Why ACOs have not - and will not decrease spending on cardiovascular care

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ACOs

Groups of Physicians, Hospitals or Care Systems

Responsible for Cost of Care for a Population

If Care Provided at Lower Cost AND High Quality

Responsible for Quality of Care for a Population

Portion of Savings Returned to Providers

Disclosures

- NHLBI 1K08HL05676-01
- AHRQ R21 HS021581-01A1
- SVS Foundation Award
**Hypothesis**

In a perfect world…

An ACO would **continue** to spend $ on non-discretionary, evidence-based care that matters…

An ACO would **NOT** continue to spend $ on discretionary, less evidence-based care that may matter less, or may not matter at all…

**e.g. cardiac imaging or PCI for acute MI, carotid surgery for patients with stroke**

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**e.g. cardiac imaging or PCI for acute MI, carotid surgery for patients with stroke**

**e.g. cardiac or carotid imaging and procedures for sick asymptomatic patients**
Testing this Hypothesis

- Used an environment which could examine the effect of ACO implementation on an experimental group, versus matched controls

- Established discretionary and non-discretionary cardiovascular care that could be reliably ascertained in claims.

Different Care Settings: Discretionary and Non-Discretionary

<table>
<thead>
<tr>
<th>Carotid Imaging or Revascularization (via CPT codes)</th>
<th>Non-Discretionary</th>
<th>Discretionary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with history of stroke or TIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients without history of stroke or TIA</td>
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<tbody>
<tr>
<td>Patients with history of MI, ACS, or chest pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients without history of MI, ACS, or chest pain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Methods

- Created models to compare the proportion of patients treated with carotid and coronary procedures
  - Discretionary and non-discretionary imaging and procedures,

  - Before and After ACO implementation
    - Difference-in-Difference
      - Adjusted for patient, hospital, and regional factors
Patient Characteristics

Table 1: Sample characteristics

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Age (Median)</td>
<td>73.8</td>
<td>72.0</td>
<td>0.05</td>
</tr>
<tr>
<td>% Female</td>
<td>35.9</td>
<td>36.5</td>
<td>0.60</td>
</tr>
<tr>
<td>% Black</td>
<td>1.9</td>
<td>2.3</td>
<td>0.35</td>
</tr>
<tr>
<td>Mean HRR</td>
<td>9.05</td>
<td>8.90</td>
<td>0.10</td>
</tr>
<tr>
<td>% Non-smoker (ever)</td>
<td>7.5</td>
<td>7.2</td>
<td>0.75</td>
</tr>
<tr>
<td>Male (prevalence chance of 18)</td>
<td>4.15</td>
<td>3.55</td>
<td>0.10</td>
</tr>
<tr>
<td>% Morbidity</td>
<td>2.9</td>
<td>2.6</td>
<td>0.25</td>
</tr>
<tr>
<td>% Chronic Renal Failure</td>
<td>11.2</td>
<td>13.4</td>
<td>0.05</td>
</tr>
<tr>
<td>% Coronary Artery Disease</td>
<td>16.2</td>
<td>15.3</td>
<td>0.19</td>
</tr>
<tr>
<td>% Congestive Heart Failure</td>
<td>8.0</td>
<td>7.3</td>
<td>0.50</td>
</tr>
<tr>
<td>% Pre-existing Cardiovascular Disease</td>
<td>8.5</td>
<td>8.7</td>
<td>0.60</td>
</tr>
<tr>
<td>% Chronic Liver Disease</td>
<td>8.5</td>
<td>8.6</td>
<td>0.50</td>
</tr>
<tr>
<td>% Diabetes with PVD</td>
<td>3.1</td>
<td>3.4</td>
<td>0.30</td>
</tr>
<tr>
<td>% Chronic Renal Failure</td>
<td>2.4</td>
<td>4.3</td>
<td>0.36</td>
</tr>
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<td>% Coronary Artery Disease</td>
<td>4.2</td>
<td>4.5</td>
<td>0.45</td>
</tr>
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<td>20.4</td>
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Carotid and Coronary Imaging, Before and After PGPD Implementation

Carotid and Coronary Imaging, Before and After PGPD ACO Implementation
These are “non-discretionary” treatments – becoming an ACO shouldn’t change anything.

These are “discretionary” treatments – becoming an ACO should “bend the cost curve.”
We didn’t “bend the cost curve”.

- Other studies have reported similar findings
  - Nyweide et al, JAMA 2015 – modest savings, inpatient services only.

Alignment of incentives

- Providers aren’t currently motivated to consider spending at the level of the health system.

Summary

- Little evidence to suggest cardiovascular care (discretionary or non-discretionary) changed with ACO implementation.

- Pilot ACOs weren’t designed to change specialty care, so it is not surprising that they didn’t.
Summary

- Little evidence to suggest cardiovascular care (discretionary or non-discretionary) changed with ACO implementation.
- Pilot ACOs weren’t designed to change specialty care, so it is not surprising that they didn’t.
- Better “levers” will be needed to change care.

Thank You

- PGPD project team
  - Carrie Colla
  - Valerie Lewis
  - Ellen Meara
  - Dan Gottlieb
  - Jon Skinner
  - Elliott Fisher