**PSYC6135 Assignment 2: Telling a Story with a Data Graph**

One example of a data graph that attempts to tell an interesting story is the “Shifting Causes of Death” data graph created by Nathan Yau (2018). This animated and interactive heatmap showcases data collected by the CDC on the the top 10 leading causes of death by age through the years 1999 to 2016. It attempts to tell an important story regarding mortality and shines light on notable and relevant causes of death in history, such as lowered HIV deaths and a rise in self-harm (Yau, 2018).

A chart with numbers and text

Description automatically generated with medium confidence

The X axis include labels pertaining to various age groups, with each age group having its own top 10 leading causes of deaths column. Deaths are numbered from 1 through 10 on the Y axis, with 1 meaning the number one cause of death for that age group. Not only are the causes of death organized by top 10, but they are also organized by mortality rate. The graph increases the saturation of pink within the labelled boxes to demonstrate the mortality rate per 100,000 people in each age group; the more saturated the box is, the higher the mortality rate is. Visually, it is incredibly easy to navigate the graph and determine both the leading causes of death within an age group and causes of death with the highest mortality rates.

What makes this graph stand out are its animated and interactive features. The graph plays through an animation which shows how the leading causes of death change each year. Viewers can visually see different causes of death change places and enter and fall off the top 10 list. The graph is also interactive. Viewers can choose which gender (male or female) they want to view the animated data of. One of the most interesting components of the entire graph was the hover feature. When viewers hover over a specific cause of death under an age column, a black border will appear around each instance of that cause of death in the other age columns. To me, this is one of the graph’s most exciting and useful features. Viewers can easily compare the ranking and mortality rate of the same cause of death across each age group.

One prominent issue with Yau’s graph is that, while it contains a pause and play button for viewers to stop on a certain year, there is no way to choose which year you are looking at. This causes many problems for viewing the data and making important comparisons and inferences. For example, if a viewer wants to go back to an earlier year, they must wait for the entire animation to restart. An improvement to the graph would be to add the ability to manually choose which year you are looking at. This addition would make comparisons between years much easier since viewers would be able to manually toggle back and forth between any year of their choosing.

**References**

Yau, N. (2018). *Shifting Causes of Death.* FlowingData.

https://flowingdata.com/2018/10/02/shifting-death/