

## Influenza Surveillance Report

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

Week 9: 2/26/17 - 3/4/17

**Influenza activity decreased slightly but remains high 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, Coronavirus, Metapneumovirus, 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

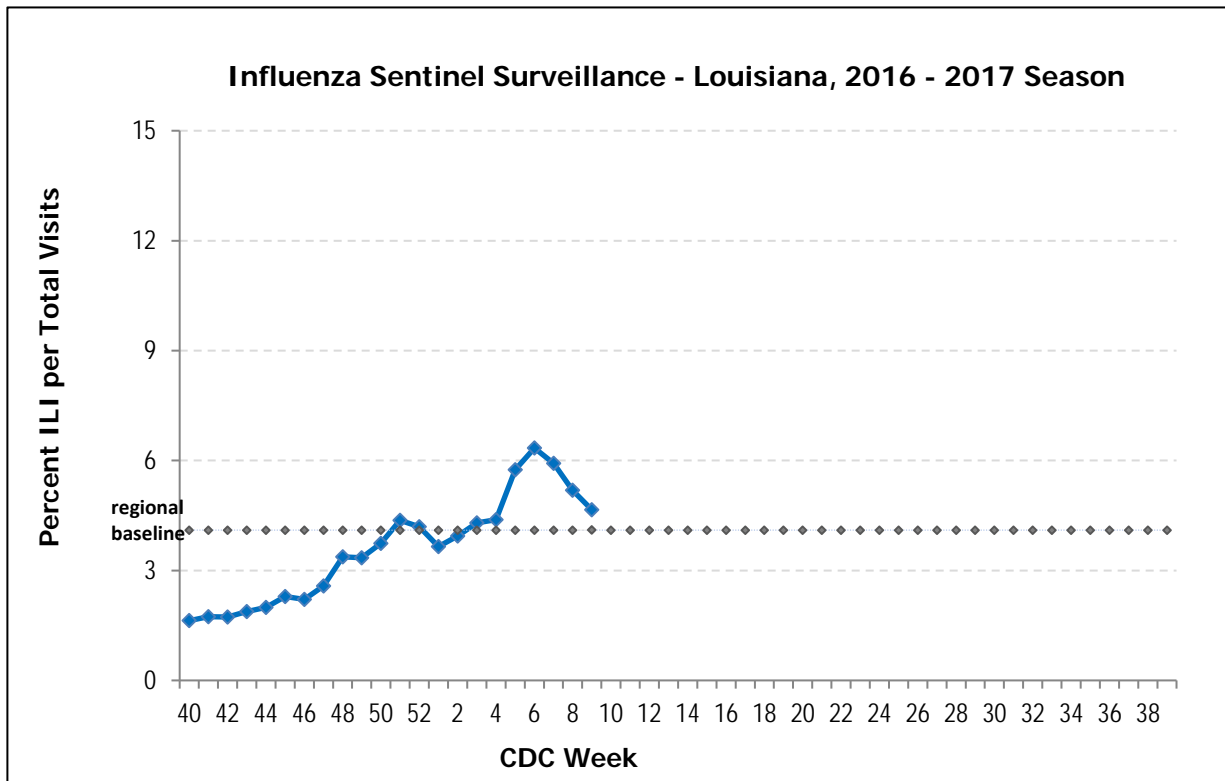
Page 3: Virologic Surveillance

Page 4: Geographic Distribution

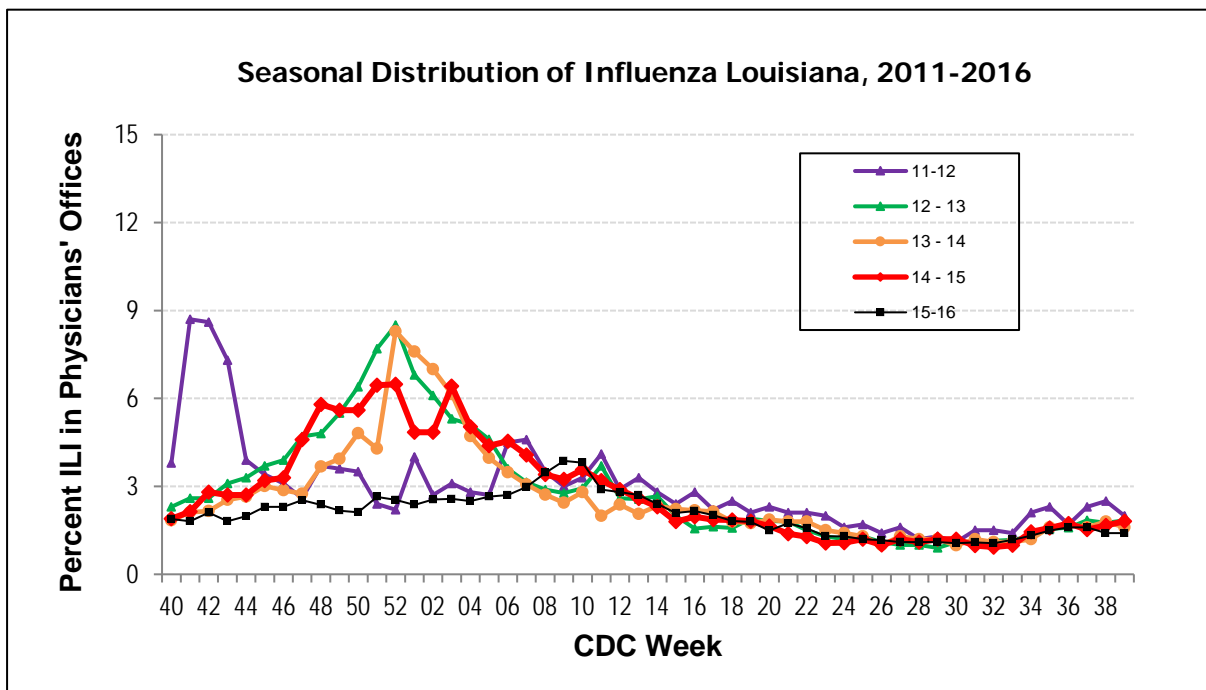
Page 5-6: Regional & National Data

## 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.

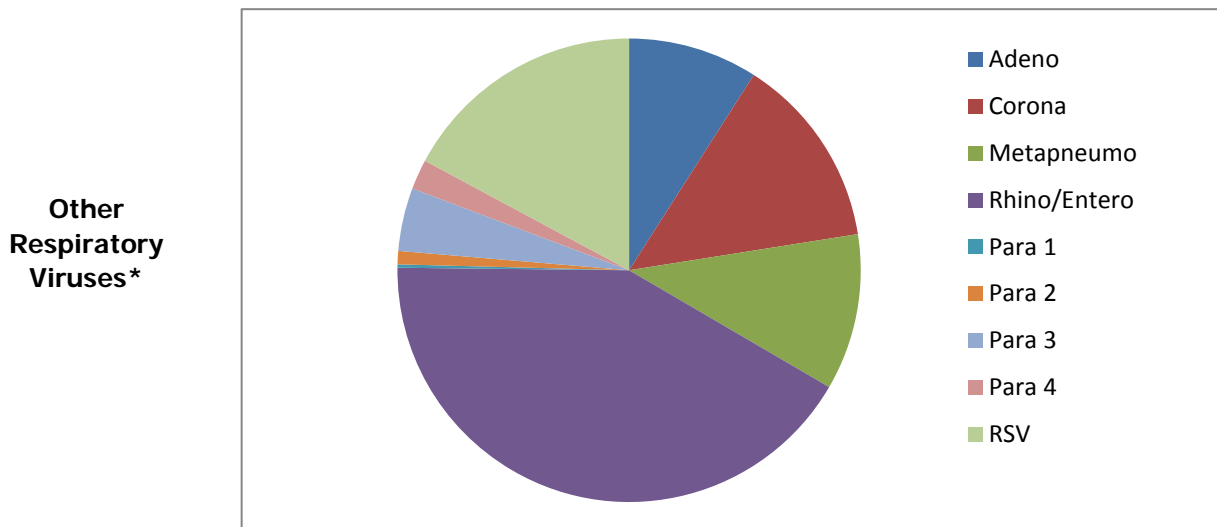
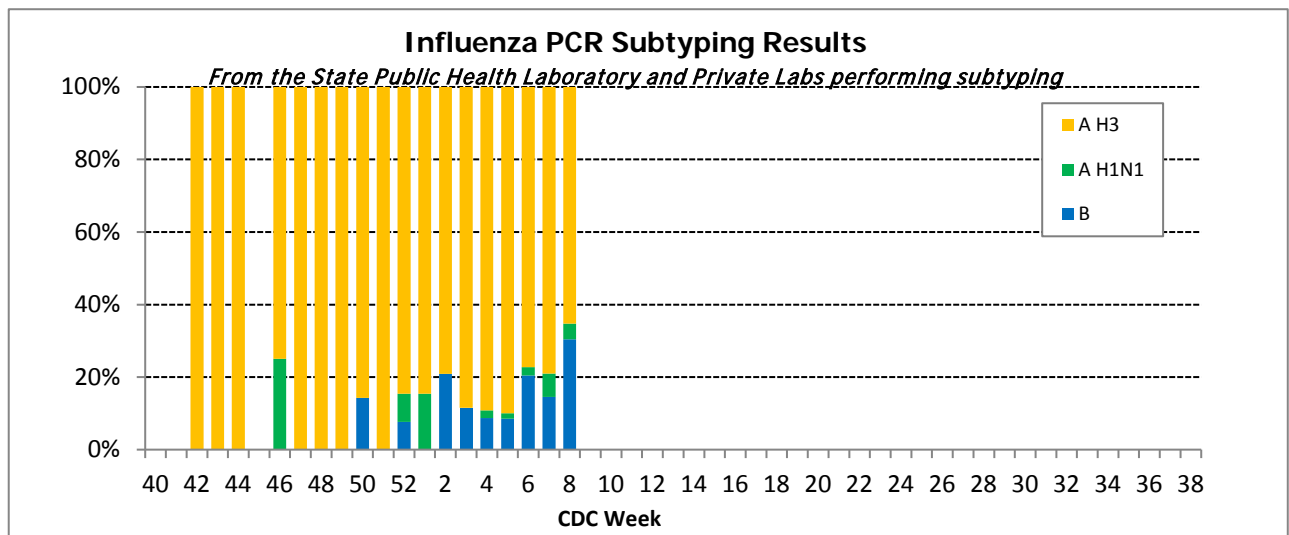
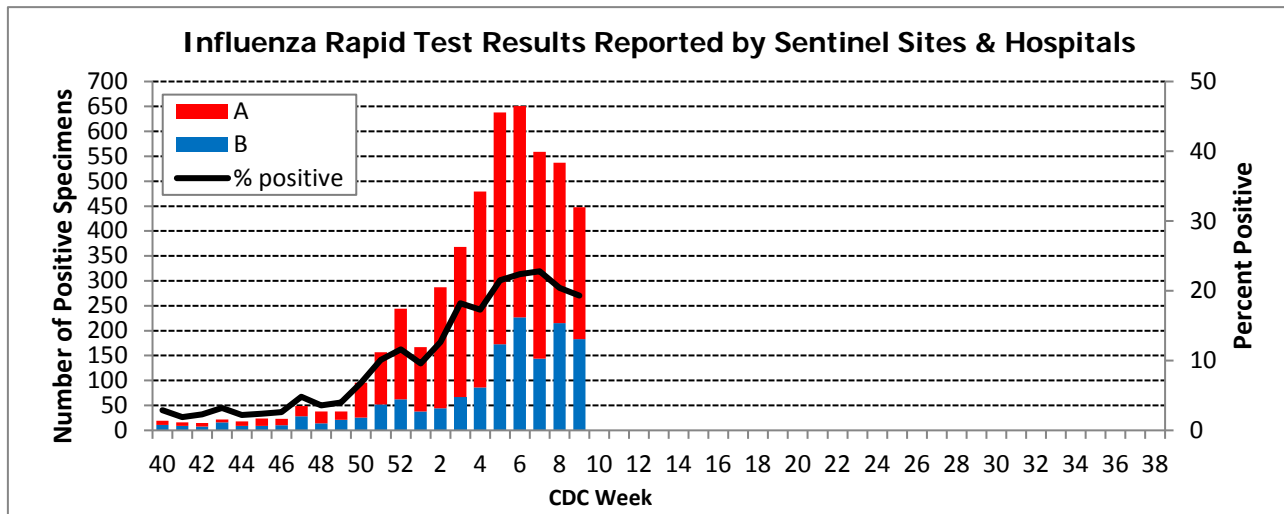


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



## 2016-2017 Season

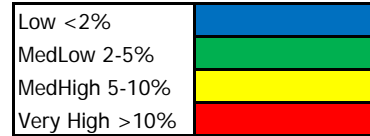
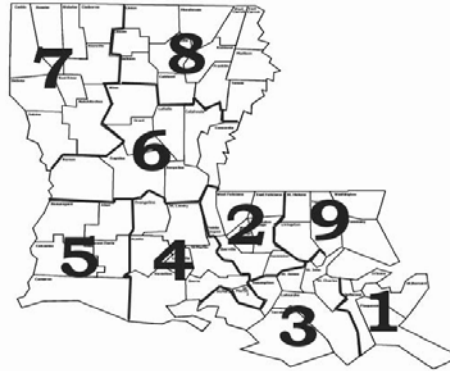
### Virologic Surveillance



\*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.

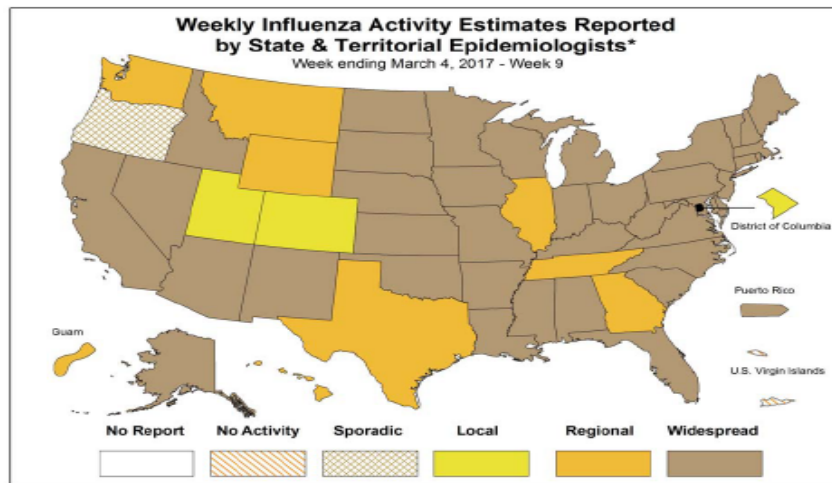
## 2016-2017 Season

### Geographical Distribution of ILI



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

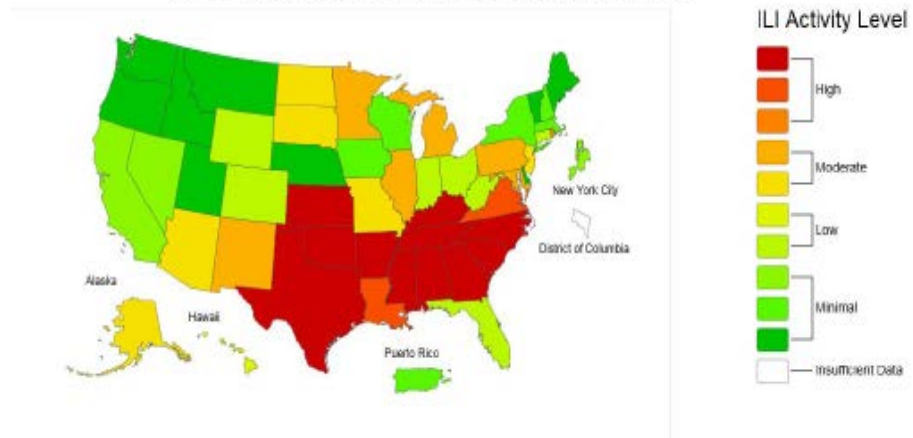
### Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists



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

### Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2016-17 Influenza Season Week 9 ending Mar 04, 2017

### ILINet Activity Indicator Map



## 2016-2017 Season

### National Surveillance

During week 9, 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.

Eight influenza-associated pediatric deaths were reported.

Proportion of outpatient visits for influenza-like illness (ILI) was 3.6%, which is above the national baseline of 2.2%.

### Clinical Laboratory Data

	Week 9	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	28,166	569,120
No. of positive specimens (%)	5,245 (18.6%)	77,314 (13.6%)
<i>Positive specimens by type</i>		
Influenza A	3,599 (68.6%)	64,107 (82.9%)
Influenza B	1,646 (31.4%)	13,207 (17.1%)

### Public Health Laboratory Data

	Week 9	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	1,709	57,342
No. of positive specimens*	837	27,281
<i>Positive specimens by type/subtype</i>		
Influenza A	625 (74.7%)	24,398 (89.4%)
A(H1N1)pmd09	18 (2.6%)	588 (2.4%)
H3	586 (93.8%)	23,497 (96.3%)
Subtyping not performed	23 (3.7%)	313 (1.3%)
Influenza B	212 (25.3%)	2,883 (10.6%)
Yamagata lineage	79 (37.3%)	1,344 (46.6%)
Victoria lineage	41 (19.3%)	849 (29.4%)
Lineage not performed	92 (43.4%)	690 (23.9%)

### 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 10, 2017*

CDC Week	# Sites Reporting	ILI 0-4 years	ILI 5-24 years	ILI 25-49 years	ILI 50-64 years	ILI 65 years and older	Total ILI	Total Patient Visits	%	%
201705	289	1420	3191	1474	676	409	7170	111220	6.4	8.2
201706	294	1564	3951	1932	904	552	8903	114728	7.8	10.0
201707	265	1270	3133	1736	785	435	7359	103880	7.1	8.9
201708	287	1297	2848	1503	760	424	6832	107859	6.3	8.3
201709	269	1125	2220	1366	584	376	5671	102250	5.5	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
201705	9	361	2	4	152	0	4	2	12	29	5897	1336	22.66	1118	218
201706	10	352	0	4	164	0	3	2	9	29	7250	1844	25.43	1505	339
201707	7	351	1	3	140	0	13	2	8	28	6687	1696	25.36	1362	334
201708	6	236	1	6	94	0	6	0	8	26	5881	1365	23.21	1057	308
201709	5	95	0	3	41	0	3	0	6	21	3879	702	18.10	534	168

## 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	179	0 (0.0)	177	0 (0.0)	179	0 (0.0)
Influenza A (H3N2)	1,025	0 (0.0)	1,025	0 (0.0)	810	0 (0.0)
Influenza B	377	0 (0.0)	377	0 (0.0)	377	0 (0.0)

**Antigenic Characterization:** CDC has antigenically characterized 858 influenza viruses [145 influenza A (H1N1)pdm09, 456 influenza A (H3N2), and 257 influenza B viruses] collected by U.S. laboratories since October 1, 2016.

#### Influenza A Virus [601]

**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) [456]:** 444 of 456 (97.4%) 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 [257]

**Victoria Lineage [136]:** 124 of 136 (91.2%) 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 [121]:** All 121 (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.