



2017-2018 Influenza Surveillance Report

Week 13

March 25 – March 31, 2018

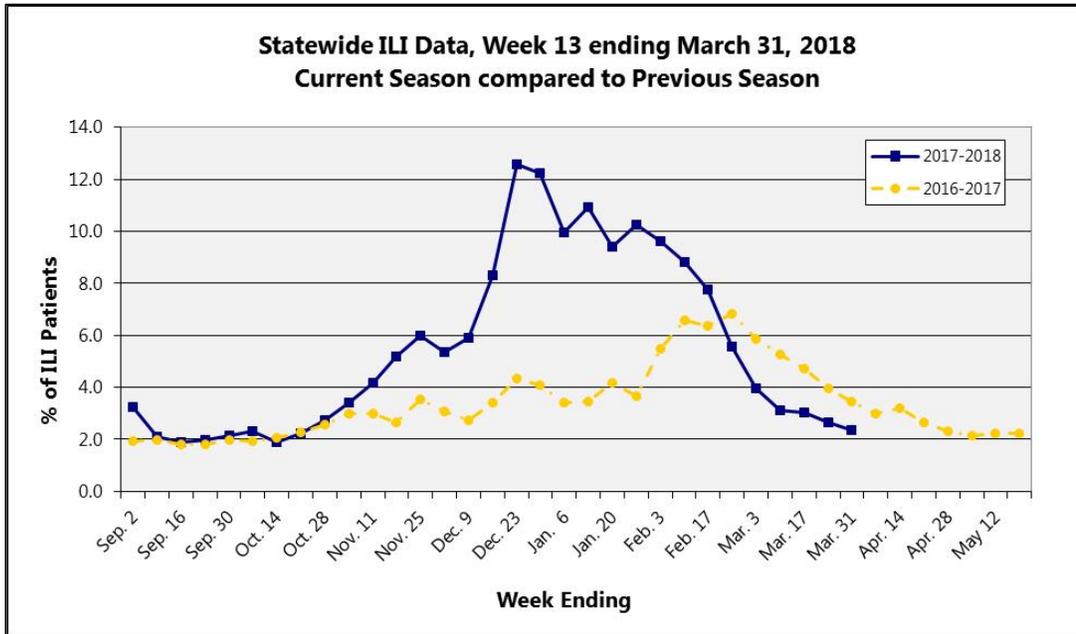
About our flu activity reporting

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 **13** (03/25/18-03/31/18), the overall state ILI rate (**2.3%**) was **comparable** to the previous week (**2.7%**), but was below this time last year (**3.5%**). |

[Figure 1](#)

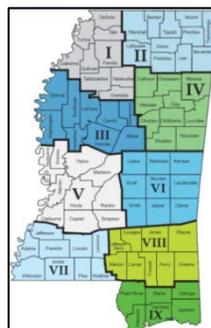
Total number of patients treated by sentinel providers in the last three weeks. | **Table 1**

2017-2018 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
13	Mar. 31	124	16060	376	2.3
12	Mar. 24	134	17287	461	2.7
11	Mar. 17	133	15222	460	3.0

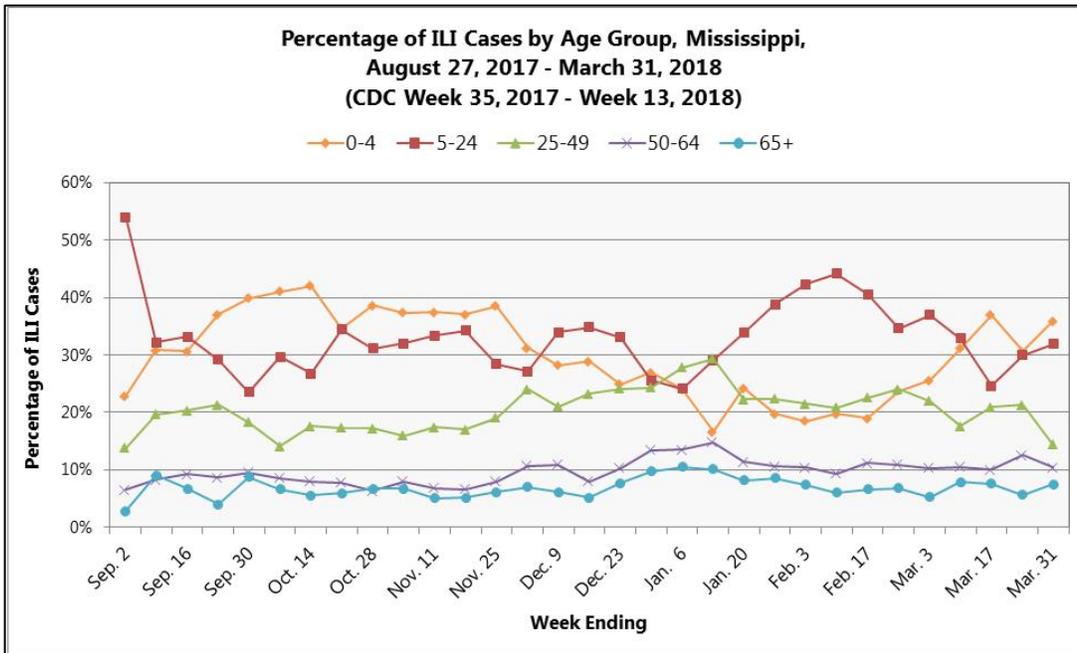
During week **13**, two districts (2 and 3) had an increase in ILI activity, while four districts (1, 6, 7 and 9) had a decrease.

Three districts (4, 5, and 8) remained about the same.

Information is provisional only and may change depending on additional reporting from sentinel providers. | **Table 2**



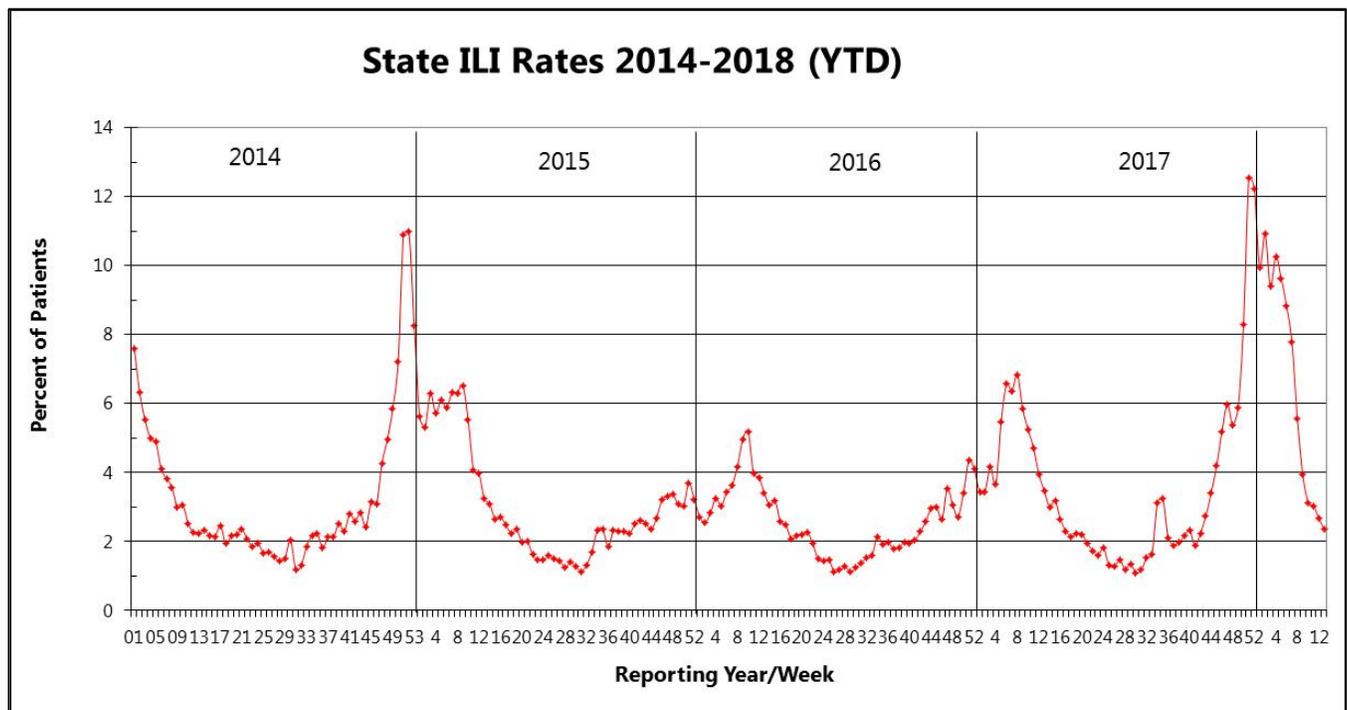
MSDH District ILI Rates (%) 2017-2018		
District	Week 12	Week 13
State	2.7	2.3
I	3.5	2.0
II	2.5	4.7
III	1.5	2.4
IV	2.0	2.5
V	2.3	2.5
VI	4.7	3.6
VII	3.9	2.9
VIII	1.4	1.5
IX	2.7	2.1



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 **13**, the percentage of ILI cases increased in the

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

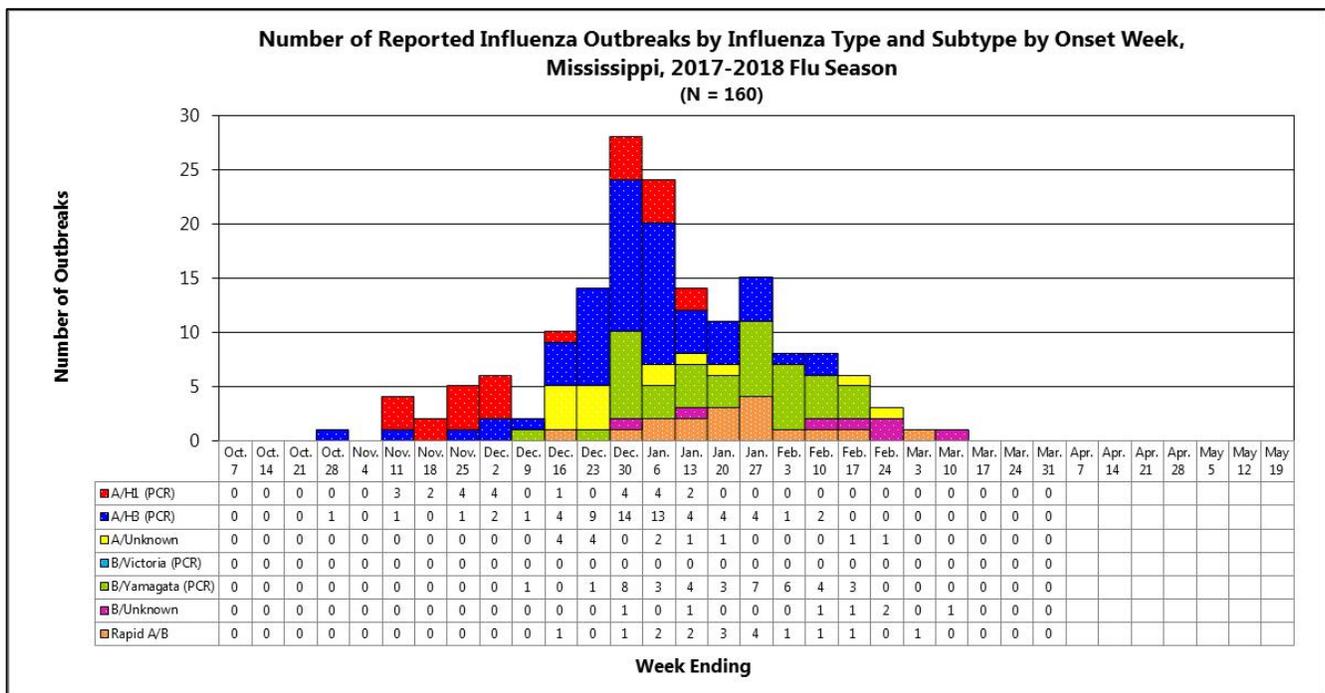
Mississippi ILI Rates 2014-2018 | [Figure 3](#)



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 **13** (week ending March 31st), 162 influenza outbreaks were reported to MSDH. MSDH investigates all reported outbreaks, and of the 162 reported outbreaks, complete information was available for 160 of them. Twenty-four (15%) of the outbreaks were attributed to influenza A (H1), 61 (37%) were due to influenza A (H3), 14 (9%) were due to influenza A, unknown subtype, 40 (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.) The last reported influenza outbreak was reported to MSDH on March 12th. | [Figure 4](#)



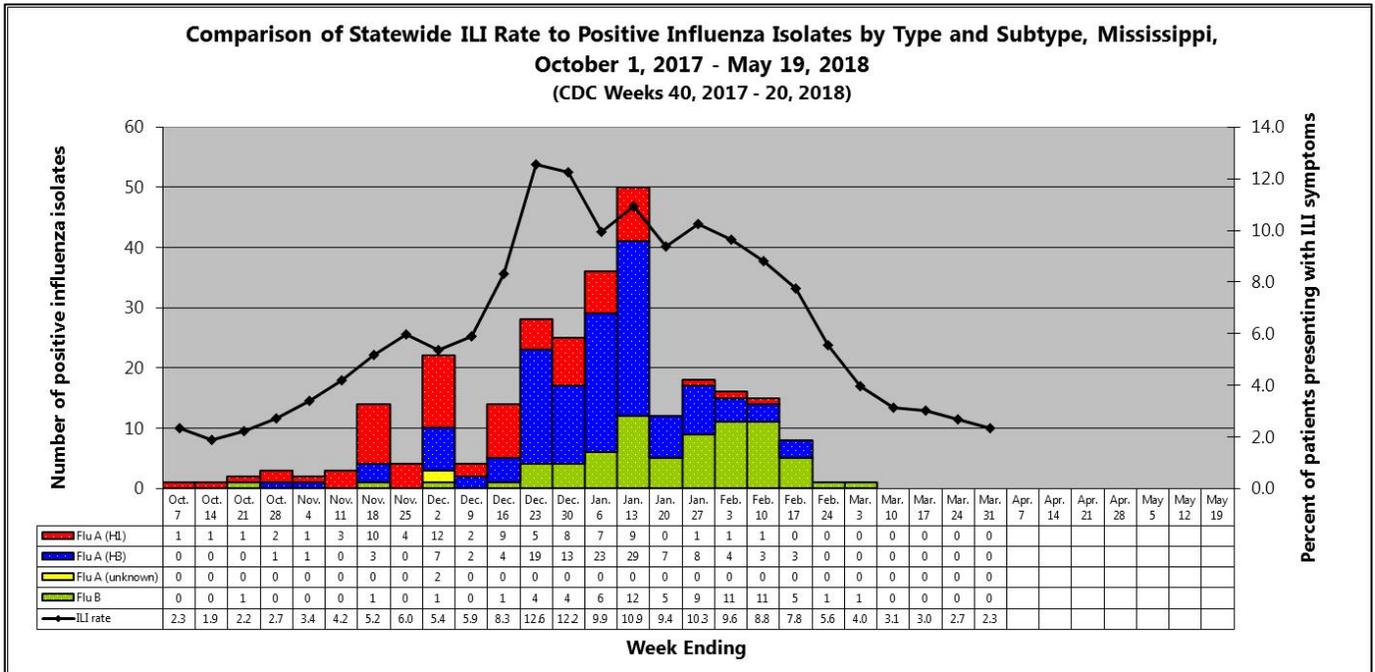
The influenza outbreaks have occurred in the following counties: Adams (5), Alcorn (4), Amite (1), Attala (2), Benton (1), Bolivar (2), Calhoun (2), Choctaw (1), Clarke (1), Clay (1), Coahoma (1), Covington (3), DeSoto (6), Forrest (5), Greene (1), Grenada (2), Hancock (1), Harrison (6), Hinds (13), Holmes (1), Itawamba (1), Jackson (3), Jasper (1), Jones (6), Lafayette (2), Lamar (3), Lauderdale (3), Lee (3), Lincoln (2), Lowndes (3), Madison (2), Marshall (1), Monroe (4), 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

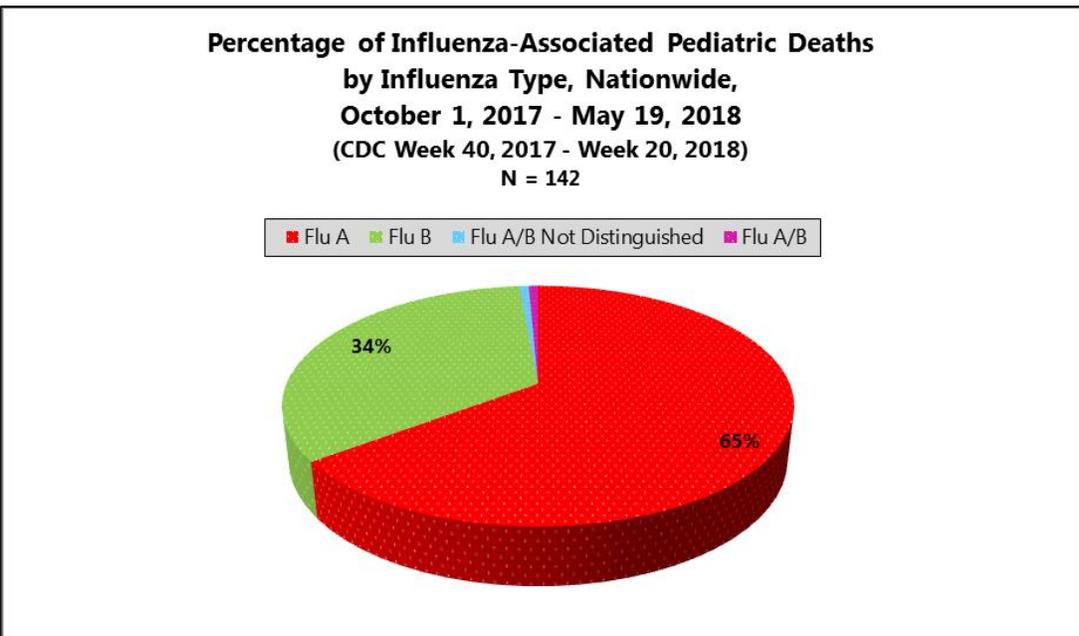
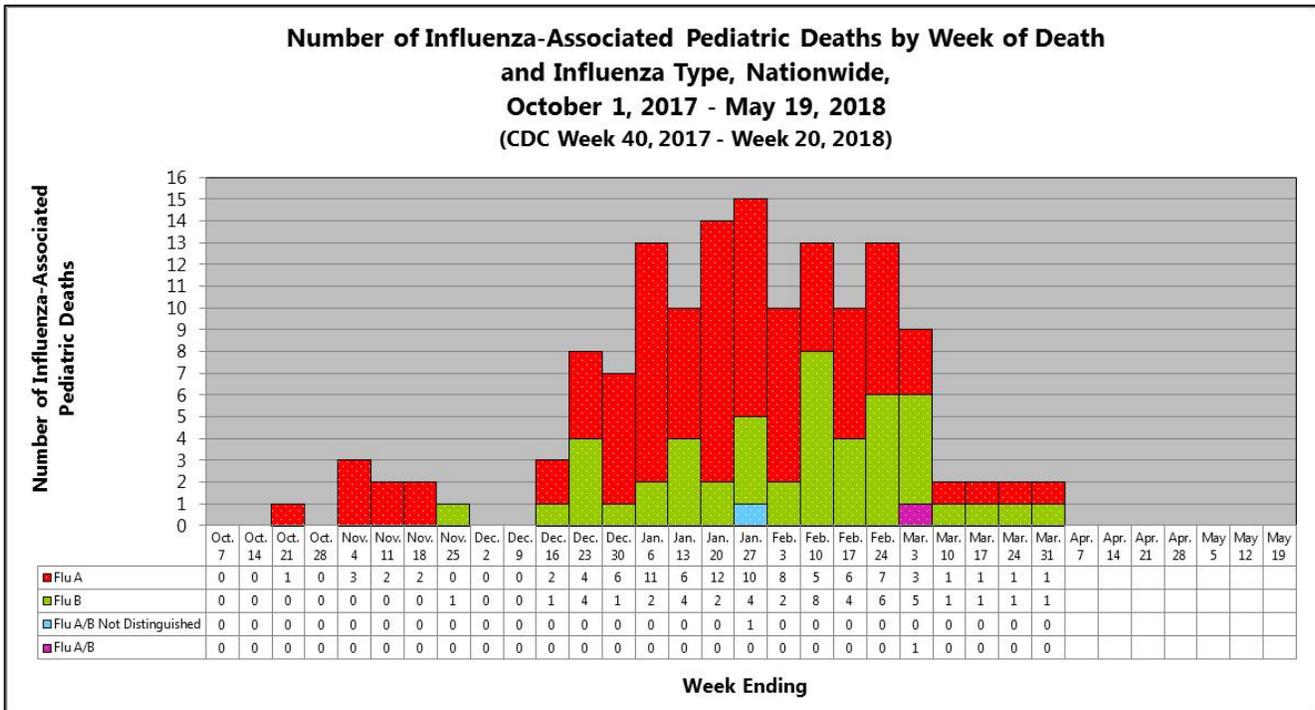
Since week 40 (week ending October 7th), **280** laboratory confirmed influenza samples have been identified. Seventy-eight (28%) were identified as influenza A (H1), 127 (45%) were identified as influenza A (H3), two (1%) were identified as influenza A, unknown subtype and 73 (26%) were identified as influenza B. | [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, **five** influenza-associated pediatric deaths were reported to CDC during week **13**. One death was associated with an influenza A(H3) virus and occurred during week 13 (week ending March 31st, 2018). Two deaths were associated with an influenza A virus for which subtyping was not performed and occurred during weeks 9 and 12 (weeks ending March 3rd and March 24th, 2018, respectively). Two deaths were associated with an influenza B virus and occurred during weeks 12 and 13 (weeks ending March 24th and March 31st, 2018, respectively). **One hundred forty-two** influenza-associated pediatric deaths have been reported to CDC for the 2017-2018 season. | [Figure 6](#)



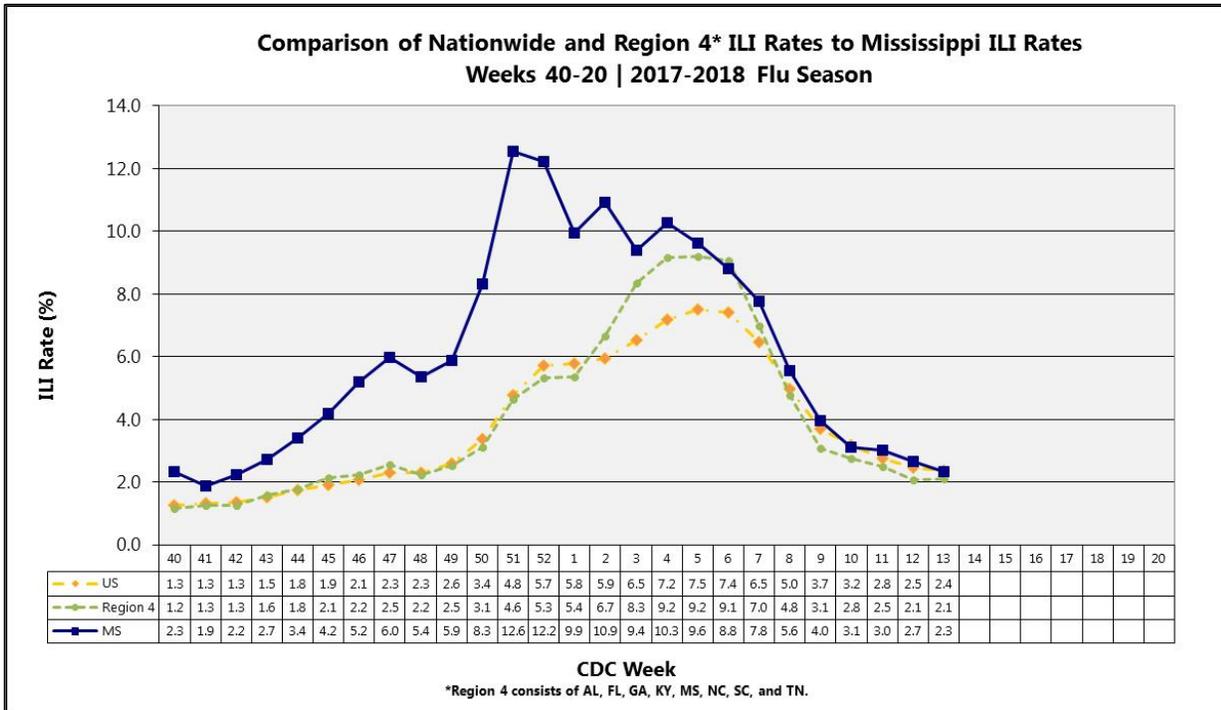
Of the **142** influenza-associated pediatric deaths reported nationally during the 2017-2018 season, 92 (65%) have been attributed to influenza A viruses, 48 (34%) to influenza B viruses, one (1%) to an influenza virus

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 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](#).

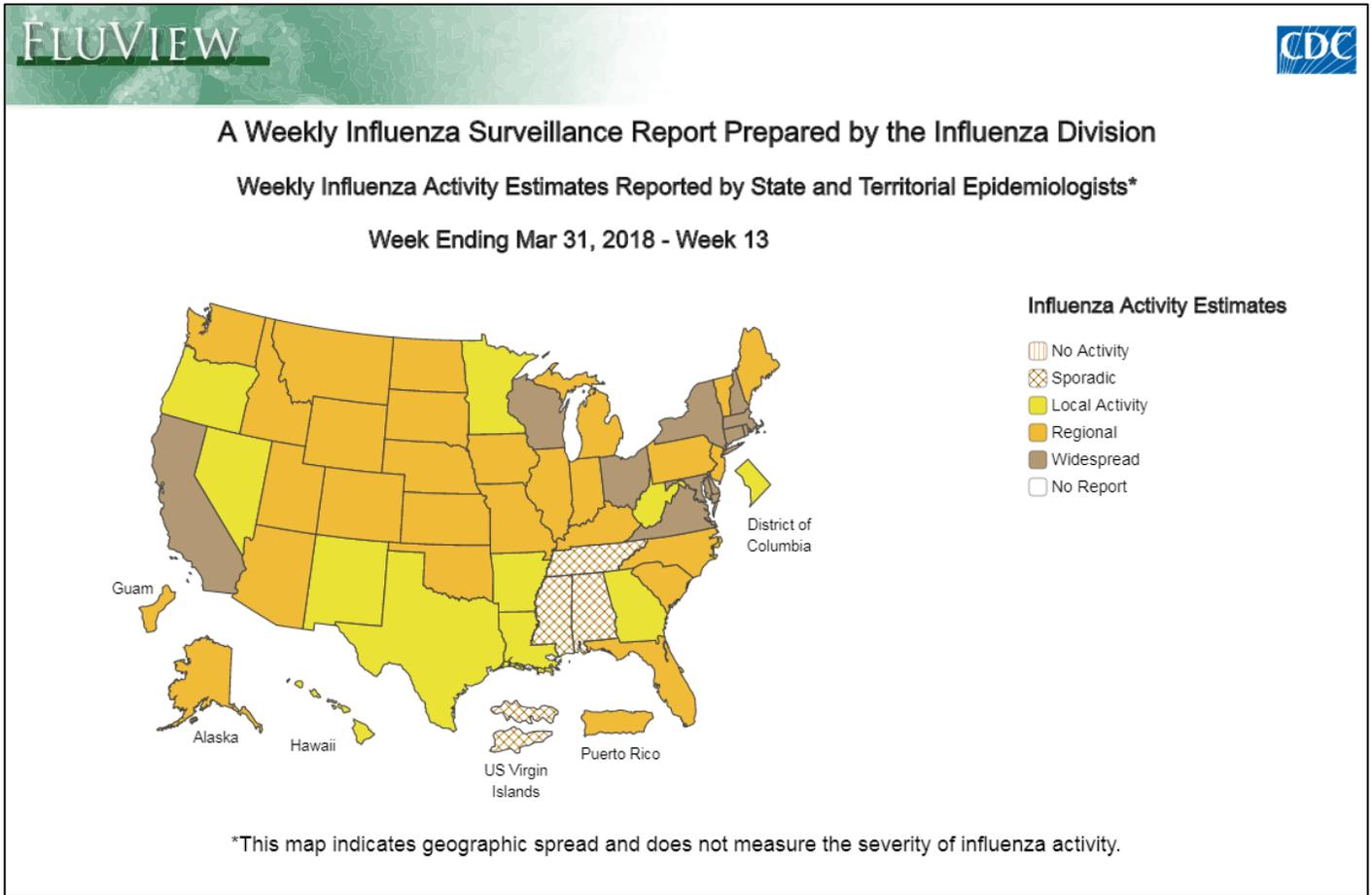
National ILI Surveillance

During week **13**, the MS (2.3%), national (2.4%) and Region 4 (2.1%) 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 **13**, influenza activity **decreased** 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 "**Sporadic**" for the influenza activity during week **13**. | [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

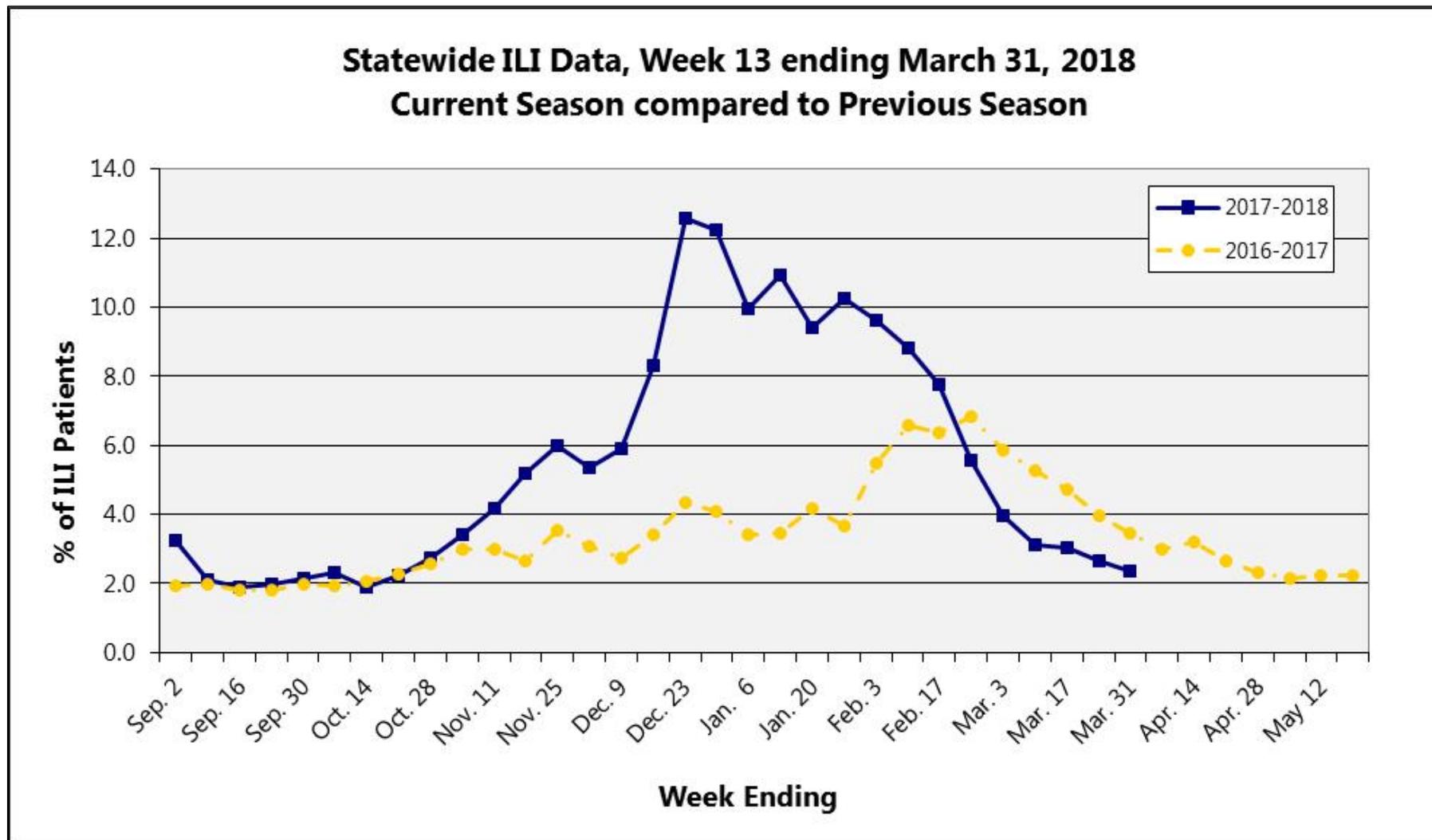


Figure 2

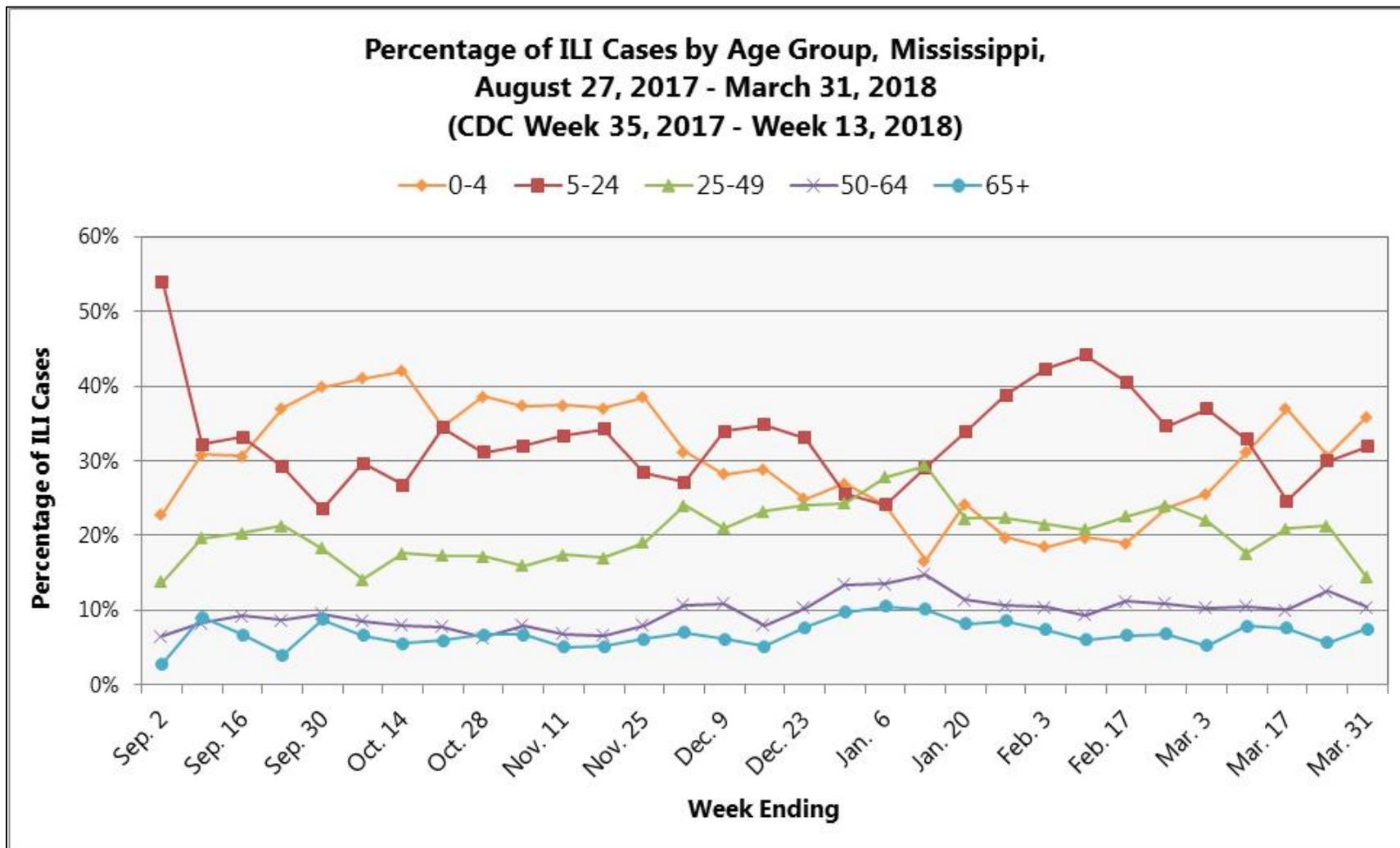


Figure 3

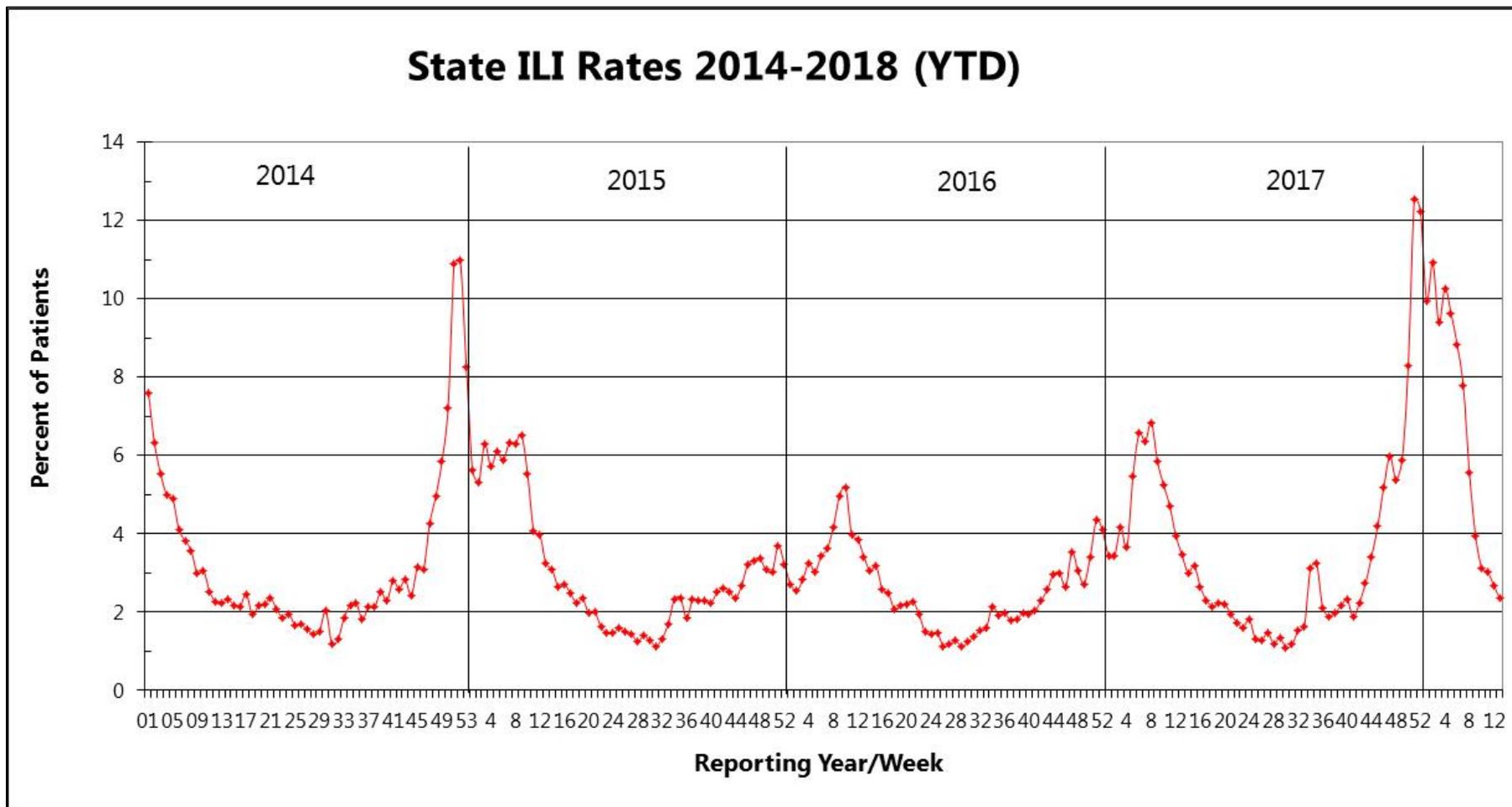


Figure 4

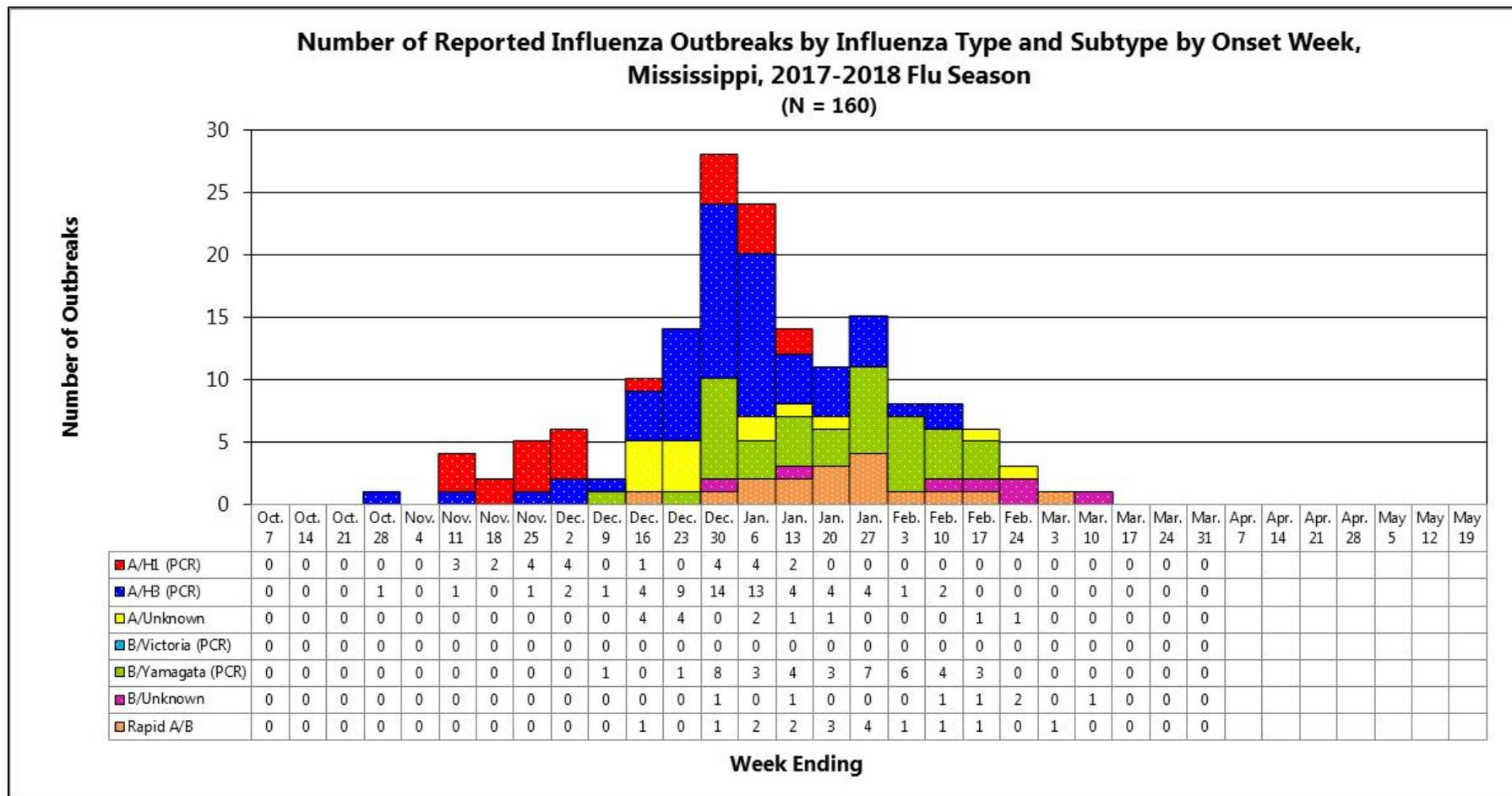


Figure 5

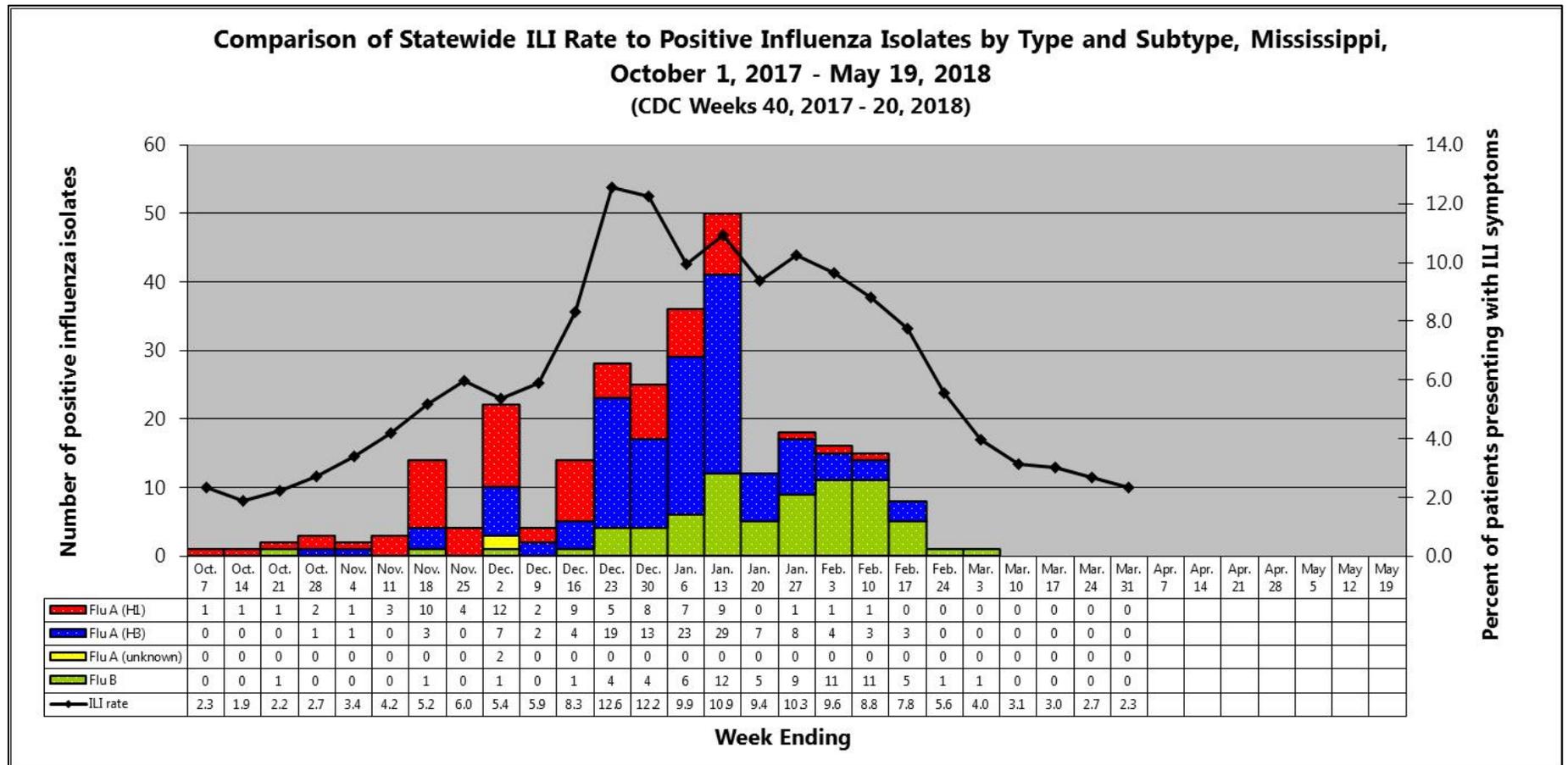


Figure 6

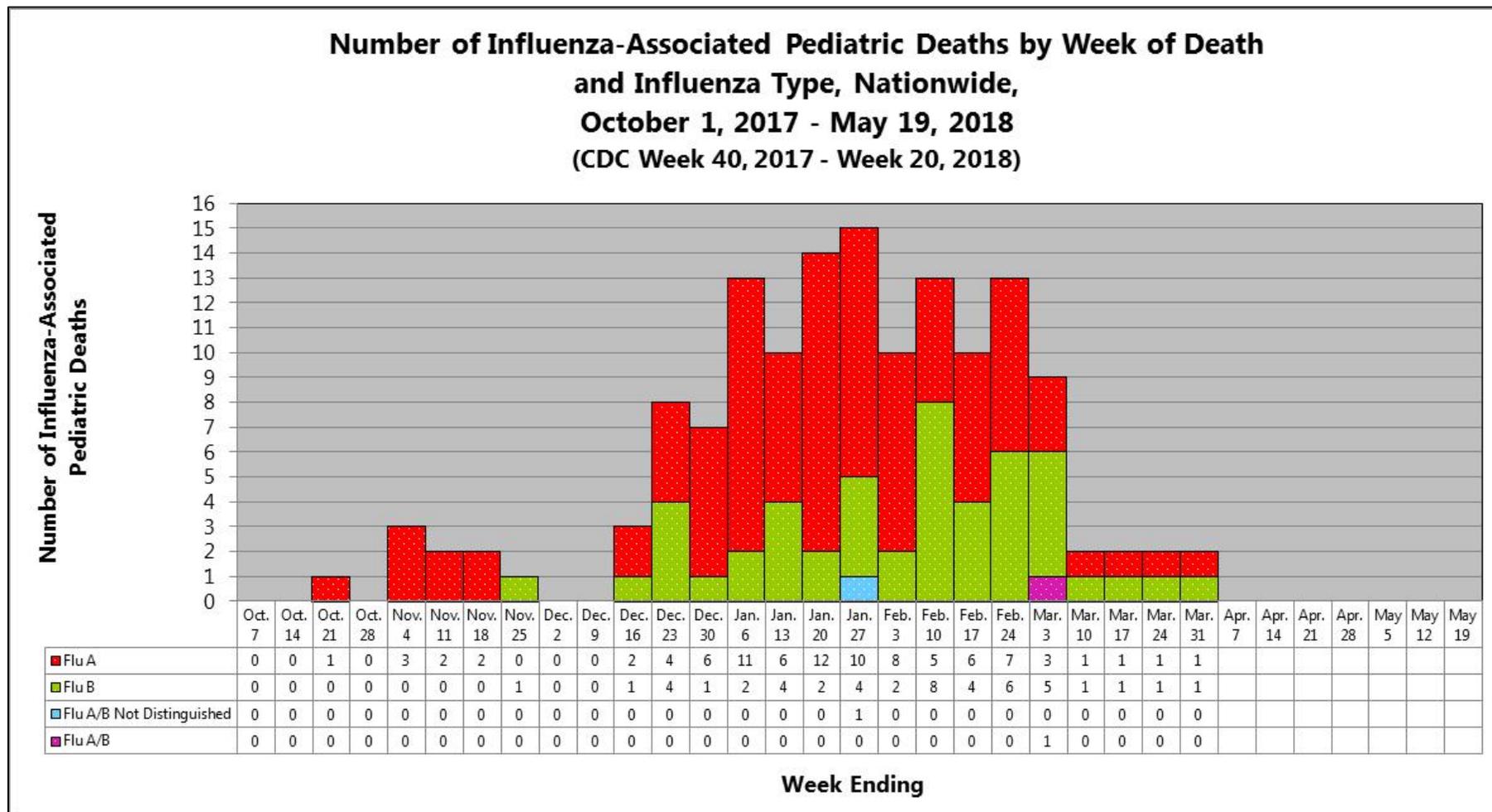


Figure 7

**Percentage of Influenza-Associated Pediatric Deaths
by Influenza Type, Nationwide,
October 1, 2017 - May 19, 2018
(CDC Week 40, 2017 - Week 20, 2018)
N = 142**

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

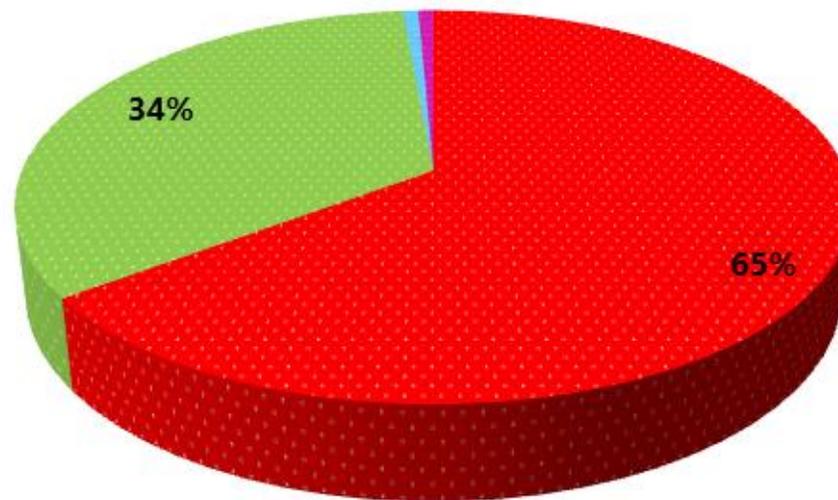


Figure 8

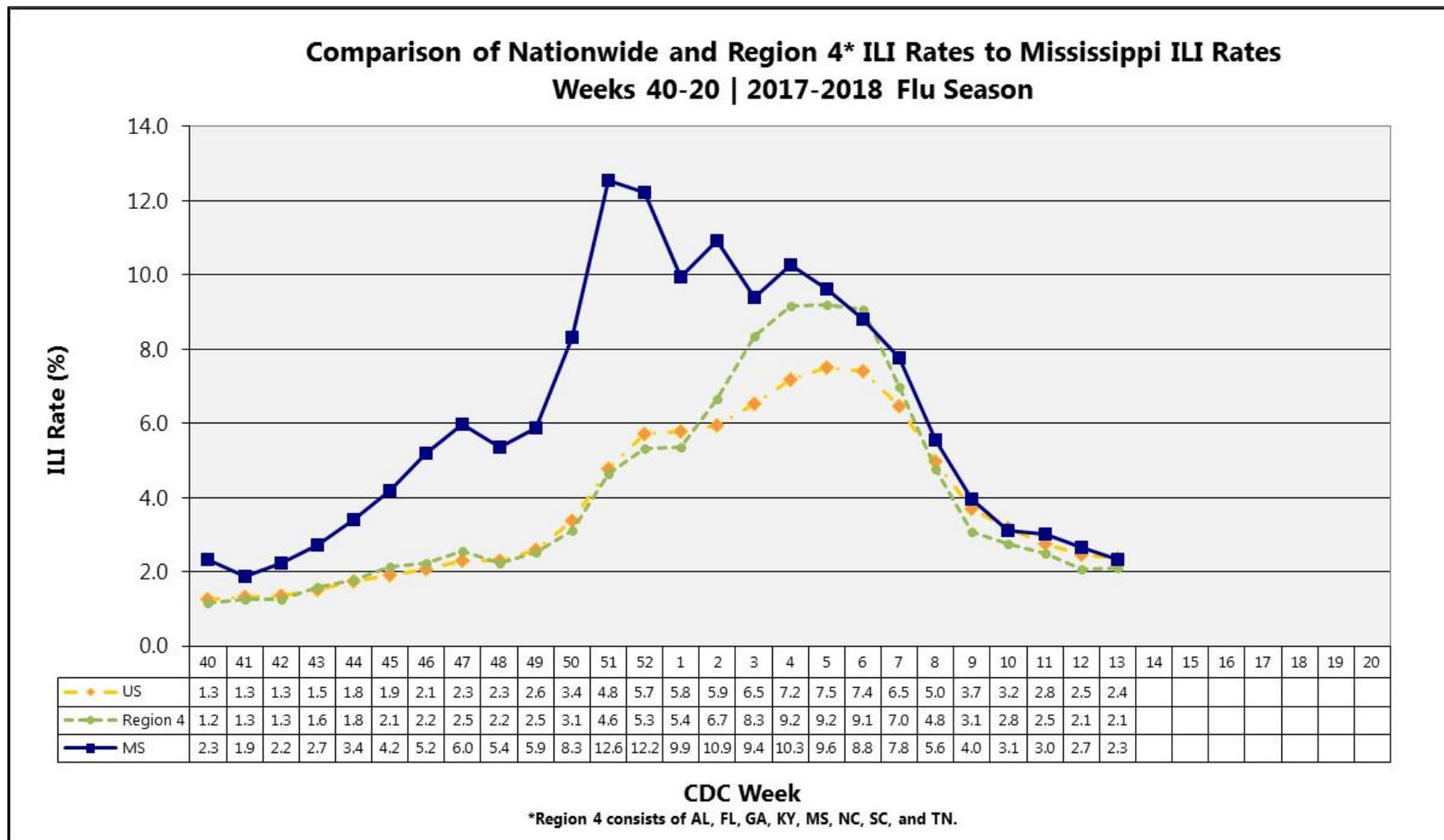


Figure 9

