



2018-2019 Influenza Surveillance Report Week 50

Dec. 9 – Dec. 15, 2018

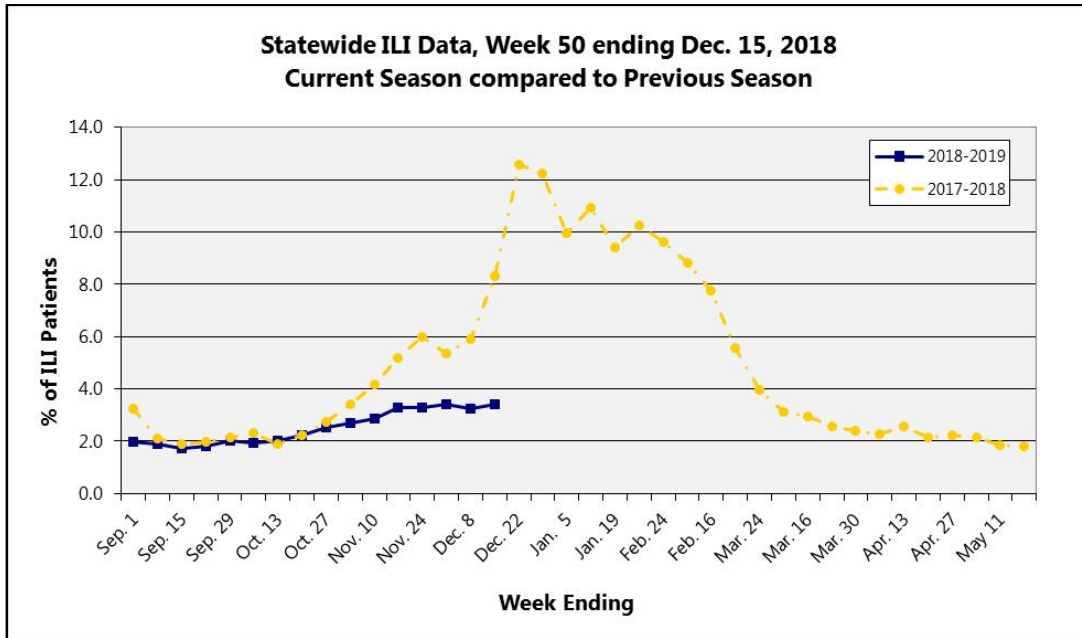
About our flu activity reporting

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.**

Content

- ❖ [State ILI Surveillance](#)
- ❖ [Influenza Outbreaks](#)
- ❖ [Flu Testing Reports](#)
- ❖ [National and Mississippi Pediatric Mortality Surveillance](#)
- ❖ [National ILI Surveillance](#)
- ❖ [Appendix](#)
 - [Figure 1](#) (Statewide ILI Data, Current Season compared to Previous Season)
 - [Figure 2](#) (Percentage of ILI Cases by Age Group, Mississippi)
 - [Figure 3](#) (Mississippi ILI Rates, 2018-2019 and Previous Seasons)
 - [Figure 4](#) (State ILI Rates 2014-2018 (YTD))
 - [Figure 5](#) (Comparison of the BioSense and Statewide ILI Rates)
 - [Figure 6](#) (Number of Influenza-Associated Pediatric Deaths by Week of Death and Influenza Type, Nationwide)
 - [Figure 7](#) (Percentage of Influenza-Associated Pediatric Deaths by Influenza Type, Nationwide)
 - [Figure 8](#) (Comparison of Nationwide and Region 4 ILI Rates to Mississippi ILI Rates)
 - [Figure 9](#) (CDC FluView Weekly Influenza Activity Map)

State ILI Surveillance



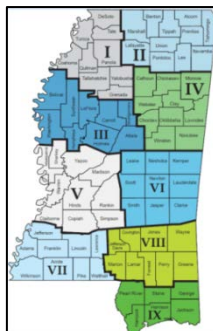
During week **50** (12/09/18-12/15/18), the overall state ILI rate (**3.4%**) was **comparable** to the previous week (**3.2%**), but was lower than this time last year (**8.3%**). The state ILI has

slowly trended upward since the 2018 – 2019 season began on Sept. 30th. | [Figure 1](#)

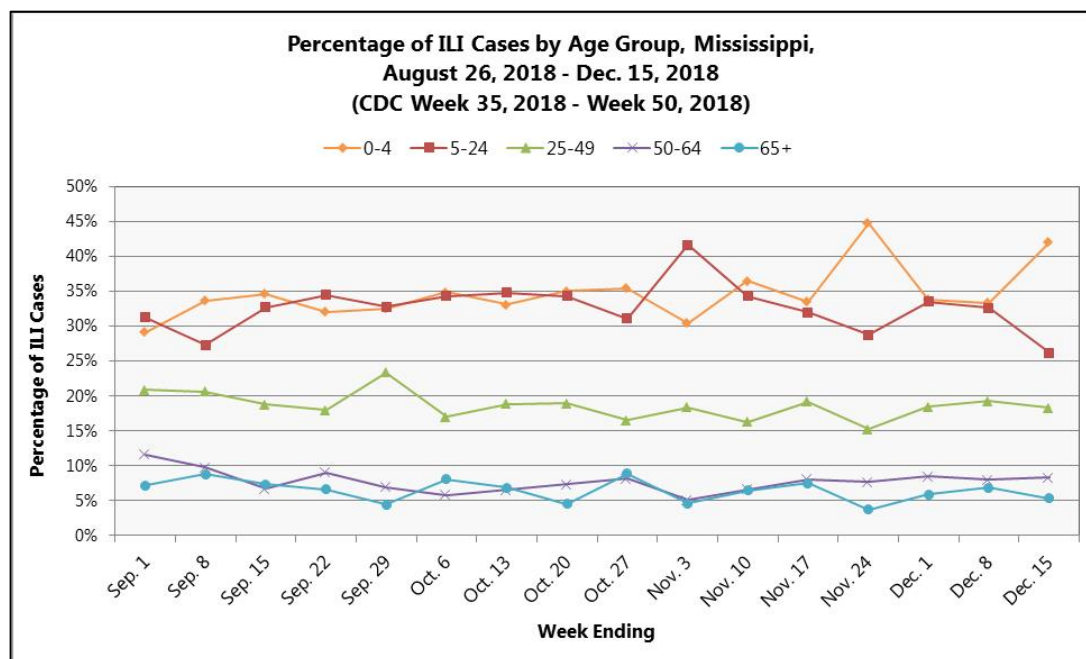
Total number of patients treated by sentinel providers in the last three weeks. | **Table 1**

2018-2019 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
50	Dec. 15	163	17052	581	3.4
49	Dec. 8	163	16759	540	3.2
48	Dec. 1	157	18386	630	3.4

During week **50**, two districts (5 and 8) had an increase in ILI activity, while two districts (2 and 3) had a decrease. The remaining five districts (1, 4, 6, 7, and 9) remained about the same. *Information is provisional only and may change depending on additional reporting from sentinel providers.* | **Table 2**



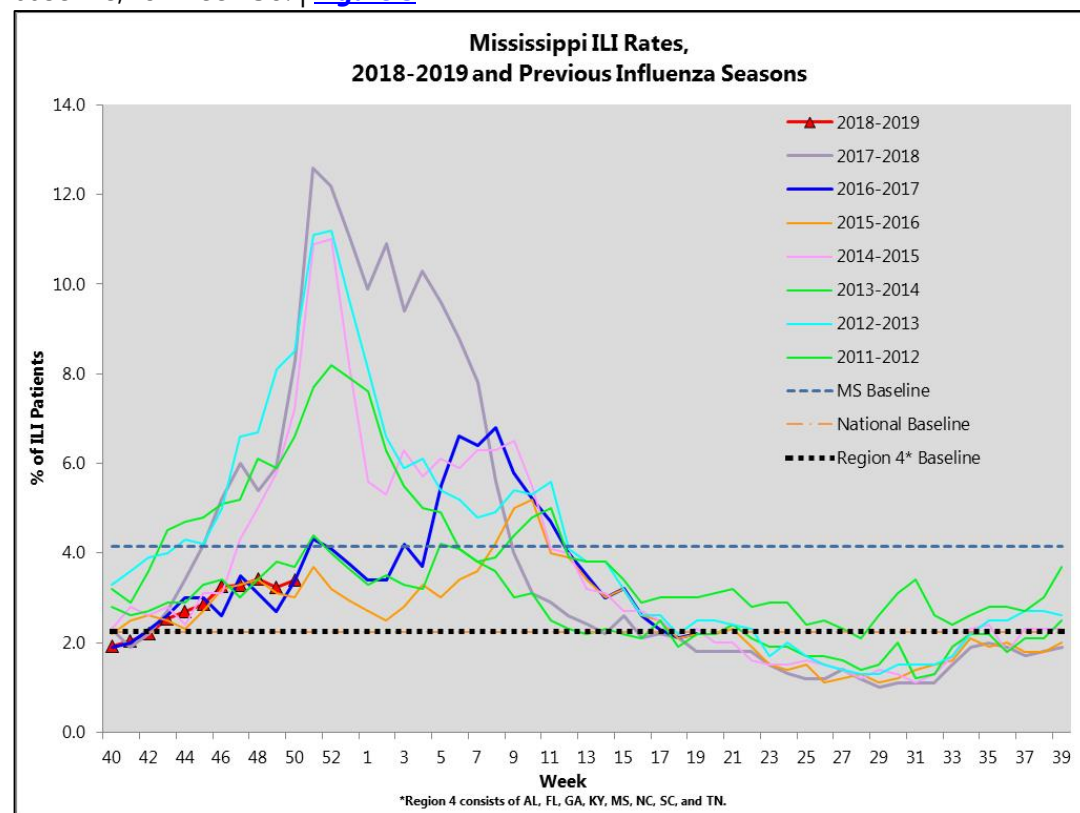
MSDH District ILI Rates (%) 2018-2019		
District	Week 49	Week 50
State	3.2	3.4
I	2.8	3.1
II	3.9	2.2
III	3.8	2.7
IV	3.7	3.9
V	2.3	3.5
VI	3.6	3.2
VII	4.7	4.3
VIII	1.5	2.2
IX	3.8	3.8



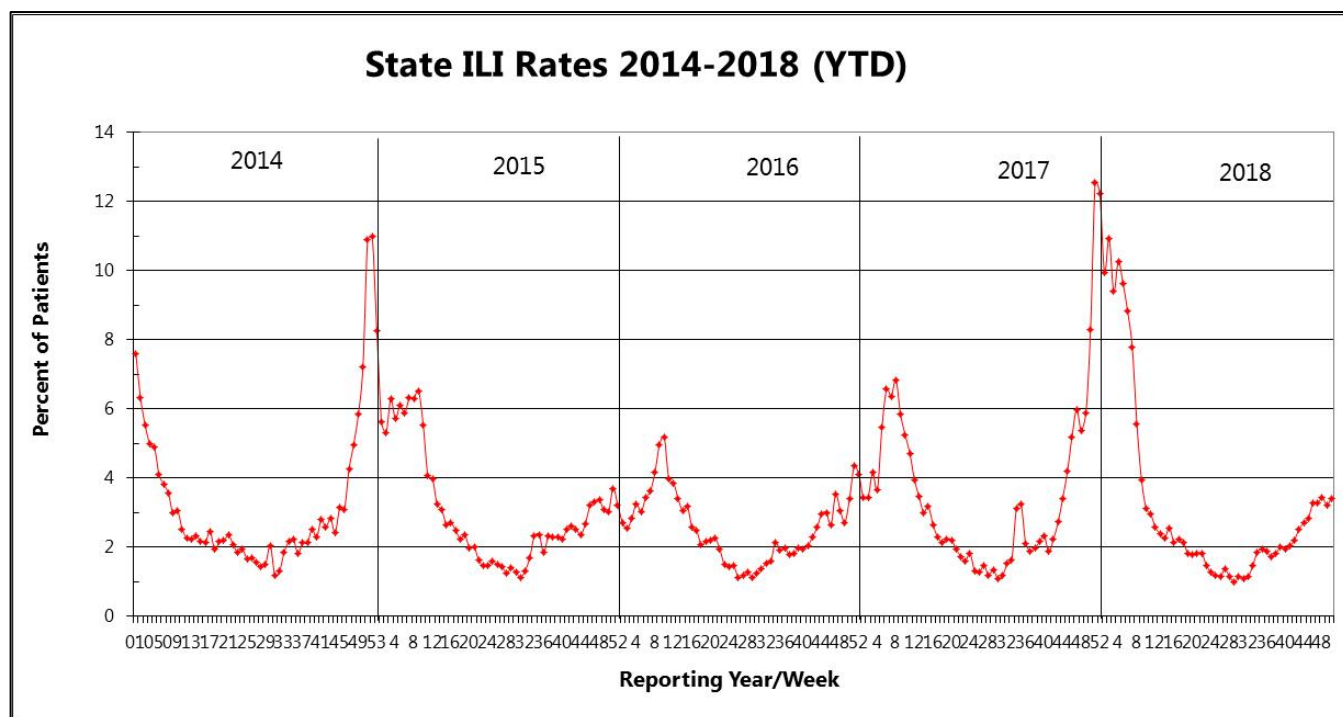
Overall, the percentage of reported ILI cases has been highest among those in the **0-4** and **5-24 years** of age groups. During week **50**, the percentage of ILI cases in the **0-4 years** of

age group increased, while the percentage 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 **above** the national and Region 4 baselines, but was **below** the state baseline, for week **50**. | [Figure 3](#)

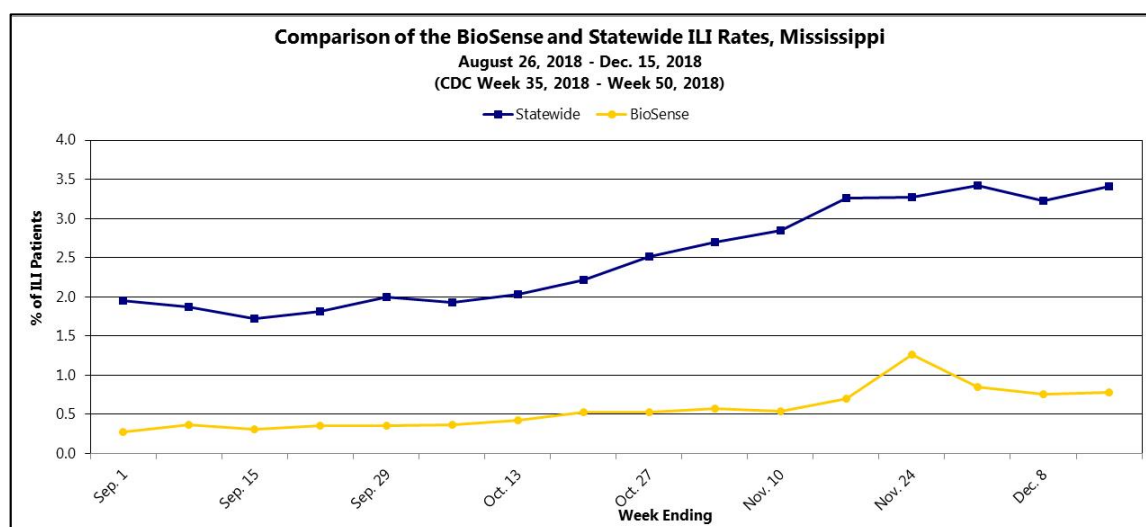


Mississippi ILI Rates 2014-2018 | [Figure 4](#)



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 **50** was comparable to the previous week, while the statewide ILI rate has slightly increased since week 41. | [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](#).

No influenza outbreaks were reported to MSDH during week **50** (week ending December 15th).

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

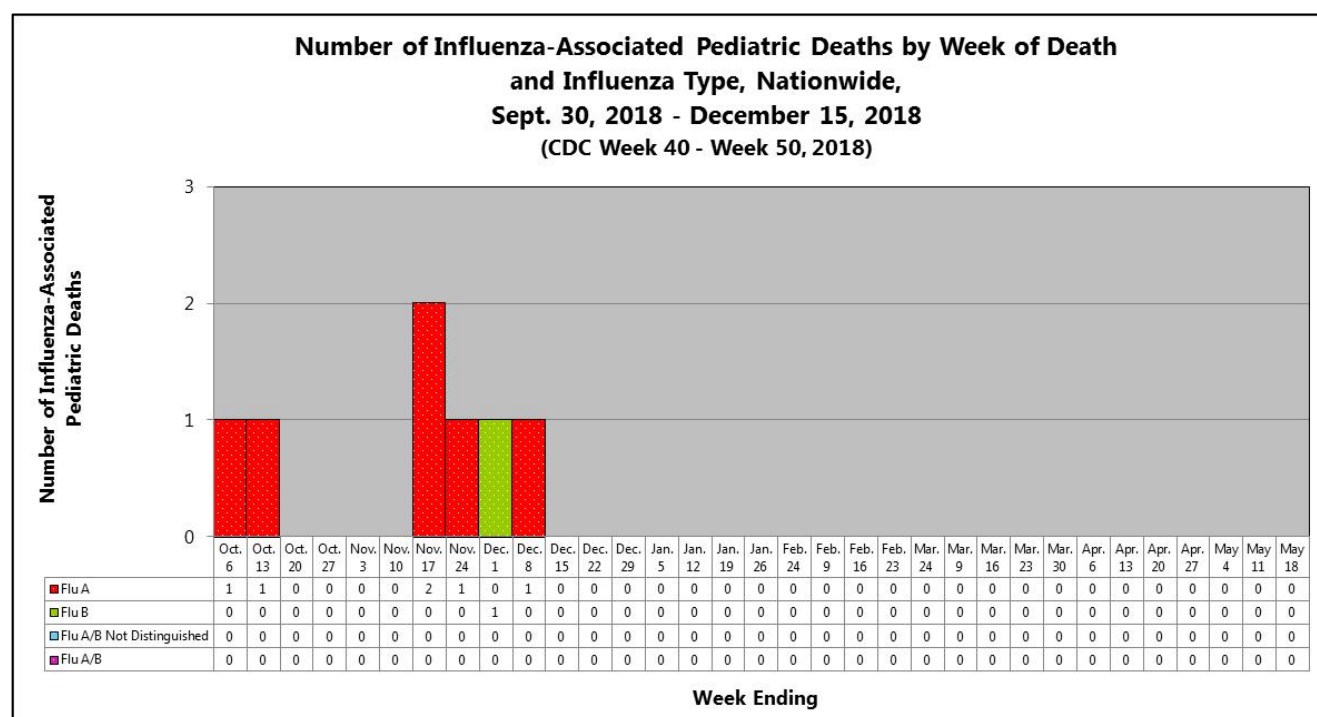
<https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>, respectively.

Flu Testing Reports

Since week 40 (week ending October 6th), **four** laboratory confirmed influenza samples have been identified by the MSDH Public Health Laboratory. Two were identified as influenza A (H1) and two were identified as an influenza A, H3. The influenza cases were identified from the following counties: Harrison (2), Marion (1), and Neshoba (1).

National and Mississippi Pediatric Mortality Surveillance

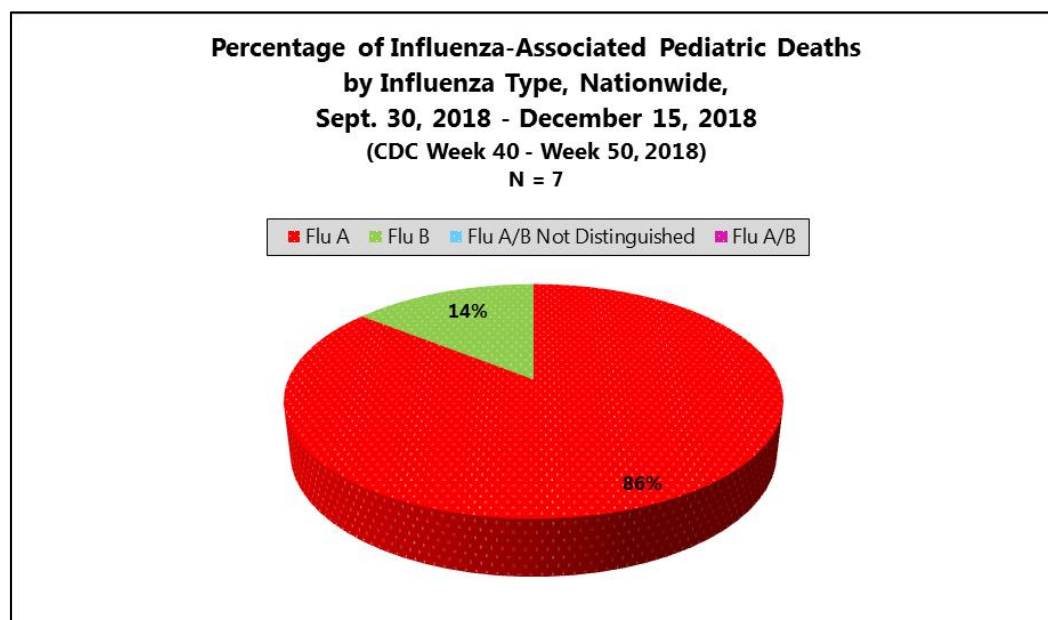
Nationally, **one** influenza-associated pediatric death was reported to CDC during week **50**. This death was associated with an influenza A virus for which no subtyping was performed and occurred during week 49 (week ending December 8, 2018). **Seven** influenza-associated pediatric deaths have been reported to CDC for the 2018-2019 season. | [Figure 6](#)



Of the **seven** influenza-associated pediatric deaths reported nationally during the 2018-2019 season,

six (86%) have been attributed to influenza A viruses and one (14%) to an influenza B virus. | [Figure 7](#)

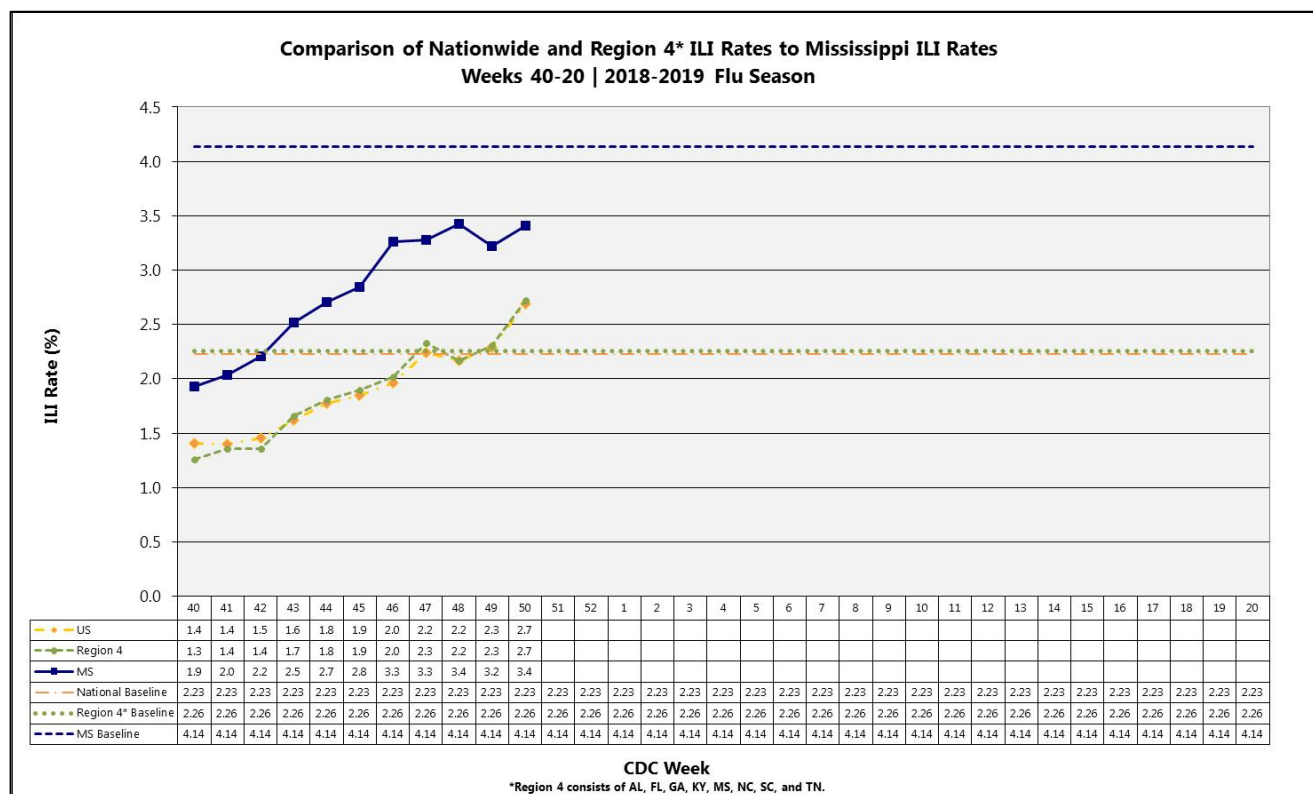
Mississippi has had **one** influenza-associated pediatric death reported during this influenza season.



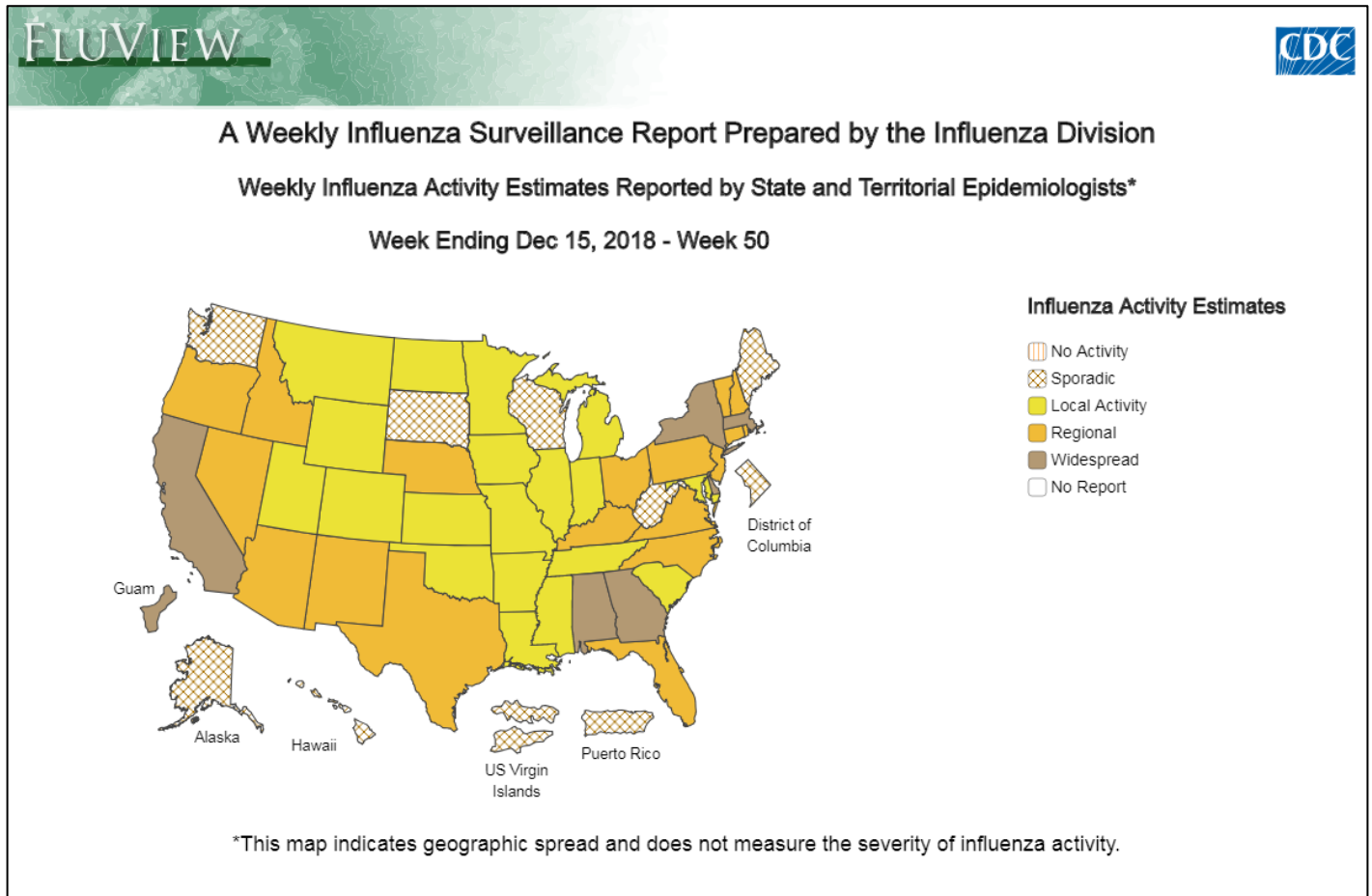
For additional information on influenza-associated pediatric deaths, please refer to the [CDC's FluView](#).

National ILI Surveillance

During week **50**, the Mississippi ILI rate (3.4%) remained about the same as the previous week, while the national (2.7%) and Region 4 (2.7%) ILI rates increased slightly. While the MS ILI rate was below the state's baseline during week **50**, the national and Region 4 ILI rates were above their respective baselines. | [Figure 8](#)



During week **50**, influenza activity **increased** in the United States.¹ | [Figure 9](#)



¹For 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 “**Local**” for the influenza activity during week **50**. | [Table 3](#)

Level of Flu Activity	Definition
No Activity	Overall clinical activity remains low and there are no lab confirmed cases.
Sporadic	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.
Local	Increased ILI within a single region AND 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 AND 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
Regional	Increased ILI in at least 2 regions but fewer than half of the regions AND 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 AND recent lab confirmed influenza in the affected regions.
Widespread	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the state.

Additional influenza information:

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

Appendix

Figure 1

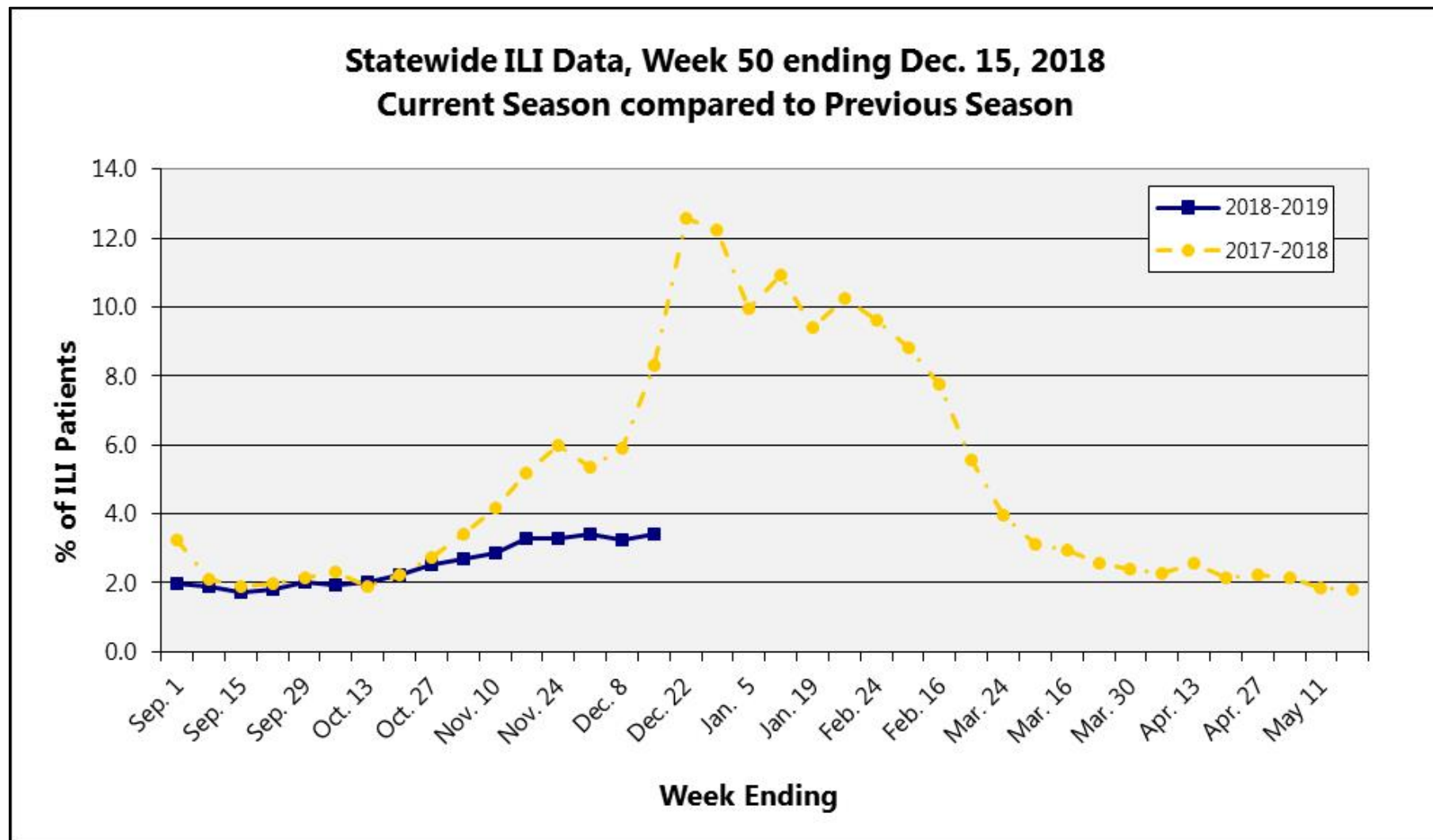


Figure 2

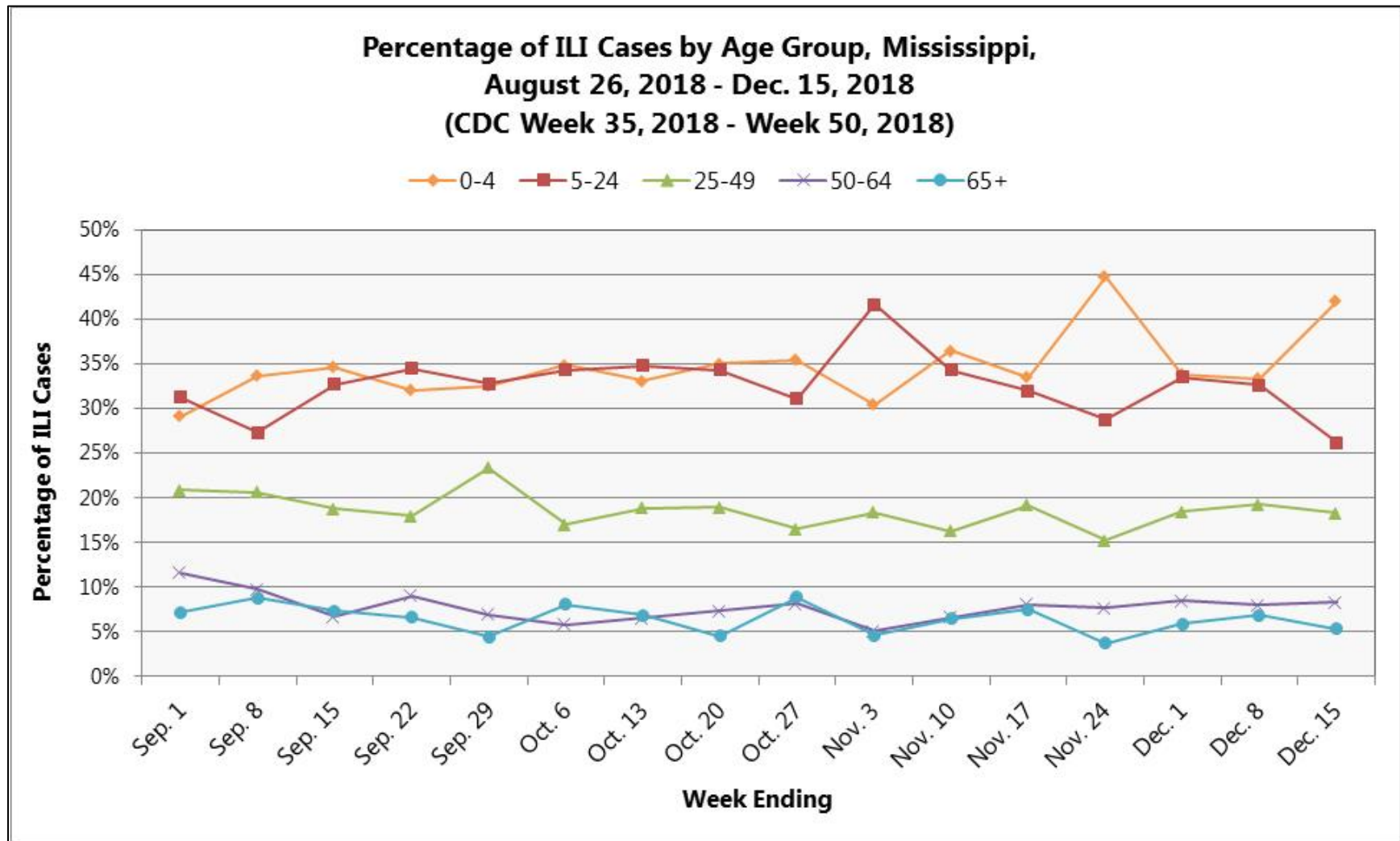


Figure 3

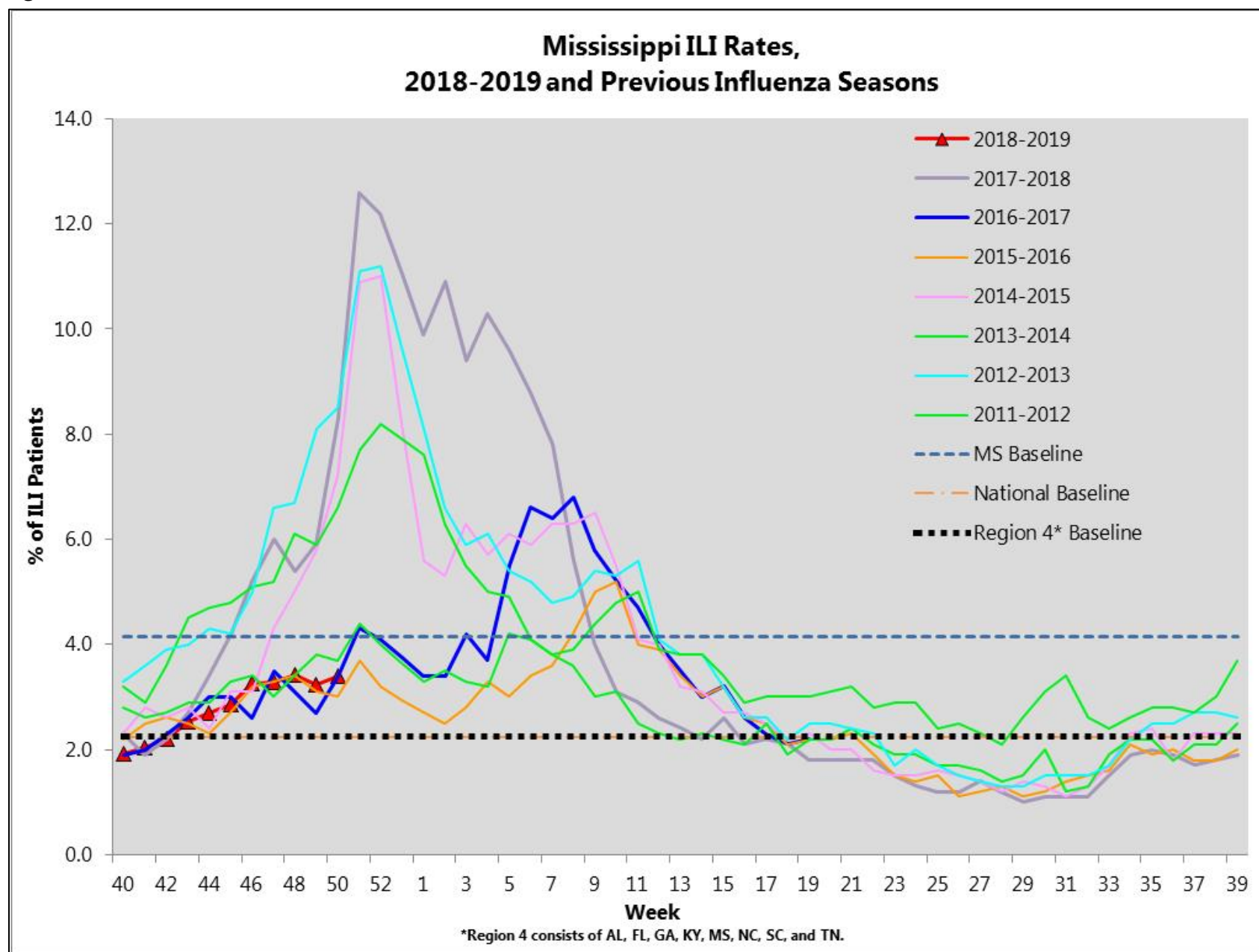


Figure 4

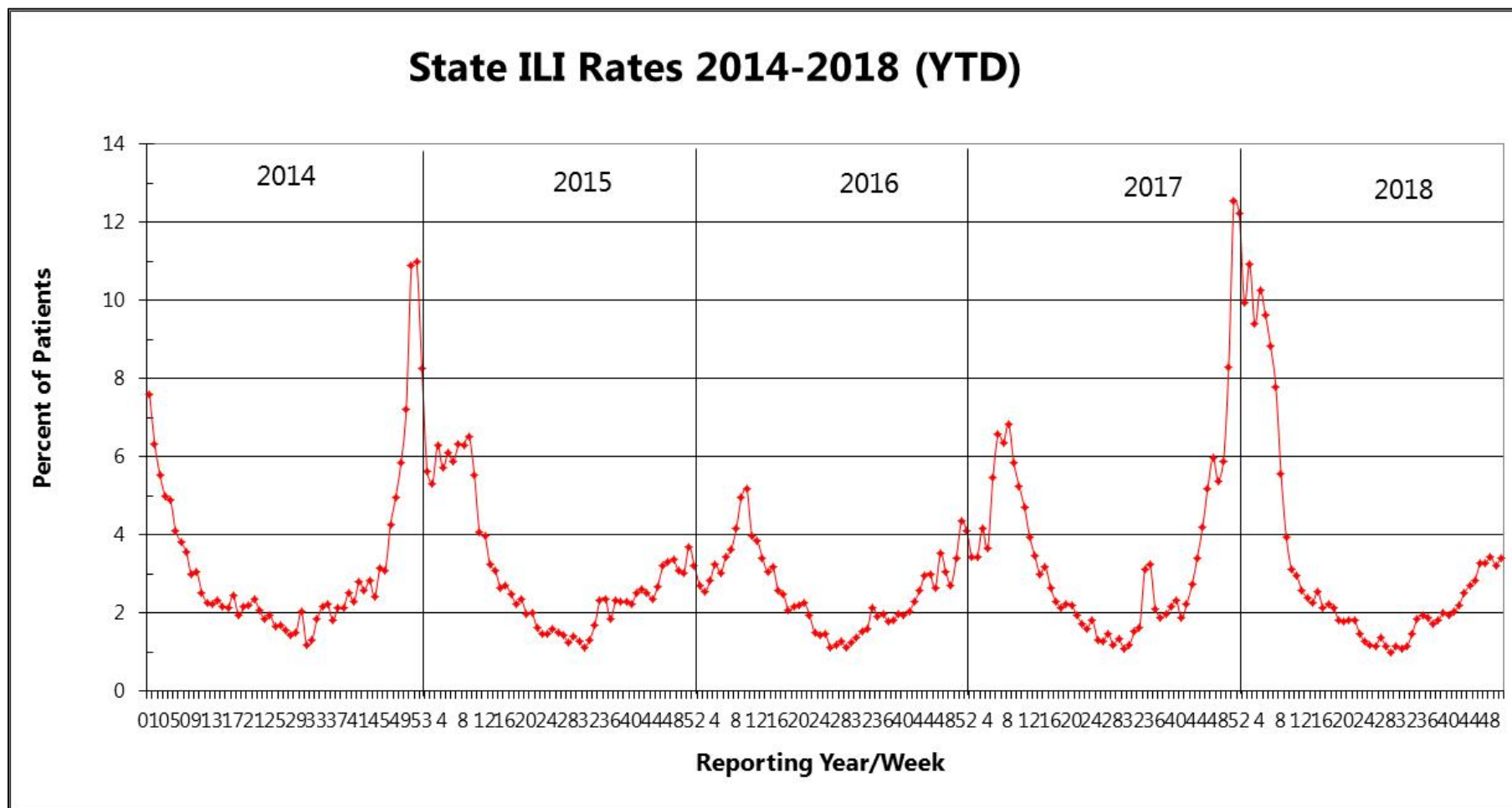


Figure 5

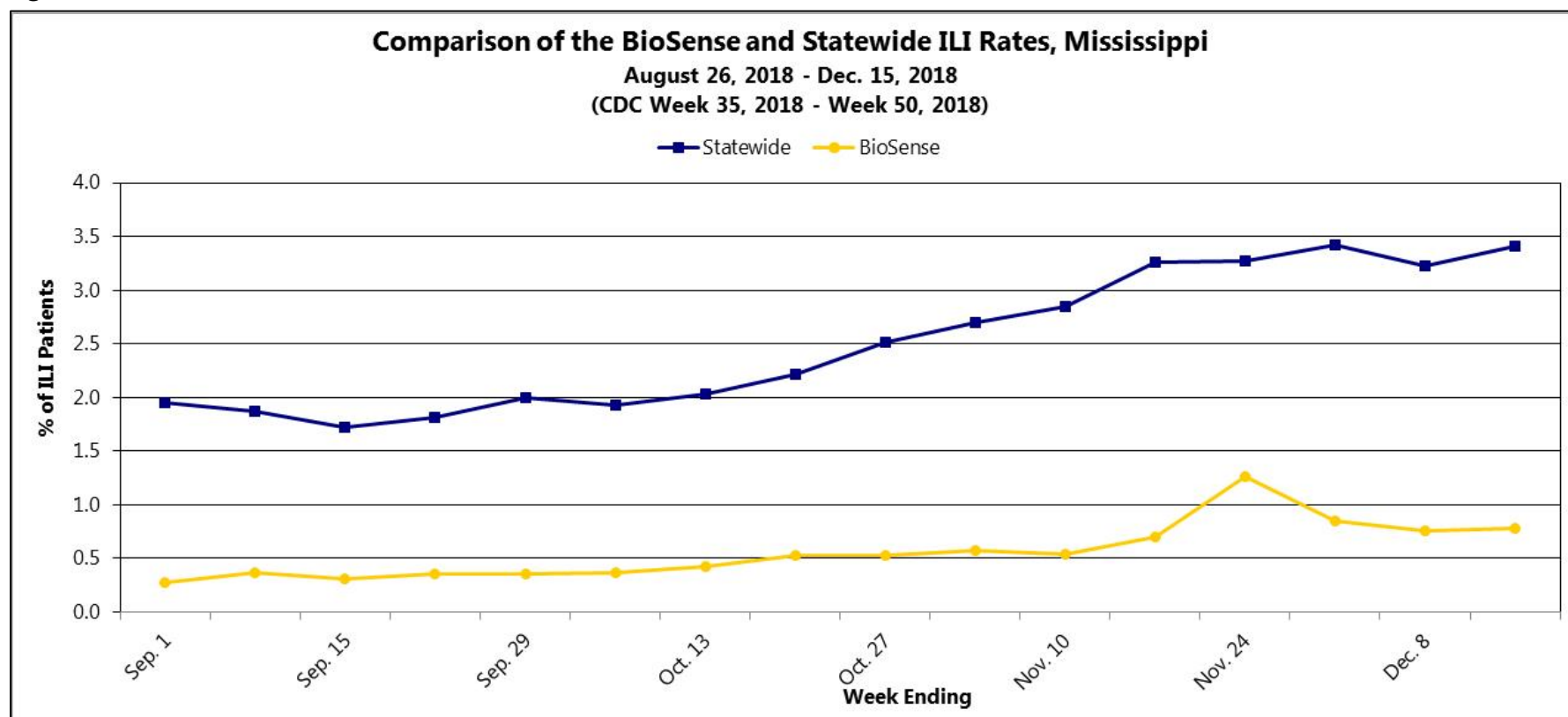


Figure 6

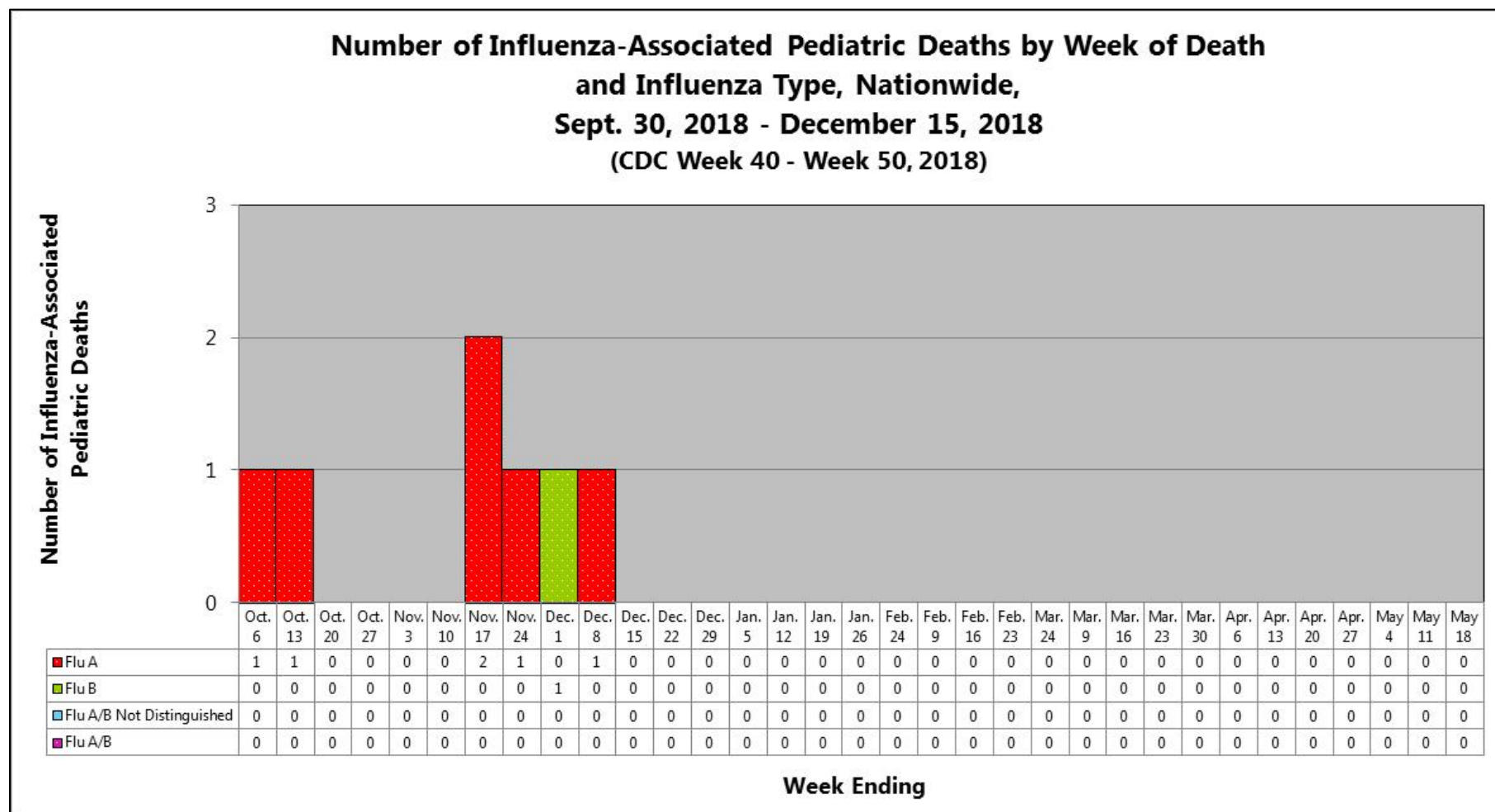


Figure 7

**Percentage of Influenza-Associated Pediatric Deaths
by Influenza Type, Nationwide,
Sept. 30, 2018 - December 15, 2018
(CDC Week 40 - Week 50, 2018)
N = 7**

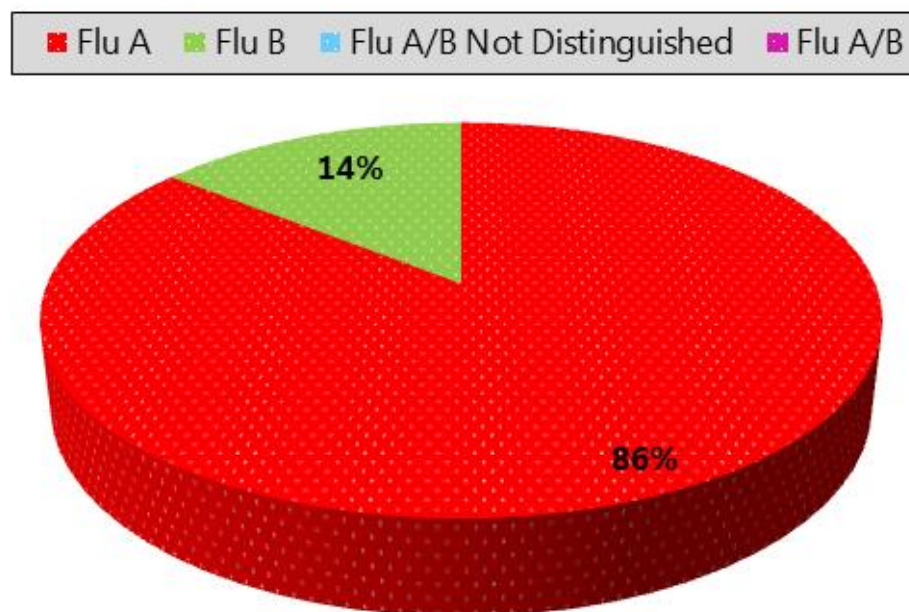


Figure 8

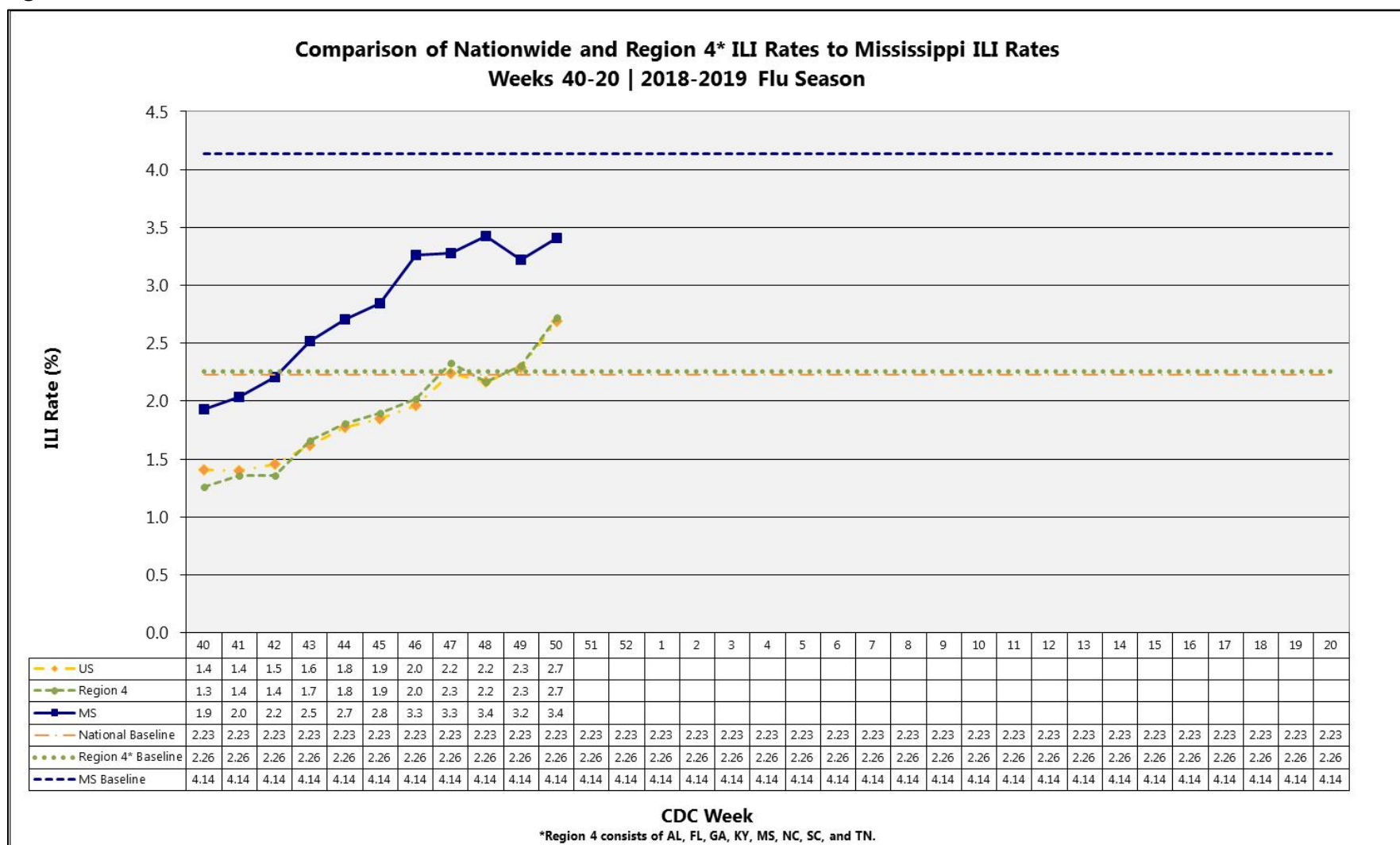


Figure 9

