

INFLUENZA WATCH

Summary of Los Angeles County Department of Public Health (LAC DPH)
Influenza and Other Respiratory Disease Surveillance

Updated 1-4-2021
MMWR Week: 52
Ending on: 12-26-2020

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Influenza Surveillance at a Glance

Virology	Illness	Severe Disease
<p>Less than 1% of specimens tested at Los Angeles sentinel surveillance laboratories* in week 52 were positive for Influenza.</p> <p>This season, more Influenza B has been detected than Influenza A.</p>	<p>Visits for influenza-like illness accounted for 4.4% of emergency department visits in week 52, which is more than in week 51.</p>	<p>Pneumonia, influenza, and COVID-19 accounted for 41% of all deaths registered in LAC during week 52, which is more than in week 51.</p> <p>No influenza-associated deaths have been reported yet season.</p>

* See indicator specific sections for associated methods.

Los Angeles County Department of Public Health (DPH) prepares this newsletter to summarize current influenza surveillance data in Los Angeles County. **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.

COVID-19 surveillance data is published in the weekly COVID Watch surveillance 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 2020-21 season started on Sept 27, 2020.

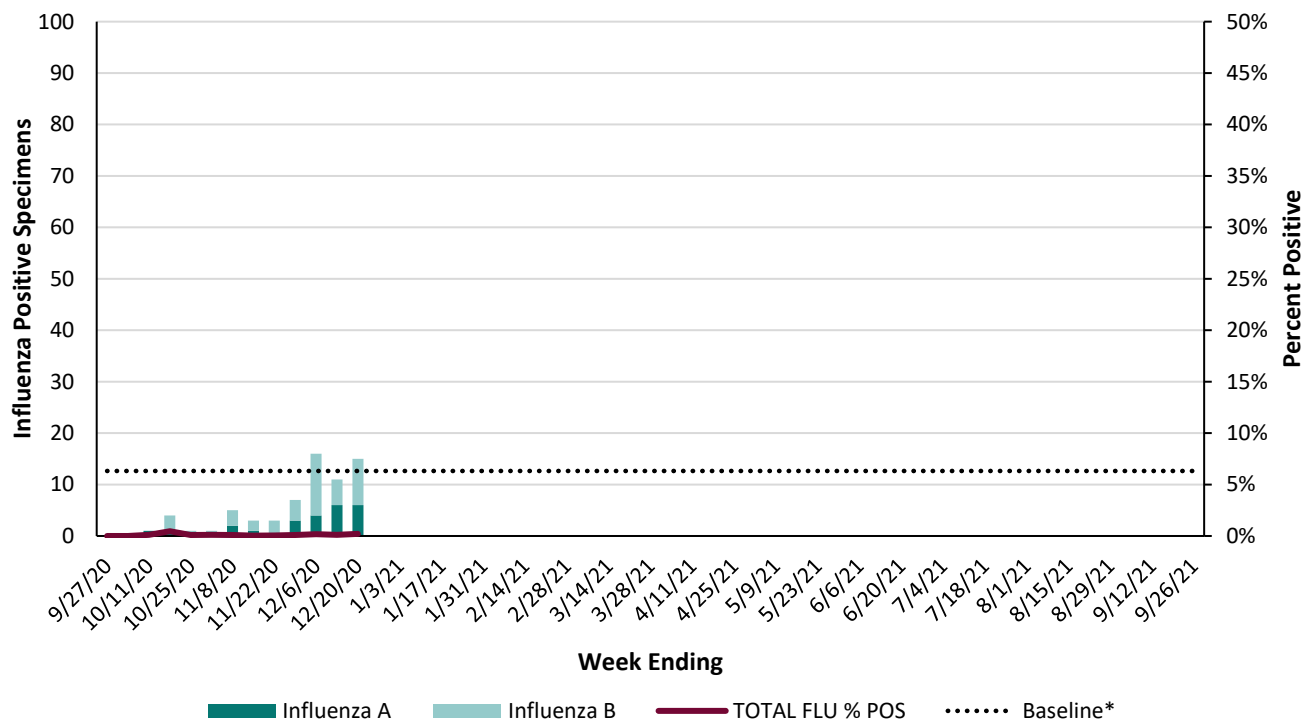


Virologic Surveillance

Sentinel Surveillance Laboratories

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-CoV2, influenza and respiratory syncytial virus.

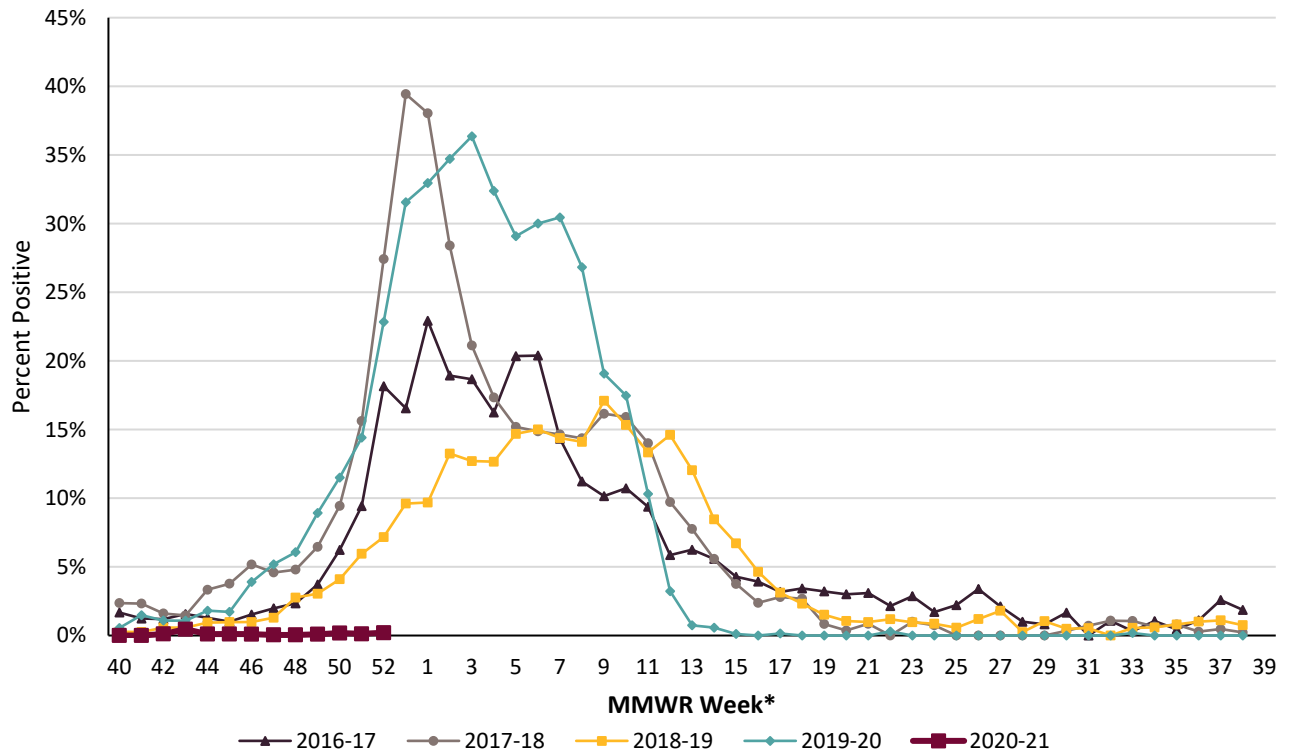
Figure 1. Respiratory Specimens Tested and Percent Positive for Influenza Virus by LAC Sentinel Surveillance Laboratories, 2020-21 Influenza Season



*The baseline is defined as the 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 for influenza.

Table 1. Respiratory Specimens tested at LAC Sentinel Laboratories, this week and season to date		
	This Week	Data Cumulative Since September 27, 2020 (Week 40)
Number of specimens tested	7,355	57,354
Number of positive specimens (%)	15 (0.2%)	67 (0.1%)
Positive specimens by type		
Influenza A	6 (40%)	24 (36%)
Influenza B	9 (60%)	43 (64%)

Figure 2. Percentage of Respiratory Specimens Testing Positive for Influenza at LAC Sentinel Surveillance Laboratories by Season, 2016-17 Through 2020-21



*The 2020–2021 season contains a week 53. Prior years' data have been shifted so that week 1 aligns across years.

Figure 3. Percentage of Respiratory Specimens Testing Positive by Viral Etiology, Los Angeles County Sentinel Surveillance Laboratories, 2020-21 Influenza Season

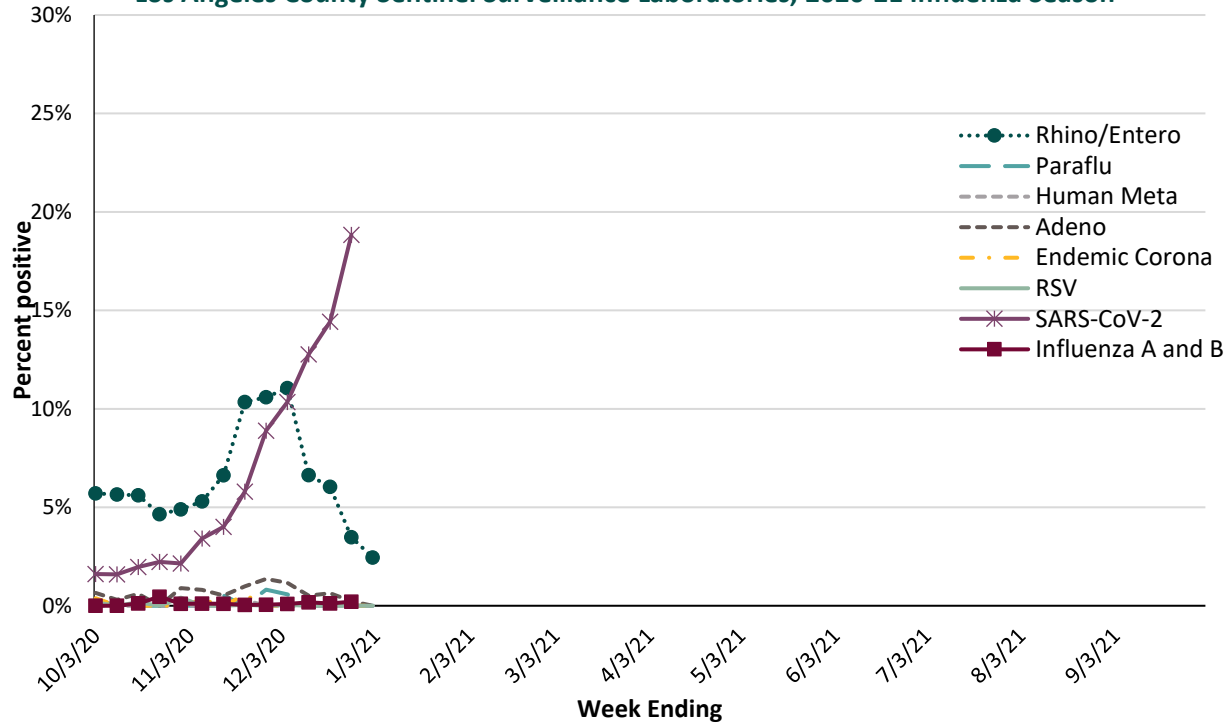
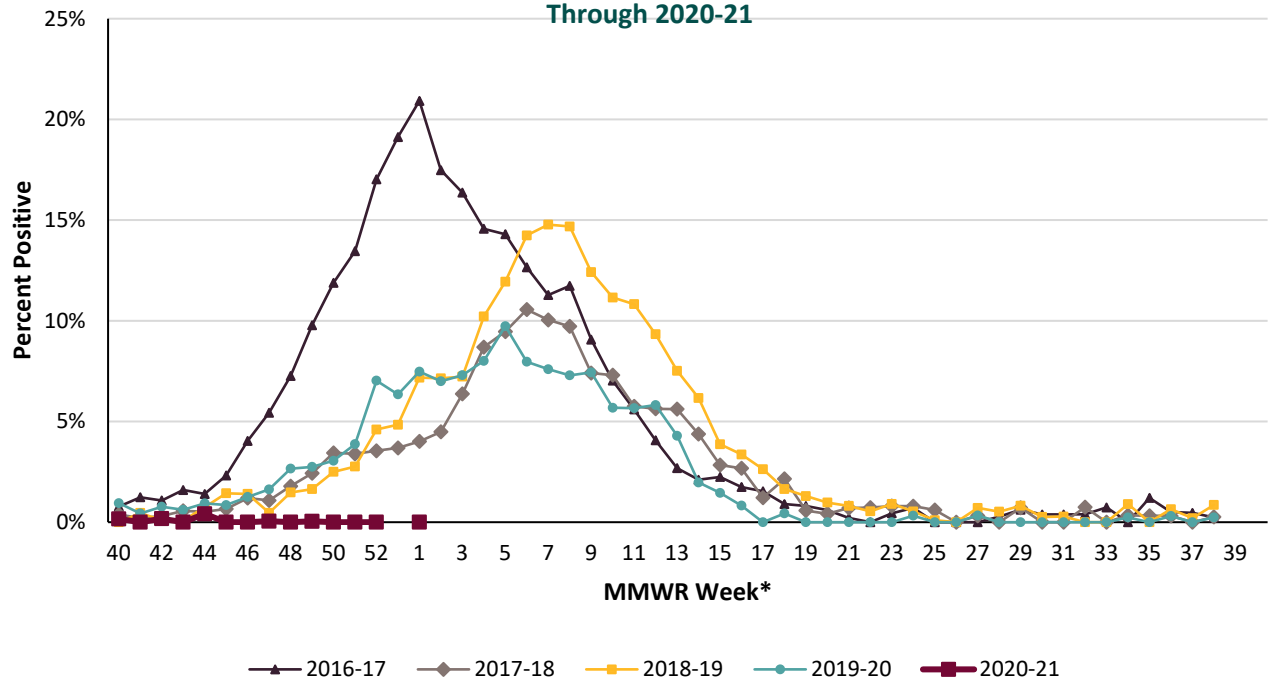


Figure 4. Percentage of Respiratory Specimens Testing Positive for Respiratory Syncytial Virus (RSV) at LAC Sentinel Surveillance Laboratories by Season, 2016-17 Through 2020-21



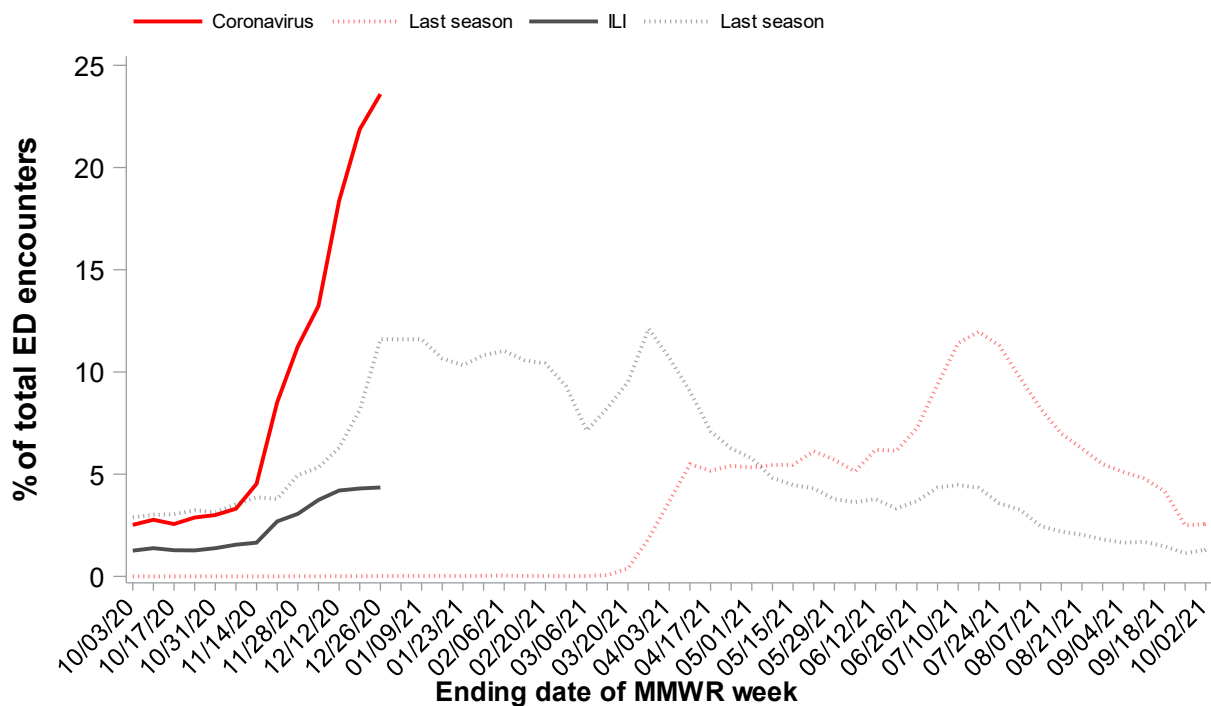
*The 2020–2021 season contains a week 53. Prior years' data have been shifted so that week 1 aligns across years

Illness

Los Angeles County Emergency Department (ED) Influenza-Like Illness (ILI) and COVID-19 Visits

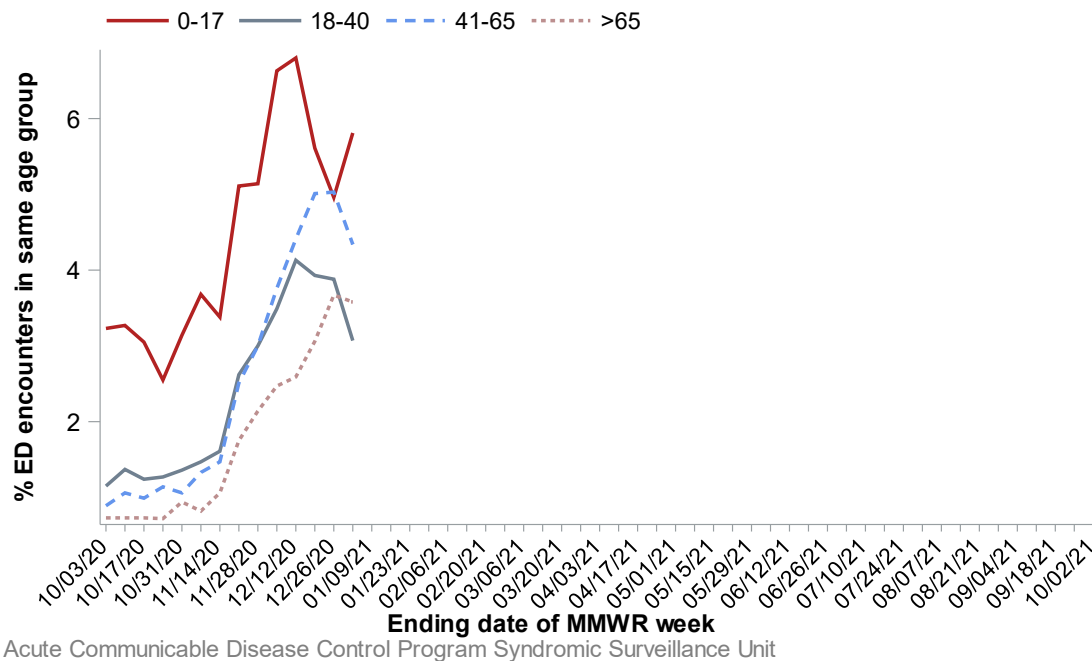
Public Health's Syndromic Surveillance Project monitors initial self-reported symptoms from patients presenting to participating emergency departments throughout LAC. These symptoms are categorized into different clinical syndromes according to specific code words. Visits are included in the COVID-19 category if the chief complaint field includes 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 COVID-19 classified ED visits for all ages and by age group are analyzed weekly and year-round. The COVID-19 and ILI categories are not mutually exclusive.

Figure 5. Emergency Department Visits for Influenza-like Illness and COVID-19 per MMWR week, Los Angeles County, 2020-21 Influenza Season



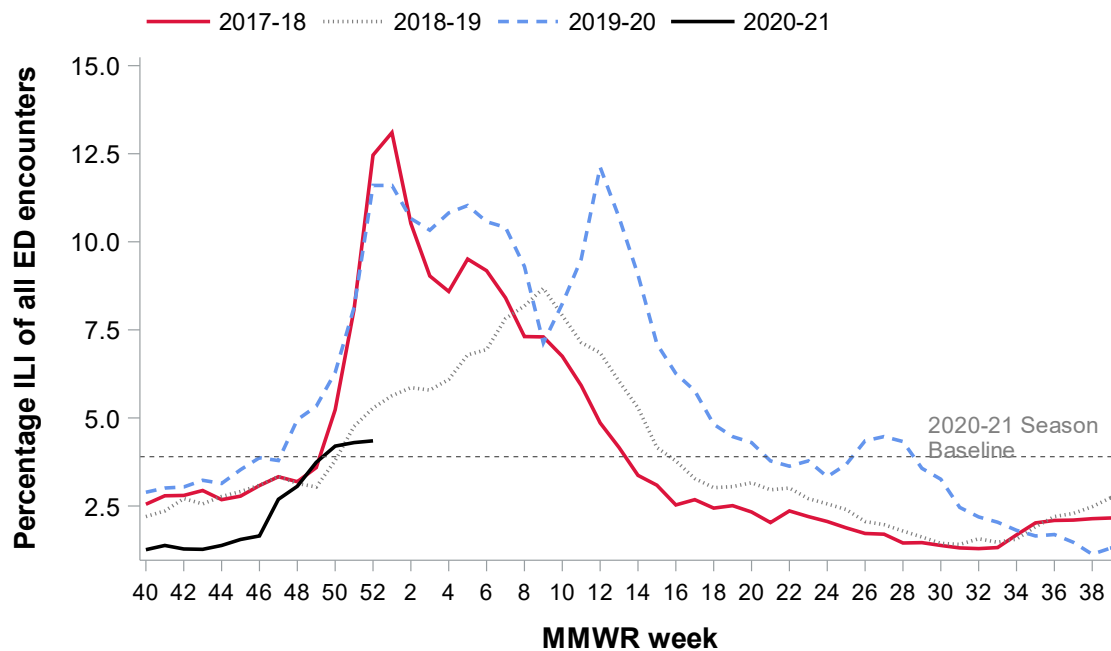
Acute Communicable Disease Control Program Syndromic Surveillance Unit

Figure 6. Emergency Department Visits for Influenza-like Illness by Age Groups per MMWR Week, Los Angeles County, 2020-21 Influenza Season



Acute Communicable Disease Control Program Syndromic Surveillance Unit

Figure 7. Emergency Department Visits for Influenza-like Illness, Los Angeles County 2017-18 through 2020-21 Influenza Seasons



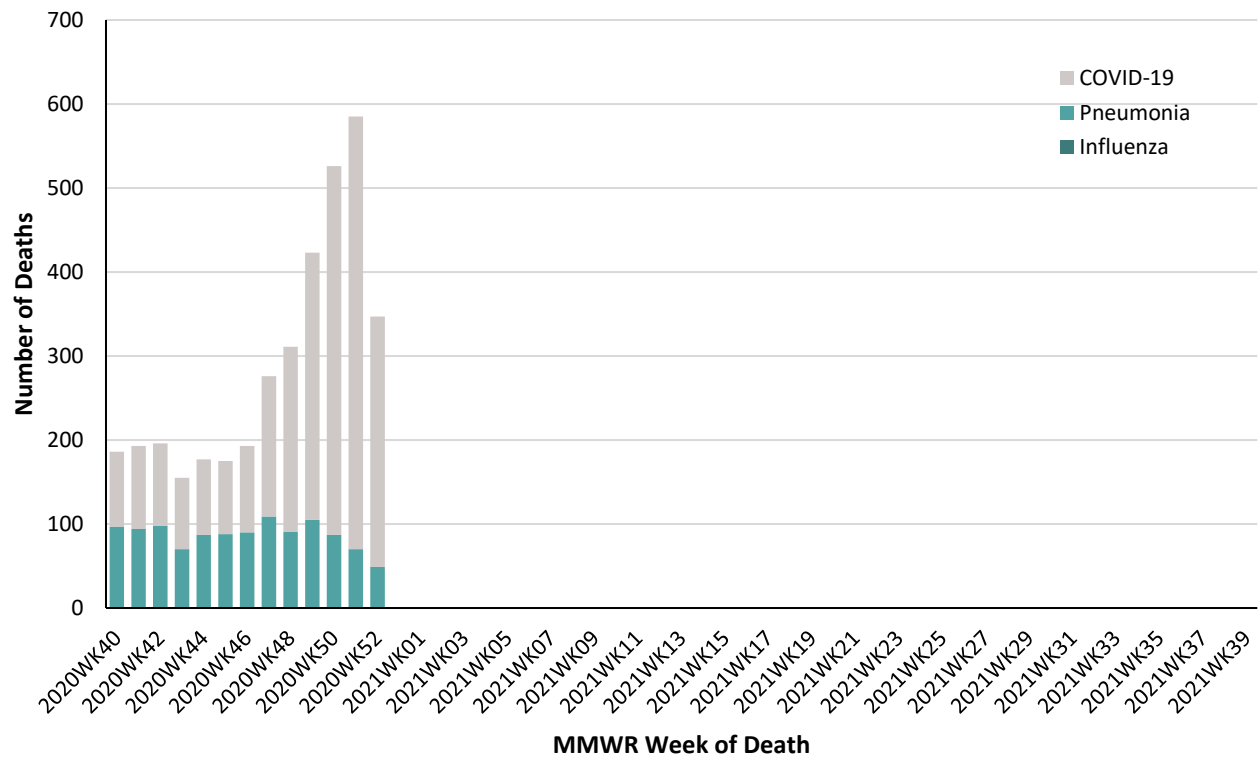
Acute Communicable Disease Control Program Syndromic Surveillance Unit

Severe Disease

Pneumonia, Influenza and COVID-19 Mortality

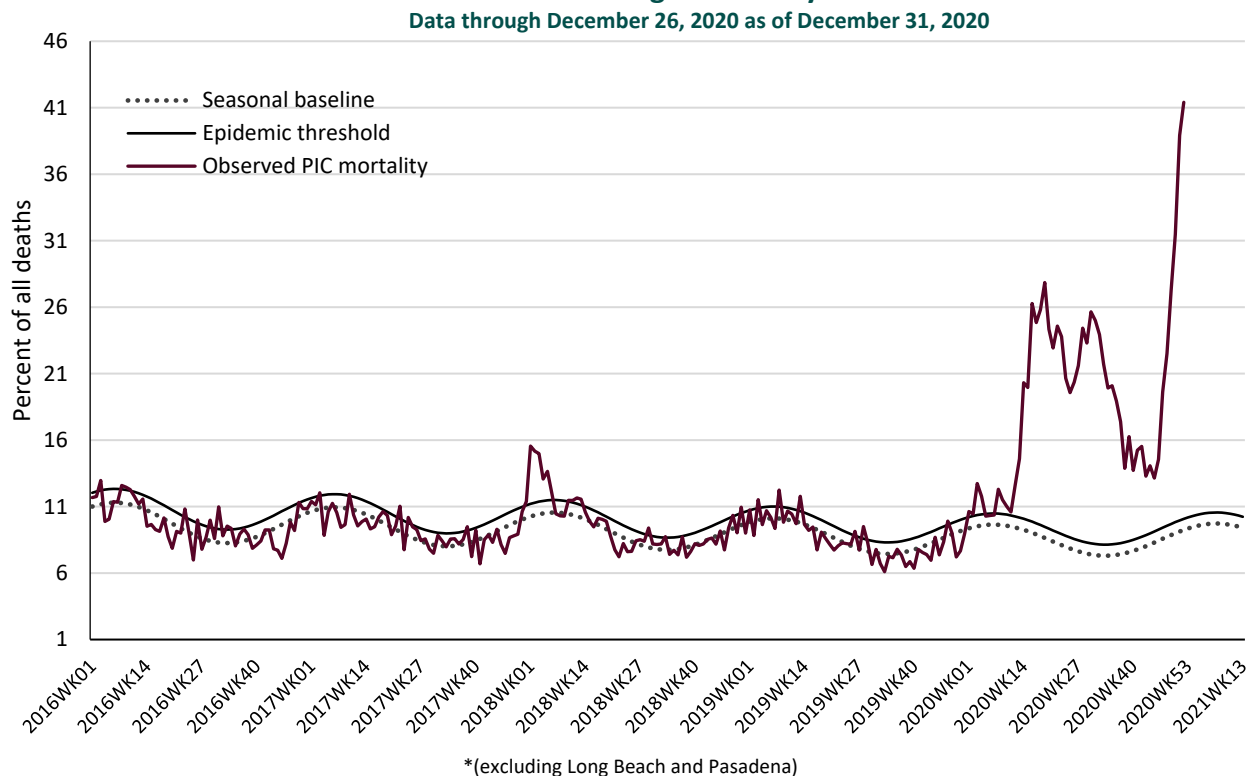
Each week, the Office of Health Assessment and Epidemiology at LAC DPH reports the total number of death certificates received and the number of those for which pneumonia, influenza or COVID-19 (PIC) was listed as the underlying or contributing cause of death by age group.

Figure 8. Pneumonia, Influenza and COVID-19 Deaths Registered in LAC, by MMWR Week of Death



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.

**Figure 9. Pneumonia, Influenza, and COVID-19 Mortality
Los Angeles County***



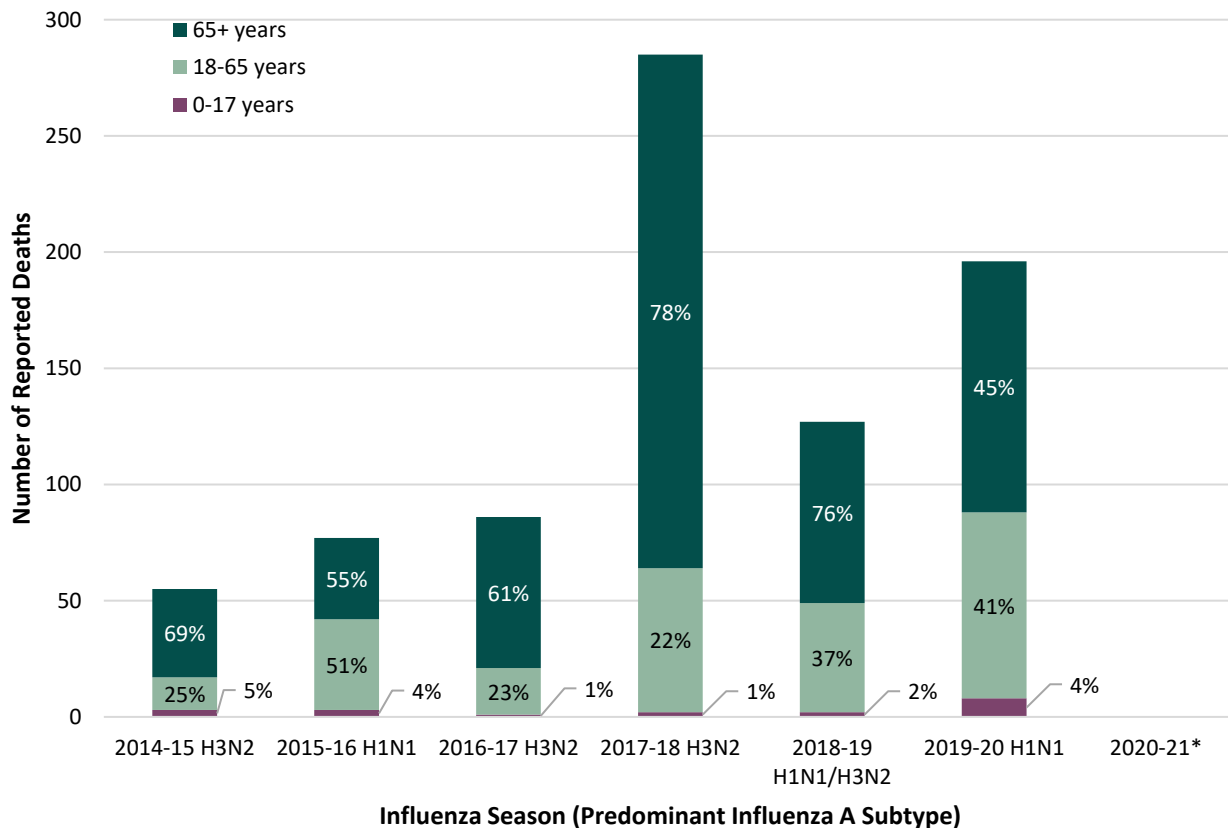
Technical note: The number of deaths reported in recent weeks does not represent all deaths that occurred in the reporting period. Data may be incomplete due to a lag between when the death occurred and when the death was registered. Previous weeks counts or percentages may change as vital records are updated with lagged death certificates. The count includes all certificates of deaths (excludes fetal deaths) occurring in the County of Los Angeles (excluding Long Beach and Pasadena) regardless of the residence of the deceased.

Severe Disease

Influenza-Associated Deaths

Deaths associated with influenza infection are reportable in all ages in Los Angeles county. A death is confirmed as being influenza-associated when there is a laboratory confirmed influenza infection, the cause of death is clinically compatible with influenza or influenza complications, and there was no return to baseline health between infection and death. Clinically compatible complications can include pneumonia and cardiovascular problems like heart attacks. Influenza can also exacerbate long-term medical conditions (such as COPD, heart failure, or diabetes) which can lead to death.

Figure 10. Reported Influenza Deaths by Age Group and Predominant Influenza A Subtype, Los Angeles County, 2014-15 through 2020-21 Influenza Seasons



*Predominant strain yet to be determined. Column suppressed until >5 deaths have been reported. 2019-20 season data not final.

The number of influenza-associated deaths reported to LAC DPH does not represent the true mortality associated with influenza in Los Angeles County. Public health authorities recognize that current surveillance methods substantially undercount influenza-associated deaths. Most people who get influenza do not seek care. Most people who seek care are not tested for influenza. Severe complications of influenza may occur after the virus is no longer detectable in the body. Testing practices may vary across seasons. For these reasons, between season comparison of the *number* of reported influenza-associated deaths may not be a reliable indicator of severity.