CSE557 Assignment 5 Report

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March 30, 2018

1 Source Article

1.1 Article

For this assignment I chose the NPR Article "No Downturn In Obesity Among U.S. Kids, Report Finds" (`https://www.npr.org/sections/health-shots/2018/02/26/587985555/no-downturn-in-obesity-among-u-s-kids-report-finds`). This article focuses on the rising rates of childhood obesity rates in the United States. Over the past couple years there has been speculation that the epidemic of childhood obesity was in regress, but a recent study from *Pediatrics* that determined that this is not the case. The study itself is based on the the most recent results of the biennial National Health and Nutrition Examination Survey (NHANES) for the 2014-2016 cycle.

1.2 Motivation

My main motivation for choosing this particular article is that it contains a lot of numbers and statistics from the source dataset, and alludes constantly to rising trend of childhood obesity, but never provides any visuals to illustrate this trend to the reader or let them explore the data for themselves.

1.3 Dataset

To find data for this visualization, I went to the study that the article was based on (`http://pediatrics.aappublications.org/content/141/3/e20173459`). This study provides several tables of data extracted from NHANES, which list the per-class obesity rates for children ages 2-19 against year, age range, gender, and ethnicity. Unfortunately, ethnicity is only provided for the most recent two-year cycle, so it is absent from the visualization.

2 Design

The article cites many statistics, several of which pertain to particular age ranges and genders of children. I designed a visualization to fit the following criteria

1. the visualization should make apparent to the reader the rising number of overweight and obese children

2. the reader should be able to explore time series data for subsets of the population by age and gender (e.g. "how has the rate of class 1 obesity increased over time?")

3. the visualization should support comparison of obesity rates between different age groups and genders (e.g. "are obesity rates higher in girls than in boys?")

4. the visualization should also provide insight into the different classes of obesity (discussed further in the dataset description) and how they have changed with respect to each other (e.g. "is the spectrum of overweight children shifting towards obesity?")

3 Dataset