

## Influenza Surveillance Report

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

Week 13: 3/26/17 - 4/1/17

**Influenza activity is decreasing in Louisiana. The percent of influenza positives is also decreasing. The number of influenza B was greater than the number of influenza A reported both in rapid data and in PCR. The most common non-influenza respiratory virus being reported is 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](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

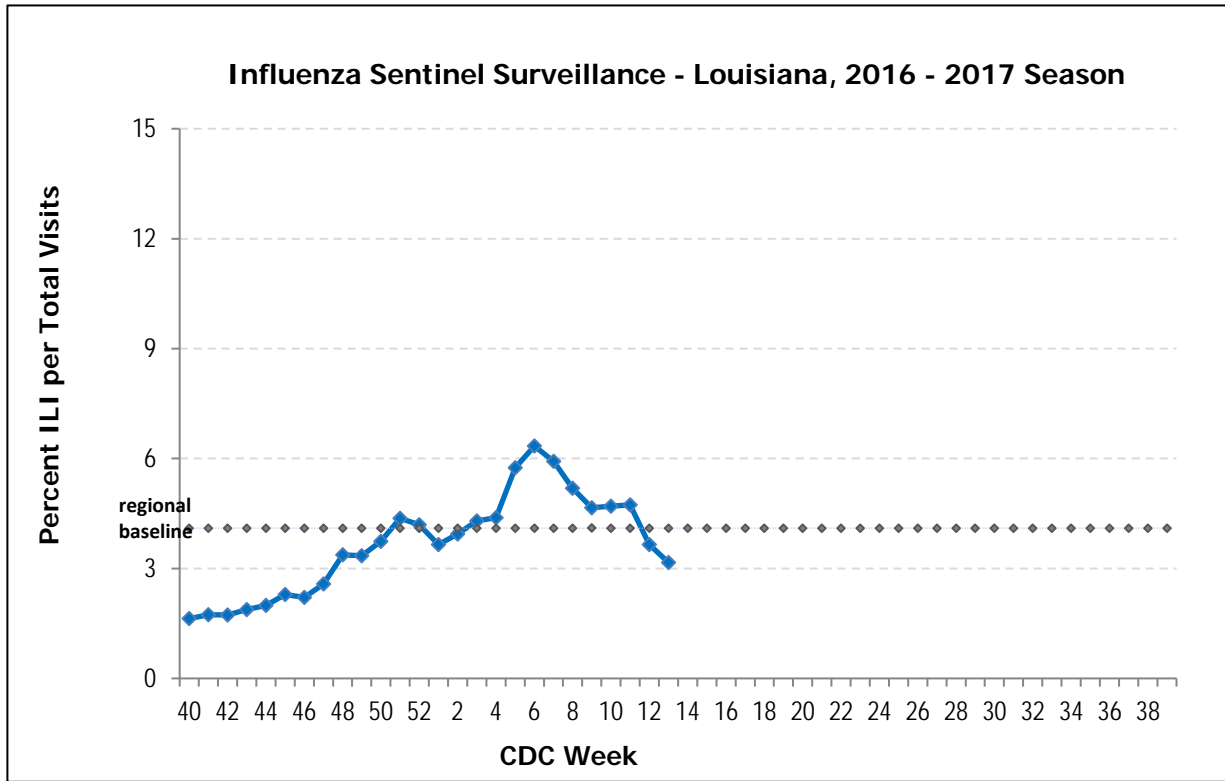
Page 3: Virologic Surveillance

Page 4: Geographic Distribution

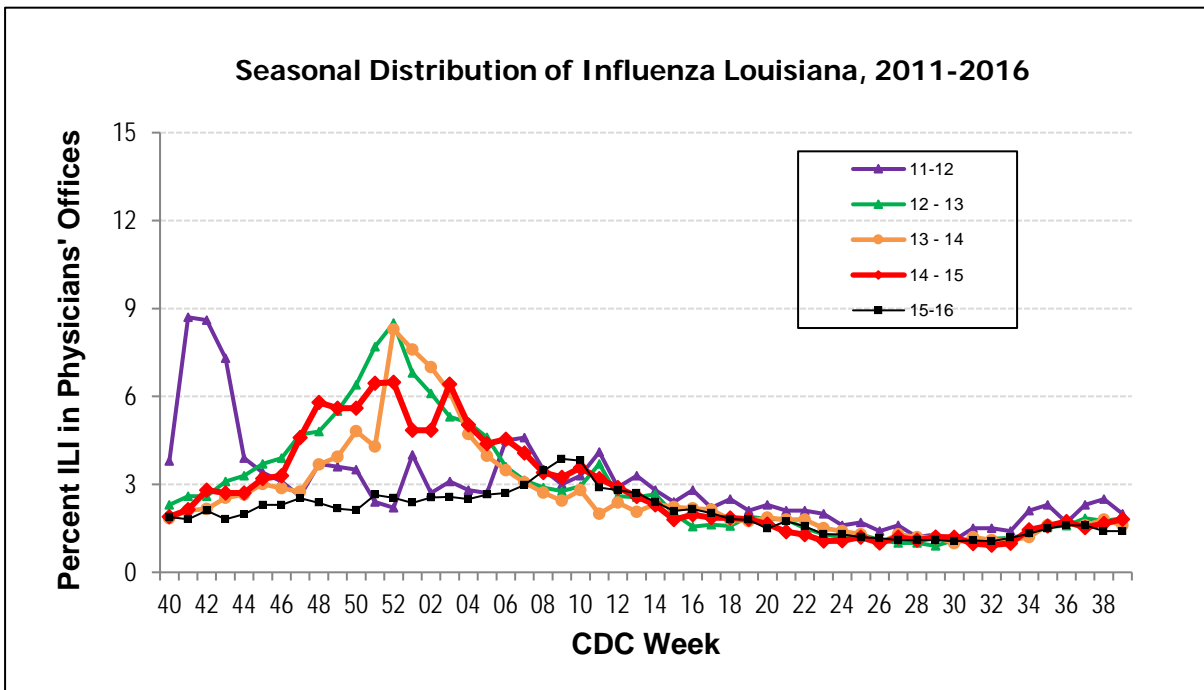
Page 5-6: Regional & National Data

## 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.

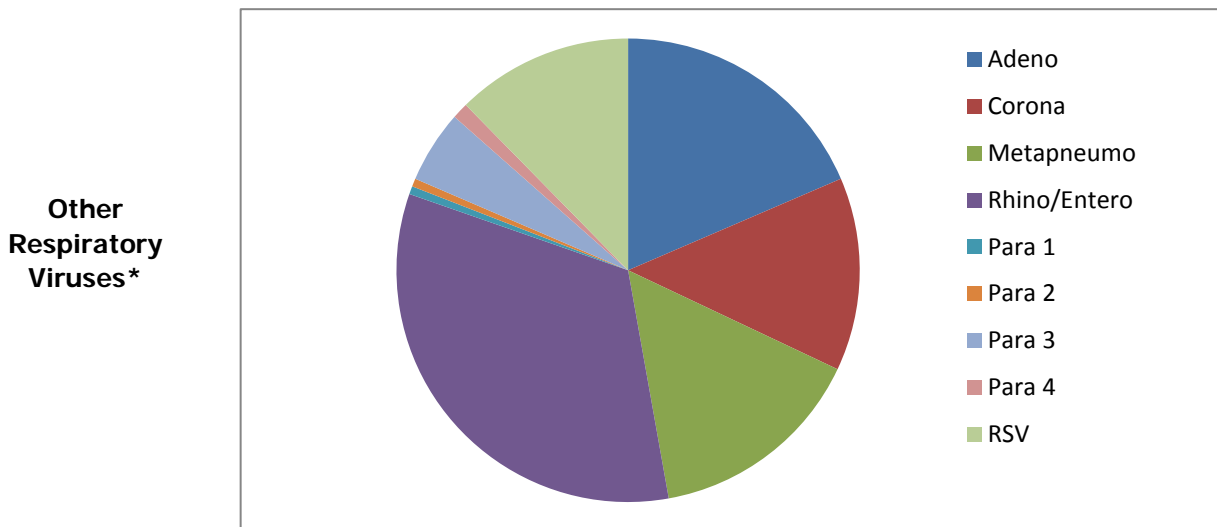
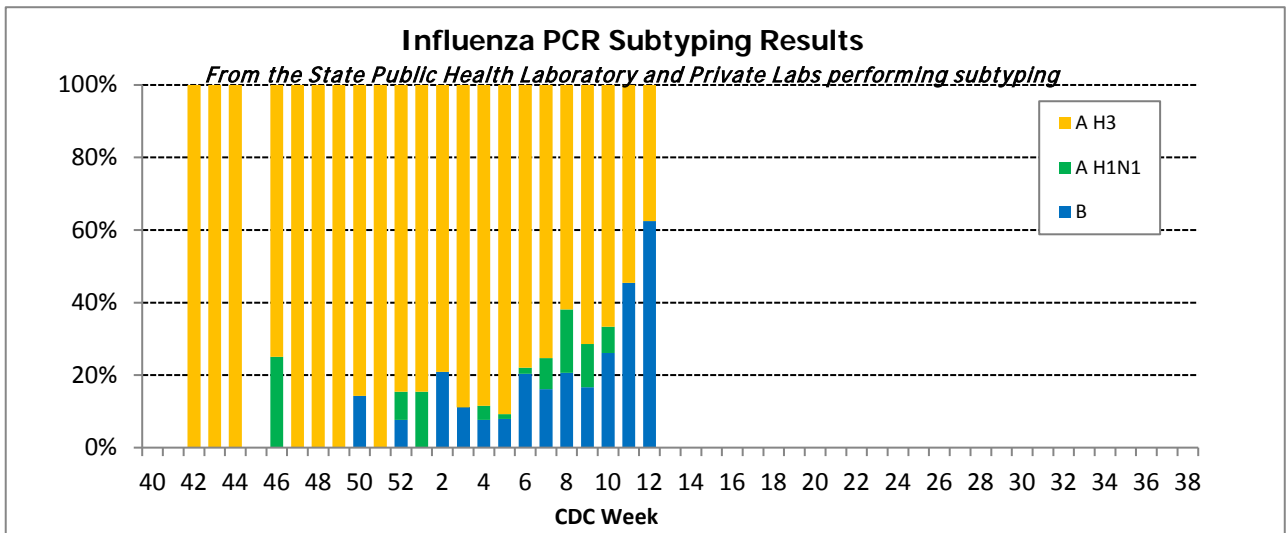
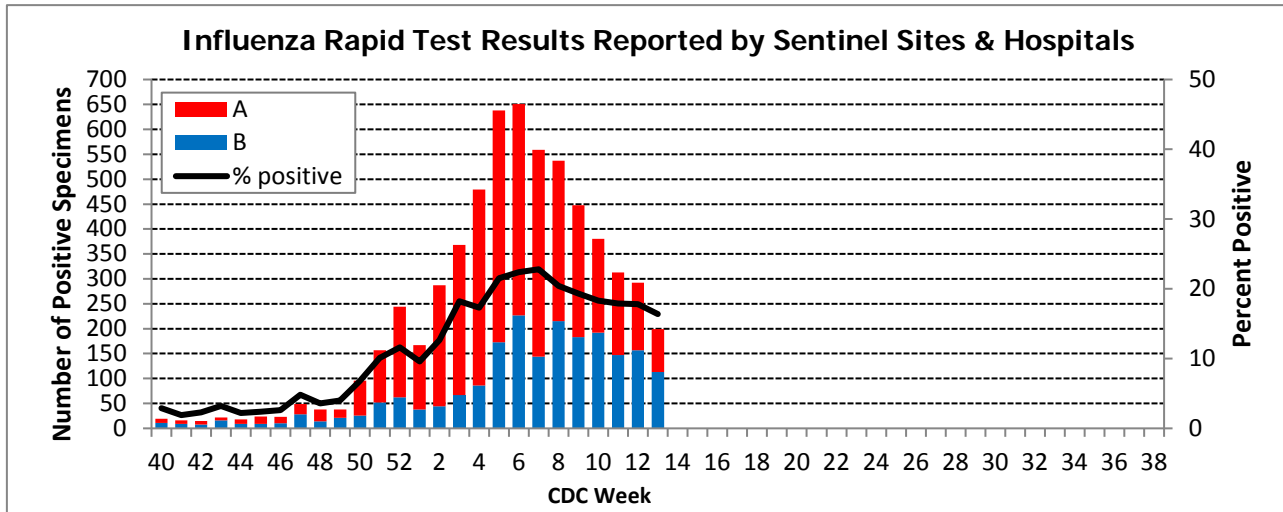


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



# 2016-2017 Season

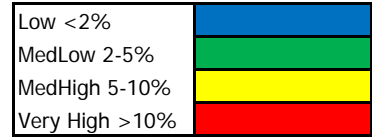
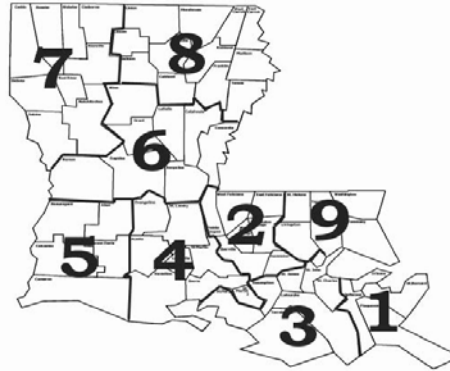
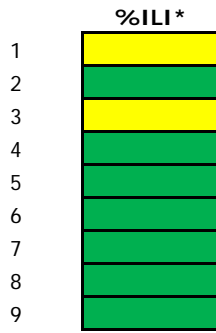
## Virologic Surveillance



\*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.

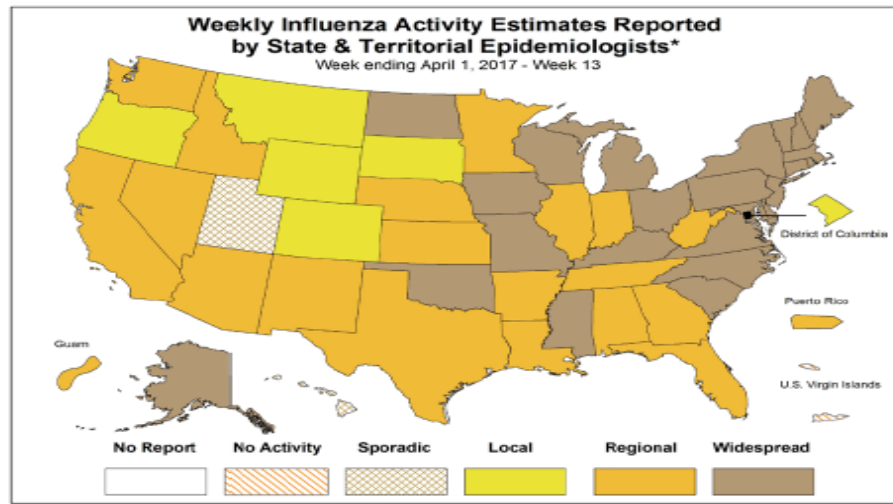
# 2016-2017 Season

## Geographical Distribution of ILI



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

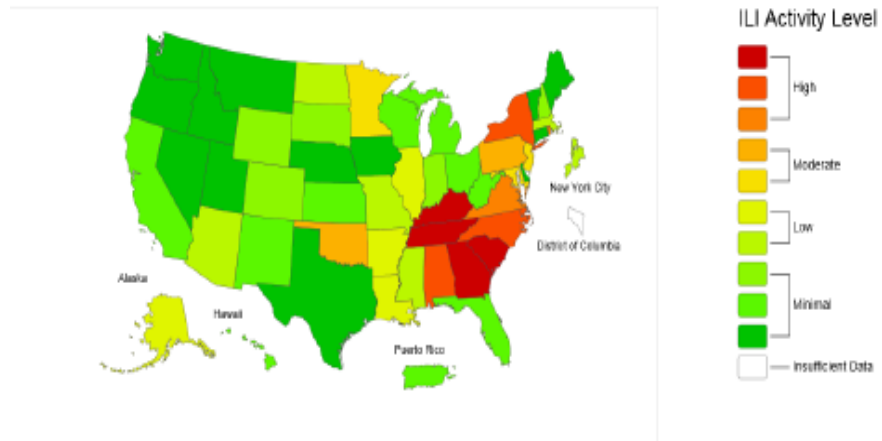
## Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists



\* 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 13 ending Apr 01, 2017

## ILINet Activity Indicator Map



## 2016-2017 Season

### National Surveillance

During week 13, influenza activity decreased but remained elevated in the United States.

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

Seven influenza-associated pediatric deaths were reported.

Proportion of outpatient visits for influenza-like illness (ILI) was 2.9%, which is above the national baseline of 2.2%.

### Clinical Laboratory Data

	Week 13	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	22,257	708,910
No. of positive specimens (%)	4,086 (18.4%)	103,792 (14.7%)
<i>Positive specimens by type</i>		
Influenza A	1,596 (39.1%)	78,749 (75.9%)
Influenza B	2,490 (60.9%)	25,043 (24.1%)

### Public Health Laboratory Data

	Week 13	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	1,375	71,921
No. of positive specimens*	730	35,368
<i>Positive specimens by type/subtype</i>		
Influenza A	322 (44.1%)	29,581 (83.6%)
A(H1N1)pmd09	9 (2.8%)	797 (2.7%)
H3	307 (95.3%)	28,447 (96.2%)
Subtyping not performed	6 (1.9%)	337 (1.1%)
Influenza B	408 (55.9%)	5,787 (16.4%)
Yamagata lineage	245 (60.0%)	2,891 (50.0%)
Victoria lineage	45 (11.0%)	1,456 (25.2%)
Lineage not performed	118 (28.9%)	1,440 (24.9%)

### 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, April 7, 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	% Unweighted ILI	% Weighted ILI
201710	287	1060	2073	1378	655	350	5516	104613	5.3	6.5
201711	286	945	1651	1116	590	301	4603	97413	4.7	5.5
201712	245	800	1372	887	421	245	3725	96700	3.9	4.5
201713	250	700	1141	751	325	186	3103	93096	3.3	3.9

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

CDC Week	Public Health Labs	Public Health Specimens Tested	AUN K	AH1N1 pdm09	AH3N2	AH3N2v	B	BVic	BYam	Clinical Labs	Clinical Specimens Tested	Clinical Flu Positive	% Positive	A	B
201710	9	285	0	12	112	0	31	0	9	27	5176	1096	21.17	760	336
201711	8	186	0	4	58	0	19	1	4	27	4678	871	18.62	548	323
201712	7	132	0	0	27	0	20	0	5	26	3600	652	18.11	341	311
201713	5	37	0	1	10	0	1	1	7	23	3105	405	13.04	204	201

## 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	240	0 (0.0)	234	0 (0.0)	240	0 (0.0)
Influenza A (H3N2)	1,525	0 (0.0)	1,525	0 (0.0)	1,043	0 (0.0)
Influenza B	566	0 (0.0)	566	0 (0.0)	566	0 (0.0)

**Antigenic Characterization:** CDC has antigenically characterized 1,249 influenza viruses [217 influenza A (H1N1)pdm09, 589 influenza A (H3N2), and 443 influenza B viruses] collected by U.S. laboratories since October 1, 2016.

#### **Influenza A Virus [806]**

**A (H1N1)pdm09 [217]:** 216 of 217 (99.5%) 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) [589]:** 575 of 589 (97.6%) 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, 11 of 14 (78.6%) are more closely related to A/Switzerland/9715293/2013, a virus belonging to genetic group 3C.3a.

#### **Influenza B Virus [443]**

**Victoria Lineage [201]:** 185 of 201 (92%) 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 [242]:** All 242 (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.