The purpose of the weekly *Influenza Watch* is to summarize current influenza surveillance in San Diego County. *Please note that reported weekly data are preliminary and may change due to delayed submissions and additional laboratory results.*

**Current Week 7 (ending 2/16/2019)**
- 539 new influenza detections reported: *Elevated level*
- 5% influenza-like-illness (ILI) among emergency department visits: *Expected level*
- 5 new influenza-related deaths reported this week, including one pediatric death
- 7% of deaths registered with pneumonia and/or influenza: *Expected level*

**Virus Characteristics**

- **4,947** Total Cases
- **35** Deaths†
- **8** Outbreaks*

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2018-19 Season</th>
<th>2017-18 Season</th>
<th>Prior 3-Year Average**</th>
</tr>
</thead>
<tbody>
<tr>
<td>All influenza detections reported (rapid or PCR)</td>
<td>Week 7: 539</td>
<td>Week 6: 476</td>
<td>Total To Date: 4,947</td>
</tr>
<tr>
<td>Percent of emergency department visits for ILI</td>
<td>Week 7: 5%</td>
<td>Total To Date: 7%</td>
<td>Week 7: 5%</td>
</tr>
<tr>
<td>Percent of deaths registered with pneumonia and/or influenza</td>
<td>Week 7: 7%</td>
<td>Total To Date: 7%</td>
<td>Week 7: 7%</td>
</tr>
<tr>
<td>Number of influenza-related deaths reported^</td>
<td>Week 7: 5</td>
<td>Total To Date: 35</td>
<td>Week 7: 6</td>
</tr>
</tbody>
</table>

† Flu deaths less than 18 years of age are reportable to CDPH.

* At least one case of laboratory-confirmed influenza in a setting experiencing two or more cases of influenza like illness (ILI) within a 72-hour period.

Influenza season is July 1 - June 30, Weeks 27-26. Total deaths reported in prior seasons: 342 in 2017-18, 87 in 2016-17, and 68 in 2015-16.

* Previous weeks case counts or percentages may change due to delayed processing or reporting.

** Includes FYs 2015-16, 2016-17, and 2017-18.

^ Current FY deaths are shown by week of report; by week of death for prior FYs.
Influenza Vaccine Effectiveness

Annual vaccination against seasonal influenza is recommended for all U.S. persons over six months of age. Vaccine effectiveness (VE) of seasonal influenza vaccine varies by season.

Last week, the Centers for Disease Control and Prevention (CDC) released preliminary VE information on the 2018–19 seasonal influenza vaccines. On the basis of data from the U.S. Influenza Vaccine Effectiveness Network on 3,254 children and adults with acute respiratory illness during November 23, 2018–February 2, 2019, the overall estimated VE of seasonal influenza vaccine for preventing medically attended, laboratory-confirmed influenza virus infection was 47%.

In 2017-2018, overall VE was determined to be 38%, preventing an estimated 7.1 million illnesses, 3.7 million medical visits, 109,000 hospitalizations, and 8,000 deaths as a result of influenza vaccination.

Vaccination remains the best way to protect against influenza and its potentially serious complications. CDC continues to recommend influenza vaccination while influenza viruses are circulating in the community.

For more information on the VE of the influenza vaccines this year, go to: Interim Estimates of 2018–19 Seasonal Influenza Vaccine Effectiveness — United States, February 2019.

For information on VE for last season, go to: Effects of Influenza Vaccination in the United States during the 2017–2018 Influenza Season.

Table 2. Influenza Detections Reported, FY 2018-19*

<table>
<thead>
<tr>
<th>Positive Test Type/Subtype</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td>4,251</td>
<td>85.9%</td>
</tr>
<tr>
<td>Influenza A (H1N1)pdm09</td>
<td>374</td>
<td>7.6%</td>
</tr>
<tr>
<td>Influenza A (H3) Seasonal</td>
<td>41</td>
<td>0.8%</td>
</tr>
<tr>
<td>Influenza B</td>
<td>227</td>
<td>4.6%</td>
</tr>
<tr>
<td>Influenza B/Yamagata</td>
<td>3</td>
<td>0.1%</td>
</tr>
<tr>
<td>Influenza B/Victoria</td>
<td>1</td>
<td>0.0%</td>
</tr>
<tr>
<td>Influenza A/B</td>
<td>50</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,947</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

* Season is July 1 - June 30
Influenza Activity Indicator:
The activity levels show how the current week’s ED ILI% (emergency department influenza-like-illness, percent of all visits) compares to the mean, and number of standard deviations above of the mean, of the non-influenza season weeks (CDC disease weeks 27-39) observed from the prior five seasons.

There are 10 activity levels, classified as: Minimal (levels 1-3), Low (levels 4-5), Moderate (levels 6-7), and High (levels 8-10). An activity level of 1 corresponds to when the ED ILI% is below the mean; level 2 corresponds to when the ED ILI% is less than 1 standard deviation above the mean; level 3 corresponds to when the ED ILI% is more than 1 but less than 2 standard deviations above the mean, and so on, with an activity level of 10 corresponding to when the ED ILI% is at 8 or more standard deviations above the mean.
Figure 2. Percent of Emergency Department Visits for ILI Chief Complaint by Week and Season.

Figure 3. San Diego County Influenza Detections by Type and Week of Report, 2018-19 FYTD (N=4,947).
Figure 4. Proportion of Influenza Detections by Age and Season, 2014-15 to 2018-19.

- Percent
- Season
- <1
- 1-9 yrs
- 10-19 yrs
- 20-39 yrs
- 40-59 yrs
- 60-79 yrs
- 80+
- Missing

Figure 5. Cumulative Influenza Case Reports by Episode Week & Season.
Figure 6. Percent of San Diego County Emergency Department Visits for Influenza-like Illness by Week and Season Compared to 5-Year Baseline & Upper 95% Threshold Values (Serfling Method).

Figure 7. Percent of San Diego County Deaths Registered with Pneumonia and/or Influenza by Week and Season Compared to Prior 5-Year Baseline & Upper 95% Threshold Values (Serfling Method).
Figure 8. Influenza Deaths by Type and Season.

- Both Influenza A and Influenza B
- Influenza A/B, Type Unknown
- Influenza B
- Pandemic H1N1
- Influenza A/H3
- Influenza A, No Subtype

Number of Deaths by Type and Season:
- 2007-08: 9 (Both A and B), 8 (A/B, Unknown Type), 58 (B), 25 (A/H3), 14 (A, No Subtype)
- 2008-09: 65 (A/B, Unknown Type), 27 (B), 6 (A/H3), 4 (A, No Subtype)
- 2009-10: 70 (A/B, Unknown Type), 30 (B), 20 (A/H3), 15 (A, No Subtype)
- 2010-11: 87 (A/B, Unknown Type), 85 (B), 25 (A/H3), 20 (A, No Subtype)
- 2011-12: 142 (A/B, Unknown Type), 100 (B), 45 (A/H3), 35 (A, No Subtype)
- 2012-13: 342 (A/B, Unknown Type), 150 (B), 100 (A/H3), 50 (A, No Subtype)
- 2013-14: 70 (A/B, Unknown Type), 60 (B), 40 (A/H3), 30 (A, No Subtype)
- 2014-15: 87 (A/B, Unknown Type), 70 (B), 50 (A/H3), 40 (A, No Subtype)
- 2015-16: 68 (A/B, Unknown Type), 60 (B), 40 (A/H3), 30 (A, No Subtype)
- 2016-17: 87 (A/B, Unknown Type), 70 (B), 50 (A/H3), 40 (A, No Subtype)
- 2017-18: 35 (A/B, Unknown Type), 30 (B), 20 (A/H3), 10 (A, No Subtype)

Figure 9. Influenza Deaths by Age and Season.

- <1 yr
- 1-17
- 18-34
- 35-64
- 65+

Number of Deaths by Age and Season:
- 2007-08: 9 (<1 yr), 8 (1-17), 58 (18-34), 25 (35-64), 14 (65+)
- 2008-09: 65 (<1 yr), 27 (1-17), 6 (18-34), 14 (35-64), 4 (65+)
- 2009-10: 70 (<1 yr), 30 (1-17), 20 (18-34), 15 (35-64), 10 (65+)
- 2010-11: 87 (<1 yr), 85 (1-17), 25 (18-34), 20 (35-64), 15 (65+)
- 2011-12: 142 (<1 yr), 100 (1-17), 45 (18-34), 35 (35-64), 20 (65+)
- 2012-13: 342 (<1 yr), 150 (1-17), 100 (18-34), 70 (35-64), 50 (65+)
- 2013-14: 70 (<1 yr), 60 (1-17), 40 (18-34), 30 (35-64), 20 (65+)
- 2014-15: 87 (<1 yr), 70 (1-17), 50 (18-34), 40 (35-64), 30 (65+)
- 2015-16: 68 (<1 yr), 60 (1-17), 40 (18-34), 30 (35-64), 20 (65+)
- 2016-17: 87 (<1 yr), 70 (1-17), 50 (18-34), 40 (35-64), 30 (65+)
- 2017-18: 35 (<1 yr), 30 (1-17), 20 (18-34), 15 (35-64), 10 (65+)
- 2018-19: 5 (<1 yr), 3 (1-17), 2 (18-34), 1 (35-64), 1 (65+)

Epidemiology and Immunization Services Branch
www.sdepi.org (619) 692-8499 EpiDiv.HHSA@sdcounty.ca.gov
Influenza vaccinations administered and entered into the San Diego Immunization Registry (SDIR)

**Figure 10. Number of Influenza Vaccinations Administered* by Week and Season.**

**Figure 11. Cumulative Number of Influenza Vaccinations Administered* by Week and Season.**

* Influenza vaccinations administered and entered into the San Diego Immunization Registry (SDIR)
Local providers are encouraged to report laboratory-positive influenza detections to the County Epidemiology Program by **FAX (858) 715-6458**. Please fax a **Confidential Morbidity Report Form**, or an **Influenza Case Report Form**, and/or a printed laboratory result. If known, please indicate if the patient was admitted to ICU and/or died, and/or is a resident of a congregate living facility.

Regarding sending influenza specimens to **Public Health Laboratory** (PHL) for confirmation, please use the updated PHL **Test Request Form** and contact PHL at **(619) 692-8500** with any questions. Contact the Epidemiology Program by telephone **(619) 692-8499** or email to **EpiDiv.HHSA@sdcounty.ca.gov** with questions regarding influenza data.

**Resources**
- County of San Diego Epidemiology Program website [www.sdepi.org](http://www.sdepi.org)
- County of San Diego 2017-18 Influenza Season Summary
- Current Week Influenza Watch [Slide Deck](#) – A slide presentation version of this report
- County of San Diego Immunization Program (SDIZ) [www.sdiz.org](http://www.sdiz.org)

California Department of Public Health (CDPH) **Influenza Update**
- Centers for Disease Control and Prevention (CDC) **Influenza Surveillance**