Influenza Season Plan

PROBLEM:

• Staff agency must determine where and how many staff to send to each state in order to prepare hospitals for the upcoming flu season.

OBJECTIVE:

• Perform statistical analysis to look at influenza trends so we can proactively plan for staffing requirements across the country.

KEYNOTES

• Due to data privacy protection a bit more than 80% of CDC death data were suppressed and for further analysis were counted as a zero.

• Because there is various population size across the Country the analysis used the death ratio per population size.

SKILLS

- Translating business requirements
- Statistical hypothesis testing
- Data cleaning, transformation and integration
- Visual analysis
- Forecasting
- Storytelling in Tableau

TOOLS

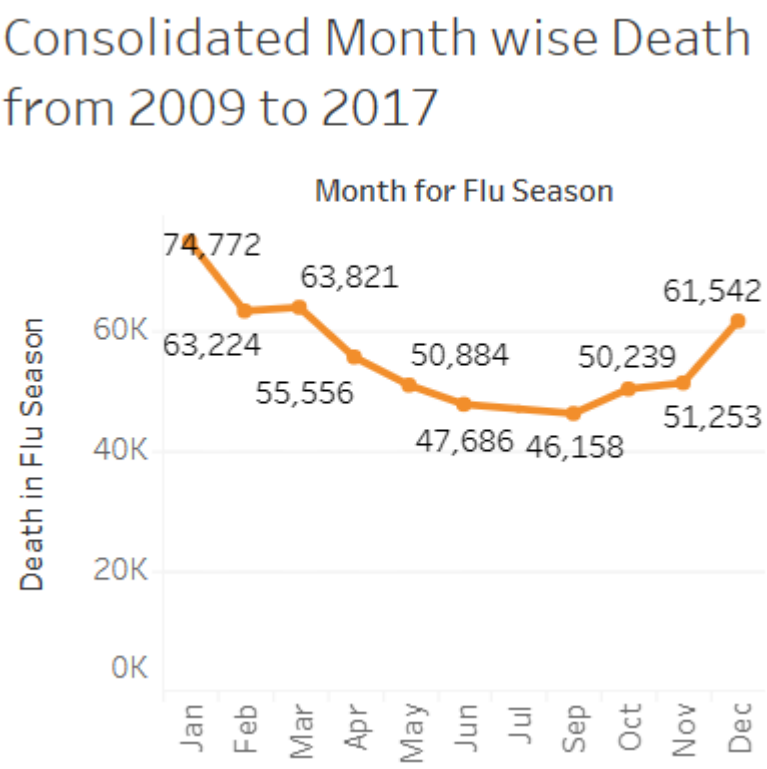
- Excel
- Tableau

DATA

- CDC Influenza Deaths
- US Census

INFLUENZA SEASON PLAN KEY INSIGHTS

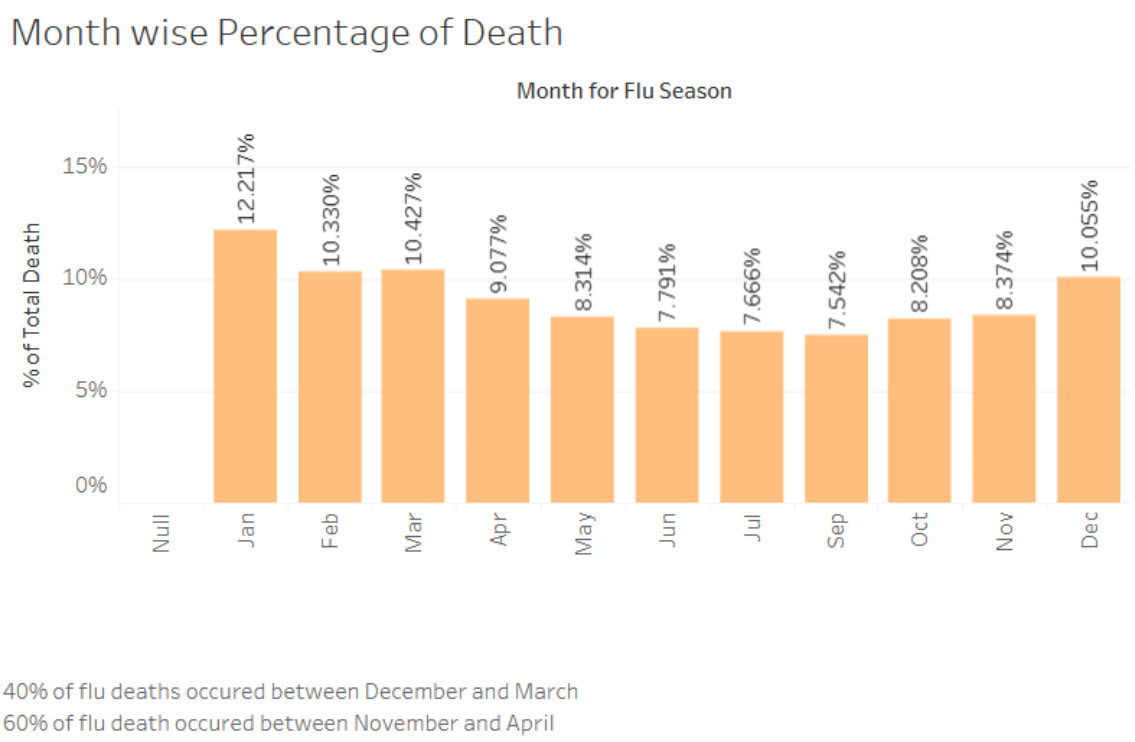
What is the consolidated month-wise death from 2009 to 2017



I found out that death increase in winter months

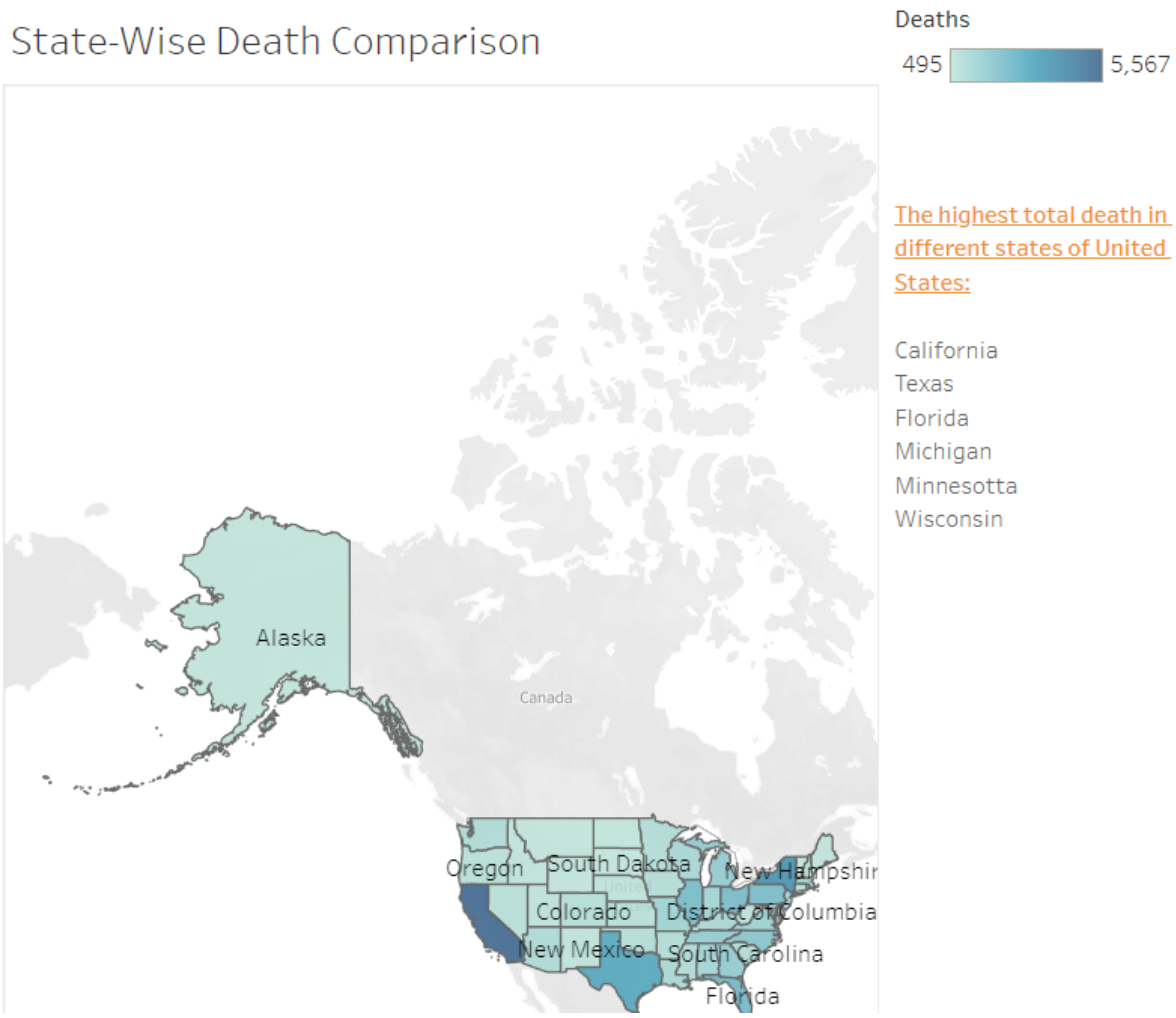
Extra medical staff should be deployed in winter months

What is the month-wise percentage of death?



- 40% of flu death occured between December and March
- 60% of flu death occured between November and April

Which states have the highest flu related death?



I found out that highest death were in California, Texas, Florida, Michigan, Minnesota , Wisconsin

RECOMMENDATIONS

- Additional staff should be planned in mid October to coincide with the start of flu season
- Extra temporary staff should be available between November and April as more death occur during this time
- States which have high population aged 65 and above should be allocated more medical staff as they are more prone to influenza