RESP WATCH



Date Published: 4/12/2024

MMWR Week: 14 Ending on: 4/6/2024

Respiratory Surveillance At-A-Glance

Virology	Illness	Severity
In MMWR week 14 : 3.7% of specimens tested for influenza at LAC sentinel surveillance laboratories were positive.	 In MMWR week 14 : ↓ 4.2% of ED visits were for influenza- like illness. 	In MMWR week <u>13</u> : Pneumonia, influenza, or COVID-19 accounted for 11.9% of deaths registered in LAC.
2.5% of specimens tested for SARS-CoV-2 at LAC sentinel surveillance laboratories were positive.	1.6% of ED visits were for COVID-19.	Since the start of the 2023-2024 respiratory season, 100 influenza- coded deaths have been identified through death certificate data.
1.5% of specimens tested for RSV at LAC sentinel surveillance laboratories were positive.	Influenza- like illness and COVID- 19 are not mutually exclusive	

Trend Indicators: Increasing: 🛖 Decreasing: 🚚 Stable: 📥

Clinical Labs: The up and down arrows indicate a change of at least 0.5 percentage points in the percentage of specimens positive for influenza, COVID-19, or RSV compared to the previous week reported by LAC sentinel surveillance laboratories.

Emergency Department: The up and down arrows indicate a change of at least 0.1 percentage points in the percentage of COVID-19 and ILI classified emergency department visits in LAC compared to the previous week.

*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.

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.



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



*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

Virologic Surveillance- COVID-19

Figure 2. Respiratory Specimens Tested and Percent Positive for COVID-19 by LAC Sentinel Surveillance Laboratories, 2023-24 Season



Virologic Surveillance- COVID-19

0%

Figure 3. Percentage of Respiratory Specimens Testing Positive for COVID-19 at LAC Sentinel Surveillance Laboratories by Season, 2020-21 Through 2023-24

40 41 19 20 21 22 23 24 25 26 42 43 44 45 46 47 48 49 50 51 13 14 15 16 17 18 27 28 29 30 31 32 33 34 35 36 37 38 39 12 MMWR Week

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

MMWR Week	Specimens tested	Positive specimens	Percent positivity
14	1,947	48	2.5%
13	2,993	60	2.0%

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
107,493	8,322	7.3%

Figure 4. Respiratory Specimens Tested and Percent Positive for Influenza Virus by LAC Sentinel Surveillance Laboratories, 2023-24 Influenza Season 50%



*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



Table 3. Respirator	/ Specimens	s tested for Influenza	a at LAC Sentinel	Laboratories
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MMWR Week ▼	Specimens Tested	Positive Specimens	% Positivity	Flu A	% Flu A	Flu B	% Flu B
14	3,477	127	3.7%	71	55.91%	56	44.09%
13	4,317	139	3.2%	74	53.24%	65	46.76%

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

S	pecimens Tested	Positive Specimens	% Positivity	Flu A	% Flu A	Flu B	% Flu B ▼
	160,331	14,771	7.8%	13,024	81.12%	1,747	18.88%

Virologic Surveillance- RSV

2,000

Figure 6. Respiratory Specimens Tested and Percent Positive for Respiratory Syncytial Virus (RSV) by LAC Sentinel Surveillance Laboratories, 2023-24 Season

50%



Virologic Surveillance- RSV

40%

Figure 7. Percentage of Respiratory Specimens Testing Positive for Respiratory Syncytial Virus (RSV) at LAC Sentinel Surveillance Laboratories by Season, 2017-18 Through 2023-24



_____2017-18 _____2018-19 _____2019-20 _____2020-21 _____2021-22 _____2022-23 _____2023-24

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

MMWR Week ▼	Specimens tested	Positive specimens	Percent positivity
14	1,541	23	1.5%
13	2,173	23	1.1%

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	
80,180	5,851	6.8%	



Wastewater data includes data from the joint Water Pollution Control Plant, Hyperion, and Lancaster sewersheds. Data comes from the WastewaterSCAN 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 (Hyperior Water Reclamation Plant, Joint Water Pollution Control Plant, Lancaster Water Reclamation Plant), with the weights representing the population size served by each sewer system.

2022-20232023-2024

Figure 8. Wastewater Concentrations of SARS-CoV-2 in LA County by Season, 2022-2023 through 2023-2024





Figure 9. Wastewater Concentrations of Influenza A in LA County by Season, 2022-2023 through 2023-2024

2022-2023



A technical issue with influenza A assay data for the

2023-2024 season has been identified, which has impacted the results for

influenza A concentrations in wastewater. The influenza A data for the 2023-2024 season

will be updated as the data becomes available.



Normalized weighted average wastewater concentrations

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



2022-2023

2023-2024



Normalized weighted average wastewater concentrations

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

2022-20232023-2024





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

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 and 14 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 13. Emergency Department Visits for COVID-19 by Age Category per MMWR week, Los Angeles County, October 2023 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 2023 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



Total Influenza Positive Patients not in ICU Total Influenza Positive Patients in ICU — 7d Average New influenza Positive Patients



<u>Angelenos in Action</u> 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

------ Cough/SOB & 2+ other symptoms ------ 2+ of fever, chills, headache, body aches, sore throat, loss of taste/smell ------ Cough or Shortness of Breath (SOB)



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. 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.

Table 7. Influenza associated deaths in LAC, 2023-24*		
Age Group Data Cumulative Since		
October 1, 2023 (Week 40)		
<18 years	4	
≥18 years	96	

* 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.

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 Percent of Sequenced Specimens

