



INFLUENZA WATCH

Week 45
Ending 11/10/18

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 45 (ending 11/10/2018)**

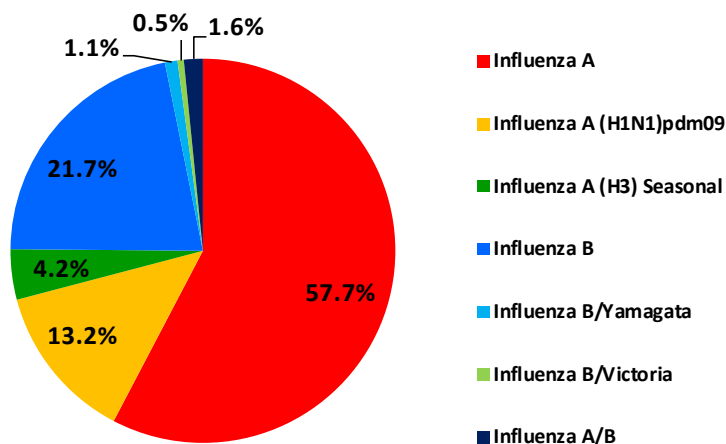
- 33 new influenza detections reported: *Expected level*
- 3% influenza-like-illness (ILI) among emergency department visits: *Expected level*
- No new influenza-related deaths reported this week
- 5% of deaths registered with pneumonia and/or influenza: *Expected level*

Current
Season Summary**189**

Total Cases

1Deaths[†]**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 ≥2 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 45	Week 44	Total To Date	Week 45	Total To Date	Week 45	Total To Date
All influenza detections reported (rapid or PCR)	33	27	189	58	441	33	230
Percent of emergency department visits for ILI	3%	2%		3%		2%	
Percent of deaths registered with pneumonia and/or influenza	5%	4%		6%		7%	
Number of influenza-related deaths reported [^]	0	1	1	1	3	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.

New Influenza Antiviral Approved

On October 24, 2018, the United States Food and Drug Administration [approved](#) baloxavir marboxil (Xofluza®) for the treatment of acute uncomplicated influenza in patients 12 years of age and older who have been symptomatic for no more than 48 hours.

Baloxavir works in a novel mechanism to inhibit viral mRNA replication. The new antiviral drug was shown in phase 2 and 3 trials to reduce duration of influenza symptoms in both adolescents and adults by about one day when compared to placebo. There was no significant difference in time to alleviate symptoms when compared to oseltamivir, however baloxavir was superior to both placebo and oseltamivir in reducing viral load quickly. This may be beneficial in decreasing influenza transmission.

Baloxavir may also be useful to counteract resistance to neuraminidase inhibitors because of the different mechanism of action, and for widespread use during a pandemic because it is a single oral dose.

Press reports [indicate](#) that baloxavir will soon be available and that the wholesale acquisition cost will be approximately \$150.

Results from the phase 2 and 3 trials were published in *The New England Journal of Medicine* and are available here: [Baloxavir Marboxil for Uncomplicated Influenza in Adults and Adolescents](#).

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

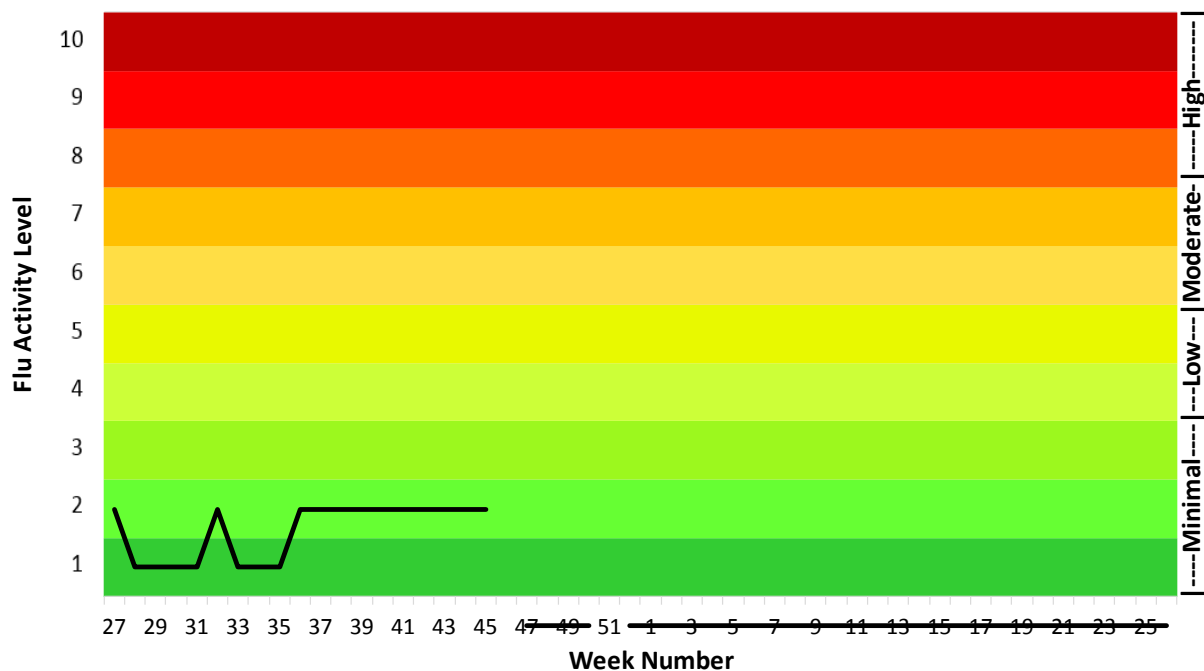
Positive Test Type/Subtype	Count	Percent
Influenza A	109	57.7%
Influenza A (H1N1)pdm09	25	13.2%
Influenza A (H3) Seasonal	8	4.2%
Influenza B	41	21.7%
Influenza B/Yamagata	2	1.1%
Influenza B/Victoria	1	0.5%
Influenza A/B	3	1.6%
Total	189	100%

* Season is July 1 - June 30

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Figure 1. Influenza Activity Level: ED 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.

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Figure 2. Percent of Emergency Department Visits for ILI Chief Complaint by Week and Season.

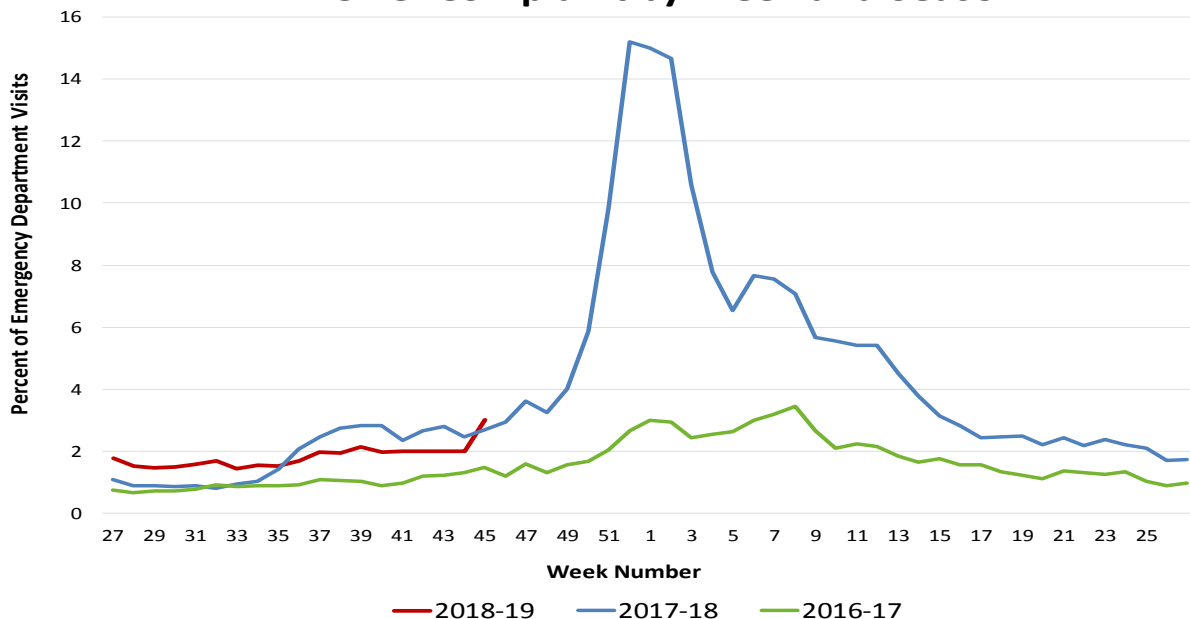
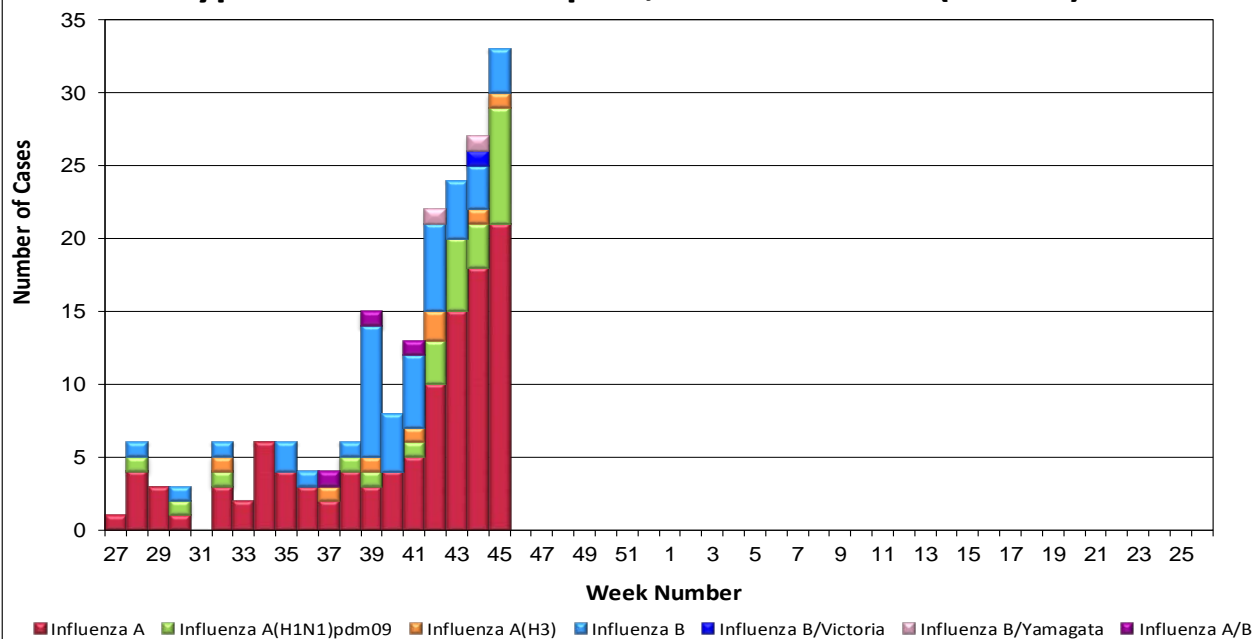


Figure 3. San Diego County Influenza Detections by Type and Week of Report, 2018-19 FYTD (N=189).



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

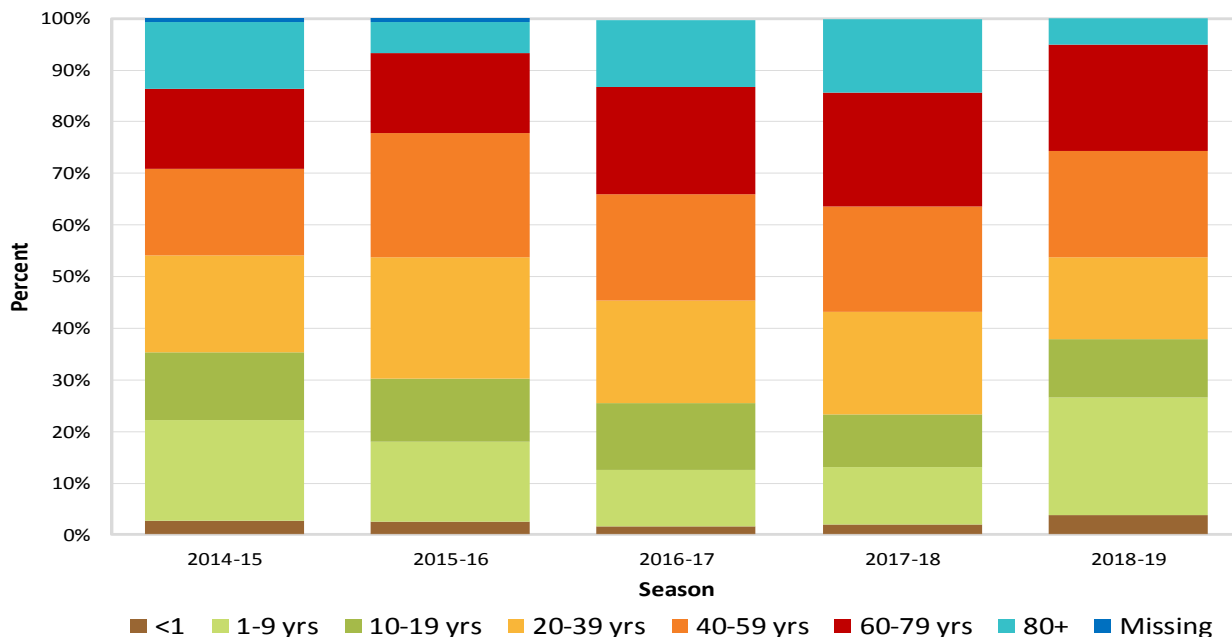
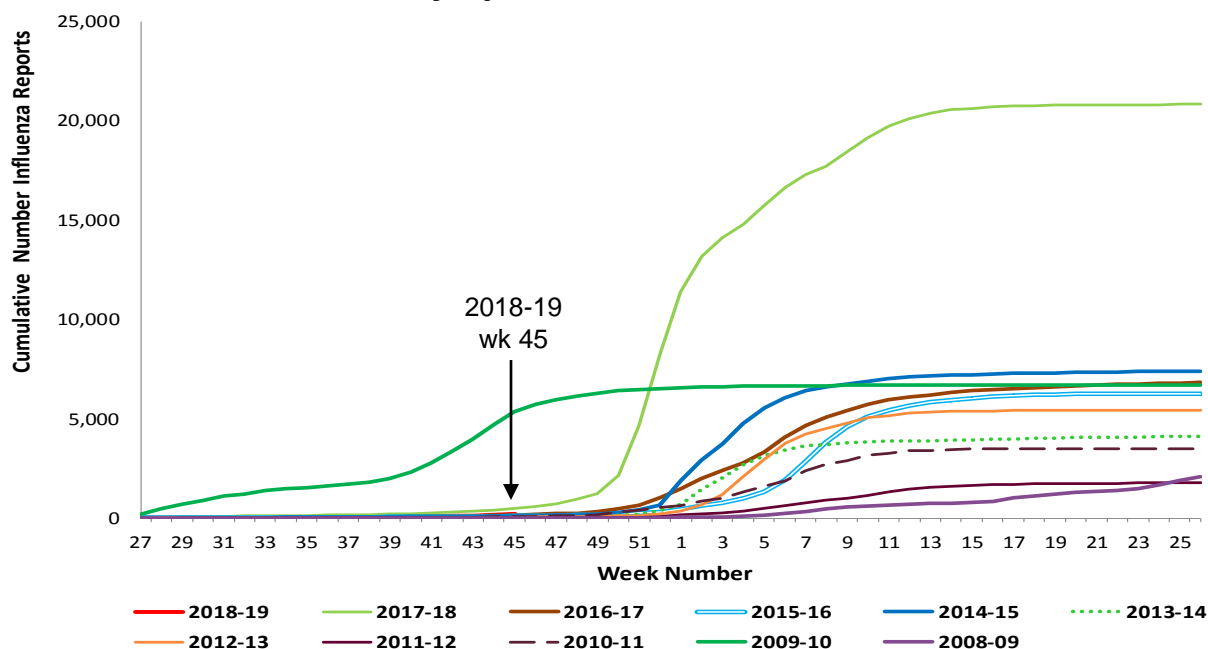


Figure 5. Cumulative Influenza Case Reports by Episode Week & Season.



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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).

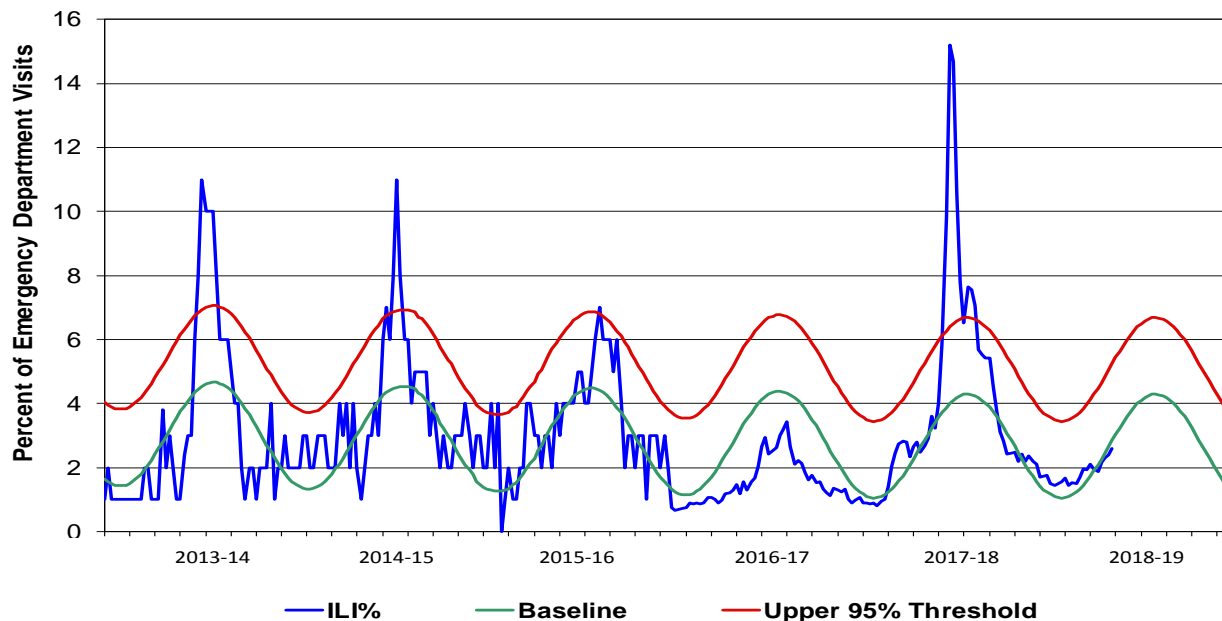
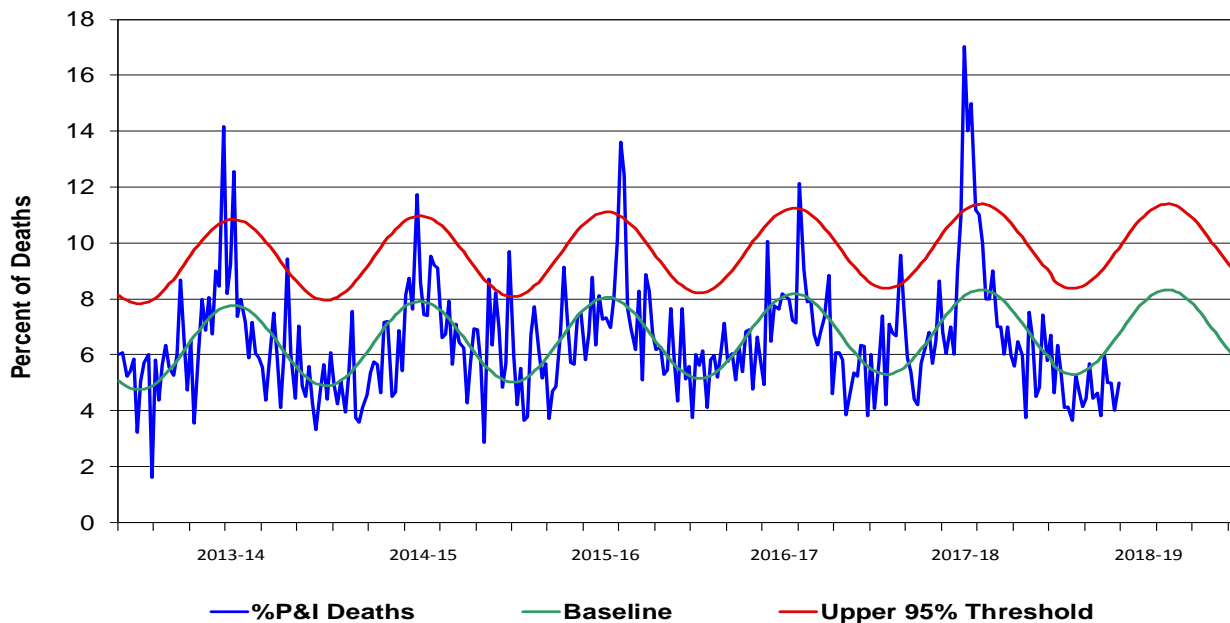


Figure 7. Percent of San Diego County Deaths Registered with Pneumonia and/or Influenza by Week and Season Compared to Prior 5-Year Baseline & Upper 95% Threshold Values (Serfling Method).



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Figure 8. Influenza Deaths by Type and Season.

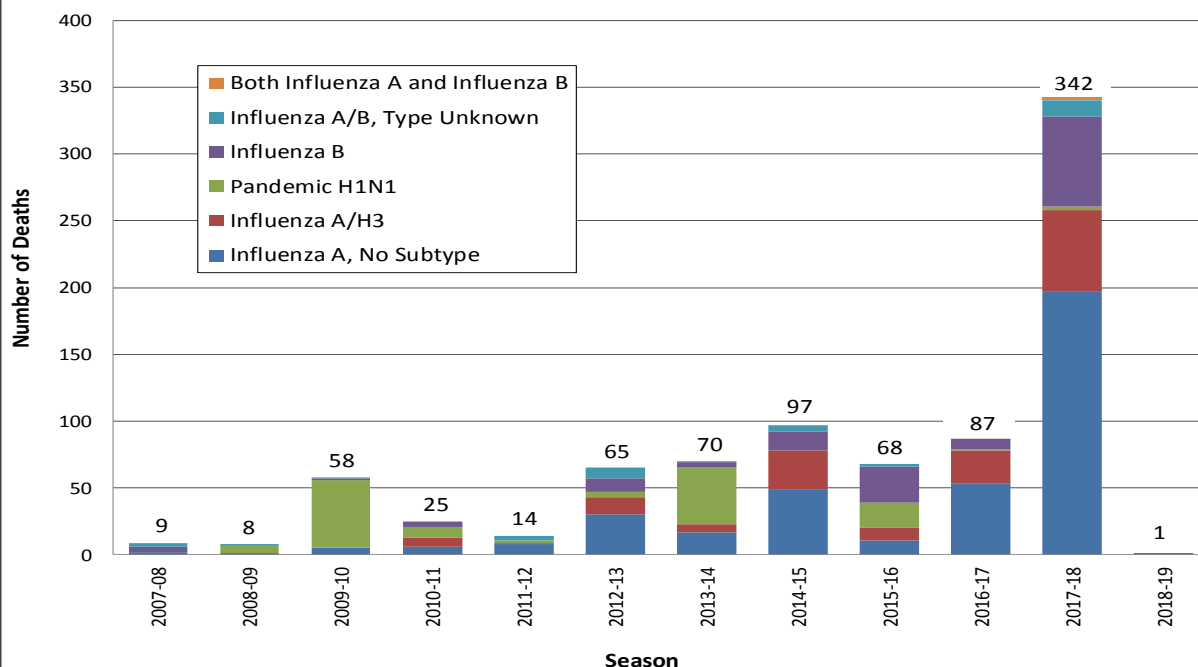


Figure 9. Influenza Deaths by Age and Season.

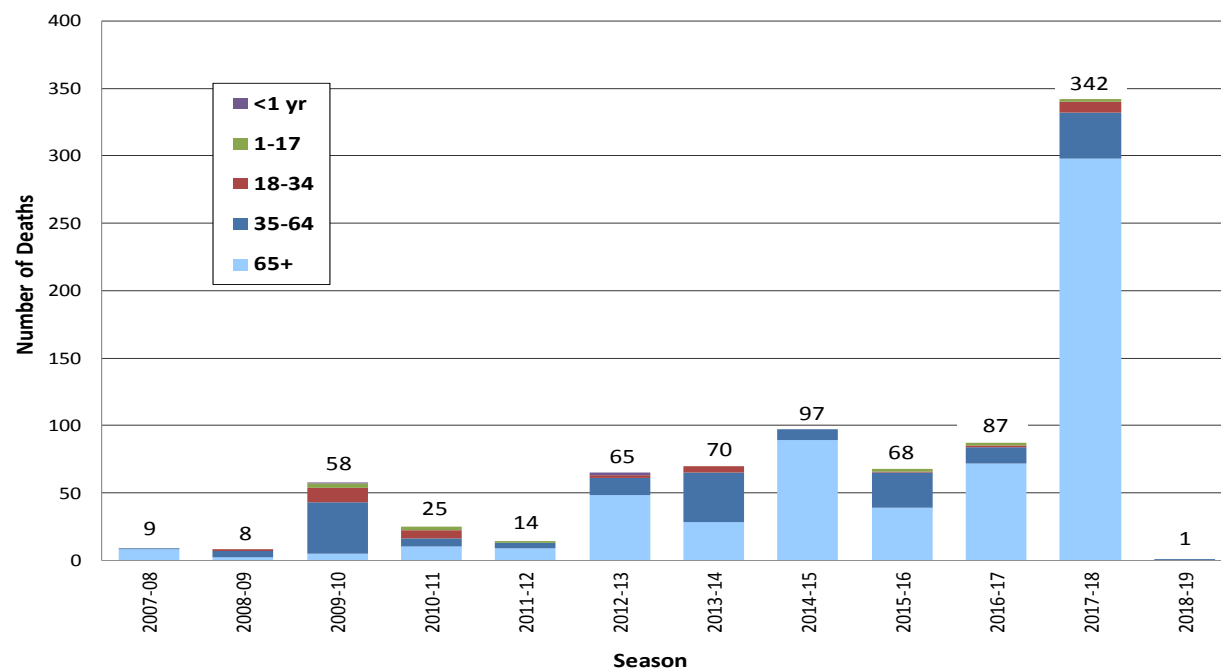
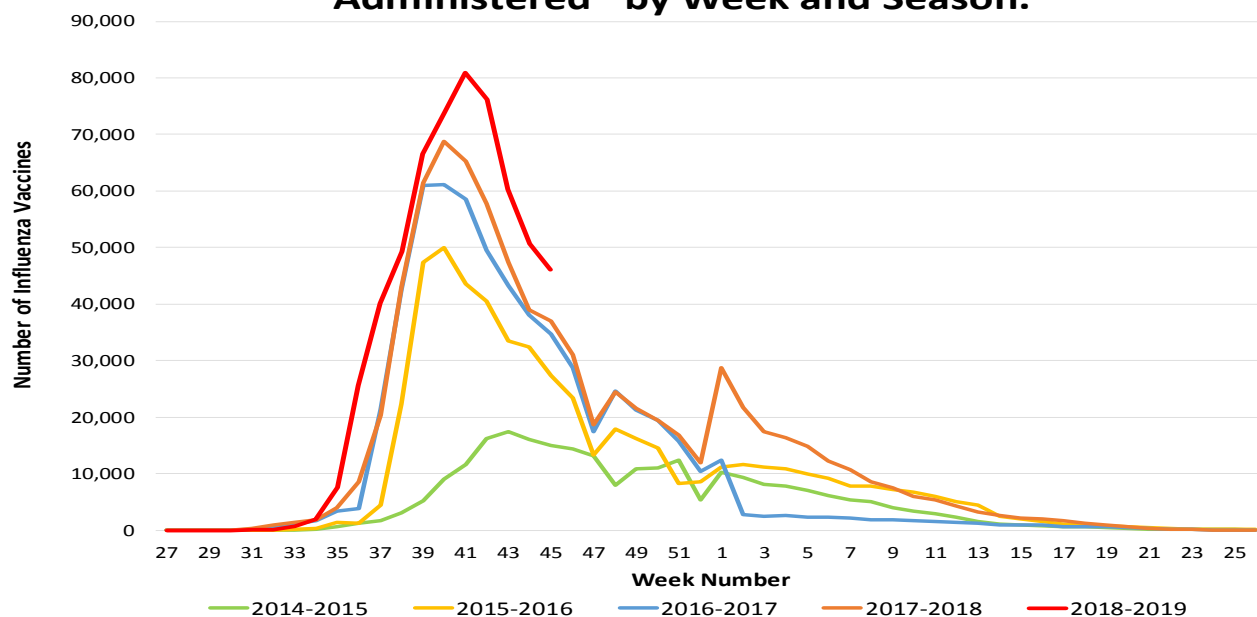
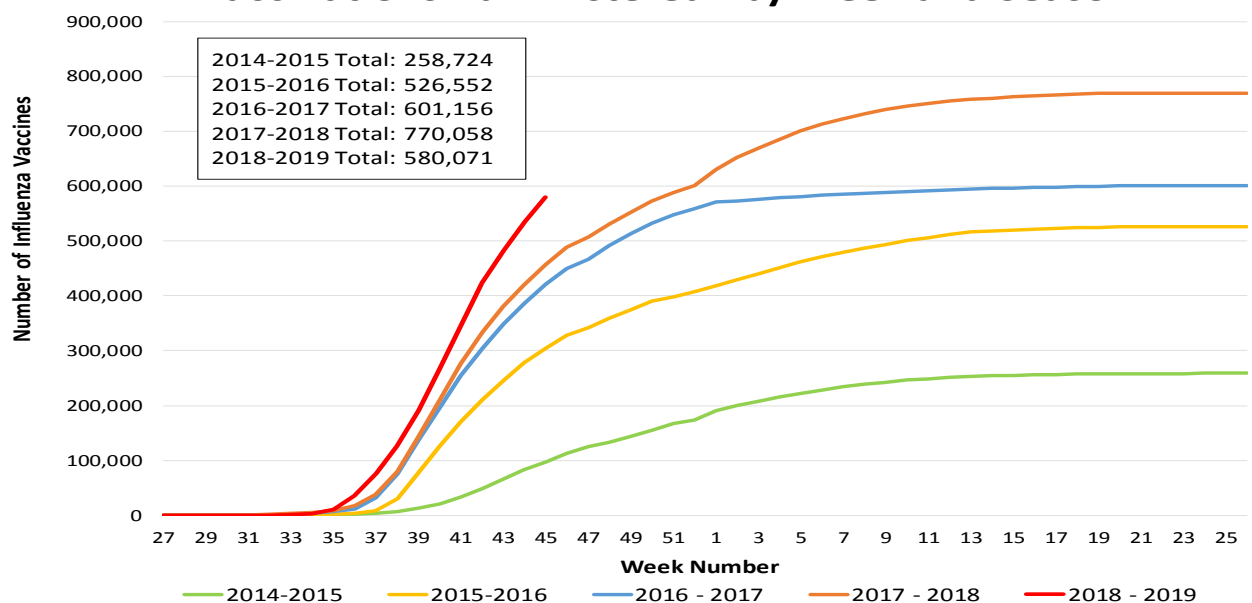
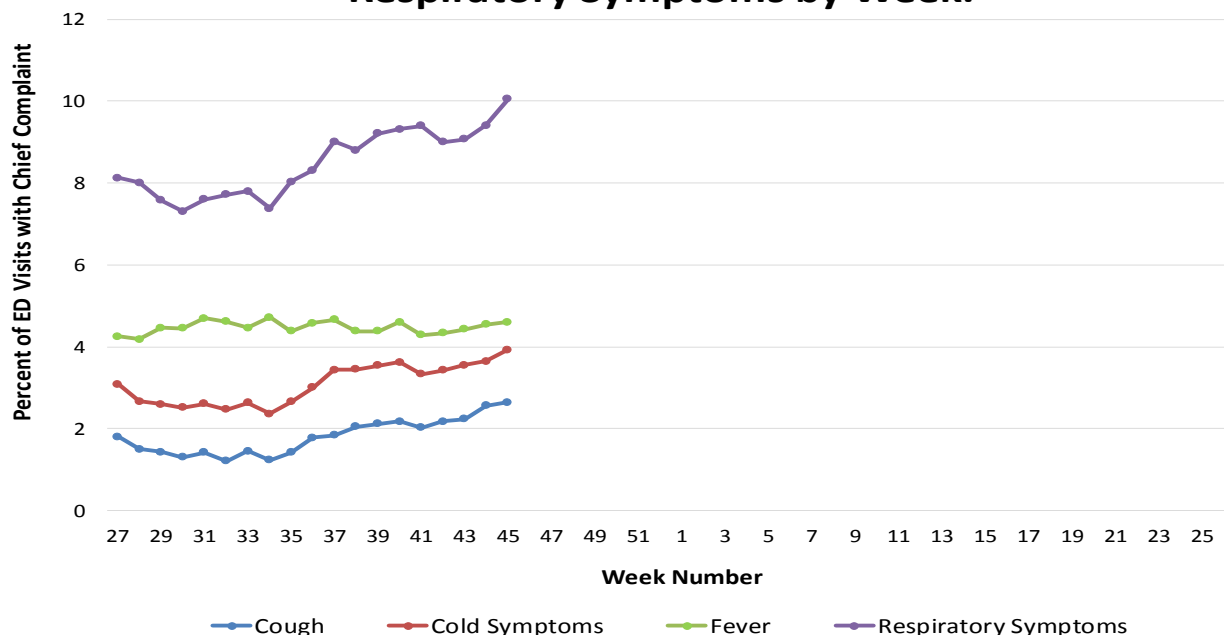


Figure 10. Number of Influenza Vaccinations Administered* by Week and Season.**Figure 11. Cumulative Number of Influenza Vaccinations Administered* by Week and Season.**

* 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](#)