2024-2025
Respiratory Surveillance Report
Week 3

Jan. 12 – Jan. 18, 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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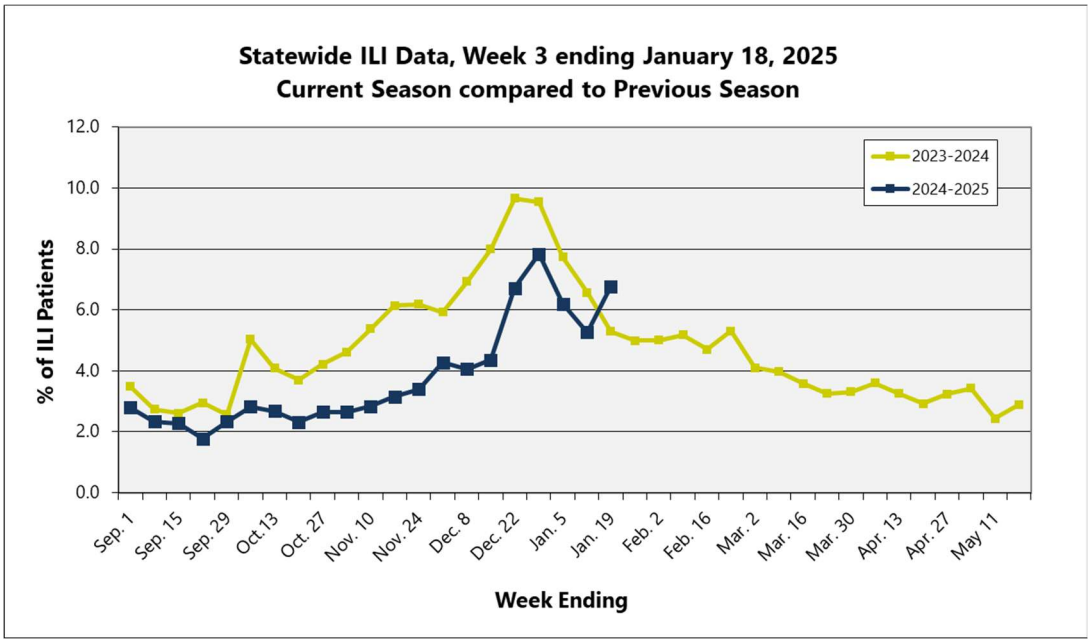
State ILI Surveillance

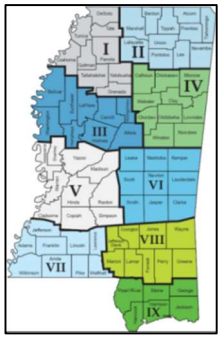


During week **3** (1/12/25-1/18/25), the overall state ILI rate (**6.8%**) **increased** from the previous week (**5.3%**) and was higher than this time last year (**5.3%**). | **Figure 1**

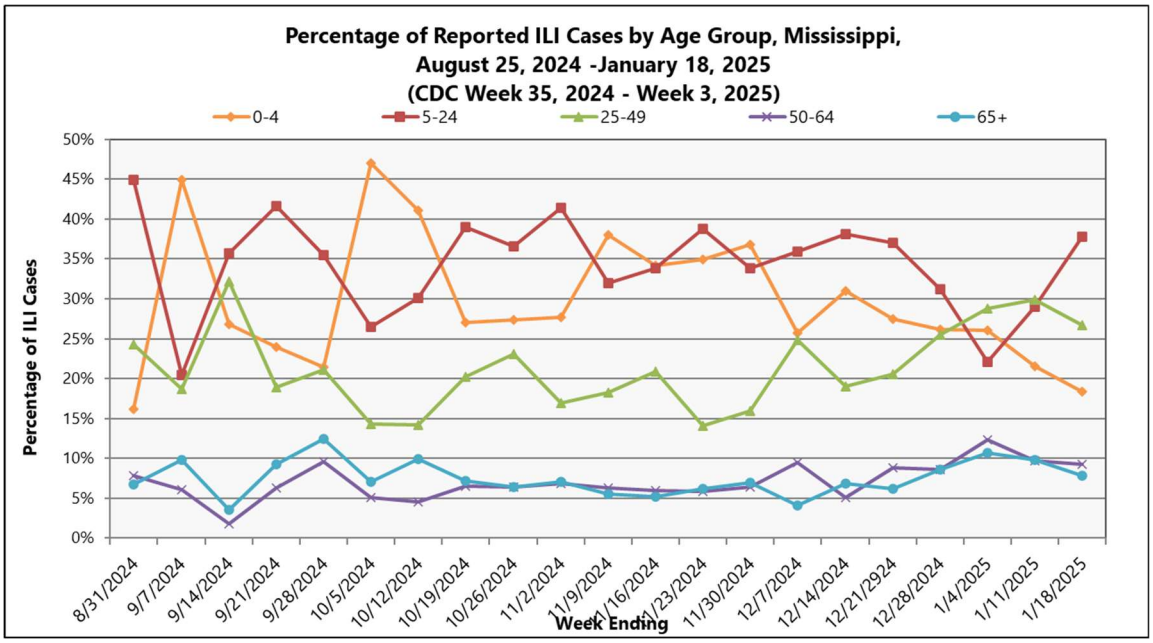
Total number of patients treated by sentinel providers in the last three weeks | **Table 1**

2024-2025 Influenza Season					
CDC Week	**Week Ending**	**Number of reports received from Sentinel Providers**	**Total patients**	**ILI symptoms**	**ILI Rate (%)**
3	**Jan. 18**	**84**	**13845**	**938**	**6.8**
2	Jan. 11	77	12532	659	5.3
1	Jan. 4	84	14447	895	6.2

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



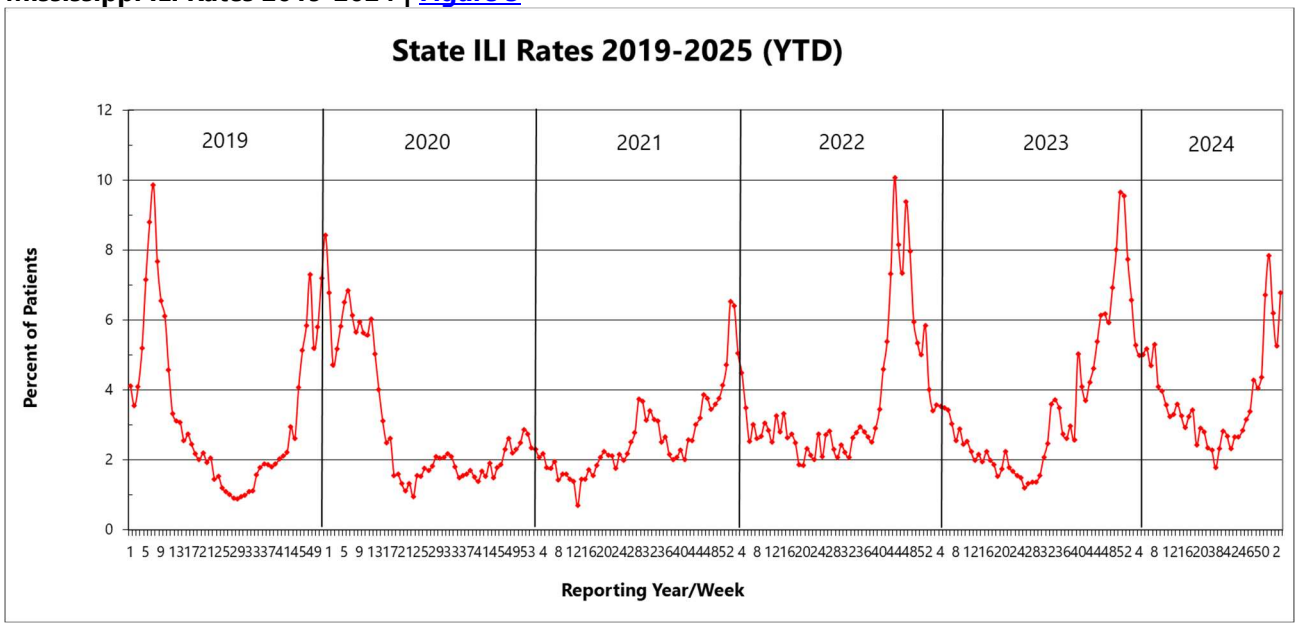
MSDH District ILI Rates (%) 2024-2025		
District	**Week 2**	**Week 3**
State	*5.3*	*6.8*
I	3.4	3.1
II	9.5	11.4
III	16.9	37.0
IV	5.4	7.1
V	15.3	9.8
VI	6.3	9.9
VII	9.6	9.1
VIII	3.4	3.0
IX	3.4	6.2



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

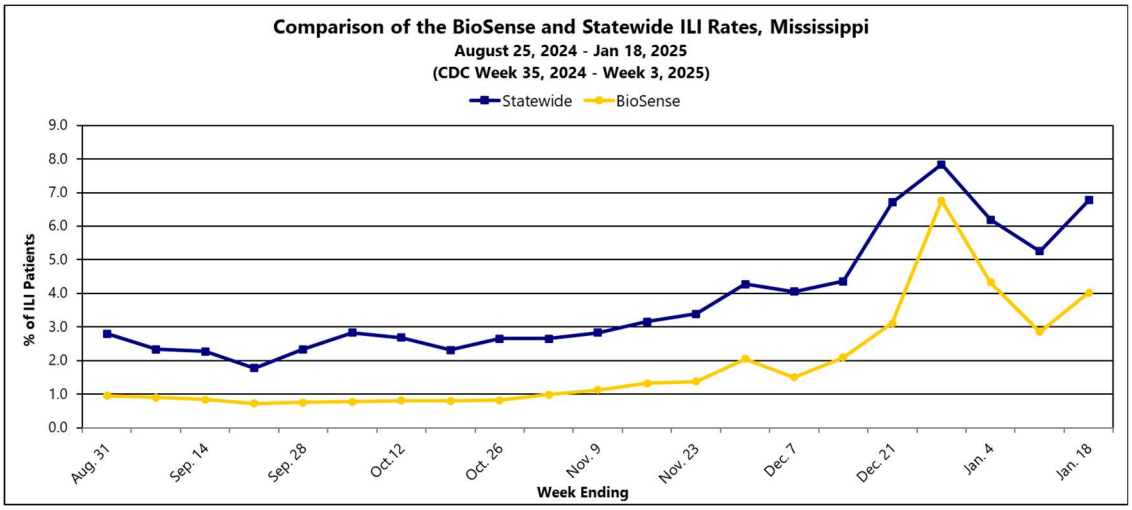
During week **3**, the percentage of ILI cases in the 5-24 years of age group increased. The percentage of ILI cases decreased in the 0-4, 25-49, 50-64, and 65+ years of age groups when compared to the previous week. | **Figure 2**

Mississippi ILI Rates 2019-2024 | Figure 3

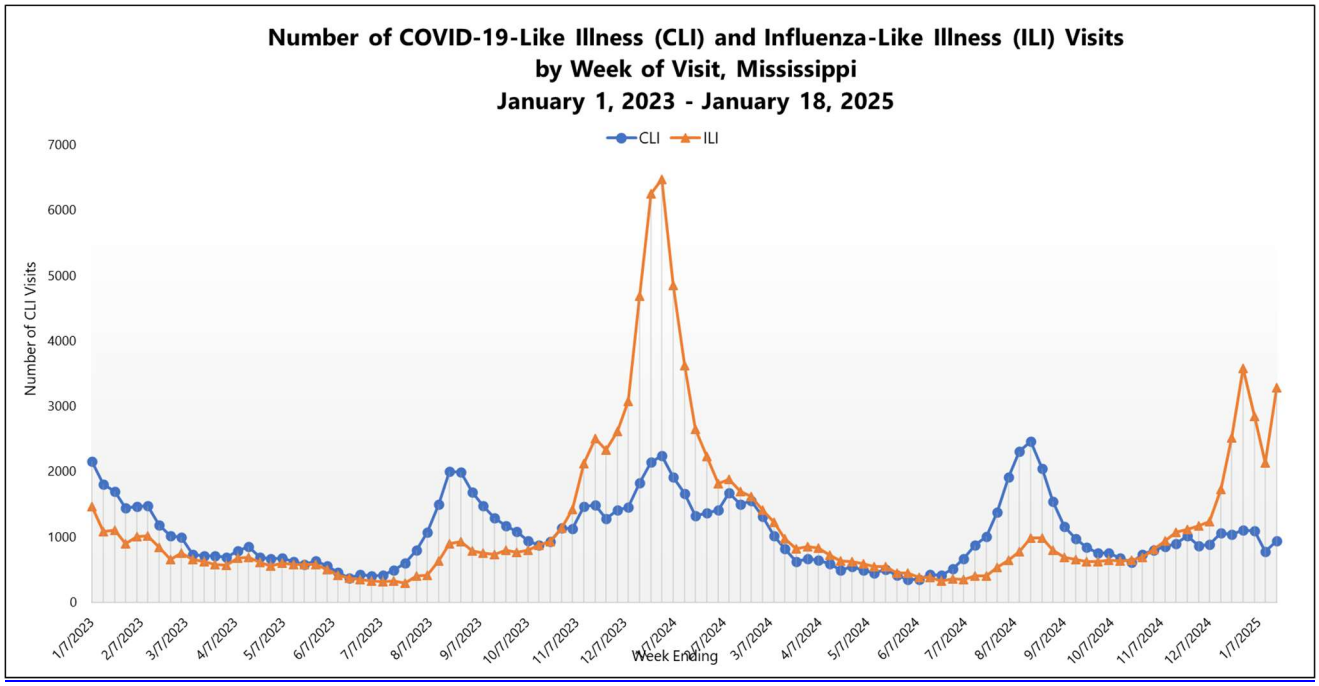


Syndromic Surveillance

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.



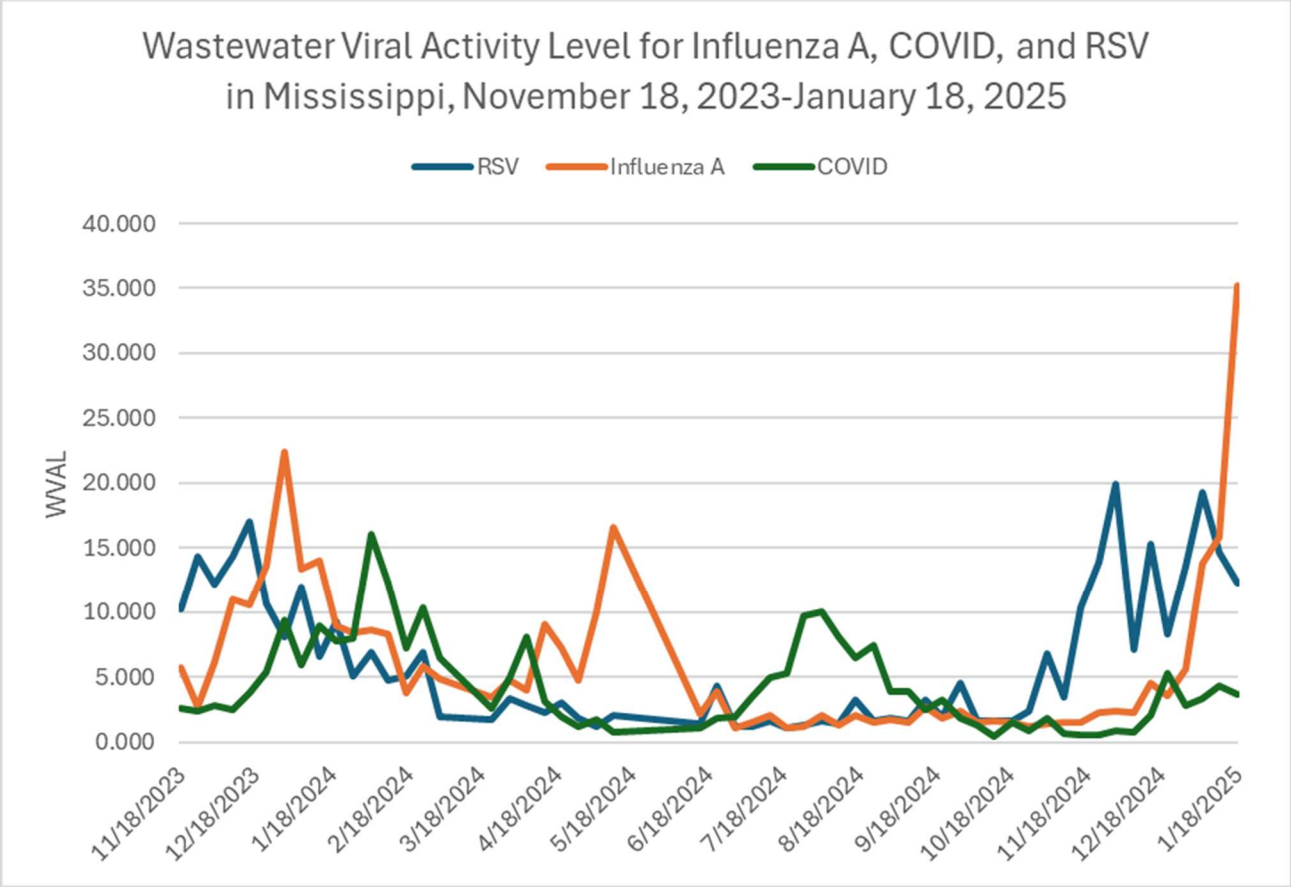
The percentage of patients with a chief complaint or diagnosis of influenza-like illness during week **3** increased when compared to the previous week as well as the statewide ILI rate. | **Figure 4**



The percentage of patients with a chief complaint or diagnosis of COVID-like illness during week **3** increased 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 an increase in Influenza A,, while RSV And COVID decreased. | **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

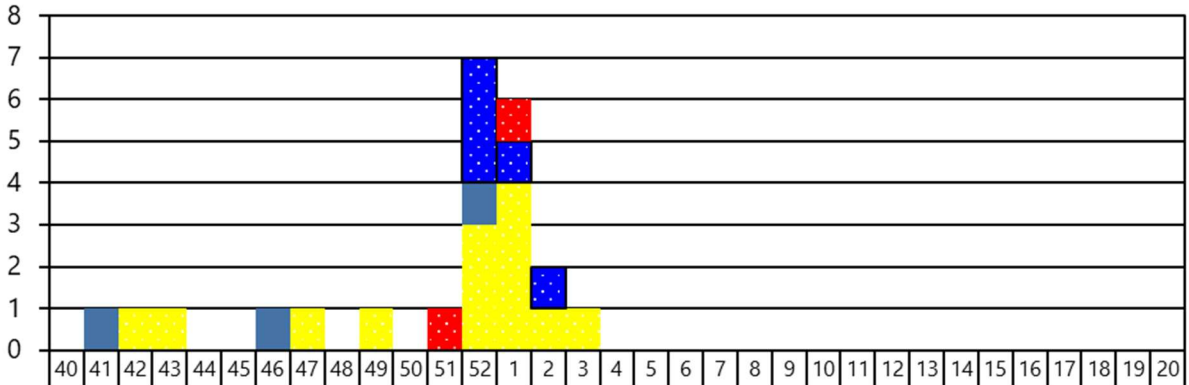
*Outbreaks are reportable in Mississippi as a Class 1A event and must be reported by telephone within **24 hours** of first knowledge or suspicion to the Mississippi State Department of Health. For more information on reportable diseases and conditions, please refer to the* MSDH List of Reportable Diseases and Conditions.

Between week 40 (ending October 5, 2024) and week 3 (week ending January 18, 2025), 29 outbreaks were reported to MSDH. MSDH investigates all reported outbreaks, and complete information is available for 23 of the 29 outbreaks. Two were contributed to an influenza A/H1 virus, five were attributed to an influenza A/H3 virus, three were attributed to an influenza A virus, unknown subtype, and 13 to Rapid A/B.

Through week 3, within the reported outbreaks, the overall vaccination rate among facility residents was 58%, and among staff members, 28%. In addition, the percentage of residents that were ill due to influenza was 10%, and among staff members, 4%. The percentage of residents that were hospitalized due to influenza was 1%, and among staff members, 0%.

Influenza outbreaks have occurred in the following counties: Adams (1), Attala (1), Covington (1), George (1), Grenada (1), Lafayette (2), Lauderdale (2), Leake (1), Lincoln (1), Lowndes (4), Madison (2), Marion (1), Neshoba (1), Newton (1), Panola (1), Pike (1), Pontotoc (1), Rankin (6), Simpson (1), Sunflower (1), Washington (1) | **Figure 7**

Number of Reported Influenza Outbreaks by Influenza Type and Subtype by Onset Week, Mississippi, 2024-2025 Flu Season (N = 23)



	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A/H1 (PCR)	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A/H3 (PCR)	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A/Unk	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B/Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B/Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B/Unk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rapid A/B	0	0	1	1	0	0	0	1	0	1	0	0	3	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

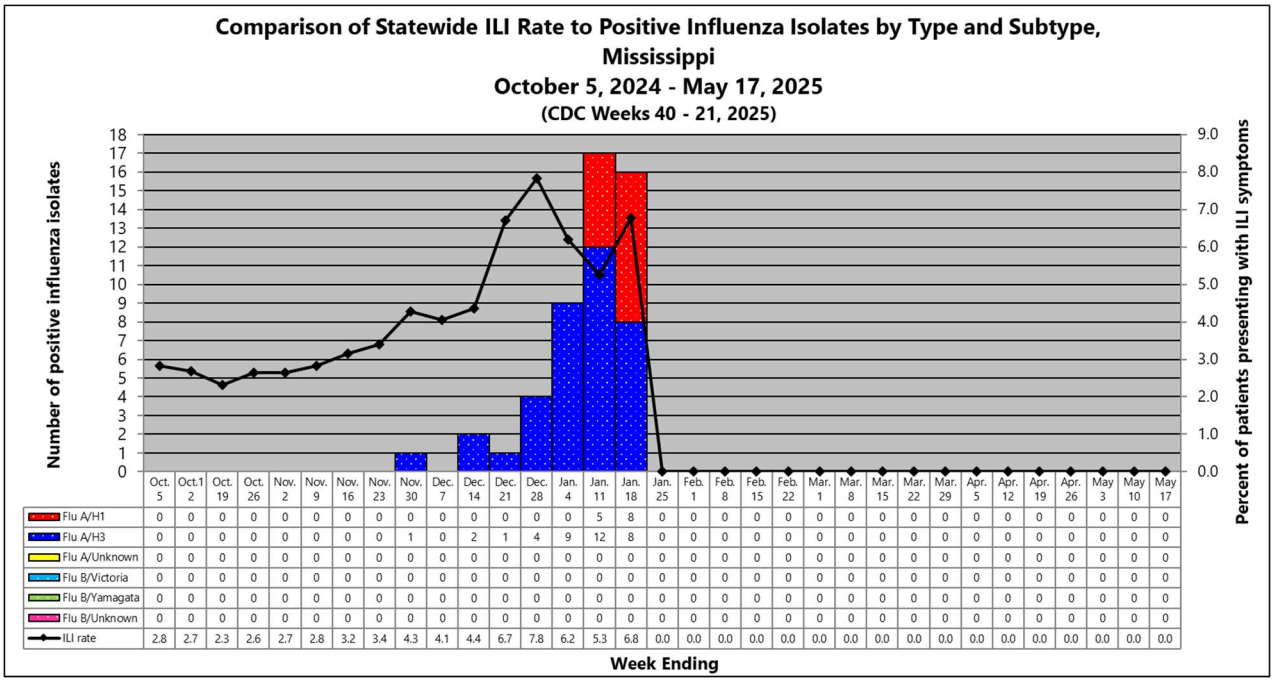
For additional information on infection control measures in health care facilities and managing influenza outbreaks in long-term care facilities, please refer to the CDC's webpages: https://www.cdc.gov/flu/professionals/infectioncontrol/index.htm and

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

Flu Testing Reports

Since week 43 (week ending November 30, 2024), 50 laboratory confirmed influenza samples have been identified by the MSDH Public Health Laboratory. 13 were identified as influenza A/H1 and 37 were identified as influenza A/H3.

The influenza cases were identified from the following counties: Attala (4), Bolivar (3), Forrest (2), George (1), Grenada (2), Hancock (1), Harrison (8), Hinds (5), Lincoln (2), Lowndes (6), Madison (1), Marion (1), Neshoba (1), Panola (2), Rankin (6), Scott (1), Simpson (3), Sunflower (1). | **Figure 8**



	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 2	Nov. 9	Nov. 16	Nov. 23	Nov. 30	Dec. 7	Dec. 14	Dec. 21	Dec. 28	Jan. 4	Jan. 11	Jan. 18	Jan. 25	Feb. 1	Feb. 8	Feb. 15	Feb. 22	Mar. 1	Mar. 8	Mar. 15	Mar. 22	Mar. 29	Apr. 5	Apr. 12	Apr. 19	Apr. 26	May 3	May 10	May 17
Flu A/H1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu A/H3	0	0	0	0	0	0	0	0	1	0	2	1	4	9	12	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu A/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu B/Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu B/Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu B/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ILI rate	2.8	2.7	2.3	2.6	2.7	2.8	3.2	3.4	4.3	4.1	4.4	6.7	7.8	6.2	5.3	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

National and Mississippi Pediatric Mortality Surveillance

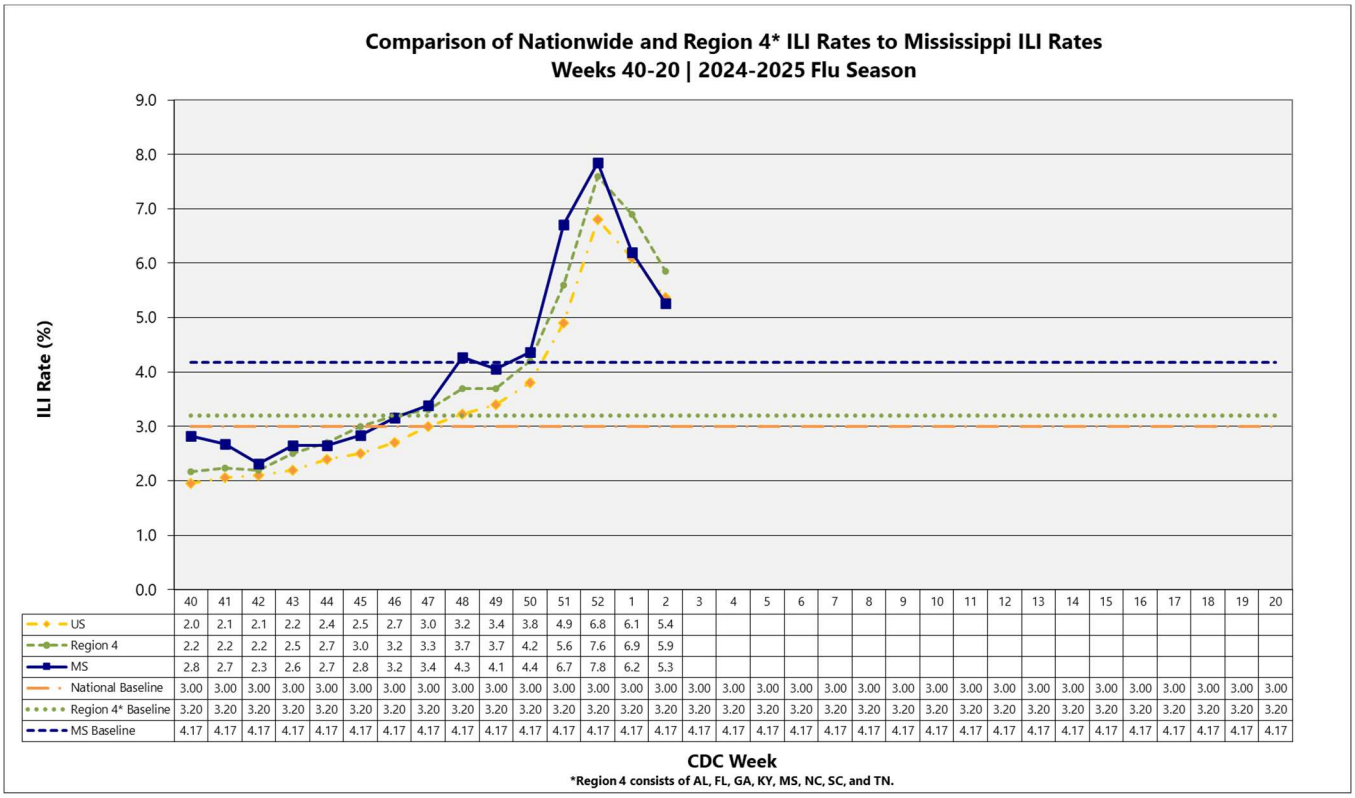
Nationally, **27** influenza-associated pediatric deaths occurring in the 2024-2025 season have been reported to CDC, as of week 2. Eight deaths were associated with influenza A virus (not subtyped), five deaths were associated with influenza A(H3) virus, three deaths were associated with influenza A(H3N2), seven deaths were associated with A(H1N1) virus, and four deaths were associated with influenza B virus (not subtyped).

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.

National ILI Surveillance

Updated national and regional ILI surveillance data is temporarily unavailable. | **Figure 9**

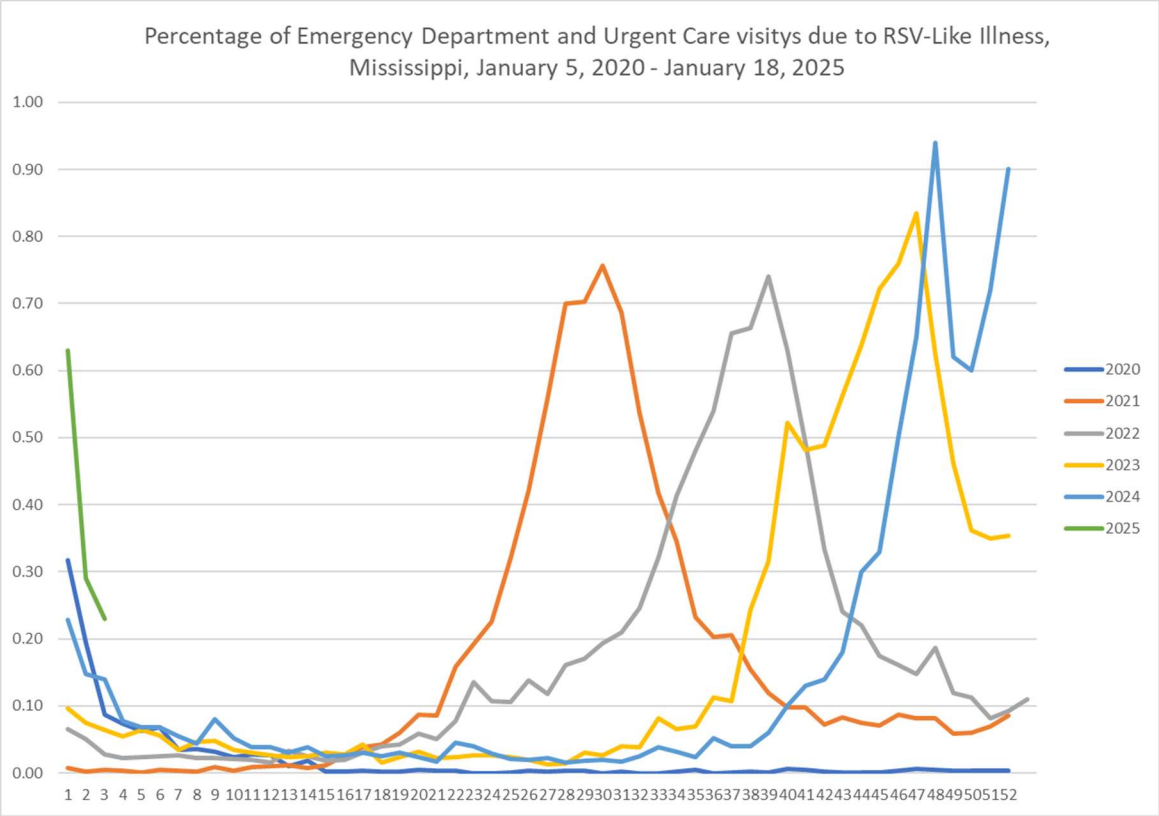


	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
US	2.0	2.1	2.1	2.2	2.4	2.5	2.7	3.0	3.2	3.4	3.8	4.9	6.8	6.1	5.4																		
Region 4	2.2	2.2	2.2	2.5	2.7	3.0	3.2	3.3	3.7	3.7	4.2	5.6	7.6	6.9	5.9																		
MS	2.8	2.7	2.3	2.6	2.7	2.8	3.2	3.4	4.3	4.1	4.4	6.7	7.8	6.2	5.3																		
National Baseline	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Region 4* Baseline	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
MS Baseline	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17

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 **3** 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

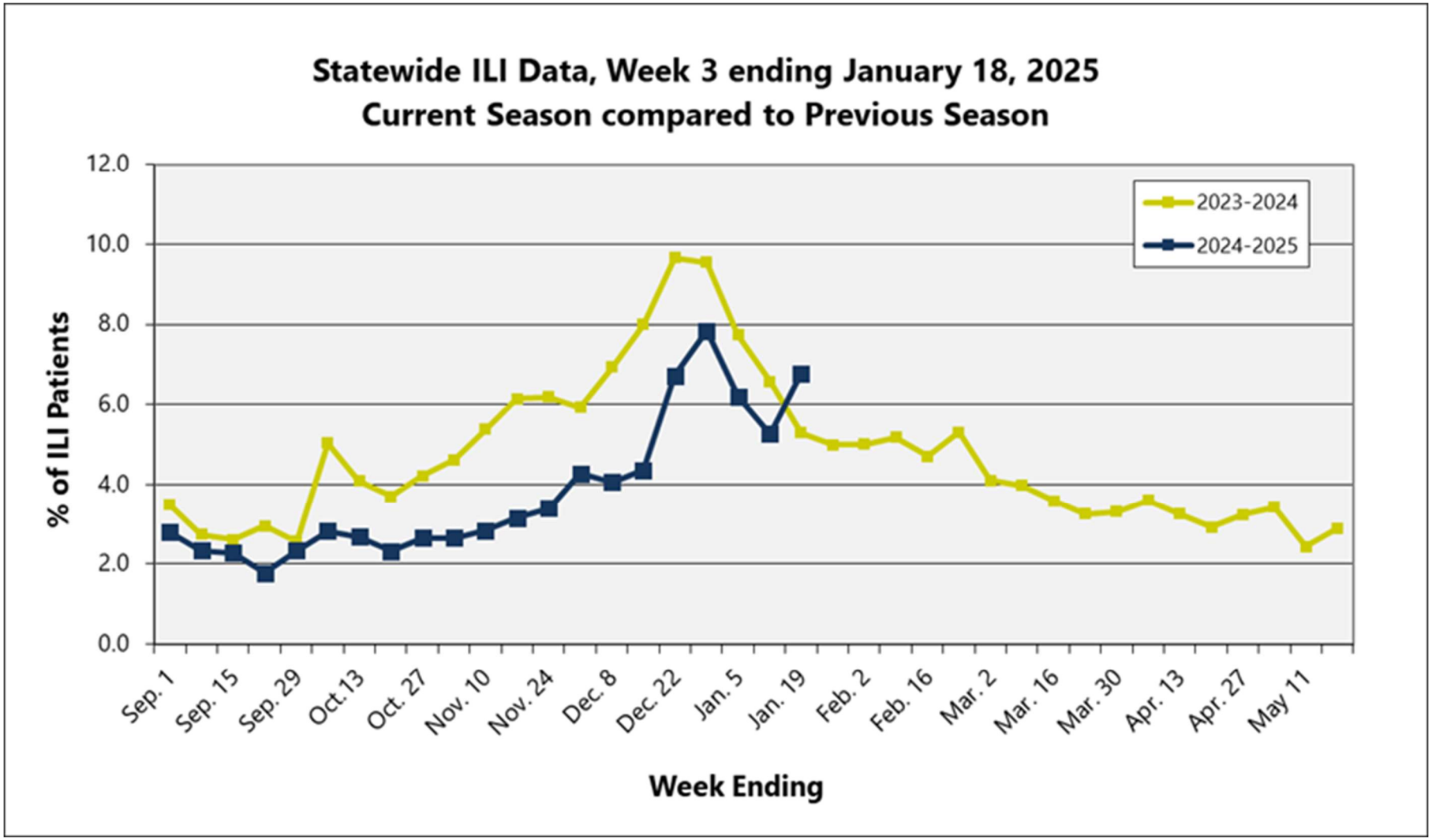


Figure 2

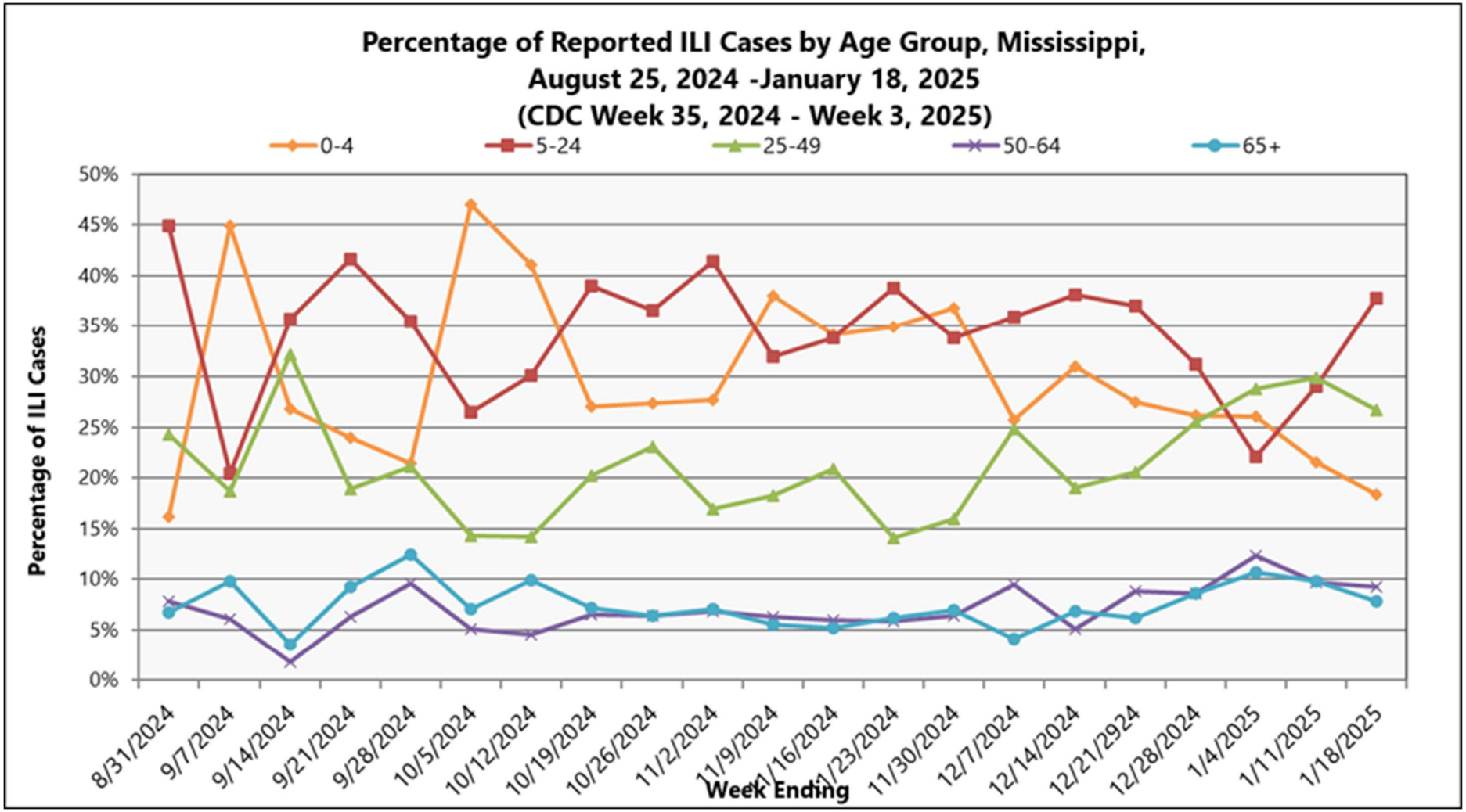

Percentage of Reported ILI Cases by Age Group, Mississippi,
August 25, 2024 -January 18, 2025
(CDC Week 35, 2024 - Week 3, 2025)
0-4
5-24
25-49
50-64
65+
Percentage of ILI Cases
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
8/31/2024
9/7/2024
9/14/2024
9/21/2024
9/28/2024
10/5/2024
10/12/2024
10/19/2024
10/26/2024
11/2/2024
11/9/2024
11/16/2024
11/23/2024
11/30/2024
12/7/2024
12/14/2024
12/21/2924
12/28/2024
1/4/2025
1/11/2025
1/18/2025
Week Ending

Figure 3

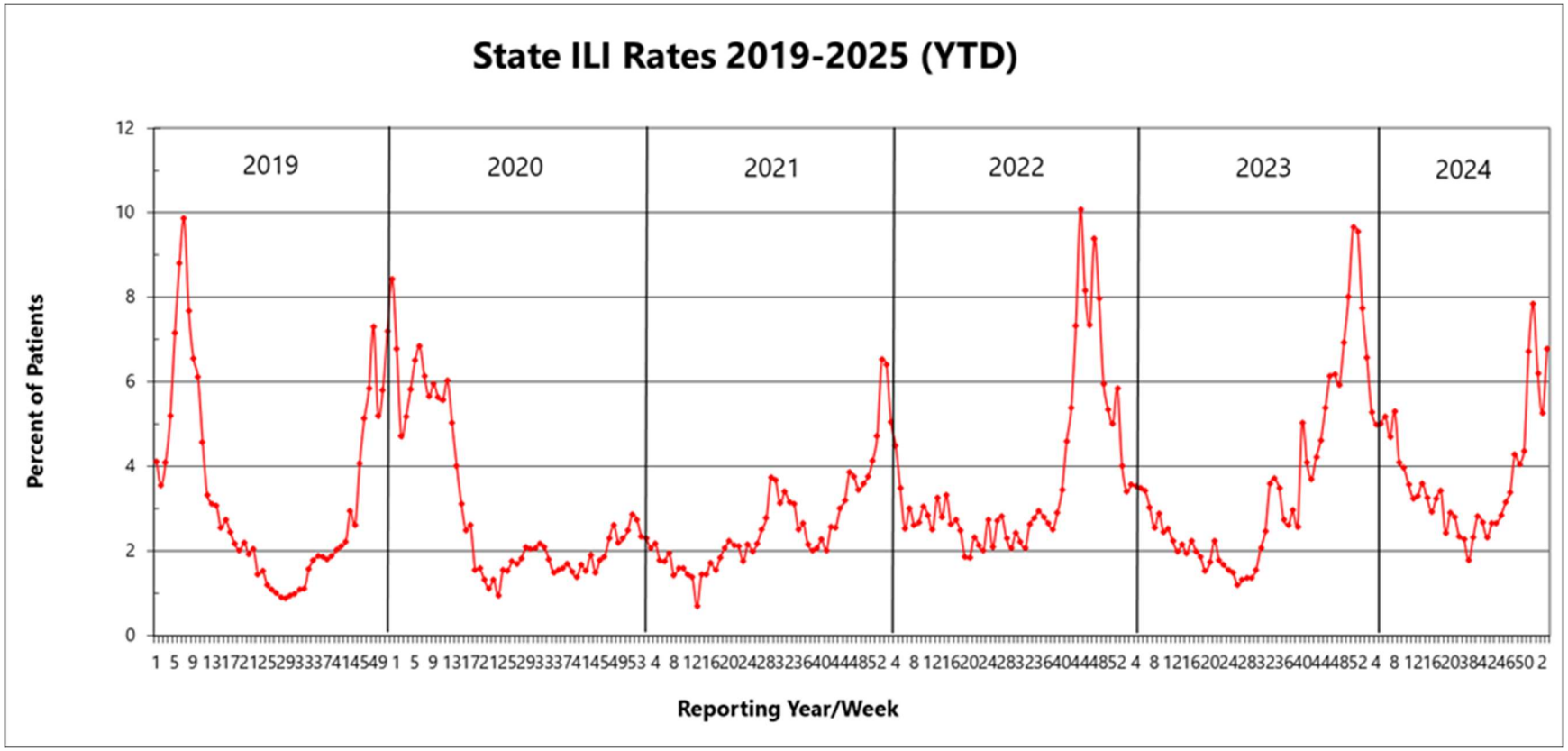

State ILI Rates 2019-2025 (YTD)
Percent of Patients
Reporting Year/Week
2019
2020
2021
2022
2023
2024
0
2
4
6
8
10
12

Figure 4

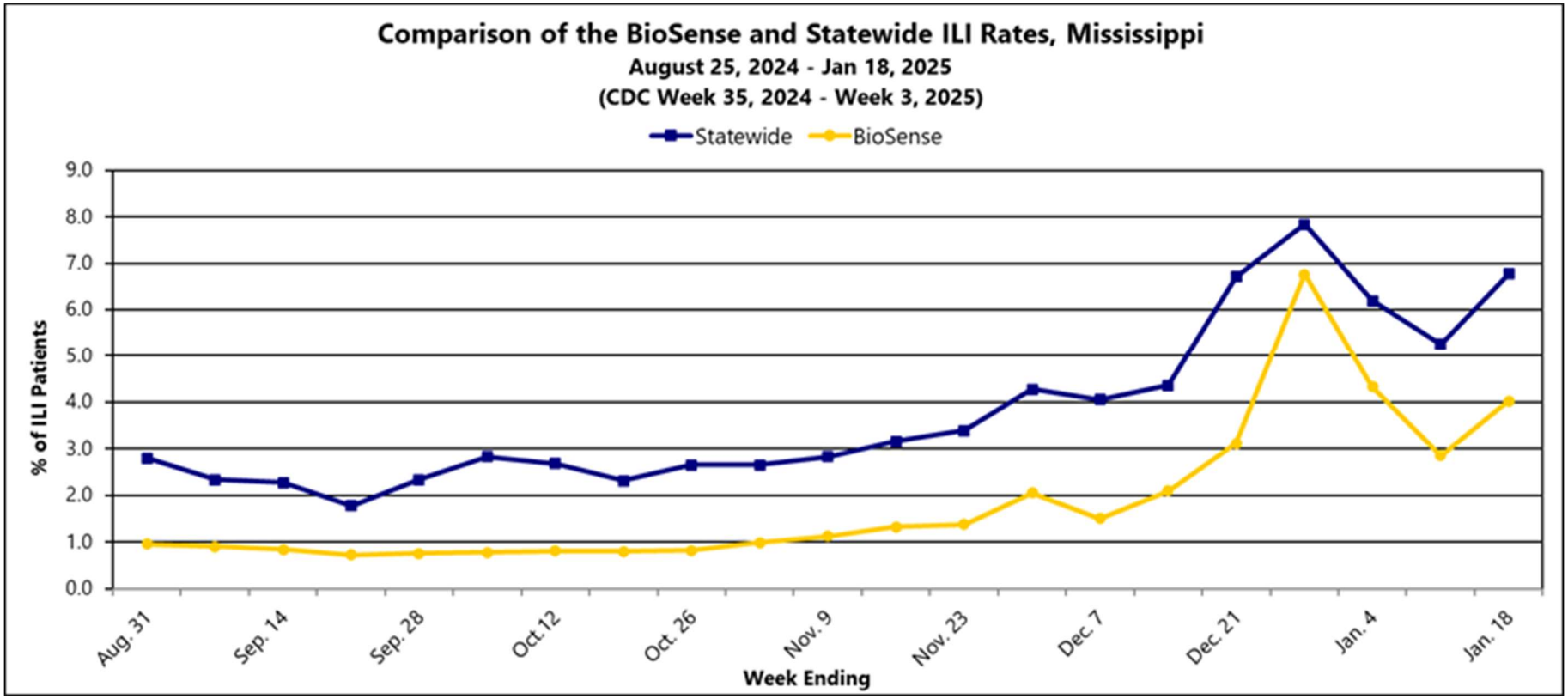

Comparison of the BioSense and Statewide ILI Rates, Mississippi
August 25, 2024 - Jan 18, 2025
(CDC Week 35, 2024 - Week 3, 2025)
Statewide
BioSense
% of ILI Patients
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Aug. 31
Sep. 14
Sep. 28
Oct.12
Oct. 26
Nov. 9
Nov. 23
Dec. 7
Dec. 21
Jan. 4
Jan. 18
Week Ending

Figure 5

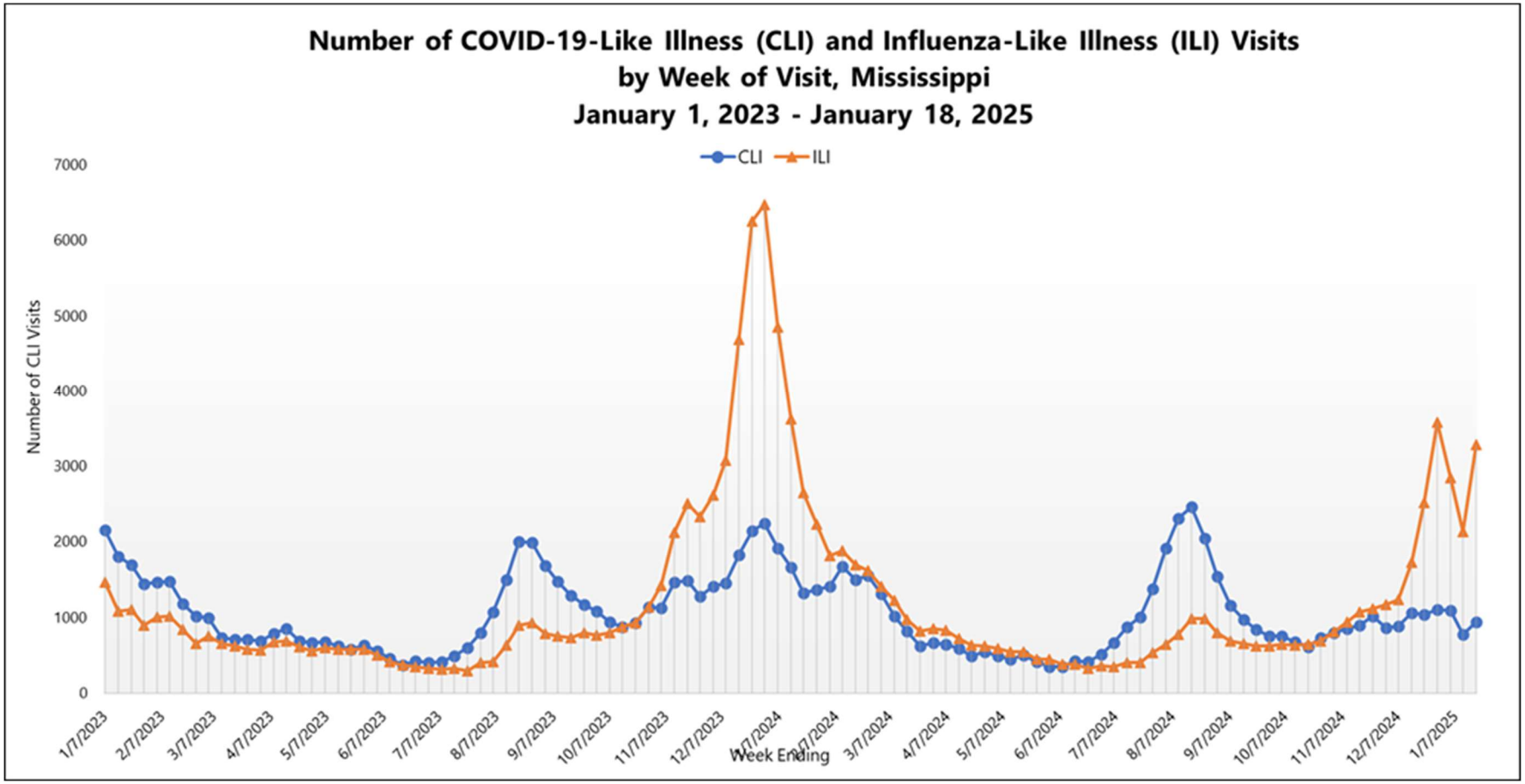
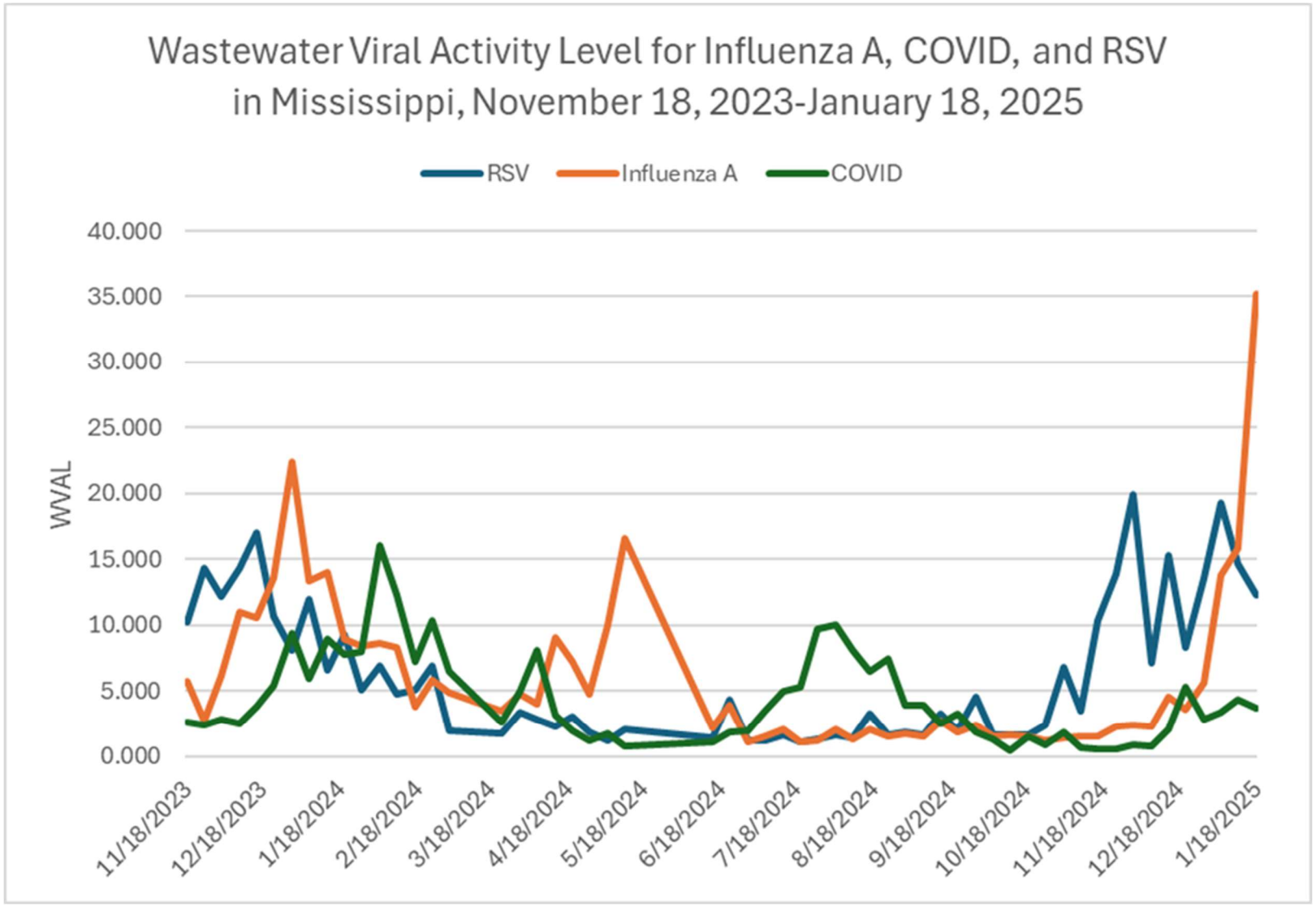

Number of COVID-19-Like Illness (CLI) and Influenza-Like Illness (ILI) Visits
by Week of Visit, Mississippi
January 1, 2023 - January 18, 2025
CLI
ILI
Number of CLI Visits
7000
6000
5000
4000
3000
2000
1000
0
1/7/2023
2/7/2023
3/7/2023
4/7/2023
5/7/2023
6/7/2023
7/7/2023
8/7/2023
9/7/2023
10/7/2023
11/7/2023
12/7/2023
1/7/2024
2/7/2024
3/7/2024
4/7/2024
5/7/2024
6/7/2024
7/7/2024
8/7/2024
9/7/2024
10/7/2024
11/7/2024
12/7/2024
1/7/2025
Week Ending

Figure 6


Wastewater Viral Activity Level for Influenza A, COVID, and RSV in Mississippi, November 18, 2023-January 18, 2025
RSV
Influenza A
COVID
WVAL
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
11/18/2023
12/18/2023
1/18/2024
2/18/2024
3/18/2024
4/18/2024
5/18/2024
6/18/2024
7/18/2024
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9/18/2024
10/18/2024
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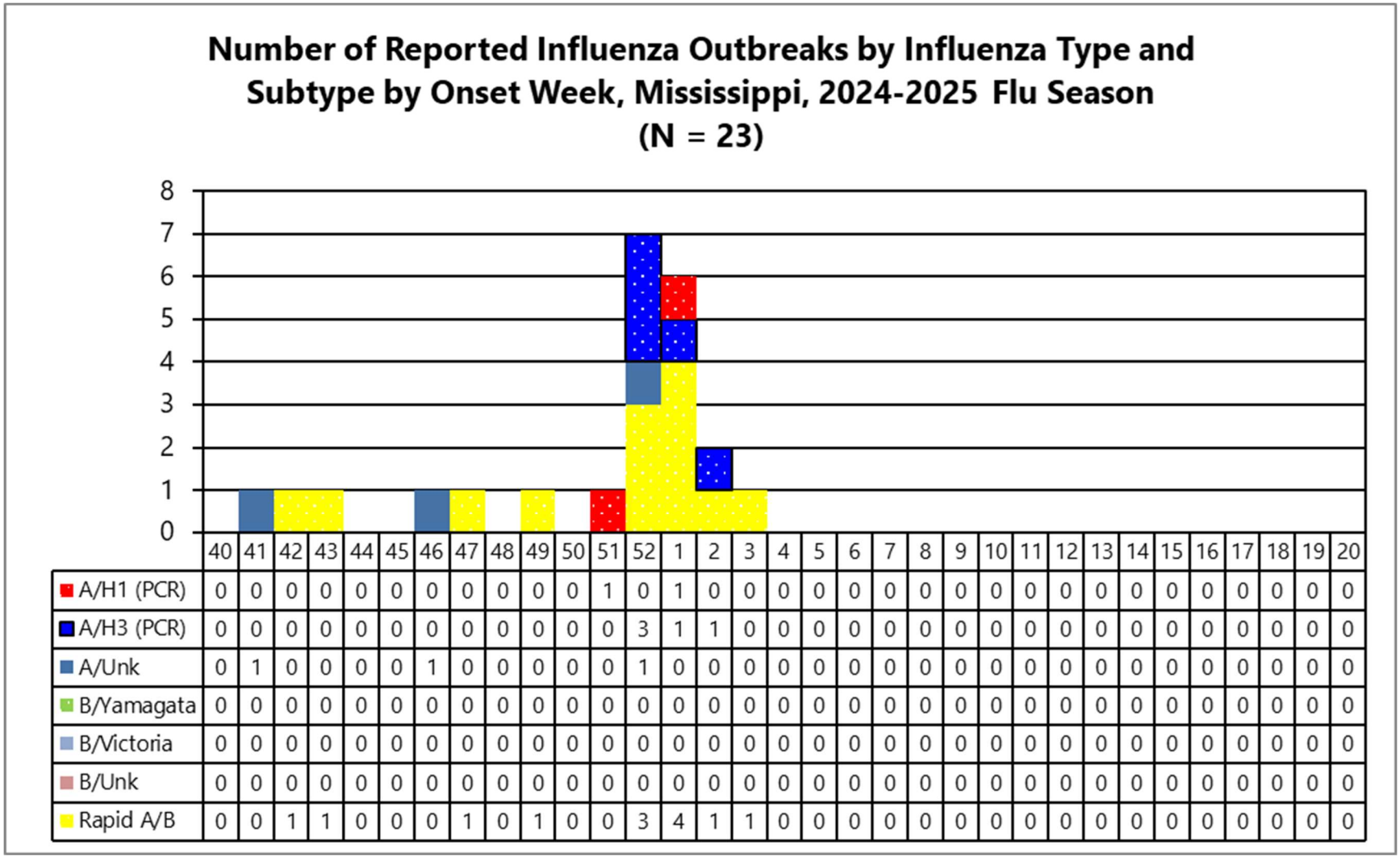
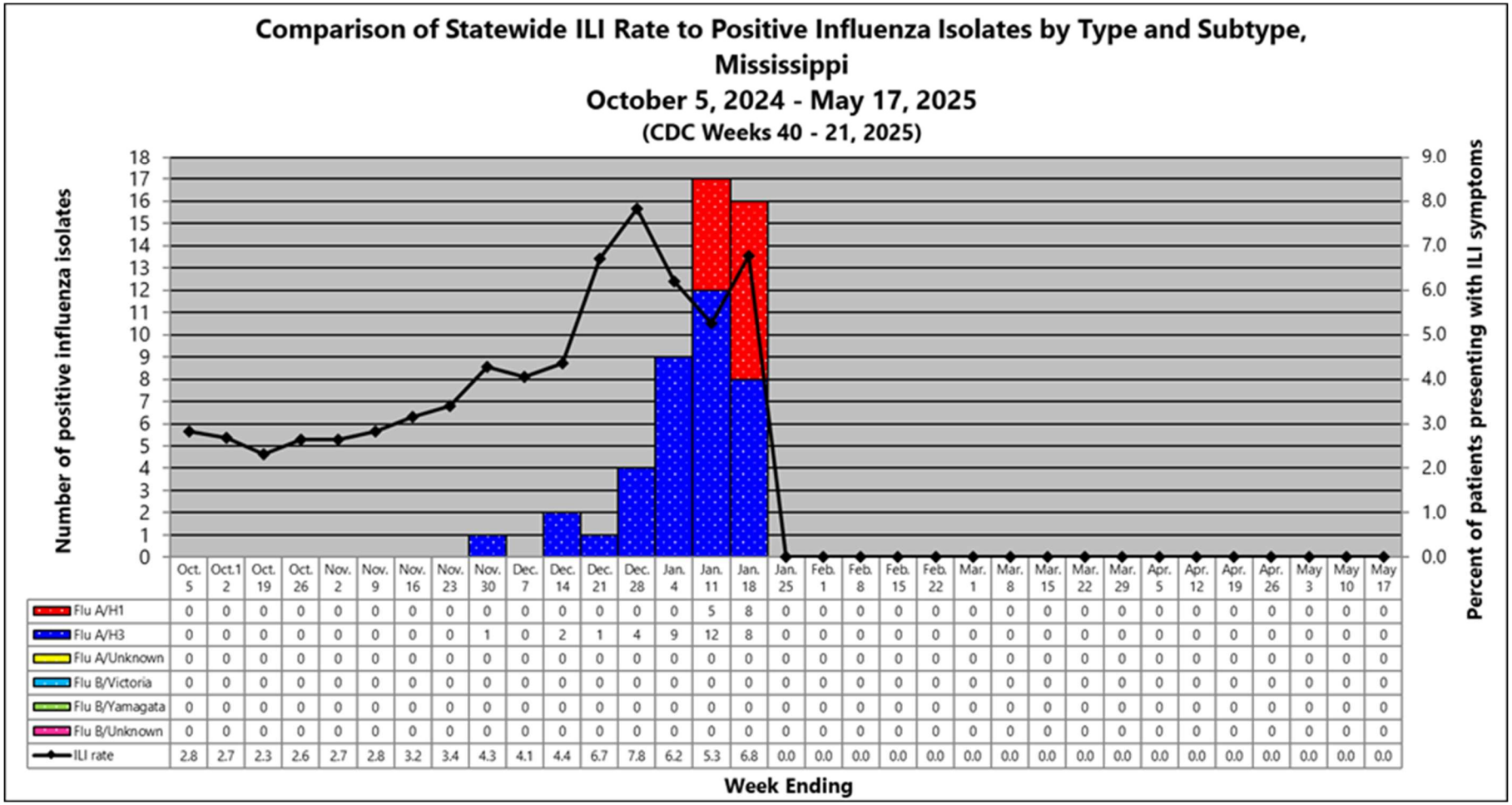
12/18/2024
1/18/2025

Figure 7



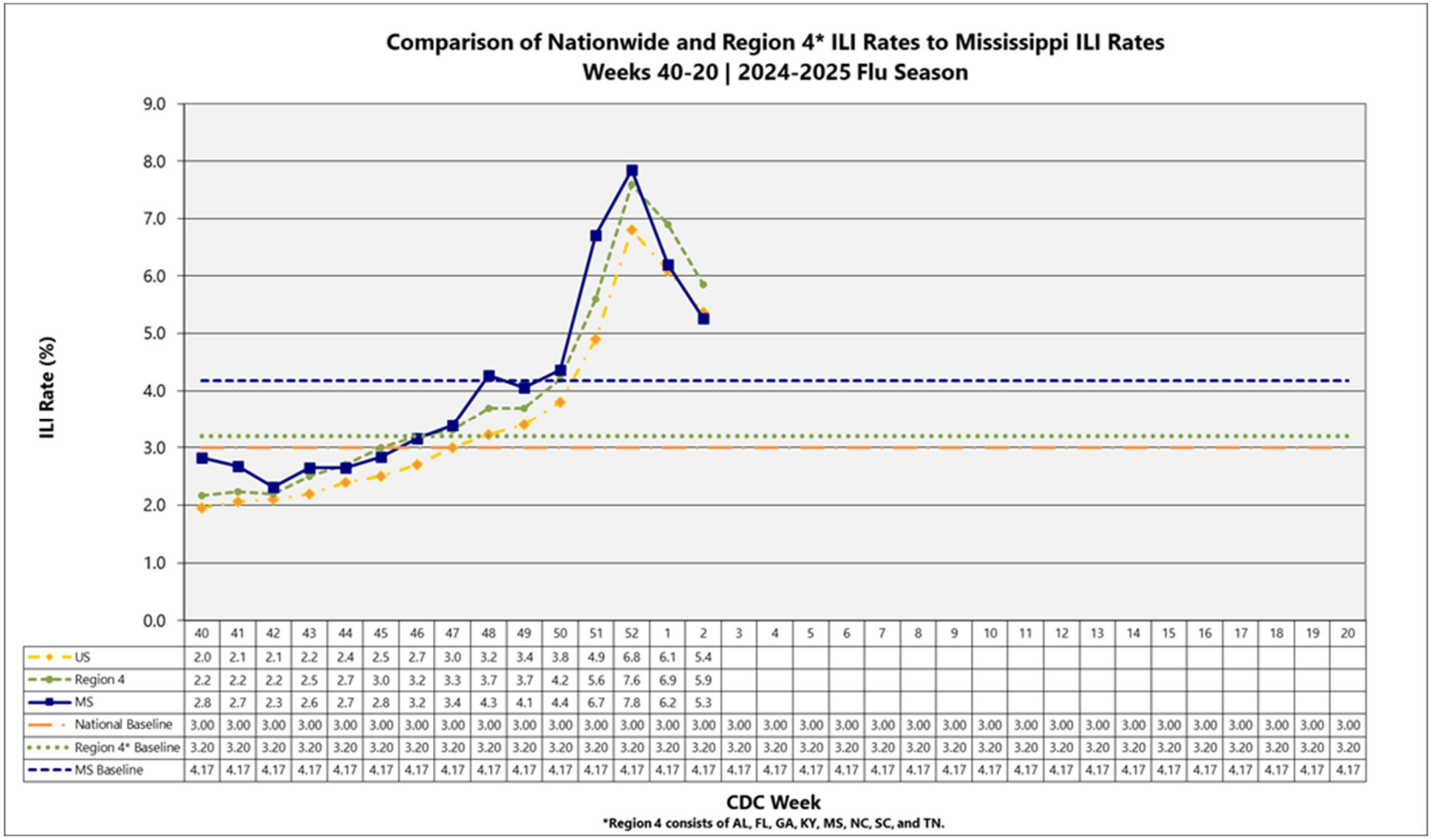
	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A/H1 (PCR)	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A/H3 (PCR)	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A/Unk	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B/Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B/Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B/Unk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rapid A/B	0	0	1	1	0	0	0	1	0	1	0	0	3	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 8



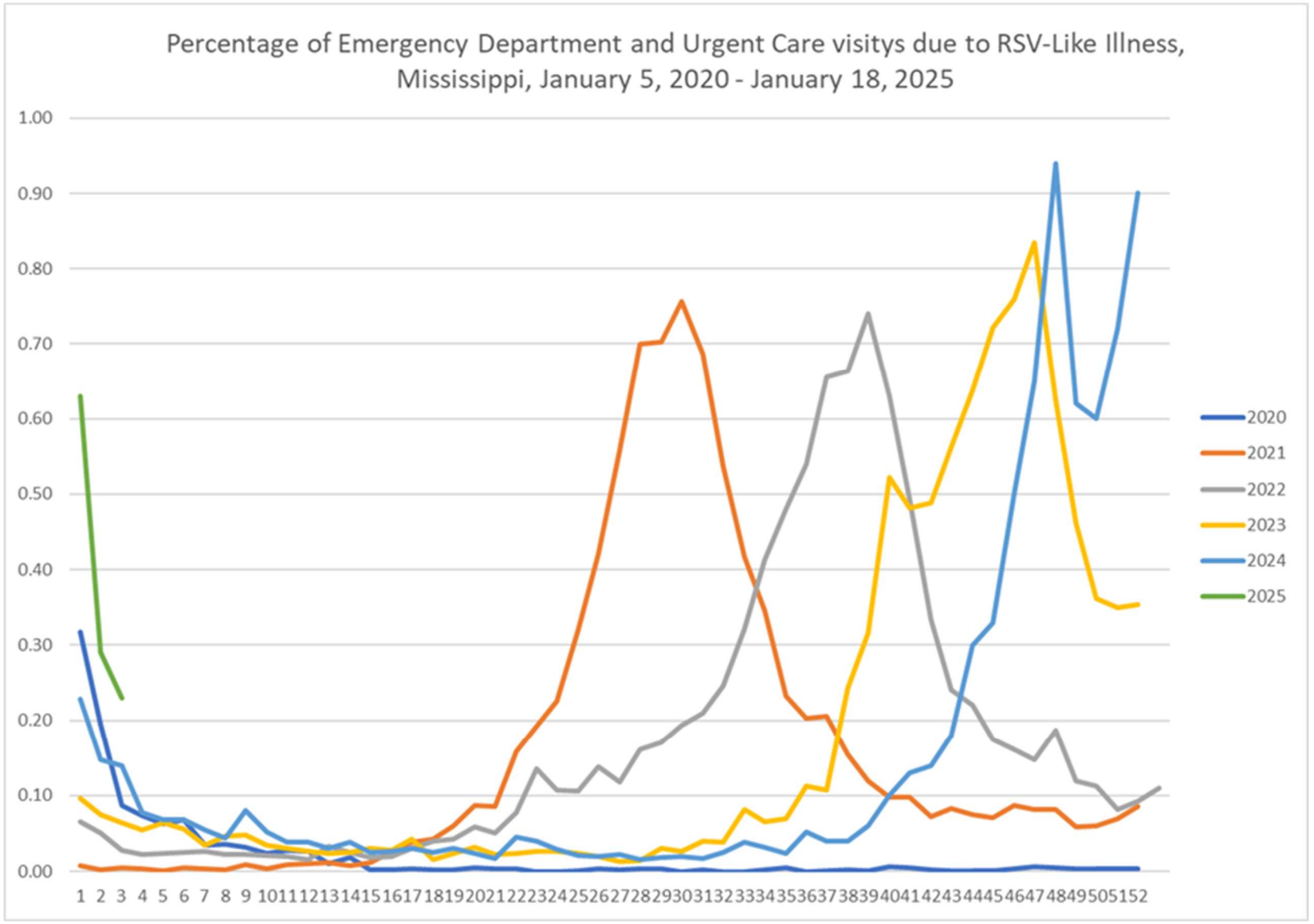
	Oct. 5	Oct.12	Oct. 19	Oct. 26	Nov. 2	Nov. 9	Nov. 16	Nov. 23	Nov. 30	Dec. 7	Dec. 14	Dec. 21	Dec. 28	Jan. 4	Jan. 11	Jan. 18	Jan. 25	Feb. 1	Feb. 8	Feb. 15	Feb. 22	Mar. 1	Mar. 8	Mar. 15	Mar. 22	Mar. 29	Apr. 5	Apr. 12	Apr. 19	Apr. 26	May 3	May 10	May 17
Flu A/H1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu A/H3	0	0	0	0	0	0	0	0	1	0	2	1	4	9	12	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu A/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu B/Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu B/Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flu B/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ILI rate	2.8	2.7	2.3	2.6	2.7	2.8	3.2	3.4	4.3	4.1	4.4	6.7	7.8	6.2	5.3	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 9



	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
US	2.0	2.1	2.1	2.2	2.4	2.5	2.7	3.0	3.2	3.4	3.8	4.9	6.8	6.1	5.4																		
Region 4	2.2	2.2	2.2	2.5	2.7	3.0	3.2	3.3	3.7	3.7	4.2	5.6	7.6	6.9	5.9																		
MS	2.8	2.7	2.3	2.6	2.7	2.8	3.2	3.4	4.3	4.1	4.4	6.7	7.8	6.2	5.3																		
National Baseline	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Region 4* Baseline	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
MS Baseline	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17

Figure 10


Percentage of Emergency Department and Urgent Care visitys due to RSV-Like Illness, Mississippi, January 5, 2020 - January 18, 2025
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52
2020
2021
2022
2023
2024
2025