



INFLUENZA WATCH

Overview

Seasonal influenza activity had been very low in San Diego; however, the number of cumulative cases doubled from week 52 to week 53. The social distancing, hand washing, and mask wearing interventions instituted to reduce the transmission of SARS-CoV2, the virus that causes COVID-19, can prevent influenza. Anyone over six months of age who has not received the 2020-21 seasonal influenza vaccine should get it as soon as possible. Deaths due to COVID-19 pneumonia significantly increased in December, reflected in the increased percentage of deaths registered with pneumonia.

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Key Points

Current Week 53 (ending 1/2/2021)

- 215 new influenza detections reported
- No influenza-related deaths reported
- 4% influenza-like illness (ILI) among emergency department visits
- 23% of death certificates registered with pneumonia and/or influenza

2020-21 FYTD Season Summary

438

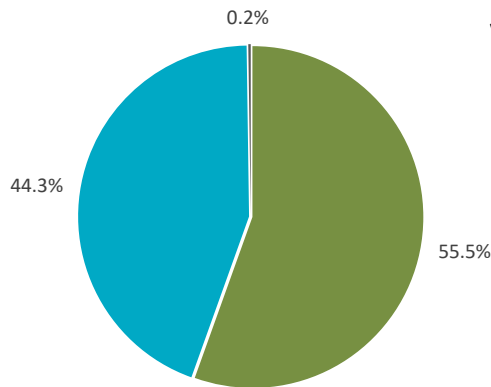
Total Cases

0

Deaths[†]

0

Outbreaks*



Virus Characteristics

- Influenza A, subtype unknown
- Influenza A (H1N1)pdm09
- Influenza A (H3)
- Influenza B, subtype unknown
- Influenza B/Victoria
- Influenza B/Yamagata
- Influenza, type unknown

[†] Flu deaths less than 18 years of age are reportable to CDPH.

* In a congregate living setting, outbreaks are defined as at least one laboratory-confirmed influenza case in the setting of a cluster (≥2 cases) of influenza-like illness (ILI) within a 72-hour period.

Table 1. Influenza Surveillance Indicators.

Indicator	2020-21 Season			2019-20 Season			Prior 3-Year Average*		
	Week 53	Week 52	Total to Date	Week 53~	Total To Date	Season Total	Week 53~	Total To Date	Season Total
All influenza detections reported (rapid or PCR)	215	171	438	1,506	4,651	20,711	1,695	5,136	17,073
Percent of emergency department visits for ILI	4%	4%		11%			12%		
Percent of deaths registered with pneumonia and/or influenza	23%	20%		6%			7%		
Number of influenza-related outbreaks [∞]	0	0	0	4	12	62	12	28	69
Number of influenza-related deaths reported [^]	0	0	0	2	11	108	15	29	176

Influenza season is July 1 – June 30, Weeks 27-26. Previous weeks case counts or percentages may change due to delayed processing or reporting.

*Includes FYs 2017-18, 2018-19, and 2019-20.

~ Week 53 data for prior years is an average of week 52 and week 1, since no week 53 comparison exists.

∞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.

Total confirmed influenza outbreaks in prior seasons: 119 in 2017-18, 25 in 2018-19, and 62 in 2019-20.

^Current FY deaths are shown by week of report; by week of death for prior FYs. Total deaths reported in prior seasons: 343 in 2017-18, 77 in 2018-19, and 108 in 2019-20.

Influenza Vaccination and COVID-19

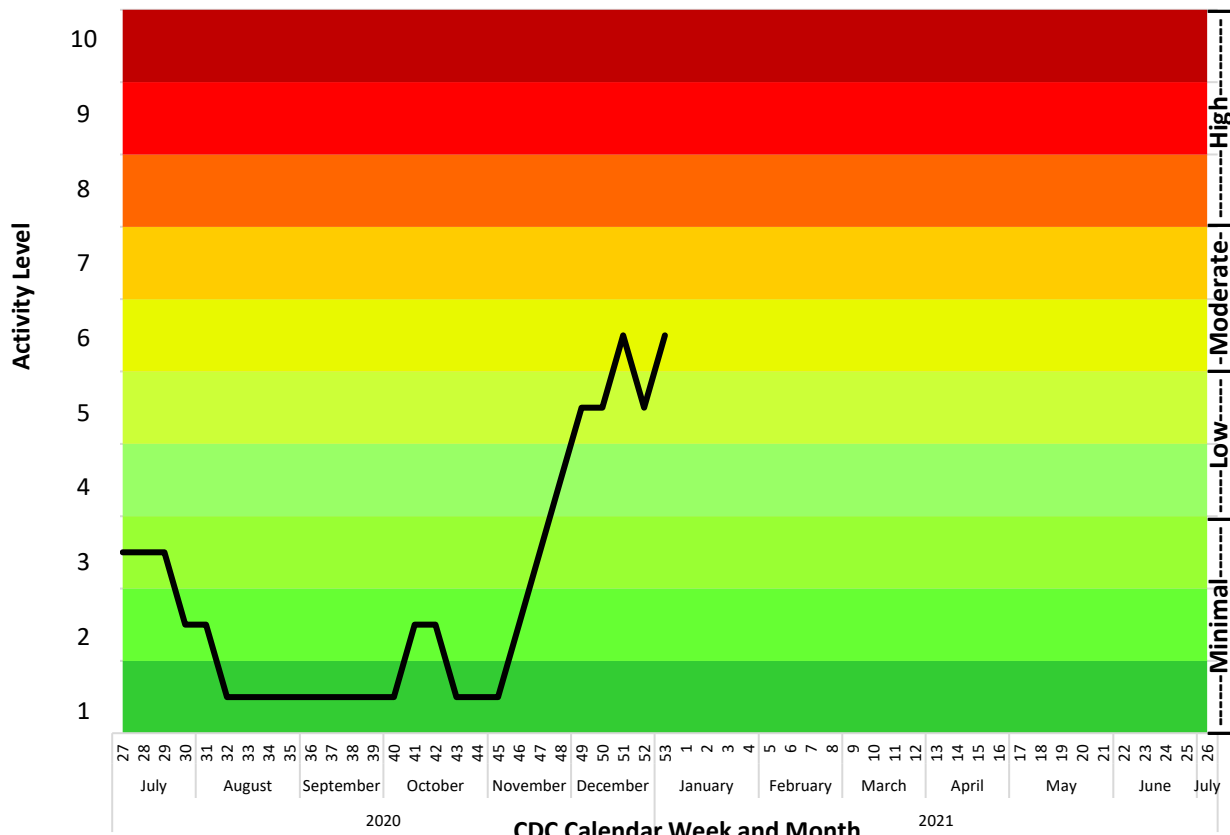
- Some previous studies have documented a negative correlation between influenza vaccination coverage and COVID-19 mortality at the country level, across regions in Italy, as well as across counties in the United States.
- A [recent study](#) from Brazil in 53,752 hospitalized COVID-19 patients examined the association between influenza vaccination coverage and age-specific mortality rates.
- After controlling for multiple co-morbidities, researchers found patients who received a recent influenza vaccine experienced on average 7% lower odds of needing intensive care treatment, 17% lower odds of requiring invasive respiratory support, and 16% lower odds of death.
- Interestingly, the beneficial associations were still seen when the vaccine was administered after onset of symptoms as well as among younger patients.
- The beneficial associations seem unlikely to be due solely to the prevention of dual infection with influenza virus and SARS CoV2.
- It is not clear if these associations reflect an off-target immunological effect of influenza vaccination or the effect of uncontrolled covariates, such as compliance with non-pharmaceutical interventions.
- The study can be accessed here: [Inactivated trivalent influenza vaccination is associated with lower mortality among patients with COVID-19 in Brazil.](#)

Table 2. Influenza Cases Reported, 2020-2021 Season*

Positive Test Type/Subtype	Week 53	Week 52	Total to Date	Percent to Date
Influenza A, subtype unknown	104	105	243	55.5%
Influenza A (H1N1)pdm09	0	0	0	0.0%
Influenza A (H3)	0	0	0	0.0%
Influenza B, subtype unknown	111	66	194	44.3%
Influenza B/Victoria	0	0	0	0.0%
Influenza B/Yamagata	0	0	0	0.00%
Influenza, type unknown	0	0	1	0.2%
Total	215	171	438	100.0%

*Season is July 1- June 30, Weeks 27-26.

Figure 1. Activity Level of Emergency Department Influenza-Like Illness (ILI), 2020-21 Season to Date.



	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 level compares the current week’s ED ILI% (emergency department influenza-like illness, percent of all visits) to the mean and number of standard deviations above of the mean of the ED ILI% in non-influenza season weeks (CDC disease weeks 27-39) from the current and prior four 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. San Diego County Influenza Detections by Type and Week of Report, 2020-21 Season to Date (N=438).

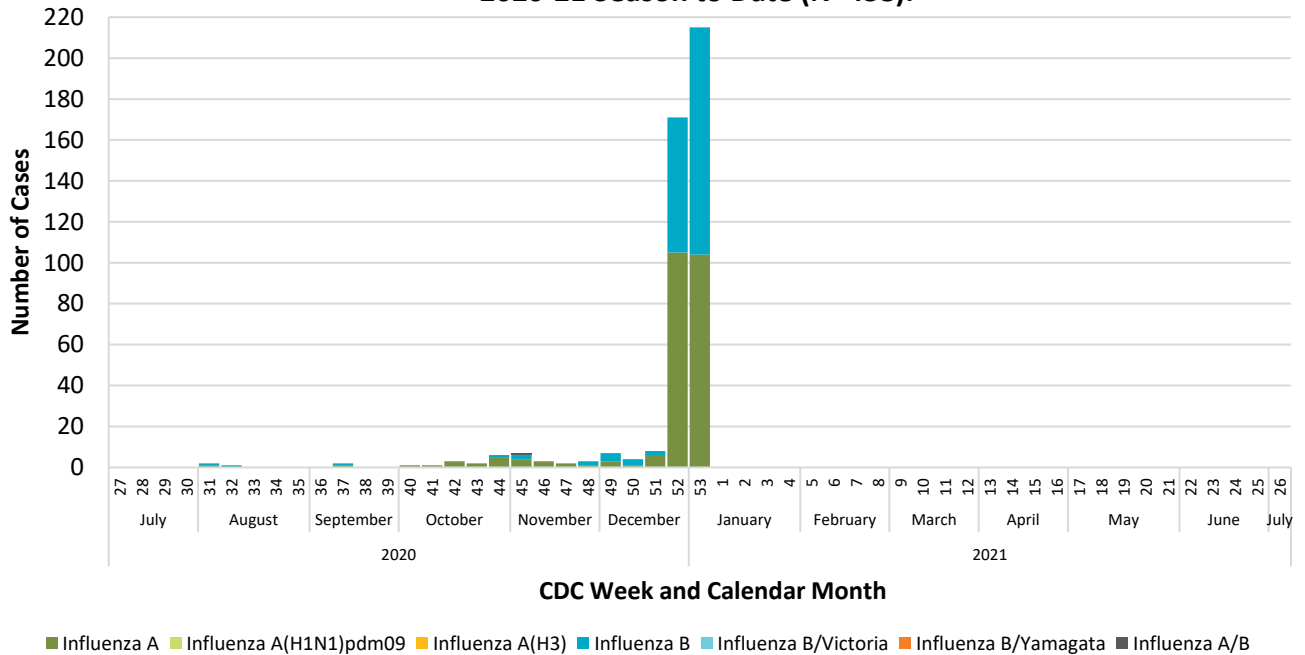


Figure 3. Cumulative Influenza Cases Reported by CDC Week and Season.

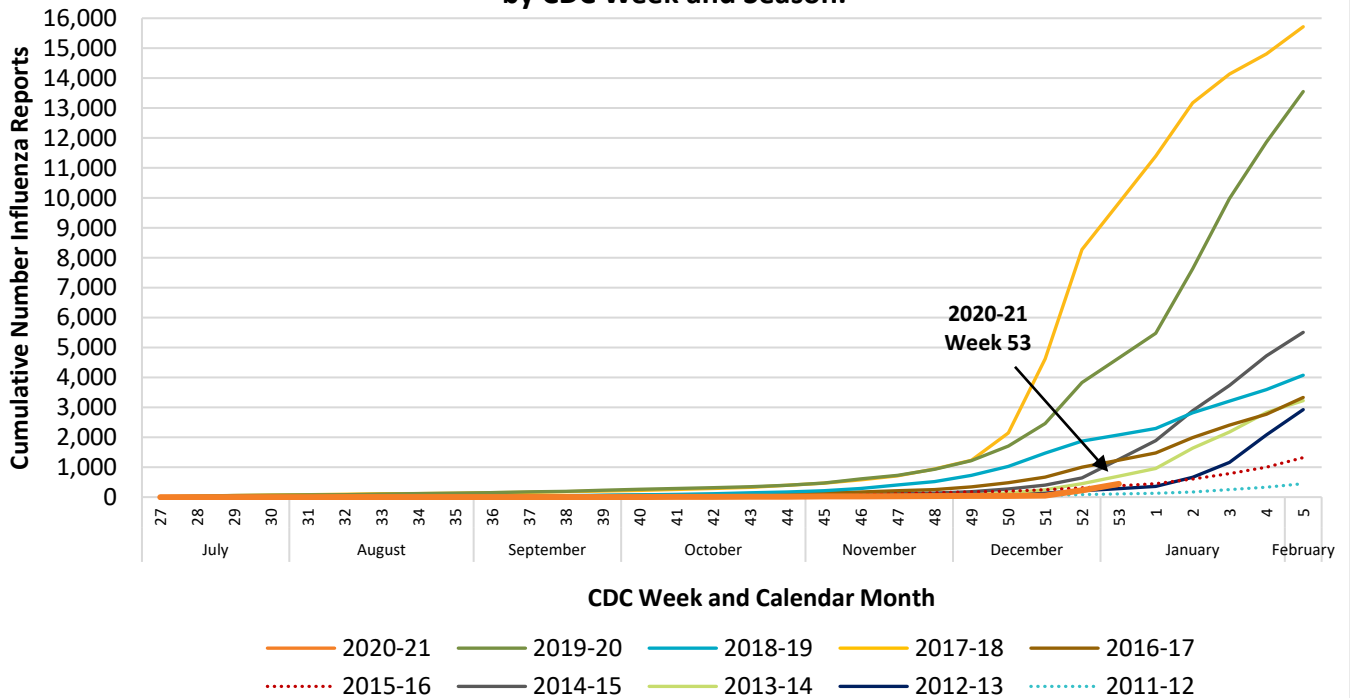


Figure 4. Proportion of Influenza Cases by Age Group and Season.

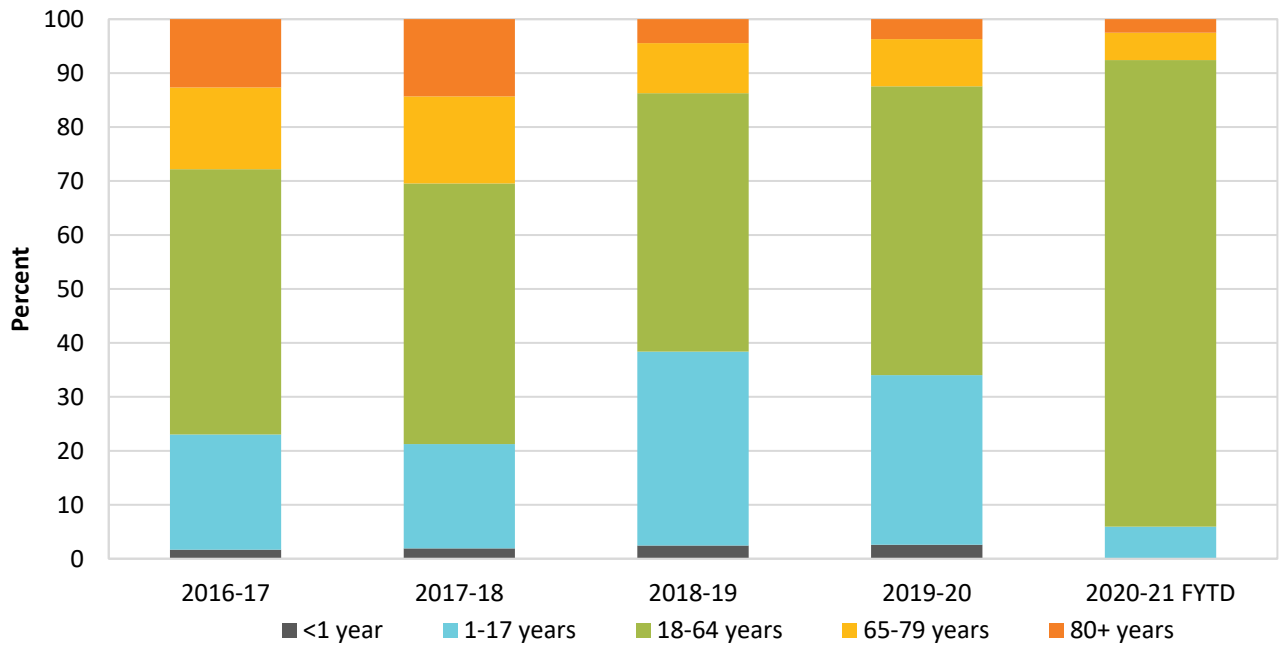
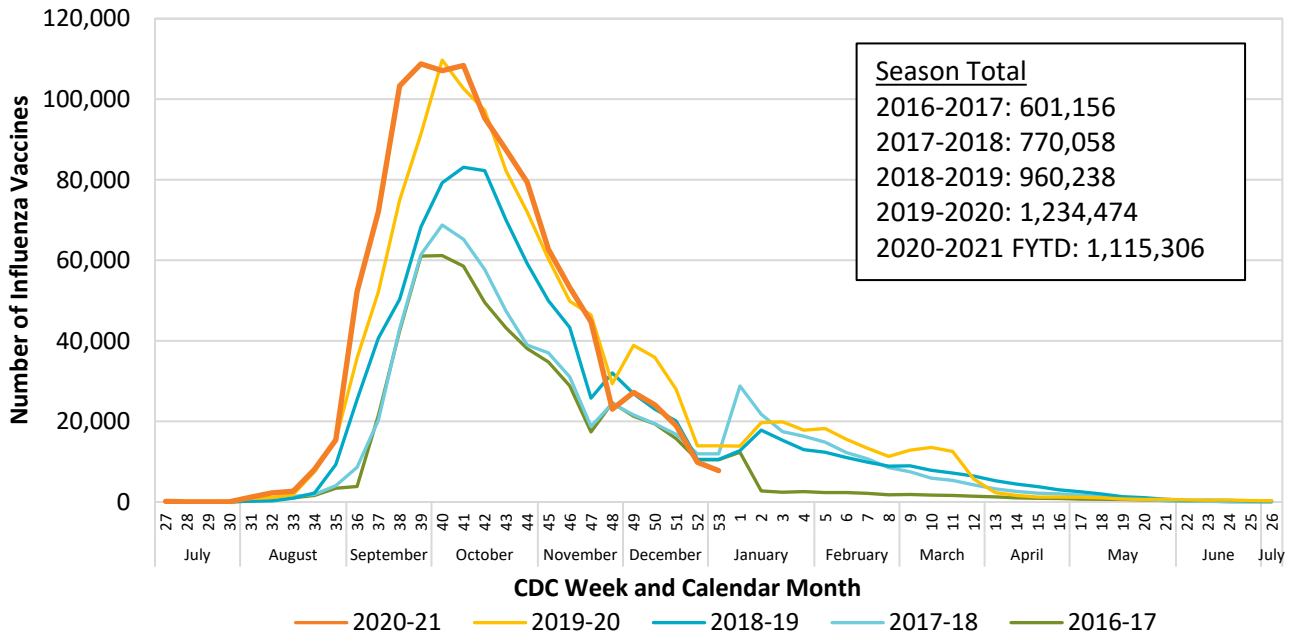
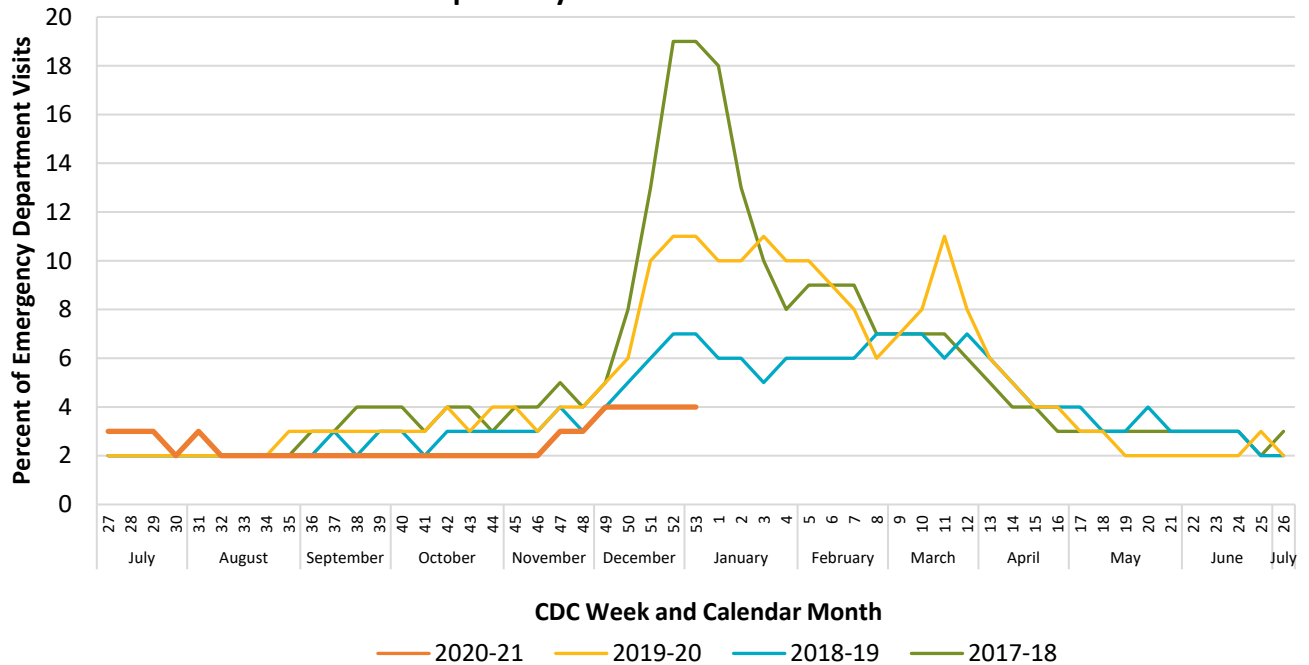


Figure 5. Number of Influenza Vaccinations Administered* by CDC Week and Season.



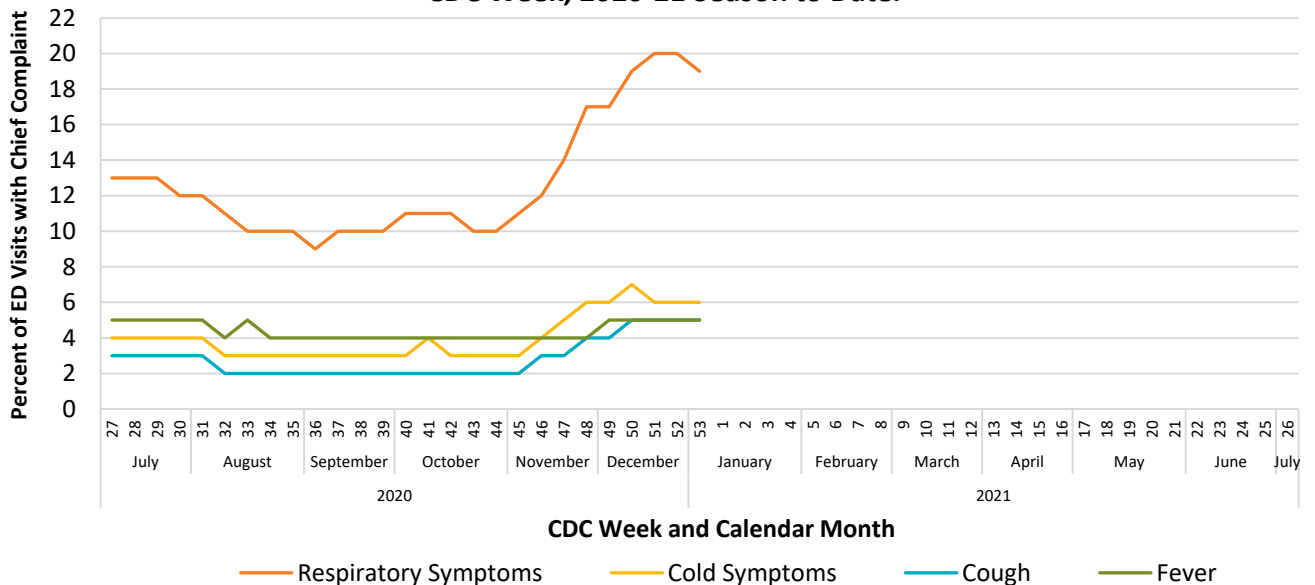
* Influenza vaccinations administered and entered into the San Diego Immunization Registry (SDIR). Week 52 data is repeated for week 53 for seasons that do not include week 53.

Figure 6. Percent of Emergency Department Visits for ILI Chief Complaint by CDC Week and Season*.



* Week 52 data is repeated for week 53 for seasons that do not include week 53.

Figure 7. Percent of Emergency Department Visit Chief Complaints for Cough, Cold, Fever, or Respiratory Symptoms* by CDC Week, 2020-21 Season to Date.



* Respiratory category includes cough, cold symptoms, influenza-like illness, and other respiratory symptoms.

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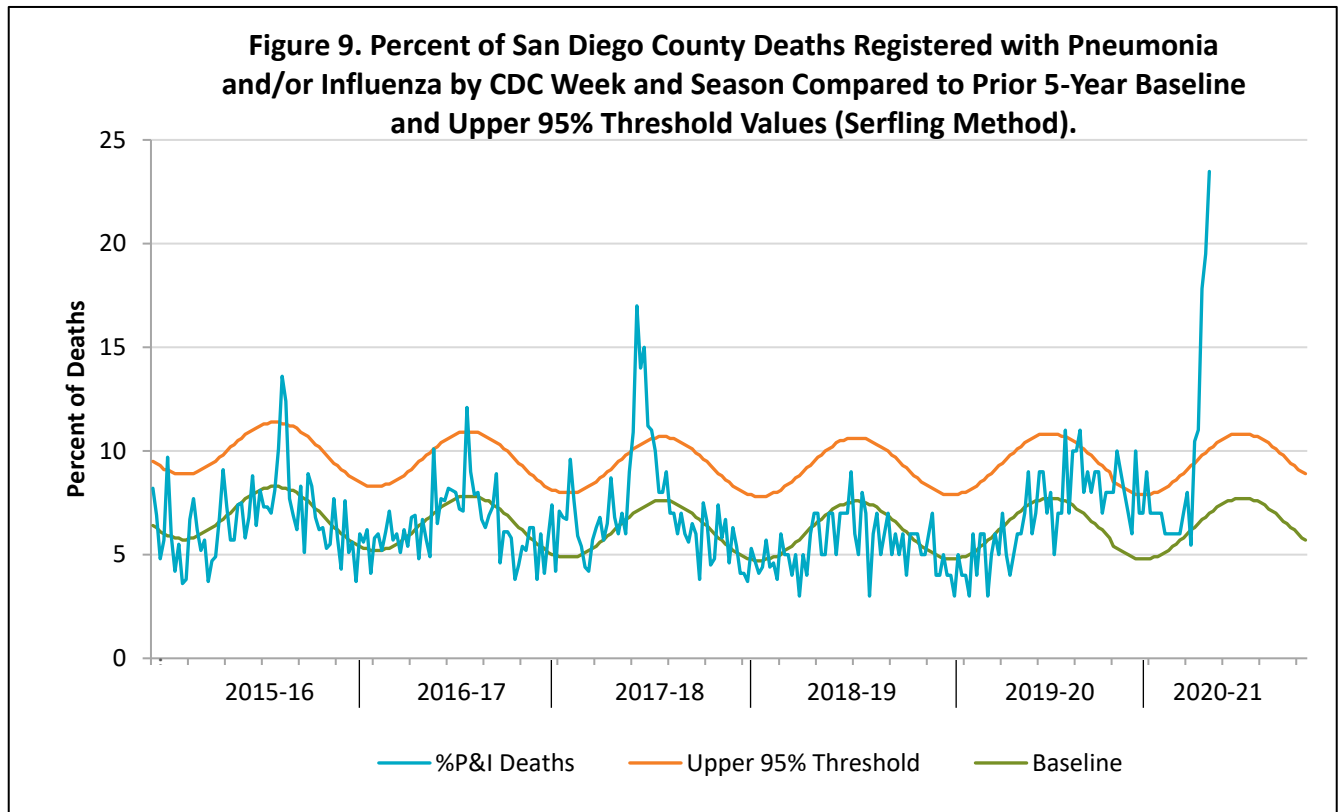
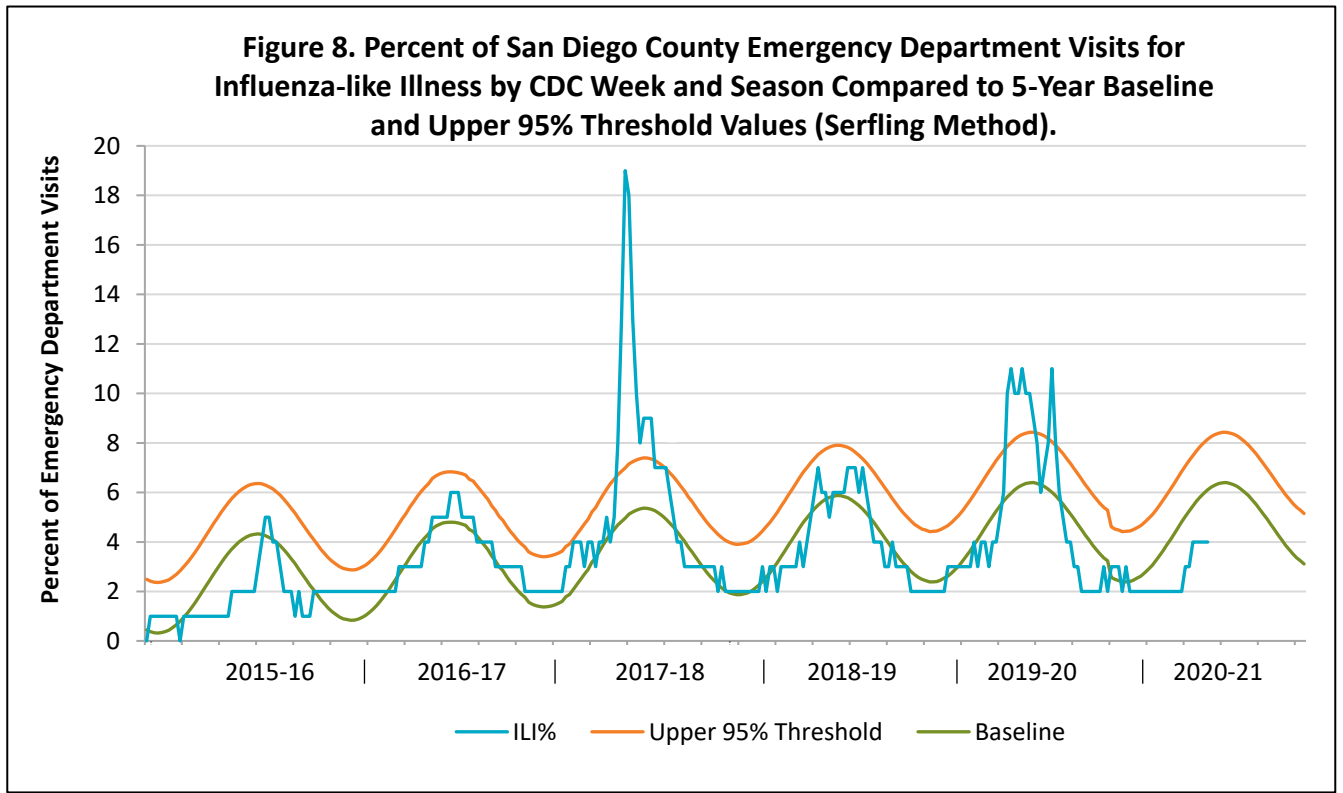


Figure 10. Influenza Deaths by Type and Season.

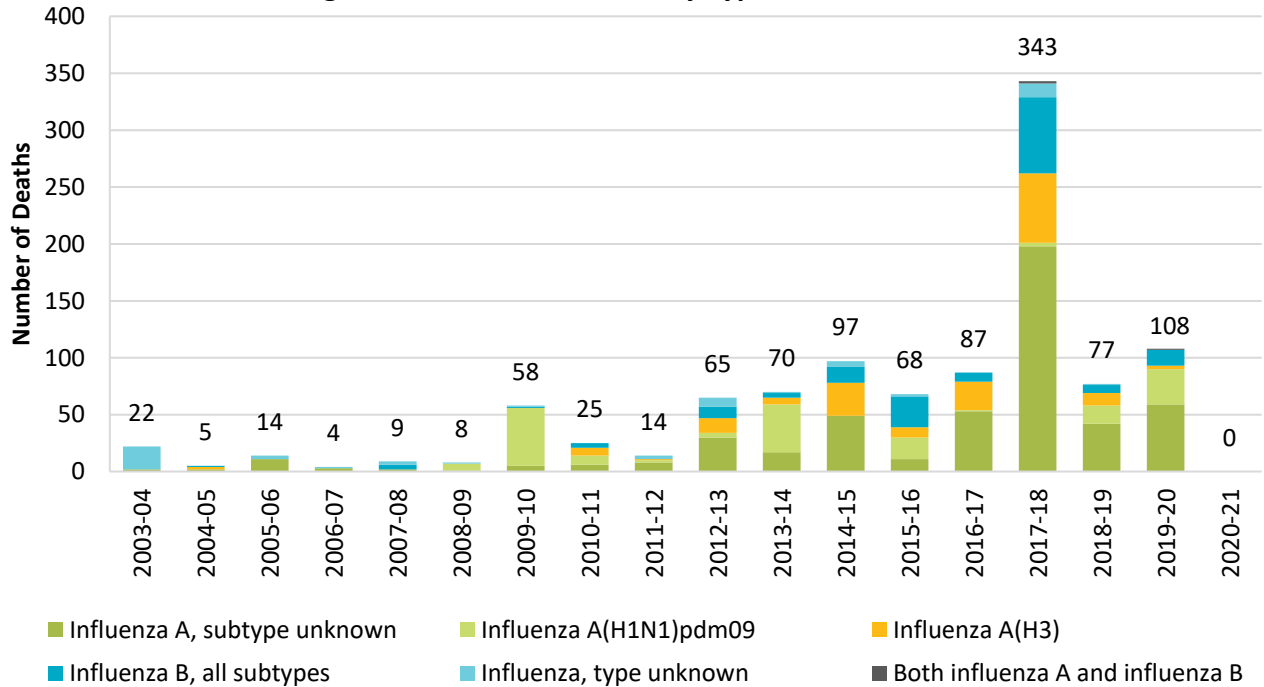
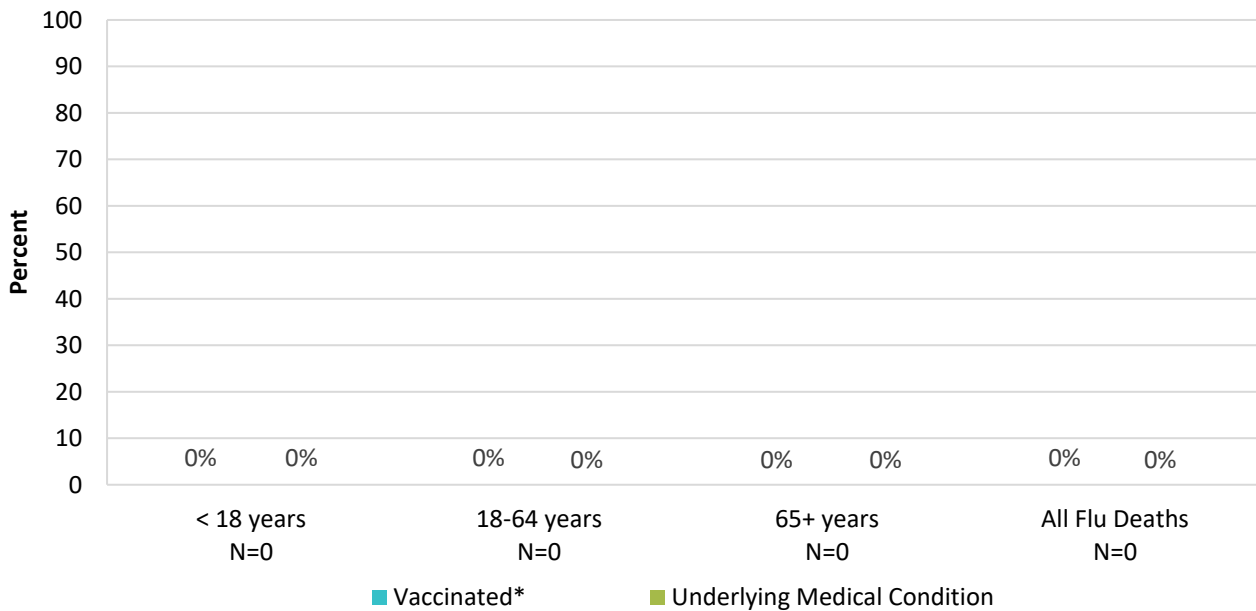


Figure 11. Percent of Influenza Deaths by Age Group, Vaccination Status, and Underlying Medical Condition, 2020-21 Season.



* known to be vaccinated

Influenza Reporting in San Diego County

Individual influenza cases are now reportable to Public Health as of October 1, 2019. Please report laboratory-positive influenza results to the County Epidemiology Unit by **FAX (858) 715-6458** using a [Confidential Morbidity Report Form](#), or an [Influenza Case Report Form](#), and/or a copy of the laboratory results. Also, please indicate if the patient died and/or is a resident of a congregate living facility (if known).

Influenza specimens may be sent to [Public Health Laboratory](#) (PHL) for confirmation and subtyping. Please contact PHL at **(619) 692-8500 before submitting** or for questions and use the current PHL Test Request Form found at https://www.sandiegocounty.gov/hhsa/programs/phs/phs_laboratory/. Contact the Epidemiology Unit by telephone **(619) 692-8499** or email (EpiDiv.HHSA@sdcounty.ca.gov) with questions about influenza data. Influenza outbreaks should be reported by telephone to **(619) 692-8499**.

Resource Links

- County of San Diego Epidemiology Unit www.sdepi.org
- County of San Diego [2019-20 Influenza Season Summary](#)
- *Influenza Watch* [Slide Deck](#) – A slide version of this report for presentations
- County of San Diego Immunization Unit (SDIZ) www.sdiz.org
- San Diego Regional Immunization Registry (SDIR) <http://www.sdiz.org/CAIR-SDIR/index.html>
- California Department of Public Health (CDPH) [Influenza Update](#)
- Centers for Disease Control and Prevention (CDC) [Influenza Surveillance](#)

Influenza Watch Data Sources

The following sources of data are used to produce this report:

- **Influenza case reports:** Medical providers and laboratories report individual cases of confirmed influenza via fax or electronic laboratory reporting (ELR) to Public Health Services Epidemiology Unit (Epidemiology).
- **Influenza deaths:** Hospital infection control professionals report influenza-related deaths. Pediatric flu deaths (under 18 years of age) are legally reportable in California; however, San Diego County requests that all influenza-related deaths be reported for surveillance purposes. Influenza-related deaths are also identified through death certificate registration. The County Office of Vital Records notifies Epidemiology when a new death is registered with influenza listed as a cause of death or underlying condition. In addition, influenza case reports are compared to death data for San Diego County, and matches are evaluated to determine if their influenza infection was related to the cause of death.
- **Percent pneumonia and influenza deaths:** The percentage of all deaths registered that had either pneumonia and/or influenza listed as a cause of death is obtained directly from the Vital Records VRIS data system on a weekly basis.
- **Influenza-like illness (ILI):** Electronic emergency department (ED) visit data is submitted to Epidemiology daily for 16 hospitals in San Diego County. The percent of ED visits for ILI or flu (based on chief complaints or diagnosis) is calculated for each week. Note: ILI is defined as fever (>100°F or 37.8°C) and cough and/or sore throat, in the absence of a known cause.
- **Influenza outbreaks:** In a congregate living setting, outbreaks are defined as at least one laboratory-confirmed influenza in the setting of a cluster (≥2 cases) of influenza-like illness (ILI) within a 72-hour period. Influenza outbreaks are reportable in California. Epidemiology identifies outbreaks when facilities call to report. Other potential outbreaks are identified when multiple cases share an address or have a residential address that matches a skilled nursing or long-term care facility.
- **Number of vaccines:** The San Diego Immunization Registry (SDIR) provides weekly updates on the number of flu vaccinations given based on the number of flu vaccinations registered by participating providers.

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.