



# 2017-2018 Influenza Surveillance Report

## Week 16

April 15 – April 21, 2018

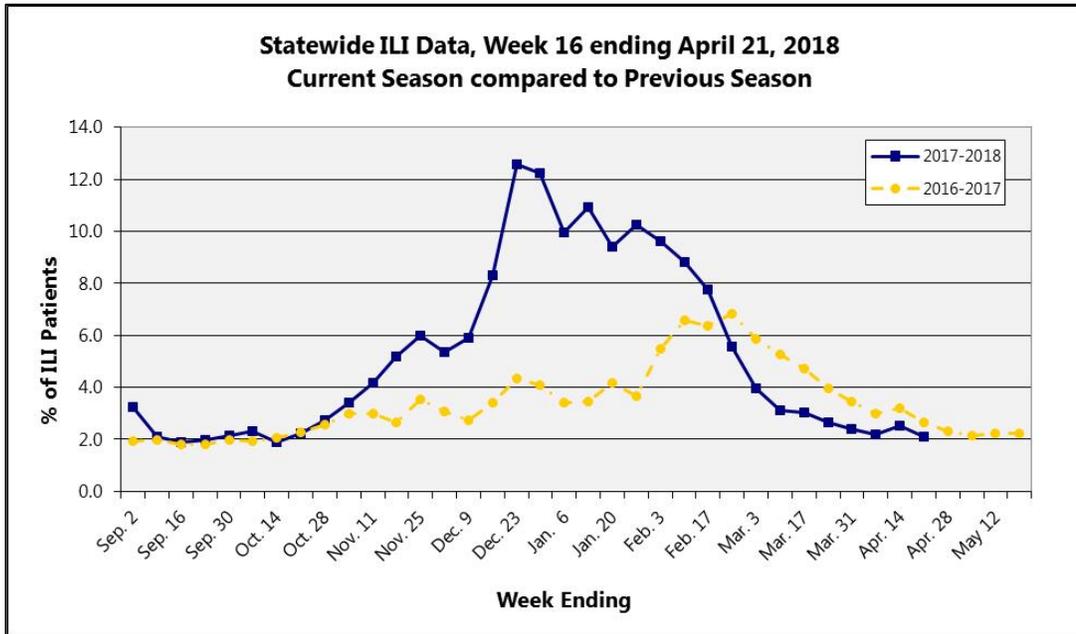
### About our flu activity reporting

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**

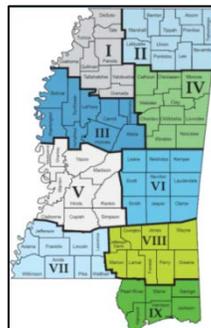


During week **16** (04/15/18-04/21/18), the overall state ILI rate (**2.1%**) was **comparable** to the previous week (**2.5%**) and to this time last year (**2.6%**). | [Figure 1](#)

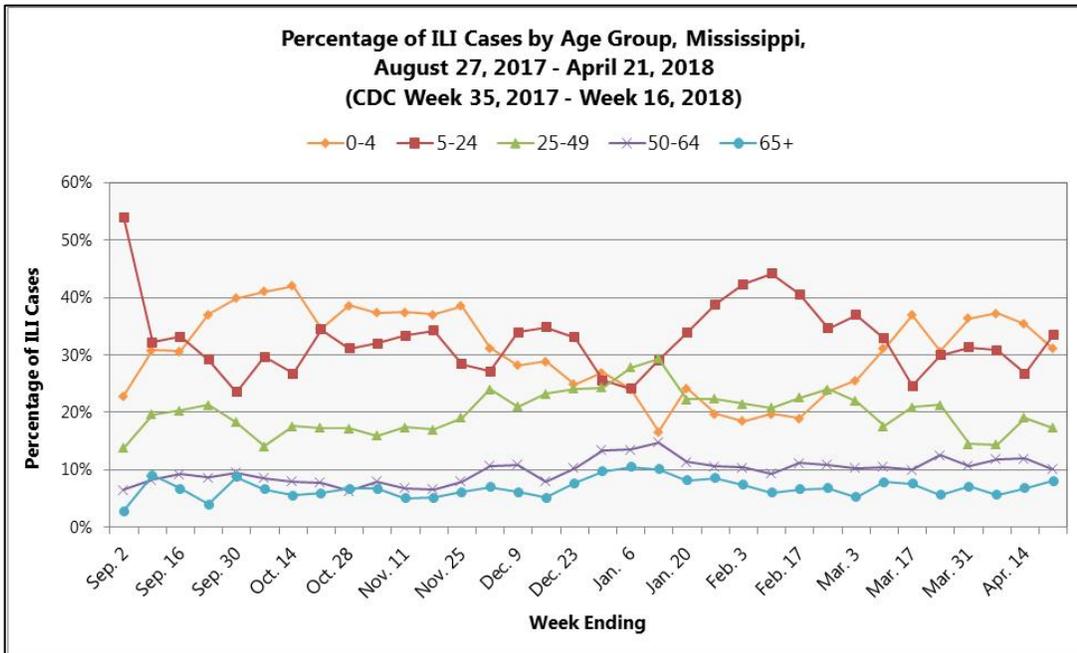
Total number of patients treated by sentinel providers in the last three weeks. | **Table 1**

2017-2018 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
<b>16</b>	<b>Apr. 21</b>	<b>131</b>	<b>16632</b>	<b>347</b>	<b>2.1</b>
15	Apr. 14	126	14621	367	2.5
14	Apr. 7	131	16285	354	2.2

During week **16**, one district (4) had an increase in ILI activity, while three districts (2, 6, and 9) had a decrease. Five districts (1, 3, 5, 7, and 8) remained about the same. *Information is provisional only and may change depending on additional reporting from sentinel providers.* | **Table 2**



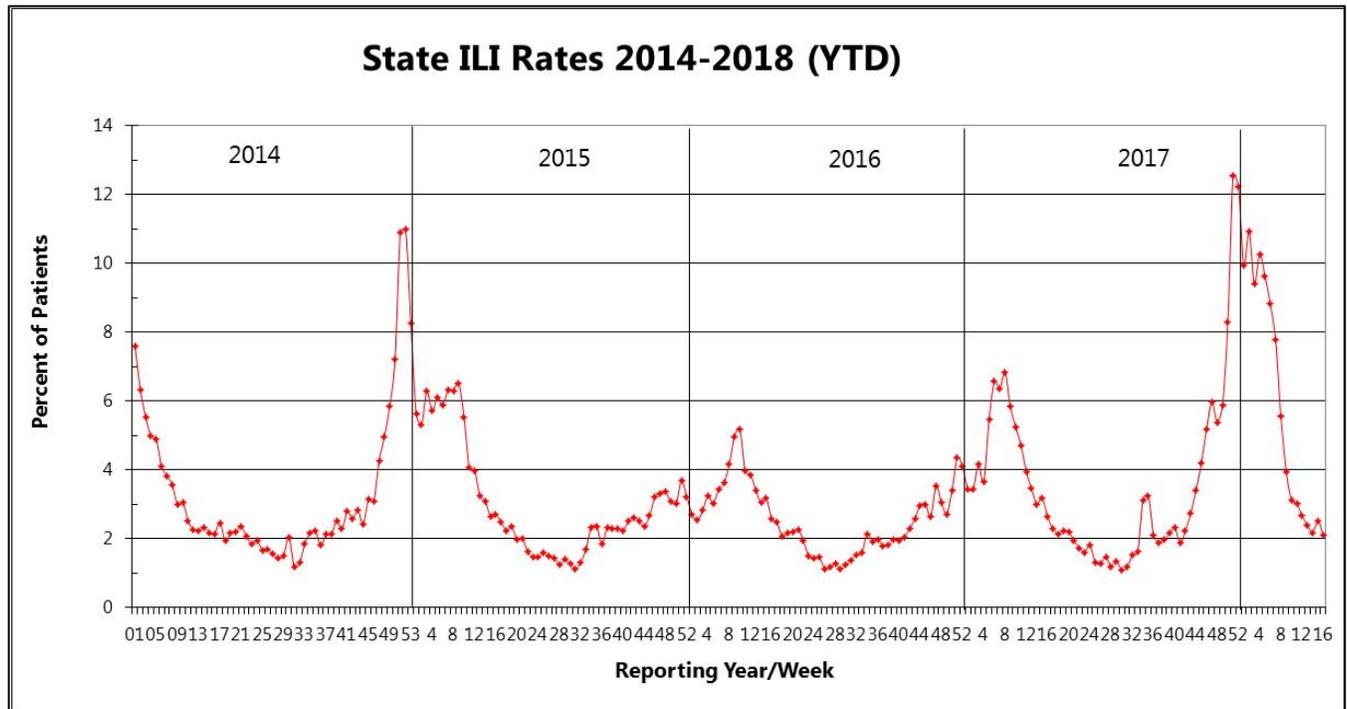
MSDH District ILI Rates (%) 2017-2018		
District	Week 15	Week 16
State	2.5	2.1
I	1.9	2.4
II	2.9	1.4
III	1.6	1.3
IV	1.5	2.3
V	2.2	2.1
VI	6.3	4.4
VII	2.9	3.0
VIII	1.0	1.3
IX	3.3	1.6



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 **16**, the percentage of ILI cases decreased

slightly in the **0-4 years** of age group, but increased in the **5-24 years** of age group. | [Figure 2](#)

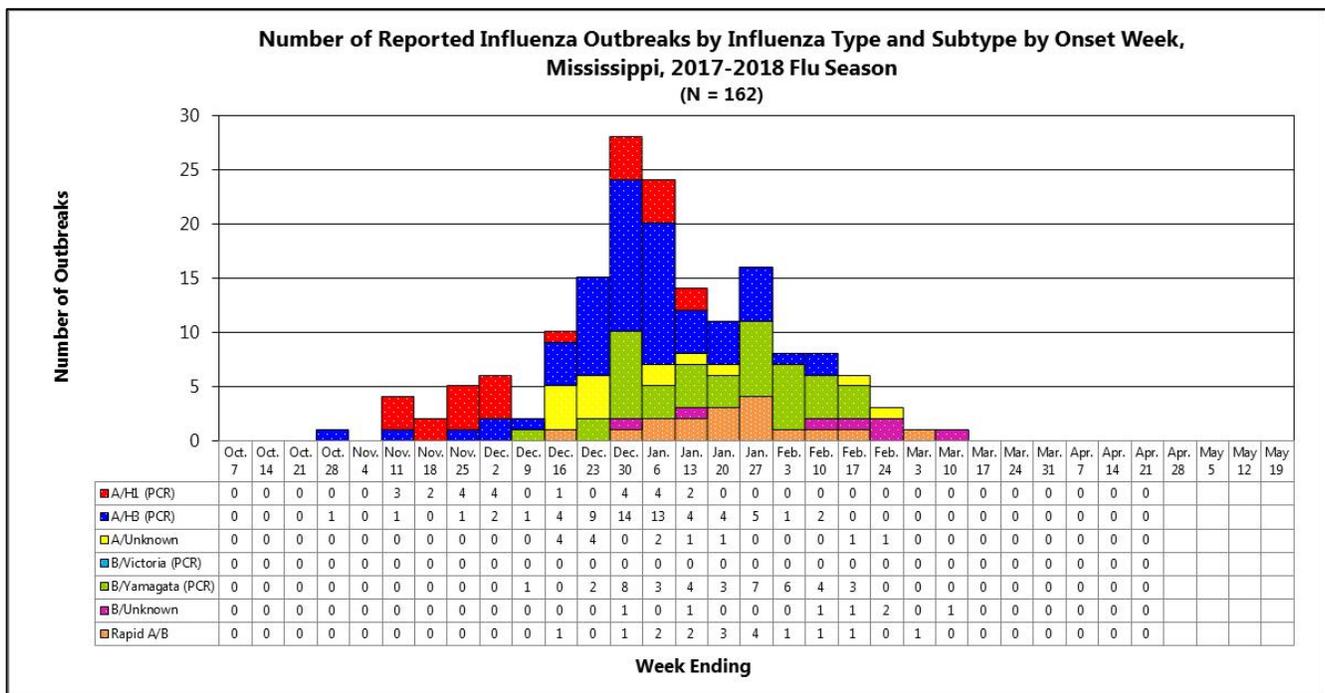
Mississippi ILI Rates 2014-2018 | [Figure 3](#)



### 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 7<sup>th</sup>) and week **16** (week ending April 21<sup>st</sup>), 162 influenza outbreaks were reported to MSDH, with the last outbreak reported to MSDH on March 12, 2018. MSDH investigates all reported outbreaks, and of the 162 reported outbreaks, complete information was available for all of them. Twenty-four (15%) of the outbreaks were attributed to influenza A (H1), 62 (38%) were due to influenza A (H3), 14 (8%) were due to influenza A, unknown subtype, 41 (25%) were due to influenza B (Yamagata), seven (4%) were due to influenza B, unknown lineage, and 17 (10%) were due to an unknown influenza type. (Note: Three outbreaks were associated with two different influenza strains.) | [Figure 4](#)



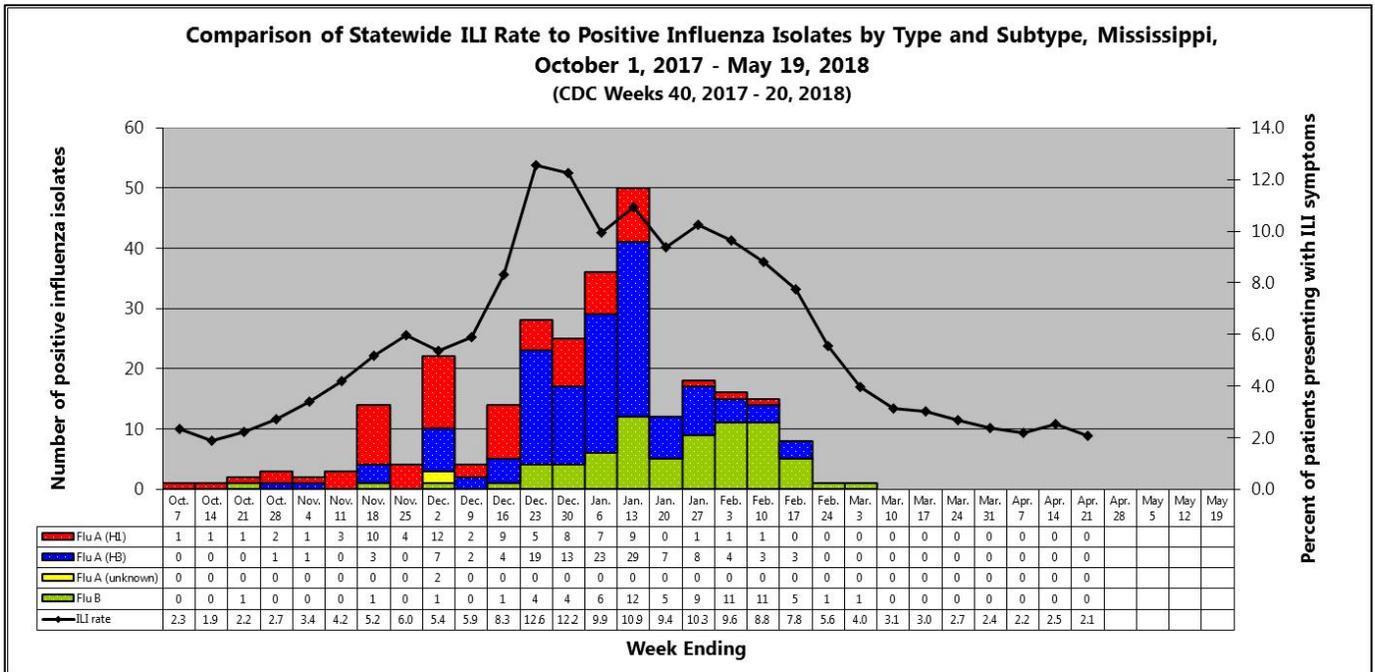
The influenza outbreaks have occurred in the following counties: Adams (5), Alcorn (4), Amite (1), Attala (2), Benton (1), Bolivar (2), Calhoun (2), Choctaw (1), Clarke (1), Clay (1), Coahoma (1), Covington (3), DeSoto (6), Forrest (5), Greene (1), Grenada (2), Hancock (1), Harrison (6), Hinds (13), Holmes (1), Itawamba (1), Jackson (3), Jasper (1), Jones (6), Lafayette (2), Lamar (3), Lauderdale (4), Lee (3), Lincoln (2), Lowndes (3), Madison (2), Marshall (1), Monroe (5), Neshoba (7), Newton (2), Noxubee (1), Oktibbeha (1), Panola (1), Pearl River (2), Pike (3), Pontotoc (3), Prentiss (3), Quitman (2), Rankin (8), Scott (2), Simpson (3), Smith (3), Stone (2), Sunflower (1), Tallahatchie (1), Tate (1), Tippah (2), Tunica (1), Union (3), Walthall (3), Warren (2), Washington (4), Wilkinson (1), Winston (1), Yalobusha (1), and Yazoo (3).

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

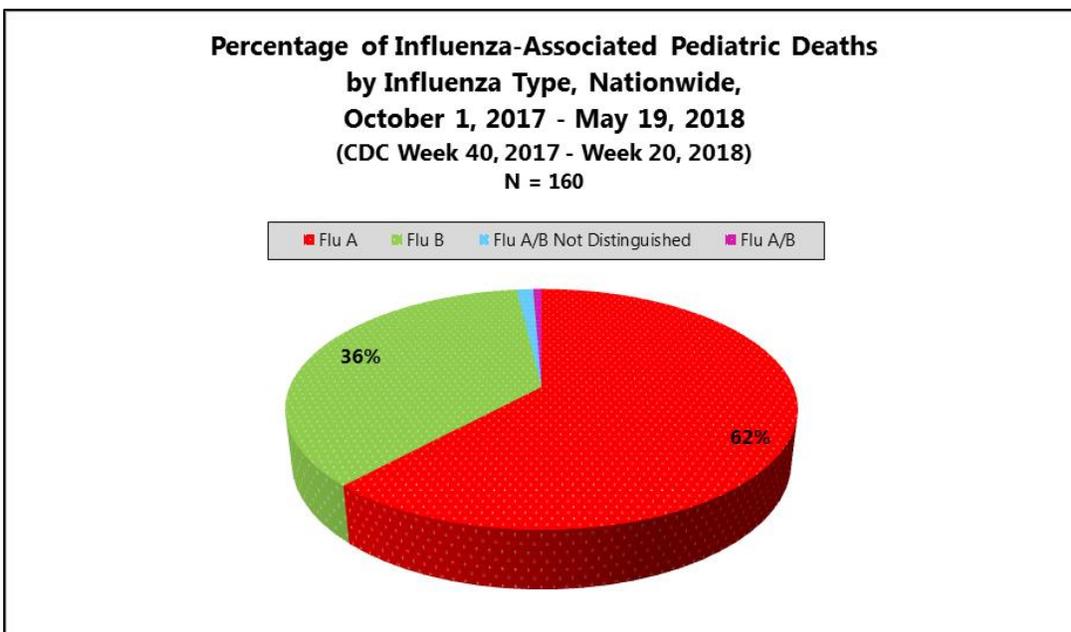
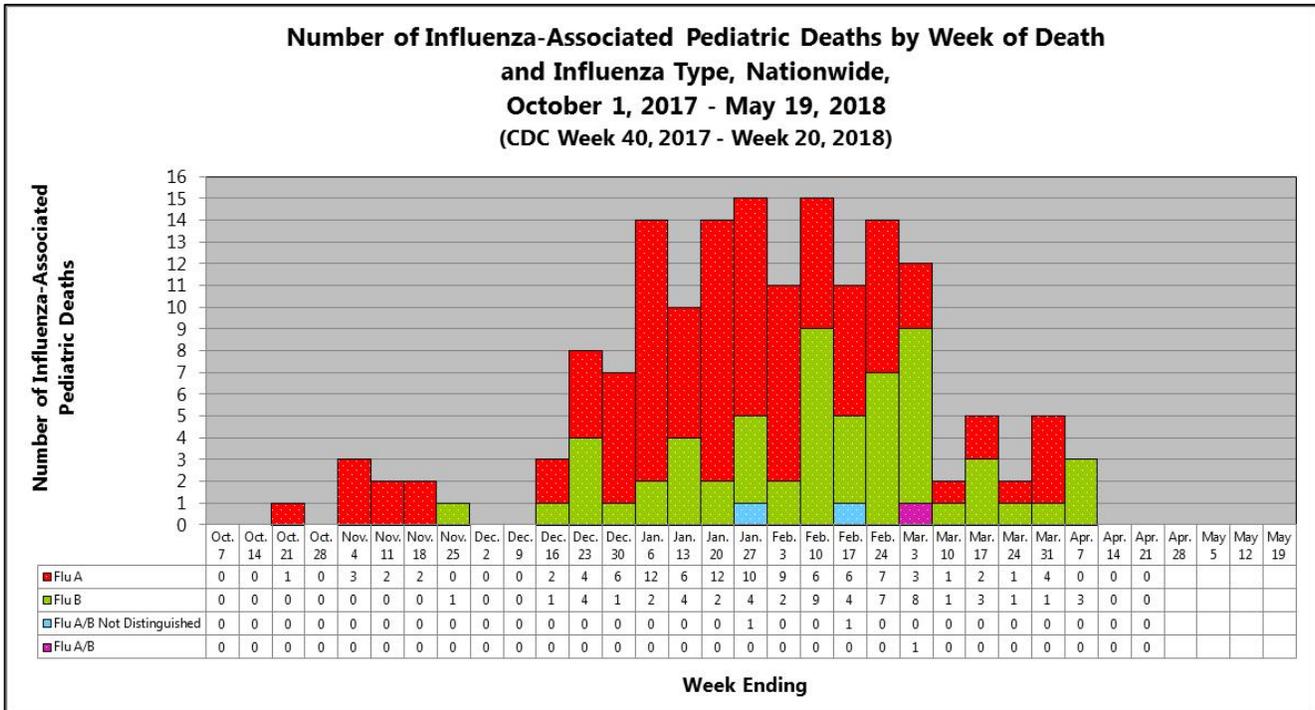
Since week 40 (week ending October 7<sup>th</sup>), **280** laboratory confirmed influenza samples have been identified. Seventy-eight (28%) were identified as influenza A (H1), 127 (45%) were identified as influenza A (H3), two (1%) were identified as influenza A, unknown subtype and 73 (26%) were identified as influenza B. The last positive influenza sample identified by MSDH occurred in week 9 (week ending March 3, 2018). | [Figure 5](#)



The influenza cases were identified from the following counties: Adams (7), Alcorn (6), Attala (2), Bolivar (3), Calhoun (3), Choctaw (1), Clarke (1), Clay (3), Coahoma (6), Covington (11), DeSoto (6), Forrest (11), Greene (3), Grenada (3), Harrison (14), Hinds (15), Itawamba (1), Jackson (6), Jasper (2), Jones (10), Kemper (1), Lafayette (2), Lamar (3), Lauderdale (8), Leake (1), Lee (5), Leflore (3), Lincoln (1), Lowndes (10), Madison (4), Marion (2), Marshall (13), Monroe (5), Neshoba (10), Newton (2), Noxubee (1), Oktibbeha (7), Panola (1), Pearl River (3), Pike (5), Pontotoc (5), Prentiss (3), Quitman (3), Rankin (8), Scott (4), Sharkey (2), Simpson (3), Smith (2), Stone (4), Sunflower (1), Tallahatchie (1), Tate (3), Tippah (7), Tunica (1), Union (4), Walthall (2), Warren (4), Washington (4), Wilkinson (3), Winston (5), Yalobusha (1), and Yazoo (6). The counties for three of the cases were unknown.

### National and Mississippi Pediatric Mortality Surveillance

Nationally, **four** influenza-associated pediatric deaths were reported to CDC during week **16**. Three deaths were associated with an influenza B virus and occurred during weeks 6 and 14 (weeks ending February 10, and April 7, 2018, respectively). One death was associated with an influenza virus for which type was not determined and occurred during week 7 (week ending February 17, 2018). **One hundred sixty** influenza-associated pediatric deaths have been reported to CDC for the 2017-2018 season. | [Figure 6](#)



Of the **160** influenza-associated pediatric deaths reported nationally during the 2017-2018 season, 99 (62%) have been attributed to influenza A viruses, 58 (36%) to influenza B viruses, two (1%) to an

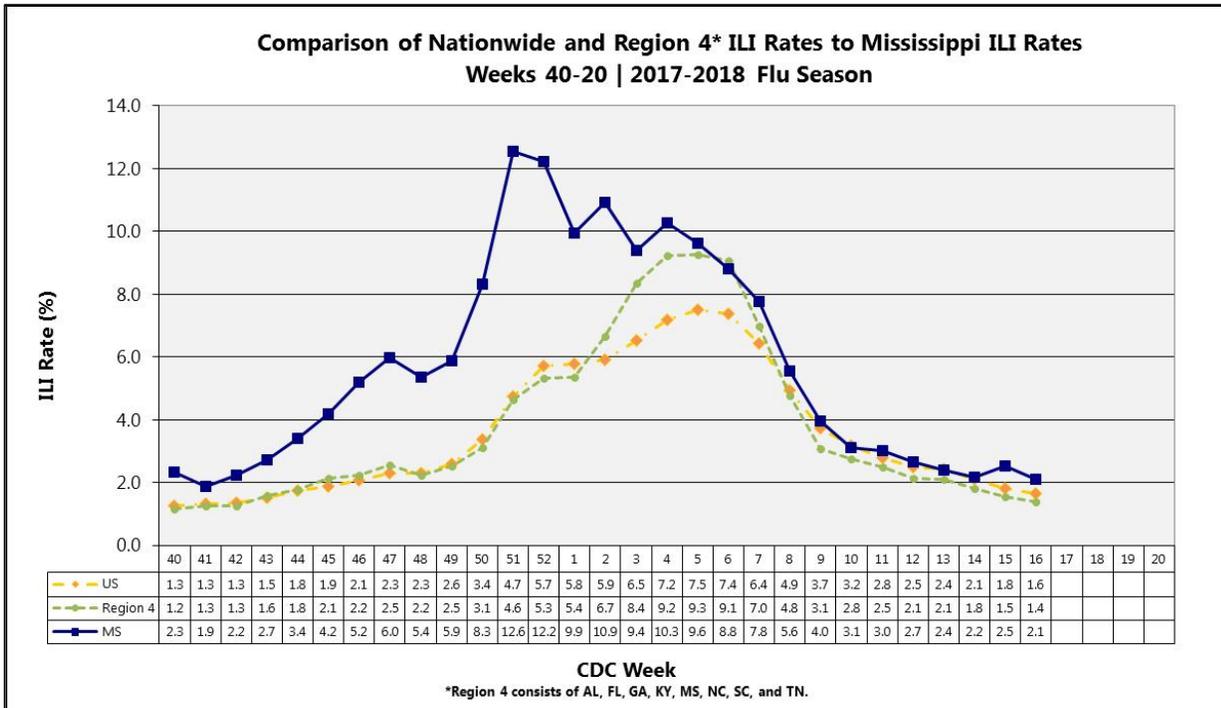
2017 – 2018 Influenza Season | Week 16 Influenza Surveillance Report| Apr. 15 – Apr. 21, 2018 influenza virus for which type was not determined, and one (1%) to an influenza virus co-infection. |

**Figure 7**

Mississippi has had **three** influenza-associated pediatric deaths reported during this influenza season. For additional information on influenza-associated pediatric deaths, please refer to the [CDC's FluView](#).

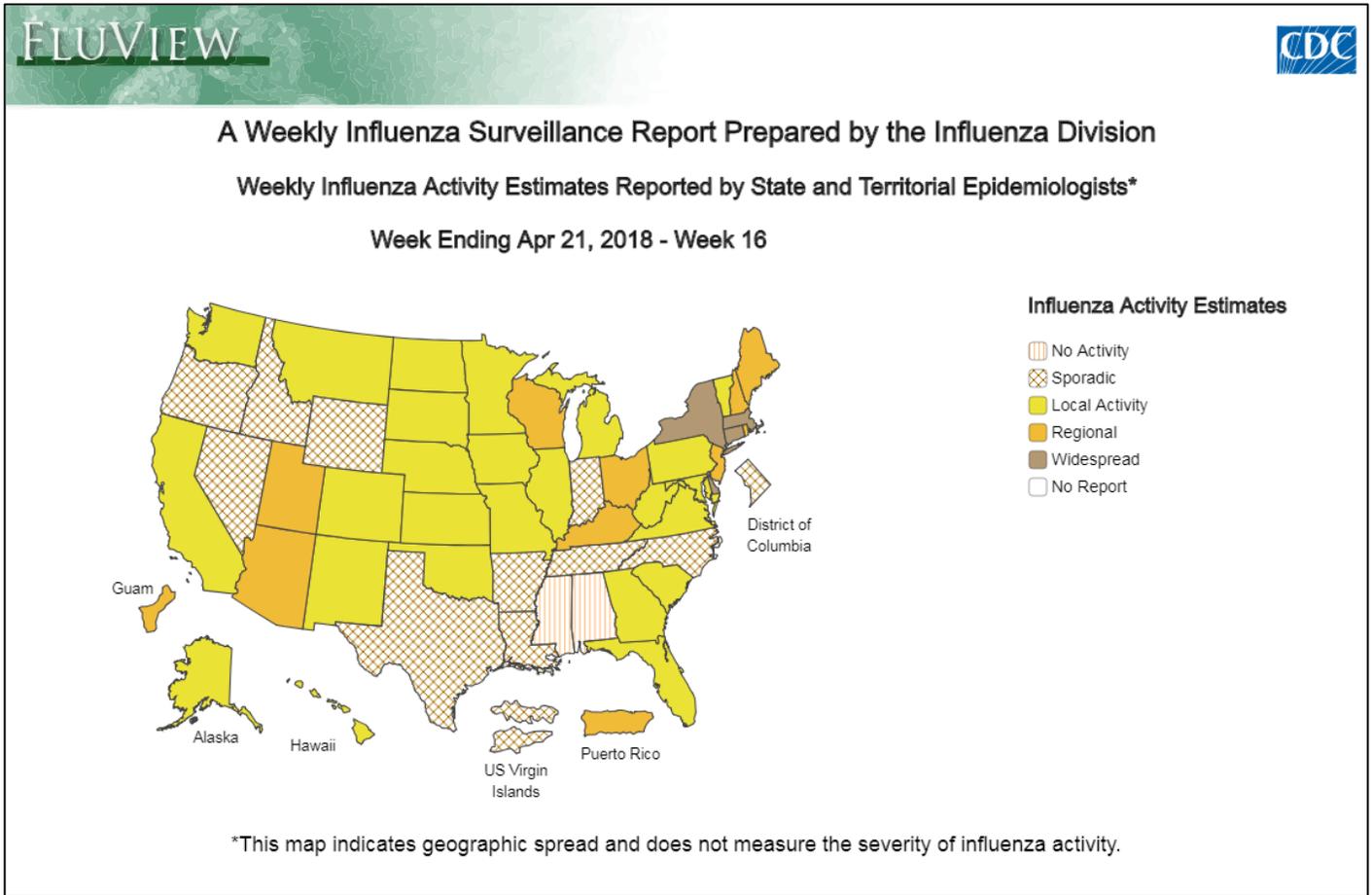
**National ILI Surveillance**

During week **16**, the MS (2.1%), national (1.6%) and Region 4 (1.4%) ILI rates remained about the same as the previous week. | **Figure 8**



US and Region 4 ILI rates from the Centers for Disease Control and Prevention: <http://www.cdc.gov/flu/weekly/>.

During week **16**, influenza activity **decreased** in the United States.<sup>1</sup> | [Figure 9](#)



<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/fluactivitysurv.htm>.

Mississippi reported “**No Activity**” for the influenza activity during week **16**. | [Table 3](#)

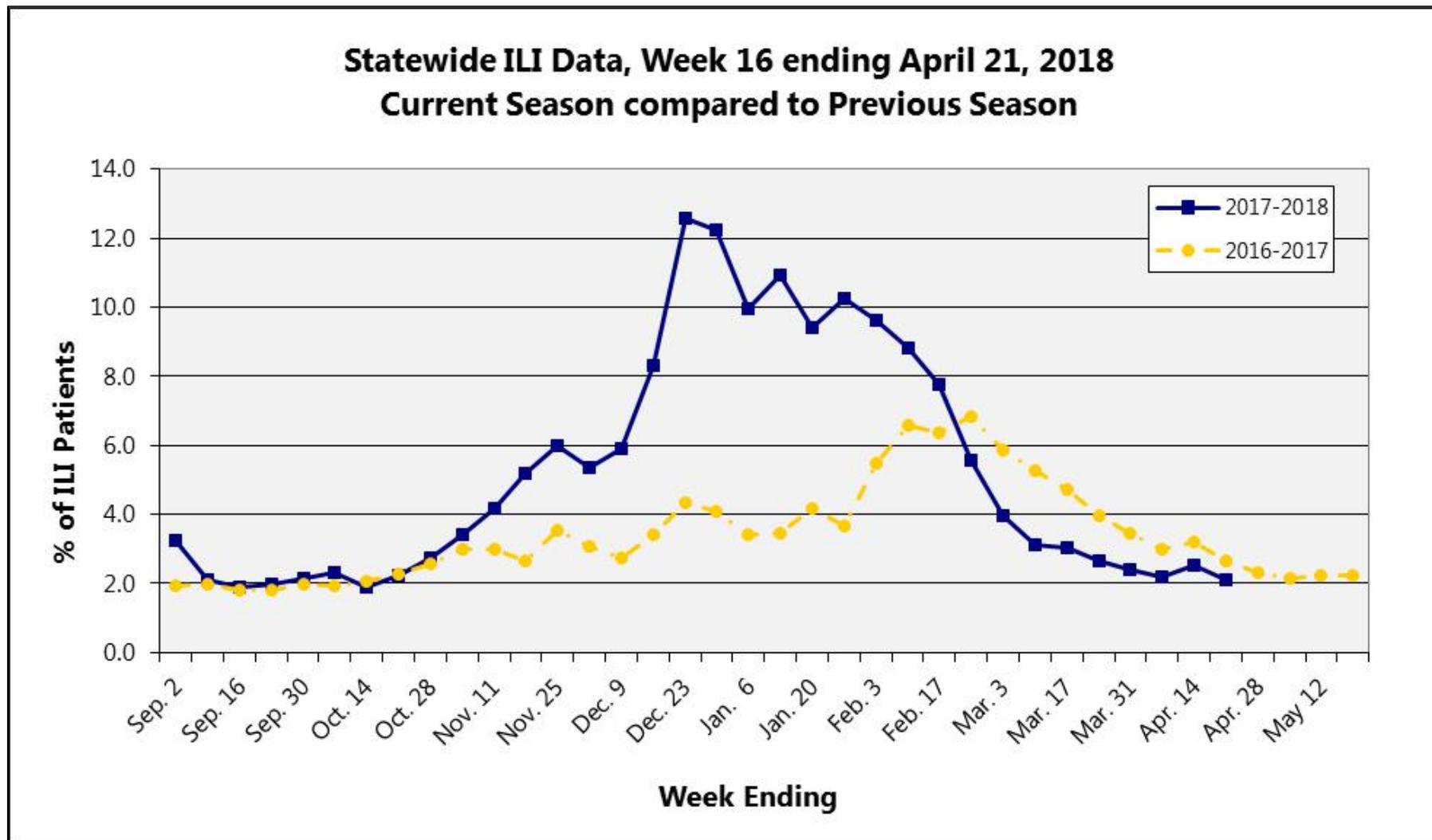
Level of Flu Activity	Definition
<b>No Activity</b>	Overall clinical activity remains low and there are no lab confirmed cases.
<b>Sporadic</b>	Isolated cases of lab confirmed influenza in the state; ILI activity is not increased <u>OR</u> A lab-confirmed outbreak in a single institution in the state; 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.

**Additional influenza information:**

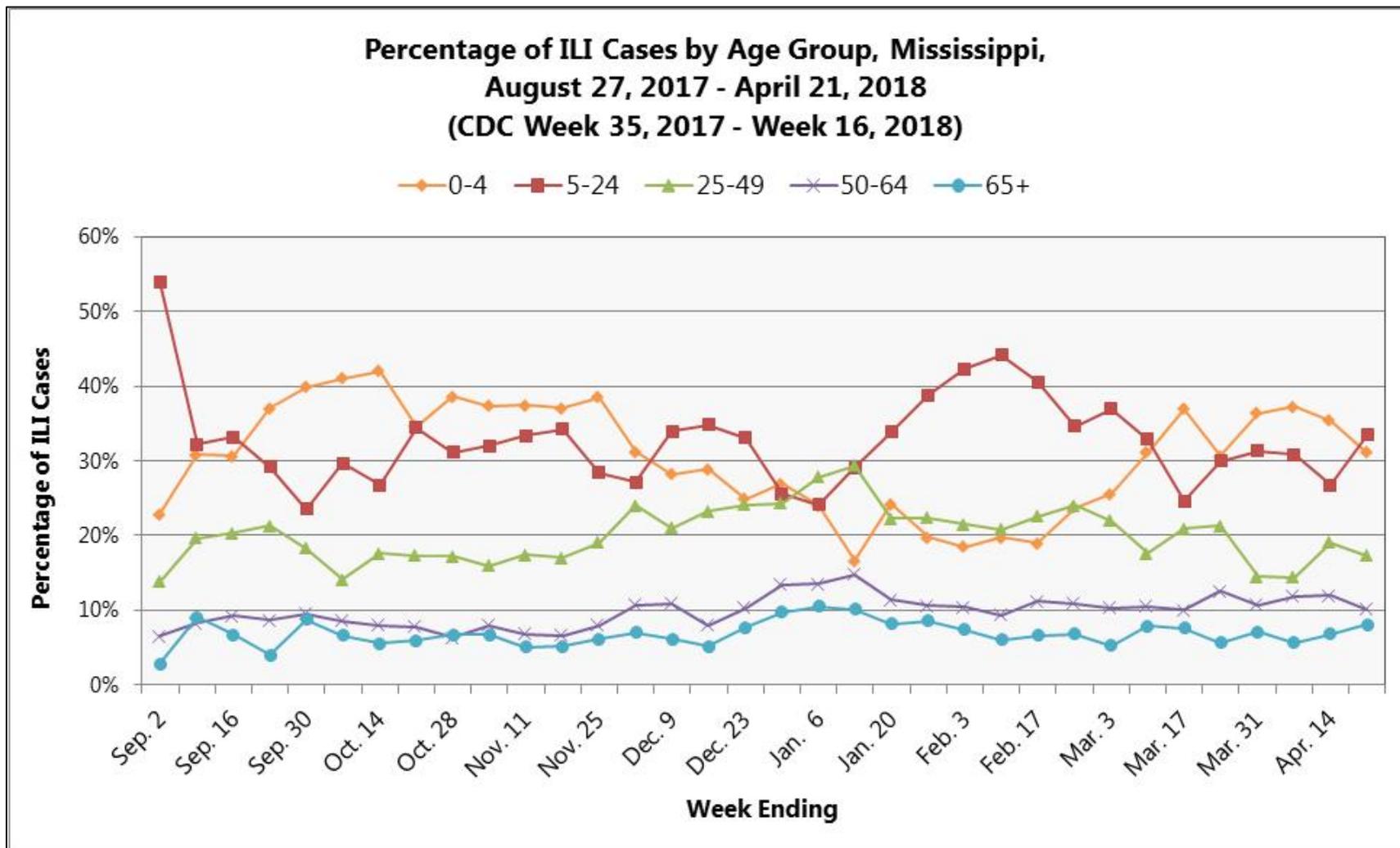
<b>Centers for Disease Control and Prevention</b>	<a href="http://cdc.gov/flu/">http://cdc.gov/flu/</a>
<b>Centers for Disease Control and Prevention FluView</b>	<a href="http://www.cdc.gov/flu/weekly/">http://www.cdc.gov/flu/weekly/</a>
<b>MSDH Flu and Pneumonia</b>	<a href="http://msdh.ms.gov/msdhsite/_static/14,0,199.html">http://msdh.ms.gov/msdhsite/_static/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

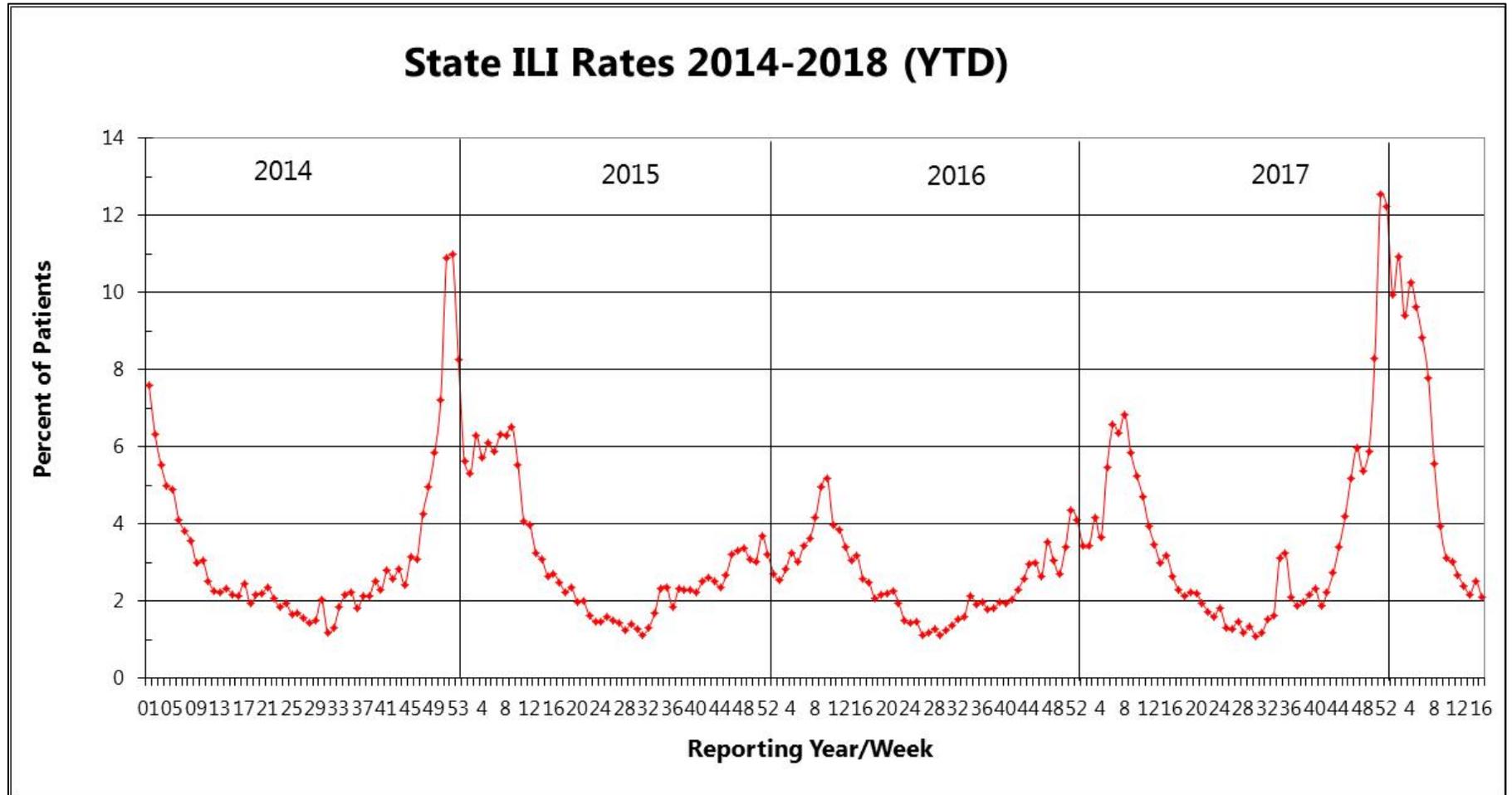
Figure 1



**Figure 2**



**Figure 3**



**Figure 4**

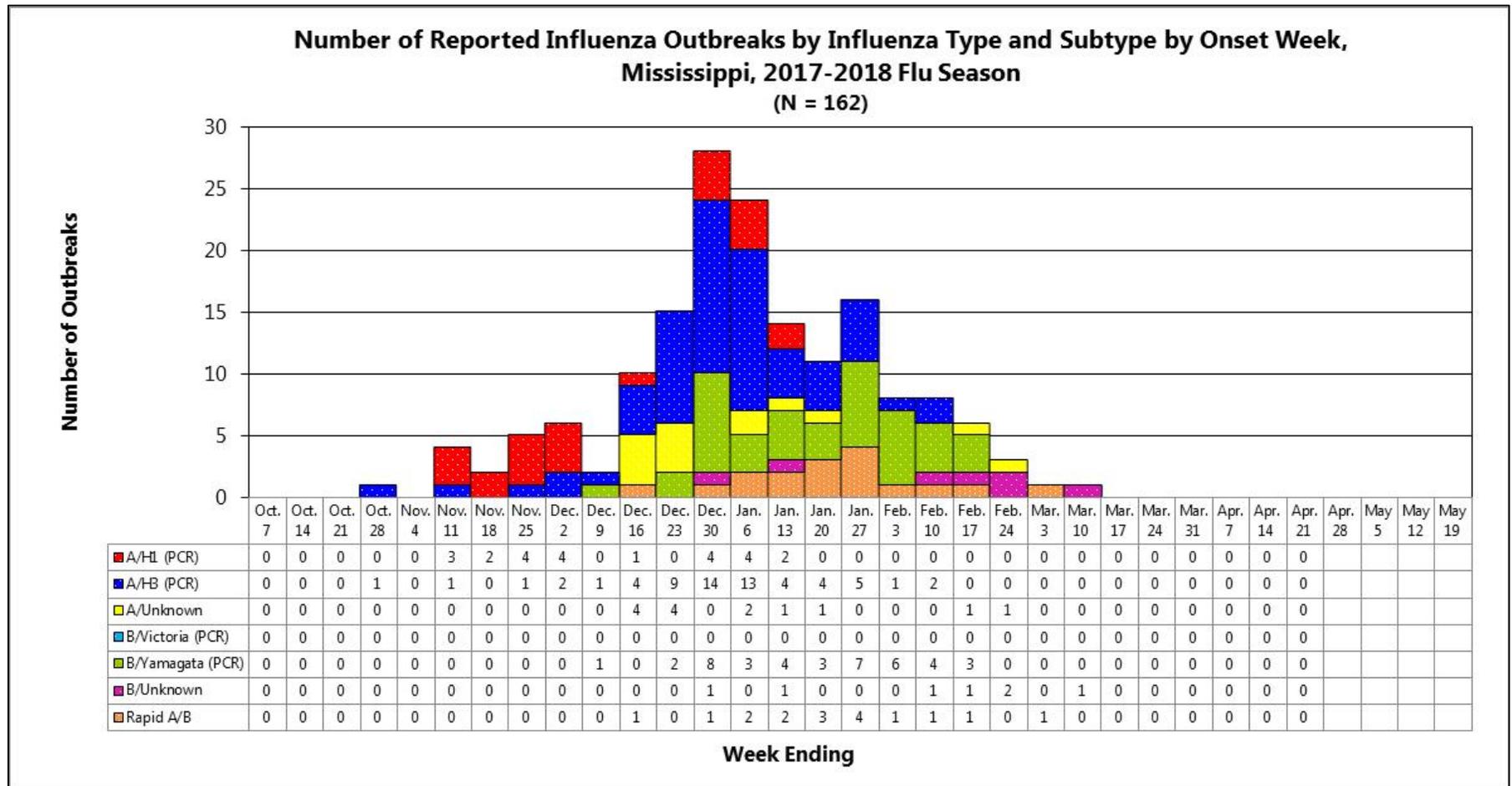
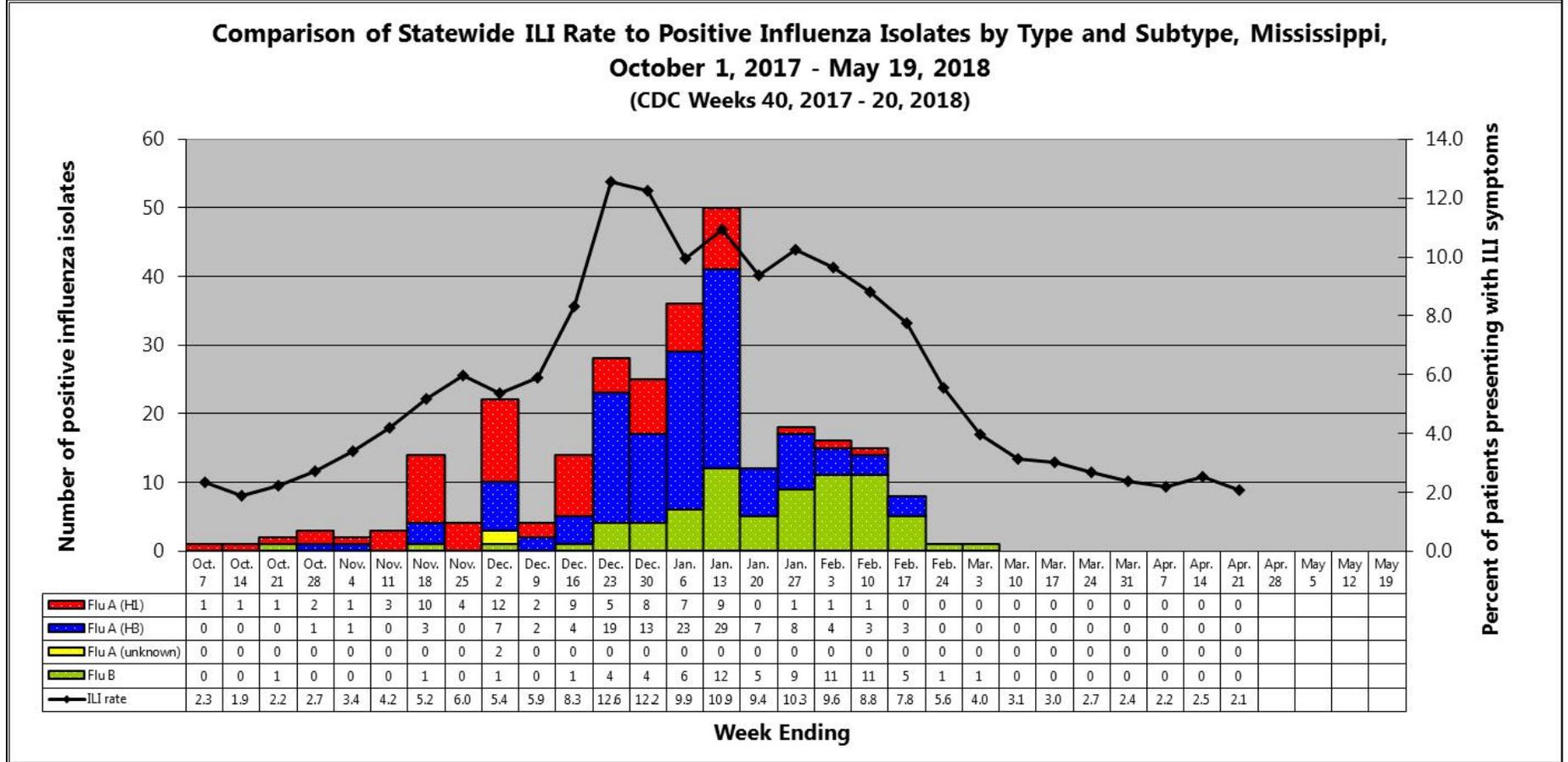
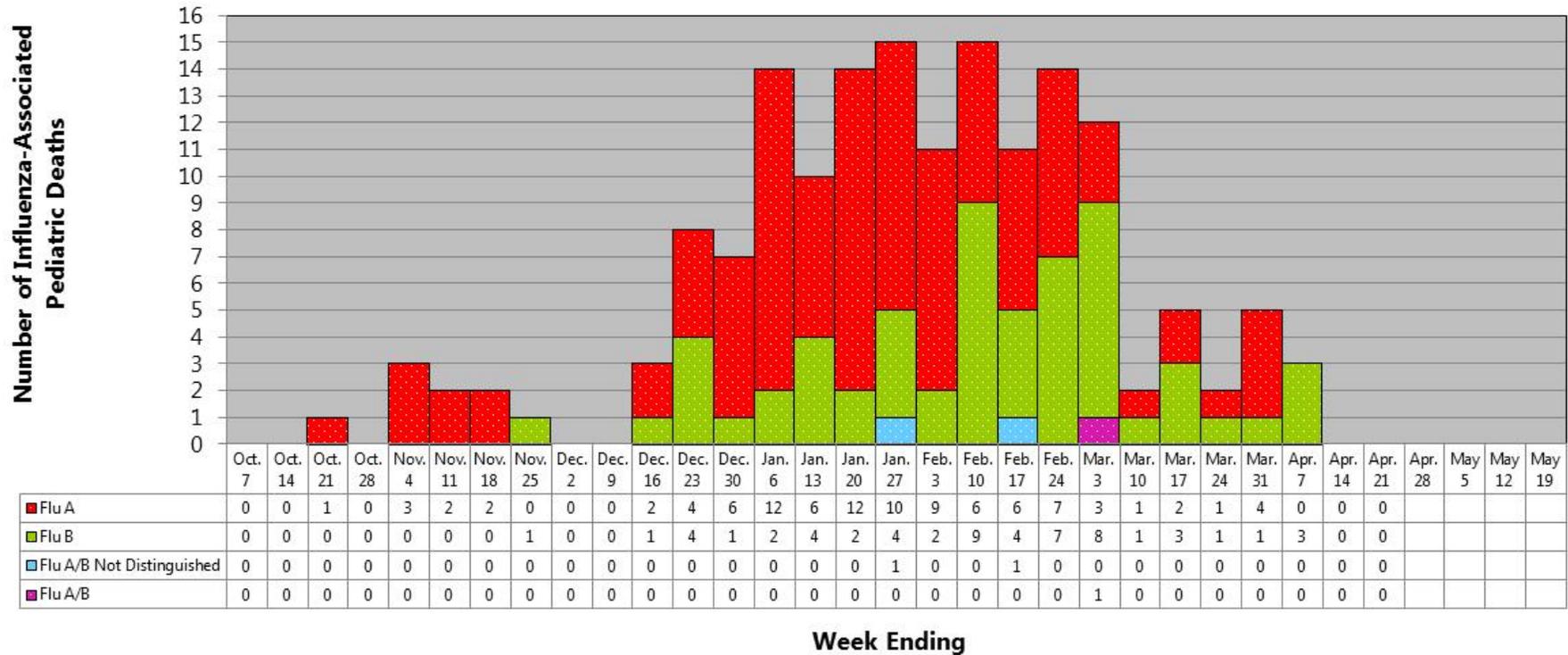


Figure 5



**Figure 6**

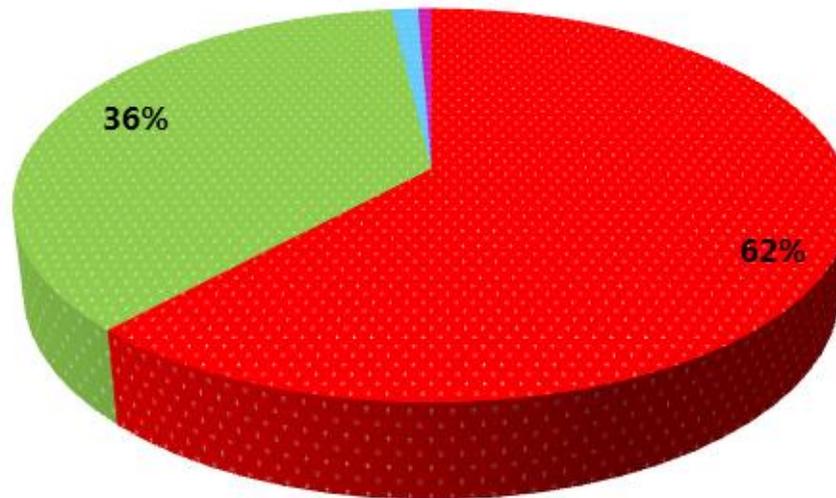
**Number of Influenza-Associated Pediatric Deaths by Week of Death  
and Influenza Type, Nationwide,  
October 1, 2017 - May 19, 2018  
(CDC Week 40, 2017 - Week 20, 2018)**



**Figure 7**

**Percentage of Influenza-Associated Pediatric Deaths  
by Influenza Type, Nationwide,  
October 1, 2017 - May 19, 2018  
(CDC Week 40, 2017 - Week 20, 2018)  
N = 160**

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



**Figure 8**

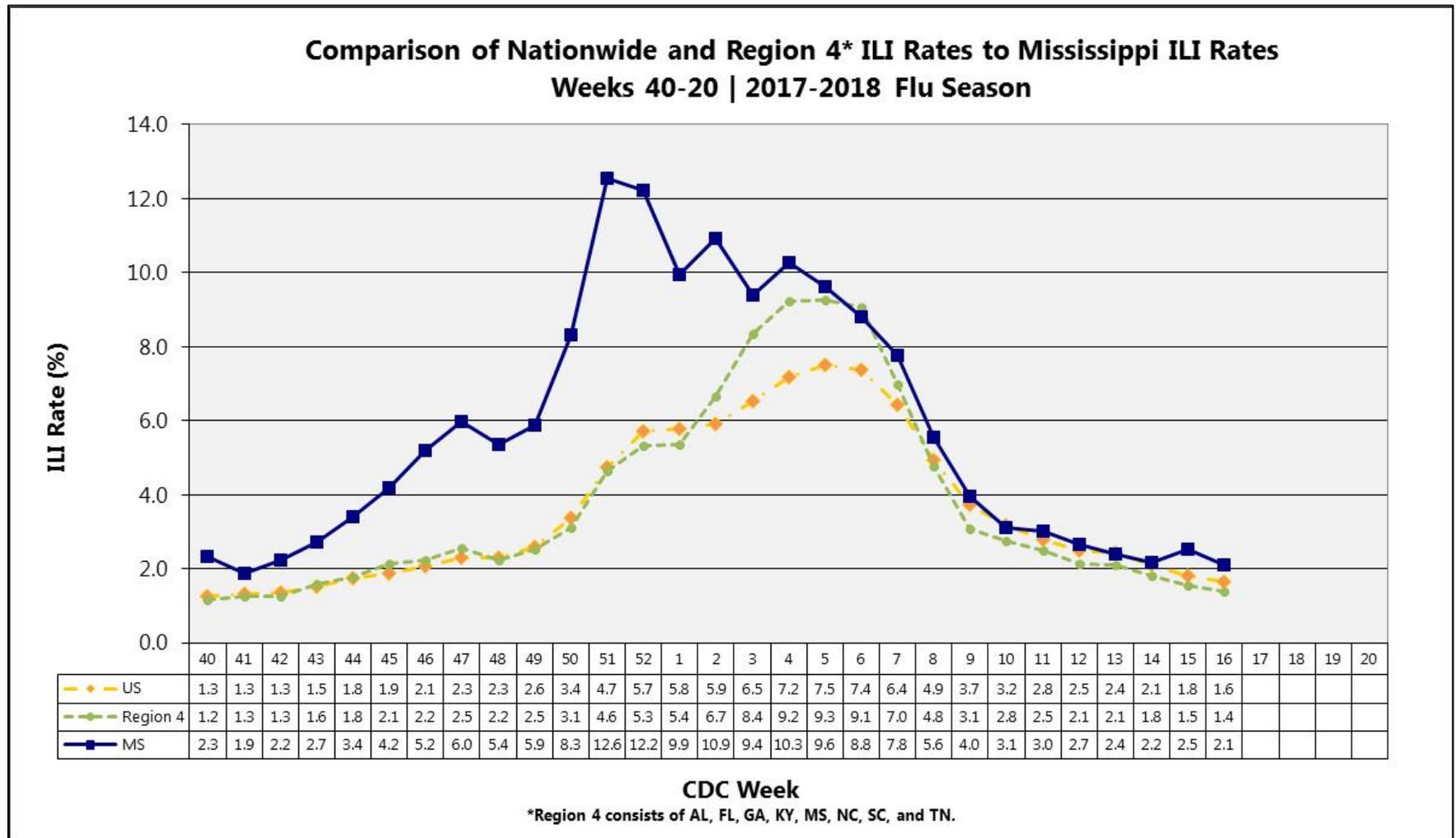


Figure 9

