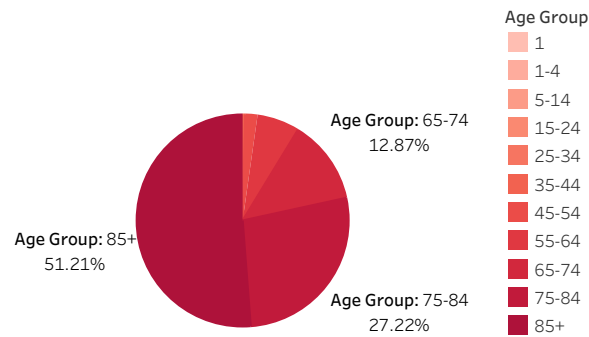Suggestions for the upcoming Influenza season in US

How threatening is influenza? and how can we make it less of a threat?

46,157 US residents died of Influenza in a year (2009-2017). Majority of the mortality come from **age groups of 65 years and above**. To make the matter worse, the ageing population has been growing faster than ever before.
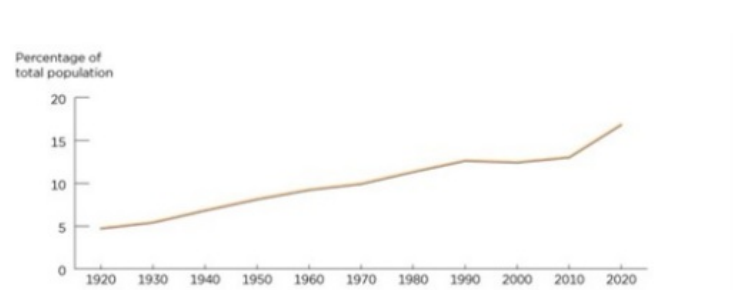
Yearly average of US Influenza Deaths (2009-2017)

Year of Year

Year	Deaths
2015	49,7
2013	49,3
2017	48,119
2014	47,669
2011	45,889
2009	45,110
2016	43,957
2012	43,136
2010	42,524
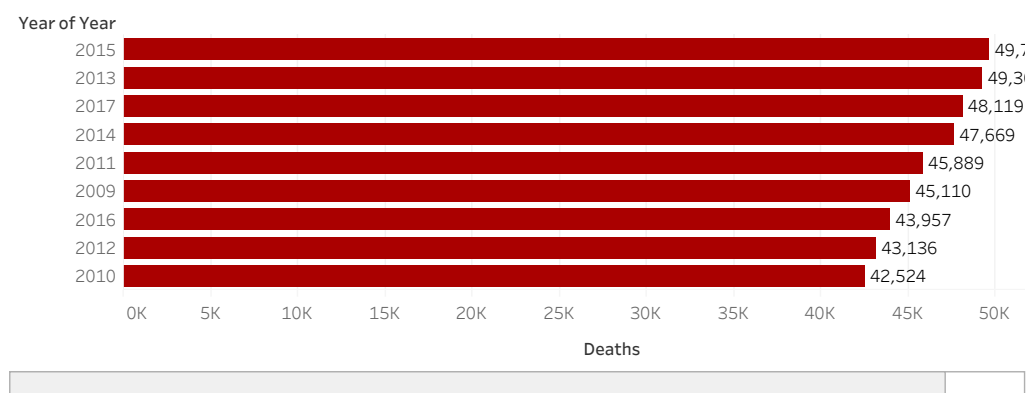
Deaths

Influenza Deaths per Age Group

Age Group: 65-74 12.87%
Age Group: 85+ 51.21%
Age Group: 75-84 27.22%

Age Group
1
1-4
5-14
15-24
25-34
35-44
45-54
55-64
65-74
75-84
85+

Population of 65 years old and over by percentage of tota..

Percentage of total population

Suggestions for the upcoming Influenza season in US

Size of vulnerable population (Ageing population) and **mortality rate** are positively correlated. Also **poverty rate** influences mortality rate to a certain extend as low socio-economic population have limited access to health care system in general.

Year on Year Mortality Rate per State in Relations to Poverty Rate and Size of Vulnerable Population.
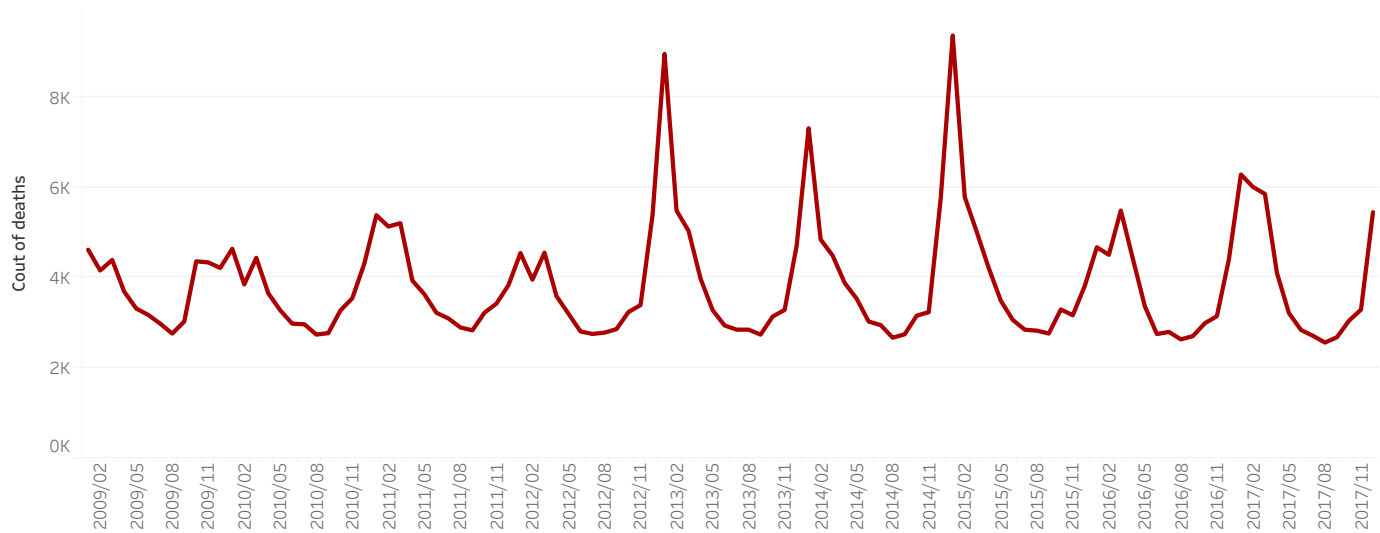

© 2024 Mapbox © OpenStreetMap

Suggestions for the upcoming Influenza season in US

Though there are differences in degrees, typically **Winter months (from October to February)** are the peak seasons for influenza deaths.

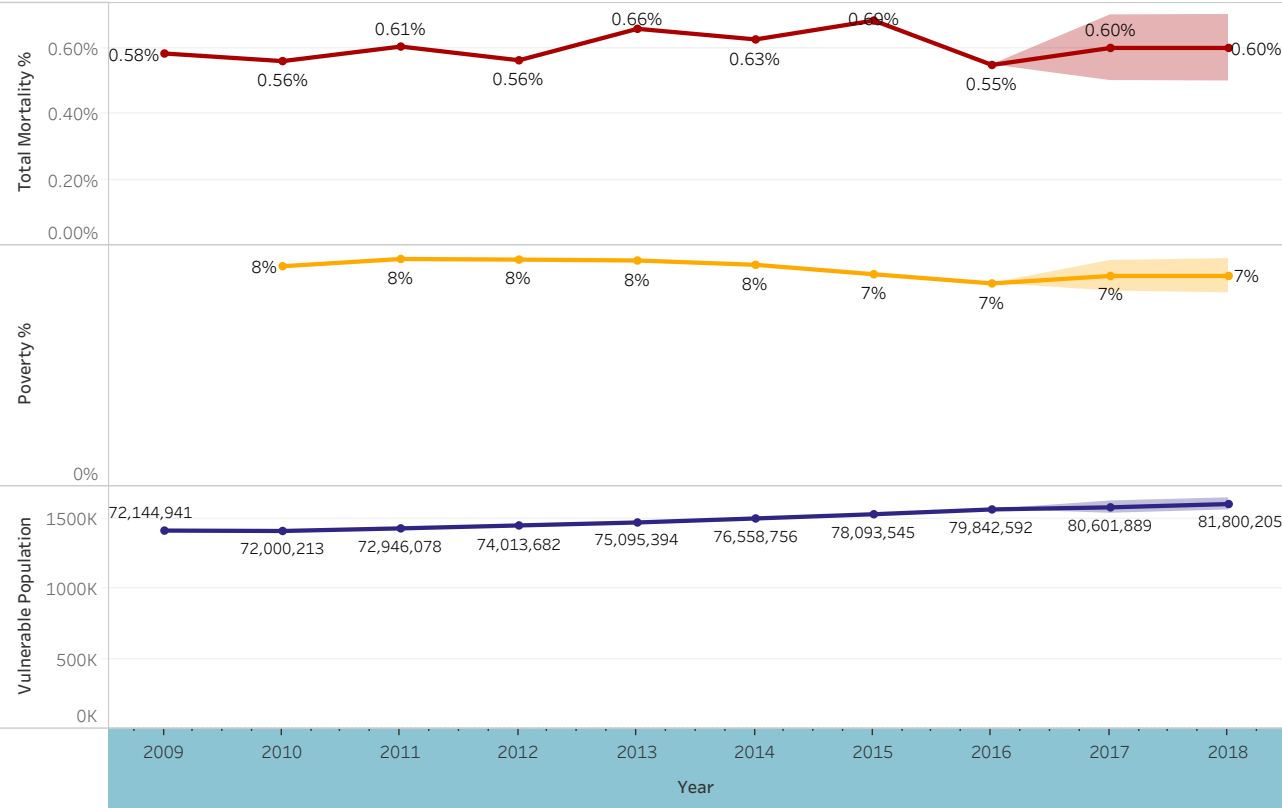## Influenza Deaths Trend (2009-2017)

Suggestions for the upcoming Influenza season in US

In the following year, with the expectation of vulnerable population to grow, poverty rate to stagnate, the total influenza mortality rate will increase by 0.05%

Forecast of Mortality Rate, Poverty Rate and Volnerable Population

Suggestions for the upcoming Influenza season in US

Conclusion

This research examined historical influenza mortality data from geographical, seasonal, demographical and socio-economic stand points. The findings revealed correlations between influenza mortality and vulnerable population/ poverty rate, as well as a seasonality pattern which is from October to February.

Recommendation

After a careful reveiw process, it is recommended to allocate additional staff for the period of October to February to states with following priorities.

1. States with lower staff-to-patient ratio
2. States with larger ageing populations
3. States with higher poverty rate

Inquiry

Should you have any question or feedback, feel free to reach me at hb.summer.jung@gmail.com