



MMWR Week: 50
Ending on: 12/16/2023

Respiratory Surveillance At-A-Glance

Virology	Illness	Severity
<p><u>In MMWR week 50 :</u></p> <ul style="list-style-type: none"> ↑ 17.8% of specimens tested at LAC sentinel surveillance laboratories were positive for influenza. ↑ 11.1% of specimens tested at LAC sentinel surveillance laboratories were positive for SARS-CoV-2. ↓ 12.3% of specimens tested at LAC sentinel surveillance laboratories were positive for RSV. 	<p><u>In MMWR week 50 :</u></p> <ul style="list-style-type: none"> ↑ 9.1% of ED visits were for influenza- like illness. ↓ 4.3% of ED visits were for COVID-19. <p><i>Influenza- like illness and COVID-19 are not mutually exclusive</i></p>	<p><u>In MMWR week 49 :</u></p> <p>COVID-19 was reported as a cause for 2.6% of deaths in LAC</p> <p>Pneumonia, influenza, or COVID-19 accounted for 11.6% of deaths in LAC</p> <p>Since the start of the 2023-2024 respiratory season, 16 influenza- coded deaths have been identified through death certificate data.</p>

LAC DPH prepares this report to summarize current respiratory illness surveillance data in LAC*. **Weekly surveillance data are preliminary and subject to change.** More information regarding methods can be found on the surveillance system specific pages of this report.

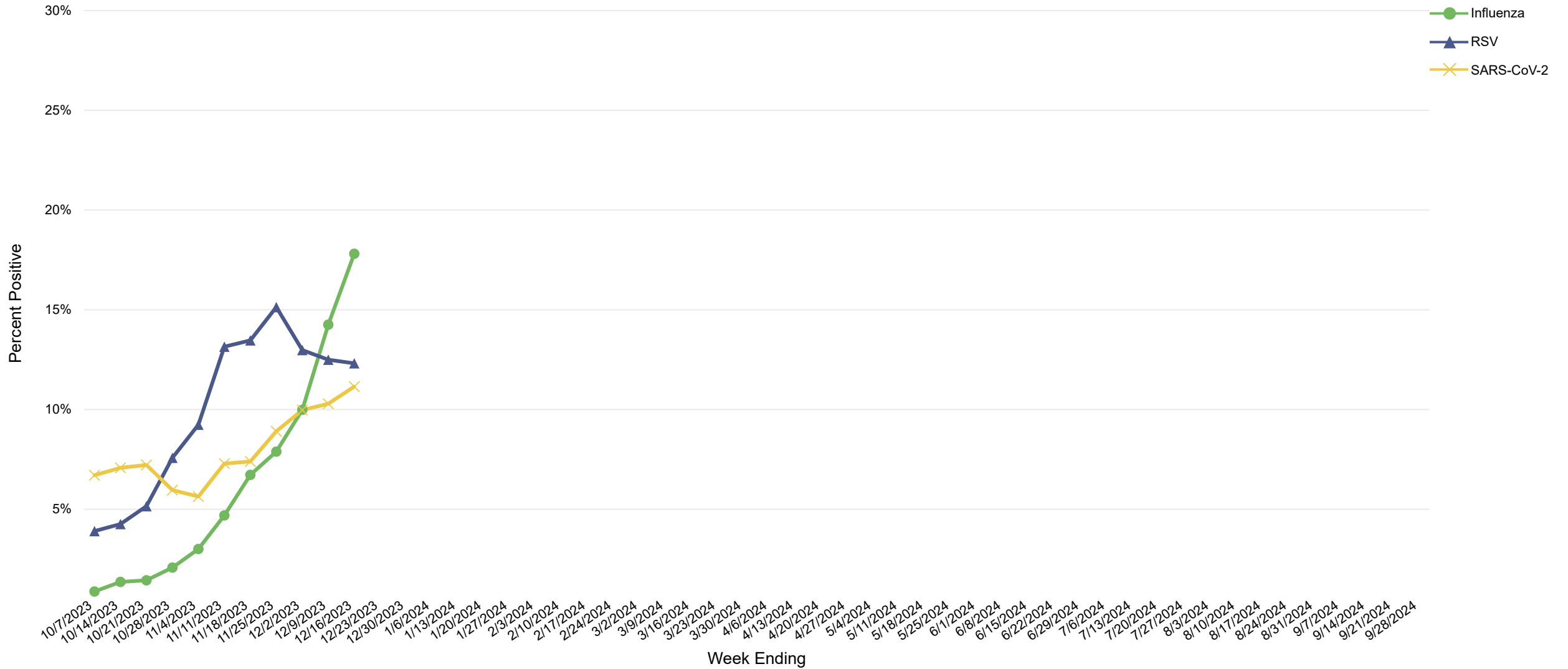
Daily counts of COVID cases and deaths are available on the LAC DPH website at http://dashboard.publichealth.lacounty.gov/covid19_surveillance_dashboard/

**LAC DPH surveillance data excludes the cities of Long Beach and Pasadena.*

**The respiratory virus surveillance period starts with MMWR week 40 and runs through week 39 of the following year. The 2023-24 season started on Oct 1, 2023.*



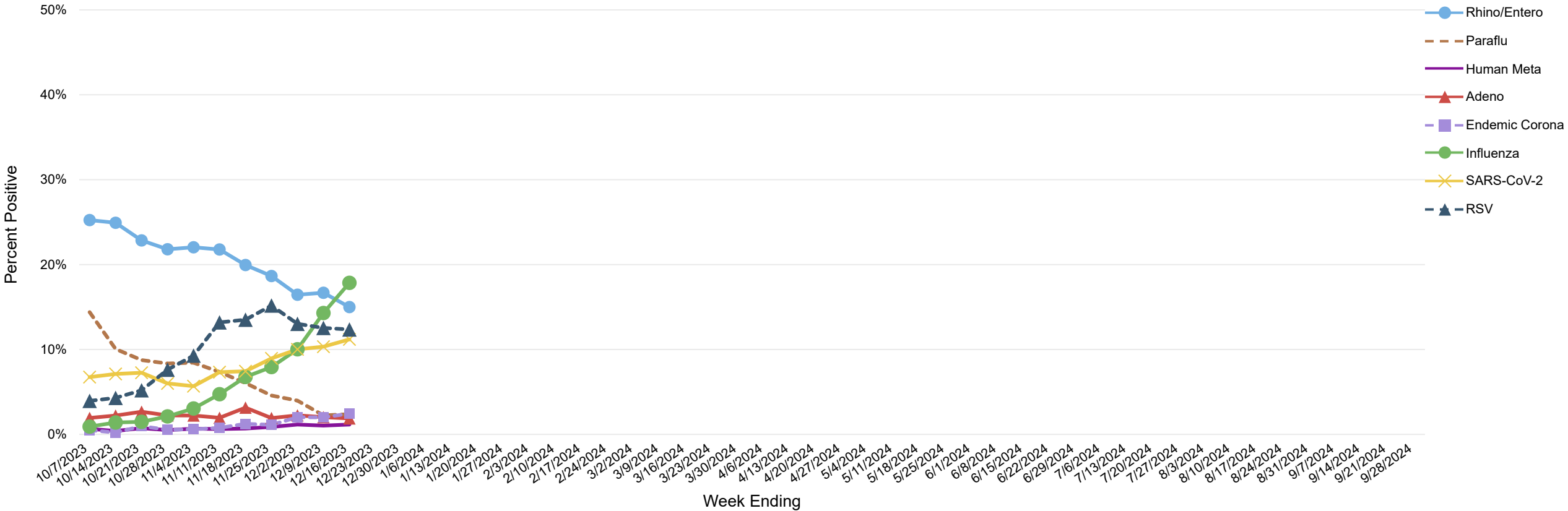
Figure 1. Percentage of Respiratory Specimens Testing Positive by Viral Etiology, Los Angeles County Sentinel Surveillance Laboratories, 2023-24 Influenza Season





Viral surveillance data is provided by clinical laboratories serving hospitals and healthcare networks across Los Angeles County. Participating laboratories provide the number of positive tests and total number of specimens tested for SARS-CoV-2, influenza and respiratory syncytial virus. Data reported from viral surveillance laboratories will differ from the overall county testing data because of differences in the population tested, types of tests used, and changes in the number of laboratories conducting testing over time.

Figure 2. Percentage of Respiratory Specimens Testing Positive by Viral Etiology, Los Angeles County Sentinel Surveillance Laboratories, 2023-24 Influenza Season

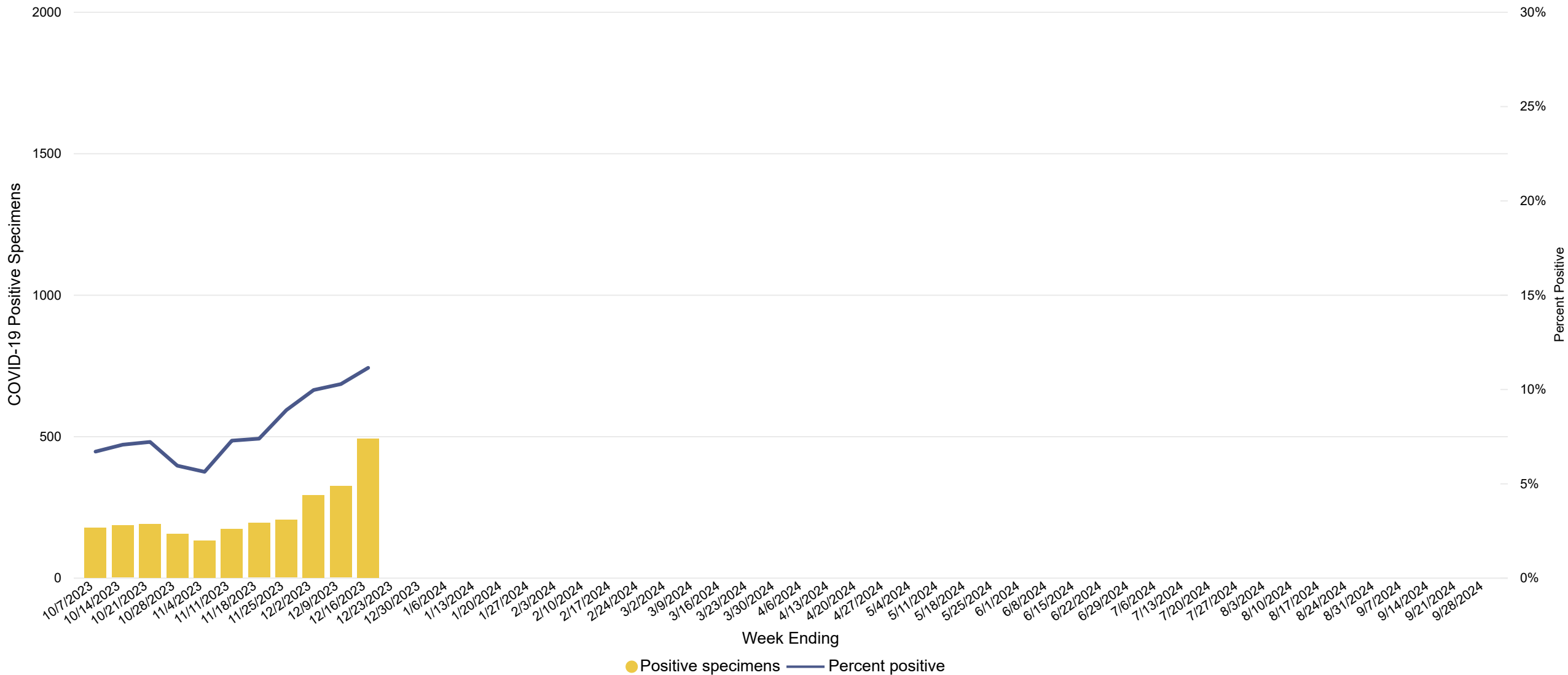


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Virologic Surveillance- COVID-19

Figure 3. Respiratory Specimens Tested and Percent Positive for COVID-19 by LAC Sentinel Surveillance Laboratories, 2023-24 Season



Virologic Surveillance- COVID-19

Figure 4. Percentage of Respiratory Specimens Testing Positive for COVID-19 at LAC Sentinel Surveillance Laboratories by Season, 2020-21 Through 2023-24

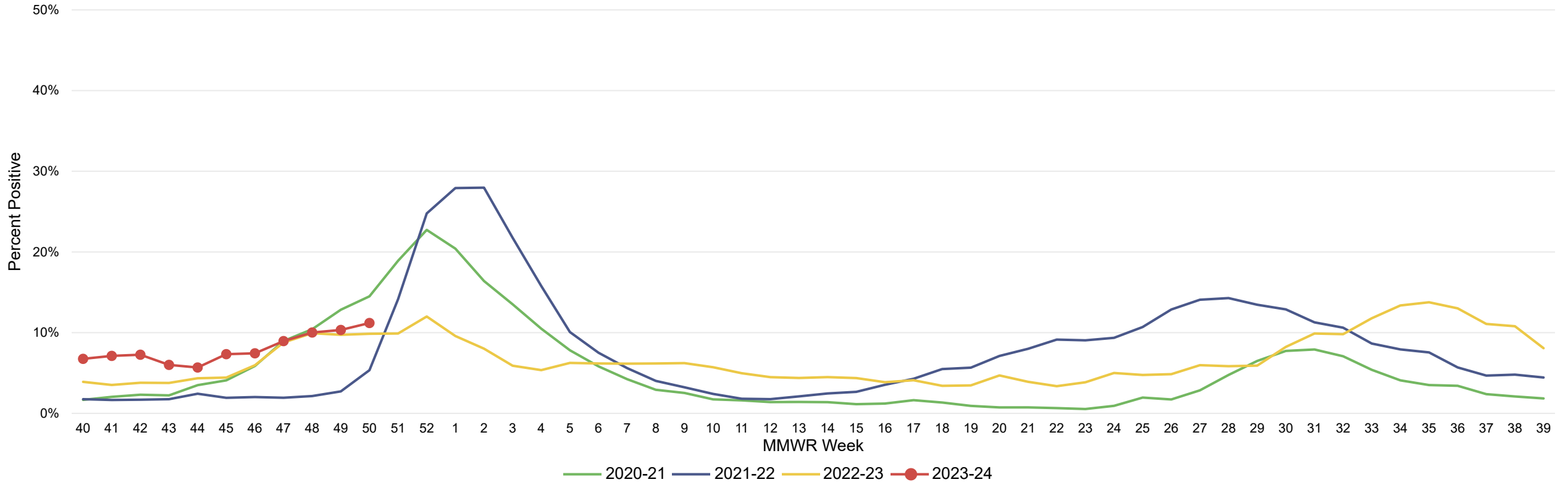


Table 1. Respiratory Specimens tested for COVID-19 at LAC Sentinel Laboratories

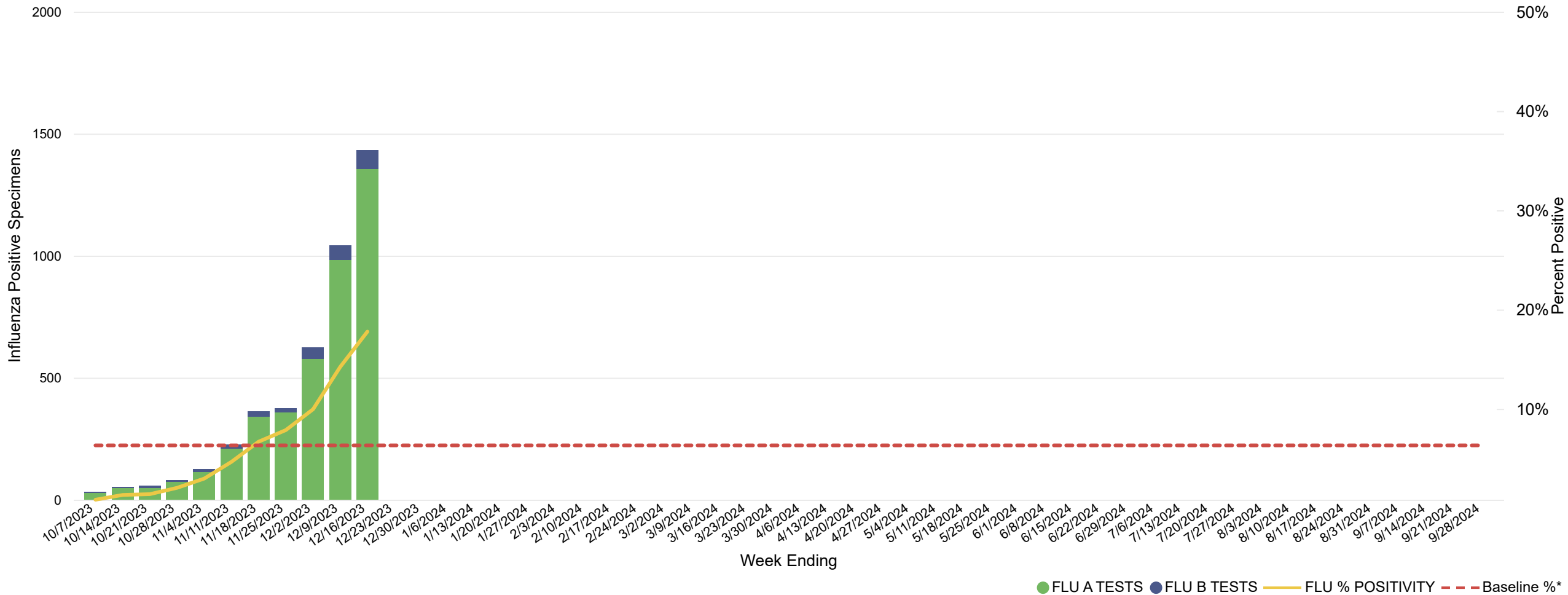
MMWR Week	Specimens tested	Positive specimens	Percent positivity
50	4416	491	11.1%
49	3149	323	10.3%

Table 2. Respiratory Specimens tested for COVID-19 at LAC Sentinel Laboratories, Data Cumulative Since October 1, 2023 (Week 40)

Specimens tested	Positive specimens	Percent positivity
30634	2511	7.9%

Virologic Surveillance- Influenza

Figure 5. Respiratory Specimens Tested and Percent Positive for Influenza Virus by LAC Sentinel Surveillance Laboratories, 2023-24 Influenza Season



*Baseline is defined as mean percentage of specimens testing positive during non-influenza weeks for the previous three seasons plus two standard deviations. Non-epidemic weeks are periods of ≥2 consecutive weeks during which each week accounted for <2% of the season’s total number of specimens that tested positive. The COVID-19 pandemic affected the circulation of other respiratory viruses. Pandemic weeks are excluded from the baseline calculation.

Virologic Surveillance- Influenza

Figure 6. Percentage of Respiratory Specimens Testing Positive for Influenza at LAC Sentinel Surveillance Laboratories by Season, 2017-18 Through 2023-24

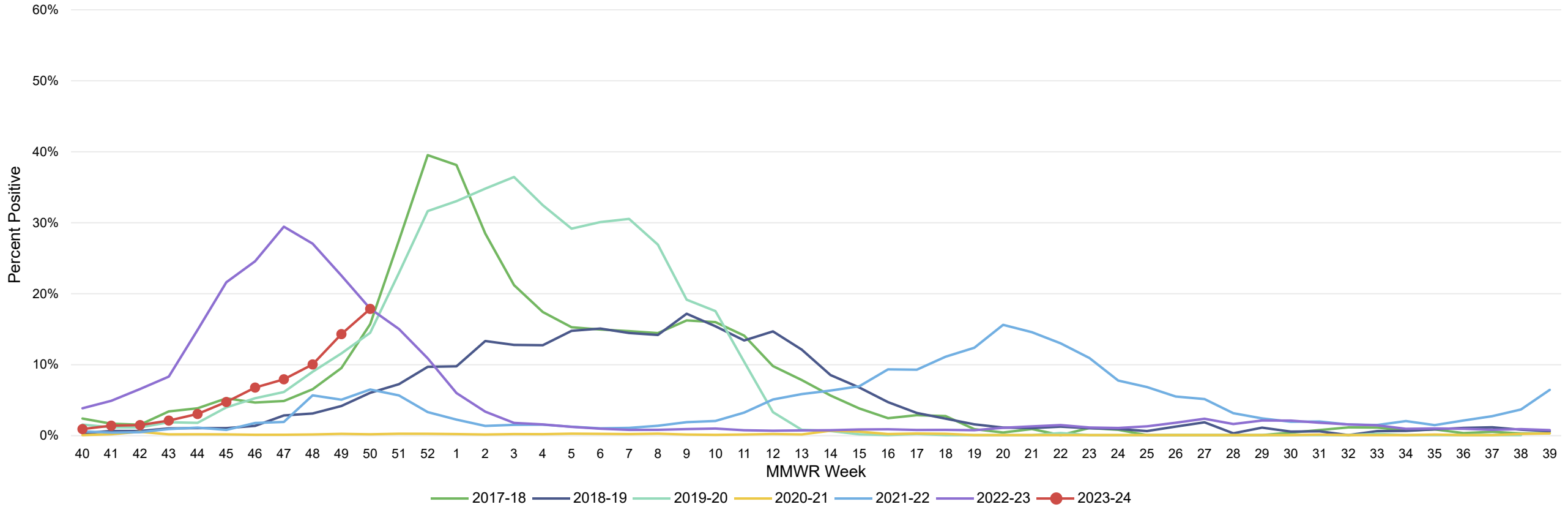


Table 3. Respiratory Specimens tested for Influenza at LAC Sentinel Laboratories

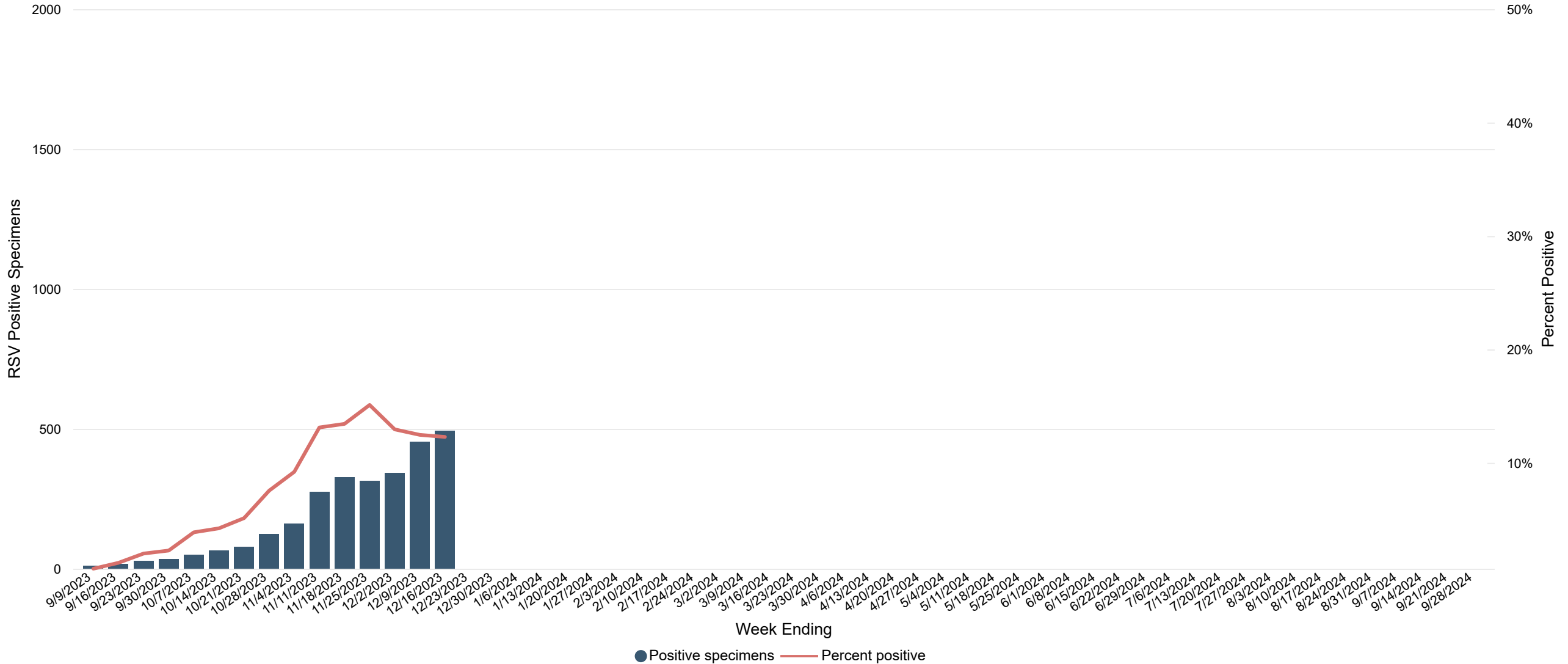
MMWR Week	Specimens Tested	Positive Specimens	% Positivity	Flu A	% Flu A	Flu B	% Flu B
50	8049	1431	17.8%	1355	94.69%	76	5.31%
49	7326	1042	14.2%	984	94.43%	58	5.57%

Table 4. Respiratory Specimens tested for Influenza at LAC Sentinel Laboratories, Data Cumulative Since October 2, 2022 (Week 40)

Specimens Tested	Positive Specimens	% Positivity	Flu A	% Flu A	Flu B	% Flu B
56473	4406	6.3%	4134	91.58%	272	8.42%

Virologic Surveillance- RSV

Figure 7. Respiratory Specimens Tested and Percent Positive for Respiratory Syncytial Virus (RSV) by LAC Sentinel Surveillance Laboratories, 2023-24 Season



Virologic Surveillance- RSV

Figure 8. Percentage of Respiratory Specimens Testing Positive for Respiratory Syncytial Virus (RSV) at LAC Sentinel Surveillance Laboratories by Season, 2017-18 Through 2023-24

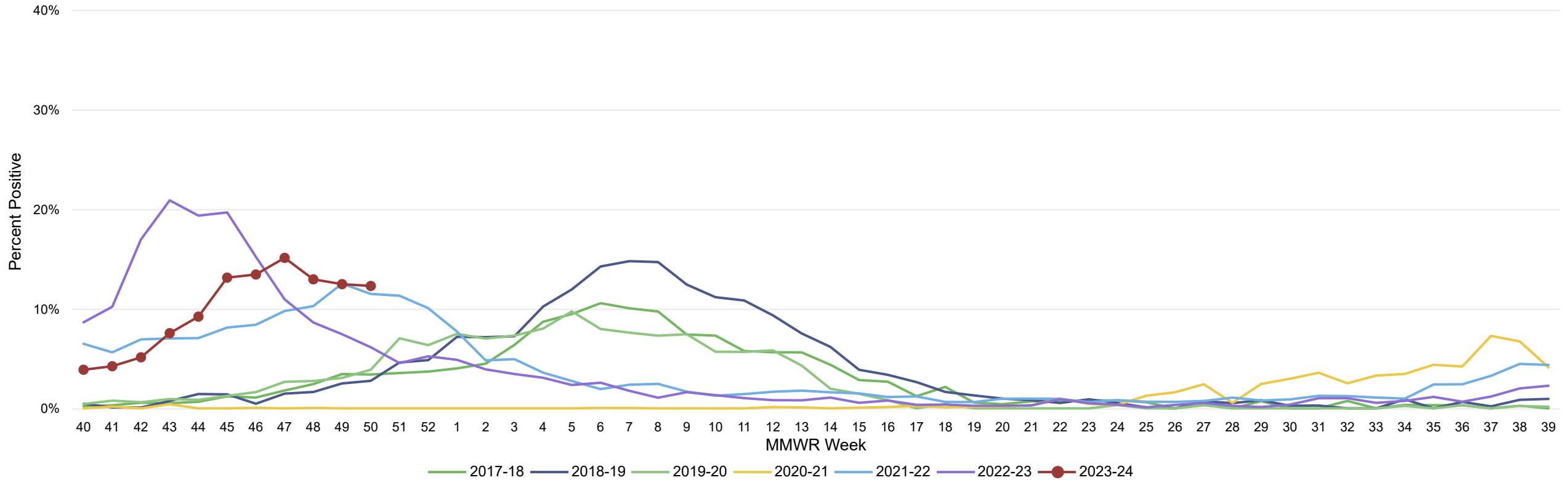


Table 5. Respiratory Specimens tested for RSV at LAC Sentinel Laboratories

MMWR Week	Specimens tested	Positive specimens	Percent positivity
50	4013	493	12.3%
49	3642	454	12.5%

Table 6. Respiratory Specimens tested for RSV at LAC Sentinel Laboratories, Data Cumulative Since October 1, 2023 (Week 40)

Specimens tested	Positive specimens	Percent positivity
24577	2678	9.9%

Wastewater data includes data from the joint Water Pollution Control Plant, Hyperion, and Lancaster sewersheds. Data comes from the WaterSCAN collaborative. Data are normalized average wastewater SARS-CoV-2 concentrations. A weighted average is calculated by using the SARS-CoV-2 viral concentrations across 3 sewer systems that track the virus in LA County (Hyperion Water Reclamation Plant, Joint Water Pollution Control Plant, Lancaster Water Reclamation Plant), with the weights representing the population size served by each sewer system.

Figure 9. Wastewater Concentrations of SARS-CoV-2 in LA County by Season, 2022-2023 through 2023-2024

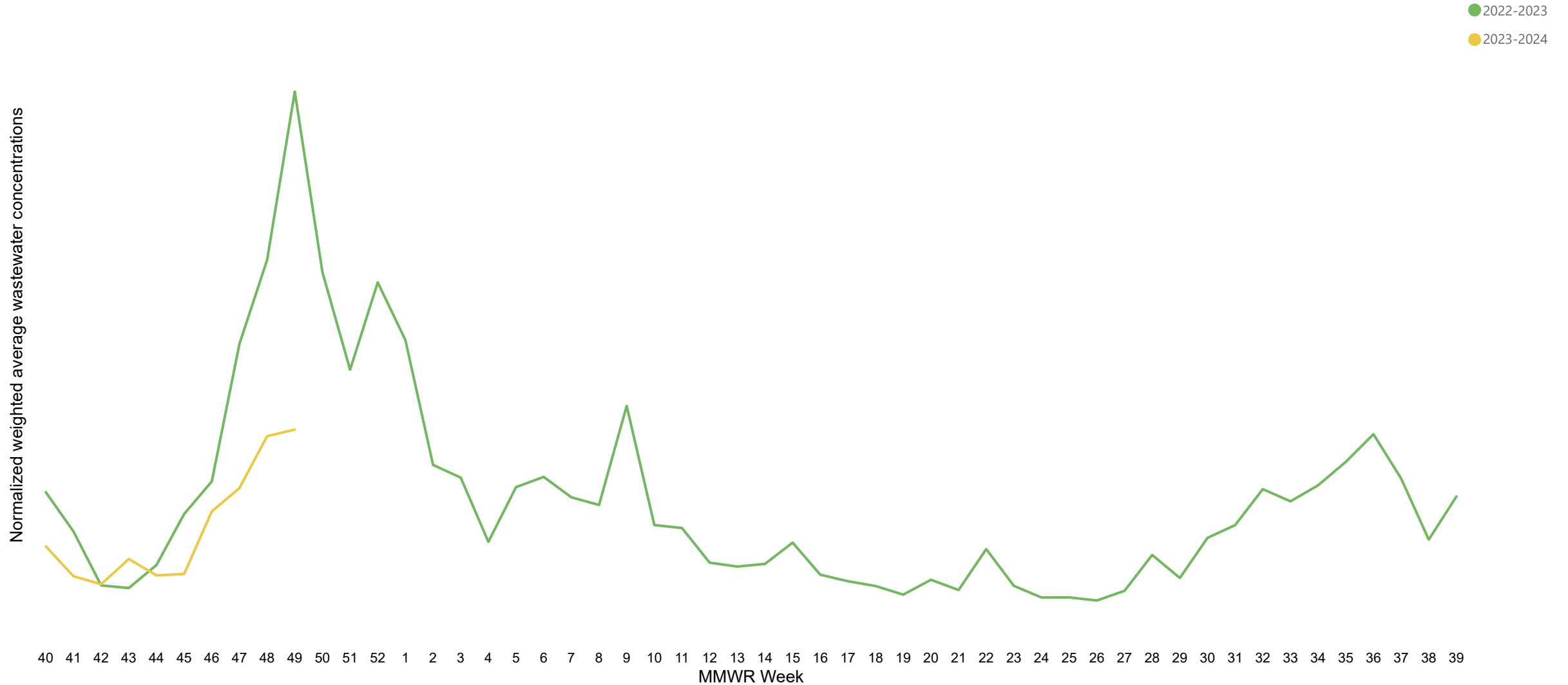


Figure 10. Wastewater Concentrations of Influenza A in LA County by Season, 2022-2023 through 2023-2024

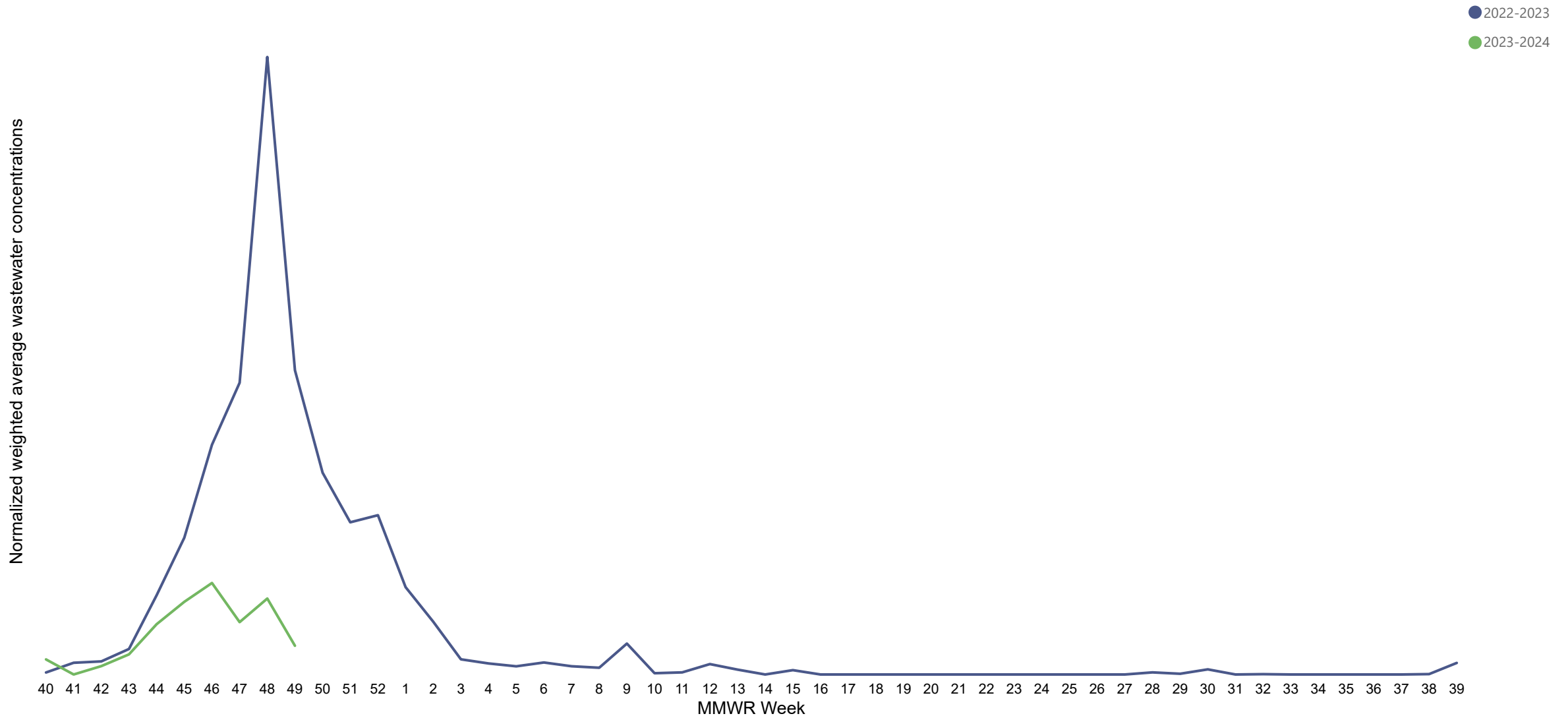
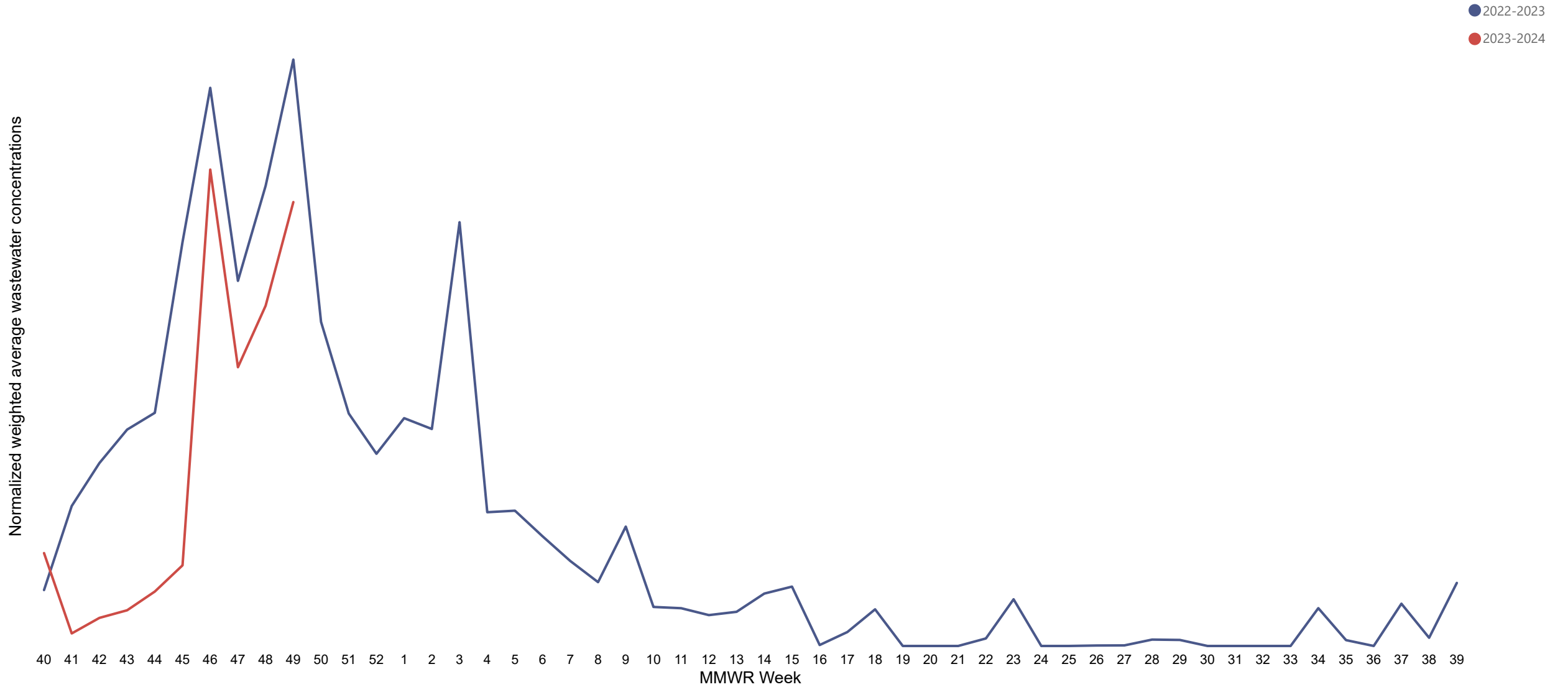


Figure 11. Wastewater Concentrations of RSV in LA County by Season, 2022-2023 through 2023-2024



Public Health's Syndromic Surveillance Project monitors initial self-reported symptoms as well as diagnosis codes from patients presenting to participating emergency departments throughout LAC. These symptoms are categorized into different clinical syndromes according to specific search terms. Visits are included in the coronavirus category if the chief complaint or diagnosis terms include any mention of "COVID," "Coronavirus" or similar key words. The syndrome of ILI is defined as mention of influenza; or fever (subjective or measured greater than 100° F) plus cough or sore throat. The ILI and coronavirus classified ED visits for all ages and by age group are analyzed weekly and year-round. The coronavirus and ILI categories are not mutually exclusive.

**The grey bar in figures 12-15 represents a two-week period when syndrome classifications (e.g. for COVID, ILI, etc.) are in flux due to delayed diagnosis information. These percentages are preliminary and subject to increase*

Figure 12. Emergency Department Visits for COVID-19 per MMWR Week, Los Angeles County, 2020-2021 through 2023-2024 Influenza Seasons

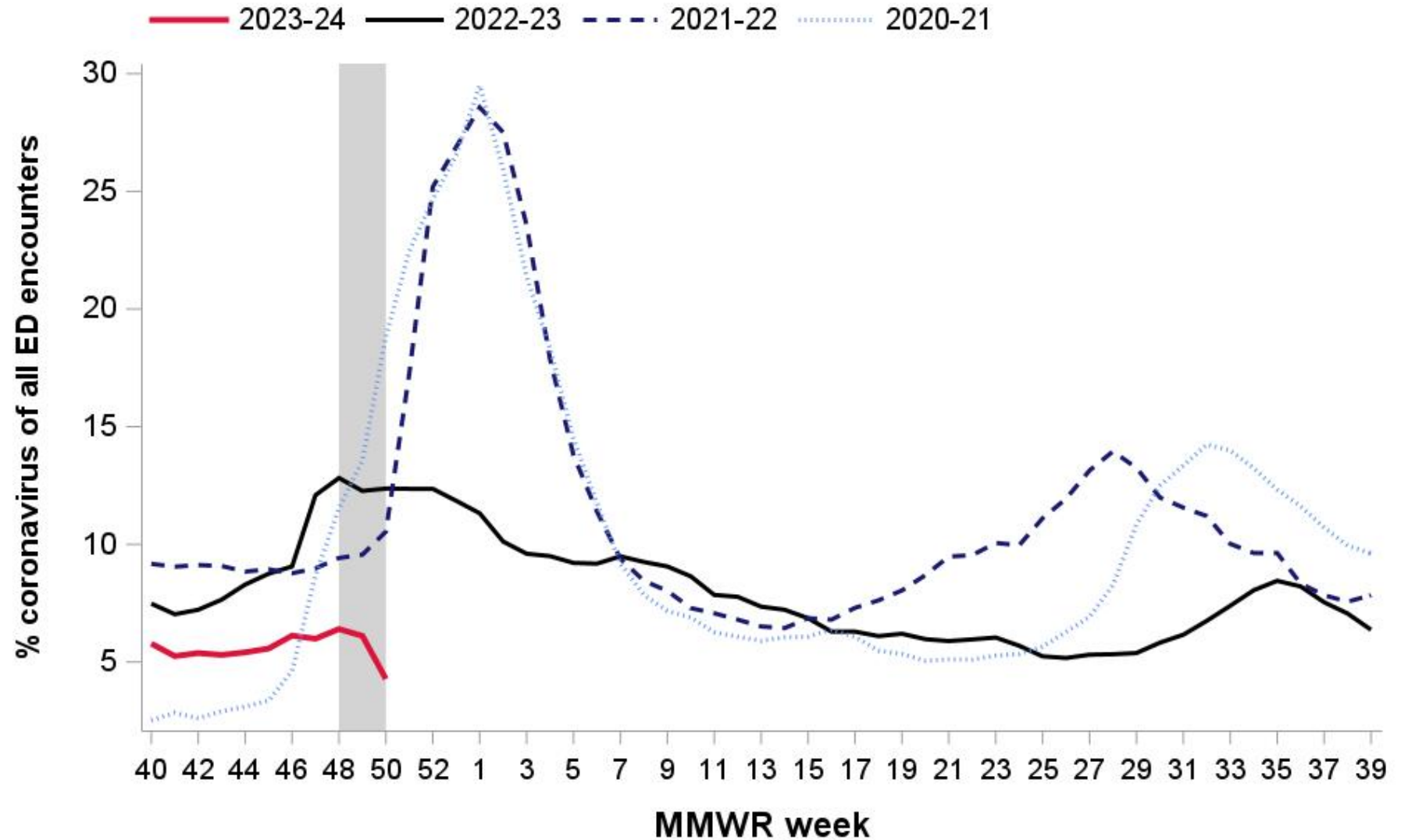


Figure 13. Emergency Department Visits for COVID-19 by Age Category per MMWR week, Los Angeles County, October 2022 Through Present

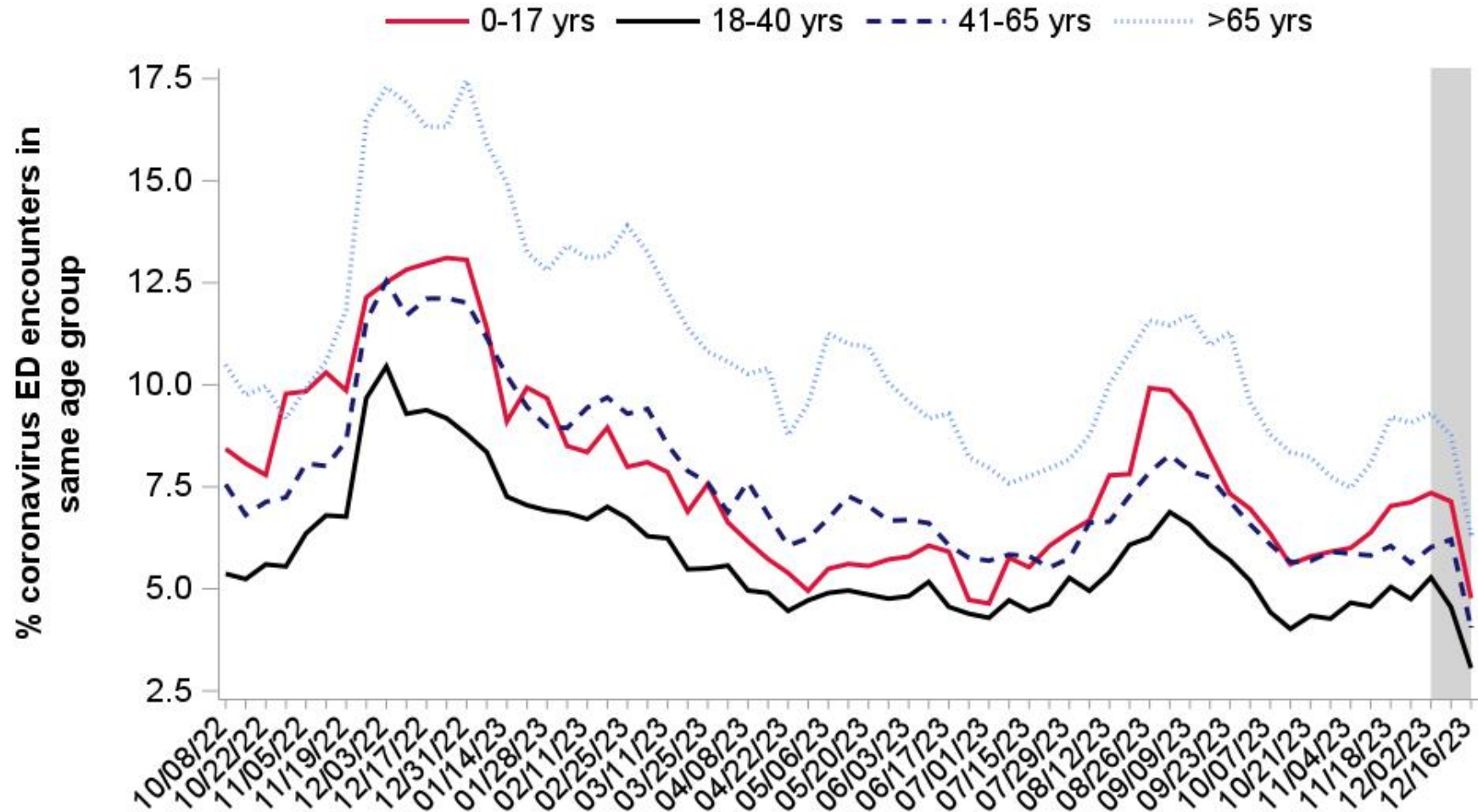


Figure 14. Emergency Department Visits for Influenza-like Illness, Los Angeles County
 2020-2021 through 2023-2024 Influenza Seasons

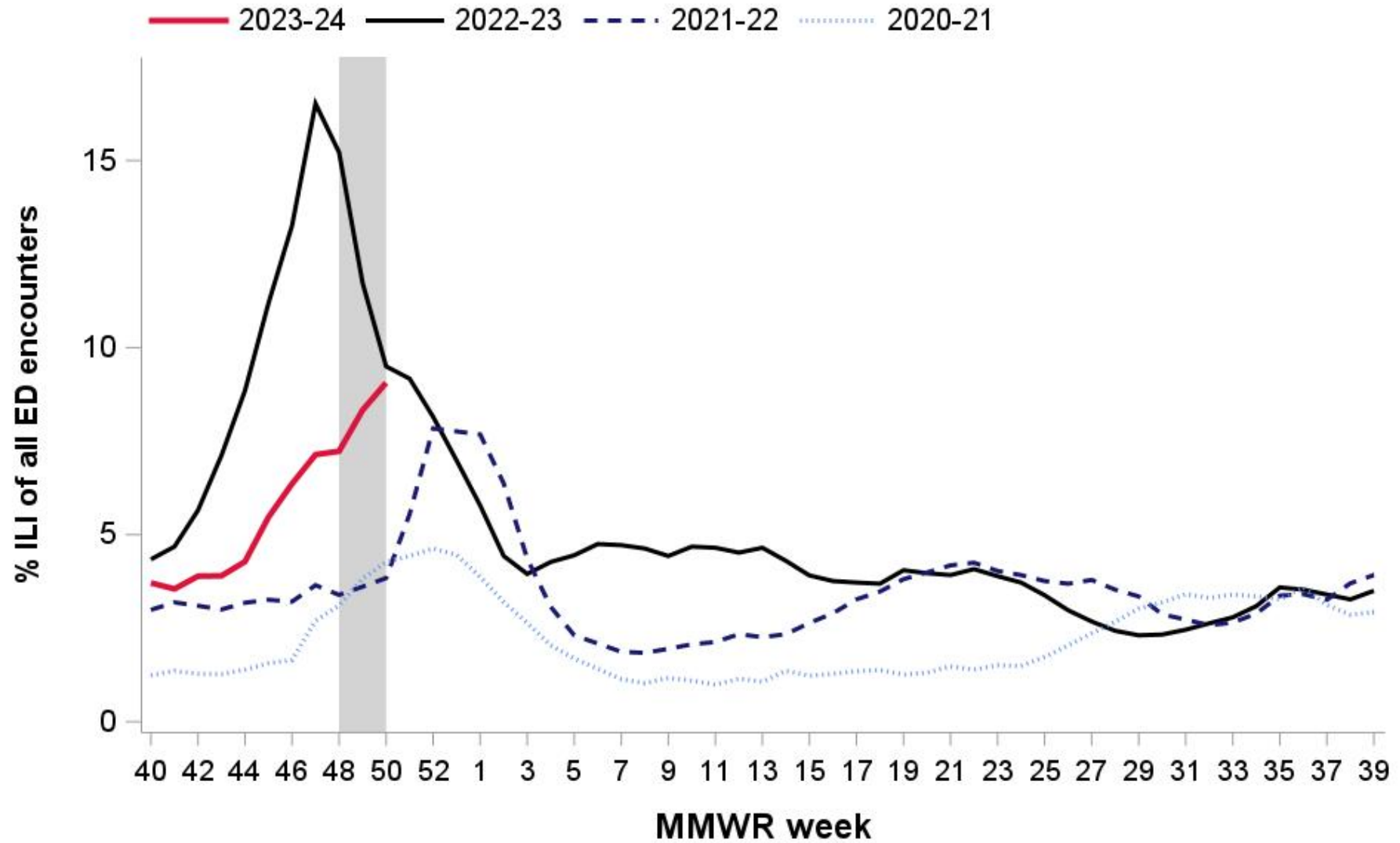
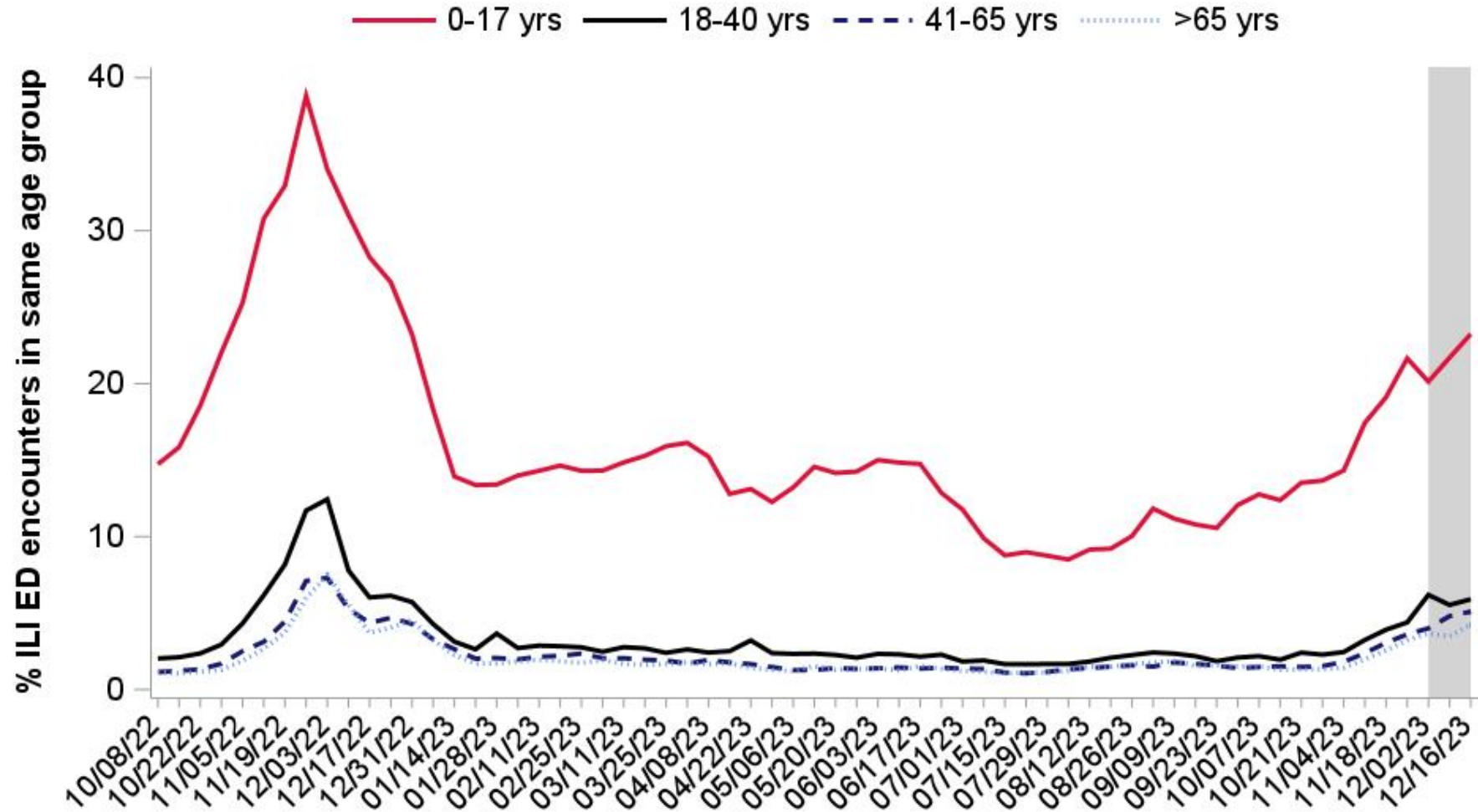
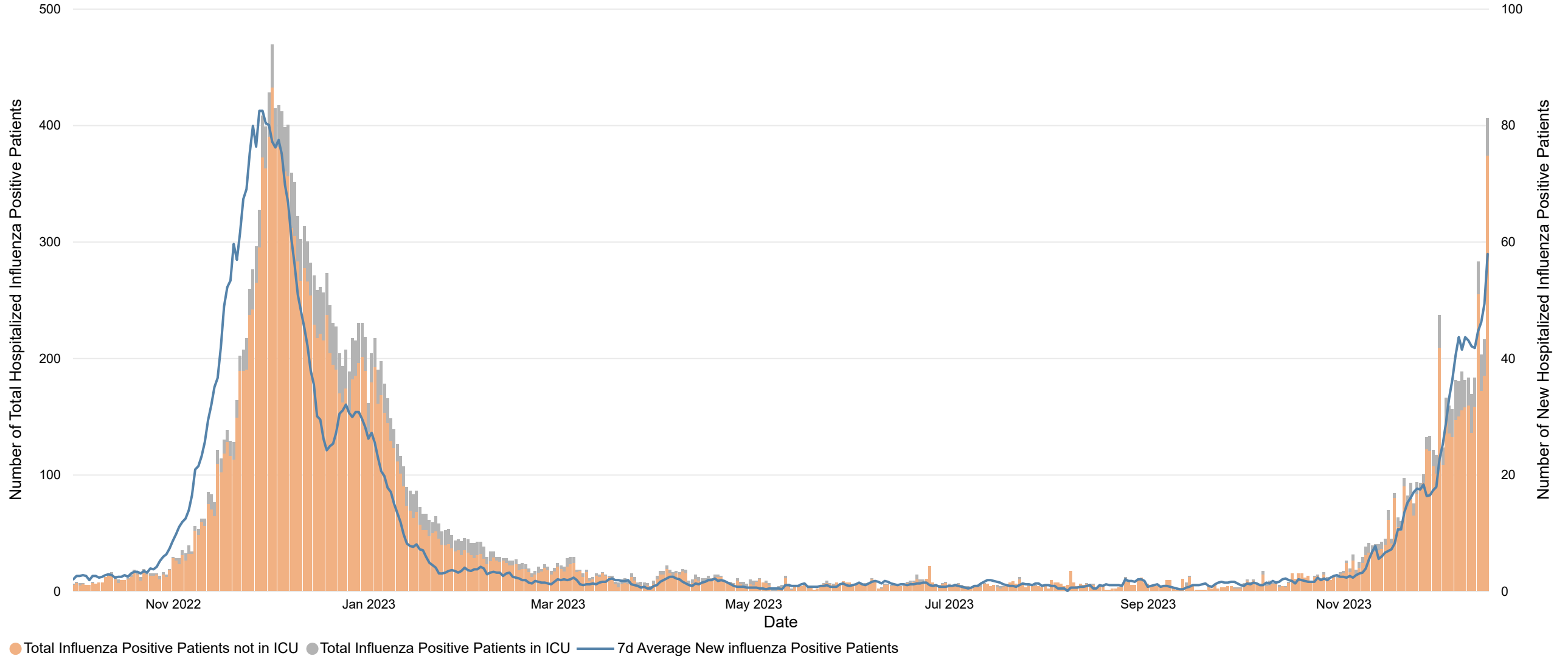


Figure 15. Emergency Department Visits for Influenza-like Illness by Age Groups per MMWR Week, Los Angeles County, October 2022 through Present



Influenza hospitalizations are reported weekly by hospitals through the CDC’s National Healthcare Safety Network (NHSN). The data shows the number of total influenza hospitalizations in Los Angeles County by ICU admission status, and the 7-day average of new patient hospitalizations. The 7 day average for new patients hospitalized is calculated by taking the average of the number of new influenza positive patients that were hospitalized over a 1-week period.

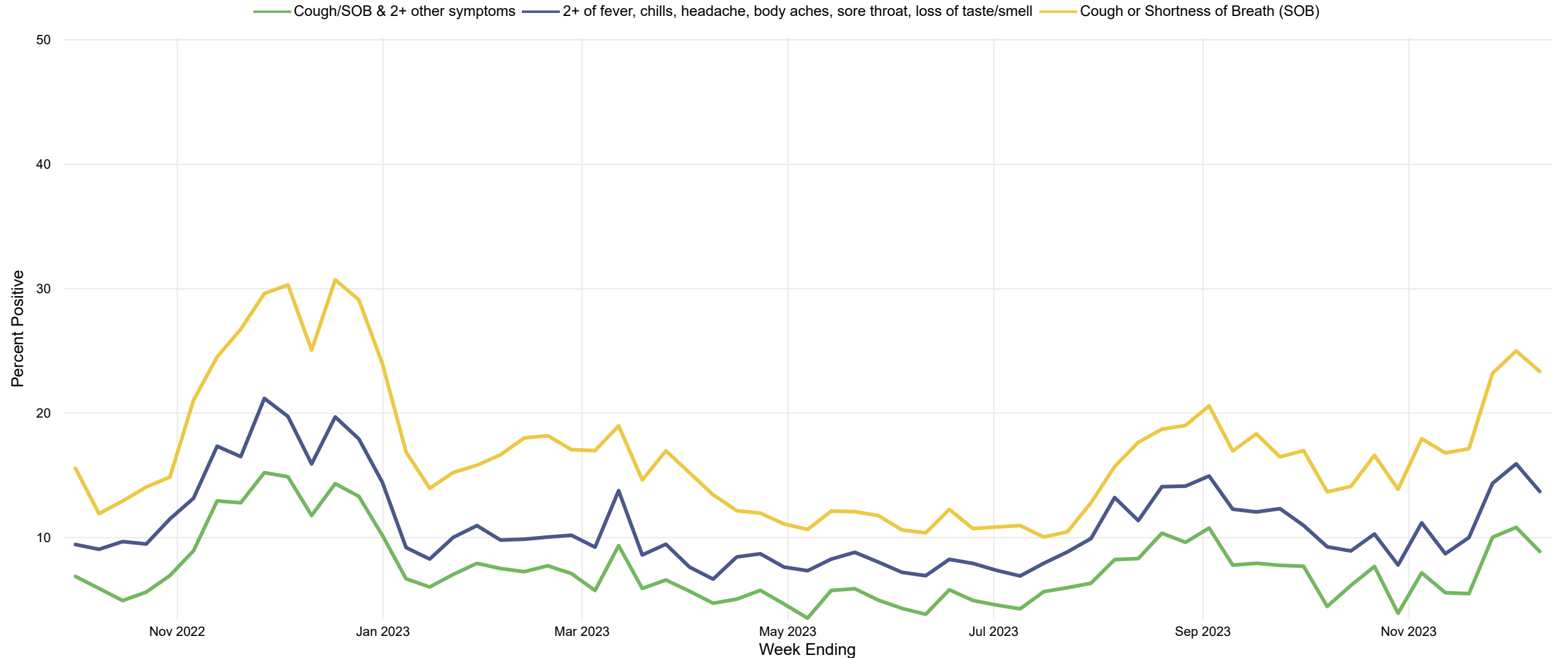
Figure 16. Hospitalized and ICU Influenza Positive Patients in Los Angeles County





Angelenos in Action is a voluntary text-based public health survey that collects information to monitor COVID-19 symptoms across LA County in real time. Volunteers across LA County provide information on their health as part of a weekly SMS survey. Respondents are assigned to a random day, and then texted once per week about their symptoms. Rates are then calculated weekly.

Figure 17. Symptoms Reported by Angelenos in Action Respondents by Week of Survey Response



Severity

Each week, LAC DPH reports the total number of death certificates received and the number of those for which pneumonia, influenza, or COVID-19 (PIC) was listed as the underlying or contributing cause of death by age group. **Technical note:** the number of deaths reported in recent weeks does not represent all deaths that occurred in the reporting period. Data may be incomplete due to a lag between when the death occurred and when the death was registered. Previous weeks counts or percentages may change as vital records are updated with lagged death certificates. This analysis includes all certificates of death (excluding fetal deaths) occurring in the County of Los Angeles (excluding Long Beach and Pasadena) regardless of the residence of the deceased

Figure 18. Pneumonia, Influenza, and COVID-19 Deaths Registered in LAC, by MMWR Week of Death, 2023-24 Season

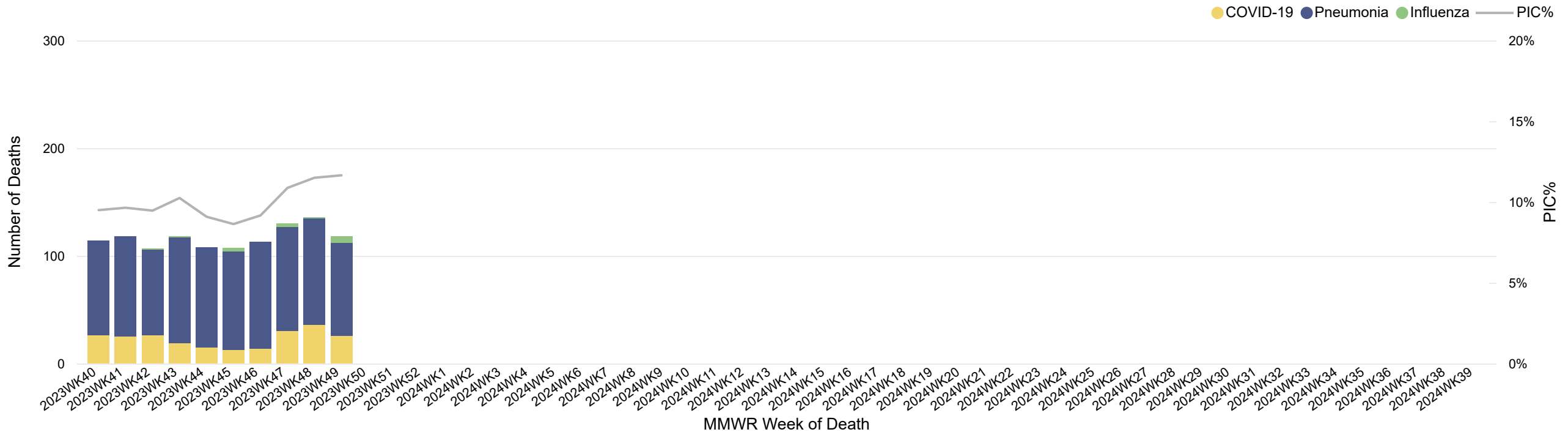


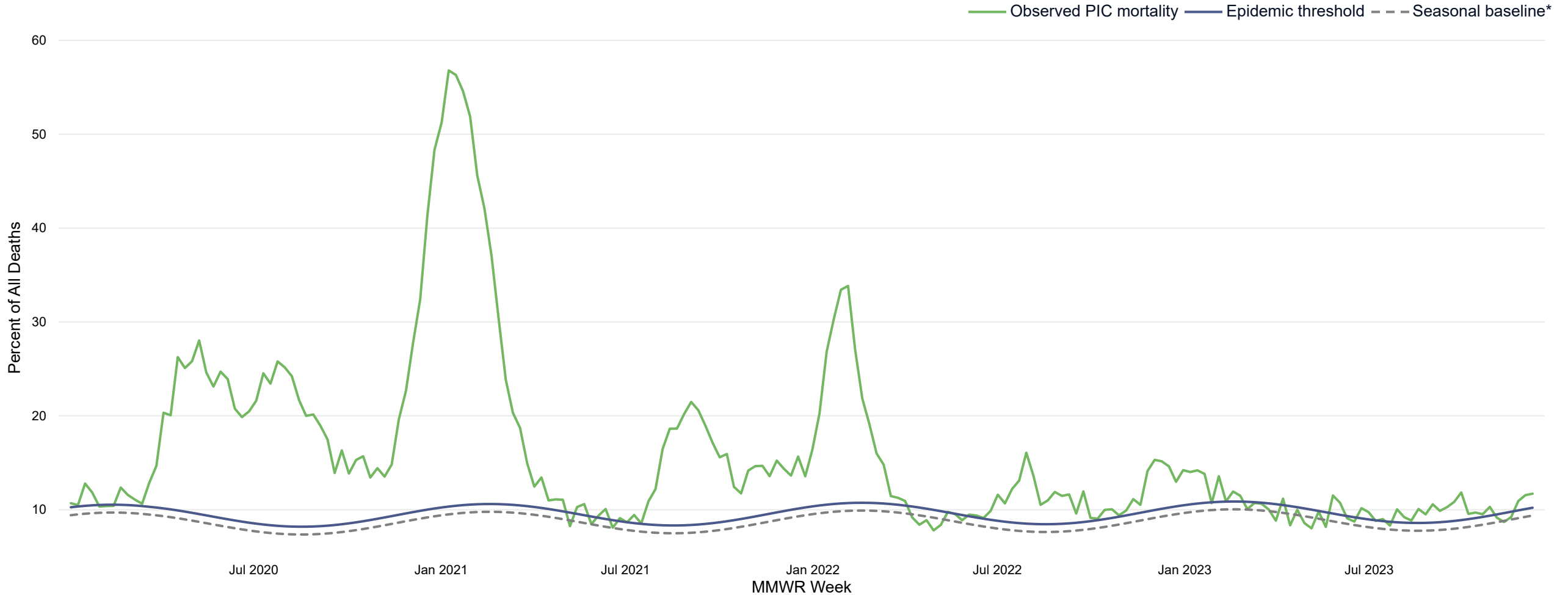
Table 7. Influenza associated deaths in LAC, 2023-24*

Age Group	Data Cumulative Since October 1, 2023 (Week 40)
<18 years	1
≥18 years	15

* Table includes deaths in which influenza was listed as a primary or contributing cause of death. Providers are mandated to report Influenza-associated deaths in persons aged <18 years. Public Health reviews all provider reported and death certificate identified deaths in persons aged <18 years to confirm that the cause of death was compatible with influenza.

Severity

Figure 19. Los Angeles County Pneumonia, Influenza, and COVID-19 Mortality



**The seasonal baseline of pneumonia, influenza, and COVID-19 (PIC) deaths is calculated using a periodic regression model that incorporates a robust regression procedure applied to data from the previous 5 years. An increase of 1.645 standard deviations above the seasonal baseline of PIC deaths is considered the “epidemic threshold,” i.e., the point at which the observed proportion of deaths attributed to pneumonia, influenza or COVID-19 was significantly higher than would be expected at that time of the year in the absence of substantial virus-related mortality.*



Variants of Concern as a percentage of all specimens sequenced for baseline surveillance in the past 12 weeks, by specimen collection date

To track the circulation of SARS-CoV-2 variants in Los Angeles County, DPH receives whole genome sequencing results for specimens collected from Los Angeles County residents. Data presented here come from the LAC DPH Public Health Laboratory, clinical, commercial, and academic laboratory partners. The proportion of cases sequenced varies over time; generally sequencing results are available for 12-16% of reported cases. Whole genome sequencing data has a reporting lag time of 2-3 weeks.

**Includes descendant lineages except where otherwise specified*

