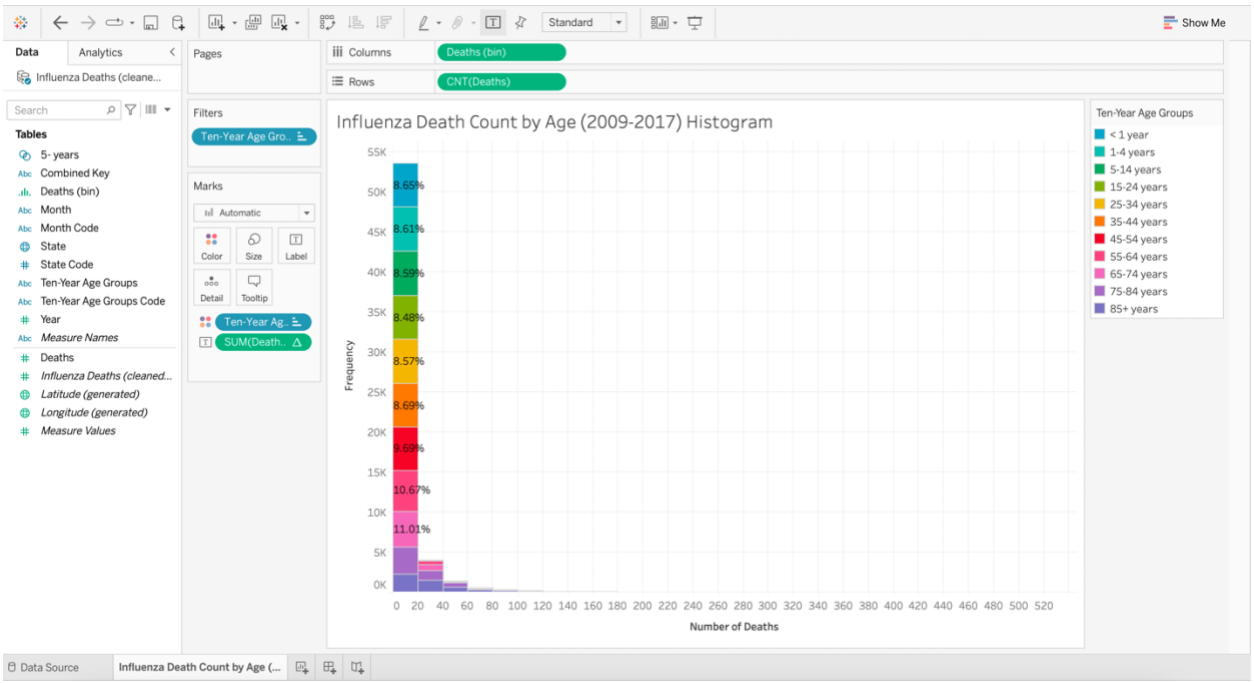
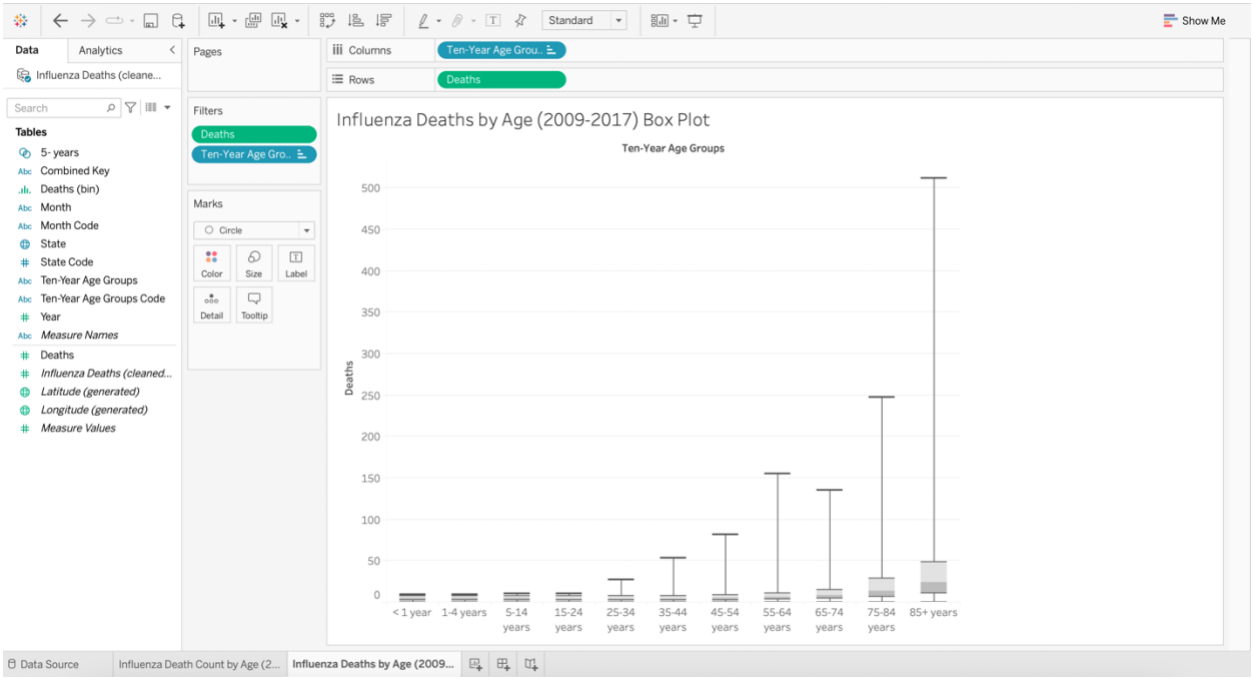
Statistical Visualizations: Histograms & Box Plots

Histogram [(click here to view)]



- Are young and old populations more vulnerable (because they have more deaths)?
  The data shows that the older age groups experience a higher portion of the overall deaths, with senior citizens (aged 65 and older) make up over 60% of deaths, with the oldest group alone (aged 85 and older) making up over a third of the total flu deaths. However, the younger populations make up the fewest of the overall deaths, with a vast majority of their monthly death counts by state being fewer than 20.
- Are there any age groups that have no deaths?
  Both age groups under 5, due to CDC confidentiality restrictions prohibiting the counts from publication due to privacy concerns.

Box Plot [(click here to view)]



- The box plot offers a more detailed look into the distribution of deaths for each age group, where the histogram lacks due to the overwhelming amount of death counts between 0-20, of which significantly reduces the amount of visible data beyond that point.
- From the box plot is clear that older age groups suffer the most deaths from the flu, as well as containing more high-end outliers (most of which likely come during peak flu months in populated/prone states).

VISUALIZATION CHECKLIST

Text

- Are the title and text descriptive enough? (i.e., do you understand what the visualization is trying to convey just by looking at the title and text?)

  Both titles accurately describe the data shown.

- Are there text labels?

  Yes.

- Does the text portray any redundant information that could be gotten rid of?

  No.

- Do colors, shapes, and size scales come with legends?

  The histogram contains a legend for the colors of each age group, whilst it is not included nor necessary for the box plot.

Color

- What does the color scheme signify?

  The color gradient for the histogram scales across the rainbow, going from blue to purple as the age increases.

- Are there more than five colors?

  Yes, as there are more than 5 age groups.

- Does the color scheme make sense? Are colors analogous, complementary, monochromatic, or intuitive?

  Yes, the scale of color change is consistent across the age groups.

- If color is used to draw attention to important information, is the darkest color representing the most important information?

  The color darkness does not change too much, although the purple tones represent the most vulnerable populations.

Other

- Are different sizes used? If so, is there meaning behind the sizes?

  The sizes of each group on the histogram represents its proportion of that death count.

- Are there groupings in the data that can be portrayed through color, size, or position?

  Each age group is assigned a color.

- Is there (enough) whitespace?

  Yes.

- Is the visualization accessible?

  Yes.

- Does the visualization teach you something?

  The visualization teaches you the monthly flu death counts of different age groups across the United States.