



2025-2026 Respiratory Surveillance Report

Week 52

Dec. 21 – Dec. 27, 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.

During 2025, MSDH noted an increase in the number of reported pertussis cases (otherwise known as “whooping cough”). Pertussis is a Class 1A vaccine-preventable reportable disease, and MSDH attempts to interview every reported case within 24 hours of receipt.

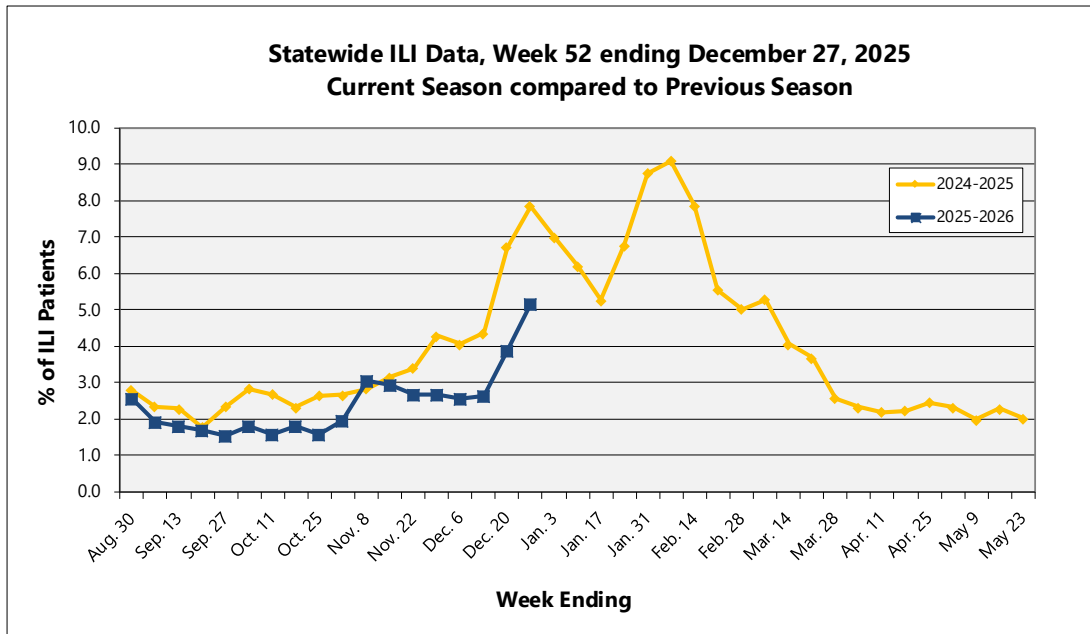
Information contained within this report is provisional and may change depending on additional reporting from sentinel providers and surveillance sources. The influenza reports represent only the distribution of flu in the state, not an actual count of all flu cases statewide.

Content

- ❖ [State ILI Surveillance](#)
- ❖ [Wastewater Surveillance](#)
- ❖ [Respiratory Outbreaks](#)
- ❖ [Flu Testing Reports](#)
- ❖ [National and Mississippi Pediatric Mortality Surveillance](#)
- ❖ [National ILI Surveillance](#)
- ❖ [State RSV Surveillance](#)
- ❖ [State Pertussis 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**](#) (*State ILI Rates 2019-2024 (YTD)*)
- [**Figure 4**](#) (*Comparison of the BioSense and Statewide ILI Rates*)
- [**Figure 5**](#) (*Number of CLI and ILI Visits by week*)
- [**Figure 6**](#) (*Wastewater Surveillance of ILI, CLI, and RSV*)
- [**Figure 7**](#) (*Number of Reported Influenza Outbreaks by Type and Subtype, Mississippi*)
- [**Figure 8**](#) (*Number of Reported COVID-19 Outbreaks, Mississippi*)
- [**Figure 9**](#) (*Comparison of Statewide ILI Rate to Positive Influenza Isolates by Type and Subtype, Mississippi*)
- [**Figure 10**](#) (*Hospitalization Status of Patients with Positive Influenza Isolates, Mississippi*)
- [**Figure 11**](#) (*Comparison of Nationwide and Region 4 ILI Rates to Mississippi ILI Rates*)
- [**Figure 12**](#) (*Percentage of Emergency Dept and Urgent Care Visits due to RSV*)
- [**Figure 13**](#) (*Reported Pertussis Cases by Year, Mississippi, 1998-2025**)
- [**Figure 14**](#) (*Reported Pertussis Cases by District, Mississippi, 2024-2025**)
- [**Figure 15**](#) (*Reported Pertussis Cases with Pertussis Vaccination by Age Group, Mississippi, 2025**)
- [**Figure 16**](#) (*Vaccination Status of Hospitalized Pertussis Cases, Mississippi, 2025**)
- [**Figure 17**](#) (*Number of Reported Pertussis Cases by Event Week, Mississippi, 2025**)

State ILI Surveillance

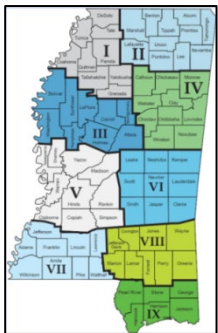


During week **52** (12/21/25-12/27/25), the overall state ILI rate (**5.2%**) **increased** from the previous week (**3.9%**) and was lower than this time last year (**7.8%**).
| [Figure 1](#)

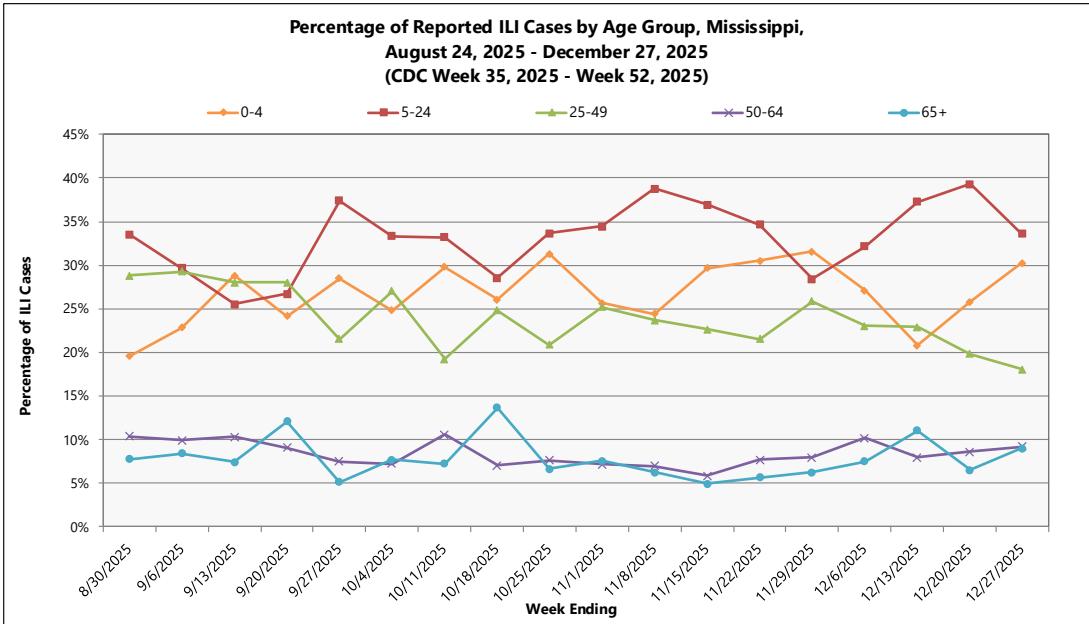
Total number of patients treated by sentinel providers in the last three weeks | **Table 1**

2025-2026 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
52	Dec. 27	37	13334	688	5.2
51	Dec. 20	63	14700	570	3.9
50	Dec. 13	60	14700	570	3.9

During week **52**, seven districts (1, 2, 3, 5, 6, 7, and 8) had an increase in ILI activity. Two districts (4 and 9) had a decrease. *Information is provisional only and may change depending on additional reporting from sentinel providers.* | **Table 2**



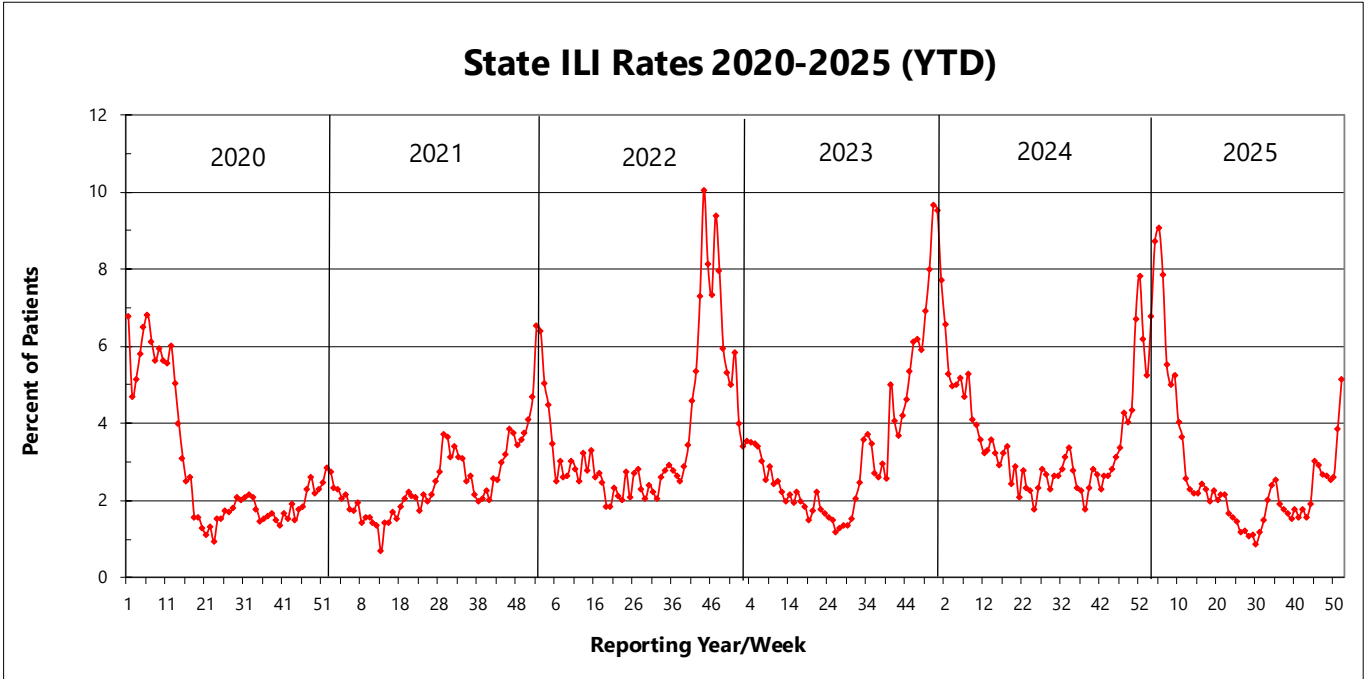
MSDH District ILI Rates (%) 2025-2026		
District	Week 51	Week 52
State	3.9	5.2
I	3.6	6.0
II	4.9	8.6
III	11.11	26.7
IV	7.3	5.4
V	2.2	3.2
VI	3.4	6.8
VII	6.5	8.8
VIII	2.1	4.5
IX	3.1	1.3



Overall, the percentage of reported ILI cases has been highest among those in the **5-24 years** of age group. During week **52**, the percentage of ILI cases in the

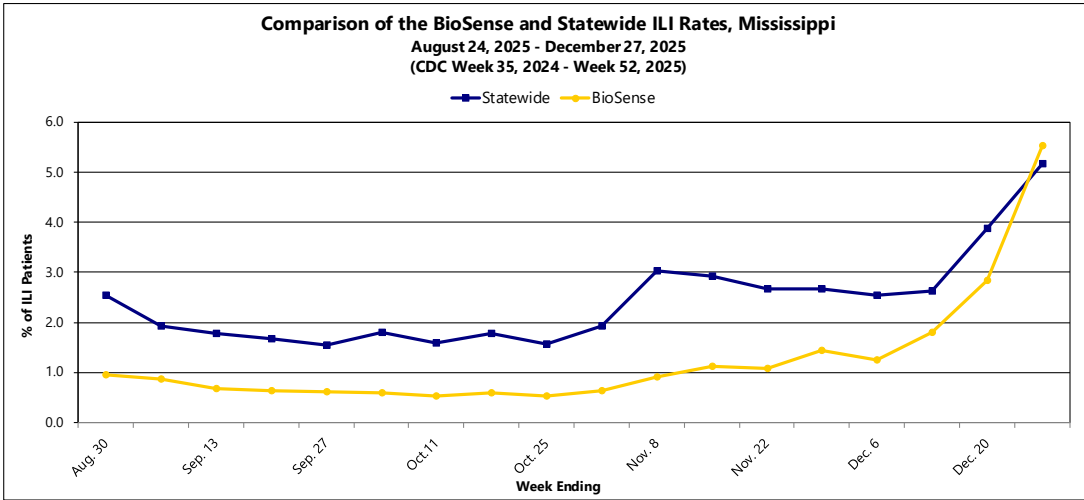
0-4 and 65+ years of age groups increased. The percentage of ILI cases decreased in the 5-24 and 25-49 years of age groups when compared to the previous week. The 50-64 years of age group remained constant when compared to the previous week. | [Figure 2](#)

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



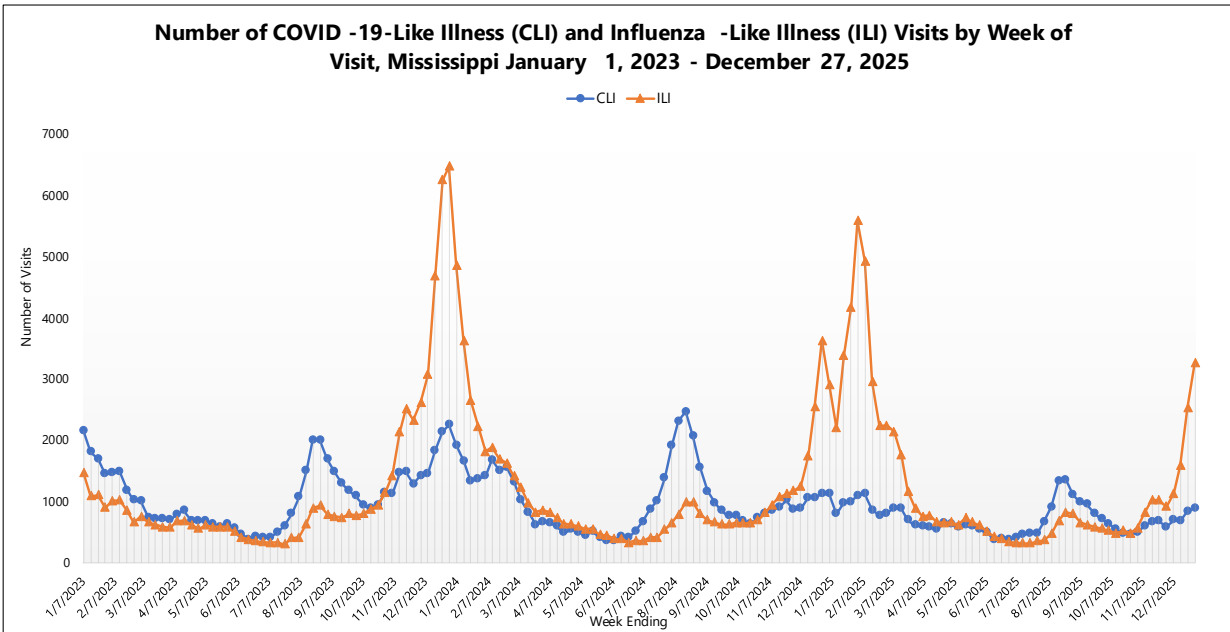
Syndromic Surveillance

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 52 increased when

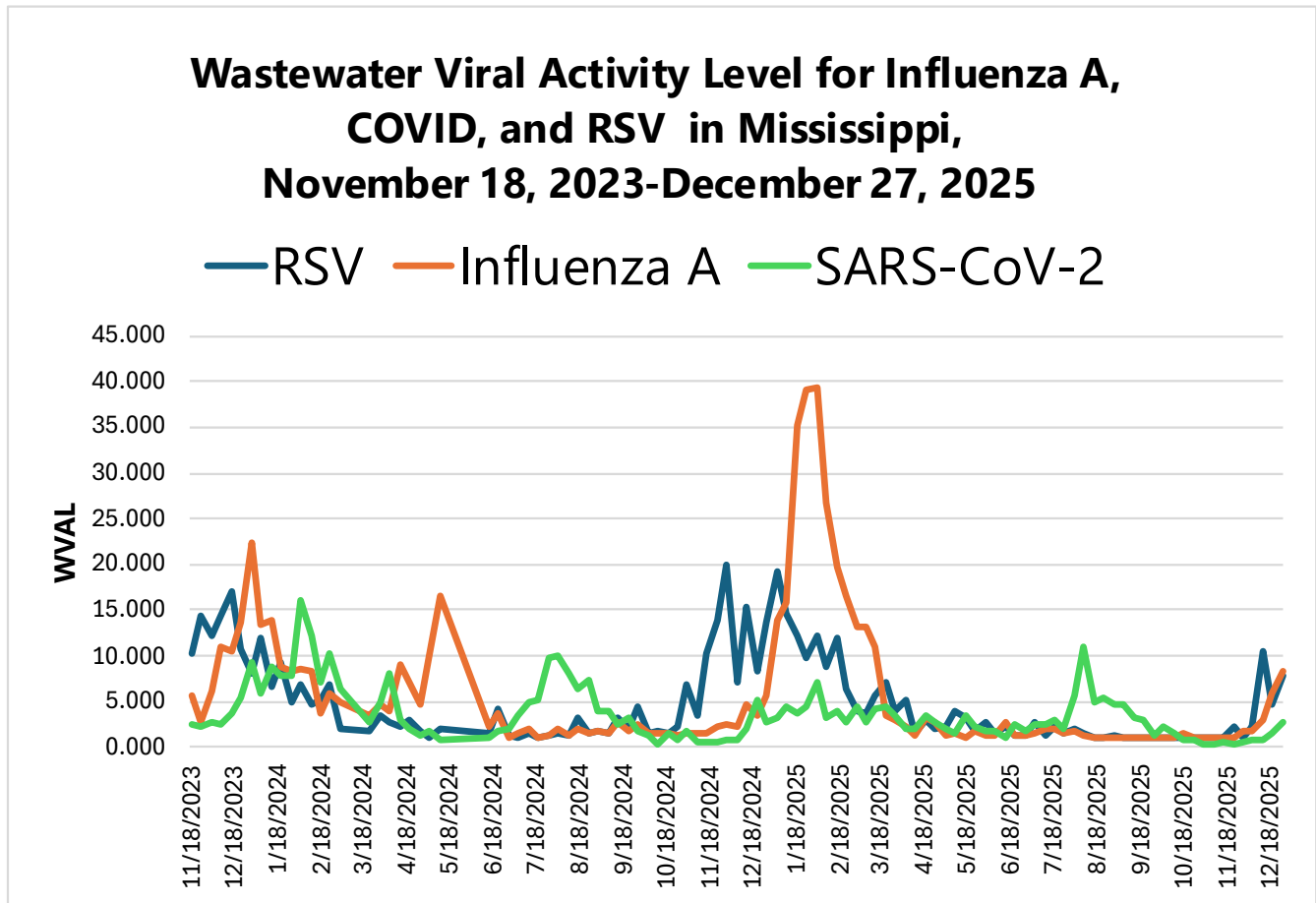
compared to the previous week, as well as the statewide ILI rate. | [Figure 4](#)



The number of patients with a chief complaint or diagnosis of COVID-like illness during week 52 increased when compared to the previous week and is lower than influenza-like illnesses, which also increased. | [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 an increase in COVID, RSV and influenza A. | [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>.

For additional information and WVAL levels in Mississippi, visit [WastewaterSCAN](#) to view different sewage treatment plants than Mississippi's Public Health Lab tests.

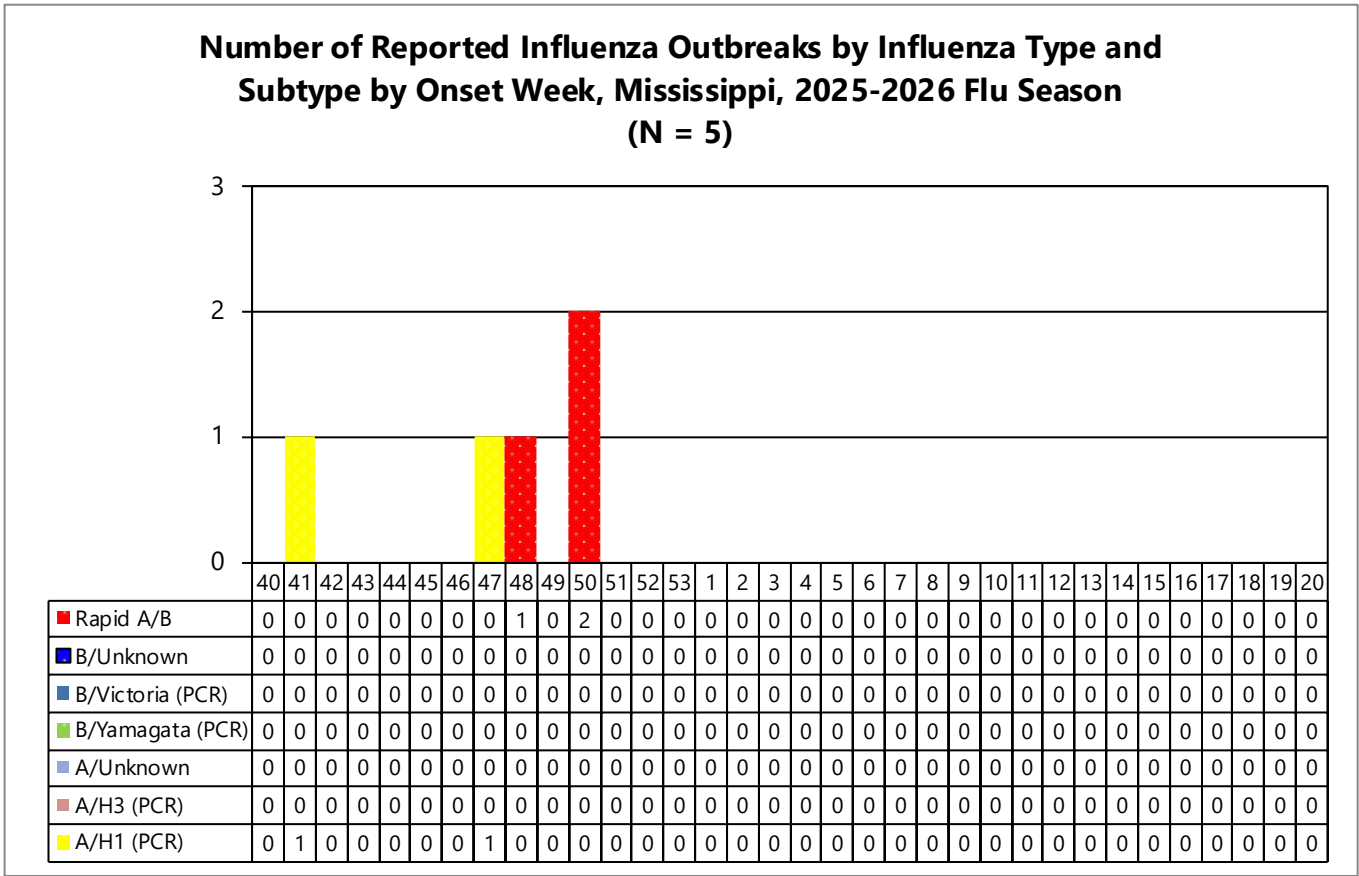
Respiratory Outbreaks

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 4, 2025) and week 52 (ending December 27), eight influenza outbreaks were reported to MSDH. MSDH investigates all reported outbreaks, and complete information is available for three of the eight outbreaks. Two outbreaks were attributed to an influenza A/H1 virus, and three were attributed to Rapid A/B.

Through week 52, within the reported outbreaks, the overall vaccination rate among facility residents was 73%, and among staff members, 15%. In addition, the percentage of residents that were ill due to influenza was 13%, and among staff members, 4%. The percentage of residents that were hospitalized due to influenza was 6%, and among staff members, 0%.

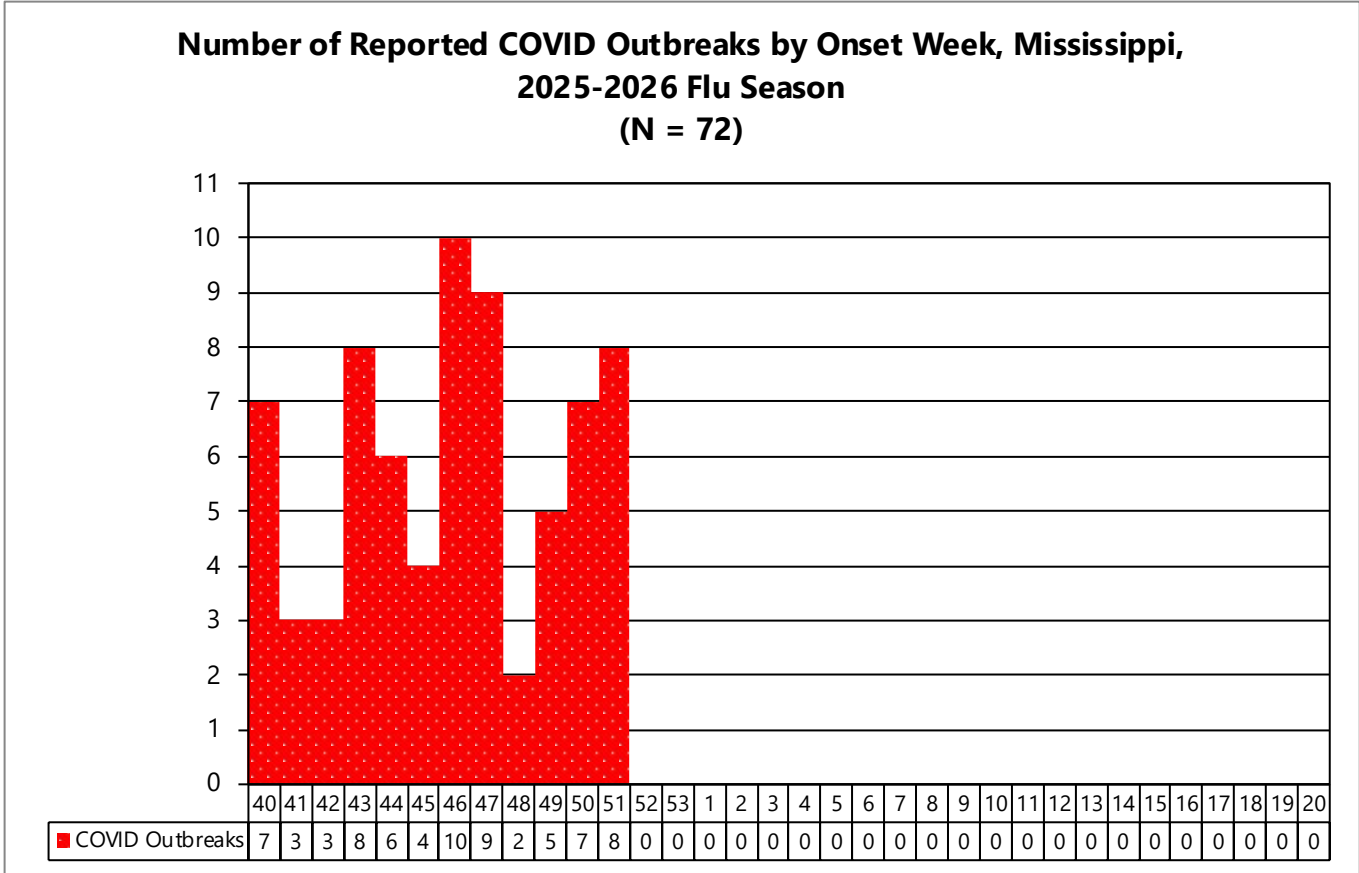
Influenza outbreaks have occurred in the following counties: Clay (1), Jackson (1), Lowndes (1), Madison (1), Marion (1), Noxubee (1), Oktibbeha (1), Rankin (1). | [Figure 7](#)



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.

Between week 40 (ending October 4, 2024) and week 52 (ending December 27), 78 COVID-19 outbreaks were reported to MSDH.

COVID-19 outbreaks have occurred in the following counties: Adams (1), Alcorn (2), Attala (2), Bolivar (2), Calhoun (4), Chickasaw (3), Covington (1), DeSoto (3), Forrest (2), Franklin (1), Grenada (1), Hancock (1), Harrison (2), Hinds (5), Jasper (1), Jefferson (1), Lafayette (1), Lamar (1), Lauderdale (2), Leake (1), Lee (2), Leflore (2), Lowndes (3), Madison (2), Marshall (1), Monroe (1), Montgomery (1), Neshoba (2), Pearl River (1), Pike (1), Pontotoc (3), Rankin (2), Scott (2), Simpson (10), Smith (1), Sunflower (2), Tate (1), Warren (1), Webster (1), Wilkinson (1), Yalobusha (1). | [Figure 8](#)

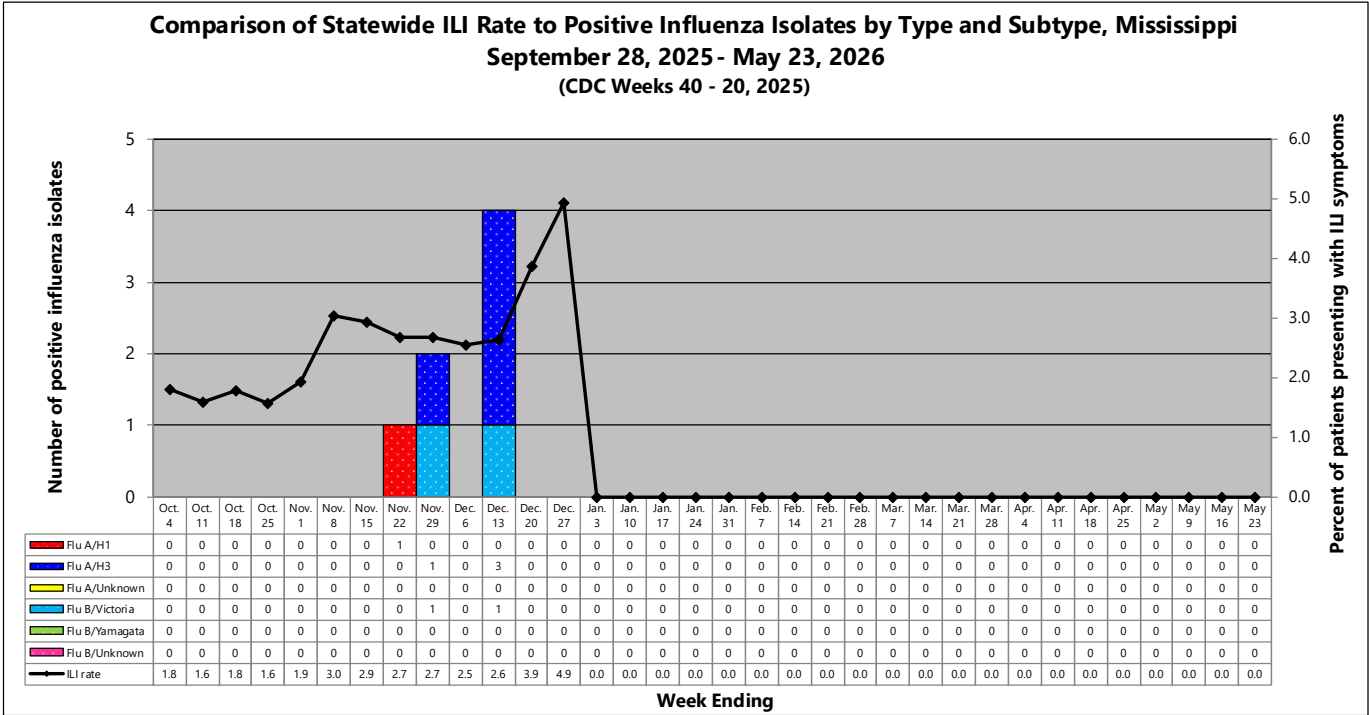


For additional information on infection control measures in health care facilities and managing COVID-19 outbreaks in long-term care facilities, please refer to the CDC’s webpages: [Viral Respiratory Pathogens Toolkit for Nursing Homes | LTCFs | CDC](#) and [Infection Control Guidance: SARS-CoV-2 | COVID-19 | CDC](#), respectively.

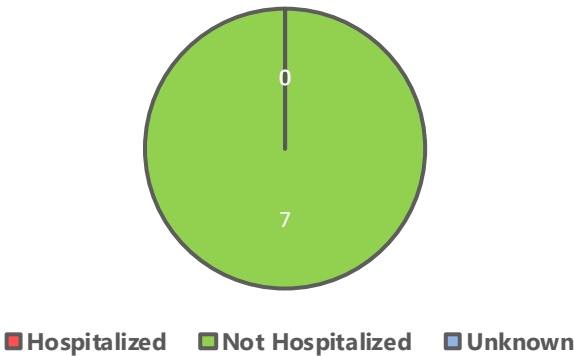
Flu Testing Reports

Between week 40, (week ending October 4, 2025), and week 52 (ending December 27, 2025), seven laboratory confirmed influenza samples have been identified by the MSDH Public Health Laboratory. One was identified as influenza A/H1, four were identified as influenza A/H3, and two were identified as influenza B/Victoria.

The influenza cases were identified from the following counties: Coahoma (1), Granada (1), Hinds (2), Leflore (1), Madison (1), and Simpson (1). | [Figure 9](#)



Hospitalization Status of Positive Influenza Cases, Mississippi, September 28, 2025- December 27, 2025



Of the seven positive flu samples, none of the cases have been hospitalized. | [Figure 10](#)

National and Mississippi Pediatric Mortality Surveillance

Nationally, **nine** influenza-associated pediatric deaths occurring in the 2025-2026 season have been reported to CDC. One death was associated with influenza A virus (not subtyped), one death was associated with influenza A(H1N1), and seven deaths were associated with influenza A(H3) virus.

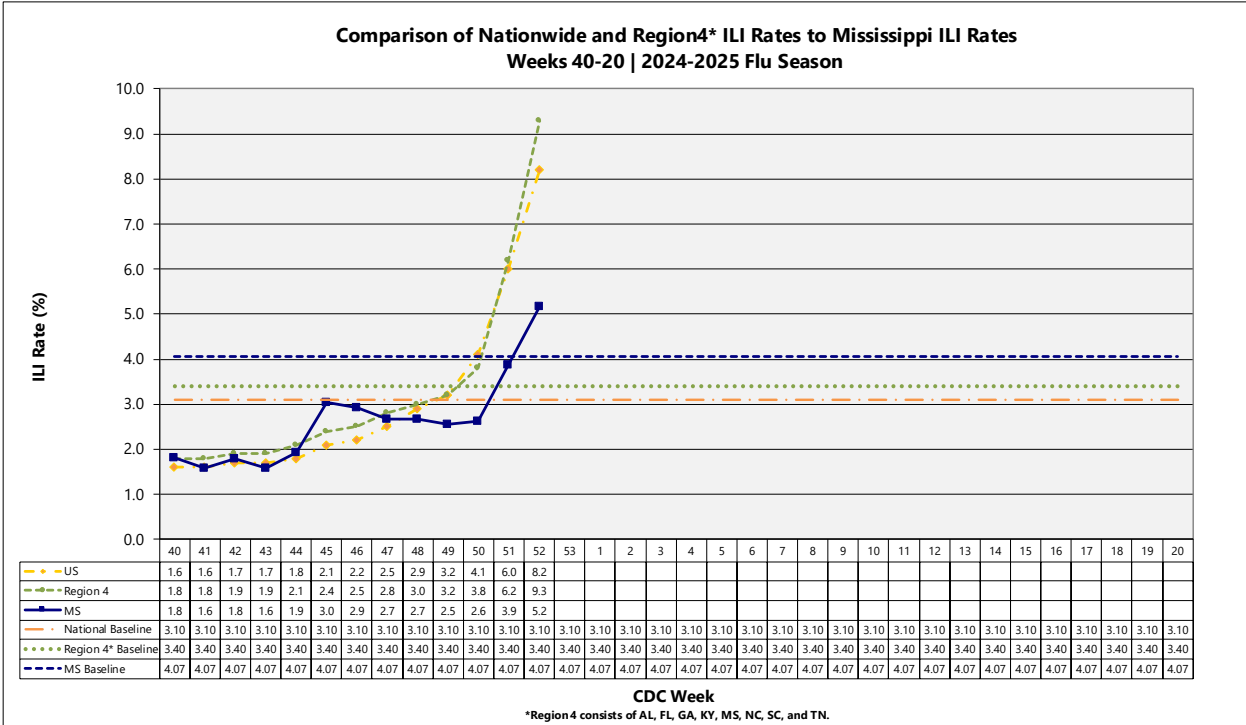
Mississippi has had **no** influenza-associated pediatric deaths reported during this influenza season.

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

National ILI Surveillance

During week 52, influenza activity increased in the United States. 8.2% of patients reported through ILINet presented with ILI symptoms. This was higher than week 51 and is above the national baseline (3.1%).

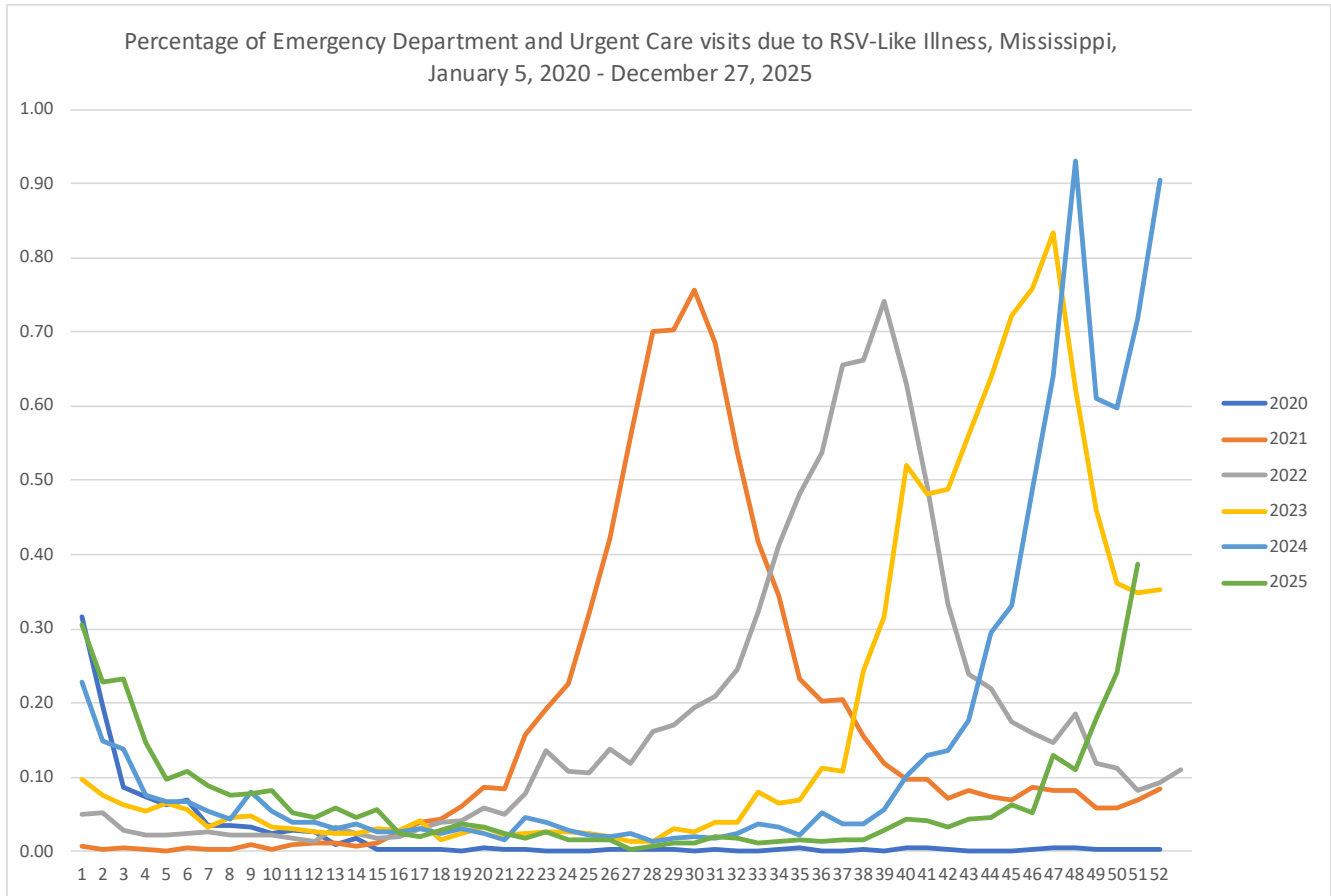
Region 4's ILI rate (Southeast) increased when compared to the previous week. Mississippi is included in Region 4. | [Figure 11](#)



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.

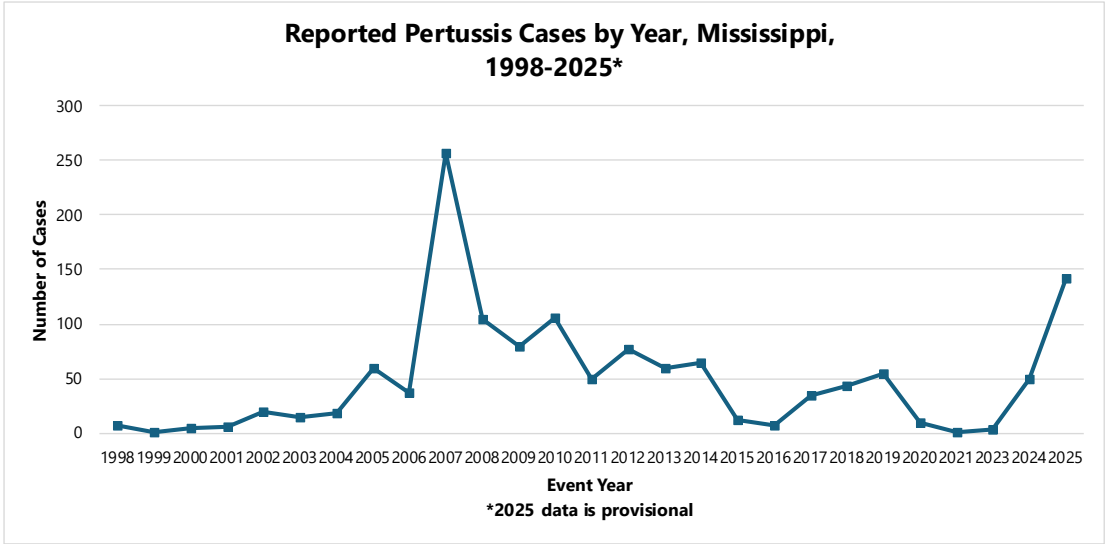


The percentage of patients with a chief complaint or diagnosis of RSV during week **52** increased when compared to the previous week. | [Figure 12](#)

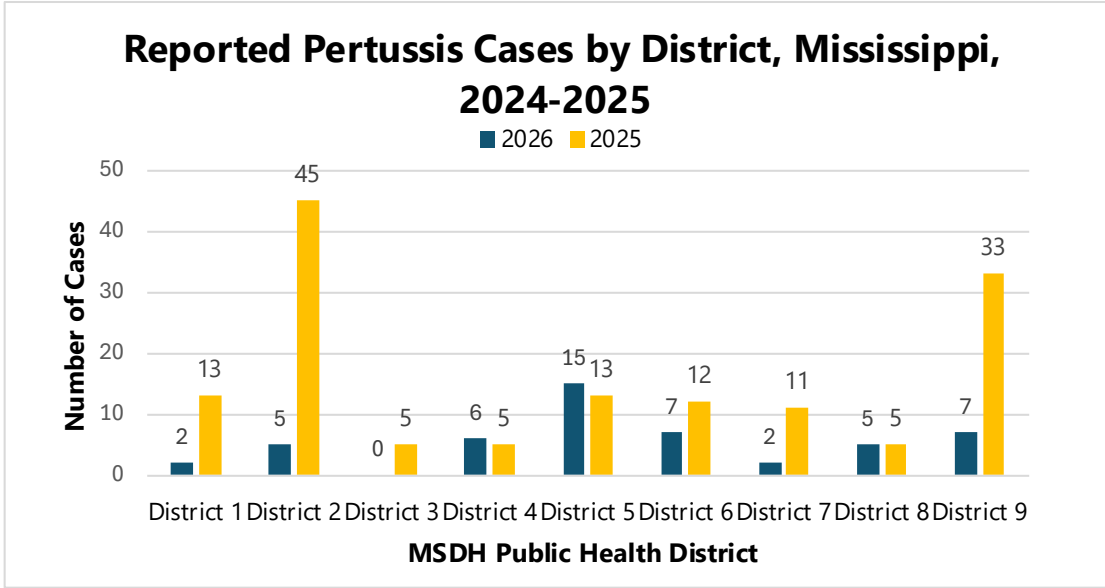
State Pertussis Surveillance

Pertussis, also known as whooping cough, is a highly contagious respiratory disease caused by Bordetella pertussis. It is characterized by severe coughing fits that can lead to difficulty breathing, vomiting, and a distinctive "whooping" sound during inhalation. While it can affect individuals of all ages, infants and young children are particularly vulnerable to severe complications. Pertussis spreads through respiratory droplets and can be prevented through vaccination, typically administered as part of the DTaP or Tdap immunization series. Early diagnosis and antibiotic treatment are key to limiting transmission and reducing symptom severity.

*Pertussis is 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](#).*

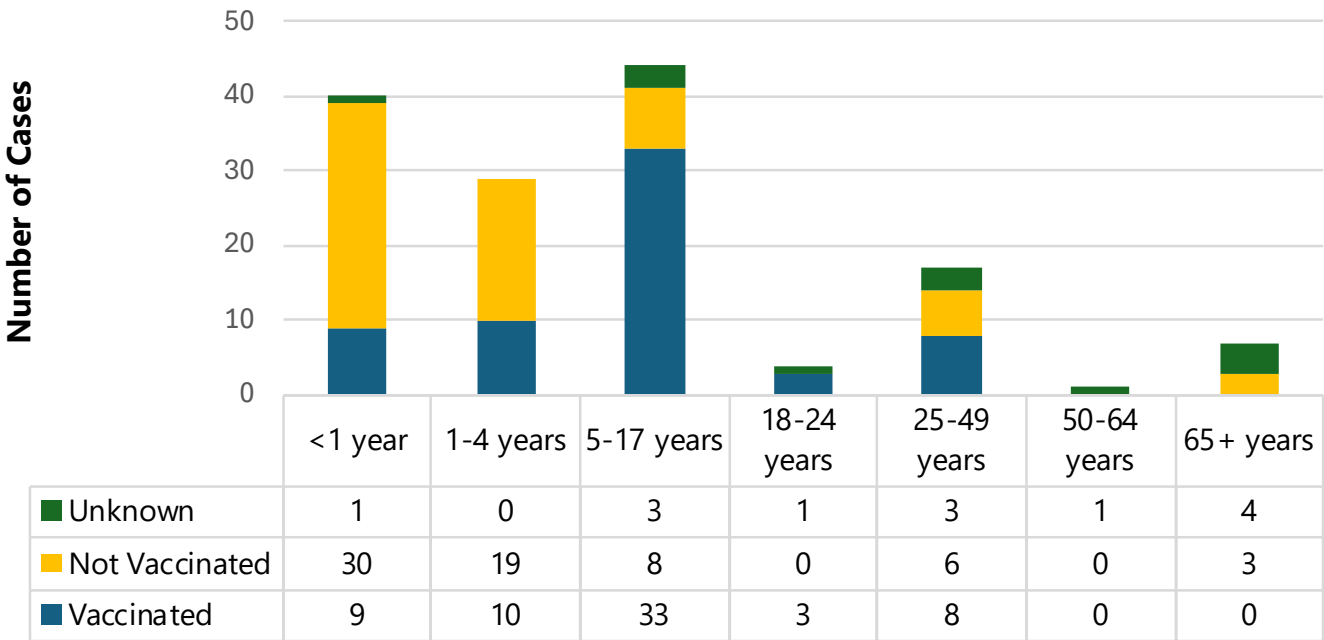


The number of Pertussis cases in 2025 has risen to **142**, which surpasses the past 16 years of cases. | [Figure 13](#)



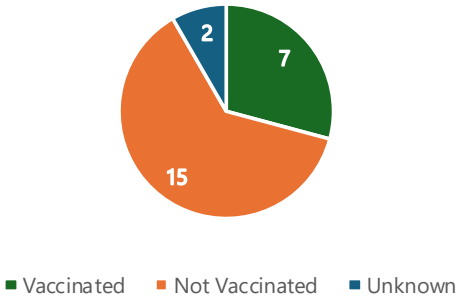
Districts **1, 2, 5, and 9** have had the most cases in 2025 to date, with **13, 45, 13, and 33** cases, respectively. | [Figure 14](#)

Reported Pertussis Cases with Pertussis Vaccination by Age Group, Mississippi, 2025*

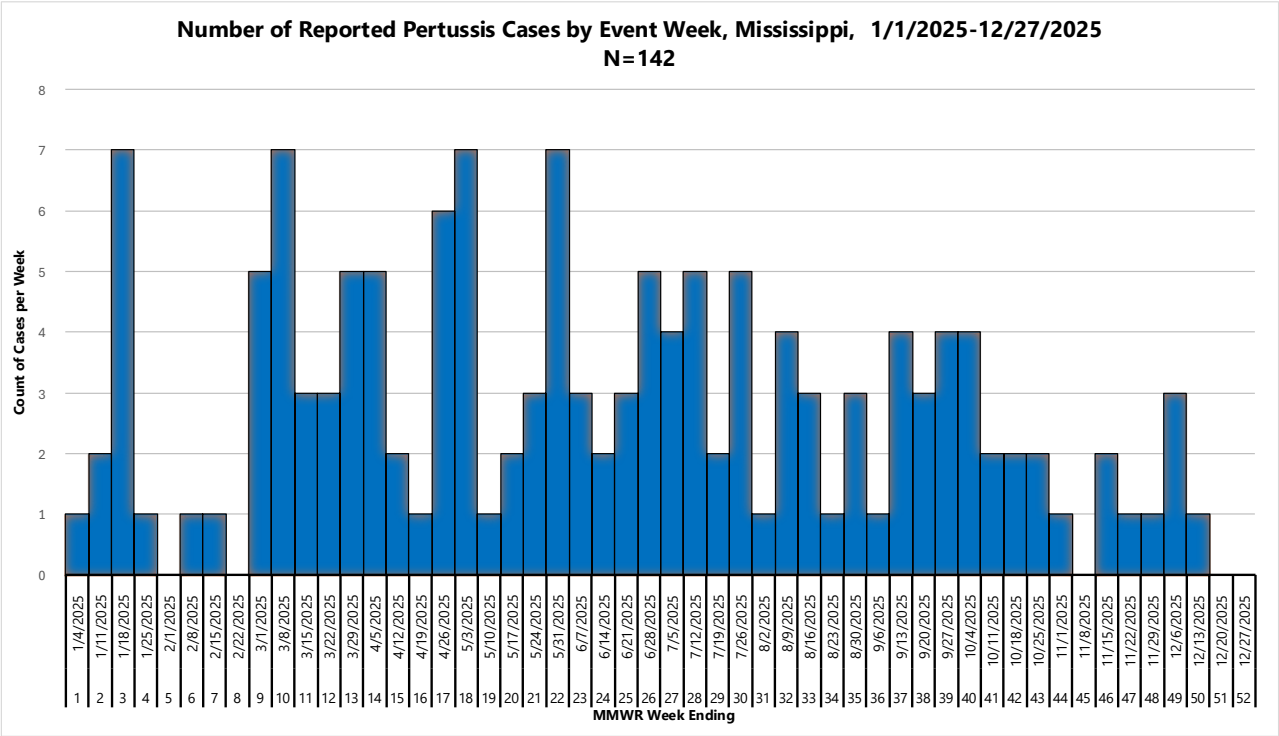


Overall, the number of reported Pertussis cases has been highest among those in the **5-17 years** of age group. In the less than one year old group, **20** of the unvaccinated children were less than 7 months of age, making them ineligible to have had all doses of pertussis-related vaccinations. | [Figure 15](#)

Vaccination Status of Hospitalized Pertussis Cases, Mississippi, 2025*



Of the 24 hospitalized Pertussis Cases, **15** (63%) of them have not been vaccinated, **7** (29%) have been vaccinated, and **2** (8%) has an unknown vaccination status. | [Figure 16](#)



There have been **an equal amount** of Pertussis cases reported this week compared to last week. | [Figure 17](#)

Additional Respiratory 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

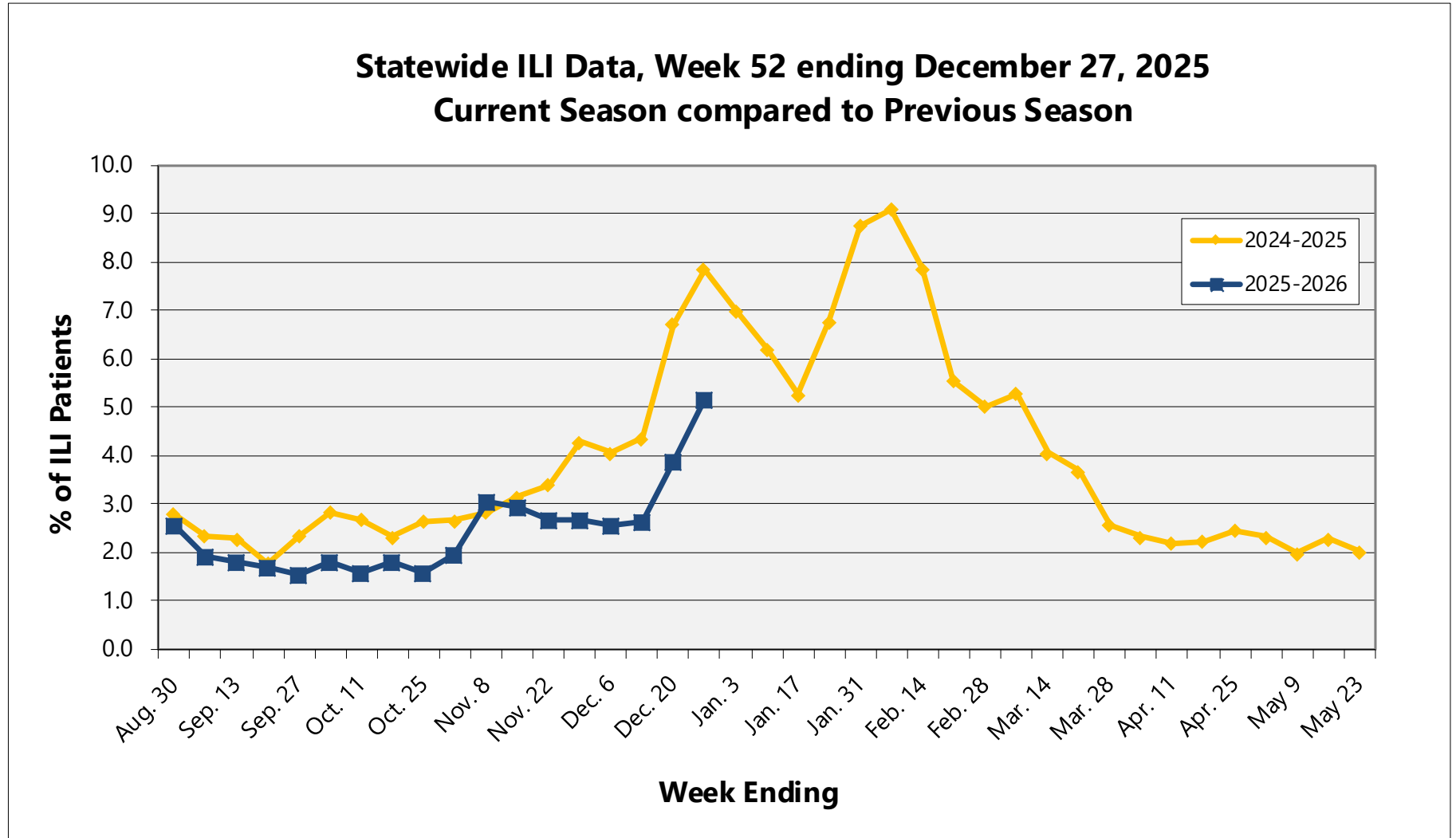


Figure 2

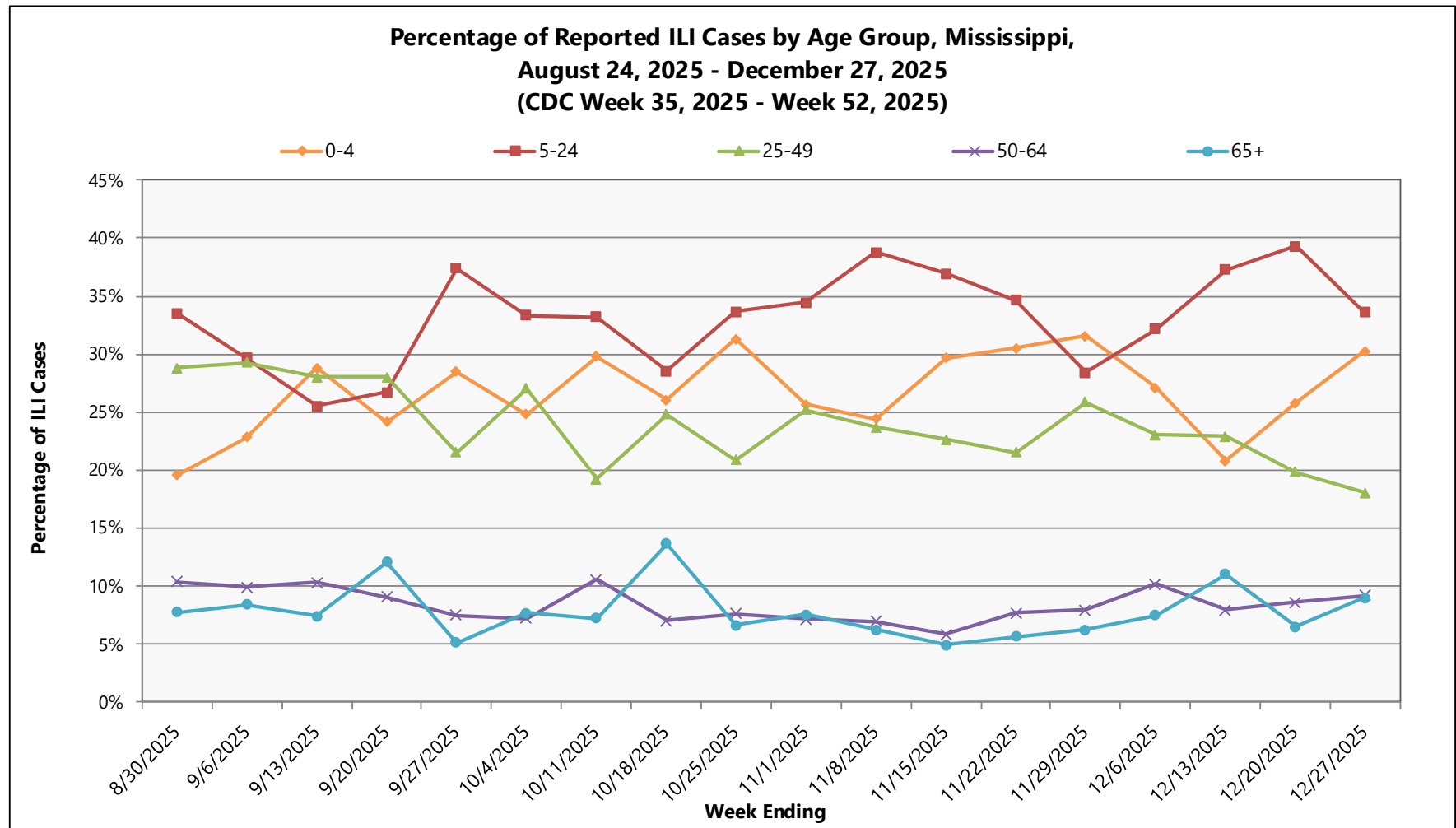


Figure 3

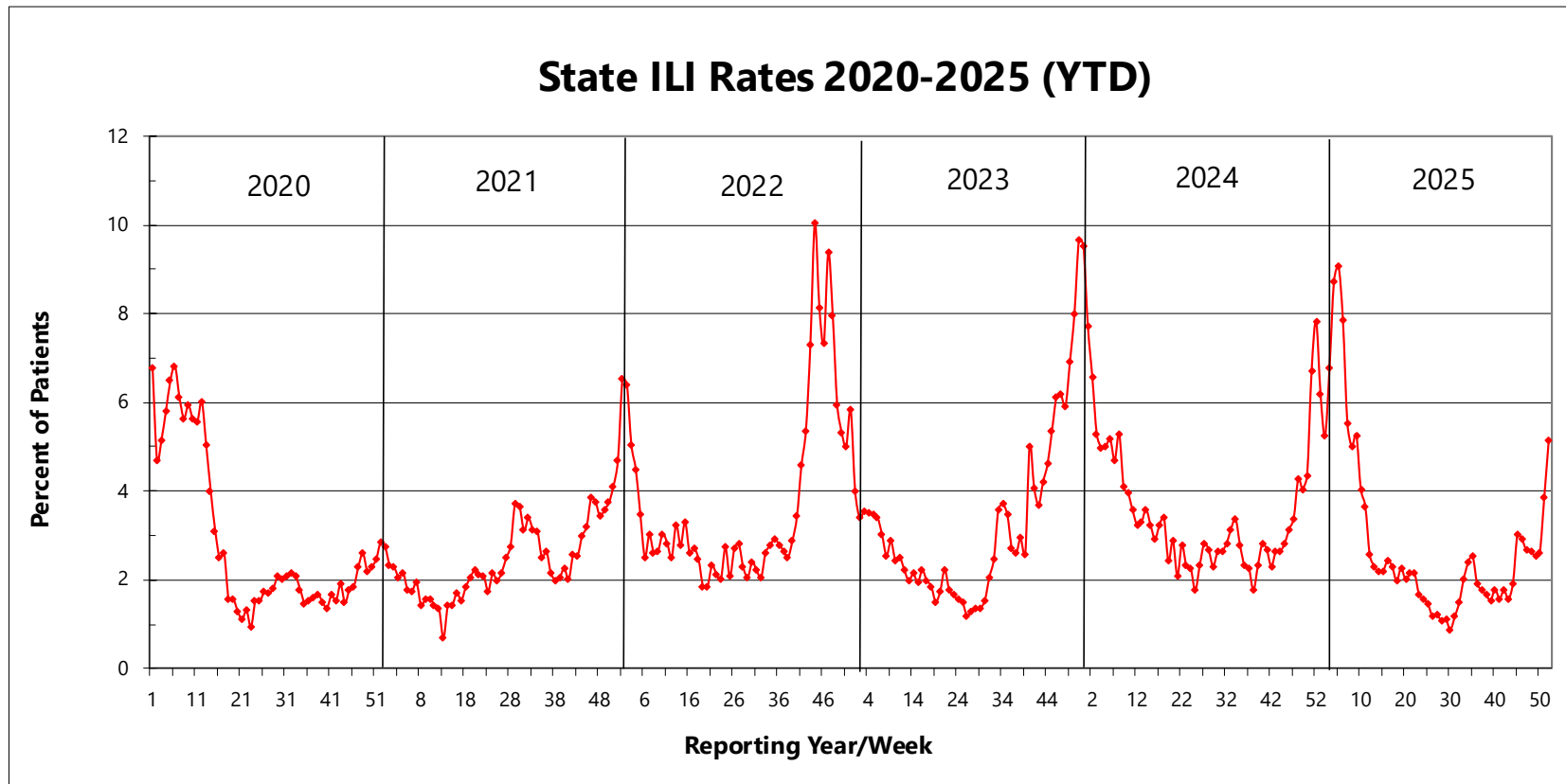


Figure 4

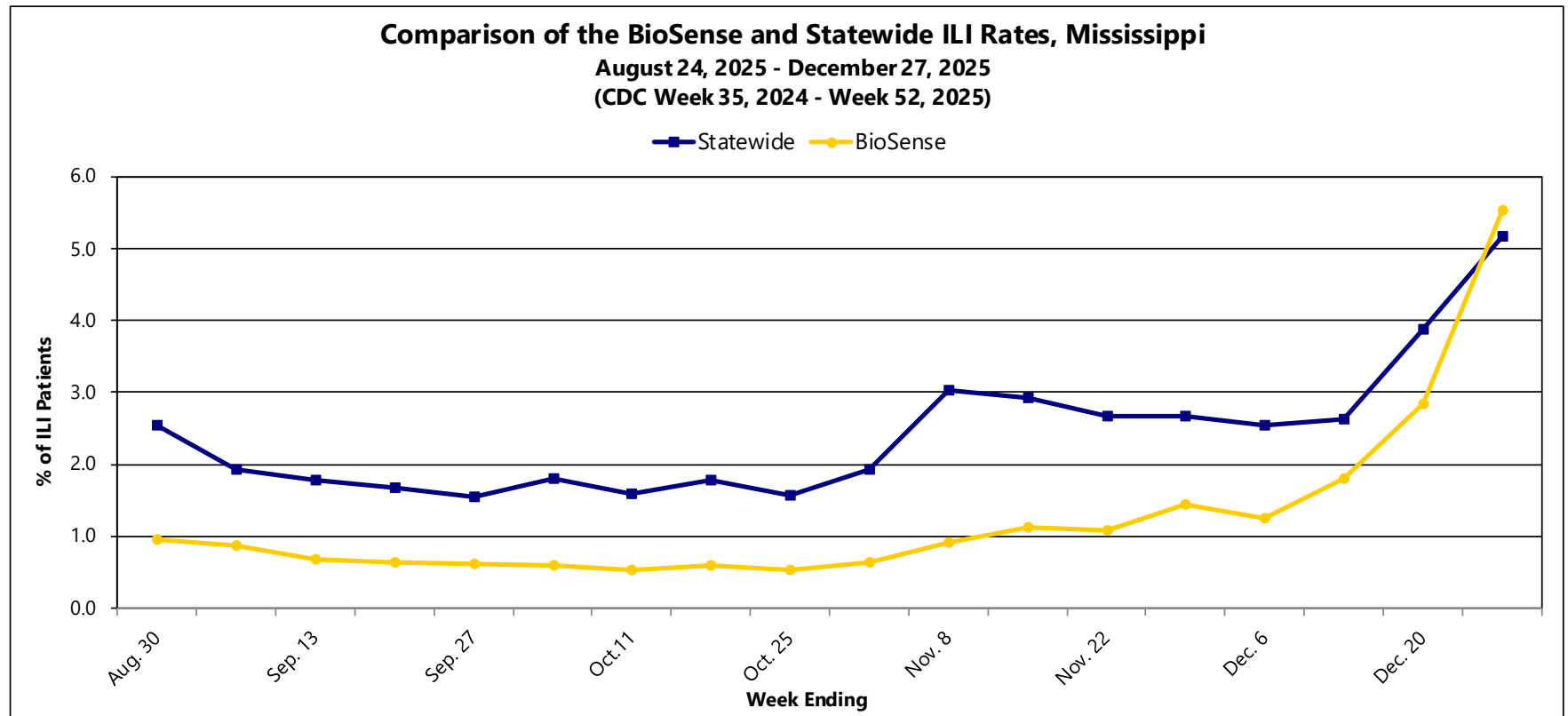


Figure 5

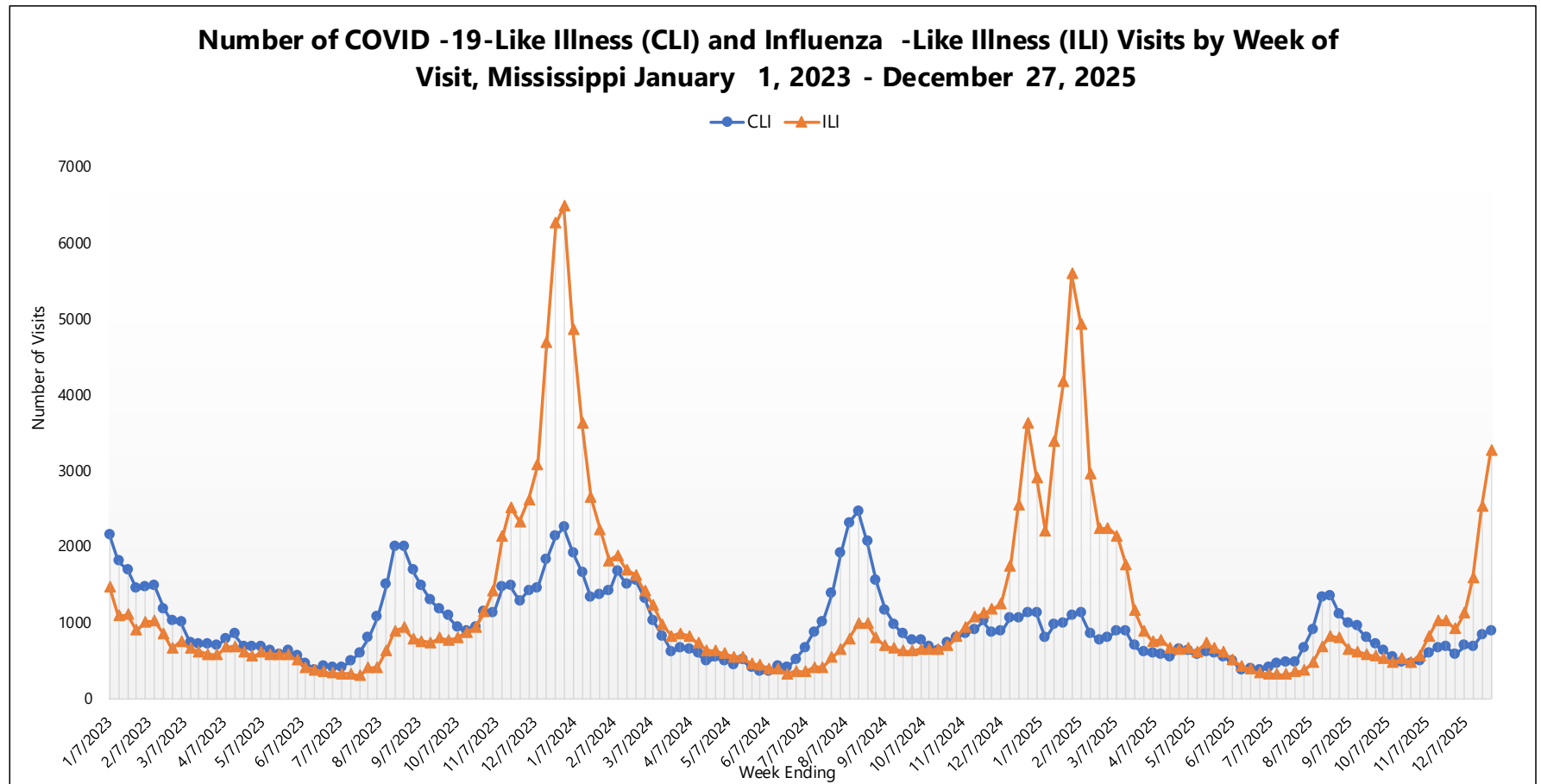


Figure 6

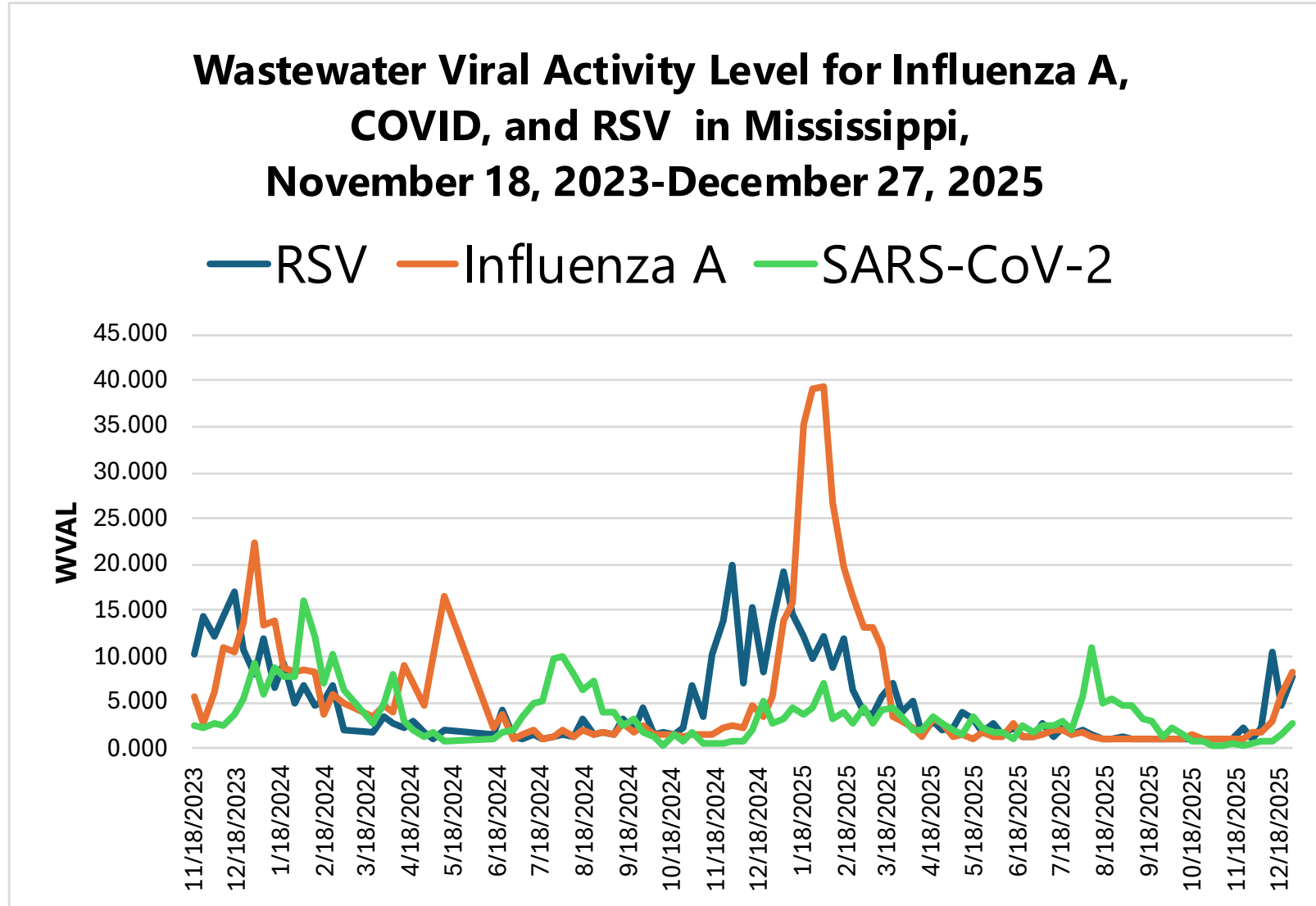


Figure 7

**Number of Reported Influenza Outbreaks by Influenza Type and Subtype by Onset Week, Mississippi, 2025-2026 Flu Season
(N = 5)**

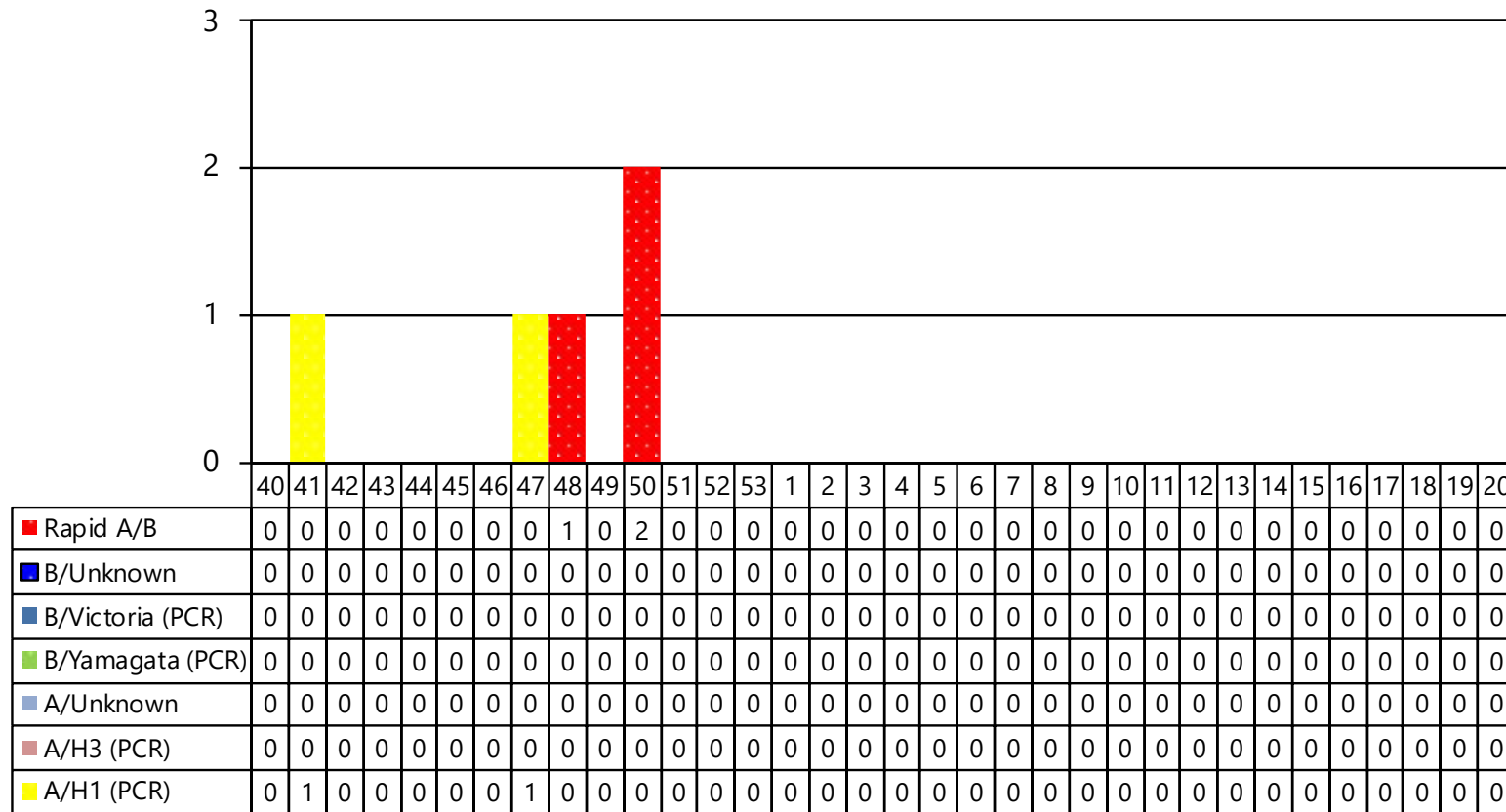


Figure 8

**Number of Reported COVID Outbreaks by Onset Week, Mississippi,
2025-2026 Flu Season
(N = 78)**

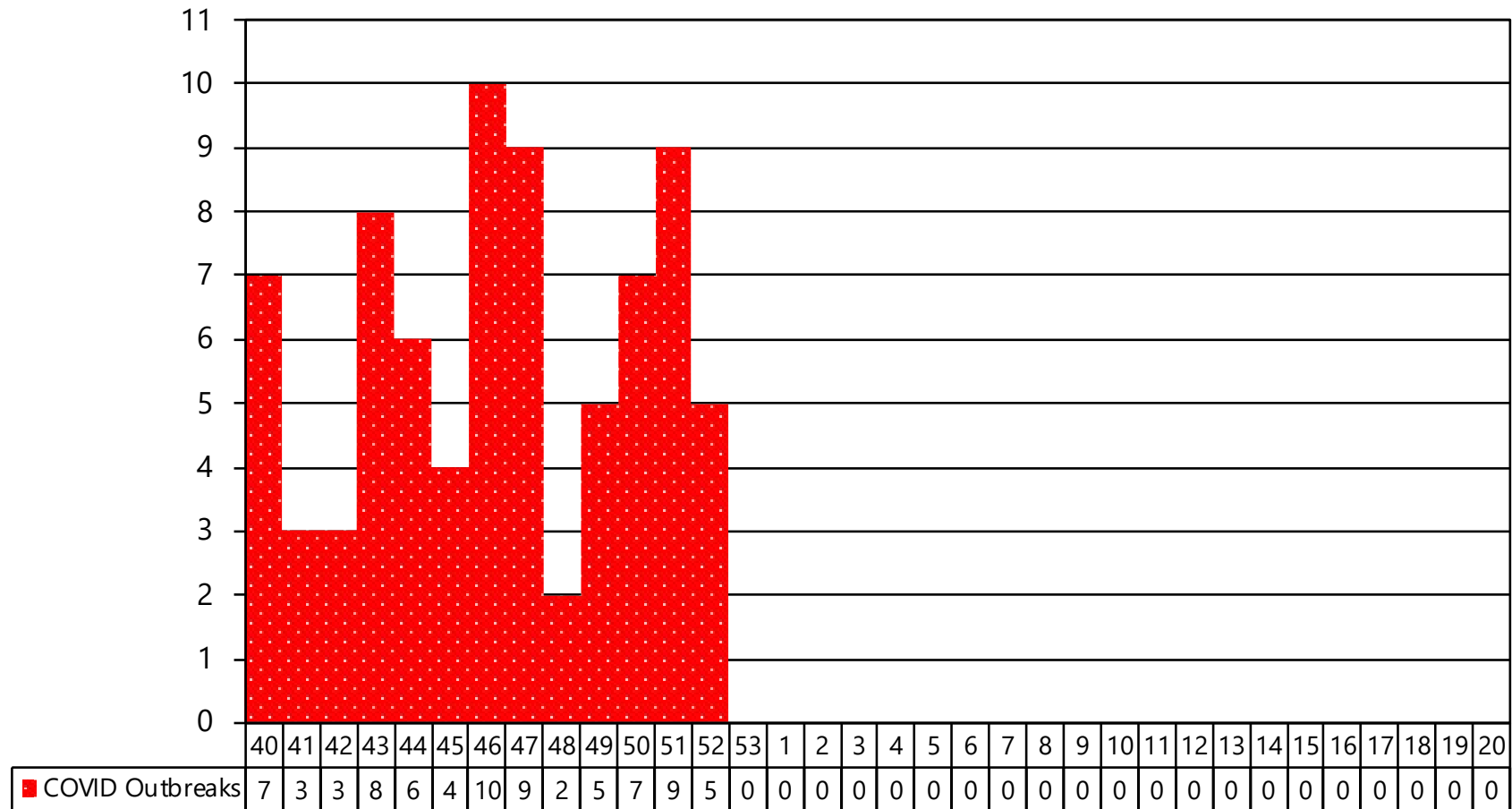


Figure 9

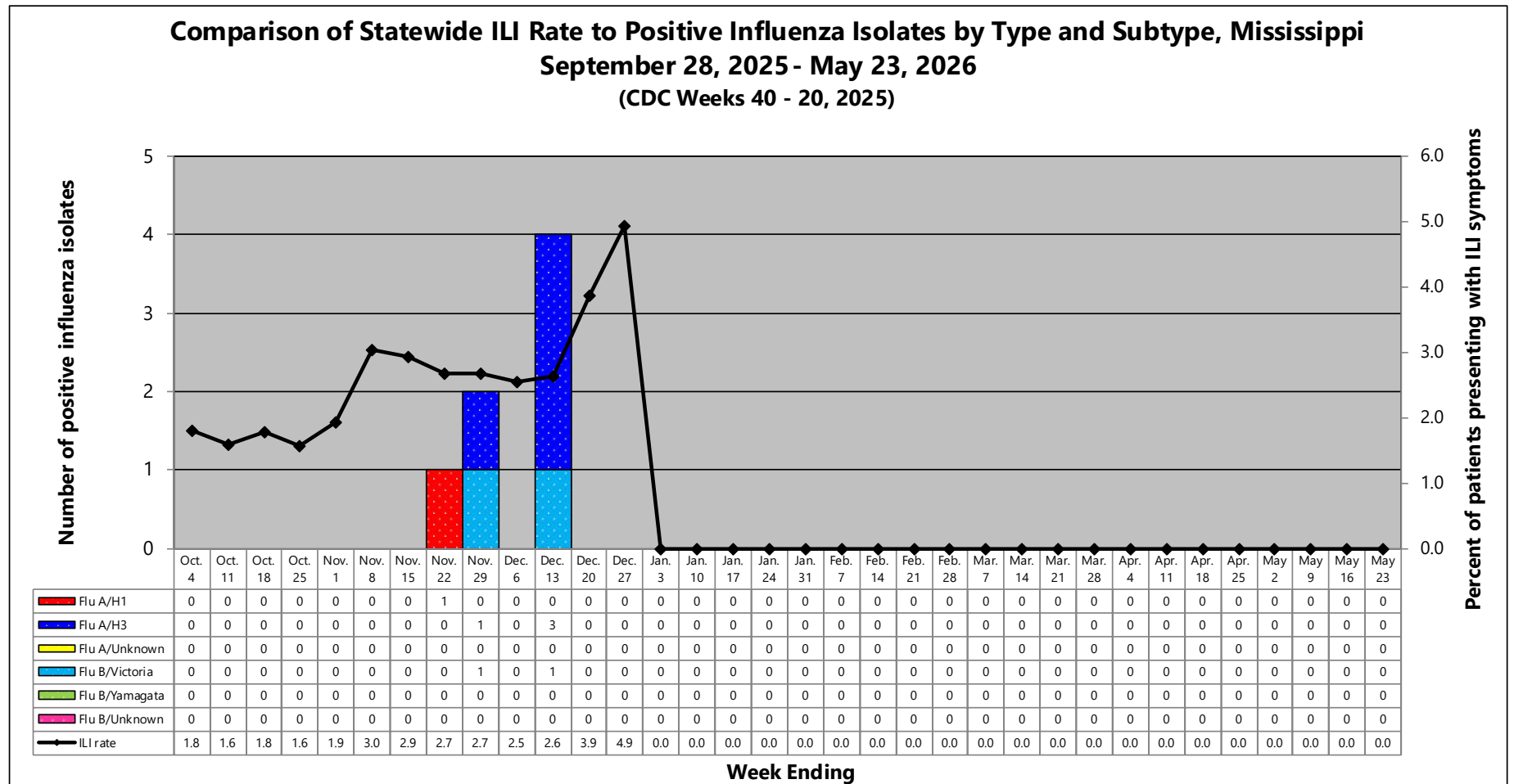
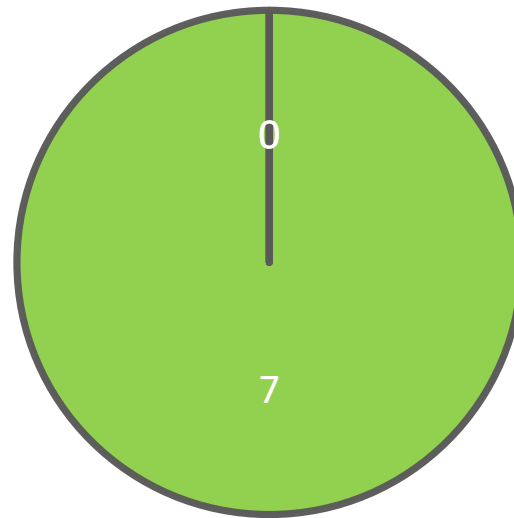


Figure 10

Hospitalization Status of Positive Influenza Cases, Mississippi, September 28, 2025-December 27, 2025



■ Hospitalized ■ Not Hospitalized ■ Unknown

Figure 11

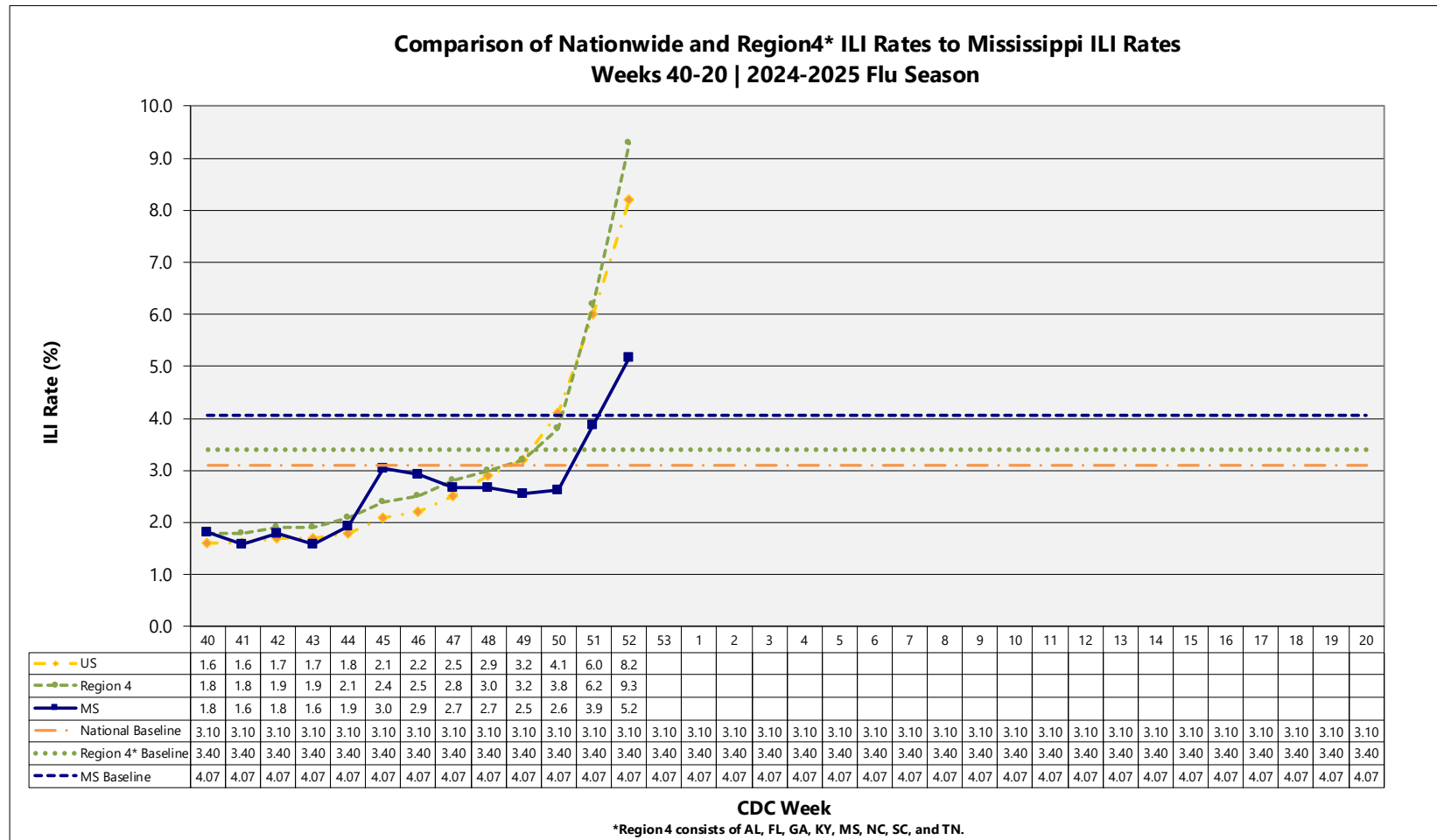


Figure 12

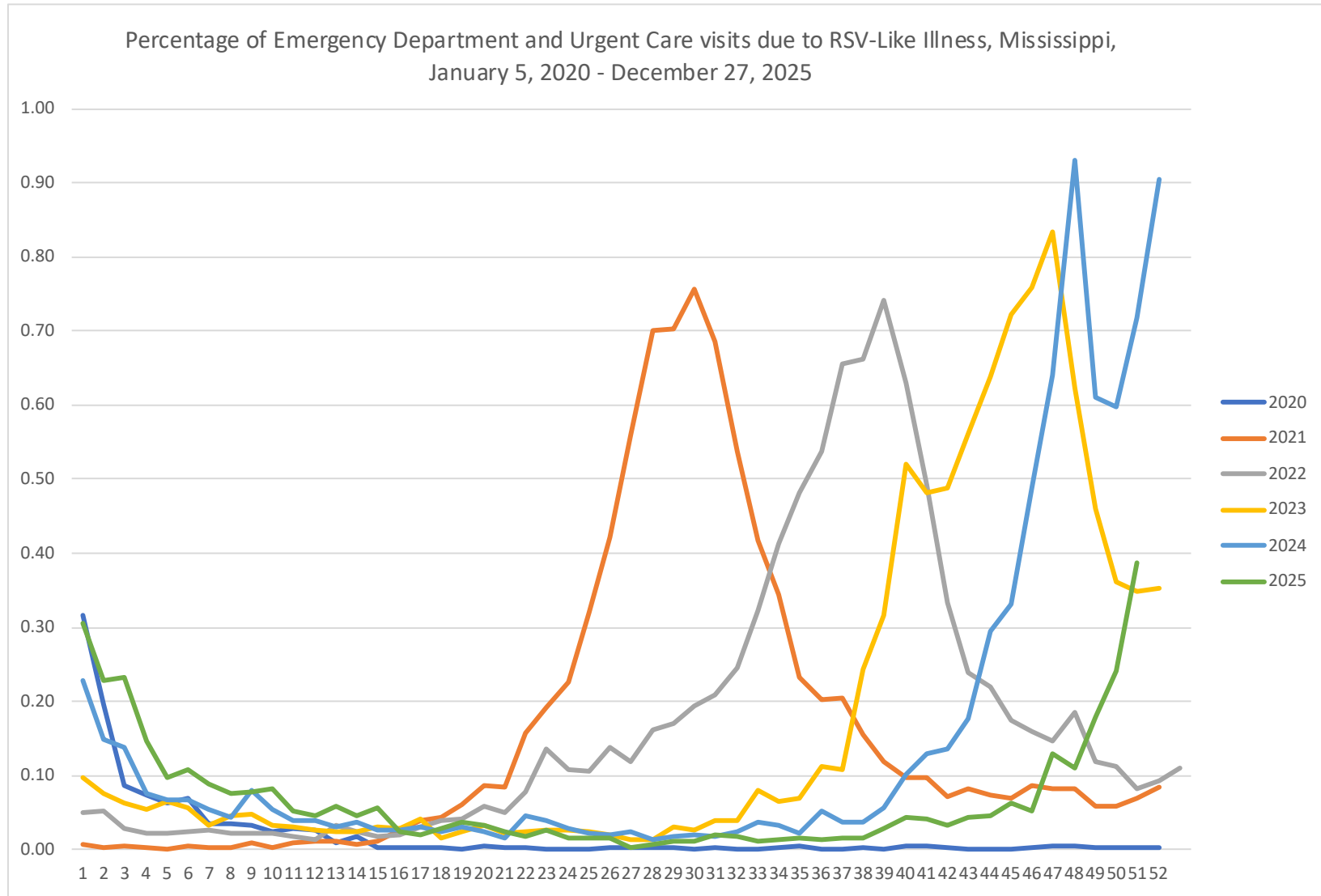


Figure 13

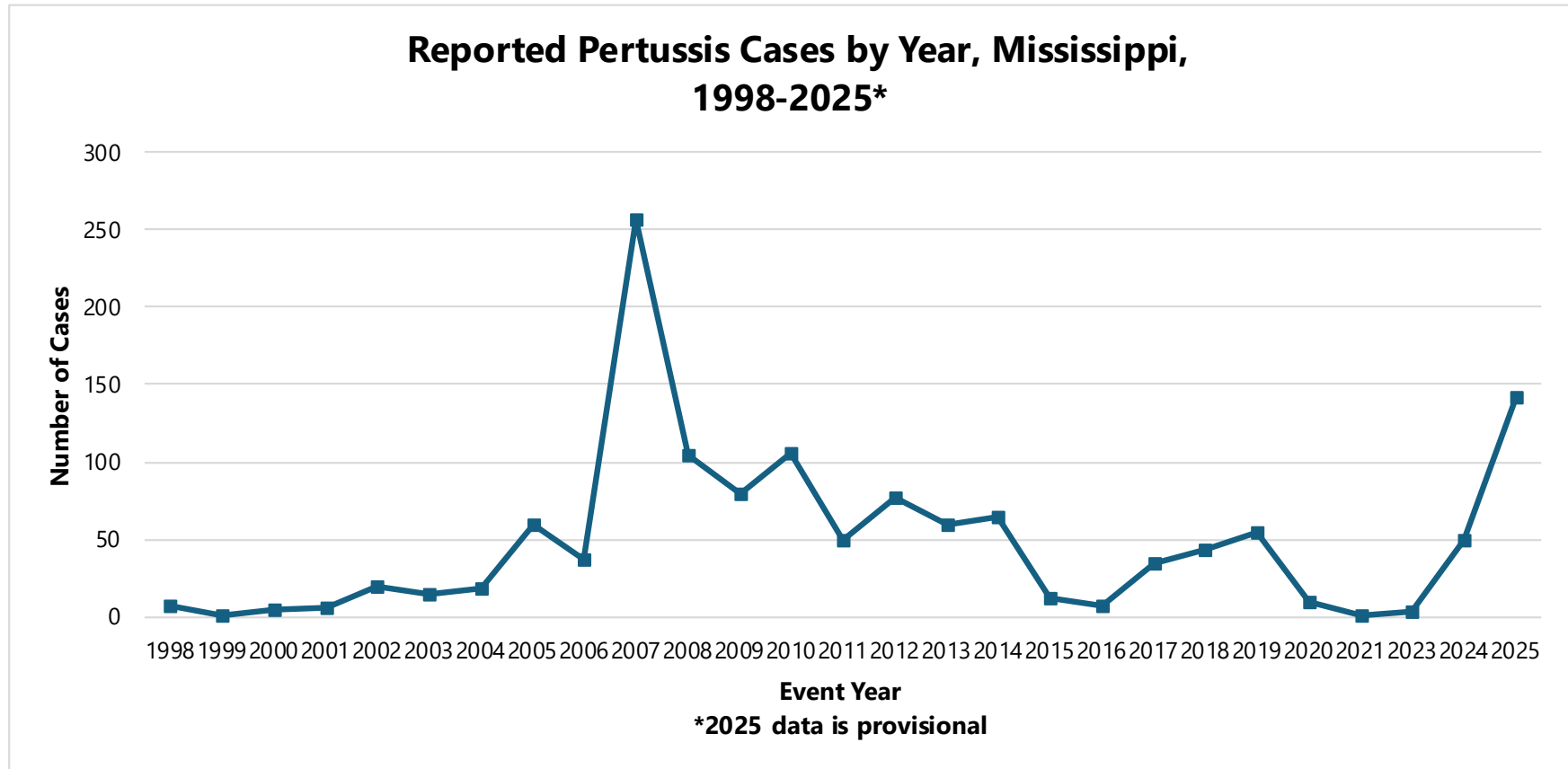


Figure 14

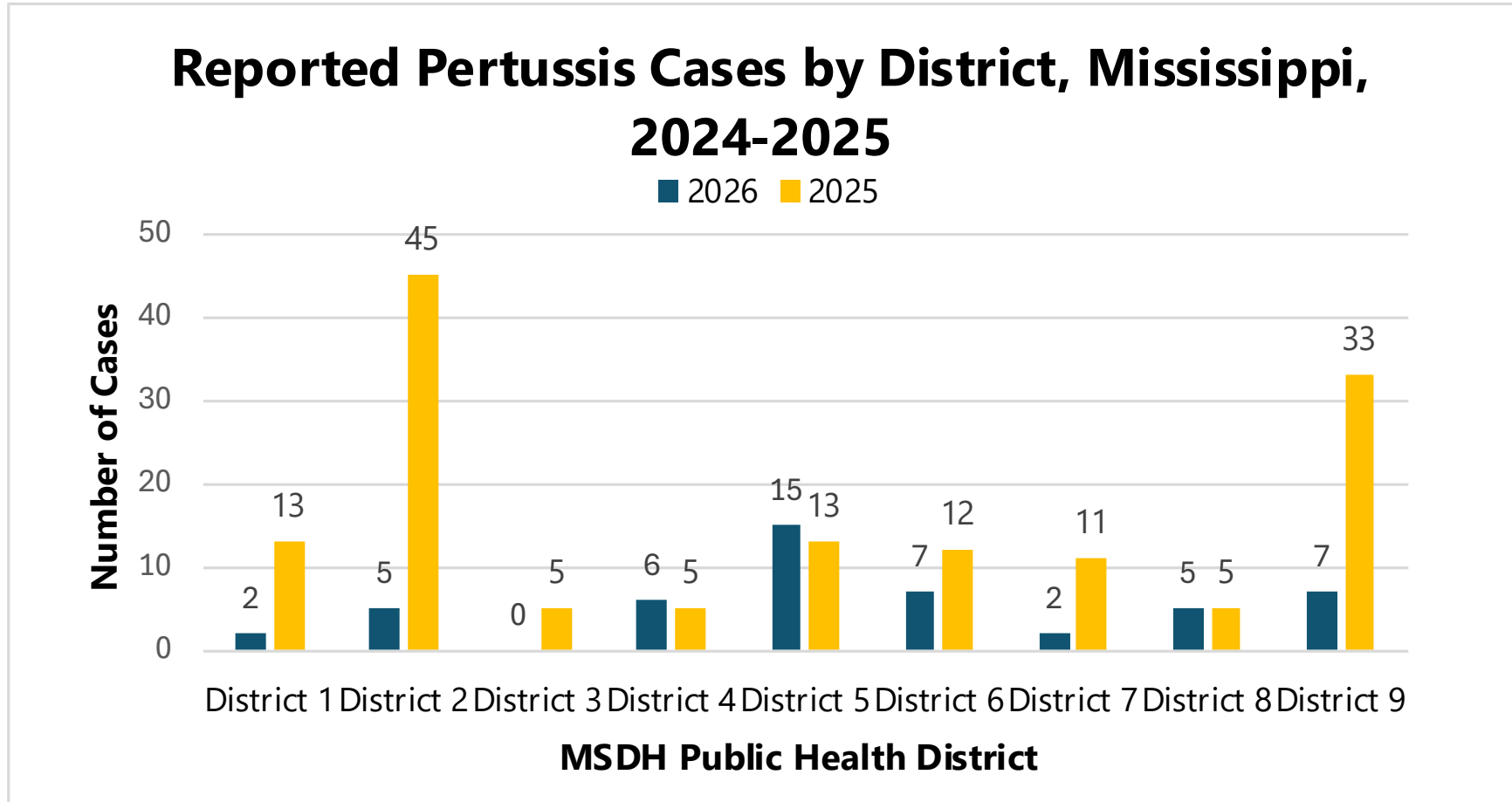


Figure 15

Reported Pertussis Cases with Pertussis Vaccination by Age Group, Mississippi, 2025*

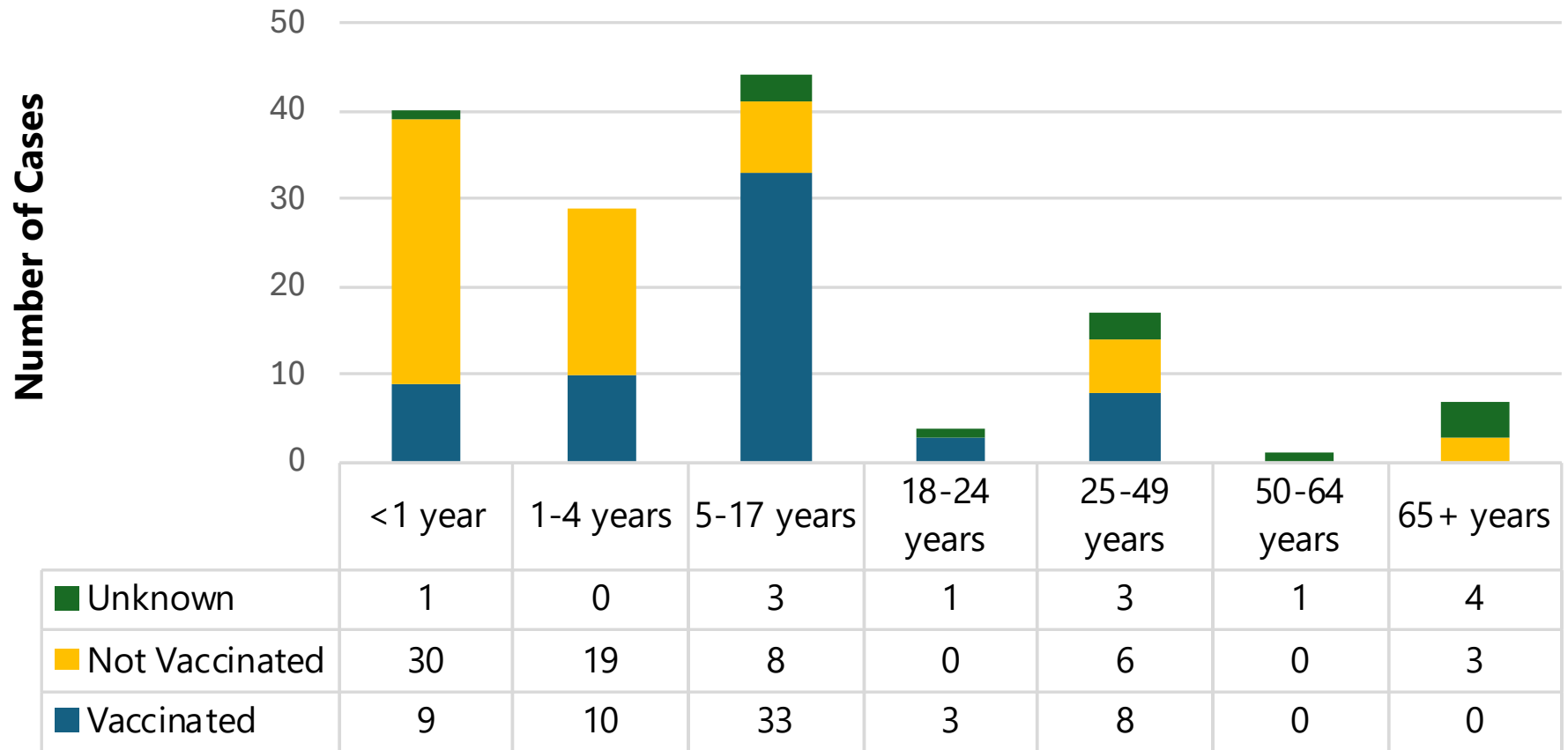
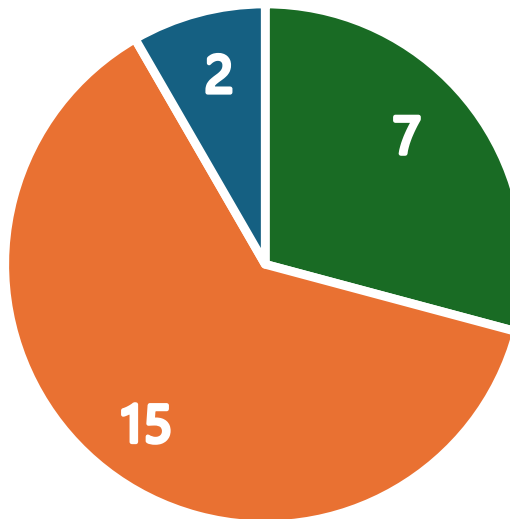


Figure 16

Vaccination Status of Hospitalized Pertussis Cases, Mississippi, 2025*



■ Vaccinated ■ Not Vaccinated ■ Unknown

Figure 17

