



2024-2025 Respiratory Surveillance Report Week 1

Dec. 29 – Jan. 4, 2025

About our respiratory activity reporting

MSDH utilizes a variety of methods for tracking respiratory viral illness (influenza, COVID-19, RSV) in Mississippi. Syndromic surveillance data from participating hospitals and urgent care clinics provides trend data for visits related to influenza-like-illness (ILI), COVID-19-like-illness (CLI), and respiratory syncytial virus-like-illness (RSV-like-illness) over time. In addition to syndromic surveillance, MSDH uses sentinel surveillance for influenza and wastewater surveillance (in pilot state) for influenza and COVID-19.

Each year MSDH identifies sentinel healthcare providers across the state to report numbers of patients with ILI (fever of 100°F or higher AND cough and/or sore throat), in comparison to their total patients seen. These providers also collect specimens which are sent to the Mississippi Public Health Lab for multiplex testing (COVID-19, influenza, RSV) and further subtyping as indicated. This combination of data allows MSDH to identify local trends in ILI presentations and maintain surveillance of circulating influenza subtypes and COVID-19 variants.

Wastewater surveillance for respiratory viruses is a newer form of surveillance, and Mississippi is in the early phases of establishing its wastewater surveillance program for COVID-19 and influenza.

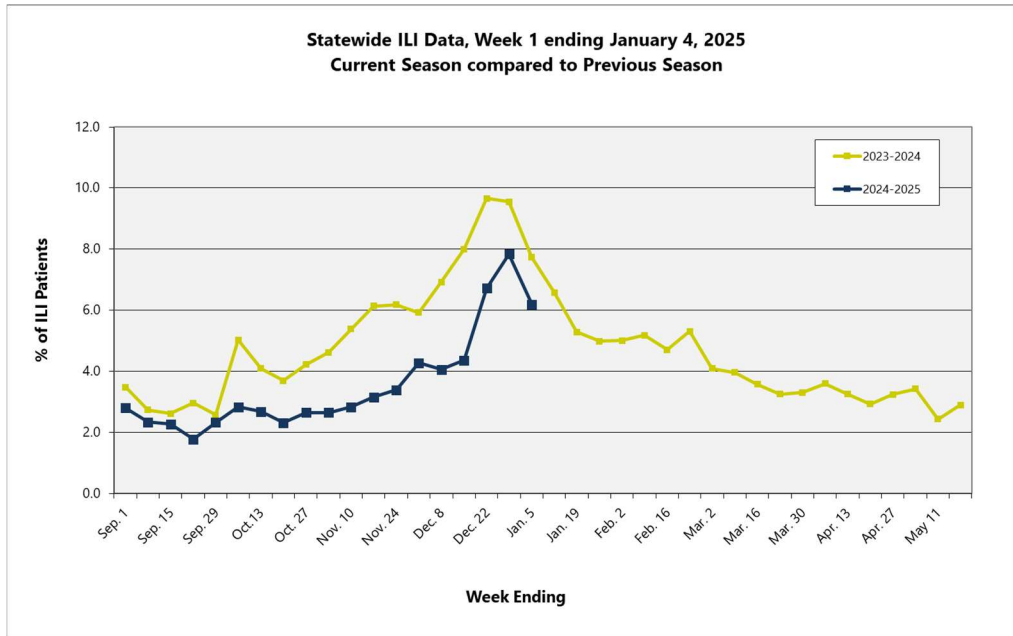
Information contained within this report is provisional and may change depending on additional reporting from sentinel providers and surveillance sources. The influenza reports represent only the distribution of flu in the state, not an actual count of all flu cases statewide.

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State ILI Surveillance

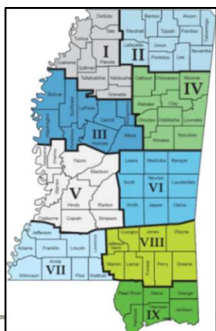


During week 1 (12/29/24-1/4/25), the overall state ILI rate (**6.2%**) **decreased** from the previous week (**7.8%**) and was lower than this time last year (**7.7%**). | [Figure 1](#)

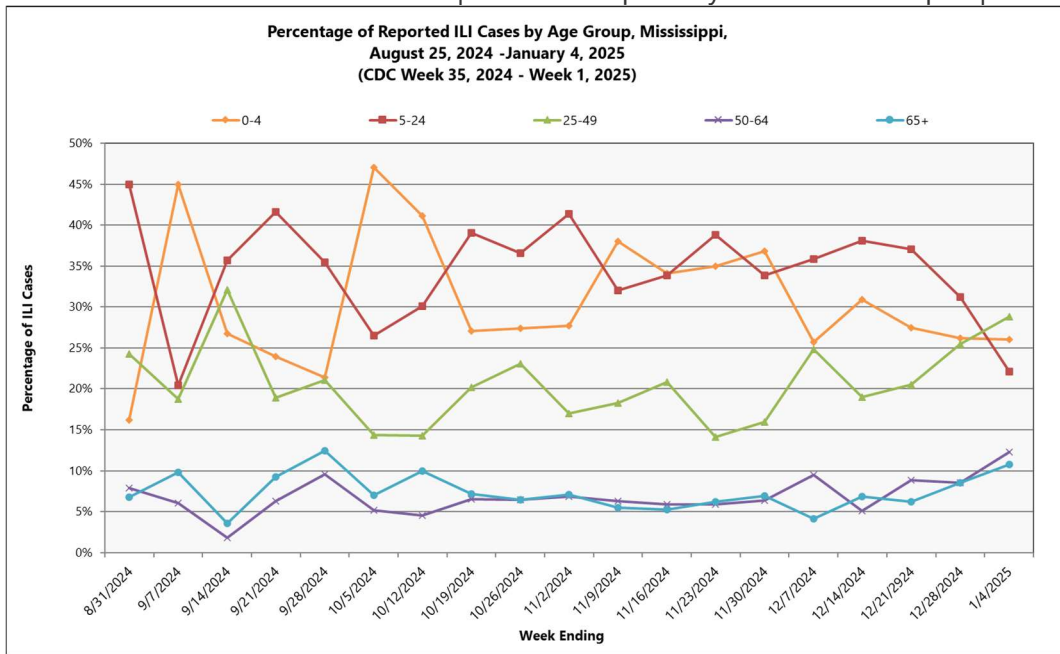
Total number of patients treated by sentinel providers in the last three weeks | **Table 1**

2024-2025 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
1	Jan. 4	84	14447	895	6.2
52	Dec. 28	75	13262	1040	7.8
51	Dec. 21	83	13996	940	6.7

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



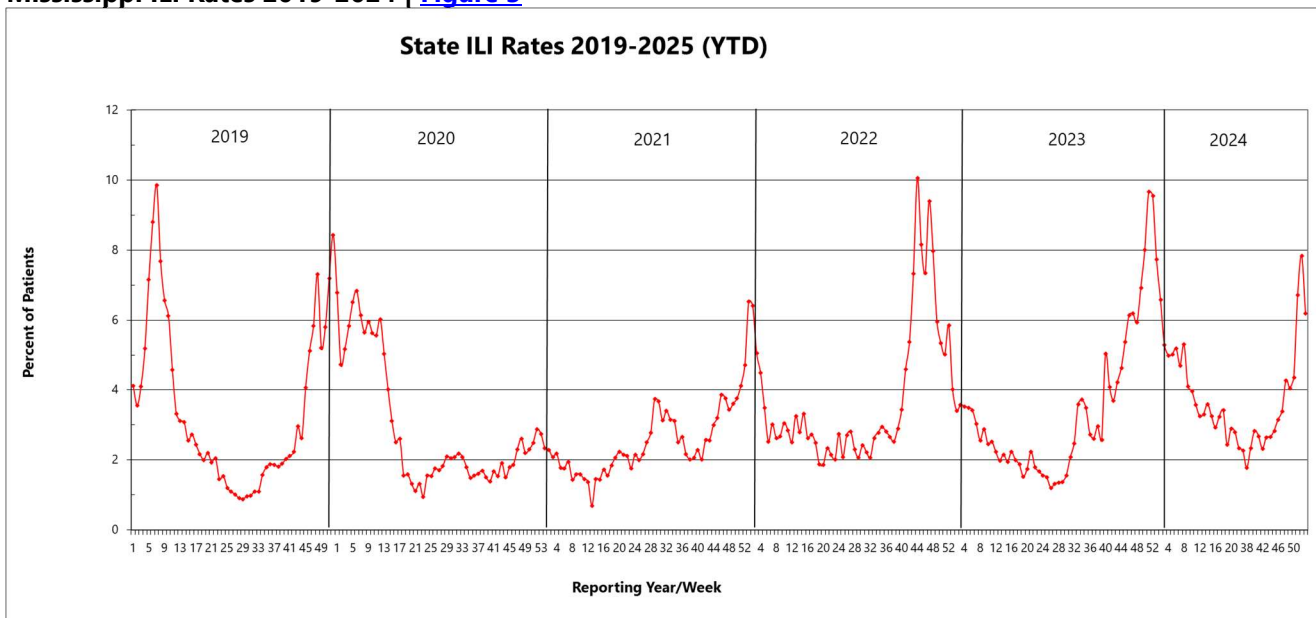
MSDH District ILI Rates (%) 2024-2025		
District	Week 52	Week 1
State	7.8	6.2
I	5.1	3.5
II	11.1	10.2
III	23.8	18.8
IV	9.6	8.0
V	17.8	10.7
VI	7.6	8.2
VII	15.9	12.3
VIII	4.2	3.6
IX	4.7	3.6



Overall, the percentage of reported ILI cases has been highest among those in the **5-24 years** of age group. During week 1, the percentage of ILI cases in the 25-49, 50-64, and 65+ years of age

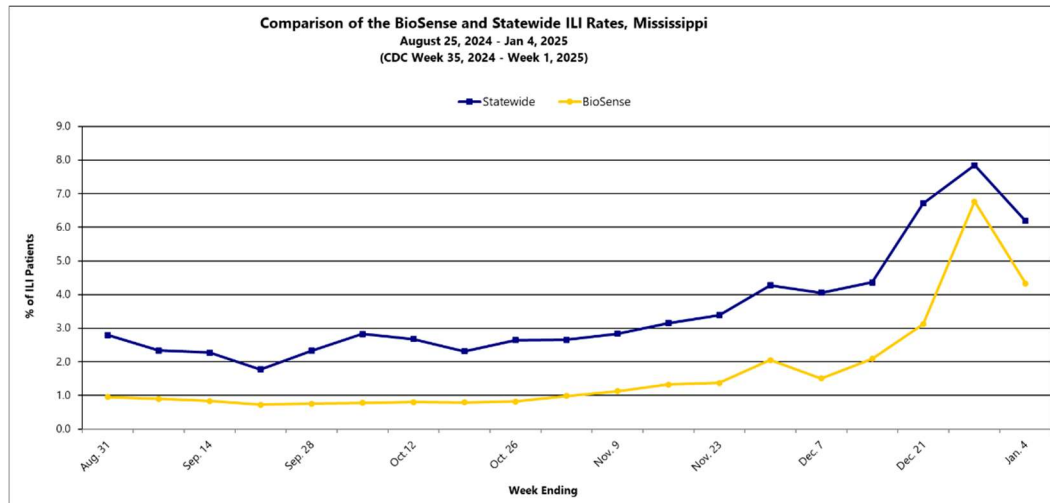
groups increased. The percentage of ILI cases decreased in the 5-24 years of age groups when compared to the previous week. The 0-4 years of age group remained constant. | [Figure 2](#)

Mississippi ILI Rates 2019-2024 | [Figure 3](#)



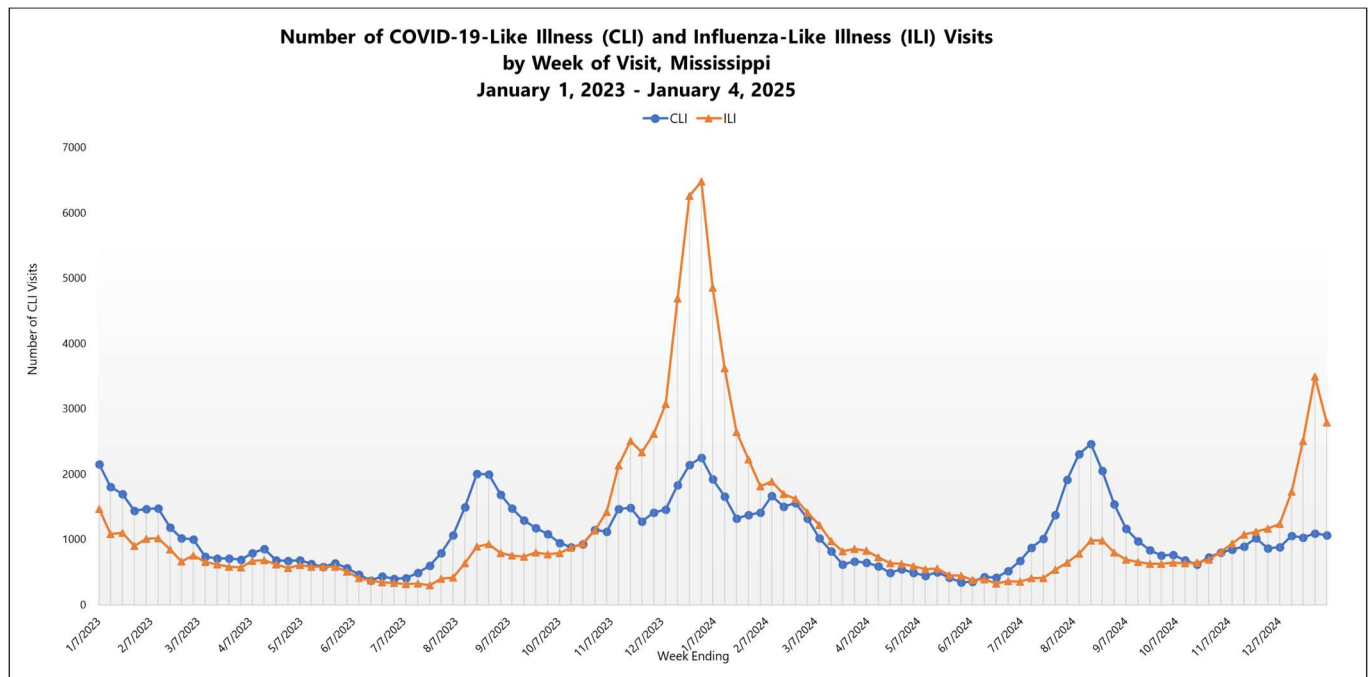
Syndromic Surveillance

The Mississippi State Department of Health also collects 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 1 decreased when compared to the previous week as

well as the statewide ILI rate. | [Figure 4](#)

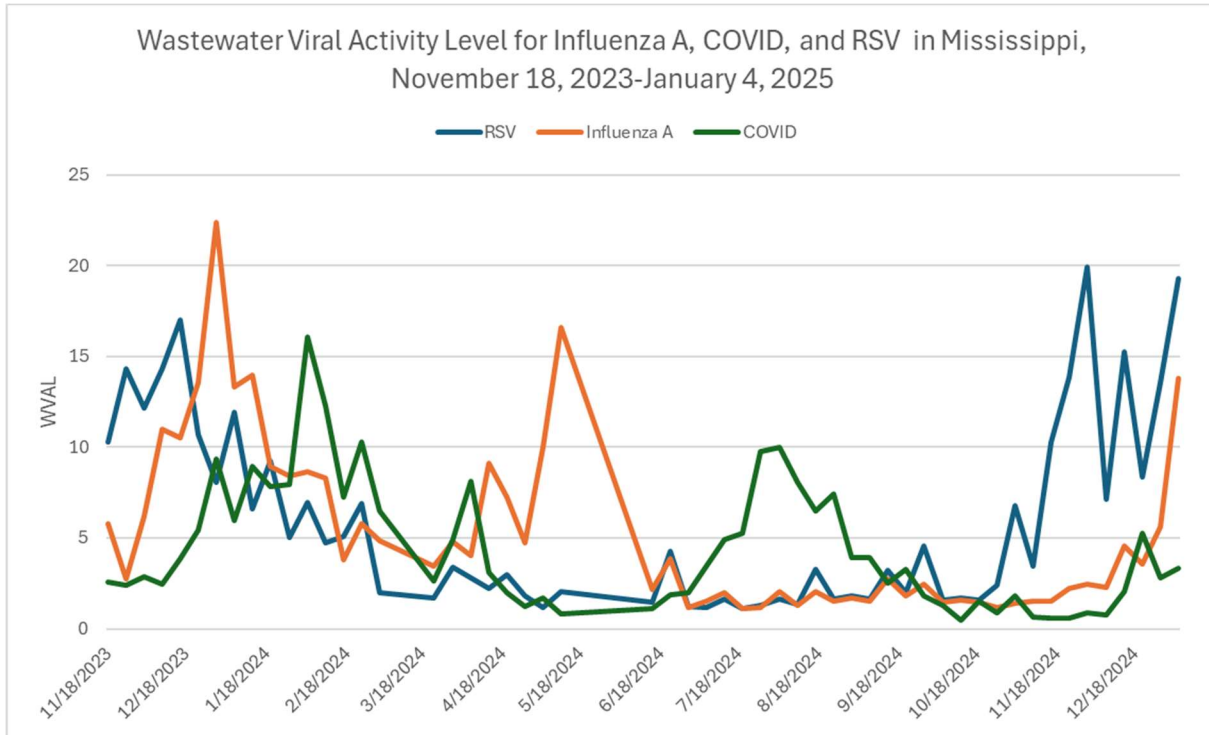


The percentage of patients with a chief complaint or diagnosis of COVID-like illness during week 1 decreased when compared to the previous week and remains lower than influenza-like illnesses. |

[Figure 5](#)

Wastewater Surveillance

Water samples collected from sewage treatment plants are tested for multiple diseases and compounds. The Mississippi State Department of Health collects this data from the CDC's National Wastewater Surveillance System (NWSS), where we can see a reliable presence of disease from a sample in which everyone in the area's waste is integrated.



The Wastewater data shows a substantial increase in RSV and Influenza A, while COVID-19 stayed consistent. | [Figure 6](#)

The value associated with the WVAL (Wastewater Viral Activity Level) is the number of standard deviations above the baseline, transformed to the linear scale. For additional information on wastewater values, please refer to the CDC's webpage: <https://www.cdc.gov/nwss/about-data.html>

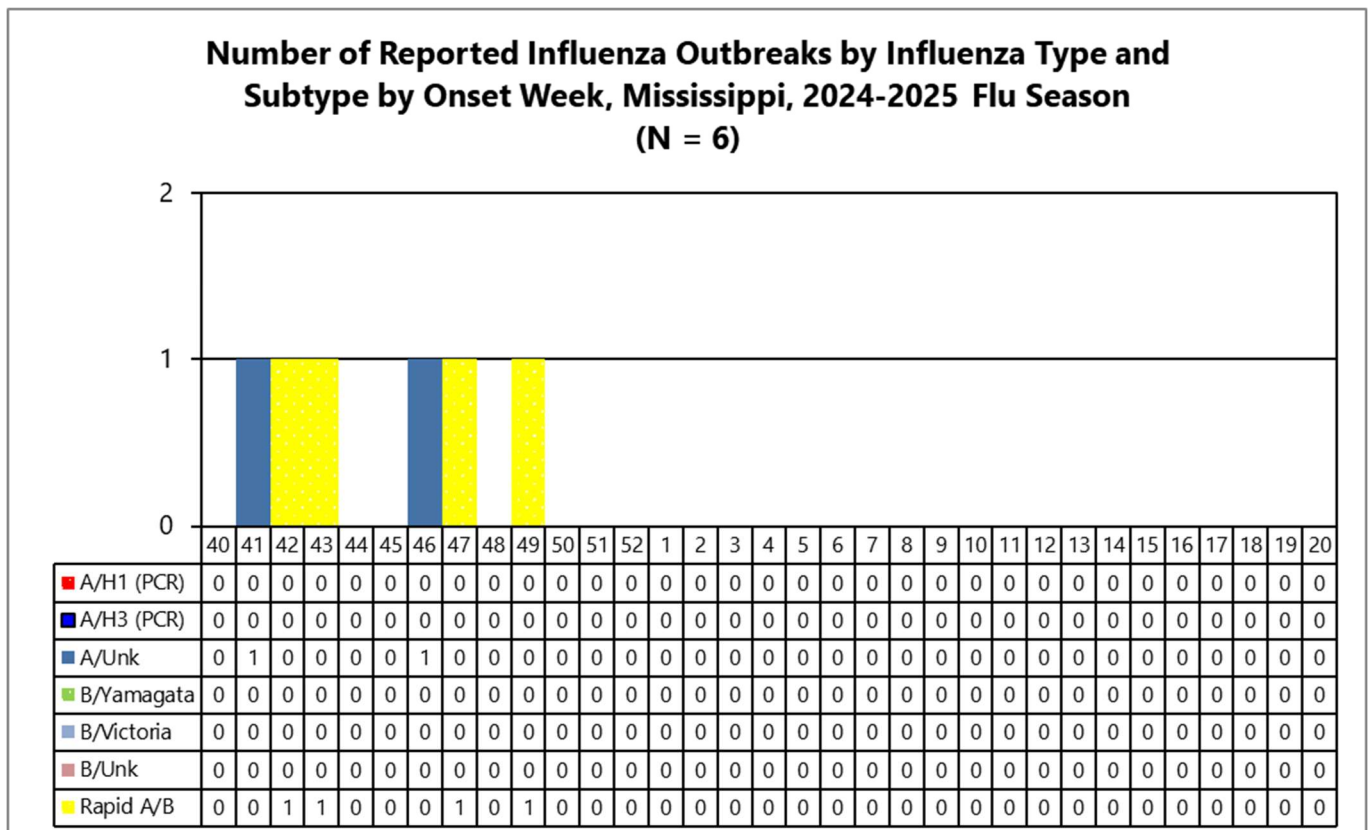
Outbreaks

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 5, 2024) and week 1 (week ending January 4, 2025), 16 outbreaks were reported to MSDH. MSDH investigates all reported outbreaks, and complete information is available for six of the 16 outbreaks. Two were attributed to an influenza A virus, unknown subtype, and four to Rapid A/B.

Through week 1, within the reported outbreaks, the overall vaccination rate among facility residents was 20%, and among staff members, 15%. In addition, the percentage of residents that were ill due to influenza was 10%, and among staff members, 2%. The percentage of residents that were hospitalized due to influenza was 3%, and among staff members, 0%.

Influenza outbreaks have occurred in the following county: Adams (1), Brookhaven (1), George (1), Grenada (1), Lowndes (1), Marion (1), McComb (1), Neshoba (1), Panola (1), Pontotoc (1), Rankin (4), Simpson (1), Washington (1) | [Figure 7](#)



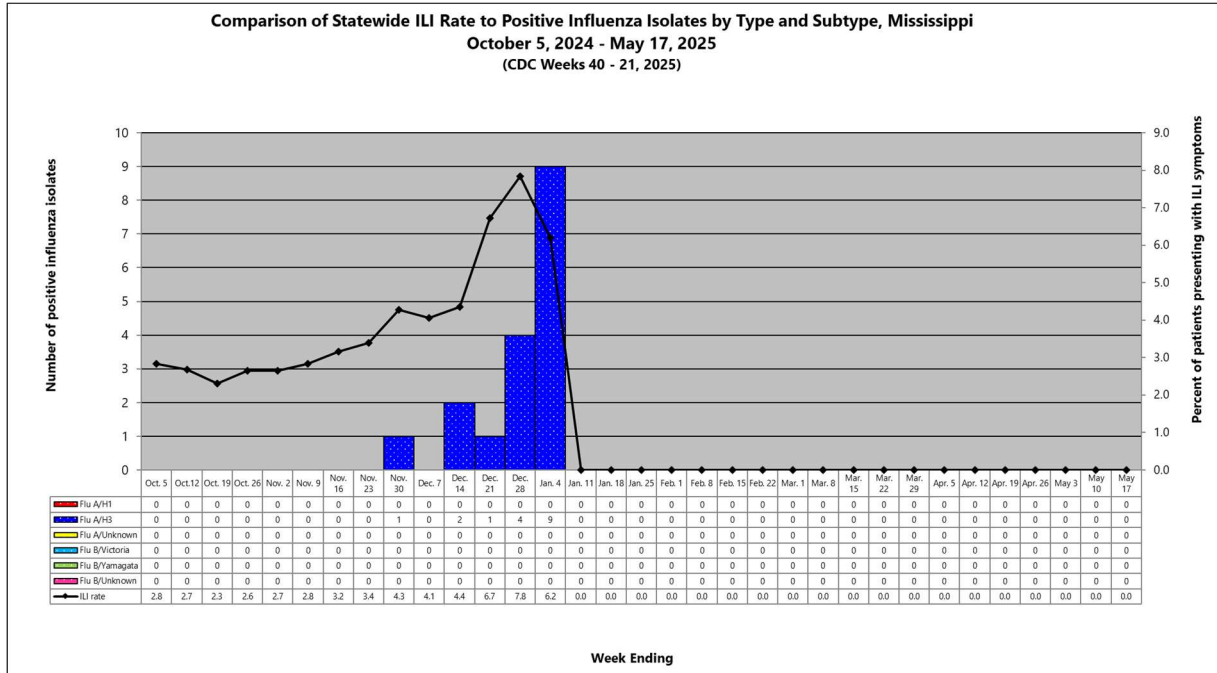
For additional information on infection control measures in health care facilities and managing influenza outbreaks in long-term care facilities, please refer to the CDC's webpages:

<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 43 (week ending November 30, 2024), 17 laboratory confirmed influenza samples have been identified by the MSDH Public Health Laboratory. All 17 were identified as influenza A/H3.

The influenza cases were identified from the following counties: George (1), Grenada (2), Hinds (4), Lincoln (2), Marion (1), Rankin (3), Scott (1), Simpson (3). | [Figure 8](#)



National and Mississippi Pediatric Mortality Surveillance

Nationally, **17** influenza-associated pediatric deaths occurring in the 2024-2025 season have been reported to CDC. Four deaths were associated with influenza A virus (not subtyped), five deaths were associated with influenza A(H3) virus, four deaths were associated with A(H1N1) virus, and four deaths were associated with influenza B virus (not subtyped).

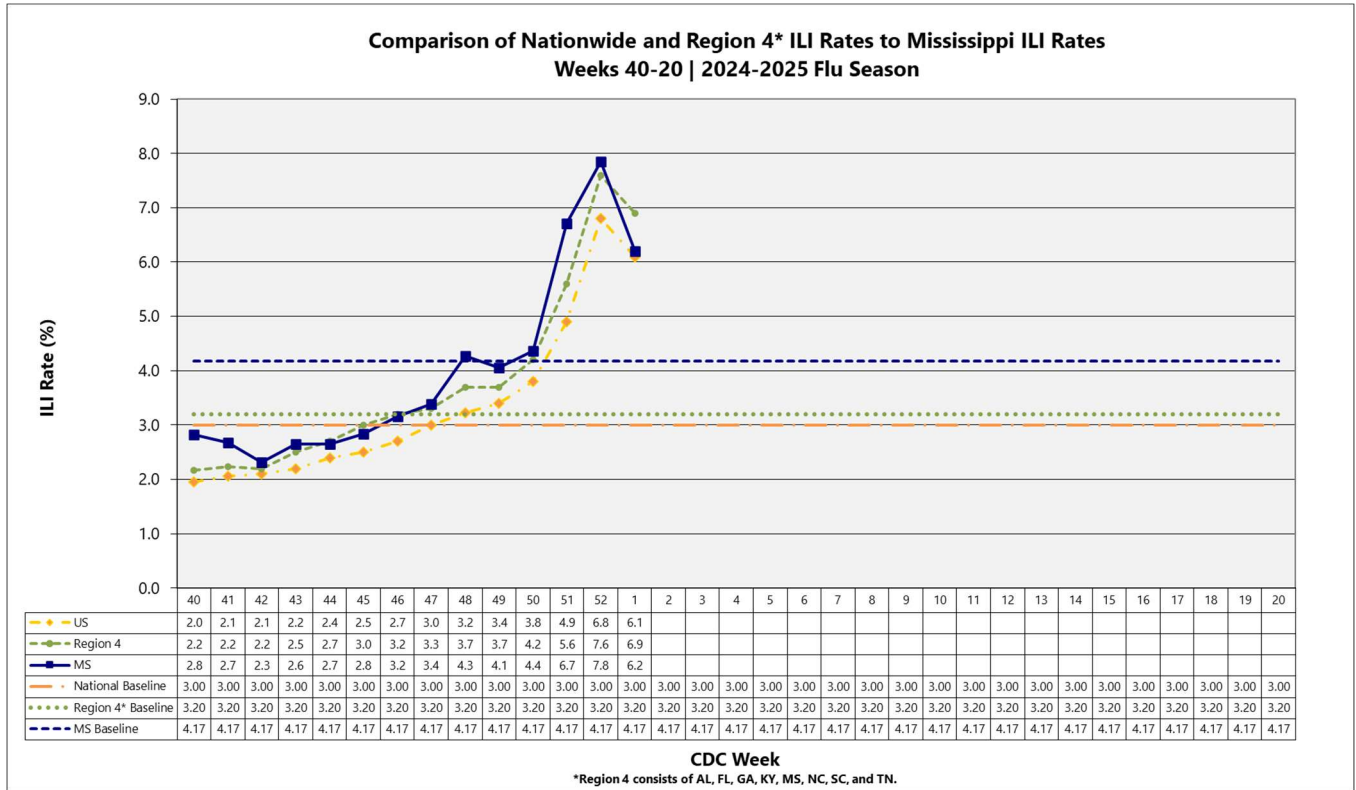
Mississippi has had **no** influenza-associated pediatric deaths reported during this influenza season.

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

National ILI Surveillance

During week **1**, influenza activity **decreased** in the United States. 6.1% of patients reported through ILINet presented with ILI symptoms. This was higher than week 52 and is above the national baseline (2.9%).

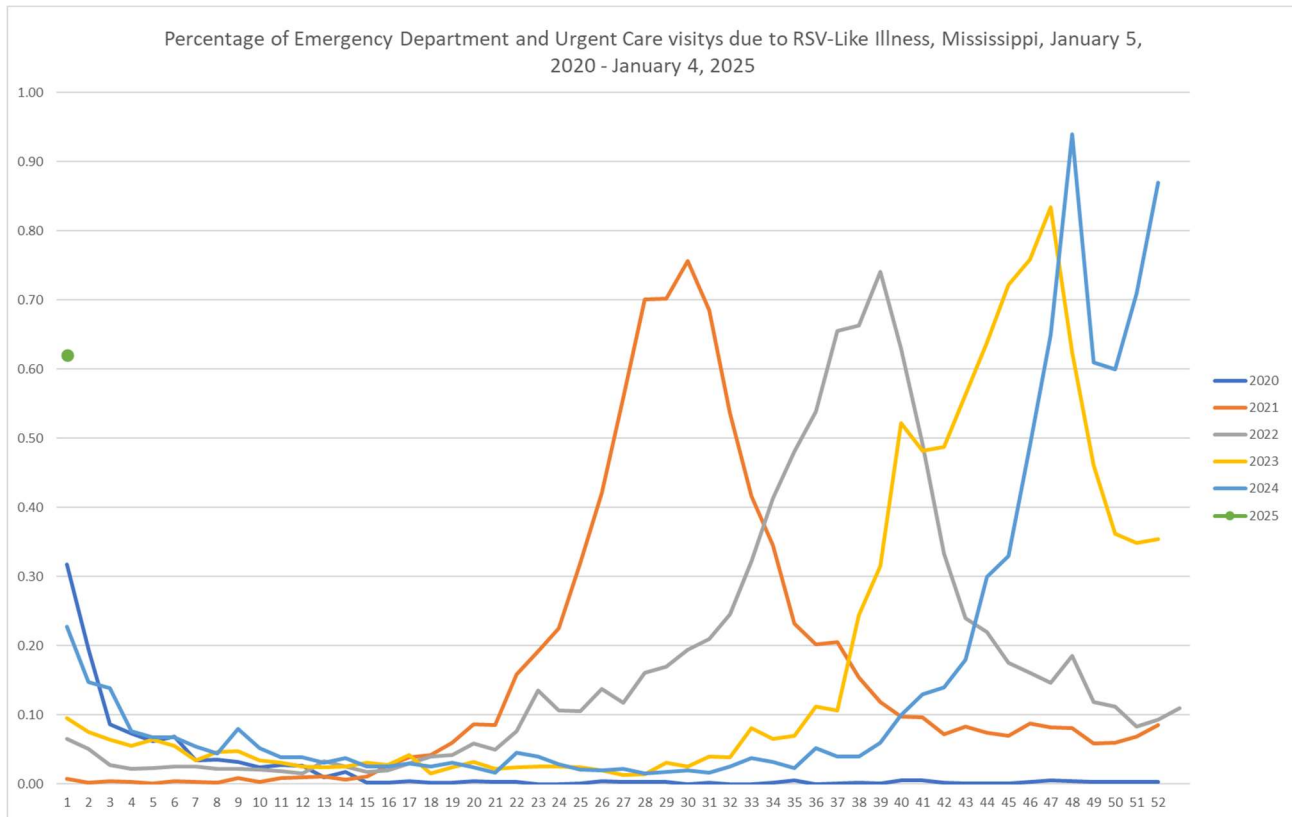
Region 4’s ILI rate (Southeast) decreased when compared to the previous week. Mississippi is included in Region 4. | [Figure 9](#)



For additional information on flu activity nationwide, please refer to the CDC’s website: <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

State RSV Surveillance

Respiratory Syncytial Virus (RSV), or Human Orthopneumovirus, is the primary cause of infant hospitalization in the United States due to its' highly contagious nature. RSV creates respiratory tract infections and typically exhibits cold-like symptoms quite similar to COVID, which can make it hard to decipher. Infants and adults 65 years and older are most susceptible to RSV.



The percentage of patients with a chief complaint or diagnosis of RSV during week 1 decreased when compared to the previous week. | [Figure 10](#)

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	http://msdh.ms.gov/msdhsite/_static/14,0,199.html
World Health Organization FluNet	https://www.who.int/tools/flunet/flunet-summary

Appendix

Figure 1

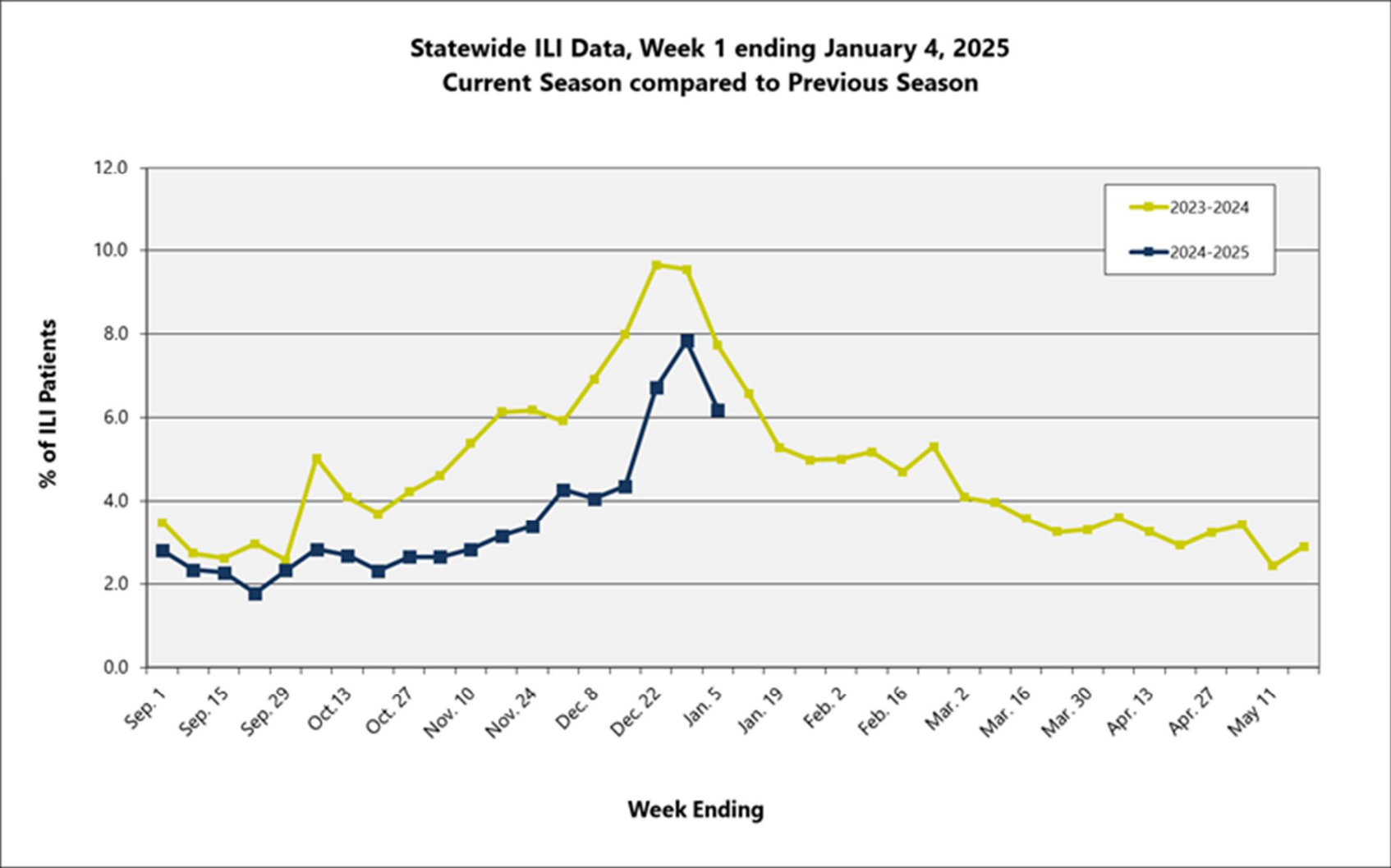


Figure 2

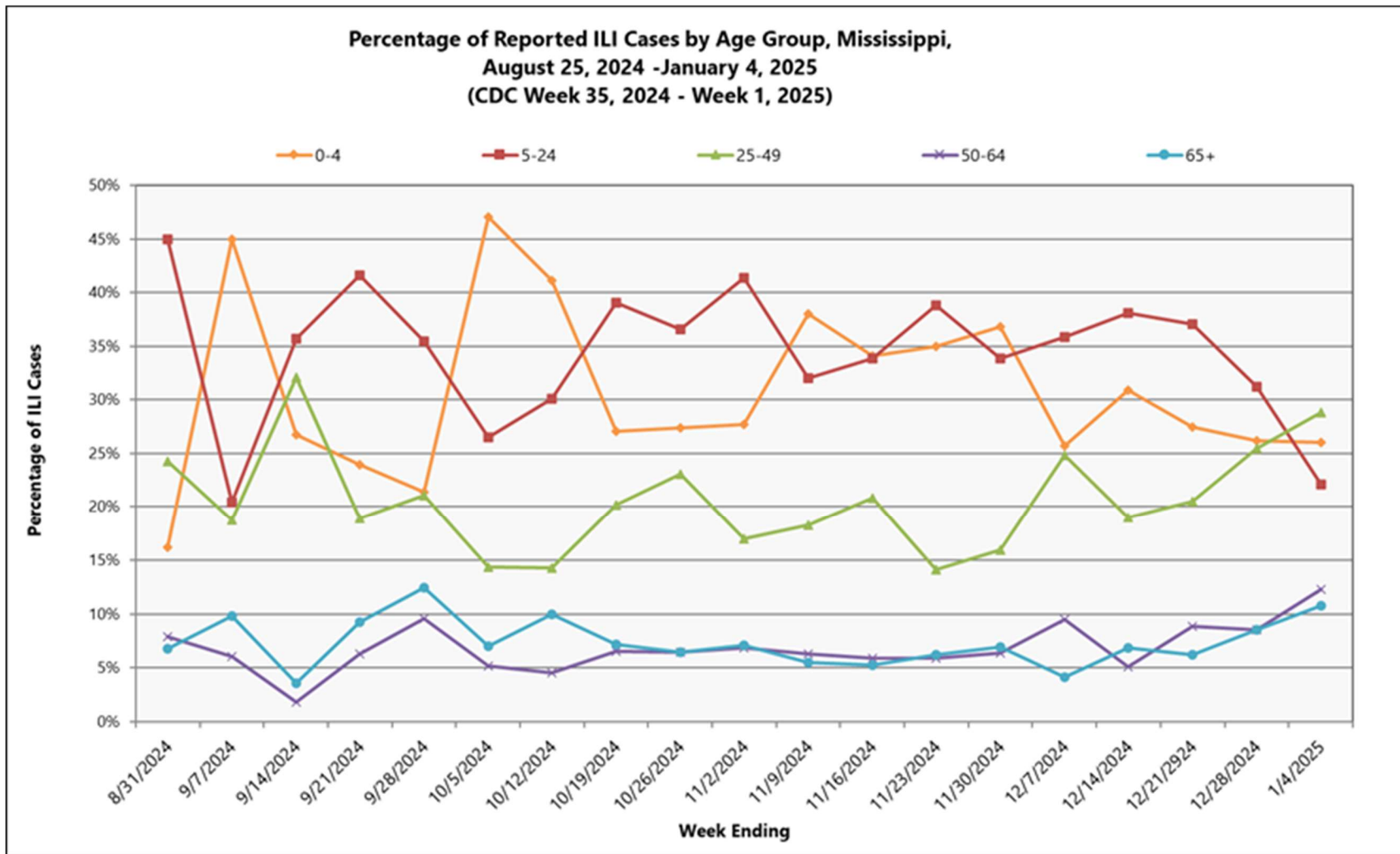


Figure 3

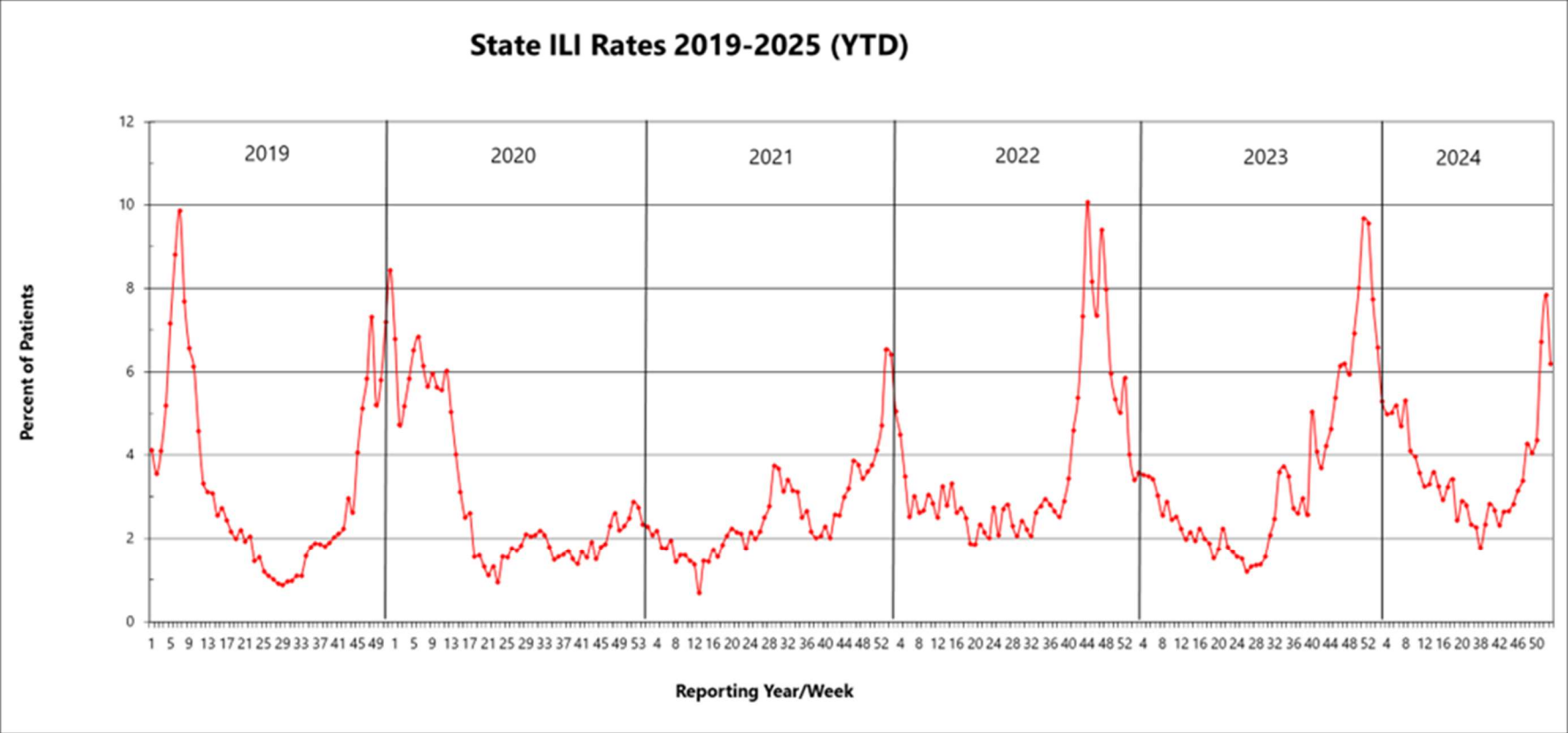


Figure 4

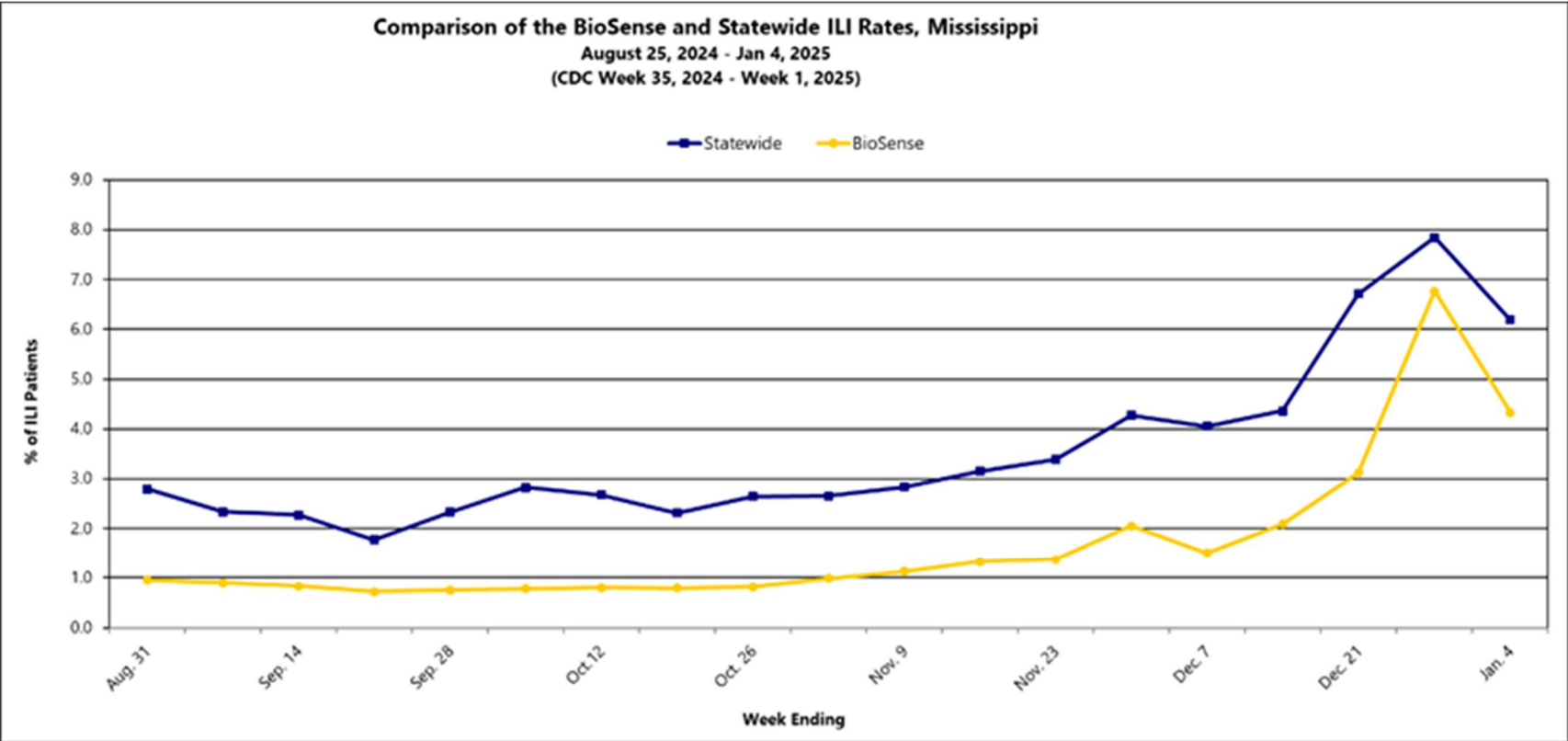


Figure 5

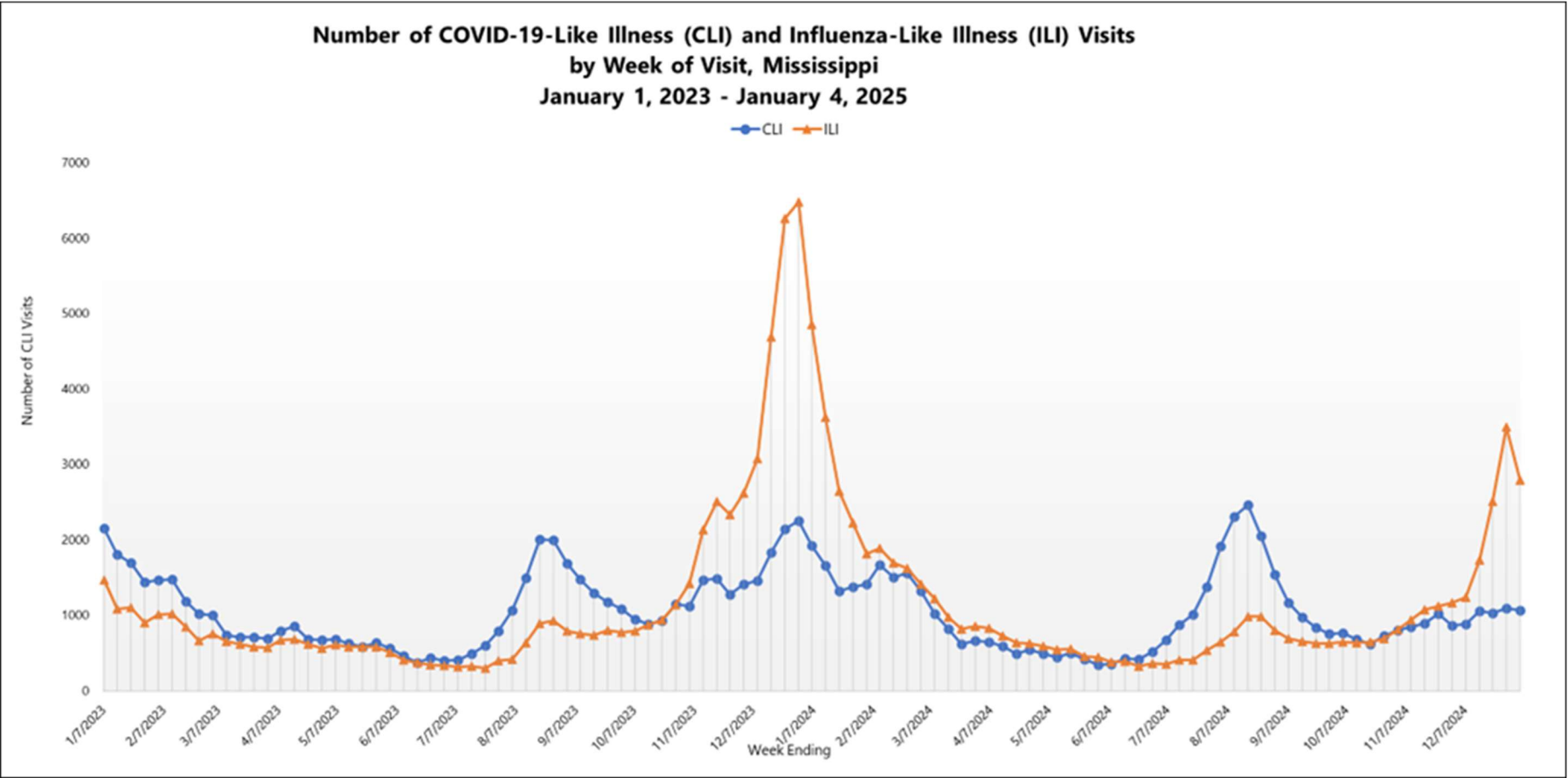


Figure 6

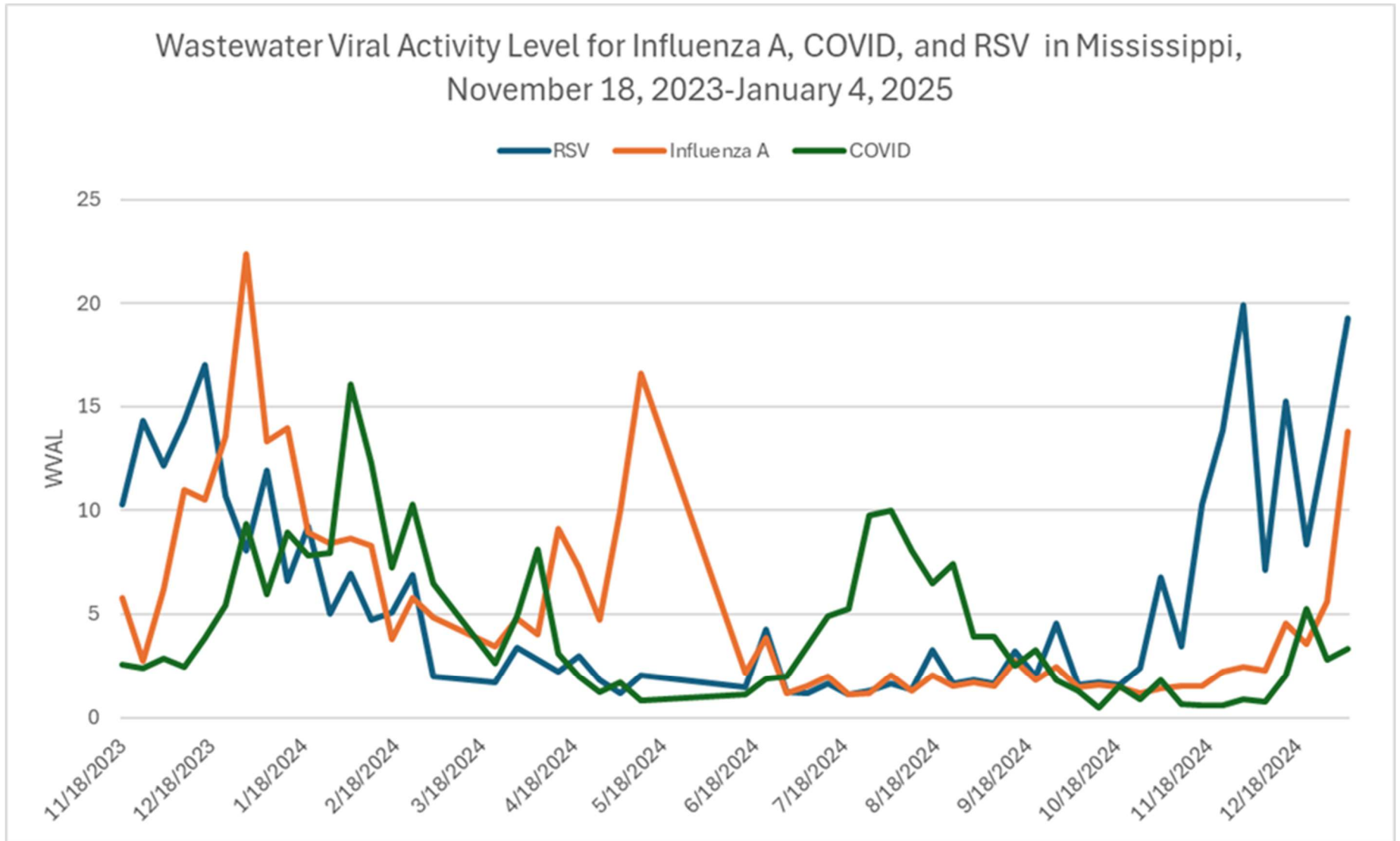


Figure 7

Number of Reported Influenza Outbreaks by Influenza Type and Subtype by Onset Week, Mississippi, 2024-2025 Flu Season (N = 6)

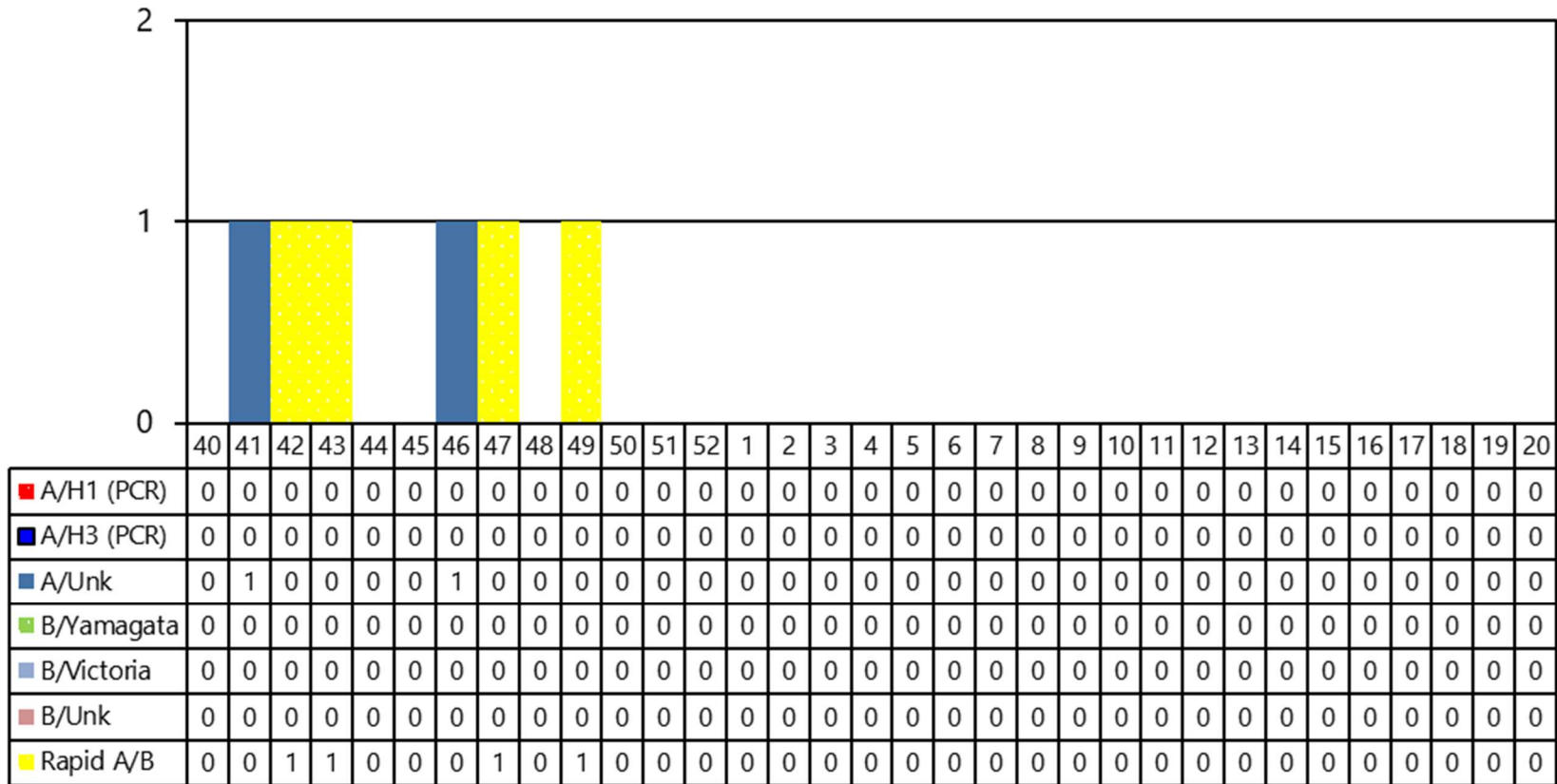


Figure 8

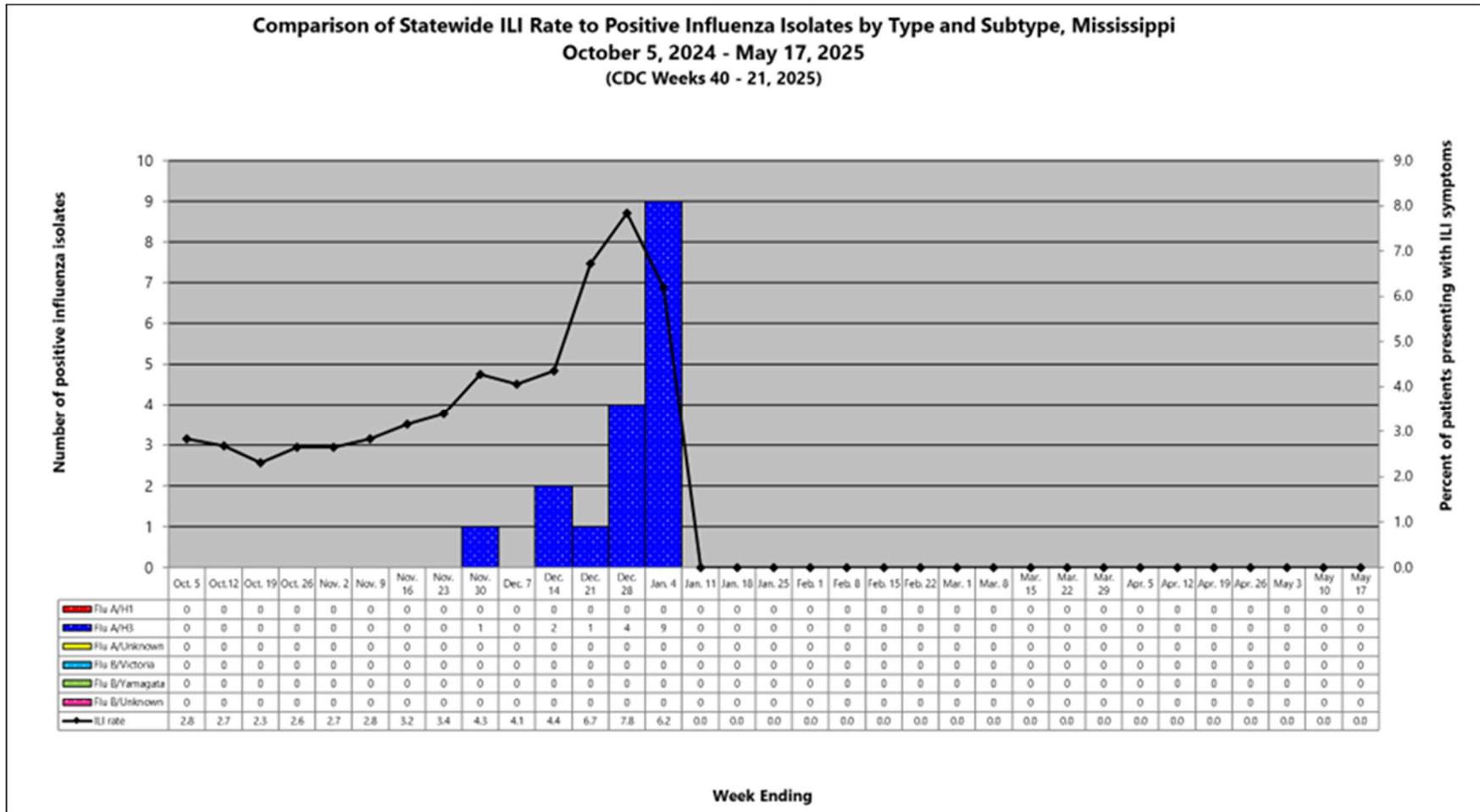
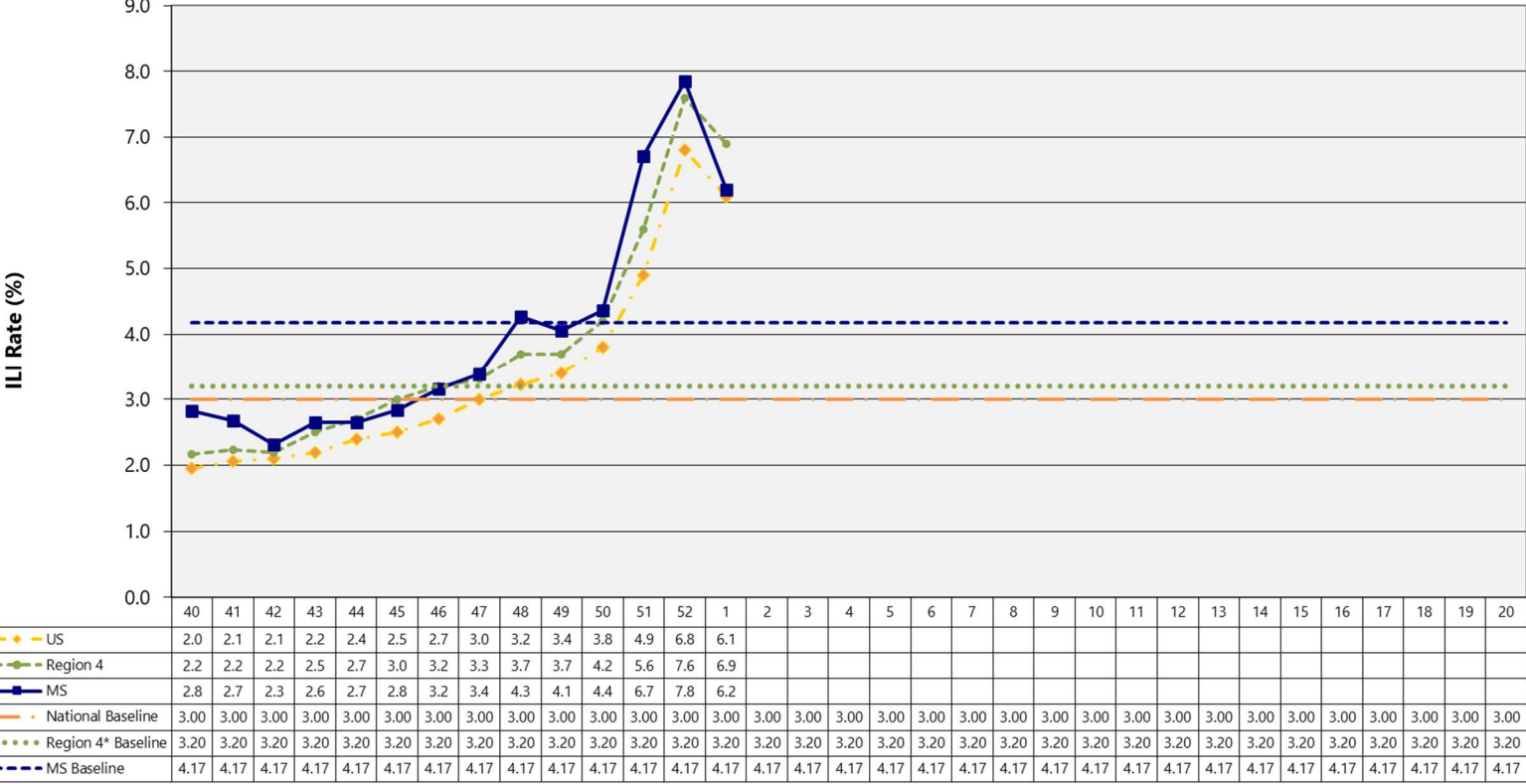


Figure 9

**Comparison of Nationwide and Region 4* ILI Rates to Mississippi ILI Rates
Weeks 40-20 | 2024-2025 Flu Season**



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

Figure 10

