

Influenza and Other Respiratory Viruses Weekly Report

California Influenza Surveillance Program



Highlights (Week 33: August 12, 2018 – August 18, 2018)

Statewide Activity



Regions with Elevated Activity



- ▶ **Deaths (0-64):** 329 since Oct. 1, 2017
- ▶ **Outbreaks:** 648 since Oct. 1, 2017
- ▶ **Laboratory:** 0.6% positive
- ▶ **Outpatient ILI:** Within expected levels
- ▶ **Hospitalizations:** Within expected levels

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Key messages:

- Two additional variant influenza A (H1N2v) infections have been confirmed in California residents.
- The most recent onset of variant influenza occurred in early August; no additional suspect cases have been identified since that time.
- Influenza activity is low, as is expected during the summer.

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.

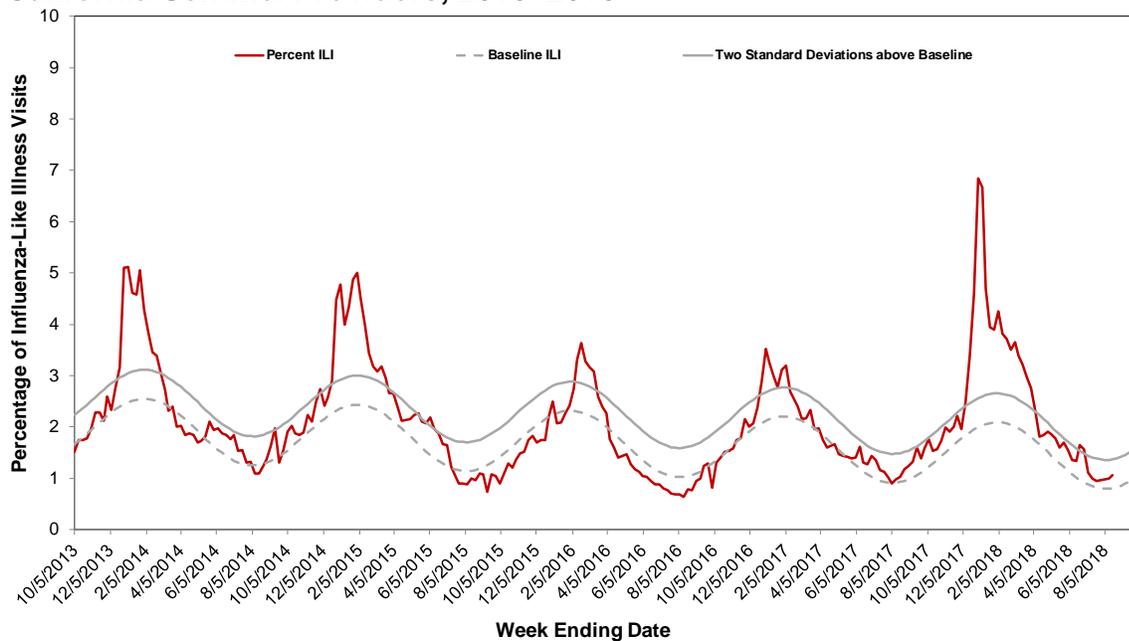
A. Outpatient and Inpatient Data

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°C) AND cough and/or sore throat (in the absence of a known cause other than influenza).

A total of 64 enrolled sentinel providers have reported data for Week 33. Based on available data, the percentage of visits for ILI during Week 33 was 1.1% and is within expected levels for this time of year (Figure 1).

Figure 1. Percentage of Influenza-like Illness Visits Among Patients Seen by California Sentinel Providers, 2013–2018



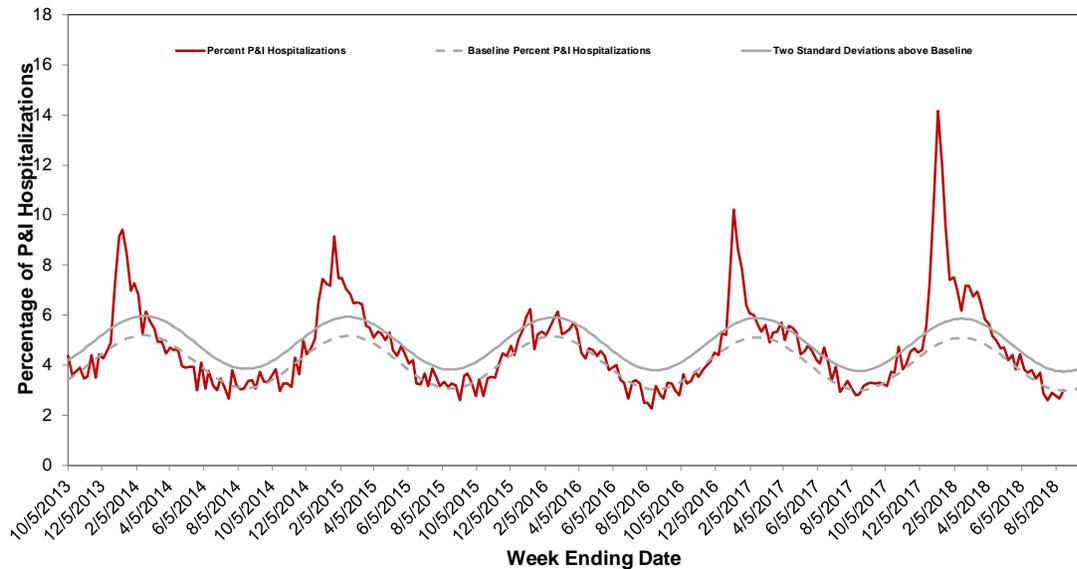
The seasonal baseline was calculated using a regression model applied to data from the previous five years. Two standard deviations above the seasonal baseline is the point at which the observed percentage of ILI is significantly higher than would be expected at that time of year.

2. Kaiser Permanente Hospitalization Data

Inpatients at Kaiser Permanente facilities with an admission diagnosis including the keywords “flu,” “influenza,” “pneumonia,” or variants of the keywords are defined as pneumonia and influenza (P&I)-related admissions. The number of P&I admissions is divided by the total number of hospital admissions occurring in the same time period to estimate the percentage of P&I admissions. Admissions for pregnancy, labor and delivery, birth, and outpatient procedures are excluded from the denominator.

The percentage of hospitalizations for pneumonia and influenza (P&I) in Kaiser Permanente facilities in northern California during Week 33 was 3.0% and is within expected levels for this time of the year (Figure 2).

Figure 2. Percentage of P&I Hospitalizations in Kaiser Permanente Northern California Hospitals, 2013–2018



The seasonal baseline was calculated using a regression model applied to data from the previous five years. Two standard deviations above the seasonal baseline and is the point at which the observed percentage of pneumonia and influenza hospitalizations in Kaiser Permanente hospitals in Northern California is significantly higher than would be expected at that time of the year.

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.

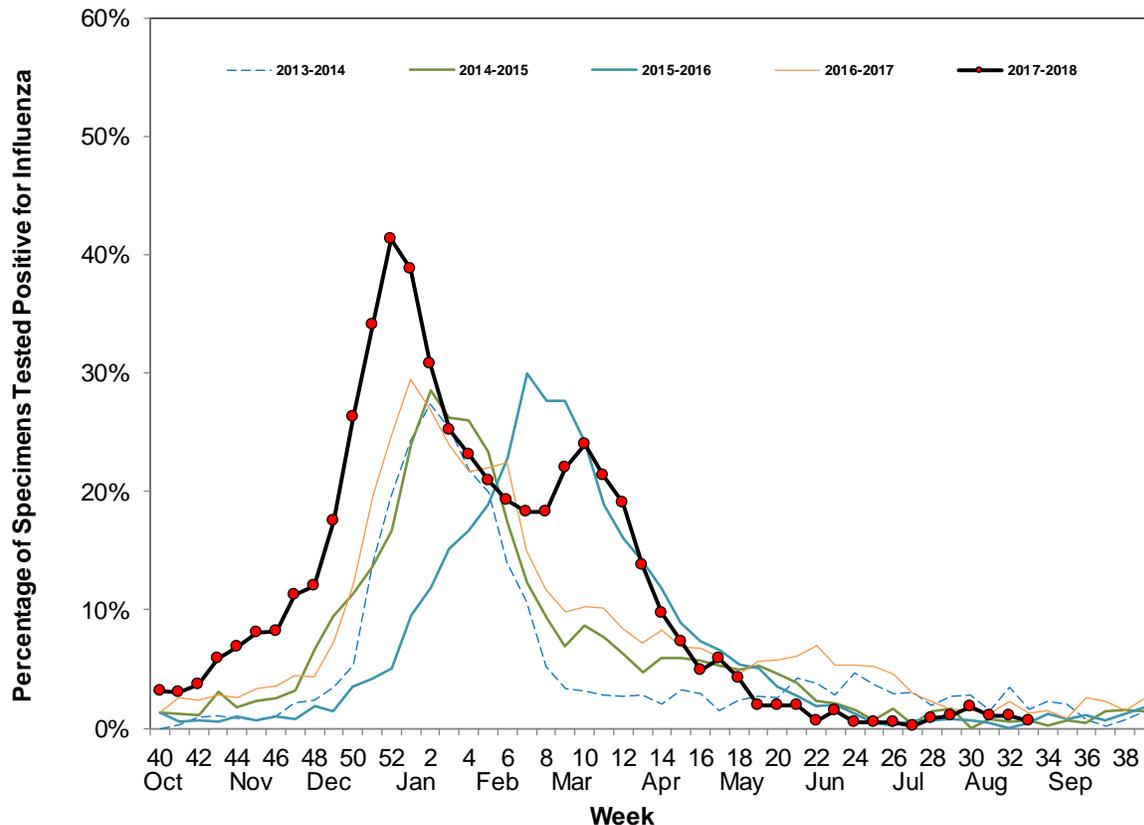
The overall percentage of influenza detections in clinical sentinel laboratories during Week 33 was 0.6% (Figure 4).

Two additional human infections with variant influenza A (H1N2v) have been identified in California, bringing the total number of variant influenza A (H1N2v) infections to six. Both newly identified cases became ill in early August 2018. One patient reported exposure to swine at an agricultural event, and the other reported no contact with swine and no attendance at an agricultural event in the week preceding illness. It is possible that limited human-to-human transmission occurred. No ongoing human-to-human transmission has been identified.

When an influenza virus that normally circulates in swine (but not people) is detected in a person, it is called a “variant influenza virus.” Human infections with variant influenza viruses are not common and person-to-person transmission of these viruses is rare. No additional suspect cases have been identified, and there appears to be no ongoing risk

to the community at this time. For more information about variant influenza virus infections, please visit the Centers for Disease Control and Prevention's [Key Facts about Human Infections with Variant Viruses](https://www.cdc.gov/flu/swineflu/keyfacts-variant.htm) website (<https://www.cdc.gov/flu/swineflu/keyfacts-variant.htm>).

Figure 4. Percentage of Influenza Detections at Clinical Sentinel Laboratories, 2013–2018



Note: The 2014–15 season contains a week 53. Data have been shifted so that week 1 aligns across years.

C. Laboratory-Confirmed Severe Influenza-associated Case Reports

Currently, as mandated under Section 2500 of the California Code of Regulations, deaths among patients aged 0–64 years with laboratory-confirmed influenza are reportable to CDPH. The weekly influenza report includes confirmed deaths formally reported to CDPH through August 18, 2018 (Week 33).

To date, CDPH has received 329 reports of laboratory-confirmed influenza-associated deaths among patients <65 years of age during the 2017–2018 influenza season. The fatality with the most recent symptom onset occurred during week 25 (the week ending June 23, 2018).

D. Influenza-Associated Outbreaks

To date, 648 laboratory-confirmed influenza outbreaks have been reported to CDPH for the 2017–2018 season. The outbreak with the most recent onset occurred during week 16 (the week ending April 21, 2018).

F. Other Respiratory Viruses

1. Laboratory-Confirmed Severe Respiratory Syncytial Virus Case Reports

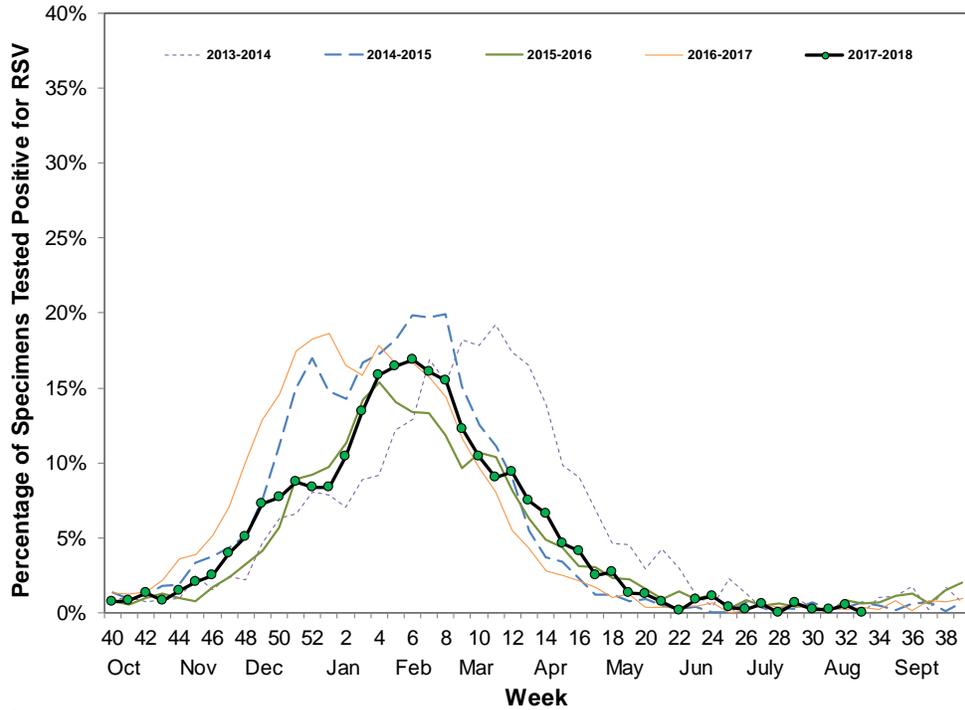
Currently, as mandated under Section 2500 of the California Code of Regulations, deaths among children aged 0–4 years with laboratory-confirmed respiratory syncytial virus (RSV) are reportable to CDPH. The weekly influenza report includes confirmed deaths formally reported to CDPH through August 18, 2018 (Week 33).

To date, CDPH has received eight reports of laboratory-confirmed RSV-associated deaths among children <5 years of age during the 2017–2018 influenza season. The fatality with the most recent symptom onset occurred during week 11 (the week ending March 17, 2018).

2. Other Respiratory Virus Laboratory Update

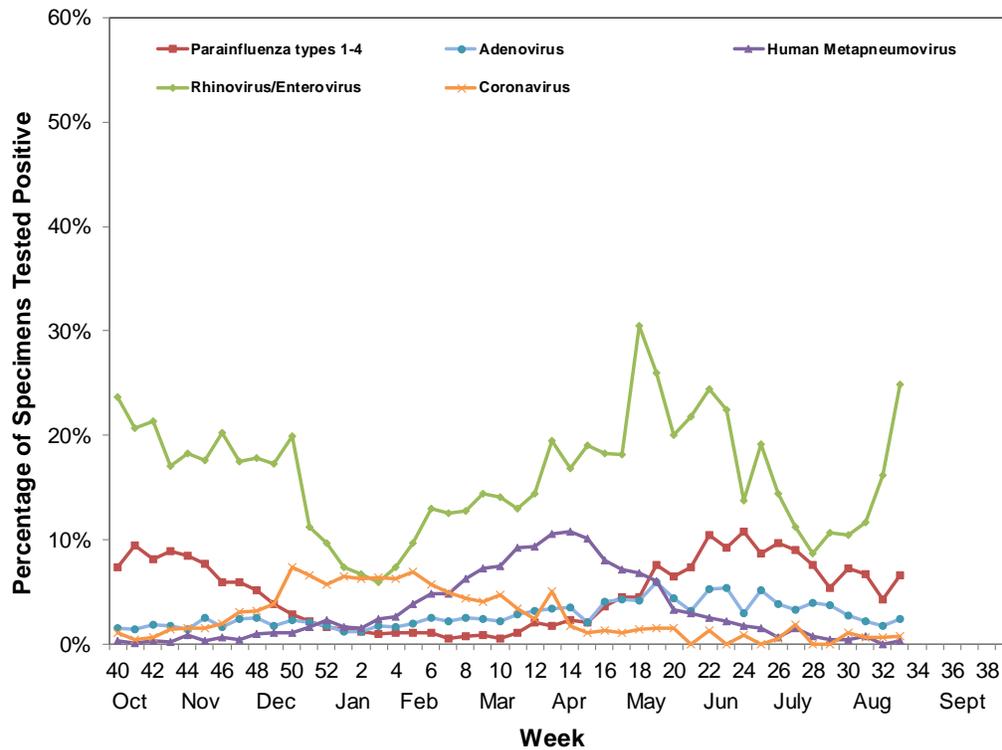
A total of 313 specimens were tested for RSV during Week 33 and 0 (0.0 %) were positive (Figure 5). During Week 33, rhinovirus/enterovirus, parainfluenza, human metapneumovirus, and adenovirus activity increased; and coronavirus activity remained stable (Figure 6).

Figure 5. Percentage of RSV Detections at Clinical Sentinel Laboratories, 2013–2018



Note: The 2014–15 season contains a week 53. Prior years' data have been shifted so that week 1 aligns across years.

Figure 6. Percentage of Other Respiratory Pathogen Detections at Clinical Sentinel Laboratories, 2017–2018



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

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

To obtain additional information regarding influenza, please visit the [CDPH influenza website](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx) (<https://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](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx) (<https://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](https://www.cdc.gov/flu/weekly/index.htm) (<https://www.cdc.gov/flu/weekly/index.htm>) and [FluView Interactive](https://www.cdc.gov/flu/weekly/fluviewinteractive.htm) (<https://www.cdc.gov/flu/weekly/fluviewinteractive.htm>) websites.

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