



INFLUENZA WATCH

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.**

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Current Week

Current Week 6 (ending 2/9/2019)

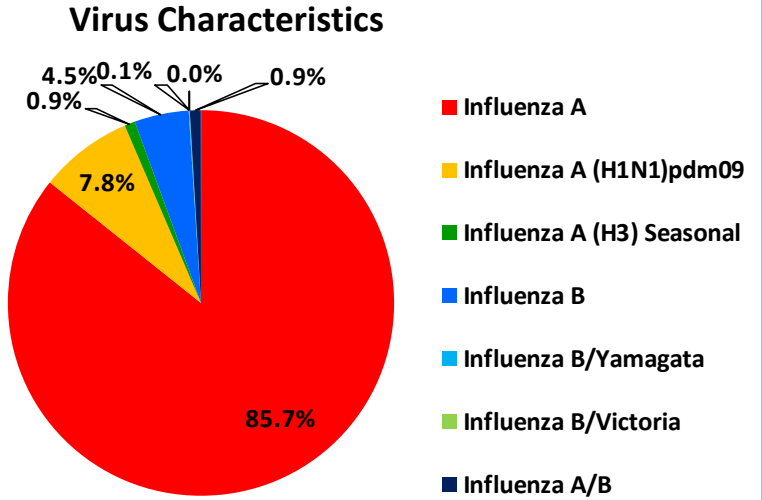
- 488 new influenza detections reported: *Elevated level*
- 5% influenza-like-illness (ILI) among emergency department visits: *Expected level*
- 6 new influenza-related deaths reported this week
- 7% of deaths registered with pneumonia and/or influenza: *Expected level*

Current Season Summary

4,423
Total Cases

30
Deaths[†]

7
Outbreaks*



[†] 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.

Table 1. Influenza Surveillance Indicators.

Indicator	2018-19 Season			2017-18 Season		Prior 3-Year Average**	
	Week 6	Week 5	Total To Date	Week 6	Total To Date	Week 6	Total To Date
All influenza detections reported (rapid or PCR)	488	446	4,423	999	16,097	730	7,093
Percent of emergency department visits for ILI	5%	5%		8%		6%	
Percent of deaths registered with pneumonia and/or influenza	7%	7%		11%		9%	
Number of influenza-related deaths reported [^]	6	0	30	20	250	9	100

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 Vaccination Reduces Hospitalization in COPD Patients

A study demonstrating the effectiveness of influenza vaccination in reducing influenza-related hospitalizations among patients with chronic obstructive pulmonary disease (COPD) was published last month in the journal *Chest*.

Canadian researchers analyzed data from a prospective, multicenter cohort study including COPD patients hospitalized with any acute respiratory illness or exacerbation between 2011 and 2015. All patients underwent polymerase chain reaction (PCR) testing for influenza. The researchers identified influenza-positive cases and negative control subjects and used multivariable logistic regression with a standard test-negative design to estimate the vaccine effectiveness for preventing influenza-related hospitalizations. Among 4,198 COPD patients with known vaccination status, the adjusted analysis showed a 38% reduction in influenza-related hospitalizations in vaccinated versus unvaccinated patients. Influenza-positive patients experienced higher crude mortality (9.7% vs 7.9%; $P = .047$) and critical illness (17.2% vs 12.1%; $P < .001$) compared with influenza-negative patients.

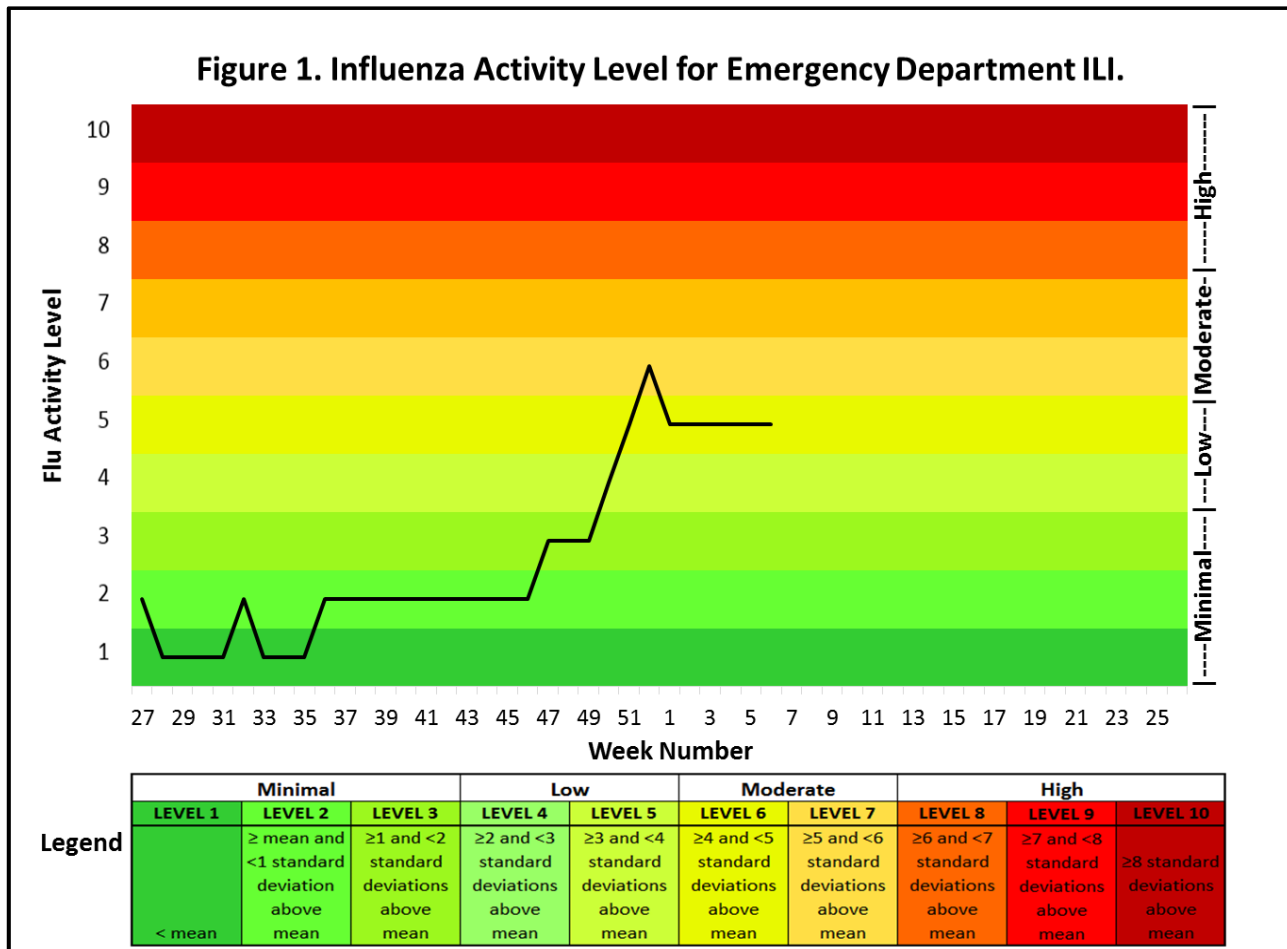
Increased vaccination uptake and the early use of antiviral agents among patients with COPD could reduce influenza-related hospitalization and critical illness and improve health-care costs in this vulnerable population. **All persons over six months of age should get an annual influenza vaccination.**

The study can be found here: [Effectiveness of Influenza Vaccination on Hospitalizations and Risk Factors for Severe Outcomes in Hospitalized Patients with COPD](#).

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

Positive Test Type/Subtype	Count	Percent
Influenza A	3,792	85.7%
Influenza A (H1N1)pdm09	346	7.8%
Influenza A (H3) Seasonal	39	0.9%
Influenza B	201	4.5%
Influenza B/Yamagata	3	0.1%
Influenza B/Victoria	1	0.0%
Influenza A/B	41	0.9%
Total	4,423	100%

* 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.

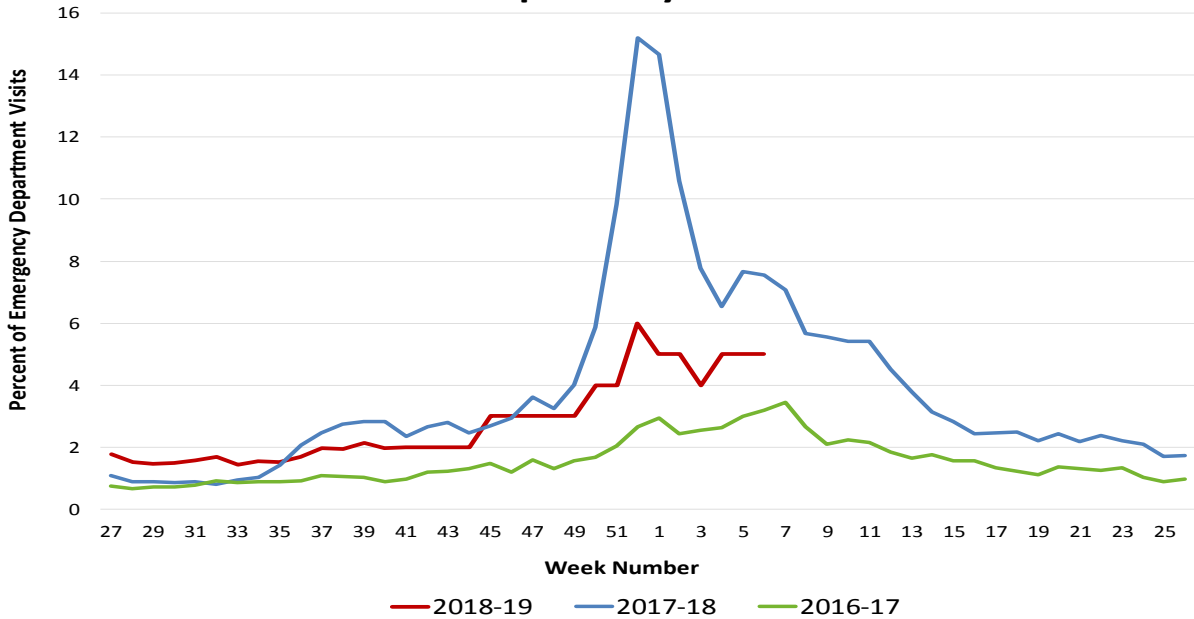


Figure 3. San Diego County Influenza Detections by Type and Week of Report, 2018-19 FYTD (N=4,423).

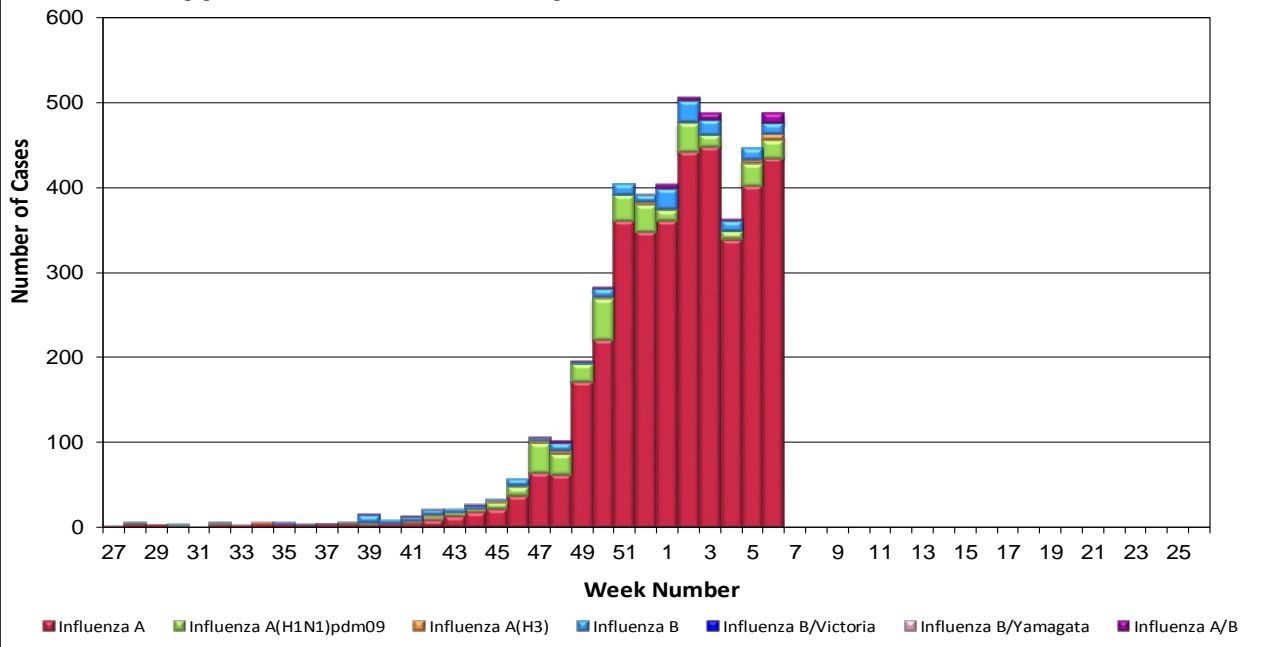


Figure 4. Proportion of Influenza Detections by Age and Season, 2014-15 to 2018-19.

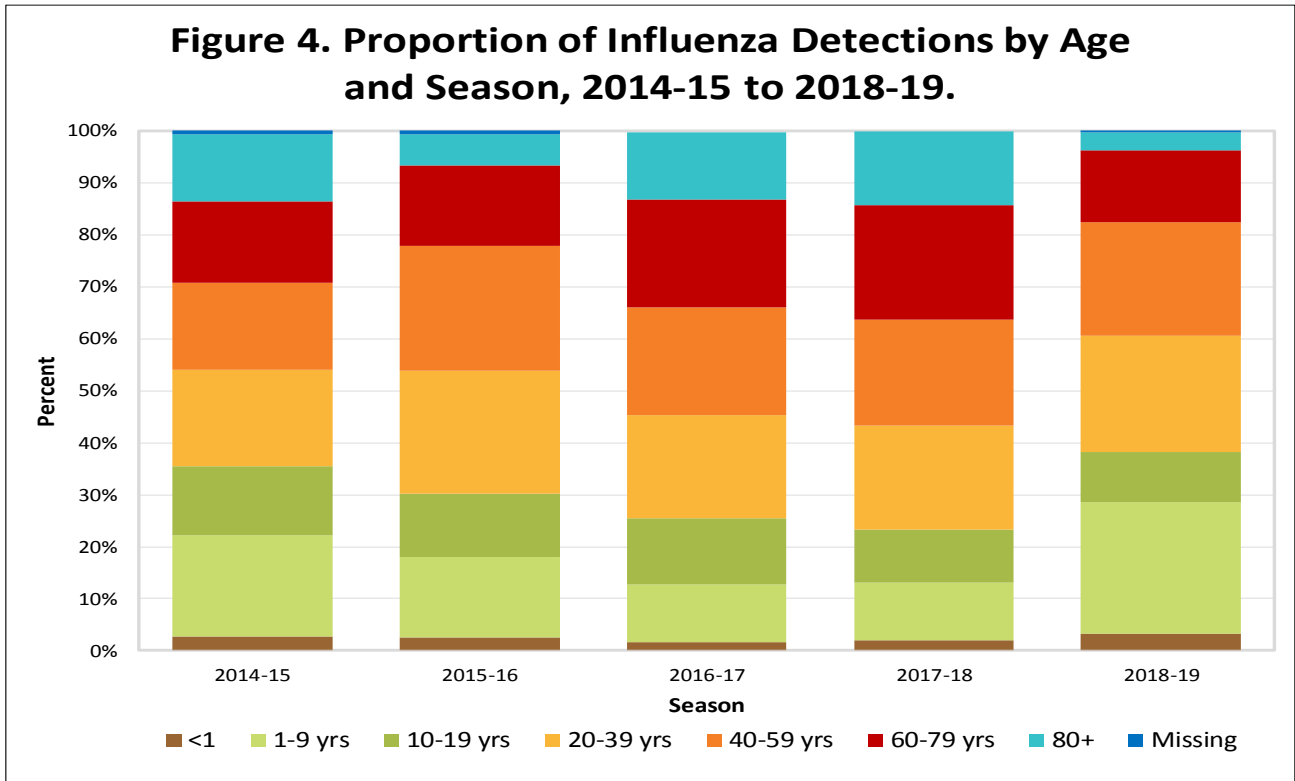
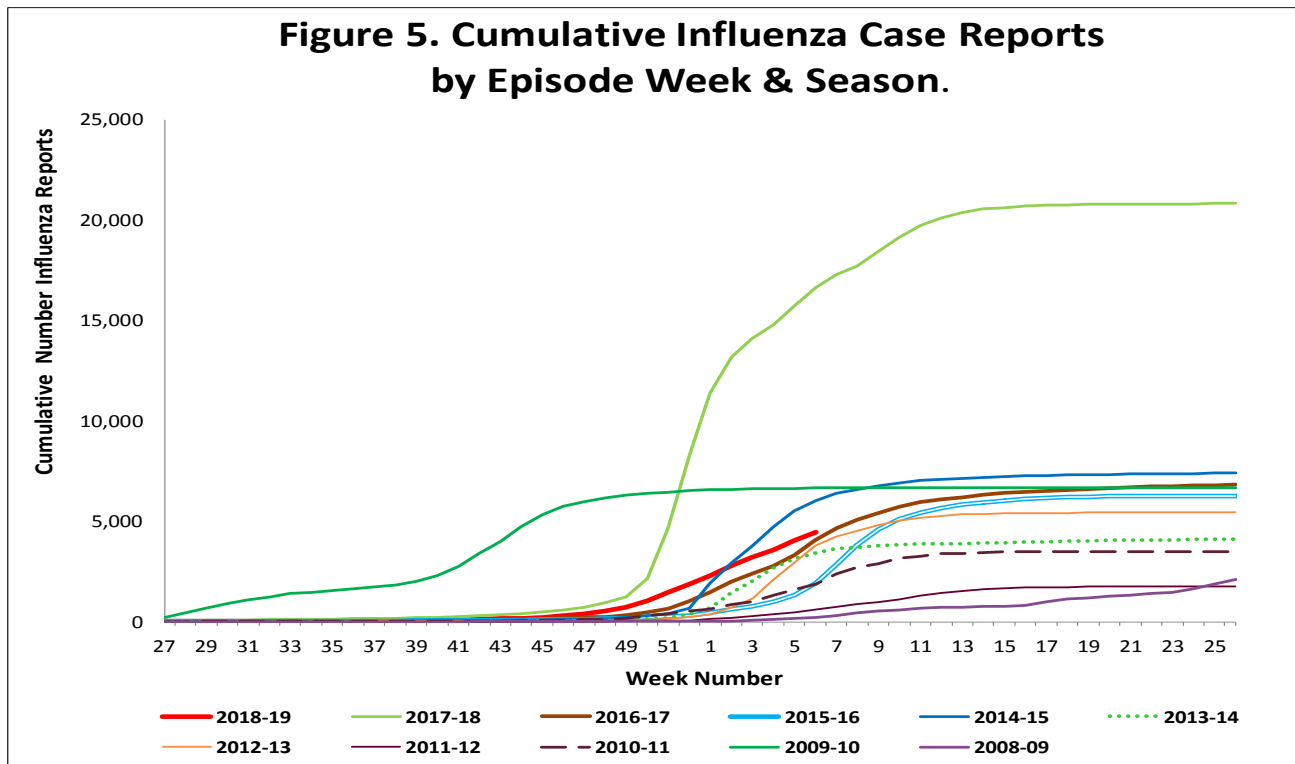


Figure 5. Cumulative Influenza Case Reports by Episode Week & Season.



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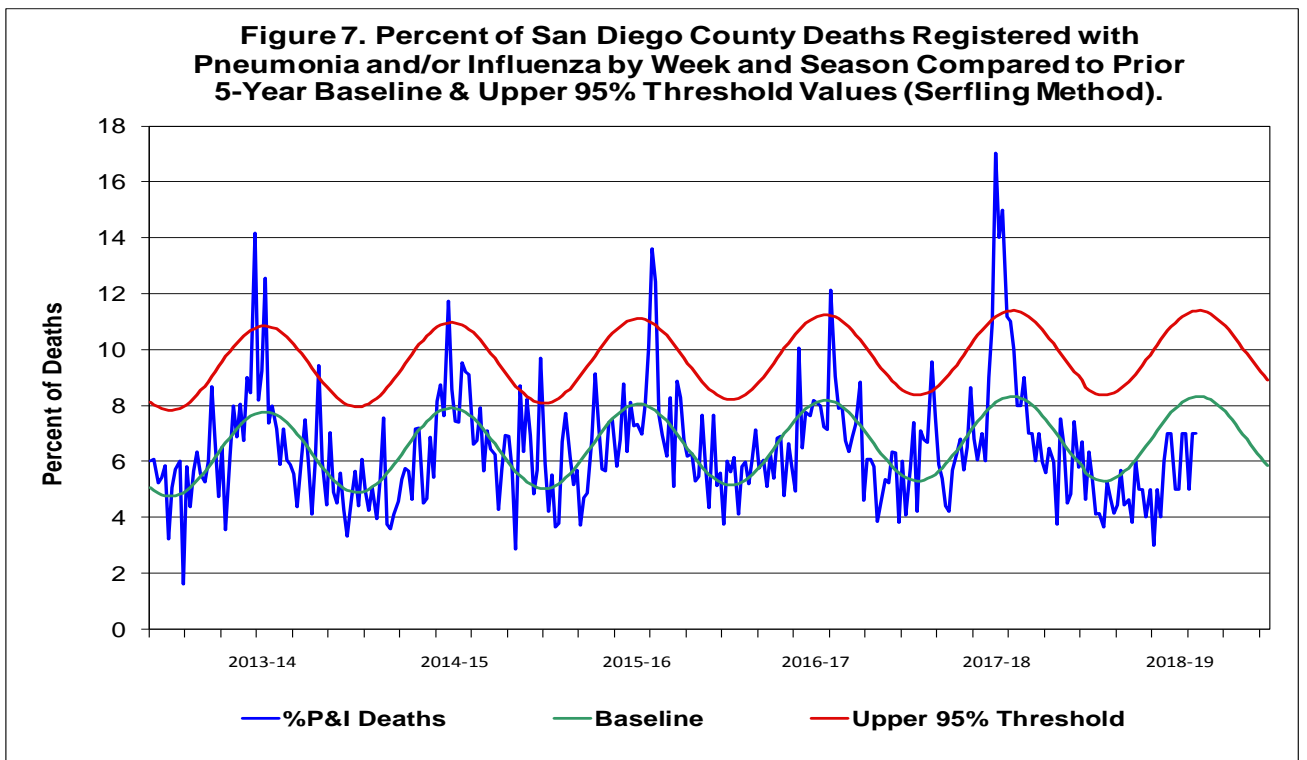
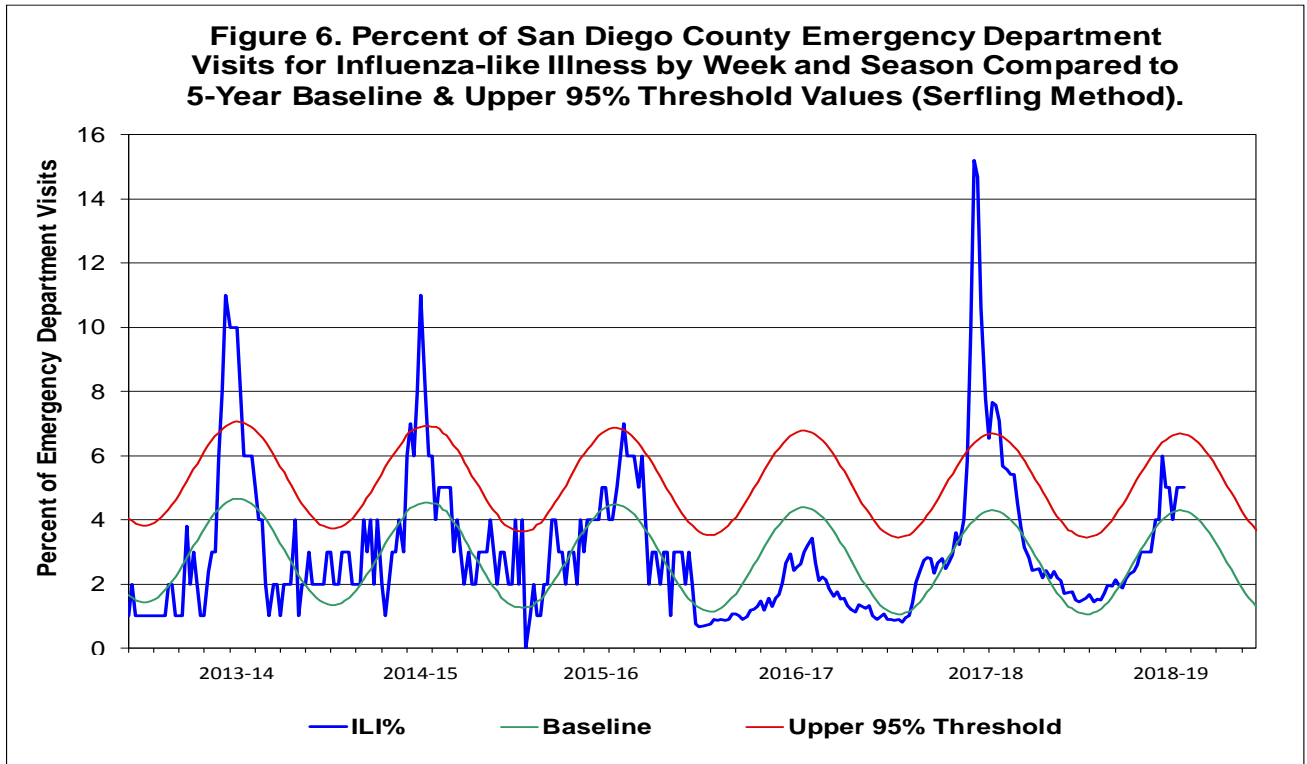


Figure 8. Influenza Deaths by Type and Season.

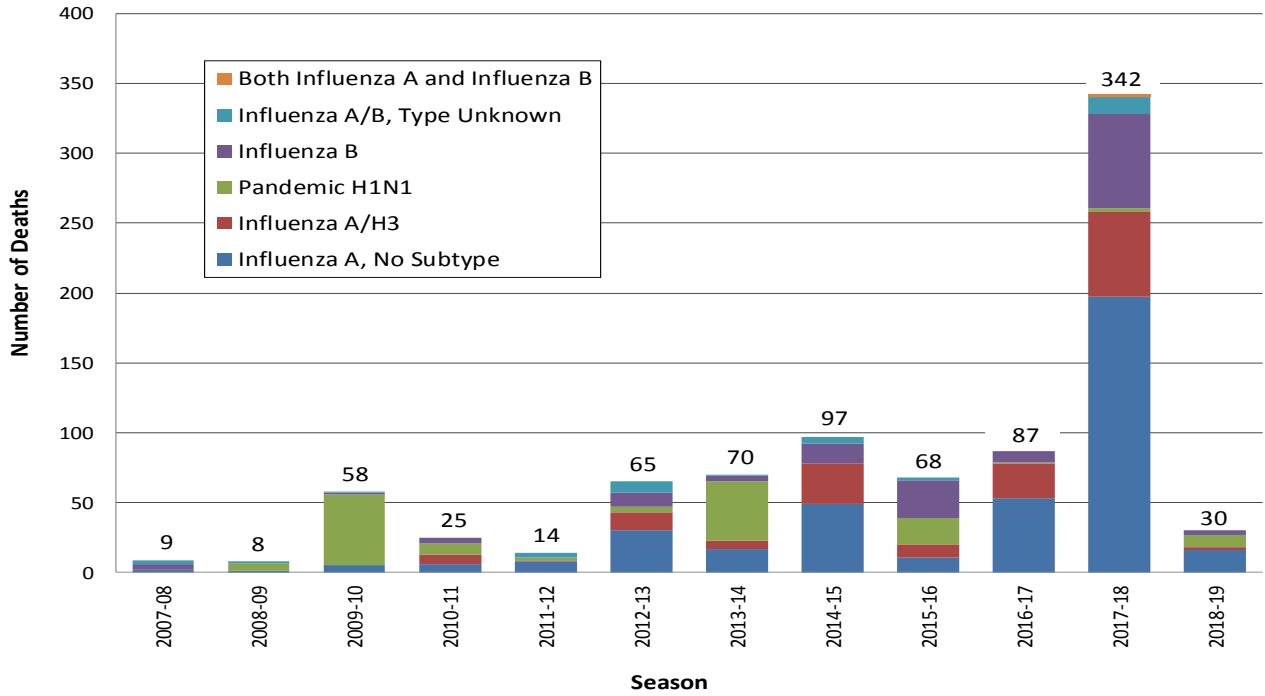


Figure 9. Influenza Deaths by Age and Season.

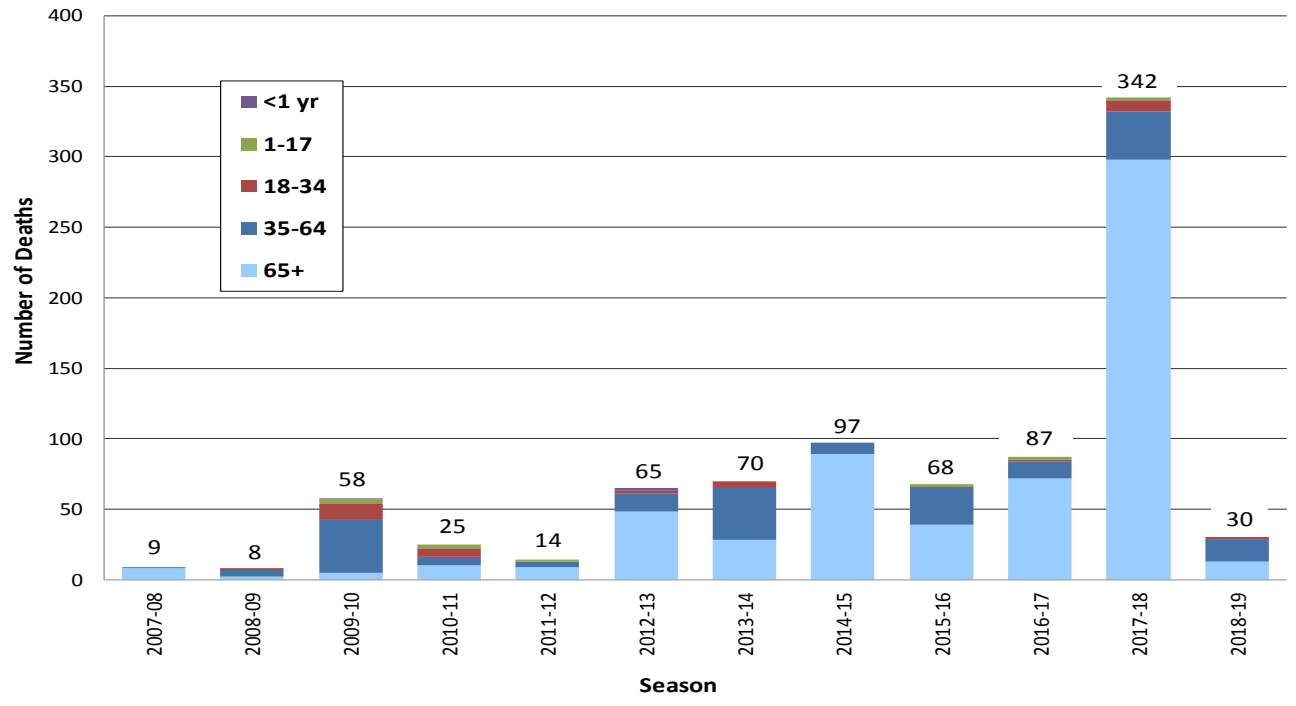


Figure 10. Number of Influenza Vaccinations Administered* by Week and Season.

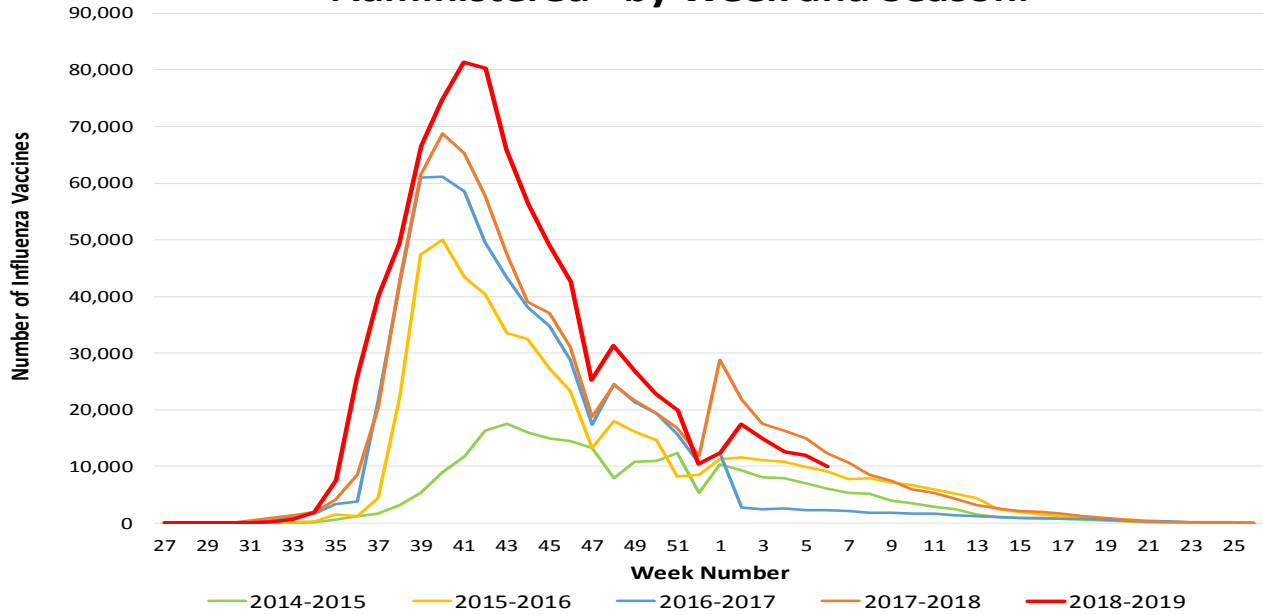
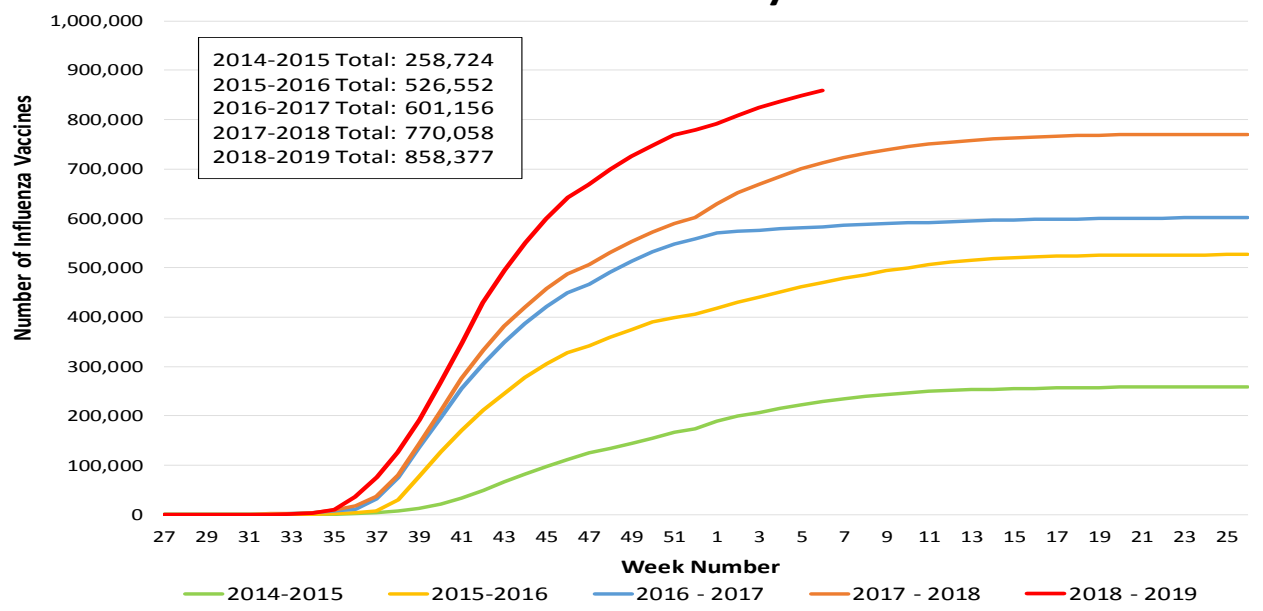


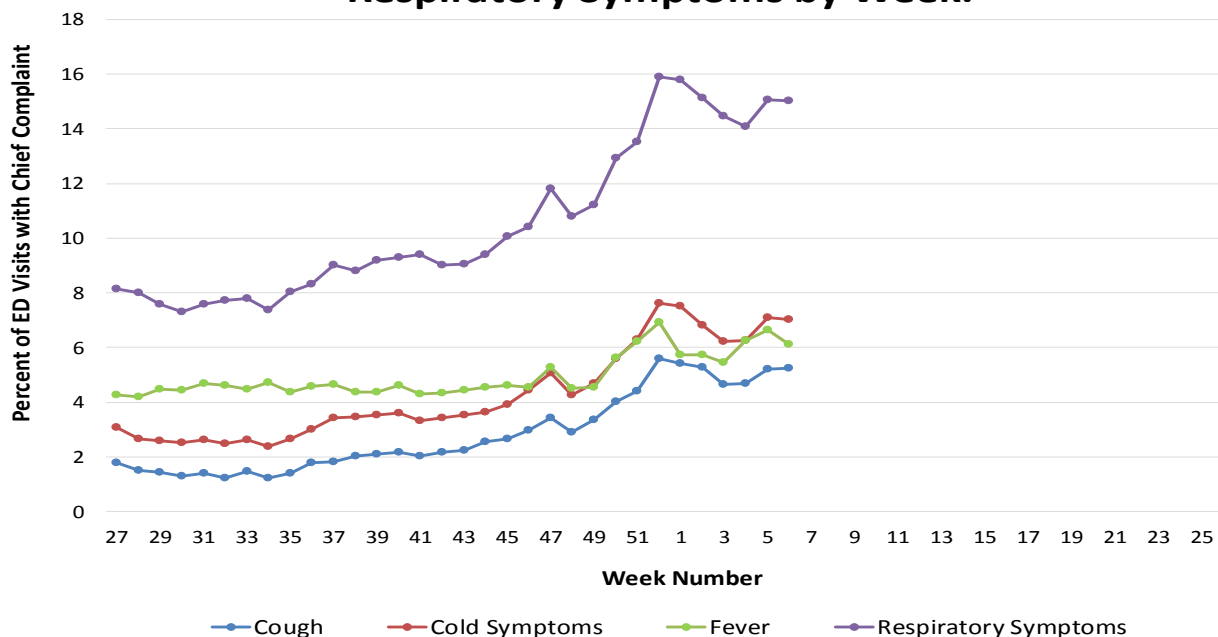
Figure 11. Cumulative Number of Influenza Vaccinations Administered* by Week and Season.



2014-2015 Total: 258,724
 2015-2016 Total: 526,552
 2016-2017 Total: 601,156
 2017-2018 Total: 770,058
 2018-2019 Total: 858,377

* Influenza vaccinations administered and entered into the San Diego Immunization Registry ([SDIR](#))

Figure 12. Percent of Emergency Department Visit Chief Complaints for Cough, Cold, Fever, or Respiratory Symptoms by Week.



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 [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
- 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

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