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Information Visualization Assignment 5 Write-up

1. **News Article**
   https://www.nytimes.com/2011/05/04/health/research/04asthma.html

2. **Dataset**
   Data was taken from the CDC's National Health Interview Survey (NHIS) Data (https://www.cdc.gov/asthma/nhis/default.htm), years 2001-2009.

   I combined the asthma population estimate tables (tables 3-1 online) with the asthma prevalence percent tables (tables 4-1 online) into one table for each year, only keeping data related to race and gender, since those were the main variables mentioned in the article (basically dropping data regarding socioeconomic status and region). I wound up leaving the gender data out of my final visualization, since I only had time to implement one and race seemed more prevalent in the article.

3. **Report**
   Since the article talked about asthma rates over time, I wanted to make a timeline to allow users to select years and view the corresponding data on the bar chart as a means of allowing the user to explore the data on their own. For the timeline, instead of making it a straight line that users could select the year from, I decided to make it a line graph so that users could see the general trend of asthma rates in the US population over time while they selected which year to view. I made the highlight circle and the trend line the same shade of blue as the "overall" bars on the bar chart, since they both represent proportions of the US population as a whole with asthma.

   For the color palette, I just went to an online generator that picked out five colors for me. I decided to make the "children" and "adult" columns lighter than their corresponding "overall" columns in order to help the user ready differentiate them on sight. I put a hovering tooltip for each of the bars so that users could find more information without cluttering up the webpage, and I chose to highlight the "number affected" field because that information isn't represented anywhere else in the visualization, and I wanted to draw the user's attention to it.

   I decided to keep the visualization on a static location on the page while allowing the user to scroll to read more of the article, since that way the visualization was always easy to look at and reference no matter where the user was in the article.

   I also implemented animations to make the changes in rates between years more obvious to the user (since it was easier to follow a bar as it grew or shrunk rather than trying to make sense of a bar that instantaneously changed size). Following off of that, I made an autoplay feature that allowed users to view the changes in asthma rates year-by-year and see the animations without having to manually click on every year. From the autoplay feature, you can see how certain populations have a sharp increase in asthma rates over time, while others stay fairly stable.

4. **Online Web Page**
   https://pmoh8.github.io/infoVis/