

Heterogeneity in Policy Effect: Changes in Prostate Cancer Screening Associated with ACO Participation

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Introduction

Background:

- Accountable Care Organizations (ACOs) were developed to allow for improved coordination of care, resulting in reduced health care costs and improved quality of health care.
- Evidence suggests that ACO participation may improve the value of health care through improving quality while reducing cost.
- ACO impact on high value cancer screening is unclear.
- Prior data has demonstrated small magnitude reductions in PSA testing for ACO beneficiaries.
- Little is known about individual ACO performance and the variation in screening across ACOs.

Objective:

- We evaluated the variation in PSA test performance among individual Medicare Shared Savings Program (MSSP) ACOs.
- We sought to identify ACOs which reduce over screening, while improving underscreening for prostate cancer.

Methods

- Retrospective cohort study using national Medicare data from 2007-2017
- Evaluated the rates of change in PSA testing across ACOs, controlling for hospital referral region (HRR) and year.
- Using the number of ACO participation years, defined as years from January 1, 2013, we evaluated whether there was a correlation between ACO maturity and screening changes.

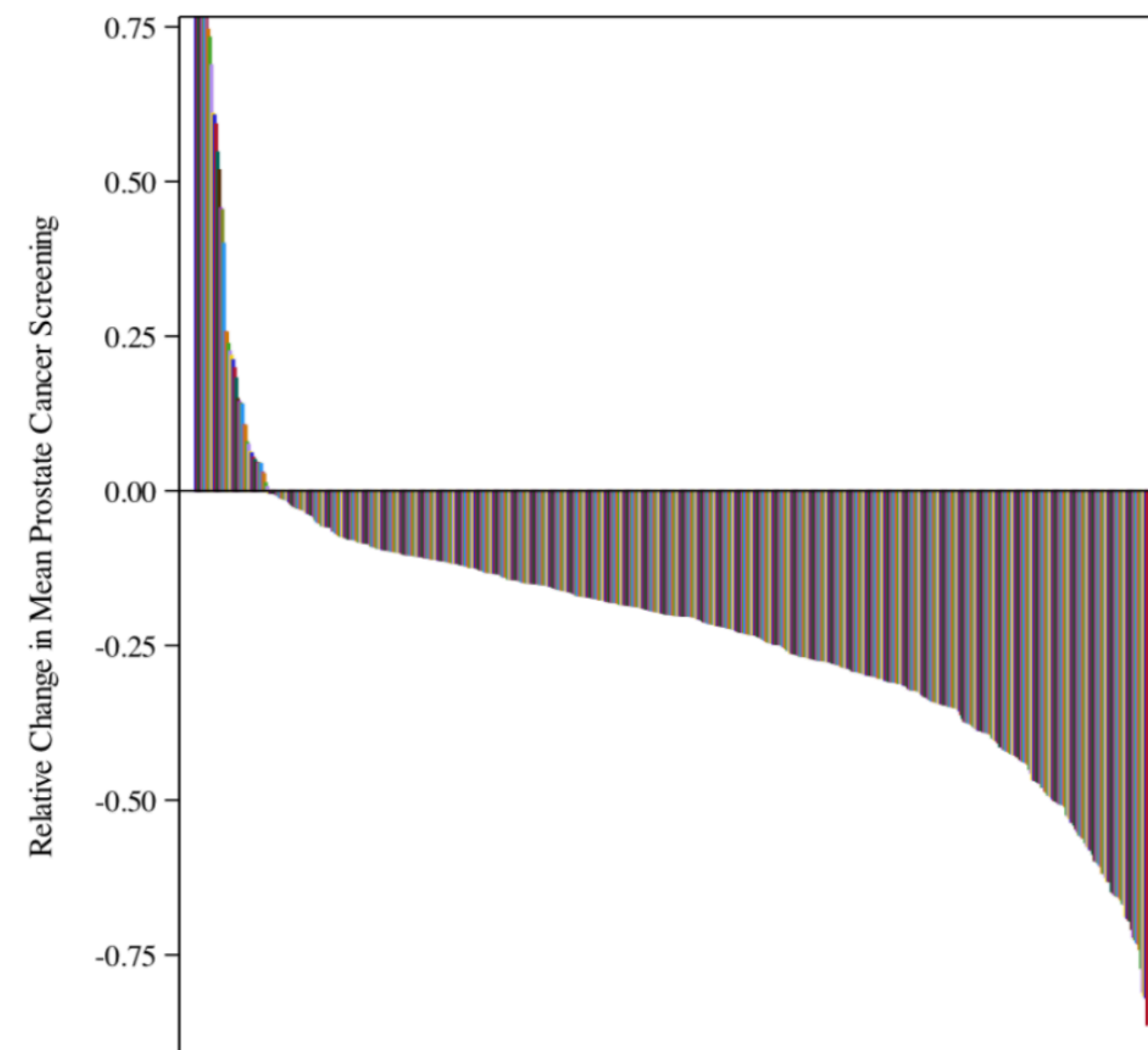
Outcomes:

- Mean rate of change in PSA testing for all beneficiaries by ACO
- Mean rate of change in PSA testing for men ≥ 75 years of age versus those < 75 by ACO
- Mean rate of change in PSA testing for men with a high predicted 5-year survival versus low predicted 5-year survival by ACO

Results

- We identified **21,050,902** eligible ACO attributed beneficiaries.
- The overall trend was **reduction** in PSA testing; however there was wide variation (**Figure 1**) with some ACOs reducing screening, and others increasing screening.
- Mean rate of change for all beneficiaries:** -24.5% (IQR -70.45-72.2%)
- Among beneficiaries ≥ 75 years of age there was a mean 30.3% reduction in PSA screening, with a 13.8% reduction for those < 75 (**Table 1**).
- For those with a low predicted 5-year survival there was a mean 40.8% reduction in PSA screening, with an 11.1% reduction among those with a high predicted 5-year survival (**Table 1**).
- When evaluating the impact of ACO maturity, there was no observable difference in the change in PSA screening.

Figure 1: Relative Change in Mean PSA Test Performance by ACO



Results

Table 1: Mean rate of change in PSA performance among patients most and least likely to benefit from PSA screening

	Mean rate of change (%)	p-value
Age		
≥ 75 years	- 30.3	0.0001
< 75 years	- 13.8	
5-year survival		
Low	- 40.8	0.0001
High	- 11.1	

Conclusions

- There is **wide variation** in PSA performance between ACOs, even when controlling for age and predicted life expectancy status.
- Overall, ACOs reduce PSA performance even for those who are most likely to benefit from PSA testing.
- ACOs ability to reduce low value testing, while simultaneously improving high value testing did not improve as ACOs matured.**
- Although the aggregate effect of ACOs on prostate cancer screening is small, there are a small number of ACOs in which the effect is large.

Future Directions

- Going forward, honing in on what makes these high performing ACOs successful will be valuable in order to improve value in the prostate cancer screening landscape.

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