

# Racial Differences in Functional Capacity Among Individuals with Heart Disease: Analysis of the National Health Interview Survey

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## Introduction

This study examined functional capacity among black and white US adults participating in the National Health Interview Survey (NHIS). We also assessed which factors could predict functional capacity among participants with coronary heart disease.

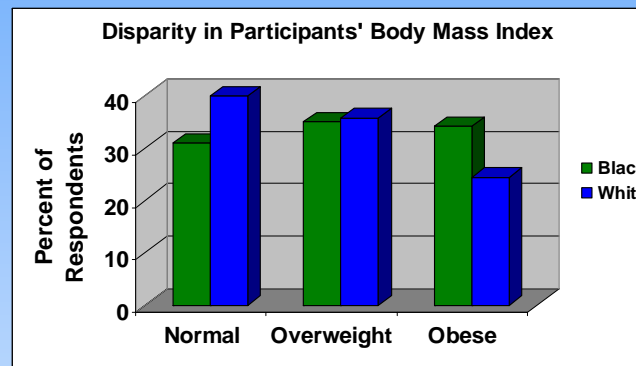
## Methods

A total of 29,815 adults representative of the civilian U.S. population (mean age =  $48 \pm 18$  yrs; range: 18-85) participated in the 2005 NHIS. The NHIS uses a multistage area probability sampling technique to conduct a cross-sectional household interview survey.

Face-to-face interviews were conducted by trained staff from the U.S Census Bureau, obtaining information regarding physician-diagnosed chronic illnesses along with various sociodemographic data. The present analysis focuses on differences in functional capacity between black and white participants.

## Results

Of the participants, 85.2% were white and 14.8% were black, with 44% being male. Twenty-eight percent of the sample reported hypertension; 8.0% had been diagnosed with coronary heart disease (CHD), and 8.3% had a diagnosis of heart failure



Fisher's Exact test showed significant ethnic disparity in BMI

Fisher's exact test showed that white participants with CHD were more likely than black participants to report being able to walk one-quarter mile without assistance (81.0% vs. 77.5%,  $\chi^2 = 28$ ,  $p < 0.0001$ ). Furthermore, relative to blacks whites were also more likely

to report being able to climb 10 steps without assistance (85.2% vs. 80.8%,  $\chi^2 = 54$ ,  $p < 0.0001$ ). Logistic regression analysis showed that patients' ability to purchase their prescription medications was the most significant predictor of their ability to walk one-quarter mile (Wald = 155,  $p < 0.0001$ ). The corresponding multivariate-adjusted odds ratio was 3.6 (95% CI = 2.92 - 4.36).

## Conclusions

Subsequent to coronary heart disease, blacks demonstrated less functional capacity than did their white counterparts. Despite the disparity in BMI, the ability to purchase prescription medications was the most significant factor influencing participants' functional capacity. This study has large implications in terms of public health policies.

## References

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