



# 2018-2019 Influenza Surveillance Report

## Week 15

Apr. 7 – Apr. 13, 2019

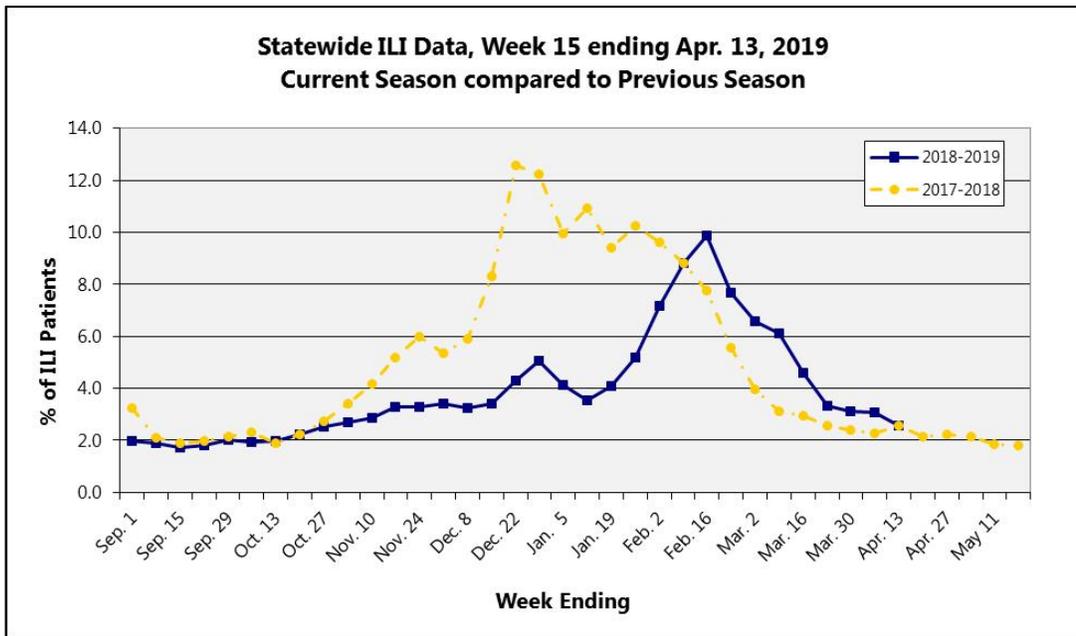
### About our flu activity reporting

MSDH relies upon selected sentinel health practitioners across the state to report the percentage of total patient visits consistent with an influenza-like illness (ILI: fever of 100°F or higher AND cough and/or sore throat). Also, providers are supplied with specimen collection kits. Samples are submitted to the Mississippi Public Health Laboratory for influenza PCR testing. Reports are used to estimate the state's ILI rate and the magnitude of the state's influenza activity. Reports represent only the distribution of flu in the state, not an actual count of all flu cases statewide. **Information is provisional only and may change depending on additional reporting from sentinel providers.**

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**State ILI Surveillance**



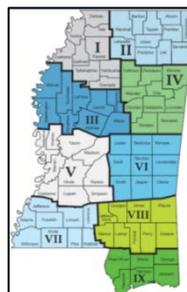
During week **15** (04/07/19-04/13/19), the overall state ILI rate (**2.6%**) **decreased** from the previous week (**3.1%**), but was comparable to this time last year (**2.6%**). |

**Figure 1**

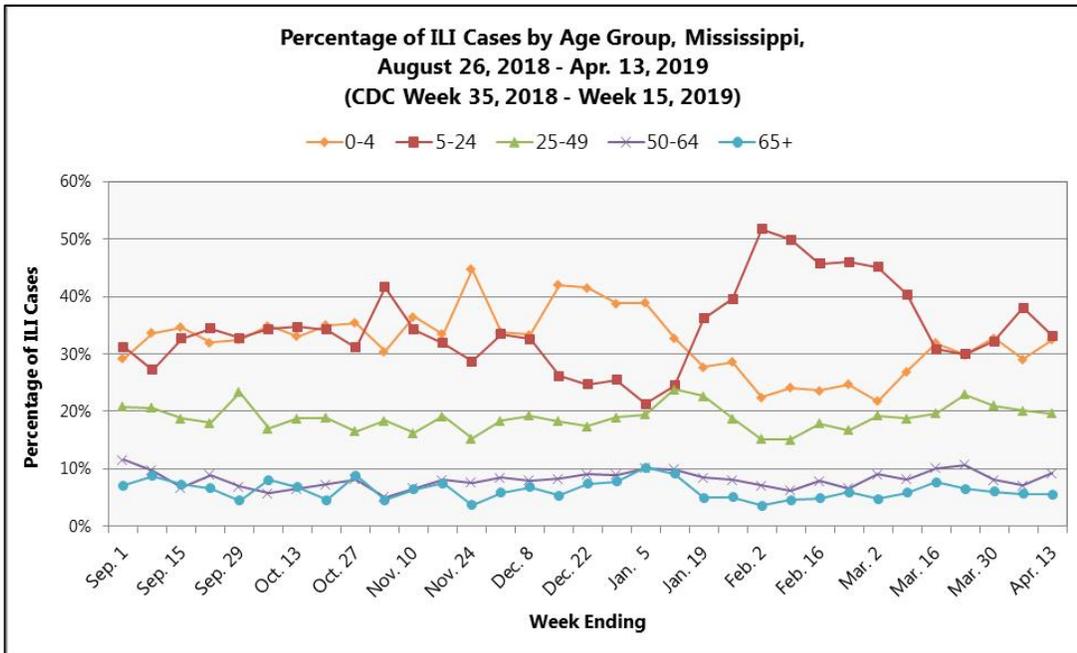
Total number of patients treated by sentinel providers in the last three weeks. | **Table 1**

2018-2019 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
<b>15</b>	<b>Apr. 13</b>	<b>162</b>	<b>17761</b>	<b>453</b>	<b>2.6</b>
14	Apr. 6	164	17425	536	3.1
13	Mar. 30	163	17575	547	3.1

During week **15**, one district (2) had an increase in ILI activity, while five districts (1, 3, 4, 5, and 9) had a decrease. Three districts (6, 7, and 8) remained about the same. *Information is provisional only and may change depending on additional reporting from sentinel providers.* | **Table 2**



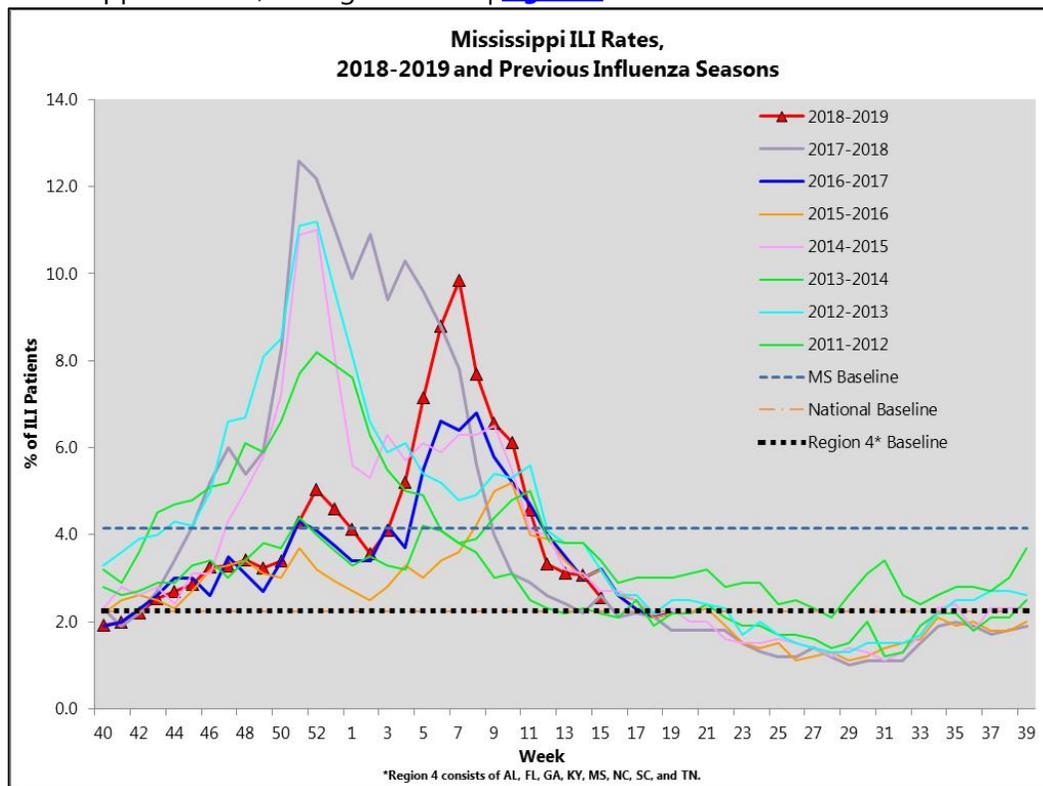
MSDH District ILI Rates (%) 2018-2019		
District	Week 14	Week 15
State	3.1	2.6
I	2.8	1.8
II	3.0	6.2
III	5.3	1.2
IV	3.3	2.6
V	3.2	2.5
VI	2.4	2.1
VII	4.3	3.9
VIII	1.4	1.2
IX	3.3	2.8



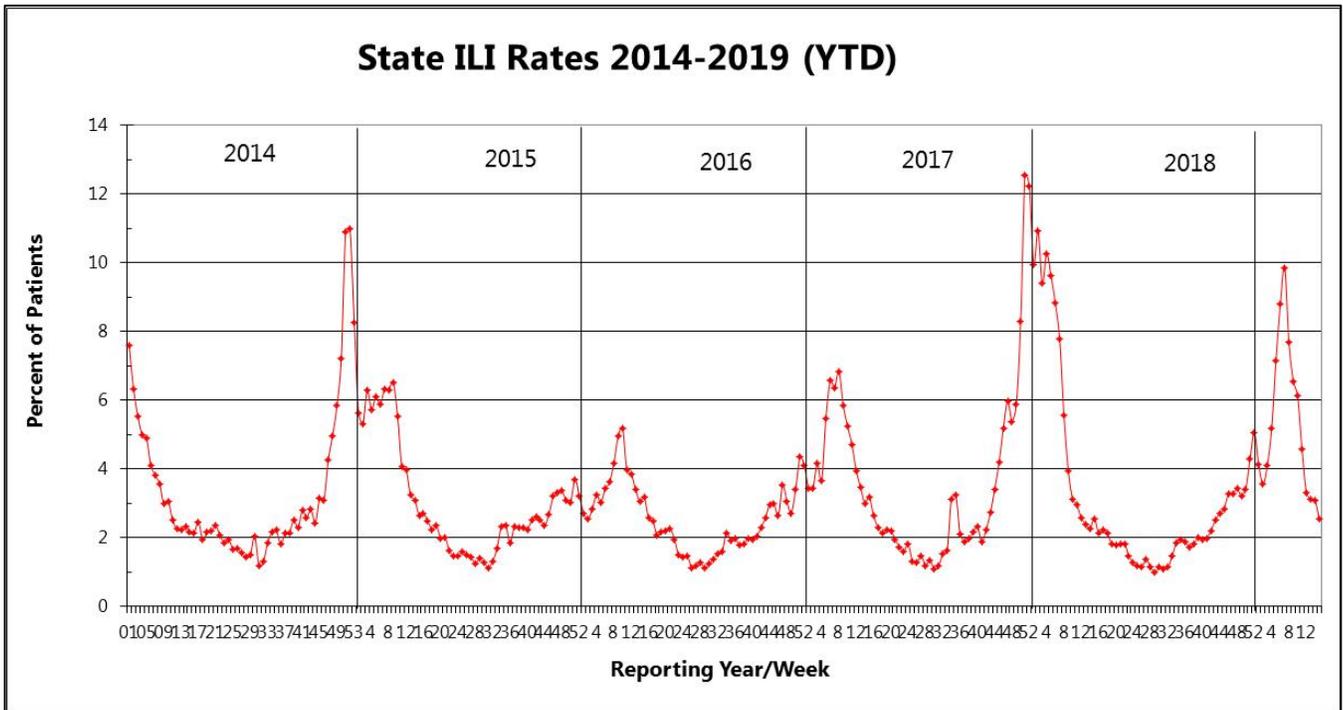
Overall, the percentage of reported ILI cases has been highest among those in the 0-4 and 5-24 years of age groups. During week 15, the percentage of ILI cases **increased** in the

0-4 years of age group, but **decreased** in the 5-24 years of age group. The percentage of ILI cases in the other age groups remained constant when compared to the previous week. | [Figure 2](#)

The 2018-19 state ILI rate was **slightly above** the national and Region 4 baselines, but was **below** the Mississippi baseline, during week 15. | [Figure 3](#)

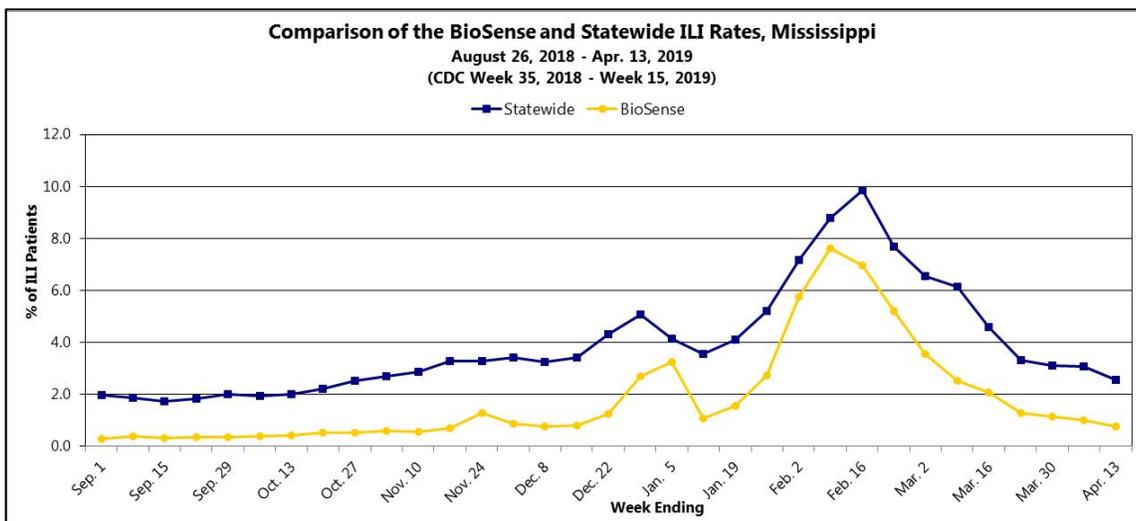


Mississippi ILI Rates 2014-2019 | [Figure 4](#)



### Syndromic ILI Surveillance

The Mississippi State Department of Health also collects influenza syndromic surveillance data through the CDC BioSense Platform. This data is comprised of chief complaints and diagnosis codes and is submitted electronically by participating hospitals and clinics throughout the state in near real-time. The BioSense data is an additional tool to monitor influenza activity in Mississippi.



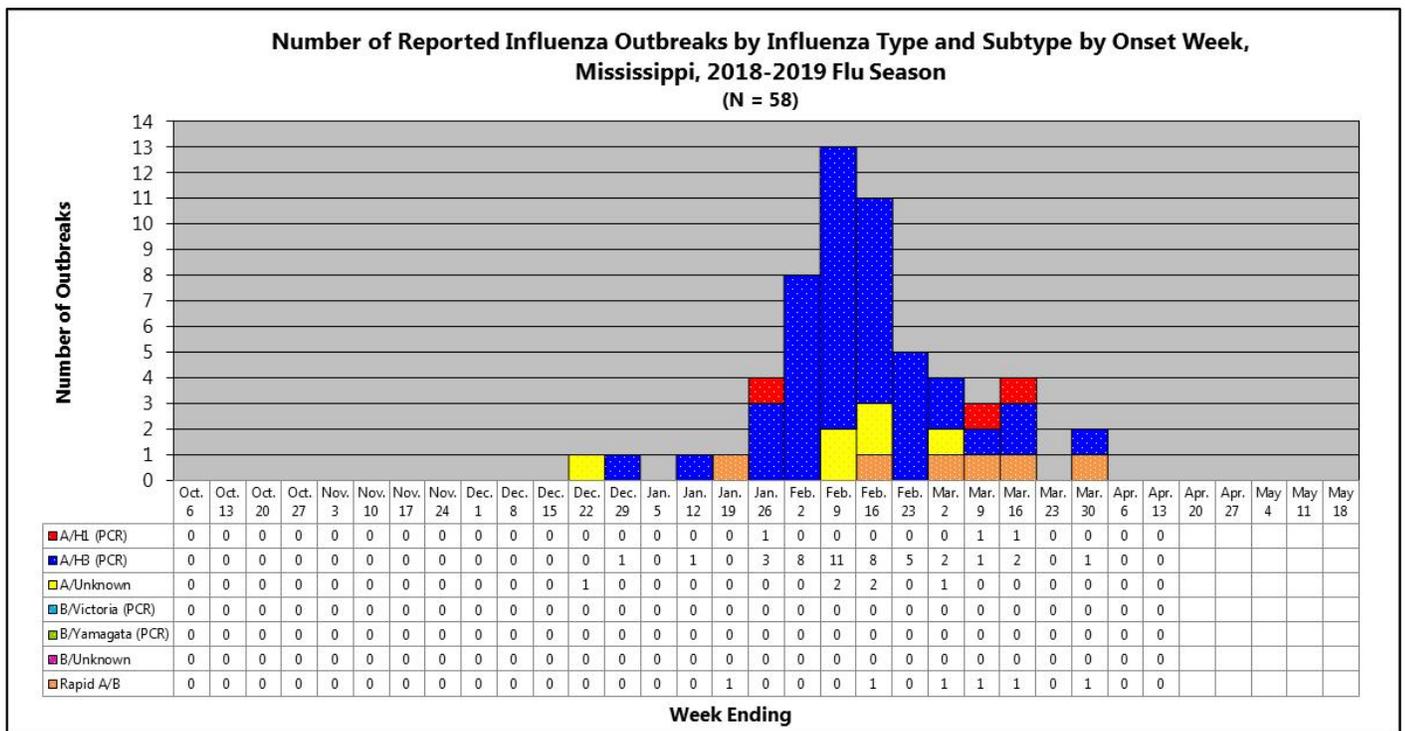
The percentage of patients with a chief complaint or diagnosis of influenza-like illness

during week 15 decreased from the previous week, as did the statewide ILI rate. The BioSense ILI rate appears to be following the same trend as the statewide ILI rate. | [Figure 5](#)

### Influenza Outbreaks

Outbreaks are reportable in Mississippi as a Class 1A event and must be reported by telephone within **24 hours** of first knowledge or suspicion to the Mississippi State Department of Health. For more information on reportable diseases and conditions, please refer to the [MSDH List of Reportable Diseases and Conditions](#).

Between week 40 (week ending October 6<sup>th</sup>) and week **15** (week ending April 13<sup>th</sup>), 64 outbreaks were reported to MSDH. MSDH investigates all reported outbreaks, and of the 64 reported outbreaks, complete information was available for 58 of them. Three (5%) of the outbreaks were attributed to influenza A/H1, 43 (74%) were attributed to influenza A/H3, six (10%) were due to an influenza A virus, unknown subtype, and six (10%) were due to an unknown influenza type. | [Figure 6](#)



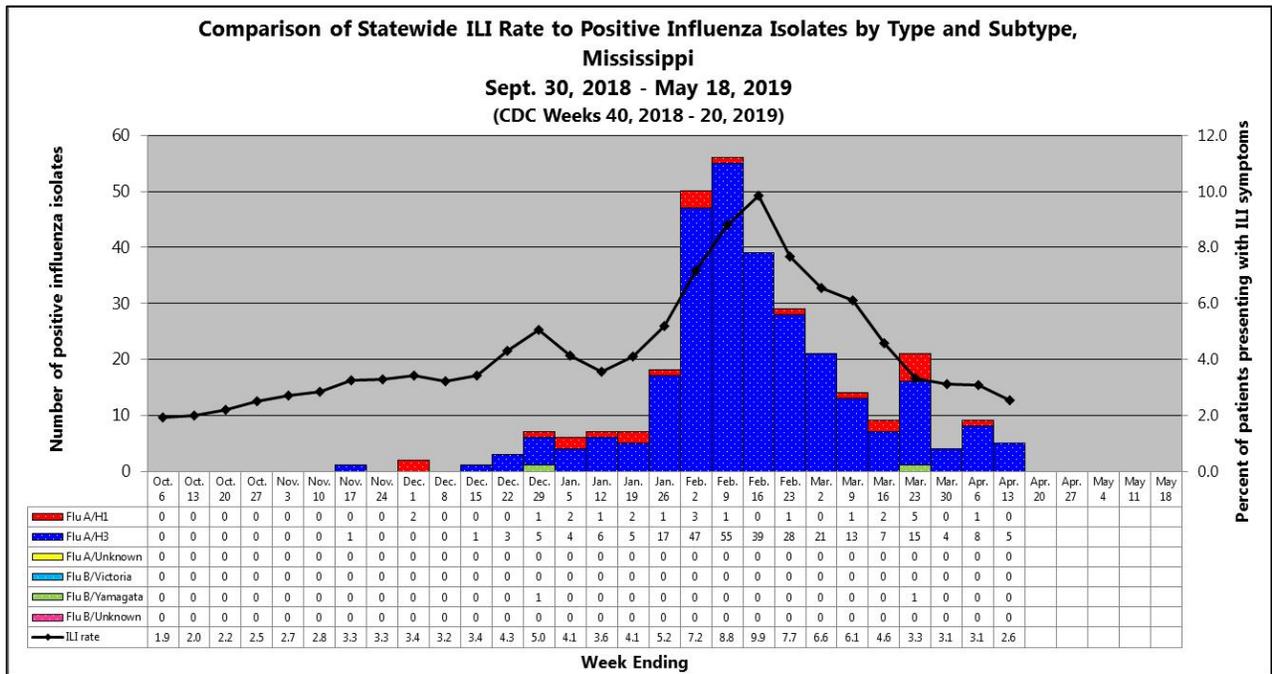
The influenza outbreaks occurred in the following counties: Attala (1), Bolivar (1), Calhoun (1), Covington (1), DeSoto (1), Forrest (3), Franklin (1), Greene (1), Hancock (1), Harrison (2), Hinds (3), Jackson (2), Jones (4), Kemper (1), Lafayette (2), Lauderdale (1), Leake (1), Lee (1), Lincoln (3), Madison (2), Marion (3), Monroe (2), Neshoba (2), Newton (1), Oktibbeha (1), Pearl River (2), Perry (1), Pike (2), Pontotoc (1), Rankin (3), Smith (2), Stone (1), Tallahatchie (1), Tate (2), Tishomingo (1), Tunica (1), Union (1), Warren (1), Webster (1), and Yazoo (2).

For additional information on infection control measures in health care facilities and managing influenza outbreaks in long-term care facilities, please refer to the CDC's webpages:

<https://www.cdc.gov/flu/professionals/infectioncontrol/index.htm> and <https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>, respectively.

### Flu Testing Reports

Since week 40 (week ending October 6<sup>th</sup>), **309** laboratory confirmed influenza samples have been identified by the MSDH Public Health Laboratory. Twenty-three (7%) were identified as influenza A/H1, 284 (92%) were identified as influenza A/H3, and two (0.6%) was identified as an influenza B/Yamagata. | [Figure 7](#)

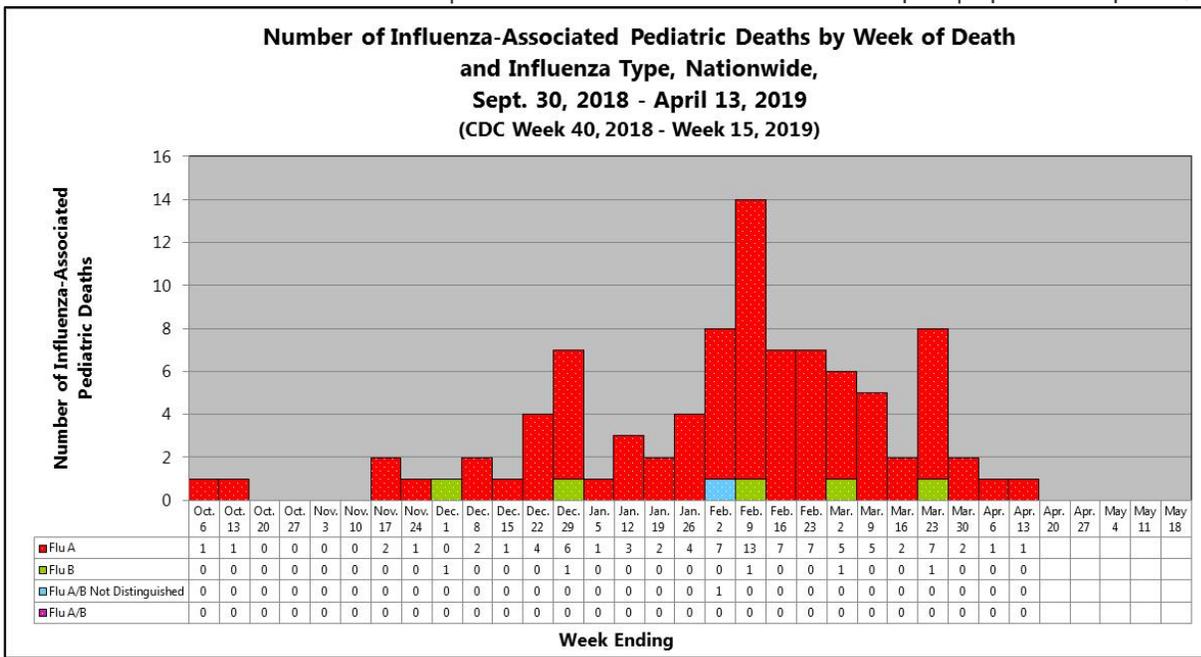


The influenza cases were identified from the following counties: Attala (36), Bolivar (2), Calhoun (1), Carroll (1), Choctaw (2), Clarke (1), Copiah (2), Covington (4), DeSoto (1), Forrest (16), Franklin (2), George (3), Greene (2), Hancock (6), Harrison (28), Hinds (27), Holmes (3), Jackson (11), Jones (9), Kemper (2), Lafayette (3), Lamar (1), Lauderdale (3), Leake (18), Lee (2), Leflore (2), Lincoln (4), Lowndes (1), Madison (7), Marion (9), Marshall (6), Monroe (3), Neshoba (14), Newton (4), Oktibbeha (6), Pearl River (9), Pike (9), Pontotoc (1), Rankin (23), Scott (1), Smith (2), Tallahatchie (1), Tate (3), Tishomingo (2), Tunica (2), Union (2), Winston (7), and Yazoo (3). The county of residence for two of the cases was unknown.

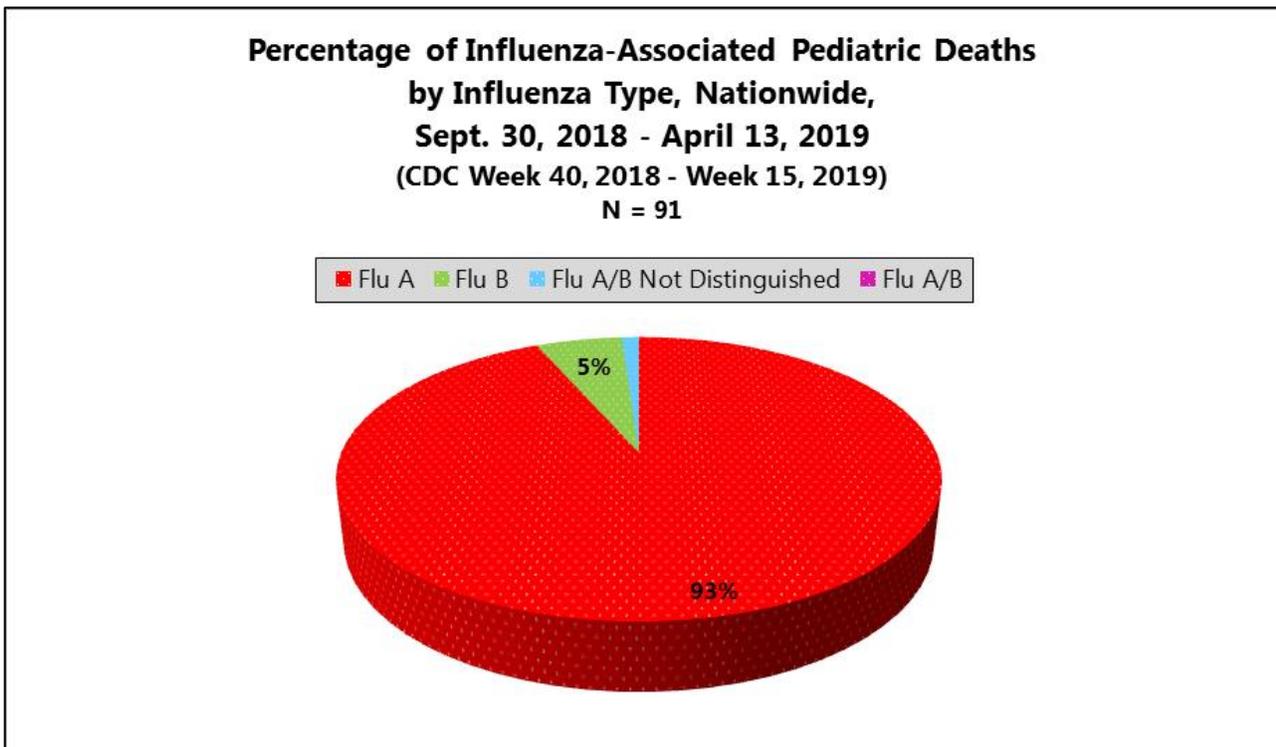
### National and Mississippi Pediatric Mortality Surveillance

Nationally, **five** influenza-associated pediatric deaths were reported to CDC during week **15**. Three deaths were associated with an influenza A(H3) virus and occurred during weeks 8, 12 and 15 (the weeks ending February 23, March 23 and April 13, 2019). Two deaths were associated with an influenza A virus for which no subtyping was performed and occurred during weeks 12 and 13 (the weeks ending March 23 and March 30, 2019, respectively). **Ninety-one** influenza-associated pediatric deaths have been reported to CDC for the 2018-2019 season. | [Figure 8](#)

Mississippi has had **one** influenza-associated pediatric death reported during this influenza season.



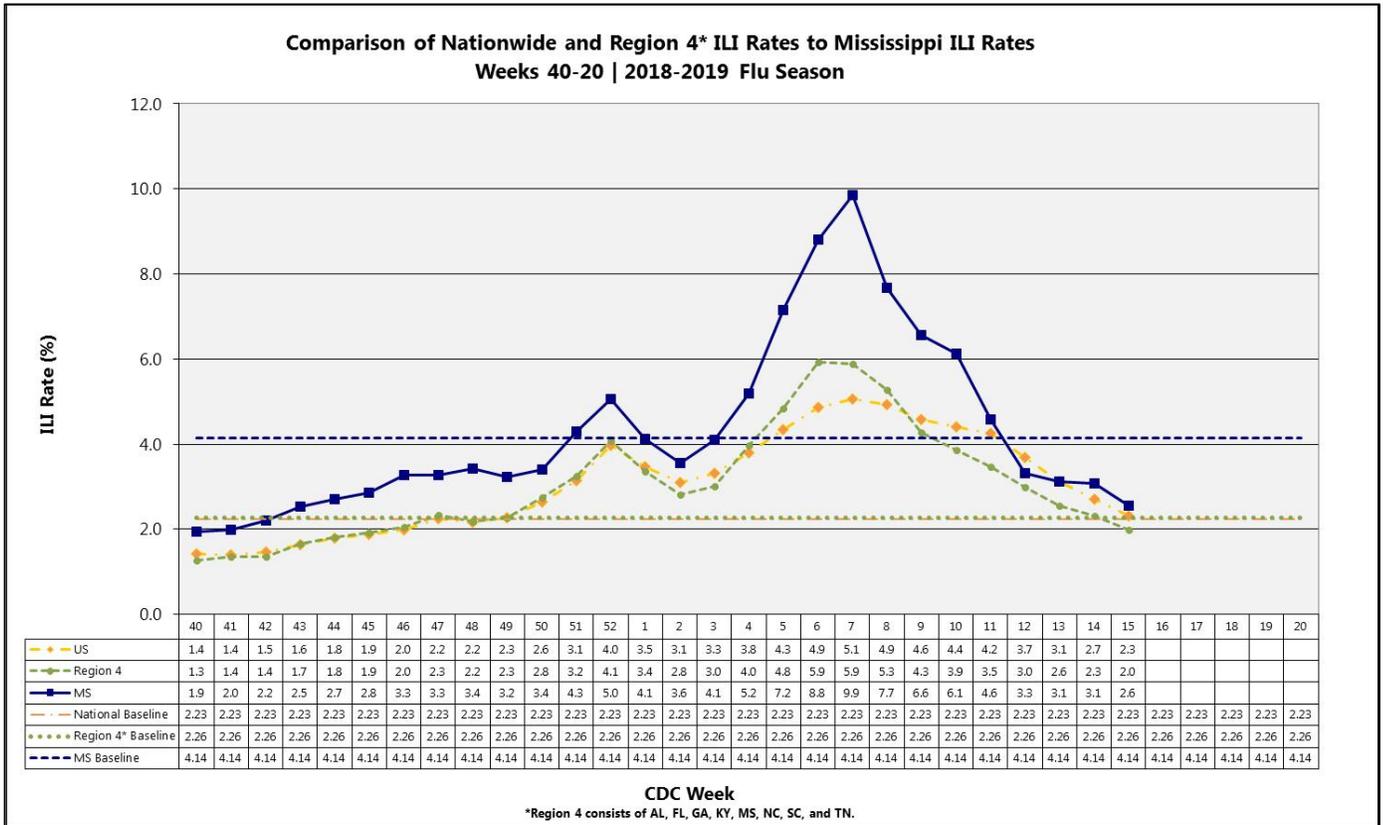
Of the **91** influenza-associated pediatric deaths reported nationally during the 2018-2019 season, 85 (93%) have been attributed to influenza A viruses, five (5%) to influenza B viruses, and one (1%) to an influenza virus for which type was not determined. | [Figure 9](#)



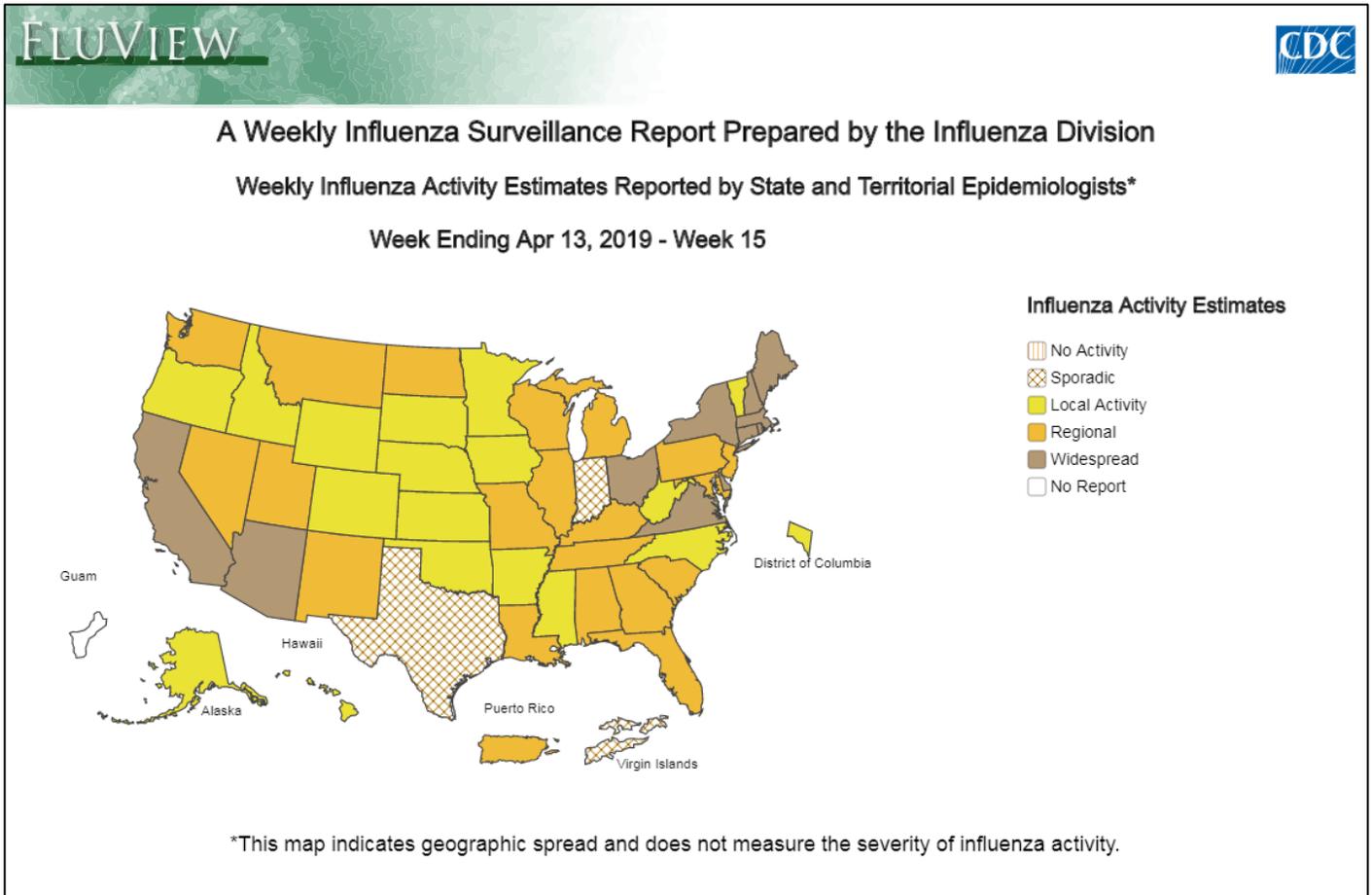
For additional information on influenza-associated pediatric deaths, please refer to the [CDC's FluView](#).

### National ILI Surveillance

During week **15**, the Mississippi (2.6%), national (2.3%), and Region 4 (2.0%) ILI rates decreased. The national ILI rate was at its baseline, while the Region 4 and Mississippi ILI rates were below their respective baselines. | [Figure 10](#)



During week **15**, influenza activity **continued to decrease but remained elevated** in the United States.<sup>1</sup> | [Figure 11](#)



<sup>1</sup>For up-to-date information on flu activity nationwide, please refer to the CDC’s website:  
<http://www.cdc.gov/flu/weekly/fluactivitiesurv.htm>.

Mississippi reported “**Local**” for the influenza activity during week **15**. | **Table 3**

Level of Flu Activity	Definition
<b>No Activity</b>	Overall clinical activity remains low and there are no lab confirmed cases.
<b>Sporadic</b>	Isolated cases of lab confirmed influenza in the state; ILI activity is not increased <u>OR</u> A lab-confirmed outbreak in a single institution in the state; ILI activity is not increased.
<b>Local</b>	Increased ILI within a single region <b>AND</b> recent (within the past 3 weeks) laboratory evidence of influenza in that region. ILI activity in other regions is not increased <u>OR</u> two of more institutional outbreaks (ILI or lab confirmed) within a single region <b>AND</b> recent (within the past 3 weeks) lab confirmed influenza in that region. Other regions do not have increased ILI and virus activity is no greater than sporadic in those regions
<b>Regional</b>	Increased ILI in at least 2 regions but fewer than half of the regions <b>AND</b> recent (within the past 3 weeks) lab confirmed influenza in the affected regions <u>OR</u> Institutional outbreaks (ILI or lab confirmed) in at least 2 regions but fewer than half of the regions <b>AND</b> recent lab confirmed influenza in the affected regions.
<b>Widespread</b>	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions

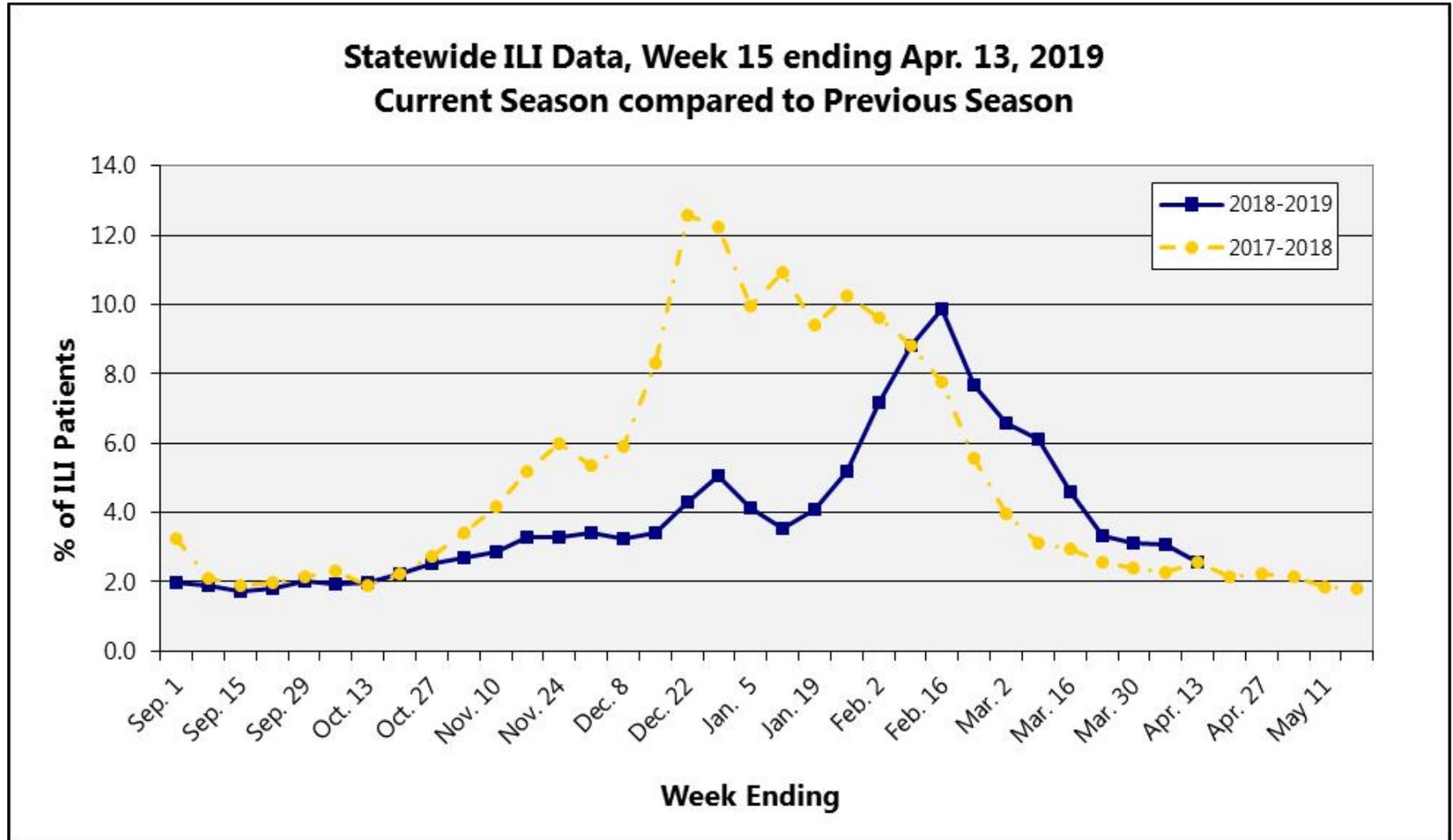
	<b>AND</b> recent (within the past 3 weeks) lab confirmed influenza in the state.
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**Additional influenza information:**

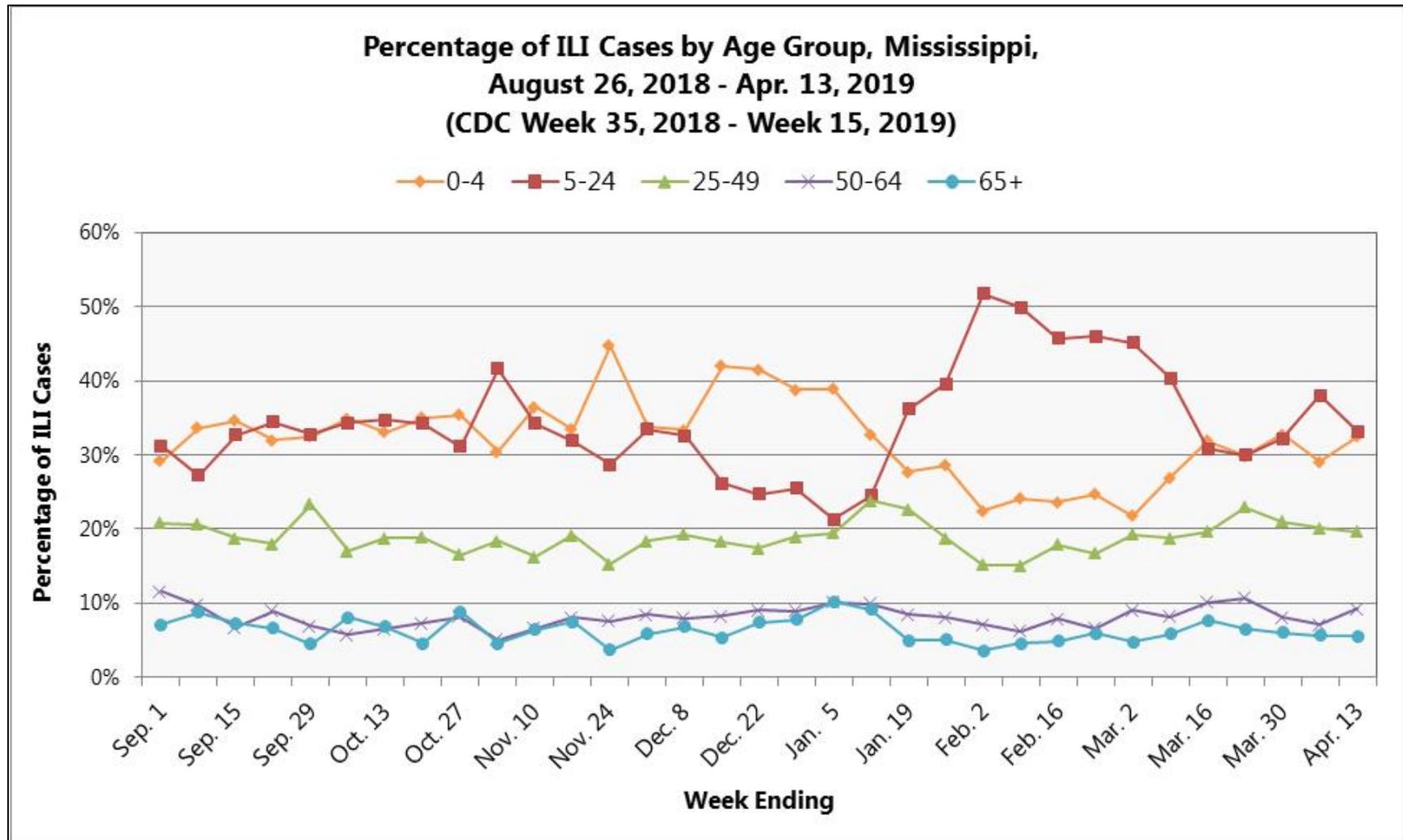
<b>Centers for Disease Control and Prevention</b>	<a href="http://cdc.gov/flu/">http://cdc.gov/flu/</a>
<b>Centers for Disease Control and Prevention FluView</b>	<a href="http://www.cdc.gov/flu/weekly/">http://www.cdc.gov/flu/weekly/</a>
<b>MSDH Flu and Pneumonia</b>	<a href="http://msdh.ms.gov/msdhsite/_static/14,0,199.html">http://msdh.ms.gov/msdhsite/_static/14,0,199.html</a>
<b>World Health Organization FluNet</b>	<a href="http://www.who.int/influenza/gisrs_laboratory/flunet/en/">http://www.who.int/influenza/gisrs_laboratory/flunet/en/</a>

## Appendix

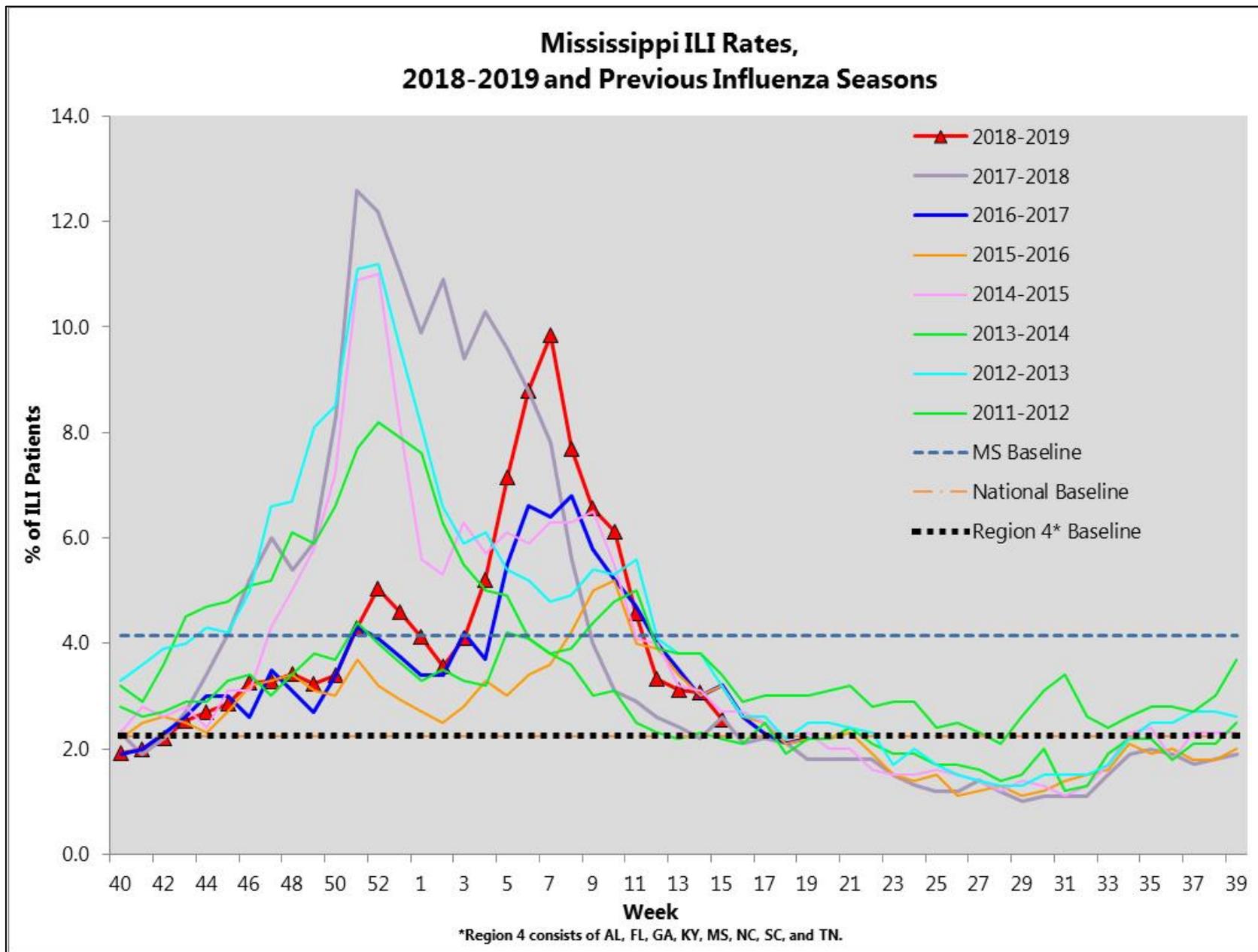
Figure 1



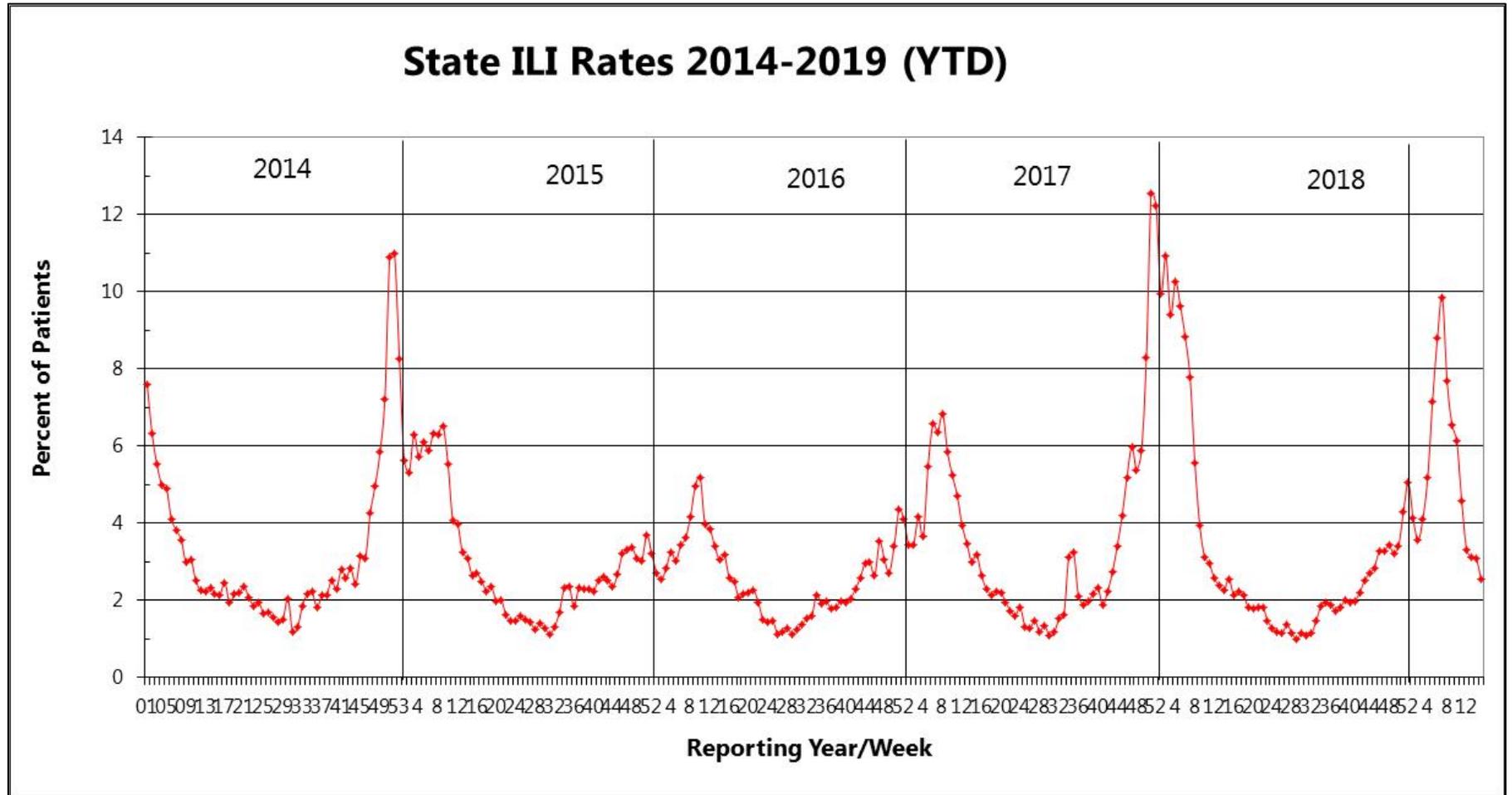
**Figure 2**



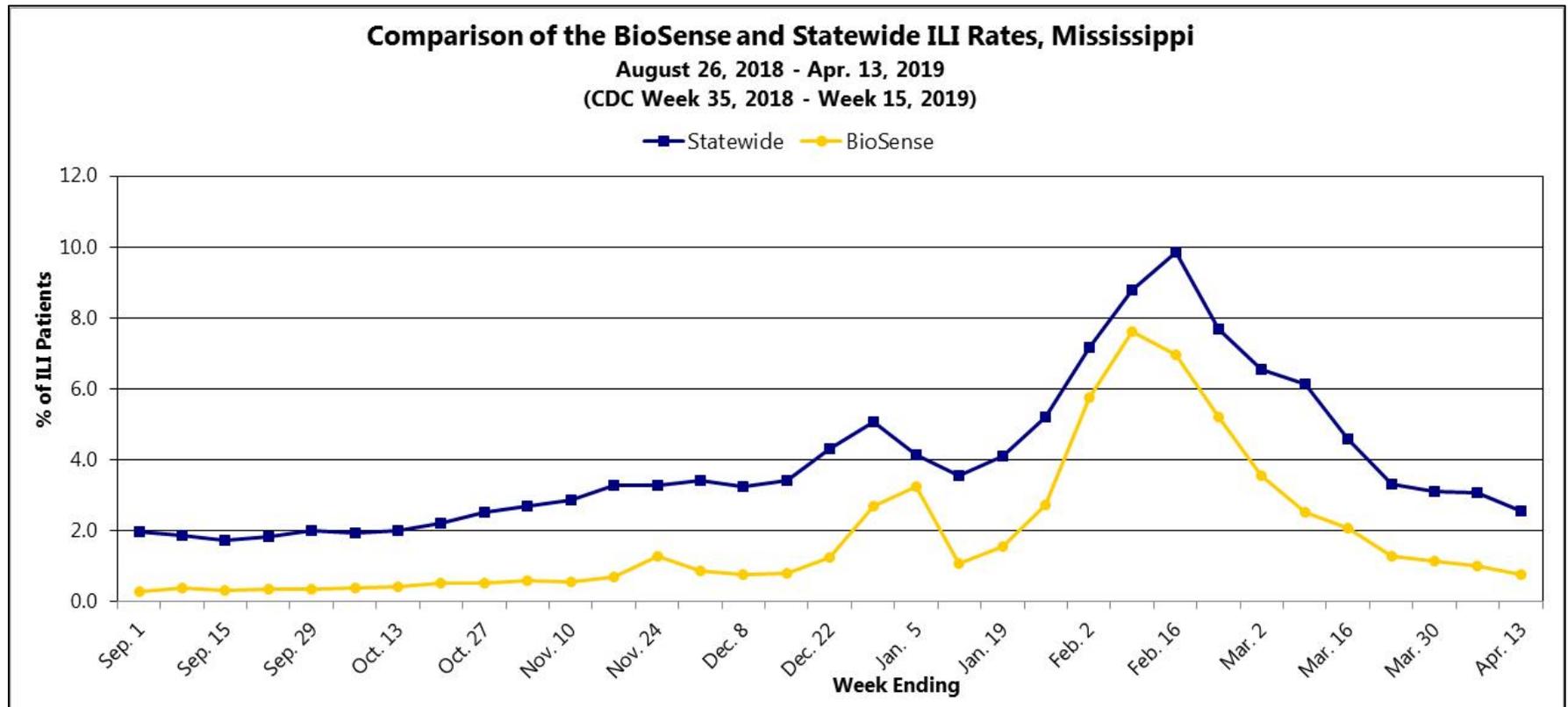
**Figure 3**



**Figure 4**



**Figure 5**



**Figure 6**

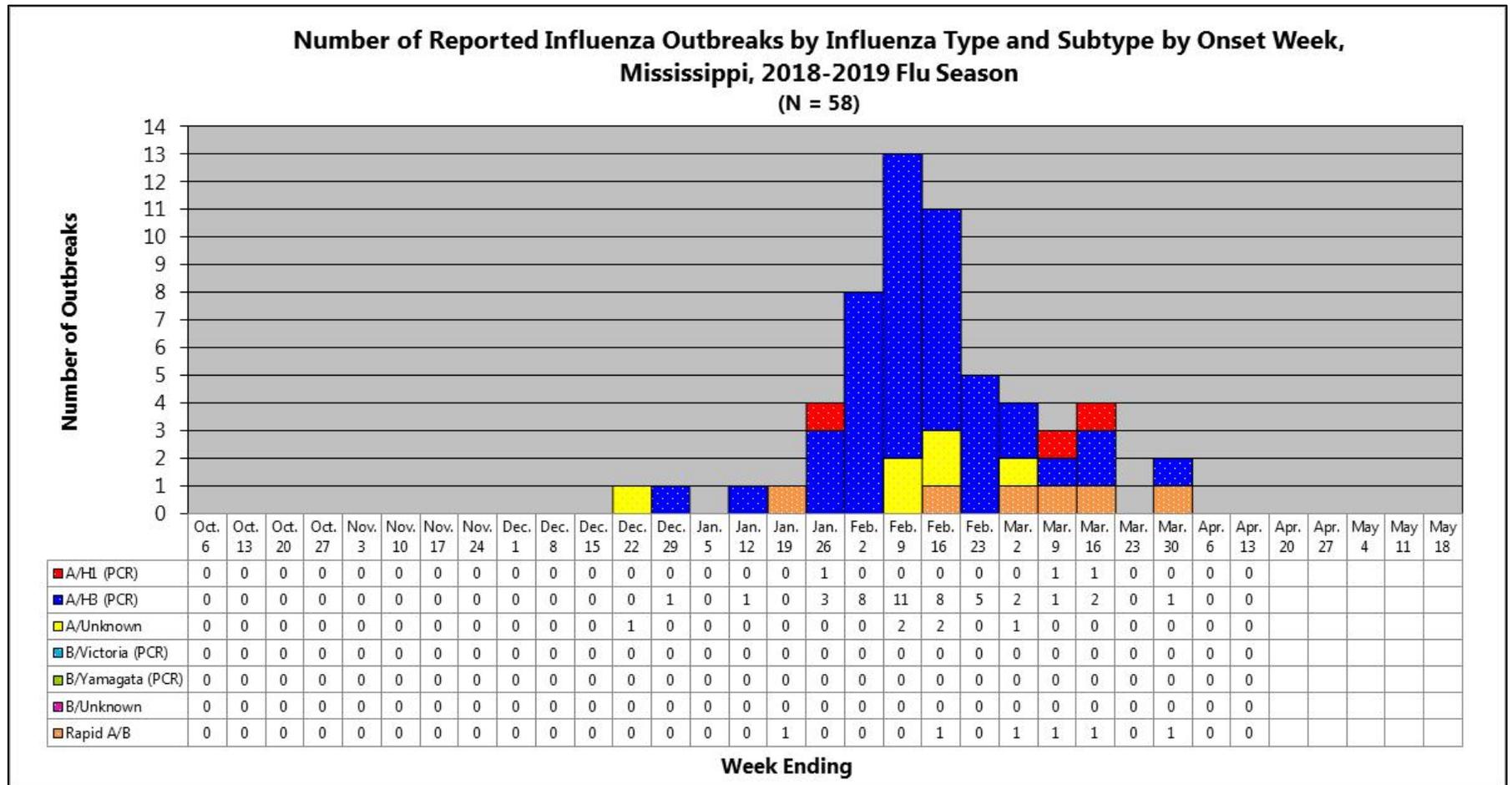
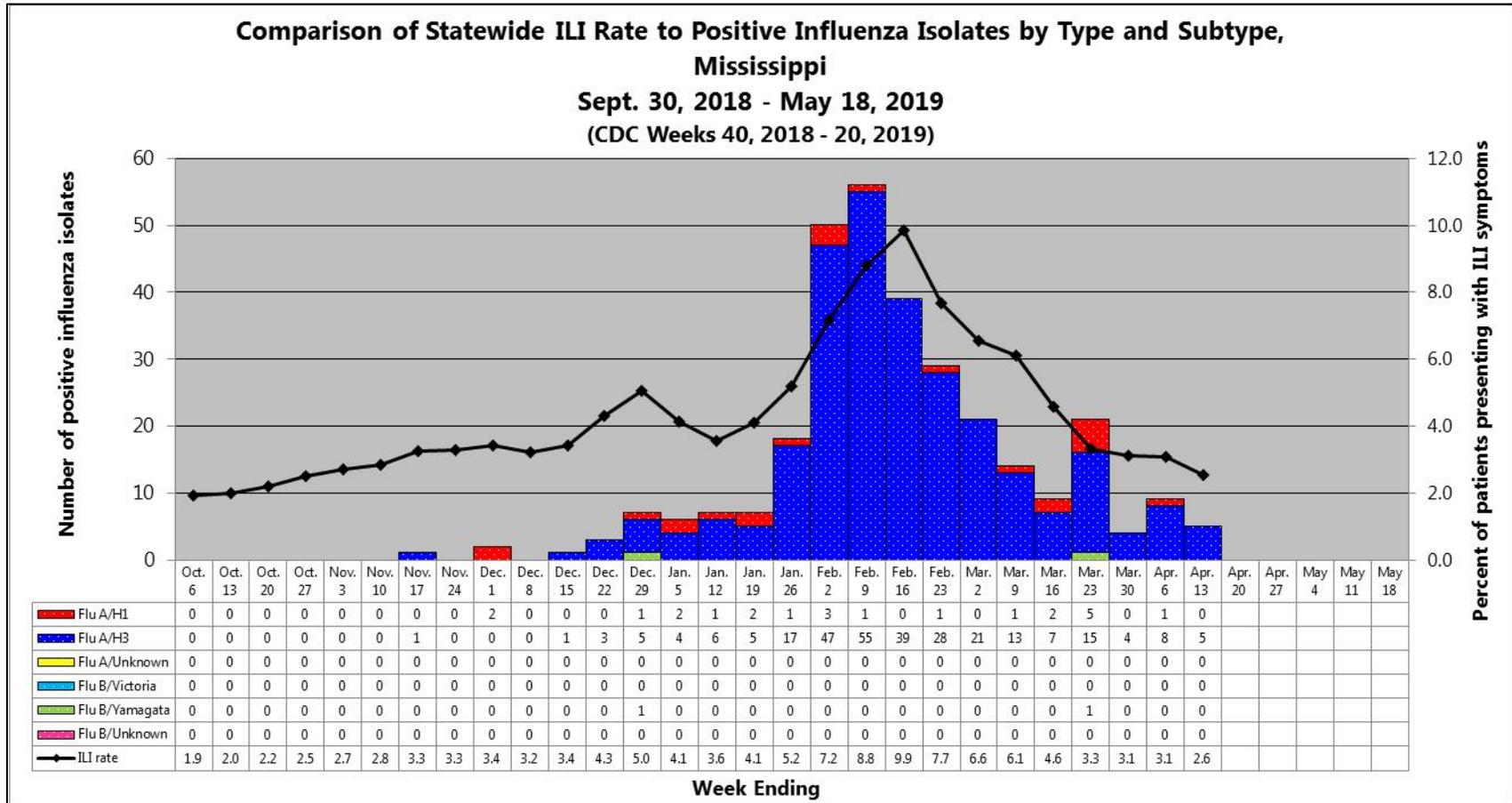
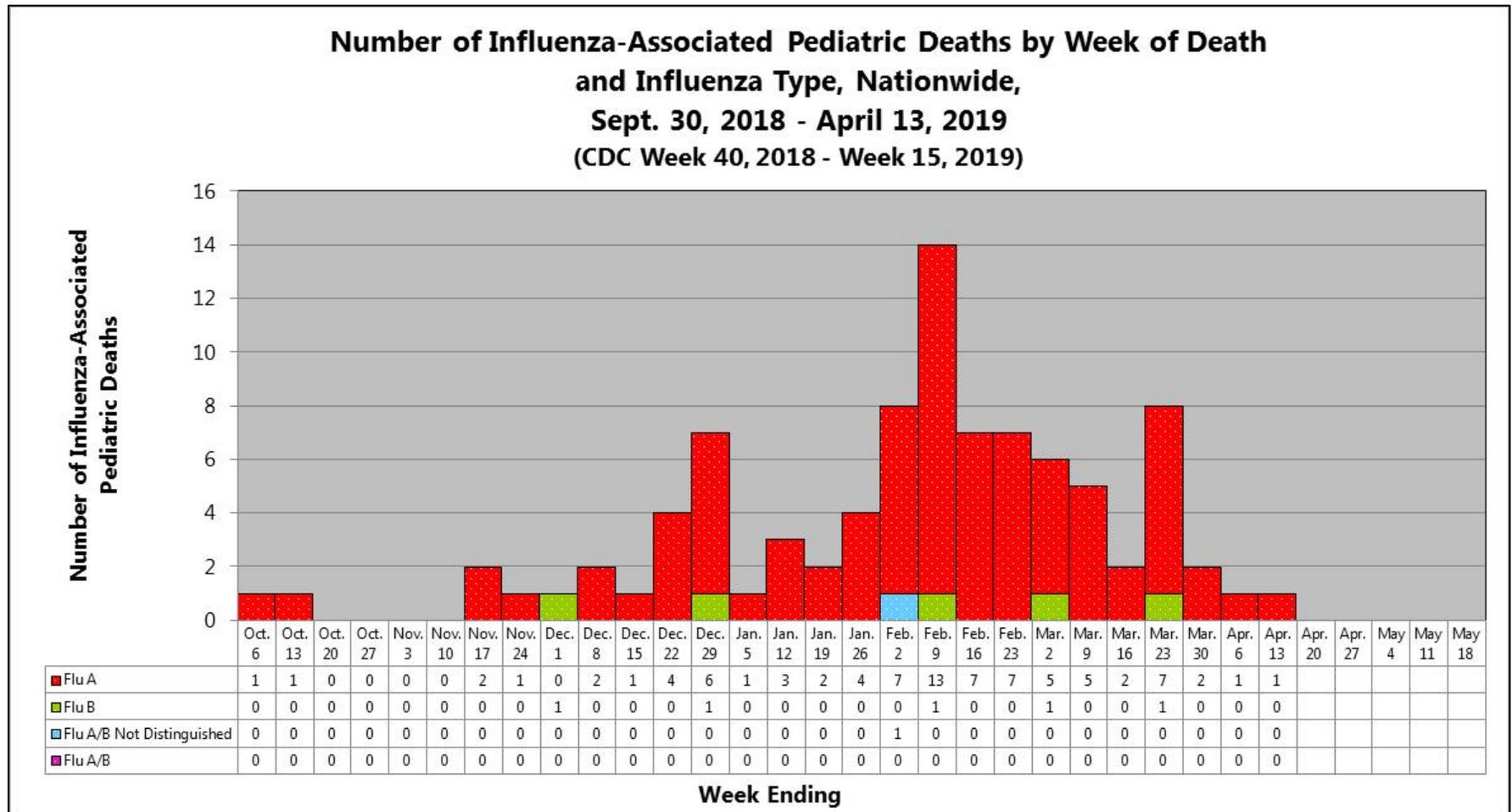


Figure 7



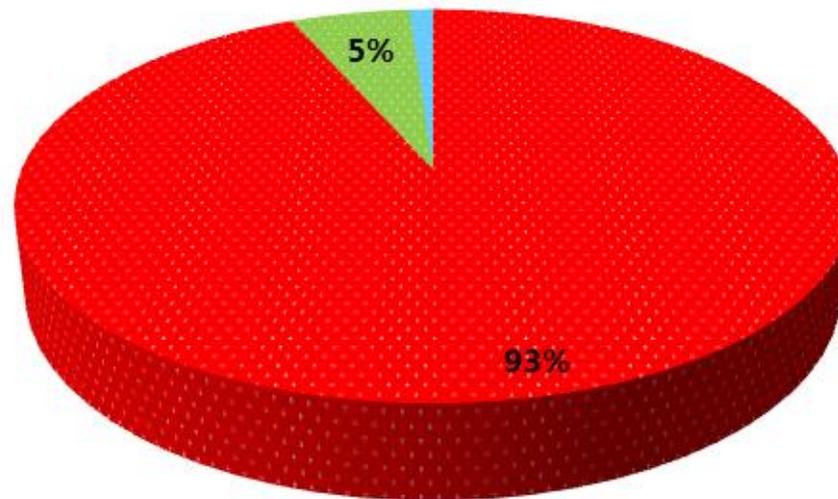
**Figure 8**



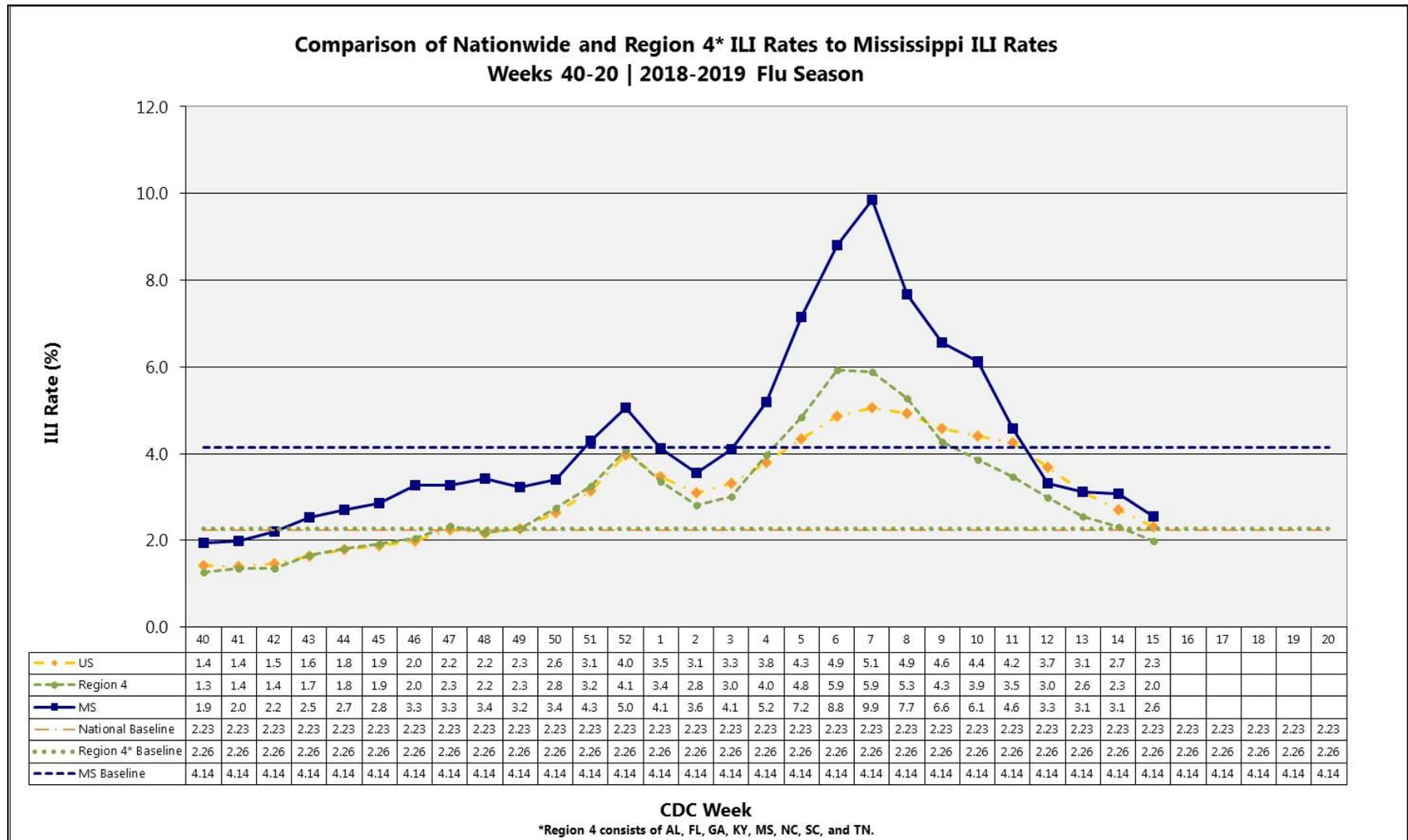
**Figure 9**

**Percentage of Influenza-Associated Pediatric Deaths  
by Influenza Type, Nationwide,  
Sept. 30, 2018 - April 13, 2019  
(CDC Week 40, 2018 - Week 15, 2019)  
N = 91**

■ Flu A ■ Flu B ■ Flu A/B Not Distinguished ■ Flu A/B



**Figure 10**



**Figure 11**

