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
• 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.

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

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean rate of change (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥75 years</td>
<td>-30.3</td>
<td>0.0001</td>
</tr>
<tr>
<td>&lt;75 years</td>
<td>-13.8</td>
<td></td>
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<tr>
<td>5-year survival</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>-40.8</td>
<td>0.0001</td>
</tr>
<tr>
<td>High</td>
<td>-11.1</td>
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</tbody>
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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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