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# Sociodemographic variations in PSA screening use: A cross-sectional analysis of data from the National Health Interview Survey

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## Introduction

In 2018, the United States Preventive Services Task Force (USPSTF) recommended discussing prostate-specific antigen (PSA) testing with males who are 55 to 69 years old for prostate cancer screening (Grade C recommendation).<sup>1</sup>

There are significant disparities in prostate cancer diagnoses and outcomes.<sup>2</sup> Further, prior work shows increased PSA testing among privately-insured males following this update.<sup>3</sup>

Our objective was to assess sociodemographic variations in PSA screening outside the USPSTF recommended age range.

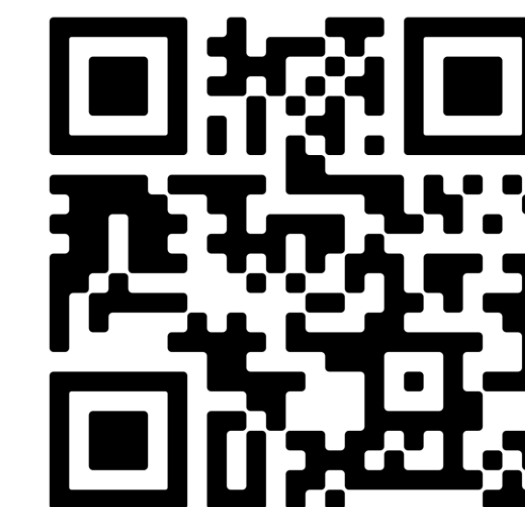
## Methods

We used cross-sectional data from the 2019 National Health Interview Survey.<sup>4</sup> We included males who had a PSA test in the past year; participants previously diagnosed with prostate cancer, or who reported PSA tests for reasons other than part of a routine exam were excluded. We conducted multivariable logistic regression in R for the analysis, using the survey package.

**Our analysis shows disproportionate use of PSA screening outside the USPSTF recommended age range of 55 to 69 years among males with higher levels of education, income, and estimated 5-year mortality risk.**

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## Results

The weighted sample consisted of 17,417,715 respondents (mean age = 64.0 years), most of whom were White (76.2%). Key results are in Table 1.

**Table 1.** Factors Associated with PSA Screening Outside USPSTF Recommended Age Range

Variable	OR (95% CI)
<i>Educational attainment</i>	
≥ 4-year college (referent)	---
< High school/GED	0.73 (0.46 – 1.17)
High school/GED	<b>0.60 (0.45 – 0.80)</b>
Some college	<b>0.76 (0.60 – 0.97)</b>
<i>Income-Poverty ratio</i>	
Income : Poverty ≥ 2 (referent)	---
Income : Poverty < 2	<b>0.62 (0.44 – 0.89)</b>
<i>5-Year Mortality Risk Estimate</i>	
5% (referent)	---
8%	1.16 (0.82 – 1.63)
12%	<b>1.52 (1.08 – 2.14)</b>
19%	<b>2.68 (1.72 – 4.16)</b>
29-37%	<b>3.64 (2.43 – 5.47)</b>
49-62%	<b>9.59 (5.71 – 16.12)</b>

Note:  $p < .05$  is in bold and green

## References

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4. National Center for Health Statistics, National Health Interview Survey, 2019