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Myocardial Infarction and Treatment Adherence Rates across Sociodemographic & Health Indicators

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Introduction

9 waves of data from NHANES were collected and analyzed in order to understand correlations between heart attacks, race, education, weight, and adherence to treatment (weight loss). Distribution of heart attacks across age was also examined.

Methods

9 waves of data ranging from 1999 to 2016 were analyzed using STATA. The distribution of age when the participant first had his/her myocardial infarction was estimated. The relationship between myocardial infarction and weight, education, and race was examined, along with the relationship between myocardial infarction and weight management, educational attainment, and race. All estimates were generated using cross-tabs.

Findings

The average age of first myocardial infarction has decreased. As shown in Figure 1, the age groups of 40's and 50's had a dramatic increase of myocardial infarction while individuals in their 80's saw a decrease over time. Turning next to Figure 2, we see that the number of people categorized as overweight slightly decreased overall. This might be explained by Figure 3, which shows a slight increase of participants controlling their weight. Individuals in their 50's who had myocardial infarction are most likely to control weight as seen in Figure 4. Non-Latino Whites had the highest rates of myocardial infarction based on race. As shown in Figure 5, the educational attainment level was also examined. Other racial groups saw either no change or an increase in myocardial infarction, overweight status, and attempted to control their weight. Surprisingly, those with lower educational attainment saw a decrease in myocardial infarction, whereas more educated participants saw increases in myocardial infarction, being overweight, and attempting to control their weight.

Results

Figure 1: Distribution of ages when participant was told he/she had a myocardial infarction

Figure 2: Percent of participants who were overweight and experienced a myocardial infarction

Figure 3: Percent of overweight participants now controlling weight

Figure 4: Percent of participants who have experienced a myocardial infarction and are now (not) controlling weight between 2015 and 2016

Figure 5: Percent of participants who experienced a myocardial infarction based on race

Figure 6: Percent of participants now controlling weight based on race

Figure 7: Percent of participants who experienced a heart attack based on education level

Figure 8: Percent of participants who are now controlling weight based on education level