

Obesity in America

An R Data Visualization of obesity in the U.S.

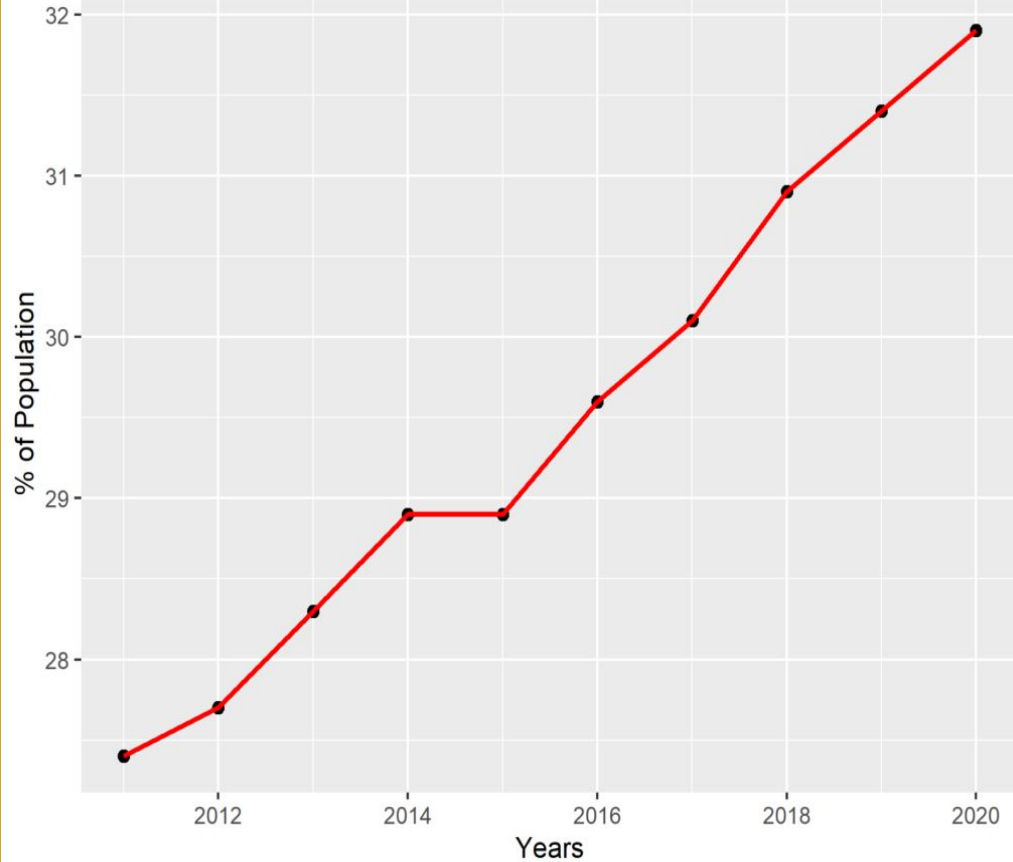
By: Corey Kelly



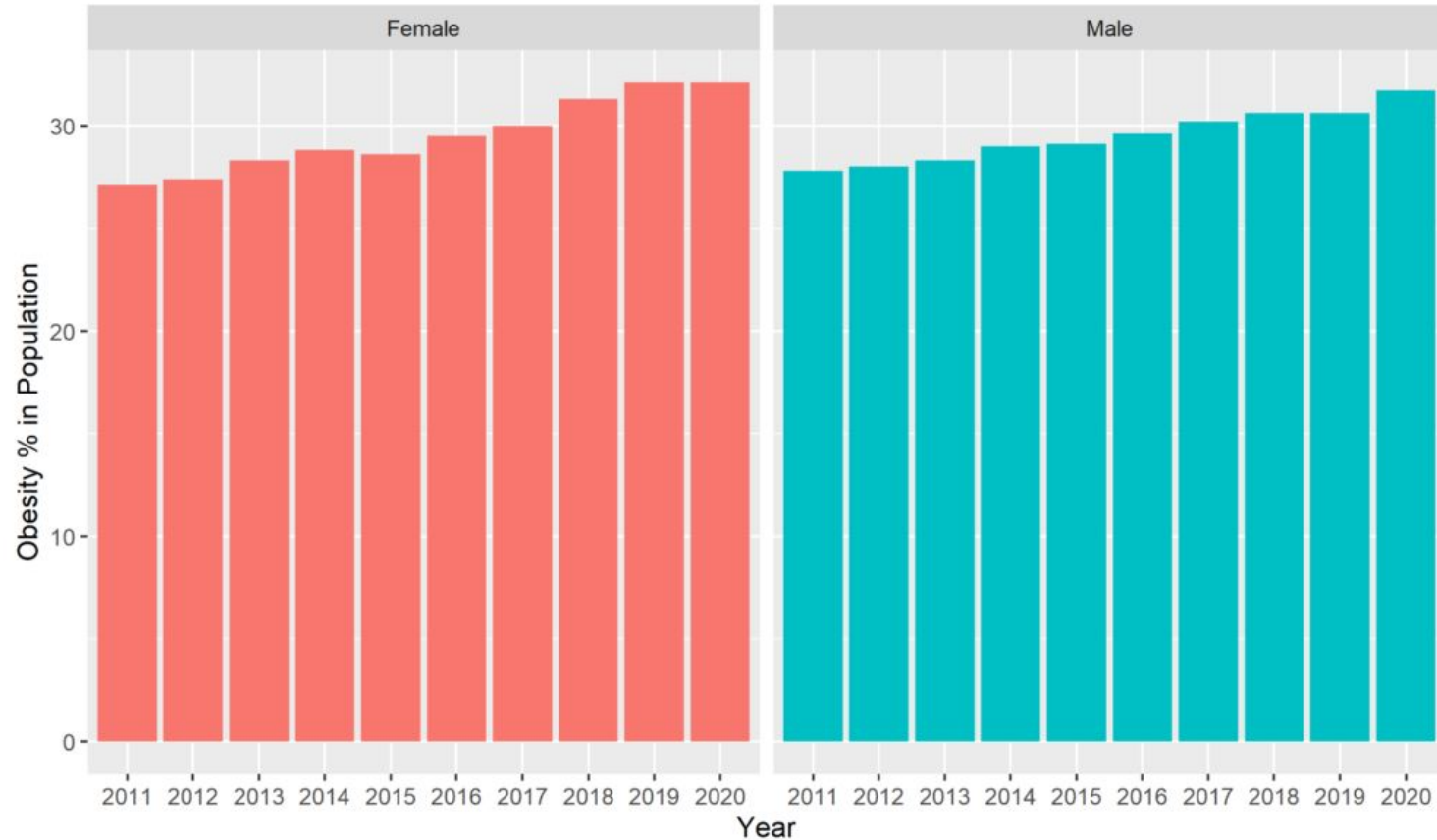
United States and Obesity

- According to the CDC, “Six in ten Americans live with at least one chronic disease, like heart disease and stroke, cancer, or diabetes. These and other chronic diseases are the leading causes of death and disability in America, and they are also a leading driver of healthcare costs.”
- **A significant contributors to chronic disease in America is obesity.**
- **Obesity** makes **every** chronic disease **worse** and is primarily to blame for the dramatic increase in type 2 diabetes over the past 20 years.

Percent of U.S. Adults with Obesity (BMI > 30.0) 2011-2020



Percent Obesity Across Gender



Goal:

With the far-reaching effect of obesity on chronic disease my aim was to look at obesity across different segments of the population in United States to help potential governmental agencies, healthcare organizations, and pharmaceutical companies more effectively target resources and get an increased ROI.

Who could benefit from this analysis of the data?

- Government agencies looking to better allocate resources and programs.
- Companies looking to market weight management programs
- Healthcare providers looking to more effectively serve the patients.

Data Wrangling



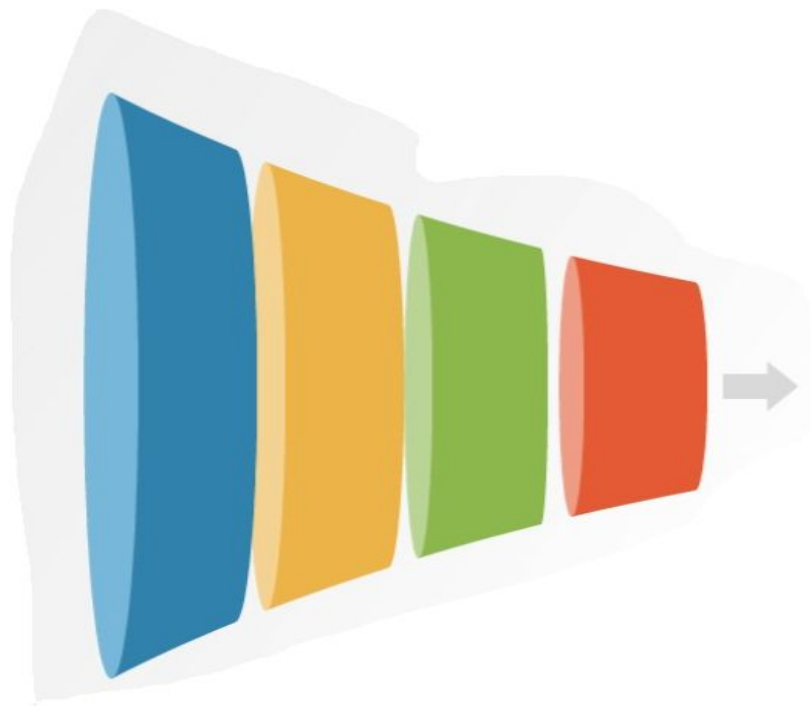
<https://www.vecteezy.com/free-vector/cowboy-lasso>
Cowboy Lasso Vectors by Vecteezy



~150,000 combined
observations 32 Variables

Years - 2011-2020

kaggle™



30,000 combined observations

9 Variables

Years - 2011-2020

Data Visualization & Analysis

[R Shiny Project](#)



Data Analysis Consideration

- Most of this data was taken from the behavioral Risk Factor Surveillance System and which uses phones surveys each year to collect data.
- An in depth analysis of confidence intervals for the data values was not added but that was considered when exploring the data.

Data Analysis

- **Young adults** have the lowest instances of obesity and while initially surprising **adults 65 or older** have lower instances of obesity than all but the 18-24 age bracket. Adults **45-54** had the **highest**.
- **Non-hispanic blacks** outpaced all other ethnic/racial categories in their level of obesity in that population. The percentage of **Asian** obesity was the most striking as it was about a 1/3 of non-hispanic whites and 1/4 of non-hispanic blacks.
- Individuals that make **less than \$15, 000 in annual income** and individuals that **did not graduate high school** have a significantly higher percentage, about 10% in both cases, of people that are obese than those at the other end of the spectrum.

Suggestion

- **Focusing resources on adults with low socio-economic status especially the non-hispanic blacks in those communities would target those affected by obesity the most.**
- **Dietary and Physical Activity based programs that increase the percent of that population in different areas are important in affecting percent of obesity.**

Future Explorations

- **Drill down on a county or city level for a more granulated analysis that can bring together local municipalities.**