



2017-2018 Influenza Surveillance Report

Week 04

Jan. 21 – Jan. 27, 2018

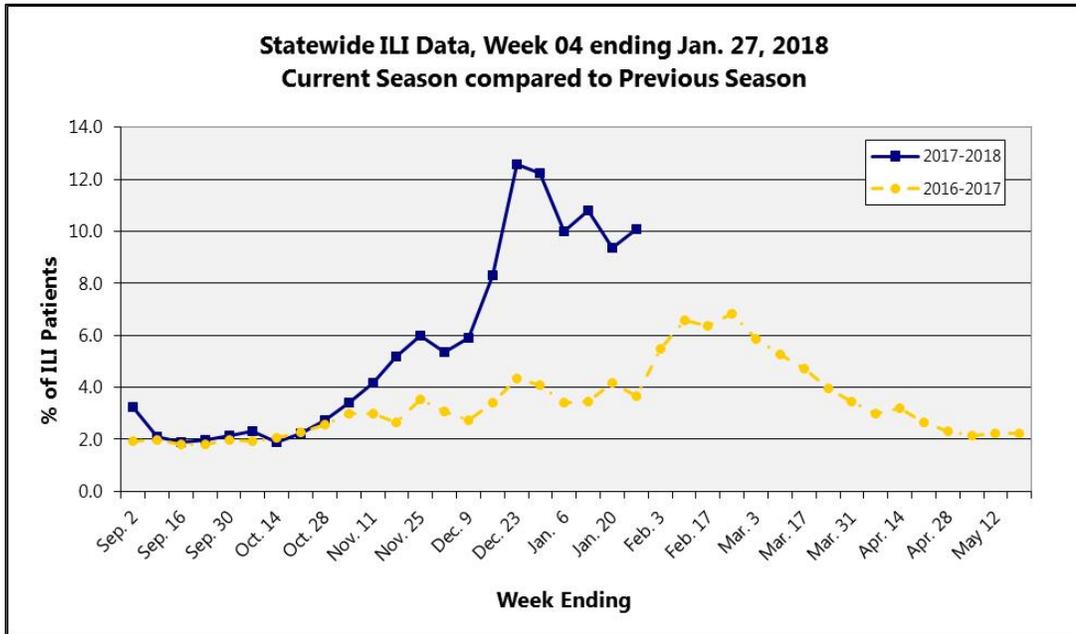
About our flu activity reporting

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



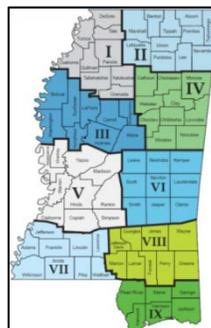
During week **04** (01/21/18-01/27/18), the overall state ILI rate (**10.1%**) **increased** from the previous week (**9.4%**), and was above this time last year (**3.7%**). |

[Figure 1](#)

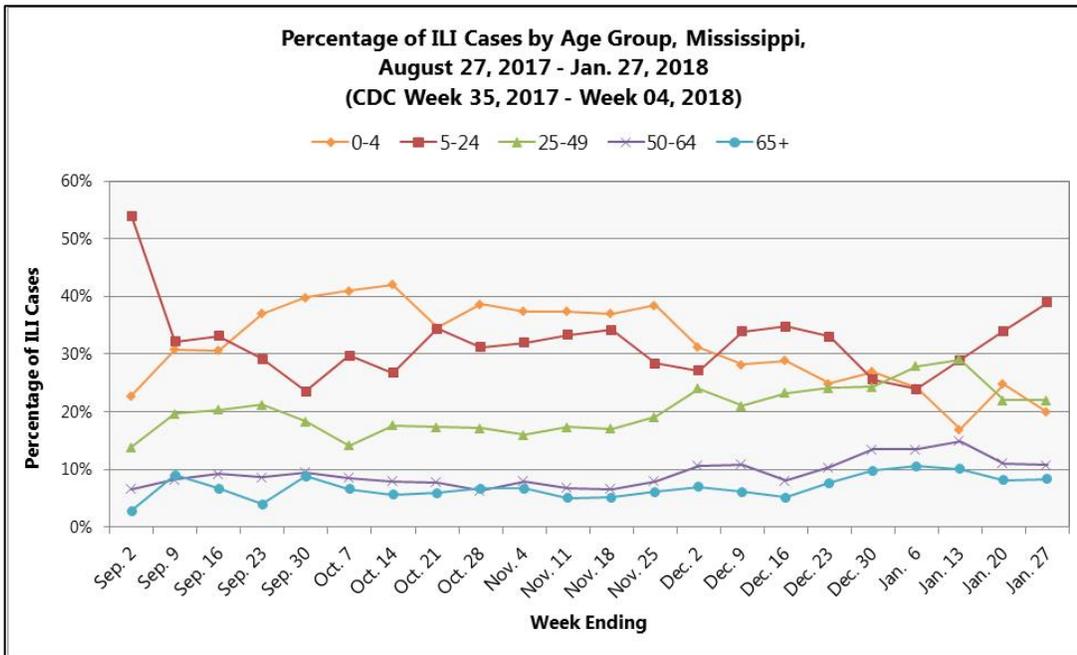
Total number of patients treated by sentinel providers in the last three weeks. | **Table 1**

2017-2018 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
04	Jan. 27	136	19523	1971	10.1
03	Jan. 20	128	17915	1680	9.4
02	Jan. 13	138	20481	2214	10.8

During week **04**, **four** districts (1, 5, 7, and 9) had an increase in ILI activity, while **three** districts (2, 3, and 4) had a decrease. **Two** districts (6 and 8) remained about the same. *Information is provisional only and may change depending on additional reporting from sentinel providers.* | **Table 2**



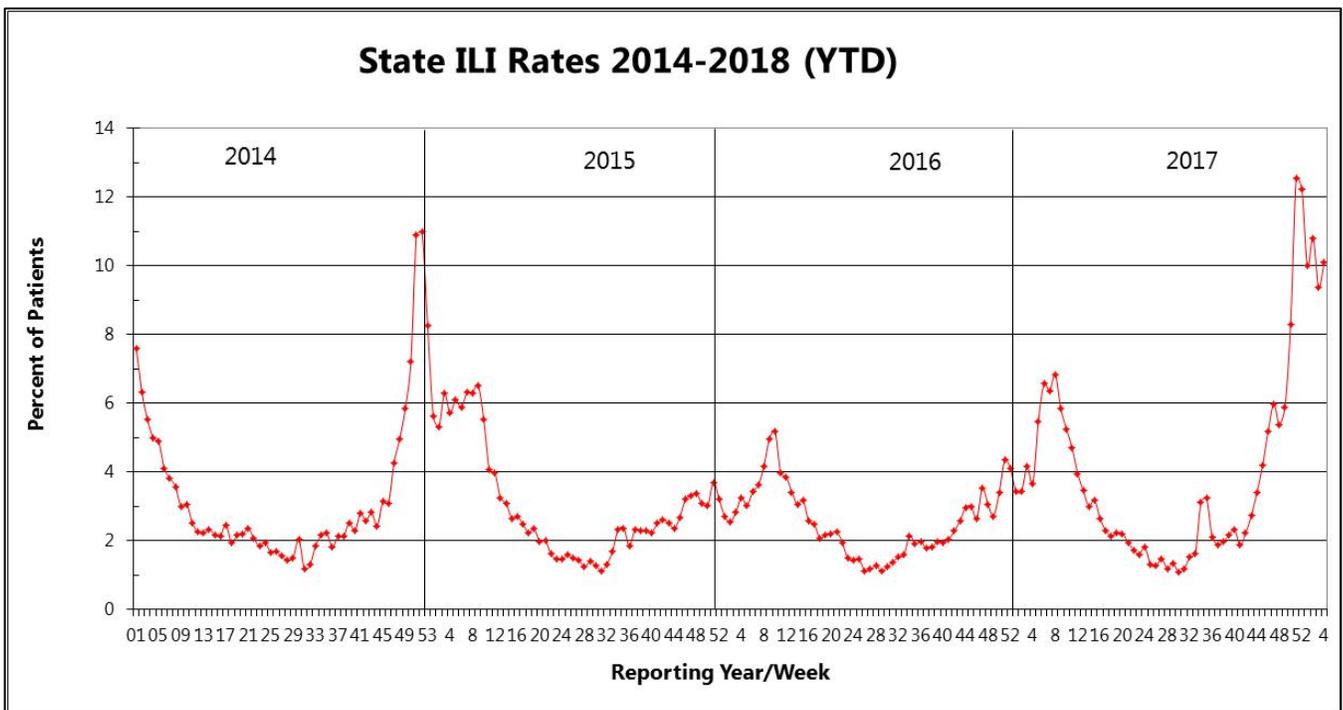
MSDH District ILI Rates (%) 2017-2018		
District	Week 03	Week 04
State	9.4	10.1
I	11.4	17.9
II	13.3	9.2
III	18.6	17.0
IV	9.7	6.9
V	5.8	6.5
VI	11.4	11.9
VII	9.1	11.7
VIII	7.4	7.3
IX	10.2	12.9



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 **04**, however, the percentage of ILI cases was

highest among those in the **5-24 years** of age group. | [Figure 2](#)

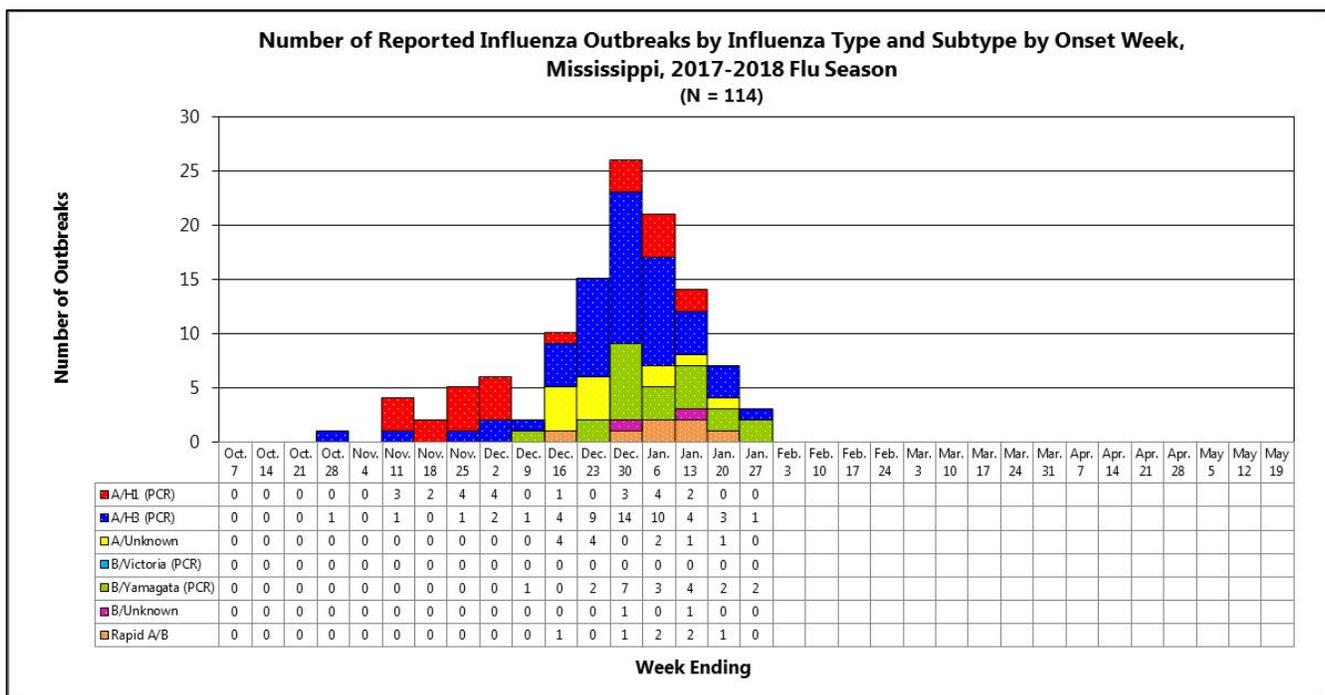
Mississippi ILI Rates 2014-2018 | [Figure 3](#)



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 7th) and week **04** (week ending January 27th), 127 influenza outbreaks were reported to MSDH. MSDH investigates all reported outbreaks, and of the 127 reported outbreaks, complete information was available for 114 of them. Twenty-three (20%) of the outbreaks were attributed to influenza A (H1), 51 (44%) were due to influenza A (H3), 12 (10%) were due to influenza A, unknown subtype, 21 (18%) were due to influenza B (Yamagata), two (2%) were due to influenza B, unknown lineage, and seven (6%) were due to an unknown influenza type. (Note: Two outbreaks were associated with two different influenza strains.) | [Figure 4](#)



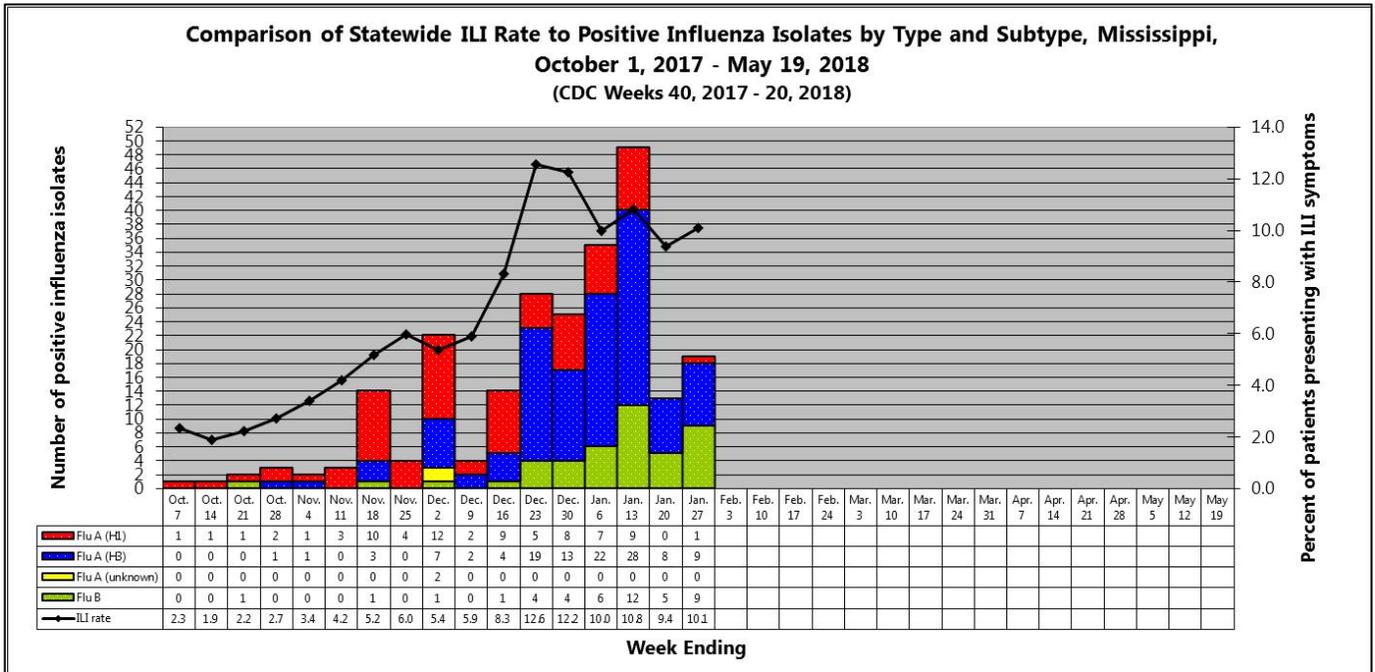
The influenza outbreaks have occurred in the following counties: Adams (5), Alcorn (3), Amite (1), Benton (1), Calhoun (1), Clarke (1), Clay (1), Coahoma (1), Covington (3), DeSoto (3), Forrest (5), Greene (1), Hancock (1), Harrison (5), Hinds (11), Holmes (1), Jackson (2), Jasper (1), Jones (5), Lafayette (1), Lamar (3), Lauderdale (2), Lee (3), Lincoln (1), Lowndes (2), Madison (1), Marshall (1), Monroe (2), Neshoba (2), Newton (1), Noxubee (1), Oktibbeha (1), Panola (1), Pearl River (2), Pike (2), Pontotoc (2), Prentiss (2), Quitman (1), Rankin (5), Scott (1), Simpson (2), Smith (2), Stone (2), Tallahatchie (1), Tate (1), Tippah (2), Union (2), Walthall (3), Warren (2), Washington (4), Wilkinson (1), Winston (1), Yalobusha (1), and Yazoo (1).

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 7th), **239** laboratory confirmed influenza samples have been identified. Seventy-six (32%) were identified as influenza A (H1), 117 (49%) were identified as influenza A (H3), two (1%) were identified as influenza A, unknown subtype and 44 (18%) were identified as influenza B. | [Figure 5](#)

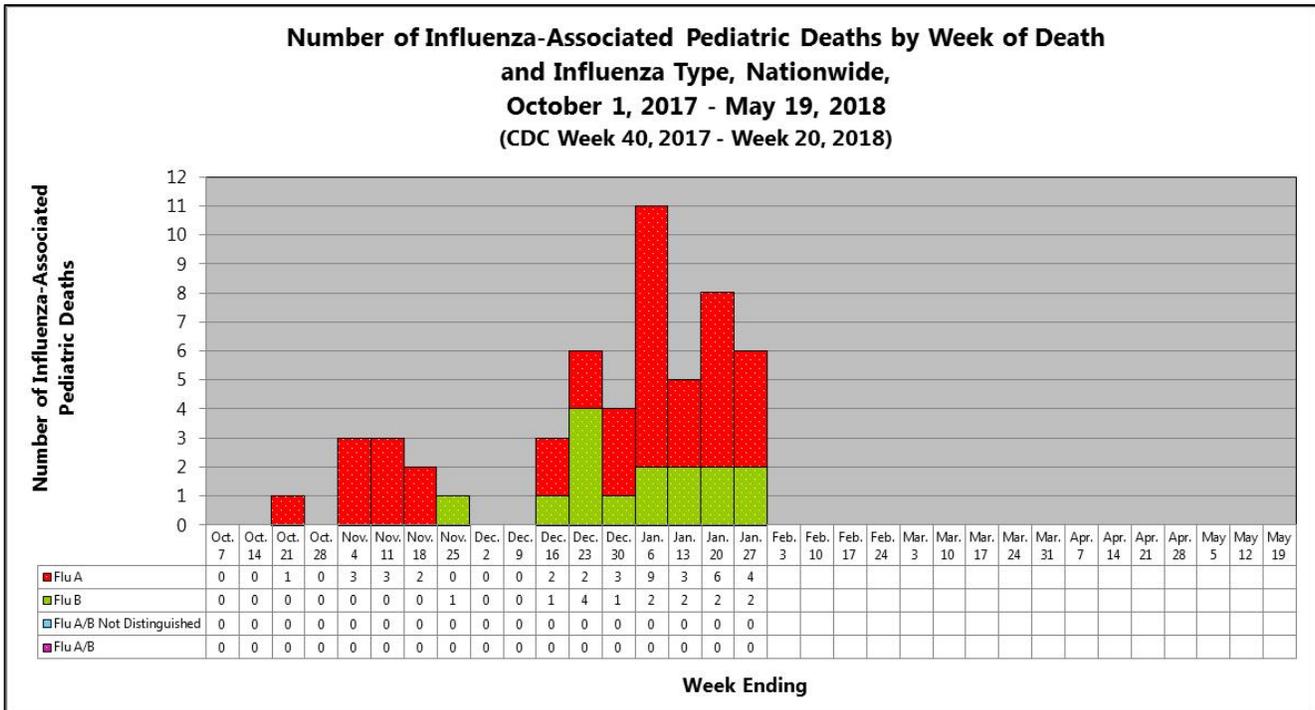


The influenza cases were identified from the following counties: Adams (6), Alcorn (6), Attala (1), Bolivar (2), Calhoun (3), Clarke (1), Clay (3), Coahoma (6), Covington (11), DeSoto (5), Forrest (10), Greene (3), Grenada (2), Harrison (11), Hinds (15), Jackson (6), Jasper (2), Jones (10), Kemper (1),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

National and Mississippi Pediatric Mortality Surveillance

Nationally, **17** influenza-associated pediatric deaths were reported to CDC during week **04**. Five deaths were associated with an influenza A(H3) virus and occurred during weeks 1, 2, 3, and 4 (weeks ending January 6th, January 13th, January 20th, and January 27, respectively). Two deaths were associated with an influenza A(H1N1)pdm09 virus and occurred during weeks 3 and 4 (weeks ending January 20th and January 27th, respectively). Four deaths were associated with an influenza A virus for which no subtyping was performed and occurred during weeks 3 and 4. Five deaths were associated with an influenza B virus and occurred during weeks 1, 3, and 4 (weeks ending January 6th, January 20th, and January 27th, respectively). **Fifty-three** influenza-associated pediatric deaths have been reported to CDC for the 2017-2018 season. | [Figure 6](#)

One death that occurred during the 2015-2016 season was associated with an influenza A virus for which no subtyping was performed and occurred during week 28 (week ending July 16, 2016). This death brings the total number of reported influenza-associated deaths occurring during that season to 93.



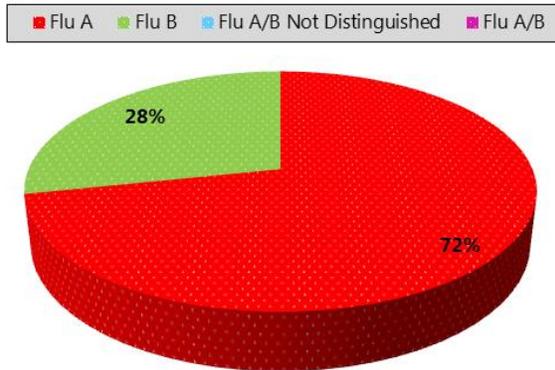
Of the **53** influenza-associated pediatric deaths reported nationally during the 2017-2018 season, 38

(72%) have been attributed to influenza A viruses and 15 (28%) to influenza B viruses. | [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](#).

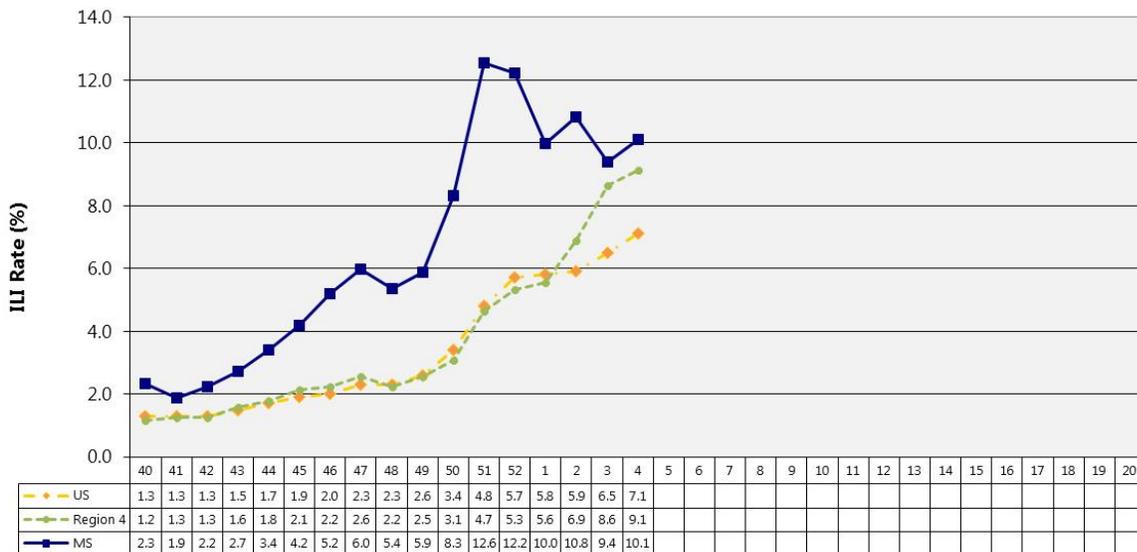
Percentage of Influenza-Associated Pediatric Deaths by Influenza Type, Nationwide, October 1, 2017 - May 19, 2018 (CDC Week 40, 2017 - Week 20, 2018)
N = 53



National ILI Surveillance

During week **04**, the MS (10.1%), national (7.1%), and Region 4 (9.1%) ILI rates **increased**. | [Figure 8](#)

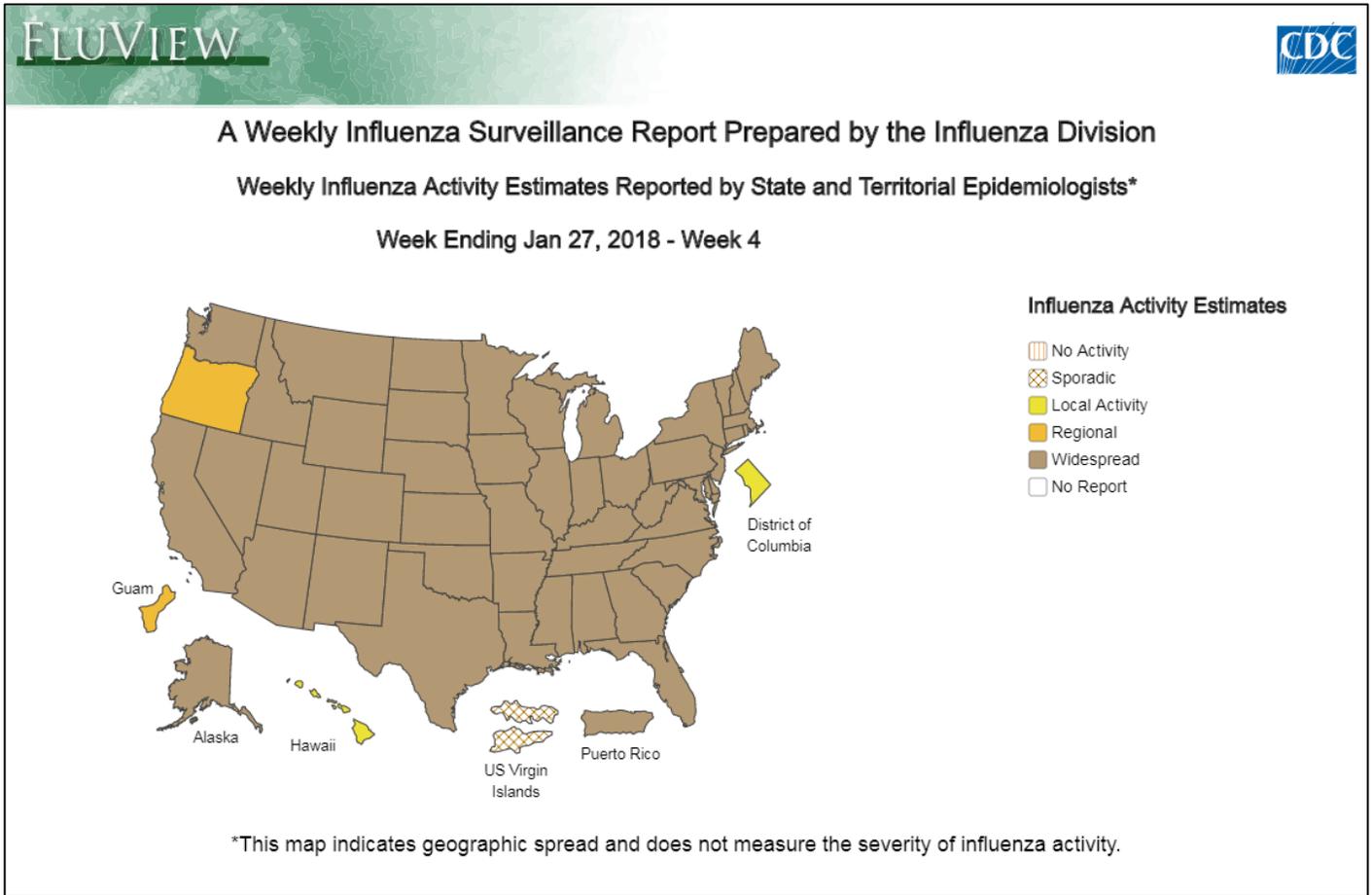
Comparison of Nationwide and Region 4* ILI Rates to Mississippi ILI Rates Weeks 40-20 | 2017-2018 Flu Season



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

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

During week **04**, 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 “**Widespread**” for the influenza activity during week **04**. | [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

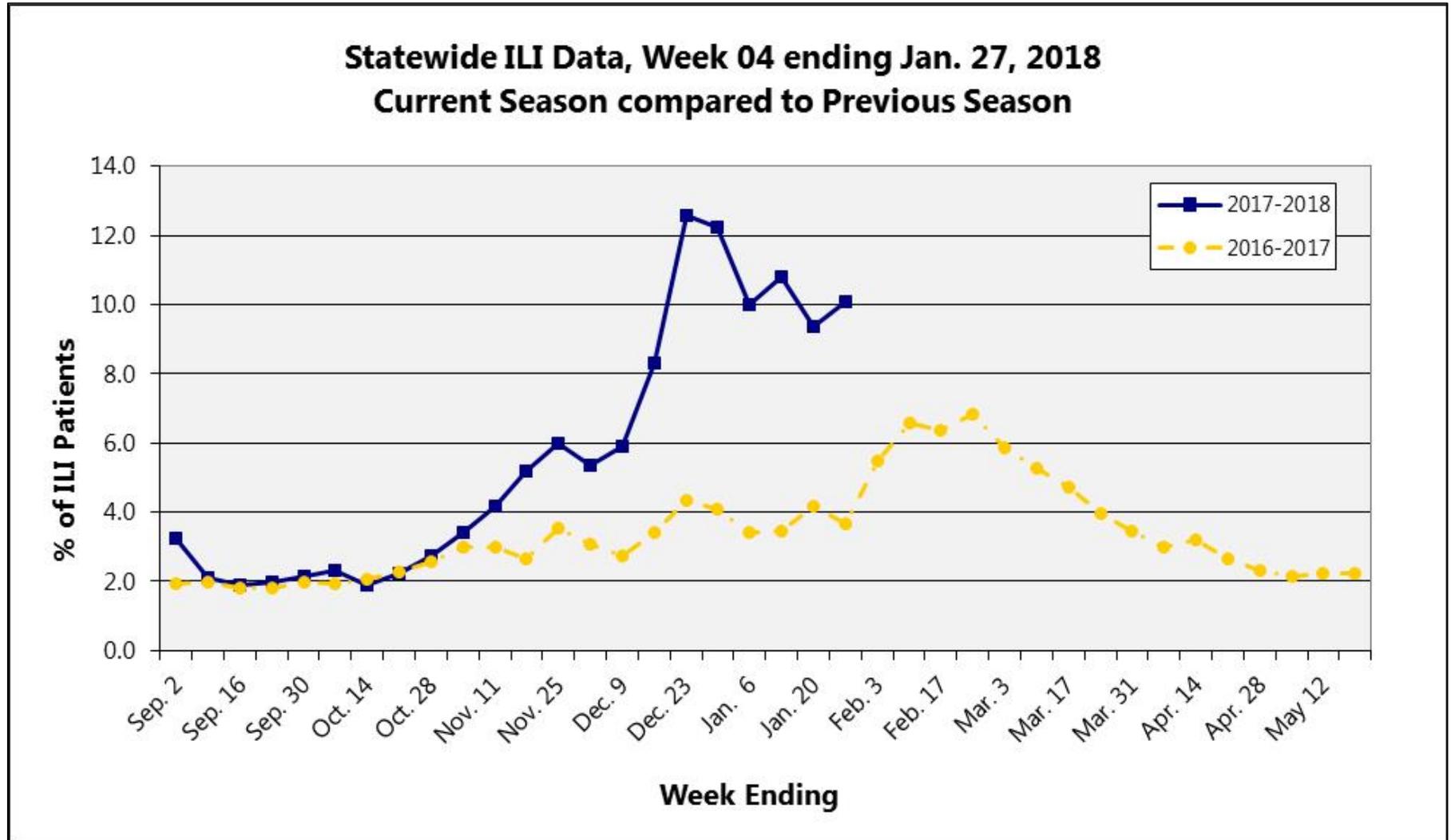


Figure 2

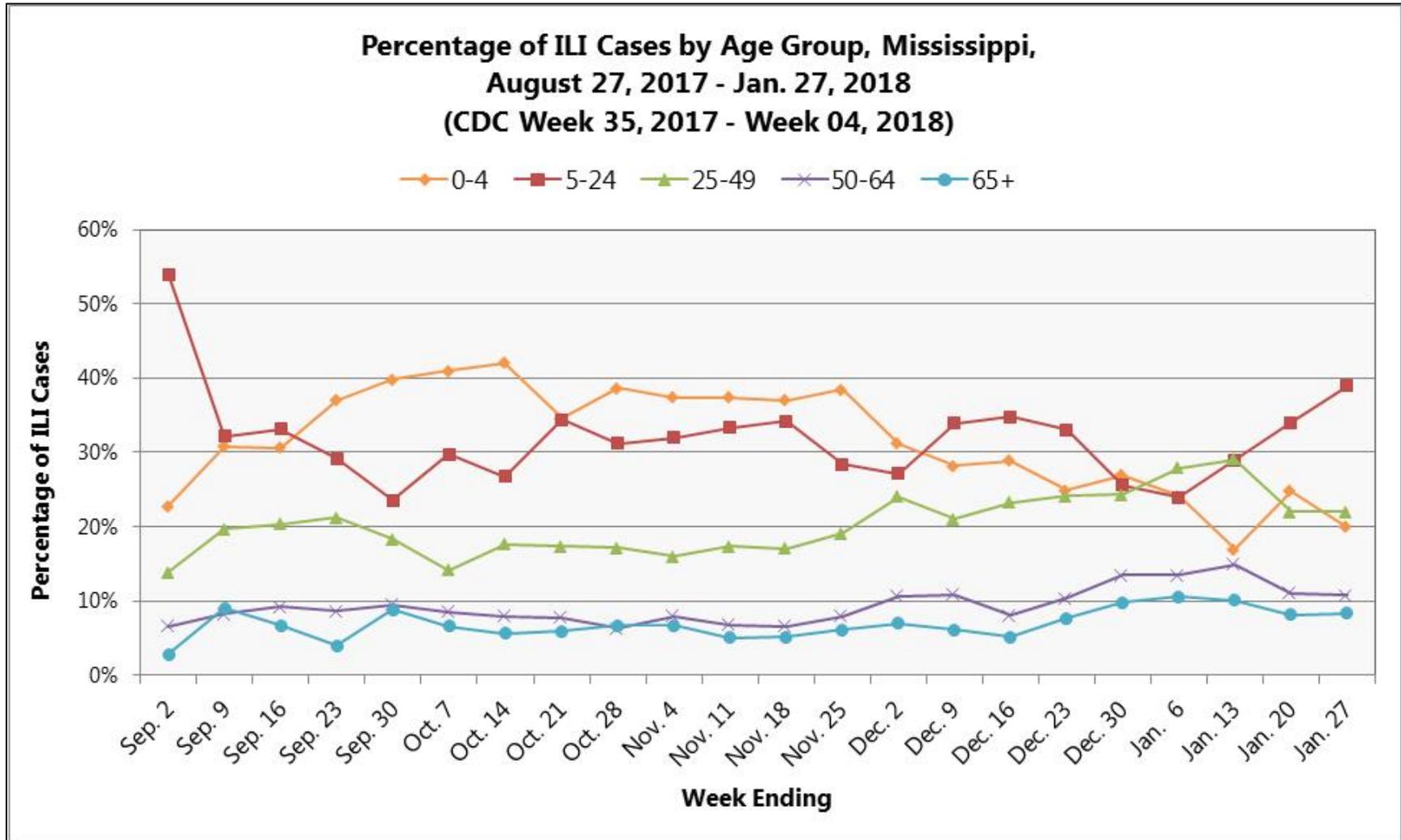


Figure 3

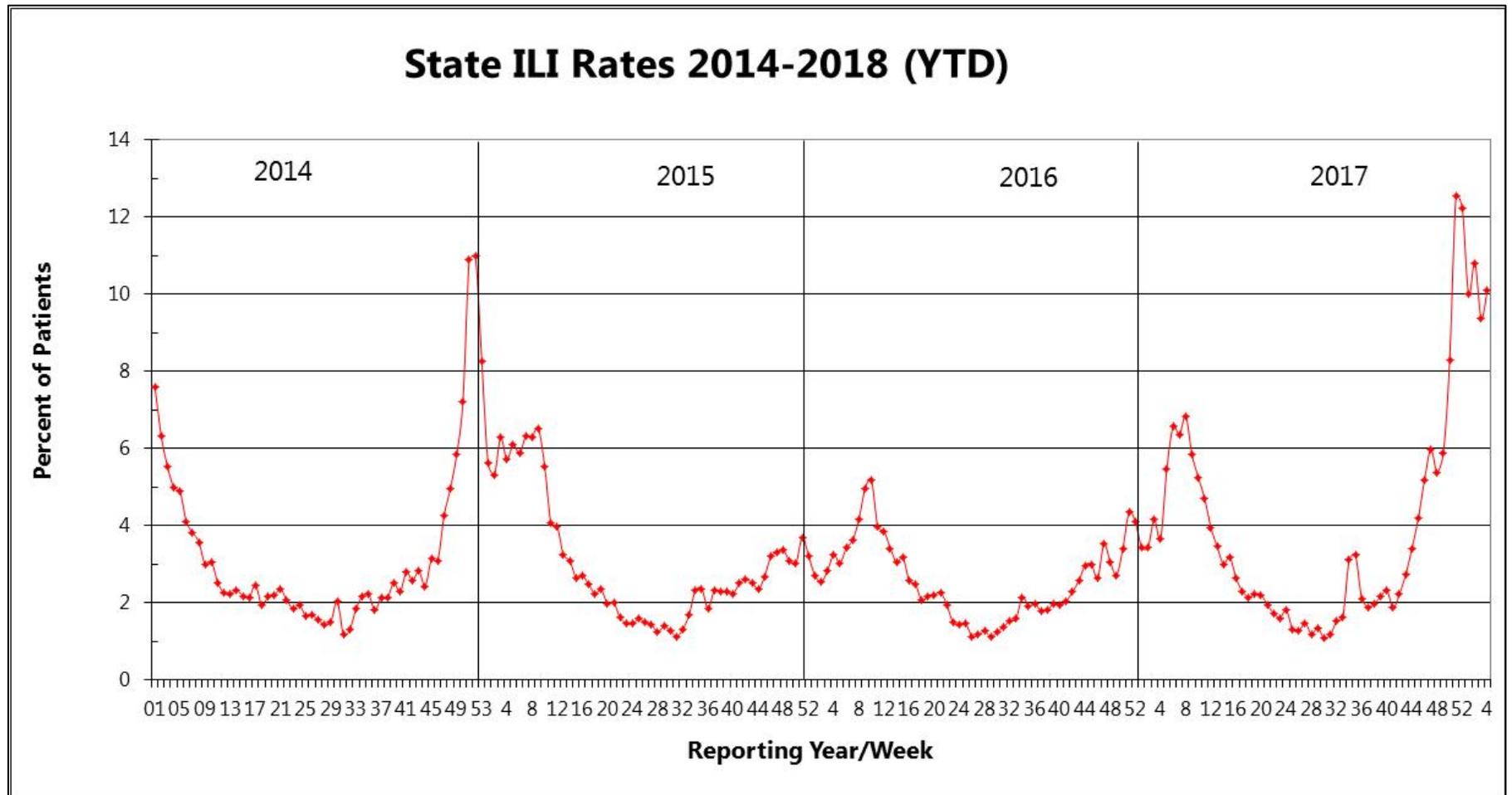


Figure 4

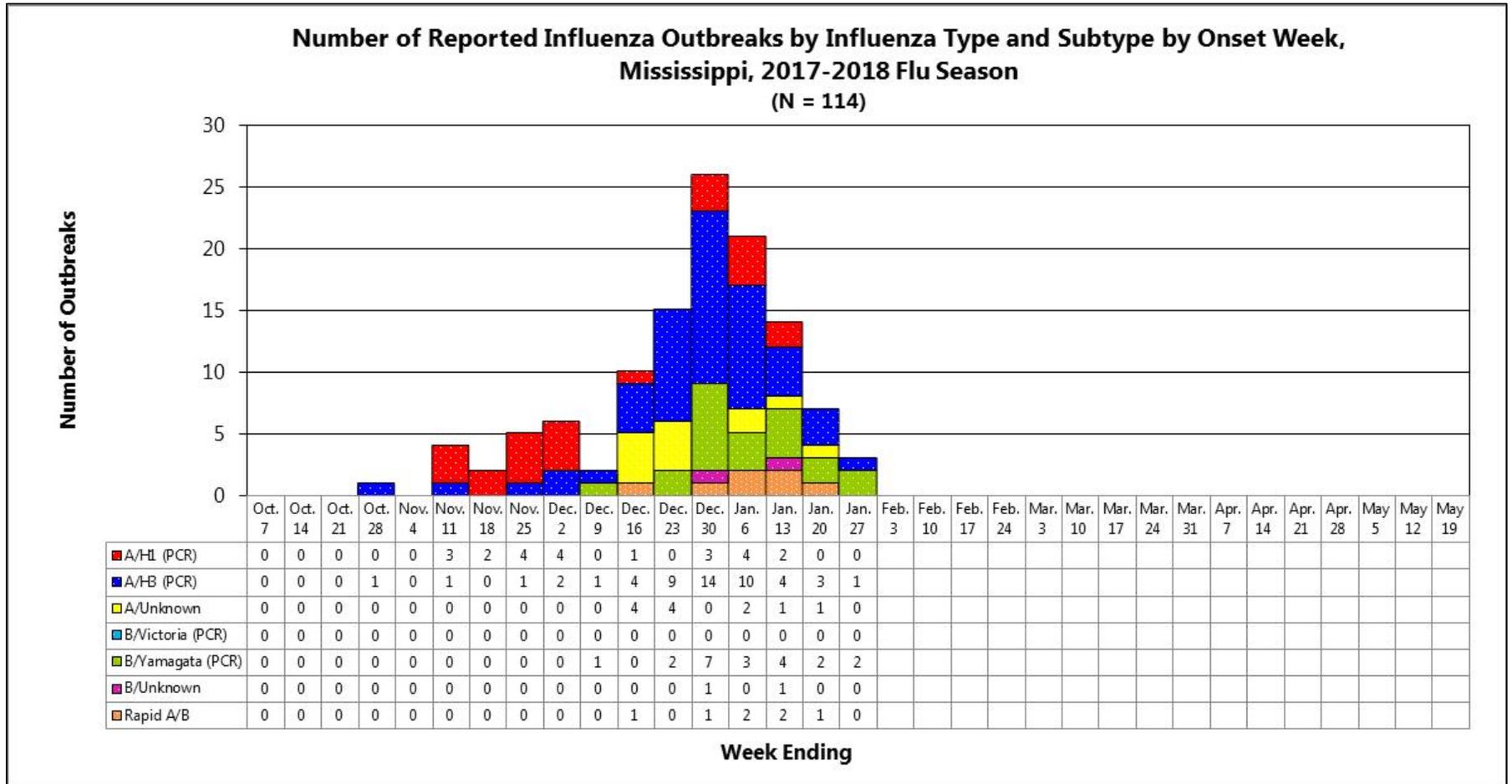


Figure 5

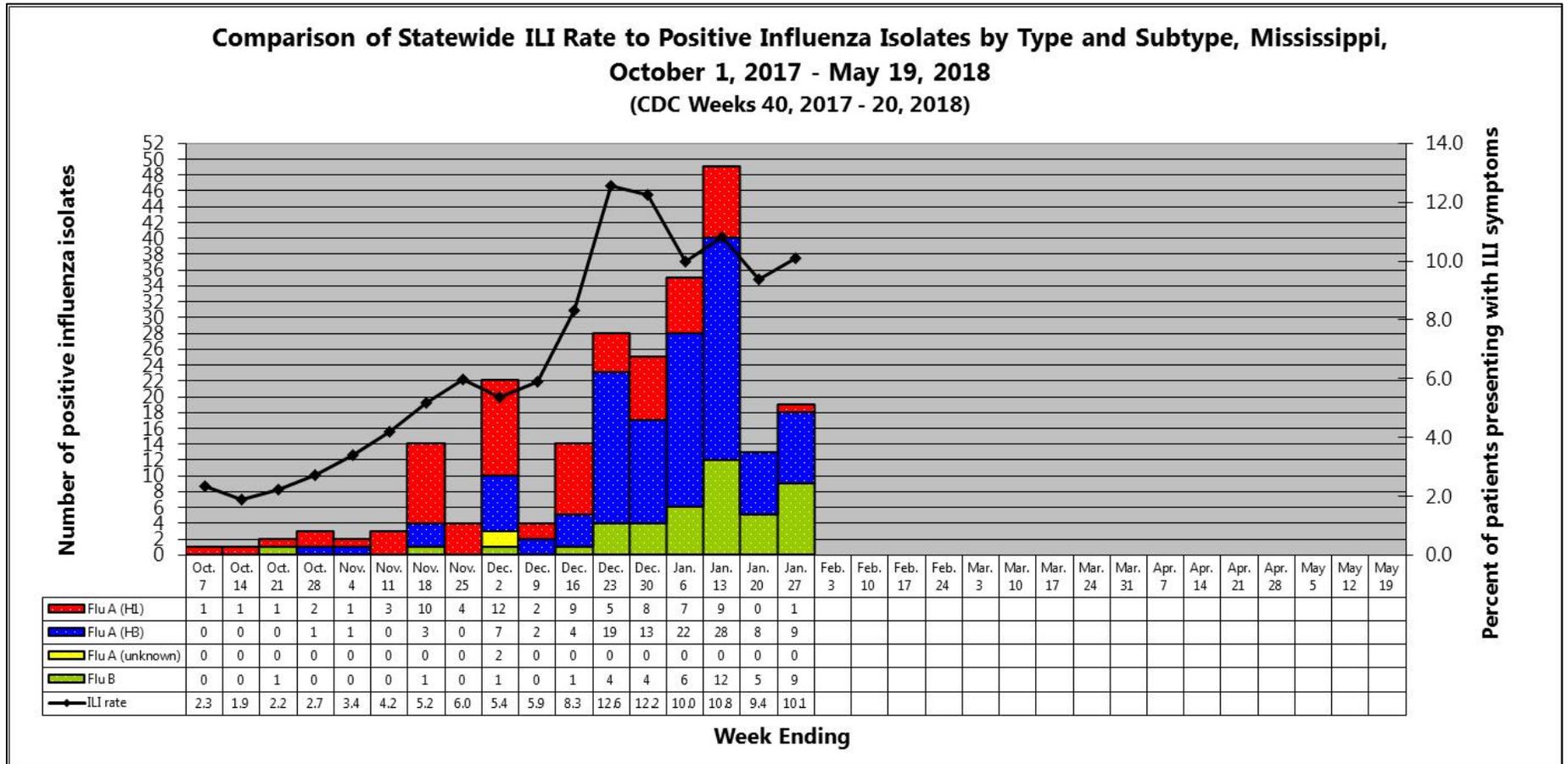


Figure 6

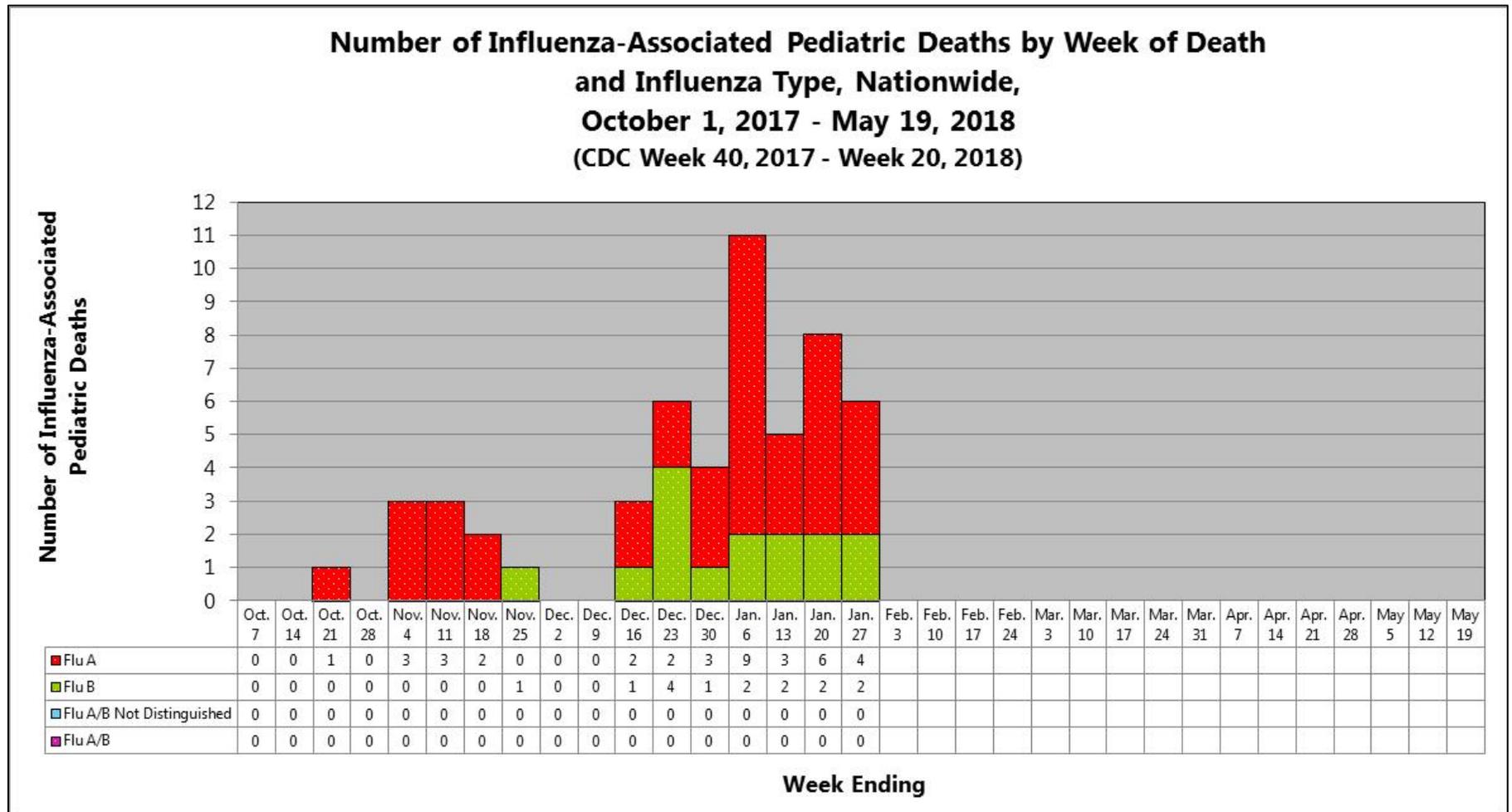


Figure 7

**Percentage of Influenza-Associated Pediatric Deaths
by Influenza Type, Nationwide,
October 1, 2017 - May 19, 2018
(CDC Week 40, 2017 - Week 20, 2018)
N = 53**

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

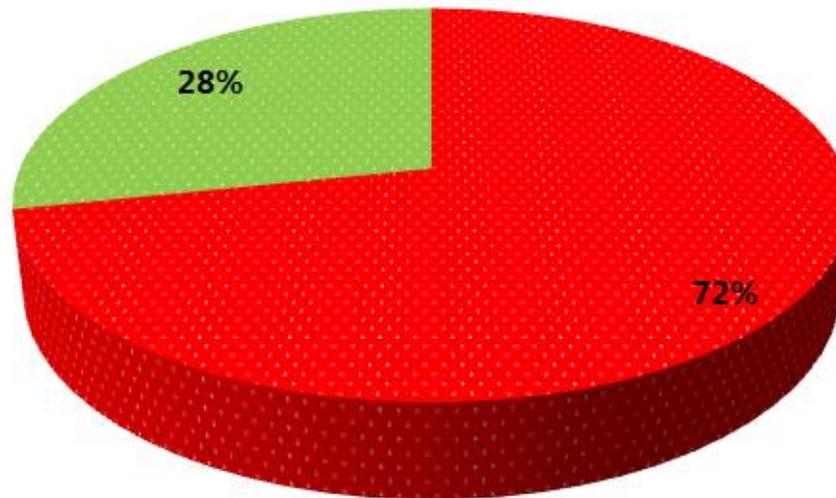


Figure 8

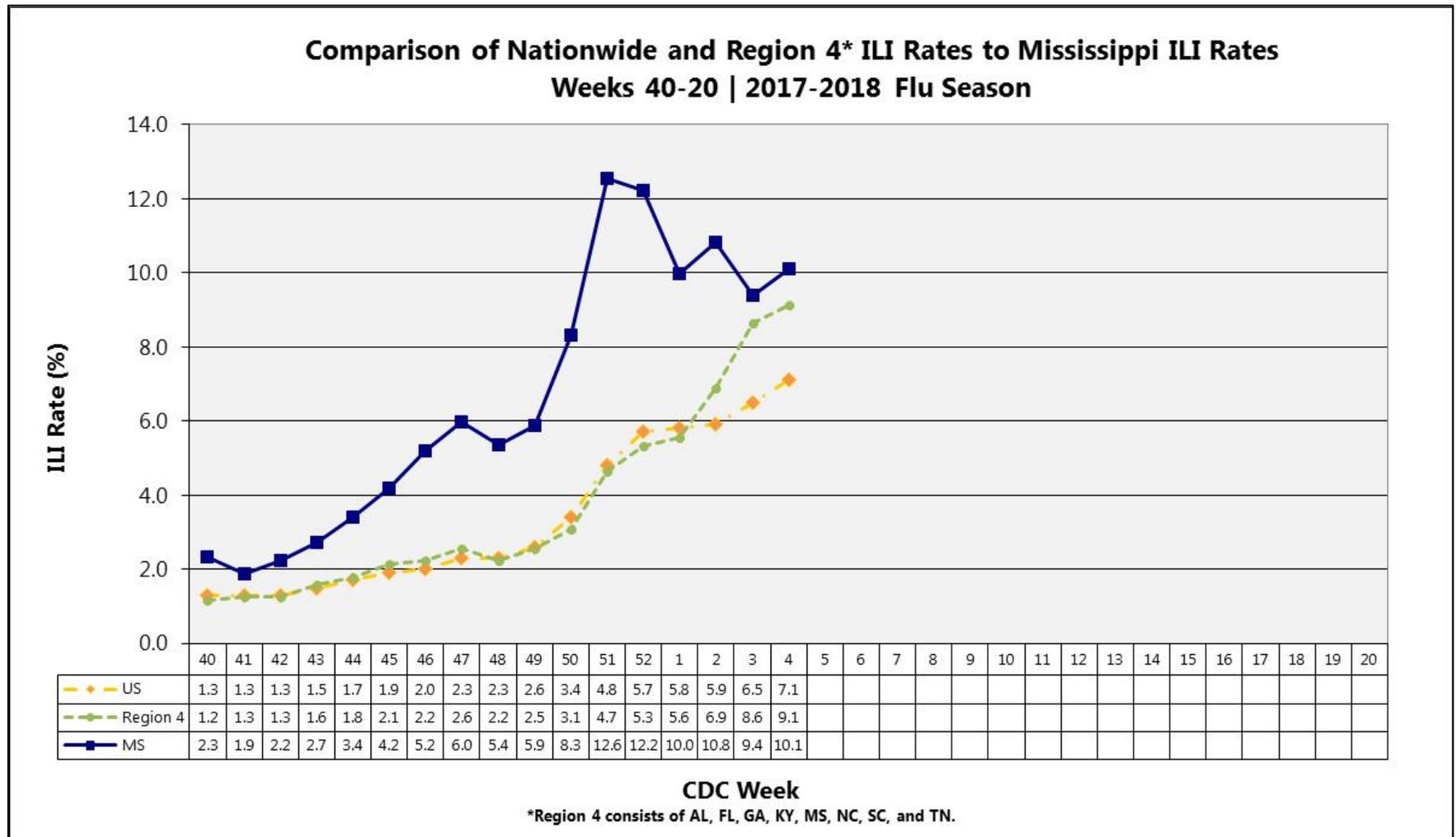


Figure 9

