



2026-2027 Respiratory Surveillance Report

Week 40

Oct. 4 – Oct. 10, 2026

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”). Thus far in 2026 in comparison to last year, cases have decreased. Pertussis is a Class 1A vaccine-preventable reportable disease, and MSDH attempts to interview every reported case within 24 hours of receipt.

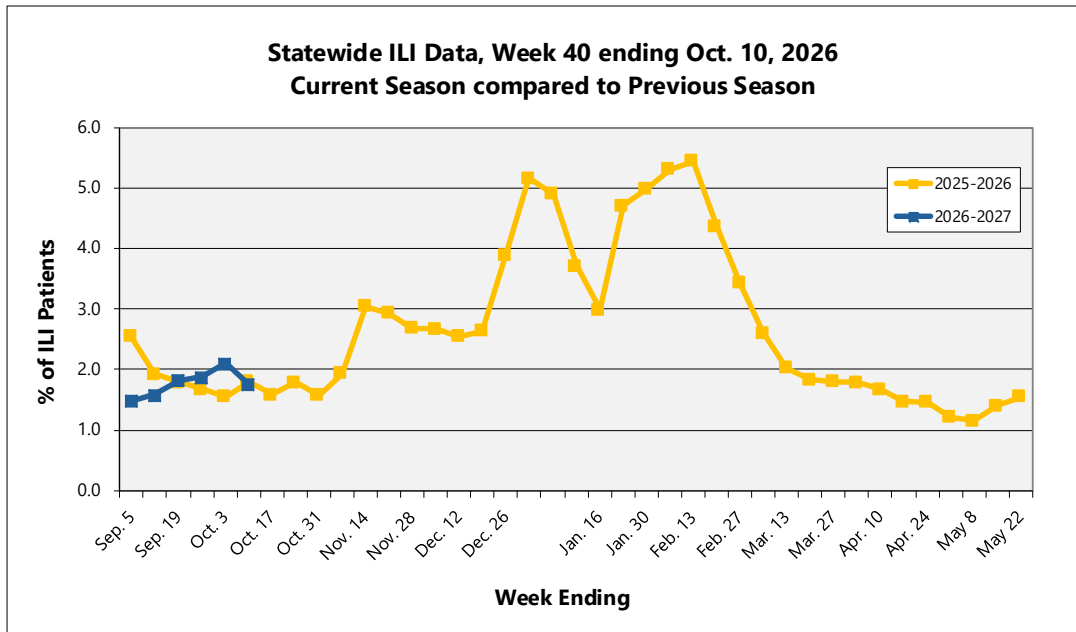
Information contained within this report is provisional and may change depending on additional reporting from sentinel providers and surveillance sources. The influenza reports represent only the distribution of flu in the state, not an actual count of all flu cases statewide.

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State ILI Surveillance

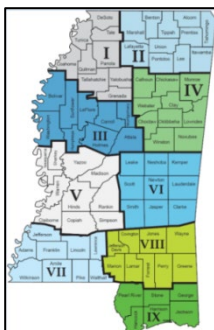


During week **40** (10/4/26-10/10/26), the overall state ILI rate (**1.8%**) **decreased** from the previous week (**2.1%**) and is equal to this time last year (**1.8%**). | [Figure 1](#)

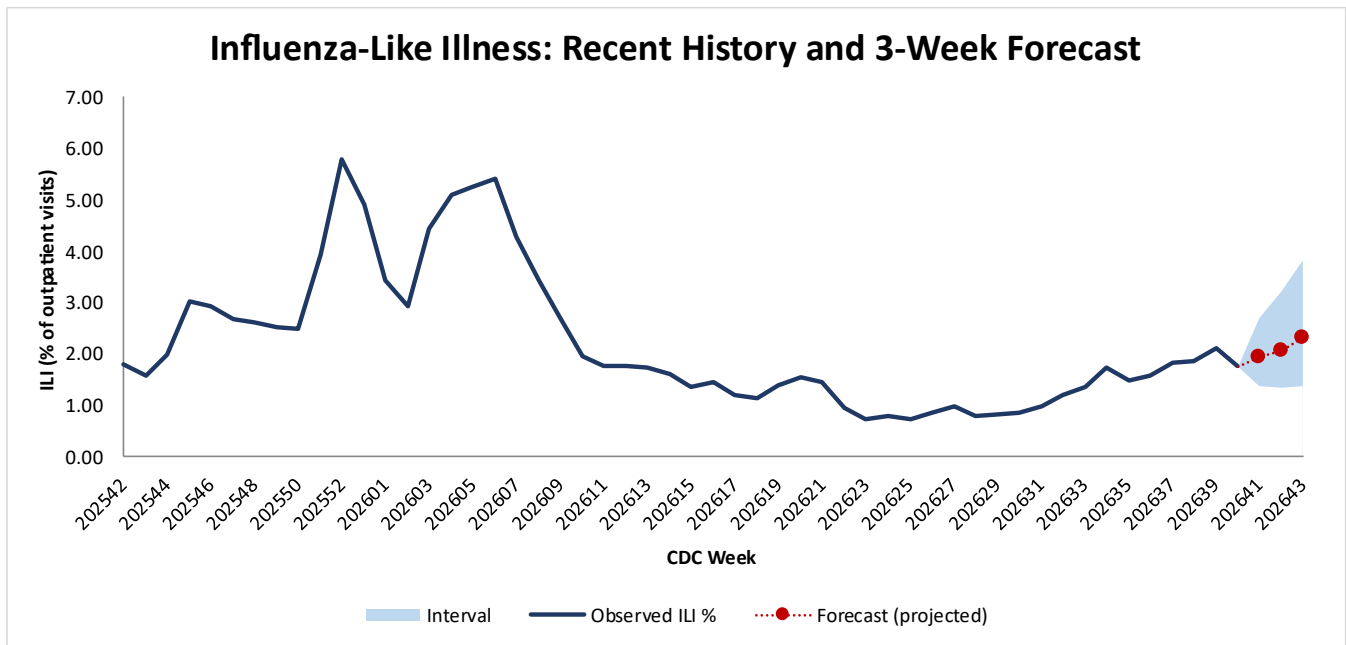
Total number of patients treated by sentinel providers in the last three weeks | **Table 1**

2026-2027 Influenza Season					
CDC Week	Week Ending	Number of reports received from Sentinel Providers	Total patients	ILI symptoms	ILI Rate (%)
40	Oct. 10	60	15578	274	1.8
39	Oct. 3	59	14740	310	2.1
38	Sept. 26	60	16064	301	1.9

During week **40**, two districts (3 and 7) had an increase in ILI activity. Three districts (2, 6, and 9) had a decrease. Four districts (1, 4, 5, and 8) remained constant. *Information is provisional only and may change depending on additional reporting from sentinel providers.* | **Table 2**



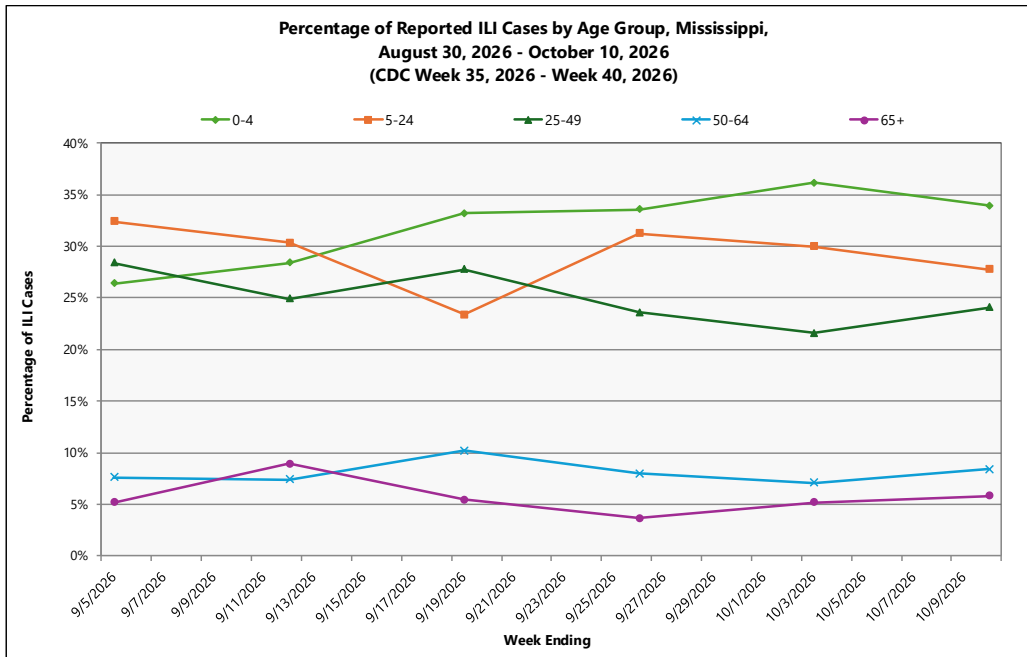
MSDH District ILI Rates (%) 2026-2027		
District	Week 39	Week 40
State	2.1	1.8
I	1.0	1.1
II	3.4	2.3
III	5.8	9.8
IV	3.0	2.7
V	0.6	0.5
VI	4.6	3.1
VII	2.8	3.8
VIII	1.4	1.0
IX	2.4	1.5



The current activity level is **low**. It is projected **low** in 3 weeks, with an increase. [Figure 2](#)

The solid line shows the percentage of visits to participating Mississippi outpatient clinics that were for influenza-like illness, week by week. The dashed line and circles on the right are not reported data. They are a projection of where that percentage may go over the next three weeks, and the shaded band around them shows the range in which the actual value is expected to fall.

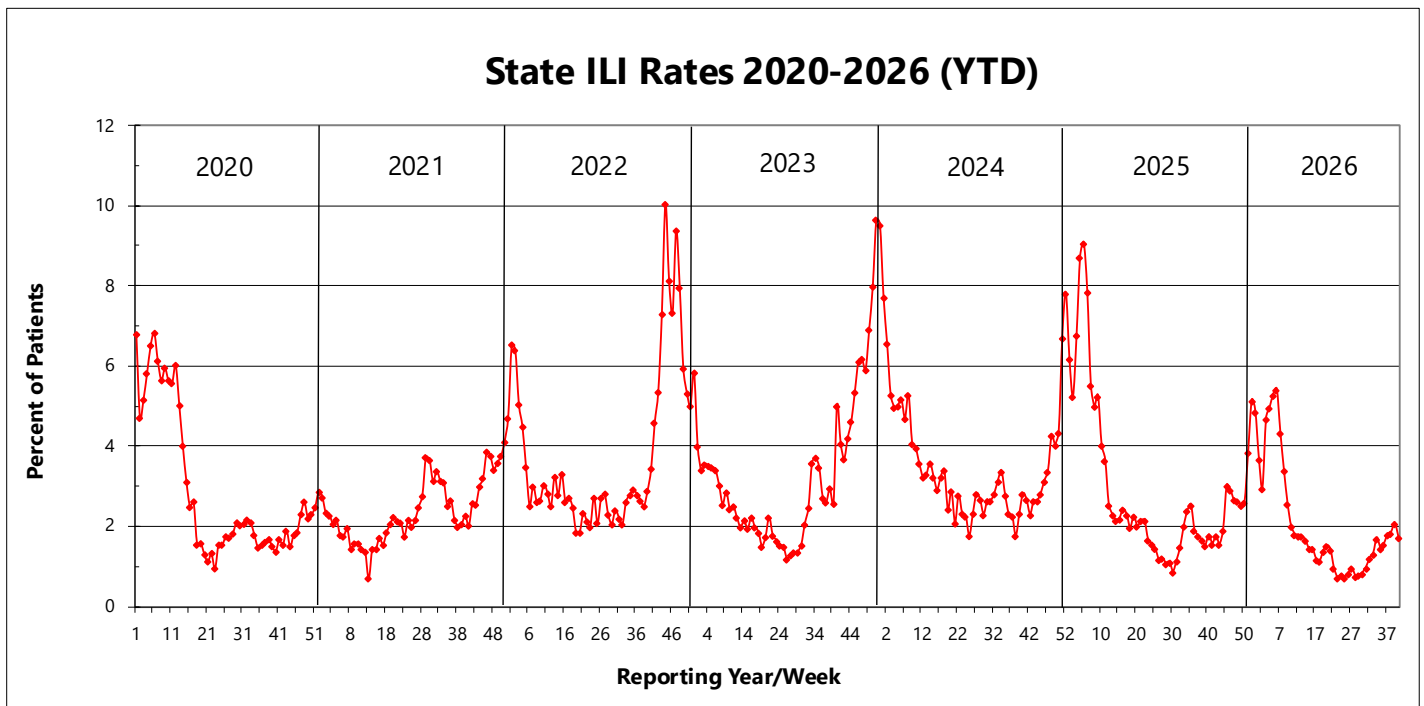
The forecast comes from a statistical model that compares current activity with how ILI has behaved at the same point in past seasons since 2010, then extends that pattern forward. Tested against past seasons, the one-week projection has been off by about 0.4 percentage points on average and the three-week projection by about 0.7, and the actual value has fallen inside the shaded band about 94 percent of the time. The model has no information about which influenza strains are circulating, how well this season's vaccine matches them, school calendars, or holiday travel. It should be read as the most likely continuation of the current pattern rather than a prediction of what will happen, and an unusual season is when the actual value is most likely to land outside the band. The most recent weeks are still being reported and are routinely revised for several weeks afterward. Both the reported percentage and the projection built on it may change.



Overall, the percentage of reported ILI cases has been highest among those in the **0-4 years** of age group. During week **40**, the percentage of ILI cases in the 25-49, 50-64, and 60+ years of age groups increased.

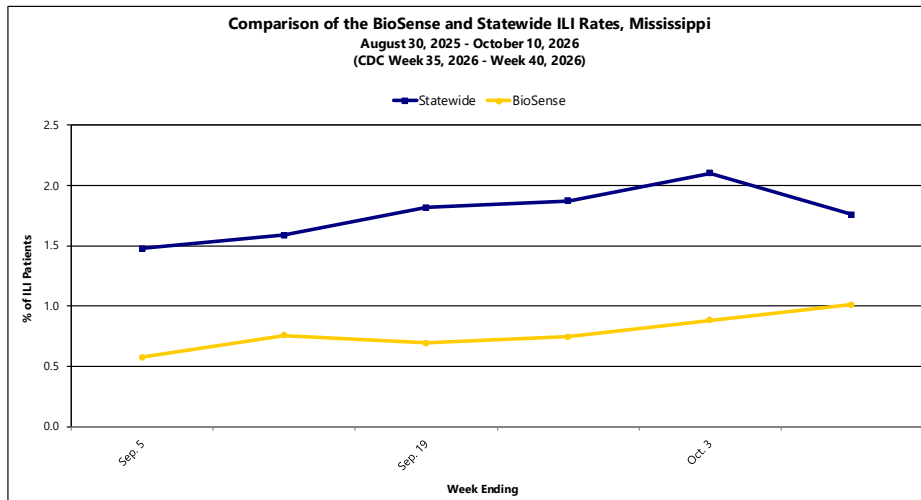
The percentage of ILI cases decreased in the 0-4 and 5-24 years of age groups when compared to the previous week. | [Figure 3](#)

Mississippi ILI Rates 2020-2026 | [Figure 4](#)



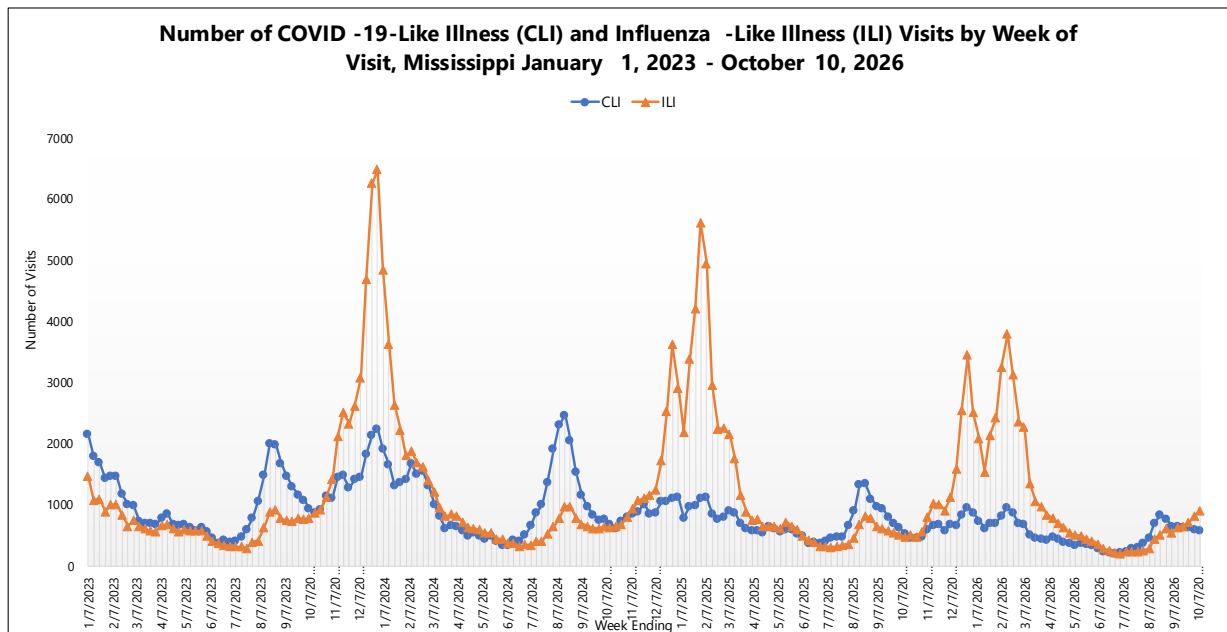
Syndromic Surveillance

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 **40** increased when compared to the previous week, while the statewide ILI rate decreased.

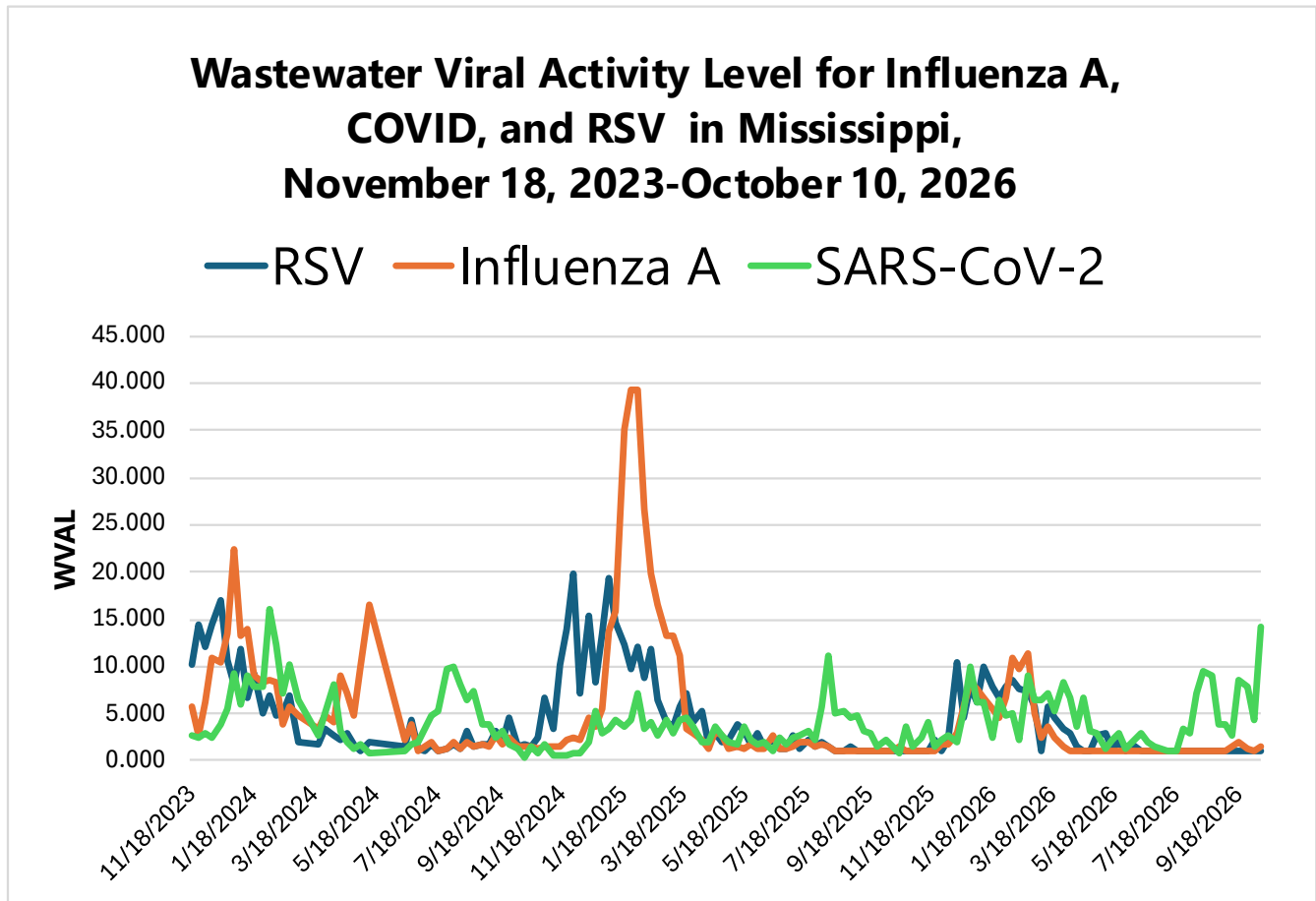
Figure 5



The number of patients with a chief complaint or diagnosis of COVID-like illness during week **40** decreased when compared to the previous week and is lower than influenza-like illnesses. | **Figure 6**

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 and Influenza A, and consistency with RSV. | [Figure 7](#)

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.

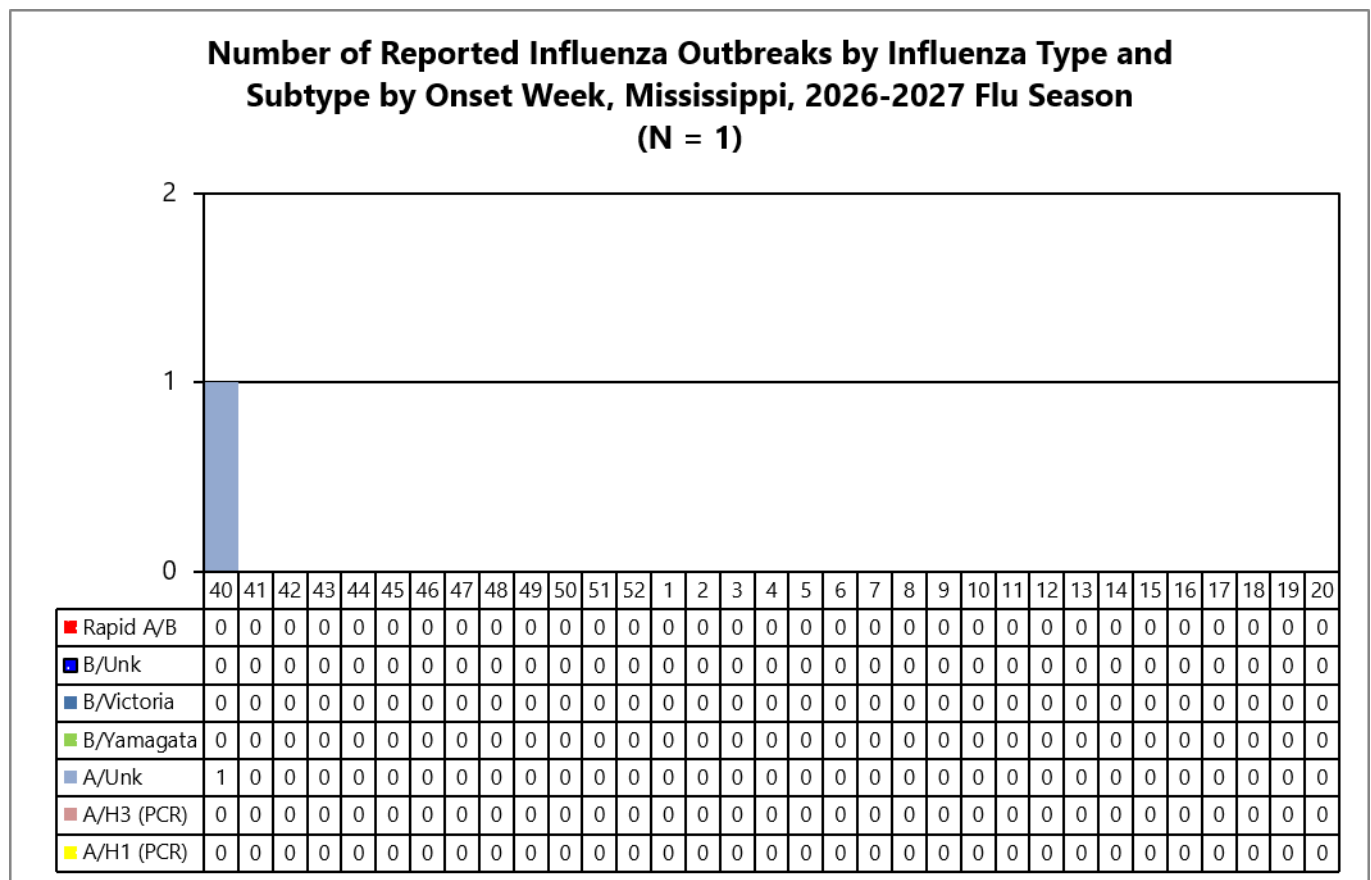
Respiratory Outbreaks

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](#).

During week 40 (starting October 4 and ending October 10, 2026), one influenza outbreak was reported to MSDH. MSDH investigates all reported outbreaks, and complete information is available for this outbreak. This outbreak was attributed to an influenza A virus with an unknown subtype.

Through week 40, within the reported outbreak, the overall vaccination rate among facility residents was 64%, and among staff members, 0%. In addition, the percentage of residents that were ill due to influenza was 12%, and among staff members, 0%. The percentage of residents that were hospitalized due to influenza was 0%, and among staff members, 0%.

Influenza outbreaks have occurred in the following county: Alcorn (1). | [Figure 8](#)

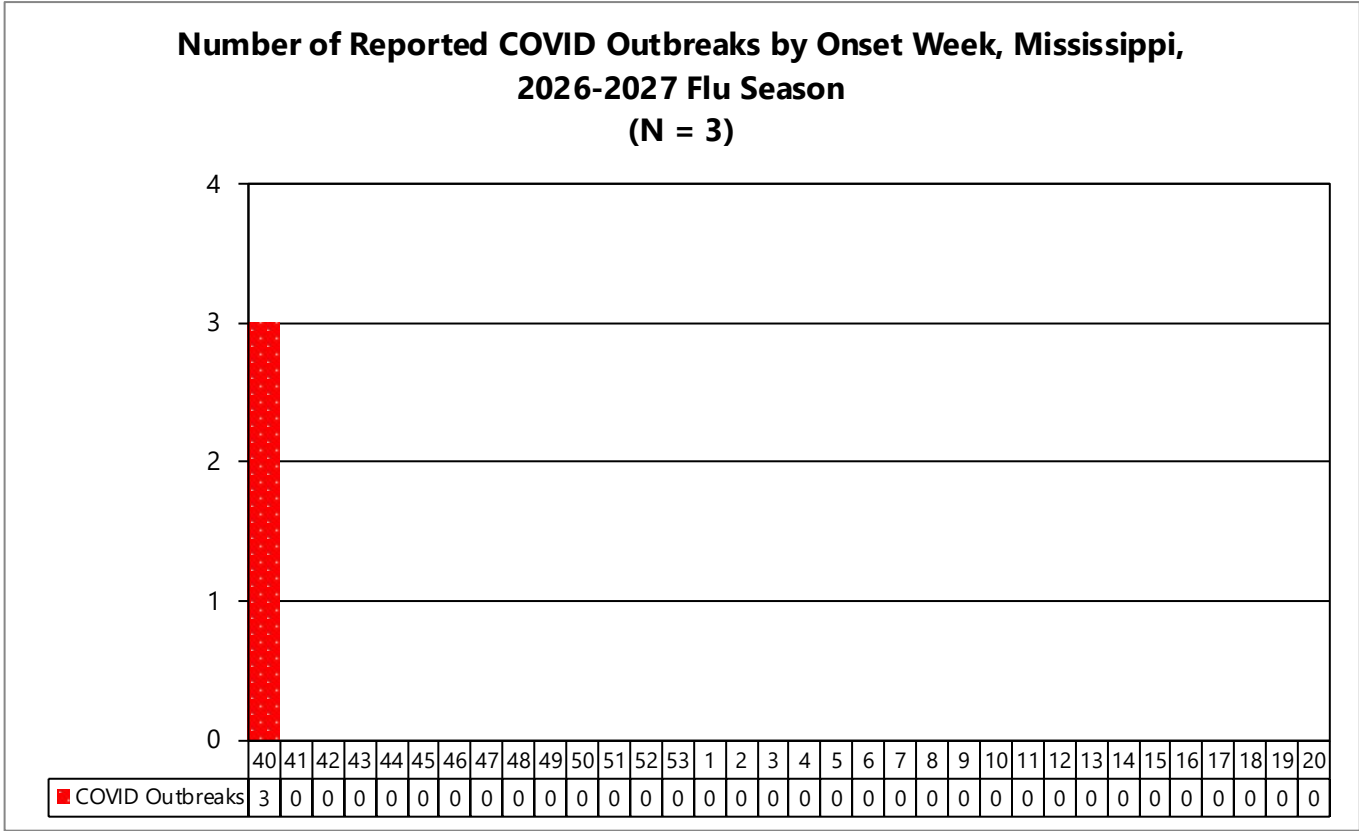


For additional information on infection control measures in health care facilities and managing influenza outbreaks in long-term care facilities, please refer to the CDC's webpages:

<https://www.cdc.gov/flu/professionals/infectioncontrol/index.htm> and <https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>, respectively.

2026 – 2027 Influenza Season | Week 40 Respiratory Surveillance Report| Oct. 4-Oct. 10, 2026
During week 40 (starting October 4 and ending October 10, 2026), 3 COVID-19 outbreaks were reported to MSDH. MSDH investigates all reported outbreaks.

COVID-19 outbreaks have occurred in the following counties: Alcorn (1), Newton (1), Pontotoc (1), Rankin (1), and Tallahatchie (1). | [Figure 9](#)



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

During week 40, (week ending October 10, 2026), no laboratory confirmed influenza samples were identified by the MSDH Public Health Laboratory. | [Figure 10](#)

No positive cases were identified; therefore, no hospitalizations occurred. | [Figure 11](#)

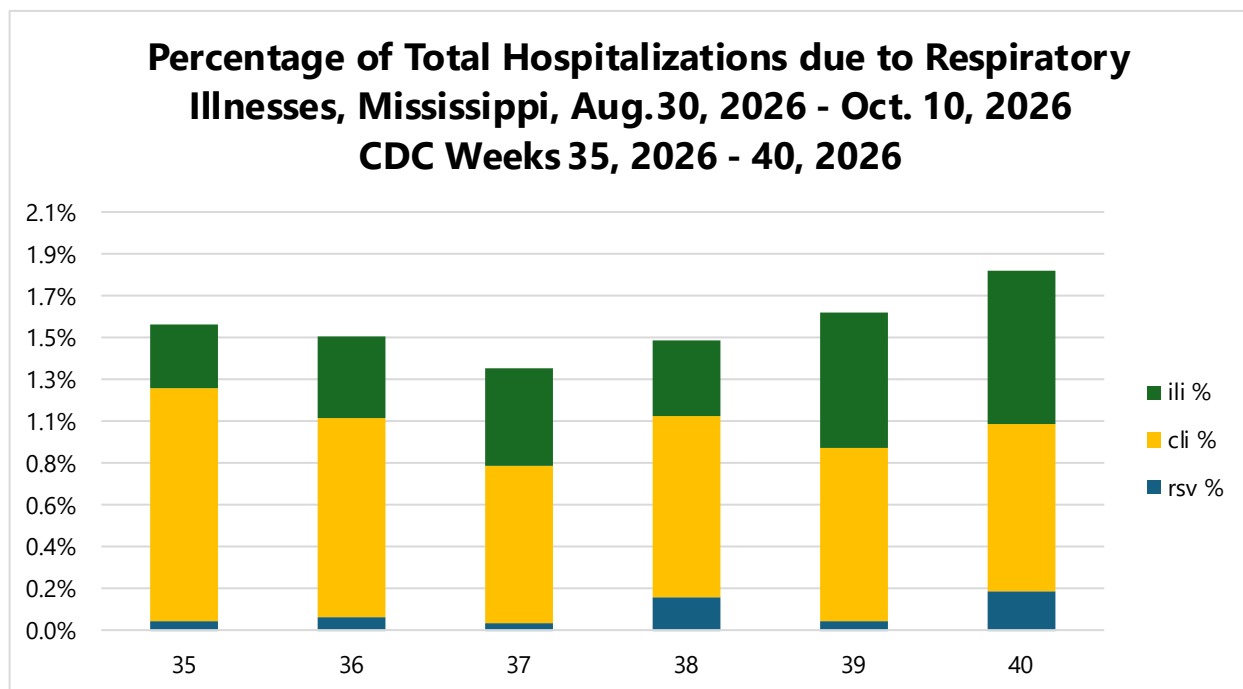
Hospitalizations due to Respiratory Illness

These data are obtained from CDC's ESSENCE platform, a syndromic surveillance system, which receives near-real-time electronic health record data from participating Mississippi healthcare facilities. Each bar shows the weekly percentage of [all hospital admissions] with a discharge diagnosis in one of three categories: influenza-like illness (ILI), COVID-like illness (CLI), or respiratory syncytial virus (RSV). Visits are categorized by chief complaint and discharge diagnosis codes by clinical terms drawn from CDC National Syndromic Surveillance Program definitions, not by laboratory confirmation.

NOTE: Outpatient ILINet reporting shows how many people are seeking care, and laboratory percent positivity shows which viruses are circulating, but neither measures severity.

The percentage of hospital admissions related to respiratory illness shows how much pressure the illness season is placing on hospitals. This information can help with hospital capacity planning, antiviral treatment guidance, and vaccination messages. Because syndromic data are reported daily, they can show changes sooner than laboratory results or mortality data.

Looking at all three measures together helps show what is driving illness when influenza, COVID-19, and RSV are circulating at the same time.



1.80% of hospitalizations are due to respiratory illness this past week. The percentage of ILI **increased**, CLI **decreased**, and RSV **increased**. | [Figure 12](#)

National and Mississippi Pediatric Mortality Surveillance

Nationally, **no** influenza-associated pediatric deaths occurring in the 2026-2027 season have been reported to CDC.

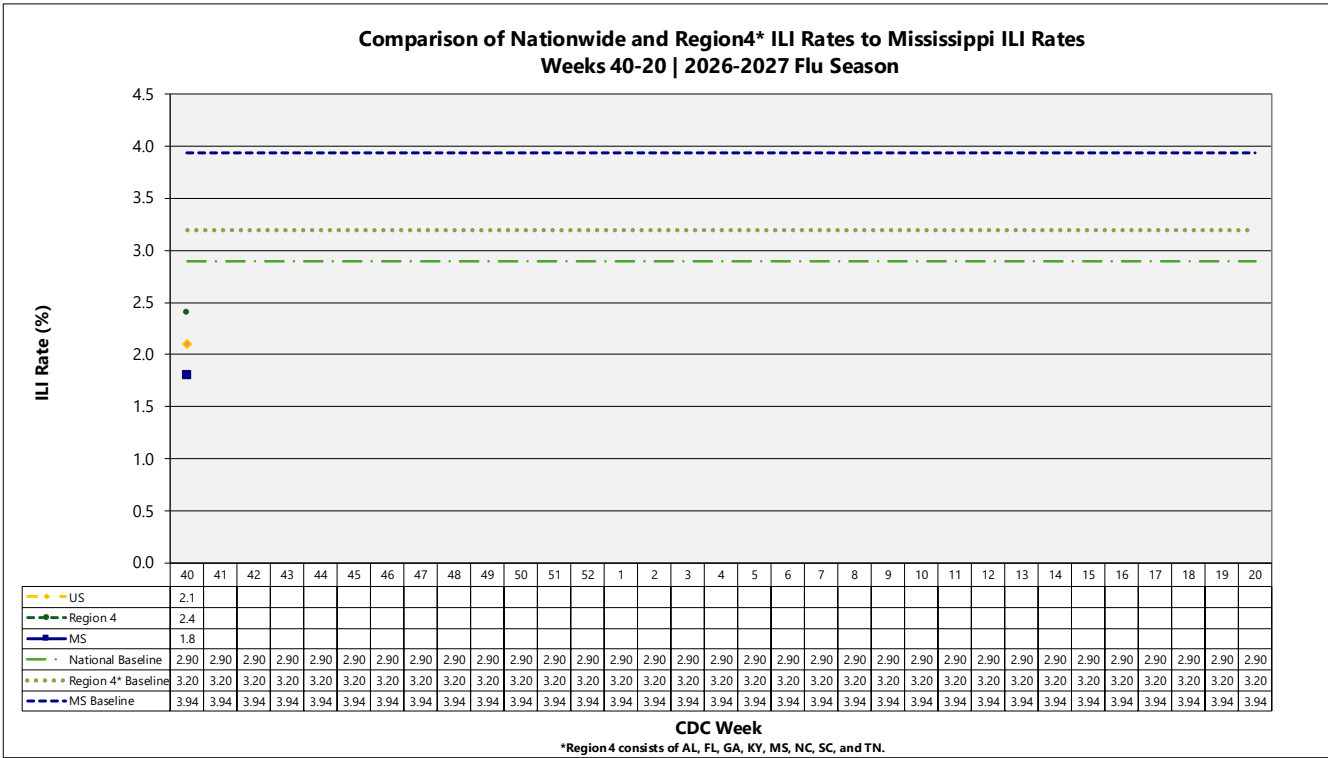
Mississippi has had **no** influenza-associated pediatric deaths reported during this influenza season.

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

National ILI Surveillance

During week 40, influenza activity increased in the United States. Of the patients reported through ILINet, 2.1% of patients reported with ILI symptoms. This was higher than week 39 and is below the national baseline.

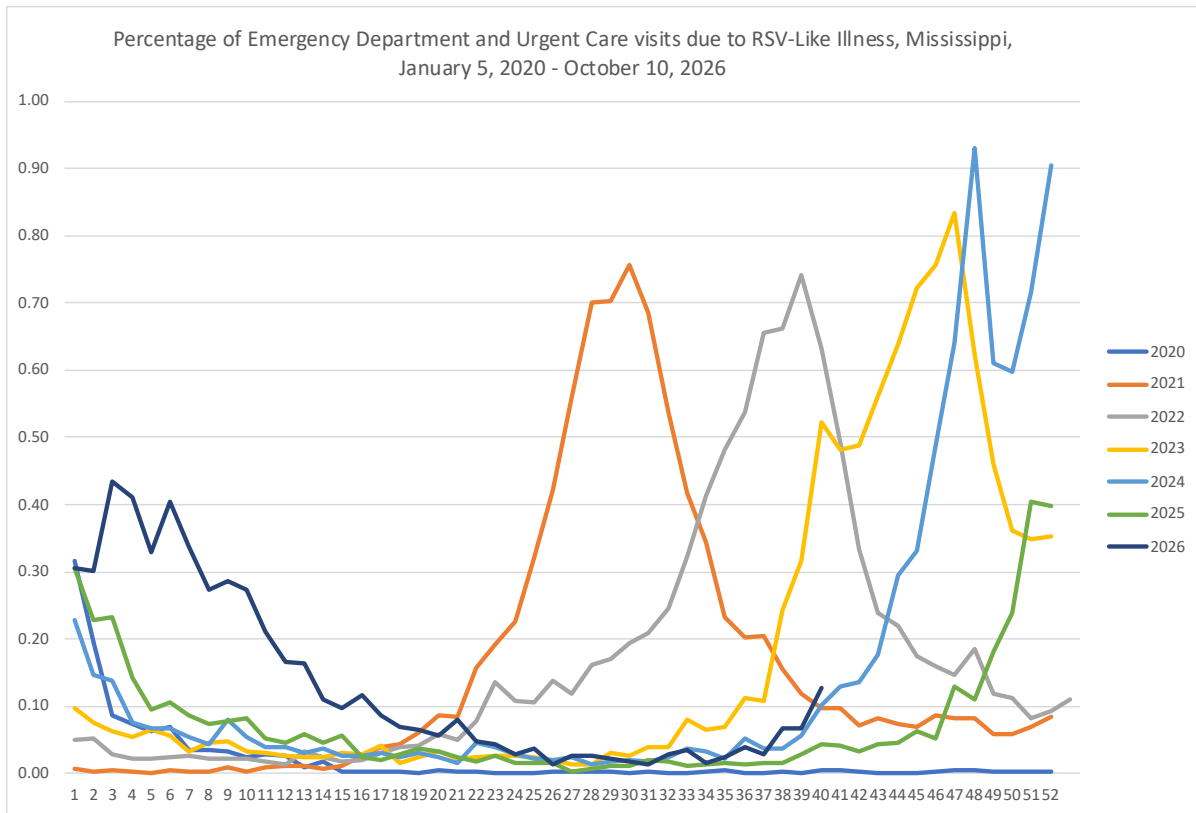
Region 4’s ILI rate (Southeast) increased when compared to the previous week. Mississippi is included in Region 4. | [Figure 13](#)



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.

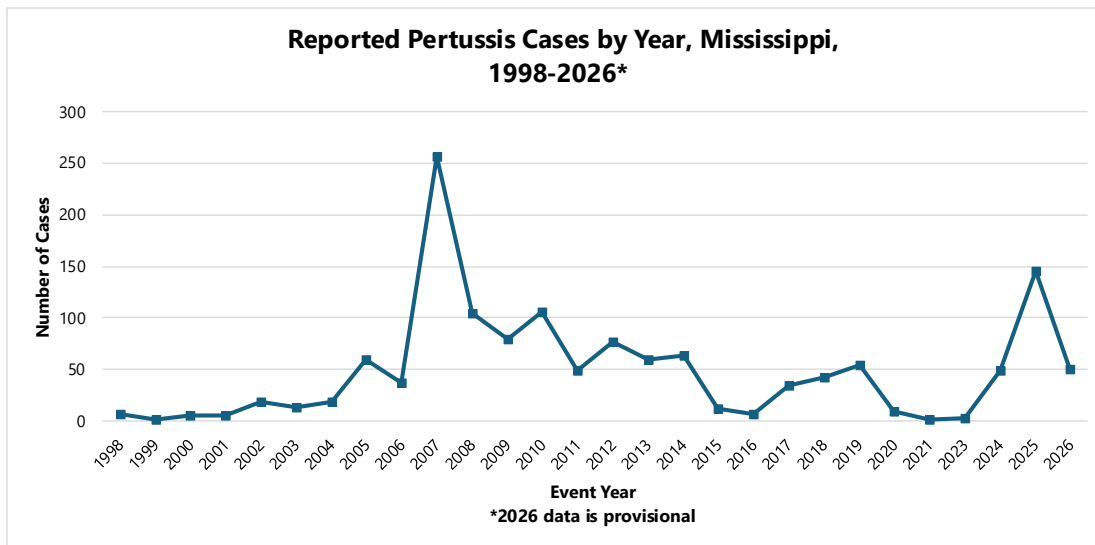


The percentage of patients with a chief complaint or diagnosis of RSV during week **40** increased when compared to the previous week. | [Figure 14](#)

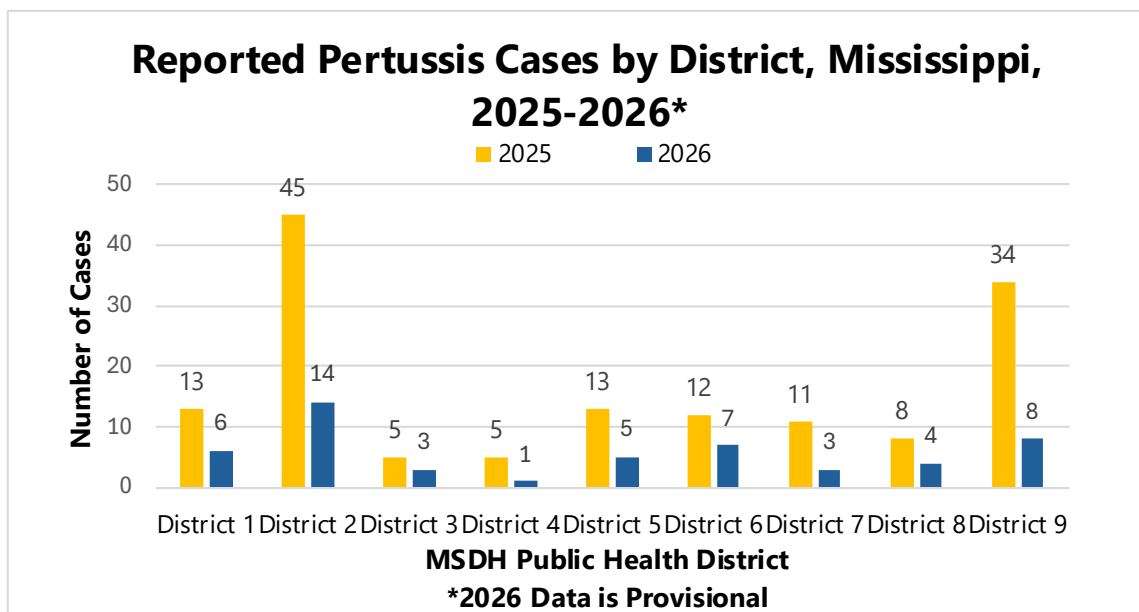
State Pertussis Surveillance

*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](#).*

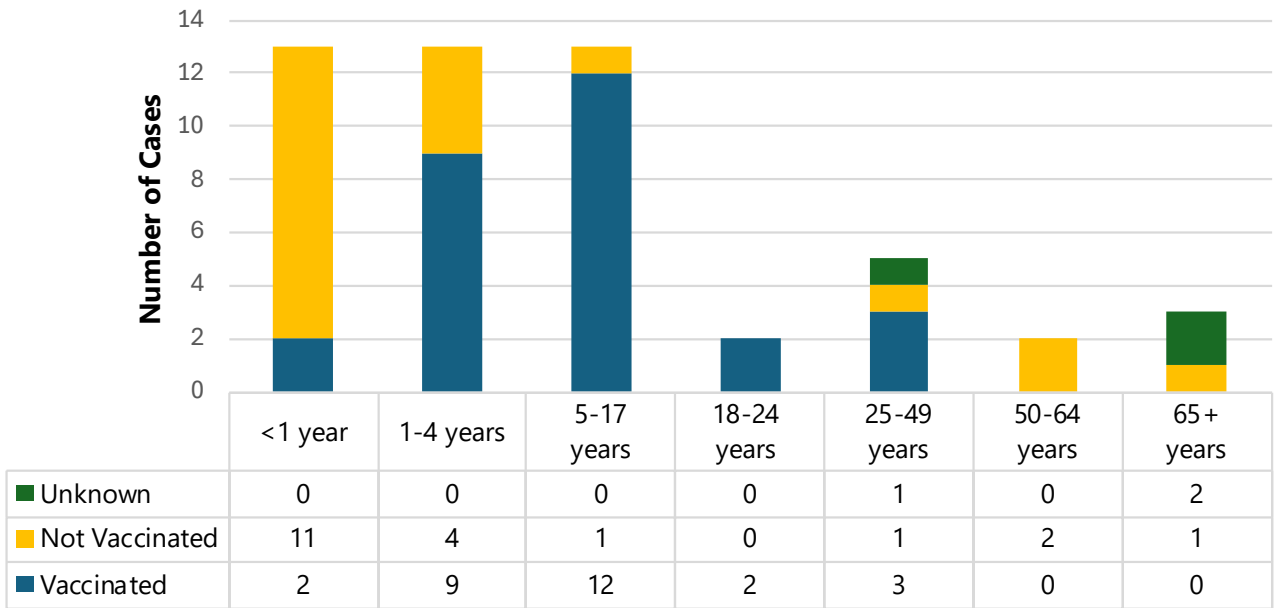


In 2026, **51** cases of pertussis have been reported, compared with 146 cases reported in 2025. | [Figure 15](#)



Districts **2, 6, and 9** have had the most reported cases in 2026 to date, with **14, 7, and 8 cases**, respectively. | [Figure 16](#)

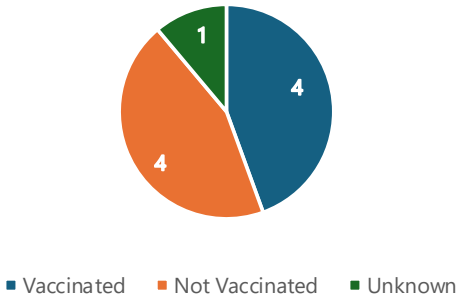
Reported Pertussis Cases with Pertussis Vaccination by Age Group, Mississippi, 2026*



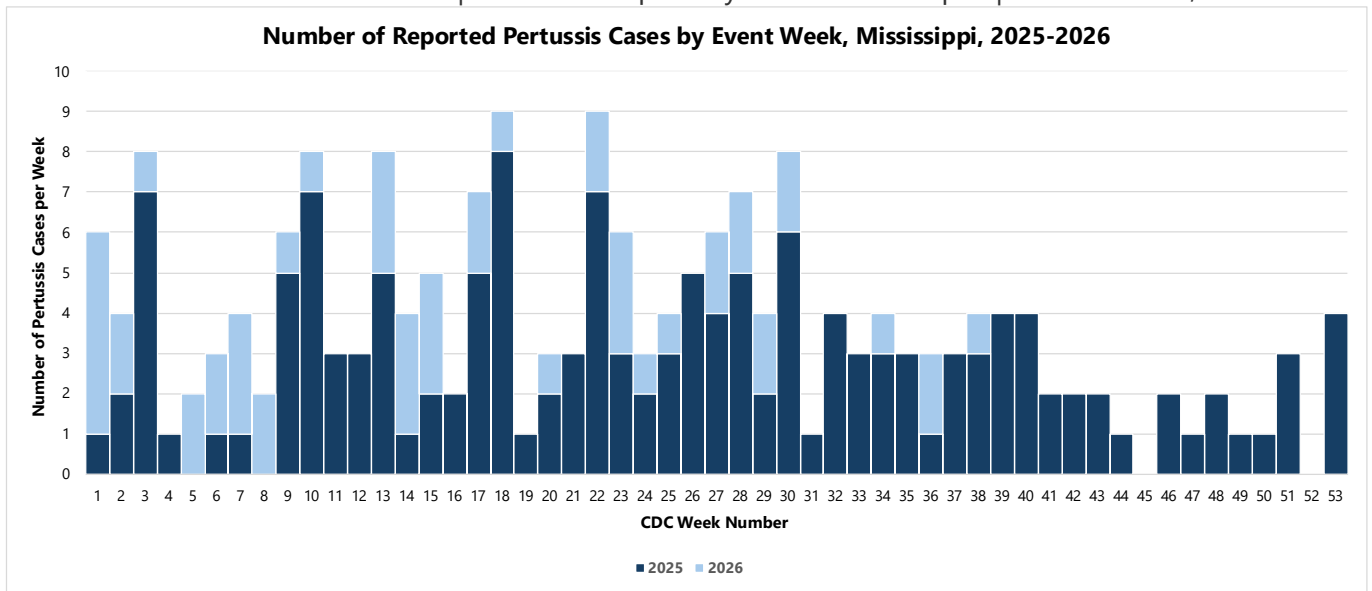
***2026 Data is Provisional**

Overall, the number of reported Pertussis cases has been highest among those in the **<1, 1-4, and 5-17 years** of age groups. In the less than one year old group, **5** of the unvaccinated children were less than 7 months of age, making them ineligible to have had all doses of pertussis-related vaccinations. | [Figure 17](#)

Vaccination Status of Hospitalized Pertussis Cases, Mississippi, 2026*



Of the 9 hospitalized Pertussis Cases, **4** (44%) of them have not been vaccinated, **4** (44%) have been vaccinated, and **1** (11%) has an unknown vaccination status. | [Figure 18](#)



There have been **fewer** reported Pertussis cases this week compared to last week, as well as less cases compared to this time last year (126). | [Figure 19](#)

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

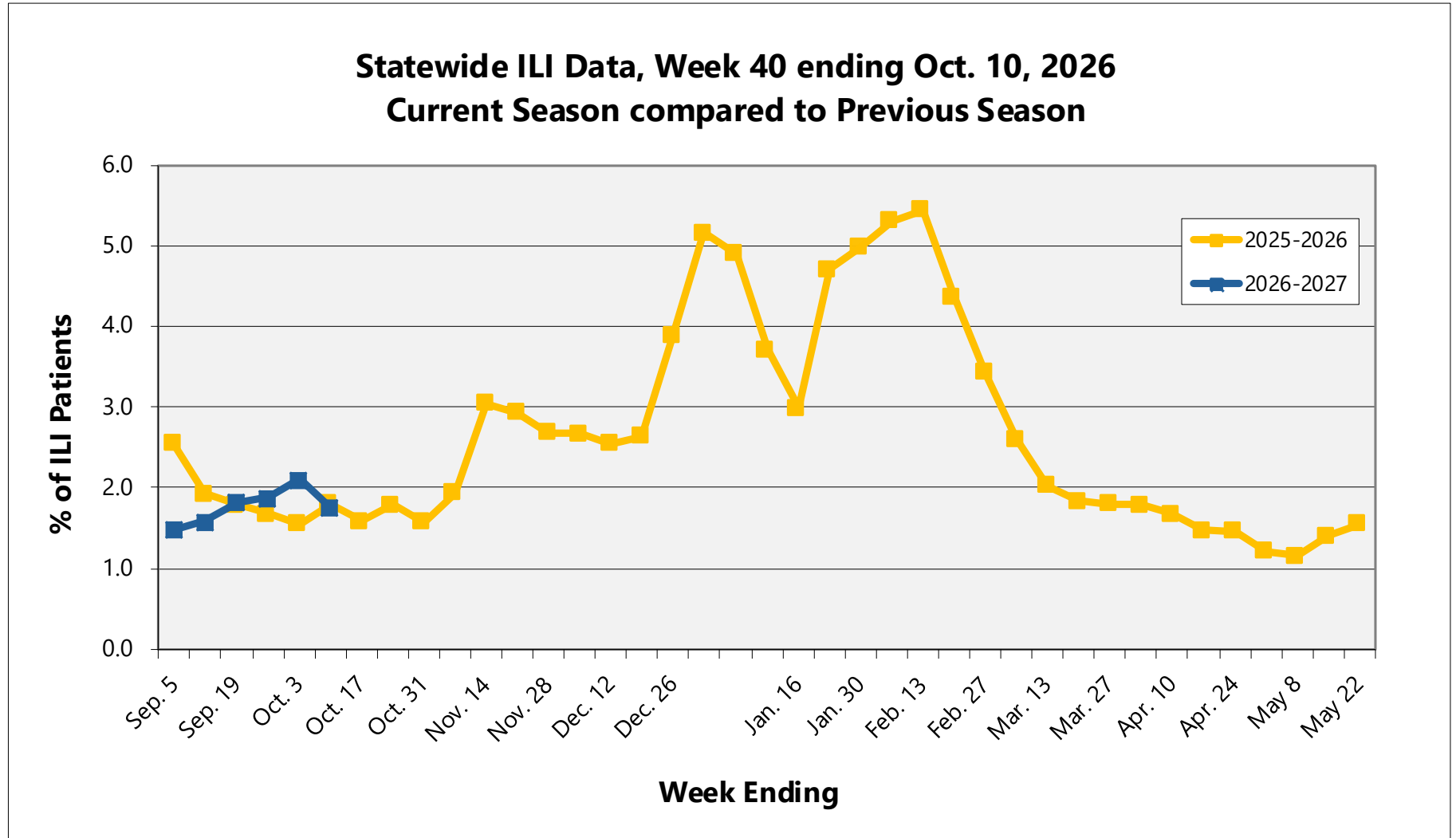


Figure 2

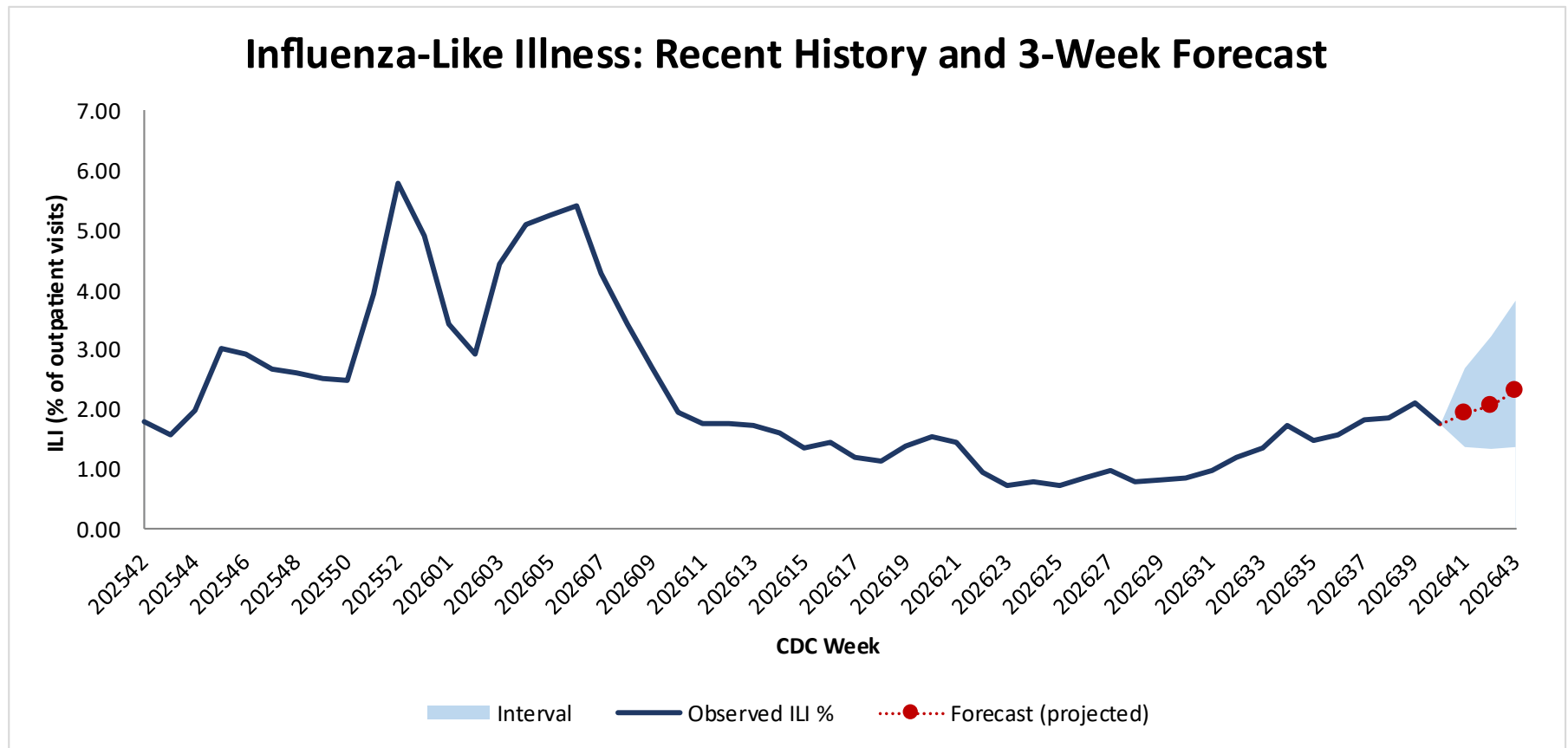


Figure 3

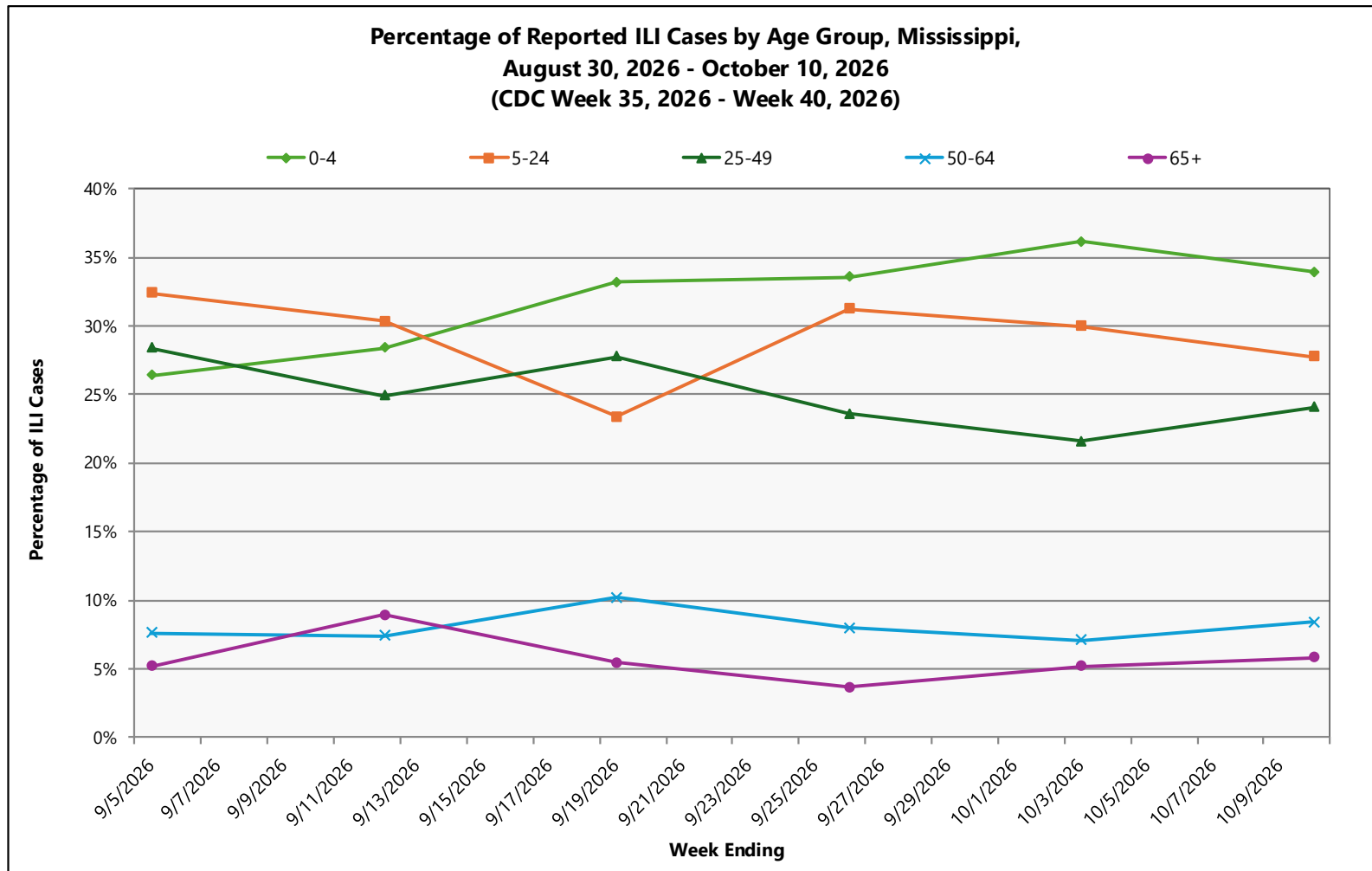


Figure 4

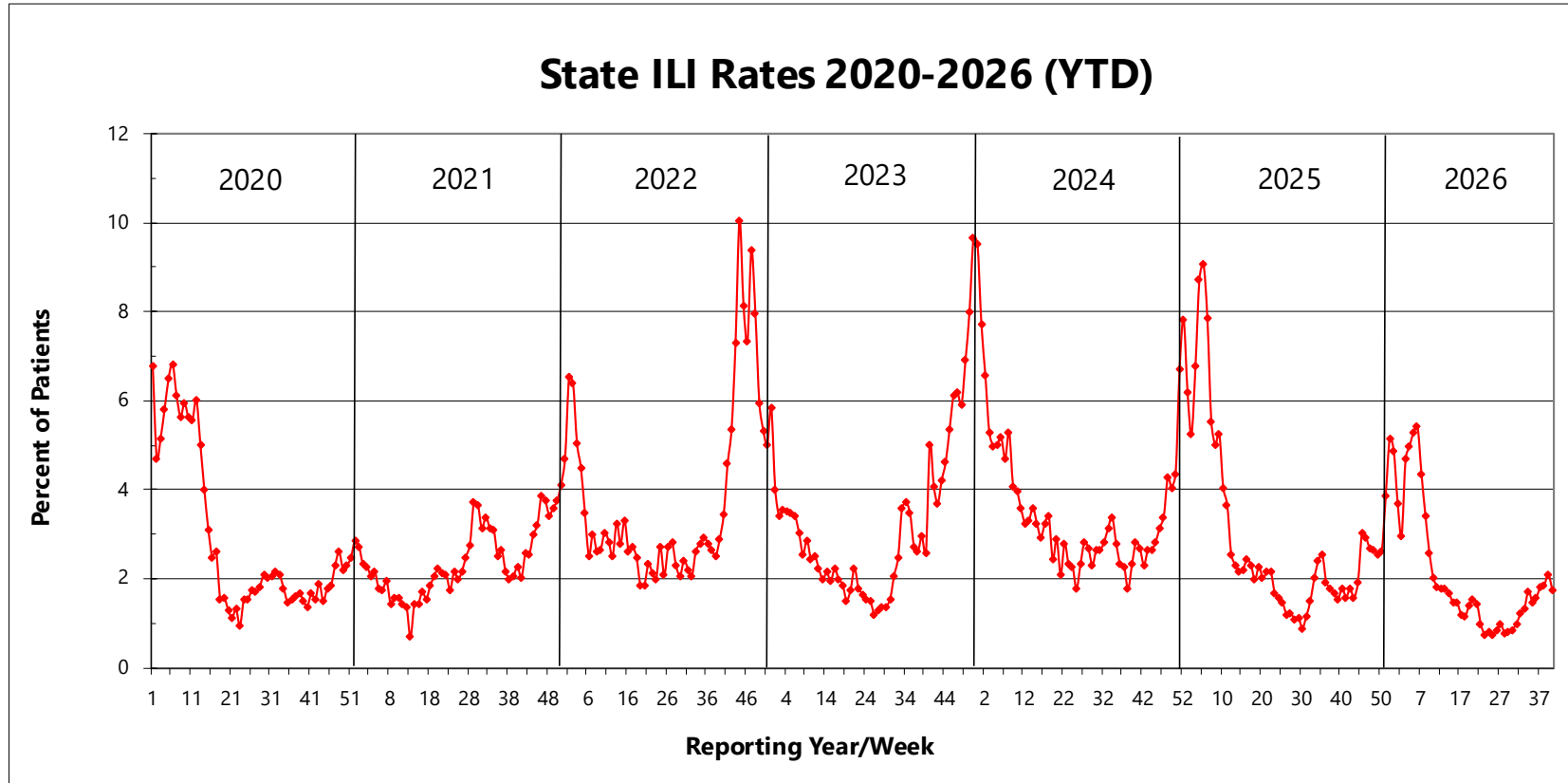


Figure 5

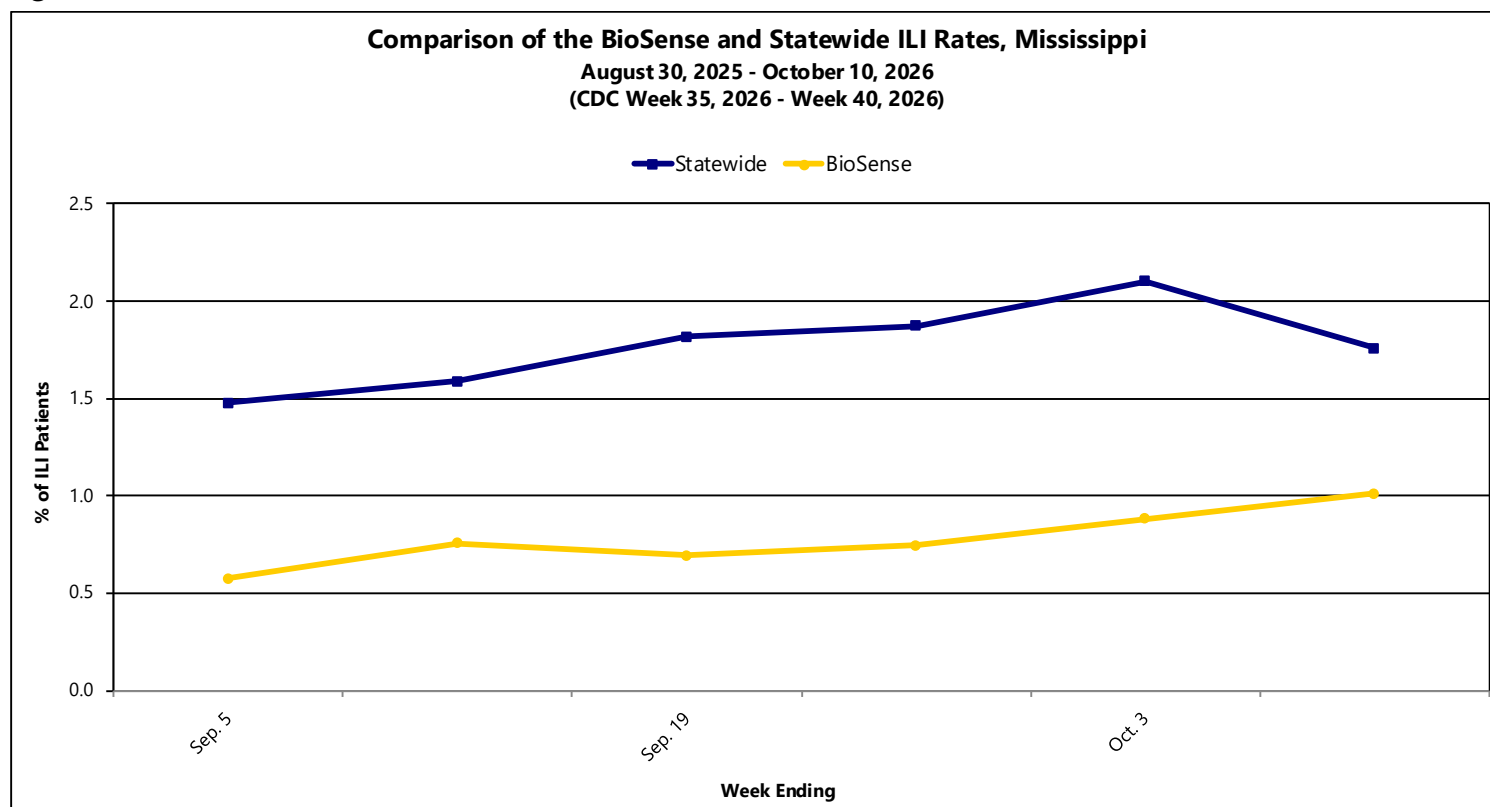


Figure 6

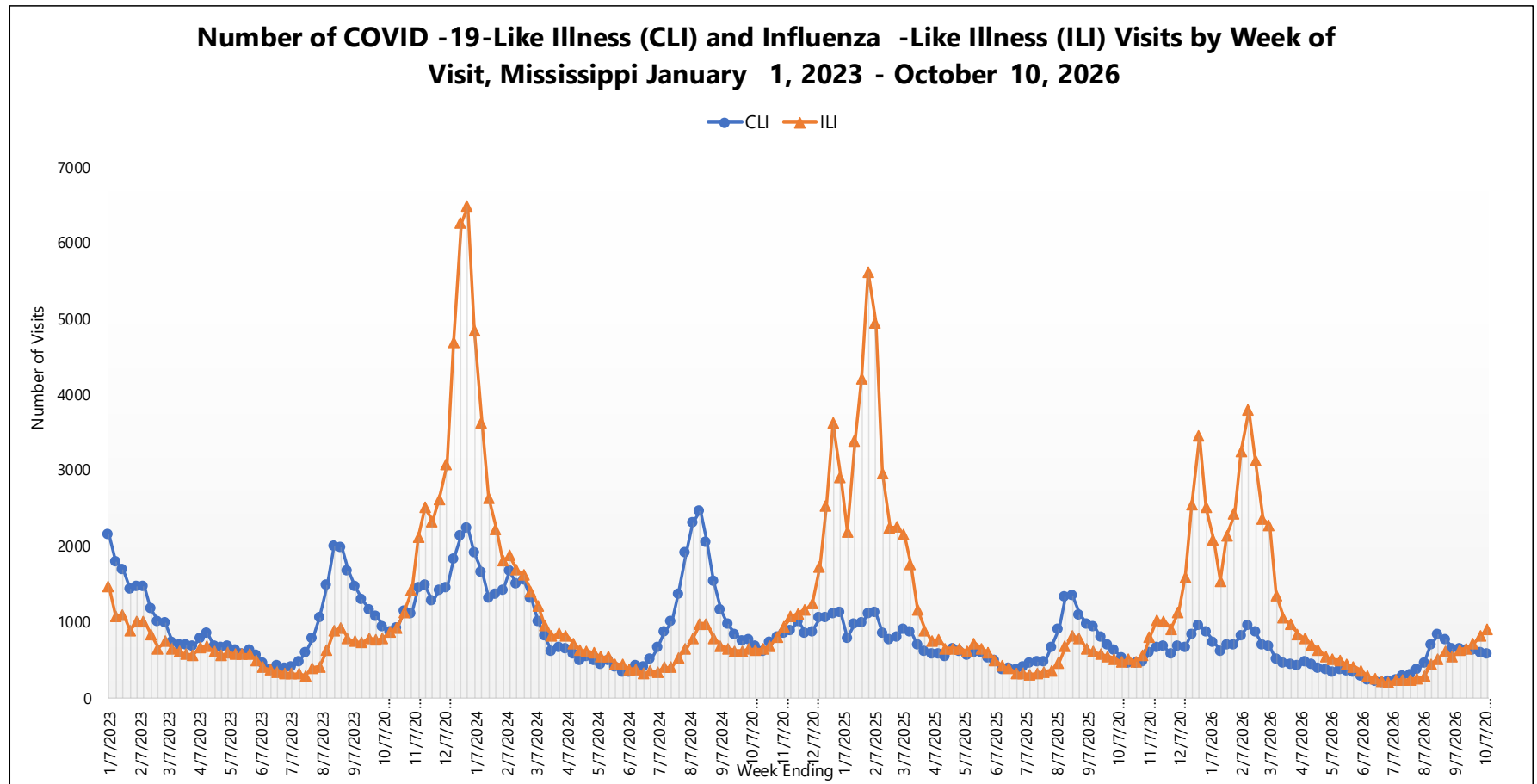


Figure 7

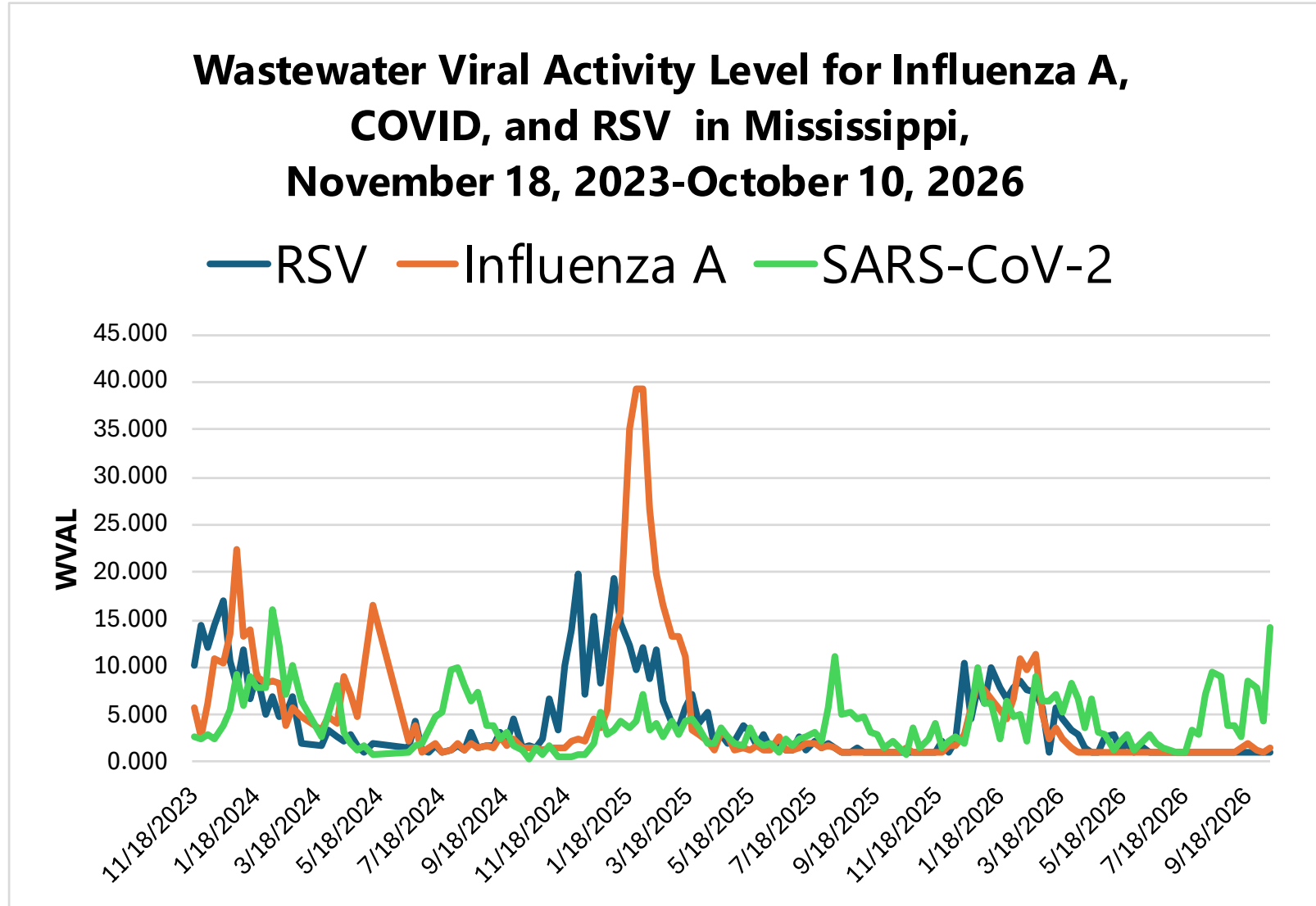


Figure 8

Number of Reported Influenza Outbreaks by Influenza Type and Subtype by Onset Week, Mississippi, 2026-2027 Flu Season
(N = 1)

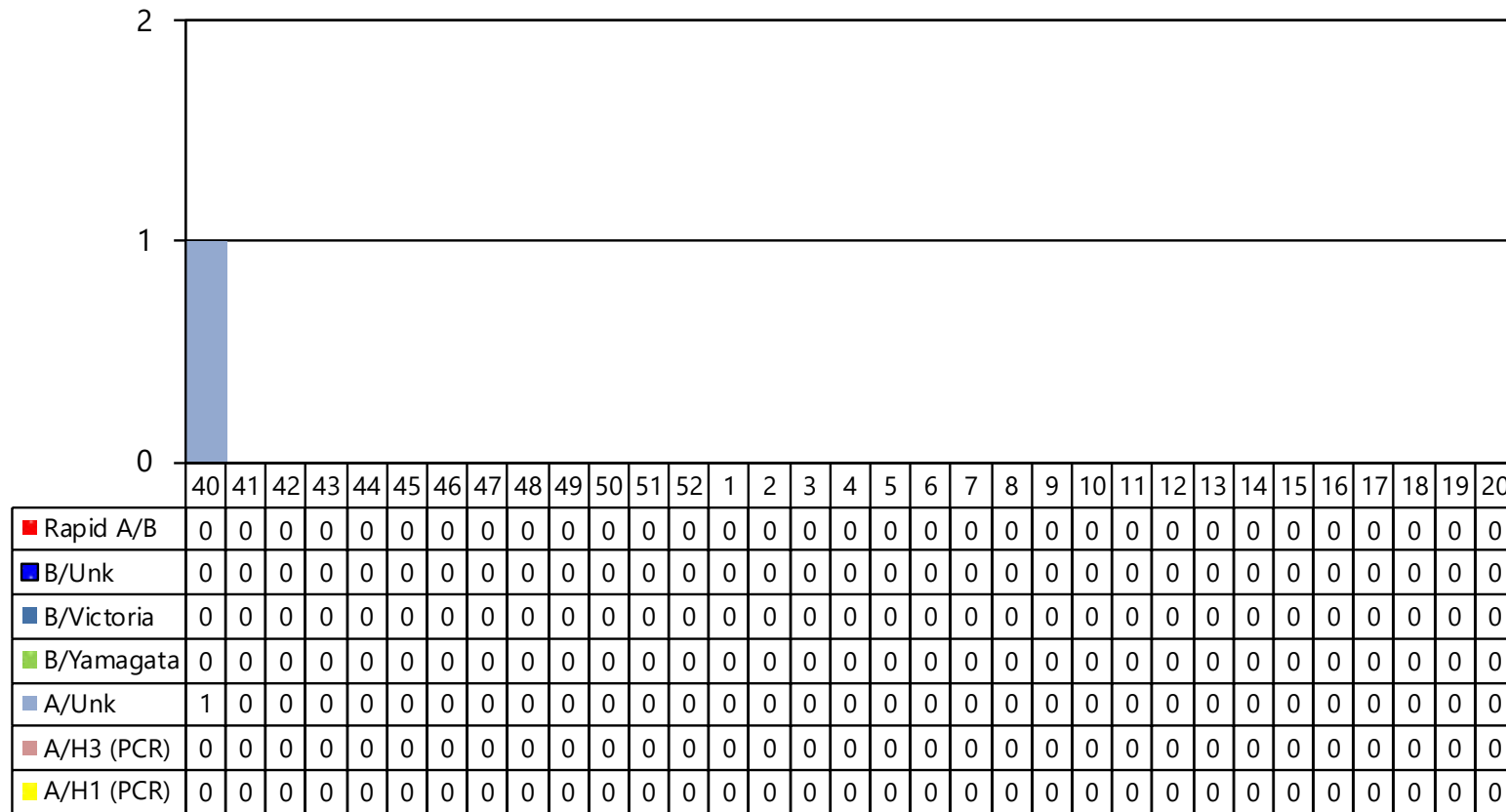


Figure 9

**Number of Reported COVID Outbreaks by Onset Week, Mississippi,
2026-2027 Flu Season
(N = 3)**

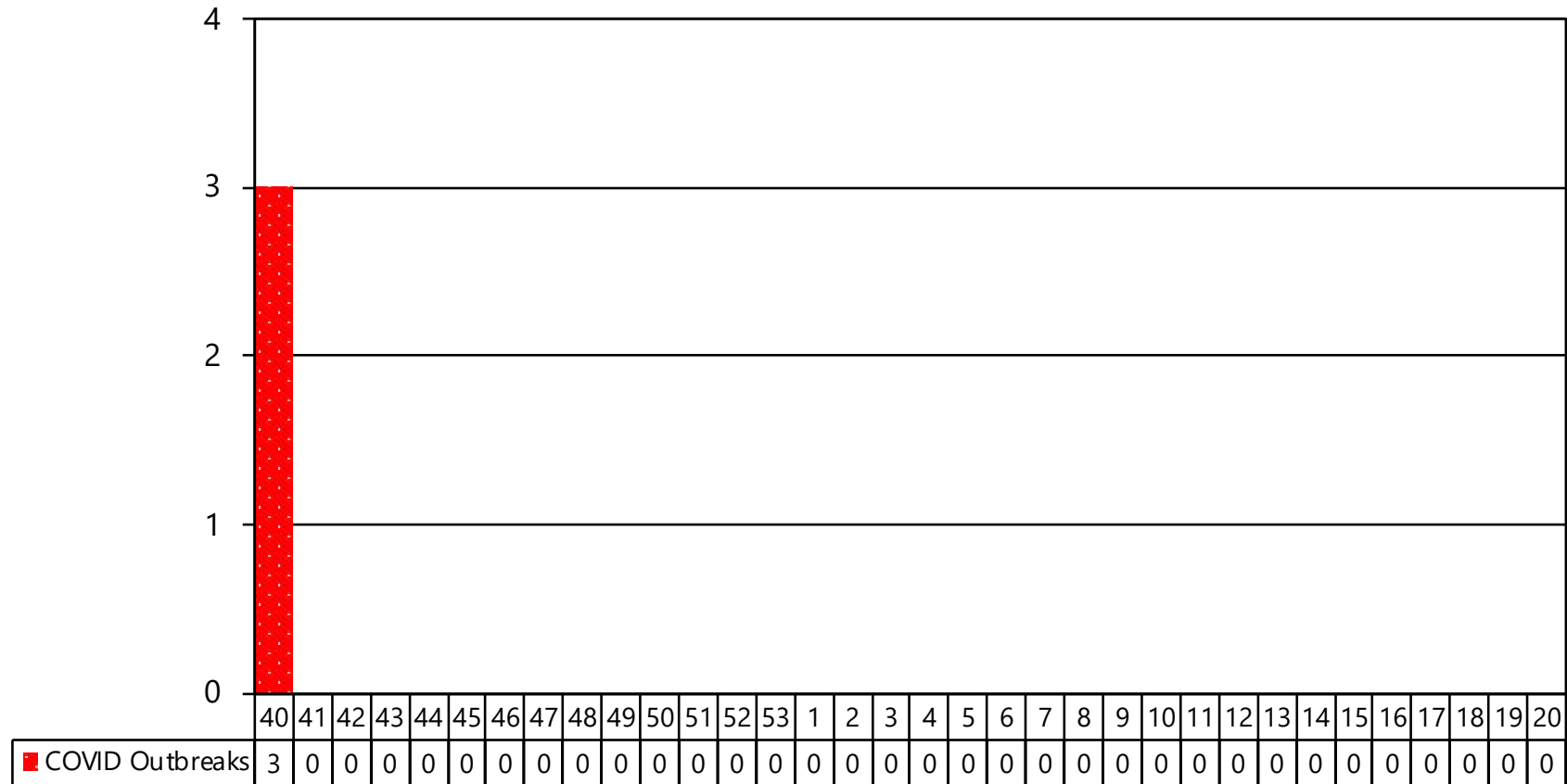


Figure 10

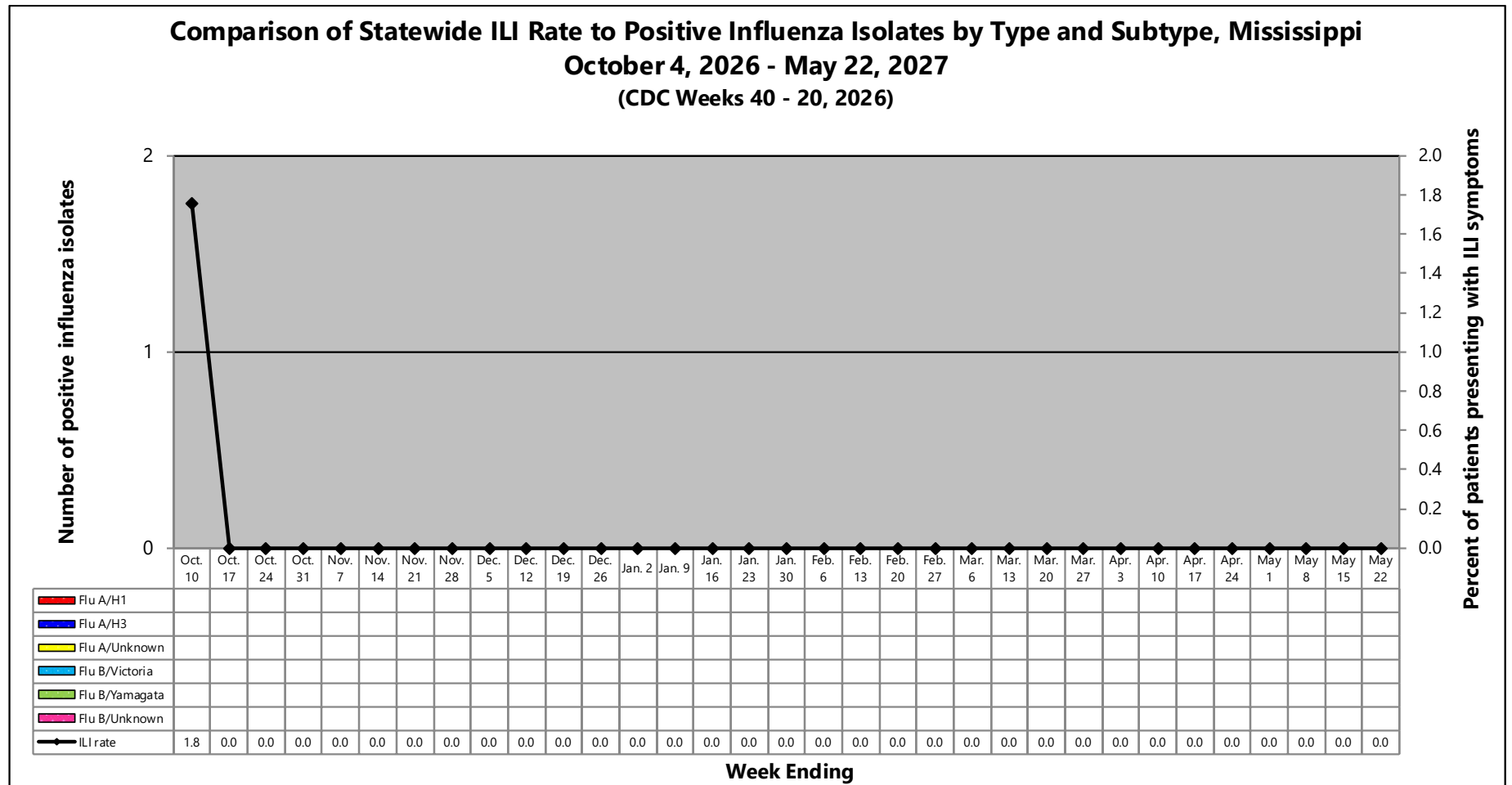


Figure 11

Hospitalization Status of Positive Influenza Cases, Mississippi, October 4, 2026 - May 22, 2027



 Hospitalized  Not Hospitalized  Unknown

Figure 12

**Percentage of Total Hospitalizations due to Respiratory
Illnesses, Mississippi, Aug.30, 2026 - Oct. 10, 2026
CDC Weeks 35, 2026 - 40, 2026**

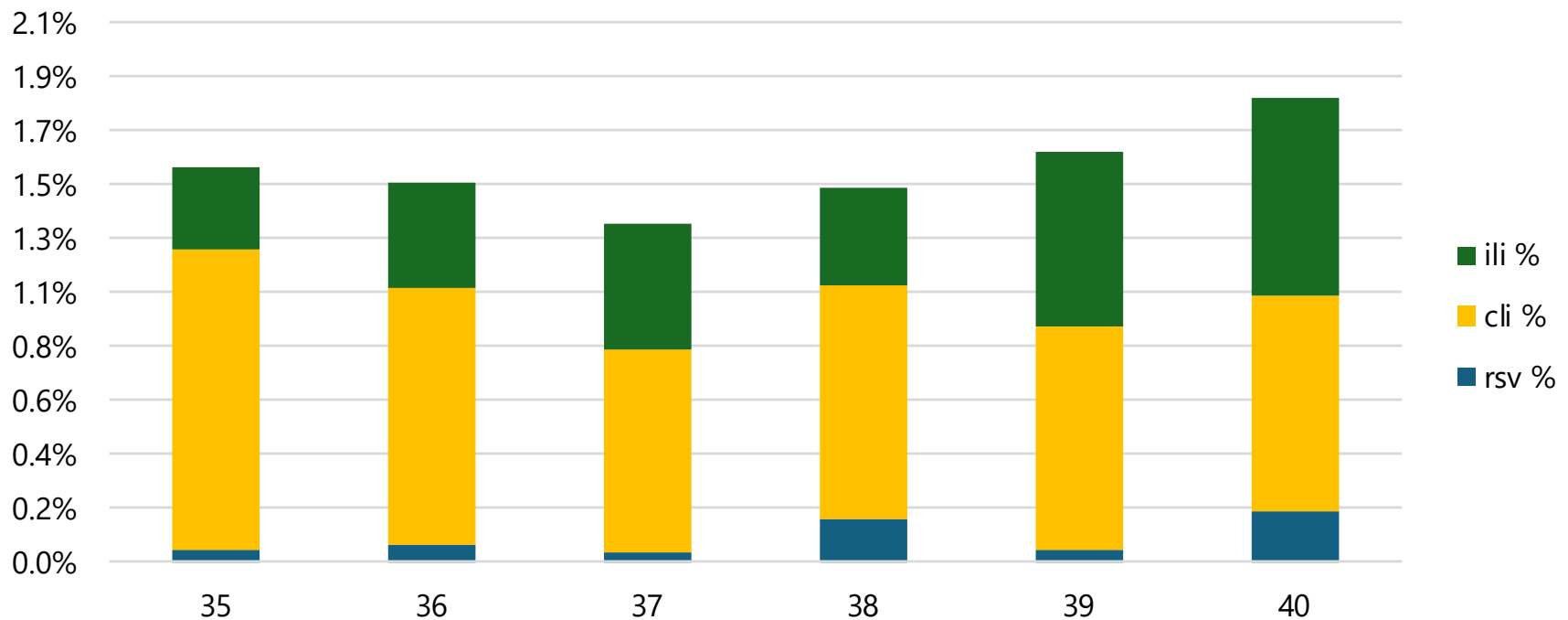


Figure 13

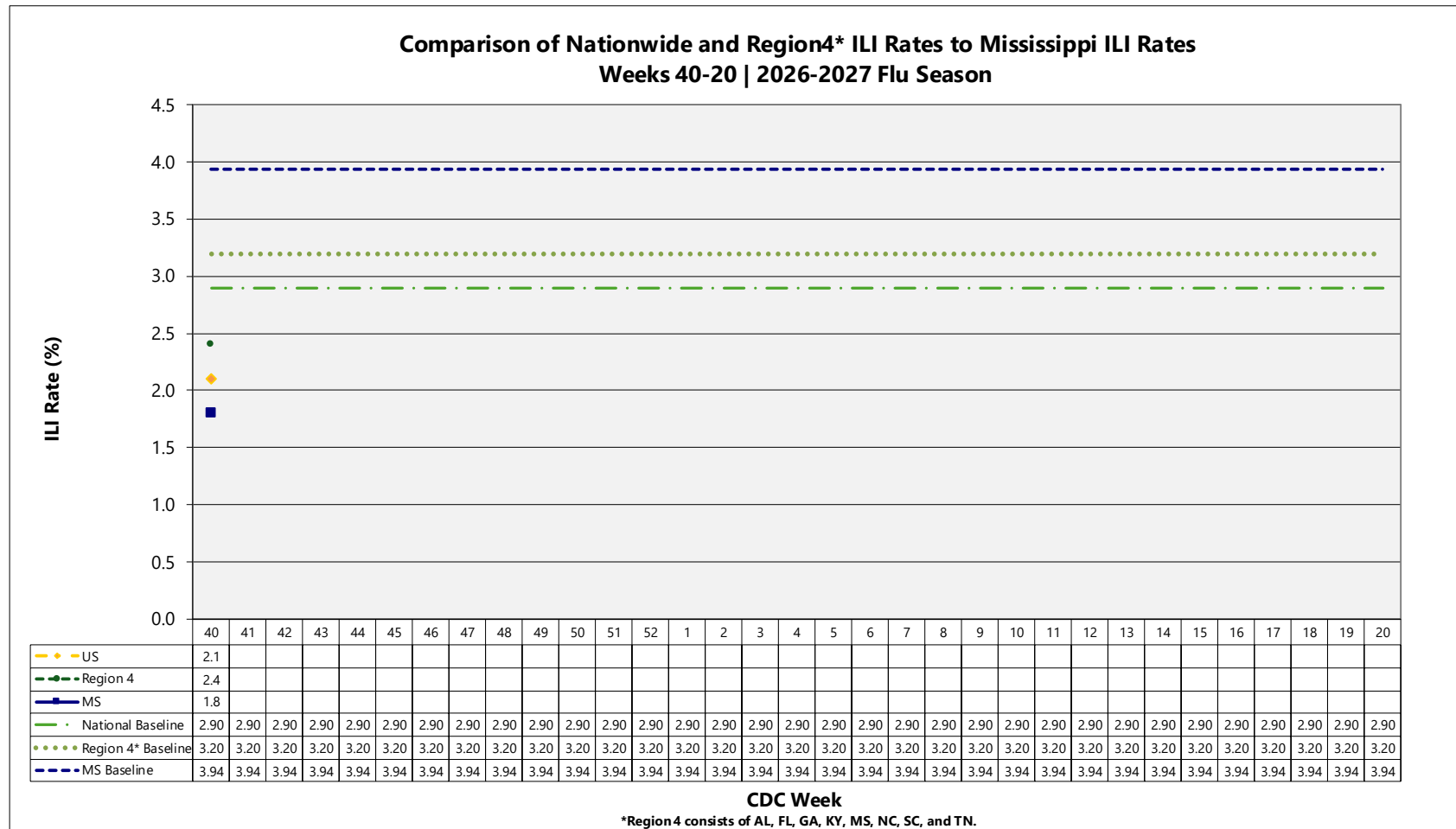


Figure 14

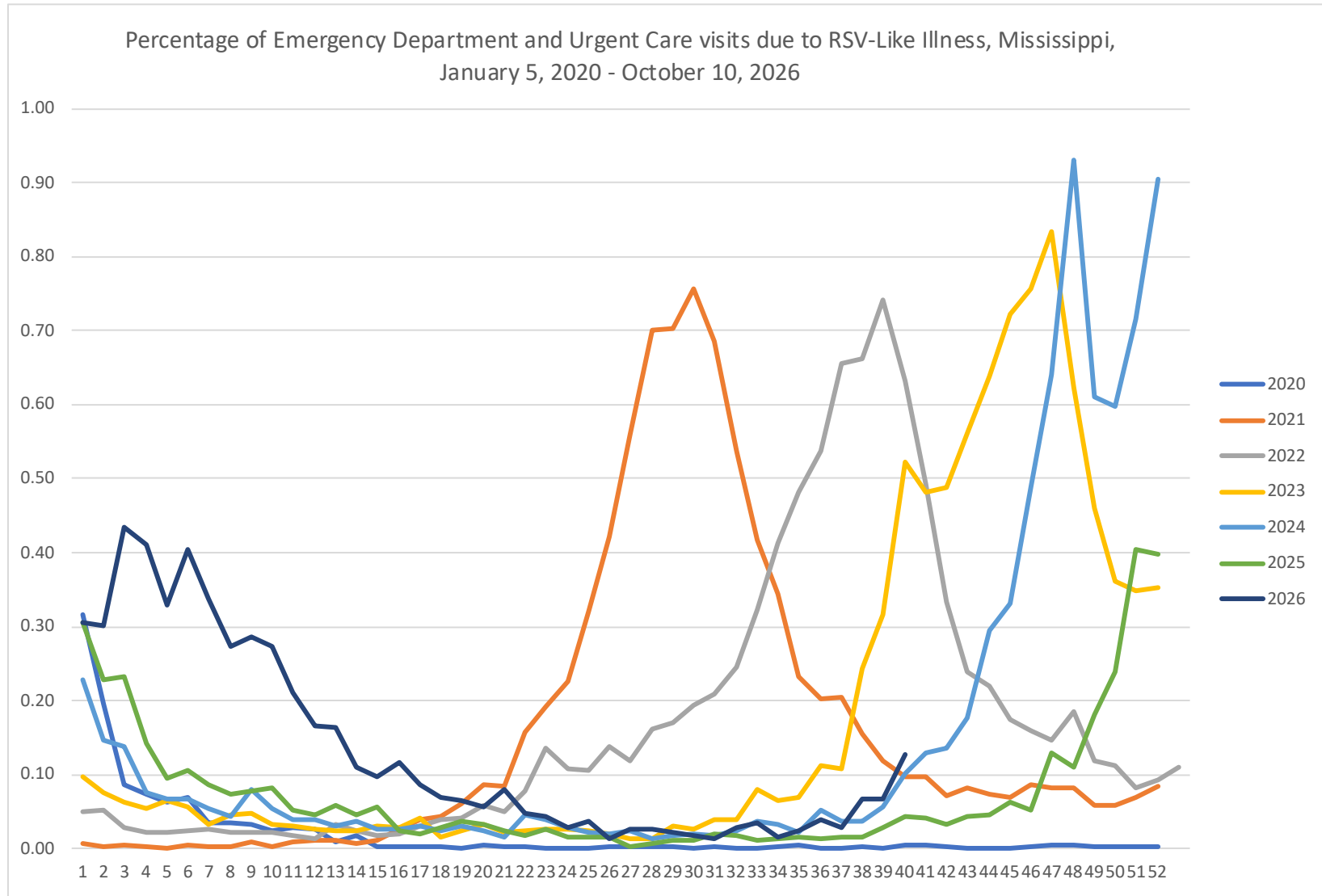


Figure 15

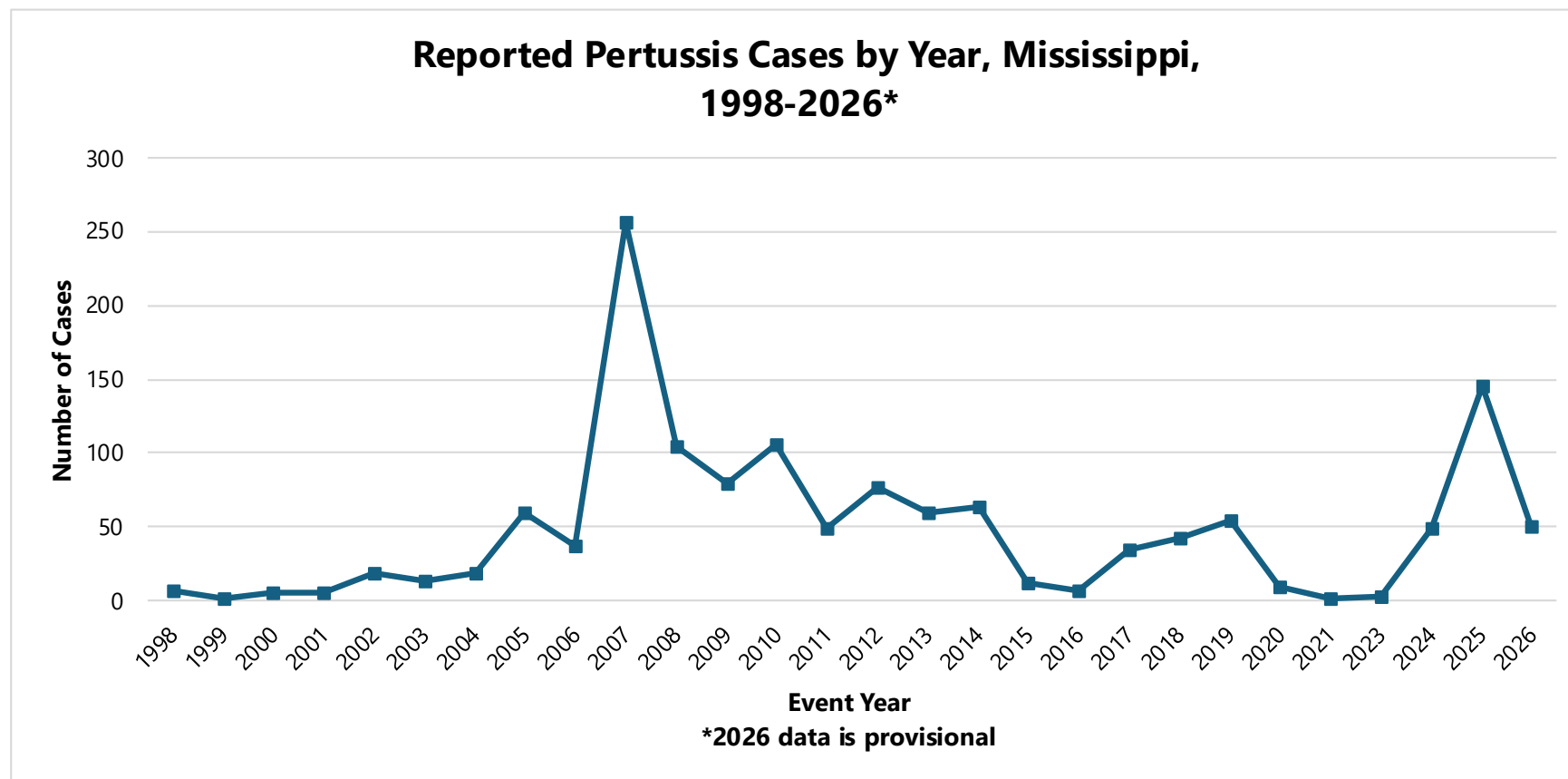


Figure 16

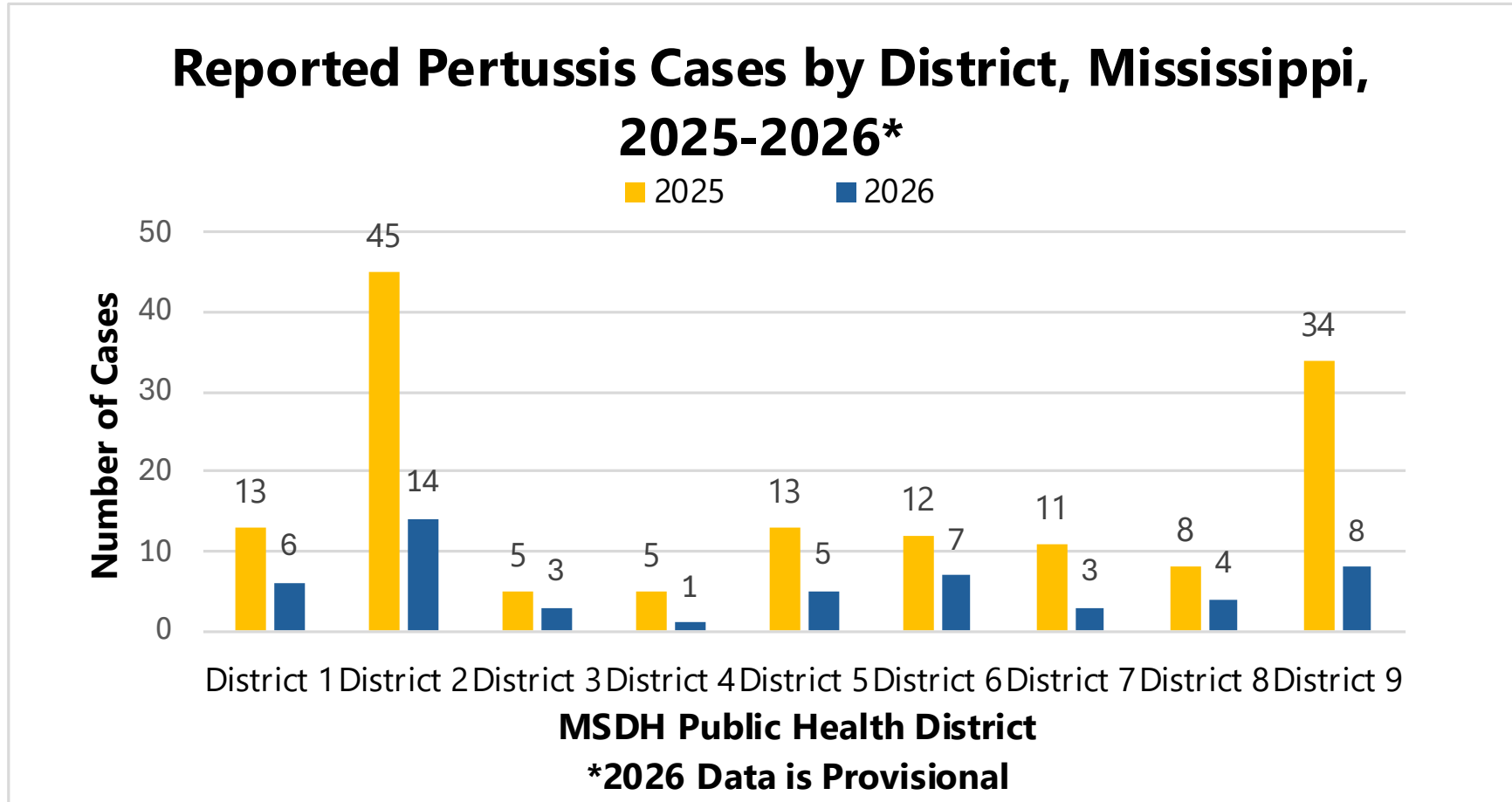
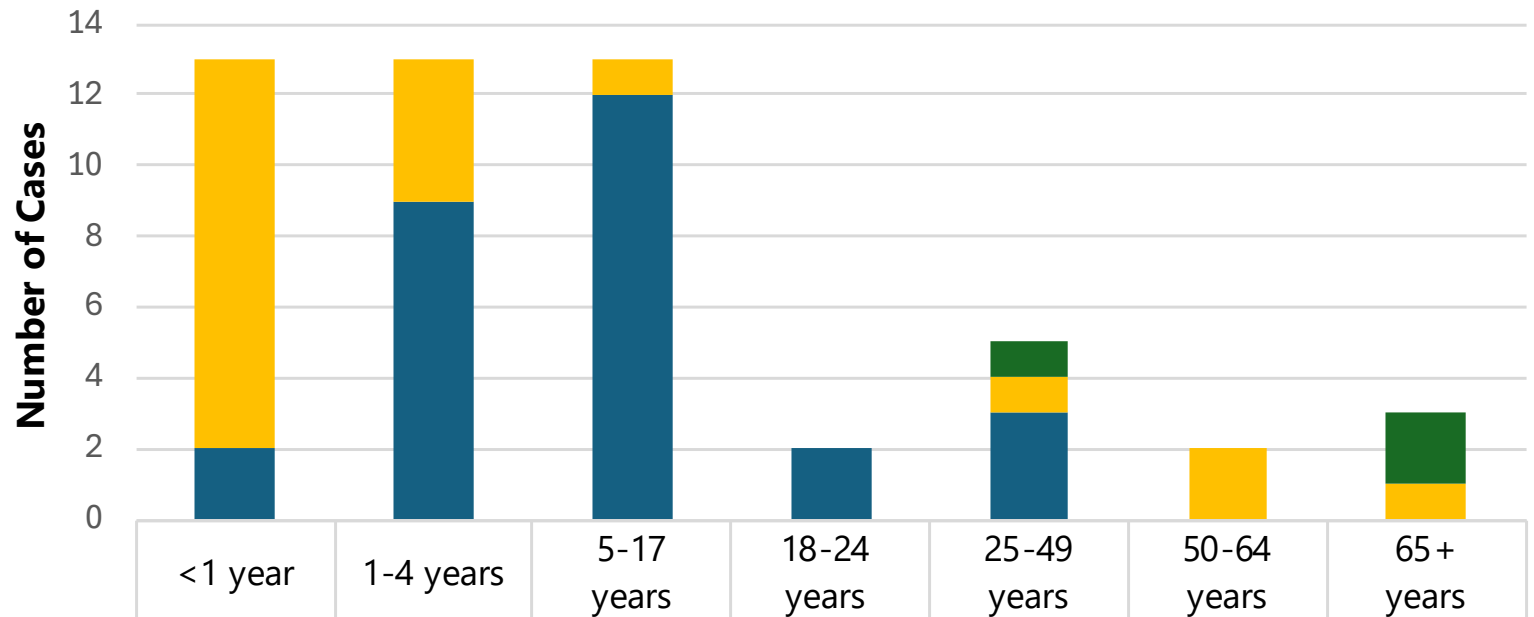


Figure 17

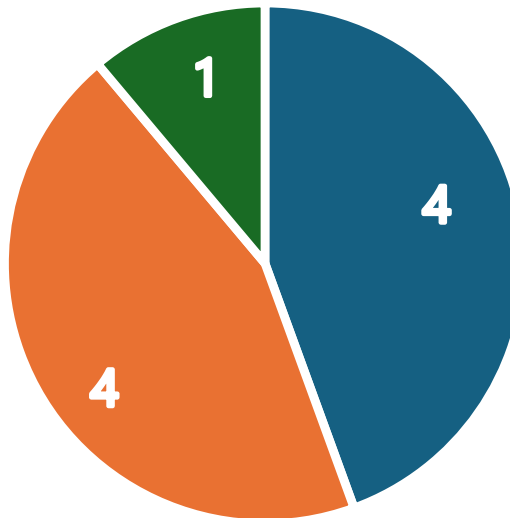
Reported Pertussis Cases with Pertussis Vaccination by Age Group, Mississippi, 2026*



***2026 Data is Provisional**

Figure 18

Vaccination Status of Hospitalized Pertussis Cases, Mississippi, 2026*



■ Vaccinated ■ Not Vaccinated ■ Unknown

Figure 19

