

### BACKGROUND

- Colorectal cancer (CRC) screening decreases the incidence and improves survival.
- Screening rates can be influenced by disparities in demographic, social, and economic factors.
- Using a large US database, we aimed to study the demographic and socio-economic factors affecting colon cancer screening rates among older adults.

### METHODS

- We used the Behavior Risk Factor Surveillance System, a nationally representative health-related telephone survey in 2020, to compare reported colorectal cancer screening rates.
- We included all respondents over the age of 50 eligible for colon cancer screening.
- We performed binary logistic regression modeling to obtain adjusted odds ratios (aORs) adjusting for race, level of education, and health care access limited by insurance coverage and cost. Weighted percentages were calculated as appropriate. Statistical analysis was performed using IBM SPSS version 25, IBM corp.

Individuals **without insurance, minority groups, and women** had an **increased** reported risk of **lack in appropriate CRC screening**

Individuals with **no cost issues, high school education and Caucasian race** were associated with **higher rates of appropriate screening**

Factor	P value	Adjusted OR	CI
No cost issues	< .001	.729	0.69-0.76
No insurance	.000	3.230	3.08-3.38
Female	< .001	1.084	1.05-1.11
Age 55 to 59	.000	.441	0.42-0.46
Age 60 to 64	.000	.370	0.36-0.38
Age 65 to 64	.000	.284	0.27-0.29
Age 65 to 69	.000	.234	0.22-0.24
Age 60 to 74	< .001	.260	0.24-0.28
Graduated high school	< .001	.829	0.78-0.87
Attended College	< .001	.684	0.65-0.72
Graduated College	< .001	.535	0.51-0.56
Caucasian	< .001	.731	0.69-0.76
African American	< .001	1.459	1.35-1.58
American Indian	< .001	1.295	1.19-1.41
Asian only	.006	1.253	1.07-1.47
Other Race	< .001	1.138	1.06-1.23

### RESULTS

- Of the 401,959 patients surveyed, 132,128 (72.39%) eligible patients had reported undergoing at least one of recommended CRC tests in the appropriate time interval, 43,570 (27.61%) had reported not undergoing any form of screening.
- Individuals with no cost issues related to access to a doctor in the past year, graduated high school, college attendance and Caucasian had a lower reported risk of lack of CRC screening (aOR 0.729, 0.699, 0.761 p< 0.001; aOR 0.829, 0.788, 0.872 p< 0.001; aOR 0.684, 0.651, 0.720, p< 0.001, aOR 0.731, 0.698, 0.765 p< 0.001 respectively).
- Individuals without insurance, minority races and females had a higher reported risk of lack of CRC screening (aOR 3.230, 3.082, 3.384 p< 0.001; aOR 1.459, 1.350, 1.576 p< 0.001; aOR 1.084, 1.059, 1.110 p< 0.001 respectively)

### DISCUSSION

- In this large national survey, we found a modest increase in the reported risk of lack of appropriate CRC screening in individuals without insurance, minority groups, and women.
- Individuals with Caucasian race, no cost issues, and high school or college education were associated with higher rates of appropriate CRC screening. Further studies on the influence of social determinants of health are required to study its effect on CRC screening rates.

### References

Pierannunzi C, Hu S, Balluz L. A systematic review of publications assessing reliability and validity of the Behavioral Risk Factor Surveillance System (BRFSS), 2004–2011External