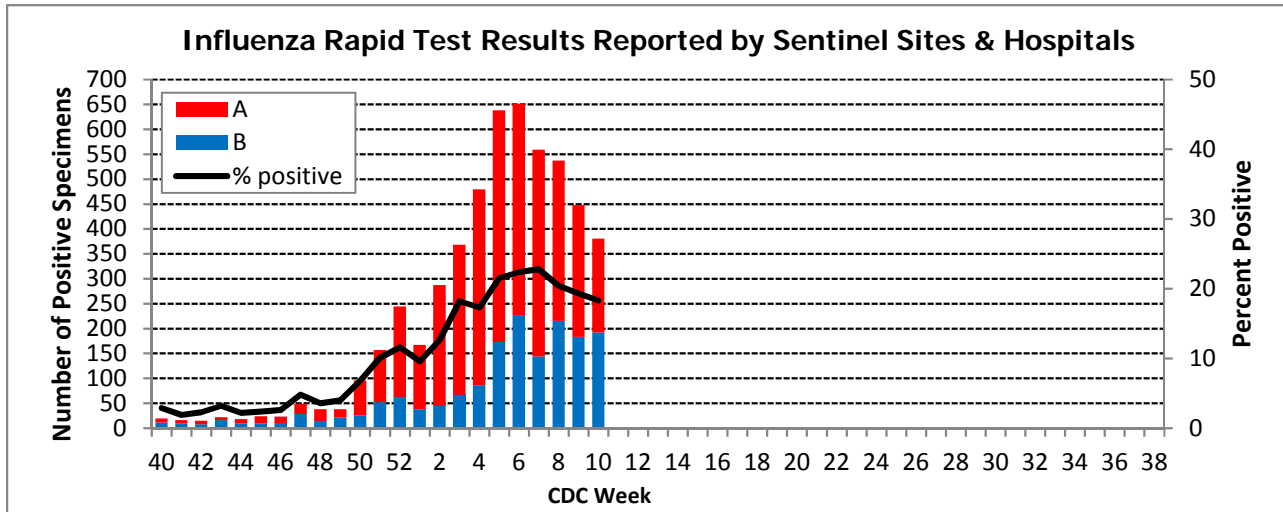


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



# 2016-2017 Season

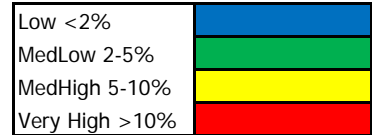
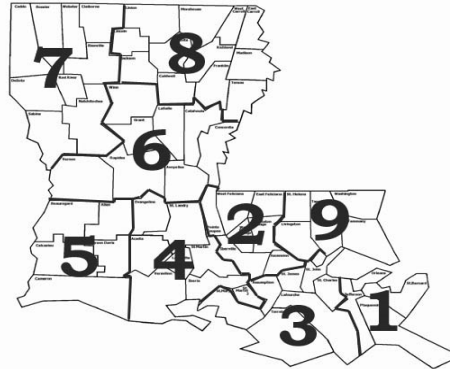
## Virologic Surveillance



\*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.

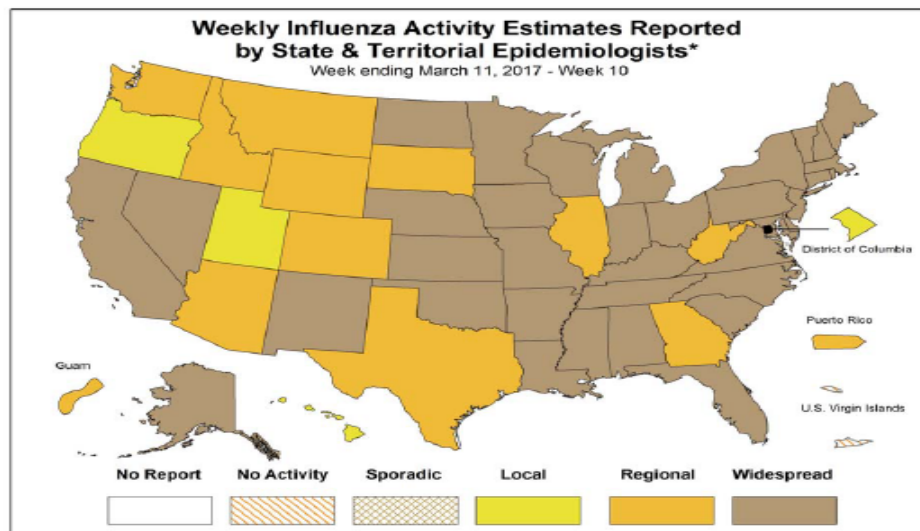
## 2016-2017 Season

### Geographical Distribution of ILI



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

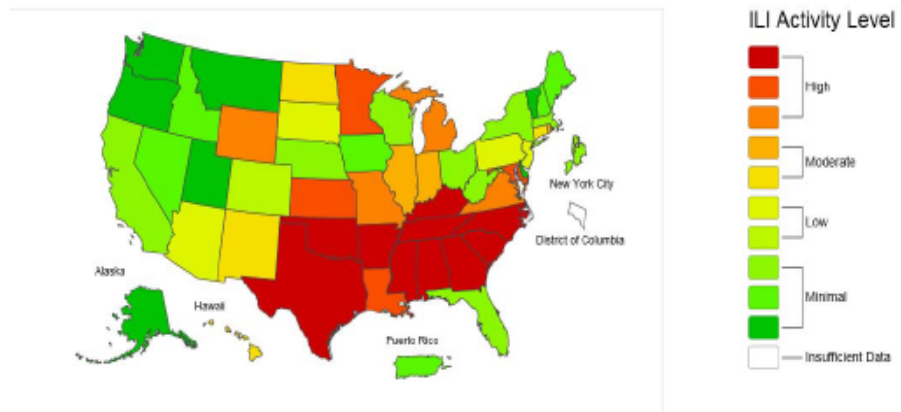
### Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists



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

### ILINet Activity Indicator Map

**Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet**  
2016-17 Influenza Season Week 10 ending Mar 11, 2017



## 2016-2017 Season

### National Surveillance

During week 10, influenza activity decreased but remained elevated in the United States.

The proportion of deaths attributed to pneumonia and influenza (P&I) was above the system-specific threshold in the National Center for Health Statistic (NCHS) Mortality Surveillance System.

Five influenza-associated pediatric deaths were reported.

Proportion of outpatient visits for influenza-like illness (ILI) was 3.7%, which is above the national baseline of 2.2%.

### Clinical Laboratory Data

	Week 10	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	27,105	608,644
No. of positive specimens (%)	4,967 (18.3%)	85,381 (14.0%)
<i>Positive specimens by type</i>		
Influenza A	3,037 (61.1%)	69,553 (81.5%)
Influenza B	1,930 (38.9%)	15,828 (18.5%)

### Public Health Laboratory Data

	Week 10	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	1,511	61,421
No. of positive specimens*	727	29,514
<i>Positive specimens by type/subtype</i>		
Influenza A	514 (70.7%)	26,077 (88.4%)
A(H1N1)pmd09	16 (3.1%)	656 (2.5%)
H3	476 (92.6%)	25,117 (96.3%)
Subtyping not performed	22 (4.3%)	304 (1.2%)
Influenza B	213 (29.3%)	3,437 (11.6%)
Yamagata lineage	126 (59.2%)	1,694 (49.3%)
Victoria lineage	34 (16.0%)	951 (27.7%)
Lineage not performed	53 (24.9%)	792 (23.0%)

### HHS Surveillance Region Data:

*U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) 2016-2017 Influenza Season  
HHS Region 6 (AR, LA, NM, OK, and TX) (Baseline: 4.1%) Data as of Friday, March 17, 2017*

						ILI 65 years and older	Total ILI	Total Patient Visits	% Unweighted ILI	% Weighted ILI
CDC Week	# Sites Reporting	ILI 0-4 years	ILI 5-24 years	ILI 25-49 years	ILI 50-64 years					
201707	266	1270	3133	1737	785	435	7360	103945	7.1	8.9
201708	288	1297	2849	1505	763	424	6838	107932	6.3	8.3
201709	276	1128	2246	1374	587	380	5715	103056	5.5	6.9
201710	273	1030	1966	1357	647	346	5346	100310	5.3	6.9

### Region 6 (AR, LA, NM, OK, TX)

CDC Week	Public Health Labs	Public Health Specimens Tested	AUNK	AH1N1 pdm09	AH3N2	AH3N2v	B	BVic	BYam	Clinical Labs	Clinical Specimens Tested	Clinical Flu Positive	% Positive	A	B
201707	8	408	1	10	178	0	#	2	8	28	6687	1696	25.36	1362	334
201708	6	312	3	10	124	0	#	0	8	27	5918	1375	23.23	1065	310
201709	8	185	0	9	71	0	8	1	7	26	4278	790	18.47	573	217
201710	5	83	0	1	35	0	6	0	2	21	3594	709	19.73	492	217

## 2016-2017 Season

### Antiviral Resistance:

#### Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2016

	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)pdm09	195	0 (0.0)	193	0 (0.0)	195	0 (0.0)
Influenza A (H3N2)	1,126	0 (0.0)	1,126	0 (0.0)	879	0 (0.0)
Influenza B	424	0 (0.0)	424	0 (0.0)	424	0 (0.0)

**Antigenic Characterization:** CDC has antigenically characterized 968 influenza viruses [145 influenza A (H1N1)pdm09, 511 influenza A (H3N2), and 312 influenza B viruses] collected by U.S. laboratories since October 1, 2016.

#### **Influenza A Virus [656]**

**A (H1N1)pdm09 [145]:** All 145 (100%) influenza A (H1N1)pdm09 viruses were antigenically characterized using ferret post-infection antisera as A/California/7/2009-like, the influenza A (H1N1) component of the 2016-2017 Northern Hemisphere vaccine.

**A (H3N2) [511]:** 499 of 511 (97.7%) influenza A (H3N2) viruses were antigenically characterized as A/Hong Kong/4801/2014-like, a virus that belongs in genetic group 3C.2a and is the influenza A (H3N2) component of the 2016-2017 Northern Hemisphere vaccine, by HI testing or neutralization testing. Among the viruses which reacted poorly with ferret antisera raised against A/Hong Kong/4801/2014-like viruses, 9 out of 12 (75%) are more closely related to A/Switzerland/9715293/2013, a virus belonging to genetic group 3C.3a.

#### **Influenza B Virus [312]**

**Victoria Lineage [138]:** 126 of 138 (91.3%) B/Victoria-lineage viruses were antigenically characterized using ferret post-infection antisera as B/Brisbane/60/2008-like, which is included as an influenza B component of the 2016-2017 Northern Hemisphere trivalent and quadrivalent influenza vaccines.

**Yamagata Lineage [174]:** All 174 (100%) B/Yamagata-lineage viruses were antigenically characterized using ferret post-infection antisera as B/Phuket/3073/2013-like, which is included as an influenza B component of the 2016-2017 Northern Hemisphere quadrivalent influenza vaccines.