



2019-2020 Influenza Surveillance Report Week 51

Dec. 15 – Dec. 21, 2019

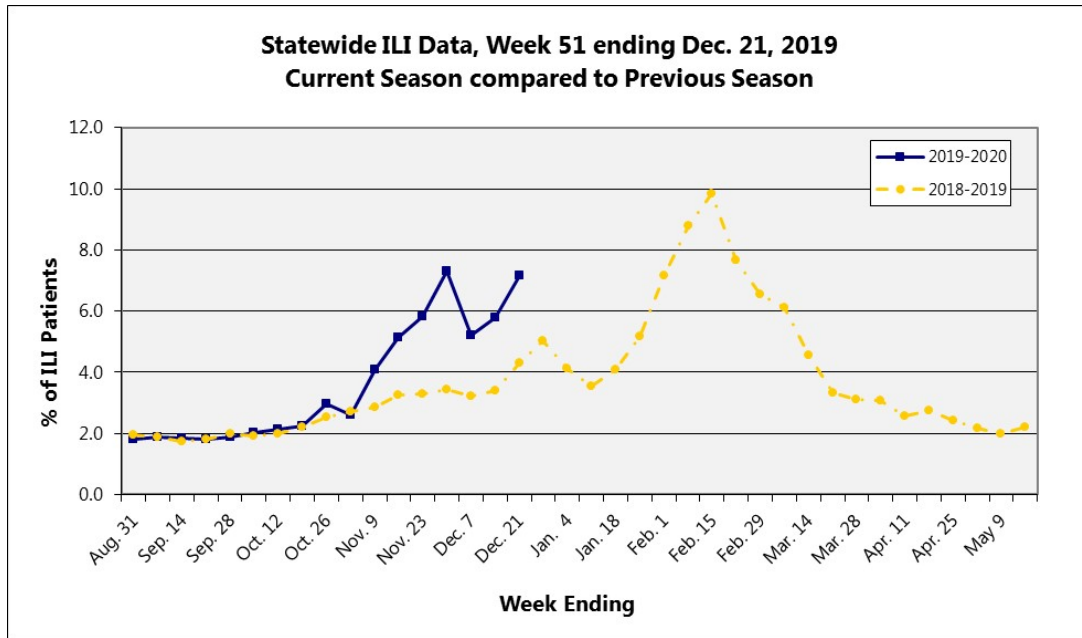
About our flu activity reporting

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



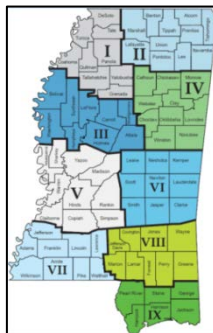
During week **51** (12/15/19-12/21/19), the overall state ILI rate (**7.2%**) **increased** from the previous week (**5.8%**) and was higher than this time last year (**4.3%**). |

[Figure 1](#)

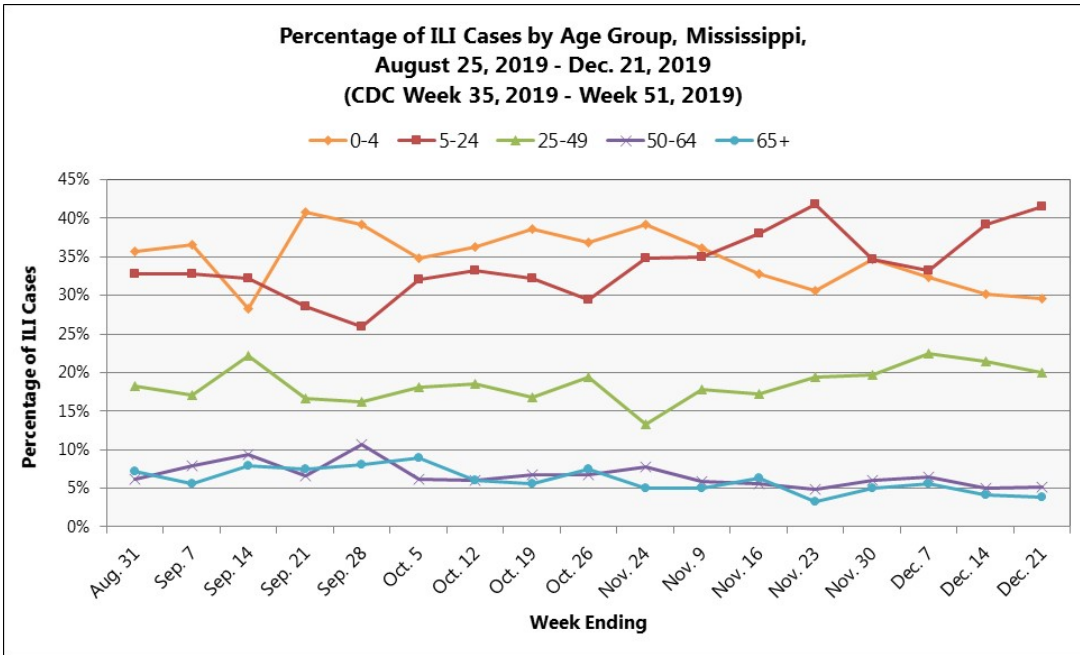
Total number of patients treated by sentinel providers in the last three weeks. | **Table 1**

2019-2020 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
51	Dec. 21	133	16874	1210	7.2
50	Dec. 14	145	17670	1022	5.8
49	Dec. 7	146	19129	995	5.2

During week **51**, eight of the nine districts had an increase in ILI activity. The remaining district (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 (%) 2019-2020		
District	Week 50	Week 51
State	5.8	7.2
I	7.6	8.9
II	4.3	7.2
III	4.2	7.6
IV	6.5	8.7
V	2.4	4.3
VI	2.8	5.6
VII	7.2	9.4
VIII	4.2	4.9
IX	7.0	7.1

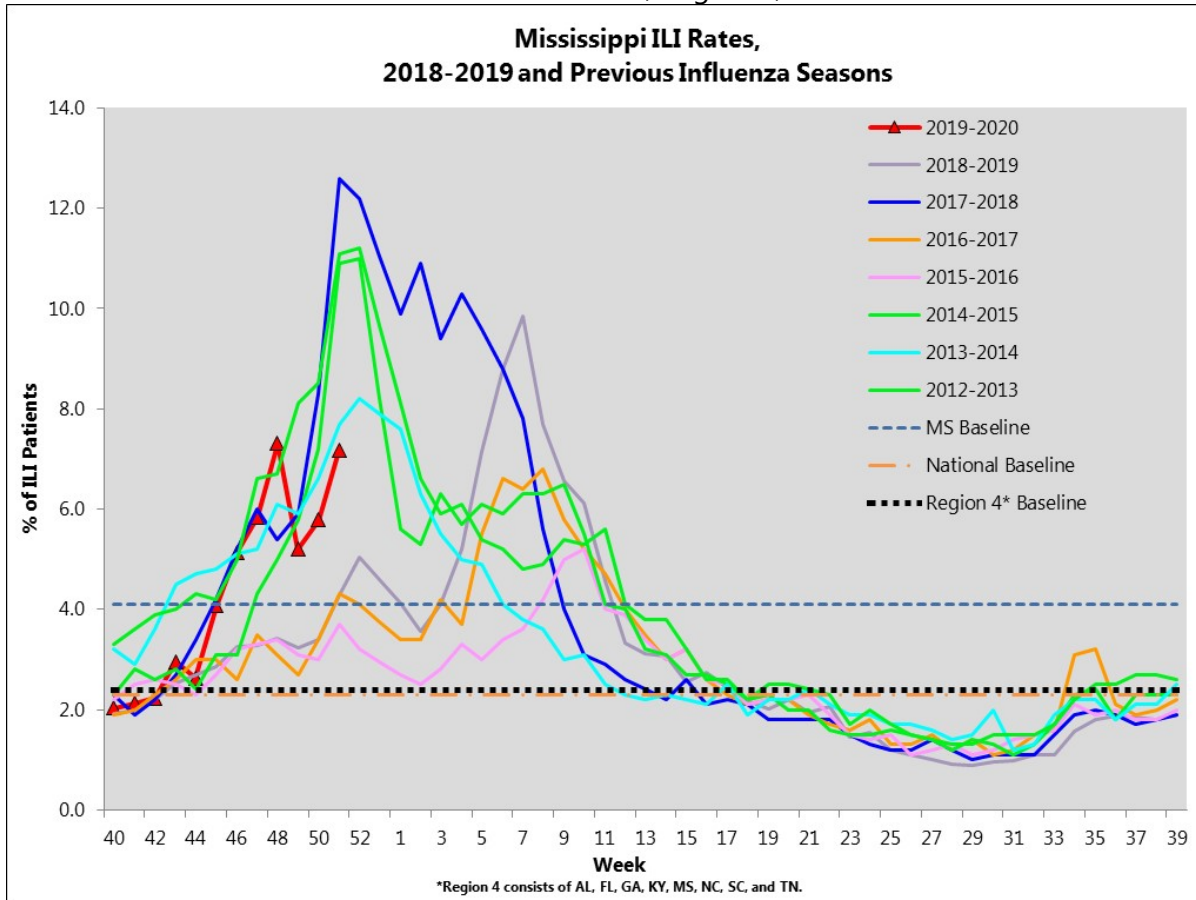


Overall, the percentage of reported ILI cases has been highest among those in the **0-4** and **5-24 years** of age groups. This trend continued into week **51**. The percentage of

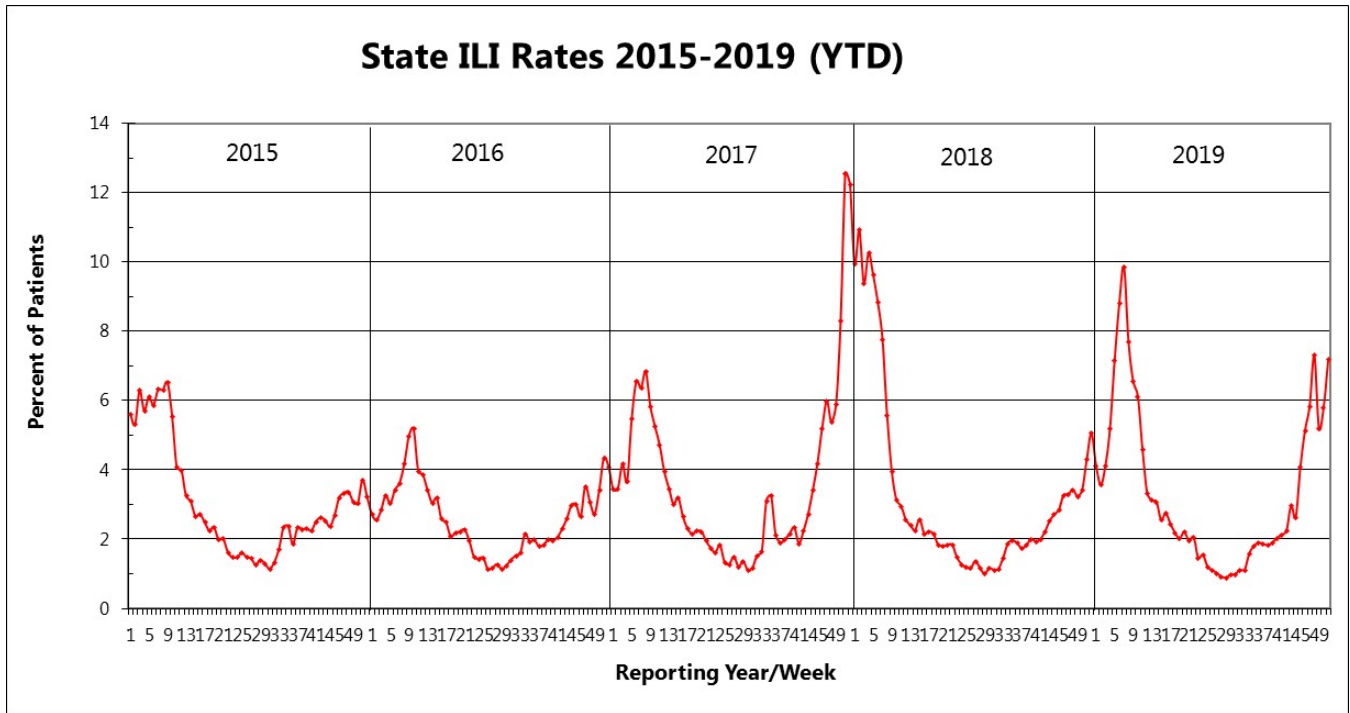
ILI cases in the remaining age groups remained constant when compared to the previous week. |

Figure 2

The 2019-20 state ILI rate was **above** the national, Region 4, and state baselines for week **51**. | **Figure 3**

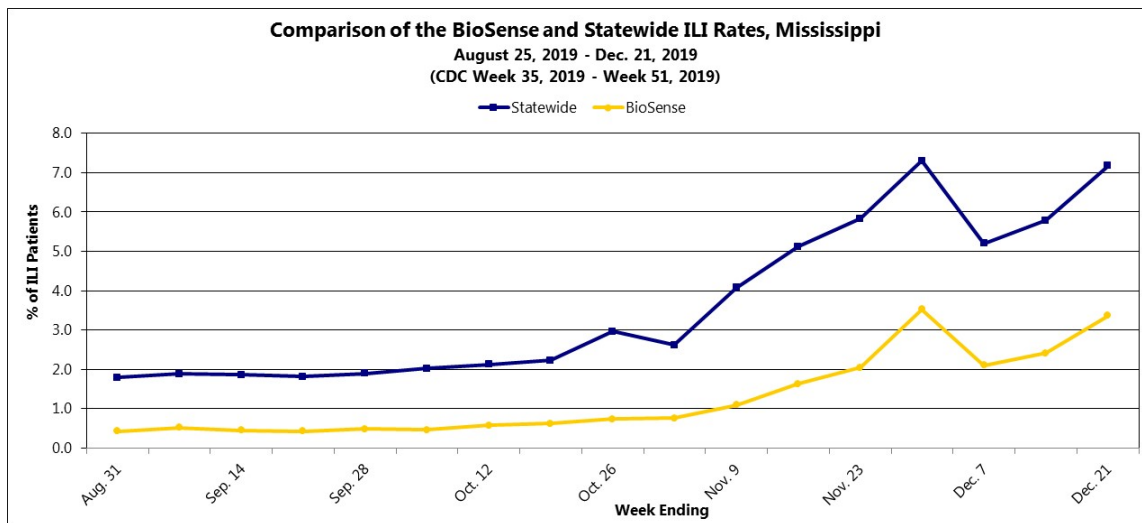


Mississippi ILI Rates 2015-2019 | [Figure 4](#)



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 **51 increased** 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 (ending October 5th) and week **51** (week ending December 21st), three outbreaks were reported to MSDH. MSDH investigates all reported outbreaks; however, complete information on these outbreaks was not available at the time of this report.

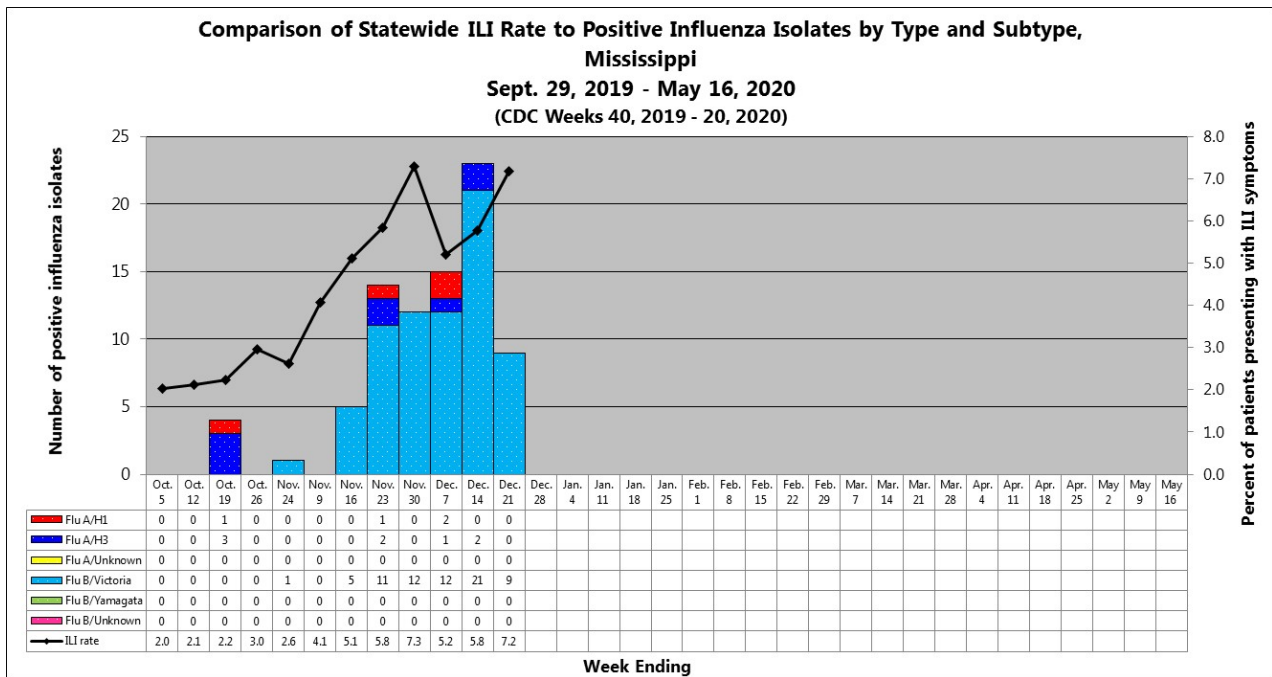
The influenza outbreaks have occurred in the following counties: Alcorn, Amite, and Covington.

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

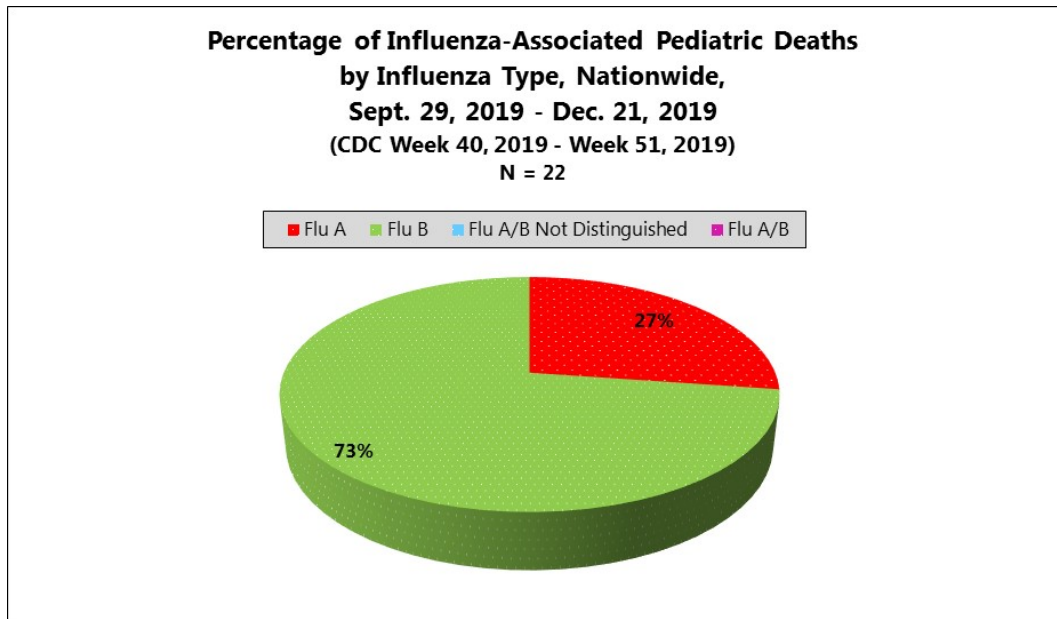
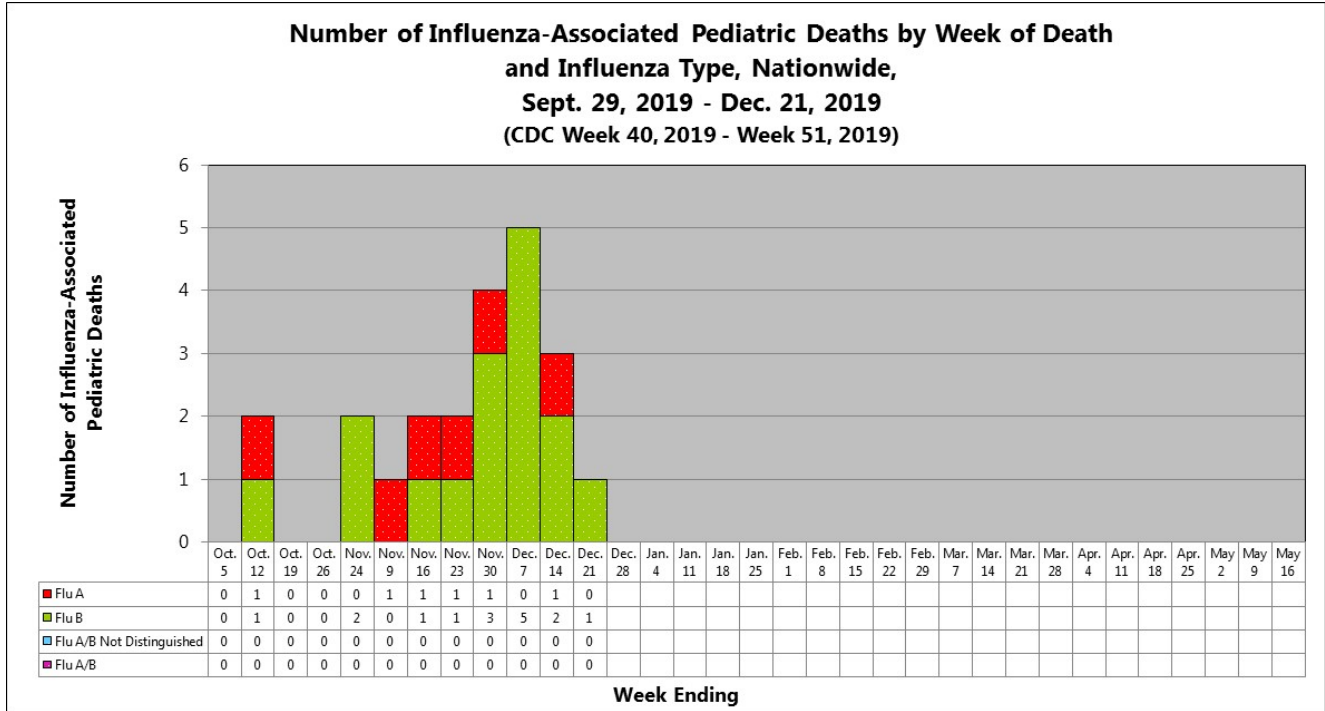
Since week 40 (week ending October 5th), **83** laboratory confirmed influenza samples have been identified by the MSDH Public Health Laboratory. Four (5%) were identified as influenza A/H1, eight (10%) were identified as influenza A/H3, and 71 (85%) was identified as an influenza B/Victoria. | [Figure 6](#)



The influenza cases were identified from the following counties: Adams (2), Amite (2), Attala (1), Coahoma (5), Covington (1), DeSoto (1), Forrest (2), George (2), Hancock (2), Harrison (12), Hinds (7), Jackson (10), Jefferson (2), Jones (1), Lauderdale (1), Lawrence (1), Lincoln (1), Madison (1), Marion (1), Neshoba (1), Oktibbeha (2), Panola (8), Pearl River (2), Pike (2), Rankin (7), Walthall (1), and Winston (4). The county of residence for one of the cases was unknown.

National and Mississippi Pediatric Mortality Surveillance

Nationally, **three** influenza-associated pediatric deaths were reported to CDC during week **51**. Two deaths occurred during week 49 (week ending December 7, 2019) and one death occurred during week 51 (week ending December 21, 2019). All three deaths were associated with influenza B viruses. **Twenty-two** influenza-associated pediatric deaths have been reported to CDC for the 2019-2020 season. | [Figure 7](#)



Of the **22** influenza-associated pediatric deaths reported nationally during the 2019-2020 season, six (27%) have been attributed to influenza A viruses and 16 (73%) to influenza B viruses. | [Figure 8](#)

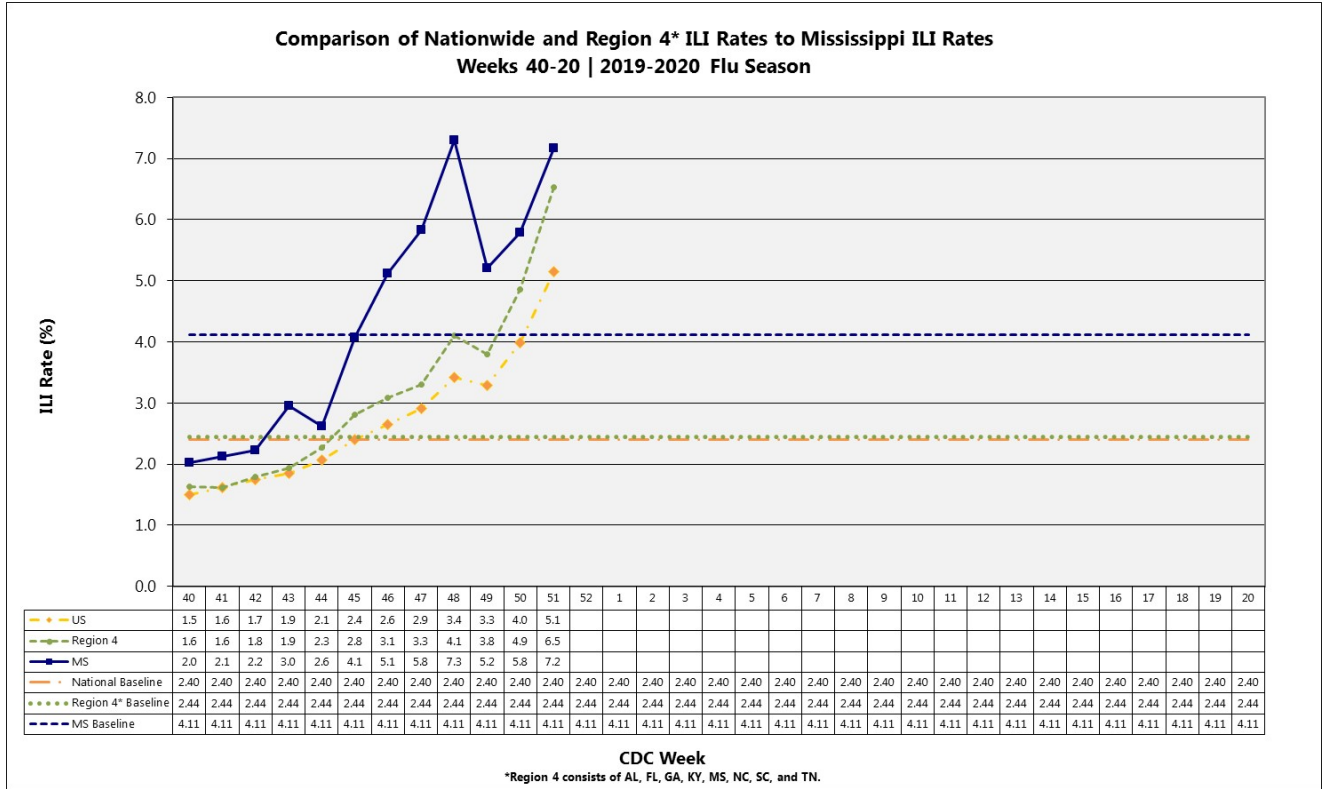
Mississippi has had **no** influenza-

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 **51**, the Mississippi (7.2%), national (5.1%) and Region 4 (6.5%) ILI rates increased and were above their respective baselines. | [Figure 9](#)



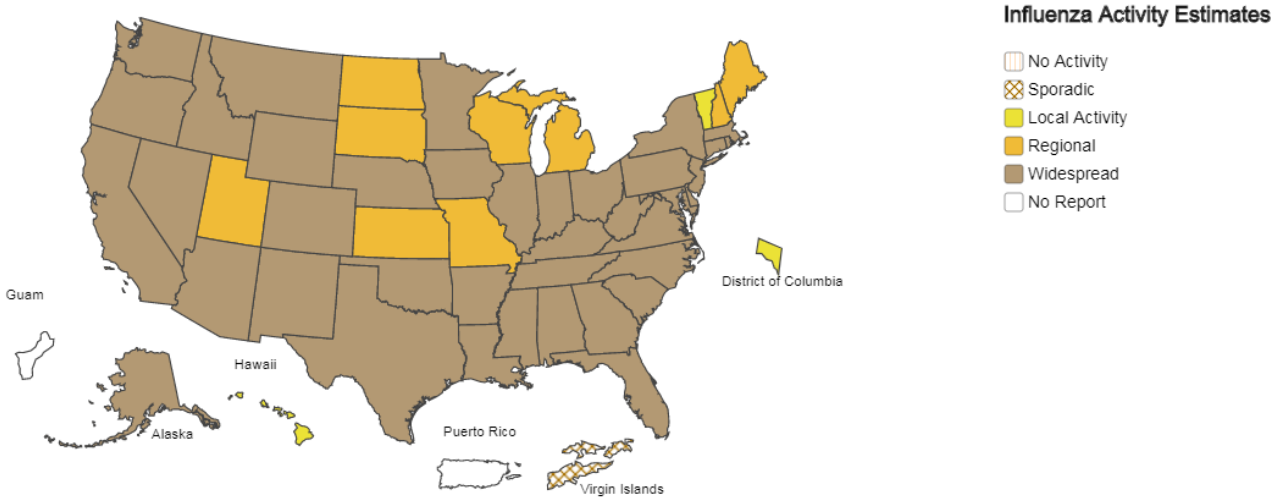
During week **51**, influenza activity **had been elevated for seven weeks and continued to increase** in the United States.¹ | [Figure 10](#)



A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending Dec 21, 2019 - Week 51



*This map indicates geographic spread and does not measure the severity of influenza activity.

¹For 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 **“Widespread”** for the influenza activity during week **51**. | **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.
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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

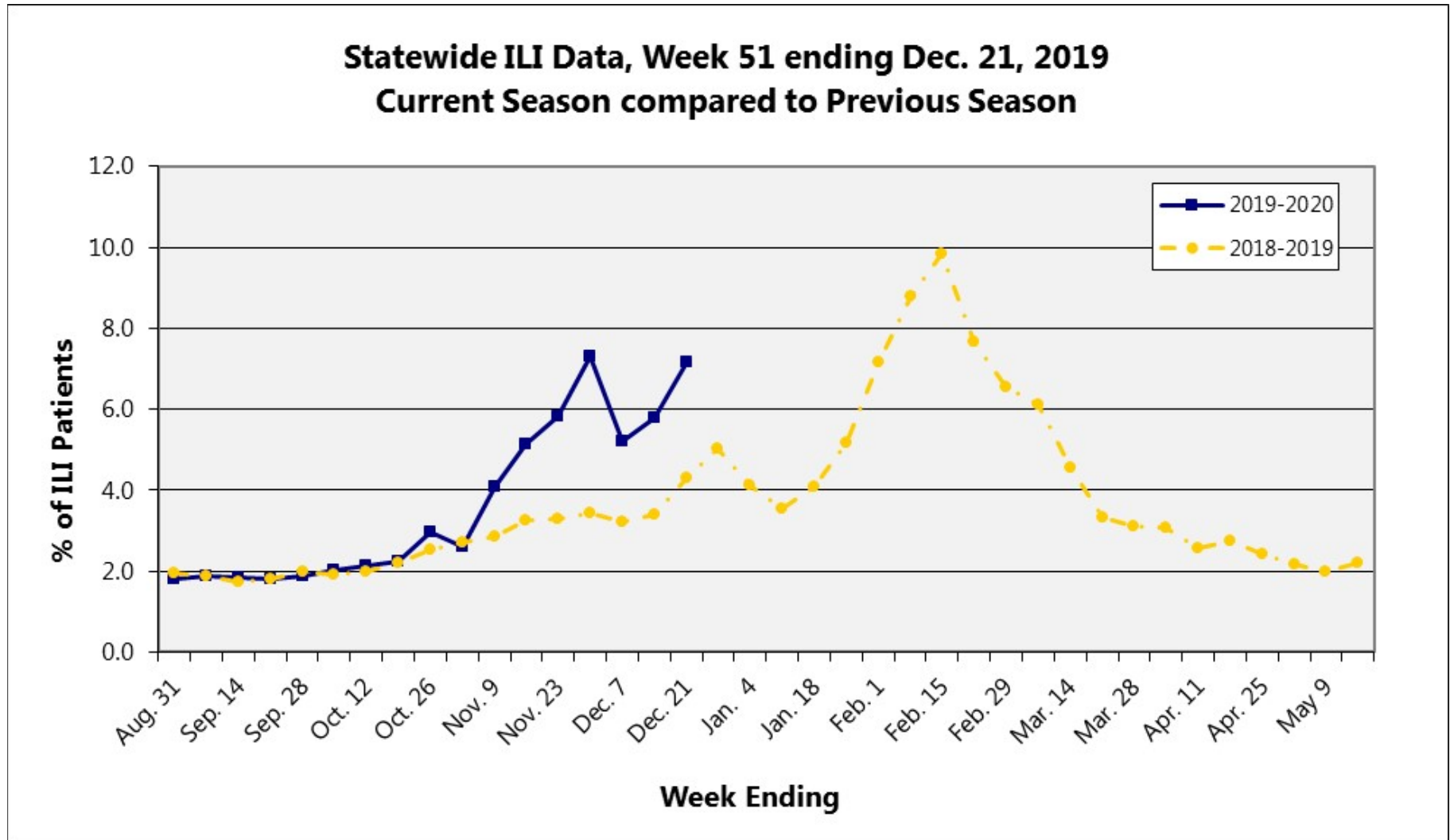


Figure 2

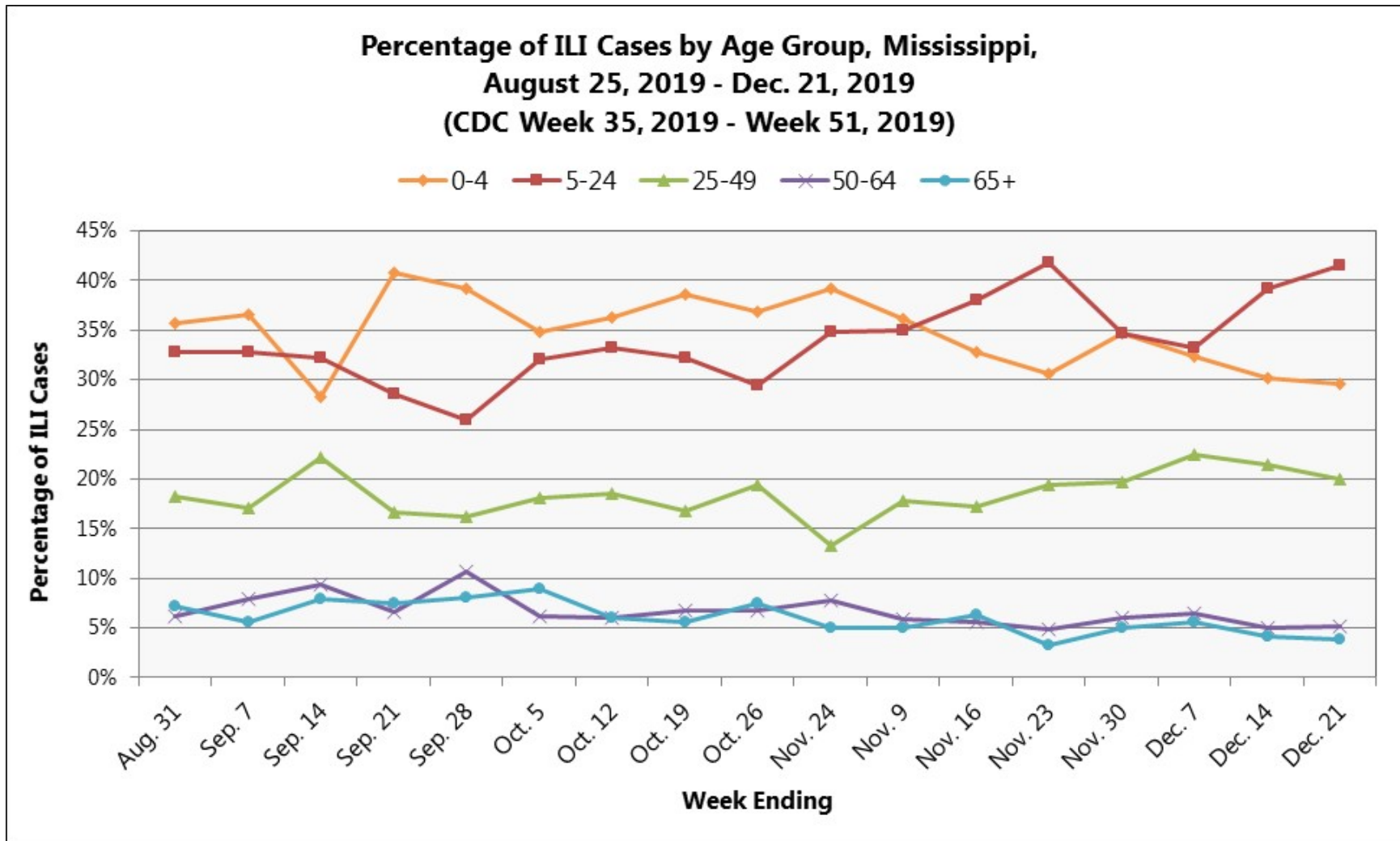


Figure 3

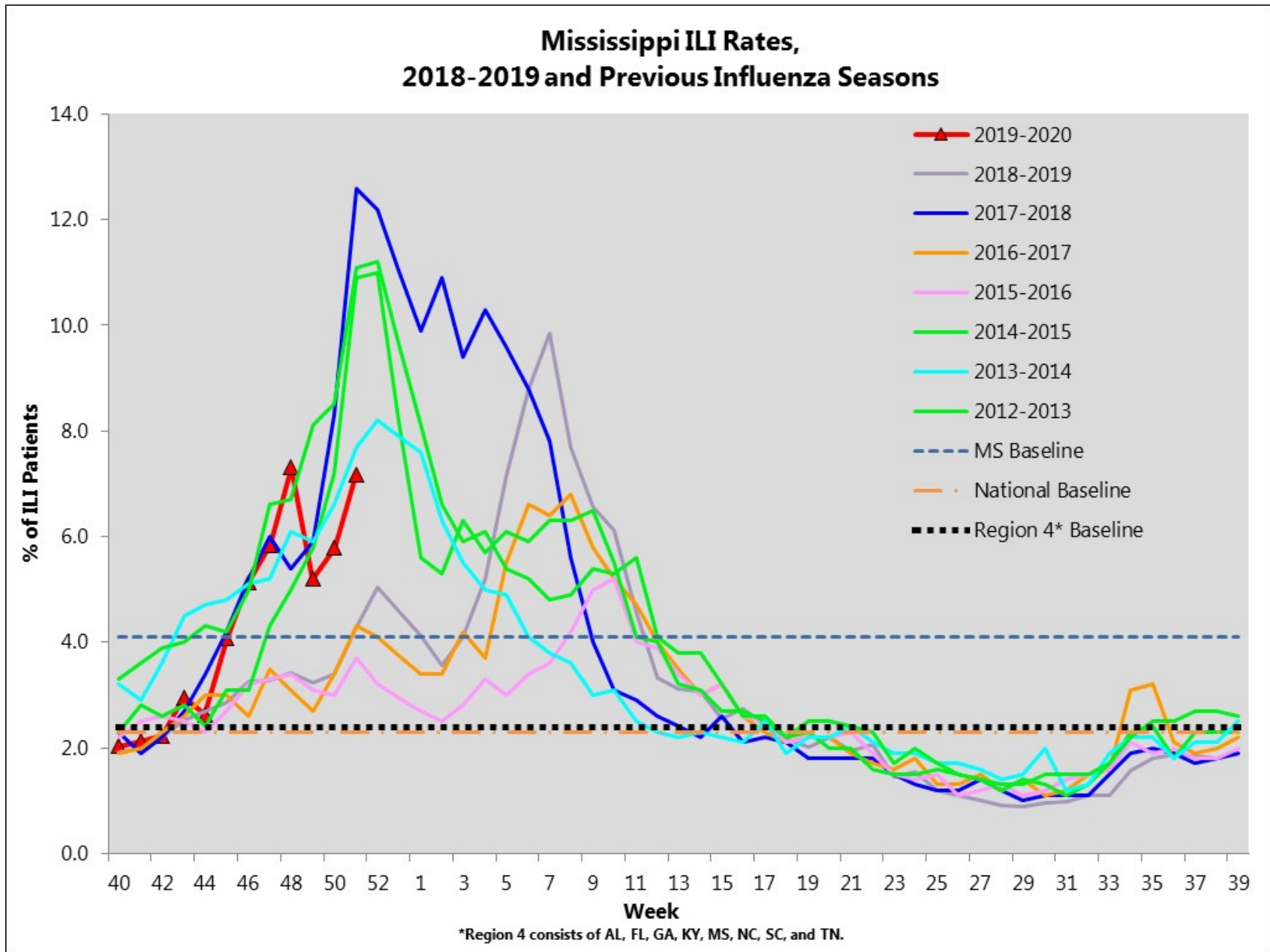


Figure 4

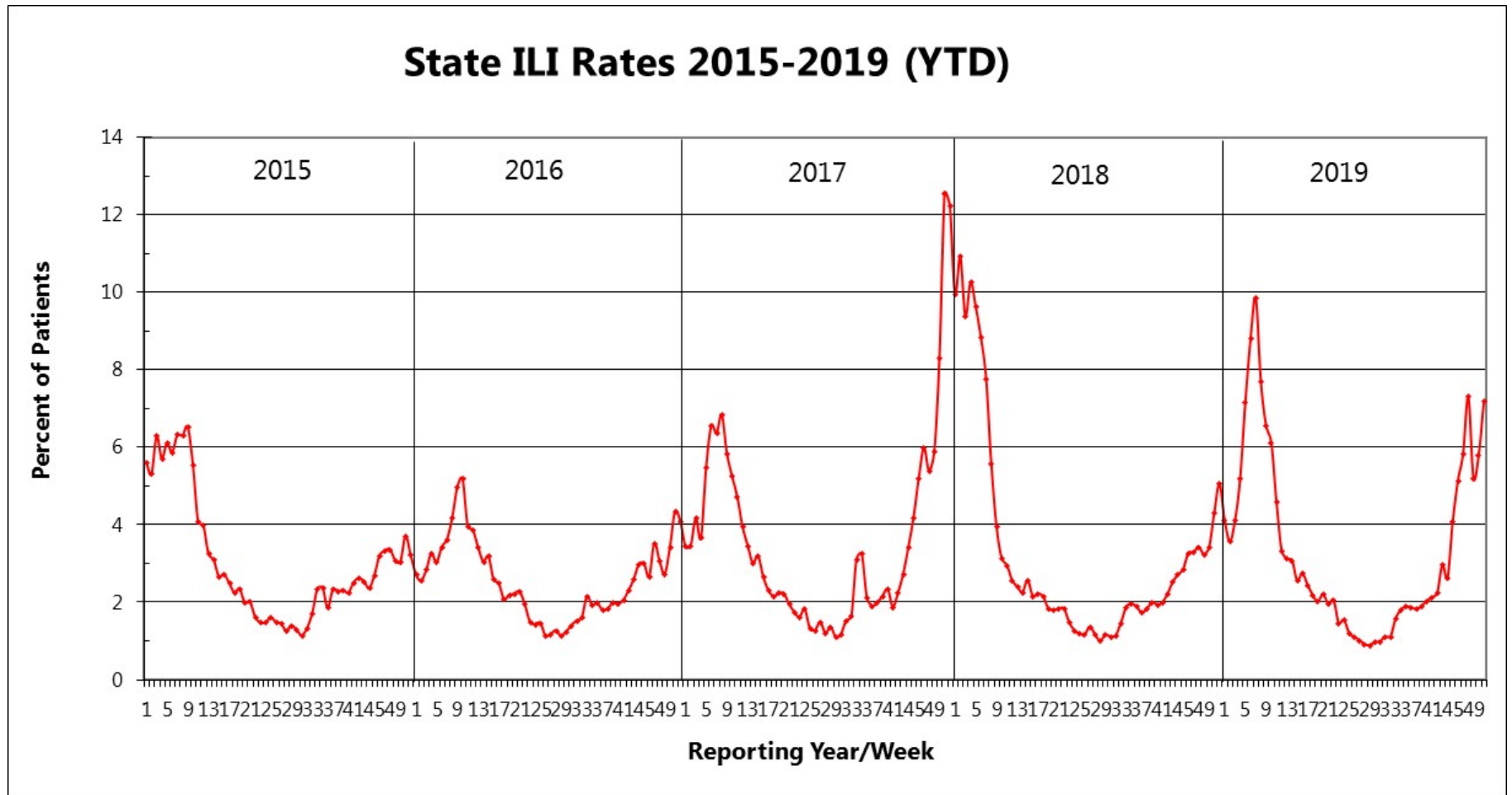


Figure 5

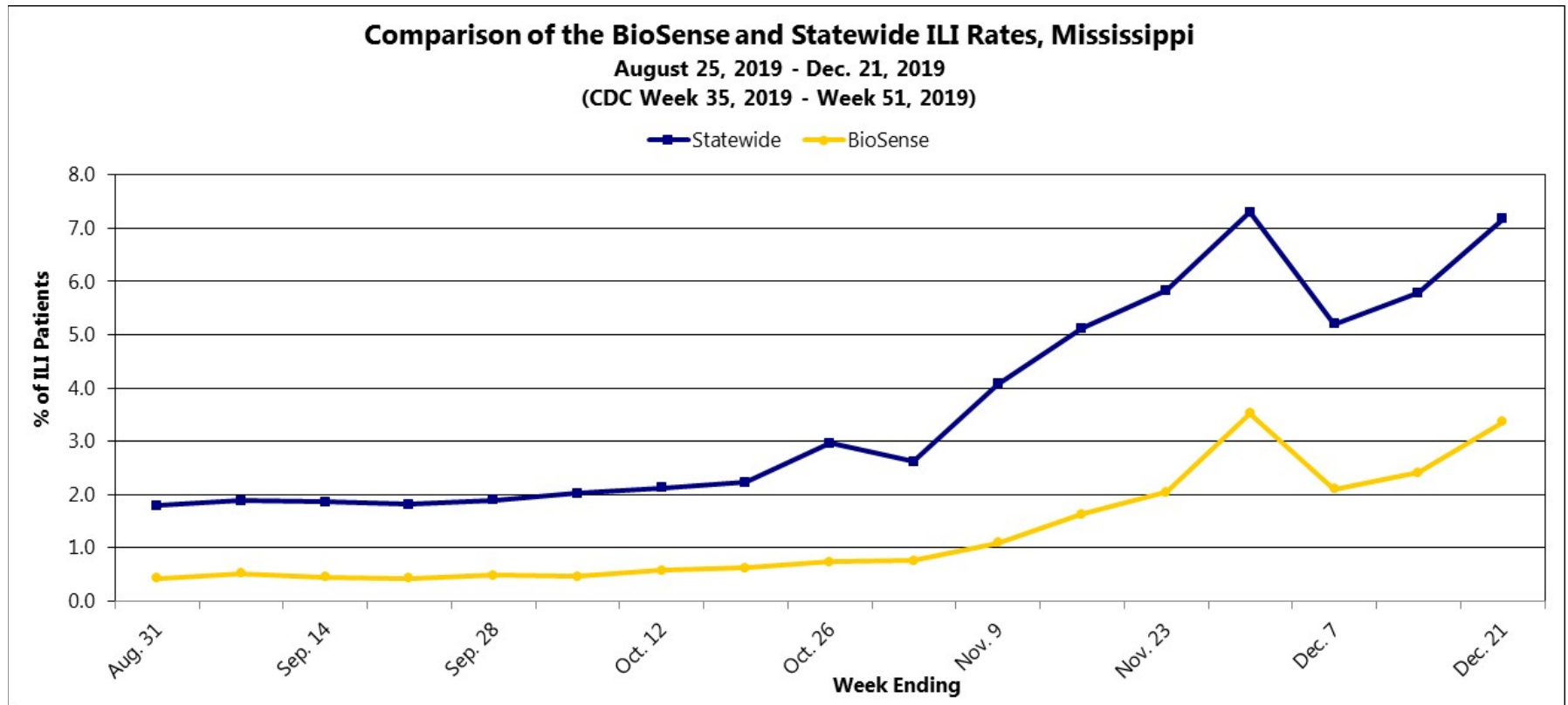


Figure 6

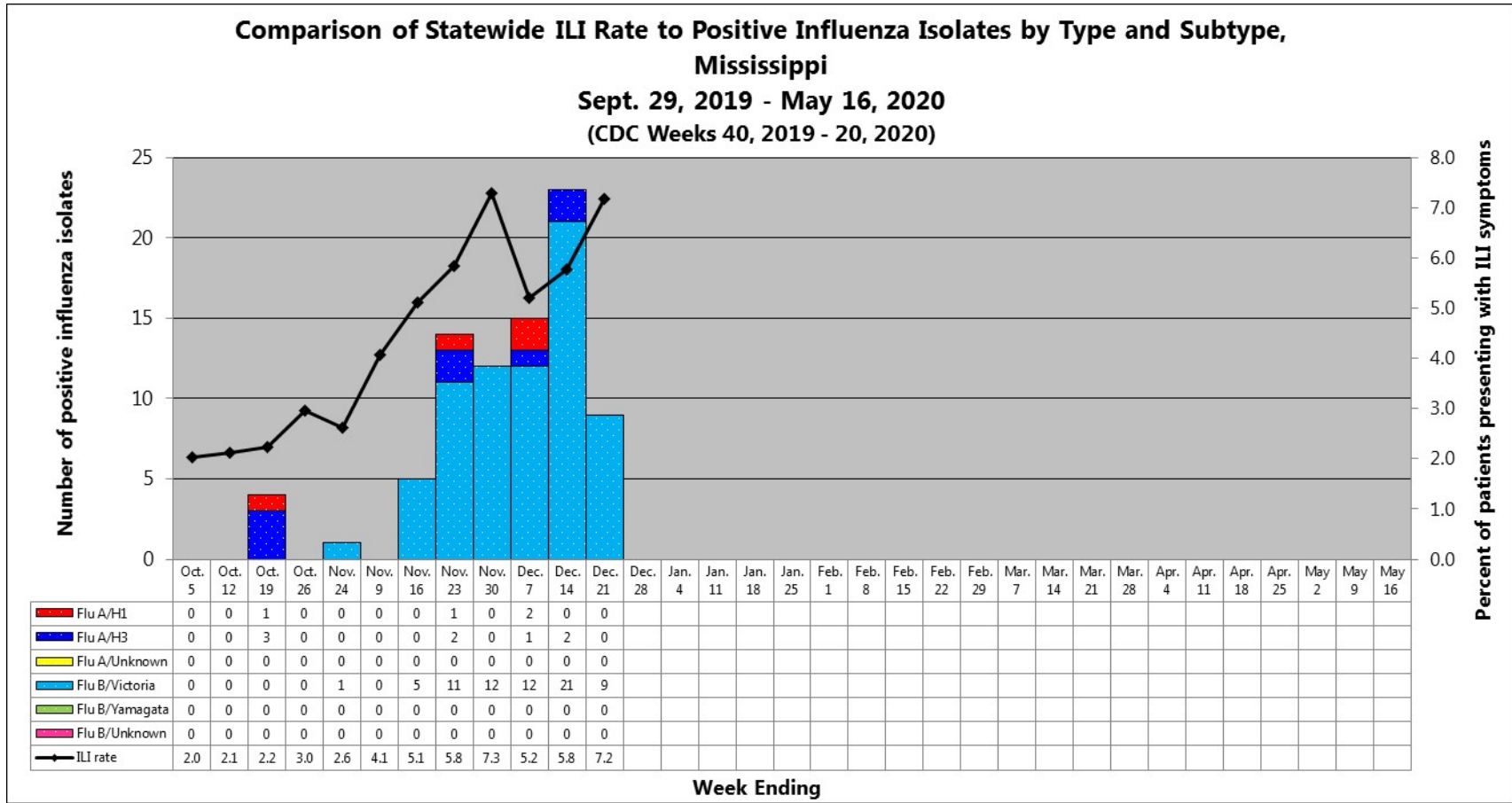


Figure 7

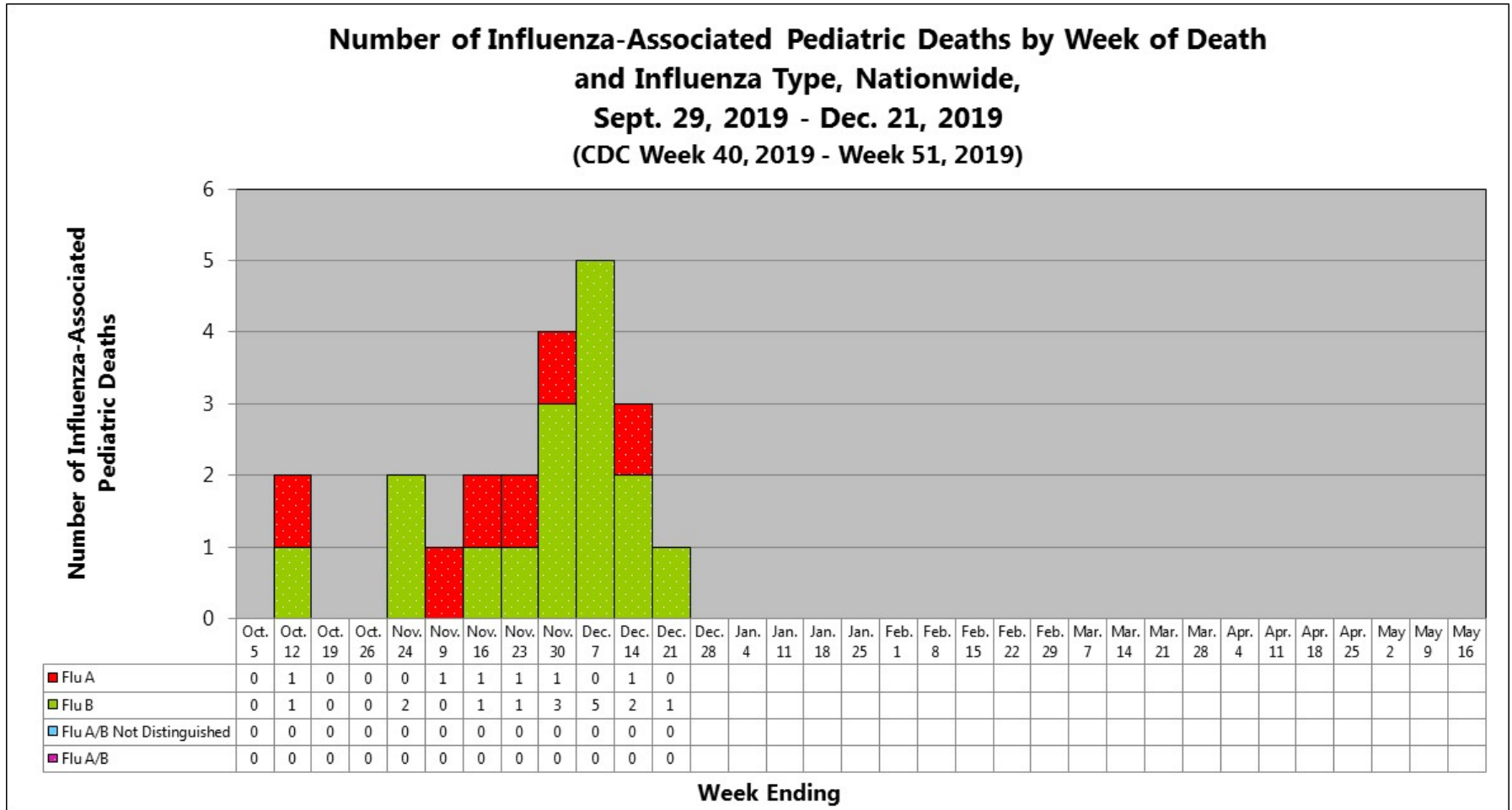


Figure 8

**Percentage of Influenza-Associated Pediatric Deaths
by Influenza Type, Nationwide,
Sept. 29, 2019 - Dec. 21, 2019
(CDC Week 40, 2019 - Week 51, 2019)
N = 22**

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

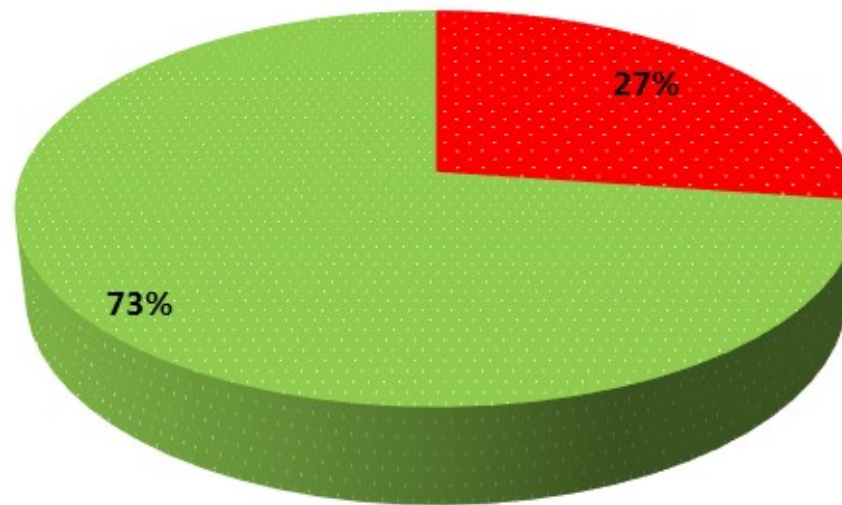
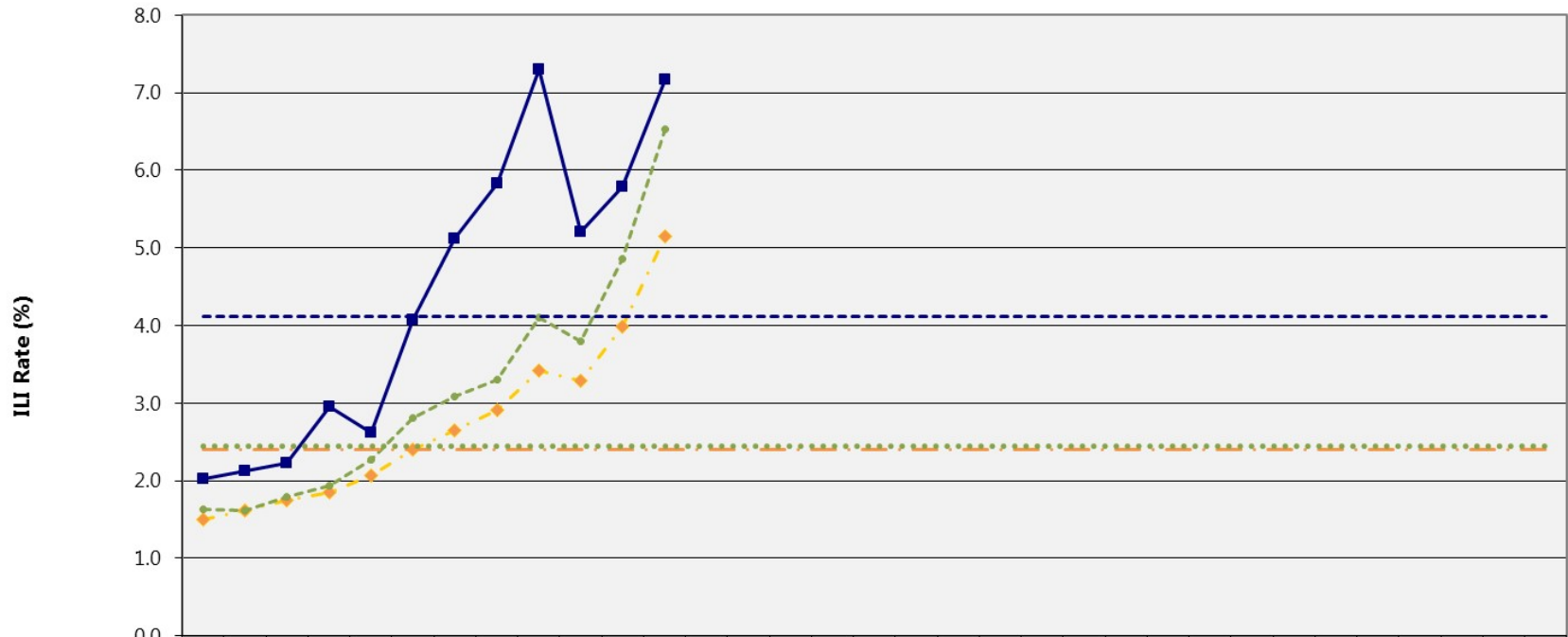


Figure 9

**Comparison of Nationwide and Region 4* ILI Rates to Mississippi ILI Rates
Weeks 40-20 | 2019-2020 Flu Season**



	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
US	1.5	1.6	1.7	1.9	2.1	2.4	2.6	2.9	3.4	3.3	4.0	5.1																								
Region 4	1.6	1.6	1.8	1.9	2.3	2.8	3.1	3.3	4.1	3.8	4.9	6.5																								
MS	2.0	2.1	2.2	3.0	2.6	4.1	5.1	5.8	7.3	5.2	5.8	7.2																								
National Baseline	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	
Region 4* Baseline	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44
MS Baseline	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	

CDC Week

*Region 4 consists of AL, FL, GA, KY, MS, NC, SC, and TN.

