BMI-manuscript

Contents

1 introduction

Body Mass Index (BMI) plays an important rule in predicting heart disease risk(Katzmarzyk et al. 2012). Our goal is to compare 90th quatile regression for BMI in Diabtese and prediabtes population.

(Van de Kassteele et al. 2012)

2 methods

prevalence and incidence as a function of age (18 – 84 years in 1-year intervals), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, or other), sex, and BMI (underweight, 18.5 kg/m2; normal weight, 18.5 to 25 kg/m2; overweight, 25 to 30 kg/ m2; obese, 30 to 35 kg/m2; and very From the figure we see

3 Quantile regression

Quantile regression is an important tool used to regress the dependent variable with high variance over the independent variables.

For a random variable X, the comulative distrubution function (CDF) is

$$F(X) = P(X \leq x)$$

, and the τth quantile of X is defined by

$$F^{-1}(\tau) = \inf\{x : F(x) \geq \tau\}$$

where $0 < \tau < 1$

4 Data

The data used in this study is National Health and Nutrition Examination Survey data (NHANES)(Disease Control and (CDC) 2018)

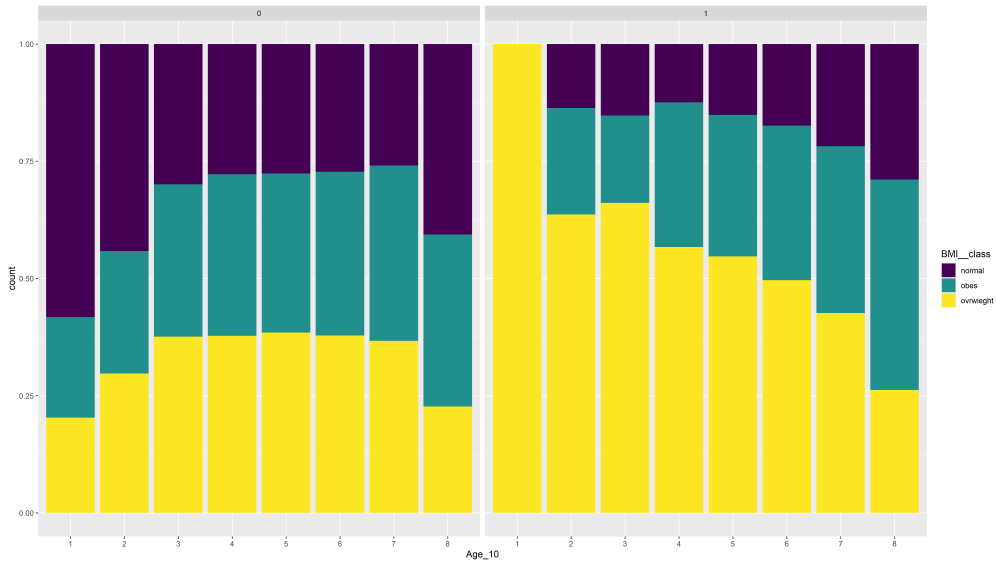

Figure 1: A better figure caption

References

Disease Control, Centers for, and Prevention (CDC). 2018. "National Health and Nutrition Examination Survey Data (Nhanes."

Katzmarzyk, Peter T, Bruce A Reeder, Susan Elliott, Michel R Joffres, Punam Pahwa, Kim D Raine, Susan A Kirkland, and Gilles Paradis. 2012. "Body Mass Index and Risk of Cardiovascular Disease, Cancer and All-Cause Mortality." *Canadian Journal of Public Health* 103 (2). Springer: 147–51.

Van de Kassteele, Jan, RT Hoogenveen, PM Engelfriet, PHM Van Baal, and HC Boshuizen. 2012. "Estimating Net Transition Probabilities from Cross-Sectional Data with Application to Risk Factors in Chronic Disease Modeling." *Statistics in Medicine* 31 (6). Wiley Online Library: 533–43.