



Seasonal Influenza Report

San Mateo County Health System, Public Health Policy and Planning

2015-16 Annual Summary

www.smchealth.org/flu · Provider Reporting: 650.573.2346 · 650.573.2919 (fax)

Catherine Sallenave MD, CD Contoller · Moon Choi, Epidemiologist · Scott Morrow MD, MPH, Health Officer

Influenza and Respiratory Virus Activity, 2015-16

The 2015-16 influenza season in San Mateo County began later and influenza activity peaked much later compared to previous seasons, with the predominant serotype being influenza A H3N2. San Mateo County's influenza activity mirrored national influenza activity. According to the Centers for Disease Control and Prevention (CDC), last season was "moderate," with a moderate number of outpatient visits for influenza-like illness (ILI), and hospitalization numbers lower than those in previous influenza A H3N2-predominant seasons.

Influenza season officially ended in week 20 (May 15-21, 2016). As in past years, California and the rest of the nation experienced low level activity during the summer months and the state continued to receive sporadic reports of positive influenza laboratory tests, intensive care cases, fatal cases, and laboratory-confirmed influenza outbreaks.

Influenza activity in San Mateo County began in early December 2015 and continued through late April 2016, with a peak in activity in early February at week 7 (Figure 1). This was earlier than national averages, with a peak at week 10. Respiratory Syncytial Virus (RSV) activity peaked around the same time as influenza. RSV peak activity occurred in early February at week 6. A total of 919 specimens were tested for RSV, of which 8.6% were positive.

From October 2015 to May 2016, a total of 5450 specimens were tested in San Mateo County for influenza, of which 7.9% were positive. Among the influenza positives reported, influenza types A and B were roughly equal percentage-wise. Of all the influenza positive specimens, 51.3% were positive for influenza type A, 46.6% were positive for influenza type B, and 2.1% were positive for influenza type A/B unspecified. Influenza A activity peaked in early February which is when influenza B activity also peaked. The 2015-2016 season looked very different from the 2014-2015 season (Figure 1). It had a smaller and later peak than the previous season and the proportion of influenza A and influenza B positives

was more evenly distributed.

Data on influenza and RSV detections were reported by three major hospital laboratories within the county and the county Public Health Laboratory. This consistent reporting enabled the monitoring of influenza and RSV activity on a weekly basis and helped provide a summary of trends countywide.

Influenza-like illness (ILI) data, in the form of Emergency Department chief complaints from San Mateo Medical Center, were monitored and are summarized for the past two influenza seasons (Figure 2). The seasonal 2015-16 average percentage of ILI was 9.49%, lower than the 2014-15 average of 13.12%. The proportion of ILI visits this season was lower and had a later peak (throughout February) than the last season. ILI activity for both seasons closely matched trends of positive influenza tests during both seasons (Figure 3), confirming that ILI activity is a fairly accurate reflection of both moderate and severe influenza activity in San Mateo County.

Figure 1 Number of Positive Influenza & RSV Tests by Week San Mateo County, 2014-16

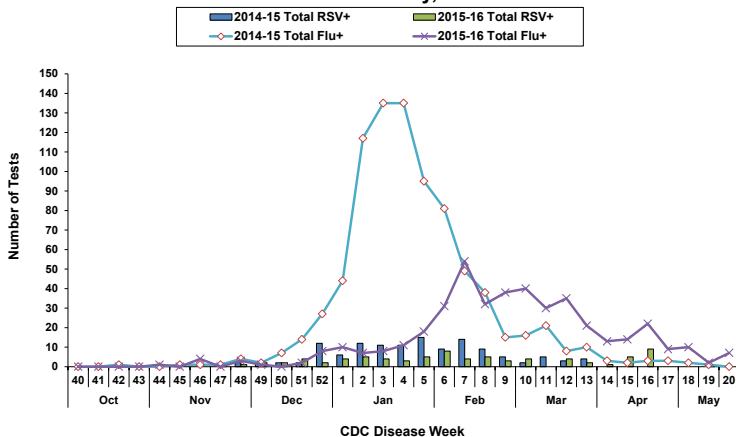


Figure 2 Proportion of Influenza-like Illness Visits (ILI): San Mateo County Medical Center ED, 2014-16 Influenza Seasons

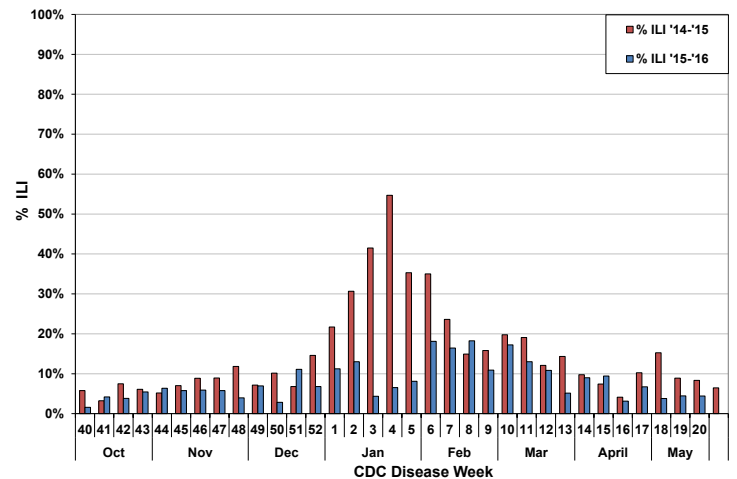
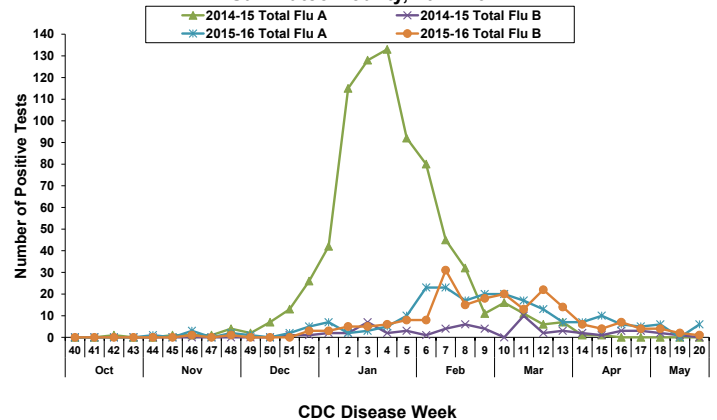


Figure 3 Number of Positive Influenza Tests by Type and Week, San Mateo County, 2014-16



*Our reported numbers do not represent all cases of influenza within SMC, but are intended to demonstrate trends in influenza activity.
Sources: SMC: San Mateo Medical Center, Sequoia Hospital, Peninsula Hospital, San Mateo County Public Health Laboratory; CA: California Influenza Surveillance Project: <https://www.cdph.ca.gov/programs/dcdc/Pages/CaliforniaInfluenzaSurveillanceProject.aspx>; US: CDC Flu Activity and Surveillance: <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>



Seasonal Influenza Report

San Mateo County Health System, Public Health Policy and Planning
2015-16 Annual Summary

San Mateo County Severe and Fatal Influenza Case Surveillance

The California Department of Public Health (CDPH) mandates reporting of laboratory-confirmed influenza **deaths** under the age of 65. CDPH also requests that cases of influenza that require **intensive care** be reported as well, in an effort to monitor the circulation of new viruses and characterize populations at risk for complications. Severe cases are defined as having laboratory confirmed influenza with hospitalization requiring intensive care or ending in death.

Within San Mateo County, a total of seven adult and one pediatric (ages 17 years and under) confirmed severe influenza cases were reported this season (Table 1). Among the cases there were four males and four females, with ages ranging from 15 to 77. Two fatalities occurred, with ages ranging from 41 to 57. Dates of onset ranged from 12/19/15 to 5/5/16* (Figure 4).

In addition to individual case reporting, four institutionalized outbreaks of influenza were reported from long term care and skilled nursing facilities during this influenza season. Dates of onset ranged from December 2015 to May 2016. One of the outbreaks was influenza A positive, two were influenza B positive, and one was undetermined.

*Some onset dates are unavailable. As a proxy, the laboratory collection date or the date the case was received by the health department, whichever is earlier, was used.

Table 1

Confirmed Severe Influenza Cases	2015-2016 Season	
	(10/4/2015 — 5/21/2016)*	
ICU		
Adult	7	
Pediatric	1	
Fatalities		
Adult	2	
Pediatric	0	
Influenza Outbreaks	4	

*Based on date reported to Public Health
Source: California Reportable Disease Information Exchange (CalREDIE)

PLEASE REPORT TO COMMUNICABLE DISEASE CONTROL

- Report **ALL** cases of severe febrile respiratory illness and suspected seasonal influenza which are (1) hospitalized in the ICU or (2) deceased by calling (650) 573-2346 or by submitting a [Confidential Morbidity Report \(CMR\)](#) and faxing it to (650) 573-2919.
- Immediately report any respiratory outbreaks in your facility to Communicable Disease Control by calling (650) 573-2346.

INFLUENZA VACCINE COMPOSITION FOR THE 2016-2017 SEASON

For 2016–17, trivalent influenza vaccines will contain:

- An A/California/7/2009 (H1N1)-like virus
- An A/Hong Kong/4801/2014 (H3N2)-like virus
- A B/Brisbane/60/2008-like (Victoria lineage) virus

Quadrivalent vaccines containing two influenza B viruses include the above three antigens and a B/Phuket/3073/2013-like (Yamagata lineage) virus.

AVAILABLE VACCINE PRODUCTS

Various influenza vaccine products are anticipated to be available during the 2016–17 season, with vaccine types listed below:

- Trivalent inactivated influenza vaccine (Standard dose)
- Quadrivalent inactivated influenza vaccine (Standard dose)
- Cell culture-based inactivated quadrivalent influenza vaccine (Standard dose)
- Adjuvanted inactivated trivalent influenza vaccine (Standard dose)
- High dose trivalent inactivated influenza vaccine
- Recombinant trivalent influenza vaccine (Standard dose)
- Live attenuated quadrivalent influenza vaccine (**Should not be used this season because of concerns regarding low effectiveness against influenza A (H1N1) in the past 2 seasons**).

A table describing each type of influenza vaccine, age indications and thimerosal content is available [here](#).

Figure 4 Pediatric and Adult Severe Influenza Cases by Date of Onset, San Mateo County, 2015-2016 Influenza Season (N=10)

