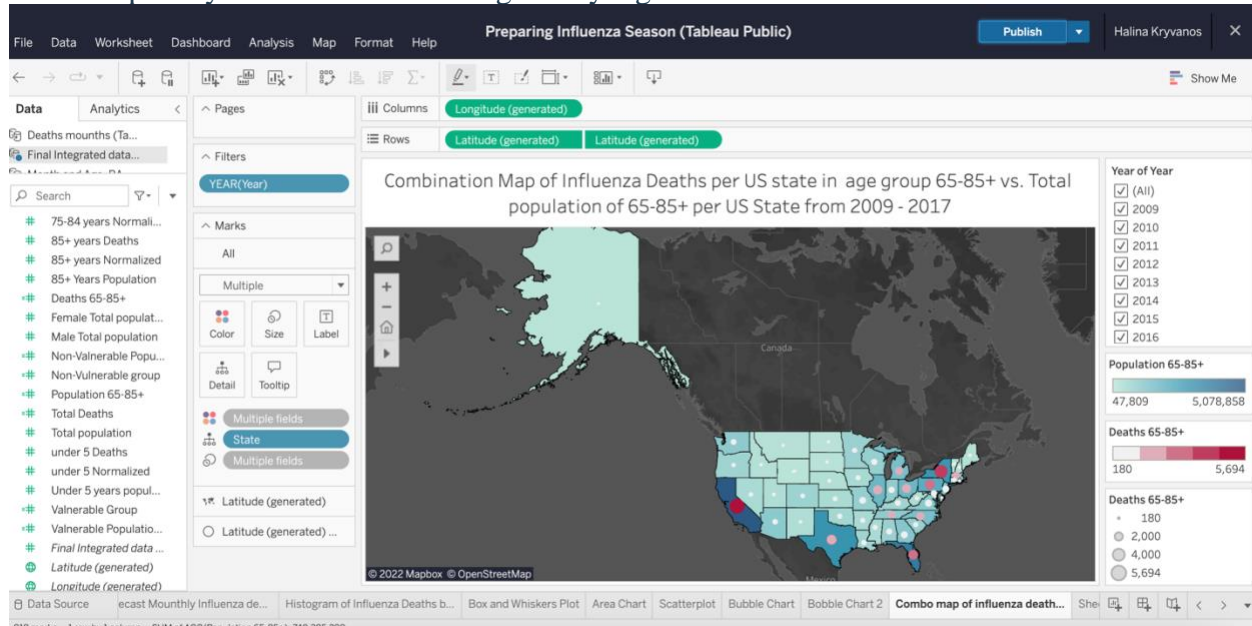## 2.7: Spatial Analysis

1. Create a map of influenza deaths by state, using state as the spatial boundary.
   Decide whether you want to look at a particular month, year, or average across time.

Put as a filter year

2. Add another count to the map, turning it into a combination (dual axis) map.
3. Update your visualization using the style guide. See below



4. In a Word doc, describe any spatial trends you see:

The combination map shows the number of people age 65-85+ and number of death due to flu for each state in the United States (USA). Age group 65-85+ is the choropleth map, and the circle represents the number of deaths 65-85+.
The higher the number of the death the bigger the circle. The darker area on the choropleth map shows the area with highest number of people 65-85+ age.

- What states or regions are the highest? The lowest?

California is the state having the highest vulnerable population and the highest death cases. It is followed by Texas, Florida and New York. The lowest number of death was observed in Vermont.

- How does time impact those trends?

For staffing purposes, population density should be the primary indicator because there is a strong correlation between influenza deaths and vulnerable populations, as well as dependence on larger populations and higher mortality as shown below.
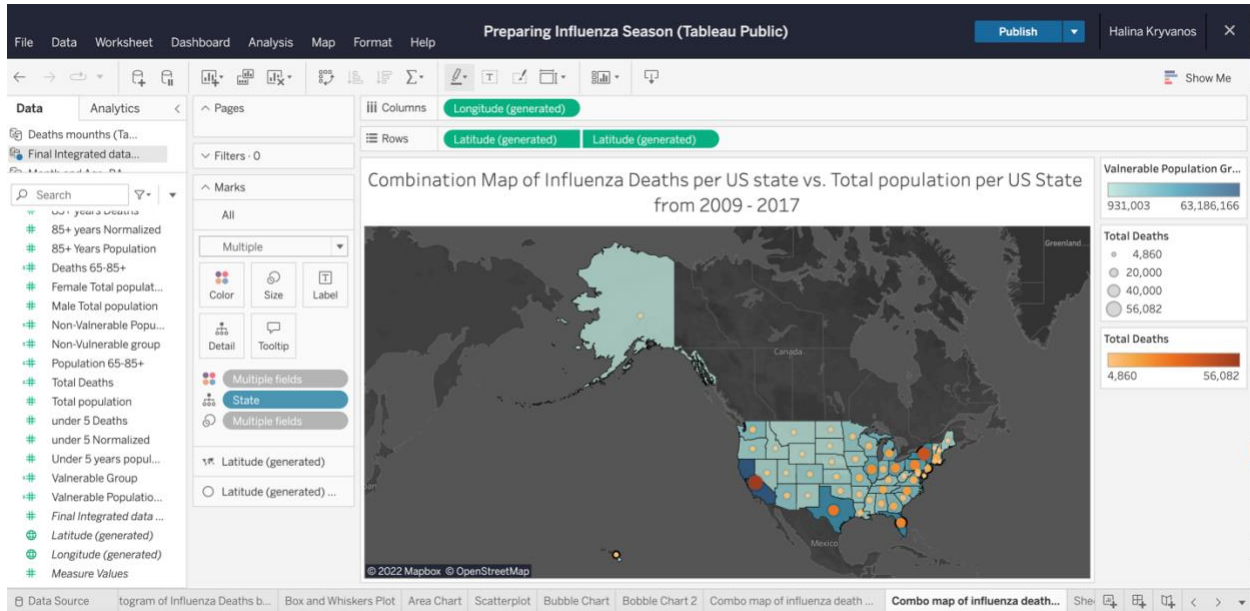


**Visual checklist:**
- Color of states is automatic scheme
- Color of circles is red/gold scale, to create complementary colors
- Removed legend that displayed grey scale of Influenza deaths, because that is represented already by size of the circle
- Changed the title of map
- Legends are well described and together with the title, the map is the only source the reader needs to understand what it is communicating