

The Long Beach Department of Health and Human Services (Health Department) monitors influenza from October 1 to April 30 each year. During the 2019-2020 season, 1,490 influenza laboratory results were reported to the Long Beach Health Department, which was significantly greater than past years. On October 1, 2019, laboratories were mandated to report all cases of influenza for the first time. This may have led to an increase in the number of cases reported this season compared to past seasons (Figure 1). A large number of 2019-2020 influenza cases (40.6%) were younger than 17 years of age and 52% were female. There were a total of eleven deaths among Long Beach residents in the 2019-2020 season compared to nine deaths in the previous season (Table 2). The median age of deaths in the 2019-2020 season was 55 years and 55% were female. Although this season was more severe for children less than 18 years, there were no pediatric deaths reported.

The most common strain this season was Influenza A 2009 H1N1.<sup>1</sup> Typically, influenza B peaks after influenza A, however in 2019-2020 influenza B peaked early during December (Figure 5) and primarily affected children and those less than 49 years (Figure 4).

Two small influenza outbreaks were reported in two skilled nursing facilities in Long Beach this season in February and March. The facilities worked with the Health Department to control and prevent additional illnesses.

The CDC estimated that this season's influenza vaccine was 45% effective in preventing laboratory confirmed infection.<sup>2</sup> The flu vaccine can also lessen the severity of illness and reduces the risk of being admitted to intensive care.<sup>3</sup> Everyone six months and older needs a flu shot each year to protect themselves and others.

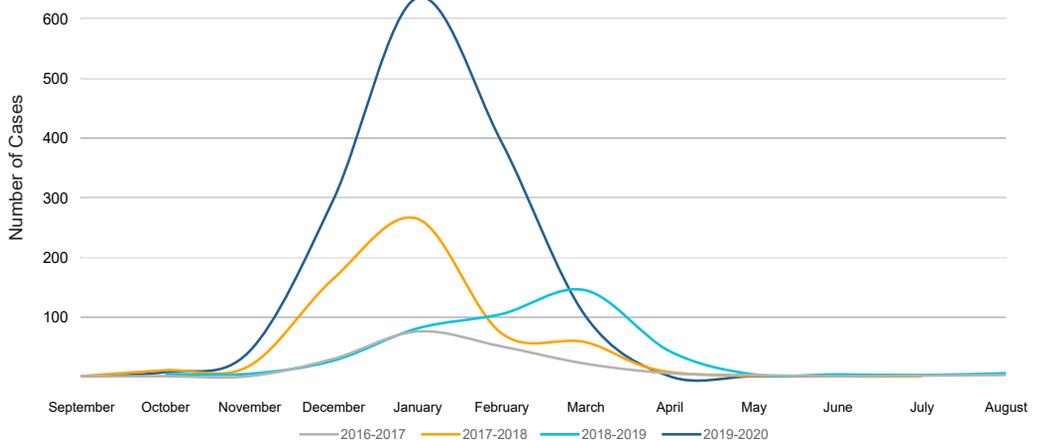
## 2019-2020 INFLUENZA SUMMARY

**Total Cases<sup>4</sup>**  
**1,490**

**Deaths<sup>5</sup>**  
**11**

**Outbreaks**  
**2**

Figure 1: Influenza Trend by Season, 2016 - 2020\*



\*On October 1, 2019, laboratories were mandated by the state to report all cases of influenza for the first time.

Figure 2: Influenza Episode Date by Disease Week, 2019-2020

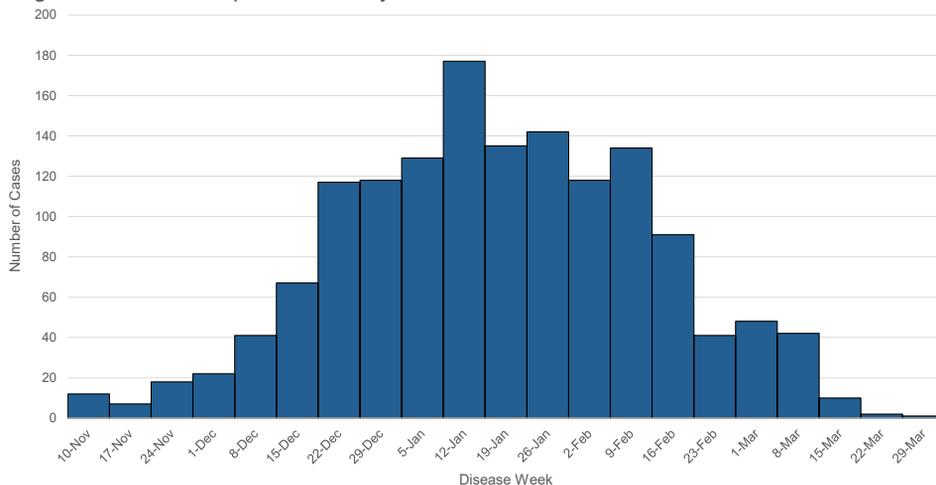


Figure 3: Virus Characteristics, 2019-2020

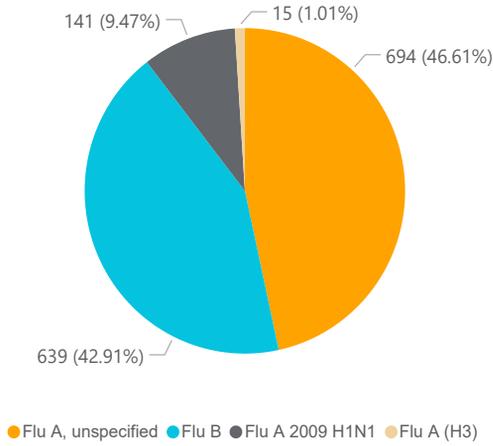


Figure 4: Influenza Type by Age Categories, 2019-2020

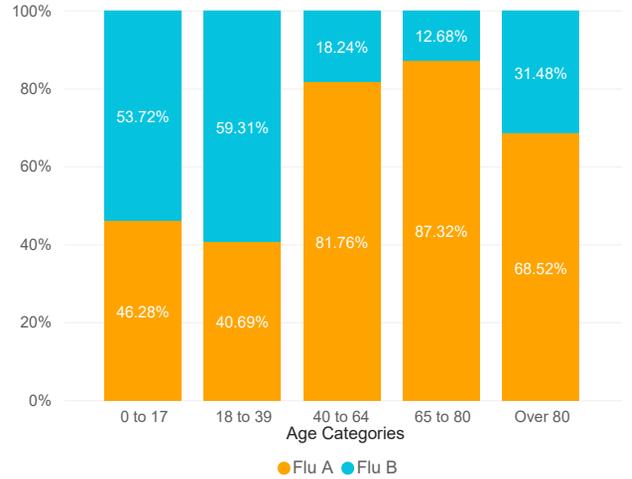


Figure 5: Influenza Type by Disease Week, 2019-2020

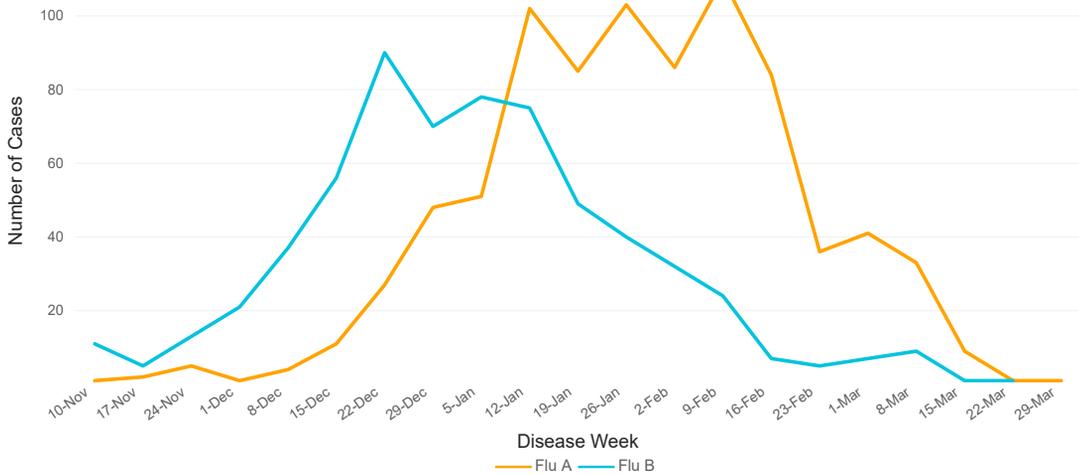
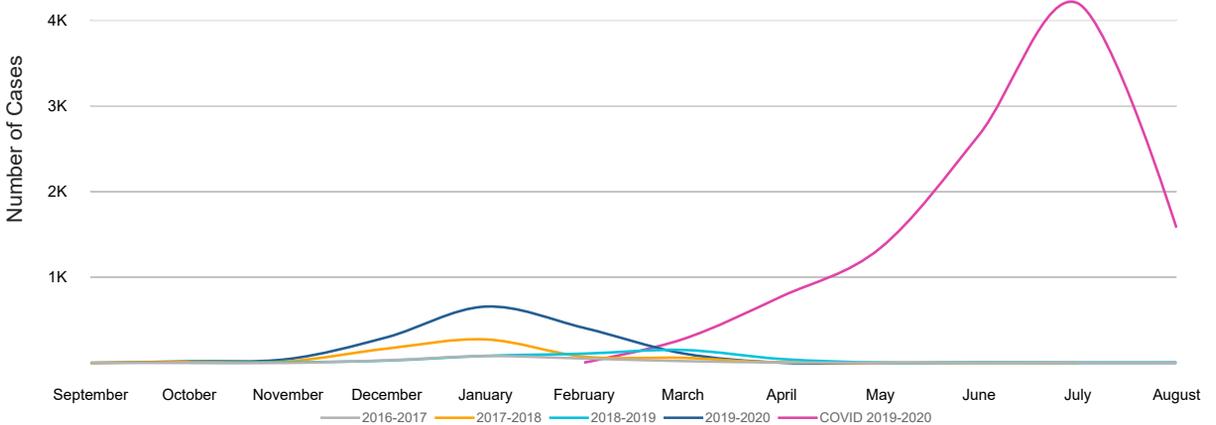


Figure 6: Influenza and COVID-19 Trend by Season, 2016 - 2020



**2013-2020 INFLUENZA MORTALITY SUMMARY**

From 2013 to 2020, there were 57 influenza deaths among Long Beach residents. Majority (54%) of these deaths occurred in January (Figure 7).

No difference was observed between genders (Figure 9), however there were differences between race and ethnicity among deaths. White and Asian residents were disproportionately affected by influenza (Figure 8) when compared to the overall Long Beach population.

Table 1: Influenza Deaths by Age, 2013-2020

Age	Count	%
0 to 17	< 5	-
18 to 39	< 5	-
40 to 64	18	31.6%
65 to 80	13	22.8%
Over 80	21	36.8%

Table 2: Influenza Deaths by Year

Influenza Season	Count
2013-2014	8
2014-2015	8
2015-2016	1
2016-2017	7
2017-2018	13
2018-2019	9
2019-2020	11

Figure 7: Influenza Deaths by Month, 2013-2020

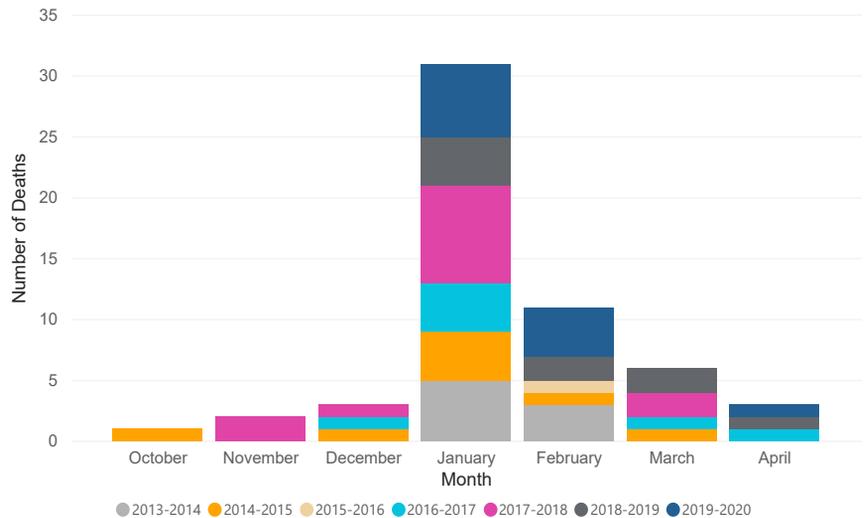


Figure 8: Influenza Deaths by Race.Ethnicity, 2013-2020

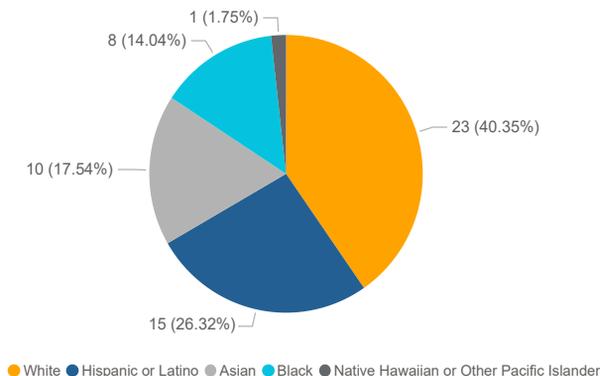
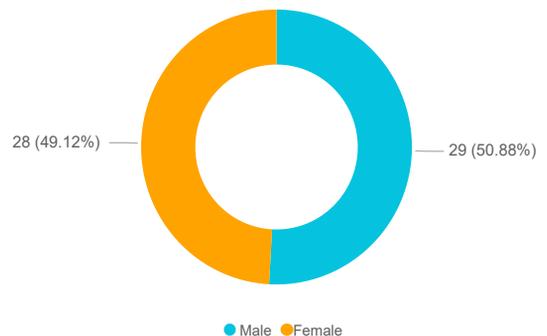


Figure 9: Influenza Deaths by Gender, 2013-2020



1. Influenza and Other Respiratory Viruses Weekly Report. California Influenza Surveillance Program, CDPH, Week 8.
2. *Interim Estimates of 2019-20 Seasonal Influenza Vaccine Effectiveness- United States, February 2020*. MMWR. [https://www.cdc.gov/mmwr/volumes/69/wr/mm6907a1.htm?s\\_cid=mm6907a1\\_w](https://www.cdc.gov/mmwr/volumes/69/wr/mm6907a1.htm?s_cid=mm6907a1_w)
3. Thompson, M., Pierse, N., Huang, Q., Prasad, N., Duque, J., Newbern, E., . . . McArthur, C. (2018, August 01). Influenza vaccine effectiveness in preventing influenza-associated intensive care admissions and attenuating severe disease among adults in New Zealand 2012–2015. Retrieved September 19, 2020, from <https://www.sciencedirect.com/science/article/pii/S0264410X18309976>
4. Total case counts are based on those reported to public health by laboratories, the true number of influenza cases may be under-reported. Due to lag in reporting, number of cases may change in the following weeks.
5. Number of deaths is based on influenza-coded deaths from death certificates. They are not necessarily laboratory-confirmed and may be an underestimate of all influenza-associated deaths.