Current Week 1 (ending 1/7/2017)

- 455 new influenza detections reported: Elevated
- 4% influenza-like-illness (ILI) among emergency department visits: Expected level
- 4 influenza-related deaths reported this week
- 8% of deaths registered with pneumonia and/or influenza: Expected level

Table 1. Influenza Surveillance Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>FY 2016-17*</th>
<th>FY 2015-16</th>
<th>Prior 3-Year Average**</th>
</tr>
</thead>
<tbody>
<tr>
<td>All influenza detections reported (rapid or PCR)</td>
<td>Week 1 455</td>
<td>Week 52 292</td>
<td>FYTD 1,327</td>
</tr>
<tr>
<td></td>
<td>Week 1 134</td>
<td>Week 52 447</td>
<td>FYTD 456</td>
</tr>
<tr>
<td></td>
<td>Week 1 447</td>
<td>Week 52 1,023</td>
<td></td>
</tr>
<tr>
<td>Percent of emergency department visits for ILI</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Percent of deaths registered with pneumonia and/or influenza</td>
<td>8%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Number of influenza-related deaths reported^</td>
<td>4</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

*FYTD=Fiscal Year To Date (FY is July 1 - June 30, Weeks 27-26). Total deaths reported in prior years: 68 in 2015-16, 97 in 2014-15, and 70 in 2013-14.
* Previous weeks case counts or percentages may change due to delayed processing or reporting.
** Includes FYs 2013-14, 2014-15, and 2015-16.
^ Current FY deaths are shown by week of report; by week of death for prior FYs.
Influenza A(H7N9) Epidemics in China

A new study from the Centers for Disease Control and Prevention (CDC) examines the four annual epidemics of avian influenza A(H7N9) that have occurred in China. The study reports an expanded geographic area affected by these viruses and an increase in the proportion of infected people who become severely ill. CDC also notes that an increasing proportion of A(H7N9) viruses are showing genetic changes that may be associated with increased transmission to people.

Avian influenza A(H7N9) was first documented in people in 2013 and is estimated to have the greatest potential to cause a pandemic according to CDC’s Influenza Risk Assessment Tool (IRAT). As of January 3, 2017, a total of 809 laboratory-confirmed influenza A(H7N9) virus infections have been reported to the World Health Organization. Most people infected with A(H7N9) virus have experienced severe respiratory illness, with about one-third of infections resulting in death.

The CDC report notes that person-to-person spread of A(H7N9) viruses has not increased and there have been no major changes in the epidemiology associated with A(H7N9) epidemics. The four epidemics shared some similar characteristics, including age and gender distribution of patients, and history of exposure (primarily to live poultry within two weeks prior to illness onset). However, the most recent outbreak lasted longer, had more cases noted in people living in rural areas, and had infections reported from areas of China where none had been previously found. Infected people were significantly more likely to develop pneumonia and to be admitted to the intensive care unit (although not more likely to die).

The full CDC report is available here. Since November 2016, 125 new human infections from influenza A(H7N9) have been reported in mainland China. Providers should always obtain a travel history and an exposure history to birds and swine from patients presenting with influenza-like illness. Any suspected case of novel or avian influenza should be reported immediately to the County Epidemiology Program.

<table>
<thead>
<tr>
<th>Positive Test Type/Subtype</th>
<th>Week 1</th>
<th>Total To-Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A†</td>
<td>402</td>
<td>1,094</td>
</tr>
<tr>
<td>Influenza A(H1N1) Pandemic 2009</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Influenza A (H3) Seasonal</td>
<td>26</td>
<td>127</td>
</tr>
<tr>
<td>Influenza B†</td>
<td>23</td>
<td>81</td>
</tr>
<tr>
<td>Influenza B/Victoria</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Influenza B/Yamagata</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Influenza A/B†</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>455</td>
<td>1,327</td>
</tr>
</tbody>
</table>

* FY is July 1 - June 30.
† No further characterization performed, or results were not yet available at time of publication.
Note: Totals may change due to further laboratory findings.
Figure 1. Percent of Emergency Department Visits for Influenza-like Illness by Week and FY

Figure 2. San Diego County Influenza Detections by Type and Week of Report, 2016-17 (N=1,327)
Figure 3. Percent of Reported Influenza Cases by Age Group and Season, 2011-12 to 2016-17 YTD

Figure 4. Cumulative Influenza Case Reports by Week & Season (Excluding 2009-10)
**Figure 5.** Percent of San Diego County Emergency Department Visits for Influenza-like Illness by Week and FY Compared to 5-Year Baseline & Upper 95% Threshold Values (Serfling Method)

**Figure 6.** Percent of San Diego County Deaths Registered with Pneumonia and/or Influenza by Week and FY Compared to Prior 5-Year Baseline & Upper 95% Threshold Values (Serfling Method)
Figure 7. Influenza Deaths by Type, and Season

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

Figure 8. Influenza Deaths by Age and Season

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

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Influenza Reporting in San Diego County

Local providers are encouraged to report laboratory positive influenza detections to the County Epidemiology Program by FAX (858) 715-6458. Please fax a Case Report Form and/or a printed laboratory result, and indicate if the patient was admitted to ICU or died, and/or is a resident of a congregate living facility.

For questions regarding sending specimens to Public Health Laboratory (PHL), call (619) 692-8500. Click here for the updated PHL PCR Test Request Form. Contact the Epidemiology Program with any questions at (619) 692-8499 or by email to: EpiDiv.HHSA@sdcounty.ca.gov.

Resources
San Diego County Influenza Surveillance Weekly Slide Deck - presentation version of this report
County of San Diego Immunization Program www.sdiz.org
California Department of Public Health Influenza
Centers for Disease Control and Prevention Influenza Surveillance Weekly Report