



INFLUENZA WATCH

Week 49
Ending 12/8/18

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 49 (ending 12/8/2018)**

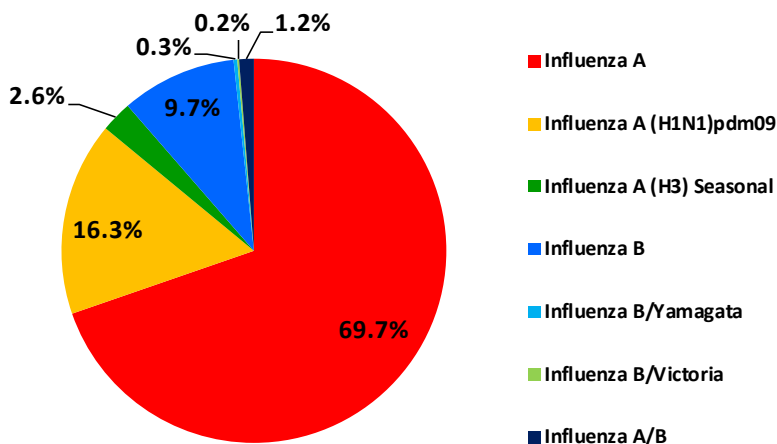
- 199 new influenza detections reported: *Expected level*
- 3% influenza-like-illness (ILI) among emergency department visits: *Expected level*
- 3 new influenza-related deaths reported this week
- 6% of deaths registered with pneumonia and/or influenza: *Expected level*

Current
Season Summary**650**

Total Cases

5Deaths[†]**0**

Outbreaks*

Virus Characteristics

[†] 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 49	Week 48	Total To Date	Week 49	Total To Date	Week 49	Total To Date
All influenza detections reported (rapid or PCR)	199	102	650	227	1,083	109	521
Percent of emergency department visits for ILI	3%	3%		4%		3%	
Percent of deaths registered with pneumonia and/or influenza	6%	4%		6%		6%	
Number of influenza-related deaths reported [^]	3	0	5	0	4	0	2

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.

Flu Vaccination Associated with Reduced Death Risk in Heart Failure

A Danish study published online this week in the American Heart Association's journal *Circulation* found that influenza vaccination in heart failure patients was associated with a reduced risk of both all-cause and cardiovascular death.

Researchers analyzed data on 134,048 patients with newly diagnosed heart failure over a 12-year period in Denmark. Flu vaccination rates ranged from 16% in 2003 to 52% in 2015 with a peak of 54% in 2009. The study findings included:

- Flu vaccination was associated with an 18% reduced risk of premature death, after accounting for other factors such as medications, other health conditions, income and education.
- Annual flu vaccination following a heart failure diagnosis was associated with a 19% reduction in both all-cause and cardiovascular death when compared with no vaccination.
- Flu vaccination frequency mattered; getting a flu shot less than once per year, but more than not at all, was associated with a 13% reduced risk of all-cause death and an 8% reduced risk of cardiovascular death.
- Timing mattered; there was a greater reduction in cardiovascular and all-cause death when vaccination occurred earlier in the flu season during September and October versus in November and December.

Annual flu vaccination is recommended for everyone over six months of age, but this study reinforces that vaccination should be regarded as a standard treatment in heart failure patients similar to that of medications.

The study may be found here: [Influenza Vaccine in Heart Failure](#).

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

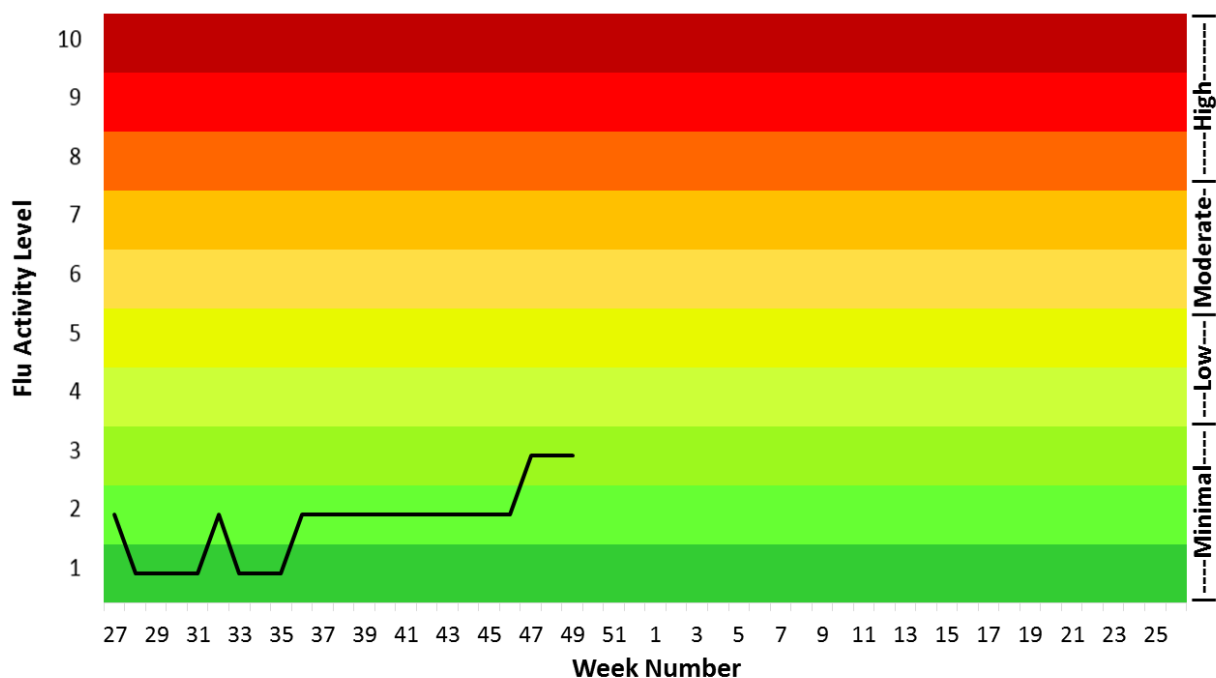
Positive Test Type/Subtype	Count	Percent
Influenza A	453	69.7%
Influenza A (H1N1)pdm09	106	16.3%
Influenza A (H3) Seasonal	17	2.6%
Influenza B	63	9.7%
Influenza B/Yamagata	2	0.3%
Influenza B/Victoria	1	0.2%
Influenza A/B	8	1.2%
Total	650	100%

* Season is July 1 - June 30

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Figure 1. Influenza Activity Level for Emergency Department ILI.



Legend	Minimal			Low		Moderate		High		
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	LEVEL 7	LEVEL 8	LEVEL 9	LEVEL 10
	< mean	≥ mean and <1 standard deviation above mean	≥1 and <2 standard deviations above mean	≥2 and <3 standard deviations above mean	≥3 and <4 standard deviations above mean	≥4 and <5 standard deviations above mean	≥5 and <6 standard deviations above mean	≥6 and <7 standard deviations above mean	≥7 and <8 standard deviations above mean	≥8 standard deviations above mean

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.

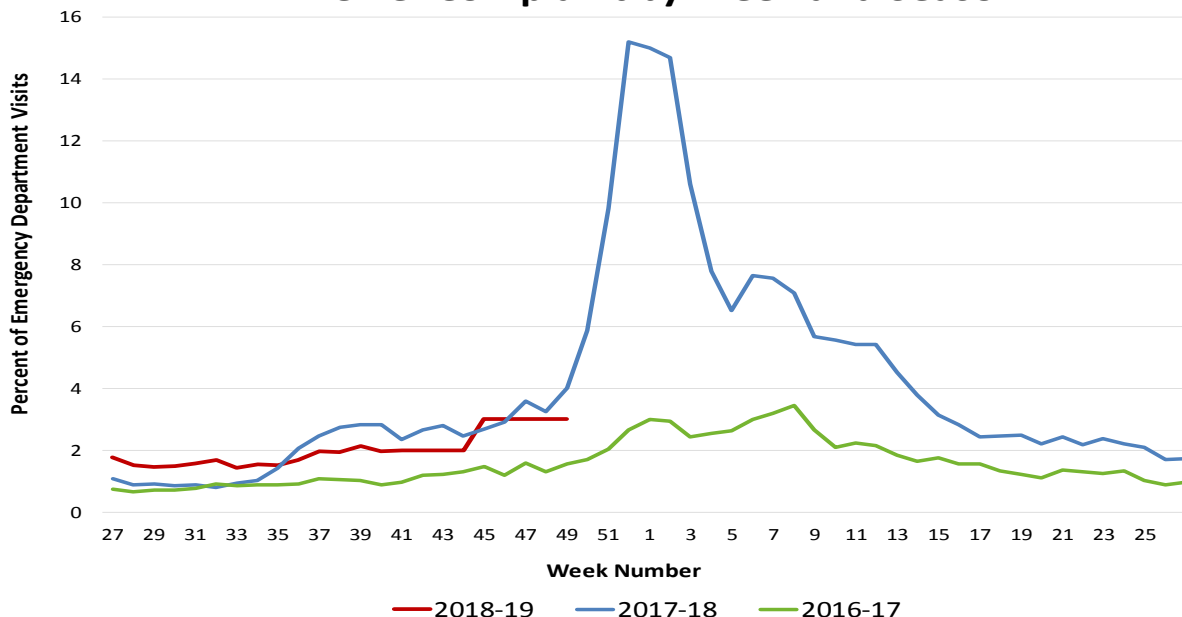
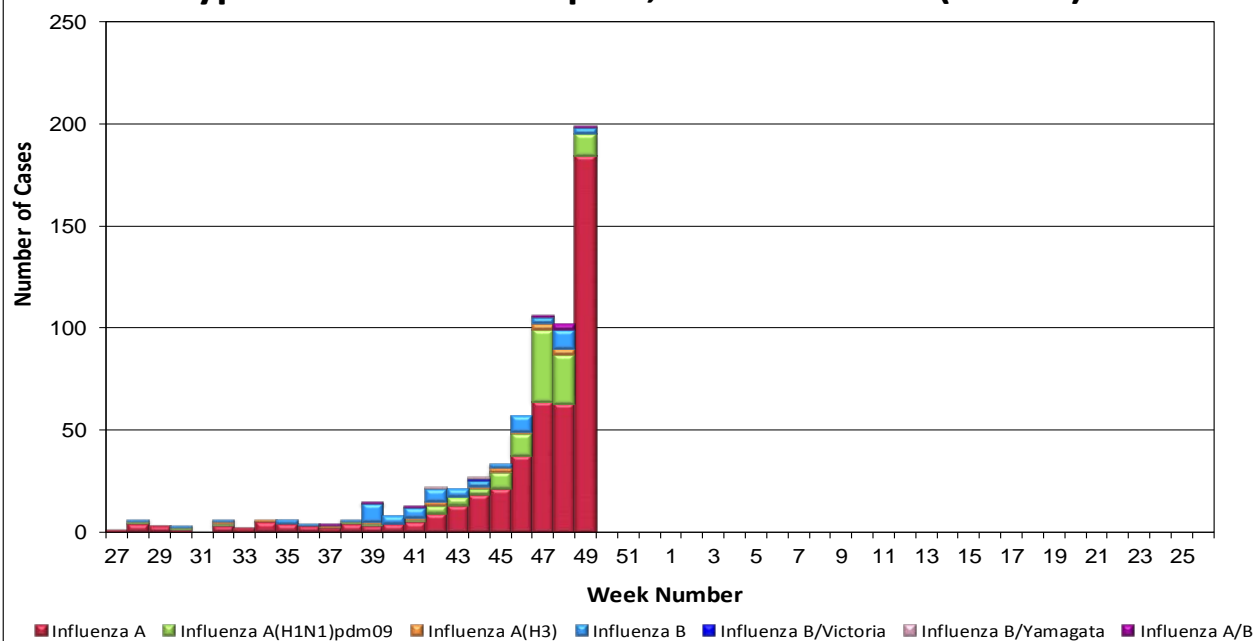


Figure 3. San Diego County Influenza Detections by Type and Week of Report, 2018-19 FYTD (N=650).



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

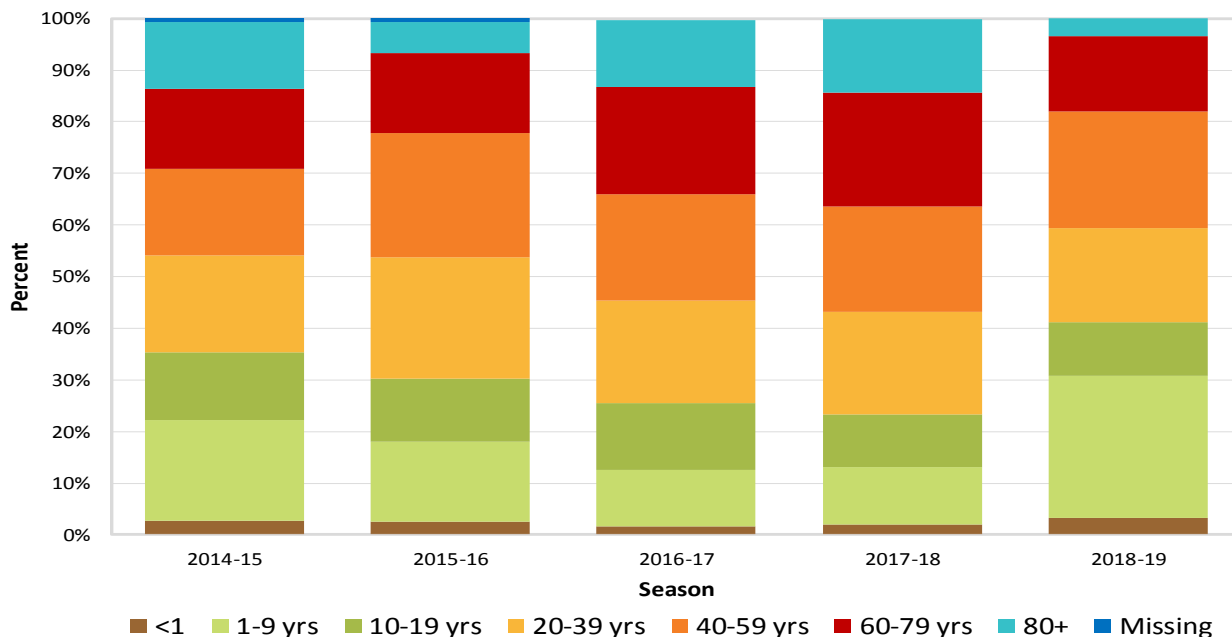
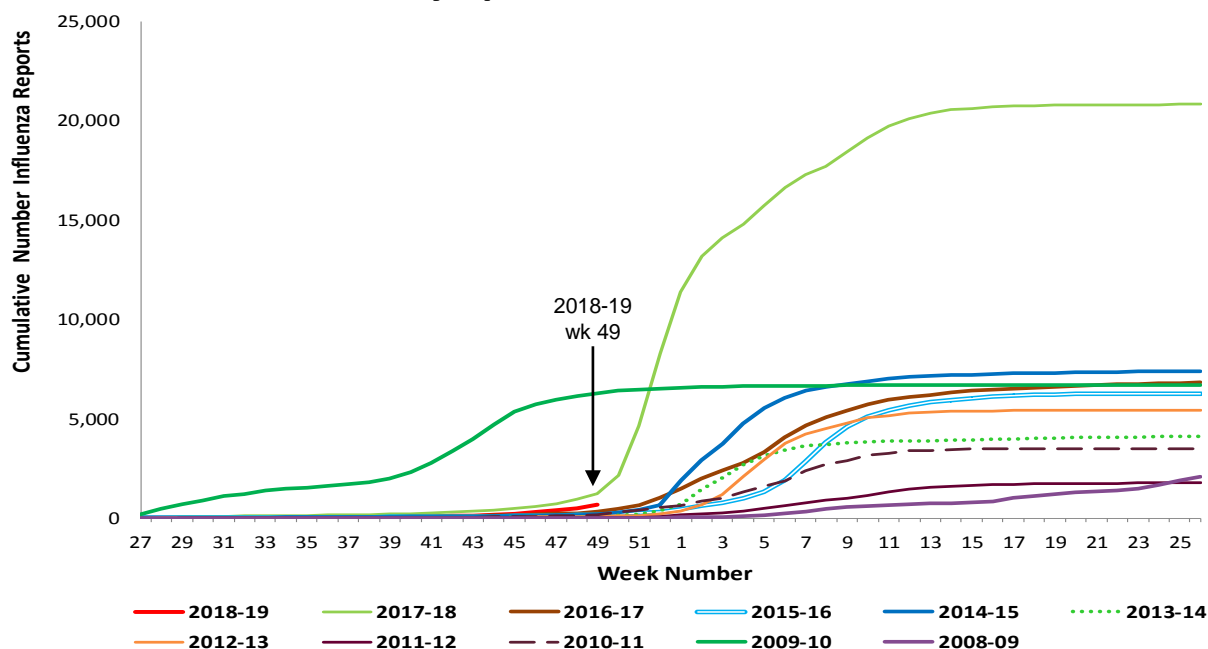


Figure 5. Cumulative Influenza Case Reports by Episode Week & Season.



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Figure 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).

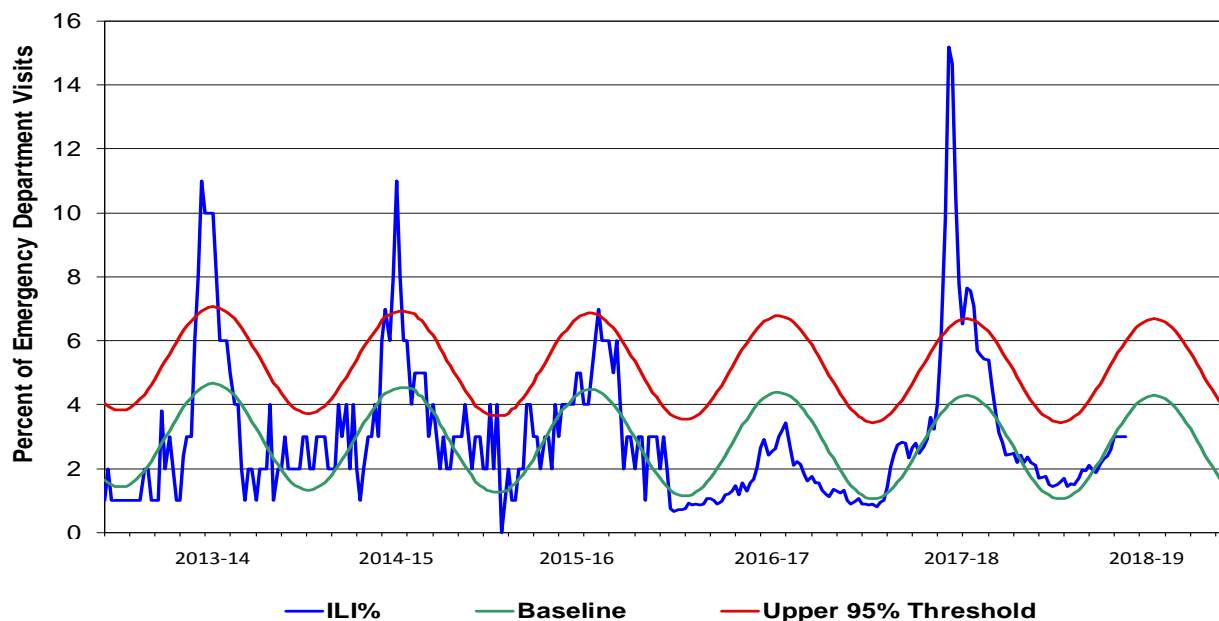
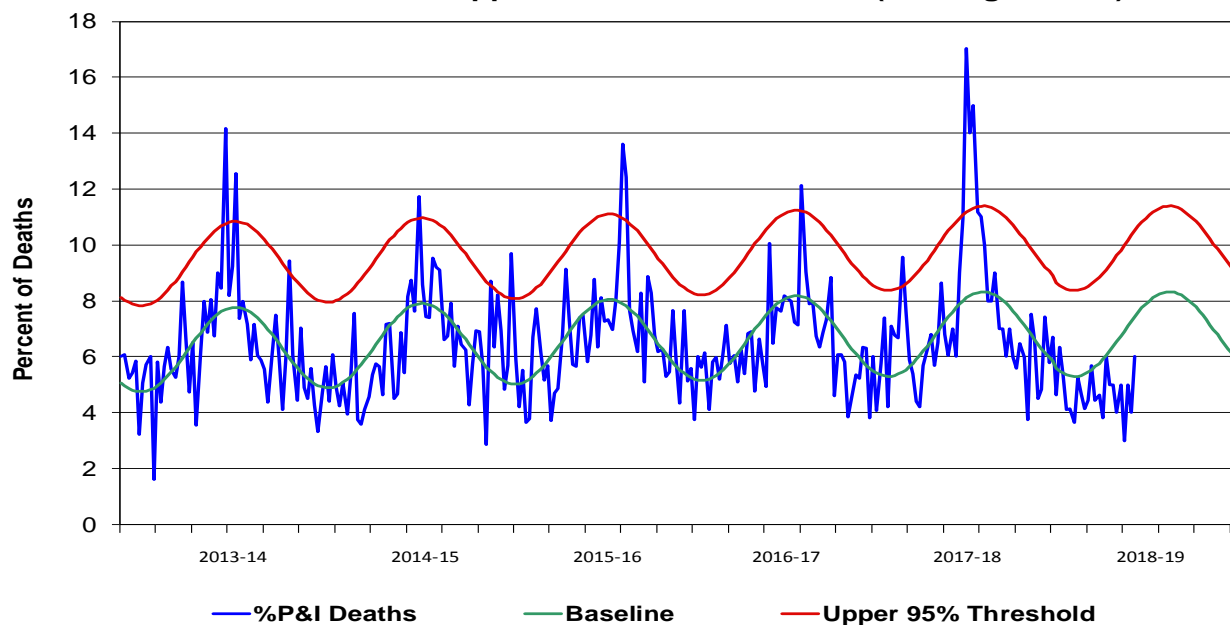


Figure 7. Percent of San Diego County Deaths Registered with Pneumonia and/or Influenza by Week and Season Compared to Prior 5-Year Baseline & Upper 95% Threshold Values (Serfling Method).



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Figure 8. Influenza Deaths by Type and Season.

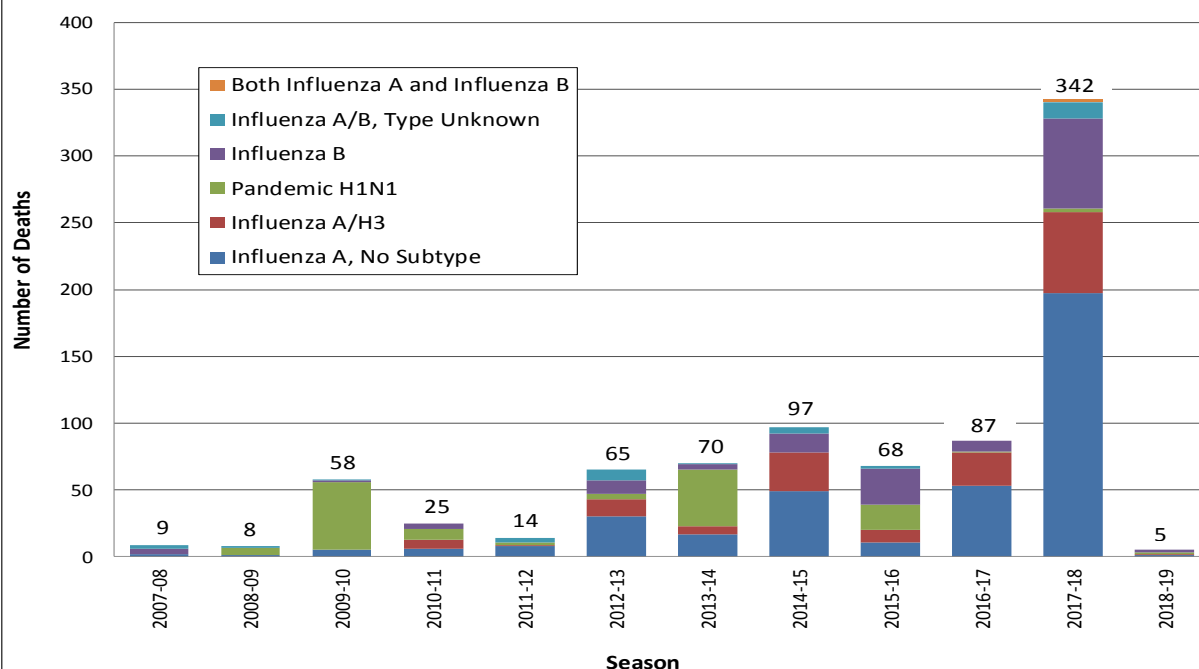


Figure 9. Influenza Deaths by Age and Season.

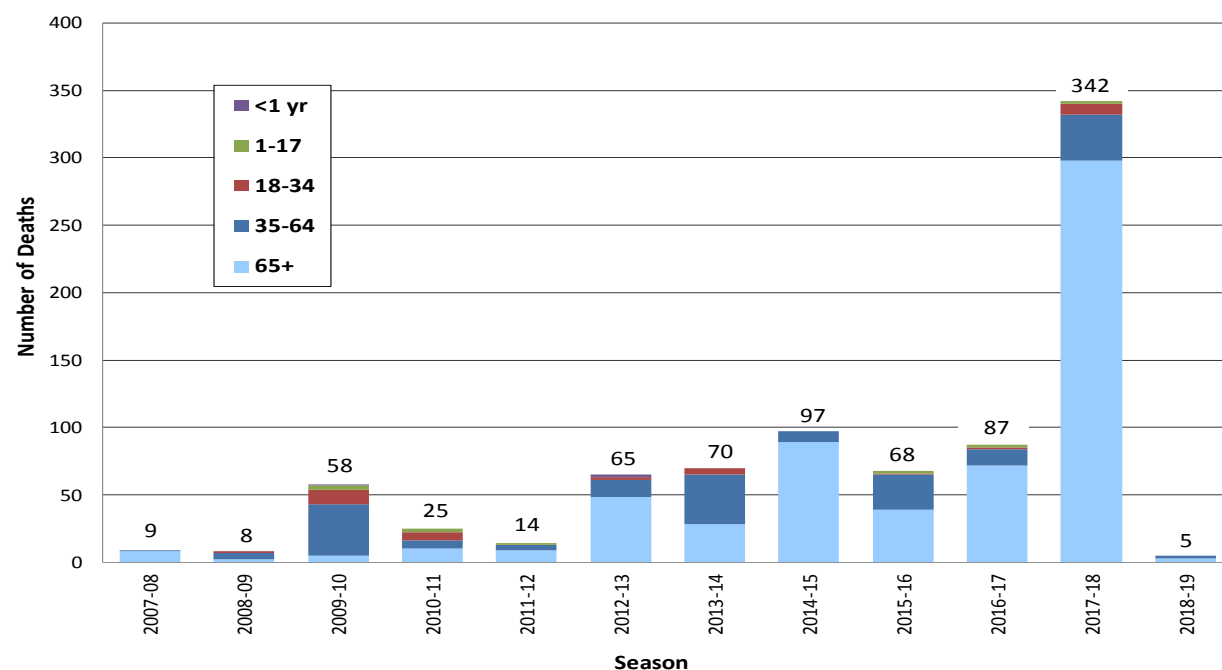
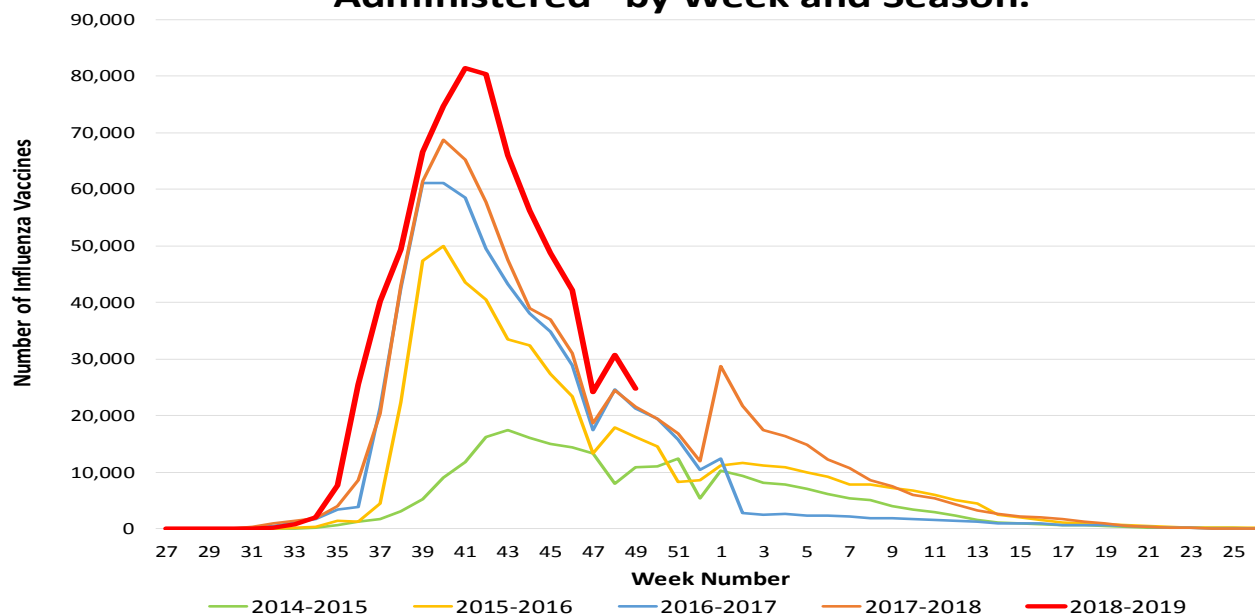
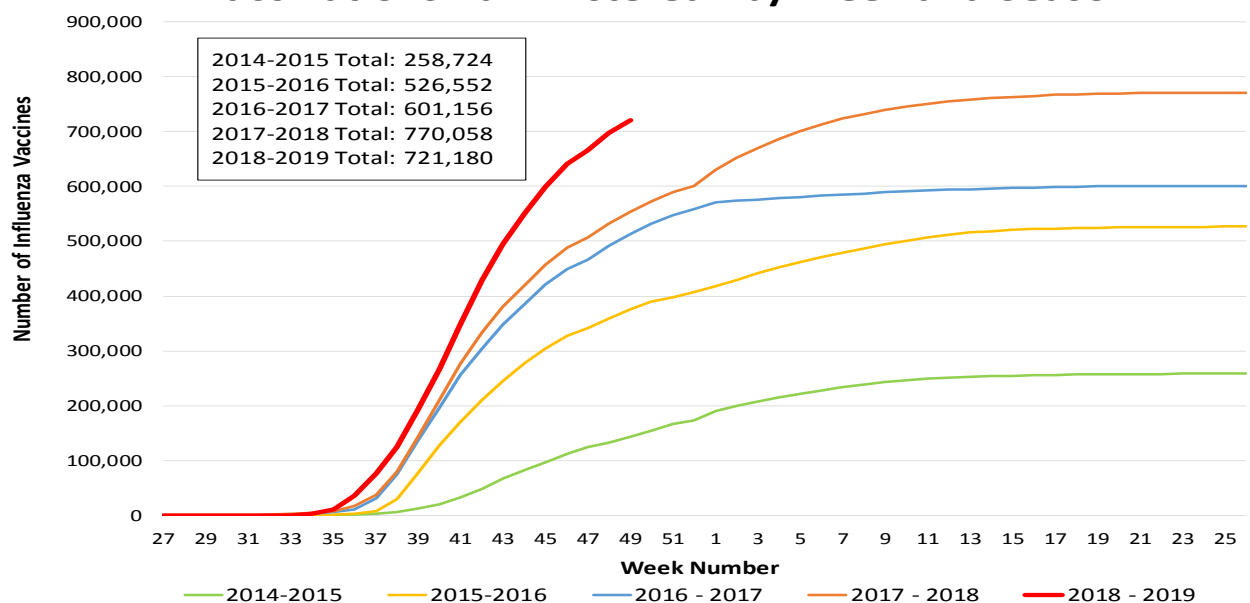
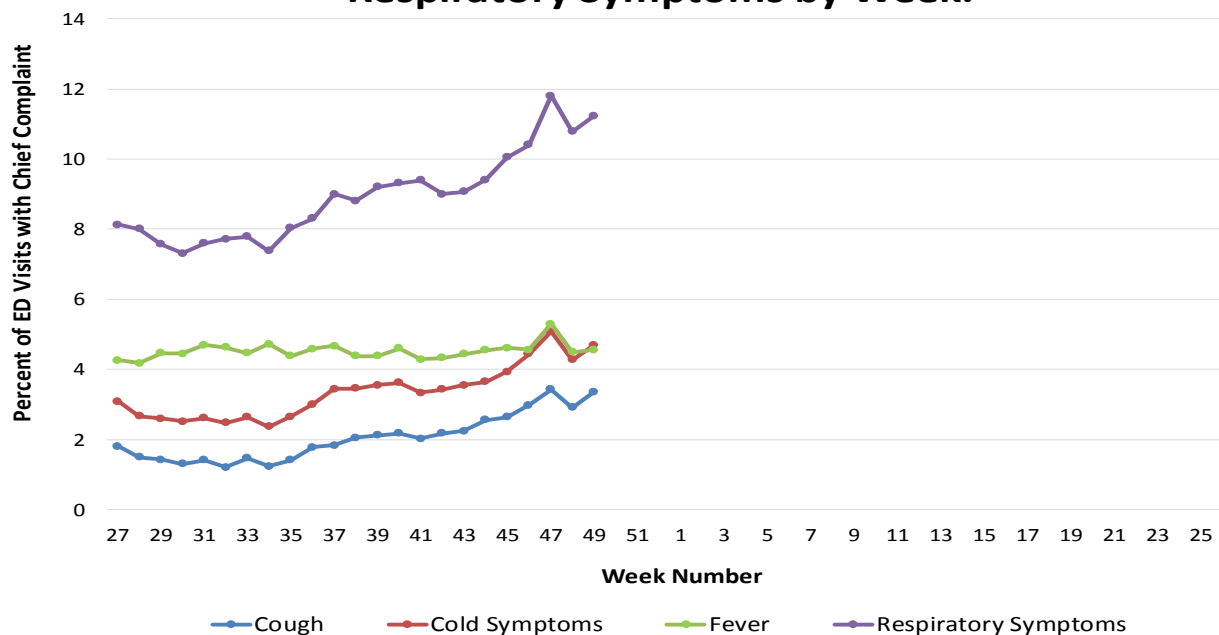


Figure 10. Number of Influenza Vaccinations Administered* by Week and Season.**Figure 11. Cumulative Number of Influenza Vaccinations Administered* by Week and Season.**

* 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](#)