Key findings for the 2014–2015 flu season

- During CDC 2015 disease week 10 (March 8-14, 2015), the statewide geographic distribution of influenza was downgraded to “regional” as influenza activity continues to decrease.
- Nationwide, influenza activity continued to decrease, but remained elevated. Three influenza-associated pediatric deaths were reported in week 10. A total of 107 influenza-associated pediatric deaths have been reported for the 2014-2015 season.
- Since last update, there were no laboratory-confirmed non-fatal influenza cases requiring ICU level care, and no new influenza-associated deaths among people under age 65 were reported to the Santa Clara County Public Health Department. No new respiratory outbreaks were reported.
- As of this week, a total of 13 laboratory-confirmed ICU cases, 2 deaths, and 27 outbreaks have been reported in Santa Clara County in the 2014–2015 influenza season.

HOW INFLUENZA ACTIVITY IS TRacked

Data are collected through local, state and nationwide influenza surveillance systems.

In Santa Clara County, we use a variety of data sources to track trends in influenza activity, and to compare these to influenza trends in previous influenza seasons. We track emergency department visits for influenza-like illness, laboratory tests performed by the county Public Health Laboratory, and severe cases of influenza reported by hospitals.

Reporting requirements

- Outbreaks of influenza in schools, daycares, or facilities such as nursing homes or hospitals.
- Laboratory-confirmed influenza deaths in patients aged <65.
- Novel influenza strains or patients suspected of having novel influenza virus infection.
- Providers may voluntarily report severe influenza cases requiring ICU care in patients aged <65.
- Aside from these, individual cases of influenza, influenza hospitalizations, and influenza deaths are not reportable.

Trends in influenza deaths of persons of all ages, including in persons aged ≥65, are tracked through the CDC’s 122 Cities Pneumonia and Influenza Mortality Reporting System. National data are available at the Centers for Disease Control and Prevention website: [http://www.cdc.gov/flu/weekly](http://www.cdc.gov/flu/weekly).
Public health laboratory flu PCR test data

The Santa Clara County Public Health Laboratory (PHL) performs PCR testing to detect influenza A and influenza B viruses including subtypes of influenza A such as H1, H3, and 2009 H1N1.

No specimens were tested for flu during week 11. As of March 21, 2015, 346 patients were tested in the current flu season; 138 were positive for influenza A H3, 3 were influenza B, and the remainder were negative for influenza A and influenza B virus (Table 1).

As only a small fraction of providers and laboratories send specimens to PHL for testing, the data may not accurately reflect influenza activity in the county. Specimens tested at PHL include both outpatients and inpatients hospitalized without ICU level care and may include residents outside Santa Clara County. Therefore, not all the patients who tested positive at PHL were reportable to Santa Clara County.

Table 1. Flu specimens tested by Santa Clara County Public Health Laboratory

<table>
<thead>
<tr>
<th>Flu season</th>
<th>Report date</th>
<th>Number of specimens tested</th>
<th>Total positive for influenza A by subtype</th>
<th>Total positive for influenza B (%*)</th>
<th>Total positive for influenza A or influenza B (%*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014–15</td>
<td>Mar 15-21, 2015</td>
<td>0</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2013–14</td>
<td>Sep 28, 2014–Mar 21, 2015</td>
<td>346</td>
<td>0 (0)</td>
<td>138 (98)</td>
<td>3 (2)</td>
</tr>
<tr>
<td></td>
<td>Sep 29, 2013–May 3, 2014</td>
<td>318</td>
<td>0 (0)</td>
<td>15 (8)</td>
<td>176 (90)</td>
</tr>
</tbody>
</table>

* Denominator of the percentage is the total positive for influenza A or influenza B. Percentages may not sum to 100% due to rounding.

Laboratory-confirmed influenza ICU cases and deaths in persons ages 0 to 64

Only deaths due to laboratory-confirmed influenza among individuals ages 0 to 64 years are reportable in California, so we do not provide the number of influenza-associated deaths in individuals ages 65 and older. Although reporting of non-fatal cases of laboratory-confirmed influenza requiring ICU level care is recommended for persons ages 0 to 64, it is not required in California, so severe influenza cases are likely under-reported.

Between March 15 and March 21, no new laboratory-confirmed influenza ICU cases and no new influenza-associated deaths among people under age 65 were reported. A total of 13 ICU cases and 2 deaths among individuals ages 0 to 64 have been reported for the 2014 – 2015 season (Table 2, Figure 1). Cases ages 65 and older are not reportable.
Table 2. Reports of laboratory-confirmed influenza ICU cases and deaths in persons ages 0-64, Santa Clara County, September 28, 2014 – March 21, 2015

<table>
<thead>
<tr>
<th>Age group</th>
<th>ICU</th>
<th>Deaths</th>
<th>Total severe cases</th>
<th>Co-morbidities* among total severe cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Any co-morbidities</td>
</tr>
<tr>
<td>Ages &lt;5</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ages 5-17</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Ages 18-39</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Ages 40-64</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>2</td>
<td>15</td>
<td>9</td>
</tr>
</tbody>
</table>

*Co-morbid conditions considered by the Advisory Committee on Immunization Practices (ACIP) to increase the risk for severe influenza.

** Includes heart disease, immunosuppression, pregnancy, neurologic, blood, and metabolic disorders, and liver and kidney dysfunction.

Source: California Reportable Disease Information Exchange (CalREDIE), 2014-2015

Figure 1. Laboratory-confirmed influenza ICU cases and deaths in persons ages 0 – 64 by week of onset, Santa Clara County, December 21, 2014 – March 21, 2015

Source: California Reportable Disease Information Exchange (CalREDIE), 2014-2015
Respiratory outbreaks

Since last update, no new respiratory outbreaks have been reported in Santa Clara County. A total of 27 outbreaks have been reported for this season including 23 confirmed with influenza virus. To date, only influenza A (H3) has been detected in the lab-confirmed influenza outbreaks.

Hospital emergency department visits for influenza-like illness (ILI)

ESSENCE (Electronic Surveillance System for the Early Notification of Community-Based Epidemics) is a real time, automated syndromic surveillance system that collects chief complaint data from emergency department visits at 7 Santa Clara County hospitals. Chief complaint data are sorted by syndrome and statistical algorithms are used to calculate unexpected rises in selected syndromes.

The proportion of weekly emergency department visits for ILI peaked at 2.6% in week 4. Since then the proportion of visits for ILI has decreased to 0.98% in week 11 (Figure 2).

Figure 2. Weekly percentage of emergency department visits for ILI, September 29, 2013 – March 21, 2015

Source: Santa Clara County Public Health Department, ESSENCE, 2013-2015
State and national data

As of CDC disease week 10 (March 8-14, 2015), overall influenza activity in California was downgraded to “regional” as it continues to decrease. One fatal case was reported in disease week 10, with a total of 46 fatalities reported for the 2014-2015 influenza season. Additional information about influenza activity statewide can be obtained from the California Department of Public Health, Influenza Surveillance Project. http://www.cdph.ca.gov/data/statistics/Pages/CISPD ataArchive.aspx

Nationwide, influenza activity decreased, but remained elevated during week 10. Both influenza A viruses, predominantly A(H3), as well as influenza B viruses have been circulating this season. All recently circulating influenza viruses have been susceptible to the neuraminidase inhibitor antiviral medications, oseltamivir, zanamivir, and peramivir. In week 10, 3 influenza-associated pediatric deaths were reported in the United States. A total of 107 pediatric influenza-related deaths have been reported this season. For more information about influenza activity in the United States, please visit the CDC Influenza Surveillance website: http://www.cdc.gov/flu/weekly

Vaccination

- Vaccination is recommended for all persons ages 6 months and older. It is particularly important for individuals ages 65 and older, those with certain chronic medical conditions (such as asthma, diabetes, or heart disease), pregnant women, and children less than 5 years of age to be vaccinated, as they are at greater risk for developing flu-related complications.
- Flu vaccines are available through your healthcare provider and at most drug stores.
- Individuals who are ages 18 and older and uninsured or underinsured can obtain a flu vaccine through the Santa Clara County Public Health Department Adult Immunization Clinic.
- Seniors with Medicare can obtain a flu vaccine for free through the Santa Clara County Public Health Department Adult Immunization Clinic.
- In Santa Clara County, healthcare workers must be vaccinated or wear a mask during influenza season.
- There are two types of flu vaccines available this year. Traditional flu vaccines provides protections against three flu strains: A/California/7/2009 (H1N1)pdm09-like virus, A/Texas/50/2012 (H3N2)-like virus, B/Massachusetts/2/2012-like virus. The new Quadrivalent flu vaccines protect against four flu strains with an additional B/Brisbane/60/2008-like virus.
- Visit http://flushot.healthmap.org/ to find a location in your area that offers flu shots.

Reference


SCC flu surveillance and definitions:
ILI: Influenza-Like Illness; P & I: Pneumonia & Influenza; CDC Disease Week: a standardized weekly calendar provided by CDC, allowing data to be compared over multiple years