

# Influenza and Other Respiratory Viruses Weekly Report



California Influenza Surveillance Program

**Highlights** (Week 51: December 13, 2020 – December 19, 2020)

## Statewide Activity



### Regions with Elevated Activity



- ▶ **Deaths:** 4\* since Sept. 27, 2020
- ▶ **Outbreaks:** 0 since Sept. 27, 2020
- ▶ **Laboratory:** 0.1% flu positive
- ▶ **Hospitalizations:** 0.0% flu admissions
- ▶ **Outpatient ILI:** Within expected levels

\* Influenza-coded deaths from death certificates  
*Click on images and links for more information*

### Key messages:

- Influenza activity in California remains lower than usual for this time of year.
- An annual flu vaccine is the best way to protect against flu and its potentially serious complications.
- Pregnant women, children <5, adults 65+, and people with chronic medical conditions are at high-risk for flu-related complications.
- Now is the time to get vaccinated; anyone over the age of 6 months needs a flu shot.

**Note:** This report includes data from many sources of influenza surveillance and it should be viewed as a preliminary “snapshot” of influenza activity for each surveillance week. Because data are preliminary, the information may be updated in later reports as additional data are received. These data should not be considered population-based or representative of all California public health jurisdictions.

**Important:** An accessible excel file with data for all figures can be downloaded from the [CDPH flu webpage](#).

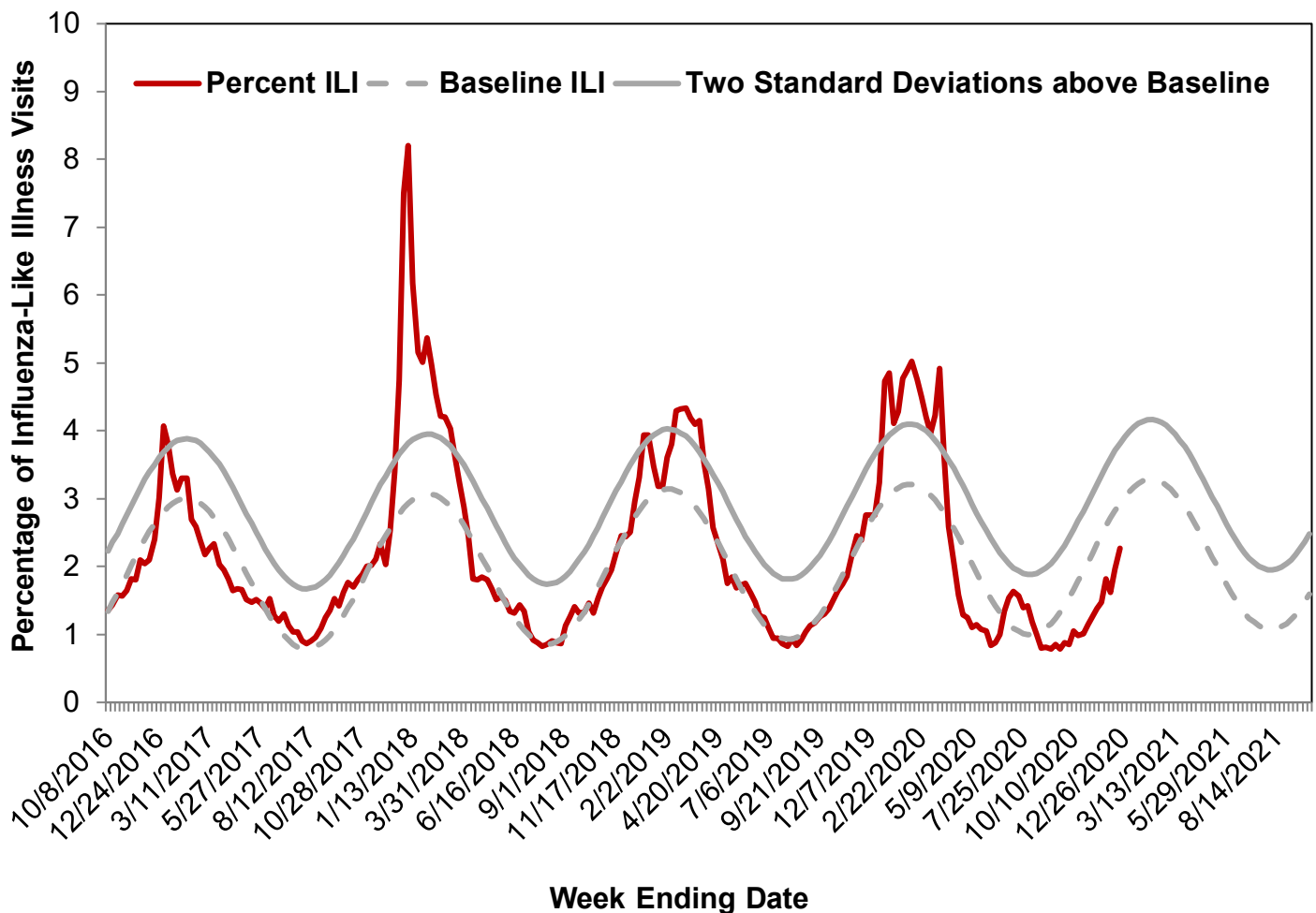
## A. Outpatient, Inpatient, and Death Data

### 1. Influenza Sentinel Providers

Sentinel providers (physicians, nurse practitioners, and physician assistants) situated throughout California report on a weekly basis the number of patients seen with influenza-like illness (ILI) and the total number of patients seen for any reason. ILI is defined as any illness with fever ( $\geq 100^{\circ}\text{F}$  or  $37.8^{\circ}\text{C}$ ) AND cough and/or sore throat (in the absence of a known cause other than influenza).

A total of 73 enrolled sentinel providers have reported data for Week 51. Based on available data, the percentage of visits for ILI during Week 51 was 2.3% compared to Week 50 (2.0%) and is within expected levels for this time of year (Figure 1). Increases in ILI-related outpatient visits might also include people seeking care for other respiratory illnesses, including COVID-19.

**Figure 1. Percentage of Influenza-like Illness Visits Among Patients Seen by California Sentinel Providers, 2016–2021**



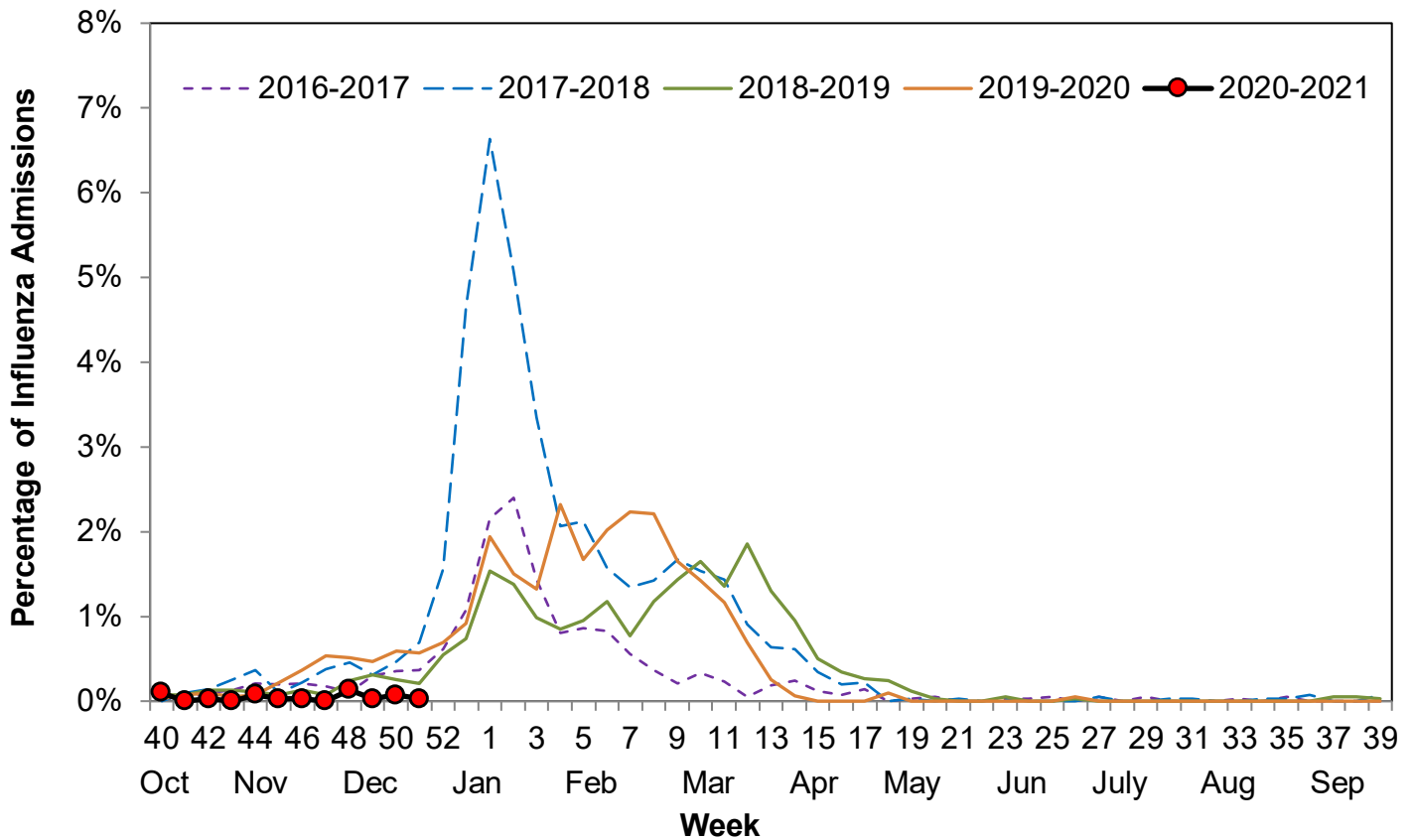
The seasonal baseline was calculated using a regression model applied to data from the previous five years. Two standard deviations above the seasonal baseline is the point at which the observed percentage of ILI is significantly higher than would be expected at that time of year.

## 2. Kaiser Permanente Hospitalization Data

Inpatients at Kaiser Permanente facilities with an admission diagnosis including the keywords "flu," "influenza," or variants of the keywords are defined as influenza-related admissions. The number of influenza admissions is divided by the total number of hospital admissions occurring in the same time period to estimate the percentage of influenza admissions. Admissions for pregnancy, labor and delivery, birth, and outpatient procedures are excluded from the denominator. Influenza admission data is not comparable to previous seasons reports which included pneumonia and influenza (P&I) admissions.

The percentage of admissions for influenza in Kaiser Permanente facilities in northern California during Week 51 was 0.0% compared to Week 50 (0.1%) (Figure 2).

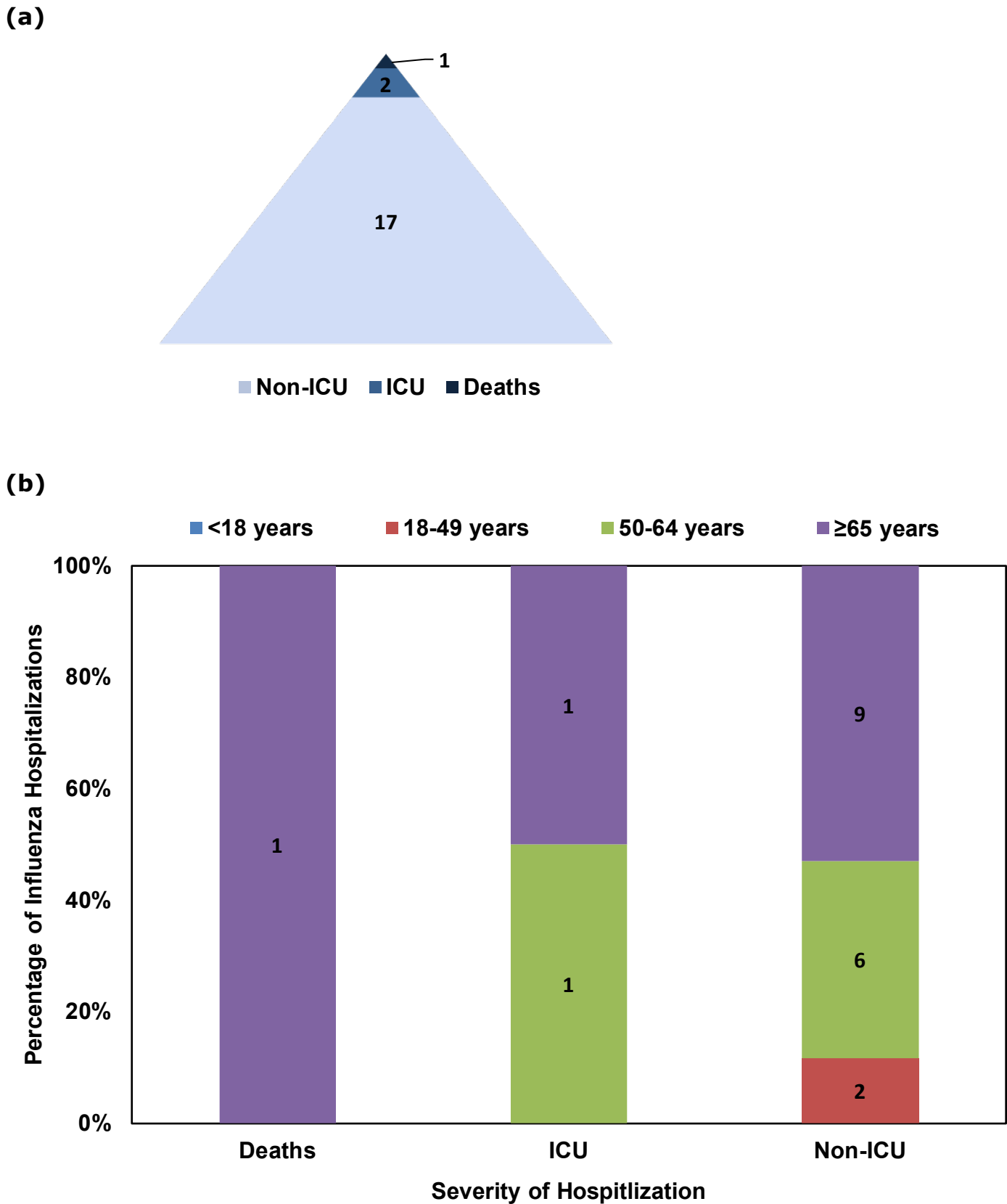
**Figure 2. Percentage of Influenza Admissions in Kaiser Permanente Northern California Hospitals, 2016–2021**



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

To date, 17 non-intensive care unit (ICU) hospitalizations, two ICU admissions, and one death have occurred among persons with influenza admission diagnoses (Figure 3a). Most influenza admissions occurred among persons  $\geq 50$  years (Figure 3b). Please note that influenza admissions serve as a proxy for influenza activity, but do not necessarily represent laboratory-confirmed influenza infections.

**Figure 3. Number (a) and age group distribution (b) of non-ICU, ICU, and deaths associated with Influenza Admissions in Kaiser Permanente Northern California hospitals, 2020–2021 season to date**

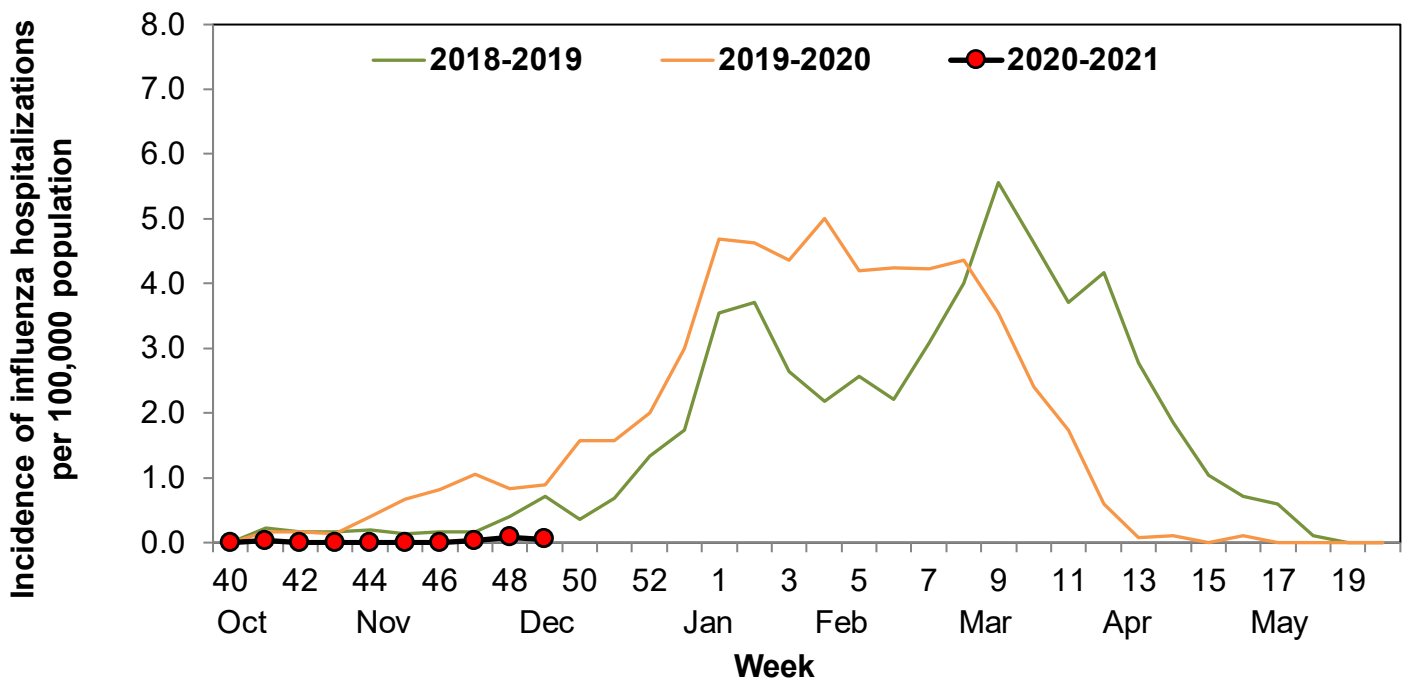


### 3. Influenza-Associated Hospitalizations, California Emerging Infections Program

The California Emerging Infections Program (CEIP), Influenza Surveillance Network (FluSurv-NET) conducts population-based surveillance for laboratory-confirmed influenza-associated hospitalizations among patients of all ages in Alameda, Contra Costa, and San Francisco counties.

Two new influenza-associated hospitalizations were reported during week 49 (Figure 4). To date during the 2020–2021 influenza season, seven influenza hospitalizations have been reported. Data for the most recent two weeks are not presented because results are still being collected and are likely to change.

**Figure 4. Incidence of Influenza Hospitalizations per 100,000 Population in CEIP Counties, 2018–2021**



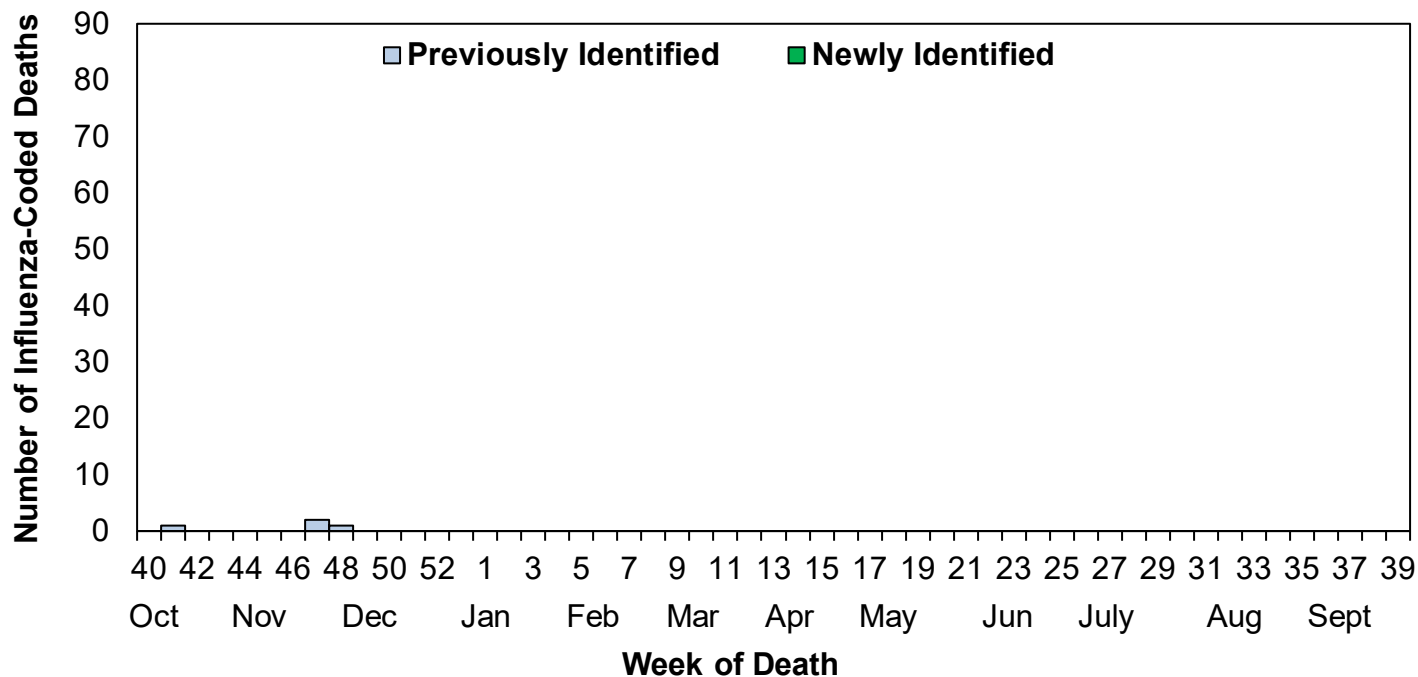
Note: The 2020–2021 season contains a week 53. Prior years' data have been shifted so that week 1 aligns across years.

### 4. Influenza Mortality Surveillance from Death Certificates

Deaths occurring in California among residents who had influenza noted in any cause of death field on the death certificate (text or coded) are defined as “influenza-coded deaths.” The percentage of influenza-coded deaths is calculated by dividing the number of influenza-coded deaths by the total number of all-cause deaths during the same period. Influenza-coded deaths are not necessarily laboratory-confirmed and are an underestimate of all influenza-associated deaths.

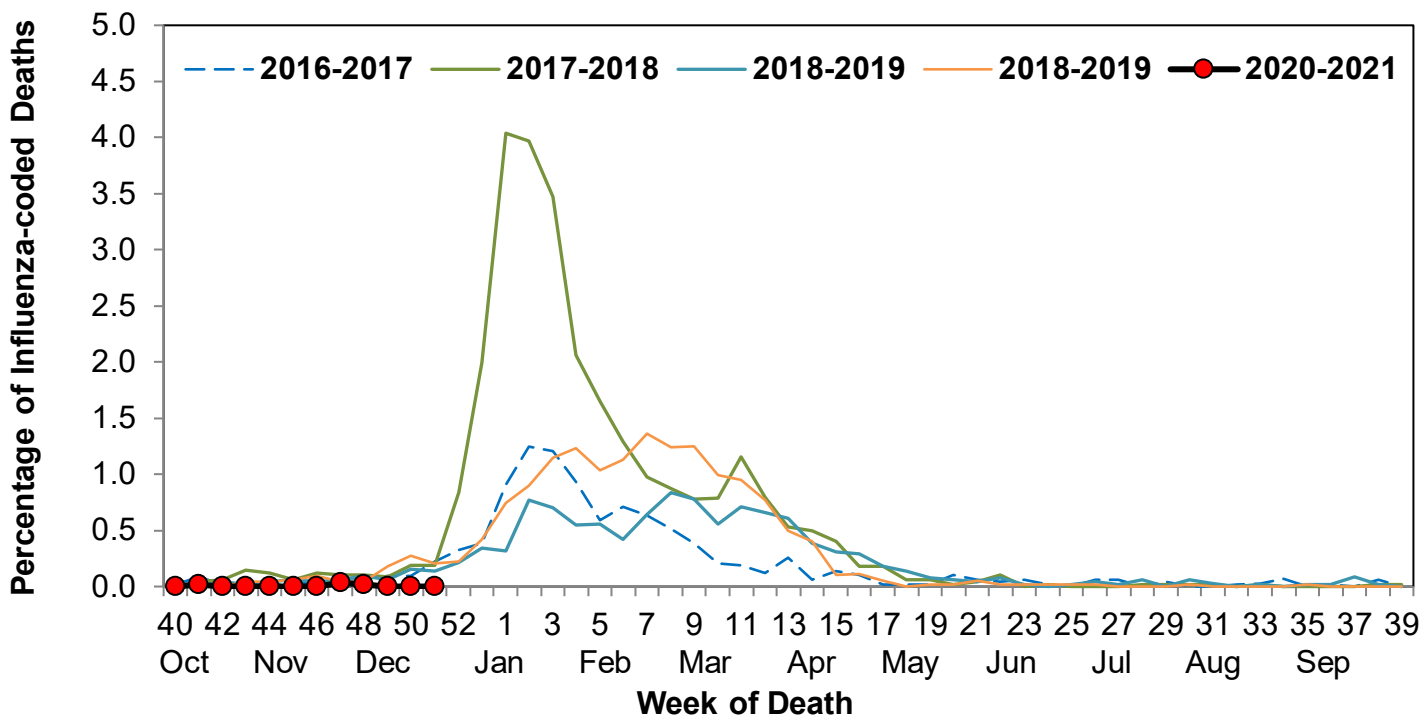
During Week 51, no influenza-coded deaths were identified. To date during the 2020–2021 influenza season, four influenza-coded deaths have been identified (Figure 5). The percentage of deaths coded as influenza during Week 51 was 0.0% compared to 0.0% during Week 50 (Figure 6).

**Figure 5. Number of Influenza-coded Deaths Identified from Death Certificates by Week of Death, 2020–2021 Season**



Notes: Coding of deaths can be delayed by several weeks. Influenza-coded deaths will be included once enough information is available to identify them.

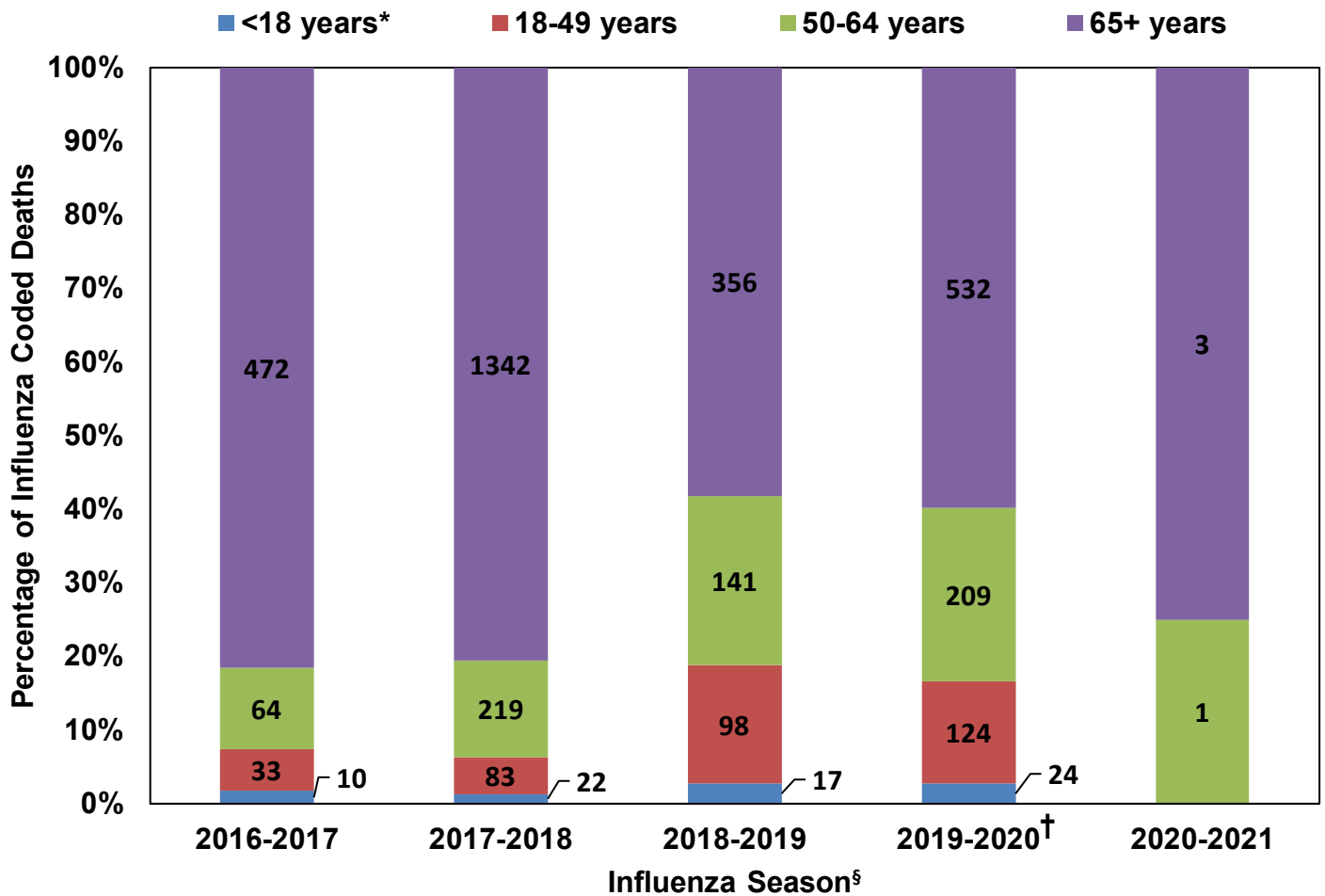
**Figure 6. Percentage of Influenza-coded Deaths Occurring in California among California Residents, 2016–2021**



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

To date, three (75.0%) influenza-coded deaths have been identified among persons  $\geq 65$  years of age during the 2020–2021 influenza season (Figure 7).

**Figure 7. Age Distribution of Influenza-coded Deaths Occurring in California among California Residents, 2016–2017 Season through 2020–2021 Seasons**



\* Methods used to identify pediatric influenza-coded deaths on death certificates differ from those used to identify the influenza-associated pediatric deaths presented below.

<sup>†</sup> One death during the 2018–2019 influenza season has unknown age and is not included in the figure.

<sup>§</sup> 2016–2017 influenza season: October 2, 2016–September 30, 2017; influenza A (H3N2) predominant season

2017–2018 influenza season: October 1, 2017–September 29, 2018; influenza A (H3N2) predominant season

2018–2019 influenza season: September 30, 2018–September 28, 2019; mixed influenza A (H1N1)pdm09 and influenza A (H3N2) season

2019–2020 influenza season: September 29, 2019–September 26, 2020; mixed influenza B (Victoria) and influenza A (H1N1)pdm09 season

## 5. Laboratory-Confirmed Influenza-associated Pediatric Deaths

Influenza-associated deaths in children <18 years of age are nationally notifiable. The weekly influenza report includes confirmed deaths formally reported to CDPH through December 19, 2020 (Week 51). Methods used to identify pediatric influenza-coded deaths on death certificates differ from those used to identify the influenza-associated pediatric deaths presented below and might not include the same individuals.

No laboratory-confirmed influenza-associated fatalities among children <18 years of age were reported to CDPH during Week 51. To date, CDPH has received one report of a laboratory-confirmed influenza-associated death among persons <18 years of age during the 2020–2021 influenza season.

### **B. Laboratory Update – Influenza**

#### 1. Respiratory Laboratory Network (RLN) and Clinical Sentinel Laboratory Surveillance Results

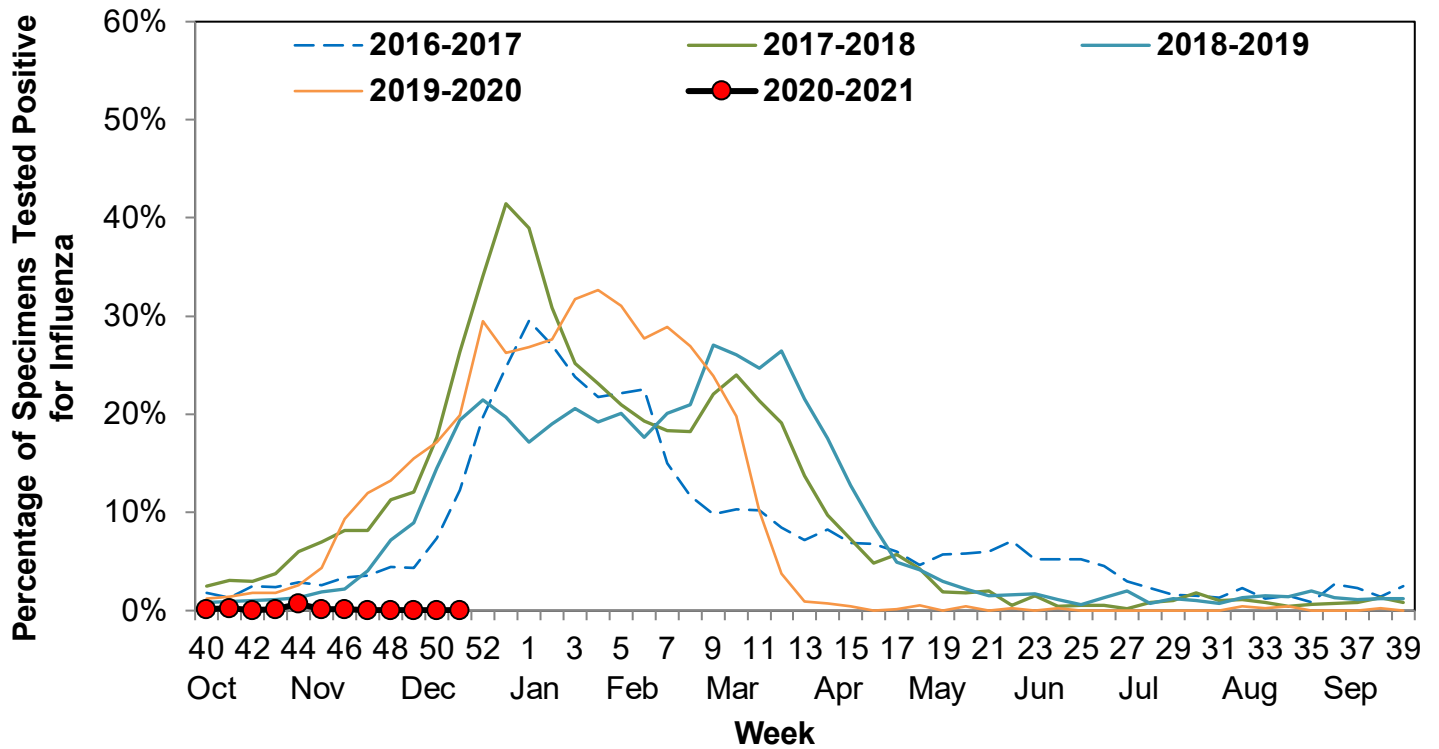
Laboratory surveillance for influenza and other respiratory viruses involves the use of data from clinical sentinel laboratories (hospital, academic, and private laboratories) and public health laboratories in the Respiratory Laboratory Network located throughout California. These laboratories report the number of laboratory-confirmed influenza and other respiratory virus detections and isolations on a weekly basis.

The overall percentage of influenza detections in clinical sentinel laboratories in Week 51 (0.1%) was the same compared to Week 50 (0.1%) (Figure 8). Additional details, including influenza typing and subtyping information from public health laboratories can be found in Figures 8 and 9 and Tables 1 and 2.

Neither the RLN nor CDPH-VRDL has identified any influenza viruses by polymerase chain reaction (PCR) that are suggestive of a novel influenza virus.

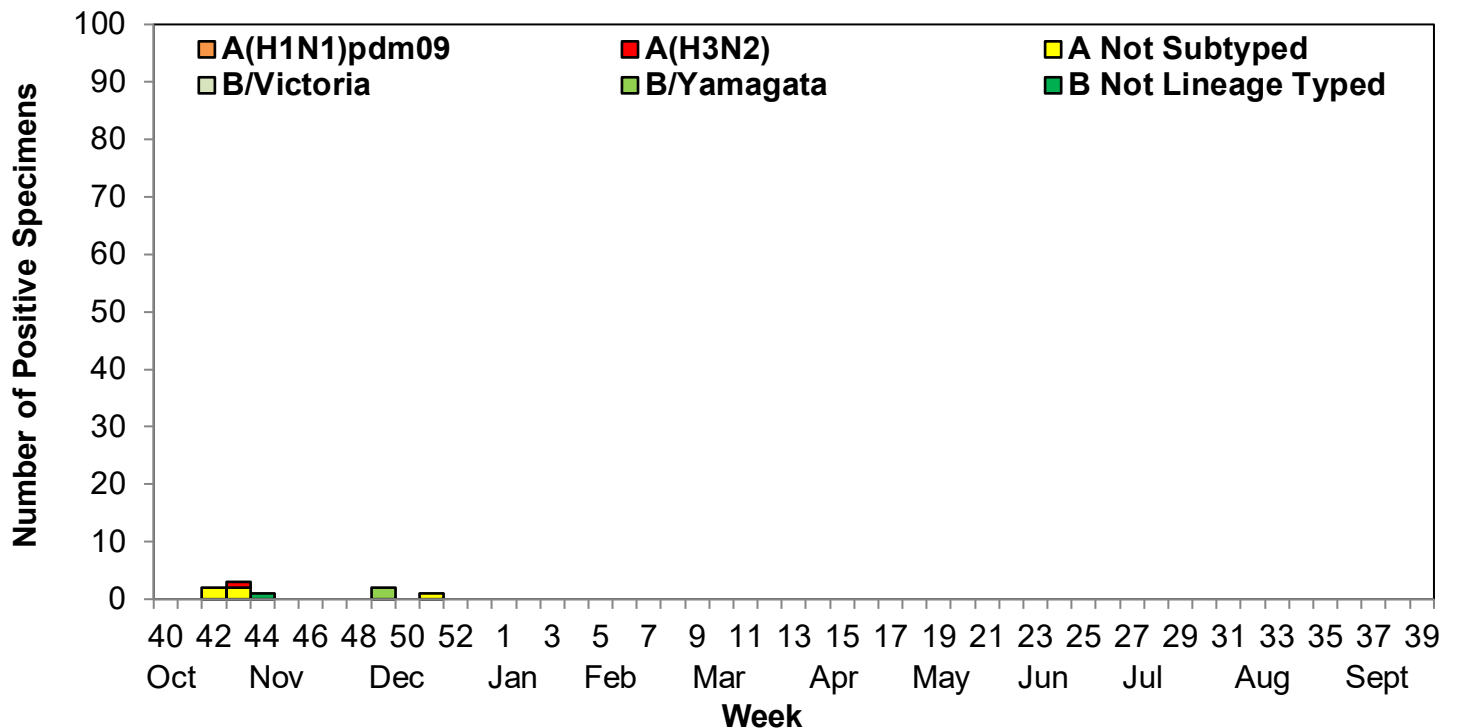


**Figure 8. Percentage of Influenza Detections at Clinical Sentinel Laboratories, 2016–2021**



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

**Figure 9. Number of Influenza Detections by Type and Subtype Detected in the Respiratory Laboratory Network, 2020–2021**



**Table 1. Respiratory Specimens Testing Positive for Influenza – Clinical Sentinel Laboratories, Current Week and Season to Date**

	<b>Current Week Number</b>	<b>Current Week Percent</b>	<b>Season to Date Number</b>	<b>Season to Date Percent</b>
<b>Number of Specimens Tested</b>	9,107		49,326	
<b>Influenza Positive</b>	5	0.1	51	0.1
<b>A</b>	4	80.0*	25	49.0*
<b>B</b>	1	20.0*	26	51.0*

**Table 2. Respiratory Specimens Testing Positive for Influenza by Influenza Type and Subtype – Respiratory Laboratory Network, Current Week and Season to Date**

	<b>Current Week Number</b>	<b>Current Week Percent</b>	<b>Season to Date Number</b>	<b>Season to Date Percent</b>
<b>Influenza Positive</b>	1		9	
<b>A</b>	1	100.0*	6	66.7*
<b>A (H1)pdm09</b>	0	0.0 <sup>†</sup>	0	0.0 <sup>†</sup>
<b>A (H3)</b>	0	0.0 <sup>†</sup>	1	16.7 <sup>†</sup>
<b>A, not subtyped</b>	1	100.0 <sup>†</sup>	5	83.3 <sup>†</sup>
<b>B</b>	0	0.0*	3	33.3*
<b>B Victoria</b>	0	0.0 <sup>‡</sup>	0	0.0 <sup>‡</sup>
<b>B Yamagata</b>	0	0.0 <sup>‡</sup>	2	66.7 <sup>‡</sup>
<b>B, not lineage typed</b>	0	0.0 <sup>‡</sup>	1	33.3 <sup>‡</sup>

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\* Percent of specimens positive for influenza

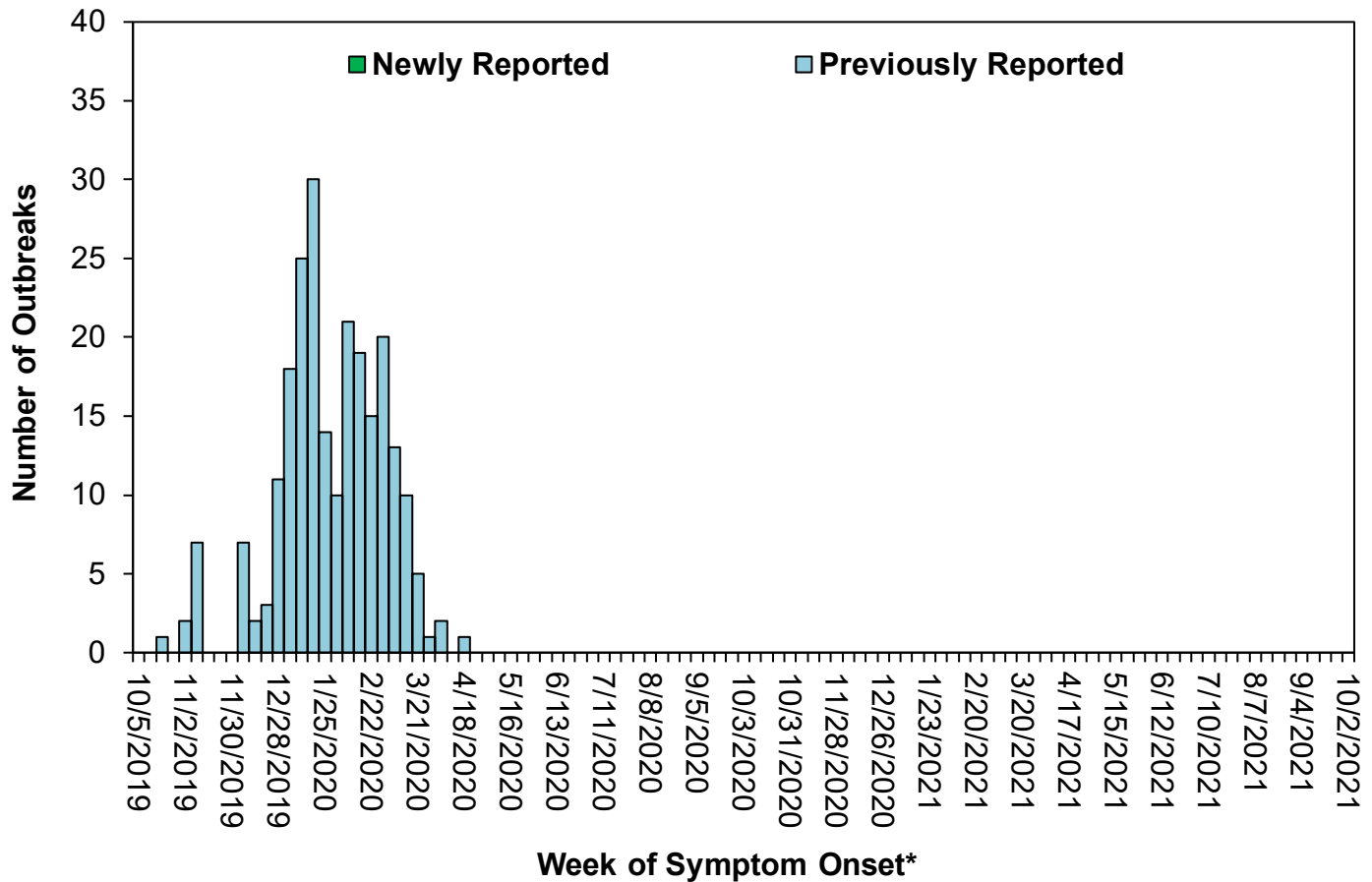
† Percent of influenza A positives

‡ Percent of influenza B positives

### C. Influenza-Associated Outbreaks

No laboratory-confirmed influenza outbreaks were reported to CDPH during Week 51. To date, no laboratory-confirmed influenza outbreaks have been reported to CDPH for the 2020–2021 season.

**Figure 10. Number of Laboratory-Confirmed Influenza-Associated Outbreaks by Week of First Onset, 2019–2021**



\*Earliest date associated with the outbreak was used for outbreaks without reported date of first patient's symptom onset.

### D. California Border Region Influenza Surveillance Network Data

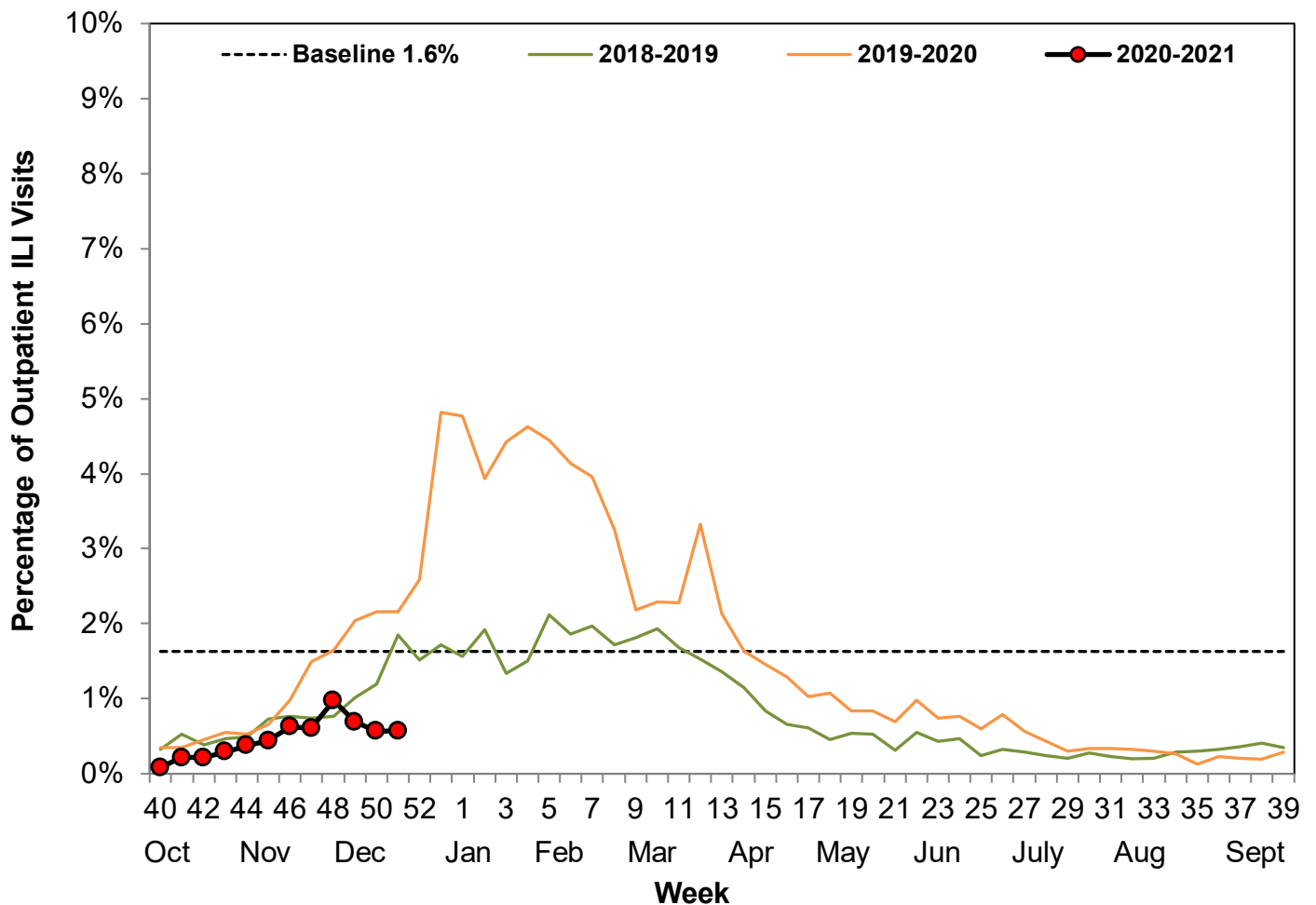
The border influenza surveillance network is comprised of outpatient provider sentinel sites whose geographical coverage extends approximately 100 kilometers (60 miles) north of the California-Baja California border and includes Imperial and San Diego Counties, as well as some parts of Riverside County.

#### 1. Syndromic Surveillance Update

A total of 8 border region sentinel providers reported data during Week 51. The total number of patients screened by all sentinel sites for ILI during Week 51 was 6,471. Outpatient ILI activity was 0.6% in Week 51. ILI activity for the California border region during Week 51 was lower when compared to activity for the same week during the

2018–2019 and 2019–2020 seasons (Figure 11). All influenza syndromic data summarized for the border region represent a subset of CDC influenza sentinel providers in California. Increases in ILI-related outpatient visits might also include people seeking care for other respiratory illness, including COVID-19.

**Figure 11. Percentage of Influenza-like Illness Visits among Patients Seen by Sentinel Providers – California Border Region, 2018–2021**



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

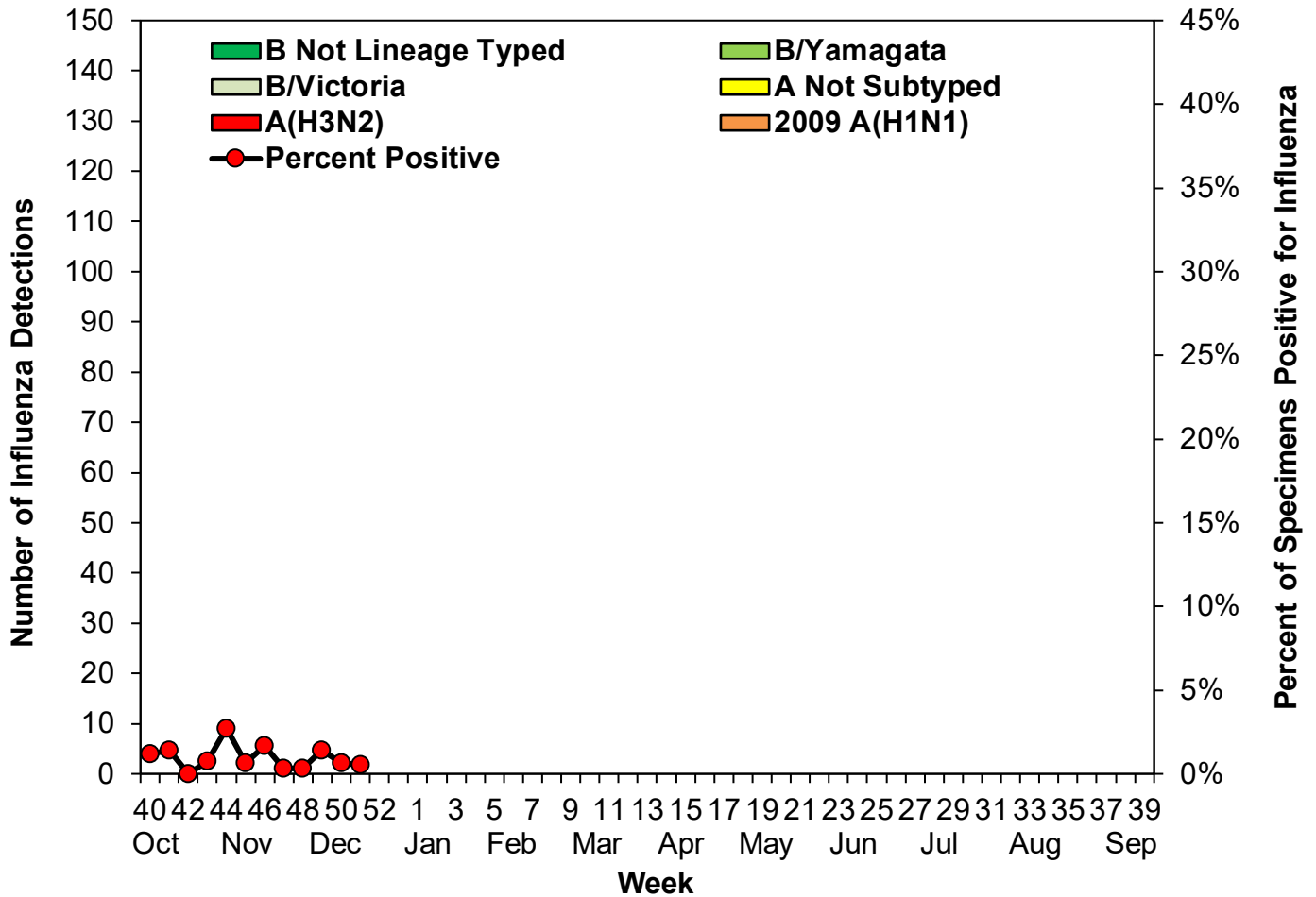
## 2. Virologic Surveillance Update

During Week 51, 384 respiratory specimens were tested from border region sentinel clinical laboratories; of these, two (0.5%) tested positive for influenza (one [50.0%] influenza A, one [50.0%] influenza B). Cumulatively this season, a total of 2,988 respiratory specimens were tested from border region sentinel clinical laboratories; of these, 28 (0.9%) tested positive for influenza (16 [57.1%] influenza A, 12 [42.9%] influenza B).

During Week 51, and cumulatively this season, no influenza positive specimens were reported from border region RLN laboratories.

Laboratory data summarized in Figure 12 include data from border region influenza clinical sentinel laboratories (percentage of specimens testing positive for influenza) as well as data from border region RLN laboratories (influenza type and subtype/lineage type).

**Figure 12. Number of Influenza Detections by Type and Subtype Detected in Respiratory Laboratory Network Laboratories and the Percentage of Specimens Testing Positive at Clinical Sentinel Laboratories – California Border Region, 2020–2021**



## E. Other Respiratory Viruses

### 1. Laboratory-Confirmed Severe Respiratory Syncytial Virus Case Reports

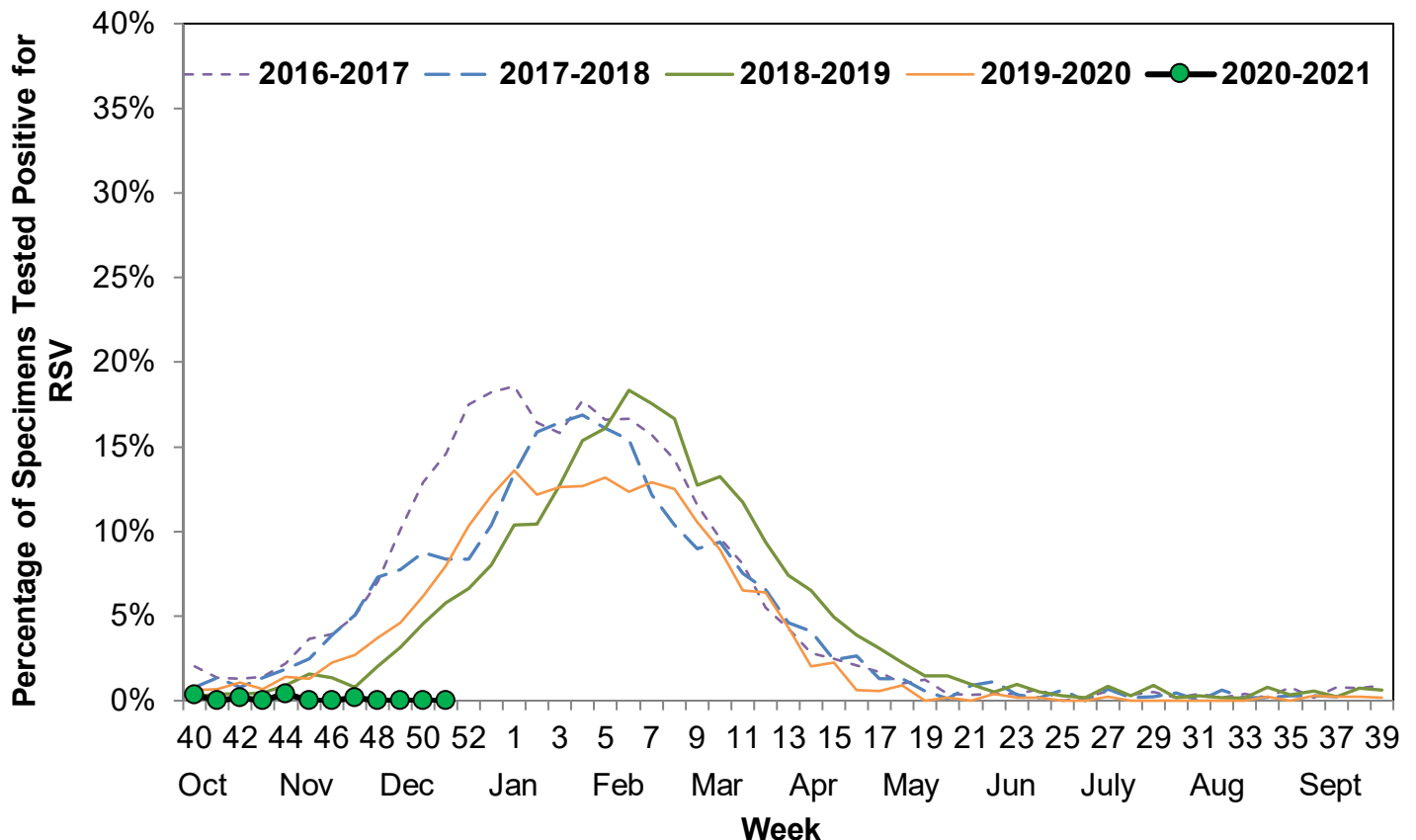
Currently, as mandated under Section 2500 of the California Code of Regulations, deaths among children aged 0–4 years with laboratory-confirmed respiratory syncytial virus (RSV) are reportable to CDPH. The weekly influenza report includes confirmed deaths formally reported to CDPH through December 19, 2020 (Week 51).

No laboratory-confirmed RSV-associated deaths among children <5 years of age were reported to CDPH during Week 51. To date, CDPH has received no reports of a laboratory-confirmed RSV-associated death among children <5 years of age during the 2020–2021 influenza season.

### 2. Other Respiratory Virus Laboratory Update

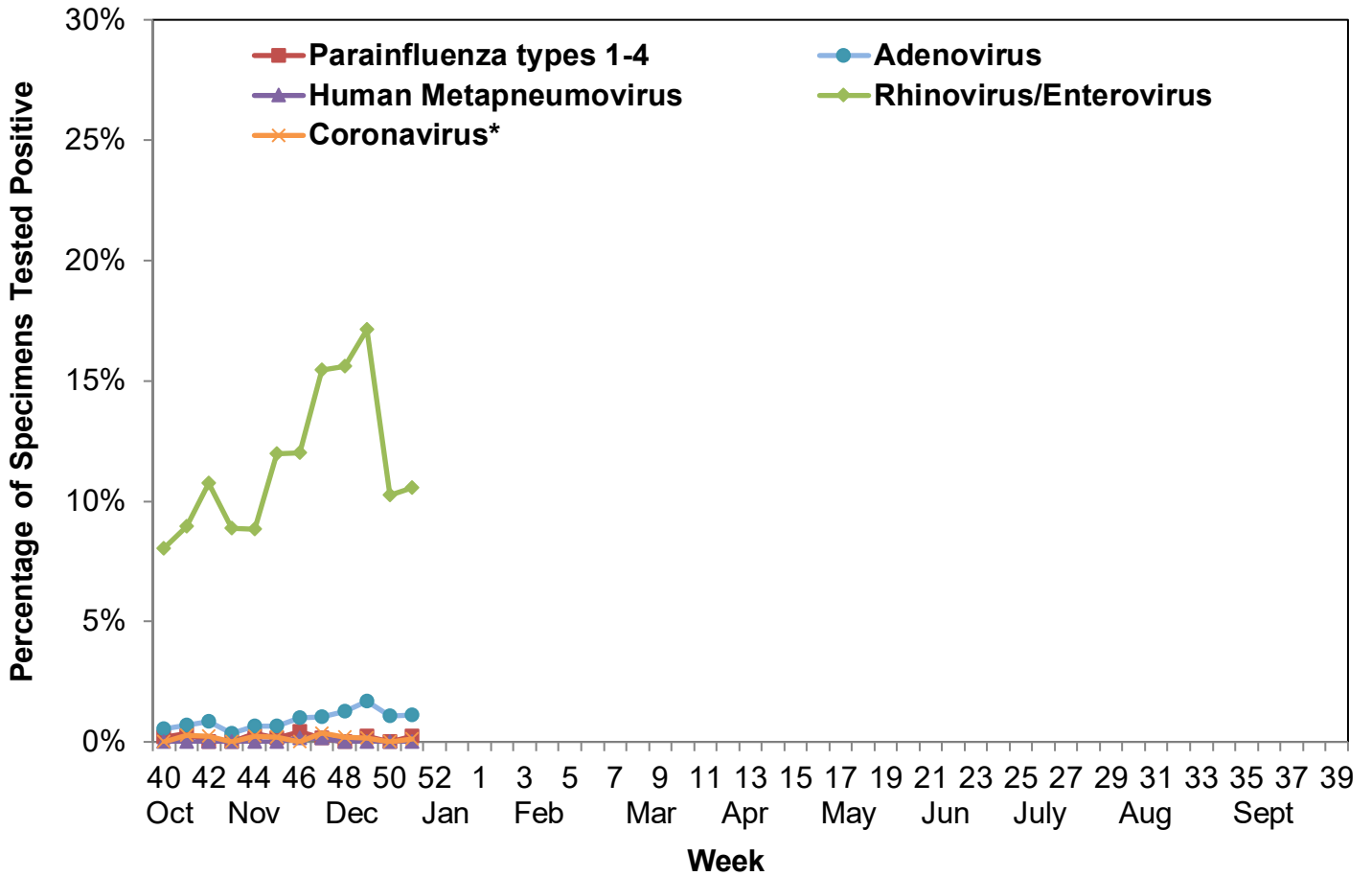
During Week 51, 2,186 specimens were tested for RSV and none (0.0%) were positive, which is the same compared to Week 50 (0.0%) (Figure 13). During Week 51, coronavirus (non-SARS-CoV-2), parainfluenza, and rhinovirus/enterovirus activity increased; and adenovirus and human metapneumovirus activity stayed the same (Figure 14).

**Figure 13. Percentage of RSV Detections at Clinical Sentinel Laboratories, 2016–2021**



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

**Figure 14. Percentage of Other Respiratory Pathogen Detections at Clinical Sentinel Laboratories, 2020–2021**



\*Coronaviruses identified include common human coronaviruses 229E, NL63, OC43, and HKU1 and do NOT include SARS-CoV-2.

### **Activity Levels:**

**No Activity:** No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.

**Sporadic:** Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

**Local:** Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.

**Regional:** Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions.

**Widespread:** Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state.

### **California Regions:**

**Northern:** Alpine, Amador, Butte, Colusa, Del Norte, El Dorado, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo, and Yuba counties

**Bay Area:** Alameda, Contra Costa, Marin, Napa, Solano, San Francisco, San Mateo, Santa Clara, Santa Cruz, and Sonoma counties

**Central Valley:** Calaveras, Fresno, Inyo, Kings, Mono, Madera, Mariposa, Merced, Monterey, San Benito, San Joaquin, Stanislaus, Tulare, and Tuolumne counties

**Upper Southern:** Kern, Los Angeles, San Luis Obispo, Santa Barbara, and Ventura counties

**Lower Southern:** Imperial, Orange, Riverside, San Bernardino, and San Diego counties

An accessible excel file with data for all figures can be downloaded from the [CDPH Flu webpage](#)

([http://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Immuni/Week2020-2151\\_DataTables.xlsx](http://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Immuni/Week2020-2151_DataTables.xlsx))

For questions regarding influenza surveillance and reporting in California, please email [InfluenzaSurveillance@cdph.ca.gov](mailto:InfluenzaSurveillance@cdph.ca.gov). This account is monitored daily by several epidemiologists.

To obtain additional information regarding influenza, please visit the [CDPH influenza website](#) ([www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx](http://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx)).

A copy of the case report form for reporting any laboratory-confirmed influenza case that was either admitted to the ICU or died can be downloaded from the [CDPH influenza website](#) ([www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx](http://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx)).

For information about national influenza activity, please visit the Centers for Disease Control and Prevention's [FluView](#) ([www.cdc.gov/flu/weekly/index.htm](http://www.cdc.gov/flu/weekly/index.htm)) and [FluView Interactive](#) ([www.cdc.gov/flu/weekly/fluviewinteractive.htm](http://www.cdc.gov/flu/weekly/fluviewinteractive.htm)) websites.

For information about COVID-19 in California, please visit the [CDPH COVID website](#) ([covid19.ca.gov](http://covid19.ca.gov)).

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